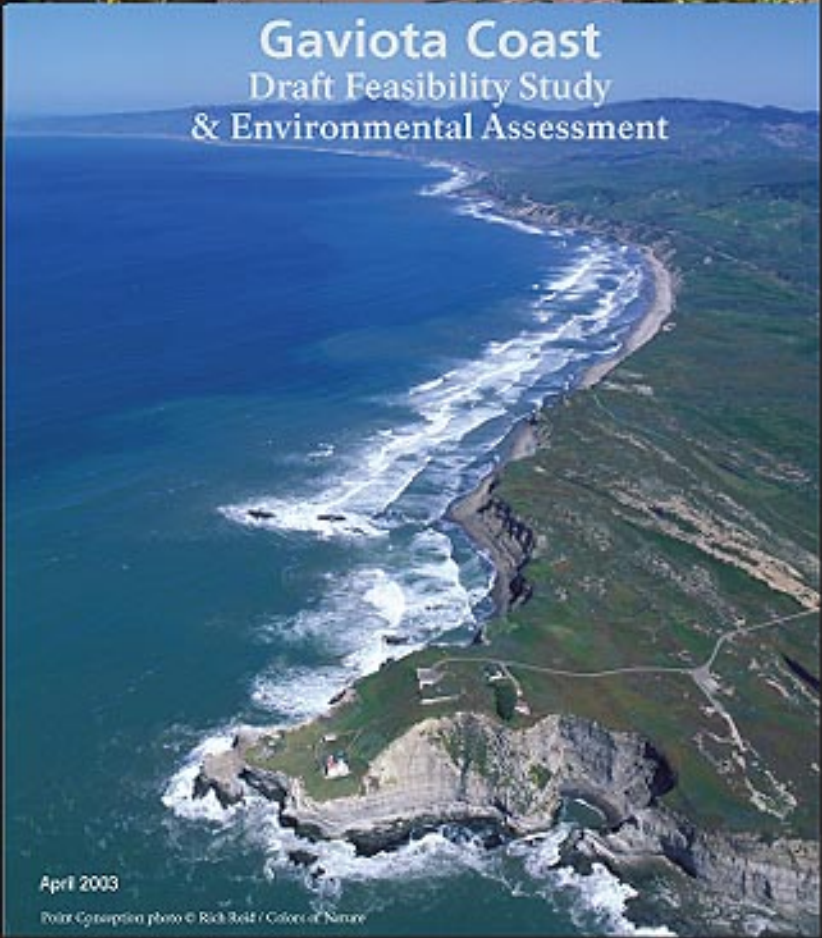




Gaviota Coast

Draft Feasibility Study & Environmental Assessment



April 2003

Point Consumption photo © Rick Bell / Colors of Nature

We are pleased to provide you with this copy of the *draft Gaviota Coast Feasibility Study* report.

The public comment period for this draft report will extend through **July 18, 2003**. We welcome your comments on the report, as well as your thoughts on how best to conserve the significant resources of the Gaviota Coast. Please send your comments to:

National Park Service
Planning and Partnerships - Gaviota Coast Feasibility Study
1111 Jackson St., #700
Oakland, CA 94702
e-mail: **PGSO_Gaviota@nps.gov**

We also will be hosting a series of public meetings in various Santa Barbara County locations during the **week of May 12**. At each of these meetings, we will present the key findings of the draft feasibility study report, answer your questions, and provide opportunities for you to submit your comments. Watch for a postcard with specific meeting dates, times and locations, or check the web page listed below.

A limited number of additional copies of this report are available from the address above. In addition, the Executive Summary and the full report are both posted on the Internet at **www.nps.gov/pwro/gaviota**.

We appreciate your contributions to the study process so far, and we look forward to your comments on this draft report.

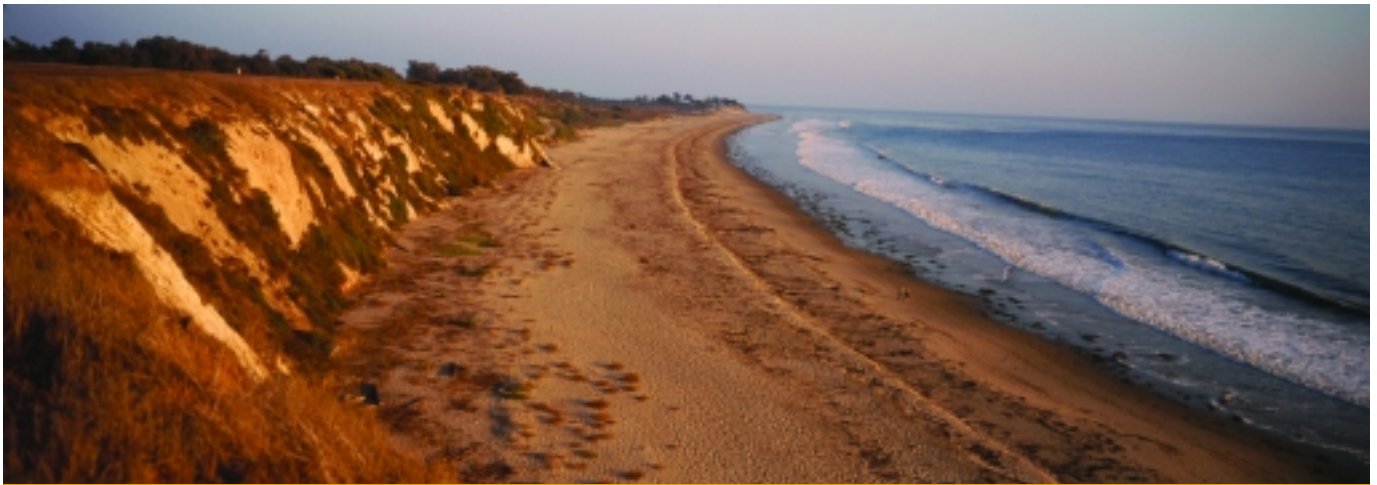
Please keep in mind that your comments are public information. If individuals submitting comments request that their names and/or addresses be withheld from public disclosure, this will be honored to the extent allowable by law. Such requests must be stated prominently at the beginning of correspondence and comments. As always, NPS will make available to public inspection all submissions from organizations or businesses and from persons identifying themselves as representatives or officials of organizations and businesses. Anonymous comments may not be considered.



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Draft
Gaviota Coast
Feasibility Study & Environmental Assessment

April 2003

Santa Barbara County, California

Produced by the Pacific Great Basin Support Office
National Park Service

U.S. Department of the Interior
Washington, DC



photos © Rich Reid / Colors of Nature

ABSTRACT

The National Park Service (NPS) has prepared the Gaviota Coast Feasibility Study to determine whether all or part of the Gaviota Coast study area is suitable and feasible for designation as a unit of the National Park System. Congress authorized this study in 1999 in response to local requests. The study area covers a 76-mile stretch of coastal watersheds in Santa Barbara County, from Coal Oil Point to Point Sal, including all of Vandenberg Air Force Base.

Through the feasibility study process, the NPS has made the following determinations about the Gaviota Coast study area:

- The natural and cultural resources of the area are **nationally significant**, meeting all four of the NPS criteria for national significance.
- The area is **suitable for inclusion** in the National Park System, as it represents natural and cultural resource types that are not already adequately represented in the System or protected by another land managing entity.
- The area is **not a feasible addition** to the National Park System because sufficient land is not currently available to the NPS; strong opposition from study area landowners makes it unlikely that effective NPS management could occur; and the NPS is not able to undertake new management responsibilities of

this cost and magnitude, given current national financial priorities.

- While NPS management, if feasible, could contribute to the conservation of the area's resources, **management by organizations other than NPS is recommended.**

Two alternatives that do not include NPS management are considered feasible and are evaluated in an Environmental Assessment:

- **Alternative 1:** Continuation of Current Programs and Policies. This is the “no action” alternative for this study, and assumes that current programs, policies, conditions and trends would continue.
- **Alternative 2:** Enhanced Local and State Management. This alternative provides a menu of programs and tools that could be pursued by the local community.

The NPS prepared an Environmental Assessment to identify and analyze the potential environmental and socioeconomic consequences of each of the alternatives. Alternative 2 is considered the “environmentally preferred” alternative because it increases the local capacity for permanent land conservation, effective management of significant natural and cultural resources, and public understanding of the significance of the area.



contents

PART 1. Special Resource Study

1. Background & Study Process

2. Resource Description

LOCATION AND SETTING	6
JURISDICTION AND REGULATORY FRAMEWORK	6
OWNERSHIP AND CURRENT USES	7
Public Ownership	8
Private Ownership	8
CLIMATE	9
GEOLOGY AND TOPOGRAPHY	9
Rock Formations	10
Paleontological Resources	11
Faults	11
Soils	12
BIOLOGICAL RESOURCES	13
Landforms and Marine Environment	13
Biodiversity	16
Plant Communities	17
Significant Plant Species	21
Significant Wildlife	22
CULTURAL RESOURCES	27
Archeological Resources	27
Historic Resources	29
SCENIC RESOURCES	36
RECREATIONAL RESOURCES	38
Existing Coastal Access for Recreation	38
Existing Public Parks and Beaches	39
Current Park Visitation	40
Coastal Trail Plans	40

3. Significance

BACKGROUND	48
NATURAL RESOURCES	48
CULTURAL RESOURCES	50
SUMMARY STATEMENT: SIGNIFICANCE	52

4. Suitability

INTRODUCTION	56
ADEQUACY OF REPRESENTATION OF THEMES	56
NATURAL HISTORY THEMES	56
CULTURAL THEMES	59
SUMMARY STATEMENT: SUITABILITY	65

5. Feasibility

FEASIBILITY ISSUES	68
FEASIBILITY ANALYSIS	73

6. Management Options

INTRODUCTION	76
LOCAL AND STATE MANAGEMENT OPTIONS	76
NPS MANAGEMENT OPTIONS – NO LONGER UNDER CONSIDERATION	76
NATIONAL RESERVE (NO LONGER UNDER CONSIDERATION)	77
NATIONAL SEASHORE (NO LONGER UNDER CONSIDERATION)	78
NATIONAL SEASHORE (COASTAL) (NO LONGER UNDER CONSIDERATION)	80

NATIONAL RESERVE (NO LONGER UNDER CONSIDERATION)	81
SUMMARY STATEMENT: MANAGEMENT OPTIONS	82

7. Alternatives

INTRODUCTION	84
GOALS FOR THE STUDY AREA	84
ALTERNATIVE 1: CONTINUATION OF CURRENT PROGRAMS AND POLICIES	85
1. Private Land Stewardship	85
2. Non-Profit Conservation Activities	86
3. Agricultural Land Conservation	87
4. Regulatory and Incentive Programs (Local, State, Federal)	89
5. Public Land Management and Access	91
6. Vandenberg Air Force Base	93
ALTERNATIVE 2: ENHANCED LOCAL AND STATE MANAGEMENT	95
Introduction	95
1. Private Land Stewardship	95
2. Non-Profit Conservation Activities	96
3. Agricultural Land Conservation	97
4. Regulatory and Incentive Programs	97
5. Public Land Management and Access	100
6. Vandenberg Air Force Base	103

PART 2. Environmental Assessment

1. Purpose and Need 108

2. Affected Environment and Environmental Consequences 110

INTRODUCTION	110
Organization of Environmental Assessment	110
Methodology for Analyzing Consequences	110
SUMMARY OF ALTERNATIVES	111
Alternative 1: Continuation of Current Programs and Policies (No Action)	111
Alternative 2: Enhanced Local and State Management (Environmentally Preferred Alternative)	112
ENVIRONMENTAL IMPACT TOPICS	112
SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE	115
Affected Environment	115
Environmental Consequences	120
LAND USE	124
Affected Environment	124
Environmental Consequences	128
BIOLOGICAL RESOURCES	133
Affected Environment	133
Environmental Consequences	135
CULTURAL RESOURCES	140
Affected Environment	140
Environmental Consequences	141
RECREATIONAL USE AND EXPERIENCE	145
Affected Environment	145
Environmental Consequences	146
SCENIC RESOURCES	149
Affected Environment	149
Environmental Consequences	150
WATER RESOURCES	152
Affected Environment	152
Environmental Consequences	156

AIR QUALITY	158
Affected Environment	158
Environmental Consequences	160
CONCLUSIONS	164

3. Consultation and Coordination

PUBLIC INVOLVEMENT	169
Public Scoping and Workshops	169
Newsletters	170
Web page	170
AGENCY CONSULTATION	171
Informal Consultation	171
Formal Consultation	171
NATIVE AMERICAN CONSULTATION	172

Appendices

APPENDIX A. STUDY AUTHORIZATION	206
APPENDIX B. NEW AREA STUDIES ACT	207
APPENDIX C. 2001 NPS MANAGEMENT POLICIES (SECTIONS 1.2 AND 1.3)	210
APPENDIX D. NATIONAL HISTORIC LANDMARK CRITERIA SEC. 65.4	212
APPENDIX E. COMMENT SUMMARY	214

Abbreviations and Acronyms	231
Glossary	232
References	235
Preparers	243

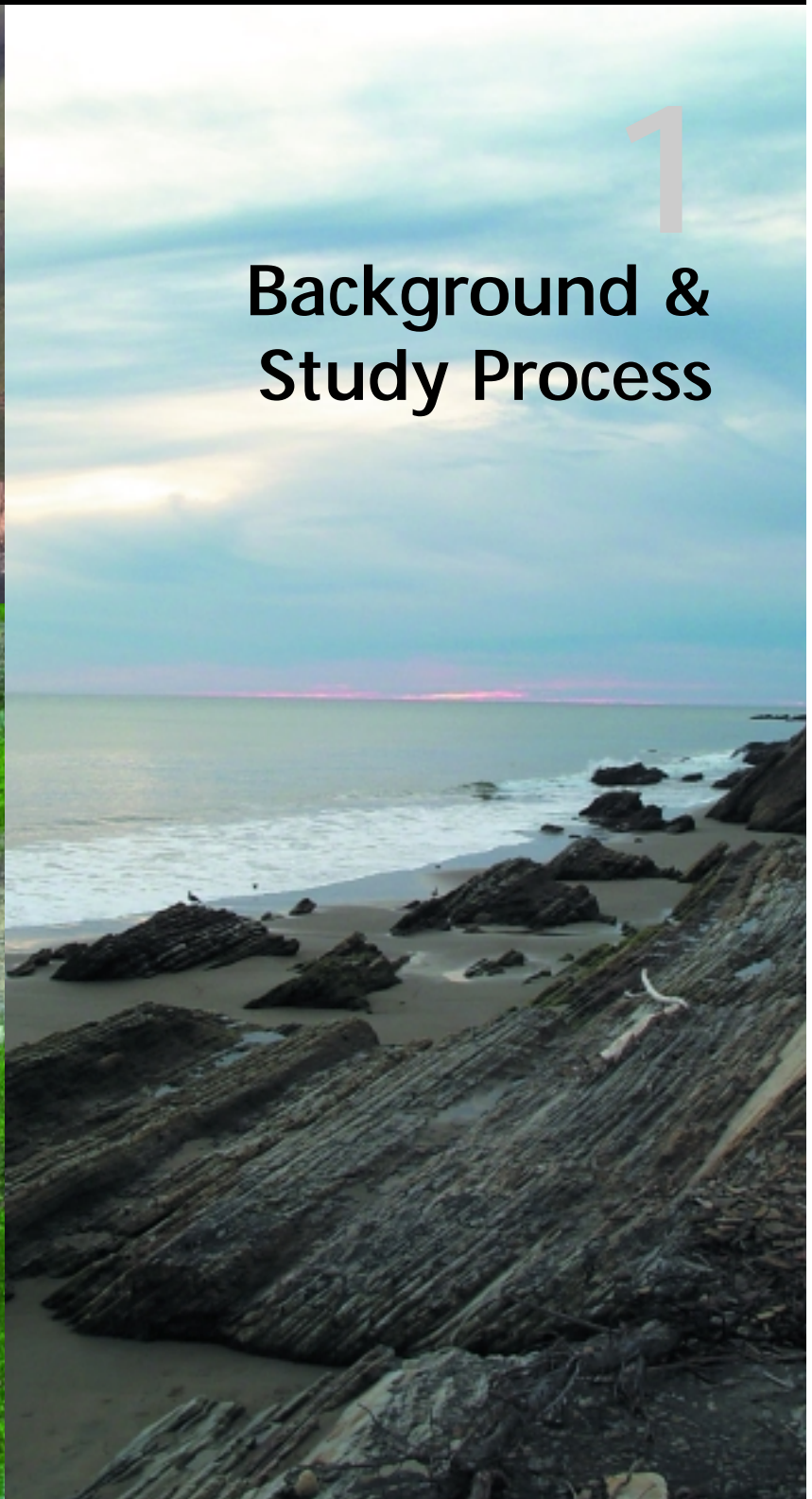
Maps

Map 1: Regional Context	175
Map 2: Ownership and Zoning	177
Map 3: Topography and Oceanography	179
Map 4: Watersheds	181
Map 5: Vegetation and Cover	183
Map 6: Natural Resources	185
Map 7: Cultural Resources	187
Map 8: Land Use	189

Tables and Figures

TABLE 1: LANDOWNERSHIP WITHIN STUDY AREA	8
TABLE 2: TEN LARGEST PRIVATE LANDHOLDINGS	9
TABLE 3: VERTEBRATE FOSSILS DOCUMENTED IN THE STUDY AREA	11
TABLE 4: SOIL ASSOCIATIONS	12
TABLE 5: SUITABILITY ANALYSIS	62
TABLE 6: NATIONAL PARK UNIT ANNUAL OPERATING BUDGET	72
TABLE 8: PRIMARY IMPACT TOPICS TO WHICH POLICIES AND REGULATIONS APPLY	114
FIGURE 1: SANTA BARBARA COUNTY POPULATION GROWTH ESTIMATES	115
TABLE 9: CENSUS: POPULATION AND EMPLOYMENT 1980-2000	115
TABLE 10: COUNTYWIDE JOB DISTRIBUTION DATA 2000-2030	117
TABLE 11: SUMMARY OF TRAVEL IMPACTS FOR SANTA BARBARA COUNTY, 1992 AND 2000	118
TABLE 12: FARMLAND TRENDS FOR THE GAVIOTA COAST STUDY AREA	125
FIGURE 2: WILLIAMSON ACT ENROLLMENT, 2002	126
TABLE 13: EXAMPLES OF OPEN SPACE DISTRICTS - FUNDING AND ACRES PROTECTED	130
TABLE 14: EXAMPLES OF STATE REGIONAL LAND CONSERVANCIES - FUNDING AND ACRES PROTECTED	130
TABLE 15: THREATS TO THREATENED AND ENDANGERED SPECIES	134
TABLE 16: SUMMARY OF STATE AND NATIONAL GRANT PROGRAMS FOR CONSERVATION	136
TABLE 17: SUMMARY OF EXISTING AND PROPOSED RECREATIONAL AREAS	145
TABLE 18: PERCENTAGE OF EXCEEDANCES FOR BACTERIAL COUNTS (1996-1998)	153
FIGURE 3: DAYS EXCEEDING OZONE STANDARDS	158
TABLE 19: SANTA BARBARA COUNTY PLANNING EMISSIONS INVENTORY	158
TABLE 20: SANTA BARBARA COUNTY EMISSIONS FORECAST	159
TABLE 21: SUMMARY OF ENVIRONMENTAL CONSEQUENCES	161
TABLE A1: RARE, THREATENED, AND ENDANGERED PLANTS	192
TABLE A2: RARE, THREATENED, AND ENDANGERED ANIMALS	195
TABLE A3: CULTURAL RESOURCES INVENTORY	200
TABLE A4: AGRICULTURAL OR OPEN LAND FOR SALE IN RECENT YEARS	204

PART 1. Feasibility Study



Background & Study Process

Jalama Beach and coastal landscape: NPS photos; vegetation photo © Rich Reid / Colors of Nature

1. Background and Study Process

Background

Authorization: In November 1999, Congress authorized the National Park Service (NPS) to evaluate the feasibility of including all or part of the Gaviota Coast in the National Park System (P.L. 106-113, 113 Stat. 1535, 1537 - Nov. 29, 1999). The study was authorized in response to local requests, and endorsement of the study proposal from local government agencies and elected officials, state agencies and elected officials, and Congressional representatives. The NPS has prepared this feasibility study (also known as a Special Resource Study) of the Gaviota Coast to provide information to Congress on the significance of these resources, and on the suitability and feasibility of designating the area or some portion of it as a unit of the National Park System.



Bixby Ranch, NPS photo

Study Area: The NPS Gaviota Coast study area covers a 76-mile stretch of coast in Santa Barbara County, between Coal Oil Point at UC Santa Barbara and Point Sal near the northern boundary of Vandenberg Air Force Base (Vandenberg AFB). The study boundary includes the coastal watersheds and all of Vandenberg AFB, defining an area of approximately 215,000 acres. The study area is a mix of public and private ownership, including Vandenberg AFB (99,500 acres), a small section of Los Padres National Forest (20,400 acres), California State Parks (5,500 acres), and

private land (87,930 acres), including agricultural land, private ranches, homes, estates, and a small amount of industrial and commercial land.

Study Process

Legislative and Policy Direction: The NPS is responsible for conducting professional studies of potential additions to the National Park System when specifically authorized by an act of Congress, and for making recommendations through the Secretary of the Interior, to the President and Congress. Congress declared in the NPS General Authorities Act of 1970 that areas comprising the National Park System are cumulative expressions of a single national heritage. Potential additions to the National Park System should therefore contribute in their own special way to a system that fully represents the broad spectrum of natural and cultural resources that characterize our nation.

Several laws and policies outline criteria for units of the National Park System. The National Park System New Area Studies Act (P.L. 105-391, 16 U.S.C. Sec. 1a-5) establishes the basic process for NPS studies of potential new national park areas. NPS management policies comply with this law, and provide further guidance. According to NPS management policies, a proposed addition to the National Park System will receive a favorable recommendation from the NPS only if meets all of the following four criteria for inclusion:

- (1) it possesses nationally significant natural or cultural resources;
- (2) it is a suitable addition to the system;
- (3) it is a feasible addition to the system; and
- (4) it requires direct NPS management, instead of alternative protection by other public agencies or the private sector.¹

These criteria are designed to ensure that the National Park System includes only the most outstanding examples of the nation's natural and cultural resources. They also recognize that there are other management alternatives for preserving the nation's outstanding resources.

Alternatives for NPS management will not be developed for study areas that fail to meet any one of the four criteria for inclusion, above. Further definition of each of these criteria is provided in the related sections of this report.

Public Involvement: The NPS Gaviota Coast Feasibility Study process was initiated in January, 2000, with a series of meetings with public agencies. Public scoping meetings were held in March, 2000, in Goleta, downtown Santa Barbara, and Lompoc. The scoping comment period originally extended until May 31, 2000. Scoping was reopened from September 12 to October 9, 2000 and extended again until November 30, 2000. On July 26 and 27, 2000, the NPS study team hosted two all-day workshops for agricultural interests and others, aimed at defining desired future conditions along the Gaviota Coast. On October 18 and 19, 2000, at the request of Vandenberg AFB personnel, NPS organized a visit to Point Reyes National Seashore and also invited Santa Barbara county agricultural and environmental interests. In January 2002, the NPS distributed a "Protection Strategies Worksheet," soliciting public opinions on a variety of resource conservation strategies. The comment period remained open through September 1, 2002.



beach at Coal Oil Point, NPS photo

On August 19, 2002, NPS funded a public forum, organized by the Santa Barbara Chamber of Commerce and the Business First National Bank, to present a diversity of private, local and other land use tools and strategies that could be adapted for use in the Gaviota Coast area.

The NPS study team has published six newsletters, beginning in March 2000, to keep community members and others up to date on the study process. The mailing list has grown from an initial 900 names to approximately 3,000. A significant effort was made to find mailing addresses for landowners in the study area. All information sent by mail has also been available on the web site for the study, www.nps.gov/pwro/gaviota. Numerous articles and opinion pieces about the feasibility study have appeared in area newspapers.

Resource Analysis: The study team used information gathered from the scoping process, public databases, environmental impact reports, land and resource management agencies, and other resource specialists to assess the significance of the area's resources and to develop alternative management concepts for the study area. Some of the preliminary findings and management concepts were presented in Newsletter #4, the Protection Strategies Worksheet. This publication presented an array of land and resource management techniques, and asked for additional public input on the types of approaches suitable for different parts of the study area. After analyzing the public response from this process, the study team completed the significance, suitability and feasibility analysis, and its determination of whether direct NPS management would be more effective than other management of the study area. Descriptions of the relevant criteria and processes, and the findings of this analysis are described in the related sections of this report.

Development of Alternatives: Through the feasibility analysis process, the NPS determined that NPS management of the Gaviota Coast study area is not feasible, based on landowner opposition and cost issues. When NPS management is determined infeasible, NPS

management policies specify that alternatives for NPS management will not be developed. Therefore, alternatives that include NPS management are not analyzed in this report. Two alternatives that do not include NPS management were prepared, and their environmental and socioeconomic impacts are analyzed in an Environmental Assessment. An Environmental Impact Statement was not prepared because there is no federal action being considered in this feasibility study.

Report Publication, Review and Transmittal:

Publication of the *Draft Gaviota Coast Feasibility Study Report and Environmental Assessment* will be followed by a public comment period. The NPS study team will then revise the report if needed, and transmit it to the Secretary of the Interior. The Secretary will transmit the report to Congress, along with the Secretary's recommendation for the area.

Notes:

1. National Park Service Management Policies, Section 1.3, 2001



Bixby Ranch from Jalama Road, NPS photo



Resource Description



all photos © Rich Reid / Colors of Nature except Point Conception: NPS photo

2. Resource Description

Location and Setting

The study area is located in Santa Barbara County, on the central coast of California, covering a 76-mile stretch of coast extending from Point Sal near the northern boundary of Vandenberg Air Force Base (Vandenberg AFB) south and east to Coal Oil Point. Point Sal marks a geographic break between the mountainous Gaviota Coast to the south and the system of low-lying sand dunes to the north. Coal Oil Point, at the other end of the study area, is located on the western edge of the greater Santa Barbara urbanized area (See Regional Context map in the “Maps” section).

The study area extends inland to include all of Vandenberg AFB and coastal watersheds along the south-facing ridge of the Santa Ynez Mountains including near shore intertidal areas. The study boundary includes approximately 215,000 acres.

Jurisdiction and Regulatory Framework

Santa Barbara County controls land uses within its jurisdiction by establishing use categories in the Comprehensive Plan and Coastal Land Use Plan and implementing the plans through the County Zoning Ordinances. The *Santa Barbara County Planning and Development Department* plans for and guides development, and protects resources in the unincorporated areas of Santa Barbara County. The County has jurisdiction over private lands in the county inside and outside of the Coastal Zone, but only has permit authority over state lands in the Coastal Zone. The County developed a local coastal program in compliance with the Coastal Act for land uses within the Coastal Zone. The program includes the land use plans, zoning ordinances, zoning district maps and implementing actions. The County also administers the California Land Conservation Act of 1965 (also known as the Williamson Act) and the Farmland Security Act of 1998 (Super Williamson Act) contracts for

agricultural preserves. The contracts are an incentive-based planning tool enacted to keep land in agricultural use, preserve open space land, and promote efficient urban growth patterns.

The *California Coastal Commission* certifies the county's local coastal program, exercises local agency jurisdiction over development in certain geographic areas, reviews amendments to certified Local Coastal Programs, and hears appeals. Within the NPS study area, the Coastal Zone Boundary extends almost a mile inland from the shore in the areas from Coal Oil Point to Gaviota State Park. At Gaviota State Park, the boundary heads several miles inland along Hollister and Bixby Ranches to just north of Point Arguello where it runs approximately one mile from the shore north along the coast at Vandenberg AFB. The California Coastal Commission also works in partnership with the *State Coastal Conservancy* to implement a coastal access program that protects and improves the ability of Californians and visitors to use and enjoy the coast.

The *California Department of Conservation's Division of Land Resource Protection* works with landowners, local governments, and researchers to conserve these resources for the future. The Division of Land Resource Protection provides information to guide land use planning decisions and programs that allow agricultural and open space landowners to voluntarily protect their land.

The *California Department of Parks and Recreation's* Channel Coast District manages the state parks and beaches in the study area. (Further described under “Public Ownership”)

The *California Department of Fish and Game (CDFG)* has statewide jurisdiction over the conservation, protection, and management of wildlife, native plants, and habitat necessary to maintain biologically sustainable populations. They are responsible for planning and regulatory activities related to threatened and endangered species, species of special concern, hunting, sport

fishing, and related resources and activities.

The *United States Department of Agriculture, Forest Service* manages the *Los Padres National Forest*. (Further described under “Public Ownership”)

The *State Lands Commission* manages the State Tidelands, an area of ocean waters from the mean high tide line to three miles offshore. The commission has prohibited oil and gas leasing and development in many areas within the Tidelands offshore of Santa Barbara because of resource sensitivity.

The *United States Air Force Space Command's 30th Space Wing* operates Vandenberg AFB. Vandenberg AFB is entirely within the study area. The mission of the base is to manage and support space lift operations as well as support flight tests of the nation's intercontinental ballistic missile force. The base operates the Western Range network, which consists of instrumentation sites along the California coast and extends to the Hawaiian Islands.

The *United States Army Corps of Engineers* is responsible for regulating the obstruction or alteration of any United States navigable waters. It authorizes transportation of dredged material and the discharge of dredged or fill material into United States waters.

The *United States Coast Guard* is responsible for maritime safety, navigation, and security as well as the national defense and protection of marine resources. The Coast Guard currently operates the Point Conception Lighthouse and Coast Guard Reservation.

United States Department of Interior, Bureau of Land Management (BLM) is responsible for sustaining the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations. (Further described under the Public Ownership section).

The *United States Department of Interior, Fish & Wildlife Service* mission is to work with others to

conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of the American people. The Fish & Wildlife Service enforces federal wildlife laws, administers the Endangered Species Act of 1973 (ESA), manages migratory bird populations, restores nationally significant fisheries, conserves and restores wildlife habitat such as wetlands.

United States Department of the Interior, Minerals Management Service manages the exploration and development of mineral resources such as gas and oil on the Federal Outer Continental Shelf.

United States Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service implements and administers conservation areas and ten living marine resource programs pertaining to large pelagic species: California salmon, coastal pelagic fisheries, west coast groundfish, insular fisheries, Pacific sea turtles, eastern tropical Pacific dolphins, Pacific region marine mammals, and Antarctic marine living resources.

United States Environmental Protection Agency works with federal, state, local and tribal governments in the region to enforce the nation's environmental laws. At the state level, the *California Environmental Protection Agency* works to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality.

Ownership and Current Uses

Approximately 60% of land in the study area is held in public ownership. The remaining land is held privately by various landholders. (See Table 1, Landownership within the study area.) Ownership patterns are further discussed on the following page (See Ownership and Zoning map in the “Maps” section).

Table 1: Landownership within Study Area

	Acres*
Vandenberg AFB	99,500
Los Padres National Forest	20,400
State of California	5,500**
County of Santa Barbara	2,000
Other public land	110***
<u>Privately-owned land</u>	<u>87,930</u>
Total	215,440

* Approximate values based on parcel data from the County of Santa Barbara

** Includes: 2,500 acres of newly acquired land at El Capitan Ranch

*** Includes: Vista del Mar Union School District, Bureau of Land Management, U.S. Coast Guard

PUBLIC OWNERSHIP

Vandenberg AFB is the single largest landholding in the study area with 99,500 acres. Activities on the base include missile testing and military, civilian, and commercial space launch activities. Only a portion of the base, 33,180 acres, has been improved. Improved areas include driveways, roads, recreational areas, buildings, helipads, and runways. All other base land is either in its natural state, or managed for non-intensive grazing purposes.

California State Parks manages several properties in the study area, totaling approximately 5,500 acres. These properties include Gaviota State Park, Point Sal, El Capitan and Refugio state beaches, and beach access areas such as Canada del Leon, Canada San Onofre, Canada del Molino, Canada de Guillermo, Corral Beach, and Phillips Tajiguas West. Land has been acquired for a future 2,500 acre state park in the canyon north of El Capitan State Beach.

The County of Santa Barbara manages three parks and other properties within the study area. These include Ocean Beach County Park, Jalama Beach County Park, Santa Barbara Shores County Park, newly acquired land at Point Sal, the Tajiguas

Landfill, and the adjacent canyon known as Baron Ranch. The Tajiguas Landfill provides disposal for the unincorporated areas of the south coast of Santa Barbara County, the City of Santa Barbara, Santa Ynez Valley, and Cuyama Valley. The landfill is expected to be in operation under current permits until 2006; the County has a pending expansion application with the State Water Quality Control Board to allow the landfill to operate until 2020.

The US Coast Guard operates the Point Conception Lighthouse. The lighthouse is surrounded by a Coast Guard Reservation, approximately 30 acres in size, covering essentially the entire point.

The study area includes approximately 20,400 acres of multiple-use land within Los Padres National Forest, and the BLM manages 77 acres of land in the Point Sal area as an "Area of Critical Environmental Concern."

The Forest Service manages the Los Padres National Forest according to the 1988 Land and Resource Management Plan (Forest Plan). The Forest Plan emphasizes maintaining the rugged, natural character of the landscape, protecting and enhancing wildlife species and habitat, managing vegetation and hazardous fuels, protecting cultural resources, and providing opportunities for outdoor recreation.

The BLM is responsible for administering the protection of resources under the California Coastal National Monument. This includes the islands, rocks, exposed reefs, and pinnacles above mean high tide within twelve nautical miles of the California coastline.

PRIVATE OWNERSHIP

Private ownerships include ranches and farms of various sizes, a few commercial and industrial properties, and residential properties. Table 2 lists the ten largest private landholdings within the study area. Agriculture constitutes the predominant use of private lands in the study area, with most of the private lands zoned for agricultural use.

Table 2: Ten Largest Private Landholdings

Landownership	Appx. Acreage*
Bixby Ranch	24,250
Lloyd's Bank/Hanson Family Trust	6,650
Maz Properties	3,650
Poett et al.	3,450
Brinkman	3,305
Schulte	2,800
Rancho Arbolado Partnership	2,500
Doheny	1,520
Exxon	1,475
Parsons	1,225

Source: County of Santa Barbara

* Does not include acreage outside of the study area boundary.

Cattle grazing is the primary agricultural use in the western portion of the study area, principally on the Hollister Ranch subdivision and Bixby Ranch, the two major land blocks in the area. Although Hollister Ranch is subdivided into approximately 100-acre parcels for residential use, it functions as a cattle ranching cooperative where many of the landowners participate in the program by allowing use of their parcels for seasonal grazing.

Agriculture in the eastern portion of the study area is generally more intensive, including a number of cultivated and irrigated specialty crops such as avocado, citrus, cherimoya, and flowers. There is also an abalone aquaculture farm near Dos Pueblos Creek.

The primary commercial facility in the area is the Bacara resort at the eastern end of the study area. The 300-room resort provides recreational and conference facilities in a highly scenic coastal location. Major industrial sites located in the study area include the Chevron Gaviota oil and gas processing facility and marine terminal, the Exxon oil and gas processing facility in Las Flores Canyon, and the Venoco oil and gas processing facility east of Bacara Resort. Several facilities are undergoing the process of decommissioning. These include the Unocal Cojo Bay marine terminal and onshore facility, the Gaviota oil and gas processing facility

(partial decommissioning), and various Texaco pipeline facilities along the Hollister Ranch coast.

The Coastal Band of the Chumash Nation owns a 77-acre parcel of land, east of Gaviota State Park. The tribe uses this land for cultural, social, and ceremonial purposes.

Residential properties in the study area range from small lots in the eastern end of the study area to large holdings such as Bixby Ranch with 24,250 acres.

Climate

Santa Barbara County has a Mediterranean climate characterized by mild, wet winters and warm, dry summers. The regional climate is dominated by a strong and persistent high-pressure system that frequently lies off the Pacific coast (generally referred to as the Pacific High). The Pacific High shifts northward or southward in response to seasonal changes or the presence of cyclonic storms. In its usual position to the west of Santa Barbara County, the Pacific High produces an elevated temperature inversion. Coastal areas are characterized by early morning southeast winds, which generally shift to northwest later in the day. Transport of cool, humid marine air onshore by these northwest winds causes frequent fog and low clouds near the coast, particularly during night and morning hours in the late spring and early summer months.

Geology and Topography

The physical geography of the study area includes hills, mountains, terraces, floodplains, mesas, canyons, and rocky headlands. Elevations in the study area range from sea level to more than 4,000 feet at the crest of the Santa Ynez Range (See Topography and Oceanography map in the "Maps" section).

The study area stretches across the Transverse Range geomorphic province (area from Point

Conception to Coal Oil Point) and the southern Coast Range geomorphic province (Point Conception north to Point Sal) creating a geologically complex environment that contributes to the diversity of species in the study area. The Coast Range is oriented north/south, in contrast to the east-west Transverse Range which rotated 90 degrees over the last 17 million years.¹

Significant Geology

The Transverse Range forms the longest east west trending coast on the Pacific Shore, excluding Alaska.²

ROCK FORMATIONS

The study area is underlain by 35,000 feet of marine sedimentary rock from the late Mesozoic and Cenozoic eras, with limited igneous rock outcrops. Sedimentary rocks range from alluvial fan deposits, dune sand, conglomerate, and diatomite. The upper foothills in the area from Point Conception to Coal Oil Point contain Rincon mudstone, a heavy, unstable clay soil from the Lower Miocene epochs. Structures built on Rincon mudstone have experienced damage due to contraction and expansion.

The coastal cliffs from Surf Beach to Coal Oil Point are comprised of the Monterey and Sisquoc formations from the Miocene and Pliocene epochs. The Monterey formation, comprised of hard, splintery, silicified and diatomaceous shale, accounts for the greater part of rocks exposed in the study area's sea cliffs. The Monterey formation is exhibited in exposed bedrock from Purisima Point south to the Santa Ynez River. The Sisquoc formation is similar to the Monterey formation, containing cherty silicious shale, diatomite and percelaneous silicious shale. Foothills and sea cliffs along the Monterey and Rincon formations and the mountains southeast of Point Sal are prone to landslides and highly susceptible to erosion.³

Point Sal and portions of Vandenberg AFB are carved from the Franciscan formation of the upper Jurassic period. This formation includes volcanic

rocks, soft serpentine, hard chert, and sandstone. The only other volcanic formations in the study area occur at Point Pedernales and Canada del Rodeo (northwest of Jalama Canyon).

The igneous rocks in the Point Sal region contain ophiolites that are considered an "Area of Special Geologic Interest" by the County of Santa Barbara. Ophiolites are pieces of oceanic plate that have been thrust onto the edge of continental plates. These formations reveal portions of the earth's crust when it began forming from the earth's interior molt an estimated 100 million years ago. According to the Geological Society of America, "ophiolites have been of particular importance in the reconstruction of ancient plate boundaries ever since their recognition as on-land fragments of oceanic lithosphere. The internal architecture of well-preserved ophiolite complexes shows that ophiolites are good structural analogues for oceanic crust, providing three-dimensional exposures and age relations to study the nature of extensional tectonics and magmatic construction in oceanic spreading environments. Thus, ophiolites complement significantly our knowledge of the architecture and generation of oceanic crust that is derived mainly from seismic images and drill holes at mid-ocean ridges."⁴

Detailed study and reconstruction of the California Coast Range ophiolite have been hindered by tectonic shifting and disruption of the sequence, and by generally poor exposures. The ophiolitic sequence at Point Sal, however, "comes nearest to being complete, and it is also relatively well-exposed in sea cliffs and wave-cut patterns."⁵

Significant Geology

The ophiolite series at Point Sal is significant because of its excellent research value. The series is one of the best-exposed and best-studied ophiolites in North America.

PALEONTOLOGICAL RESOURCES

Paleontological resources include organic remains, usually older than 11,000 years, which are naturally preserved in rock formations. Significant paleontological resources are unique, rare, and uncommon or add to a specific body of knowledge related to plant or animal taxa. Sites are often found on exposed cliffs, ledges, or steep-sided gullies. Within the study area, continental terraces, Sisquoc, Monterey, Alegria, and Sespe formations (from the Pliocene and Miocene eras) are known to contain vertebrate fossils. In some areas along the coastline, continental terraces are ancient coastal sand dunes that have preserved petrified forests. A petrified forest exists near Bear Creek on Vandenberg AFB. Plant, fish, bird and marine mammal fossils have been preserved in the Sisquoc and Monterey formations. Table 3 lists vertebrate fossils found in locations within the study area.⁶

FAULTS

The study area landforms have formed from a compression process that has produced many folds and faults. The study area thus experiences a high amount of seismic activity. Santa Barbara County experiences a damaging earthquake about every

fifteen years on average.⁷ The largest and most active fault that influences the study area is the San Andreas Fault.

The east west trending faults along the coastal areas also generate seismic activity. The area from Coal Oil Point to Gaviota State Park has several faults clustered in the Ellwood area including Glen Annie, Las Varas, Dos Pueblos, and Eagle faults. The most significant faults in the area from Gaviota to Point Arguello are the Santa Ynez and the Pacifico faults. Other faults in this area include Honda, Lion's Head, and Pezzoni faults.⁸



Transverse Range, NPS photo

Table 3: Vertebrate Fossils Documented in the Study Area

Location	Rock Units	Vertebrate Fossils	Age (years before present)
Point Sal	Continental Terrace	Mastodon jaw skull and jaw Ground sloth, camel, horse, mammoth	45,000
Vandenberg AFB (Burton Mesa)	Monterey Formation	Fish/algae imprints	7 - 1 million
Vandenberg AFB	Continental Terrace Deposits	Petrified forest	12,000-26,000
Vandenberg AFB	Continental Terrace Deposits	Mammoth ulna and tooth, horse tooth, bone fragments	45,000-80,000
Cojo Canyon	Continental Terrace Deposits	Mammoth tibia	45,000-80,000
Gaviota State Park	Monterey Formation	Large halibut fish; seal bones	7 - 11 million
Canada de Gaviota	Sespe/Alegria Formation	Oreodont material	26-36 million
El Capitan State Beach	Continental Terrace Deposit	Mammoth bones	45,000-80,000
Source: U.S. Air Force, 1998b			

SOILS

The study area contains a wide range of soil types that provide unique substrates and habitats. Table 4 describes briefly the range of soil associations found within the study area. Soil associations provide a general idea of a region's soil composition and are a useful guide in determining land suitability.⁹

Table 4: Soil Associations

Soil Association	Characteristics	Location(s)
Goleta-Elder-Agueda	<ul style="list-style-type: none"> Well-drained sandy loams, fine loams, fine sandy loams, loams, and silty clay loams found on flood plains and valleys 	Goleta Valley area on nearly level to moderate slopes
Camarillo-Aquepts	<ul style="list-style-type: none"> Nearly level, poorly and very poorly drained fine sandy loams on low flood plains and tidal flats 	Goleta Valley adjacent to the beaches
The Milpitas-Positas-Concepcion	<ul style="list-style-type: none"> Nearly level to steep, moderately well-drained fine sandy soils on terraces Used for orchards, truck crops, range or urban development 	Coal Oil Point to Gaviota Pass
Concepcion-Botella	<ul style="list-style-type: none"> Moderately well-drained loamy sands, fine sandy loams, and silty clay loams Used for range, dryland hay, and pasture 	Point conception area on terraces and small valleys adjacent to the pacific coast
Ayar-Diablo-Zaca	<ul style="list-style-type: none"> Well-drained clays found on gentle to steep upland slopes Used for avocados, lemons, dryland hay, pasture, and for urban development 	Foothills of the Santa Ynez mountains in narrow bands from Summerland to Gaviota pass
Lodo-Sespe-Todos	<ul style="list-style-type: none"> Well-drained gravelly clay loams and clay loams on strongly steep to very steep slopes This association is used for range, avocados, and lemons 	Found along a narrow band that parallels the pacific ocean in the foothills of the Santa Ynez mountains between Rincon creek and Gaviota pass
Los Osos-Gaviota-Maymen	<ul style="list-style-type: none"> Found on strongly sloping to very steep slopes and characterized by excessively and well-drained sandy loams, clay loams and stony fine sandy loams 	Found west of Gaviota pass in the northern part of the study area
Nacimiento-Linne-Capitan	<ul style="list-style-type: none"> Found on moderately steep to very steep, well-drained, calcareous silty clay and clay loams This association is used for range 	Found along a narrow band paralleling the pacific coast from Gaviota pass to point conception
Santa Lucia-Lopez-Crow Hill	<ul style="list-style-type: none"> Well-drained, calcerous silty clay loams, clay loams, and cobbly clay loams on uplands This association is used for range and diatomaceous earth mines 	Found on strongly sloping to extremely steep slopes in the vicinity of Jalama creek and Miguelito creek
Capitan-Linne	<ul style="list-style-type: none"> Includes well-drained, calcareous clay loams and cobbly clay loams found on moderately steep to very steep slopes The primary use is range 	Found in a narrow belt adjacent and parallel to the pacific ocean in the vicinity of Refugio canyon
Maymen-Rock	<ul style="list-style-type: none"> Well-drained stony fine sandy loams and excessively drained rock outcrops Primary use of the association is for watershed, however a few areas with less steep slopes have range or building sites 	Located in the Santa Ynez Mountains on moderately to extremely steep slopes
Chamise-Arnold-Crow Hill	<ul style="list-style-type: none"> Soils are characterized as well to somewhat excessively drained sandy to clay loams on high terraces and uplands 	Found on gently sloping to steep terrain along the Casmalia Hills on VAFB
Shedd-Santa Lucia-Diablo	<ul style="list-style-type: none"> Characterized by as well-drained, shaley, clay loams and silty clays on upland areas 	Found on strongly sloping to very steep terrain on the Purisima Hills and Santa Ynez Mountains on VAFB
Dune Sand	<ul style="list-style-type: none"> Characterized by weakly consolidated, sand dunes comprised of clayey loam, clay, loam and other miscellaneous types west of the dune sand 	Found on the San Antonio Terrace and other dune areas on VAFB
Marinio-Oceano	<ul style="list-style-type: none"> Well-drained sands on mesas and dunes 	Found on Lompoc Terrace and Burton Mesa
Tangair-Narlon	<ul style="list-style-type: none"> Poorly-drained and moderately drained sands and loamy sands 	Found on nearly level to strongly sloping terrain on the Burton Mesa
Los Osos-San Andreas-Tierra	<ul style="list-style-type: none"> Well-drained fine sandy loams, sandy loams and clay loams on uplands This association is used for range and is moderately to severely eroded 	Found in the Santa Ynez Mountains in the southern portion of VAFB on strongly sloping to very steep slopes

Sources: Shipman, 1981, U.S. Air Force, 1997

Biological Resources

The study area features a high concentration of globally significant, diverse, rare species and habitat. The following section describes the natural resources of the study area as they exist today, from its larger ecological context to specific locations with rare or unique qualities.

The southern California coast, located in a globally rare biome, is comprised of Mediterranean vegetation types included in the evergreen sclerophyllous forest. A biome is the largest geographical biotic unit comprised of similar plant and animal communities. The evergreen sclerophyllous forest biome is found in areas with a Mediterranean climate that is characterized by mild, rainy winters and hot, dry summers. This climate is created by the interaction of global weather patterns and cold-water upwelling on the west coast of a continent. There are only four other sites in the world that share these climactic conditions. The other locations are located in Europe, Chile, Africa and South Australia at approximately the same latitude, 30-40 degrees. Only 18% of evergreen sclerophyllous forest's former range remains in the world, making it rare and ecologically significant.¹⁰

LANDFORMS AND MARINE ENVIRONMENT

The study area coast east of Point Conception is part of the continental borderland of the Southern California Bight (SCB). The SCB is commonly delineated as the marine system that extends from Point Conception to Punta Banda in Baja California, Mexico (See Topography and Oceanography map in the "Maps" section). It is referred to as a "bight" because the characteristic north-south trending coastline of western North America experiences a significant curvature along the coast of southern California creating a marine environment of complex circulation patterns.¹¹ The SCB is the temporary and permanent home to a wide variety of marine organisms, and it functions as a breeding ground for a rich array of marine species including pelicans, peregrine falcons, sea otters, whales, dolphins, sea lions and other pinnipeds.¹²

The uniqueness of this marine system can be attributed to the confluence of the two major oceanic currents and the shape of the continental shelf that work together to create a marine transition zone in the Santa Barbara Channel. The northern portion of the study area coast features cooler northern waters carried south by the California Current and reflects the biological assemblages of the Oregonian province. Waters south and east of Point Conception carried by the Southern California countercurrent support the warm temperate biota characteristic of the California province. The southern flow of the California Current and the prevailing winds from the northwest work together to drive cold water from the north directly into the northern Channel Islands. The California Current is forced offshore near Point Conception, creating a large eddy current referred to as the Santa Barbara Gyre. This gyre system generally flows in a counter-clockwise direction between the Santa Barbara coast and the Channel Islands. Nutrient-rich water wells up from the deep sea, supplying exceptionally rich food webs in the waters off the study area coast. Larval and juvenile stage fish entrained in the eddy current benefit from high food availability, until they grow strong enough to escape the circulating current.¹³⁻¹⁴

Significance to Marine Systems

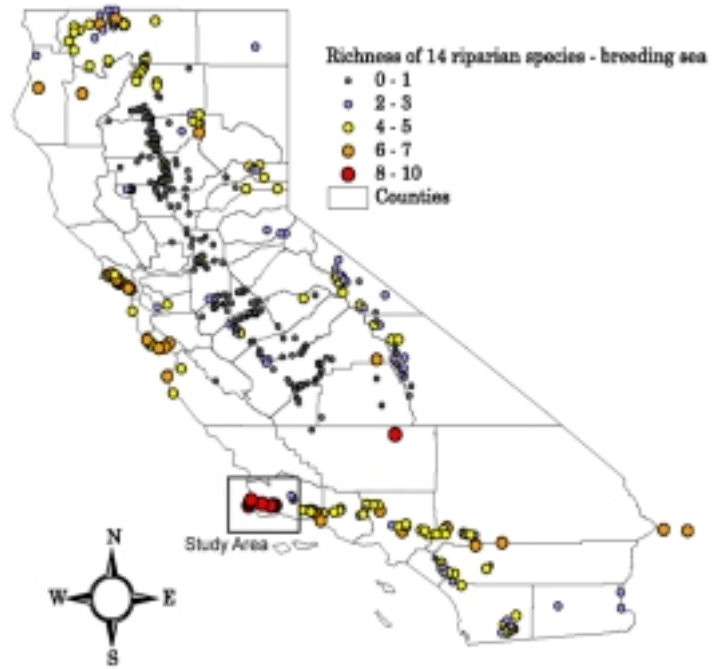
Because the study area coast is the largest and healthiest remaining coastal area in southern California, its protection is important to terrestrial and coastal ecosystems such as the Channel Islands National Marine Sanctuary (CINMS), located within the SCB just off the study area coast. The CINMS is internationally recognized as a United Nations, Educational, Scientific and Cultural Organization (UNESCO) Biosphere Reserve (California Coastal Conservancy, 2001).

Watersheds along the Gaviota Coast have a direct impact on the SCB as they transport nutrients, sediment and pollution. Marine and terrestrial ecosystems work together in a "large-scale system

Biodiversity within the Gaviota Coast study area

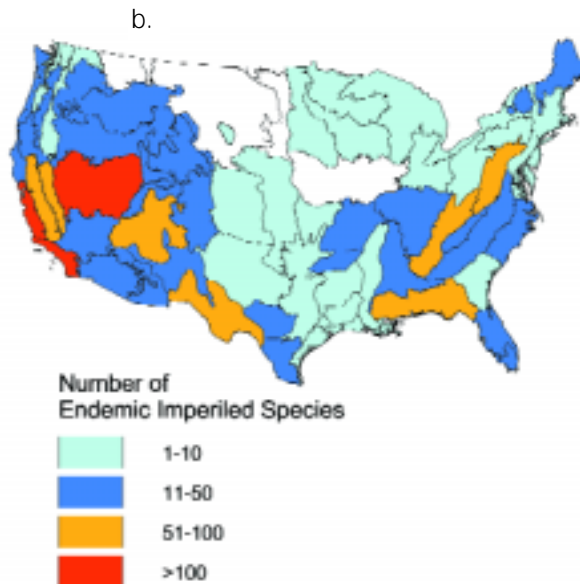
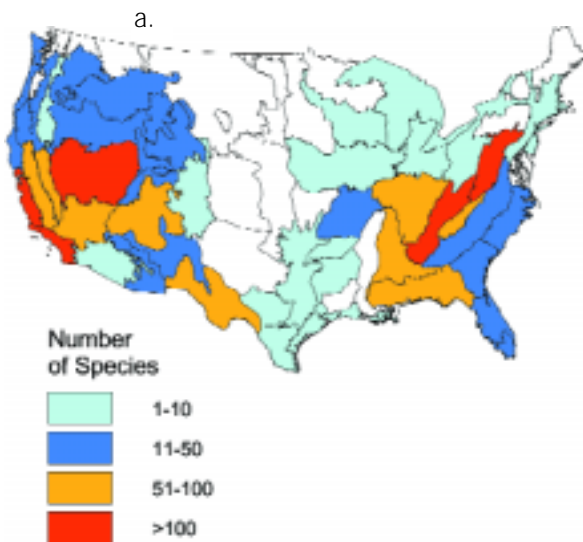


Locations of the Mediterranean vegetation types.
Image from Blueplanet Biomes.



Species richness of 14 focal riparian species at census sites throughout California. Map printed courtesy of the Point Reyes Bird Observatory (RHJV, 2000).

Abundance and richness of bird species are key indicators of riparian health. This figure shows the relative richness of riparian bird species in the study area within a statewide context.

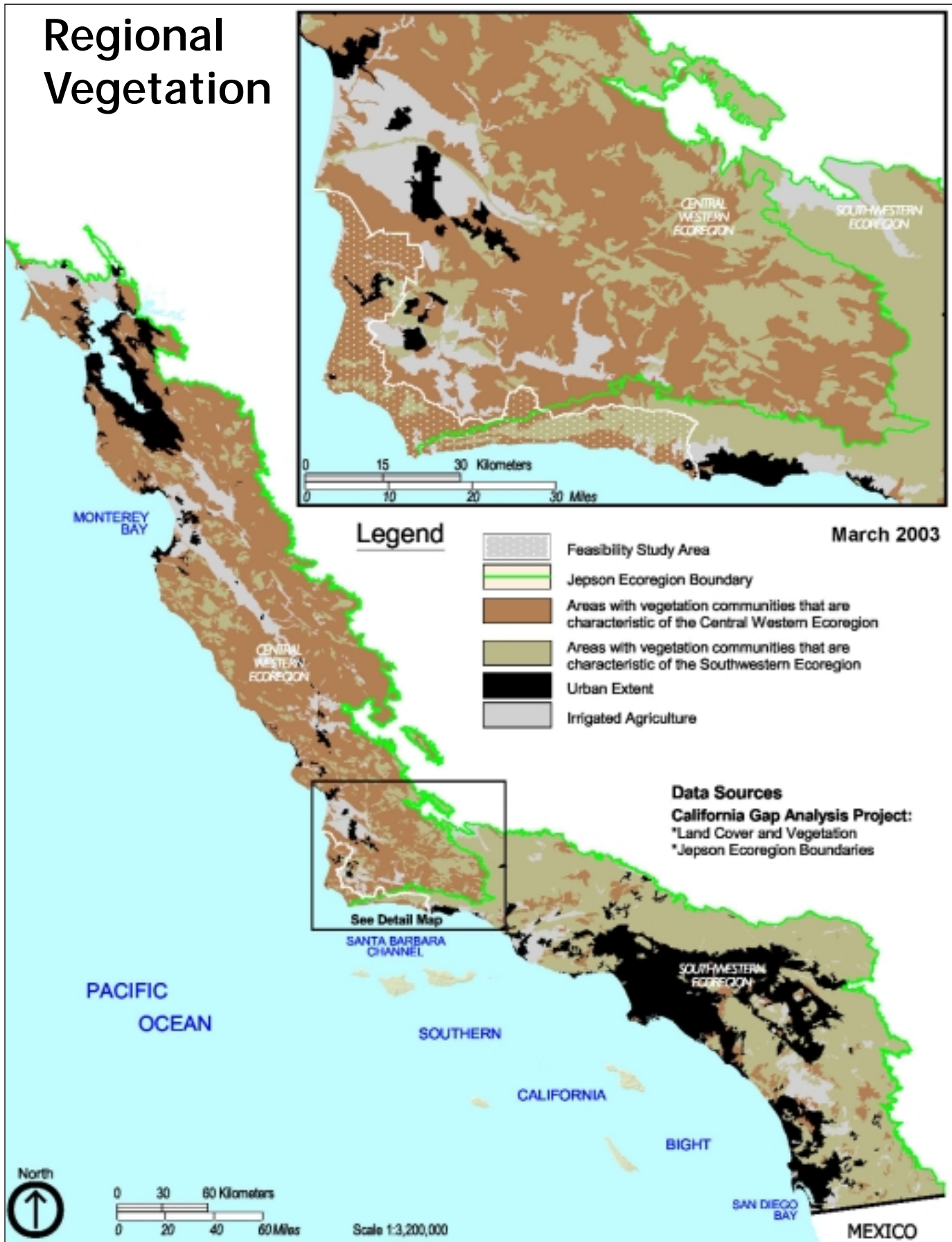


Distribution of imperiled species by ecoregion, from Precious Heritage: The Status of Biodiversity in the United States, (Stein, Kutner, and Adams, 2000).

A high diversity of imperiled species is found in both the Central Western and Southwestern Ecoregions shown in red, making coastal California a "hot spot" for biodiversity.

(a) Coastal California, the Great Basin, and the Appalachians stand out in this assessment of imperiled species according to Nature Conservancy-defined ecoregions of the lower 48 states.

(b) Focusing on those imperiled species that are restricted to a single ecoregion further highlights the significance of central and southern coastal California and the Great Basin.



of relationships where biophysical processes of land, water and wind work in concert to form unique species and habitats of the [SCB].”¹⁵ For the past 150 years most of the watersheds and wetlands along the southern California coast have been impacted by agricultural and urban development. While the SCB’s geologic, hydrologic, climatic, and ecological characteristics are unique in the country, it also has experienced one of the most dramatic environmental transformations due to rapid growth and development.¹⁶ (See Watersheds map in the “Maps” section).

BIODIVERSITY

The transverse east-west ridge of the Santa Ynez Mountains acts as a topographic barrier between the two climate zones associated with the marine systems, and marks the north-south border of the Southwestern and Central Western Ecoregions (See Regional Vegetation figure on previous page). Many species reach their northern and southern limits here because of the elevation limits imposed by the transverse ranges.¹⁷ The Southwestern and Central Western Ecoregions are two of the most biologically diverse ecoregions in the world and have some of the highest concentrations of globally-important, rare species in the country.¹⁸ The diversity of species within the study area is a result of the constant intermingling of habitat and ecosystems in the climatic transition zone between the two terrestrial ecoregions and the transitional nature of the Southern California Bight.¹⁹⁻²⁰ Of the approximately 1,400 plant and animal species estimated to exist within the study area,²¹ there are 24 federally- or state-listed threatened or endangered plant and animal species and another 60 species considered rare or of special concern (See tables A1: Rare, Threatened, and Endangered Plants and A2: Rare, Threatened, and Endangered Animals in the “Tables” section).



badger, CDFG photo



weasel, CDFG photo



Lompoc yerba santa, Roxanne Bittman

PLANT COMMUNITIES

The diversity of landforms combined with the transition between climatic, oceanic and terrestrial regions creates one of the most unique botanical regions in North America. The plant communities within the study area include the southern and northernmost limits for many species. It has been estimated that there are 750 plant species indigenous to the Gaviota Coast from Point Sal to Coal Oil Point. This includes approximately 15% of the native plant species in the state of California. While a detailed study of the botanic characterization has yet to be completed, studies on Vandenberg AFB and Hollister Ranch provide a good indication of the complexity and diversity of botanical resources in the region²² (See Vegetation and Natural Resources maps in the "Maps" section).

Marine Intertidal and Nearshore Communities:

The marine intertidal communities along the study area coast are important sources of food and shelter for many species. These communities include rocky intertidal areas, kelp beds, sea grasses and reefs.

Rocky marine intertidal zones are shoreline areas rich in species diversity that feature organisms that are able to withstand waves and drying out periods during tidal changes. Dominant organisms include California mussels, chitons, starfish, sea anemones, barnacles, snails, crabs, kelp and sea lettuce. The rocky intertidal zone also provides essential foraging for seabirds and marine mammals during low-tide. Stretches along the coast of Vandenberg AFB, Bixby and Hollister ranches have had very little human disturbance.²⁴⁻²⁶

Important plant communities of the nearshore area are giant kelp (*Macrocystis pyrifera*), seagrasses such as surfgrass (*Phyllospadix spp.*), and eelgrass (*Zostera spp.*). These aquatic plant communities grow primarily on rocky bottoms and provide essential food and habitat for many marine species. Giant kelp is considered the most important marine habitat of the SCB. It provides food and shelter to marine and bird species, and serves as a nursery to juvenile fishes. Giant kelp

beds thrive in areas protected from northerly swells, and are abundant on Santa Barbara's Channel Coast.²⁷ Kelp beds in southern California have been reduced by two-thirds since 1957.²⁸ Kelp beds are impacted by storm events, warming trends, overgrazing, competition, sedimentation, pollution, harvesting, and disease.²⁹ The southern sea otter plays an important role in maintaining the health of the kelp community by feeding off the sea urchins that feed off the kelp.³⁰

Surfgrass meadows attach to rocky shoreline in low intertidal depths. This marine plant is highly productive, providing important microhabitat for 71 species of algae and 90 species of invertebrates. Threats to surfgrass include sewage discharge, oil seepage, and oil pollution.³¹⁻³²

Significant Species Diversity

The two ecoregions that transition within the study area form what is recognized as a "hot spot" for biodiversity because of the high level of species endemism and potential threats to habitat.²³ Rare and endangered habitat in the study area includes bishop pine forest, tanbark oak forest, valley oak woodlands, coastal sage-chaparral scrub, central maritime chaparral, native grassland, wetlands, riparian woodlands, coastal dunes and strand, and marine ecosystems such as kelp beds and sea grasses, and rocky marine intertidal zones.

Eelgrass grows primarily in bays and estuaries, attaching to mud and sand bottoms. Eelgrass beds are important for primary production, nutrient cycling, and substrate stabilization. Eelgrass communities in southern California are heavily impacted by human alteration. Threats to eelgrass communities include oil spills, pollution, habitat disturbances from development, cumulative impacts from boat anchors, and overgrazing by sea urchins. Eelgrass communities are located primarily along the Gaviota and Corral Canyon coastal areas.³³⁻³⁴

Shallow subtidal reefs are offshore rocky areas that serve as attachment points for a number of algae, invertebrate, and fish species. Reefs are found all along the study area coast with major reefs occurring off of rocky headlands.³⁵ Naples Reef, a reef wetland, is one of the few reef wetlands of this type found along the southern California coast.³⁶ Scientists that have studied the Naples Reef have documented that it contains the highest diversity of intertidal organisms within the County.³⁷ The benthic algae on Naples reef are considered one of the best examples on the South Coast. The Santa Barbara County Comprehensive Plan Conservation Element recommends that Naples Reef be preserved as a scientific research and educational area because of its unusual biological character.³⁸

Estuarine Wetlands: Estuarine wetlands are found in coastal areas where creeks, rivers or embayments mix with the ebb and flow of ocean water. Approximately 90% of the estuarine wetlands in southern California have been destroyed by development over the past century.³⁹ The study area includes a majority of the few estuarine wetlands that remain in southern California. These wetlands are recognized as a significant biological resource and designated "Environmentally Sensitive Habitat" under the Santa Barbara County Coastal Plan. Because of their scarcity, all estuarine wetlands can be considered rare and threatened.⁴⁰⁻⁴¹ Estuarine wetlands are suitable habitat for the federally-listed endangered plants La Graciosa thistle (*Cirsium loncholepis*) and salt marsh bird's beak (*Cordylanthus maritimus ssp.*). The La Graciosa thistle historically grew along the Santa Ynez River on Vandenberg AFB.⁴²⁻⁴³

Estuarine wetlands within the study area include: Devereux Slough at Coal Oil Point Reserve, Santa Anita Estuary on Hollister Ranch, the Santa Ynez and San Antonio lagoons, the Santa Ynez Coastal Marsh, the mouth of the Canada Honda Creek, and Dune-Creek Estuaries at San Antonio Dunes Terrace.⁴⁴⁻⁴⁶

Palustrine Wetlands: Palustrine wetlands are dominated by trees, shrubs, persistent or non-persistent emergents, mosses or lichens in tidal areas with low salinity. Vernal pools, ponds and dune swale wetlands are rare palustrine systems found within the study area. In southern California, vernal pools are considered an endangered ecosystem.⁴⁷ They are only found in San Diego and Santa Barbara counties.⁴⁸ Palustrine wetlands are also suitable habitat for the La Graciosa thistle (*Cirsium loncholepis*).⁴⁹

Several vernal pools have been identified on Vandenberg AFB near Burton Mesa. Dune swale wetlands at the San Antonio Terrace Dunes, riparian willow woodlands along the Santa Ynez River and San Antonio Creek, and the Barka Slough freshwater marsh are additional palustrine sites on Vandenberg AFB. Ellwood Mesa features a 25-acre vernal pool complex.⁵⁰⁻⁵²

Riverine Wetlands: Intermittent riverine wetlands include tributaries of the Santa Ynez River and San Antonio Creek. Perennial systems are found near Point Sal, in the Santa Ynez Mountains and on Sudden Flats at the south of Vandenberg AFB.⁵³ Riverine wetlands on Hollister Ranch, defined by the Hollister Ranch Conservancy as "Representative Botanical Areas of Note," include the Cojo, Bulito, Santa Anita, and Agua Caliente riparian corridors.⁵⁴



Devereux Slough, NPS photo

Riparian Resources: Riparian habitat is located in many of the coastal watersheds within the study area. Riparian forests support the highest diversity of plant and animal species in North America and are essential elements of our country's natural heritage. This habitat has been reduced more than

any other habitat type in North America due to various factors associated with disruption of natural hydrological conditions. These factors include dams, levees, channelization, clearing associated with farming and development, over-grazing, and invasion by exotic species. In California, Arizona and New Mexico, riparian forests are an endangered ecosystem. Riparian habitat now covers less than 5% of its historic range in California, making up less than 0.5% of the total land area.⁵⁵⁻⁵⁶

Abundance and richness of bird species is an important indicator of riparian health. Bird species in riparian habitats on Vandenberg AFB are among the richest in California. Because most of the coastal riparian habitat of southern California has been degraded or destroyed, this richness of habitat within the study area is of even greater importance. Vandenberg AFB, Santa Clara River, Santa Margarita River, and Camp Pendleton in Orange County have the only intact, large coastal riparian habitats remaining. Federally-listed endangered species that rely on this habitat include the southwestern willow flycatcher (*Empidonax traillii extimus*), the California red-legged frog (*Rana aurora draytonii*), the tidewater goby (*Eucyclogobius newberryi*), the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), and the least Bell's vireo (*Vireo bellii pusillus*).⁵⁷⁻⁵⁸

Grasslands: California native grasslands are a critically endangered ecosystem and extremely rare due to the introduction of European grasses for grazing purposes during the Spanish settlement. California has seen a 99% loss of native grassland.⁵⁹ The study area contains exotic, annual, and native grass species. Activities such as burning, agriculture, urbanization, over-grazing, and introduced species have significantly reduced the number of native grassland communities. Annual, non-native grassland that dominates the study area landscape includes species native to Europe such as wild oats (*Avena fatua*), soft chess (*Bromus hordeaceus*), ripgutgrass (*Bromus diandrus*) and Italian ryegrass (*Lolium multiflorum*). Native grasslands include purple needlegrass (*Nassella pulchra*), California barley (*Hodeum*

brachyanthereum ssp. *californicum*), and native wildflowers and forbs.⁶⁰⁻⁶¹

Several isolated patches of native grasslands remain in Santa Barbara County. These include patches that border Camino Cielo Road along the crest of the Santa Ynez Range, west of Goleta⁶² and several areas on Vandenberg AFB.⁶³ A regionally-rare 40-acre native grassland is located on Ellwood Mesa, just west of Coal Oil Point Nature Reserve. The Santa Barbara County Coastal Plan considers native grasslands "Environmentally Sensitive Habitat."⁶⁴

Coastal Dunes and Strand: Coastal strand in southern California is considered a critically endangered habitat.⁶⁵ Coastal strand and foredunes contain plant communities that have adapted to the sandy, unstable conditions associated with this habitat. Examples include sand-verbenas that contain fruits that disperse well in wet conditions. Native species such as beach saltbush (*atriplex leucophylla*) and Beachbur (*Ambrosia chamissonis*) have root systems that stabilize the shifting dune environment. Where dune environments have been disturbed, ice plant (*Carpobrotus chilensis* or *C.edulis*) dominates.⁶⁶

Threatened species in coastal dune areas on Vandenberg AFB include surf thistle (*Cirsium rhotophilum*), black-flowered figwort, (*Scophularia atrata*) and beach spectacle-pod (*Dithyrea maritima*).⁶⁷ Several dune species at their northernmost and southernmost limits can be found on protected dunes at Coal Oil Point. These include southern beach primrose (*Camissonia cheiranthifolia suffruticosa*) at its northernmost limit and northern bush lupine (*Lupinus arboreus*) at its southernmost limit.⁶⁸ Dune locations within the study area occur from Point Sal to Purisima Point, at the mouth of the Santa Ynez River, Point Conception, and near Coal Oil Point.⁶⁹⁻⁷⁰

The fragility of coastal dune habitat is evident at Coal Oil Point where there is juxtaposition between protected and unprotected dunes. Fragile native plants have been trampled and overcome by stronger invasive species in areas of unprotected

dunes, while fragile and rare native species remain on protected dunes. Coastal dunes and beaches at Vandenberg AFB and Coal Oil Point are used as nesting sites for federally threatened and endangered bird species such as the western snowy plover (*Charadrius alexandrinus nivosus*) and the California least tern (*Sterna antillarum browni*).⁷¹⁻⁷²

Dune Scrub: Dune scrub can be described as shrub-dominated communities found on back-dunes. Both northern and southern coastal dune scrub communities are found within the study area. Northern coastal dune scrub is found mostly on Vandenberg AFB along the San Antonio Terrace Dunes and Burton Mesa. Regional endemics associated with northern coastal dune scrub include Blochman's Groundsel (*Senecio blochmaniae*) and Shrubby Monardella (*Monardella frutescens*). Southern coastal dune scrub can be found at Coal Oil Point Reserve and is one of the best and last examples found in southern California.

Dune species at their northernmost and southernmost limits can be found on protected dunes at Coal Oil Point. These include southern beach primrose (*Camissonia cheiranthifolia suffruticosa*) at its northernmost limit and northern bush lupine (*Lupinus arboreus*) at its southernmost limit.⁷³⁻⁷⁴

Coastal Bluff Scrub: Coastal bluff scrub is found along lower bluff communities that tolerate ocean spray. Plant species common to bluff communities include Quailbush (*Atriplex lentiformis* ssp.



sand dunes at Point Sal, Rick Skillin

lentiformis), wooly sea-blite (*Suaeda taxifolia*) and the striking giant coreopsis (*Coreopsis gigantea*). Species specific to northern communities include coastal bluff goldenbush (*Isocoma menziesii* var. *sedoides*) and southern bluff scrub communities include species such as cliff aster (*Malacothrix saxatilis* var. *saxatilis*).⁷⁵

Coastal Sage Scrub: Coastal sage scrub is characterized by drought tolerant plants that grow along coastal terraces and foothills. Coastal sage scrub has high levels of species diversity. The conversion of land to residential, agriculture, and industrial uses has endangered this community.⁷⁶ Only 15% of its former range remains in southern California.⁷⁷ This type of habitat is found throughout the study area and includes the federally-listed endangered Gaviota tarplant (*Deinandra increscens* ssp. *villosa*).⁷⁸ Coastal sage-chaparral is a globally rare type of coastal sage scrub habitat that has a high level of species endemism and diversity.⁷⁹ This type of coastal sage scrub can be found between Gaviota State Park and Arroyo Hondo.⁸⁰

Chaparral: Chaparral communities are comprised of dense evergreen shrubs that occur on California slopes and coastal mesas. Common chaparral species within the study area include chamise chaparral (*Adenostoma fasciculatum*), bigpod ceanothus (*Ceanothus megacarpus* var. *megacarpus*), and several species of manzanita. Chaparral species endemic to the study area include Refugio manzanita (*Arctostaphylos refugioensis*), La Purisima manzanita (*Arctostaphylos purisima*), Lompoc monkeyflower (*Mimulus arantiacus*), and the federally-listed endangered Lompoc yerba santa (*Eriodictyon capitatum*).⁸¹

The study area features central maritime chaparral, a type of chaparral considered threatened and sensitive by the California Department of Fish and Game. Central maritime chaparral has several rare and endemic species associated, including the federally-listed endangered Lompoc yerba santa. Central Coast maritime chaparral can be found on Vandenberg AFB and Hollister Ranch.⁸²⁻⁸³

Burton Mesa chaparral is a regionally endemic type of Central Coast central maritime that occurs within the study area on Vandenberg AFB and Hollister Ranch. Local endemics associated with this type of chaparral include La Purisima manzanita (*Arctostaphylos purisima*), Lompoc monkeyflower (*Mimulus aurantiacus* ssp. *lomocensis*), fascicled buck brush (*Ceanothus impressus*), shagbark manzanita (*Arctostaphylos rudis*), and Santa Barbara ceanothus (*Ceanothus impressus*).⁸⁴

Oak Woodlands/Forests: Coast live oak (*Quercus agrifolia*) is the most common oak tree and woodland within the study area. Stands can be found on north facing slopes with understories of either chaparral or coastal sage scrub. Southern oak communities within the Gaviota study area are highly threatened ecosystems. Jalama Creek is one of the only sites that contains California walnut (*Juglans californica*), an important indicator species for the southern oak habitat. The California Native Plant Society lists California walnut as a plant of limited and infrequent distribution.⁸⁵

The Las Cruces area, or Gaviota Gorge, features a unique occurrence of valley oak woodlands. While most valley oaks (*Quercus lobata*) are found 10 miles inland from the coast, the topography of this area allows for its growth only 3 miles inland.⁸⁶⁻⁸⁷ Valley oak systems are highly threatened in Santa Barbara County. Populations have been declining due to changes in land use that include vineyards and rural residential development.⁸⁸

Tanbark Oak Forest: Tanbark oak forest within the study area is found at its southern limits on Vandenberg AFB, and in rare patches east of Point Conception. Dominant tree species of this forest include tanbark oak (*Lithocarpus densiflorus*) and madrone (*Arbutus menziesii*). The forest on Vandenberg AFB is an unusual occurrence of a single canopy dominant tanbark oak forest. The relic patches of this forest type are remnants from a time period when the Santa Barbara area had a wetter and cooler climate.⁸⁹ Ledyard Stebbins' National Park Service report on natural resources along California's south and central coastal areas makes note of these relic forests and speculates

that rare and unusual animals might be found in these areas.⁹⁰ They exist on northern facing slopes and canyons of the Santa Ynez Range.⁹¹ Tanbark oak forests can also be found on Hollister Ranch along de la Crest Road.⁹²

Bishop Pine Forest: Vandenberg AFB is home to the southernmost stand of bishop pine forest on mainland North America. Similar to tanbark oak forest, bishop pine is a relic forest. It is a rare ecosystem because of its limited extent, genetically distinct population, and its use as habitat for the western gray squirrel (*Sciurus griseus*) and Lompoc yerba santa (*Eriodictyon capitatum*). The main threat to the Vandenberg AFB stand is a fungal disease known as pitch canker.⁹³

Rare, Threatened and Endangered Species: The study area contains 24 federally- or state-listed threatened or endangered plant and animal species. Another 60 species of rare and special concern also inhabit the study area (See Tables A1 and A2 in the "Tables" section and the Natural Resources map in the "Maps" section, for habitat and species locations).

SIGNIFICANT PLANT SPECIES

The study area is home to 29 species of vascular plants considered rare, threatened, endangered, or species of concern by federal and state governments (See Table A1). Federally-listed endangered species (FE) include the Gaviota tarplant, Lompoc yerba santa, beach layia, Gambel's water cress, and a rare occurrence of soft-leaved indian paintbrush. The Gaviota tarplant and the Lompoc yerba santa are found only on the Gaviota Coast. The US Fish and Wildlife Service designated critical habitat areas for both the Gaviota tarplant and Lompoc yerba santa. Critical habitat areas define habitat essential for the recovery of a listed species.

Gaviota tarplant, FE (*Deinandra increscens* ssp. *villosa*): Endemic to the Gaviota Coast, the Gaviota tarplant is most often found in western Santa Barbara County in association with grasslands and coastal sage scrub. Populations of Gaviota tarplant are found in locations along the

coast from Point Sal to Gaviota. Threats to the Gaviota tarplant include destruction of individual plants, habitat loss and degradation from petroleum production. Critical habitat units have been designated for the portions of Sudden Peak and a 23-mile stretch along the coast from Point Conception to Gaviota State Park.⁹⁴

Lompoc yerba santa, FE (*Eriodictyon capitatum*):

The primary habitat for Lompoc yerba santa includes central coast maritime chaparral and bishop pine forests. Lompoc yerba santa can only be found in Santa Barbara County near the coast. Sites within the study area include three locations on Vandenberg AFB and chaparral areas on Hollister Ranch. Threats to Lompoc yerba santa include invasive plant species, low seed productivity, and naturally occurring, catastrophic events. Within the study area, a critical habitat unit has been designated in the Santa Ynez Mountains between Canada del Cojo and Arroyo Bullito.⁹⁵⁻⁹⁷

Beach layia, FE (*Layia carnosa*): Beach layia is a small, succulent annual herb found on California coastal dunes. This species meets its southern most limits on Vandenberg AFB where a small population exists on coastal dunes. Threats to beach layia include trampling, residential development, off-road vehicles, and invasion by exotic plants. Vandenberg AFB has currently restricted access and maintenance activities within a one-half mile radius of these areas and monitors existing populations annually.⁹⁸⁻¹⁰⁰

Gambel's watercress, FE (*Rorippa gambelii*):

Gambel's watercress is an herbaceous perennial found in freshwater or brackish marsh habitats at the margins of lakes and along slow-flowing streams. A small population of Gambel's watercress was found on Vandenberg AFB in 1996. Threats to Gambel's watercress habitat include alteration of hydrology, competition with encroaching eucalyptus trees, urban development, and hybridization with similar species. Vandenberg AFB is currently working with the California Department of Fish and Game to reintroduce Gambel's watercress in new locations.¹⁰¹⁻¹⁰³

Soft-leaved Indian Paintbrush, FE (*Castilleja mollis*):

Soft-leaved indian paintbrush is a partially parasitic perennial herb found on San Miguel and Santa Rosa islands. The primary habitat for soft-leaved indian paintbrush is scrub vegetation. It is dependent on a host species such as goldenbush (*Isocoma menziesii* var.) for water and dissolved resources. Threats to this species include trampling, soil loss, herbivory by deer and invasive species.¹⁰⁴⁻¹⁰⁵ The only reported instance of this species within the study area is on the Canada de Cojo, two miles north of Cojo Bay.¹⁰⁶

SIGNIFICANT WILDLIFE

An area of high species diversity, the study area provides habitat to many rare and endangered wildlife species. Estuaries of the Santa Ynez River and the San Antonio Creek remain important nurseries to the sea, and are important to the health and integrity of the marine systems associated with the inshore waters and the adjoining CINMS. Within the study area there are 55 species of wildlife listed as threatened, endangered or species of concern by the state or federal governments (See Table A2 in the "Tables" section).

The 13 federally-threatened (FT) or endangered (FE) species are the tidewater goby, unarmored threespine stickleback, southern steelhead, California red-legged frog, western snowy plover, southwestern willow flycatcher, California condor, bald eagle, brown pelican, California clapper rail, California least tern, least bell's vireo, and the southern sea otter. The US Fish and Wildlife Service has designated critical habitat areas for the tidewater goby, the California red-legged frog, southern steelhead, and the western snowy plover. In addition to rare and endangered species, the study area is home to several marine mammal haulout sites (coastal areas where marine mammals congregate on land) and one of the largest wintering habitat sites of Monarch butterflies in California.

Tidewater goby, FE (*Eucyclogobius newberryi*):

The tidewater goby is an endemic fish species. Historically, the southern population of tidewater

gobies occupied the coastal lagoons formed at the mouths of small to large coastal rivers, streams, or seasonally wet canyons. Its sensitivity to change makes the tidewater goby an indicator species for the health of coastal lagoons or estuarine wetlands. Loss or degradation of habitat due to water diversions, exotic species invasion, construction, pollution and siltation are the largest threats to recovery.¹⁰⁷ Tidewater goby have been located in all major creeks on Vandenberg AFB, and in several creeks along the coast from Point Conception to Devereux Slough including Damsite, San Augustin, Aguja, El Bulito, Santa Anita, Alegria, Agua Caliente, Gaviota, Arroyo Hondo, Arroyo Quemado, Eagle, Tecolote and Bell creeks.¹⁰⁹⁻¹¹⁰

Unarmored threespine stickleback, FE

(*Gasterosteus aculeatus williamsoni*): The unarmored threespine stickleback is a small, scaleless, native fish that resides in slow water creeks along the California coast. It is endangered in its native habitat, the western and northeastern seaboard of the United States. Populations within the study area are located on Vandenberg AFB in San Antonio and Canada Honda Creeks. Threats include habitat loss through stream channelization, increased water turbidity, introduction of non-native competitors, water pollution, aquifer draw downs, and beaver activity.¹¹¹⁻¹¹²

Southern Steelhead, FE (*Oncorhynchus mykiss*

irideus): Southern steelhead are winter-run steelhead whose native habitat occurs in basins along the southern California coast. The coastal watersheds of the study area provide essential habitat for steelhead. Steelhead require quality freshwater, marine, and estuarine ecosystems to support a healthy population, and therefore serve as an important indicator of watershed health. All tidally influenced waters within the study area are designated in the 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act as "Essential Fish Habitat." Additionally, the study area steelhead are part of the Southern California Evolutionarily Significant Unit (ESU). An Evolutionarily Significant Unit is a distinctive group of Pacific salmon, steelhead, or

sea-run cutthroat trout. Critical habitat has been designated for the reaches of all rivers including estuarine areas and tributaries.¹¹³

Populations of steelhead can be found on Vandenberg AFB in the San Antonio Creek watershed, Santa Ynez River, freshwater habitat on Hollister Ranch, the Arroyo Hondo watershed, and Tecolote Creek. Canada Honda, Gaviota, San Onofre, Arroyo Quemado, Refugio, Gato Canyon, Dos Pueblos Canyon, Devereux, and Tecolote Creeks have been identified by the National Marine Fisheries Service as highly suitable creeks for steelhead. Threats to this species include habitat loss, in-stream barriers, dredge and fill activities, and reduced water flow.¹¹⁴⁻¹¹⁹

California red-legged frog, FT (*Rana aurora*

draytonii): California red-legged frog habitat includes shrubby riparian areas and deep, slow moving water.¹²⁰ Within the study area the frogs inhabit coastal drainage basins that include the San Antonio, Wood, Canada de Cojo, Santa Anita, Agua Caliente, Sacate, Cuarta, Alegria, Gaviota, Arroyo Hondo, Arroyo Quemado and Tajiguas creeks.¹²¹⁻¹²³ Threats to the California red-legged frog include habitat degradation, off-road vehicles, reservoir construction, grazing, non-native aquatic predators, and water quality. Critical habitat for the red-legged frog was designated on March 13, 2001.¹²⁴ However, as a result of recent litigation, the red-legged frog critical habitat designation has been vacated, and a revised critical habitat designation will be promulgated following further consideration of the economic impacts of the designation.

Western snowy plover, FT (*Charadrius*

alexandrinus nivosus): The western snowy plover is a migratory bird species that nests and winters on sandy marine and estuarine shores. The western snowy plover has nesting sites on Vandenberg AFB from Point Sal to Purisima Point, the mouth of the Santa Ynez River, and Coal Oil Point. Additional nesting sites have also been studied on Bulito, Percos, and Drake's beaches. Threats to habitat include human disturbance to nests and breeding sites, predation, and habitat loss due to invasion of

exotic species. Vandenberg AFB has restricted public access to nesting sites during the nesting season from March 1 through September 30. Vandenberg, Santa Ynez River mouth, Ocean, Jalama and Devereux beaches have been designated as critical habitat areas by the U.S. Fish and Wildlife Service.¹²⁵⁻¹²⁸

Southwestern willow flycatcher, FE (*Empidonax trailii extimus*): The southwestern willow flycatcher is a small insectivorous bird that makes its home in dense riparian areas in the study area. Nesting takes place primarily in thick riparian stands of willows or coast live oaks. Threats such as cowbird parasitism and habitat destruction from urban, recreational, and agricultural development have reduced the species so that, on the California coast, they can only be found in small isolated populations. The southwestern willow flycatcher has been observed on Vandenberg AFB along the Santa Ynez River and at Santa Anita Creek.¹²⁹⁻¹³¹

California condor, FE (*Gymnogyps californianus*): The California condor is considered the largest land bird in North America. Although critical habitat was designated in 1976, the condor's vulnerability to extinction required a captured breeding and release program. The Los Padres National Forest is one of the California Condor



California condor, CDFG photo

Recovery Program release sites. While at least one wild born condor chick has been recently been identified, most breeding takes place in captivity. Approximately 60 California condors are now surviving in the wild within California and Arizona.¹³²⁻¹³⁴

Bald eagle, FT (*Haliaeetus leucocephalus*): The bald eagle was federally-listed as an endangered species in 1971. In 1995 the bald eagle was removed from the endangered list and upgraded to threatened status as its population grew. Bald eagles are associated with aquatic ecosystems. Nest sites are typically in large trees along shorelines in remote areas. The major threats to the bald eagle for the present and foreseeable future include destruction and degradation of habitat and environmental contaminants. Delisting of the bald eagle under the Endangered Species Act was proposed by the U.S. Fish and Wildlife Service in 1999. While this rule would remove the bald eagle from protection status under the Endangered Species Act, it would still be protected by the Bald and Golden Eagle Protection Act.¹³⁵⁻¹³⁶ Bald eagles have been sighted at the mouth of the Santa Ynez River.¹³⁷

Brown pelican, FE (*Pelecanus occidentalis californicus*): The brown pelican's breeding sites



bald eagle, CDFG photo

can be found only in the Southern California Bight. Breeding sites are located on the Channel Islands and a few islands off the coast of Baja California.¹³⁸⁻¹³⁹ Brown pelicans have been found roosting and feeding on coastal bluffs and cliffs at Point Sal, on Vandenberg AFB, Percos Beach, Arroyo Hondo, and Dos Pueblos Creek.¹⁴⁰⁻¹⁴⁵

California clapper rail, FE (*Rallus longirostris obsoletus*): The California clapper rail's habitat is restricted to coastal sloughs and estuaries. It is threatened by predation, loss of habitat, water quality, and non-native species invasion.¹⁴⁶⁻¹⁴⁷ Clapper rails within the study area have historically been found in wetland areas such as the Devereux Slough.¹⁴⁸

California least tern, FE (*Sterna antillarum browni*): The California least tern is a migrating waterfowl that nests in coastal areas with sparse vegetation. Threats to the least tern include habitat disturbance and predation.¹⁴⁹⁻¹⁵⁰ Nesting sites have been found on coastal dunes and strand at Vandenberg AFB, Point Sal, and Devereux Slough and around the mouth of the Santa Ynez River.¹⁵¹⁻¹⁵³

Least bell's vireo, FE (*Vireo bellii pusillus*): The least bell's vireo is a summer resident whose habitat consists of oak woodlands and cottonwood-willow woodlands. Loss of riparian habitat, military disturbance, non-native species invasion and predation, and long-term camping threaten the least bell's vireo. A critical habitat area for least bell's vireo is located on the Santa Ynez River, and Vandenberg AFB. However, sightings have been extremely rare.¹⁵⁴ Least bell's vireo have also been found along Devereux Creek and its tributaries.¹⁵⁵

Marine Mammals: The Gaviota Coast study area coast is frequented by marine mammal species such as pinnipeds and cetaceans. Pinnipeds include seals, sea lions and fur seals. Cetaceans include dolphins, porpoises and whales. These species can be viewed from many points along the coast.

Federally-listed threatened and endangered marine mammal species that could potentially be observed

from the coast include stellar sea lions (*Eumetopias jubata*), guadalupe fur seals (*Arctocephalus townsendi*), sperm whales (*Physeter macrocephalus*), blue whales (*Balaenoptera physalus*), humpback whales (*Megaptera novaeangliae*), and fin whales (*Balaenoptera physalus*).¹⁵⁶⁻¹⁵⁷

Pinnipeds such as the Pacific harbor seals (*Phoca vitulina*) and California sea lions (*Zalophus californianus*) use isolated beaches and rocks along the coast for hauling out and pupping grounds. The Santa Barbara County Coastal Plan designated these areas as "Environmentally Sensitive Habitat." Known haul out sites within the study area include locations at Point Sal, Purisima Point, Rocky Point, Point Conception, Jalama, Hollister Ranch, Naples, Ellwood, and the sandy coastal area between Dos Pueblos and Eagle Canyons.¹⁵⁸⁻¹⁶⁴

The southern sea otter (FT) (*Enhydra lutris nereis*) can also be found along the study area coast. Historic populations were reduced by commercial exploitation and human predation. A major oil spill is likely the most serious potential threat. Otters are more susceptible to oil than other species because they lack the insulating layer of blubber that most marine mammals have and instead rely on their thick, air-filled fur for insulation. Contamination by oil would cause the otter fur to lose its insulation. Southern sea otters feed off of extensive kelp beds along the Santa Barbara Channel. Cojo Bay is used seasonally by as many as 200 sea otters. A resident breeding colony exists off the coast of Vandenberg AFB.¹⁶⁵

The Santa Barbara Channel coast is well known for whale watching. Several species migrate through the Santa Barbara Channel. The gray whale (*Eschrichtius robustus*) is commonly spotted in the Santa Barbara Channel. Gray whales use Point Conception as a reference point during migration, and often come within a few 100 meters from the shore.¹⁶⁶⁻¹⁶⁷

Monarch Butterfly Wintering Habitat: In the fall, monarch butterflies west of the Rocky Mountains migrate through the western states and

the southern portions of western Canada to “overwintering” sites along the California sea coast. Monarch butterfly (*Danaus plexippus*) overwintering sites and annual migration are threatened by human activity. Because monarch butterflies are most vulnerable at their overwintering sites, the International Union for Conservation of Nature and Natural Resources classified the migration and overwintering behavior of the monarch butterfly as a “threatened phenomenon.”¹⁶⁸ The Santa Barbara County Coastal Plan considers wintering sites “Environmentally Sensitive Habitat.”¹⁶⁹

Nationally, there are two populations of monarch butterflies located east and west of the continental divide. Both have migrating populations that wait out winter south of the freeze line. This creates spectacular aggregations in California and Mexico. Each winter monarchs aggregate in approximately

25 roosting sites along the study area coast. These overwintering sites have very particular environmental characteristics that are vulnerable, especially to the threat of development.¹⁷⁰

At the eastern end of the study area is one of California’s largest overwintering sites for monarch butterflies, known as Ellwood Main. The massive eucalyptus grove has hosted up to 100,000 monarchs in previous years.¹⁷¹ Monarchs are drawn to Ellwood Main because of the unique combination of eucalyptus groves and topographic site features that protect them from heat, cold, wind and storms. Additional major wintering sites include Upper Wood Canyon and Cojo Ranch Headquarters on Bixby Ranch, Arroyo el Bulito, Canada de Santa Anita, Arroyo del Cementario, Canada Alcatraz, Las Varas Ranch, Dos Pueblos Ranch, Eagle Canyon, and Ellwood North.¹⁷²⁻¹⁷³



monarch butterflies, © Rich Reid / Colors of Nature

Cultural Resources

The study area is rich in cultural resources that illustrate over 10,000 years of human inhabitation. Over 1,000 archeological and historic sites are documented in the study area. These sites span national, state and local levels of significance. While many of these sites have been evaluated as potential National Historic Landmarks or eligible for listing on the National Register of Historic Places, the State Register of Historic Sites, or the Santa Barbara County Landmarks Program, most have not been designated. Table A3: Cultural Resources Inventory in the “Tables” section, includes a list of historic and archeological sites documented within the study area. The Cultural Resources map in the “Maps” section illustrates the approximate location of Chumash village sites at historic contact, land with a high suitability for archeological resources, and historic sites on public land.

The National Register of Historic Places

The National Register is the official Federal list of districts, sites, buildings, structures and objects significant in American history. The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association, and:

- That are associated with events that have made significant contribution to the broad patterns of our history; or
- That are associated with the lives of persons significant in our past; or
- That embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- That have yielded, or may be likely to yield, information important in prehistory or history.¹⁷⁴

ARCHEOLOGICAL RESOURCES

The study area has an impressive archeological record with more than a thousand recorded archeological sites and a total of 193 that have been determined eligible for listing on the National Register of Historic Places to date. Of these 193 sites, 188 are located on Vandenberg AFB. A prehistoric village located near Pillar Point on Vandenberg AFB and twelve sites at Point Conception have been listed on the National Register of Historic Places.¹⁷⁵⁻¹⁷⁶ Surveys at Point Sal have also yielded a high number of important sites that are listed or determined eligible for the National Register.¹⁷⁷⁻¹⁷⁸

Archeological deposits in the study area date back as far as the Paleoindian Period (13,000–8,500 B.P.).¹⁷⁹ Most of the sites inhabited were located at the mouths of rivers and along the seashore where there was an abundance of food.¹⁸⁰ Because development has been limited along the study area coast, the region has many sites that have retained a high degree of integrity.¹⁸¹ The range of sites documented within the study area includes rock art, shrines, village sites, camp sites, cemeteries, organic remains, evidence of trade systems, and evidence various forms of subsistence, including hunting, fishing, and extraction. The analysis of these resources can provide valuable information on the cultural heritage of the region.

Prehistoric Inhabitants: The inhabitants present at the time of historic contact were the Chumash, the native population of people with similar languages that occupied the coast from Malibu to San Luis Obispo. Two groups of Chumash termed the Barbareño and the Purisímeno for their association with the two Spanish Missions, occupied the study area coast. The Barbareño Chumash were based along the Channel Coast east of Gaviota. The Purisímeno Chumash were based west of Gaviota and north of Point Conception.

The abundance of resources within the study area accounted for the richness and cultural complexity of the Chumash in this area.¹⁸²⁻¹⁸³ The unique

environment of the study area east of Point Conception, a south-facing coast with a channel sheltered by the offshore islands, allowed Chumash to develop and make use of the plank canoe, called a *Tomol*, for fishing and trade with other Chumash groups residing in what are now referred to as the Channel Islands. Chumash villages north of Point Conception could not make use of the plank canoe in the rough waters and instead relied on the abundance of shellfish in this area. While the Barbareño and Purisimeno Chumash differed culturally, both groups participated in a regional trade system with other Chumash and Native American groups.

There were approximately fourteen Chumash villages within the study area at the time of historic contact (See Cultural Resources map in the "Maps" section). The largest Chumash village on the California Coast at the time of historic contact was *Mikiw*, located on the west bluff of Dos Pueblos Canyon.¹⁸⁴ Hundreds of Chumash from villages in the study area were connected to the nationally significant La Purisima, Santa Ines, and Santa Barbara Missions. These Chumash were baptized and recruited for work at mission ranches.¹⁸⁵

Most of the Chumash village sites along the study area coast are well preserved as the coast has experienced very little disturbance from subsequent historical development. Archeological deposits within the study area preserve the integrity of association between artifacts and features within chronological strata. A site at the mouth of the Santa Ynez River is one of the oldest sites in Santa Barbara County dating back to the Paleoindian Period (13,000 - 8,500 B.P.), a time when prehistoric people lived in small groups, collecting shellfish and harvesting wild seeds.¹⁸⁶ Research at the village site of *Nocto*, located on Vandenberg AFB, has documented extensive archeological deposits spanning 8,000 years of continuous occupation. The *Nocto* site is also large, covering 100 acres. In some areas, the strata extend up to six meters deep making it the deepest documented site in California.¹⁸⁷⁻¹⁸⁹



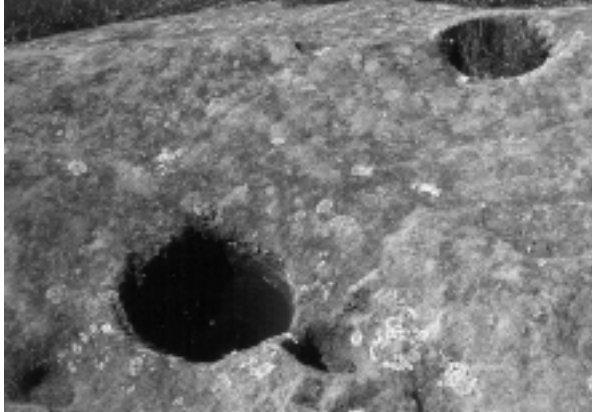
Nocto village site, NPS photo

The village site of *Ataxix* is located in the vicinity of Point Sal. The BLM has surveyed large and dense sites that range from residential to day use areas at Point Sal. These sites represent successive Native American uses from 4,800 to 250 years B.P. The high frequency of archaeological sites found indicates that the entire Point Sal area served as an important use area for the procurement of various marine and terrestrial resources. The BLM proposes to nominate Point Sal as a National Register District for the protection of significant cultural values.¹⁹⁰

Significant Archeological Resources

The study area coast contains a well-preserved archeological record, spanning at least 10,000 years and containing evidence representative of specific time periods in cultural history.

Point Conception, an intact natural and cultural landscape and nationally significant archeological district, was sacred to Chumash in nearby villages at the time of historic contact, and has more recent significance to Chumash descendants, and non-Indians. Between 1978 and 1982, Chumash and many local organizations in Santa Barbara County fought and won a battle to stop the



mortar holes, NPS photo

development of a proposed liquefied natural gas receiving terminal at Cojo Bay near Point Conception.¹⁹¹

Important rock art sites have also been documented in the study area. Seven rock art sites studied on Vandenberg AFB include petroglyphs (carvings), pictographs (paintings), and at least one solar observatory. Two of these sites, Swordfish Cave and *Nocto*, have been determined eligible for listing on the National Register of Historic Places, and five others are recommended as eligible.

According to the County of Santa Barbara's Comprehensive Plan Conservation Element, the entire coastline of Santa Barbara County can be considered an area with a high density of archeological resources. The Cultural Resources Map in the "Maps" section shows areas that have the highest likelihood of archeological findings. The greatest concentrations of undisturbed sites are located between Point Sal and Gaviota State Park.¹⁹² Direct threats to archeological resources include agricultural impacts such as plowing, cattle grazing, bulldozing, as well impacts associated with development including grading for roads and highways, construction of buildings, parking lots, airstrips, and railways. Other examples of threats include water erosion, fire, off-road vehicle use, recreational developments, and unauthorized collecting of artifacts.¹⁹³

The study area offers exceptional potential for research and interpretation that will answer questions about human activities along the coast

over the past 10,000 years. To date, significant portions of the study area have not been extensively surveyed and inventoried. Many of the plants and animals important to the early cultures and the Chumash who resided at these sites are still present, allowing the study and appreciation of these sites in their ecological context. These sites remain important to Chumash families today, many of whom can trace their ancestry to at least eight of the towns on the Gaviota Coast.¹⁹⁴ Chumash organizations such as the Coastal Band of the Chumash Nation, Barbareño Chumash Council, and the federally-recognized Santa Ynez Band of Chumash, continue to use ceremonial sites within the study area. These organizations have also been actively involved in working to protect sacred sites and archeological resources.

HISTORIC RESOURCES

Historic sites significant in the history of California and the nation are also well represented in the study area. This includes the Juan Bautista de Anza National Historic Trail, the Space Launch Complex 10 National Historic Landmark, and sites listed on the National Register of Historic Places.

Historic sites with national significance that have been listed on the National Register of Historic Places include the *SS Yankee Blade* Shipwreck and the Point Conception Lighthouse Historic District, also known as Humqaq. In addition to those sites that have been listed, approximately 108 historic properties have been evaluated as eligible for listing on the National Register of Historic Places. Sixty-nine of these properties, all of which are located on Vandenberg AFB, were evaluated as nationally significant.¹⁹⁵⁻¹⁹⁶

The Juan Bautista de Anza National Historic Trail: The Juan Bautista de Anza National Historic Trail traverses the entire study area along the coastal bluffs (See Cultural Resources Map). Designated in 1990, this historic trail commemorates the route taken by Juan Bautista de Anza in 1775-76. Juan Bautista de Anza's vision for an overland route to Alta California was an integral part of Spanish foreign and colonial policy in the New World. El Capitan, Refugio, and Point

Sal state beaches, Gaviota State Park, and Ocean Beach County Park provide opportunities to interpret the natural environment and the native cultures at the time of the Anza expedition. Campsite locations from the expedition offer additional opportunities for interpretation. The Gaviota Coast represents one of the most significant, intact, historic landscapes along the Anza Trail. "Outside of the California deserts, this is the one place that trail visitors can go to get a feel for what the Anza Expedition would have seen and experienced two centuries ago."¹⁹⁷

Cold War Resources: Vandenberg AFB preserves one of the most comprehensive assemblages of Cold War missile and space launch facilities in the country. The facilities offer opportunities for preservation and interpretation of an important era in American foreign policy and global political influence in the nuclear age.

Vandenberg AFB was established as a missile-testing and training base for missile combat and maintenance crews in 1956. The base also played an important role in the military and civilian space programs of the Cold War period (1946-1989). As the only launch site in the United States that offers a direct and safe flight path for polar-orbiting satellites, it became a major launch site. The satellites launched here provided critical information to decision-makers during the Cold War.

A survey of over 3,000 Vandenberg AFB facilities revealed that 72 facilities were eligible for listing on the National Register of Historic Places (NRHP). These sites are all nationally significant, front-line military systems representing five weapons systems (Thor, Atlas, Titan, Minuteman, and Peacekeeper). Vandenberg AFB is the single richest location for Cold War missile-related facilities in the United States. By comparison, Minuteman Missile National Historic Site represents only one type of weapons system. One of three Thor launch complexes on Vandenberg AFB, the Secretary of the Interior designated Space Launch Complex-10 a National Historic Landmark in 1986. It is the best surviving example of a launch complex built in the 1950s at the beginning of the American effort to explore

space.¹⁹⁸ Space Launch Complex-10 supported Program 437, a military effort to defend against hostile enemy satellites and orbiting weapons under development by the Soviet Union. The Missile Heritage Center at Space Launch Complex-10 tells the history of Vandenberg AFB's Cold War Legacy.¹⁹⁹

The Western White House: A portion of the Rancho del Cielo, often referred to as the "Western White House" during Ronald Reagan's presidency, is located in the northernmost portion of Refugio Canyon. President Reagan visited Rancho del Cielo on a regular basis and often made important policy decisions and radio addresses from this location. In 1981, President Reagan signed into law the largest tax cut in American history at Rancho del Cielo. The ranch was also the site of several notable visits during the Reagan administration. Visitors included Mikhail and Raisa Gorbachev, Margaret Thatcher, and Queen Elizabeth.²⁰⁰ Managed by the Young America's Foundation, the 688-acre site includes one of the original historic adobes from the Mexican land grant era, the Pico Adobe.²⁰¹ The Ranch was recently dedicated a state landmark by the Native Sons of the Golden West and should be further studied to determine its potential as a National Historic Landmark. Although the ranch is significant for events that have happened within the last fifty years, its association with President Reagan and the political events that took place at this location are of transcendent importance to United States history.

Significant Historic Resources: Cold War Period

During the Cold War period, Vandenberg AFB was the only site in the United States from which intercontinental ballistic missiles (ICBMs) were test-launched under operational conditions. The base was also used to train thousands of men and women as missileers and missile maintenance personnel and to launch important military and civilian science application satellites into polar orbits.



Vandenberg AFB, NPS photo

Cultural Landscape: The study area contains elements of the historic ranching land use pattern established by the Spanish and Mexicans during the Mission (1760-1820) and Rancho Periods (1820-1845) that continued into the Americanization Period (1880-1915). It is considered one of the most "outstanding - and last remaining - examples of an historic California coastal ranching landscape."²⁰² The pastoral landscape of the study area has remained largely intact due to stewardship of ranchers, farmers and public land managers such as the U.S. Forest Service and Vandenberg AFB. Many historic adobe buildings and ranch structures remain along the coast, some of which have retained their physical integrity. In addition, there are still remnants of the orchards planted during the Mission period.²⁰³

Ranching activity in the study area dates back to the original land grant of the Ortega family, the Rancho Nuestra Senora del Refugio. The Rancho Nuestra Senora del Refugio stretched from Cojo Canyon to the eastern ridge of Canada del Refugio (Refugio Canyon). It was the only land grant licensed under Spanish rule in what is today Santa Barbara County. Jose Francisco de Ortega served as an expedition scout for the Spanish Portola Expedition in 1769 and reportedly discovered what is now referred to as the San Francisco Bay during the expedition. Ortega played an important role in the founding of the Santa Barbara presidio in 1782. In 1786, after his retirement, Ortega received approval for the Rancho Nuestra Senora del Refugio land grant and subsequently established the Ortega Adobe Ranch in Refugio

Canyon in 1794. Settlements were also established at Tajiguas Canyon, Arroyo Hondo, and Canada del Corral. The ranch at Tajiguas Canyon featured the first lemon orchard planted in California.²⁰⁴

Although a cultural landscape analysis has not been conducted for the study area, the coastal ranching landscape of the area once known as Rancho Nuestra Senora del Refugio still retains much of the same character. While privateers burned the original ranch building at Refugio Canyon in 1818, the Ortega adobes at Arroyo Hondo and Canada del Corral still remain within the study area today.²⁰⁵ The adobe at Arroyo Hondo, and a small orchard planted by the padres at the Santa Ines Mission are still present at the Arroyo Hondo Preserve which is now owned and managed by the Land Trust for Santa Barbara County. The Interim Management Plan for Arroyo Hondo Preserve calls for county historic landmark designation of the Ortega Adobe and management of the preserve to maintain the Spanish-Mexican Era aesthetics.²⁰⁶ The two Ortega adobes remaining in Canada del Corral serve as offices for the Exxon/Mobil Corporation.²⁰⁷

Cultural Landscapes

A cultural landscape is defined as "a geographic area, including both cultural and natural resources and wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values." Cultural landscapes can range from thousands of acres of rural tracts of land to a small homestead with a front yard of less than one acre. These landscapes reveal aspects of our country's origins and development through their form and features and the ways they were used (National Park Service, 1994).

While cultural landscape studies and analyses are underway at Vandenberg AFB, no studies have been undertaken for the south coast portions of the study area.

Several ranches west of Cojo Canyon have also been under continuous ranching operation since the Spanish and Mexican eras. Under the Spanish, these lands were ranched and farmed by the La Purisima Mission. Upon the secularization of the mission system under Mexico in 1834, Mexican ranchers took over mission lands.²⁰⁸ Seven ranchos occupied the study area from Cojo Canyon to Point Sal. These ranches were Jesus Maria, Punta de la Concepcion (La Espada), Lompoc, Guadalupe, Casamalia, Todos Santos y San Antonio, and Mission de la Purisima.²⁰⁹

Sudden Ranch on Vandenberg AFB, and the Cojo and Jalama ranches within the Bixby Ranch, are intact ranches from the San Julian and Punta de la Concepcion land grants. These ranches have retained the landscape character established by the Missions and maintained by Spanish, Mexican, and Americanization Period livestock grazing.²¹⁰ Sudden Ranch, on Vandenberg AFB has been in active ranching and agricultural use since its establishment in 1883. Vandenberg AFB has leased out the land for ranching and agriculture since it was originally purchased for military use. First leased to the Bixby Ranch Corporation in 1968, it is now used for an agricultural work program for the Federal Corrections Institute at Lompoc. Historic surveys of existing ranch complexes on Vandenberg AFB have been undertaken to determine their eligibility for listing on the National Register of Historic Places. The Sudden Ranch complex on Vandenberg AFB has been determined eligible.²¹¹

Cojo and Jalama ranches on the Bixby Ranch properties are still active cattle ranches. Restrictive safety easements for launch missions at Vandenberg AFB limit development on all of Cojo Ranch and a portion of Jalama Ranch. The Bixby Ranch Company plans to continue its operations on portions of the ranch in the future.²¹²

The study area as a whole represents a cultural and scenic landscape and a way of life that is becoming increasingly rare. Agricultural and ranching land use patterns dating from the Mission period have not changed as much as other areas on the central and

southern California coast. This landscape character can be linked to land use patterns established by the La Purisima Mission, Mission Santa Ines, and the Santa Barbara Mission.²¹³⁻²¹⁴

Spanish-Mexican and Californio descendants continue live in the region and many still have ties to the landscape. Before the area's significance as a cultural landscape can be determined, studies are needed to evaluate the historical integrity of the study area as a coastal ranching district, and to assess its contribution to the California and United States agricultural industry.²¹⁵ While Vandenberg AFB has conducted extensive studies evaluating the base's historic resources, many other resources along the coast need further study and investigation to determine their significance and eligibility for listing on the National Register of Historic Places.

Maritime History: The Gaviota Coast study area has a rich maritime history. Historical resources include shipwrecks, wharves/ landings, and marine-based land settlements.²¹⁶ The receding coastline has submerged pre-historic and historic sites. Historic contact dates back to 1542 and the Spanish exploration by Juan Rodriguez Cabrillo. Without natural bays, the study area coastline was difficult for vessels to navigate. To facilitate trade and the exchange of goods, wharves and landings were built along the coast. Much later, lighthouses and rescue stations were constructed to aid in maritime navigation.

Archeological investigations demonstrate the earliest maritime navigation for travel and trade was by the Chumash living along the channel coast. The sheltered waters allowed for use of a canoe called a *tomol*. These vessels were constructed of wood and asphaltum was used to seal the construction. Island groups traded shell beads and soapstone for land resources from the mainland.²¹⁷

During the Mission (1760-1820), Rancho (1820-1845), Anglo-Mexican (1845-1880), and Americanization periods (1880-1915), wharves and ports were established along the Santa Barbara

Channel to supply goods to ranches and missions. One of the earliest sites was the Embarcadero del Rancho El Refugio, which was established as early as 1794 by the Ortega family. The Embarcadero operated as a smuggling port because trade with foreign ships was forbidden by Spanish law. Illegal smuggling took place until the Ortega Adobe in Refugio Canyon was burned by privateers who landed there in 1818.²¹⁸ Cojo Bay also served as an illegal smuggling port for the Mission La Purisima.²¹⁹

During the Rancho, Anglo-Mexican, and Americanization periods, additional wharves and landings were constructed at Point Sal (Chute Landing), Purisima Point (Lompoc Landing), (Meherin Wharf), Honda Creek (Wrecker's Wharf), Point Arguello (Sudden Wharf), and Gaviota (Gaviota Wharf).²²⁰ Small communities often developed around the wharves. The Casmalia Hills/Point Sal area south to Jalama Beach on Vandenberg AFB served as the scene of a thriving dairy industry from the 1870s to the 1930s. During this time the wharves served as departure points for sailing ships carrying butter, cream and grain to San Francisco. Upon their return, ships brought farmers badly needed lumber and manufactured goods. A small community also formed around Lompoc Landing, built in 1879, which included a hotel, restaurant, warehouses, a machine shop, and company housing.²²¹

The railroad came late to the area (1895-1901) due to difficult topography and a national economic crisis known as the Panic of 1893. With the advent of the Southern Pacific Railroad and eventually the automobile, use of the wharves along the Gaviota Coast ended in the early 20th century. The land-based circulation systems followed former Chumash and ensuing Spanish Period trails. They formed a critical link in establishing stage coach and wagon roads that funneled agricultural goods to local communities. Las Cruces, Gaviota Pass, and the Ortega Adobe in Arroyo Hondo served as links in the stage coach lines.

The arrival of the Southern Pacific Railroad affected the landscape as its construction lead to the

creation of cattle scale houses and corrals along the rail line. The stretch of railroad within the study area has been heavily advertised for a century for its coastal scenic values. There are many railroad bridges across the coastal arroyos that still retain physical integrity, and play an important role in the landscape. The railroad affected cattle shipping practices until the advent of trucks in the 1930s. It also played a large role in delivering assistance to shipwreck rescue efforts and provided excursion trains for many who were curious about shipwreck sites.²²²

A number of archeological sites associated with Asian maritime subsistence have been recorded. Asians harvested a variety of marine products and shipped them north to San Francisco and China. Dried seaweed, abalone, and sea lion products were exported from Point Sal and Chute Landing (on Vandenberg AFB) in the 1870s and 1880s. Purisima Point became known locally as "China Point," and historic accounts and archeological evidence indicate that commercial fishing and seaweed harvesting spanned at least 40 years on Vandenberg AFB. Japanese farm laborers also searched the shores for maritime products.²²³

Because of the area's rocky coastline, a large number of shipwrecks occurred along the study area coast. The rocky conditions of the Point Arguello/Point Conception Region made this area the most dangerous along the southern shipping routes between San Francisco and San Diego (Historic American Engineering Record, 1978). Approximately fifty ships are known to have wrecked along the Vandenberg AFB coast alone.²²⁴ One of the most famous was the wreck of the *SS Yankee Blade* in 1854 off of Point Pedernales. The vessel, listed on the National Register of Historic Places, was a Gold-Rush era, side-wheel steamer that struck a rock off Point Pedernales on October 1, 1854. There were 822 passengers, and 122 crew on board. Lost in the wreck were passengers who were deprived of their opportunity to settle in California, crew members, and cargo that included \$153,000 in gold.²²⁵

The Point Conception lighthouse, built in 1856, was the first lighthouse in the study area. This lighthouse and its associated structures are listed on the National Register of Historic Places. Point Arguello, just north of Point Conception, was the location of a second lighthouse, established in 1901. This lighthouse was demolished by the Coast Guard in the early 1950s and replaced by a Long-Range Aid to Navigation (Loran) Station to broadcast maritime navigational signals during World War II. The Loran Station closed in 1979.²²⁶

Even with the assistance of navigation aids, the Point Arguello area remained difficult to navigate. Around the turn of the century, nineteen major shipwrecks occurred in the area.²²⁷ One of the worst naval peacetime disasters recorded in U.S. Navy history occurred in 1923 near Point Pedernales. Seven vessels of the 15 vessel squadron were lost in this dramatic wreck. The lead ship *Delphy* made a fatal error by heading east under the false assumption that the vessels had just entered the Santa Barbara Channel. Following the wreck, the site attracted up to 700 vehicles of sightseers a day. Today the area still attracts visitors interested in this historic event. The 1923 Point Pedernales Naval Destroyer Disaster Site has been evaluated as eligible for listing on the National Register for Historic Places.²²⁸

Additional submerged wrecks located off the study area that have historical significance include:

- The *USS Edith*: having wrecked at Point Sal in 1849, *USS Edith* represents the oldest known steamer and naval vessel lost on the west coast of America;



Point Conception lighthouse, Troy Rentz

- The *SS Gosford*: having caught on fire in Cojo Bay in 1893, *SS Gosford* represents sailing vessels engaged in the international coal trade during the American Industrial Revolution; and
- The *USS McCulloch*: met its fate off the coast of Point Conception where the *SS Governor* struck it off of the foggy coast in 1917. The *SS McCulloch* was part of Commodore George Dewey's Asiatic Squadron.²²⁹

The 1923 Point Pedernales Naval Disaster accelerated plans for a lifeboat rescue station at Point Arguello. The Point Arguello Coast Guard Lifeboat Rescue Station, completed in 1939, was built in the Colonial Revival style. The complex included a headquarters/barracks building, garage, dock, boathouse, and marine railway used for launching boats. The most important incidents that took place during the time of operation were the sinking of the *SS Lone Eagle* after a collision with the *USS Crosby* off Point Arguello, and the grounding of the *SS Iowan* at Government Point.

The rescue station ceased operation on September 8, 1952.²³⁰ A 1978 nomination for the National Register of Historic Places determined that the complex was eligible for listing for its New Deal era architecture, engineering, and landscape architecture. In 1990, Vandenberg AFB cultural resources staff conducted an inquiry on the status of the Point Arguello Coast Lifeboat Rescue Station as part of a cultural resource inventory. The Keeper of the National Register concluded that despite the removal of the boathouse, marine railway and dock in the 1980s, the administrative buildings and associated facilities still remain eligible for listing on the National Register of Historic Places.²³¹

During World War II, two military events involving attacks by the Japanese military occurred along study area coast. The first event, which took place shortly after the United States entered into the war, involved a Japanese submarine attack on the cargo ship *Emidio* just off of Point Arguello. A second significant attack took place on February 23, 1942 when a Japanese submarine shelled the Ellwood oil fields for approximately 20 minutes.

The shells missed the refinery and many landed in nearby farms and ranches. This attack is significant as the first foreign attack on mainland American soil since the War of 1812. Although the incident incurred little physical damage, it had an impact on Americans and their perceptions of security since the attack followed shortly after the bombing of Pearl Harbor. The site of the attack is now the Sandpiper Golf Course in Goleta. A marker on the course commemorates the attack.

While many of the historic maritime sites may not be nationally significant based on their individual attributes, the large concentration of resources connected to historical events along the study area coast makes it an important cultural area. Additional studies are needed to determine the maritime sites' collective significance.



top: Purisima Point; bottom: Ortega Adobe at Arroyo Hondo, © Rich Reid / Colors of Nature

Scenic Resources

Scenery on the Santa Barbara coast is world-renowned. The 76-mile rural coastline is a unique combination of striking scenic beauty and rich biological and cultural resources providing exceptional opportunities for coastal enjoyment. The study area is comprised of bluffs, rocky points, beaches, headlands, bays, and coves along the coast with dramatic scenic views of Los Padres National Forest and the Santa Barbara Channel. According to the Santa Barbara County Coastal Plan, the scenic quality of the area from Gaviota State Park to the Guadalupe Dunes north of Point Sal is a visual resource of national significance.

The study area is a largely undeveloped, scenic, agricultural area with a few canyons containing industrial sites. The historic Point Conception lighthouse and accompanying structures add to its scenic beauty. The majority of Vandenberg AFB is undeveloped and has thus been able to maintain scenic beauty and high wildlife value. The Gaviota Coast study area is the largest continuous stretch of undeveloped coastal land in Southern California. Although the coastal area between Coal Oil Point and Point Sal comprises only 15% of Southern California's Coast, it holds approximately 50% of its remaining rural coastline.



Gaviota State Park, NPS photo

The following is a brief description of the scenic qualities of the Gaviota Coast going from Point Sal east to Coal Oil Point. The Bureau of Land Management completed an inventory of coastal recreation and aesthetic resources of the California coast in 1981. Because the change in scenic

resources has been negligible in the western parts of the study area and the Vandenberg coast, the BLM analysis included in the discussion below is still relevant.

Point Sal Area. The Point Sal area displays a varied geology with excellent exposures of unique features. Dramatic topography including offshore rocks, sandy, and rocky beaches characterizes the coastline at the northern end of the study area near Point Sal. Sand dune headlands and coastal terraces are the principle landforms. Military structures, including missile-firing installations, are sited at Vandenberg AFB. Dunes, the Point Sal headlands, and the Casmalia Hills support a varied wildlife population while the rocky shoreline at Point Sal provides habitat for marine mammals. The most important aesthetic resources in this area include the rocky water's edge and scenic hillsides and shoreline of Point Sal. Oil platform Irene may be seen from this area when visibility allows.²³²

Purisima Point. Long sandy beaches, offshore rocks, and rocky beaches characterize the coastline in the area around Purisima Point. Sand hill headlands and low coastal terraces north and south of Purisima Point are the principal landforms. The rocky shoreline at Purisima Point provides habitat for marine mammals. The Point itself has been identified as one of "the most important aesthetic



Coal Oil Point Beach, NPS photo

resources" in the area, although military structures at Vandenberg AFB dot the landscape. South of Purisima Point to the Santa Ynez River, the area features low coastal terraces, low sand dunes and a flat sandy strand. Ocean Beach County Park, the only public access in the area, also features an

estuary, wetlands, and a stream corridor. Platform Irene may be seen from this area when visibility allows. The coastal route of the Union Pacific Railroad traverses the area along the coast starting south of Purisima Point, offering rail passengers spectacular views of bluffs and headlands against the backdrop of the Purisima Hills.²³³

Santa Ynez River to Jalama. Offshore rocks, sandy, and rocky beaches characterize the coastline in this area. Point Pedernales is a marine mammal haul-out site and a seabird nesting area. Low coastal terraces with rolling, relatively barren foothills extend from south of Point Pedernales to Jalama. Drainage swales meander out of the foothills and cut through the terraces to a rocky shoreline exposed to the north of Rocky Point but slightly more sheltered to the south. The water's edge between Point Pedernales and Rocky Point is described as "exceedingly dramatic" with offshore rocks, rocky intertidal areas, small rocky and sandy pocket beaches accenting wave-cut terraces.²³⁴ The Coast Guard Lifeboat Rescue Station buildings at Point Arguello enhance the picturesque nature of this area. Jalama Beach County Park provides the only public access to this area and features coastal foothills, sandy beaches, and headlands. Several oil platforms are visible from this area when visibility allows. The coastal route of the Union Pacific Railroad traverses the area along the coast, affording rail passengers spectacular coastal views.

Jalama to Coal Oil Point. A moderately rolling high coastal terrace, sandy beaches and coves, and steep, stream-cut canyons leading to the crest of the Santa Ynez Mountain range characterize the coastline in this area. State parks, sandy beaches, popular surfing breaks, riparian canyons, occasional riparian areas at stream outfalls to the ocean, and ocean views of the Channel Islands are among the most important aesthetic features of this area.²³⁵ The area also includes cultural modifications including the presence of offshore platforms and onshore oil and gas infrastructure, a major resort hotel, and residential areas of Goleta and Isla Vista extending from the urban growth boundary eastward to the Coal Oil Point Reserve. The area is traversed east to west by California's main north to south transportation corridor, U.S. Highway 101 and the Southern Pacific Railroad. Miles of power lines parallel the corridor from Goleta to Gaviota. This segment of U.S. Highway 101 is eligible for designation as a California Scenic Highway, but the designation has not been made. However, the County has, in all areas where there are views from U.S. Highway 101 to the ocean, established a View Corridor Overlay designation in the coastal zoning ordinance and local coastal plan. The County Board of Architectural Review reviews all development in this area to ensure that visual resources are protected.



new citrus from Refugio Road, NPS photo



coastal view, NPS photo

Recreational Resources

The Gaviota Coast provides recreational opportunities to a local county population of 400,000. Regionally, the Gaviota Coast is approximately 100 miles from the Los Angeles metropolitan area, the second largest metropolitan area in the country. In addition, the study area is approximately 275 miles from the San Francisco Bay Area, the fifth largest metropolitan area in the nation.

EXISTING COASTAL ACCESS FOR RECREATION

Access to coastal resources varies throughout the study area. Coastal access ranges from strictly private beaches along areas such as Hollister Ranch and highly restrictive public access on Vandenberg AFB to easily accessible state- and county-owned parks and beaches. The following section describes existing coastal access throughout the study area.

Access to Point Sal in the northern end of the study area is difficult. The road access to the state beach is impassable by vehicles due to road failures and wash-outs. Visitors can access this area only if they take the challenging hike in from the north of Point Sal.

Designated beach access along six miles of the Vandenberg AFB coast occurs through Jalama Beach and Ocean Beach county parks except during seasonal restrictions from March through September, to protect the federally-threatened western snowy plover. In 2000, beach access was limited seasonally to a one quarter-mile and one half-mile sections in two locations. All public access is restricted on days when Vandenberg AFB is closed for space and missile launches.

Despite restricted access due to seasonal and periodic closures, Vandenberg AFB allows a limited amount of public access for fishing, wildlife viewing, and beach recreation. Permits and advance reservations are required for public access in areas that are not part of the county parks and beaches. Limited permits are available for fishing on nine miles of the Vandenberg AFB coast. Access



top: view from Amtrak, NPS photo
bottom: El Capitan State Beach, NPS photo

is granted only on weekends and holidays for up to 50 people, although in 1999 typical access was 35 people. A wildlife viewing sanctuary at the Santa Ynez River includes a portion of the estuary that can be viewed from Ocean Beach County Park. The Waterfowl Natural Resource Area, a joint effort between the Vandenberg AFB, La Purisima Audubon Society, and the California Coastal Conservancy, is accessible to groups through Vandenberg AFB on an advance-reservation basis.

Limited public access on Vandenberg AFB has also been proposed for the Bishop Pine Scenic Area; the Barka Slough Trail System; a geological trail through the Point Sal ophiolite complex; a recreational retracement route for the portion of the Juan Bautista de Anza National Historic Trail that passes through Vandenberg AFB; and an interpretive drive to visit major unique and interesting sites on the base. Security concerns and lack of funding have limited Vandenberg AFB from developing some of the controlled access

proposals. Even if developed, some of these areas will likely be restricted to base personnel and base-escorted field trips due to security concerns.

Jalama Beach County Park provides the only public access to the area between the southern boundary of Vandenberg AFB and Gaviota State Park. Jalama Beach County Park features wetlands, bluffs, coastal foothills, and a sandy beach. Located at the mouth of Jalama Creek, it offers a variety of coastal-enhanced and coastal-dependent day and overnight recreational uses. In 1999, the beach had health advisories posted for 192 days. These advisories were triggered by rain events or agricultural runoff.

The land between Jalama Beach and Gaviota State Park is privately-owned and public access is not allowed. Public access from Gaviota State Park east to Coal Oil Point consists of Gaviota State Park, Refugio State Beach, El Capitan State Beach, Haskell's Beach/Bacara Resort, beach access at Sandpiper Golf Course, and the Coal Oil Point Reserve. Generally, the beaches in this area enjoy greater usage with the milder ocean temperatures and meteorological conditions than the beaches north of Point Conception. On U.S. Highway 101, between Gaviota State Park and Refugio State Beach, there are vehicle pull-off areas from which State beaches may be accessed.

In the Ellwood area, Santa Barbara Shores County Park offers no direct access to the beach from the bluff top. However, the beach is accessible as a

normally continuous strand (depending on the tides) extending from Coal Oil Point to Sandpiper Golf Course to the recently improved public access at Haskell's Beach/Bacara Resort. This strand serves as beach access for residents of the western portion of Goleta and Isla Vista.

EXISTING PUBLIC PARKS AND BEACHES

Coastal recreation units in the vicinity of Point Sal include The Nature Conservancy's Nipomo Dunes Preserve to the north and Point Sal State Beach. Point Sal State Beach is currently closed to vehicular access, due to slides and subsequent closure of the access road. Before the access road was closed, access to the State Beach was sometimes restricted during launches at Vandenberg AFB.

Federal lands used for recreational open space include the Los Padres National Forest and Vandenberg AFB. The Los Padres National Forest covers a large portion of the Santa Ynez mountain range in the eastern section of the study area. The Forest Service manages approximately 20,400 acres and features a number of trails. The striking canyons along the coast provide opportunities for trails to connect the Los Padres National Forest to the shoreline. The County recently completed a feasibility study for a coast to crest trail connection on its Baron Ranch property adjacent to Tajiguas Canyon. Additional crest to coast connections are a possibility at the Arroyo Hondo Preserve and the future state park at El Capitan Ranch.



El Capitan State Beach, NPS photo



Gaviota State Park, NPS photo

Vandenberg AFB has conducted several studies to determine sites of cultural and natural significance that could be available for interpretation and public enjoyment. Recreational opportunities on the base include camping, surfing, swimming, diving, picnicking, hunting, fishing, horseback riding, birding, bee-keeping, bicycling, hiking, beach combing, whale watching and off-road vehicle use. While most of these activities and areas are restricted to active and retired duty military and their dependents, there are several existing and proposed recreational areas that are available to the general public on a limited basis.

State parks are classified into specific types based on their natural and cultural resources as well as their location and size. State parks, state beaches, and beaches access areas include: Gaviota State Park, El Capitan and Refugio state beaches, Canada del Leon, Canada San Onofre, Canada del Molino, Canada de Guillermo, Corral Beach, Phillips Tajiguas West and the Gaviota State Park campground. Portions of the El Capitan Ranch were recently acquired by the Trust for Public Land and have been transferred to the state for the development of a new park. County parks include Jalama Beach County Park, Ocean Beach County Park, and Santa Barbara Shores County Park.

Privately managed recreational areas also provide opportunities for public enjoyment within the study area. Arroyo Hondo, recently acquired by the Land Trust for Santa Barbara County, will provide trails for occasional public use. A private campground area with trails is located just north of El Capitan State Beach.

CURRENT PARK VISITATION

Total visitation to parks within the study area exceeded 1.1 million in 1999, not including visitation to the Los Padres National Forest. Visitation trends for individual park units within the study area are incomplete. However, those figures which are available show substantial use. Annual state park attendance within the study area averaged approximately 578,860 during the last six years. Attendance for county parks was 111,980 for July 2001 to June 2002.

Ocean Beach County Park experienced a substantial drop in attendance of 22% in 2002 after the park began annual closures of six months to ensure the survival of the snowy plover. Additional beach access areas for the north County areas have not been provided to compensate for the loss of closures during the snowy plover nesting season. However, future expansion plans for Jalama Beach County Park could assist in alleviating additional demands for beach access created by closures of Ocean Beach County Park.²³⁶⁻²³⁷

COASTAL TRAIL PLANS

The development of a coastal trail along the Gaviota coast has been a high priority for local, state, and federal governments in efforts to provide better public access. The Draft Santa Barbara Coastal Access Implementation Plan identifies important recreational resources along a portion of the proposed Coastal Trail. Resources include beach access, wildlife areas, reefs, coastal lagoons, rocky intertidal areas, tide pools, surfing sites, and monarch butterfly migration habitat. Recommendations for implementing the Coastal Trail include providing more opportunities for vertical easements, proposed coastal trails, and facilities to access the coast. A 3-mile section of the Coastal Trail exists from El Capitan State Park to Refugio State Park, and a ¾ mile section at El Capitan Ranch was recently constructed. A proposed corridor that would connect this trail to Gaviota State Beach is under review by the County of Santa Barbara. Proposed locations for the coastal trail align with the Juan Bautista de Anza National Historic Trail.

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bottom right: John Game; all others, NPS photos



all photos © Rich Reid / Colors of Nature except Point Conception lighthouse by Troy Rentz

3. Significance

The National Park Service (NPS) uses four basic criteria to evaluate the national significance of proposed areas. These criteria, listed in the National Park Service Management Policies, state that a resource is nationally significant if it meets all of the following conditions:

1. It is an outstanding example of a particular type of resource.
2. It possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage.
3. It offers superlative opportunities for public enjoyment, or for scientific study.
4. It retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource.¹

National significance for cultural resources is evaluated by applying the National Historic Landmark evaluation process (See Appendix D).

Background

National Park Service professionals, in consultation with subject matter experts, scholars, and scientists determine whether a study area is nationally significant. Natural and cultural resource experts and scholars, locally, and within the National Park Service, contributed research and technical review for the study area's statement of significance. A list of those who provided information and technical review is included in the section "Study Team and Preparers" at the end of this report.

Nationally significant natural and cultural resource attributes are identified below.

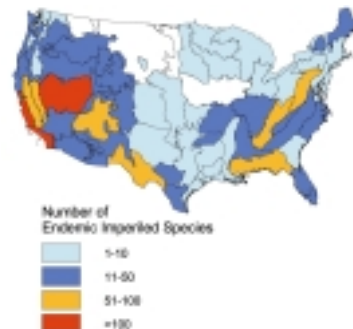
Natural Resources

- ✓ The study area is part of one of the rarest global biomes, the Evergreen Sclerophyllous Forest (Mediterranean communities), characterized by a mild Mediterranean climate caused by the interaction of global weather and cold-water upwelling on the west coast of a continent. It is one of only five such locations in the world that contain this unique climate and associated vegetation.²



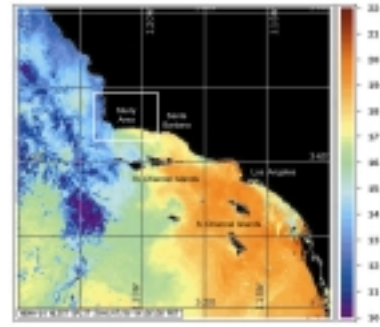
Blueplanet Biomes

- ✓ The study area is the only location in the nation that features an ecological transition zone between northern and southern Mediterranean communities. "The Gaviota Coast is a transition zone among many factors of contrast, perhaps the most significant of which is the transition between central (or northern) California and Southern California. Many northern plant species reach their southern geographic limits north of the Santa Ynez Mountains and many southern species reach their geographic limits south of the Santa Ynez Mountains."³



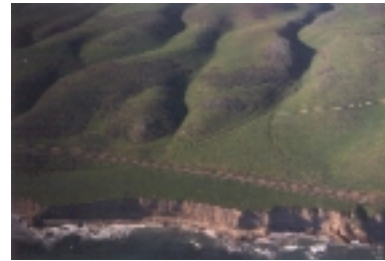
Stein, Kutner, and Adams, 2000

- ✓ The study area borders the biologically diverse marine transition zone attributed to the confluence of two major oceanic currents and the shape of the continental shelf at Point Conception. Marine and terrestrial ecosystems of the study area work together in a "large-scale system of relationships where biophysical processes of land, water and wind work in concert to form unique species and habitats of the Southern California Bight."⁴



NOAA image

- ✓ The Gaviota Coast is the largest continuous stretch of rural coastal land in southern California and the healthiest remaining coastal ecosystem. Although the coastal area between Coal Oil Point and Point Sal comprises only 15% of southern California's coast, it includes approximately 50% of its remaining rural coastline.⁵



NPS photo

- ✓ Rare and endangered habitat in the study area includes bishop pine forest, tanbark oak forest, valley oak woodlands, coastal sage-chaparral scrub, central maritime chaparral, native grassland, wetlands, riparian woodlands, coastal dunes and strand, and marine ecosystems such as kelp beds, sea grasses, and rocky marine intertidal zones.



NPS photo

- ✓ An estimated 1,400 species are found in the study area.⁶ Review of species accounts from various local, state, and federal agencies indicate that the study area includes 24 federally or state-listed threatened or endangered plant and animal species and another 60 species of rare and special concern (including proposed endangered, threatened, candidate, and sensitive).



FWS photo

- ✓ Ophiolitic rock formations in the Point Sal area are nationally significant for their potential of contributions to scientific research on the formation of the earth's crust. The ophiolitic sequence at Point Sal "comes nearest to being complete, and it is also relatively well-exposed in sea cliffs and wave cut patterns." This series is one of the best-exposed and best-studied ophiolites in North America.⁷



Rick Skillin

Cultural Resources

In addition to nationally significant sites listed on the National Register of Historic Places, the four types of cultural resources within the study area that have national significance include: 1) the archeological evidence of more than 10,000 years of Native American habitation, 2) the Juan Bautista de Anza National Historic Trail, 3) the Cold War military resources on Vandenberg AFB, and 4) Rancho del Cielo, once known as the "Western White House."

Significant cultural resource features of the Gaviota Coast are:

- ✓ The Gaviota Coast contains some of the oldest and best-preserved Native American archeological sites in California spanning over 10,000 years. "The archeological resources of the Gaviota Coast are exceptionally valuable due to their relatively preserved state..." These resources are unique to the State of California and the nation.⁸



NPS photo

- ✓ The entire study area coast is traversed by the Juan Bautista de Anza National Historic Trail. The trail commemorates the route taken by Juan Bautista de Anza in 1775-76 when he led a group of colonists from Mexico to found a presidio and mission for New Spain at San Francisco. "The Gaviota Coast represents one of the most significant, intact, historic landscapes along the Anza Trail. Outside of the California deserts, this is the one place that trail visitors can go to get a feel for what the Anza Expedition would have seen and experienced two centuries ago."⁹



NPS photo

- ✓ Nationally significant sites listed on the National Register of Historic Places include the SS Yankee Blade Shipwreck, and the Point Conception Light Station Historic District.



Troy Rentz

- ✓ Vandenberg AFB contains one of the most comprehensive assemblages of Cold War missile and space launch facilities in the country, offering opportunities for preservation and interpretation of an important era in American foreign policy and global political influence in the nuclear age. During the Cold War period, Vandenberg AFB was the only site in the United States from which intercontinental ballistic missiles (ICBMs) were test-launched under operational conditions.¹⁰

Designated in 1986, Space Launch Complex 10 is a National Historic Landmark. It represents the best surviving example of a launch complex built in the 1950's at the beginning of the American effort to explore space. An additional 69 cold war and space launch sites surveyed on Vandenberg AFB have been evaluated as nationally significant by the California State Office of Historic Preservation.



Vandenberg AFB photo



NPS photo

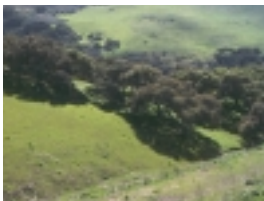
- ✓ The study area is home to the Rancho del Cielo, known as the "Western White House" during President Ronald Reagan's terms in office. Rancho del Cielo was President Reagan's private ranch, and served as the location for historic events and visits from world leaders such as Mikhail Gorbachev and Margaret Thatcher. Even though the Rancho del Cielo is significant for events that have happened within the last fifty years, the association with President Reagan and the political events that took place at this location are of transcendent importance to United States history.



Young America's Fdn photo

POSSIBLE FURTHER SIGNIFICANCE

Additional resources that may be found to be nationally significant include the cultural landscape represented in the ranching land use pattern established by the Spanish and Mexicans and carried on to this day, and the collection of significant historical maritime resources found along the coast. Further research and studies are needed to evaluate the collective significance of maritime resources and the cultural ranching landscape.



NPS photo

- ✓ As one of the last remaining rural landscapes on the southern California coast, the study area has retained much of the character and scenery of its ranching history. Large ranches such as Sudden on Vandenberg AFB, Cojo-Jalama, Santa Anita, and Rancho Refugio have changed little since Mission times.¹¹⁻¹²



HAER photo

- ✓ The Gaviota Coast has a rich maritime history; associated maritime resources include light stations, wharves, shipwrecks, and archeological sites associated with maritime activities of commerce. Areas such as the Point Pedernales disaster site, the worst naval peacetime disaster recorded in U.S. Navy history, have significant potential for interpretation.

Summary Statement: Significance

As described at the beginning of this section, there are four basic criteria for national significance. The following summary demonstrates the extent to which the study area resources meet these criteria:

Criterion 1: It is an outstanding example of several types of resources.

The primary aspect of the study area that sets it apart as an outstanding landscape is that it is the most striking biogeographic transition zone on the west coast of the United States. Because of the unique topography and geology, both oceanic and geographic transitions take place in the study area. The Transverse Ranges form the longest east/ west trending coast on the Pacific shore, excluding Alaska.¹³ These ranges form the terrestrial barrier between northern and southern California species. In addition, the study area contains relic forests such as tanbark oak which remain from ages when the area had a much cooler and wetter environment.¹⁴ The marine transition zone can be attributed to the confluence of the two major ocean currents and the shape of the continental shelf at Point Conception.¹⁵ It is rich in nutrients providing food for juvenile fish larvae, marine mammals, and many resident and migratory bird species adding to richness of the terrestrial ecosystems.

Outstanding cultural resources include nationally significant archeological sites and cold war era historical resources. The study area contains some of the oldest and best-preserved archaeological sites in California spanning over 10,000 years of human occupation.¹⁶ The comprehensive assemblage of Cold War resources at Vandenberg AFB offers opportunities for preservation and interpretation of an important era in American foreign policy and global political influence in the nuclear age.¹⁷

Criterion 2: It possesses exceptional value in illustrating both natural and cultural themes of our nation's heritage.

The National Park Service uses a series of natural and cultural themes to evaluate potential areas for inclusion in the National Park System. The themes are evaluated by two criteria: 1) significance and 2) adequacy of representation within the National Park System. Study area natural and cultural resources possess exceptional value in illustrating the themes represented in the lists below. The section on suitability includes an evaluation of themes represented by resources in the study area in terms of the criteria.

Natural themes: The coastal environment and geological landforms of the Gaviota Coast create one of the most diverse ecosystems in the United States. These resources represent many NPS themes such as:

- *Landforms of the Present*
 - Mountain Systems
 - Seashores, Lakeshores, and Islands
 - Works of Volcanism
 - Eolian Landforms (Sand Dunes)
- *Land Ecosystems*
 - Dry Coniferous Forest and Woodland
 - Mixed Evergreen Forest
 - Chaparral
- *Aquatic Ecosystems*
 - Marine Environments
 - Estuaries
 - Lakes and Ponds (Riparian)

Cultural themes: The archeological and cultural resources on the Gaviota Coast include significant examples of archeological and cultural sites. NPS Cultural Resource Themes represented include:

- *Peopling Places*
 - Ethnic Homelands (Chumash)
- *Shaping the Political Landscape*
 - Military Institutions and Activities (Cold War)
 - Political Ideas, Cultures and Theories (Cold War)
- *Expanding Science and Technology*

Technological Applications (Military and Space Launch Technology)

- *Changing Role of the United States in the World Community*
International Relations (Cold War)
- *Developing the American Economy*
Extraction and Production (Ranching)
Transportation and Communication (Maritime)

Criterion 3: The study area offers superlative opportunities for public use and enjoyment, and scientific study of rich biotic and cultural resources.

The 76-mile rural coastline has striking scenic beauty combined with rich biological and cultural resources that make it unique along the coast of southern California. The south-facing seashore sheltered by the offshore Channel Islands creates a warmer and milder setting for public use and enjoyment.

The ecoregions that transition within the study area are two of the most biologically diverse ecoregions in the world and have some of the highest concentrations of globally important, rare species in the nation.¹⁸ This provides the opportunity for scientific study of many endemic and rare species where they meet their southernmost and northernmost limits. The offshore marine environment provides opportunities for observing many types of marine wildlife. For example, since gray whales use Point Conception as a reference point during their migration, they can often be seen just a few hundred meters from the shore.

The ophiolites at Point Sal have excellent research value. The series is one of the best-exposed and best-studied ophiolites in North America. Detailed study and reconstruction of the California Coast Range ophiolite series has been hindered by tectonic shifting and disruption of the sequence, and by generally poor exposures. The ophiolitic sequence at Point Sal, however, "comes nearest to being complete, and it is also relatively well-

exposed in sea cliffs and wave-cut patterns."¹⁹

The richness and concentration of archeological sites in the study area provide significant opportunities for scientific study of the adaptation of native cultures to the marine coastal environment and their interactions with other coastal groups.²⁰

The study area provides exceptional opportunities for education and interpretation about Cold War era events. These events range from intercontinental ballistic missile and space launches in the 1950s to significant events at President Reagan's Rancho del Cielo.

Criterion 4: The overall study area retains a high degree of integrity as a true, accurate, and relatively unspoiled example of these natural and cultural resources.

The Gaviota Coast is the largest continuous stretch of undeveloped coastal land in southern California. This is significant in that southern California is among the top four areas in the United States with the greatest number of endangered species. The study area is home to 84 rare and endangered species including 24 federally- and state-listed threatened or endangered species, and 60 species of concern and established rarity. With the extensive impacts of urbanization and pollution on much of the southern California landscape, the plant communities within the study area provide a refuge for wildlife populations that have been severely reduced from their former range. Over the past 150 years, development south of the study area has had a significant impact on habitat. For example, wetlands south of the study area have been degraded by flood control measures such as damming, diverting or channeling creeks, grazing livestock, introduction of invasive species, wastewater discharge, stormwater runoff, and development.²¹

Endangered and severely reduced habitats within the study area include riparian areas, native grasslands, coastal dunes and strand, central maritime chaparral coastal sage scrub, and

wetlands.²² Rare habitats include tanbark oak forest and bishop pine forest.²³

Because the study area coast is the largest and healthiest remaining coastal area in southern California, its protection is important to coastal ecosystems such as the Channel Islands National Marine Sanctuary (CINMS), located just off the study area coast.²⁴ The CINMS is internationally recognized as a United Nations, Educational, Scientific and Cultural Organization (UNESCO) biosphere reserve.

The undeveloped nature of the study area coast also accounts for the richness and concentration of archeological sites. The study area offers exceptional potential for research and interpretation that will answer questions about human activities along the coast. Many of the plants and animals important to the early cultures

and the Chumash who resided at these sites are still present, allowing the study and appreciation of these sites in their ecological context.²⁵ In addition, many portions of the area have not been extensively surveyed and inventoried. It is estimated that in the coastal zone from Gaviota to Point Sal, the proportion of archeological sites that are disturbed is estimated at fewer than 10% as compared to 90% for urban areas between Ellwood and Carpinteria.²⁶ The number of sites in the undisturbed areas is unknown. As surveys on Vandenberg AFB have uncovered approximately 1,300 sites, we can assume that areas in the western portion of the study area would yield a high number of sites if comprehensive surveys were completed.

The study area meets all four of the requisite criteria for national significance.

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4. Suitability

Introduction

An area is considered suitable for addition to the national park system if it represents a natural or cultural resource type that is not already adequately represented in the national park system, or is not comparably represented and protected for public enjoyment by another land managing entity, including the private sector or other federal agencies; Tribal, state, or local governments.

Adequacy of representation is determined on a case-by-case basis by comparing the potential addition to other comparably managed areas representing the same resource type, while considering differences or similarities in the character, quality, quantity, or combination of resource values. The comparative analysis also addresses rarity of the resources, interpretive and educational potential, and similar resources already protected in the National Park System or by another land managing entity. The comparison results in a determination of whether the proposed new area would expand, enhance, or duplicate resource protection or visitor use opportunities found in other comparably managed areas.¹

Adequacy of Representation of Themes

The National Park Service (NPS) has developed a thematic framework for evaluating potential and existing units within the national park system. The basic thematic framework includes a series of natural and cultural themes. The framework was developed in the 1960s and the cultural history element has been updated to reflect current knowledge or appreciation of events and trends over the past 40 years.

NATURAL HISTORY THEMES

The Gaviota Coast study area includes unique representation of natural history themes. The study area falls within the South Pacific Border

physiographic region. This region includes the Coast Ranges, the Transverse Ranges, and the Peninsular Ranges of California.² The coastal environment and geological landforms of the Gaviota Coast create one of the most diverse ecosystems in the United States.

The discussion below considers the differences or similarities in the character, quality, quantity, and combination of resource values of the Gaviota Coast study area compared with the resources of the NPS units and other public and privately-owned protected areas. Interpretive and educational potential of these resources is considered as well.

Natural History Themes and Sub-themes Represented in the Gaviota Coast Study Area:³

- *Landforms of the Present*
 - Mountain Systems
 - Seashores, Lakeshores, and Islands
 - Works of Volcanism
 - Eolian Landforms (Sand Dunes)
- *Land Ecosystems*
 - Dry Coniferous Forest and Woodland
 - Mixed Evergreen Forest
 - Chaparral
- *Aquatic Ecosystems*
 - Marine Environments
 - Estuaries
 - Lakes and Ponds (Riparian)

Landforms of the Present

Landforms within the study area include mountain systems, seashores, works of volcanism, and eolian landforms (sand dunes).

Mountain Systems: The mountain systems within the study area are part of the Coast Range and the Transverse Range geomorphic provinces. The Coast Range portion is managed by Vandenberg AFB, and the Los Padres National Forest manages portions of the Transverse Range (Santa Ynez

Mountains). Farther south, the Santa Monica Mountains National Recreation Area manages the southern portion of the Transverse Range.

Seashore: The east west trending of the Transverse Range creates the longest south facing shoreline on the Pacific with the exception of Alaska. The shoreline in the study area is also sheltered by the offshore Channel Islands, creating a warmer, milder environment for coastal species and recreation. The continuous stretch of south-facing seashore from Ellwood to Point Conception cannot be found in any other comparably managed area along the west coast. Agricultural land, including ranchland, row crops and orchards, add to the unique character of the coastal landscape.

The scenic vistas, sandy beaches, rugged and rocky shoreline, and warmer climate provide outstanding opportunities for public use and enjoyment. Recreational activities along the study area coast include world-class surfing, hiking, diving, swimming, sunbathing, beach combing, exceptional marine mammal watching, birding, boating, sport fishing, picnicking, camping, bicycling, horseback riding, nature study, photography, and painting. State and county parks and beaches and private preserves provide for visitor enjoyment.

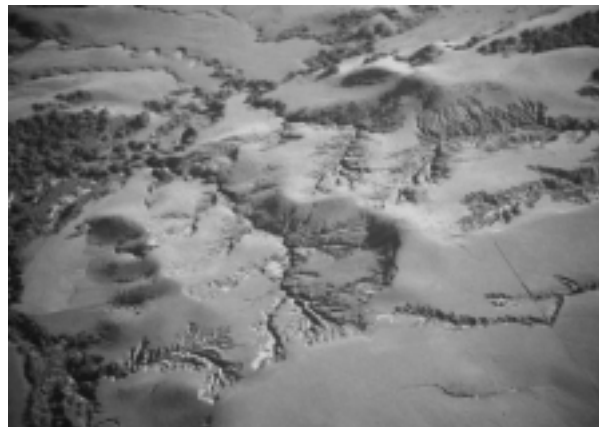
The study area coastal setting is unique in comparison to other park areas in California. The Vandenberg AFB portion of the seashore is similar to Point Reyes National Seashore's landform, which

does not have the same quality as the south-facing seashore from Point Conception to Ellwood. The Channel Islands National Park seashore quality is different from the study area seashore because of the isolated, exposed, and windy conditions experienced on the islands. Santa Monica Mountains and Golden Gate National Recreation Areas are also coastal areas but have an urban setting. The Gaviota Coast study area has natural quiet and dark night skies, qualities that are rare on the California coast. Current protection of this coastline includes small and somewhat disconnected state and county parks and beaches.

Works of Volcanism: Igneous rocks at Point Sal are the best-exposed and best-studied ophiolites in North America. The character and quality of the ophiolites provide exceptional representation of the subtheme, "Works of Volcanism." Because the ophiolitic formations in the Point Sal area are the most complete and well-exposed, compared to other ophiolites found along the west coast from California to Alaska, they provide excellent potential for scientific research on the formation of the earth's crust. Currently, public access to the ophiolites is limited to tours and classes as permitted by managing agencies, which include Santa Barbara County, the Bureau of Land Management, and Vandenberg AFB. Access to and interpretation of, these resources at Point Sal could be improved through partnerships making the resources more available to a larger population. Oregon Caves National Monument also protects ophiolite resources.



study area seashore, NPS photo



Las Cruces area (north of Gaviota State Park), NPS photo

Eolian landforms: Both northern and southern dune systems exist in the study area, representing the subtheme eolian landforms. North of Point Sal is the Guadalupe-Nipomo Dunes Wildlife Refuge which stretches 18 miles to Pismo Beach. These northern-affinity dunes are protected by the US Fish and Wildlife Service. This is one of the last remaining relatively intact ecosystems of its type and size in the western United States.⁴ Because the coastal dunes on Vandenberg AFB and Point Sal are the same affinity as the Guadalupe-Nipomo Dunes Wildlife Refuge, joint efforts to connect and manage the area would expand and enhance the resource, which has been severely reduced from its former range.

Land Ecosystems

Dry coniferous forest and woodland, mixed evergreen forest, and chaparral. The Gaviota Coast study area contains rich biodiversity featuring both northern and southern affinity species that intermingle in the ecological transition zone. This type of transitional area is not yet represented in the National Park System. As the largest contiguous area of undeveloped coastal habitat within the Southwestern Ecoregion, the study area plays a critical role in the survival of many globally imperiled species. The study area includes eight rare and endangered habitat types that represent three sub-themes of land ecosystems: dry coniferous forest and woodland, mixed evergreen forest, and chaparral. These habitat types include: bishop pine forest, tanbark oak forest, valley oak woodlands, coastal sage-chaparral scrub, central maritime chaparral, native grassland, riparian woodlands, coastal dunes and strand. The combination of these resources makes the study area suitable for inclusion in the National Park System.

The study area also provides the only opportunity in California for research and interpretation of the ecological transition zone for Mediterranean vegetation types. Point Reyes National Seashore and Golden Gate National Recreation Area contain only northern affinity species and Santa Monica Mountains National Recreation Area contain only southern affinity species. Channel Islands National

Park has habitat similar to the study area. However, the islands have less species diversity than the mainland coast because of their isolated setting, which has created many species endemic to the islands.

The quality and quantity of riparian habitat in the study area is particularly significant because riparian areas support the highest number of species and have been reduced more than any other habitat in North America. Riparian areas on Vandenberg AFB are some of the most intact and biologically significant. Using bird species as an indicator of species richness, Vandenberg AFB's riparian habitats appear to be the richest in coastal California. Riparian habitat of this quality is not found in any coastal park unit in California.

Aquatic Ecosystems

The aquatic resources of the study area represent three sub-themes: marine environments, estuaries, and lakes and ponds (freshwater wetlands). Rare and endangered aquatic habitat types include rocky intertidal areas, kelp beds, sea grasses, reefs, and wetlands. The area surrounding Point Conception is of great biological significance. It is one of the world's most striking biogeographic boundaries marking the abrupt transition from cold water northern species to warm water southern species. The offshore marine transition zone contributes to the unique mix of species that is not found anywhere else along the Pacific Coast. While Channel Islands National Park and the Marine Sanctuary protect many of the same aquatic systems, the health of this aquatic ecosystem is dependent on the protection of coastal watersheds in the study area. Similar to land ecosystems, the marine transition zone creates a combination of resource values along the coast not represented in other comparably managed areas.

The study area includes a majority of the few **estuarine wetlands** that remain in southern California. Estuaries are protected at Santa Monica Mountains National Recreation Area and Channel Islands National Park. However, estuarine wetlands

in Santa Monica NRA have been degraded due to hydrologic alterations. Point Reyes National Seashore protects estuaries that also contain high species diversity. Species at Point Reyes are of northern affinity while the estuaries of the Gaviota Coast study area contain both northern and southern affinity species.

CULTURAL THEMES

The Gaviota Coast study area contains significant archeological and cultural sites and structures. These sites and structures provide unique representation of NPS cultural resource themes.

Cultural Themes and Topics Represented in the Gaviota Coast Study Area:⁵

- *Peopling Places*
Ethnic Homelands (Chumash)
- *Shaping the Political Landscape*
Military Institutions and Activities (Cold War)
Political Ideas, Cultures and Theories (Cold War)
- *Expanding Science and Technology*
Technological Applications (Military and Space Launch Technology)
- *Changing Role of the United States in the World Community*
International Relations (Cold War)
- *Developing the American Economy*
Extraction and Production (Ranching)
Transportation and Communication (Maritime)

The following discussion considers the differences or similarities in the character, quality, quantity, and combination of the cultural resource values of the study area compared with the resources of the NPS units and other areas owned by other land managing entities. This discussion also addresses interpretive and educational potential.

Peopling Places: Ethnic Homelands

The richness and density of Chumash archeological sites along the Gaviota Coast tells the story of the Chumash habitation within the study area. The

Chumash lived in the Santa Monica Mountains area, the Channel Islands, and along the central coast. By the time the Spanish explorers visited Santa Barbara County, the culture of the Chumash had become one of the most complex in California.⁶ The density of sites within the study area offers exceptional potential for research and interpretation that will address questions about human activity along the coast over the past 10,000 years. Extensive surveying and inventorying of Vandenberg AFB has uncovered some of the most important sites in California. Other portions of the study area that have high suitability for prehistoric occupation have not been extensively surveyed and studied. Many of the plants and animals important to early cultures and Chumash who resided in the study area are still present, allowing the study and appreciation of sites in their ecological context. Much of the southern California coast lacks this quality because sites and context have been altered by development.

Currently, both Santa Monica Mountains NRA and Channel Islands NP contain Chumash archeological sites and interpret their story, but in different



rock art at Tranquillon Peak, Rick Skillin

ecological settings and prehistoric context. The archeological sites within the study area provide the potential to expand and enhance the existing archeological record at Santa Monica Mountains NRA, Channel Islands NP, and Vandenberg AFB. A coordinated interpretive approach would tie the stories of the different Chumash groups together providing new education opportunities.

Shaping the Political Landscape: Military Institutions and Activities and Political Ideas, Cultures and Theories; Expanding Science and Technology: Technological Applications (Military and Space Launch Technology); and Changing Role of the United States in the World Community: International Relations.

Many cultural sites relating to the Cold War era within the Gaviota Coast study area provide representation of the above cultural themes: Vandenberg AFB's role in the military and civilian space programs provides representation of the Cold War era (1946-1989). It contains one of the most comprehensive assemblages of Cold War missile and space launch facilities in the country. Seventy-two facilities surveyed for listing on the National Register of Historic Places are all nationally significant, front-line military systems representing five weapons systems (Thor, Atlas, Titan,



Vandenberg Air Force Base

Minuteman, and Peacekeeper).⁷ Vandenberg AFB is the only site where intercontinental ballistic missiles (ICBMs) were test-launched under operational conditions. Thousands of missile combat and maintenance crews received their training at the installation.

As the only launch site in the United States that offers a direct and safe flight path for polar-orbiting satellites, it became a major launch site for satellites providing critical information to decision-makers during the Cold War. The National Park

Service conducted a "Man in Space" National Historic Landmark Theme Study in 1984 to evaluate all resources which related to the theme of Man in Space and to recommend a number of resources for designation as National Historic Landmarks. The study found Space Launch Complex-10 to be the finest remaining example of a 1950s-era launch complex in the country.⁸ Following the study, this site was designated a National Historic Landmark.

The assemblages of Cold War missile and space launch facilities at Vandenberg AFB offer opportunities for preservation and interpretation of military and space launch technology, which have not yet been covered adequately in the National Park System. Minuteman Missile National Historic Site represents only one type of weapons system, the intercontinental ballistic missile (ICBM). Cape Canaveral Air Station in Florida is the only other installation in the United States that approaches the Cold War significance of Vandenberg AFB in terms of its contribution to the nation's ballistic missile and space programs.⁹ The adjacent Canaveral National Seashore has a visitor center that interprets the space program.

Rancho del Cielo, President Reagan's private ranch and "Western White House" served as the location for historic events related to the Cold War era and visits from world leaders during the President's term in office. His ranch was the site of several notable visits during his administration. The ranch is preserved in its Presidential-era condition by the Young America's Foundation, and managed for educational purposes. Because of the significant events that took place at Rancho del Cielo, this site provides the opportunity for interpretation of President Reagan's role during the Cold War era. Even though this site is not yet 50 years old, it could still be eligible for listing on the National Register of Historic Places because of its relationship to an American President and political events of transcendent importance. The Ronald Reagan Boyhood Home NHS was recently authorized.

Developing the American Economy: Extraction and Production (Ranching). As one of the last remaining rural landscapes on the southern California coast, the study area has retained much of the character and scenery of its ranching history. The landscape of historic ranches such as Sudden, Cojo-Jalama, Santa Anita, and Rancho Refugio has changed little since Mission times and provides opportunities for research and visitor interpretation. Historic ranching operations are currently represented at several units in the park system, including Point Reyes National Seashore, Santa Monica National Recreation Area, and Grant-Kohrs Ranch. The ranching operations that continue at Point Reyes correlate closely to the activities on the Gaviota Coast, due to similarities in topography and geographic location. More studies, including cultural landscape analysis, would need to be conducted in order to determine whether the ranching resources of the study area are suitable in comparison to other areas in the National Park System.

Transportation and Communication (Maritime). The study area has a rich maritime history dating back to Chumash use of the plank canoe for fishing and trade with Chumash islanders. Historic maritime events continued as the area was explored and settled by others. Because of the area's rocky coastline, a large number of shipwrecks occurred along the study area coast. The *SS Yankee Blade* shipwreck, listed on the National Register of Historic Places, was a Gold-Rush era side-wheel steamer that struck a rock off Point Pedernales in 1854. In 1923, the Point Pedernales Naval Destroyer Disaster was one of the worst naval peacetime disasters recorded in U.S. Navy history. Seven of fifteen vessels were lost in this dramatic wreck. In addition to shipwrecks, wharves/landings, lighthouses, and marine based land settlements are other structures related to maritime history. The many types of maritime resources provide opportunities to expand and enhance existing interpretation of maritime resources at parks such as San Francisco Maritime NHP and Point Reyes NS. Further studies are needed to evaluate the quality and rarity of the resources in comparison to those protected at other park units.



barn at Sudden Ranch, NPS photo

Table 5: Suitability Analysis

THEME	SUITABILITY ANALYSIS FOR THE GAVIOTA COAST STUDY AREA
Natural History Themes	
<i>Landforms of the Present</i>	
Seashores	<ul style="list-style-type: none"> ▪ Quality, quantity, character: Ellwood to Point Conception is longest south-facing shoreline on the Pacific Coast (with the exception of Alaska), sheltered by the offshore Channel Islands, creating a warmer, milder environment for coastal recreation. ▪ Rarity: approximately 50% of remaining southern CA rural coastline; continuous stretch of undeveloped coastline. ▪ Interpretive / educational potential: coordinate increased public access and interpretation opportunities. ▪ Similar resources protected: unique in comparison to Point Reyes National Seashore and other park units because of coastal setting and south-facing shoreline.
Works of Volcanism	<ul style="list-style-type: none"> ▪ Quality, quantity, character: ophiolitic remnants found at Point Sal are one of the best-exposed and best-studied ophiolites in North America. ▪ Rarity: other ophiolites occur along the west coast but do not have same quality as at Point Sal. ▪ Interpretive / educational potential: potential for scientific research on formation of Earth's crust; currently limited guided groups have access. ▪ Similar resources protected: Oregon Caves National Monument also protects ophiolites.
<i>Mountain Systems</i> <i>Eolian Landforms (sand dunes)</i>	<i>The quality and character of these two landforms are already represented by the National Park Service and protected by other land managing agencies. Although the portion of the Transverse Range within the study area and the northern and southern dune complexes do not make the area suitable alone, they do contribute to the suitability of other features including biodiversity.</i>
<i>Land Ecosystems</i>	
Dry Coniferous Forest and Woodland Mixed Evergreen Forest Chaparral	<ul style="list-style-type: none"> ▪ Quality, quantity, character: rich biodiversity features both northern and southern affinity species that intermingle in the ecological transition zone. <ul style="list-style-type: none"> – Eight rare and endangered types of land-based habitat within the study area include: bishop pine forest, tanbark oak forest, valley oak woodlands, coastal sage-chaparral scrub, central maritime chaparral, native grassland, riparian woodlands, coastal dunes and strand. – Quality and quantity of riparian habitat on Vandenberg AFB is particularly significant. ▪ Rarity: combination of these habitats is very rare. ▪ Interpretive and educational potential: provides only opportunity in California for education and interpretation of the ecological transition zone of Mediterranean vegetation types. ▪ Similar resources protected: other areas protect certain habitats but none have the quality and combination of the study area.

THEME	SUITABILITY ANALYSIS FOR THE GAVIOTA COAST STUDY AREA
<i>Aquatic Ecosystems</i>	
<p>Marine Environments</p> <p>Estuaries</p> <p>Lakes and Ponds</p>	<ul style="list-style-type: none"> ▪ Quality, quantity, character: rich biodiversity, including cold water northern species to warm water southern species, due to offshore marine transition zone. <ul style="list-style-type: none"> – Rare and endangered aquatic habitat include rocky intertidal areas, kelp beds, sea grasses, reefs, and wetlands. – Includes many of the few estuarine wetlands in S. California. ▪ Rarity: mix of species not found anywhere else along Pacific Coast. ▪ Interpretive and educational potential: South Coast Marine Intertidal Zone that stretches from Point Conception to Ellwood is of great interest to biogeographers because of the offshore marine transition zone; opportunities exist for scientists to conduct research of riparian resources at Vandenberg AFB. ▪ Similar resources protected: Channel Islands National Park protects many of the same aquatic systems; Santa Monica Mountains National Recreation Area also protects estuaries. These estuaries have been degraded by hydrologic alterations.
Cultural Themes	
<i>Peopling Places</i>	
<p>Ethnic Homelands (Chumash)</p>	<ul style="list-style-type: none"> ▪ Quality: richness and density of Chumash archeological sites well preserved with western portion of the study area mostly undisturbed. ▪ Quantity: 1,300 sites inventoried on Vandenberg AFB; surveys at Point Sal and Point Conception have yielded high number of sites listed or eligible for listing on National Register . ▪ Character: many plants and animals important to early cultures and Chumash who resided in the study area are still present, allowing the study and appreciation of sites in their ecological context. ▪ Rarity: extensive surveying and inventorying of Vandenberg AFB has uncovered some of the most important sites in California. ▪ Interpretive and educational potential: archeological sites within study area provide potential to expand and enhance the existing archeological record at Santa Monica Mountains National Recreation Area and Channel Islands National Park. <ul style="list-style-type: none"> – Coordinated interpretive approach with Santa Monica Mountains NRA and Channel Islands NP would tie the stories of the different Chumash groups together. ▪ Similar resources protected: both Santa Monica Mountains NRA and Channel Islands NP protect archeological sites and interpret their story, but in different ecological settings and prehistoric context.
<p>Many cultural sites relating to the Cold War era represent the following themes:</p> <p><i>Shaping the Political Landscape</i></p> <p><i>Expanding Science and Technology:</i></p> <p><i>Changing Role of the United States in the World Community</i></p>	
<p>Military Institutions and Activities and Political Ideas, Cultures and Theories</p> <p>Technological Applications (Military and Space Launch Technology)</p> <p>International Relations</p>	<p>Vandenberg AFB resources related to the Cold War era</p> <ul style="list-style-type: none"> ▪ Quality, quantity, character: Vandenberg AFB played an important role during the Cold War era; became a major launch site for satellites providing critical information to decision-makers during the Cold War. <ul style="list-style-type: none"> – Vandenberg AFB contains one of the most comprehensive assemblages of Cold War missile and space launch facilities in the country.

THEME	SUITABILITY ANALYSIS FOR THE GAVIOTA COAST STUDY AREA
	<p>– Man in Space” National Historic Landmark Theme Study found that Vandenberg AFB contained the finest remaining example of a 1950s-era launch complex in the country and resulted in the designation of Space Launch Complex 10 National Historic Landmark.</p> <ul style="list-style-type: none"> ▪ Rarity: best example of an installation whose programs contributed to Cold War effort. – Only launch site in the United States that offers a direct and safe flight path for polar-orbiting satellites. ▪ Interpretive and educational potential: resources offer opportunities for preservation and interpretation of an important era in American foreign policy and global political influence in the nuclear age; NPS could supplement Vandenberg AFB’s resource protection with historical interpretation and education. ▪ Similar resources protected: Minuteman Missile NHS represents only one type of weapons system, the intercontinental ballistic missile (ICBM) while Vandenberg AFB represent 5 types of weapons systems. – Only one other installation in the United States, Cape Canaveral Air Station in Florida, approaches the Cold War significance of Vandenberg AFB in terms of its contribution to the nation’s ballistic missile and space programs.¹⁰ <p>Rancho del Cielo</p> <ul style="list-style-type: none"> ▪ Quality, quantity, character: Rancho del Cielo, President Reagan’s private ranch and “Western White House” served as the location for historic events and visits from world leaders during the President’s term in office. – Even though this site is not yet 50 years old, it could still be eligible for listing on the National Register of Historic Places because of its transcendent significance. ▪ Rarity: only one of its kind. ▪ Interpretive and educational potential: managed by the Young America’s Foundation for educational purposes. ▪ Similar resources protected: over 30 sites associated with Presidents and politics including the recently authorized Ronald Reagan Boyhood Home NHS.
<p><i>Developing the American Economy (further studies are needed to evaluate the quality and rarity of the resources)</i></p>	
<p>Extraction and Production (ranching)</p>	<ul style="list-style-type: none"> ▪ Quality, quantity, character, and Interpretive and educational potential: study area has retained much of the character and scenery of its ranching history; the landscape of historic ranches such as Sudden, Cojo-Jalama, Santa Anita, and Rancho Refugio has changed little since Mission times and provide opportunities for research and visitor interpretation. ▪ Similar resources protected: historic ranching operations are currently represented at several units in the park system, including Point Reyes National Seashore, Santa Monica Mountains NRA, and Grant-Kohrs Ranch. – More studies, including cultural landscape analysis, are needed in order to determine whether the ranching resources of the study area are suitable in comparison to other areas in the National Park System.

THEME	SUITABILITY ANALYSIS FOR THE GAVIOTA COAST STUDY AREA
Maritime: Shipwrecks, Lighthouses	<ul style="list-style-type: none"> ▪ Quality, quantity, character: shipwrecks, wharves/landings, lighthouses, and marine based land settlements protected. <ul style="list-style-type: none"> – The <i>SS Yankee Blade</i> shipwreck and Point Conception lighthouse are listed on the National Register of Historic Places. – Because of area's rocky coastline, large number of shipwrecks occurred along the study area coast. ▪ Rarity: other shipwrecks, lighthouses elsewhere. ▪ Interpretive and educational potential and similar resources protected: the many types of maritime resources provide opportunities to expand and enhance existing interpretation of maritime resources at parks such as San Francisco Maritime NHP and Point Reyes NS. <ul style="list-style-type: none"> – Further studies are needed to evaluate the quality and rarity of the resources.

Summary Statement: Suitability

Based upon evaluation of the study area resources and their relative quality, character, and rarity, the National Park Service has determined that the Gaviota Coast study area is suitable for inclusion in the National Park System for its representation of natural history and cultural themes.

The natural resource types that are not yet adequately represented in the National Park System include the south-facing seashore and the species diversity created by the terrestrial and marine transition zones between northern and southern California. Cultural resource types that are not yet adequately represented in the National Park System include the rich Chumash archeological resources representing 10,000 years of human occupation and the historical resources related to the Cold War era.

Notes

1. National Park Service. 2001. *National Park Service Management Policies*. United States Department of the Interior.
2. National Park Service, 1990b. *Natural History in the National Park System and on the National Registry of Natural Landmarks*. Natural Resources Report, NPS NR NRTR-90/03.
3. National Park Service, 1990b.
4. United States Fish and Wildlife Service (USFWS). July 2000 (2000a). *Proposed Guadalupe-Nipomo Dunes National Wildlife Refuge*. U.S. Fish and Wildlife Service, Ventura, California.
5. National Park Service 2000. *History in the National Park Service: Themes & Concepts*.

[<http://www.cr.nps.gov/history/hisnps/NPStinking/themes/concepts.htm>]

6. California State Office of Historic Preservation. October 1985. *California Comprehensive Heritage Resource Management Plan: Santa Barbara County Element*. Written by Dr. L. Mark Raab and the Santa Barbara County Heritage Planning Group for California State Office of Historic Preservation. Sacramento, CA.
7. U.S. Army Corps of Engineers. 1998. *Vandenberg Air Force Base, Cold War Pioneer*. Legacy Project Number 734.
8. National Park Service. 1984. Written by Dr. Harry A. Butowsky for the National Park Service. *Man in Space: A National Historic Landmark Theme Study*.
9. U.S. Army Corps of Engineers, 1998.
10. U.S. Army Corps of Engineers, 1998.



all photos: NPS



5

Feasibility



Top photo: NPS, bottom photos © Rich Reid / Colors of Nature

5. Feasibility

Introduction

To be feasible as a new unit of the National Park System, an area must:

- (1) be of sufficient size and appropriate configuration to ensure sustainable resource protection and visitor enjoyment (taking into account current and potential impacts from sources beyond proposed park boundaries); and
- (2) be capable of efficient administration by the NPS at a reasonable cost.

In evaluating feasibility, the NPS considers a variety of factors, such as: size; boundary configurations; current and potential uses of the study area and surrounding lands; land ownership patterns; public enjoyment potential; costs associated with acquisition, development, restoration, and operation; access; current and potential threats to the resources; existing degradation of resources; staffing requirements; local planning and zoning for the study area; the level of local and general public support; and the economic/ socioeconomic impacts of designation as a unit of the national park system. The feasibility evaluation also considers the ability of the NPS to undertake new management responsibilities in light of current and projected constraints on funding and personnel.¹

Feasibility Issues

BOUNDARY SIZE AND CONFIGURATION

An acceptable boundary for an envisioned unit of the National Park System should provide for the inclusion and protection of the primary resource; sufficient surrounding area to provide a proper setting for the resource or to interrelate a group of resources; and sufficient land for appropriate use and development.

The Gaviota Coast Feasibility Study area includes approximately 215,000 acres of land along 76 miles of coastline. The study area includes the

coastal watersheds and all of Vandenberg AFB. The study area includes and protects nationally significant resources and provides a setting for these resources. Public access and visitor facilities are provided by federal, state, and county governments, and private organizations. Areas smaller than the full study area could also be of adequate size for NPS designation.

LAND USE, OWNERSHIP PATTERNS, PLANNING AND ZONING

Vandenberg AFB (99,500 acres, 46% of the study area). The primary purpose of the base is to support space and missile launch activities, however 67% of the base is unimproved and contains significant natural and cultural resources as well as limited public recreation opportunities. Base security, launch safety and encroachment of other uses onto the base and nearby lands have been primary concerns of the US Air Force throughout this study process. In addition, recent world events have led to heightened security at military bases and placed the potential for increased public access at Vandenberg AFB in question.

Los Padres National Forest (20,400 acres, 9.5% of the study area). These lands are currently managed by the US Forest Service (USFS) for multiple use, including public recreation. Inclusion of National Forest-managed lands within a national park unit boundary is a viable option. However, this approach generally is used in the context of direct NPS management of other nearby land, and coordinated management between the two agencies. Transfer of land from the USFS to the NPS is also possible, but Congress and the USFS have been increasingly unwilling to support this type of transfer.

California State Parks and Beaches (5,500 acres, 2.5% of the study area). These lands are currently managed by the California Department of Parks and Recreation for public recreation and resource protection purposes. Inclusion of state park lands within a national park unit boundary is

possible, but would make sense primarily in the context of direct NPS management of other nearby land, and coordinated management between the two agencies. State park land has at times been transferred to NPS for management, but the trend in recent decades has been toward collaborative management of related national and state parks.

Private Land (87,930 acres, 41% of the study area). Private lands in the study area include agricultural land, residences, industrial areas and commercial facilities. A substantial amount of the private property within the study area is owned in large tracts. Over 50,000 acres within the study area are held within 11 tracts of 1,000 acres or more, including 24,250 acres of Bixby Ranch. Most of this land is currently zoned agricultural, with minimum lot sizes of 100-320 acres.

A number of landowners within the study area have communicated to the NPS that they are unwilling to sell their land to the NPS. The NPS has not asked any landowners to sell; this information has been provided independently by the landowners. A substantial number of additional landowners have written to the NPS to indicate either their opposition to NPS involvement in the area or their desire that this feasibility study be stopped. These landowners are also assumed to be unwilling sellers. The landowners thus expressing their lack of interest in selling land to the NPS represent a significant majority of the private land within the study area.

ACCESS AND PUBLIC ENJOYMENT POTENTIAL

The study area is just outside the City of Santa Barbara and includes a portion of the newly incorporated City of Goleta. The southern and eastern section of the study area is easily accessible by U.S. Highway 101, although coastal access is limited in some areas by private land and the small number of freeway exits and turnouts. The coastal shelf, or area between the foothills and shore, is narrow in certain places, leaving little room for other roads or parking. El Capitan and Refugio state beaches and Gaviota State Park provide parking and other amenities for recreational visitors. Coastal

access west of Gaviota State Park is very limited, due to large private land holdings closed to the public at Hollister, Western Gate and Bixby Ranches. Beach access is available at Jalama Beach County Park, between Bixby Ranch and Vandenberg AFB.

The north half of the study area is predominantly occupied by Vandenberg AFB. Public access to the coast is limited to Ocean Beach and Surf Beach, within a public right-of-way which cuts through the base from Lompoc. Public use of these beaches is also restricted seven months of the year during the nesting season of the federally-listed threatened western snowy plover. Point Sal State Beach just north of the base is currently accessible only to hikers due to poor road conditions.

Scenery on the Santa Barbara coast is world-renowned. Striking coastal views are available from U.S. Highway 101 and existing publicly accessible lands. The coastal route of the Southern Pacific Railroad traverses much of the study area's coastline, affording rail passengers spectacular coastal views, including along private and military land otherwise closed to the public.

Public enjoyment potential within the study area is significant, including opportunities for a wide variety of recreational activities, including world-class surfing, hiking, diving, swimming, sunbathing, beach combing, whale watching, birding, boating, sport fishing, picnicking, camping, bicycling, horseback riding, nature study, photography, and painting.

EXISTING RESOURCE DEGRADATION AND THREATS TO THE RESOURCES

Natural and cultural resources within the study area are generally of high quality and have a high degree of integrity. Santa Barbara County has a long history of resource protection through zoning and conservation programs. Nevertheless, there are current impacts to these resources, and threats of further impacts.

- A combination of residential, commercial and industrial uses, roads, grazing and irrigated agriculture have, in many areas, replaced

native vegetation with pavement, buildings, and non-native vegetation. Existing commercial and industrial facilities include a 360-room resort on the coastal bluff with recreational and conference facilities, three oil processing facilities, and the county landfill. Roads include U. S. Highway 101, a major limited-access freeway close to the coast.

- Water quality has improved in recent decades, but is still problematic. Between 1996-98 the seven Santa Barbara County beaches experienced 1,485 beach advisories and 850 beach closures due to water quality problems. The majority of these closures were attributed to high bacteria counts.
- Impacts to scenic resources include the residential, commercial and industrial land uses mentioned above, plus utility poles and lines that traverse much of the coast alongside the roads and highways.
- The study area contains 24 federally or state-listed threatened or endangered plant and animal species and another 60 species of rare and special concern. These species are threatened by a variety of factors, including residential, commercial, industrial and agricultural development, human disturbance, invasive species, trampling, soil loss, predation, beaver activity, instream barriers, reduced water flow, water quality, aquifer drawdown, and off-road vehicles.
- The distinctive oak woodlands of the study area may be threatened by Sudden Oak Death (*Phytophthora ramorum*). Bishop pine forest in the area may be threatened by a fungal disease known as pitch canker.
- Archeological and historic sites are threatened by urban growth, agricultural development, erosion, fire, off-road vehicle use, unauthorized collecting of artifacts, and vandalism. The ranching landscape of the area is threatened by economic changes that make ranching less economically viable.
- Additional development of land will likely occur within the study area within the limits set by existing zoning. Several large ranches

have been put on the market in recent years at prices that could not be economically supported by continued ranching. Golf courses have been proposed. The right to higher density development than current zoning would allow has been established by a court decision at Naples. Further development throughout the study area could occur if policy changes are made by the Santa Barbara County Board of Supervisors or the California Coastal Commission.

PUBLIC INTEREST AND SUPPORT

Public interest in the Gaviota Coast Feasibility Study process has been extremely high throughout the study process. Public opinion has been highly polarized, including both strong support for, and strong opposition to, NPS involvement on the Gaviota Coast, as well as support for and opposition to, completion of the feasibility study process. The NPS has received thousands of letters, postcards, petition signatures, and e-mail messages representing this range of perspectives.

Landowners within the study area appear to overwhelmingly oppose NPS involvement in the area. Several local groups have formed to oppose NPS involvement, and/or to develop plans for locally-based conservation of the area's resources. These groups include Common Ground, the Gaviota Study Group, and the Coastal Stewardship Council. National and regional organizations have organized their members to communicate with the NPS about the study process, including the Sierra Club, Surfrider Foundation, National Parks Conservation Association, and the American Land Rights Association.

SOCIAL AND ECONOMIC IMPACT

Designation of the Gaviota Coast study area or some portion of it as a unit of the National Park System would likely have a number of economic and social impacts on the area, both beneficial and adverse.

Social and economic impacts of NPS designation could vary widely depending on the size and scope of the park unit, the management approach, amount of public land acquisition, and external

variables such as local, regional and national economic forces, and the actions of local public and private organizations and individuals.

Possible socioeconomic impact topics could include: visitation to the area, visitation to other parks and attractions, traffic levels, road maintenance and improvements, short term impacts to the local economy from development of new facilities, expenditures from park operations and park staff, expenditures by visitors, sales and hotel tax revenues from visitor expenditures, visitor-related businesses, law enforcement costs, trespass on private lands, tax base, property tax revenues, changes in property values, and housing availability.

COSTS ASSOCIATED WITH ACQUISITION, DEVELOPMENT, RESTORATION AND OPERATION

Land acquisition. No formal land cost estimates have been done as part of this feasibility study. However, numerous properties in the area have been sold or offered for sale in recent years. Using those properties as a guide, land values appear to range from \$2,500 to \$10,000 per acre for land with limited development potential. Properties with houses or significant development potential appear to sell for \$30,000 to \$100,000 per acre and up.

Without detailed land cost estimates, some general estimates using basic assumptions can still provide a sense of what land acquisition costs could be for a unit of the National Park System in this area. A National Seashore with 30,000 acres to be acquired at \$5,000 per acre would cost \$150 million. A National Reserve with 2,500 acres to be acquired could cost \$15 million, assuming acquisition of 2,400 acres at \$5,000 per acre, and 100 acres of critical, development prone land at \$30,000 per acre. These are very rough scenarios for NPS land costs only, and do not include typical overhead costs for land acquisition such as title, appraisal, survey, and environmental site assessment; nor do they attempt to reflect what existing public and private organizations might contribute in funds or land to the establishment of a possible park unit.

Over the last five years, NPS land acquisition

budgets nationally have ranged from approximately \$75 million to \$139 million. Few parks receive more than \$3 million in any given fiscal year for land acquisition. Funds for land acquisition are highly competitive, and considerable public and political support is necessary for significant funding to be appropriated.

Development Costs. No formal estimates of development costs have been undertaken as part of this feasibility study. Development costs of new national park units vary widely, depending on the existing conditions and facilities, and the types of conditions and facilities desired. New national park units frequently invest resources in inventorying and documenting the resources in the park, developing management or treatment plans for those resources, developing educational and interpretive materials, and developing or improving facilities for visitors and for park operations.

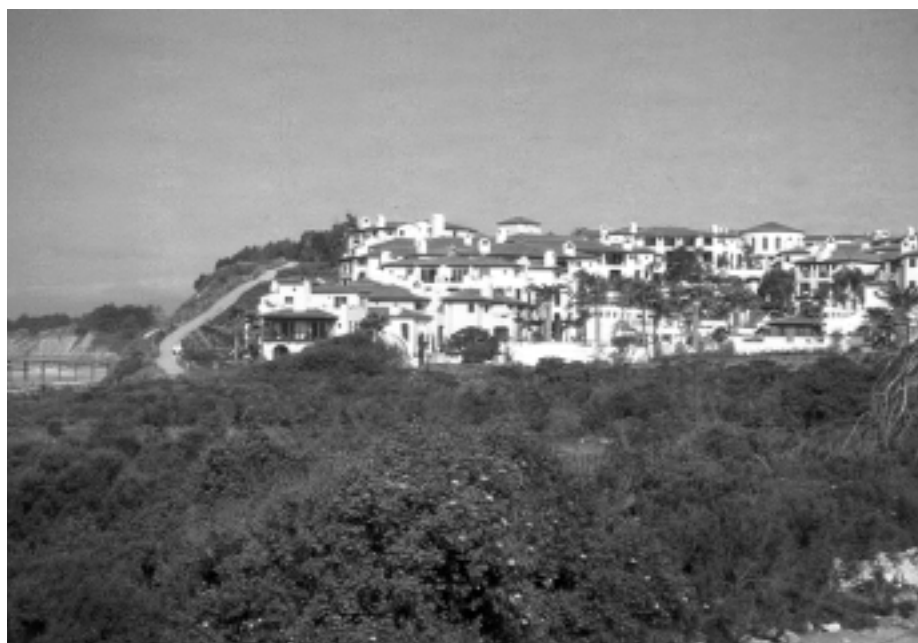
Operations Costs. Operations costs of national park units vary widely, depending on the amount and type of resources managed, number of visitors, level of programs offered, safety and security issues, and many other factors. Table 6: National Park Unit Annual Operating Budget shows the operations budgets for fiscal year 2002 of several parks that could be comparable to a national park unit along the Gaviota Coast.

While no formal estimates of operating costs have been completed for this study, these examples illustrate the potential range. The NPS operating budget for a National Reserve at the Gaviota Coast could be under \$500,000 per year. National Reserves are highly dependent on partnerships with other organizations for operations and management, and would require significant financial commitments from local, state, or private partners. A more traditional, larger National Park unit could require an annual operating budget of \$2-5 million.

Table 6: National Park Unit Annual Operating Budget

National Park Unit	Annual Operating Budget (FY 2002)
Boston Harbor Islands National Recreation Area, MA	\$740,000
Cabrillo National Historic Site, CA	\$1,261,000
Canaveral National Seashore, FL	\$2,225,000
Cape Cod National Seashore, MA	\$5,811,000
City of Rocks National Reserve, ID *	\$310,000
Ebey's Landing National Historic Reserve, WA *	\$211,000
Point Reyes National Seashore, CA	\$4,906,000
Santa Monica Mountains National Recreation Area, CA	\$5,203,000

* Reflects NPS operating budgets only. Does not include operating costs of state, local and non-profit management organizations.



Bacara Resort, NPS

Feasibility Analysis

The NPS considers a variety of factors in evaluating the feasibility of NPS designations. These factors and related feasibility issues are summarized in Table 7: Feasibility Analysis.

Table 7 : Feasibility Analysis

Feasibility factors	Issues and Conclusions	NPS Management Feasible?
Boundary size and configuration	The study area is of adequate size to include and protect the nationally significant resources of the Gaviota Coast. It provides ample surrounding area to provide an appropriate setting for the resources. It includes sufficient area to allow for appropriate visitor use and any necessary facilities. Areas smaller than the full study area could also be of adequate size for NPS designation.	✓ Yes
Land use, ownership patterns, planning and zoning	Current land use, ownership patterns, planning and zoning would not preclude designation as a national park unit. Land ownership patterns are such that acquisition of a relatively small number of properties could provide a core of land and resources that could be managed as a national park unit. However, the NPS has concluded that land sufficient for the establishment of a national park unit is not available for the following reasons: <ul style="list-style-type: none"> ▪ a substantial majority of study area landowners have communicated their unwillingness to sell land to NPS; ▪ security concerns at Vandenberg AFB limit public access; ▪ legislatures and agencies desire to keep USFS and State lands under current management. 	X No
Access and public enjoyment potential	The study area provides a mix of areas with easy access and those with more limited access. Additional access may be possible in some areas, and inappropriate in others due to resource sensitivity. Areas that are currently inaccessible could become more accessible through public acquisition of a relatively small number of properties. Public enjoyment potential is significant.	✓ Yes
Existing resource degradation and threats to the resources	Natural and cultural resources within the study area are generally of high quality and have a high degree of integrity. Current impacts and future threats to those resources are not at a level that would preclude designation of a national park unit.	✓ Yes

Feasibility factors	Issues and Conclusions	NPS Management Feasible?
Public interest and support	The strong opposition to NPS involvement expressed by study area landowners and other residents of the region makes it unlikely that NPS management would be authorized by Congress, or that efficient park development and management could occur.	X No
Social and economic impact	Designation of a national park unit would likely have economic and social impacts, both beneficial and adverse. These impacts have not been analyzed, but would not necessarily preclude designation of a national park unit.	✓ Yes
Costs associated with acquisition, development, restoration and operation	Acquisition, development and operations budgets could be relatively moderate for a National Reserve or other limited designation, if combined with substantial financial commitments from local, state and private partners. Any new park unit will add costs to the operation of the National Park System. Within the context of the commitments of the President, Secretary of Interior and Director of the NPS to address the NPS deferred maintenance backlog and other national financial priorities, the NPS is not able to undertake new land acquisition and management responsibilities of this potential cost and magnitude at this time.	X No

Summary Statement: Feasibility

The NPS finds that the Gaviota Coast study area is not a feasible addition to the National Park system at this time for the following reasons:

- Land sufficient for the establishment of a national park unit does not appear to be available to the NPS;
- It is unlikely, due to strong opposition expressed by study area landowners, that efficient park development and management could occur;
- Within the context of the commitments of the President, Secretary of the Interior, and Director of the NPS to address other national financial priorities, the NPS is not able to undertake new land acquisition and management responsibilities of this potential cost and magnitude.

When NPS management of an area is determined to be infeasible, NPS Management Policies specify that alternatives for NPS management of that area will not be developed. Therefore, alternatives that include NPS management of the Gaviota Coast are not analyzed in this report.

Management options that were developed before the feasibility determination was made are described in Section 6, Management Options. Two alternatives that do not include NPS management are presented in Section 7, Alternatives. Their environmental and socioeconomic impacts are analyzed in an Environmental Assessment.

Notes

1. National Park Service. 2001. *National Park Service Management Policies*. United States Department of the Interior.



Top and bottom photos © Rich Reid / Colors of Nature, center photos: NPS

6. Management Options

Introduction

The NPS recognizes that many other public agencies, private conservation organizations, and individuals successfully manage important natural and cultural resources. The NPS applauds these accomplishments, and actively encourages the expansion of conservation activities by state, local and private entities, and by other federal agencies — a “nationwide system of parks,” not just a “National Park System.” NPS management policies specify that unless direct NPS management of a studied area is identified as the clearly superior alternative, the NPS will recommend that one or more other entities assume a lead management role, and that the area not receive national park system status (NPS Management Policies, Section 1.3.4, 2001). In this case, NPS management has been determined to be infeasible, so only alternatives that do not involve NPS management are fully evaluated.

Local and State Management Options

The NPS considered two management options that do not involve the NPS:

Continuation of Current Programs and Policies: Current programs and policies would remain in place, and it is assumed that current conditions and trends would continue. This is considered the “No Action” alternative for environmental analysis purposes.

Enhanced Local and State Management: The County of Santa Barbara and the State of California would establish new programs and take further advantage of existing programs that help protect cultural and natural resources and agricultural viability.

These two management options are considered feasible alternatives, and therefore are presented in

greater detail in the Alternatives chapter of this report. Their environmental and socioeconomic consequences are analyzed in the Environmental Assessment.

NPS Management Options – No Longer Under Consideration

The NPS developed and considered a number of options involving NPS management, before determining that such options were not feasible. The following four management options were considered:

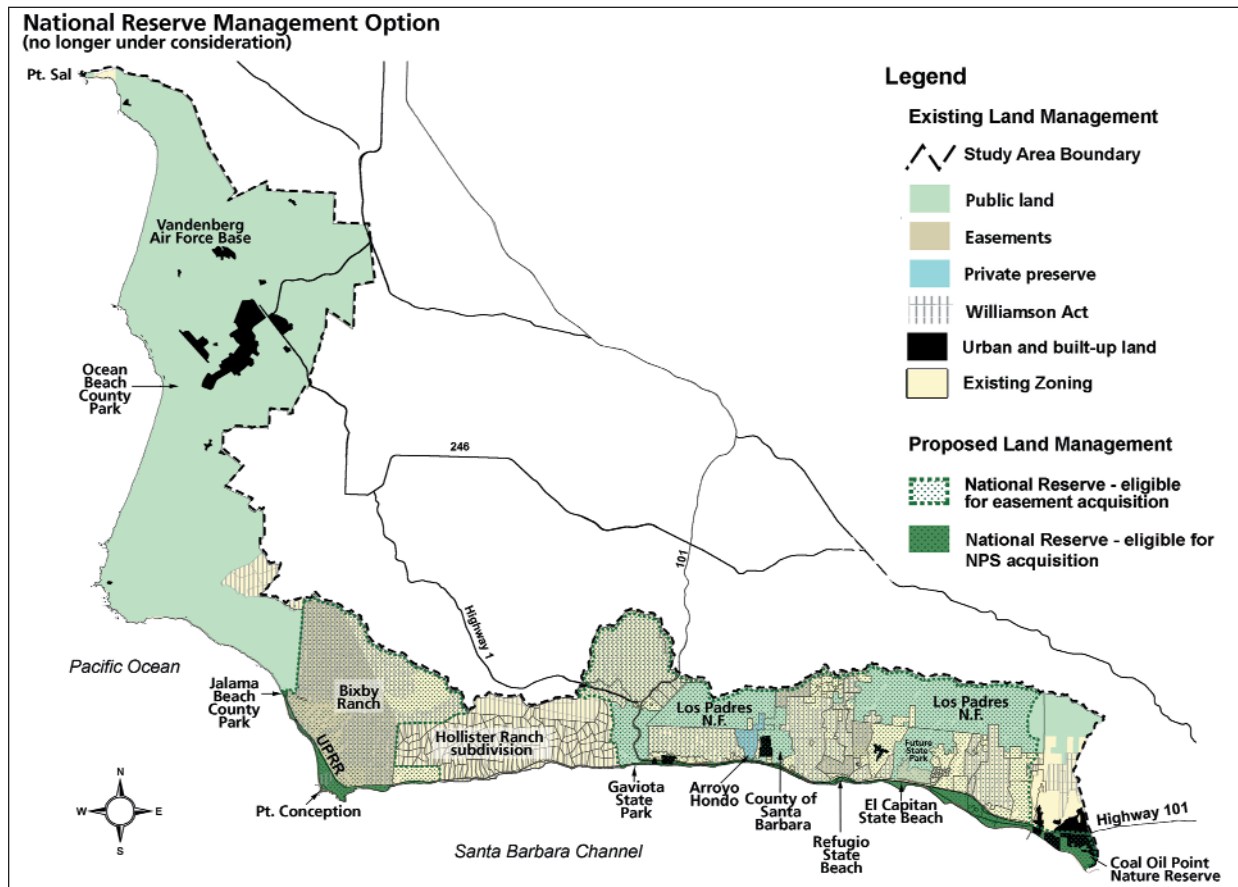
National Reserve: NPS and non-federal organizations would cooperatively manage the area.

National Seashore: NPS would manage significant coastal watersheds.

National Seashore (coastal option): NPS would manage portions of the coastal edge.

National Preserve: NPS would acquire certain lands within a large preserve boundary, and would offer interpretive and educational programs throughout the area, including on Vandenberg AFB.

These management options are presented on the following pages in order to more clearly document the study process. They also illustrate the study team’s conclusion that various portions of the study area contain concentrations of significant resources worthy of National Park Service consideration – the study area does not need to be considered as a whole in terms of its significance, suitability and feasibility. The boundaries drawn for each management option were based on NPS analysis of resource significance, suitability and relative management feasibility.



NATIONAL RESERVE (NO LONGER UNDER CONSIDERATION)

Under this management option, Congress would have established a National Reserve, an area cooperatively managed by the NPS and non-federal organizations.

Congress would have chartered a locally-based non-profit Gaviota Trust, authorized to purchase agricultural or conservation easements throughout the National Reserve.

The National Reserve would have had a two part boundary: 1) a limited area in which NPS would be authorized to acquire land in fee to provide visitor services and public access where ownership by other public entities was not feasible or practical (fair market value from willing sellers only), and 2) a larger area in which the Trust or NPS could acquire easements and collaborate on resource protection, agricultural conservation, public access and education.

A combination of federal, state, local and private land management and acquisition mechanisms

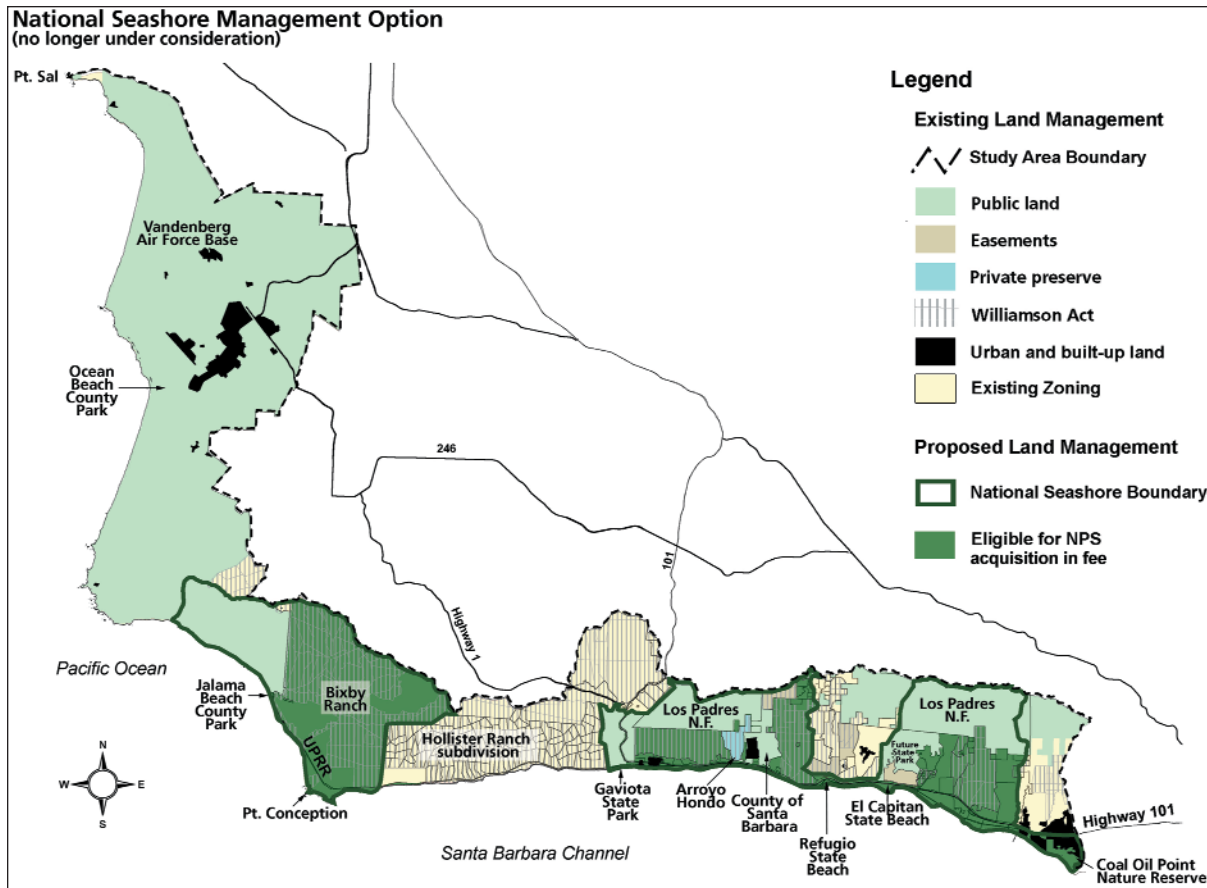
would have been encouraged within the boundary.

Landowners not seeking to sell land or interests in land to the Trust or other organizations would have maintained their land in current ownership and under the current set of local, state and federal land use and resource management regulations.

Archeological, ceremonial, and other sites important to Chumash would have been protected, in collaboration and consultation with the Chumash organizations. Opportunities for active cultural education and interpretation would have been explored.

Authorizing language would have provided for direct transfer of nationally significant portions of Vandenberg AFB to the NPS if those portions of the base were ever declared excess to the U.S. Department of Defense.

Establishment of a National Reserve would have maintained existing local, state and federal control, while providing additional access to federal funding for acquisition of land and easements.



NATIONAL SEASHORE (NO LONGER UNDER CONSIDERATION)

Under this management option, Congress would have established a National Seashore focused on coastal watersheds.

The National Seashore would have included specific coastal watersheds from the Sudden area on Vandenberg AFB to Eagle Canyon, and a coastal strip south of U.S. Highway 101 and the Union Pacific Railroad.

The National Seashore boundary would have included the Sudden area watersheds at the southern end of Vandenberg AFB where there are no launch facilities. This area would have continued to be managed under the command of Vandenberg AFB. The NPS would have sought to enter into agreements with Vandenberg AFB to manage recreational access in this area.

Within the National Seashore, the NPS would have had authority to acquire land in fee or easements

from willing sellers and manage acquired land for resource protection and managed public access.

The NPS would have used a mix of fee acquisition, easements, incentives, and partnership programs in order to retain the cultural landscape and maintain the viability of farming and ranching. A combination of federal, state, local and private land management and acquisition mechanisms would have been encouraged both within and outside the boundary.

Landowners not seeking to sell land or interests in land to the NPS or other organizations would have maintained their land in current ownership and under the current set of local, state and federal resource management and land use regulations.

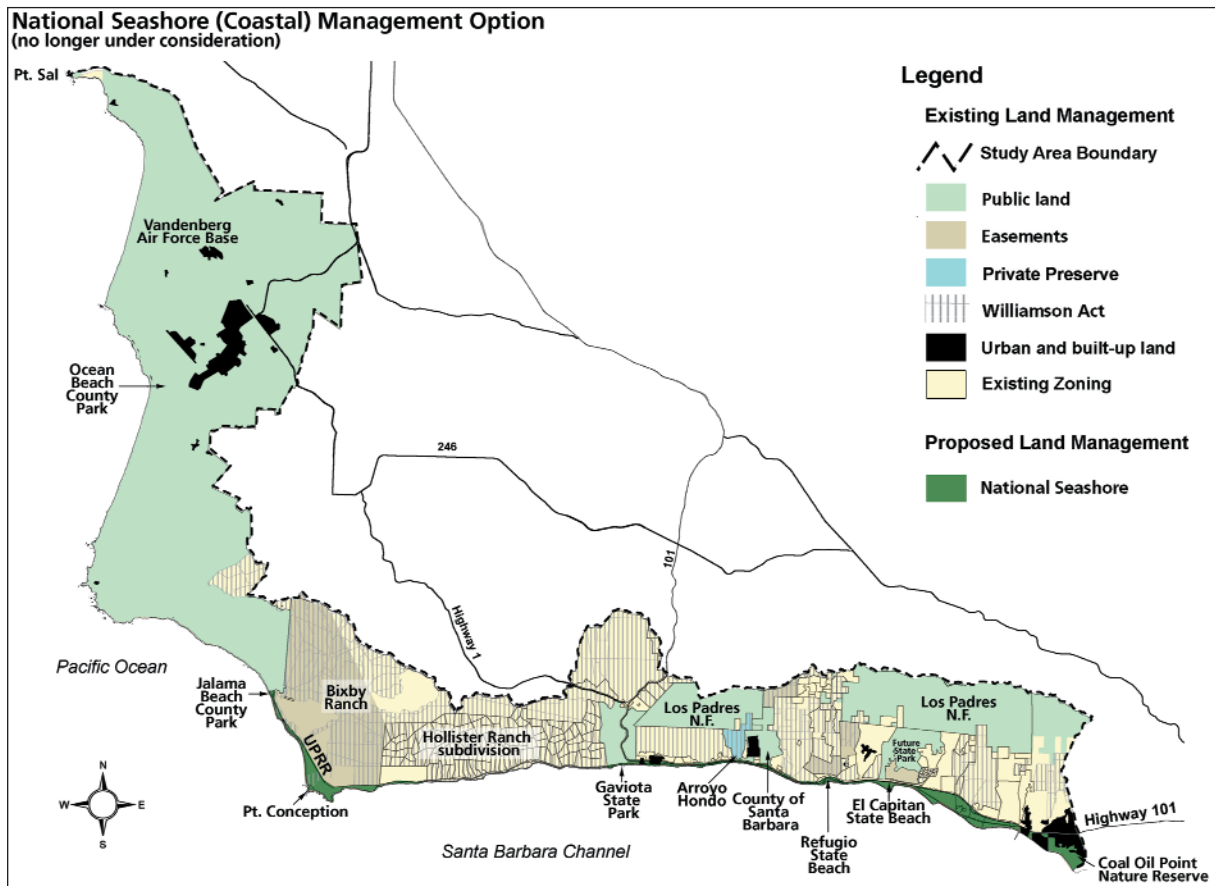
The NPS would have collaborated in resource protection and public education with other public and quasi-public land managers. Each organization would have continued to manage its own land and programs.



Ellwood coast, NPS photo

Archeological, ceremonial, and other sites important to Chumash would have been protected, in collaboration and consultation with the Chumash organizations. Opportunities for active cultural education and interpretation would have been explored. Congress would have authorized the Secretary of the Interior, in consultation with the Santa Ynez Band of Chumash and other Chumash organizations, to study the potential for establishing a reservation or other lands set aside for the Chumash people within the National Seashore.

Authorizing language would have provided direct transfer authority for nationally significant portions of Vandenberg AFB to be transferred to NPS if those portions of the base were ever declared excess to the U.S. Department of Defense.



NATIONAL SEASHORE (COASTAL) - (NO LONGER UNDER CONSIDERATION)

Under this management option, Congress would have established a National Seashore focused on the coastal edge, south of U.S. Highway 101 and the Union Pacific Railroad.

Within the National Seashore, NPS would have had authority to acquire land in fee or easements from willing sellers and manage acquired land for resource protection and managed public access.

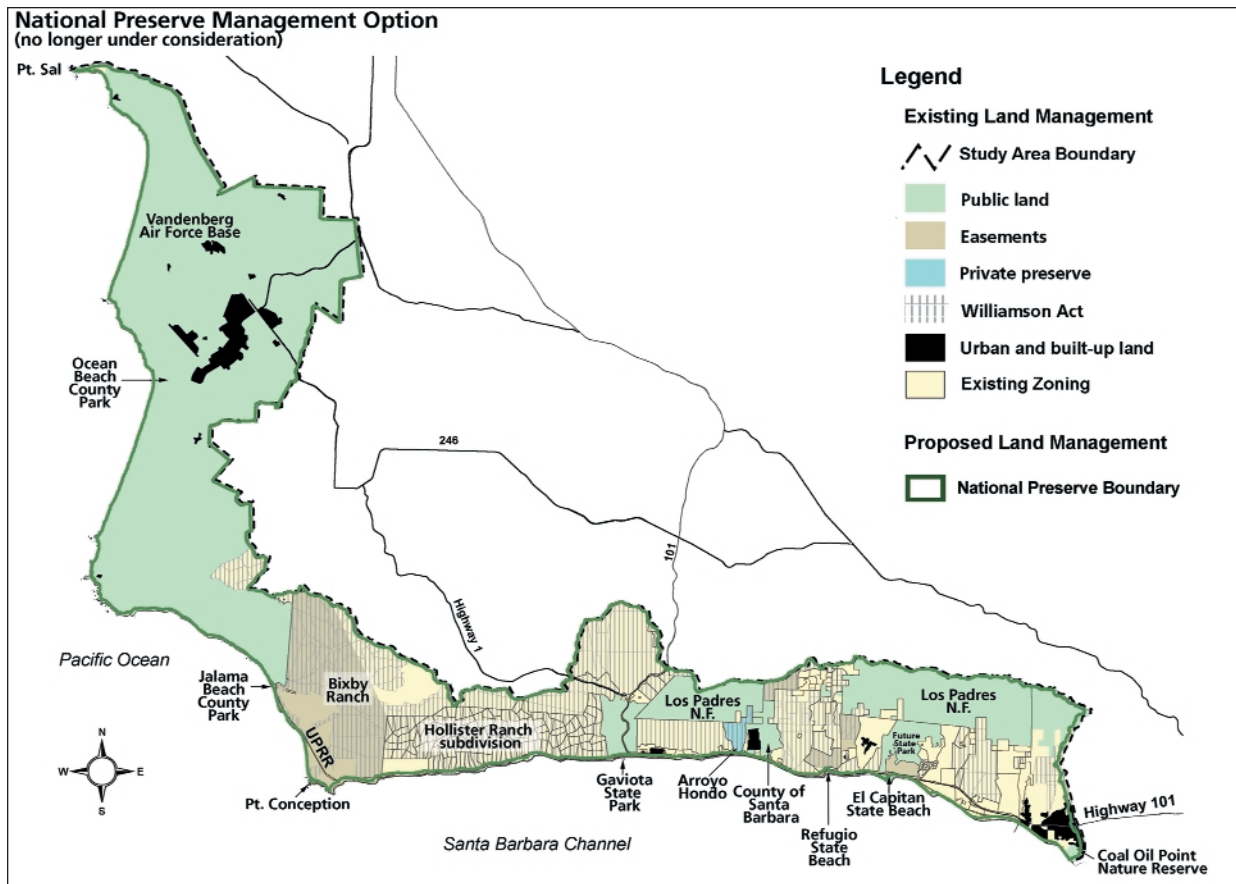
A combination of federal, state, local and private land management and acquisition mechanisms would have been encouraged both within and outside the boundary.

Landowners not seeking to sell land or interests in land to the NPS or other organizations would have maintained their land in current ownership and under the current set of local, state and federal resource management and land use regulations.

The NPS would have collaborated in resource protection and public education with other public and quasi-public land managers. Each organization would have continued to manage its own land and programs.

Archeological, ceremonial, and other sites important to Chumash would have been protected, in collaboration and consultation with the Chumash organizations. Opportunities for active cultural education and interpretation would have been explored.

Authorizing language would have provided direct transfer authority for nationally significant portions of Vandenberg AFB to be transferred to NPS if those portions of the base were ever declared excess to the Department of Defense.



NATIONAL PRESERVE (NO LONGER UNDER CONSIDERATION)

Under this alternative, Congress would have established a National Preserve incorporating all of the study area, with NPS management only of land acquired by NPS, and interpretive, educational, and other cooperative programs throughout the area.

Within the National Preserve, the NPS would have acquired priority parcels of land as willing seller opportunities and funding became available, entered into partnership arrangements with other agencies and organizations, and conducted educational and resource management programs. NPS land acquisition would have focused on relatively intact watersheds, wildlife and trail corridors, coast to crest connectors, and coastal access.

The NPS would have used a mix of fee acquisition, easements, incentives, and partnership programs in order to retain the cultural landscape and maintain the viability of farming and ranching. A

combination of federal, state, local and private land management and acquisition mechanisms would have been encouraged. The NPS would have made no attempts to acquire all, or even most, of the land within the boundary.

Landowners not seeking to sell land or interests in land to the NPS or other organizations would have maintained their land in current ownership and under the current set of local, state and federal resource management and land use regulations.

The NPS would have collaborated in resource protection and public education with other public and quasi-public land managers. Each organization would have continued to manage its own land and programs.

Archeological, ceremonial, and other sites important to the Chumash would have been protected, in collaboration and consultation with Chumash organizations. Opportunities for active cultural education and interpretation would have been explored.

The National Preserve boundary would have included Vandenberg AFB. Space launch activities would have continued, and all areas of the base would have remained under Vandenberg AFB's command. The NPS would have managed visitor use and education programs in the Sudden Ranch area at the south end of the base, where there are no launch facilities.

Authorizing legislation would have enabled the NPS to enter into agreements with Vandenberg AFB to provide guided day-use recreation, interpretation and education programs for the public, on additional portions of the base. Visitor services and resource protection would have been provided either by NPS staff, volunteers, a system of authorized guides, or some combination. Selected corridors within the base might have been authorized for self-guided automobile or hiking tours, subject to Vandenberg AFB access controls.

Authorizing legislation would have provided for direct transfer of nationally significant portions of Vandenberg AFB to the NPS if those portions of the base were ever declared excess to the U.S. Department of Defense.

Summary Statement: Management Options

If NPS management were financially and politically feasible, NPS could contribute significantly to the conservation of the Gaviota Coast study area resources, in conjunction with the contributions of other agencies and organizations, and continued private stewardship. However, because of the factors outlined in the feasibility discussion, the NPS recommends management by other organizations.



Vandenberg AFB, NPS photo

Notes

1. National Park Service. 2001. *National Park Service Management Policies*. United States Department of the Interior.



7 Alternatives



7. Alternatives

Introduction

Two alternatives for the Gaviota Coast study area are presented in this section. Neither of these alternatives involves any new NPS actions. No alternatives involving NPS management are presented, since NPS management has been determined not to be feasible for this area (see Section 5, Feasibility).

- **Alternative 1 – Continuation of Current Programs and Policies:** Current programs and policies would remain in place, and it is assumed that current conditions and trends would continue. This will be considered the “No Action” alternative for environmental analysis purposes.
- **Alternative 2 – Enhanced Local and State Management:** The County of Santa Barbara and the State of California could establish new programs and make greater use of existing programs for the local community to help protect cultural and natural resources, agricultural viability and to provide additional public recreation opportunities.

Goals for the Study Area

The following goals for the study area were developed by the study team based on the public input received. They represent goals and values that appeared to be shared by the majority of the respondents in the various public input opportunities throughout the study process.

- Protect significant natural and cultural resources.
- Protect scenic resources.
- Maintain the viability of farms and ranches.
- Continue local control and private land stewardship.
- Increase the capability and funding for protection of significant resources, agricultural lands, and opportunities for public enjoyment.
- Reduce conflict between public access and private lands.
- Increase public understanding and appreciation of the Gaviota Coast.

An analysis of the potential for each of the alternatives to achieve these goals is included in the Environmental Assessment.



Bixby Ranch, NPS photo

Alternative 1: Continuation of Current Programs and Policies

INTRODUCTION

Alternative 1 is the “no action” alternative for this study. Under Alternative 1, the National Park Service would take no action in the study area beyond those actions already authorized (e.g. recreation grant programs, historic preservation programs, Rivers, Trails and Conservation Assistance Program, and the Juan Bautista de Anza National Historic Trail). Current programs and policies would remain in place and current conditions and trends would continue. Existing federal, state and county agencies and non-profit conservation organizations would continue on their current course. Land use changes would occur, consistent with county and state decisions under zoning, the local coastal plan, and other existing regulations.

The key assumptions and actions of Alternative 1 are organized under the following categories:

1. Private land stewardship
2. Non-profit conservation activities
3. Agricultural land conservation
4. Regulatory and incentive programs (local, state and federal)
5. Public land management and access
6. Vandenberg Air Force Base (AFB)

The following sections provide a description of these current programs and policies.

1. PRIVATE LAND STEWARDSHIP

Under Alternative 1, it is assumed that private land stewardship would continue at approximately the same level of activity. Ranchers, farmers, and other private landowners have played an important role in the protection of the Gaviota Coast's significant resources. They, along with the public policies that guide them, are part of the reason the coast is still scenic, biologically rich, and culturally unique. Some private landowners have developed their

land for residential, commercial or industrial purposes. Others have protected the open space values of the study area through personal initiative, for example, farming and cattle ranching, fencing streams or sensitive cultural areas, or keeping the land in the family rather than selling for development. In recent years, several landowners have voluntarily worked with local and national land trusts to convey agricultural and conservation easements to permanently protect their land from development. The Land Trust for Santa Barbara County (LTSBC) holds easements on the 660 acre Freeman Ranch, 750 acres of La Paloma Ranch, and 650 acres of El Capitan ranch. Easements on 1,400 acres of Dos Vistas Ranch (only half of which is in the study area) and 135 acres of Ellwood Mesa are pending.

Approximately 63,000 acres of land in the study area are under Williamson Act contracts, indicating a level of intent to keep the land in agricultural use for at least the next ten years (see “Agricultural Land Conservation”).¹

The 14,400 acre Hollister Ranch was subdivided in 1970 into 135 rural residential lots of approximately 100 acres in size. Development on these lands is restricted through covenants, conditions, and restrictions established at the time of subdivision; however there are houses and support buildings, built or authorized, on each lot, and there is an extensive road network. Much of the land is grazed through a cooperative grazing program, and is under Williamson Act contracts. The owners have also established a Hollister Ranch Conservancy to manage scientific research studies



cattle grazing, NPS photo

and education opportunities, and a 2.2 mile marine preserve at Alegria Beach to protect the rocky intertidal ecosystem.

The 24,250 acre Bixby Ranch includes two large historic ranches, Jalama and Cojo. Vandenberg AFB acquired easements over much of the property in order to limit development for safety purposes. The Bixby Ranch Company has indicated their intention to pursue further conservation measures, and to maintain a substantial portion of the area in agriculture.

Private land stewardship is enhanced and facilitated by a number of public and private conservation programs that offer funding, technical assistance, or other incentives. Private land stewardship is also shaped by a wide range of regulatory programs that influence what private landowners can do on their land. Some of these programs are described in later sections.

2. NON-PROFIT CONSERVATION ACTIVITIES

Under Alternative 1, it is assumed that non-profit conservation activities would continue at approximately the same levels.

A. Organizations and Advocacy

The local community in Santa Barbara County has been conservation-oriented for many decades. Their efforts have resulted in the creation of civic groups and nongovernmental organizations dedicated to protection and preservation. A wide range of groups have advocated effectively for strong planning and zoning measures, against offshore oil drilling, against various development projects, for reduction or closure of existing industrial facilities, and for public land and easement acquisition, among many other activities. It is assumed under Alternative 1 that these types of activities would continue.

Nonprofit land trusts reflect the interest and investment of individual community members in keeping land undeveloped and in protecting

particular resource values. Land trusts have been active in the acquisition and management of land and easements (interests in land) within the study area. These initiatives complement private land stewardship and public land acquisition and management.

B. Acquisition of Land or Easements*

Land can be acquired for conservation and/or public access purposes through a purchase of land from a willing landowner. Conservation easements protect land from development by transferring development rights to a third party. The third party can be a local government or a non-profit organization such as a land trust. The easements generally place use restrictions on lands to preserve resource values. Land with established easements can be sold, however the easement remains binding under the new owner. Incentives for landowners to sell or donate easements include tax credits and deductions, cash, long-term family ownership, and desire for conservation.²

Easements can be acquired for a wide range of purposes. For example, Vandenberg AFB purchased easements restricting development on much of Bixby Ranch in 1992 in order to provide additional safety buffer for their space launches.

Over the past five years, land trusts have participated in the purchase of over 3,000 acres of land and 2,700 acres of easements in the study area. Land acquisition includes Arroyo Hondo Preserve, purchased and managed by the LTSBC (782 acres) and the El Capitan Ranch, much of which was purchased by the Trust for Public Land and re-sold to the California Department of Parks and Recreation. The easements acquired are described under "Private Land Stewardship," discussed earlier.

Land and easement acquisition can be costly, and funding is limited. The LTSBC estimates that \$75 - 100 million is needed to purchase easements for Gaviota Coast lands. Land trusts may be able to negotiate reduced land prices from sellers who value

* Also called "Purchase of Development Rights"

conservation or who can receive tax benefits for charitable donations, and they can assemble funding from a variety of public and private sources. Nevertheless, the largest funding sources tend to be governmental, even for non-profit acquisition of easements. The California Coastal Conservancy, Santa Barbara County Coastal Resource Enhancement Fund, and state bond acts have been major funding sources. There are also several state programs that provide funding and incentives to landowners for conservation easements.

California Farmland Conservancy Program (CFCP):

This program was established to encourage long-term, private stewardship of agricultural land through the use of agricultural conservation easements. CFCP currently administers bond funds remaining from Proposition 12 (which passed in 2000). The state budget allocated \$11.7 million to CFCP for the current fiscal year. The passage of Proposition 40 made \$75 million available for farmland, rangeland, and oak woodland conservation, and it is anticipated that CFCP will administer some of these funds. Within the study area, \$286,000 of funding from the CFCP went towards the Freeman Ranch agricultural conservation easement. Up to 10% of the CFCP grant funds are also available for projects which develop policy or planning-oriented to agricultural land protection, and improvements to land already under an agricultural conservation easement.³

California Natural Heritage Preservation Tax Credit Act:

This program provides tax credits of 55% of the easement value to landowners who voluntarily donate easements to a local agency or non-profit. Lands eligible for the tax credit include habitat for rare, endangered or unique species, open space, parkland, oak woodlands, forests, wildlife corridors, agricultural land, archeological resources, and water or land rights to protect and restore fish species.⁴ In 2002, the Rancho Dos Vistas conservation easement was funded through natural heritage tax credits.⁵ Future funding for this program is uncertain. The state legislature suspended funding for the program for fiscal year 2002-2003. It is not certain at this time whether the program will be reopened for fiscal year 2003-

2004, or if it will be extended beyond the end of the 2005 calendar year.

3. AGRICULTURAL LAND CONSERVATION

Under Alternative 1 it is assumed that agricultural land conservation activities would continue at approximately their current levels of activity (for example, Williamson Act and other tax incentives, agricultural easements, zoning, technical assistance). Private stewardship and public /non-profit acquisition of easements are part of agricultural land conservation, but are covered under separate sections, above. Two additional types of programs are described below; tax incentive programs to encourage owners to keep land in agriculture, and programs that provide incentives or assistance with environmental or soil conservation.

A. Tax incentive programs to encourage owners to keep land in agriculture

Williamson Act (California Land Conservation Act of 1965): The Williamson Act is an incentive-based planning tool to protect agricultural resources, preserve open space land, and promote efficient urban growth patterns. To protect land under the Williamson Act, a county or city must first establish an agricultural preserve that serves as a boundary for the area in which the jurisdiction can contract with landowners. The landowner within the identified preserve may then enter into a 10-year, continuously renewing contract with the local jurisdiction to restrict land use to agriculture, open space or other compatible uses.⁶ Under the contract, the landowner pays a reduced amount of property tax based on the productive value of the land.⁷ The landowner may request a non-renewal of the contract at any time. The landowner must then wait a period of ten years while their property taxes gradually increase to the current market value. Immediate cancellation of the contract must support agricultural use or further some overriding public interest, and is subject to tax penalties, typically 12.5% of the full market property value.⁸

Approximately 547,000 acres of land in Santa Barbara County is under Williamson Act contracts, including 63,000 acres of land within the study

area (see Ownership and Zoning map in the “Maps” section). The majority of study area land in the agricultural preserve is located in the western portion of the study area from Gaviota State Park to Vandenberg AFB. Owners of 534 acres of land in the agricultural preserve have recently opted not to renew their contracts.⁹ Some of the areas under Williamson Act contracts within the study area are primarily rural residential land, and the owners graze cattle to retain Williamson Act benefits, reduce fuel loads, and support a rural lifestyle.

“Super Williamson Act” (Farmland Security Act of 1998): The “Super Williamson Act” authorizes the conversion of 10-year Williamson Act contracts in a Farmland Security Zone to 20-year contracts, in exchange for greater tax benefits. Similar to the Williamson Act, the contract remains in force for 20 years after non-renewal. The program is voluntary, and an agency cannot require a landowner to enter into a contract as a condition of approval for any permit or project. Enrollment is not available for grazing land, so use of this tool in the study area is limited. Only 133 acres of land in Santa Barbara County are enrolled in the Super Williamson Act.

B. Incentives for Agricultural and Soil Conservation

Currently, the local community has access to the following programs for agricultural land conservation, reducing erosion, protecting watersheds and similar purposes. Additional programs that can be used by agricultural and other landowners are included in “Regulatory and Incentive Programs.”

Conservation Reserve Program (Farm Services Agency): This program funds projects entailing conversion of farmland to vegetative cover, provision of riparian buffers, and other resource-conserving activities. Farmers who enter the program receive an annual rental payment of up to \$50,000 per person per year for the land taken out of production. Fifty percent cost sharing is also available for implementing conservation plans. Contracts last 10-15 years.¹⁰

Environmental Quality Incentives Program (Natural Resource Conservation Service): This program provides funding for projects that implement structural, vegetative, or management practices to help improve and maintain the health of resources. Farmers who enter the program receive a cost share of up to 75% of the conservation practices. Contracts last 5-10 years.¹¹

Wildlife Habitat Incentives Program (Natural Resource Conservation Service): The Wildlife Habitat Incentives Program is a voluntary program that encourages the creation of high quality wildlife habitat that support wildlife populations of national, state, tribal, and local significance. Through this program the Natural Resource Conservation Service provides technical and financial assistance to landowners, conservation districts, federal, state and tribal agencies to develop wildlife habitat on their property.¹²

Wetlands Reserve Program (Natural Resource Conservation Service): The Wetlands Reserve Program is a voluntary program that provides technical and financial assistance to address wetland, wildlife habitat, soil, water, and related natural resource concerns on private lands in an environmentally beneficial and cost-effective manner. Landowners receive financial incentives to enhance wetlands in exchange for retiring land marginal from agriculture. Enrollment options include permanent easements, 30-year easements, and restoration cost share agreements where the United States Department of Agriculture pays 75% of the cost of the restoration activity.¹³

Grassland Reserve Program (Natural Resource Conservation Service): This program was recently funded under the 2002 Farm Bill. Ranchers and other private grassland owners who enroll in the program agree to place 10, 15, 20 or 30-year rental contracts, or 30-year or permanent easements on their land, prohibiting development and other activities incompatible with conserving grassland ecosystems. In return, landowners receive annual payments for short-term contracts or either a one-time payment or up to 10 annual payments for permanent easements. The Farm Bill authorized up

to 2 million acres to be enrolled in the program, at a cost of up to \$254 million. The program imposes no regulation on grazing and allows private entities, such as ranching land trusts, to hold easements under the program. The program also makes additional resources available to assist landowners in restoring enrolled grasslands.¹⁴

Cachuma Resource Conservation District: Santa Barbara County is served by the Cachuma Resource Conservation District (RCD). RCDs are quasi-governmental, locally controlled non-profit organizations. They provide technical expertise and educational programs to landowners and the general public to aid in controlling runoff and flooding, preventing or controlling soil erosion, developing and distributing water supplies, and improving land capabilities (CA Public Resources Code, Div 9, Ch.3). Critical resource concerns of the Cachuma RCD include flooding, erosion and sedimentation, water quality and quantity, range improvement, and wildlife habitat. Projects identified in the RCD's long range plan include a Gaviota Creek Coordinated Resource Management Planning process (CRMP), and assisting farmers and ranchers in addressing wildlife habitat issues while maintaining full utility of the land for farming and ranching. Obtaining adequate funding for the district is a continual concern, as the district has access to property taxes only in a small segment of the district, and relies heavily on grants.¹⁵

4. REGULATORY AND INCENTIVE PROGRAMS (LOCAL, STATE, FEDERAL)

Under Alternative 1, local, state and federal regulatory programs would continue at approximately their current levels.

A. Local programs

Santa Barbara County Planning, Zoning and Permitting: Under Alternative 1, the County would continue to control land uses within its jurisdiction through its General Plan, Coastal Plan, and zoning ordinances. The majority of private land within the study area is zoned for agricultural use, with 320-acre minimum lots along the coast and 100-acre and some 20-40 acre minimum lots inland.

Agricultural zoning restricts development by designating lands for agricultural use and discouraging other types of land use. However, other land uses, such as wineries, campgrounds, golf courses, hostels, retreats and guest ranches, may be allowed with a conditional use permit; and variances and permits are granted by the Board of Supervisors.¹⁶ Zoning can also be changed by the Board of Supervisors. Thus the level of development allowed by zoning would be dependent on the political perspectives of the Board of Supervisors. Any such changes in the coastal zone require certification by the Coastal Commission.

City of Goleta Zoning and Permitting: The easternmost corner of the study area is within the newly established City of Goleta. Under Alternative 1, the new city would continue the transition process from county to city management and regulation, and would develop a General Plan, zoning ordinances, permitting processes, etc.

Santa Barbara County Coastal Plan (coastal plan): The California Coastal Act of 1976 was enacted to provide long-term protection of California's coastline for the benefit of future generations. The Coastal Act set standards for coastal development and mandated that local governments prepare Local Coastal Programs (LCPs) to address public access and recreation at the shoreline; protection of environmentally sensitive habitat, productive agricultural lands, scenic coastal landscapes and coastal-dependent industrial uses; identification of urban/rural boundaries; and protection against coastal hazards.



El Capitan Ranch, NPS photo

The coastal plan, approved in 1981, established a rural-urban boundary to direct growth, raised the minimum parcel size of agriculturally-zoned land from 100 to 320 acres in some rural areas, and established overlay protection zones for environmentally sensitive habitat areas. Much of the NPS study area is located in the rural area designated by the coastal plan's urban growth boundary. The Coastal Zone boundary within the study area is shown on the Ownership and Zoning map. Under Alternative 1, Santa Barbara County would continue to implement its LCP, and would update it as currently planned.

B. State programs

California Department of Fish and Game (CDFG): CDFG has jurisdiction over the conservation, protection, and management of wildlife, native plants, and habitat necessary to maintain biologically sustainable populations. They are responsible for planning and regulatory activities related to threatened and endangered species, species of special concern, hunting, sport fishing, and related resources and activities. Under Alternative 1, CDFG would continue to plan for and regulate these resources and activities.

The CDFG would continue to manage Marine Life Protection Areas under the Marine Life Protection Act. The only Marine Life Protection Area established in the study area is the Vandenberg Marine Resources Protection Act Ecological Reserve at Point Arguello. Marine Life Reserves are defined as protective areas in which all extractive activities such as the taking of marine species and other activities that upset the ecological functions are prohibited. Allowable activities are research, restoration, and monitoring that are permitted by the managing agency. Educational activities and other forms of non-consumptive human use may also be permitted.¹⁷

California Coastal Commission: Under Alternative 1, it is assumed the California Coastal Commission would continue to exercise local agency jurisdiction over development in certain geographic areas, and review and certify changes to the County's local coastal program. Questions were raised about the

future of Coastal Commission regulation and the validity of past regulatory decisions by a December 2002 judicial ruling that the structure of the Coastal Commission violated the California Constitution. However, new legislation has revised the Coastal Commission appointment process, and it is likely that the commission and its past decisions will remain intact.

California Coastal Conservancy: The California Coastal Conservancy would continue to work in partnership with local governments, other public agencies, nonprofit organizations, and private landowners to purchase, protect, restore, and enhance coastal resources, and to provide access to the shore. The California Coastal Conservancy has contributed funding for land conservation and restoration projects in the study area.

Funds are currently available from the Coastal Conservancy's Southern California Wetlands Recovery Project to restore and enhance wetlands in southern California. Wetland restoration is currently proposed or being implemented at several areas throughout the study area. These areas include Coal Oil Point Reserve (Devereux Slough), Ellwood Mesa (Vernal Pools), Arroyo Hondo Preserve, Freeman Ranch (Refugio Canyon), Gaviota Creek, and Vandenberg Air Force Base (Santa Ynez River).¹⁸

State Lands Commission: State Tidelands consist of ocean waters from the mean high tide line to three miles offshore. The State Lands Commission manages these waters and underwater mineral resources. Many areas within the State Tidelands offshore of Santa Barbara County are included in the State Oil and Gas Sanctuary, where oil and gas leasing and development are prohibited due to resource sensitivities.

C. Federal programs

U.S. Fish and Wildlife Service (FWS): Under Alternative 1, the FWS would continue to work with private landowners, local and state governments, federal agencies, corporations, and other entities to conserve and protect threatened and endangered species and other species of

concern on both public and private lands. The FWS also offers the following incentive and grants programs for wildlife and habitat conservation:

The *Partners for Fish and Wildlife Program* provides cost share funds for projects involving restoration or provision of wildlife habitat, such as creation of shallow water areas, revegetation with native plants, and fencing off riparian corridors. These cost share funds benefited two landowners within the study area for weed removal and riparian fencing on grazing land.

The *Private Stewardship Grants Program* provides \$10 million in federal grants and other assistance nationwide on a competitive basis to individuals and groups engaged in voluntary conservation efforts on private lands that benefit at-risk species including federally-listed endangered or threatened species as well as proposed or candidate species.¹⁹

The *National Coastal Wetlands Conservation Grant Program* provides matching grants for acquisition, restoration, management or enhancement of coastal wetlands. Between \$11-15 million in grants are awarded annually through a nationwide competitive process.²⁰

The *North American Wetlands Conservation Act Grants Program* provides matching grants to private or public organizations or to individuals that have developed partnerships to carry out wetlands conservation programs in the United States, Canada and Mexico. Projects must support long-term wetlands acquisition, restoration, and/or enhancement. Congress authorized \$55 million for this program in 2003.²¹

The *Cooperative Endangered Species Conservation Fund*, authorized under the Endangered Species Act, provides grants to states and territories to support voluntary conservation projects for listed species. The fund supports three grant programs. Recovery Land Acquisition Grants support species recovery plans. \$17.8 million in funding was available nationally in fiscal year 2002. Habitat Conservation Planning Assistance Grants fund habitat conservation plan development. \$6.6

million was available nationally in fiscal year 2002. Habitat Conservation Plan Land Acquisition Grants fund acquisition of land with approved Habitat Conservation Plans. \$61.3 million was available nationally in fiscal year 2002.²²

US Minerals Management Service (MMS): The MMS leases the rights to explore and develop the mineral resources on the Outer Continental Shelf (OCS), which lies seaward of the State Tidelands boundary. Under Alternative 1, the MMS would continue these activities on their current course.

Natural Resource Conservation Service (NRCS): Grant and technical assistance programs offered by the NRCS are described in the previous section, "Incentives for Agriculture and Soil Conservation." Hands-on technical assistance is NRCS's primary means of providing land conservation assistance to farmers and ranchers within the study area.

5. PUBLIC LAND MANAGEMENT AND ACCESS

Under Alternative 1, public agencies would continue their land management, visitor services, public education and interpretation programs at approximately current levels of activity and funding, according to their current plans.

Federal, state and local government agencies currently manage significant amounts of land along the Gaviota Coast. Vandenberg AFB's 99,500 acres are addressed below. The study area also includes approximately 28,000 acres of other public land offering some level of public access. These lands include a portion of the Los Padres National Forest, State and County parks and beach access areas, and University of California land. Many of these public lands contain grazing lands, sensitive habitat, and cultural resources.

Los Padres National Forest: The Los Padres National Forest (approximately 20,400 acres within the study area) provides the scenic backdrop for coastal communities and miles of unspoiled views of the Santa Ynez Mountains. Activities within the Forest are managed according to the Land and Resource Management Plan (Forest Plan) to allow

sustained use and protection of a variety of forest resources.²³ The management emphasis for the scenic viewshed along the south slope of the Santa Ynez Mountains is to maintain the rugged, natural appearing character of the landscape, while also addressing wildlife habitat enhancement, range management, fuel management, cultural resource management, and forest recreation. The Forest Plan is currently being updated.

Bureau of Land Management (BLM): The BLM manages 77 acres at Point Sal, including significant natural and cultural resources. Currently there is no public access to this area. The BLM is also responsible for the California Coastal National Monument, consisting of rocks, islands, exposed reefs and pinnacles from the mean high tide line, extending 12 nautical miles off the California coast. Planning for this National Monument is underway; the BLM expects a draft plan and related environmental documents to be available by May, 2003.

Juan Bautista de Anza National Historic Trail: Managed by the National Park Service, this trail traverses the length of the study area, staying close to the coast until heading inland in the northern section of Vandenberg AFB (see Cultural Resources map in the "Maps" section). This area provides one of the most natural and historically evocative landscapes of the 1,200 mile length of the trail. Trail managers have marked the automobile route of the trail (Highways 101 and 1 in this area). In partnership with local organizations, they are expanding their volunteer guide program on Amtrak's coastal trains, enhancing interpretive programs at existing public park lands and along the coastal trail, and working with Vandenberg AFB to mark the historic trail route on base lands.

California State Parks: The Channel Coast District of the California Department of Parks and Recreation is responsible for managing state parks and beaches within the study area, including 2,500 acres recently acquired at El Capitan. Under Alternative 1, the state will continue to manage these existing parks and develop new areas, according to current plans.

Santa Barbara County: Within the study area, the Santa Barbara County Parks Department manages Jalama Beach and Ocean Beach County Parks. Under Alternative 1, these parks will continue to be managed according to current plans. Negotiations are underway for the possible expansion of Jalama Beach County Park onto land that would be donated by Bixby Ranch. It is assumed that Ocean Beach County Park will continue to be subject to closure for endangered species protection purposes, and during Vandenberg AFB launch activities. Santa Barbara County also has acquired 390 acres of land at Point Sal, 145 of which are in the study area. It is assumed under Alternative 1 that management planning for this area will continue, and that access will be difficult.

Santa Barbara County has been working for many years toward development of a continuous coastal hiking / biking / equestrian trail from Goleta to Gaviota State Park or beyond, including lateral beach access where possible and frequent vertical access to beaches. Under Alternative 1, the County would continue planning and development of this trail at their current level of activity. California Department of Parks and Recreation would continue to manage the existing 3-mile section of the trail between the El Capitan and Refugio campgrounds. The recently constructed ¾ mile section at El Capitan Ranch would be managed by the county. California Department of Parks and Recreation, in association with Santa Barbara County Parks, would continue the engineering study that is currently underway on another 3-mile section between Gaviota campground and San Onofre Canyon.

Santa Barbara County owns and manages the Tajiguas Landfill and the adjacent Baron Canyon Ranch. The landfill is expected to be in operation under current permits until 2006; the County has a pending expansion application with the State Water Quality Control Board to allow the landfill to operate until 2020. Baron Canyon Ranch is currently leased for agricultural use, and the county is studying the potential for trail development.

City of Goleta: City of Goleta, Santa Barbara County, University of California, Trust for Public Land, a private developer and others are working on proposals to protect the areas encompassing the UCSB Devereux Reserve, monarch butterfly preserve and extensive bluff lands and beach at the edge of the urban area. These proposals, if implemented, would provide additional beach access and recreational facilities at the edge of the urban area where such facilities are most likely to be fully utilized.

6. VANDENBERG AFB

Under Alternative 1, Vandenberg AFB would continue its commitment to natural and cultural resource management programs and would provide limited visitor access, education and interpretation of Vandenberg AFB's natural and cultural resources.

Vandenberg AFB encompasses 99,500 acres of the study area. The base is headquarters for the 14th Air Force and the 30th Space Wing. These units of the Air Force are responsible for all U.S. Department of Defense space and missile launch activities on the West Coast, including launch activities for the Air Force, National Aeronautics and Space Administration (NASA), and various private industry contractors.

Vandenberg AFB has developed Integrated Management Plans for both cultural and natural resources on the base. Management goals and objectives for natural resources include

preservation of biodiversity, conservation of biological resources, habitat protection, watershed protection, outdoor recreation, public access, and agricultural outleasing.²⁴

Vandenberg AFB's Native American Chumash inventory and evaluation will continue to identify specific sacred and other traditional properties. Artifacts on Vandenberg AFB are curated at the University of California at Santa Barbara. Through a memorandum of understanding between the Santa Ynez Band of Chumash and Vandenberg AFB, the Chumash may rebury any Native American human remains in designated areas. In 1998 Vandenberg AFB was nominated for the 1998 Secretary of Defense Environmental Security Award for Cultural Resources Management.²⁵

Vandenberg AFB provides limited public access to specific areas for recreational and other purposes. Ocean Beach County Park and Surf Beach are adjacent to Vandenberg AFB, and provide beach access along six miles of the Vandenberg AFB coast from October through February. From March through September, these areas are closed to protect the federally-listed threatened western snowy plover. Fishing is also allowed on nine miles of Vandenberg AFB's coast with a base permit. The Waterfowl Natural Resource Area is accessible to the public on an advance reservation basis. All access to Vandenberg AFB is subject to closure when necessary for safety and security purposes.



rock carving on Vandenberg AFB, NPS photo



historic recreation area at Vandenberg AFB, NPS photo

Draft Gaviota Coast Feasibility Study



National Park Service
U.S. Department of the Interior

Alternative 1: Continuation of Current Programs and Policies

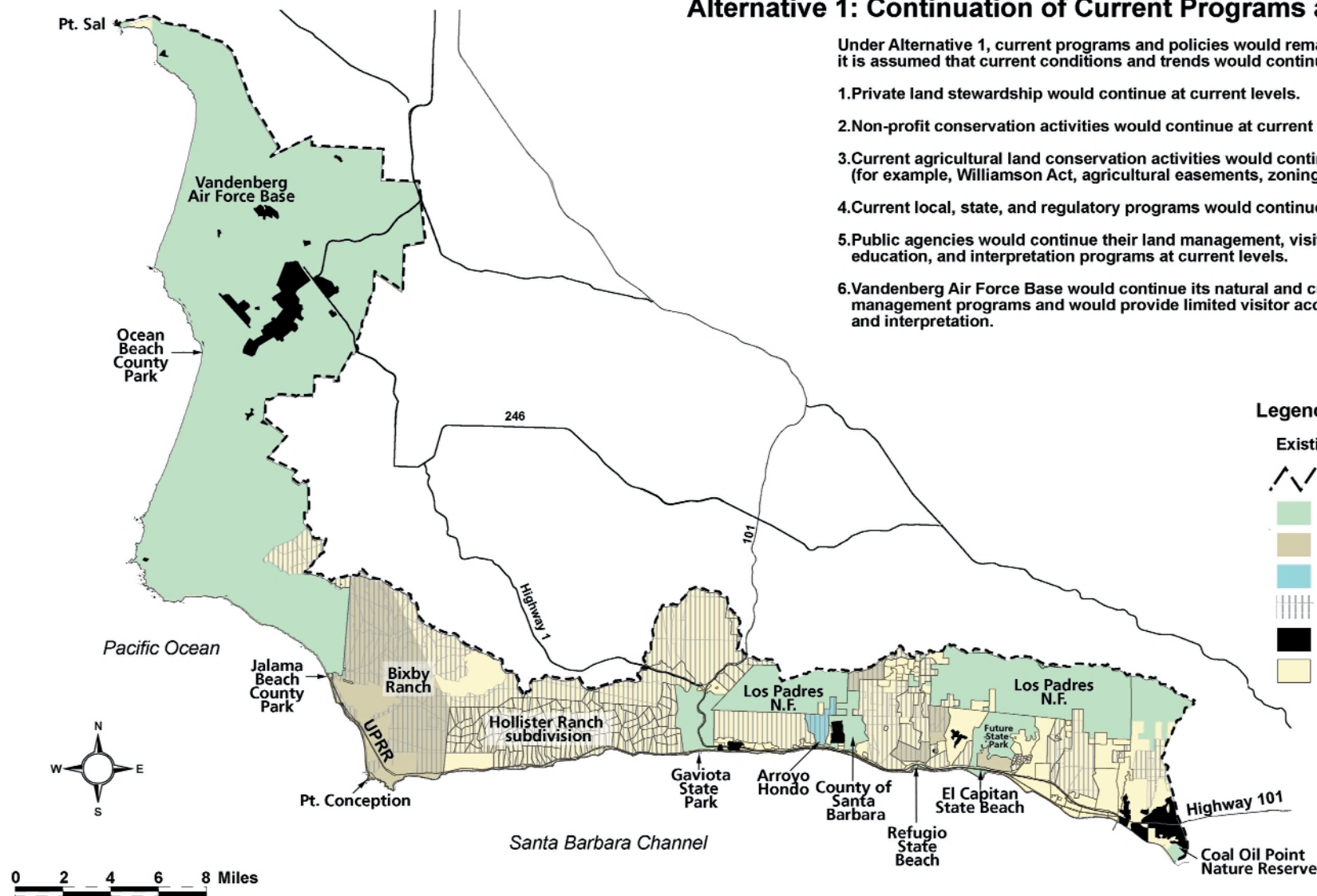
Under Alternative 1, current programs and policies would remain in place, and it is assumed that current conditions and trends would continue.

1. Private land stewardship would continue at current levels.
2. Non-profit conservation activities would continue at current levels.
3. Current agricultural land conservation activities would continue (for example, Williamson Act, agricultural easements, zoning, technical assistance).
4. Current local, state, and regulatory programs would continue.
5. Public agencies would continue their land management, visitor service, public education, and interpretation programs at current levels.
6. Vandenberg Air Force Base would continue its natural and cultural resource management programs and would provide limited visitor access, education, and interpretation.

Legend

Existing Land Management

- Study Area Boundary
- Public land
- Easements
- Private preserve
- Williamson Act
- Urban and built-up land
- Existing Zoning



0 2 4 6 8 Miles

Alternative 2: Enhanced Local and State Management

INTRODUCTION

Alternative 2 provides a menu of programs and tools that could be pursued in the local community to protect the significant resources of the study area. This set of options was developed in response to public comments received by the NPS, to assist the local community in considering possible future actions. These programs offer the potential to enhance and strengthen the ongoing resource conservation and public education and enjoyment efforts of private landowners, public land managers, and non-profit conservation organizations.

Alternative 2, if fully implemented, could protect the resources of the Gaviota Coast for the benefit of future generations by providing additional incentives for private land conservation, funds for public and private acquisition of land and conservation easements, and public access to the coast.

It is assumed that Alternative 2 covers a long time frame. Some of the actions presented may be able to be implemented quickly, others may take longer, and the community may choose not to implement certain elements. While economic conditions currently limit the potential for increased local, state and federal funding for conservation and recreation, feasibility may change as conditions change in the future. Creative new approaches to funding may be developed where there is a strong community commitment to action.

The conservation actions of Alternative 2 are organized under the following categories:

1. Private land stewardship
2. Non-profit conservation activities
3. Agricultural land conservation
4. Regulatory and incentive programs (local, state and federal)
5. Public land management and access
6. Vandenberg AFB

1. PRIVATE LAND STEWARDSHIP

Under Alternative 2, private landowners could take additional individual and cooperative action to protect the resources on and around their land.

Develop voluntary watershed management initiatives. Landowners and other stakeholders in the various watersheds along the Gaviota Coast could establish watershed partnerships and work cooperatively to develop and implement watershed protection measures. Between the south edge of Vandenberg AFB and Coal Oil Point, there is only one coordinated effort to protect coastal watersheds, at Gaviota Creek. A new watershed partnership could bring together agricultural interests, landowners, public land and resource managers, and other resource conservation advocates to identify voluntary measures that can be taken to assess current resource conditions, improve water quality, reduce soil erosion, protect critical species habitat, and other measures to enhance coastal and aquatic ecosystems. The Cachuma Resource Conservation District may be able to assist with this initiative, or facilitate a Coordinated Resource Management Planning (CRMP) process.

Take advantage, as appropriate, of non-profit and governmental programs that support private stewardship. Numerous non-profit and governmental programs exist, and others could be developed, to support the conservation efforts of private landowners. Private landowners could take greater advantage of the existing programs as described under Alternative 1, and they could



coastal view, NPS photo

pursue additional measures to support resource conservation. Different activities will be appropriate and useful for different landowners, and for different types of land and resources. Among the actions that could be taken by private landowners are:

- Landowners could sell or development rights to non-profit or governmental organizations, in order to ensure that their land will not be inappropriately developed in the future. The timing of such sales and donations can be arranged to meet each landowner's financial, tax, inheritance, and other personal needs and wishes.
- Landowners could enroll or continue to stay enrolled in Williamson Act or "Super Williamson Act" contracts.
- Landowners who wish to sell their land could give preference to conservation-oriented buyers – individual, land trust, or governmental.
- Farmers and ranchers could take additional action, either on their own or with various incentive programs, to provide vegetative cover and riparian buffers, protect sensitive species, plant trees, and protect cultural resources.
- Landowners could work with public agencies to provide appropriate public trail or access easements through their land, in ways that minimize impacts on the landowner, or meet other landowner needs.



Cojo Ranch, NPS photo

- Landowners could provide recreation facilities and services, on a for-profit or voluntary basis.
- Landowners could inventory and document significant cultural and natural resources on their properties, or allow independent researchers to do so. Significant resources could be listed on the National Register of Historic Places, or as National Natural Landmarks. Listed sites are eligible for technical and management assistance from a number of agencies and organizations.

2. NON-PROFIT CONSERVATION ACTIVITIES

Under Alternative 2, non-profit organizations could partner to develop new programs and pursue new funding sources and programs in order to enhance their resource conservation capabilities.

Work to develop new sources of funding for land and resource conservation funding. The capability of non-profit organizations, including land trusts, to participate in the conservation of land and resources along the Gaviota Coast could be enhanced through additional funding. Enhanced public and private funding for non-profit conservation action provides a way for the community's resource conservation goals to be achieved without additional governmental management of resources. Some of the actions listed in other sections below (agricultural land conservation, regulatory and incentive programs) could also provide funding for enhanced non-profit conservation action.

Establish a revolving fund for land and easement acquisition. A nonprofit land trust, resource conservation district, or governmental entity (such as an open space district) could establish a revolving loan fund to purchase significant lands, place protective easements on those properties, and resell them to replenish the revolving fund. Sources of start-up funding could include state or federal appropriations, bond acts, the Coastal Resource Enhancement Fund, or private donations.

Use of such a revolving fund would allow land acquisition dollars to be used multiple times, while enhancing the capability of non-profit land trusts to make competitive offers for land that is for sale. The revolving fund would allow landowners who want to sell to do so, and keep land in private ownership. This type of program would probably allow some development to occur in the study area, but at a reduced density from what zoning would allow. It would also encourage the transfer of available land to conservation-minded buyers, whether for residential or agricultural purposes. It would not force anyone to sell their land.

3. AGRICULTURAL LAND CONSERVATION

Under Alternative 2, additional measures could be taken to support agricultural land conservation and to enhance the viability of the area's farming and ranching operations.

Seek modifications to Agricultural Preserve and Farmland Security Zone programs to increase effectiveness at retaining private agricultural land. The County and agricultural interests could work with the State Department of Conservation to seek changes in the Farmland Security Zone legislation to allow grazing land to be eligible for the 20 year Farmland Security Zone contracts. Currently the legislation limits Farmland Security Zones to prime or unique farmland and farmland of statewide significance or local importance.

The upcoming county review of its Agricultural Preserve (Williamson Act) program and implementing Uniform Rules could focus not only on this program's limits on land development, but also on keeping this program an attractive and viable program for active farmers and ranchers.

The county, landowners and open space advocates could work with the State Department of Conservation to seek changes in the Agricultural Preserve legislation to enable the creation of open space preserves, with contracts and incentives similar to those in the Agricultural Preserve (Williamson Act) program.

4. REGULATORY AND INCENTIVE PROGRAMS (LOCAL, STATE, FEDERAL)

Under Alternative 2 the County Board of Supervisors and the voters could strengthen certain programs and develop new programs to support resource conservation along the Gaviota Coast.

Strengthen existing zoning by limiting upzoning. Voter initiatives in Ventura and Napa Counties, California and in Portland, Oregon have strengthened existing agricultural, open space, rural or rural residential zoning by requiring voter approval to rezone such lands for development or urban use. Such an initiative would make it more difficult to change existing zoning.

Santa Barbara County could establish such a program for the county as a whole, or for a specific area of concern, such as the Gaviota Coast. It could be structured to ensure respect for property rights, and to increase consistency and long term reliability of zoning regulations. An initiative requiring voter approval of upzoning has been proposed in the past in Santa Barbara County, but did not gain enough support to be enacted.



City of Goleta, © Rich Reid / Colors of Nature

Strengthen zoning by tightening definitions.

The agricultural zoning in the study area allows other related land uses if a conditional use permit is obtained.²⁶ Uses that may be conditionally permitted include low intensity recreational development such as hiking trails, public riding stables, recreational camps, campgrounds, retreats and guest ranches; wineries; facilities for processing horticultural and agricultural products; exploration and production of offshore oil and gas. Under Alternative 2, the County Board of Supervisors could tighten these provisions to ensure that major facilities that are not in character with the rural setting (for example golf courses and large commercial facilities) are not allowed. The County could modify the Comprehensive Plan for the Gaviota area to include an overlay zone for agricultural land on the Gaviota Coast. The overlay zone could prevent conditional uses that are not compatible with maintaining the agricultural character of the Gaviota Coast.

Use the Coastal Plan update process as a forum for planning. The Local Coastal Plan is a powerful tool for providing public access to the coast, and protecting environmentally sensitive habitat, productive agricultural lands, scenic coastal landscapes and coastal dependent industry. Santa Barbara County's Coastal Plan (coastal plan) was approved in 1981, and doesn't reflect more recent development, policy changes, or resource information. The coastal plan is currently fourteen years overdue for a periodic review.



farmland, NPS photo

The County is already in the process of doing some updates to the Coastal Plan including resource mapping in the Ellwood area, and an application for Assistance Program grants to undertake a variety of coastal planning and management activities. Santa Barbara County could use a comprehensive process of updating the coastal plan to engage the Gaviota Coast area stakeholders in a collaborative process to find an appropriate balance among public access, habitat protection, agricultural operations, scenic resources, and coastal-dependent industry and commerce. The update process could become a forum for discussing and adopting new ideas about managing the coastal resources.

Establish an open space district. Regional open space districts generally are independent districts whose main function is to acquire, preserve, or maintain open space. They typically have taxing authority of some type, but can be funded by a variety of sources, including sales taxes, property taxes, real estate transfer taxes, transient occupancy taxes, bond measures, land grants, gifts, user fees, and debt financing measures.

A regional open space district could be established to provide an additional funding source for acquiring land and conservation easements in the

Open Space Districts

Some open space districts focus on acquiring and managing land. The Midpeninsula Regional Open Space District (MROSD) (San Mateo and Santa Clara Counties) owns and manages over 44,000 acres of open space and 250 miles of trails. Other districts focus on easement acquisition, maintaining land in private ownership. The Sonoma County Agricultural Preservation and Open Space District acquires land and easements, and then generally passes them on to an existing organization to manage. Only one percent of the 27,000 acres of land they have protected is open to the public.

Gaviota Coast area. A district could be structured primarily as a funding mechanism, providing funds or passing land or easements to existing public and private organizations for long-term management.

The concept of an open space district has been proposed for Santa Barbara County in the past, amid concerns about new taxes and duplication of efforts. However, an open space district could provide an opportunity for local generation of conservation funds, local control of priorities and activities, and public investment in the future of the Gaviota Coast. Formation of an open space district would require a successful ballot initiative.

Develop a Transfer of Development Rights

Program. Transfer of Development Rights (TDR) programs are local, incentive-based programs that encourage land conservation by allowing landowners to sell or transfer the right to develop a parcel of land (the 'sending' parcel) to a parcel of land in another location (the 'receiving' parcel). Once development rights are transferred, development of the sending parcel is restricted with a permanent conservation easement. Development at higher densities is then allowed on the receiving parcel. Landowners are thus able to obtain equity from the development potential of their land while ensuring long-term protection of the land. Fifty jurisdictions nationwide have established transfer of development rights programs to conserve land.²⁷

Santa Barbara County could establish a TDR program. To do this, the county would need to identify sending and receiving areas, the types of transfers permitted, and zoning adjustments to create incentives for purchasing and selling development rights. Sending areas would be established in areas where less urban development is desired; receiving areas would be in locations with adequate services and infrastructure, where increased density is acceptable.

TDR programs allow a community to provide a previously agreed-upon amount of housing and other development, while reducing density in specific areas. The success of TDR programs is

generally dependent on the local government's ability to designate appropriate sending and receiving areas and establish the right incentives to encourage buying and selling. TDR programs are challenging to establish and administer.

Develop additional mechanisms for funding easement acquisition.

Santa Barbara County could develop a Purchase of Development Rights (PDR) Program and use Installment Purchase Agreements (IPA's) to provide additional funding and flexibility for easement acquisition. Under a PDR program, a local government agency can set funds aside to purchase easements from landowners, using funding programs such as the California Farmland Conservancy Program. IPA's allow easements to be purchased on a payment plan over a period of 20-30 years. During this time landowners receive tax-exempt interest on the full amount of the purchase agreement. Landowners can end the agreement and accept a lump sum at any point in time.²⁸

Expand Marine Life Protection Areas. In July 2001, the California Department of Fish and Game released Initial Draft Concepts for Marine Protected Areas in California. These concepts have served as a starting point for a public planning process regarding potential new designated areas. Under Alternative 2, the local community could further develop and implement these concepts to protect significant near shore resources.

Areas within the study area that were initially identified as possible Marine Life Protection Areas include State Marine Parks at Point Conception and Refugio Beach, and a marine protected area at Naples. State Marine Parks allow recreational fishing, scientific collection, research, monitoring, and public recreation. State Marine Parks also provide protection of submerged historical and archeological resources and prohibit or restrict commercial fishing and marine extraction. A Conception State Marine Park would highlight the biological significance of Point Conception, and protect reefs, sandy bottoms, and kelp beds. A State Marine Park near Refugio State Beach would protect the reefs in this area which support high

levels of marine invertebrates and fish. A marine protection area at Naples would protect rocky reef, kelp beds, and sandy bottom habitat.²⁹

Pursue grants and assistance from existing NPS programs. Local government or non-profit organizations could request planning assistance from the NPS Rivers, Trails and Conservation Assistance Program (RTCA). The RTCA program works with community groups and local and state governments to restore rivers, preserve open space, and develop trails and greenways. Upon request, RTCA staff can contribute expertise in facilitation, public outreach, resource assessment, and coordination to local resource planning efforts. The NPS also administers recreation grants programs and offers technical assistance in the management of National Historic Landmarks and National Natural Landmarks.

5. PUBLIC LAND MANAGEMENT AND ACCESS

Under Alternative 2 existing public land management agencies could enhance and expand their capacity for resource protection and public access. The potential for new organizations and funding sources could also be explored.

Establish a State Land Conservancy for the Gaviota Coast. A state conservancy is an independent state agency established with a specific regional focus. Such a conservancy would fund or acquire and manage land in order to preserve open space or habitat, provide for low-impact recreational or educational uses, or other similar purposes. State conservancies are generally governed by a regional board, and funded by the state legislature and other public and private sources.

State Conservancy Models

Existing state conservancies which could serve as models include the Santa Monica Mountains Conservancy, the San Joaquin River Conservancy, the Baldwin Hills Conservancy, and the California Tahoe Conservancy.

The California Legislative Analyst's Office recommends that the creation of additional conservancies be limited to areas that protect extraordinary natural resources of statewide significance. The Gaviota Coast study area includes resources of national significance and should be a high priority for a state conservancy, should the local community choose to pursue this option.³⁰

Local citizens could petition the state legislature to charter and fund a state Gaviota Conservancy, in order to bring additional state funds to the Gaviota Coast for land protection, management, and program coordination. Such a conservancy could acquire and manage land, or simply serve as a funding mechanism for the land acquisition, easement acquisition, and land management activities of other public and private organizations. Some of this function is already provided by the California Coastal Conservancy. A separate conservancy could be better positioned to advocate for funding for the Gaviota area, to seek funding from multiple sources, and to coordinate with other landowners and managers in the area on priorities for land and easement acquisition, public education and outreach programs, and resource management.

Strengthen protection of cultural and archeological resources. Many significant historic and archeological resources on both public and private land are not well documented or protected. While comprehensive inventories have been completed of cultural resources on Vandenberg AFB, the remainder of the study area is less well documented. Additional inventories, documentation and mapping of cultural sites could be undertaken both on public lands and on the land of willing private landowners. Information about sensitive sites need not be released to the public; details and locations may need to be withheld in order to protect the resources.

Few sites in the area are listed on the National Register of Historic Places. More sites have been found eligible for such listing, while even more have not been assessed for their eligibility. Sites of local, state or national significance could be documented

and listed on the National Register. Sites of national significance could also be designated as National Historic Landmarks. Such designation would help to document the historical and archeological significance of the area. Designation could enhance funding and technical assistance opportunities, such as the Historic Preservation Fund, Save America's Treasures Fund and the California Heritage Fund. Private conservation efforts could be eligible for tax benefits.

The coastal ranching landscape is considered by Santa Barbara County to be one of the most outstanding and last remaining examples of an historic California coastal ranching landscape.³¹ However, no comparative studies of the cultural landscapes of the south coast portion of the study area have been undertaken. Cultural landscape studies could be completed in order to document the conditions, integrity and significance of the area, to help decision-makers understand which aspects of the landscape are most critical to protect, and to develop a plan for the management of the cultural landscapes.

Many sites within the study area are important to Chumash people. Chumash organizations such as the Coastal Band of Chumash Nations, Barbareño Chumash Council and the federally-recognized Santa Ynez Band of Chumash use ceremonial sites within the study area. These organizations and others could continue to work with landowners and managers to protect sacred sites and archeological resources, and to obtain access or



Tranquillon Peak, NPS photo

ownership of important sites for ceremonial, interpretive, and educational purposes. They could work with the US Coast Guard or subsequent owners to develop interpretive opportunities at Point Conception.

Focus additional resources on coastal trail planning and development. A state land conservancy or open space district could facilitate Santa Barbara County's efforts to dedicate additional resources to the planning and development of the coastal trail and complete high priority sections as quickly as possible. Priority sections could include: 1) westward from Goleta, in order to provide close-to-home trail opportunities for urban residents; 2) outward from existing parks and trail segments, in order to connect trail and park uses; and 3) trail connections to significant resources suitable for public visitation. Key areas that have received attention and interest include the area from Refugio State Beach to Gaviota State Park, and south from Jalama Beach County Park to Point Conception and Cojo Bay.

Where this proposed trail route crosses private property, cooperation, communication, creative thinking, and flexibility are likely to be needed on all sides in order to identify opportunities for access to the coastline, without compromise of fragile resources or productive use of private property. In the short term, some sections may need to be routed along existing public roads, including U.S. Highway 101. In some areas, the coastal trail may be able to be developed alongside existing rail lines (the "Rails with Trails" concept). However, in many areas, the land is too steep and hazardous and the rail line is too close to the coast or bluffs to safely add a pathway. The marking of the Juan Bautista de Anza National Historic Trail, which follows the coast for much of the study area, could occur in conjunction with coastal trail development.

Develop additional coast-to-crest and coast-to-viewpoint trails. The county could work to create connector trails from the coastal trail up the canyons to significant viewpoints or to the Los Padres National Forest in several locations. Trail

acquisition and development could be accomplished working cooperatively with private property owners, State Parks and the Los Padres National Forest to acquire trail rights of way and easements to provide non-motorized recreational trails. Any trail development should be done in consultation and cooperation with landowners. It should respect the working agricultural landscape and unique resources of the Gaviota Coast³² and avoid areas where privacy and agricultural operations would be negatively impacted. In some areas there may be opportunities for public acquisition of broader parkland connections from the coast to the forest.

Two logical trail locations are on county-owned property at Baron Canyon Ranch near Tajiguas and at Ferren Road near Ellwood. These trails are identified as proposed recreation trails by the County of Santa Barbara. The county completed a feasibility study for a coast to crest trail on the county's Baron Canyon Ranch property that would connect the coastal trail to the Los Padres National Forest.³³

El Capitan Ranch, newly acquired by California State Parks, connects El Capitan State Beach with the Los Padres National Forest. Trail connections from the coast to the forest are likely; such decisions will be made as state parks completes a general plan for the park over the next few years.

Arroyo Hondo Ranch, recently acquired by the LTSBC, also reaches from the coast to the Los Padres National Forest. A trail through the ranch could connect to the Los Padres National Forest trail system. It could be routed to allow appreciation of riparian and canyon habitats, while avoiding negative impacts.

The owners of Rancho Dos Vistas have indicated their intention to dedicate a trail easement through this property to connect with trails on other public land. The 650-acre easement on El Capitan Ranch will also include a dedicated recreational trail easement.

The Brinkman property, which has been offered for

sale in recent times, provides logical trail routes from Gaviota State Park to the Los Padres National Forest, as well as other possible trail options. A land trust or public agency could pursue acquisition of trail routes or easements in conjunction with any future sale of the property.

Develop additional coastal access

opportunities. The coastal land below the mean high tide line, and the first three miles of ocean, are considered public trust resources, and thus belong to all the people of California. Additional access points to these public resources could be developed. This should be done in cooperation and consultation with landowners and should respect privacy concerns and avoid areas where agricultural operations would be negatively impacted. Additional access has been proposed at a number of sites, and could become available in conjunction with sale or development of some of these properties:

- The old Arco site now owned by the Dos Pueblos Associates, in conjunction with proposed golf course or other development or sale
- Las Varas Ranch – if sold or developed
- Eagle Canyon – if sold or developed
- Naples – under consideration with residential development being planned
- The Gaviota Oil and Gas Processing Facility near Gaviota State Park - if decommissioned in the future. The county or state could acquire the land, take advantage of some of the existing infrastructure, and develop public access to the beach, a campground or interpretive or cultural center.
- Point Sal - the county could improve public access from Brown Road to Point Sal State Beach and county-owned lands at Point Sal.

Enhance state and county park systems and programs.

The state and county park systems could seek opportunities to acquire significant resource lands and to provide recreational and coastal access opportunities.

The City of Goleta, Santa Barbara County, University of California, Trust for Public Land, a private developer and others are working on proposals to protect the area encompassing the UCSB Devereux Reserve, monarch butterfly preserve and extensive bluff lands and beach at the edge of the urban area. These proposals, if implemented, would provide additional beach access and recreational facilities at the edge of the urban area where such facilities are most likely to be fully utilized.

Camping facilities at Gaviota State Park could be expanded in a way that reduces impacts on natural resources while expanding capacity. The wetland and floodplain of Gaviota Creek could then be restored.

Jalama Beach County Park may soon be expanded under a Bixby Ranch Company proposal to donate additional acreage to the park. Additional opportunities for expanding this park could be explored if they become available.

Point Conception lighthouse is likely to be declared surplus federal property within the next few years, and made available for management by others



monarch butterfly preserve, NPS photo

through the National Historic Lighthouse Preservation Program. If appropriate access can be negotiated with the Bixby Ranch Company, the lighthouse, outbuildings and surrounding land could be adapted for limited educational and interpretive uses, and possibly for overnight accommodations. The BLM California Coastal National Monument, California State Parks, Santa Barbara County, and a number of non-profit organizations could be considered as potential stewards for the area.

Enhance federal agencies involvement with surrounding communities. The Los Padres National Forest leadership has expressed interest in working more closely with interested local landowners and organizations in collaborative land management and resource protection, educational and interpretive programs, and public access. Los Padres National Forest could acquire lands within their authorized boundary to protect recreational and wildlife corridors. Acquisition would be from willing sellers only, with priority on lands most valuable for resource management and recreation.

The Juan Bautista de Anza National Historic Trail could take advantage of additional opportunities for public education and interpretation if additional coastal open space were protected, and additional sections of the Coastal Trail were completed.

6. VANDENBERG AIR FORCE BASE

Under Alternative 2, Vandenberg AFB could work through partnerships with neighboring jurisdictions and non-profits to expand and enhance their public access and education programs.

Vandenberg AFB has been an excellent steward of the natural and cultural resources under their care and plans to continue to dedicate substantial staff to resource management. Vandenberg AFB has also provided limited public access to specific areas within and on the edges of the base. VAFB could seek opportunities to increase public access to specific areas of the base in ways that don't threaten natural or cultural resources or the safety and security of the base.

Ocean Beach County Park and Surf Beach are adjacent to Vandenberg AFB, and provide critical shoreline access to north county residents. However, due to beach closures for endangered species protection, access is very limited during the time of the year when demand is heaviest - from March to September of each year. Vandenberg AFB and County Parks could work together and with other interests to identify other areas of the base that might be suitable for increased public access managed by County Parks. Possible candidates include Minuteman Beach and the Sudden Ranch area. All public access to areas within and near the base would be subject to closure for safety and security purposes.

The County and Vandenberg AFB could work together to develop workable approaches to routing the California Coastal Trail and the Juan Bautista de Anza National Historic Trail through the base. Access by permit or guided by permitted organizations could allow limited and responsible access, while addressing safety, security and natural and cultural resource concerns.

Vandenberg AFB could work with non-profit conservation and education organizations to allow guided tours of the base in order to increase public appreciation and understanding of the base's natural resources, historic sites, and current missions. Such tours could be subject to approval of the base commander in terms of locations, frequency, numbers, and closures for safety, security and resource management purposes.



top: lifeboat rescue station, NPS photo
bottom: Sudden Ranch main house, NPS photo

Draft Gaviota Coast Feasibility Study



National Park Service
U.S. Department of the Interior

Alternative 2: Enhanced Local and State Management

Alternative 2 provides a menu of recommendations that could be pursued by the local community. Recommendations include:

1. Private landowners could take individual and cooperative action to protect the area's significant resources.
2. Non-profit organizations could partner to develop new programs and pursue new funding sources in order to enhance their resource conservation capabilities.
3. Additional private and governmental measures could be pursued to support agricultural land conservation and to enhance the viability of the area's farming and ranching operations.
4. Certain regulatory programs could be strengthened and new programs developed to support resource conservation.
5. Public land management agencies could enhance and expand their capacity for resource protection and public access.
6. Vandenberg AFB could develop partnerships with other organizations to expand and enhance public access and education programs.

Legend

Existing Land Management

Study Area Boundary

Public land

Easements

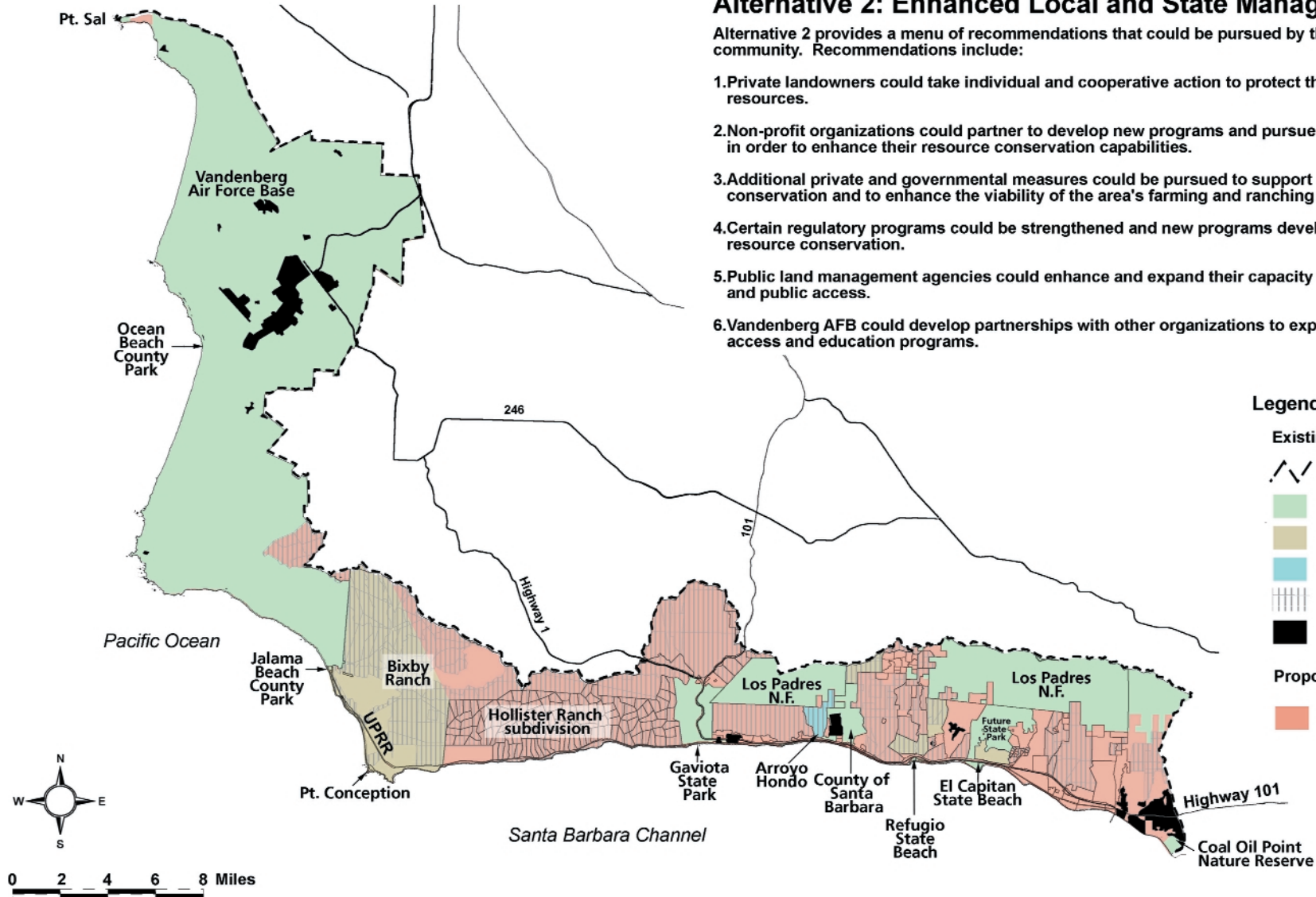
Private preserve

Williamson Act

Urban and built-up land

Proposed Land Management

Enhanced Local and State Management



Produced by Pacific Great Basin Support Office, Oakland, CA

Draft March 12, 2003

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PART 2. Environmental Assessment



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1. Purpose and Need

Purpose

In November 1999, Congress authorized the National Park Service (NPS) to evaluate the feasibility of including all or part of the Gaviota Coast in the National Park System (P.L. 106-113, 113 Stat. 1535, 1537 - Nov. 29, 1999). The NPS has prepared this feasibility study (also known as a Special Resource Study) of the Gaviota Coast to provide information to Congress on the significance of these resources, and on the suitability and feasibility of designating the area or some portion of it as a unit of the National Park System. The study was prepared following the process established by the National Park System New Area Studies Act (P.L. 105-391, 16 U.S.C. Sec. 1a-5). This law requires that these studies be prepared in compliance with the National Environmental Policy Act (NEPA). This Environmental Assessment (EA) has been prepared in order to identify and analyze the potential environmental and socioeconomic consequences of each of the alternatives considered in the Feasibility Study.

NPS policies require that EIS's (rather than EA's) be prepared for Special Resource Studies (feasibility studies) when the following conditions are met:

(1) The resource being studied meets the criteria for inclusion in the National Park System (i.e. it is nationally significant and is deemed feasible and suitable for inclusion in the system)

(2) One of the alternatives being considered is designation as a National Park System unit, even if that is ultimately not the recommendation of the Secretary (Director's Order #12 and Handbook).

An EA has been prepared for this study because the area does not meet the criteria for inclusion in the National Park System, and designation as a National Park System unit is not being considered.

At the beginning of the study process, the NPS initiated an Environmental Assessment (EA) process along with the Feasibility Study to provide a forum for public input and to evaluate potential environmental and socioeconomic consequences. Through the initial public scoping process, it became apparent that the study process was generating controversy. At the same time, the NPS adopted new policies for environmental impact analysis and decision-making which required that Environmental Impact Statements (EIS's), rather than EAs, be prepared to accompany Special Resource Studies that consider additions to the National Park System. Because of the controversy and the policy changes, the NPS determined that an EIS was likely to be necessary. The study team then took the actions necessary for the preparation of an EIS, including publication of a Notice of Intent in the Federal Register, and re-opening of the scoping process. A more detailed discussion of the public involvement process can be found in the Consultation and Coordination section of this report.

In Fall, 2002, the NPS completed the feasibility analysis process, and concluded that NPS management of the Gaviota Coast was not feasible. Alternatives that include NPS management are therefore not presented and evaluated in the study report. According to NPS policy, an EA is sufficient for a Special Resource Study if the area does not meet the NPS standards for inclusion in the National Park System, and if no NPS alternatives are considered. This report therefore includes an EA, rather than an EIS.

Need

The NPS was first contacted by proponents of protection of the Gaviota Coast in 1994, when the Audubon Society and others organized a Coastal Preservation Conference focused on the Gaviota Coast, and invited an NPS representative to speak. Various groups concerned about expanding urbanization, displacement of agriculture, reduced

public beach access, and stressed coastal watersheds and marine ecosystems, worked together over the next few years to develop a conservation strategy for the Gaviota Coast. One of their actions was to seek Congressional authorization for the NPS to study the area's potential as a unit of the National Park System.

In 1999, NPS staff conducted several site visits to preliminarily evaluate the significance of the area's resources, and to meet with a range of area stakeholders and elected officials. NPS staff concluded that the area was worthy of further NPS study, because of its assemblage of natural and cultural resources, and visitor experience and educational opportunities. In mid-1999, in response to the local interest and endorsement of the study concept from local and state government agencies, elected officials and Congressional representatives, the NPS included this area in its annual list of areas recommended for study for potential inclusion in the National Park System, as authorized by the National Park System New Area Studies Act [P.L. 105-391, 16 U.S.C. Sec. 1a-5 (b)(1)]. This list was included in legislation passed by Congress in November, 1999, thus authorizing a feasibility study of the Gaviota Coast.



Barnsdall - Rio Grande gas station, NPS photo



Haskell's Beach, NPS photo

2. Affected Environment and Environmental Consequences

Introduction

This section of the Environmental Assessment (EA) describes the potential environmental and socioeconomic consequences (also called impacts or effects) of implementing the two alternatives considered in the Gaviota Coast Feasibility Study.

The following factors should be considered in reviewing this Environmental Assessment:

- Because the alternatives in the Feasibility Study are conceptual in nature, the analysis of environmental consequences in this EA is necessarily quite general. The NPS can only make reasonable projections of likely impacts.
- The NPS is neither the decision-maker nor the implementing organization for any of the actions proposed under either of the alternatives. The alternatives recognize the prerogative of individuals and organizations to choose whether and how to implement elements of the alternatives. Impacts therefore may vary widely depending on how the responsible organization or individual chooses to implement these measures.
- Impacts associated with actions recommended in Alternative 2 are conditional based on the goals and priorities that would be established in the local community upon implementation of the suggested actions.
- Action items identified in the alternatives may require additional environmental analysis before they can be undertaken by the various implementing agencies and organizations.
- Compliance with federal and state biological and cultural resource laws and regulations, and local zoning and permitting regulations and processes would be required for any actions under either of the alternatives.
- Not all of the actions under Alternative 2 may be possible or practical in the near term. This alternative is presented as a menu of programs and tools that could be pursued. Some may be able to be implemented quickly, others may take longer, and the community may choose not to implement certain elements.
- Current economic conditions limit the potential in the near term for increased local, state and federal funding for conservation and recreation. Some initiatives may not be financially feasible in the near term, while others may require more creative approaches to funding.

ORGANIZATION OF ENVIRONMENTAL ASSESSMENT

This documentation of the affected environment and analysis of impacts is organized by impact topic. Under each impact topic (land use, biological resources, cultural resources, etc.), the affected environment is discussed, followed by an analysis of the environmental consequences of each alternative.

Regulations and policies that guide and limit management actions are presented in Table 8.

An analysis of how each alternative meets the goals of NEPA and the goals that were established at the beginning of the alternatives process can be found at the end of this EA.

METHODOLOGY FOR ANALYZING CONSEQUENCES

Consequences are determined by comparing future conditions under each alternative with the existing baseline conditions, and by comparing future conditions under Alternative 2 to the future conditions under Alternative 1 (the “no action” alternative). The analysis includes consideration of the context, intensity, duration, and cumulative effects of the alternatives. The NPS based this

analysis and conclusions on a review of existing literature, information provided by experts within the NPS and other organizations; analysis of case studies of existing programs in other locations, and the professional judgment of the study team members.

The following definitions, standards, and guidelines will be used in describing consequences:

- **Context** : Impacts are considered at their local, regional, or national context as appropriate.
- **Intensity**: For the purposes of this analysis, intensity or severity of the impact is defined as:
 - **Negligible** - Impact to the resource or socioeconomic environment is at the lower level of detection; no discernible effect
 - **Minor** - Impact is slight, but detectable; impacts present, but localized, and not expected to have an overall effect.
 - **Moderate** - Impact is readily apparent; clearly detectable and could have appreciable effect on the resource or socioeconomic environment
 - **Major** - Impact is severely adverse or exceptionally beneficial; would have a substantial, highly noticeable influence on the resource or socioeconomic environment
- **Duration**:
 - **Temporary** – Impact is temporary or transitional, associated with a specific action or with a predictable endpoint.
 - **Near term** – Impact will begin within the next 1-10 years, and will continue in the long-term or have permanent effects
 - **Long-term** – Impact will not likely begin until after the next 1-10 years, but will likely have permanent effects on the resource or socioeconomic environment.
- **Incidence**:
 - **Direct effects** - Impact is caused by the action and occurs at same time and in the same place as the action.
 - **Indirect effects**- Impact is caused by the action, occurs later in time and at some

distance from the action, but must be reasonably foreseeable. Indirect effects may include changes in ecological processes that result in a change to the environment.

Timing: It is impossible to predict when any specific actions within either of the alternatives would be implemented. Hence the specific timing of impacts is not addressed in this EA. The timing of impacts would need to be addressed during future planning processes. For the purposes of this EA, the time frame in which impacts are analyzed incorporates roughly the next three decades, except where different time frames are specified.

Summary of Alternatives

In preparing the Gaviota Coast Feasibility Study, the NPS was unable to identify any NPS management options that satisfied all four requisite evaluation criteria (national significance, suitability, feasibility and required direct NPS management). NPS Management Policies specify that when any of these four criteria are not met, alternatives for NPS management will not be developed. Therefore, alternatives that include NPS management are not analyzed in this report. The two alternatives from the Gaviota Coast Feasibility Study that are evaluated in this Environmental Assessment are summarized as follows:

ALTERNATIVE 1: CONTINUATION OF CURRENT PROGRAMS AND POLICIES (NO ACTION):

Alternative 1 is the “no action” alternative for this study. Under Alternative 1, the NPS would take no action in the study area beyond those actions already authorized (e.g. recreation grant programs, historic preservation programs, Rivers, Trails and Conservation Assistance Program, and the Juan Bautista de Anza National Historic Trail). Current programs and policies of existing federal, state and county agencies and non-profit conservation organizations would remain in place and current conditions and trends would continue. Land use changes would occur, consistent with county and state decisions under zoning, the local coastal plan, and other existing regulations.

ALTERNATIVE 2: ENHANCED LOCAL AND STATE MANAGEMENT (ENVIRONMENTALLY PREFERRED ALTERNATIVE):

Alternative 2 provides a menu of programs and tools that could be pursued by the local community. It offers additional incentives for private land conservation, funds for non-NPS public and private acquisition of land and conservation easements and public access to the coast, and added capacity for existing land management organizations.

Environmental Impact Topics

Environmental impact topics were selected for analysis based on federal laws, regulations and NPS Management Policies; concerns expressed by the public or other agencies during scoping; and the relevance to the study area and to the alternatives under consideration.

The affected environment and an analysis of the environmental consequences of the alternatives are presented for each of the impact topics. A brief description of each impact topic is given below:

■ Socioeconomics and Environmental Justice

Includes population, housing and employment; agriculture; services and facilities; and transportation. Also addresses effects on socially and economically disadvantaged populations and public health and safety effects of dispersed residential development.

■ Land Use

Includes agriculture, prime and unique farmlands, effects of existing and proposed land use measures. Also addresses conflicts with land use plans, controls or policies; and natural or depletable resource requirements and conservation potential.

■ Biological Resources

Includes threatened and endangered species, rare and sensitive habitat, wetlands and floodplains, and the effects of existing and proposed conservation measures. Also

addresses important scientific resources, ecologically critical areas, and other unique natural resources.

■ Cultural Resources

Includes archeological resources, historic sites and structures, cultural landscapes, and Chumash cultural and sacred sites, and the effects of existing and proposed conservation measures. Also addresses historic properties listed or eligible for the National Register of Historic Places, urban quality and design of the built environment, scientific resources and research and interpretation opportunities.

■ Recreational Use and Experience

Includes public parks, coastal access, trails, recreation demand, access to public lands.

■ Scenic Resources

Includes access to and views of coastal areas, the historic ranching cultural landscape and the Santa Ynez Mountains from highways, roads, railroad, coastal parks, trails, and beach access areas. Also addresses urban quality and the design of the built environment.

■ Water Resources

Includes water supply and water quality. Also addresses public health and safety issues related to water quality.

■ Air Resources

Includes air quality impacts from activities both within and outside of the study area.

Mandatory topics:

NPS policies require that several impact topics be considered and either be addressed in the EA, or else be explicitly determined to be irrelevant. These topics requiring mandatory consideration are:

1. Conflicts with land use plans, controls, or policies.
2. Energy requirements and conservation potential.

3. Natural or depletable resource requirements and conservation potential.
4. Urban quality, historic and cultural resources, and design of the built environment.
5. Socially or economically disadvantaged populations.
6. Wetlands and floodplains.
7. Prime and unique agricultural lands.
8. Endangered and threatened plants and animals and their habitats.
9. Important scientific, archeological, and other cultural resources, including properties listed or eligible for the National Register of Historic Places.
10. Ecologically critical areas, Wild and Scenic Rivers, or other unique natural resources.
11. Public health and safety.
12. Sacred sites.
13. Indian Trust resources.

All of the above topics are incorporated into the impact topics above, with the exception of the following, which have been dismissed from further analysis:

Energy requirements and conservation potential: this topic was dismissed from further consideration because no actions proposed involve direct energy requirements. Traffic and transportation issues are addressed in the Socioeconomics and Environmental Justice topic; emissions issues are addressed under the Air Quality topic.

Indian Trust resources: this topic was dismissed from further consideration because there are no Indian Trust Resources within the study area.

"Environmentally Preferred" and "Preferred" Alternatives

The NPS is required to identify an "environmentally preferred alternative" in an EA. The "environmentally preferred alternative" is the alternative that best protects, preserves, and enhances historic, cultural and natural resources, and that causes the least damage to the biological and physical environment. More specifically, the "environmentally preferred" alternative is the one that best meets the criteria spelled out in the National Environmental Policy Act (NEPA), section 101(b).

Alternative 2 is considered the "environmentally preferred" alternative because it best meets the NEPA criteria. Alternative 2 increases the local capacity for permanent land conservation, the potential for effective sustainable management of significant natural and cultural resources in the long term, and public appreciation of the study area. Additional discussion of the environmentally preferred alternative can be found with the summary of environmental consequences at the end of this EA.

The "preferred alternative" is the agency-preferred course of action. The NPS is not required to identify a "preferred alternative" in an EA. The NPS does not have a "preferred alternative" at this time because the actions identified in each alternative are local, state and private actions, not NPS actions. The NPS will identify a "preferred alternative" after analyzing public and agency responses to the draft Feasibility Study.

Table 8: Primary impact topics to which policies and regulations apply

Policies and Regulations	Socioeconomic	Land Use	Bio-logical	Cultural	Recreation	Scenic	Water	Air
American Indian Religious Freedom Act				•				
California Clean Air Act								•
California Coastal Act	•	•	•	•	•	•	•	•
California Environmental Quality Act	•	•	•	•	•	•	•	•
California Porter-Cologne Act (point source discharge)							•	
Clean Water Act: National Pollutant Discharge Elimination System							•	
Coastal Zone Management Act	•	•	•	•	•	•	•	
Executive Order 11988, Floodplain Management		•	•				•	
Executive Order 11990, Wetlands		•	•				•	
Federal Clean Air Act								•
Federal Endangered Species Act		•	•					
Fish and Game Section 1603		•	•				•	
National Environmental Policy Act	•	•	•	•	•	•	•	•
National Historic Preservation Act				•				
Native American Graves Protection and Repatriation Act				•				
Santa Barbara County Coastal Land Use Plan	•	•	•	•	•	•	•	•
Santa Barbara County Comprehensive Plan	•	•	•	•	•	•	•	•
Santa Barbara County zoning ordinances	•	•	•	•	•	•	•	•

Socioeconomics and Environmental Justice

AFFECTED ENVIRONMENT*

Trends and Projections

Population. With nearly 400,000 residents, Santa Barbara County is ranked the 18th most populous county among a total of 58 counties in the state. Between 1980 and 2000, Santa Barbara County's population, and employment increased an estimated 33.6%, and 25.4% respectively. Lompoc, Santa Maria and Santa Ynez Valleys experienced the greatest population growth rates, ranging from 30.2 to 63.4%. In contrast, population growth rates for the South Coast grew modestly during the same period at 17%. Population and employment estimates for Santa Barbara County and cities are provided in Table 9: Census: Population and Employment 1980-2000.

In 2000, nearly 20% of the county's total population resided in the Goleta area. Newly incorporated in 2001, Goleta was formerly one of the largest unincorporated communities in the state and among the fastest growing areas in the county. Over 54% of the new residential units approved in 1999 were in Goleta and Orcutt, another growing unincorporated area in the county. Due to the growth of these areas over the last 30 years, the county was ranked as the 10th highest population of unincorporated areas among California counties.¹

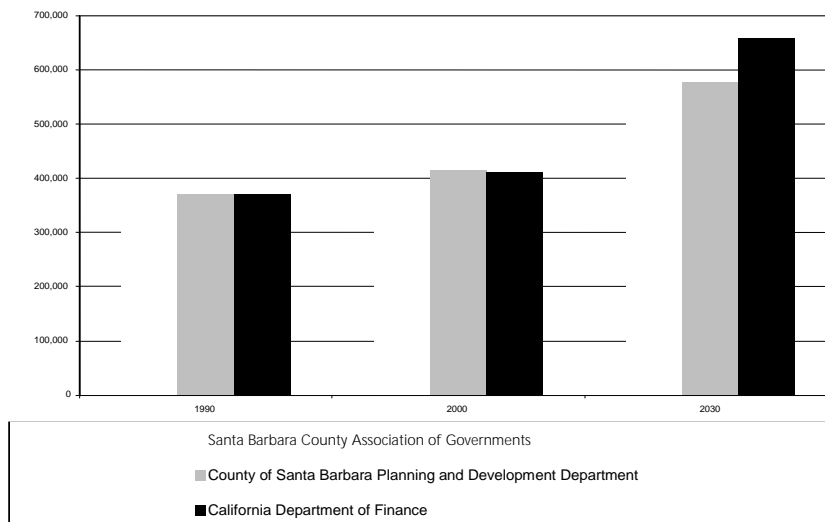
Methods for determining population projections to the year 2030 vary among local and state agencies (See Figure 1). The California Department of Finance projections for the county are based on U.S. Census Data with calculations for increases based on historic and assumed birth and death rates. The County of Santa Barbara Planning and Development Department (SBP&D) projected

Table 9: Census: Population and Employment 1980-2000

	Population			Employment		
	1980	1990	2000	1980	1990	2000
County Totals	303,237	369,608	399,347	137,469	163,247	178,400

Source: 1980, 1990 US Census, Santa Barbara County Association of Governments

Figure 1: Santa Barbara County Population Growth Estimates



* The information presented in this section reflects primarily county and subregional data because more detailed data was not available for the study area.

growth based on averaging the last ten years' annual growth rates for the county and applied this average to estimate population growth over the next thirty years. The Santa Barbara County Association of Governments (SBCAG) uses a methodology similar to the state but factors in the effects of existing county land use policies on the growth rate. All three projections indicate that Santa Barbara County will experience significant growth pressures by the year 2030.

The California Department of Finance forecasts the most aggressive population projections with a growth rate of 60% for the county overall for the next thirty years. Santa Barbara County Department of Planning and Development projects a growth rate of about 40%. The Santa Barbara County Association of Governments projections are the most conservative, with a countywide population growth rate of 30% by 2030. Both SBP&D and SBCAG estimate a greater growth rate in the North County with a slower rate along the South Coast. SBP&D estimates that 50 percent of the county will reside in North County by 2005, increasing to 54% by 2030. SBCAG estimates a growth rate of 40% in the North County with a slower growth rate of 20% along the South Coast.²⁻⁴

SBP&D, the California Department of Finance, and SBCAG studies are all plausible future scenarios for the county. However, the growth pressures facing the study area are primarily on the eastern end near the Goleta Urban Rural Boundary Line. Currently, the county has projected that if all the residential projects currently approved for Goleta Valley are built, then it will reach 90% of its planned residential buildout. After buildout, the Goleta Valley may need up to 8,500 additional homes to accommodate growth, requiring 3,000 more acres of residential land at typical densities. Given the current pressures, we will assume for this environmental assessment that by 2030 there will be increased pressure to develop in the eastern end of the study area.⁵

Housing. The demand for housing in Santa Barbara County has pushed the cost of housing beyond affordability.* In 2001, the countywide median home price of \$329,262 was considerably higher than the state average of \$265,915. The South Coast is one of the least affordable areas in the United States, with the median price of a home at \$655,000. This figure is beyond the reach of service sector employees and many higher income professionals. Median home prices in the South Coast rose 14.5% per year over the past ten years. Median home prices rose 18.8% per year in the North County.⁶

In 2001, demand pushed home prices up significantly from the previous year in the more affordable northern areas of the county. Examples include Lompoc (increasing from \$134,500 to \$170,000), Santa Maria (increasing from \$144,000 to \$169,250), and Santa Ynez (increasing from \$343,50 to \$350,000).⁷

As the above figures indicate, demand for residential real estate in Santa Barbara is high. South Coast property for large estate development, in particular, is at a premium. In the eastern portion of the study area near the western Urban Rural Boundary Line, land values have ranged from \$52,272 per acre at Winchester Ranch to \$658,000 per acre at Santa Barbara Cove (eagle canyon coast). Approximately 11,000 acres of land within the study area have been on the market in recent years (See Table A4 in the "Tables" section).



Winchester Commons, NPS photo

* Under state and federal statutes affordability is defined as housing which costs no more than 30% of gross household income. Housing costs include rent or mortgage payments, utilities, taxes, insurance, homeowner's association fees, and related costs.

Employment. The 2000 US Census reported 178,400 employed residents in Santa Barbara County. The unemployment rate remained stable at 3.5% in 2001. Significant job losses in the agriculture sector last year strongly impacted the low job growth rate of .17%, down from 3.4% for the previous year. Job creation is expected to average around 1.2% a year for the next ten years.⁸

The Santa Barbara County Association of Governments anticipates the creation of 79,000 additional jobs over the next 30 years. This accounts for a 44% increase in the number of jobs from 2000 to 2030.

Employment sectors that contributed the largest growth rate in 2001 were local government (1,300 jobs), finance, insurance, and real estate (400 jobs) and state government (300). Other sectors such as business services, transportation and communications experienced no job growth, but remained stable. In the past year, the largest losses in employment were seen in agriculture (1,400 jobs), and wholesale trade (300 jobs).⁹⁻¹⁰

Over the past thirty years, large employment producing industries have located in the South Coast resulting in a larger numbers of employees relative to the number of new homes. As a result, South Coast workers have looked to North County

communities, such as Santa Maria, Orcutt, Lompoc and Buellton, to meet their housing needs. Conversely, North County has more housing than jobs. This has resulted in a jobs/housing imbalance in which 20,000 workers are currently commuting daily to the South Coast. Caltrans is considering proposals to widen Highways 101, 154 and 166 and has approved a proposal to widen Highway 246 between Lompoc and Buellton. These proposals will likely take years to plan and construct and will cost millions of dollars in public improvements and remove hundreds of acres of agriculture land.¹¹

Santa Barbara County has developed into a service-based economy in the last twenty years. The service sector is the fastest growing sector and contains the majority of jobs in the county. Government, healthcare, agriculture, retail trade, and high tech sectors lead as the largest employment categories in the area. By 2030, service sector job growth will account for 30% of all regional jobs. The majority of growth will occur in the South Coast, especially within the tourism industry, which is also the largest employment sector in the South Coast. Table 10 provides countywide job distribution data for the next 30 years.

Income. In 1999, real household median income in the county was \$46,677, as compared to \$41,994 nationally and \$47,493 for the state. The

Table 10: Countywide Job Distribution Data 2000-2030

Employment Sector	2000	2015	2030
Agriculture	8.70%	8.30%	8.20%
Mining	0.50%	0.50%	0.40%
Construction	4.50%	7.20%	9.00%
Manufacturing	10.20%	10.60%	10.80%
Transportation	2.90%	2.60%	2.50%
Wholesale Trade	3.20%	3.30%	3.50%
Retail Trade	19.00%	17.70%	16.70%
Finance, Insurance, and Real Estate	4.20%	3.70%	3.40%
Services	28.20%	29.10%	29.80%
Government	18.80%	17.20%	15.60%
Total	100%	100%	100%
Source: Santa Barbara County Association of Governments Regional Growth Forecast 2000-2030			

1999 median household income for the South Coast (\$49,918) was only slightly higher than household median income for the North County (\$45,474). Income levels have been unable to keep pace with the rising cost of housing in Santa Barbara County.

Tourism. A picturesque coastline, numerous parks and beaches, wineries and a mild climate make the county a popular vacation destination. While business travel declined 11% from 1996 to 3 million visitors in 2000, leisure travel increased 17% to 6.7 million visitors during that same period.¹² Over 8 million were visitors to the South Coast. Travel, dining and recreational services provide a significant number of jobs, suggesting a strong dependence on tourism for a large number of private sector jobs. In 2000, tourism generated \$1.2 billion in total spending, approximately 20,000 jobs and \$83 million in tax revenues. Much of the growing tourism is associated with the expanding wine industry in the North County.¹³ Table 11 includes a summary of travel impacts for Santa Barbara County.

The county experienced a 17% growth in hotel/motel room sales in 2001 compared to 9.7% for the previous year. For the past eight years, sales have increased an average of 8.4% per year. A recent study by the University of California at Santa Barbara predicts that this positive trend will continue, but cautions it may be at a decelerated rate of growth as compared to prior years.¹⁴⁻¹⁵

Agriculture. Agriculture is the largest production industry in the study area, and the third largest

employer for the county (See Land Use map in the "Maps" section). Over half of the county's open lands are privately-owned agricultural land. Although the agricultural workforce declined last year by 9.4%, agriculture is a major contributor to the regional economy. In 2001, the agriculture sector provided 15,000 jobs. Sales of agricultural products declined 6.1% with \$634 million in revenue. The decrease was largely offset by an 18.9% increase in the harvest of wine grapes. Wine grapes are primarily produced in the Santa Ynez Valley, outside of the study area. Broccoli followed as the second largest crop with \$78 million in revenues.¹⁶

Agricultural operations on the Gaviota Coast support the production of avocado, citrus, cherimoya orchards and cattle grazing. Farming opportunities exist from Goleta to Point Conception. Bixby and the Hollister Ranch Subdivision, with over 42,000 acres, represent the majority of agriculture land along the North Gaviota Coast, where cattle grazing is the primary form of agriculture. A detailed discussion of land use and agriculture trends has been provided in the following section, "Land Use."

Oil Production. Oil and gas development is the principal industrial activity in the study area. Offshore oil and gas production in Santa Barbara County accounts for 57.8 % of the state's total offshore production and 89.9% of its natural gas production. Total employment in the oil and gas extraction sector increased to 800 in 2001, an increase of 100 from the previous year.¹⁷

Table 11: Summary of Travel Impacts for Santa Barbara County, 1992 and 2000

	DESTINATION SPENDING (\$M)	TOTAL TRAVEL SPENDING (\$M)	EMPLOYMENT JOBS	EARNINGS (\$M)	TAX RECEIPTS (\$000)
1992	747.1	754	15,100	242.1	53,003
2000	1155.2	1169.2	19,300	371.5	83,203
Annual Change 1992-2000	5.6%	5.6%	3.1%	5.5%	5.8%
Note: Destination spending does not include air transportation or travel arrangement. Employment includes all full- and part-time payroll employees and working proprietors. Property taxes are not included.					
Source: Dean Runyan Associates, 2002					

There are seven oil and gas processing facilities in the study area, one of which, the Texaco facility at Gaviota, is not in operation. The other six facilities process and/or store oil and gas from offshore fields, which accounts for almost all of the gas and oil production. The Gaviota Oil and Gas processing facility and Exxon Las Flores Canyon oil processing facility have been designated as consolidated sites for processing all new oil and gas production from offshore reservoirs. Several oil facilities within the study area are planned for abandonment or decommissioning. These projects include the Unocal Cojo Marine Terminal on Bixby Ranch, the Texaco-Hollister Ranch pipeline abandonment, and the Gaviota Oil and Gas Facility excess equipment removal project.

In 1999, then Interior Secretary Bruce Babbitt extended 36 state and federal leases for offshore oil production off the Ventura, Santa Barbara and San Luis Obispo coasts. The State of California and others filed suit, arguing that these lease extensions required a determination from the California Coastal Commission that they were consistent with state coastal protection laws. In December 2002, a federal appeals court voided the lease extensions pending review by the Coastal Commission and analysis of the environmental impacts of the lease extensions.



Venoco Oil and Gas Processing Facility, NPS photo

Transportation. The Gaviota Coast study area includes part of the City of Goleta. It is accessible by U.S. Highway 101, which runs east west along the coast from Goleta to Gaviota State Park, then turns inland. U.S. Highway 101 connects the Gaviota Coast to the City of Santa Barbara and other major population centers such as Los Angeles, 100 miles to the south, and San Jose 245 miles to the north. North County residents access Highway 101 via Highways 1 and 246.

SBCAG identified Santa Maria Valley, Lompoc Valley and Ventura County as areas with the highest number of South Coast commuters. With population growth and a jobs/housing imbalance between North County and the South Coast, traffic on Highway 101 between Santa Barbara and Goleta is reaching capacity during both the morning and afternoon peak hours in both directions.¹⁸ Annual traffic growth between 1990 and 2000 on Highway 101 south of Route 1 was approximately 1.9%.

According to the Santa Barbara County Department of Planning and Development, major improvements within the last few years to area intersections and roads have helped to temporarily alleviate traffic congestion. However, these improvements cannot keep pace with the rapid growth in population and housing.¹⁹

Caltrans control stations along Highway 101, close to and within the study area, have recorded increases in average daily traffic counts (ADT) between 1993 and 2001. ADT increases occurred along Highway 101 at Los Carneros Road (28 percent), Glen Annie/Storke Roads (27 percent), and El Capitan Beach State Park (25 percent) during PM peak hours. Northbound Highway 1 traffic showed similar patterns during the same period. ADT increased along Highway 101 at Jalama Road (16 percent) and Vandenberg Air Force Base, Main Gate (20 percent) during PM peak hours.²⁰ A level of service (LOS) analysis was conducted by Caltrans for sections along Highways 101 and 1 (data for Highway 246 was not available). Level of service is a widely used system of describing traffic and driving characteristics at

different intensities of traffic flow and congestion.*

The LOS analysis results indicate that most of the major corridors are currently operating between LOS B and E on southbound Highway 101 and between LOS C and F for northbound traffic. Northbound Highway 101 at the Highway 154 junction is operating at full capacity at LOS F. Southbound traffic is operating at LOS E, or very heavy and unstable traffic conditions. Traffic on Highway 1 is operating between LOS A to LOS D for the three segments analyzed by Caltrans. Figures show that the segment three miles east of the Highway 1/101 junction to south of the Highway 246/1 junction is experiencing the heaviest traffic and delays at LOS D.²¹

SBCAG develops future year projections of traffic volumes. The forecasts are used to provide an indication of the general magnitude of traffic that would be using major routes in and near the study area in the future. SBCAG traffic model forecasts that by 2020, average daily traffic counts will increase 19.6 % at Highway 101 north of Winchester Canyon and 21.7 % at Highway 101 north of Los Carneros.²²



Highway 101, NPS photo

* LOS A: Light traffic. Average travel speed of about 90% of free flow speed. Stopped delay at signalized intersections is minimal. LOS B: Moderate traffic. Average travel speeds drop due to intersection delay and inter-vehicle conflicts, but remain at 70% of free flow speed. Delay is not unreasonable. LOS C: Substantial traffic. Stable operations. Longer queues at signals result in average travel speeds of about 50% of free flow speeds. Motorists experience appreciable tensions. LOS D: Heavy traffic. Approaching unstable flow. Average travel speeds down to 40% of free flow speed. Delays at intersections may become extensive. LOS E: Very heavy traffic. Unstable flow. LOS F: Saturated flow conditions, forced flow, low operating speeds.

ENVIRONMENTAL CONSEQUENCES

Alternative 1

Population and Housing. Regional changes in population and housing within the next 30 years forecast a 30% to 60% population increase and could result in a housing shortage of over 178,000 units countywide. The strength and effectiveness of current growth management could be severely tested as the county could be pressured to secure large amounts of additional land for housing. Urban land set aside for other use could be rezoned for residential use. The Santa Barbara County Planning and Development Department has stated that the most likely areas for development are open space and agricultural lands adjacent to urban areas, in lots less than 100 acres in size and not in the agricultural preserve. Such pressures could result in adverse impacts on the eastern end of the study area and could involve adjusting the western Urban Rural Boundary Line to accommodate additional housing units.²³ Rising land values and restrictions on development in order to keep land in agricultural use would continue to negatively impact the supply of affordable housing in the near-term.

Employment. Major changes to employment and output have been forecast for the County. Over 79,000 new jobs are projected in the county, with the service sector as the largest employer. The tourism sector in Santa Barbara County would continue to grow, following historical patterns. The number of jobs created would be small within the study area relative to the number of jobs in the region.

Agricultural employment in the study area could be affected to the extent that agricultural uses expand or contract in response to market forces and regulatory pressures. While current zoning and regulations have slowed the conversion of

farmland to other uses in the study area, rising land values and the potential conversion of farms and ranches to rural residential estates in the eastern end of the study area may result in the displacement of some farms and ranches in the long term. Displacement of farms for other land uses could negatively impact employment. Those particularly impacted could be minority and low-income populations that have traditionally held a large number of low-paying agricultural jobs.

Services and Facilities. Most municipal services, utilities and other facilities in the unincorporated areas along the Gaviota coast and nearby cities would experience long-term impacts under Alternative 1 due to projected growth in population and possible residential development. Infrastructure improvements for water, sewer, roads, and parking would be required to accommodate growth, placing additional burdens on government budgets and pressure for additional tax revenues.

A study by the Northern Illinois University and American Farmland Trust on the fiscal costs and public safety risks of low-density residential development on farmland found that for many living in dispersed houses or subdivisions, the emergency response times for police, ambulance and fire fighters exceeded national standards. If additional farmland is converted to rural residential development under existing agricultural zoning, there could be adverse impacts to the response time of services such as police and fire protection.²⁴

Transportation. Regional population increases, a continuation of the jobs/housing imbalance, and residential, commercial, and industrial development at various locations in the region are likely to generate additional traffic flows on study area roadways and highways. Specific recreation development could have localized adverse circulation impacts that could be mitigated through site design and access improvements. Increased numbers of visitors to the Gaviota Coast could also adversely impact traffic flows. However, additional traffic from increased visitation would

be minimal as most increases in traffic congestion would be from the jobs/housing imbalance projected between the north and south county areas. The extent of congestion will depend on how state and local transportation managers respond to needs for expansions and upgrades to transportation systems. Pressure from these long-term impacts associated with the jobs/housing imbalance could result in widening Highways 1, 246 & 101. The portion of these traffic increases attributable to activities in the study area is expected to be minimal.

Mitigation efforts could include the promotion and development of transit operations and ridesharing programs, the development of high wage jobs in North County or the implementation of an affordable housing program with a focus on South County. Establishment of an affordable housing program in the South County area would continue to be challenging given the area's high land values.

Conclusion

Population, housing and employment countywide are expected to increase substantially in the long-term, with significant differences in growth patterns between the North and South County areas. In the Goleta area, housing would be unable to accommodate this growth due to land use restrictions and a lack of vacant land zoned for residential development. Residential buildout could be reached on the South Coast in 8 years and in North County in 15 years. The development pressure could cause adverse impacts on the eastern end of the study area and could involve adjusting the western Urban Rural Boundary Line to accommodate additional housing units in the long-term. Lack of affordable housing due to high land values on the South Coast could adversely impact disadvantaged populations historically employed in low-wage industries such as agriculture and tourism.

If agricultural land is converted to rural residential development under existing agricultural zoning, then burdens on emergency services could result in minor adverse impacts to public health and safety.

Traffic volumes would increase on the roadways and highways due to population and housing growth outside the study area. Highways 101, 1, and 246 would experience the greatest amounts of traffic congestion and other related problems. Specific recreation development could have localized adverse traffic impacts that could be mitigated through site design and access improvements. Roadways within the study area would experience increased volumes over time, but would continue to operate effectively and without unacceptable levels of traffic congestion. The portion of these traffic increases attributable to activities in the study area is expected to be minimal. Mitigation could include the promotion and development of transit and commuter programs that would help reduce the number of vehicles using the commuter corridors through the study area.

Alternative 2

Population and Housing. Programs and tools proposed under Alternative 2 could retain more open space, with indirect adverse impacts on housing. Tighter restrictions on development in order to keep land in agricultural use could continue to negatively impact the supply of affordable housing in the near-term. This is especially true in the Goleta area that borders the Urban Rural Boundary Line and where demand for housing would eventually exceed supply. Low-income and minority populations could be impacted by this shortfall, as increases in demand drive up the cost for homes and rental units. Disadvantaged populations historically employed in low-wage industries such as agriculture and tourism would continue to be impacted by housing costs.

Local Economy. If the local community were to establish an open space district, state land conservancy, or purchase of development rights program, additional open space amenities would be protected through easements and land acquisition. Additional detailed analysis on associated socioeconomic impacts would be required with the establishment of such a

program. However, the economic benefits of open space have been documented in numerous studies. In the long-term, protected rivers, trails, and greenway corridors have the potential to create jobs, enhance property values, expand local businesses, attract new or relocating businesses, increase local tax revenues, decrease local government expenditures, and promote a local community.²⁵ Without a specific proposal for establishing such an entity, a detailed analysis cannot be undertaken at this time.

If additional recreational opportunities were made available through entities such as an open space district or state land conservancy, this could result in an increase in the number of visitors to the study area. An increase in visitors could bring additional sales taxes and revenues from tourist-related activities and services.

Changes in local ordinances could affect the types of land use allowed in the study area. This could impact the tax base and other revenue streams in either a beneficial or adverse direction, depending on the land use controls adopted. Stricter controls on uses such as residential development could suppress future growth in the tax base that might otherwise be realized as land was converted from agriculture to more intensive uses.

Employment. The local economy could benefit if local labor and materials are used to improve existing, or construct new, facilities, campgrounds and trails. New facilities would contribute minimal employment opportunities within the study area relative to the number of service related jobs in the region. Minor levels of in-migration could occur for job opportunities in the tourism and construction industries.

Agricultural protection measures such as easement programs could help to ensure the continuation of farming- and ranching-related employment.

Services and Facilities. Alternative 2 could include the construction and operation of additional visitor facilities. The type and amount of visitor or recreational facilities developed would

depend on the goals of the local community when establishing an open space district or state land conservancy. With implementation of the mitigation measures and development requirements, adverse impacts on services and facilities would be negligible.

Specific impacts of Alternative 2 on county services and fiscal conditions cannot be determined, but would likely be minor. Utility infrastructure would not be adversely impacted. On-site infrastructure (such as water, sewer, roads and parking) identified within the study area could be enhanced as part of the construction activities associated with the development of visitor facilities and improved road access. However, an increase in visitors to the study area as a result of Alternative 2 could require infrastructure improvements. This could create additional expenses for the county that may or may not be offset by increased tourism expenditures.

Transportation. Commuter traffic patterns would not change under this alternative beyond those identified under Alternative 1. Traffic volumes and the level of service provided by the roads in the study area would be similar to those identified under Alternative 1.

An increase in the number of visitors could increase traffic congestion and noise along Highway 101 and local roadways. However, the increase in visitation under this alternative is expected to be minimal, relative to the commuter and other traffic from outside the study area. Under Alternative 2, no regionally significant traffic impacts would occur beyond those impacts identified under Alternative 1.

Conclusion

Programs and tools proposed under Alternative 2 could retain more open space, with indirect adverse impacts on housing. Under Alternative 2, tighter restrictions on development could negatively impact the supply of housing. Low-income and minority populations could be impacted by this shortfall, as increases in housing demand drive up the cost for homes and rental units. Additionally, agricultural protection measures

such as easement programs could help to ensure the continuation of farming- and ranching-related employment.

The creation of new programs, enhancement of existing programs, and local development of trails could attract new visitors to the area, creating modest increases in jobs. Minor levels of in-migration could occur for job opportunities in the tourism and construction industries.

Transportation impacts and changes in traffic volume under Alternative 2 would be insignificant in the regional context. Similar to Alternative 1, traffic volumes could increase on the roads within and near the study area due to growth in the surrounding communities. Alternative 2 would add a negligible increment to traffic volumes and congestion, with no change in projected levels of service.

Land Use

AFFECTED ENVIRONMENT

Trends

Land use regulation plays an important role in the protection of resources within the study area. As coastal areas are experiencing the greatest increase in population in California, coastal resources are increasingly facing potential impacts of development. The following section will discuss trends in land development, focusing on the protection of agricultural land, the study area's major land use. Land use impacts affecting other resource topics will be discussed in subsequent sections. It is assumed that public land within the study area will not be developed and that agricultural land owned by public agencies will continue to be used for agriculture in the foreseeable future.

The study area is the largest remaining rural area on the southern California Coast. The few major developments within the study area include the County landfill, oil-processing facilities located from Goleta to Point Conception, rural residential development, and resort facilities. The Goleta Valley, in the far eastern portion of the study area, is the fastest growing area on the South Coast of Santa Barbara County.²⁶ Major coastal development projects over the last ten years include Bacara Resort (78 acres), an approved development plan for 162 residential units at Ellwood Mesa (38 acres), and several rural residential estates such as those found on lots at Hollister Ranch. Development proposals include housing near Sandpiper Golf Course in Goleta (14 acres) and Naples (485 acres). A proposal for a new golf course adjacent to Sandpiper Golf Course was recently denied by the California Coastal Commission. Future growth pressures may result in a change in zoning to accommodate more housing outside of the Urban Rural Boundary Line. However, this would depend on whether the newly incorporated City of Goleta implements policies to slow growth or increase density within the Urban Rural Boundary Line.

Farmland. The loss of high quality farmland to development is an issue that has received national attention. Most threats to farmland occur on the fringe of metropolitan areas where the value of land for development far exceeds its agricultural value.²⁷ In California, 100,000 acres of farmland are lost to urbanization annually.²⁸ Analysis of statewide trends indicates that the region around Santa Barbara is also experiencing losses of farmland. The Central California Coastal Valleys just north of the study area are among the top twenty areas experiencing the greatest losses of farmland in the United States. However, agricultural lands in the study area have not experienced significant farmland conversion over the past two decades.



Bixby Ranch, NPS photo

With the rising value of land in the eastern portion of the study area, it is likely that any farmland sold on the market would be used for residential uses. In 2001, the average value of agricultural land in production in California was valued at \$1,050 an acre for grazing and \$5,500 an acre for fruit production. By comparison, agricultural land that sold for development exceeded \$40,000 an acre statewide.²⁹ Of the 87,930 acres of private land within the study area, approximately 11,000 acres of agricultural land have been on the market in recent years (See Table A4, in the "Tables" section. Approximately one-third of this total acreage was priced higher than \$5,500 an acre, the state average for fruit production. Asking prices for the 11,000 acres totals approximately \$296 million with an average of \$27,000 per acre. In the Goleta and Naples area the average asking price

was approximately \$167,000 per acre, versus \$11,000 an acre for areas farther west. Asking prices in Goleta and Naples were exceptionally high ranging from \$52,272 an acre at Winchester Ranch to approximately \$600,000/acre at coastal areas adjacent to the Bacara Resort.³⁰⁻³³ One third of the land for sale was recently protected from future development through conservation easements or land acquisition. Despite this, the great disparity between agricultural land values and market land values will continue to act as an incentive for landowners to sell since farmland can be sold for development at prices significantly higher than returns from agriculture. Rising land values could make it increasingly more difficult for conservation groups to purchase land for conservation.

In Santa Barbara County, loss of agriculture is consistent with statewide trends that show the largest losses of farmland in areas adjacent to urban development. However, the loss in the county is occurring at a slower rate. Between 1988 and 2000, Santa Barbara County lost a total of 5,709 acres of farmland.³⁴ Agricultural land represents 40% of the total amount of land developed over the last twenty years. Nearly all of this conversion took place in the North County. In addition to losses from development, widening proposals for highways, if implemented, would also result in the loss of hundreds of acres of agricultural land.³⁵

Analysis of impacts on prime and unique farmland is required under the National Environmental Policy Act (NEPA). Prime farmland is defined as irrigated land with the best possible combination of physical and chemical features able to support agricultural crops. Unique farmland is defined as having lesser

quality soils that are used for the production of the state's leading agricultural crops. Countywide data on prime and unique farmland in shows an increase in prime and unique farmland in recent years. This can be attributed to the recent increase of vineyards in the Santa Ynez Valley, located north of the study area boundary. Wine grapes are one of the state's leading agricultural crops and have recently become Santa Barbara County's number one producing crop, accounting for \$118 million in sales in 2001. The increase in vineyards has thus led to a total increase of prime and unique farmland in Santa Barbara County. However, this trend cannot be applied to the study area since the climate and topography in the study area is not suitable for wine grapes.³⁶⁻³⁷

Most of the farmland in the study area is classified as grazing land. In 2000, approximately 100,000 acres of land, both public and private, were suited for grazing livestock. This number has remained relatively constant despite the fact that grazing land declined by over 13,000 acres countywide between 1988 and 2000.³⁸ The countywide trend can be attributed to low financial returns on grazing: approximately \$5-10 in revenue per acre for leased rangeland in Santa Barbara County.³⁹ Loss of grazing land to non-agricultural use impacts cultural and scenic resource values in the study area.

The eastern end of the study area includes a majority of the study area's prime and unique farmland. Although the total amount of farmland in the study area has remained constant over the past ten years, acres of farmland considered prime and unique has decreased somewhat since 1988 (see Table 12: Farmland Trends for the Gaviota Coast Study Area).

Table 12: Farmland Trends for the Gaviota Coast Study Area

Acres of Farmland	Year					
	1984	1986	1990	1994	1998	2000
Total Prime and Unique*	7541	7861	7920	7951	6743	6844
Grazing	102591	102368	102166	102131	102821	102662
Total Farmland	110132	110229	110086	110082	109564	109506
Source: California Department of Land Conservation, 2001.						
*Includes farmland of local and statewide importance.						

Tax Incentives. Much of the farmland in Santa Barbara County is protected voluntarily under the Williamson Act. Since its establishment in 1965, total farmland enrolled in Santa Barbara County's agricultural preserve under the Williamson Act has steadily increased. However, between 1991 and 2001, prime farmland protected under the Williamson Act has declined 25% representing a loss of 18,000 acres countywide. In 2001, roughly 52,000 acres of prime farmland and 497,000 acres of nonprime farmland were enrolled under Williamson Act contracts in Santa Barbara County.⁴⁰

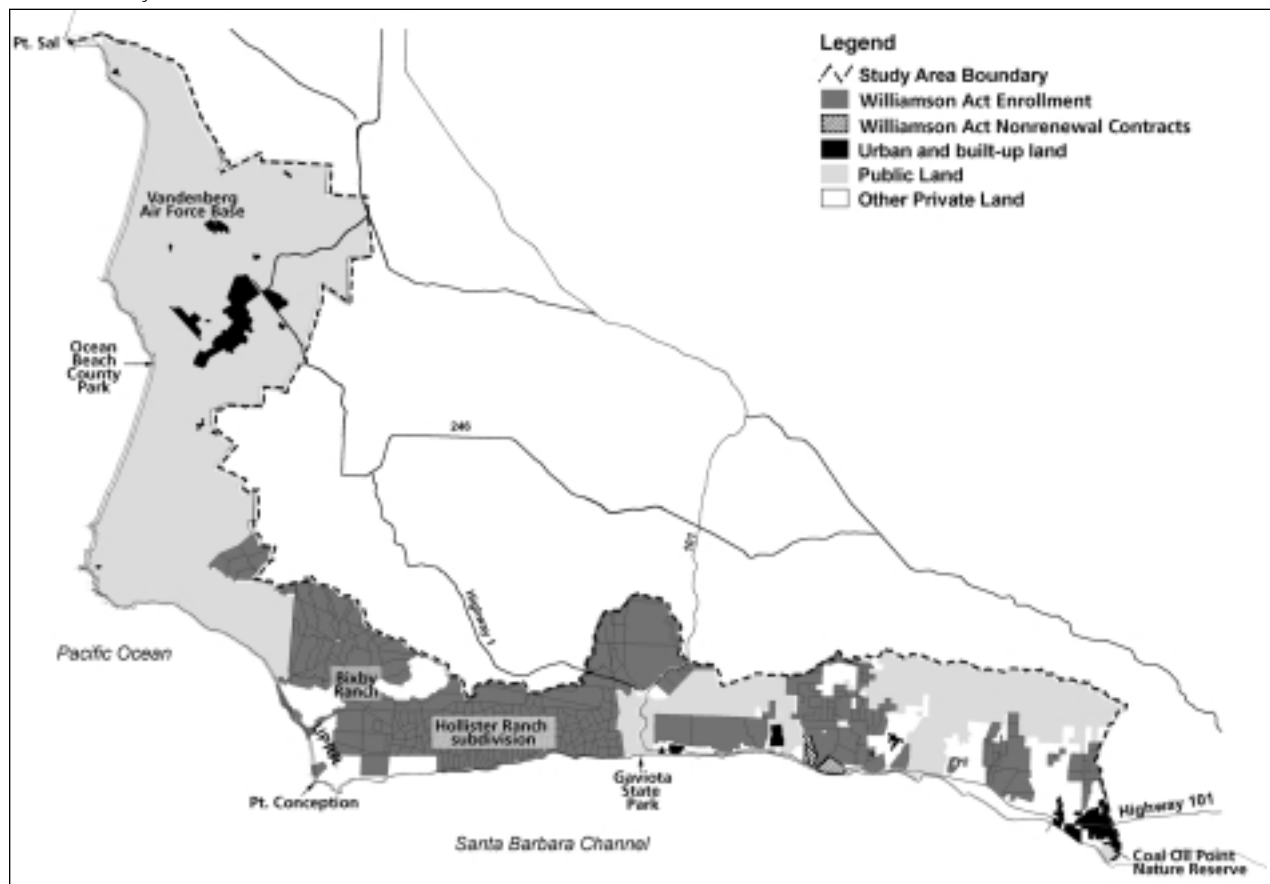
Within the study area, 87,930 acres of land are privately owned, with approximately 63,000 of these acres under Williamson Act contracts. Owners of 534 acres of land in the agricultural preserve have recently opted not to renew their contracts (nonrenewal). Countywide, approximately 133 acres of prime and unique farmland have been preserved

under the Farmland Security Zone Program (also known as the Super Williamson Act).⁴¹

While the Williamson Act has been successful in conserving farmland throughout most of California, it is less successful in areas where growth pressures have caused rapid urban development. Most of the state's nonrenewal contracts are located in rapidly urbanizing areas of southern California such as Riverside, Ventura, and San Diego counties.⁴² When the value of land for development outweighs the benefit derived from the Williamson Act, landowners have less incentive to stay in the program. The Williamson Act now faces new challenges as much of the land enrolled thirty years ago is now closer to growing urban areas.⁴³ The Williamson Act is most effective in preventing farmland conversion when combined with zoning constraints and other agricultural land preservation tools.

Figure 2: Williamson Act Enrollment, 2002

Source: County of Santa Barbara, 2003



Within the study area, landowners adjacent to urban development in Goleta have the least amount of land enrolled under the Williamson Act. The majority of agricultural land with Williamson Act contracts is located west of Gaviota State Park (approximately 70%); miles from the Urban Rural Boundary Line (see Figure 2: Williamson Act enrollment, 2002). In addition, lands protected under the Williamson Act may also become vulnerable if the State acts on a recent proposal to discontinue funding to reimburse local governments for property taxes lost from Williamson Act contracts.

Zoning. While local agricultural zoning provides a framework for protection for agricultural lands, it is also vulnerable to changes through the local planning process. In the study area, including western Goleta, there have been approximately 40 zoning changes over the past two decades. Changes include upzoning, downzoning, and the application of special overlay districts including Environmentally Sensitive Habitat overlays established under the Coastal Plan.⁴⁴ In the Goleta area, only 537 acres of residentially-zoned land is vacant. According to the County of Santa Barbara, the estimated demand for land to accommodate housing in Goleta over the next 30 years may exceed all of the urban land available by over 3,000 acres.⁴⁵ This rate of growth may increase pressure to develop in areas beyond the Urban Rural Boundary Line in the long-term.

The majority of the agricultural land in the study area is zoned for agriculture. However, non-agricultural uses of the land under existing agricultural zoning have occurred in past years. The County regulations for agriculturally zoned land allow the construction of recreational facilities and golf courses under a conditional use permit. Agricultural land has also been subdivided into large lot, rural residential estates.⁴⁶ Hollister Ranch, one of the largest ranches on the Gaviota Coast, was subdivided into 135 hundred-acre parcels in 1970 and sold for large-lot ranch estates. This resulted in the construction of an extensive network of roads along hillsides and placed additional demands on the limited local water

supply. Agricultural use of the land has become secondary to residential uses on many of the lots.⁴⁷ The Agricultural Element of the Santa Barbara Comprehensive Plan adopted in 1991 currently discourages subdivision of agricultural land into parcels that would not be viable for agricultural production. The County has adopted the Lot Line Compliance and Lot Line Compliance Adjustment Program to prevent lot line adjustments that would undermine agriculture. Several lawsuits have recently been filed by landowners over these lot line restrictions.

Because of an anomaly in the County's development history, higher density development will be allowed at Naples, a site that was formerly in agricultural use. Fifty-five homes are currently proposed for this 485-acre site, although higher densities are allowed site based on approved subdivision plans developed for the Town of Naples by speculators in 1888.

Conservation Easements. Easements allow permanent protection of resource land in a manner that is flexible and can be tailored to meet the needs of the landowner. Currently, 2,700 acres of land within the study area have been protected by conservation or agricultural easements. The direct cost for purchasing the conservation easements was \$5.2 million. In addition, Vandenberg AFB has acquired restrictive safety easements on approximately 16,600 acres of Bixby Ranch adjacent to the base. Approximately 1,500 acres are restricted from residential development. This "zero-development" zone does allow recreational development such as trails, camping and golf courses. The remainder of the easement is classified as "low-development" and allows up to 45 residential units. The U.S. Air Force paid \$22 million for these safety easements.

The Land Trust for Santa Barbara County estimates that there are 21,000-22,000 key acres of private land that need protection and that the cost for protecting this land through tools such as easements over time could cost up to \$75 to 100 million. Rising land values may hinder the ability to purchase easements.

The voluntary nature of easements makes them less predictable as a land conservation tool. Successful easement transactions depend on the easement holder's relationship with the landowner. Local support through land trusts or local governments is thus essential to a successful easement program. While subsequent landowners are bound to easement restrictions, they are not always interested in upholding the easement terms. This provides a burden on the local land trust or government to monitor and enforce the terms of the easements.⁴⁸ Funding availability will be the main challenge to purchasing easements given the rising land values in the eastern end of the study area.



La Paloma Ranch, NPS photo



Naples, NPS photo

ENVIRONMENTAL CONSEQUENCES

The following section assesses potential impacts to agricultural land as well as the effectiveness of current and proposed programs and policies in protecting these lands.

Alternative 1

Tax Incentives. Given current trends in land values and the recent nonrenewal contracts placed on some parcels in the agricultural preserve, we can assume that growth pressures and high land values could cause additional land to be withdrawn from the preserve in the eastern portion of the study area in the long-term. Loss of protection under the Williamson Act could have a moderate and direct, adverse impact on prime and unique farmland in the long-term if it is used for non-agricultural use. Land conversion to non-agricultural uses in the eastern part of the study area may also have an indirect, adverse impact in the long-term on adjacent private land where value and potential for development would increase.

The Natural Heritage Preservation Tax Credit Act of 2000 provides an incentive for landowners to protect land through granting tax credits in exchange for conservation easements. The State Legislature suspended funding for the Natural Heritage Tax Program for fiscal year 2002-2003. It is not certain at this time whether the State Legislature will reopen the program for fiscal year 2003-2004, or if the program will be extended beyond the end of the 2005 calendar year. Tax credits were granted to purchase a conservation easement for Rancho Dos Vistas in 2002 (700 acres of which is in the study area). Because of the uncertainty regarding the future of this program, it is not possible to predict the impact it would have on future land conservation in the study area.

Zoning. Development under conditional use permits permanently impacts the agricultural landscape. Under current zoning, it is expected that projects could be approved in the future with mitigation measures to avoid impacting the area's most significant environmental resources.

The development of rural residential and conditional use projects could result in a direct, adverse impact on agricultural lands in the long-term with the construction of housing and supporting facilities such as roads. Long-term, adverse, indirect impacts could result, as land values in adjacent areas are likely to increase, leading to more incentives to develop additional land.

In recent years the oil industry has been in the process of decommissioning many of its pipelines and processing facilities on the study area coast. The most recent major oil development proposal (Tranquillon Ridge Project), located offshore of Vandenberg AFB, was denied by the Board of Supervisors. The project would have involved extended-reach drilling and production from Platform Ireneof oil and gas reserves in the State Tidelands, located in federal waters. New development from major oil processing facilities with major adverse impacts is not expected in the near term.

Coastal Plan. The Coastal Plan requires a 320-acre minimum lot size for agriculturally zoned land within the Coastal Zone and restricts building on environmentally sensitive habitat. This large lot size could reduce the amount of residential units built on agricultural land. However, this is not the optimum size lot for ranching. The University of California conducted an analysis that identified 1,800 acres as the minimum amount of land necessary for a viable ranch.⁴⁹ The 320-acre lot size could result in the use of lots on former grazing land for high end rural residential development leading to idle use of agricultural land. The Coastal Plan is also subject to future changes through public planning processes. The Coastal Plan would continue to have a beneficial impact on the preservation of agricultural land by controlling development in the near term. Although it is difficult to anticipate with any certainty, with future development pressure and rising land prices for ranch lands, the coastal plan may not be as effective in the long term.

Conservation Easements. It is not always financially viable for landowners to donate or sell easements. In rapidly urbanizing areas there is often a reluctance to donate easements when property owners believe that they might prosper more by entering into future land development.⁵⁰ Easements typically compensate for about one to two-thirds of the land's market value. Given current funding levels and increasing land values, higher land values could limit the amount of acres protected using easements. Conservation easements are therefore likely to provide a minor to moderate beneficial impact in the long-term depending on the future availability of funding.

Conclusion

County zoning, regulations, and tax incentives would continue to provide major beneficial protection of agricultural land within the study area in the near term. However, given the high value of land in the eastern portion of the study area, it is likely that in the long-term that some land would be converted to residential or other allowed uses such as golf courses. This would have a moderate adverse impact on agricultural land (prime and unique as well as grazing). Indirect impacts from future rising land values and population growth pressures may result in additional pressure to develop land in areas that are not threatened by development in the near term. Over time direct and indirect adverse impacts on agricultural land could be moderate.

Easements would continue to provide a minor to moderate beneficial impact on agricultural land given that funding sources would be limited and land values are high. It is unlikely that additional development for oil production would adversely impact future land use.

Alternative 2

Analysis of Alternative 1 indicates that even with the use of existing tools such as agricultural zoning, the Coastal Plan, tax incentives, and conservation easements, high land values could create incentives for the conversion of agricultural land to residential or other land uses in the long-term. Alternative 2 suggests use of a variety of land use tools and funding sources to provide more opportunities to permanently protect land from development. The results of such tools are dependent on the community's decision to implement them. The following analysis is based on the assumption that the community would implement suggested programs. Impacts are assessed based on successful implementation in other areas.

Additional Funding Sources. Establishment of an open space district (OSD) or state land conservancy would provide an increase in the amount of funding available for the purchase of land and easements within the study area. In addition to funding, the benefits of establishing such programs include long-term planning for open space protection and the jurisdictions to work cooperatively in their efforts to conserve land. However, establishing such programs can be a political and administrative challenge.

Open Space Districts. OSD's primarily look to property or sales tax revenue as a means to raise funds for easements and open space acquisition. Other sources of funding include land grants, gifts, as well as debt financing measures. Budgets, acres of protected land, and goals for conservation differ between open space districts (See Table 13). An

Table 13: Examples of Open Space Districts - Funding and Acres Protected

Open Space District	Emphasis	Established	Annual Funding	Acres Protected
Midpeninsula Regional Open Space District (OSD)	Recreation and Open Space	1971	\$12 million (property tax)	44,000 acres of land and 250 miles of trails. All are open to the public.
Marin County OSD	Recreation and Open Space	1972	\$2.1 million (property tax)	14,000 acres protected. All are open to the public.
Sonoma Agricultural Preservation and OSD	Agriculture and Open Space	1991	\$13 million (sales tax)	27,000 acres protected (primarily easements). 1% open to the public.
Source: Sonoma County Coalition for the Outdoor Recreation Plan, 2000				

Table 14: Examples of State Regional Land Conservancies - Funding and Acres Protected

State Conservancy	Budget (2000-2001)	Land Holdings
California Tahoe Conservancy, 1984	\$ 4.1 million (support) \$ 20.5 million (property acquisition and improvement)	<ul style="list-style-type: none"> • 7,487 acres • 4,391 physical properties • 235 easements
Santa Monica Mountains Conservancy, 1979	\$ 629,000 (support) \$ 24.3 million (property acquisition and improvement)	<ul style="list-style-type: none"> • 11,000 acres
Coachella Valley Mountains Conservancy, 1996	\$140,000 (support) \$ 4.9 million (property acquisition and improvement)	<ul style="list-style-type: none"> • 17,000 acres • 1,622 physical properties • 1,138 easements
Source: California Legislative Analyst's Office, 2001, California Tahoe Conservancy, 2003		

OSD may choose to transfer acquired land or easements on to an existing agency, land trust, or organization to manage.

Assuming the same success of existing open space districts, a local OSD in Santa Barbara County could contribute from \$2 million to \$13 million dollars annually towards the purchase of easements and open space within the study area resulting in thousands of acres of protected land over the next thirty years.

State Land Conservancies. Establishing a state land conservancy is another option for increasing the amount of funding available for easements or land acquisition. Charged with acquiring land in the public trust, each land conservancy has different statutory goals. Table 14 provides for a summary of land protection by existing state land conservancies.

There are currently seven state land conservancies in operation today. Goals common to the existing seven conservancies include: 1) providing open space and recreational opportunities for population centers; 2) providing camping, hiking, and other outdoor recreational activities in remote locations; 3) ensuring the sustainability of agricultural lands; and 4) preserving wildlands for environmental and wildlife purposes. Table 14 gives a few examples of the type of budget required and acres of land protected. Establishment of a regional state conservancy in Santa Barbara County could attract funding to the study area beyond that currently available through the California Coastal Conservancy, and thereby contribute thousands of acres of protected land over the next thirty years.

Local Funding Sources. Local options for funding include establishing a purchase of development rights or revolving fund for easement acquisition. Innovative funding structures for such programs such as installment purchase agreements can be set up to allow local governments to stretch funds while landowners can acquire more than they could through a traditional cash sale. Howard County, Maryland pioneered this program

in 1987 and has added 9,200 acres of land to their agricultural easement program.⁵¹ Non-profit organizations can also establish revolving funds for easement acquisition. For the example, in the face of growing development and economic pressures, the Colorado Cattlemen's Association in 1995 formed the Colorado Cattlemen's Agricultural Land Trust (CCALT). Over 129,000 acres ranchland were protected as of December 2002.⁵²

The successful implementation of the suggested local funding sources could result in a moderate, long-term beneficial impact to agricultural land.

Changes in Local Zoning and Regulations.

Alternative 2 proposes modifications to the zoning regulations for agricultural land to increase effectiveness at retaining agricultural land. Such modifications could include limiting the types of conditional uses allowed within agricultural zoning. Some permitted recreational uses, such as golf course development, do not keep land in agricultural use or protect the character of the agricultural landscape.

Alternative 2 also proposes that the Farmland Security Zone Program could be revised to allow grazing lands to be eligible for the additional tax benefits associated with twenty year contracts. The Land Use map in the "Maps" section demonstrates that grazing is one of the dominant land uses within the study area. Changes to the zoning and the Farmland Security Program would allow additional long-term benefits for protecting rapidly disappearing grazing land in Santa Barbara County.

The recommendations for preventing zoning changes to accommodate future development in the study area include limiting upzoning through voter initiatives and updating the Coastal Plan. Voter initiatives make it more difficult for local political bodies to change agricultural zoning to accommodate development. While such initiatives could reduce the spread of developed areas, there is no quantifiable data on the effectiveness of such proposals at this time.

A comprehensive update of the Coastal Plan with

community involvement would provide an opportunity to incorporate new data on sensitive resources in need of protection. The effects of such an effort are not quantifiable at this time.

Transfer of Development Rights (TDR). The success of a TDR program is dependent on the local government's ability to designate appropriate sending and receiving areas and establish the right incentives to encourage buying and selling, as well as the willingness of landowners to use the program. TDR programs are also subject to market pressures. Fewer transactions occur if there is not a market demand for additional housing.⁵³ TDR programs are more difficult to establish and administer than other land conservation tools. The 50 existing programs nationwide protect from 0-40,583 acres of land. Over 60% of the total acres protected nationwide (88,575) are protected by Montgomery County, Maryland. Most TDR programs protect less than three thousand acres. Assuming Santa Barbara County establishes a successful TDR program, it is conservatively assumed that additional acres of farmland within the study area could be protected providing a long-term beneficial impact.

Conclusion

If the local community were to implement any of the suggested funding options and growth management actions recommended in Alternative 2, the study area could experience moderate beneficial impacts as more agricultural land (both prime and unique farmland and grazing land) could be protected in the long-term as compared to Alternative 1. Direct and indirect adverse impacts from development would be reduced as there would be more resources to protect land faced with development pressures.



lupine, NPS photo



railroad bridge at Jalama Beach County Park, NPS photo

Biological Resources

AFFECTED ENVIRONMENT

Consequences of the alternatives could potentially affect plant and animal species habitat, resulting in changes in their populations or overall well-being. Several rare, threatened, and endangered species are among those species possibly affected. Various features of the alternatives could also affect specific plant communities that are of rare and limited size and distribution.

A listing and description of species and rare habitat is provided in the Resource Description in Part 1 of the study.

Trends

Threatened and Endangered Species. Of the 1,400 species that are estimated to exist in the study area, there are 24 federally- or state-listed threatened or endangered plant and animal species and another 60 species considered rare or of special concern. The listed species are described in Part 1, Resource Description and listed in Tables A1 and A2 in the “Tables” section. Table 15 includes a summary of threats to federally- or state-listed species within the study area. The most common threats for these species include: invasion by non-native species (for plant communities); and loss or degradation of habitat.

Rare and Sensitive Habitat. Of the fourteen main habitat types within the study area, most are endangered or severely reduced from their former range. This includes kelp beds, wetlands, riparian areas, native grasslands, coastal dune and strand, coastal sage scrub, central maritime chaparral, and valley oak woodlands. Bishop pine and tanbark forests are rare because they are relic forests of limited extent. Many of the rare, threatened, and endangered species within the study area depend on these habitats for their survival.

Wetlands and Floodplains. The conversion of habitat to cropland has led to the drainage and

alteration of almost 54% of wetlands in the nation.⁵⁴ California has lost 91% of its historical wetlands over the past century. Coastal wetlands, such as those found in the study area, are among the most endangered habitat types in the world. Wetlands have been filled, dammed, diverted, channelized, and polluted. Threats to wetland health include degradation from development and agricultural activities, siltation, and invasion of non-native species.

Flooding has been known to occur in areas along the study area coast. The Santa Barbara County Public Works Department reviews proposed subdivisions and single building permit applications for elevation above the 100-year flood level. Proposed development is checked for conformance with the flood plain management ordinances, setbacks from major watercourses, adequacy of drainage plans, regional drainage planning, and protection of existing development.



Haskell's Beach, NPS photo

Table 15: Threats to Threatened and Endangered Species

Species	Status	Threats
Gaviota tarplant <i>Deinandra increscens</i> ssp. <i>villosa</i>	FE, SE	destruction of individual plants, habitat loss and degradation from petroleum production
Lompoc yerba santa <i>Eriodictyon capitatum</i>	FE	invasive plant species, low seed productivity and naturally occurring, catastrophic events
beach layia <i>Layia carnosa</i>	FE, SE	trampling, residential development, off-road vehicles, and invasion by exotic plants
Gambel's water cress <i>Rorippa gambelii</i>	FE, ST	degradation and hybridization with similar species
soft-leaved indian paintbrush <i>Castilleja mollis</i>	FE	trampling, soil loss, herbivory by deer and invasive species
Surf thistle <i>Cirsium rathophyllum</i>	ST	vehicles, foot traffic, and non-native plants
Seaside bird's beak <i>Cordylanthus rigid</i> ssp. <i>littoralis</i> (no known occurrences, suitable habitat)	SE	development, energy projects, vehicles, and military operations
Beach spectacle pod <i>Dithyrea maritima</i>	ST	trampling, vehicles, and non-native plants
Tidewater goby <i>Eucyclogobius newberryi</i>	FE	loss or degradation of habitat due to water diversions, exotic species invasion, construction, pollution and siltation are the largest threats to recovery
Unarmored threespine stickleback <i>Gasterosteus aculeatus williamson</i>	FE, SE	habitat loss through aquifer drawdowns and beaver activity
Southern Steelhead <i>Oncorhynchus mykiss irideus</i>		threats to this species include habitat loss from activities such as degradation of estuaries, and land development, as well as in-stream barriers, and reduced water flow
California red-legged frog <i>Rana aurora draytonii</i>	FT	habitat degradation from urbanization, mining, improper management of grazing, recreation, invasion of non-native plants, off-road vehicles, reservoir construction, grazing, and water quality
Western snowy plover <i>Charadrius alexandrinus nivosus</i>	FT	human disturbance to nests and breeding sites, predation, and habitat loss due to invasion of exotic species
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	FE, SE	cowbird parasitism and habitat destruction
California condor <i>Gymnogyps californianus</i>	FE, SE	predation, collisions with wires.
Bald eagle <i>Haliaeetus leucocephalus</i>	FT, SE	intentional shooting, poisoning and smuggling, chemicals, and powerlines
Brown pelican <i>Pelecanus occidentalis californicus</i>	FE, SE	disease outbreaks, low productivity and colony failure, the dependence for food primarily on the northern anchovy, oil and other spills from ships, the presence of relatively high levels of pesticides, injury from fish hooks and fish line entanglement, El Nino events.
California clapper rail <i>Rallus longirostris obsoletus</i>	FE, SE	predation, loss of habitat, water quality, and non-native species invasion, habitat fragmentation from surrounding residential, recreational, and commercial areas as well as highways
California least tern <i>Sterna antillarum browni</i>	FE, SE	habitat disturbance and predation
Least bell's vireo <i>Vireo bellii pusillus</i>	FE, SE	habitat loss, military disturbance, non-native species invasion, and long-term camping
Peregrine falcon <i>Falco peregrinus</i>	SE	loss of wetland habitat of primary prey, poachers robbing nests, shooting by hunters, and food chain contamination from use of persistent pesticides
Willow flycatcher <i>Empidonax traillii</i>	SE	degradation and loss of riparian habitat, livestock grazing, parasitism by the brown-headed cow bird
Belding's savannah sparrow <i>Passerculus sandwichensis beldingi</i>	SE	filling, dredging, and development of wetlands, loss of tidal connection to the ocean, and inconsistent tidal influence on upper marsh habitat
Southern sea otter <i>Enhydra lutris nereis</i>	FT	cruise ship wastes, oil and fuel pollution, increased development such as boat harbors, log transfer facilities, floating lodges, mariculture, and human population growth
FE = Federally-listed Endangered FT = Federally-listed Threatened SE = State-listed Endangered ST = State-listed Threatened		

ENVIRONMENTAL CONSEQUENCES

The following section assesses potential impacts to threatened and endangered species, rare and sensitive habitat, wetlands, and floodplains, and the effectiveness of current and proposed programs and policies in protecting these resources.

Alternative 1

Private Land Stewardship. Private lands play a crucial role in linking or providing important habitats for fish, wildlife, and plant species. Approximately 40% of the study area is privately-owned. Because there has been relatively little development within the study area, many of the privately-owned lands contain suitable habitat for listed species as well as other sensitive or rare species. Agricultural use of the land has preserved important habitat. However, many agricultural activities can have a direct, adverse impact on listed species. Agricultural practices can degrade habitat through trampling by livestock, and degrading watersheds through damming, erosion, and runoff. While some landowners implement restoration and habitat enhancement activities, this is a voluntary action that is limited by financial constraints. Agricultural activities would continue to have some adverse impacts on habitat, including wetlands. This impact could be mitigated by restoration and habitat enhancement activities on private land.

Educational and Incentive Programs.

Educational and technical assistance programs such as those offered by the Cachuma Resources Conservation District offer the potential for coordinated efforts to protect resources and could have a long-term beneficial impact.⁵⁵ However, since both technical and financial assistance is currently solicited by individual landowners on an as-needed basis, it is not coordinated to address critical needs for protection of specific biological resources. In addition, much of the funding available for habitat and species conservation is available on a national or statewide basis creating high competition for limited funding (see Table 16: Summary of State and National Grant Programs for

Conservation). If current levels of funding and participation within the study area continue, these programs could result in minor, long-term beneficial impacts on threatened and endangered species and their habitats.

Acquisition and Easements. Private preserves such as Arroyo Hondo provide additional protection and management of biological resources. The Arroyo Hondo Preserve, recently acquired by the Land Trust for Santa Barbara County, contains essential habitat for several federally-listed endangered species. Habitat restoration and enhancement are among the Preserve's management goals. Arroyo Hondo will continue to provide long-term benefits to biological resources. Private preserves can also take advantage of financial incentive programs that are not available to federal agencies.

Conservation and agricultural easements also provide additional opportunities to protect biological resources. The Freeman Ranch Easement, for example, requires conservation of natural and agricultural resources. Purchase of easements and land acquisition as described in the section on land use may be limited in the future as land values in the eastern portion of the study area continue to rise, and funding sources remain limited. Habitat enhancement and restoration associated with conservation easements and private preserves would continue to have a positive beneficial impact on biological resources.

Watershed Planning and Wetland Restoration.

Voluntary watershed planning efforts allow partnerships to form that can determine watershed solutions that are economically viable which, in turn, creates a higher guarantee of implementation. However, these initiatives can tend to address short-term versus long-term management issues and avoid more controversial issues necessary to improve watershed health.⁵⁶ While there is no comprehensive watershed planning program for the south coast watersheds of the study area, the Cachuma Resource Conservation District has proposed a coordinated resource management plan for the Gaviota Creek

Table 16: Summary of State and National Grant Programs for Conservation

Grant	Agency	Current Funding Levels
California Natural Heritage Preservation Tax Credit*	California Wildlife Conservation Board	Funding is currently suspended. \$33,635,827 in tax credits were awarded in FY 2001 (statewide).
Wetlands Recovery Project Small Grants Program*	California Coastal Conservancy	2001-2001: \$20M (statewide)
Conservation Reserve Program	Farm Services Agency	FY 2002: \$1.8 B (nationally)
Environmental Quality Incentives Program	NRCS	FY 2001: \$187 M (nationally)
Wildlife Habitat Incentives Program	NRCS	FY 2002: No new available funding. (nationally)
Wetlands Reserve Program	NRCS	FY 2002: No new available funding. (nationally)
Grassland Reserve Program	NRCS	FY 2003: \$48 (nationally)
Stewardship Incentive Program	USDA	FY 2002: \$0 (nationally)
Private Stewardship Grants	USFWS	FY2002: \$10 M (nationally)
North American Wetlands Conservation Act Program	USFWS	FY2002: \$ 77 M (nationally)
National Coastal Wetlands Conservation Grant Program	USFWS	FY 2002: \$15 M (nationally)
Recovery Land Acquisition	USFWS	FY 2002: \$17.8 M (nationally)
Habitat Conservation Planning Assistance	USFWS	FY 2002: \$6.6 M (nationally)
Habitat Conservation Plan Land Acquisition	USFWS	FY 2002: \$61.3 M (nationally)
Partners for Fish and Wildlife Program*	USFWS	FY: \$35.6 M (nationally)
Landowner Incentive program	USFWS	FY 2002: \$40 M (nationally)
Coastal Program	USFWS	FY 2002: \$11.3 M (nationally)
Sources: Restore America's Estuaries, 2002, California Coastal Conservancy, 2002.		
*Funding has been applied to landowners or groups in the study area.		

watershed. This could have long-term beneficial impacts on listed and rare species in this watershed. Existing wetland restoration activities described under Alternative 1 should have a long-term, positive impact on wetlands within the study area.

Coastal Plan. Local coastal plan policies will continue to protect environmentally sensitive habitat for the areas within the coastal zone by preventing most development projects that would have adverse impacts. While development projects that show a clear, significant impact on environmentally sensitive habitat are not allowed

under the Coastal Plan, some amount of cumulative impacts to biological resources may result from the approval of development projects that have minor adverse impacts to environmentally sensitive habitat. For example, several development projects near Goleta have recently been approved or built. These include the Bacara Resort and an approved development plan for 162 residential units at Ellwood Mesa.

Public Land Management. Federal land managing agencies in the study area such as the Bureau of Land Management, the U.S. Air Force,

and the Forest Service are required under the Endangered Species Act (ESA) to conserve threatened and endangered species and, in consultation with the Fish and Wildlife Service, to ensure that their actions do not jeopardize listed species or destroy or adversely modify critical habitat.

Federal land managers within the study area also work toward the restoration and enhancement of critical habitats, native, and rare species. While funding can be a constraint to federal land managers in protecting and restoring habitat, these agencies do provide a long-term positive benefit in that they have established goals and management programs to protect resources across the landform in an ecosystem approach.

Los Padres NF activities that affect habitat include prescribed burning, timber stand improvement and reforestation, pest management, site specific activities such as recreational facilities and roads, and silviculture treatments. Generally, these activities have a positive long-term impact on resources by improving the health and vigor of the forest vegetation as well as fish and wildlife.

The Point Sal land managed by the Bureau of Land Management currently has no public access and is managed as an Area of Critical Environmental Concern (ACEC). The area is managed to protect unique cultural, visual, geologic, and biological resources including rare, threatened, and endangered plant and animal species, and to maintain opportunities for compatible scientific and primitive recreation activities.⁵⁷ Because of existing resource management priorities, no adverse impacts to resources at Point Sal are expected.

The State of California has established a Marine Life Protection Area, the Vandenberg Marine Resources Protection Act Ecological Reserve, on two square nautical miles adjacent to Point Arguello. The reserve protects the sensitive soft and hard bottom habitats in the near shore intertidal zone from recreational and commercial fishing.⁵⁸ Regulations on fishing and recreational

boating in this area will continue to prevent direct adverse impacts to these resources.

On Vandenberg AFB, long-term adverse impacts arise during construction of new facilities and usually involve habitat loss and degradation. Short-term adverse impacts to natural resources are typically related to temporary mission activities, which do not permanently alter the natural environment. These short-term impacts include noise, fallout, and vapor clouds occurring during and immediately after launch activities. Vandenberg AFB will continue restoration activities and resource management on base which will have a long-term positive benefit to biological resources.

Impacts from the California Coastal National Monument establishment are unknown at this time. Increased recreational use associated with the new designation could adversely impact some resources. However, wildlife management objectives could have a long-term beneficial impact.

Recreational Areas. California State Parks and Beaches, Los Padres National Forest, County Parks, Arroyo Hondo Preserve, and the Coastal Trail provide recreational access in the study area. According to the Forest Service Resource Plan, the adverse impacts of recreational activities in the forest on fish and wildlife are negligible since 64% of forest recreation is highly managed.⁵⁹ For state and county parks, it is assumed that some direct adverse impacts will result from the construction of new facilities associated with park maintenance and visitor services.

Visitor impacts from hiking, horseback riding, and biking could have direct and indirect impacts on vegetation. Direct adverse impacts could result from soil disturbance, trampling, or removal of vegetation, and disturbance of wildlife activities or habitat. Indirect adverse impacts would include disruption of wildlife activities for species sensitive to human disturbance. These impacts would vary from negligible to minor depending on the location of recreational activities and their proximity to sensitive species and habitat. For example, pristine rocky intertidal zones found along the study area coast are more sensitive to recreational impacts

than sandy beaches. Rocky intertidal areas near shore would continue to experience direct impacts from recreational activities.

Recreational land managers often provide mitigation measures to minimize the impacts of recreational activities on biological resources. Monitoring programs are established so that activities can be ceased or redirected if it is found that they are having a negative impact on biological resources. In addition, educational programs for biological resources in recreation areas can have a long-term beneficial impact as recreational users learn to avoid sensitive areas and species.

Conclusion

Threatened and endangered species will continue to be protected by local, state, and federal laws. Indirect adverse impacts to threatened and endangered species and their habitat on public and private lands may occur as a result of recreation, agricultural activities or residential and commercial development and their associated infrastructure such as roads, landscaping, etc. Such development could result in fragmentation of habitat and introduction of invasive species if non-native plants are introduced to developed areas. Activities associated with agency missions such as recreation, silviculture, or military activities can have a negligible to major adverse impact depending on the activity and its relationship to sensitive species. Restoration and habitat management activities on public lands and landowner stewardship activities will continue to have long-term positive benefits.

Alternative 2

Land Acquisition and Easements. As described in the previous section on land use, establishment of new mechanisms for the purchase of open space could result in additional land conservation within the study area. Emphasis is different for each management entity in terms of the amount of protection focused on agricultural preservation, ecological protection, and enhancement, or recreation.

Open space districts (OSD) and State Land Conservancies can serve as managing entities for purchased land with important biological resources. Some of these entities have as their primary goals, the restoration and enhancement of biological resources such as wetlands and habitat for threatened or endangered species. Establishment of an OSD or conservancy could provide long-term beneficial impacts to biological resources by emphasizing an ecosystem approach to land acquisition and restoration activities.

Recreational access is also a goal of many land conservancies and open space districts. The amount of protected land varies among land conservancies and open space districts depending on goals established during inception. Adverse impacts from recreational use would be the same as those described under Alternative 1. Visitor impacts from hiking, horseback riding, and biking could have direct and indirect impacts on vegetation. Direct adverse impacts could result from soil disturbance, trampling, or removal of vegetation, and disturbance of wildlife activities or habitat. Indirect adverse impacts would include disruption of wildlife activities for species sensitive to human disturbance. These impacts would vary from negligible to major depending on the location of recreational activities and their proximity to sensitive species and habitat. Use of siting, design, monitoring, and educational programs as well as adaptive management strategies could mitigate impacts from recreational activities.

Additional funding sources would also create the potential for more land to be protected under conservation easements. Easement agreements often include goals for protecting biological resources resulting in beneficial impacts.

A comprehensive update of the local coastal plan could provide additional protection of biological resources identified by more current scientific resources. This action could result in a positive benefit to biological resources.

Watershed Planning. Watershed conservation efforts by public agencies and landowners in the

areas from Point Conception to Coal Oil Point have been on a site specific basis. A coordinated watershed planning effort on the Gaviota Coast organized through the Cachuma Resource Conservation District would have positive impact on many of the area's threatened and endangered species by improving wetland health, riparian habitat, and water quality.

Conservation Grants and Programs

Participation. Under Alternative 2, landowners could take greater advantage of existing federal and state assistance programs listed in Table 16 for the protection of biological resources. This would have a moderate beneficial impact on biological resources in the study area.

Marine Life Protection Areas. The concepts for State Marine Protection Areas proposed by the California Department of Fish and Game at Conception/Vandenberg coast, Refugio State Beach and Naples would have a beneficial impact on rocky intertidal habitat, sandy bottoms, kelp beds,

and reefs along the study area coast which support high levels of marine invertebrates and fish.

Conclusion

Additional land conservation programs and restoration activities with an emphasis on ecosystem management and habitat restoration would have a long-term, direct beneficial impact on biological resources as compared to Alternative 1 where such efforts are not coordinated.

Direct adverse impacts on biological resources from low-intensity, limited recreation and access, would be negligible. If high intensity recreation was the main focus of additional open space protection, then direct adverse impacts would range from negligible to major depending on location of facilities and trails in proximity to wetlands, threatened and endangered species and other sensitive habitats. Use of siting, design, monitoring, and educational programs as well as adaptive management strategies could mitigate impacts from recreational activities.



elephant seals, Rick Skillin

Cultural Resources

AFFECTED ENVIRONMENT

Features of the alternatives have the potential to affect prehistoric and historic sites, structures, and artifacts found at numerous locations in the study area. The historical background of the study area and the physical prehistoric and historic resources are discussed in the "Resource Description" section. A preliminary inventory of sites and structures is listed in Table A3 in the "Tables" section.

Prehistoric archeological sites and related artifacts consist of various forms of evidence of human activities that spanned time from approximately 10,000 years ago until the time of European contact in 1542. Prehistoric artifacts include items such as flaked and ground stone tools as well as bone and shellfish objects. Remnants of basketry or cordage, remains of living spaces, fire hearth, bedrock milling stations, mortuary remains, or rock art may exist as parts of prehistoric sites. These sites may manifest themselves as a scatter of surface material or as subsurface or midden deposits. Sites often include surface and subsurface components. In addition, sites may be submerged and include isolated artifacts deposited on the seafloor from erosion of upland sites, or remnants of aboriginal watercraft.

Historic archeological sites can be subsurface remains that contain buried foundations or other structures such as pier footings, depositional sites such as refuse dumps, and other locations. The sites may include surface remains of walkways, roads, or structures. Submerged historic sites include shipwrecks, cargo spills, historic anchorages and wharves, and aircraft.

Historic buildings and structures within the study area include lighthouses, ranch and farming structures, school buildings, bridges, railroad structures, cold war buildings and installations, and wharves.

While cultural landscape studies have not been conducted for most of the study area, the ranching landscape may be a significant cultural resource. The alternatives have the potential to affect the historic settings of sites and the character of cultural landscapes.

Trends

Because development has been limited along the study area coast, the region has many sites that have retained a high degree of integrity.⁶⁰ Currently, archeological and historical resources are threatened by agricultural activities such as plowing, cattle grazing, bulldozing, as well as grading for roads and highways, construction of buildings, parking lots, airstrips, and railways. Other threats include water erosion, fire, off-road vehicle use, development, and unauthorized collecting of artifacts.⁶¹

Many cultural sites that are eligible for listing on the National Register of Historic Places have not yet been listed. Vandenberg AFB has hundreds of eligible historic and archeological sites that could be listed.⁶² The Bureau of Land Management is also working to have an area of Point Sal listed as a National Register Archeological District.⁶³

Chumash organizations such as the Coastal Band of the Chumash Nation, Barbareño Chumash Council, and the federally-recognized Santa Ynez Band of Chumash, continue to use ceremonial sites within the study area that are accessible. These organizations have also been protecting cultural and sacred sites and archeological resources.⁶⁴ The only land set aside for use by Chumash is the 77-acre parcel of land donated by Chevron Oil, east of Gaviota State Park. The tribe uses this land for cultural, social, and ceremonial purposes.

Chumash organizations, including the federally recognized Santa Ynez Band, continue to lack access to many cultural and sacred sites. For example, access to Point Conception (Humqag) is limited by the surrounding private property. Other sites such as the former village site at Haskell's

Beach have been displaced by development. Haskell's Beach was for many centuries the site of a major Chumash settlement. The Bacara Resort at Haskell's Beach's environmental impact report identified significant environmental effects which could possibly result from the project, including adverse impacts on archeology and ethnic concerns regarding a paved parking lot was constructed over burial sites. Although mitigation was required to protect the sites from physical degradation, it did not address the religious and cultural concerns of the Chumash. At least five archeological sites were impacted, including three recorded Native American cemeteries, containing over two hundred known Chumash burials.⁶⁵

Vandenberg AFB has granted the Santa Ynez Band of Chumash and other Chumash groups access to sacred sites since 1974. In August of 1998 access was expanded to allow members of the Santa Ynez Band of Chumash to hunt and fish and collect plants for rituals and basketry on base land. They can also send observers whenever construction activity approaches ancestral graves, village sites, and shrines.⁶⁶



Bacara Resort, NPS photo

ENVIRONMENTAL CONSEQUENCES

Alternative 1

Protection of Cultural Resources Under Current Programs and Policies

Private Land. Under Alternative 1, historical and archeological resources located on private land within the study area would continue to receive some protection from landowner stewardship. Many landowners protect historic resources including ranch buildings. Enrollment of land in 10-year Williamson Act contracts and purchase of easements result in indirect beneficial protection of cultural resources by maintaining undeveloped land. Historic structures and archeological sites on private lands receive moderate beneficial impacts by limiting public access thereby preventing inadvertent damage by human trespassing and vandalism. In addition historic structures and archeological sites receive direct beneficial impacts from landowners that fence sensitive cultural areas. This is done at the landowner's discretion and with private funding. The cultural ranching landscape receives direct beneficial impacts from agricultural land preservation.

Some cultural resources on private property, including historic adobe buildings and ranch structures, could be adversely impacted from natural deterioration from lack of maintenance and some sites could eventually be lost. There could also be moderate adverse impacts from cattle grazing through trampling of sites and artifacts located in previously ungrazed areas. This could be mitigated by fencing of sites to keep cattle out, which some landowners have done. Development of land could cause direct adverse impacts on cultural and archeological resources where proposed large projects are inappropriately sited. For example, the proposed Naples development would be located in the vicinity of prehistoric Chumash village, *Mikiw*, an area rich in archeological sites.

California State policies and programs provide some protection of historical and archeological resources within the study area through the

California Environmental Quality Act, which requires the identification of both cultural resources and potential impacts during project planning. Impacts on cultural resources would require appropriate mitigation measures.

Development associated with agricultural production and recreation or allowed through conditional use permits, such as golf courses, could cause moderate and direct adverse impacts on cultural sites. Indirect adverse impacts could occur as a result of drainage changes, the presence of grazing animals, and increased opportunities for vandalism and pot-hunting by residents and visitors. Cultural landscapes would be adversely impacted by large and/or poorly located developments. However, visual quality protection goals for the coastal zone, developed by the county, are such that cultural landscape values would be taken into consideration in planning and design.

Public Land. Most public land management agencies are mandated to protect cultural resources to the extent possible consistent with their mission. Many of the historic structures and archeological sites on public land remain, some of which have retained their physical integrity. The ability of land management agencies to maintain and protect cultural resources would continue to be limited by funding and staffing levels.

Vandenberg AFB has an integrated cultural resources management plan that includes curation, a GIS cultural resource database, a public awareness program, and scientific contributions. The base maintains the Space Launch Complex 10 National Historic Landmark and has been undergoing refurbishment work on the complex. Limited public access to the base has helped to protect and to maintain the integrity of cultural resources. Impacts are directly reduced by cultural resource staff responding to emergencies including wildland fires, toxic spills, and floods. Resources are indirectly protected by cultural resource staff review of proposed projects and actions on the base. Natural threats to cultural resources include wildfire during the dry season and flooding. For example, heavy flooding during the El Nino storms

in 1998 damaged the stream crossings and bridges and the roofs of two historic houses in the Sudden Ranch area, a proposed historic district. In 2002, a wildfire burned through the same area destroying some of the historic structures.⁶⁷ Some sites eligible for listing on the National Register of Historic Places located on public land have not been listed because of limited capacity to process nominations at the California State Office of Historic Preservation.

Despite public access restrictions, some cultural resources on the base are directly and adversely impacted by vandalism and poaching of artifacts. Under Alternative 1, the base would continue to make efforts to reduce these impacts. For example, the base has refurbished two ranch houses in the Sudden Ranch area for security forces and base game wardens to protect the houses from vandalism by transients and to assist in controlling poaching, smuggling, and illegal artifact collection.⁶⁸

Los Padres NF protects cultural sites in the Santa Ynez Mountains according to provisions of its Resource Management Plan. Activities with major adverse impacts on cultural resources are poaching and vandalism, wildfire, prescribed burning, general forest recreation, grazing, and program management.⁶⁹

Additional adverse impacts on cultural resources could result from additional recreational activity on public lands demanded by a growing population. The extent of such impacts is dependent on the type and intensity of the recreational activities, the proximity of their location to sensitive archeological and historical resources and the management level capability of public land managers.

Current Protection of Chumash Sacred Sites and Artifacts

With future population growth, and increased recreation use, the study area's Chumash sites could become further degraded by future development. Development and construction of roads and the railroad have had direct negative impacts on Chumash sites.

Under Alternative 1, Chumash organizations would continue to help protect archeological resources. Through a memorandum of understanding between the Santa Ynez Band of Chumash and Vandenberg AFB, the Chumash may rebury any Native American human remains in designated areas. Their efforts would continue to result in direct beneficial impacts on Chumash sites and artifacts on Vandenberg AFB. Additional access is not anticipated under current programs and policies.

Research and Interpretation

The ability of researchers to study the cultural resources in the study area is limited by access as well as funding. Many historic structures and archeological sites are located on private land, making it difficult to study and inventory these sites. There is also a need for a cultural landscape study of the coastal ranching landscape to determine its level of significance. Lack of documentation of these cultural resources could result in indirect adverse impacts.

Vandenberg AFB has studied and inventoried cultural resources on the base. Documentation of these cultural resources has resulted in direct beneficial impacts including protection of Chumash sites and artifacts, historic buildings associated with ranching and agriculture, and Cold War structures. Public education and interpretation of cultural resources would continue to be limited by security constraints and staffing and funding levels.

Conclusion

Under Alternative 1, historic structures, archeological sites and the historic ranching landscape located on private land would continue to receive some positive benefit from agricultural preservation through zoning, easements, Williamson Act contracts, and landowner stewardship. Protection of resources would be limited by private landowner willingness and ability to expend funds on protection. However, development of land could cause direct adverse impacts on cultural and archeological resources through degradation or total loss of resources in the long-term. Some cultural resources on private

property, including historic adobe buildings and ranch structures, could receive moderate negative impacts from trampling and natural deterioration. Destruction from future development would cause some irreversible impacts.

Public land management would continue to have a long-term beneficial impact on the protection of cultural resources. However, some cultural resources on public lands may be directly and adversely impacted by vandalism and poaching of artifacts. Federal agencies would continue to make efforts to reduce these impacts, limited by funding and staffing. Some important archeological and cultural resources eligible for listing on the National Register of Historic Places would continue to lack documentation. Sites could experience negligible to minor adverse impacts from natural deterioration from lack of maintenance.

Chumash organizations would continue to protect cultural and sacred sites, resulting in direct beneficial impacts. Chumash organizations would continue to lack access to cultural and sacred sites on private land.

Alternative 2

Protection of Cultural Resources under the Proposed Programs and Policies

Under Alternative 2, additional tools and programs could be pursued to further protect cultural resources. This could include partnerships between public agencies, Chumash groups, and private landowners to inventory, protect, and access cultural resources. Listing of additional sites on the National Register of Historic Places may lead to increased funding from federal and state preservation programs. Programs include the Historic Preservation Fund (FY 2002: \$39 million), administered by the National Park Service, the Save America's Treasures grant program (FY 2002: \$30 million) administered by the National Trust for Historic Preservation, and the California Heritage Fund (\$8.5 million from a 2000 State Bond Act). Save America's Treasures grants are available for preservation and/or conservation work only on

nationally significant intellectual and cultural artifacts and nationally significant historic structures and sites. The California State Office of Historic Preservation states that there are more historic preservation projects than funding available. Use of these programs would therefore provide minor beneficial impacts in the long-term.

Additional land use conservation tools proposed in Alternative 2 could provide long-term, indirect beneficial impacts on cultural resources by controlling development and protecting open space.

Adverse impacts to cultural resources could result from additional recreational activity associated with open space areas. The extent of such impacts would be dependent on the intensity of the recreational activities and the proximity of their location to sensitive archeological and historical resources.

Establishment of the Conception State Marine Park and Refugio State Marine Park concepts would result in beneficial impacts on marine-related cultural artifacts such as shipwrecks by protecting archeological and geological resources.

Access to Chumash Sites

Chumash organizations could work with the US Coast Guard or subsequent owners to develop access and interpretive opportunities at Point Conception. Allowing the Chumash groups to access and protect sacred sites at Point Conception would result in beneficial impacts by helping to meet their cultural and religious needs.

Research and Interpretation

Additional public recreational opportunities through land acquisition, trail development, and other public access points may provide opportunities for public interpretation and education about cultural resources within the study area. This could result in increased public knowledge and change in behavior to encourage protection of resources, resulting in beneficial impacts in the long-term. However, access could increase vandalism, illegal artifact collection, and other actions that could have adverse impacts on cultural resources.

Conclusion

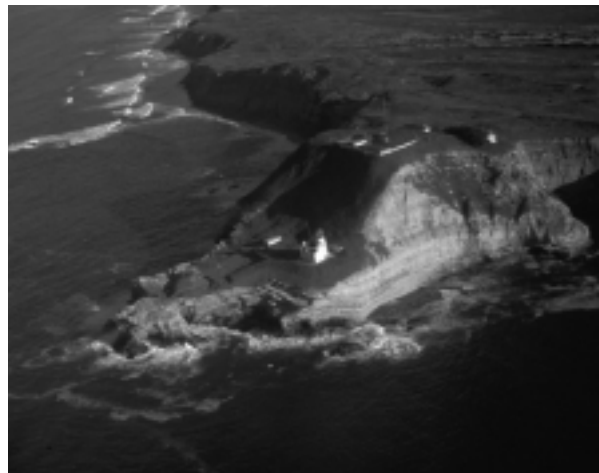
Alternative 2 includes actions that could result in long-term beneficial impacts on cultural resources, including sites that may be eligible for listing on the National Register of Historic Places.

Establishment of the Conception State Marine Park and Refugio State Marine Park concepts would result in beneficial impacts on marine-related cultural artifacts such as shipwrecks.

Additional land use tools such as transfer of development rights and the creation of an open space district within the study area could provide additional long-term indirect beneficial impacts on cultural resources by controlling development that could occur under Alternative 1.

Cultural resources would receive minor beneficial impacts from interpretive sites in recreational areas. This could result in increased public knowledge and change in behavior to encourage protection of resources. Depending on the intensity and location, increased recreational use may cause adverse impacts on cultural resources.

Allowing Chumash groups to access and protect cultural and sacred sites at Point Conception would result in beneficial impacts by helping to meet their cultural and religious needs.



Point Conception, NPS photo

Recreational Use and Experience

AFFECTED ENVIRONMENT

The existing status of recreational resources is discussed in Part 1, Resource Description. Table 17 provides a summary of existing and proposed recreation areas. Various features of the alternatives, depending on the degree to which they encourage expansion of access and development of recreational facilities, could affect the scale and range of outdoor recreational opportunities offered to the public in the study area.

Future growth and development may affect the quality of the recreational experience. Changes may occur in environmental amenities such as scenic quality and natural quiet which contribute to the enjoyment of recreational experiences. Recreational experience may also be affected by the extent to which opportunities are provided for enrichment through educational or interpretive activities.

Trends

The population of California is expected to grow from 30 million to 50 million people by 2020. Approximately 85% of the additional 20 million people are expected to live within two hours of the coast. Insufficient funding has led to difficulties in meeting new public access demands from growth pressures.⁷⁰

Total visitation to both state and county parks within the study area exceeded 1.1 million in

1999. This figure does not include visitation to the Los Padres National Forest. Current visitation to both state and county parks is 641,620.

Annual state park attendance within the study area averaged approximately 578,860 during the last six years.⁷¹ However, user surveys and population projections for the state indicate a need for park expansion in coming years. Visitor use at Gaviota State Park is currently at capacity.⁷² The primary current needs are maintaining and improving existing facilities. Future expansion plans in the study area include a 2,500-acre portion of the El Capitan Ranch recently acquired by the Trust for Public Land and transferred to the California Department of Parks and Recreation (CDPR) for the development of a new park. Budget constraints have prevented CDPR from providing public access to the Point Sal State Beach.

Historical attendance figures for Santa Barbara County parks within in the study area were not available, other than for fiscal years 1999 through 2002. Attendance for County parks was 111,980 for July 2001 to June 2002. Due to the limited data, attendance projections were not feasible. Ocean Beach Park experienced a 22% drop in attendance in 2002 after the park began annual six-month closures to aid the survival of the snowy plover. Park attendance has averaged 80,596 visitors since fiscal year 2000.⁷³

According to Santa Barbara County Parks, Jalama Beach attendance has increased every year, and the park's size is unable to accommodate current demand. At its peak season, the park experiences demand of 30% over capacity each day. Visitation

Table 17: Summary of Existing and Proposed Recreational Areas

Existing Recreational Areas	Appx. Acreage	Future and Proposed Recreational Areas	Appx. Acreage
Santa Barbara Shores County Park	119	El Capitan State Park	2,500
Ocean Beach County Park	36	Jalama Beach County Park Expansion	70
Jalama Beach County Park	28	Ellwood Mesa	135
Gaviota State Park	2,600		
State Beaches	380		
Arroyo Hondo	780		
Coal Oil Point Reserve	117		
Los Padres National Forest	20,400		
Totals	24,460		2,735

figures are expected to increase for Jalama Beach. Discussions are currently underway to expand the existing 28-acre park east and south along the Pacific Ocean to approximately 100 acres.⁷⁴

Between 1996-1998, there were approximately 850 beach closures along the Santa Barbara County coast resulting in a 30% chance that a beach would be closed during this period.⁷⁵ The closings were commonly posted due to high bacteria counts (fecal coliform). The majority of these closings were attributed to pollutants brought to the coast by river runoff. (See Water Resources section for more detail on this issue.)



Jalama Beach, NPS photo



beach recreation, NPS photo

ENVIRONMENTAL CONSEQUENCES

Alternative 1

How will current programs and policies meet recreational demand?

Under Alternative 1, the recreational opportunities within the study area would continue to meet the needs of local residents and regional visitors in the short term. In the long-term, additional recreational opportunities would be needed for an increased population in Santa Barbara County and the larger region. In addition, beach closures due to poor water quality and for habitat protection of the snowy plover would continue to have an adverse impact on recreational opportunities.

Coastal trail. Completion of the coastal trail by Santa Barbara County has been challenged by landowner reluctance to grant access through their property because of privacy concerns and potential conflicts with agricultural operations. The constraints to completion of the coastal trail would continue to have adverse impacts on coastal access within the study area in the long-term.

Easements. Trail easements with willing landowners could be acquired for public access purposes. For example, 650 acres of private land on the El Capitan Ranch adjacent to the future state park will include a conservation easement with dedicated trail access. Owners of Dos Vistas Ranch have also indicated their intention to dedicate a trail easement through their property. In the near term, dedicating trail easements would have a minor beneficial impact on recreation. However, in the long-term, limited funding and rising land values could limit the ability of public agencies to purchase trail easements, resulting in adverse impacts on recreational opportunities.

Future Land Acquisition. Acquisition of land for recreational use depends on the availability of funds for acquisition, development, and management. Additional park lands that have been acquired such as the future El Capitan State Park and the Ellwood Mesa open space area would result in long-term beneficial impacts on

recreational opportunities through additional beach access and recreational facilities. Increasing land values, development, and funding constraints would continue to have significant adverse impacts on the ability to acquire land for recreational use.

Coastal Recreation and Access. Santa Barbara County's Local Coastal Program addresses public access and recreation at the shoreline. Coastal plan recommendations for additional coastal access have been difficult to meet because of development and private property concerns. For example, the Bacara Resort at Haskell's Beach was built in 2000 despite the Coastal Plan's proposal for a 23-acre coastal park. Instead of a shoreline park, ½ mile of beach access was provided to the public as a condition for approval of the resort. Under this alternative, private development of the coast would continue to limit recreational opportunities on the coast in the long-term.

Partnerships and Land Management

Current land management and partnerships for recreation will continue at current levels. Los Padres National forest will continue to acquire land within their authorized boundary from willing sellers and work with local and state agencies on potential trail connections between existing public lands.

Access to Vandenberg AFB would continue to be limited by security, natural resource concerns, staffing, and funding. Under Alternative 1, restricted access on Vandenberg AFB would continue to limit recreational use by the growing population.

Budget cuts in the Los Padres National Forest have forced the closure of selected trails. While these trails are not currently in high demand, if future demand increases it would be a more expensive and time consuming endeavor to reestablish them in the future.⁷⁶ Closure of trails would cause long-term adverse impacts on recreational use.

Partnerships between the Juan Bautista de Anza NHT and the local community would result in long-term beneficial impacts on the recreational experience of the coastal trail. National Park

Service technical assistance programs would continue to be available for recreation and conservation planning within the study area. This type of technical assistance could provide a minor beneficial impact to recreational activities within the study area.

Funding/Grant Options

Limited funding will be available through federal grant recreation programs such as the Land and Water Conservation Fund and the California Coastal Conservancy. These funding sources are competitive with a wide area of distribution. They would continue to provide a negligible to moderate beneficial impact on recreation in the study area.

Conclusion

Although there may be some expansions and improvements to existing developed recreation sites, and some improvements in access to undeveloped areas with recreation potential, there would be a minor increase expected in the future supply of recreational opportunities in the study area.

It is likely that population growth in the region would significantly increase the demand for recreational opportunities in the study area. Consequently, to the extent that existing sites are already used to capacity in peak periods, the increased demand in those periods would not be satisfied. Recreation demand in non-peak periods would continue to be satisfied by existing parks and access areas. A growing imbalance between recreation supply and demand would have some effect on the quality of experience. As recreation sites are more often crowded and management staff capabilities are stretched, the quality of the recreational experience may be expected to decline.

Future recreational opportunities in the study area would continue to be limited by private property concerns, increasing land values, and limited funding for acquisition and management of recreational areas. Existing partnerships and funding programs would continue to provide a minor to moderate beneficial impact on recreation in the study area.

Alternative 2

Alternative 2 includes options for expanded public recreational opportunities. Options would involve additional funding and resources for recreational lands and facilities. Funding could be used to develop trails or to acquire available properties that have recreation potential.

Programs that will facilitate funding for land acquisition and trail development

Establishment of an open space district (OSD) or state land conservancy could provide a considerable increase in the amount of funding available for the purchase of land and easements within the study area. Tables 13 and 14 in the Land Use section includes examples of budgets and acres of land protected under OSD's and state land conservancies. Depending on goals established by the local community, both OSD's and state land conservancies can provide recreational opportunities as a management priority.

If recreational needs were established as a priority for such an agency in Santa Barbara County, then millions of dollars in funding could be available to protect land for open space and recreation use when private land goes on the market. In addition, funding from an OSD or state land conservancy could assist in accelerated implementation of coastal trail sections and potential coast to crest trail connections as compared to Alternative 1. Based on the experience of existing OSD's and state land conservancies listed in the Land Use section, we can assume that this would have a long-term beneficial impact on recreation in the study area.

State and county agencies could seek additional opportunities to provide recreational and coastal access opportunities on significant resource lands. For example, the state could establish proposed marine park and protected area concepts within the study area. The proposed state marine parks concepts at Point Conception and Refugio and the marine conservation area concept at Naples would have a minor beneficial effect on recreational use including fishing and diving.

If public access was made available to Point Conception through the BLM's California Coastal National Monument or some other managing entity and if access were improved for Point Sal, these opportunities would have a beneficial impact on recreational access in the western end of the study area.

If Vandenberg AFB partnered with county parks in determining areas on the base that could be opened for public use while the more sensitive Ocean Beach and Surf Beach are closed, this could help to mitigate the impacts of seasonal closures for protection of the snowy plover. Developing approaches to routing the coastal trail through the base including partnering with the Juan Bautista de Anza NHT and the county could provide additional beneficial effects by providing more coastal access for the North County residents and visitors.

Conclusion

Overall, additional funding sources and stronger priorities for recreation, including coastal access, would enhance recreational opportunities and would help meet the long-term recreation needs of the local community and southern and central California region. An increase in recreational opportunities would mean fewer days of over-capacity use, thereby increasing the quality of recreational use and experience in the study area. Adverse impacts on recreation in the study area would be somewhat reduced in comparison to Alternative 1.

Scenic Resources

AFFECTED ENVIRONMENT

Scenic resources are described in Part 1, under Resource Description.

Public opportunities to experience the scenic resources of the study area are most common in the eastern end of the study area. Access to scenic views is primarily from Highway 101, coastal parks, trails, and beach access areas. Public access points in the western end of the study area are limited by large private landholdings and Vandenberg AFB. The only opportunity to experience the scenic resources of the entire study area coast is through travel on the Amtrak Coast Starlight train. Passengers on this route experience some of the most spectacular views on the Southern California coast. Much of the rail corridor follows the historic route of the Juan Bautista de Anza NHT in areas that are otherwise off limits to visitors, including Hollister and Bixby Ranches and Vandenberg AFB.

According to the Santa Barbara County Coastal Plan, the scenic quality of the area from Gaviota State Park to the Guadalupe Dunes north of Point Sal is a visual resource of national significance. Santa Barbara County seeks to protect scenic resources through county zoning regulations. The Coastal Plan includes a View Corridor Overlay designation for the entire coastal zone. The County Board of Architectural Review reviews all development in this area to ensure that scenic resources are protected. In addition, the Williamson Act and easements are tools that have protected scenic resources through limiting development.

Protection of scenic resources varies among the public land managers in the study area. The Los Padres NF's Land and Resource Management Plan calls for protection of the scenic viewshed along the south slope of the Santa Ynez Mountains to maintain the rugged, natural appearing character of the landscape, while also addressing other protections and uses. Large open spaces on

Vandenberg AFB have retained scenic quality. However, portions of the base that have facilities to meet base missions as such launch facilities and communication towers have had an impact on the scenic quality. State and County park lands protect portions of the study area including scenic canyons and coastal areas.

Trends

- The rocky shoreline at Point Sal has retained its undeveloped character and integrity over time.
- The Bixby Ranch/Point Conception area has remained in ranching over the past one hundred years, and has retained its visual integrity. East of Bixby Ranch is the Hollister Ranch area which has been subdivided into rural residential lots. Although still in ranching use, construction of over one-hundred miles of roads and residential development has somewhat altered the coastal ranching landscape in this area. In addition there are more lots that still have development potential.
- Industrial uses on the Gaviota Coast have had an impact on scenic resources. Oil processing facilities and pipelines at Cojo, Hollister Ranch, Gaviota, Las Flores Canyon, and Ellwood have impacted scenic views along the coast while oil platforms from Point Arguello to Ellwood impact scenery offshore. The Tajiguas County Landfill also impacts the visual experience. Careful siting and design have reduced, but not eliminated, the visual impacts of these facilities.
- In the eastern end of the study area, the Ellwood coast has had scenic impacts from the development of residential subdivisions, Bacara Resort, and golf courses.

ENVIRONMENTAL CONSEQUENCES

Alternative 1

Effectiveness of the existing controls and regulations in protecting the rural scenery, urban quality, and design of the built environment in the study area

Protection of agricultural land has direct beneficial impacts on visual resources. Williamson Act contracts and conservation easements preserve the scenic quality by maintaining land in open space. Agricultural operations and grazing both have both beneficial and adverse impacts on scenic resources. For example, pastures, orchards and row crops can be visually pleasing, but overgrazed areas may be less pleasing.

Some scenic land would be displaced by the development of new residential and commercial structures, and new support facilities such as access roads and driveways, and use of non-native plants in landscaping. Planning and design of these developments in compliance with existing regulations would ensure that some consideration is given to avoidance or mitigation of scenic impacts. However, some future projects proposed for highly scenic areas have the potential to cause adverse impacts on scenic resources. Most of the private land in the study areas is under agricultural zoning with 320-acre and 100-acre minimum lot sizes. Several areas under agricultural zoning allow smaller 20-acre (100 acres total in the study area) and 40-acre (appx. 8,000 acres total in the study area) minimum parcel sizes. Smaller residential parcels will be permitted in the Naples area (485 acres). Over time, rural residential development on 100-acre or smaller lots could cause cumulative adverse impacts from the construction of houses and supporting facilities. Given the topography of the study area, development would most likely occur on the shallow slopes of canyon valleys. This would create visual impacts from beach areas and Highway 101.

Proposed decommissioning of oil processing and transport facilities at Cojo, Hollister Ranch, and Gaviota may have a beneficial impact on scenery

within the study area depending on what uses replaces those facilities. Santa Barbara County's plan to vertically expand the Tajiguas landfill over the next five years could have a major adverse impact on the scenery of that section of the coast.

Substantial portions of the study area are protected through public ownership where management goals include the protection of scenic resources. While some adverse impacts may result from the construction of facilities at Vandenberg AFB, overall the adverse impacts on the scenic quality of public land would be expected to be minor. Management goals of the Los Padres NF would continue to protect the scenic value of the south facing slope of the Santa Ynez Mountains.

Public Opportunity to Enjoy Scenic Resources and to Access Viewpoints

In the eastern end of the study area, primary public opportunities to experience scenic resources would continue to be at existing parks and beach access areas and along Highways 101 and 1. Several proposed access areas in Ellwood and El Capitan Canyon would provide additional access to enjoy scenic resources. Future development of private land would have a minor adverse impact on the ability to expand opportunities to enjoy scenic resources.

In the western portion of the study area access to scenic resources would remain limited. Access in this area would continue to be at Jalama and Ocean Beach County Parks, very limited access to portions of Vandenberg AFB, and the Amtrak Coast Starlight Train that traverses the entire study area coast.

Conclusion

In the near-term, the area's scenic qualities would remain relatively high. Some minor negative impacts on the quality of scenic resources within the study area would result from current development proposals and projects. In the long-term, increasing pressure for urbanization near the rural urban limit line and development of rural residential estates could result in moderate cumulative adverse impacts on scenic resources and public opportunities to access scenic resources.

Alternative 2

Effectiveness of proposed programs and policies in protecting the scenic resources, urban quality, and design of the built environment in the study area

Protection of open space through these proposed programs and policies could reduce the amount of development in the area and thus reduce adverse impacts on scenic resources. Establishment of an open space district (OSD) or state land conservancy could provide a considerable increase in the amount of funding available for the purchase of land and easements within the study area as described in the previous section on land use. Permanent protection of land with high scenic value would have a long-term beneficial impact on the scenic quality of the Gaviota Coast.

While upzoning is highly unlikely in the near term, actions adopted to strengthen the existing zoning limitations on the scale of development would help to protect the area's scenic resources in the long term. Limiting upzoning through voter initiatives could help prevent future development in the eastern end of the study area. Additional housing needed to accommodate population growth could be directed to urban areas, avoiding long-term adverse impacts on scenic resources in rural areas.

Impacts on scenic resources on public lands would be similar to Alternative 1.

Public Opportunity to Enjoy Scenic Resources and to Access Viewpoints

Public opportunities to experience scenic resources could be improved with acquisition of additional park lands and construction of trails. Establishing recreation as a priority for an OSD or state land conservancy could provide funding for implementation of new trails and recreational areas. Based on the experience of OSD's and state land conservancies listed in the Land Use section, we can assume that this would have a long-term beneficial impact on access to scenic resources.

Point Sal and Point Conception are two of the most striking features of the study area. If public

access were made available to Point Conception through the BLM's California Coastal National Monument or another managing entity and if access would be improved for Point Sal, these opportunities would have a significant beneficial impact on scenic resources in the western end of the study area. Additional access in this area could also be made available to the public if Vandenberg AFB partnered with county parks and the Juan Bautista de Anza NHT to provide guided access. If these recommendations were implemented, Alternative 2 would have a long-term beneficial impact on public opportunities to access scenic resources.

Conclusion

Protection of additional open space under Alternative 2 could reduce the amount of development in the area and thus reduce adverse impacts on scenic resources in the long-term as compared to Alternative 1. Acquisition of additional recreational areas and construction of new trails would provide more opportunities for public access to scenic resources.



Sandpiper golf course, NPS photo

Water Resources

AFFECTED ENVIRONMENT

Water Supply. Across the state the demands of a growing population, coupled with efforts to reverse decades of ecological decline in rivers, lakes, and wetlands, have placed strain on scarce water supplies. The study area relies on local groundwater, the Lake Cachuma Reservoir, and water from Northern California supplied by the State Water Project for its water supplies. Groundwater supplies about 80% of Santa Barbara County's domestic, commercial, industrial and agricultural water supply. The majority of agricultural and rural residential properties within the study area rely on groundwater, while the Goleta area and Vandenberg AFB have an adequate supply of water for current and future plans, having recently secured water through the State Water Project.

Chloride contamination is a water quality concern in Santa Barbara County's groundwater due to the potential for seawater intrusion. This occurs when there are no geological barriers between the ocean and groundwater basins. Overpumping of groundwater and irrigated agriculture with poor drainage can increase the likelihood of seawater intrusion.

State Water Project. The State Water Project (SWP), managed by the California Department of Water Resources, was authorized in 1951 to collect, store and distribute water from Northern California to southern, more arid parts of the state. The County of Santa Barbara first contracted with the SWP in 1963 to secure water supplies. At this time funds were not allocated to construct a delivery system for the water entitled to the County. The six-year drought from 1986 to 1991 eventually spurred voters to fund the construction of a delivery system to supply water to areas throughout the county, including Goleta and Vandenberg AFB. The Goleta Water District receives 4,500 acre feet per year (AFY) while Vandenberg AFB receives 5,500 AFY. During times

of shortage these areas must accept a proportionate reduction in their entitlement.⁷⁷

Groundwater. Several major groundwater basins in Santa Barbara County have experienced overdraft conditions over the years. Overdrafted basins within the study area include the Lompoc and San Antonio Basins. Supply of water from the SWP to Vandenberg AFB and Goleta has alleviated potential water shortages from overdraft, and in the case of the Goleta West sub-basin, has led to replenishment. The Santa Barbara County Comprehensive Plan, Conservation Element, Groundwater Resources Section contains goals and policies to protect county groundwater resources. The effects of new extractions are evaluated under the California Environmental Quality Act pursuant to the thresholds adopted in the Comprehensive and Coastal Plan Policies. The Coastal Plan requires protection of groundwater basins and limits projects that would exceed water yields.

Groundwater basins within the study area include the San Antonio, Lompoc, and Goleta basins as well as the Ellwood to Gaviota, and Gaviota to Point Conception Groundwater Areas. The following is a description of each basin and its current status.

San Antonio Groundwater Basin. The western portion of the San Antonio Groundwater Basin is within the boundaries of Vandenberg AFB, which sometimes uses this water for Base operations. Analyses of water samples indicate that there are high concentrations of total dissolved solids (TDL) in the extreme western basin. There is no evidence of seawater intrusion in this basin.

A 1999 study determined that the basin was in overdraft status at a level of 9,431 AFY. Most of the overdraft is a result of use for agricultural purposes, primarily vineyards outside of the study area. Vandenberg AFB has reduced its consumption from 3,400 to 300 AFY with the recent importation of State Water Project water; however, this drop has been offset by recent vineyard development outside of the study area. Under these conditions, the underflow of water

trapped in bedrock may cause a deterioration of groundwater quality.

Lompoc Groundwater Basin. The Lompoc Basin consists of three sub-basins including the Lompoc Plain, Lompoc Terrace, and Lompoc Uplands. Within the study area, water quality in the Lompoc Basin is poorest near the coast. Poor water quality is attributed to upwelling of water trapped in bedrock, a reduction in fresh water flow from the Santa Ynez River, agricultural return flows, and seawater leakage from the overlying estuary. Groundwater within the study area (Lompoc Terrace Basin) is generally of better quality than the inland Lompoc Plain basin.

Groundwater is the only water supply for this basin with agricultural uses accounting for 70% of the water use. It is currently in a state of overdraft (991 AFY).

Gaviota to Point Conception Groundwater Area. The Gaviota to Point Conception Groundwater Area encompasses 36 square miles between the Santa Ynez Mountains Crest to the ocean between Gaviota Creek and Point Conception. This area serves as the only water supply source to this area. Primary land uses are agriculture and ranching. To date no detailed land use and water demand survey has been conducted for this area. Resources are evaluated on a project basis through the County permit process.

Gaviota to Ellwood Groundwater Area. The Gaviota to Ellwood Groundwater Area encompasses 105 miles between the Santa Ynez Mountains crest to the ocean between Gaviota Creek and the Ellwood area. Land uses that rely on this groundwater area include the Exxon Las Flores Canyon oil processing facility, the Chevron Gaviota oil processing facility, residential development and agriculture at El Capitan Ranch, the El Capitan and Refugio state parks, the Tajiguas landfill and several large avocado orchards. Water quality samples indicate that many of the wells in this area are not suitable for domestic use without treatment. These samples indicated high salinity and hard water concentrations.

A detailed survey of land use and water demand has not been conducted for this area. However, the total groundwater storage of this area is over 2 million acre feet and average annual recharge to this area is 6,000 AFY. Similar to the Point Conception to Gaviota Groundwater Area, resources are evaluated on a project basis through the county permit process.

Goleta Groundwater (West Sub-basin). The study area includes the West Sub-basin of the Goleta Groundwater Basin in the City of Goleta. This basin is separated from the ocean by the More Ranch Fault. The basin storage capacity is 10,000 AFY. Pumping is primarily by private landowners at about 232 AFY. There is currently a

Table 18: Percentage of Exceedances for Bacterial Counts (1996-1998)

	1996	1997	1998
El Capitan State Beach	15%	5%	11%
Refugio State Beach	28%	24%	32%
Arroyo Quemado Beach	86%	71%	69%
Gaviota State Beach	17%	13%	31%
Jalama Beach	42%	36%	31%
Ocean Beach	27%	25%	15%
Surf Beach	NA	NA	0%
Source: County of Santa Barbara, Division of Environmental Health			

268 AFY surplus for this basin. This surplus is attributed to the availability of better water quality supplies for the City of Goleta from the SWP.⁷⁸

Lake Cachuma Water Project. Areas in the eastern portion of the Ellwood to Gaviota Groundwater Area, Vandenberg AFB, and City of Goleta rely on water from the Lake Cachuma Reservoir. This amounts to a relatively small amount of AFY and does not appear to pose threats of water shortage.

Water Quality. While its geologic, hydrologic, climatic, and ecological characteristics are unique in the nation, Southern California has also experienced one of the most dramatic environmental transformations due to rapid growth and development. For the past 150 years most of the watersheds and wetlands along the Southern California coast have been impacted by agricultural and urban development.⁷⁹

Because the study area coast is the healthiest remaining coastal area in southern California, its protection is important to coastal and terrestrial ecosystems such as the Channel Islands National Marine Sanctuary located just off the study area coast. Watersheds along the Gaviota Coast have a direct impact on marine waters along the coast as they transport nutrients, sediment and pollution (See Watersheds map in the “Maps” section for an illustration of coastal watersheds within the study area).⁸⁰⁻⁸¹

While waters in the Southern California Bight (SCB) have seen significant reductions in pollutants over the past 25 years, including 50% for suspended solids, 90% for combined trace metals, and more than 99% for chlorinated hydrocarbons, pollution from runoff and point sources continue to have an impact on resources such as fisheries and marine mammals. Beach closures from high levels of pollution in southern California undermine the area's \$7 billion tourism and recreation industry. In the summer of 2000 alone, there were over 150 beach closures on the southern California coast.⁸²⁻⁸³

The Santa Barbara County Environmental Health Division measures bacterial counts at beaches along the County Coast. Within the study area, bacterial counts were measured from 1996-98 at seven county beaches (See Table 18 for a list of exceedences at public beaches). During this time there were approximately 1,485 beach advisories, and approximately 850 beach closures due to water quality problems in the county. There was an average 30% chance that a beach would be closed or under advisory during this period.

The closings were commonly posted due to high bacteria counts (fecal coliform). The majority of these closings were attributed to pollutants brought to the coast by river runoff. Pollutants include urban runoff and agriculturally-based pollutants such as animal wastes and pesticides. Additionally, the City of Lompoc discharges approximately 3.7 million gallons of treated effluent per day into the Santa Ynez River. During winter, high runoff periods associated with storm and rain conditions followed by upwelling favorable winds have driven these river plumes south past Point Conception and to the vicinity of San Miguel Island.

The Arroyo Quemado Beach has experienced the highest bacterial counts. A recent study was completed by the county using DNA analysis to determine the source of fecal coliform bacteria in the lower Arroyo Quemado Watershed. The primary sources of bacteria were avian species, particularly gulls. Large numbers of gulls are typically present at the landfill site in the upper watershed.⁸⁴

The County of Santa Barbara Project Clean Water monitors surface water quality along the coast to screen storm water runoff for potential pollutants and identify pollution sources and transport mechanisms. Project Clean Water was initiated in 1998 to improve the water quality in local creeks and the ocean. The 2000-2001 report indicated that bacteria levels were consistently above state standards for body contact recreation during storm events in lower and upper portions of the watersheds. To date, Project Clean Water has focused its efforts in the eastern, more urban

sections of the county. Watersheds monitored in the study area include Devereux, Bell, and Tecolote.⁸⁵

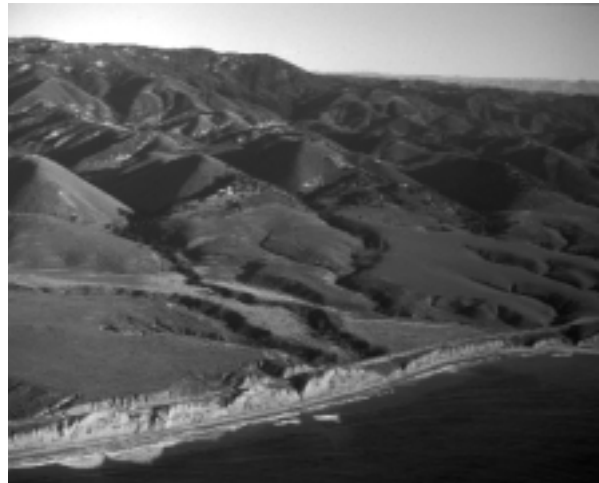
A study prepared for the County of Santa Barbara in 2001 involved extensive evaluation of creeks between Carpinteria and Gaviota to understand the influence of natural and human factors on their physical and biological characteristics. This study compared relatively undeveloped creeks on the Gaviota Coast to more developed creeks in the Santa Barbara urban area. Relatively undeveloped reaches investigated within the study area included San Onofre Creek and Gaviota Creek. The study revealed that these reaches had excellent habitat conditions, including intact native riparian vegetation, stable creek banks, complex aquatic habitat, stable substrate and good water quality. These creeks supported a diversity of aquatic vertebrates, including sensitive and endangered species.⁸⁶

Watershed Management. Although efforts are underway for a coordinated resource management plan for the Gaviota Creek watershed, only watersheds on Vandenberg AFB have current watershed management plans. The base's Integrated Natural Resource Management Plan advocates the integration of watershed planning and management activities. The watersheds on the base extend beyond the boundary of the base. Water quality impacts associated with activities on Vandenberg AFB include pollution related to domestic wastewater; industrial wastewater; storm water; pesticides and fertilizers; organic chemical pollution; and erosion. Off base activities not within Vandenberg AFB's control also impact watersheds.⁸⁷⁻⁸⁸

Trends

Water quality at local beaches is poor. Currently, there are frequent beach closures due to high bacteria levels and pollutants from runoff. During heavy rains, the storm runoff carries trash, grease, oil, pesticides, fertilizers, bacteria, and heavy metals into creeks. Plumes of these contaminants drift in the ocean stretching as far south as the Channel Islands.⁸⁹

Water is currently not a constraint to development in areas facing the largest growth pressure, because of access to state water in urban areas of the county.



coastal watersheds, NPS photo



seagulls at local beach, NPS photo

ENVIRONMENTAL CONSEQUENCES

Alternative 1

Will current projections for population, growth, and development impact water supply and water quality?

Increased residential and commercial development in the study area will increase the demand for municipal water supply. Recent access to State water has alleviated former constraints on water supply in the Goleta area where development is most likely to occur. The magnitude of demand depends on how many new residential units are added, and the nature of the commercial uses. For example, a major golf course complex would require a very substantial water supply. However, to the extent that these uses displace irrigated agriculture, overall water demands in the study area might decrease. Overall, it is not possible to determine the direction of water use with any certainty.

Because of regulatory requirements relating to the disposal and treatment of residentially and commercially generated wastewater, additional development should not generate effluents which will directly contribute chemical or biological pollutants to study area streamcourses. Development of land may cause soil erosion, increasing sedimentation of watercourses. The presence of grazing animals and the widespread use of herbicides and fertilizers may contribute to the pollution of local watercourses, and ultimately the ocean environment. To the extent that new development displaces lands which are currently used for extensive grazing or for irrigated agriculture, which may involve the heavy use of chemicals and the production of manure, water quality in the study area could improve. The direction of change in the study area water quality is difficult to predict at this level of analysis. However, without a comprehensive watershed plan for the study area's south coast watersheds, pollution from untreated runoff will likely continue to have major adverse impacts on water quality.

How will water quality at local beaches impact public health and safety under the current programs and policies?

Current efforts to prevent runoff and subsequent water pollution at beach areas are primarily focused on south coast watersheds outside the study area. These efforts would not improve water quality at areas such as the Arroyo Quemado beach, which suffers from the largest bacterial counts and subsequent beach closures, attributed to high concentrations of birds attracted to the Tajiguas landfill. Water quality efforts for the south coast watersheds are expected to have a negligible beneficial impact on water quality at study area beaches in the near-term.

How will watershed planning programs improve water quality in the study area?

Landowner involvement plays an important role in protecting water quality within the study area. The Natural Resource Conservation Service provides technical assistance to farmers and ranchers in the study area to prevent soil erosion and other impacts to water quality. Such technical assistance is provided at an individual level. Coordinated Resource Management Plans (CRMP) allow partnerships and coordinated efforts with farmers to identify watershed solutions that are economically viable. Currently, there is only one CRMP process in the study area, which is focused on the Gaviota Creek watershed. Because this program applies to only one watershed on the Gaviota Coast its impact on water quality at coastal areas other than those at Gaviota State Park would be negligible to minor. Water quality at area beaches would continue to be poor unless additional watershed/non-point source programs are implemented.

Vandenberg AFB uses many methods to control potential impacts to water resources, including regulation of land use, air pollution, pesticide and fertilizer use, wastewater management, and storm water pollution. These programs include addressing indirect adverse impacts to water quality from hazardous waste disposal, underground storage tanks, and landfill operations. Vandenberg AFB has also prepared a

Wastewater Management Plan, Industrial Wastewater Management Plan, and Storm Water Pollution Prevention Plan in an effort to control impacts to local water quality.⁹⁰⁻⁹¹

Conclusion

The direction of change in water use is difficult to forecast at this level of analysis. With the exception of Vandenberg AFB, watershed management programs in the study area would be limited to uncoordinated efforts in individual watersheds. Lack of coordinated watershed management programs to address water pollution within the study area would result in cumulative adverse impacts on water quality. Water quality at beach areas would continue to be a public health and safety concern.

Alternative 2

How will proposed programs and policies impact water quality and supply and public health and safety?

As described in the previous section on land use, establishment of new mechanisms for the purchase of open space could result in additional land conservation within the study area. Protection of open space and restricting development could have a long-term beneficial impact on water quality and supply in the study area.

Alternative 2 includes the potential action to develop voluntary cooperative watershed management initiatives that could be coordinated by the Cachuma RCD. Additional watershed management efforts could help reduce long-term adverse impacts on the water quality by taking a comprehensive approach to improving local water quality. This would have an indirect beneficial impact on public health and safety at study area beaches. Stronger efforts, including watershed planning, which could help to prevent runoff and subsequent water pollution at beach areas, including Arroyo Quemado Beach would help to improve water quality at beaches. Use of existing grant programs, such as those offered by the U.S. Fish and Wildlife Service, for coordinated

management efforts can have a moderate beneficial impact on watersheds and water quality.

Conclusion

Protection of open space and restricting development could have a long-term beneficial impact on water quality and supply in the study area. Impacts on water supply would be similar to Alternative 1. Adverse impacts on water quality should be somewhat reduced in comparison to Alternative 1. Additional watershed planning and application of grants could help reduce long-term adverse impacts on the water quality, which would have an indirect beneficial impact on public health and safety at study area beaches.

Air Quality

AFFECTED ENVIRONMENT

Trends

The Santa Barbara County Air Pollution Control District reports that the county is currently in non-attainment for both the state and federal one-hour ambient air quality standards, violating both state and federal standards. In recent years, the county has met standards for attainment reducing unhealthful air quality by over 80% from 1990 to 2000 despite increases in vehicle miles traveled and population growth. Between 1997 and 1999 air quality complied with the federal 1-hour ambient air quality standard for ozone.

The Santa Barbara County Air Pollution Control District recently adopted the 2001 Clean Air Plan

to formally request that Santa Barbara County be designated as an attainment area for the federal 1-hour ozone standard. County figures in the 2001 Clean Air Plan demonstrate a reduction in days exceeding ozone standards over the last ten years (See figure 3).

Primary sources of air pollution that contribute to ozone formation in Santa Barbara County include cars, trucks and other vehicles that produce more than half of the on-shore smog forming pollution.⁹² The 1999 Santa Barbara County Planning Emission Inventory measured primary ozone precursors such as tons of reactive organic compounds (ROC) and nitrogen oxide (NOx), emitted per day. The majority of emissions for both types were from mobile sources (planes, trains, boats, farm equipment, cars, trucks, buses and motorcycles) (See Table 19).

Figure 3: Days Exceeding Ozone Standards

(Santa Barbara County Air Pollution Control District, 2001)

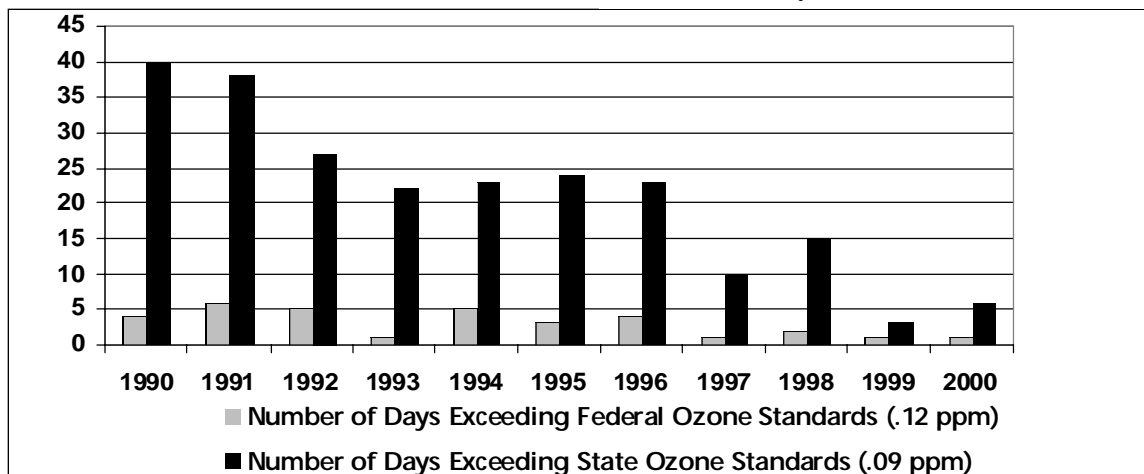


Table 19: 1999 Santa Barbara County Planning Emission Inventory

Emission Source	Percentage of Total Tonnage	
	NOx	ROC
Mobile Sources (planes, trains, boats, farm equipment, cars, trucks, buses and motorcycles)	87%	61%
Stationary Sources (Oil & Gas production, landfills, paints, mining)	11%	20%
Area-wide sources (Consumer products, pesticides, water heaters)	2%	11%
Total Tons emitted per day	42.53	49.28
ROC: Reactive Organic Compound NOx: Nitrogen oxides Source: Santa Barbara County Air Pollution Control District		

2001 Clean Air Plan. The Santa Barbara County 2001 Clean Air Plan establishes a comprehensive pollution control strategy to maintain attainment of the federal ozone standard. The Clean Air Plan includes control measures for all categories that contribute to ROC and NOx emissions. These include controls on industrial processes, combustion sources, petroleum handling, solvent use, consumer products, waste burning, automobiles and other mobile sources as well as transportation control plans to encourage less polluting modes of travel.

Emissions forecasting based on the 1999 emission inventory was developed to determine whether pollution control measures proposed in the 2001 Clean Air Plan will reduce emissions (See Table 20). The forecasts estimate that ROC and NOx emissions from offshore vessels will increase, while all other mobile sources will decline. Offshore vessels currently produce emissions equal to the amount produced by cars and trucks and are projected to increase 67% by 2015. These emissions, largely uncontrolled can impact onshore emissions under certain weather conditions.⁹³

Table 20: Santa Barbara County Planning Emissions Forecast

Emission Source	Percentage of Total Tonnage	
2005 Forecast	NOx	ROC
Mobile Sources (planes, trains, boats, farm equipment, cars, trucks, buses and motorcycles)	86%	51%
Stationary Sources (Oil & Gas production, landfills, paints, mining)	11%	24%
Area-wide sources (Consumer products, pesticides, water heaters)	3%	25%
Total Tons emitted per day	40.96	32.83
2010 Forecast	NOx	ROC
Mobile Sources (planes, trains, boats, farm equipment, cars, trucks, buses and motorcycles)	84%	45%
Stationary Sources (Oil & Gas production, landfills, paints, mining)	13%	25%
Area-wide sources (Consumer products, pesticides, water heaters)	3%	30%
Total Tons emitted per day	34.74	28.6
2015 Forecast	NOx	ROC
Mobile Sources (planes, trains, boats, farm equipment, cars, trucks, buses and motorcycles)	81%	40%
Stationary Sources (Oil & Gas production, landfills, paints, mining)	15%	27%
Area-wide sources (Consumer products, pesticides, water heaters)	4%	33%
Total Tons emitted per day	29.6	26.52
ROC: Reactive Organic Compound NOx: Nitrogen oxides Source: Santa Barbara County Air Pollution Control District		

ENVIRONMENTAL CONSEQUENCES

Alternative 1

This alternative could affect regional air quality by affecting the level of motor vehicle use and related emissions in the area either by residents or visitors to the area, and by affecting land uses that result in one-time (e.g., construction) or recurring (e.g., agricultural land tilling) earth disturbance with resultant changes in levels of particulates.

County air quality projections described above give an indication of how current programs and policies will impact air quality. The majority of air quality impacts projected for the year 2015 are a result of regional impacts outside of the study area. There are currently no proposals to regulate the offshore vessels that are producing emissions that will impact the study area. Emissions from mobile sources such as passenger cars and trucks are expected to decrease, despite an estimated increase in vehicle miles traveled, as a result of future regulatory controls. In the next fifteen years, primary adverse impacts on air quality in the long-term will be indirect from sources outside of the study area.

The 2001 Clean Air Plan projections do not go beyond the year 2015. However, population

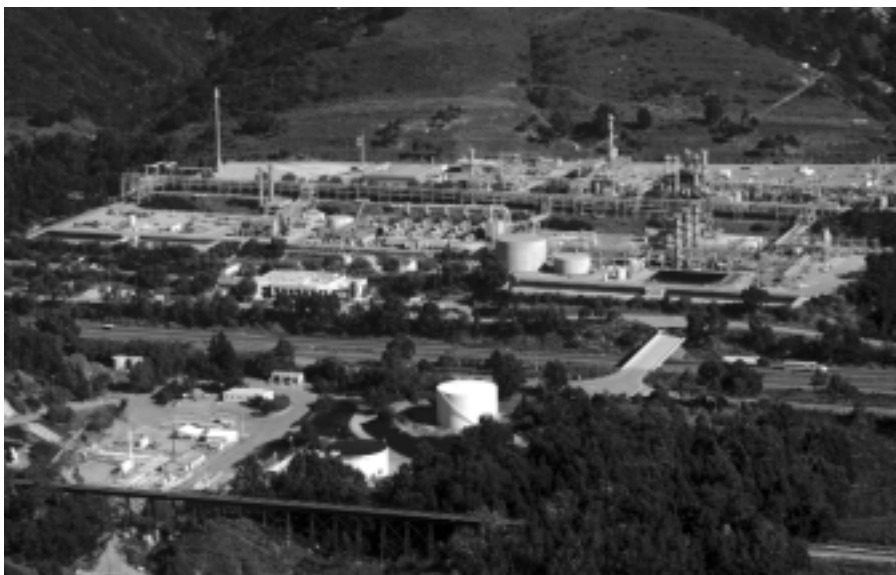
growth pressures forecast to the year 2030 indicate that there will be increasing pressure to develop housing. As described in the section on Land Use, this pressure may lead to the conversion of some farmland and/or vacant land in the study area to development. This conversion may affect how the study area contributes to air pollution in the region, e.g. conversion of farmland to housing may mean less particulates from land cultivation and more hydrocarbons from commute vehicles. If the jobs/housing balance continues to increase this may increase vehicle miles traveled which could have additional adverse affects on air quality.

Conclusion

The County Clean Air Plan predicts that a large percentage of air quality emission increases for the year 2015 will result from sources outside of the study area and Santa Barbara County. Without detailed projections and study of the impacts from build-out or an increase in the jobs/housing imbalance to the year 2030, it is not possible to determine the extent of the impact of Alternative 1 on air quality.

Alternative 2

Actions under Alternative 2 are unlikely to have additional impacts relative to those expected under Alternative 1.



Gaviota Oil and Gas Processing Facility, NPS photo

Table 21: Summary of Environmental Consequences

TOPICS	ALTERNATIVE 1	ALTERNATIVE 2
Socioeconomics and Environmental Justice Mandatory Topics: <i>socially or economically disadvantaged populations</i> <i>public health and safety</i>	<ul style="list-style-type: none"> ▪ Growth would eventually create pressure to convert agricultural land in eastern end of the study area to rural residential development in the long term. This could result in adverse impacts on the eastern end of the study area, which could involve adjusting the western Urban Rural Boundary Line to accommodate additional housing units. ▪ Restrictions on development and rising land values would continue to negatively impact the supply of affordable housing in the near-term which could adversely impact disadvantaged populations. ▪ The tourism sector would continue to grow based on historical patterns. ▪ Scattered residential development under existing zoning densities could affect emergency service response time resulting in adverse impacts on public health and safety. ▪ Traffic volumes would increase on the roadways and highways due to population and housing growth outside the study area. The portion of traffic increases that are attributable to activities in the study area is expected to be minimal. 	<ul style="list-style-type: none"> ▪ Programs and tools proposed under Alternative 2 could retain more open space, with indirect adverse impacts on affordable housing. As in Alternative 1, low-income and minority populations could be particularly impacted. ▪ The creation of additional recreational opportunities provided by an open space district or state land conservancy could attract new visitors to the area, creating modest increases in jobs. ▪ Additional funding for agricultural protection measures such as easement programs could provide more opportunities to ensure the continuation of farming- and ranching-related employment. ▪ Alternative 2 would add a negligible increment to traffic volumes and congestion expected in Alternative 1, with no change in projected levels of service.
Land Use Mandatory Topics: <i>prime and unique farmland</i>	<ul style="list-style-type: none"> ▪ County zoning, regulations, and tax incentives, would continue to provide major beneficial protection of agricultural land within the study area in the near term. ▪ It is likely in the long-term that some land would be converted to residential or other allowed uses such as golf courses in the long term. This would have a moderate adverse impact on agricultural land (prime and unique as well as grazing). ▪ Indirect impacts from future rising land values and population growth pressures may result in additional pressure to develop land in areas that are not threatened by development in the near term. Over time direct and indirect adverse impacts on agricultural land could be moderate. ▪ Easements would continue to provide a minor to moderate beneficial impact on agricultural land given that funding sources are limited and land values are exceptionally high. 	<ul style="list-style-type: none"> ▪ If the local community were to adopt any of the suggested funding options and growth management actions, then the study area would experience moderate beneficial impacts as more agricultural land (both prime and unique farmland and grazing land) could be protected in the long-term as compared to Alternative 1. ▪ Direct and indirect adverse impacts from development would be reduced as there would be more resources to protect land faced with development pressures.
Biological Resources Mandatory Topics: <i>threatened and endangered plants and animals and their habitats</i> <i>wetlands and floodplains</i> <i>ecologically critical areas, or other unique natural resources</i>	<ul style="list-style-type: none"> ▪ Direct and Indirect adverse impacts to threatened and endangered species and their habitat on private lands may occur as a result of agricultural activities or residential and commercial development and their associated infrastructure. Such development could result in fragmentation of habitat and introduction of invasive species if non-native plants are introduced to developed areas. ▪ Activities associated with federal agency missions such as recreation, silviculture, or military activities 	<ul style="list-style-type: none"> ▪ Additional land conservation programs and restoration activities with an emphasis on ecosystem management and habitat restoration would have, long-term, direct beneficial impact on biological resources. ▪ Direct adverse impacts on biological resources from low-intensity, limited recreation and access, would be negligible. If high intensity recreation,

Summary of Environmental Consequences		
TOPICS	ALTERNATIVE 1	ALTERNATIVE 2
	<p>would have a negligible to major adverse impact depending on the activity and its relationship to sensitive species.</p> <ul style="list-style-type: none"> Restoration and habitat management activities on public lands and landowner stewardship activities would continue to have long-term positive benefits. 	<p>was the main focus of additional open space protection, then direct adverse impacts would range from negligible to major depending on location of facilities and trails in proximity to wetlands, threatened and endangered species and other sensitive habitats.</p> <ul style="list-style-type: none"> Use of siting, design, monitoring, educational programs, and adaptive management strategies could mitigate impacts from recreational activities. Establishment of marine protected areas would have an overall beneficial impact on threatened and endangered species that rely on marine wetlands such as reefs and kelp beds, as well as rocky intertidal zones. Greater use and application of existing funding programs would have a moderate beneficial impact.
<p>Cultural Resources</p> <p>Mandatory Topics:</p> <p><i>important scientific, archeological, and other cultural resources, including properties listed or eligible for the National Register of Historic Places (NRHP)</i></p> <p><i>urban quality, historic and cultural resources, and design of the built environment</i></p> <p><i>sacred sites</i></p>	<ul style="list-style-type: none"> Historic structures, archeological sites and historic ranching landscapes located on private land would continue to receive some positive benefit from agricultural preservation through zoning, easements, Williamson Act contracts, and landowner stewardship. Development of land could cause direct adverse impacts on cultural and archeological resources through degradation or total loss of resources in the long-term. Some cultural resources on private property, including archeological sites, historic adobe buildings and ranch structures, could receive moderate negative impacts from trampling and natural deterioration from lack of maintenance. Public land management would continue to have a long-term beneficial impact on the protection of cultural resources. Some cultural resources on public lands would receive direct adverse impacts from vandalism and poaching of artifacts. Chumash organizations would continue to protect cultural and sacred sites resulting in direct beneficial impacts. Chumash organizations would continue to lack sufficient access to cultural and sacred sites on private land. 	<ul style="list-style-type: none"> Establishment of the proposed Conception State Marine Park and Refugio State Marine Park concepts would result in beneficial impacts on marine-related cultural artifacts such as shipwrecks. Additional land use tools could provide additional long-term indirect beneficial impacts on cultural resources by controlling development that could occur under Alternative 1. Cultural resources would receive minor beneficial impacts from interpretive sites in recreational areas. This could result in increased public knowledge and change in behavior to encourage protection of resources. As in Alternative 1, public land management of cultural resources would continue to have long-term beneficial impacts. Depending on the intensity and location, increased recreational use may cause adverse impacts on cultural resources. Allowing Chumash groups to access and protect cultural and sacred sites at Point Conception would result in beneficial impacts by helping to meet their cultural and religious needs.

Summary of Environmental Consequences		
TOPICS	ALTERNATIVE 1	ALTERNATIVE 2
Recreational Use and Experience Mandatory Topics: <i>none identified</i>	<ul style="list-style-type: none"> There would be a minor increase expected in the overall supply of recreational opportunities in the study area. Population growth in the region would substantially increase the potential demand for recreational opportunities in the study area. A growing imbalance between recreation supply and demand would have some effect on the quality of experience. As recreation sites are more often crowded and management staff capabilities are stretched, the quality of the recreational experience may be expected to decline. Future recreational opportunities in the study area would continue to be limited by private property concerns, increasing land values, and limited funding for additional recreational areas. Existing partnerships and funding programs would continue to have a negligible to moderate beneficial impact on recreation in the study area. 	<ul style="list-style-type: none"> Adverse impacts on recreation in the study area would be somewhat reduced in comparison to Alternative 1 as funding sources and stronger priorities for recreation would enhance recreation and meet the long-term recreation needs of the local community and southern and central California region. Potential increases in recreational opportunities would mean fewer days of over-capacity use thereby increasing the quality of recreational use and experience in the study area.
Scenic Resources Mandatory Topics: <i>urban quality, historic and cultural resources, and design of the built environment</i>	<ul style="list-style-type: none"> In the near term, the area's scenic qualities would remain relatively high. Some minor negative impacts to the quality of scenic resources within the study area would result from current development proposals and projects. In the long-term, increasing pressure for urbanization near the rural urban limit line and development of rural residential estates under existing zoning could result in cumulative adverse impacts on scenic resources and public opportunities to access scenic resources. 	<ul style="list-style-type: none"> Protection of additional open space could reduce the adverse impacts of development on scenic resources in the long-term compared to Alternative 1. Acquisition of additional recreational areas and construction of new trails would provide more opportunities for public access to scenic resources.
Water Mandatory Topics: <i>public health and safety</i>	<ul style="list-style-type: none"> Water quality at beach areas would continue to be a public health and safety concern. With the exception of Vandenberg AFB, lack of coordinated watershed management programs to address water pollution within the study area would result in cumulative adverse impacts on water quality. 	<ul style="list-style-type: none"> Protection of open space and restricting development could have a long-term beneficial impact on water quality and supply in the study area relative to Alternative 1. Adverse impacts on water quality should be somewhat reduced in comparison to Alternative 1. Watershed planning could help reduce long-term adverse impacts on the water quality, which would have an indirect beneficial impact on public health and safety at study area beaches.
Air Mandatory Topics: <i>Public health and safety</i>	<ul style="list-style-type: none"> Most increases in emissions by 2015 will result from sources outside of the study area and Santa Barbara County. Without detailed projections and study of the impacts from build-out or an increase in the jobs/housing imbalance to the year 2030, it is not possible to determine the extent of the impact on air quality. 	<ul style="list-style-type: none"> Actions under Alternative 2 are unlikely to have additional impacts relative to those expected under Alternative 1.

Summary of Environmental Consequences		
TOPICS	ALTERNATIVE 1	ALTERNATIVE 2
CUMULATIVE IMPACTS	<ul style="list-style-type: none"> Impacts under Alternative 1 identified for population, housing, employment, and traffic are expected to have an adverse cumulative effect on the respective resources. Over time future development could cause fragmentation of sensitive habitat, agricultural land conversion, and adverse impacts on scenic resources. With the exception of Vandenberg AFB, lack of coordinated watershed management programs to address water pollution within the study area could result in cumulative adverse impacts on water quality. 	<ul style="list-style-type: none"> Emphasis on ecosystem management and habitat restoration would have a long-term, direct beneficial impact on biological resources. Actions that limit development in the study area would stop cumulative adverse impacts from land development such as conversion of agricultural land and fragmentation of habitat.

CONCLUSIONS

The conclusions section compares and summarizes the environmental impacts of Alternatives 1 and 2. The comparison of impacts associated with each alternative includes an assessment of: 1) sustainability and long-term management issues required by the National Environmental Policy Act (NEPA) and NPS policies, 2) the NEPA criteria for the "environmentally preferred" alternative, and finally, 3) a comparison of potential beneficial and adverse impacts of the alternatives based on the goals established for all alternatives in Part 1.

Sustainability and Long-term Management

NEPA requires consideration of the long-term impact and effect of each alternative on future options. The NPS applies principles of sustainability to determine the long-term impact of management options or alternatives. Sustainable development is defined as "that which meets the needs of the present without compromising the ability of future generations to meet their needs." The discussion of sustainability and long-term management includes conclusions on short-term environmental use versus long-term productivity, any irreversible or irretrievable commitments of resources, and adverse impacts that cannot be fully mitigated or avoided.

- **The relationship between local short-term uses of the environment and maintenance and enhancement of long-term productivity.** The primary impacts, both beneficial and adverse associated with Alternative 1 and Alternative 2 would occur in the long-term. Alternative 1 will provide near term protection of resources through current

conservation programs, however population and growth pressures along with rising land values may ultimately result in loss of significant scenic, biological, cultural, and agricultural resources if land is developed in the long term. Alternative 2 would provide more opportunities to permanently protect significant resources and manage ecosystems. Entities such as open space districts and land conservancies can develop systematic plans to protect land in a way that benefits specific significant resources or larger ecosystems. Coordinated watershed management would also apply an ecosystem approach to resource management throughout the study area.

- **Irreversible or irretrievable commitments of resources that would be involved if the alternative were implemented.** If growth pressures result in the development of land in the eastern portion of the study area under Alternative 1, irreversible and irretrievable impacts may result from cumulative impacts on agricultural, scenic, biological and cultural resources. The agricultural industry may lose viability in the long-term if land values continue to increase resulting in the conversion of agricultural land to other uses. Coastal scenery could be permanently impacted by future development and associated infrastructure such as roads in the long term. Destruction of cultural and archeological resources would result in a permanent loss of their potential contributions to scientific understanding. Land uses such as golf courses would permanently alter scenic resources and the cultural ranching landscape. Loss or fragmentation of habitat could cause permanent adverse impacts on biological

species. Alternative 2 would provide more opportunities to permanently protect significant resources from irreversible and irretrievable commitments in the long term through new funding and conservation programs.

- **Unavoidable Adverse Impacts.** This analysis assesses the impacts of management policies. Because no specific action or alteration of resources is suggested under either alternative, it is not possible to identify specific unavoidable adverse impacts.

Environmentally Preferred Alternative

The "environmentally preferred" alternative is the one that best protects, preserves and enhances historic, cultural and natural resources, and that causes the least damage to the biological and physical environment. The environmentally preferred alternative is not the same as the agency or NPS "preferred" alternative. The NPS has not identified a preferred alternative because the actions identified in each alternative are local, state and private actions, not NPS actions. The NPS will identify a preferred alternative in the final EA after analyzing public and agency responses to the draft alternatives.

The environmentally preferred alternative must meet the criteria spelled out in NEPA, section 101(b). Alternatives 1 and 2 both provide opportunities to meet NEPA requirements to protect the environment for succeeding generations. However, under Alternative 1, population and growth pressures with limited funding available for conservation may result in long-term impacts to resources that represent important historic, cultural, and natural aspects of our national heritage. Further, without an ecosystem management approach, development in the long term could result in habitat fragmentation and an eventual degradation of the study area's species diversity. Alternative 2 provides additional opportunities for long-term sustainable management, locally-initiated environmental stewardship, and conservation of nationally significant resources. Alternative 2 is identified as the environmentally preferred alternative because, if pursued, it could better meet all of the criteria outlined in NEPA, Section 101(b).

National Environmental Policy Act (NEPA), Section 101(b)

It is the continuing responsibility of the Federal Government to use all practicable means...to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may -

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
- Preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;
- Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources. (National Environmental Policy Act, Sec. 101(b), [42 USC §4331])

Goals of the Alternatives

The following section compares the potential beneficial and adverse impacts of the alternatives based on the goals established for all alternatives in the Feasibility Study. The goals were developed by the study team based on the public input received. They represent values that appeared to be shared by the majority of the respondents in the various public input opportunities throughout the study process.

Protect significant natural and cultural resources.

Under Alternative 1, significant natural and cultural resources would continue to receive their current level of protection and management. In the near term, existing laws and regulations would continue to protect natural resources from degradation on a project by project basis. Habitat enhancement and restoration efforts to protect specific species or ecosystems other than those by large public land managers would be individual without coordination. In the long term, increased pressure from population growth and rising land values near the Urban

Rural Boundary Line could result in additional development which could have a cumulative, long-term impact on significant natural resources. Alternative 2 could provide more opportunities for protecting natural resources through new funding programs, establishment of marine protected areas, and a coordinated watershed management effort for the south coast watersheds.

Under Alternative 1, significant archeological sites and historical resources on private land will likely be surveyed only when development projects are proposed or implemented. Development projects that are implemented will likely disturb, damage, or destroy these resources. Once destroyed, archeological sites and their potential contribution to scientific understanding cannot be replaced. Cultural sites and structures that are not already protected will likely continue to experience natural deterioration or may be destroyed. Conversion of ranch lands to more profitable land use could degrade the historic cultural landscape. Alternative 2 could provide more opportunities to preserve land in open space, thereby protecting the cultural landscape and preventing the disturbance of archeological and historical sites.

Protect scenic resources. Alternatives 1 and 2 would both protect scenic resources to some degree. Under Alternative 1, impacts on scenic resources would be addressed at the local level during planning review by the County and the California Coastal Commission. Conversion of agricultural land to residential use under Alternative 1 would limit opportunities to secure better access to scenic resources and could over time have a cumulative adverse impact on scenic coastal resources. Implementation of Alternative 2 would offer more funding opportunities to permanently protect open space providing more opportunities for coastal access and protection of scenic resources.

Maintain the viability of farms and ranches.

Under Alternative 1, rising agricultural land values and limited funding to protect agricultural land valued at high prices would likely lead to the conversion of agricultural land to other uses. Alternative 2 would increase opportunities for keeping agricultural land in production by providing more funding sources for agricultural easements.

Continue local control and private land stewardship. Alternative 1 and 2 would both be implemented through local control and private land stewardship. Under Alternative 2, new agencies that could assist with protecting resource lands could be established. The proposed funding programs would assist ongoing private land stewardship efforts. For example, an open space district can emphasize agricultural viability by providing more funding for easements or increase opportunities for recreation depending on the priorities set during its establishment. State land conservancies and open space districts are commonly run in partnership with local governments and land trusts.

Increase the capability and funding for protection of significant resources, agricultural lands, and opportunities for public enjoyment.

Alternative 1 assumes that funding levels for protecting significant resources would remain constant or decrease if current economic conditions continue to impact programs. However, Alternative 2 offers several recommendations for increasing the capability and funding for protection of significant resources, agricultural lands, and opportunities for public enjoyment. As described in the environmental assessment, successful implementation of funding and open space programs recommended under Alternative 2 could result in thousands of acres of land that are permanently protected and increase opportunities for public enjoyment in the long-term.

Reduce conflict between public access and private lands. Conflicts between public access and private lands can be reduced through education and by providing increased recreational opportunities for the public that are sensitively sited and designed. No additional efforts to reduce such conflicts are expected under Alternative 1. Entities such as an open space district, recommended in Alternative 2, could provide more resources towards increasing recreational opportunities when land becomes available, as well as monitoring access near private lands and educating trail users in an effort to reduce conflicts.

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3. Consultation and Coordination

Public Involvement

Throughout the feasibility study process, the study team gathered public input on issues, possible actions and alternatives. The scoping process included meetings with agencies and organizations, public meetings and workshops, newsletters, a web page, and written public comments. These sources were used to identify the issues, alternatives, and impact topics to be considered for the feasibility study and environmental analysis and to keep the public informed and involved throughout the study process.

PUBLIC SCOPING AND WORKSHOPS

In November 1999, Congress directed the National Park Service (NPS) to complete a special resource study (feasibility study) of the Gaviota Coast, and to determine whether the area, or a portion of it, was eligible and suitable to be managed as a unit of the National Park System. The NPS initiated the study process in January, 2000, with a series of meetings with key agencies and organizations. Three public meetings were held in Goleta, downtown Santa Barbara, and Lompoc in March 2000. Invitations were mailed to approximately 900 individuals, including a list obtained from Santa Barbara County of 300 landowners of 900 of the parcels in the project area; lists of agricultural and other businesses; and distribution lists used by Santa Barbara County and the Los Padres National Forest. Approximately 350 people attended these public meetings. Media coverage was high. The NPS also sought meetings with Gaviota-area representatives of public agencies, and has endeavored to meet with any private groups that have requested meetings.

Comments provided at the public and individual meetings were used to identify issues and concerns that the team should address in the feasibility study. Approximately 200 responses were received during or closely following the public meetings by letter, comment sheets, and e-mail.

On July 26-27, 2000, the NPS study team hosted two all-day workshops for agricultural interests and others, aimed at defining desired future conditions along the Gaviota Coast. The July 26 workshop was attended by representatives of agricultural interests in the study area nominated by the Santa Barbara County Farm Bureau and Cattlemen's Association. Others were also allowed to participate. Attendees included Farm Bureau and Cattlemen's Association members and staff; farmers and ranchers from within and outside of the study area; Vista de las Cruces school district board and staff; Forest Preservation Society representatives, and a county representative. The July 27 workshop was attended by approximately 30 persons representing a broad spectrum of interests, including local and state government, agricultural organizations, local and national environmental organizations, local property owners, and Chumash Native Americans.

On October 18-19, 2000, at the request of Vandenberg AFB personnel, NPS organized a visit to Point Reyes National Seashore and invited additional Santa Barbara county agricultural and environmental interests. The program included presentations from the Marin Agricultural Land Trust (MALT), local ranchers from within and outside of Point Reyes NS, a tour of the park including ranches and natural and historic areas, and a discussion of local business interests and visitor impacts.

The scoping comment period for this study originally extended until May 31, 2000. Through the initial public scoping process, it became apparent that the study process was generating controversy. At the same time, the NPS adopted new policies for environmental impact analysis and decision-making which required that Environmental Impact Statements (EIS's), rather than EAs, be prepared to accompany Special Resource Studies that consider additions to the National Park System. Because of the controversy and the policy changes, the NPS determined that an EIS was likely to be

necessary. The study team then took the actions necessary for the preparation of an EIS. On September 12, 2000, a Notice of Intent announcing the preparation of an Environmental Impact Statement was published in the *Federal Register*. Scoping was reopened from September 12 to October 9, 2000 and extended again until November 30, 2000. The NPS received over 2500 comments during the official scoping periods, including over 500 individual letters and comment forms, plus form letters, postcards and petitions.

In January 2002, a "Protection Strategies Worksheet" was distributed to the approximately 3000 people on the study mailing list. The worksheet was intended to provide a sense of the NPS approach to the study alternatives; provide an opportunity for specific input into the alternatives; and, to provide the NPS with information to ensure that the study alternatives were accurate and responsive. The worksheet included two maps of the study area which the public could use to provide their comments. Comments were accepted through September 1, 2002. Approximately 135 worksheets and over 500 additional individual comments were returned, plus form letters and petitions.

On August 19, 2002, a "Gaviota Coastal Forum" was held in Buellton, Santa Barbara County. The purpose of the forum was to bring together speakers from across the nation to present a diversity of private, local and other land use tools and that could be used in the Gaviota Coast area. The forum was funded by the National Park Service and organized by a committee of agricultural, business and environmental interests, headed by the Santa Barbara Chamber of Commerce and the Business First National Bank.

A total of over 1200 individual letters and comment forms were received during the study's extended scoping and public input process. In addition, the NPS received 17 sets of form letters from over 2350 people, 2 sets of postcards from approximately 350 people, and 6 sets of petitions, totaling over 5500 signatures. All comments received during the initial phase have been fully

documented and have aided this conservation planning and environmental impact analysis process. A summary of the comments received at various stages in the study process can be found in Appendix E: Comment Summary.

NEWSLETTERS

The NPS study team has published six newsletters to keep community members and others up to date on the study process. The initial mailing list of 900 names was the same as the invitation list for the March 2000 public meetings, and included approximately 300 landowners in the study area. The mailing list grew steadily from 900 names to over 3000 names. Newsletter #1 was mailed out in March 2000. It included information about the start of the study process, the study area, and frequently-asked questions. Newsletter #2 contained frequently-asked questions, a summary of scoping comments, a detailed list of scoping comments, and park case studies. Newsletter #3 in June 2001 provided an update of the study process, a summary of the desired future conditions workshops, and a "fact or fiction" section. Newsletter #4, mailed out in January 2002, included an update of the study process and the Protection Strategies Worksheet, described above. Newsletter #5, in May 2002, provided an update on the status of the study process and included a summary of initial comments on the Protection Strategies Worksheet, a revised map that showed existing local land protection, and a section to answer questions and clarify some misunderstandings regarding the Protection Strategies Worksheet. Newsletter #6, in October 2002, provided an update on the status of the study, a summary of the Coastal Forum, and a summary of all the comments received on the Worksheet.

WEB PAGE

A web page for the Gaviota Coast Feasibility Study (www.nps.gov/pwro/gaviota/) was developed to provide updates on the study. It contained detailed information about the feasibility study process, background information about the study area, and was updated periodically to include all news releases and newsletters.

Agency Consultation

The NPS study team has consulted with federal, state and local agency representatives in conducting this study, beginning in January, 2000. NPS formal and informal consultations have included the agencies and organizations listed below.

INFORMAL CONSULTATION

Federal agencies: Los Padres National Forest, Vandenberg Air Force Base, U.S. Minerals Management Service, Bureau of Land Management, California Coastal National Monument, Channel Islands National Park, Channel Islands National Marine Sanctuary, U.S. Fish and Wildlife Service,

Tribal: Santa Ynez Chumash Band Tribal Council, Barbareno Chumash Committee, Coastal Chumash Band

State agencies: Department of Parks and Recreation, Coastal Commission, State Historic Preservation Office, Department of Fish and Game, Department of Conservation

Local agencies: Santa Barbara County Department of Planning and Development, Santa Barbara County Department of Parks and Recreation, Santa Barbara County Park and Recreation Commission, City of Lompoc, Santa Barbara County Supervisors, Vista del Mar School District, Santa Barbara County Agricultural Commissioner

Non-profit organizations and businesses: Trust for Public Land, Conception Coast Project, Sierra Club, Santa Barbara County Farm Bureau, Gaviota Coast Conservancy, Bixby Ranch Company, Surfrider Foundation, Hollister Ranch Homeowners Association Stewardship Task Force, Cattlemen's Association, Land Trust for Santa Barbara County, TetraTech, Forest Preservation Society, Young America's Foundation, Citizens Planning Association

FORMAL CONSULTATION

In May 2000, the National Park Service sent out a letter to the following Federal and State agencies announcing the commencement of the feasibility study and requesting agency input:

- California Coastal Commission: The commission responded on June 15, 2000 stating their support of the feasibility study and the establishment of a national seashore to improve resource protection and opportunities for public access to the shoreline.
- California Coastal Conservancy
- California Department of Fish and Game
- California Department of Parks and Recreation: The Director of California State Parks responded on June 5, 2000 about participation in the study process.
- California Office of Historic Preservation: The state historic preservation officer sent a response letter offering suggestions on June 27, 2000. The letter stated their availability to provide advise and assistance to NPS in carrying out its Section 106 responsibilities of the National Historic Preservation Act at the time NPS determines it has an undertaking subject to Section 106's implementation regulations.
- University of California, Santa Barbara
- National Marine Fisheries Service
- U.S. Fish and Wildlife Service
- Channel Islands National Marine Sanctuary
- Los Padres National Forest

Vandenberg Air Force Base: On September 28, 2000, Vandenberg Air Force Base sent a letter to the National Park Service requesting designation as a cooperating agency in this feasibility study process.

Native American Consultation

Members of the study team communicated and consulted informally with various Chumash tribal organizations and affiliated groups beginning in March, 2000 at the public scoping meetings for the study. A Santa Ynez Chumash Band representative participated in the NPS Desired Future Conditions workshop on July 27, 2000. A member of the study team gave a presentation to the Tribal Council of the Santa Ynez Band of Chumash on September 9, 2001. At numerous points in the study process, NPS staff had conversations and exchanged correspondence with various representatives of the Santa Ynez Band of Chumash, San Luis Obispo County Chumash Council, Barbareno Chumash Committee, and the Coastal Chumash Band.

List of Agencies and Organizations to Whom Copies of the Draft Feasibility Study Are Being Sent

The Executive Summary of this report is being sent to the entire Gaviota Coast Feasibility Study mailing list, including more than 3000 people and organizations. A postcard was sent to the mailing list allowing recipients to request the full report in either printed or CD-ROM version. The full study report is also posted on the Internet, at www.nps.gov/pwro/gaviota. The following agencies and organizations are on the feasibility study mailing list and are among those that are being sent the draft Gaviota Coast Feasibility Study and Environmental Assessment:

FEDERAL AGENCIES AND ELECTED OFFICIALS

Bureau of Land Management
Channel Islands National Marine Sanctuary
Congresswoman Lois Capps
Congressman Elton Gallegly
Department of the Interior
Environmental Protection Agency, Region IX
Fish and Wildlife Service
Los Padres National Forest

Minerals Management Service
Senator Barbara Boxer
Senator Dianne Feinstein
Vandenberg Air Force Base

STATE AGENCIES AND ELECTED OFFICIALS

California Coastal Commission
California Coastal Conservancy
Department of Conservation, Office of Land Conservation
Department of Fish and Game
Department of Parks and Recreation
State Assemblywoman Hannah-Beth Jackson
State Historic Preservation Officer
State Senator Tom McClintock

LOCAL AGENCIES AND ELECTED OFFICIALS

Santa Barbara County
City of Santa Barbara
City of Goleta
City of Lompoc
City of Solvang
City of Santa Maria
Vista del Mar Union School District

ORGANIZATIONS

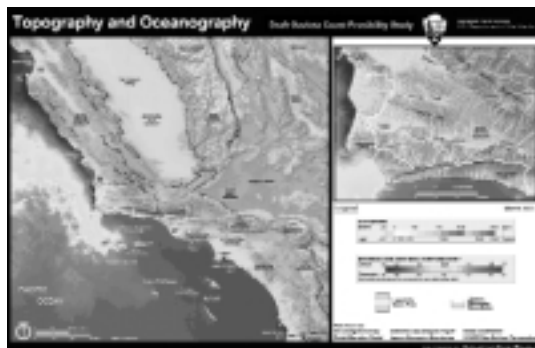
Coastal Stewardship Council
Community Environmental Council
Gaviota Coast Conservancy
Hollister Ranch Homeowners Association
Land Trust for Santa Barbara County
Santa Barbara County Farm Bureau
Sierra Club
Trust for Public Land

TRIBAL GOVERNMENTS AND ORGANIZATIONS

Barbareno Chumash Committee
Chumash Council of Bakersfield
Coastal Band of Chumash
Santa Ynez Indian Reservation
United Chumash Council



Maps



Map 1: Regional Context	175
Map 2: Ownership and Zoning	177
Map 3: Topography and Oceanography	179
Map 4: Watersheds	181
Map 5: Vegetation and Cover	183
Map 6: Natural Resources	185
Map 7: Cultural Resources	187
Map 8: Land Use	189



Map Notes

The following maps were developed with existing data compiled by local, state, and federal agencies. In studying an area of this size, over 200,000 acres, it is common to use large scale existing map information to determine resource patterns and characteristics. Map readers should use the maps to identify broad spatial trends for resources within the study area and avoid making highly localized interpretations.

Vegetation and Cover Map. Vegetation data on this map was developed by the California Department of Forestry and Fire Protection. Vegetation polygons were derived from LANDSAT TM imagery with a 2.5 acre minimum map unit. It is meant to identify broad spatial trends for vegetation as opposed to site specific locations.

Natural Resources Map. This map includes both spatial habitat data (polygons) and area specific data (points) for rare, threatened and endangered species. Spatial habitat data is from the California Department of Fish and Game's Natural Diversity Database and Vandenberg AFB resource data. Area specific data includes documented locations of rare, threatened, and endangered species published in various studies, reports, and environmental impact statements. This data was digitized by the National Park Service using the following sources:

- Choi, Pete, Gomez-Priego, Paola, Sears, William and Alex Tuttle. April 2002. *Interim Management Plan for the Arroyo Hondo Preserve*. Donald Bren School of Environmental Science and Management, University of California, Santa Barbara.
- Hendrickson, Beth, Ferren, Wayne R., and Tamara Klug. 1998. *Botanical Resources of Hollister Ranch, Santa Barbara, California*. Museum of Systematics and Ecology, University of California, Santa Barbara, Environmental Report 10.
- County of Santa Barbara.
 - 1984. Prepared by Arthur D. Little Inc. for the County of Santa Barbara. *Point Arguello Field and Gaviota Processing Facility Area Study and Chevron/Texaco Development Plans EIR/EIS*.
 - January 2002. *Texaco Hollister Ranch Pipeline Abandonment Proposed Final Environmental Impact Report*. 98-DP-40/01-EIR-02.

March 2002. *Mitigated Negative Declaration 02-ND-02 Unocal Cojo Decommissioning Project*. 98-DP-42.

June 2002. *Mitigated Negative Declaration 02-ND-18 Gaviota Oil and Gas Facility Excess Equipment Removal Project*. 85-DP-032RV02.

- County of Santa Barbara Planning and Development and University of California, Santa Barbara (UCSB). 2002. Joint Proposal for the Ellwood-Devereux Coast. Santa Barbara, CA. 127pp.

Cultural Resources Map. Specific locations of archeological resources are not located on this map because of their high sensitivity. Historic sites are shown only on public lands with documented sites. Cultural resource site locations for Los Padres National Forest were not available. Additional historic sites exist on private property but are intentionally not shown to protect privacy.

Chumash village sites indicate the approximate location of villages during the time of European settlement. They are not a depiction of sites that remain today. These historic locations were compiled as part of a comprehensive analysis of mission register data for purposes of tracing Chumash histories and genealogical descent. The document, *Cultural Affiliation and Lineal Descent of Chumash Peoples*, was prepared and submitted to the National Park Service Archeology and Ethnicity Program in 1999 by editors John R. Johnson and Sally McLendon.

The proximity of known Chumash rock art sites on Vandenberg AFB and the other pre-historic resources of High Sensitivity show only the gross proximity of locations for archeological resources. Suitability for pre-historic occupation is based on topography. Archeologists generally agree that most classes of prehistoric archeological sites are not found on slopes greater than 30%, therefore those areas with slopes less than 30% have higher potential for containing archeological remains (with a few exceptions such as rock art sites found under bedrock outcrop overhangs).

Regional Context

Draft Gaviota Coast Feasibility Study



National Park Service
U.S. Department of the Interior

March 2003

Legend

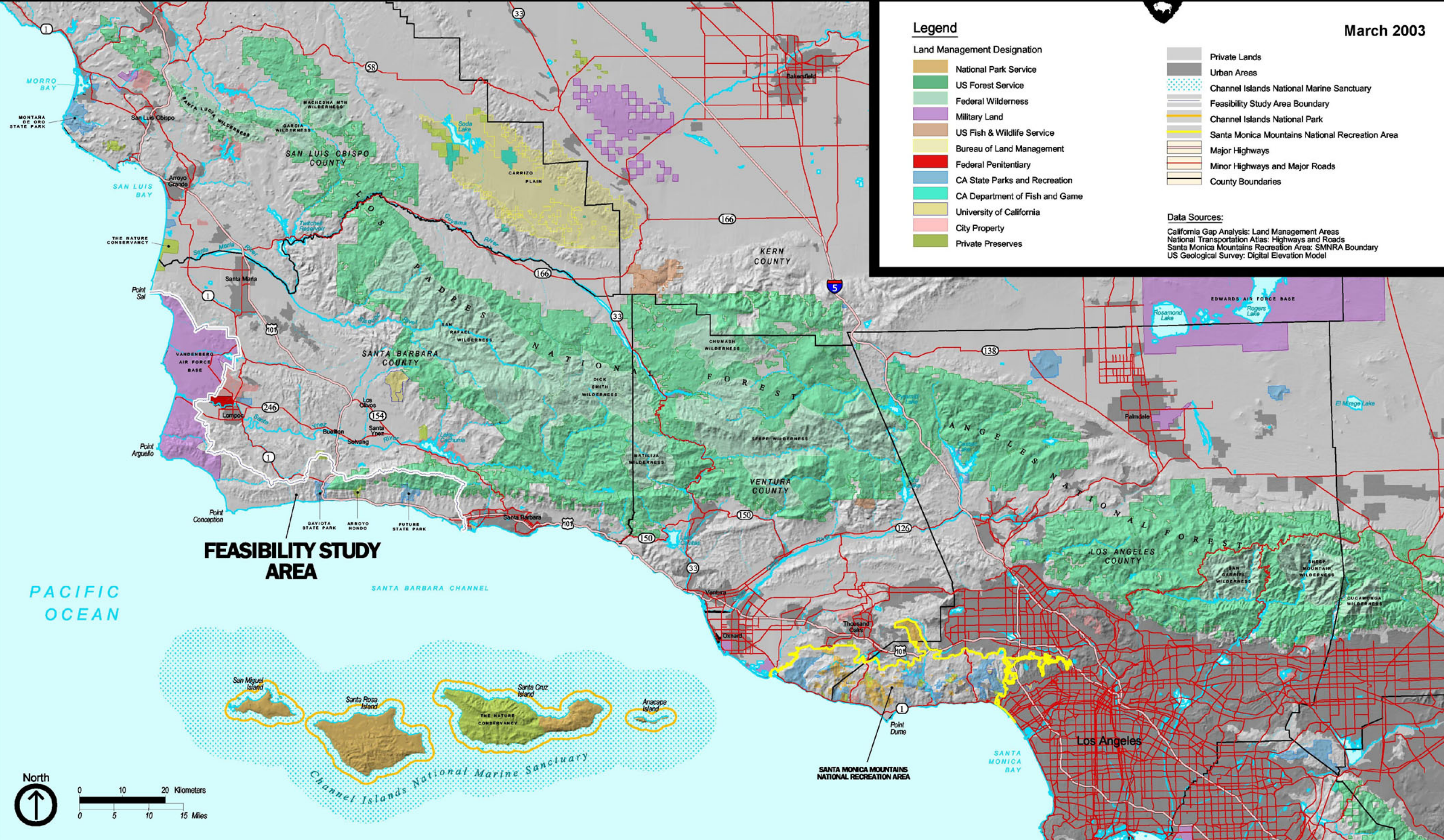
Land Management Designation

- National Park Service
- US Forest Service
- Federal Wilderness
- Military Land
- US Fish & Wildlife Service
- Bureau of Land Management
- Federal Penitentiary
- CA State Parks and Recreation
- CA Department of Fish and Game
- University of California
- City Property
- Private Preserves

- Private Lands
- Urban Areas
- Channel Islands National Marine Sanctuary
- Feasibility Study Area Boundary
- Channel Islands National Park
- Santa Monica Mountains National Recreation Area
- Major Highways
- Minor Highways and Major Roads
- County Boundaries

Data Sources:

California Gap Analysis: Land Management Areas
National Transportation Atlas: Highways and Roads
Santa Monica Mountains Recreation Area: SMNRA Boundary
US Geological Survey: Digital Elevation Model



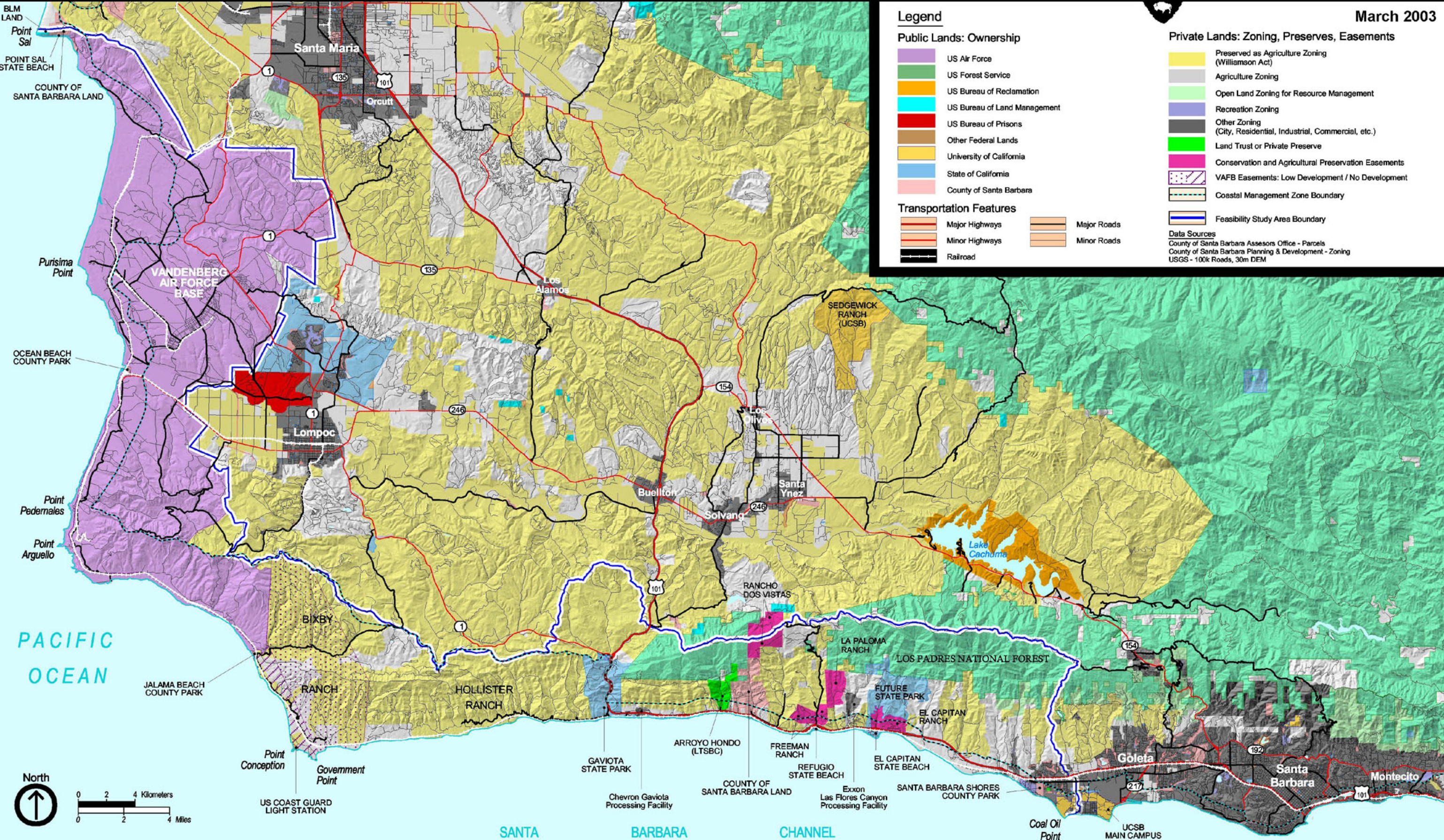
Ownership and Zoning

Draft Gaviota Coast Feasibility Study



National Park Service
U.S. Department of the Interior

March 2003



Legend

Public Lands: Ownership

- US Air Force
- US Forest Service
- US Bureau of Reclamation
- US Bureau of Land Management
- US Bureau of Prisons
- Other Federal Lands
- University of California
- State of California
- County of Santa Barbara

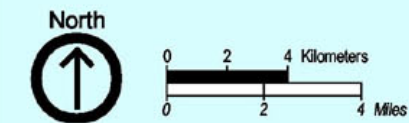
Transportation Features

- Major Highways
- Minor Highways
- Railroad
- Major Roads
- Minor Roads

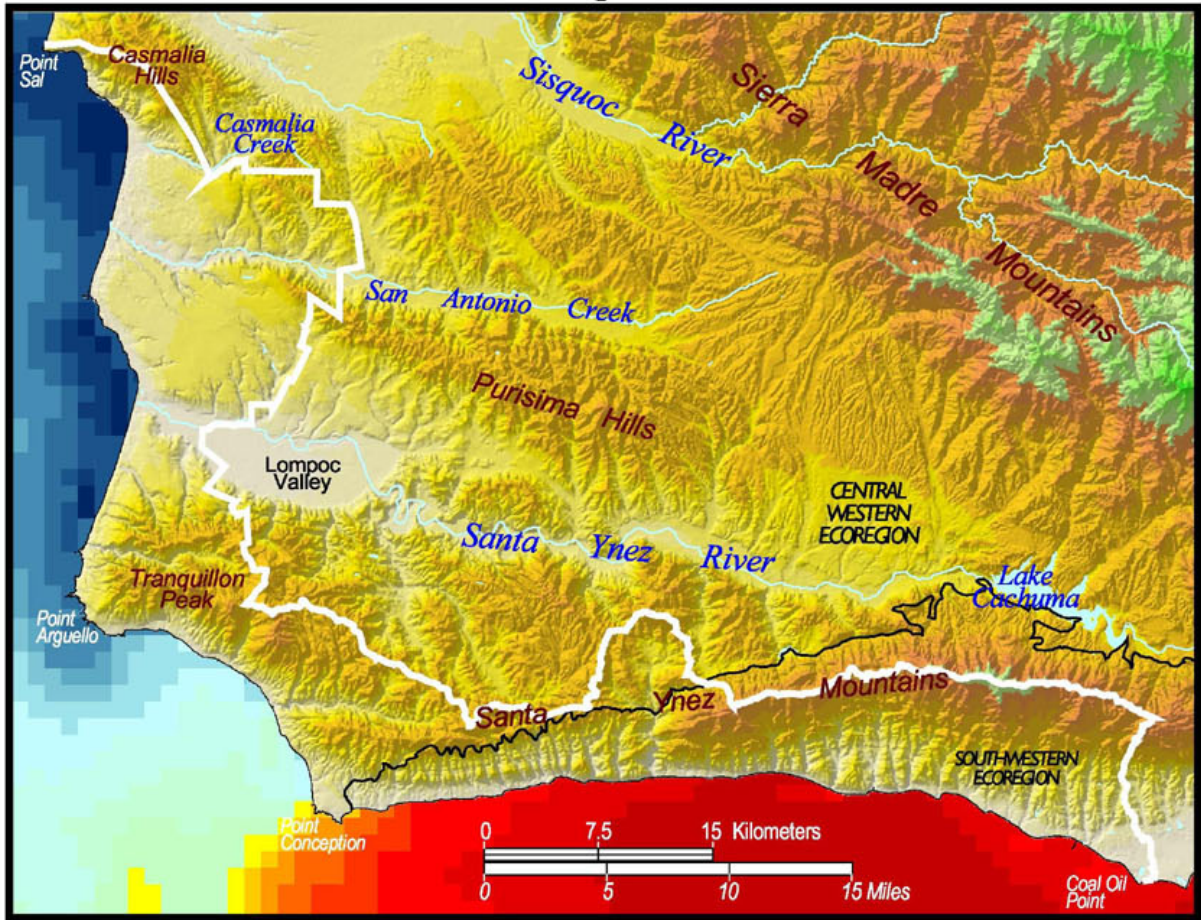
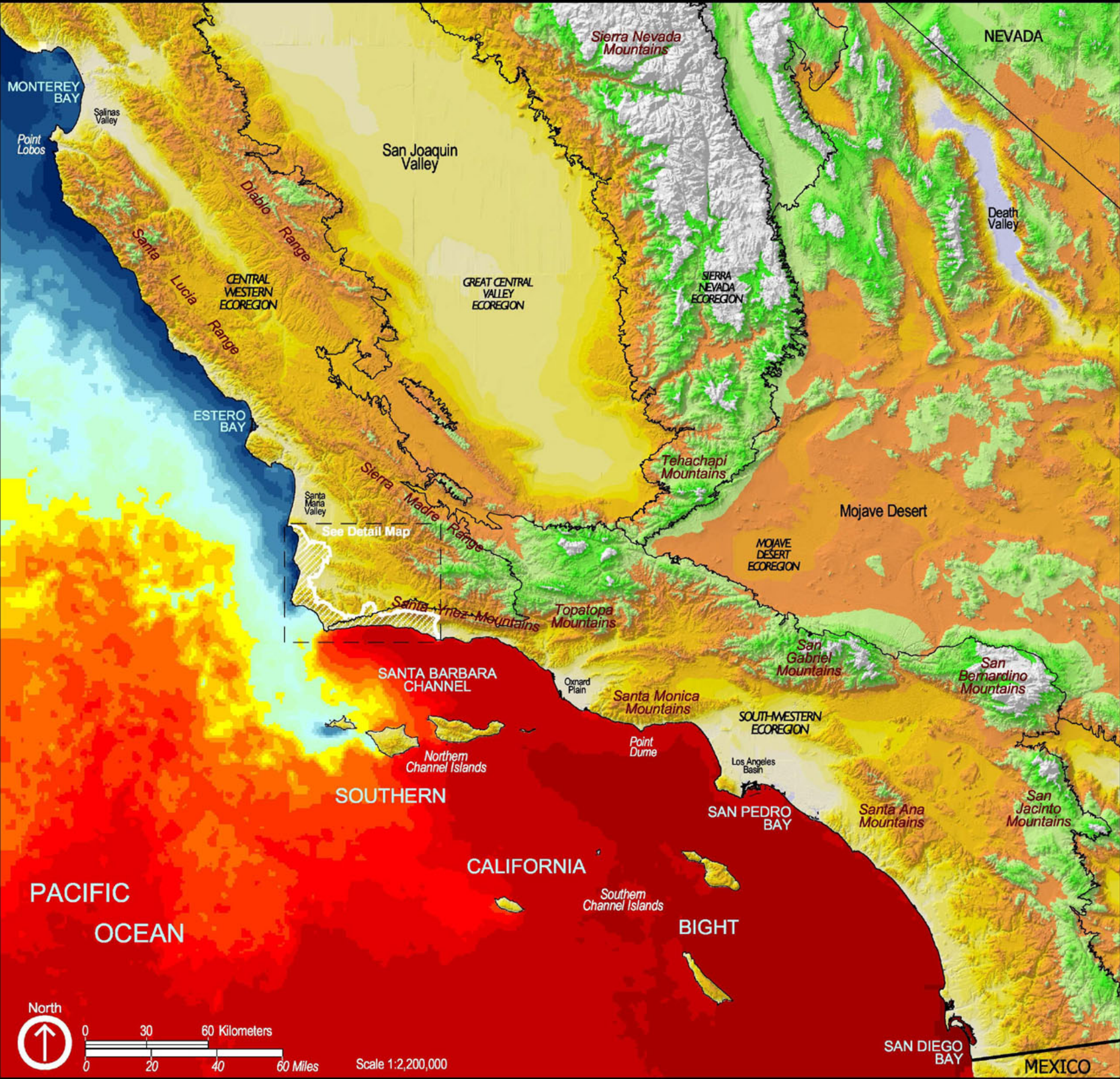
Private Lands: Zoning, Preserves, Easements

- Preserved as Agriculture Zoning (Williamson Act)
- Agriculture Zoning
- Open Land Zoning for Resource Management
- Recreation Zoning
- Other Zoning (City, Residential, Industrial, Commercial, etc.)
- Land Trust or Private Preserve
- Conservation and Agricultural Preservation Easements
- VAFB Easements: Low Development / No Development
- Coastal Management Zone Boundary
- Feasibility Study Area Boundary

Data Sources
County of Santa Barbara Assessors Office - Parcels
County of Santa Barbara Planning & Development - Zoning
USGS - 100k Roads, 30m DEM

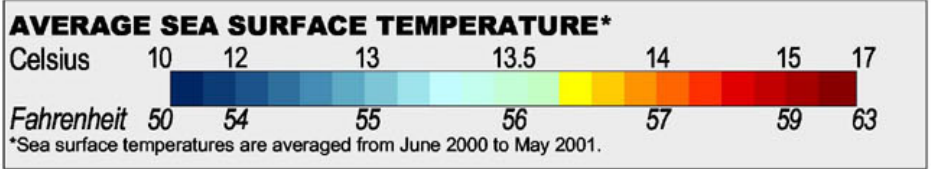
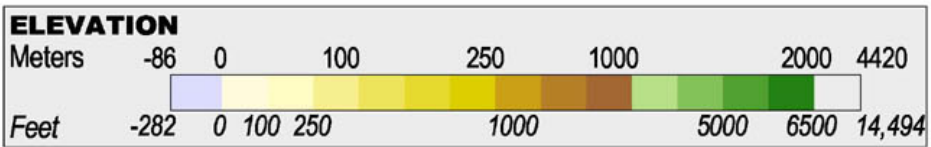


Topography and Oceanography



Legend

March 2003



Data Sources

US Geological Survey: Digital Elevation Model

California Gap Analysis Project: Jepson Ecoregion Boundaries

NOAA CoastWatch: AVHRR Sea Surface Temperature

Watersheds

Draft Gaviota Coast Feasibility Study

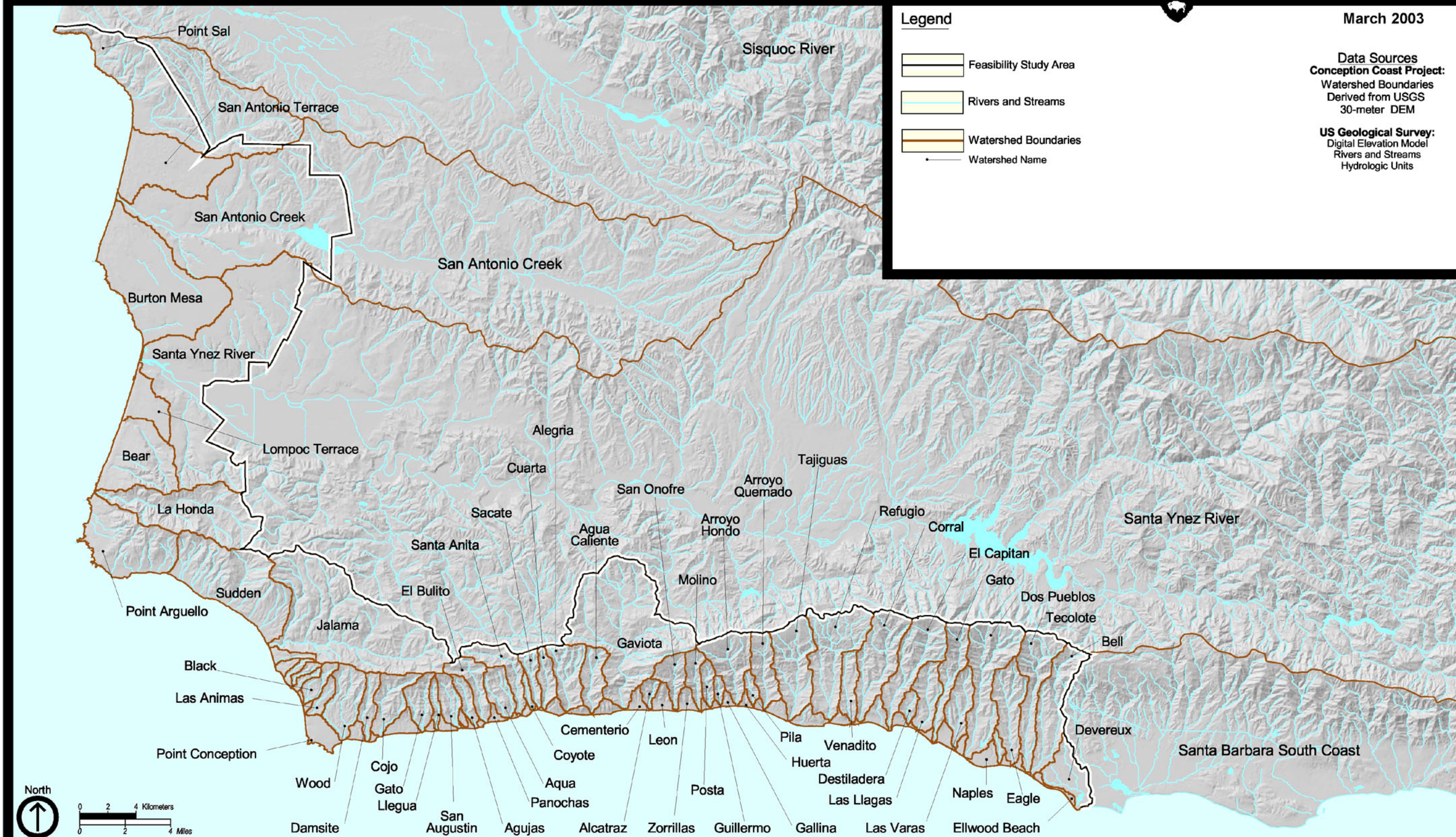


National Park Service
U.S. Department of the Interior

March 2003

Data Sources
Conception Coast Project:
 Watershed Boundaries
 Derived from USGS
 30-meter DEM

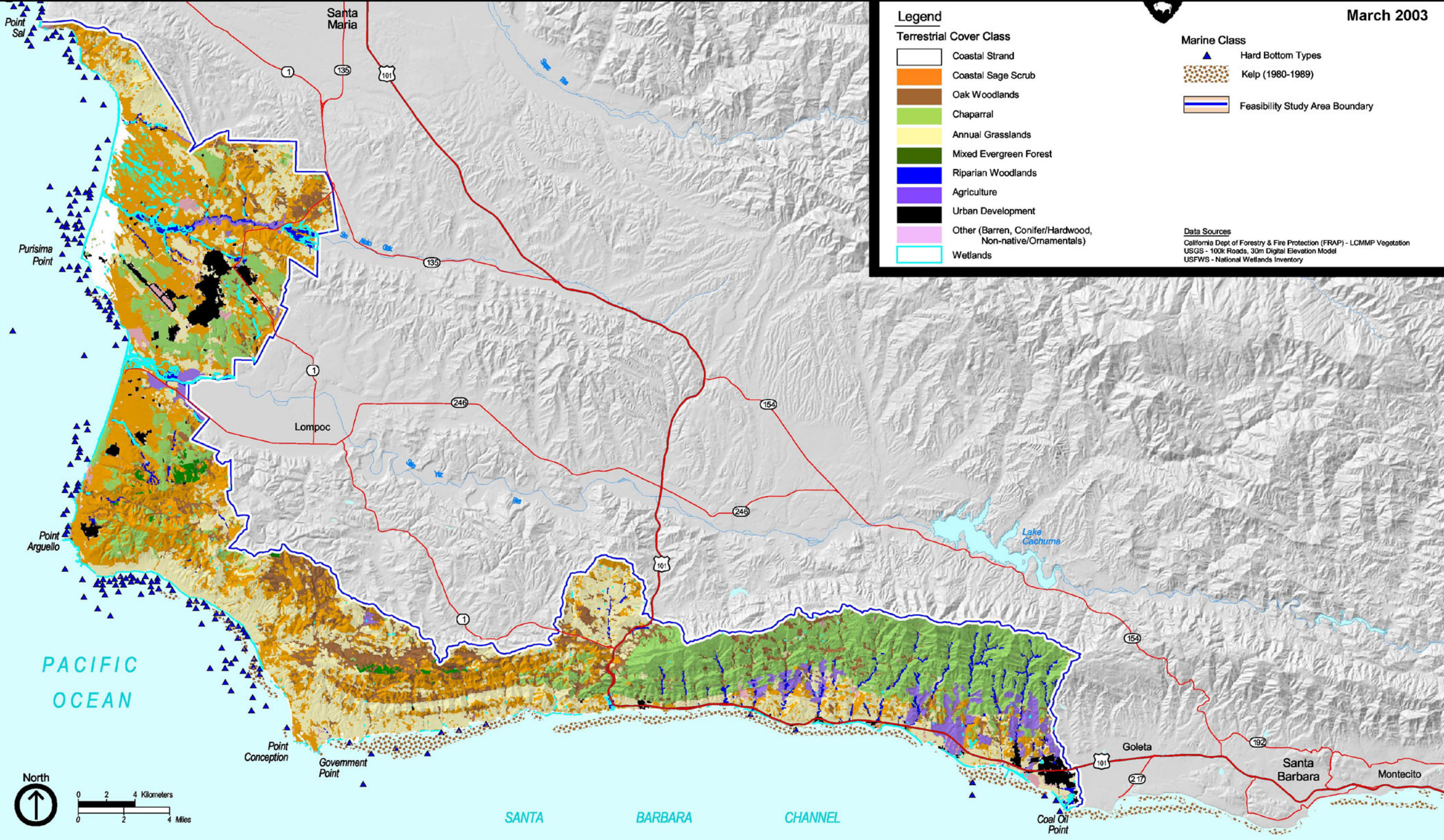
US Geological Survey:
Digital Elevation Model
Rivers and Streams
Hydrologic Units

Map Prepared by: **CONCEPTION COAST PROJECT**

Vegetation and Cover



March 2003

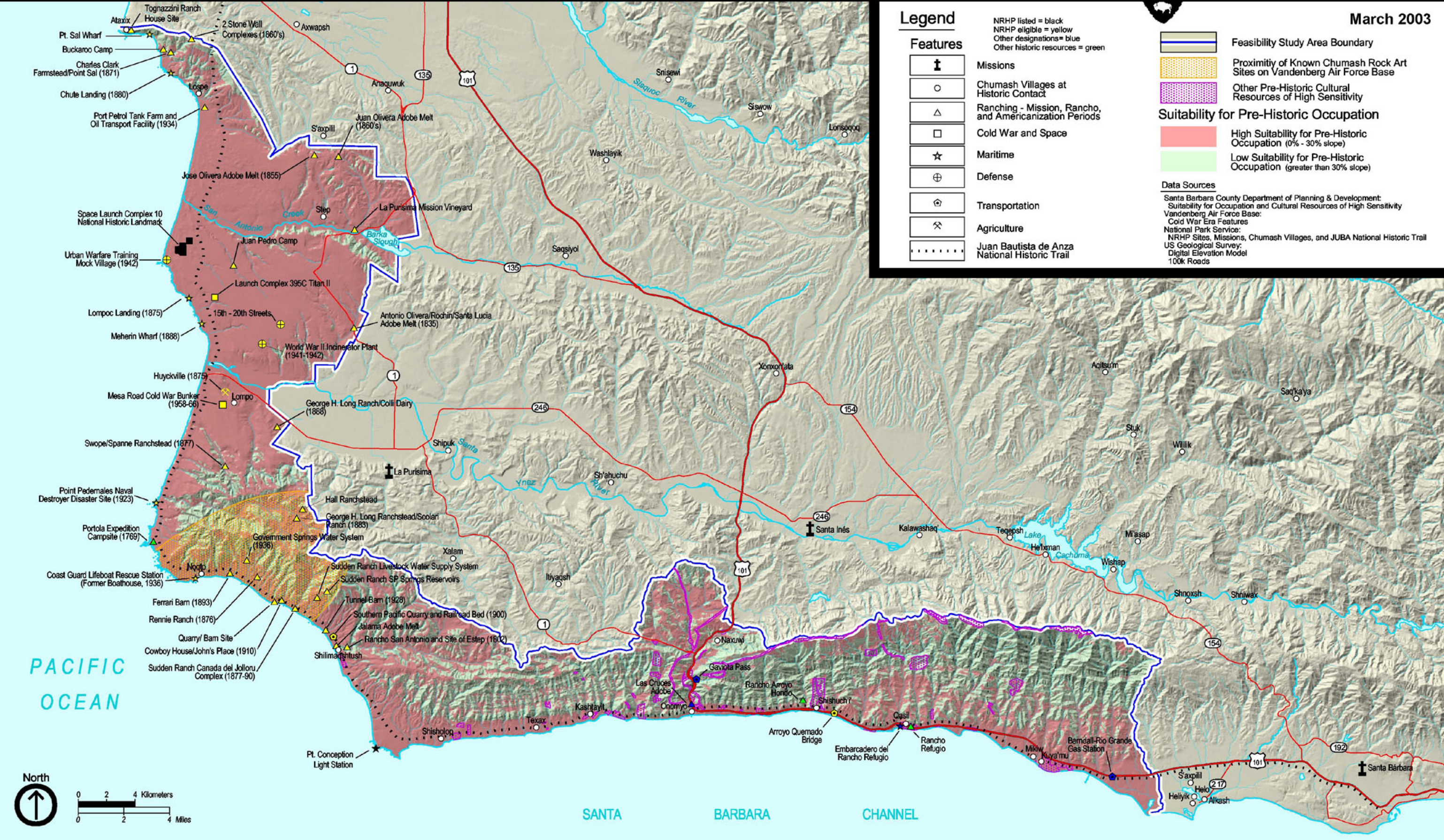


National Park Service
U.S. Department of the Interior

Map Prepared by: CONCEPTION COAST PROJECT



March 2003



Legend

Features

- Missions
- Chumash Villages at Historic Contact
- Ranching - Mission, Rancho, and Americanization Periods
- Cold War and Space
- Maritime
- Defense
- Transportation
- Agriculture
- Juan Bautista de Anza National Historic Trail

NRHP listed = black
NRHP eligible = yellow
Other designations = blue
Other historic resources = green

- Feasibility Study Area Boundary
- Proximity of Known Chumash Rock Art Sites on Vandenberg Air Force Base
- Other Pre-Historic Cultural Resources of High Sensitivity
- Suitability for Pre-Historic Occupation
 - High Suitability for Pre-Historic Occupation (0% - 30% slope)
 - Low Suitability for Pre-Historic Occupation (greater than 30% slope)

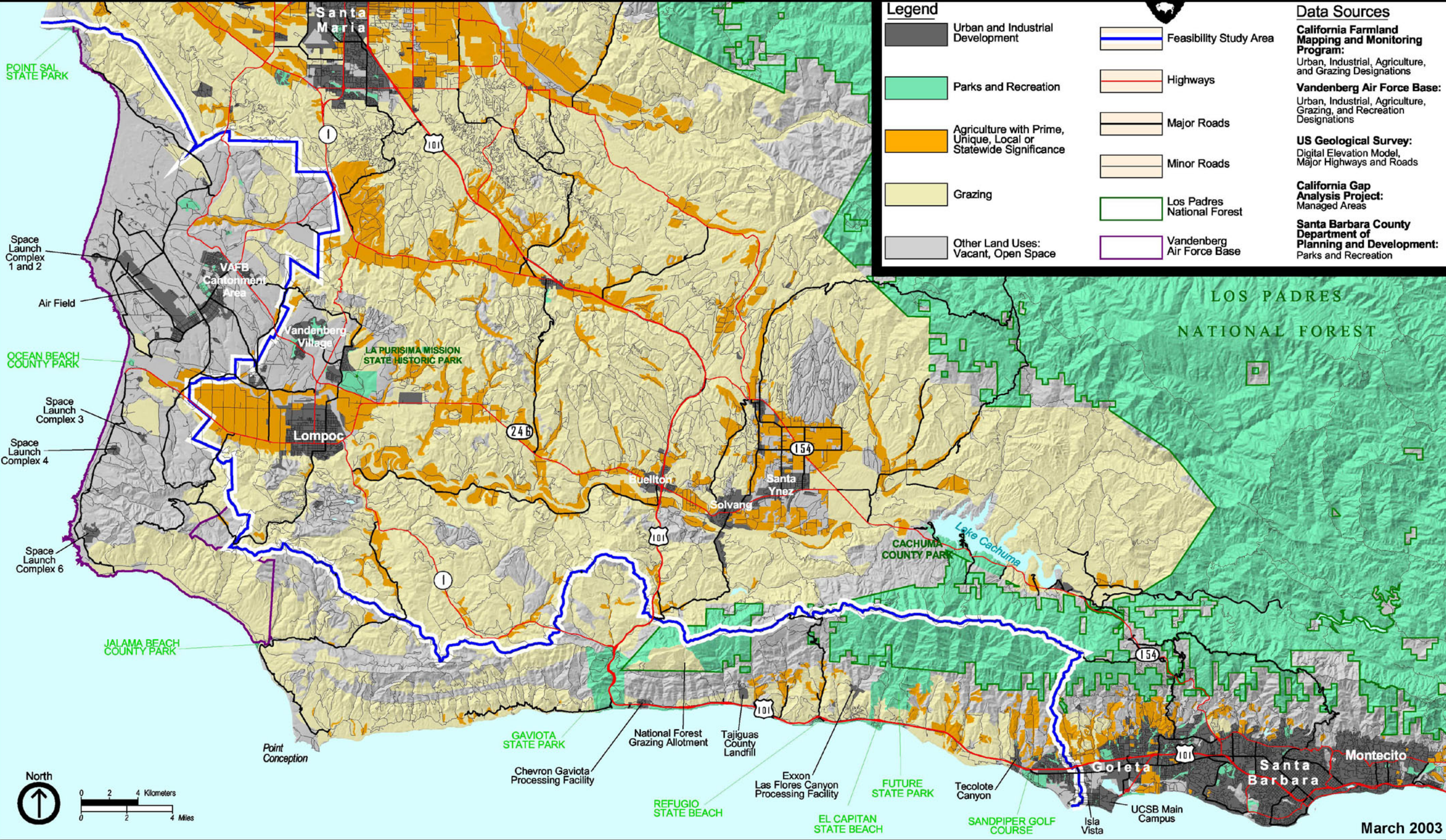
Data Sources
Santa Barbara County Department of Planning & Development:
Suitability for Occupation and Cultural Resources of High Sensitivity
Vandenberg Air Force Base:
Cold War Era Features
National Park Service:
NRHP Sites, Missions, Chumash Villages, and JUBA National Historic Trail
US Geological Survey:
Digital Elevation Model
100k Roads

Land Use

Draft Gaviota Coast Feasibility Study



National Park Service
U.S. Department of the Interior



Legend

- | | |
|---|----------------------------|
| Urban and Industrial Development | Feasibility Study Area |
| Parks and Recreation | Highways |
| Agriculture with Prime, Unique, Local or Statewide Significance | Major Roads |
| Grazing | Minor Roads |
| Other Land Uses: Vacant, Open Space | Los Padres National Forest |
| | Vandenberg Air Force Base |

Data Sources

- California Farmland Mapping and Monitoring Program:**
Urban, Industrial, Agriculture, and Grazing Designations
- Vandenberg Air Force Base:**
Urban, Industrial, Agriculture, Grazing, and Recreation Designations
- US Geological Survey:**
Digital Elevation Model, Major Highways and Roads
- California Gap Analysis Project:**
Managed Areas
- Santa Barbara County Department of Planning and Development:**
Parks and Recreation

March 2003

Map Prepared by: CONCEPTION COAST PROJECT

Tables

Table A1: Rare, Threatened, and Endangered Plants	192
Table A2: Rare, Threatened, and Endangered Animals	195
Table A3: Cultural Resources Inventory	200
Table A4: Agricultural or Open Land for Sale In Recent Years	204



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Table A1: Rare, Threatened, and Endangered Plants

Scientific Name	Common Name	Habitat	Federal Status	State Status	CNPS	Documented Study Area Locations*
<i>Aphanisma blitoides</i>	Aphanisma	coastal sage scrub, bluff scrub, coastal dunes)	None	None	1B	Pt. Sal, Vandenberg AFB
<i>Layia carnosa</i>	Beach layia	coastal foredunes and dune scrub	FE	SE	1B	Vandenberg AFB
<i>Dithyrea maritima</i>	Beach spectaclepod	coastal dunes, coastal scrub	SC	ST	1B	Vandenberg AFB
<i>Scrophularia atrata</i>	Black-flowered figwort	coastal dunes, coastal scrub, chaparral, closed-cone coniferous forest, riparian scrub	SC	None	1B	Point Conception, Devereux
<i>Erigeron blochmaniae</i>	Blochman's leafy daisy	coastal dunes, coastal scrub	None	None	1B	Vandenberg AFB
<i>Calystegia subacaulis ssp. episcopalis</i>	Cambria morning-glory	chaparral, cismontane woodland	None	None	1B	Vandenberg AFB, Pt. Sal
<i>Atriplex coulteri</i>	Coulter's saltbush	coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland	None	None	1B	Point Conception, Jalama, Coal Oil Point
<i>Monardella crispa</i>	Crisp monardella	coastal dunes, coastal scrub	SC	None	1B	Pt. Sal, Vandenberg AFB
<i>Atriplex serenana var. davidsonii</i>	Davidson's saltscale	coastal bluff scrub, coastal scrub,	None	None	1B	Vandenberg AFB
<i>Delphinium parryi ssp. blochmaniae</i>	Dune Larkspur	maritime chaparral, coastal dunes	SC	None	1B	Vandenberg AFB
<i>Arctostaphylos tomentosa ssp. eastwoodiana</i>	Eastwood's manzanita	maritime chaparral	None	None	1B	Vandenberg AFB
<i>Rorippa gambelii</i>	Gambel's water cress	freshwater or brackish marsh	FE	SE	1B	Vandenberg AFB
<i>Deinandra increscens ssp. villosa</i>	Gaviota tarplant	coastal bluff scrub, coastal scrub, valley and foothill grassland	FE	SE	1B	Point Sal, Point Conception, Alegria, Leon
<i>Horkelia cuneata ssp. sericea</i>	Kellogg's horkelia	closed cone coniferous forest, maritime chaparral, coastal scrub	SC	None	1B	Canada Santa Anita, Agua Caliente
<i>Arctostaphylos purissima</i>	La purissima manzanita	chaparral (sandy)	None	None	1B	Point Sal, San Antonio, Burton Mesa, Santa Ynez, Cojo, Santa Anita
<i>Calochortus weedii var. vestus</i>	Late-flowered mariposa lily	chaparral, cismontane woodland, riparian woodland	None	None	1B	Hollister Ranch, Refugio
<i>Eriodictyon capitatum</i>	Lompoc yerba santa	closed-cone coniferous forest, maritime chaparral	FE	Rare	1B	Burton Mesa, Santa Ynez, Jalama, Cojo, Gato, San Augustin
<i>Arctostaphylos refugioensis</i>	Refugio manzanita	chaparral (sandstone)	None	None	1B	Cojo, Refugio
<i>Arctostaphylos rudis</i>	Sand mesa manzanita	maritime chaparral, coastal sage scrub (sandy)	SC	None	1B	Point Sal, San Antonio Terrace, Burton Mesa, Santa Ynez, Cojo

Scientific Name	Common Name	Habitat	Federal Status	State Status	CNPS	Documented Study Area Locations*
<i>Castilleja mollis</i>	Soft-leaved paintbrush	coastal bluff scrub, coastal dunes	FE	None	1B	Cojo
<i>Chorizanthe rectispina</i>	Straight-awned spine flower	chaparral, cismontane woodland, coastal scrub	SC	None	1B	Vandenberg AFB
<i>Cirsium rhotophillum</i>	Surf thistle	coastal bluff scrub, coastal dunes	SC	ST	1B	Point Conception
<i>Cordylanthus rigid ssp littoralis</i>	Seaside bird's beak	closed-cone coniferous forest, maritime chaparral, cismontane woodland, coastal dunes, coastal scrub	None	SE	1B	Vandenberg AFB
<i>Fritillaria ojaiensis</i>	Ojai fritillary	broadleafed upland forest, chaparral, lower montane coniferous forest	SC	None	1B	N/A
<i>Hemizonia parryi ssp australis</i>	Southern tarplant	vernal pools, wetland margins, valley foothill grassland	SC	None	1B	Ellwood
<i>Monardella frutescens</i>	San Luis Obispo monardella	coastal dunes, coastal scrub	SC	None	1B	Vandenberg AFB
<i>Senecio aphanactis</i>	Rayless ragwort	coastal scrub, chaparral, cismontane woodland	None	None	2	Santa Anita
<i>Thelypteris puberula var sonorensis</i>	Sonoran maiden fern	riparian, seep and meadow	None	None	2	N/A
<i>Thermopsis macrophylla</i>	Santa Ynez false lupine	chaparral	None	Rare	1B	Crest of Santa Ynez Mountains at Dos Pueblos, Tecolote and Bell Canyons.
<p>Critical habitat has been designated for the following species: Lompoc yerba santa (<i>Eriodictyon capitatum</i>) and the Gaviota tarplant (<i>Deinandra increscens ssp villosa</i>).</p> <p>FE = Federally-listed Endangered FT = Federally-listed Threatened SE = State-listed Endangered ST = State-listed Threatened FWS = U.S. Fish and Wildlife Service SC= Species of Concern. Species of concern is an informal designation of the US Fish and Wildlife Service. It refers to those species believed to be in decline or in need of concentrated conservation actions as species of concern. CDFG= California Department of Fish and Game SSC= Species of Special Concern. The California Department of Fish and Game applies this status to animal species not listed under the Federal and California endangered species acts that are declining at a rate that might require listing or have historically low population counts that are threatened. CNPS=California Native Plant Society. The California Native Plant society has developed an inventory of rare and endangered plants that are native to California. 1B= Plants considered rare, threatened, or endangered in California and elsewhere. This includes all plants eligible for state listing and those that must be considered while preparing CEQA documents. 2= Plants considered rare in California but more common elsewhere. This includes all plants eligible for state listing and those that must be considered while preparing CEQA documents. N/A = Specific location data not available. * Location names that refer to local creeks indicate the watershed in which the species is located.</p>						

Sources:

BLM, 1997
California Department of Fish and Game, 2000, 2001a, 2002b
Ferren and Rindlaub, 2000
Hendrickson, Ferren, and Klug, 1998
Herring, 1990
Hollister Ranch Conservancy, 2000
Santa Barbara County and UCSB, 2002
Santa Barbara County, 1982, 1984, 1994, 2002a, 2002c, 2002d, 2002e
Skinner, Mark W., and Bruce M. Pavlik, 1994
United States Air Force, 1997
United States Fish and Wildlife Service, Correspondence, December 2000
United States Fish and Wildlife Service, 2002b

Table A2: Rare, Threatened, and Endangered Animals

Scientific Name	Common Name	Habitat	Federal Status	California Status	Documented Study Area Locations*
Beetles					
<i>Cicindela hirticollis grvida</i>	Sandy beach tiger beetle	sand dunes, strand	SC	None	Coal Oil Point
<i>Coelus globosus</i>	Globose dune beetle	sand dunes	SC	None	Coal Oil Point
Butterflies and Moths					
<i>Danaus plexippus</i>	Monarch butterfly	eucalyptus, riparian	None	Special Animal (wintering only)*	Wood Canyon, Arroyo El Bulito, Santa Anita, Cementario, Canada Alcatraz, Las Varas Ranch, Dos Pueblos Ranch, Eagle Canyon, Ellwood Mesa
Fish					
<i>Eucyclogobius newberryi</i>	Tidewater goby	shallow lagoons, lower stream reaches, coastal wetlands	FE	SSC	All major creeks on Vandenberg AFB, Damsite, San Augustin, Jalama, Agujas, El Bulito, Santa Anita, Alegria, Agua Caliente, Gaviota, Arroyo Hondo, Arroyo Quemado, Eagle, Tecolote, Bell, Devereux
<i>Gasterosteus aculeatus williamsoni</i>	Unarmored threespine stickleback	perennial streams, densely vegetated	FE	Endangered	San Antonio, Honda
<i>Gila orcutti</i>	Arroyo chub	slow moving streams and lakes	None	SSC	Introduced on Vandenberg AFB, Gaviota
<i>Oncorhynchus mykiss irideus</i>	Southern steelhead	perennial streams connecting to the ocean	FE	SSC	Santa Ynez River, Gaviota Creek, Arroyo Hondo. Potentially at Honda, Santa Anita, Dos Pueblos, Tecolote, Jalama
Amphibians and Reptiles					
<i>Anniella pulchra pulchra</i>	Silvery legless lizard	coastal sage scrub, chaparral, beaches, pine-oak woodland, vegetated stream terraces	None	SSC	Vandenberg AFB
<i>Clemmys marmorata pallida</i>	Southwestern pond turtle	perennial lakes, ponds and streams - slow moving water	SC	SSC	Vandenberg AFB, Wood, Agua Caliente, Arroyo El Bulito, Agujas, Santa Anita, Cuarta, Arroyo Hondo, Bulito, Alegria

Scientific Name	Common Name	Habitat	Federal Status	California Status	Documented Study Area Locations*
<i>Phrynosoma coronatum frontale</i>	California horned lizard	clearings in riparian woodlands, chaparral, annual grassland	SC	SSC	Vandenberg AFB, Arroyo Hondo
<i>Rana aurora draytonii</i>	California red-legged frog	riparian areas, perennial streams and ponds	FT	SSC	Santa Anita, Jalama, Arroyo El Bulito, Agujas, Cojo, Agua Caliente, Alegria, Arroyo Hondo, Cuarta, Sacate, Wood, San Augustin. Vandenberg AFB reports that red-legged frogs are found in nearly all permanent lakes, ponds and streams on the base.
<i>Scaphiopus hammondi</i>	Western spadefoot toad	grassland, vernal pools	None	SSC	Vandenberg AFB
<i>Taricha torosa torosa</i>	Coast range newt	ponds, slow-moving streams, frequents terrestrial habitats	None	SSC	Gaviota, Arroyo Hondo
<i>Thamnophis hammondi</i>	Two-striped garter snake	perennial or intermittent streams with dense vegetation, coastal sage scrub, grassland	None	SSC	Vandenberg AFB, Agua Caliente, Arroyo Hondo, Alegria, Bulito, Santa Anita
Birds					
<i>Accipiter cooperii</i> (nesting)	Cooper's hawk	oak woodlands, riparian areas	None	SSC	Alegria, Canada del Alcatraz, Agua Caliente San Augustine, Sacate, Cuarta, Arroyo Hondo
<i>Accipiter striatus</i>	Sharp-shinned hawk	oak woodlands, riparian areas	None	SSC	N/A
<i>Agelaius tricolor</i>	Tri-colored blackbird	emergent wetlands, grassland, seasonal pools, agricultural land	SC	SSC	Vandenberg AFB
<i>Aimophila ruficeps canescens</i>	Southern CA Rufous-crowned Sparrow	coastal sage scrub, grasslands, rocky outcrops or slopes	None	SSC	Vandenberg AFB, Agua Caliente
<i>Amphispiza belli belli</i>	Bell's sage sparrow	open chaparral, coastal sage scrub	None	SSC	Agua Caliente
<i>Aquila chrysaetos</i>	Golden eagle	cliffs, grassland, open forest	None	SSC	Vandenberg AFB, Arroyo Hondo
<i>Asio flammeus</i>	Short-eared owl	grasses, wetlands, dunes, irrigated lands	SC	SSC	Goleta area
<i>Athene cunicularia</i>	Burrowing owl	grasslands, agricultural land	SC	SSC	Ellwood Mesa
<i>Buteo regalis</i>	Ferruginous hawk	grasslands, scrub, cliffs, rocky outcrops	SC	SSC	Vandenberg AFB

Scientific Name	Common Name	Habitat	Federal Status	California Status	Documented Study Area Locations*
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	coastal sandy beaches, dunes	FT	SSC	Burton Mesa, San Antonio, Terrace, Santa Ynez, Wood, Coal Oil Point. Vandenberg AFB supported over 20% of the population in 1995.
<i>Charadrius montanus</i>	Mountain plover	grassland, plateaus, semi-arid plains	Proposed FT	SSC	Vandenberg AFB
<i>Circus cyaneus</i>	Northern harrier	wetlands, rangelands, grasslands	None	SSC	Point Conception, Arroyo Hondo, Ellwood Mesa
<i>Cypseloides niger</i>	Black swift	cliffs, rocky outcrops	SC	SSC	N/A
<i>Dendroica petechia</i>	Yellow warbler	riparian woodlands, chaparral, conifer, and mixed pine woodlands	None	SSC	San Augustin, Agujas, Arroyo Hondo
<i>Elanus leucurus</i>	White-tailed kite	grasslands, agriculture, wetlands, oak-woodland and savannah, riparian areas	None	FP	Point Conception, Arroyo Hondo, Ellwood Mesa
<i>Empidonax traillii</i>	Willow flycatcher	riparian scrub	None	SE	N/A
<i>Empidonax traillii extimus</i>	Southwestern willow flycatcher	wetlands, riparian areas	FE	SE	Santa Ynez River, Santa Anita
<i>Falco mexicanus</i>	Prairie falcon	cliffs, rocky outcrops	None	SSC	Point Arguello, Arroyo Hondo
<i>Falco peregrinus</i>	Peregrine falcon	cliffs	None	SE	Vandenberg AFB, Arroyo Hondo
<i>Gavia immer</i>	common loon	coastal migrant, lakes	SC	None	N/A
<i>Grus canadensis</i>	Sandhill crane	emergent wetlands	None	SSC	N/A
<i>Gymnogyps californianus</i>	California condor	foothill rangeland and forest	FE	SE	Los Padres National Forest. Could be transient in study area.
<i>Haliaeetus leucocephalus</i>	Bald eagle	lakes, reservoirs, river systems, rangelands, coastal wetlands	FT	SE	Santa Ynez River
<i>Icteria virens</i>	Yellow-breasted Chat	riparian areas	None	SSC	Gaviota
<i>Lanius ludovicianus</i>	Loggerhead shrike	valley-foothill riparian areas, croplands	None	SSC	Alegria, Arroyo Hondo, Cuarta, Point Conception, Ellwood Mesa
<i>Numenius americanus</i>	Long-billed curlew	coastal estuaries, sandy beaches, upland herbaceous areas, and croplands	None	SSC	N/A
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	salt marsh	None	SE	Vandenberg AFB, Devereux
<i>Pelecanus occidentalis californicus</i>	Brown pelican	near shore waters, coastal bluffs, rock outcrops	FE	SE	Point Sal, Vandenberg AFB, Wood, Arroyo Hondo, Dos Pueblos

Scientific Name	Common Name	Habitat	Federal Status	California Status	Documented Study Area Locations*
<i>Plegadis chihi</i>	White-faced ibis	grassy marshes	None	SSC	Vandenberg AFB
<i>Rallus longirostris obsoletus</i>	California clapper rail	tidal salt marsh	FE	SE	Devereux
<i>Sterna antillarum browni</i>	California least tern	sand dunes, coastal estuaries	FE	SE	Vandenberg AFB, Point Sal, Devereux
<i>Sterna elegans</i>	Elegant tern	coastline	None	SSC	Vandenberg AFB
<i>Synthliboramphus hypoleucus</i>	Xantus murrelet	rocky coast	None	SSC	N/A, Breeds on Channel Islands
<i>Vireo bellii pusillus</i>	Least bell's vireo	cottonwood-willow forest, oak woodland, shrubby thickets	FE	SE	Devereux
<u>Mammals</u>					
<i>Antrozous pallidus</i>	Pallid bat	grasslands, tree cavities, rock crevices and man made structures	None	SSC	Vandenberg AFB
<i>Enhydra lutris nereis</i>	Southern sea otter	nearshore waters, rocky coast, kelp beds	FT	None	Purissima Point, Cojo
<i>Eumops perotis californicus</i>	Western mastiff bat	cracks and holes in manmade structures, trees	None	SSC	Vandenberg AFB
<i>Myotis yumanensis</i>	Yuma myotis bat	arid caves, tunnels, buildings	SC	None	Vandenberg AFB
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	rock outcroppings	SC	SSC	Caliente, Alegria
<i>Plecotus townsendii townsendii</i>	Pacific townsend's (western) big-eared bat	rocky outcrop, manmade structures	SC	SSC	Vandenberg AFB
<i>Taxidea taxus</i>	American badger	grasslands, savannas, and mountain meadows	None	SSC	Arroyo Hondo
Critical habitat has been designated for the following species: western snowy plover (<i>Charadrius alexandrinus nivosus</i>), California condor (<i>Gymnogyps californianus</i>), Least Bell's Vireo (<i>Vireo bellii pusillus</i>), California red-legged frog (<i>Rana aurora draytonii</i>).					
FE = Federally-listed Endangered FT = Federally-listed Threatened SE = State-listed Endangered ST = State-listed Threatened FWS = U.S. Fish and Wildlife Service SC= Species of Concern. Species of concern is an informal designation of the US Fish and Wildlife Service. It refers to those species believed to be in decline or in need of concentrated conservation actions as species of concern. CDFG= California Department of Fish and Game SSC= Species of Special Concern. The California Department of Fish and Game applies this status to animal species not listed under the Federal and California endangered species acts that are declining at a rate that might require listing or have historically low population counts that are threatened. N/A = Specific location not provided * Location names that refer to local creeks indicate that the species located in its watershed. ** Special animals are included on the California Natural Diversity Data Base. It is a general term that refers to all taxa the CNDDDB is interested in tracking. This includes state- and federally-listed endangered and threatened species, species of special concern, taxa designated as a special status, sensitive or declining species by state and federal agencies or an NGO, or populations on the periphery of their range and threatened with extirpation in California.					

Sources:

BLM, 1997
 California Department of Fish and Game, 2000, 2001a, 2002b
 NOAA, 2000
 Choi et al., 2002
 Hendrickson, Ferren, and Klug, 1998
 Herring, 1990
 Hollister Ranch Conservancy, 2000
 Meade, 1999
 Santa Barbara County and UCSB, 2002
 Santa Barbara County, 1982, 1984, 1994, 2002a, 2002c, 2002d, 2002e
 United States Air Force, 1997
 United States Fish and Wildlife Service, Correspondence, December 2000
 United States Fish and Wildlife Service, 2002b

Table A3: Cultural Resources Inventory

National Historic Landmarks	
Space Launch Complex 10, Thor Intermediate Range Ballistic Missile space launch vehicle, Vandenberg Air Force Base (VAFB)	
National Historic Trails	
Juan Bautista de Anza National Historic Trail	
Sites Listed on the National Register of Historic Places/Historic Trails	
Point Conception Light House Station or <i>Humqag</i>	
SS <i>Yankee Blade</i> , shipwreck and site remains	
Approximately 13 archeological sites are listed on the National Register (12 at Point Conception, 1 on Vandenberg AFB)	
Sites on Public Land with Potential Eligibility for Listing on the National Register of Historic Places	
Description	Location
1860s stone walls for sheepherding	VAFB
1923 Naval Destroyer Disaster site	VAFB
Antonio Olivera/Rochin/Santa Lucia Adobe melt	VAFB
Arroyo Quemado Highway Bridge (HAER documented)	Arroyo Quemado Canyon
Atlas 576 G Missile Launch Complex (23)*	VAFB
Atlas 576 G Launch Complex – Silo	VAFB
Buckaroo Camp	VAFB
Building #751 SLC 3E	VAFB
Building #770 SLC 3W	VAFB
Building 1450 Missile Alert Facility	VAFB
Building 1565-Missile Alert Facility	VAFB
Building 1974 – Missile Alert Facility	VAFB
Casmalia Hills Stone Walls	VAFB
Charles Clark Farmstead, founder of Point Sal Wharf	VAFB
Chute Landing, 1880-1883 wharf with associated townsite deposits	VAFB
Coast Guard Lifeboat Rescue Station (former Boathouse), 1936 New Deal Colonial Revival style station	VAFB
Complex Infrastructure #762/762A	VAFB
Complex Infrastructure Building # 7 (5)*	VAFB
Dairy Basin, Swiss Italian dairy barn and house foundations with intact landscape	VAFB
Ferrari Barn Site, potential Sudden Ranch district element	VAFB
George Long/Colli Dairy, dairy barn and residence foundations, domestic deposits, eucalyptus windrows	VAFB

Description	Location
George Long/Scolari Ranch, residence foundations, domestic deposits, eucalyptus windrows	VAFB
Government Springs Water System, potential Sudden Ranch District element	VAFB
Hall Ranchstead, residence foundations, domestic deposits, eucalyptus windrows	VAFB
Integration and Checkout Facility	VAFB
Integrated Refurbishment Facility	VAFB
Jalama Adobe melt, ranch and later saloon for Southern Pacific RR construction crews	VAFB
Jose Olivera Adobe melt	VAFB
Juan Olivera Adobe melt	VAFB
Juan Pedro Camp cattle round up location since Mission era	VAFB
Launch Operations Building # 763	VAFB
Lompoc Landing, 1870s-1890s wharf pilings, domestic and commercial deposits	VAFB
Meherin Wharf, 1880s-1890s wharf pilings, commercial and domestic deposits	VAFB
Missile Assembly Building	VAFB
Missile Maintenance Facility - Rail	VAFB
Mission La Purisima Vineyard	VAFB
Mobile Service Tower and Umbilical	VAFB
Point Sal Wharf	Point Sal
Port Petrol Tank Farm and Oil Transport, World War II facility ruins	VAFB
Pump Station, Rail Garrison Complex	VAFB
Rail Garrison Complex Historic District	VAFB
Rail Garrison Launch Site-Rail Garrison Facility	VAFB
Rail Spur-Rail Garrison Complex	VAFB
Rail System SLC 3E	VAFB
Rail System SLC 3W	VAFB
Rail Transfer Facility – Rail Garrison Complex	VAFB
Rancho San Antonio and site of <i>Estep</i> , location of Mission La Purisima farming outpost	VAFB
Red Roof Canyon, , potential Sudden Ranch district element	VAFB
Rennie Ranch, potential Sudden Ranch district element	VAFB
Retention Basin and Water Channel	VAFB
SLC-2 Blockhouse A	VAFB
SLC-2 Halfway House	VAFB
SLC-2 Pumphouse	VAFB
SLC-2 Trailer Shelter 1	VAFB
SLC-2 Water Tank Storage	VAFB
SLC-2W Concrete Exhaust Trench	VAFB
SLC-2W Earthen Exhaust Trench	VAFB

Description	Location
SLC-2W Electric Cableway	VAFB
SLC-2W Flame Bucket	VAFB
SLC-2W Flame Trench Walls	VAFB
SLC-2W Fuel Tank Revetment	VAFB
SLC-2W Lox Tank Revetment	VAFB
SLC-2W Shelter Tracks	VAFB
SLC-2W Technical Support Building	VAFB
SLC-2W Theodolite Building	VAFB
SLC-3 Historic District	VAFB
Space Launch Complex-2W	VAFB
Southern Pacific Railroad quarry, second largest quarry in U.S. in 1900	VAFB
Stage Processing Facility B-Rail G	VAFB
Stage Processing Facility-A	VAFB
Sudden Ranch Headquarters at Canada de Jolloru, 1890 residence, three historic ranch houses, barn foundations, corral, Potential Sudden Ranch Historic District	VAFB
Sudden Ranch Livestock Water Supply System	VAFB
Sudden Ranch quarry and barn site, non-contributing element of proposed Sudden Ranch Historic District	VAFB
Sudden Ranch unknown foundations, potential Sudden Ranch district element, non-contributing element	VAFB
Swope/Spanne Ranchstead, residence foundations, domestic deposits, eucalyptus windrows	VAFB
Test Igloo Rail Garrison Complex	VAFB
Test Loop-Rail Garrison	VAFB
Tognazzini Ranch House site	Point Sal
Water Tank Rail Garrison Complex	VAFB
* Multiple components determined eligible for separate listing were listed under this same title on the State Office of Historic Preservation Data File for Santa Barbara County.	
Sites with State Historic Designation	
Description	Location
Gaviota Pass (State Historical Landmark)	Gaviota State Park
Las Cruces – adobe site, prehistoric site, former settlement, state stop, and highway services	Gaviota State Park
Embarcadero del Rancho el Refugio – site of smuggling while trade was restricted in the early 19 th century	Refugio State Park
County Landmarks and sites of Historic Merit	
Description	Location
Barnsdall-Rio Grande Gas Station (County Landmark)	Goleta
Las Cruces Adobe (County Landmark)	Gaviota State Park
Vista del Mar School (Spanish Colonial Revival building, 1927), Gaviota (Historic merit)	Gaviota
Hollister Ranch (Historic merit)	West of Gaviota

Sites Potentially Eligible for County Landmark Designation	
Description	Location
José Olivera Adobe Melt	VAFB
North Mesa Camp, cattle round up location since Mission era to present	VAFB
Point Sal Gypsum mine, considered most important gypsum source in 19 th century	VAFB
1889-1890 Gold Rush adits	VAFB
Marshallia Ranch Historic Complex, Building 1344, Lucas Olivera adobe	VAFB
35 th Street Bridge/Salt Water Barrier	VAFB
Urban Warfare Training Mock Village	VAFB
Bear Creek Figure 8 Sunken Target Track and Bunker	VAFB
Camp Cooke Quarry No. 1 – WWII rock source	VAFB
Camp Cooke Quarry No. 2	VAFB
Huyckville, 1870s-1930s agricultural community from Lompoc Colony, domestic deposits, windrows, foundations	VAFB
Lyndon School Site	VAFB
Rochin Adobe, Santa Lucia Canyon	VAFB
Ocean Beach Park	Lompoc (Vic)
Baroda Depot, Surf Depot	Lompoc (Vic)
Archeological Sites	
<p>There are approximately 1,300 sites on Vandenberg AFB. A total of 188 of these sites were determined to be eligible for the National Register of Historic Places. While a comprehensive survey of archeological sites such as was conducted on Vandenberg AFB has not been undertaken for the other portions of the study area, one inventory of archeological sites documented to date describes 60 recorded archeological sites. While many of these recorded sites have not been evaluated for NRHP eligibility, of those that have, 5 have been determined eligible for listing on the NRHP. Given the undeveloped character of most of the study area, there are potentially hundreds of sites that remain to be surveyed.</p>	
Historic Sites on Private Land	
<p>There are many historic sites located on private property throughout the study area. As this information is sensitive, this study does not list or map the exact locations and names of these resources. It has been estimated that there are approximately 33 sites with historic significance. Additional studies are necessary to determine if such sites are eligible for listing on the National Register of Historic Places.</p>	
<p>Sources:</p> <ul style="list-style-type: none"> County of Santa Barbara, 2002g National Park Service, 2002 Palmer, 2000 Palmer, 2002 State Historic Preservation Office, 2002 U.S. Air Force, 1998a <p>VAFB = Vandenberg Air Force Base</p>	

Table A4: Agricultural or Open Land for Sale In Recent Years

Goleta/Naples Area				
Property Listings	Location	Acres	Price	Price per Acre
Santa Barbara Ranch 101	Naples	30	\$17,500,000	\$583,333
Santa Barbara Ranch 111	Naples	27	\$11,500,000	\$425,926
Santa Barbara Ranch 121	Naples	30	\$11,500,000	\$383,333
Santa Barbara Ranch 131	Naples	54	\$10,000,000	\$185,185
Santa Barbara Ranch 141	Naples	37	\$6,000,000	\$162,162
Santa Barbara Ranch 151	Naples	88	\$35,000,000	\$397,727
Santa Barbara Ranch 161	Naples	210	\$50,000,000	\$238,095
Santa Barbara Cove	Eagle Canyon	38	\$25,000,000	\$657,895
Ocean View Estate Homesite	Winchester Canyon	39	\$525,000	\$13,462
El Capitan Ranch	Goleta	10	\$5,200,000	\$520,000
Winchester Canyon Ranch	Goleta	110	\$5,750,000	\$52,273
Winchester Canyon Farms	Goleta	435	\$6,500,000	\$14,943
Totals		1,108	\$184,475,000	\$166,494 (average per acre)
West of Naples and Goleta				
Property Listings	Location	Acres	Price	Price per Acre
Gaviota Ranch	East of Gaviota State Park	3,300	\$17,500,000	\$5,303
El Capitan Ranch Estate	Gato Canyon	10	\$2,000,000	\$200,000
Refugio Mountain Ranch	Near Reagan Ranch	93	\$2,850,000	\$30,645
Rancho Dos Vistas*	Tajiguas Canyon	1,400	\$7,500,000	\$5,357
Vazquez Ranch	Gato/Llagas Canyons	414	\$5,750,000	\$13,889
Venadito Canyon Ranch	Venadito Canyon	100	\$9,800,000	\$98,000
20-acre homesite	Arroyo Quemado	20	\$685,000	\$34,250
El Capitan Ranch*	El Capitan	2,858	\$10,750,000	\$3,761
Wooded Parcel	El Capitan	10	\$2,000,000	\$200,000
Las Varas Ranch	Las Varas	1,520	\$45,000,000	\$29,605
Ocean View Equestrian Facility	El Capitan	200	\$7,500,000	\$37,500
Totals		9,925	\$111,335,000	\$11,218 (average per acre)

*Land has since been permanently protected through easements and land acquisition

Study Area

	Acres	Price	Price per Acre
Totals	11,033	\$295,810,000	\$26,811 (average per acre)

Sources: Kerry Mormann and Associates Real Estate Listings, 2002/2003, George F. Logan, Jr. Real Estate Listings, 2003, Pitts Bachman Realtors, 2003.

Appendices

Appendix A. Study Authorization	206
Appendix B. New Area Studies Act	207
Appendix C. 2001 NPS Management Policies (Sections 1.2 and 1.3)	210
Appendix D. National Historic Landmark Criteria Sec. 65.4	212
Appendix E. Comment Summary	214



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Appendix A. Study Authorization

(113 STAT. 1501A PUBLIC LAW 106–113—APPENDIX C)

SEC. 326. (a) SHORT TITLE.—This section may be cited as the “National Park Service Studies Act of 1999”.

(b) AUTHORIZATION OF STUDIES.—

(1) IN GENERAL.—The Secretary of the Interior (“the Secretary”) shall conduct studies of the geographical areas and historic and cultural themes described in subsection (b)(3) to determine the appropriateness of including such areas or themes in the National Park System.

(2) CRITERIA.—In conducting the studies authorized by this Act, the Secretary shall use the criteria for the study of areas for potential inclusion in the National Park System in accordance with section 8 of Public Law 91–383, as amended by section 303 of the National Parks Omnibus Management Act (Public Law 105–391; 112 Stat. 3501).

(3) STUDY AREAS.—The Secretary shall conduct studies of the following:

(A) Anderson Cottage, Washington, District of Columbia.

(B) Bioluminescent Bay, Puerto Rico.

(C) Civil Rights Sites, multi-State.

(D) Crossroads of the American Revolution, Central New Jersey.

(E) Fort Hunter Liggett, California.

(F) Fort King, Florida.

(G) Gaviota Coast Seashore, California.

(H) Kate Mullany House, New York.

(I) Loess Hills, Iowa.

(J) Low Country Gullah Culture, multi-State.

(K) Nan Madol, State of Ponape, Federated States of Micronesia (upon the request of the Government of the Federated States of Micronesia).

(L) Walden Pond and Woods, Massachusetts.

(M) World War II Sites, Commonwealth of the Northern Marianas.

(N) World War II Sites, Republic of Palau (upon the request of the Government of the Republic of Palau).

(c) REPORTS.—The Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Resources of the House of Representatives a report on the findings, conclusions, and recommendations of each study under subsection (b) within three fiscal years following the date on which funds are first made available for each study.

Appendix B. New Area Studies Act

(112 STAT. 3501 PUBLIC LAW 105–391—NOV. 13, 1998)

TITLE III—STUDY REGARDING ADDITION OF NEW NATIONAL PARK SYSTEM AREAS

SEC. 301. SHORT TITLE.

This title may be cited as the “National Park System New Areas Studies Act”.

SEC. 302. PURPOSE.

It is the purpose of this title to reform the process by which areas are considered for addition to the National Park System.

SEC. 303. STUDY OF ADDITION OF NEW NATIONAL PARK SYSTEM AREAS.

Section 8 of Public Law 91–383 (commonly known as the National Park System General Authorities Act; 16 U.S.C. 1a–5) is amended as follows:

(1) By inserting “GENERAL AUTHORITY.—” after “(a)”.

(2) By striking the second through the sixth sentences of subsection (a).

(3) By redesignating the last two sentences of subsection (a) as subsection (f) and inserting in the first of such sentences before the words “For the purposes of carrying” the following: “(f) AUTHORIZATION OF APPROPRIATIONS.—”.

(4) By inserting the following after subsection (a):

“(b) STUDIES OF AREAS FOR POTENTIAL ADDITION.—(1) At the beginning of each calendar year, along with the annual budget submission, the Secretary shall submit to the Committee on Resources of the House of Representatives and to the Committee on Energy and Natural Resources of the United States Senate a list of areas recommended for study for potential inclusion in the National Park System.

“(2) In developing the list to be submitted under this subsection, the Secretary shall consider—

“(A) those areas that have the greatest potential to meet the established criteria of national significance, suitability, and feasibility;

“(B) themes, sites, and resources not already adequately represented in the National Park System; and

“(C) public petition and Congressional resolutions.

“(3) No study of the potential of an area for inclusion in the National Park System may be initiated after the date of enactment of this subsection, except as provided by specific authorization of an Act of Congress.

“(4) Nothing in this Act shall limit the authority of the National Park Service to conduct preliminary resource assessments, gather data on potential study areas, provide technical and planning assistance, prepare or process nominations for administrative designations, update previous studies, or complete reconnaissance surveys of individual areas requiring a total expenditure of less than \$25,000.

“(5) Nothing in this section shall be construed to apply to or to affect or alter the study of any river segment for potential addition to the national wild and scenic rivers system or to apply

to or to affect or alter the study of any trail for potential addition to the national trails system.

“(c) REPORT.—(1) The Secretary shall complete the study for each area for potential inclusion in the National Park System within 3 complete fiscal years following the date on which funds are first made available for such purposes. Each study under this section shall be prepared with appropriate opportunity for public involvement, including at least one public meeting in the vicinity of the area under study, and after reasonable efforts to notify potentially affected landowners and State and local governments.

“(2) In conducting the study, the Secretary shall consider whether the area under study—

“(A) possesses nationally significant natural or cultural resources and represents one of the most important examples of a particular resource type in the country; and

“(B) is a suitable and feasible addition to the system.

“(3) Each study—

“(A) shall consider the following factors with regard to the area being studied—

“(i) the rarity and integrity of the resources;

“(ii) the threats to those resources;

“(iii) similar resources are already protected in the National Park System or in other public or private ownership;

“(iv) the public use potential;

“(v) the interpretive and educational potential;

“(vi) costs associated with acquisition, development and operation;

“(vii) the socioeconomic impacts of any designation;

“(viii) the level of local and general public support;

and

“(ix) whether the area is of appropriate configuration to ensure long-term resource protection and visitor use;

“(B) shall consider whether direct National Park Service management or alternative protection by other public agencies or the private sector is appropriate for the area;

“(C) shall identify what alternative or combination of alternatives would in the professional judgment of the Director of the National Park Service be most effective and efficient in protecting significant resources and providing for public enjoyment; and

“(D) may include any other information which the Secretary deems to be relevant.

“(4) Each study shall be completed in compliance with the National Environmental Policy Act of 1969.

“(5) The letter transmitting each completed study to Congress shall contain a recommendation regarding the Secretary's preferred management option for the area.

“(d) NEW AREA STUDY OFFICE.—The Secretary shall designate a single office to be assigned to prepare all new area studies and to implement other functions of this section.

“(e) LIST OF AREAS.—At the beginning of each calendar year, along with the annual budget submission, the Secretary shall submit to the Committee on Resources of the House of Representatives and to the Committee on Energy and Natural Resources of the Senate a list of areas which have been previously studied which

contain primarily historical resources, and a list of areas which have been previously studied which contain primarily natural resources, in numerical order of priority for addition to the National Park System. In developing the lists, the Secretary should consider threats to resource values, cost escalation factors, and other factors listed in subsection (c) of this section. The Secretary should only include on the lists areas for which the supporting data is current and accurate.”.

(5) By adding at the end of subsection (f) (as designated by paragraph (3) of this section) the following: “For carrying out subsections (b) through (d) there are authorized to be appropriated \$2,000,000 for each fiscal year.”

Appendix C. NPS Management Policies, 2001 (Sections 1.2 and 1.3)

1.2 The National Park System

The number and diversity of parks within the national park system grew as a result of a government reorganization in 1933, another following World War II, and yet another during the 1960s. Today there are more than 375 units in the national park system. These units are variously designated as national parks, monuments, preserves, lakeshores, seashores, wild and scenic rivers, trails, historic sites, military parks, battlefields, historical parks, recreation areas, memorials, and parkways. Regardless of the many names and official designations of the park lands that make up the national park system, all represent some nationally significant aspect of our natural or cultural heritage. As the physical remnants of our past, and great scenic and natural places that continue to evolve— repositories of outstanding recreation opportunities— class rooms of our heritage— and the legacy we leave to future generations— they warrant the highest standard of protection.

1.3 Criteria for Inclusion

Congress has declared in the NPS General Authorities Act of 1970 that areas comprising the national park system are cumulative expressions of a single national heritage. Potential additions to the national park system should therefore contribute in their own special way to a system that fully represents the broad spectrum of natural and cultural resources that characterize our nation. The National Park Service is responsible for conducting professional studies of potential additions to the national park system when specifically authorized by an Act of Congress, and for making recommendations to the Secretary of the Interior, the President, and Congress. Several laws outline criteria for units of the national park system, and for additions to the national wild and scenic rivers system and the national trails system. To receive a favorable recommendation from the Service, a proposed addition to the national park system must (1) possess nationally significant natural or cultural resources; (2) be a suitable addition to the system; (3) be a feasible addition to the system; and (4) require direct NPS management, instead of alternative protection by other public agencies or the private sector. These criteria are designed to ensure that the national park system includes only the most outstanding examples of the nation's natural and cultural resources. They also recognize that there are other management alternatives for preserving the nation's outstanding resources.

1.3.1 National Significance

NPS professionals, in consultation with subject matter experts, scholars, and scientists, will determine whether a resource is nationally significant. An area will be considered nationally significant if it

- * is an outstanding example of a particular type of resource;
- * possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage;
- * offers superlative opportunities for public enjoyment, or for scientific study;
- * and retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource.

National significance for cultural resources will be evaluated by applying the National Historic Landmarks process contained in 36 CFR Part 65.

1.3.2 Suitability

An area is considered suitable for addition to the national park system if it represents a natural or cultural resource type that is not already adequately represented in the national park system, or is not comparably represented and protected for public enjoyment by other federal agencies; tribal, state, or local governments; or the private sector.

Adequacy of representation is determined on a case- by- case basis by comparing the potential addition to other comparably managed areas representing the same resource type, while considering differences or similarities in the character, quality, quantity, or combination of resource values. The comparative analysis also addresses rarity of the resources; interpretive and educational potential; and similar resources already protected in the national park system or in other public or private ownership. The comparison results in a determination of whether the proposed new area would expand, enhance, or duplicate resource- protection or visitor- use opportunities found in other comparably managed areas.

1.3.3 Feasibility

To be feasible as a new unit of the national park system, an area must (1) be of sufficient size and appropriate configuration to ensure sustainable resource protection and visitor enjoyment (taking into account current and

potential impacts from sources beyond proposed park boundaries); and (2) be capable of efficient administration by the NPS at a reasonable cost.

In evaluating feasibility, the Service considers a variety of factors, such as: size; boundary configurations; current and potential uses of the study area and surrounding lands; land ownership patterns; public enjoyment potential; costs associated with acquisition, development, restoration, and operation; access; current and potential threats to the resources; existing degradation of resources; staffing requirements; local planning and zoning for the study area; the level of local and general public support; and the economic/ socioeconomic impacts of designation as a unit of the national park system.

The feasibility evaluation also considers the ability of the National Park Service to undertake new management responsibilities in light of current and projected constraints on funding and personnel.

An overall evaluation of feasibility will be made after taking into account all of the above factors. However, evaluations may sometimes identify concerns or conditions, rather than simply reach a “yes” or “no” conclusion. For example, some new areas may be feasible additions to the national park system only if landowners are willing to sell; or the boundary encompasses specific areas necessary for visitor access; or state or local governments will provide appropriate assurances that adjacent land uses will remain compatible with the study area’s resources and values.

1.3.4 Direct NPS Management

There are many excellent examples of the successful management of important natural and cultural resources by other public agencies, private conservation organizations, and individuals. The National Park Service applauds these accomplishments, and actively encourages the expansion of conservation activities by state, local, and private entities, and by other federal agencies. Unless direct National Park Service management of a studied area is identified as the clearly superior alternative, the Service will recommend that one or more of these other entities assume a lead management role, and that the area not receive national park system status.

Studies will evaluate an appropriate range of management alternatives and will identify which alternative or combination of alternatives would, in the professional judgment of the Director, be most effective and efficient in protecting significant resources and

providing opportunities for appropriate public enjoyment. Alternatives for NPS management will not be developed for study areas that fail to meet any one of the four criteria for inclusion listed in section 1.3.1.

In cases where a study area’s resources meet criteria for national significance but do not meet other criteria for inclusion in the national park system, the Service may instead recommend an alternative status, such as “affiliated” area. To be eligible for “affiliated area” status, the area’s resources must: (1) meet the same section 1.3.1 standards for national significance that apply to units of the national park system; (2) require some special recognition or technical assistance beyond what is available through existing NPS programs; (3) be managed in accordance with the policies and standards that apply to units of the national park system; and (4) be assured of sustained resource protection, as documented in a formal agreement between the NPS and the non-federal management entity. Designation as a “heritage area” is another option that may be recommended. Heritage areas are distinctive landscapes that do not necessarily meet the same standards of national significance as national park areas. Either of these two alternatives would recognize an area’s importance to the nation without requiring or implying management by the National Park Service.

Appendix D. National Historic Landmark Criteria Sec. 65.4

The criteria applied to evaluate properties for possible designation as National Historic Landmarks or possible determination of eligibility for National Historic Landmark designation are listed below. These criteria shall be used by NPS in the preparation, review and evaluation of National Historic Landmark studies. They shall be used by the Advisory Board in reviewing National Historic Landmark studies and preparing recommendations to the Secretary. Properties shall be designated National Historic Landmarks only if they are nationally significant. Although assessments of national significance should reflect both public perceptions and professional judgments, the evaluations of properties being considered for landmark designation are undertaken by professionals, including historians, architectural historians, archeologists and anthropologists familiar with the broad range of the nation's resources and historical themes. The criteria applied by these specialists to potential landmarks do not define significance nor set a rigid standard for quality. Rather, the criteria establish the qualitative framework in which a comparative professional analysis of national significance can occur. The final decision on whether a property possesses national significance is made by the Secretary on the basis of documentation including the comments and recommendations of the public who participate in the designation process.

(a) Specific Criteria of National Significance: The quality of national significance is ascribed to districts, sites, buildings, structures and objects that possess exceptional value or quality in illustrating or interpreting the heritage of the United States in history, architecture, archeology, engineering and culture and that possess a high degree of integrity of location, design, setting, materials, workmanship, feeling and association, and:

- (1) That are associated with events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of United States history and from which an understanding and appreciation of those patterns may be gained; or
- (2) That are associated importantly with the lives of persons nationally significant in the history of the United States; or
- (3) That represent some great idea or ideal of the American people; or
- (4) That embody the distinguishing characteristics of

an architectural type specimen exceptionally valuable for a study of a period, style or method of construction, or that represent a significant, distinctive and exceptional entity whose components may lack individual distinction; or

- (5) That are composed of integral parts of the environment not sufficiently significant by reason of historical association or artistic merit to warrant individual recognition but collectively compose an entity of exceptional historical or artistic significance, or outstandingly commemorate or illustrate a way of life or culture; or
 - (6) That have yielded or may be likely to yield information of major scientific importance by revealing new cultures, or by shedding light upon periods of occupation over large areas of the United States. Such sites are those which have yielded, or which may reasonably be expected to yield, data affecting theories, concepts and ideas to a major degree.
- (b) Ordinarily, cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings and properties that have achieved significance within the past 50 years are not eligible for designation. Such properties, however, will qualify if they fall within the following categories:
- (1) A religious property deriving its primary national significance from architectural or artistic distinction or historical importance; or
 - (2) A building or structure removed from its original location but which is nationally significant primarily for its architectural merit, or for association with persons or events of transcendent importance in the nation's history and the association consequential; or
 - (3) A site of a building or structure no longer standing but the person or event associated with it is of transcendent importance in the nation's history and the association consequential; or
 - (4) A birthplace, grave or burial if it is of a historical figure of transcendent national significance and

no other appropriate site, building or structure directly associated with the productive life of that person exists; or

- (5) A cemetery that derives its primary national significance from graves of persons of transcendent importance, or from an exceptionally distinctive design or from an exceptionally significant event; or
- (6) A reconstructed building or ensemble of buildings of extraordinary national significance when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other buildings or structures with the same association have survived; or
- (7) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own national historical significance; or
- (8) A property achieving national significance within the past 50 years if it is of extraordinary national importance.

Appendix E. Comment Summary

The NPS prepared summaries of comments received at several stages in the Gaviota Coast Feasibility Study process. These summaries are reprinted below.

1. Scoping Comments: March – June 2000

The NPS conducted three public scoping meetings in March, 2000 at the beginning of the study process, and invited comments about people's visions for the future of the Gaviota Coast, what they valued, what they wanted to see protected, what issues, threats or conflicts should be addressed in the study, and other topics. The following section summarizes public input from the three public meetings held March 21-23 in Goleta, Santa Barbara and Lompoc, comments received by the NPS during the initial scoping comment period that ended May 31, 2000, and comments from meetings with other interested organizations during that time period. It includes an initial summary and a more detailed listing of these comments. Both were initially published in a July 2000 newsletter.

WHY "NATIONAL SEASHORE"?

Uncertainty about the implications of a National Seashore designation has left many with questions about the feasibility study.

- What would National Seashore designation offer that is not already provided by existing federal, state and county land managers?
- Would landowners within the boundary retain their property rights?
- How much land, if any, is the National Park Service interested in acquiring?
- What regulatory powers would the National Park Service exercise if a national designation passed in Congress?
- Are there other options for protection?

ECONOMIC IMPACTS

Potential economic impacts associated with a National Seashore designation need to be investigated. Issues to consider are

- Effects on property values in and around the designated area
- Effects on local tax rolls if land moves from private hands to federal ownership, or if development rights are purchased
- The potential for visitor-oriented businesses to

proliferate in the nearby communities

- The possible cost ramifications for other government agencies providing services in the area, such as police, highway and fire departments.

RESOURCE PROTECTION

Respondents requested protection for a broad range of scenic, cultural, biological and recreational resources. Issues to consider are

- Biological diversity: the area is a transition zone between offshore marine ecosystems and two biogeographic regions.
- Scenic vistas throughout the watershed area, from the Santa Ynez ridge to the coast, especially the coastal bluffs.
- Air quality
- Water quality: pollution as it relates to Tajiguas Landfill and several creeks.
- Places significant to the Chumash people, Point Conception in particular.
- Ancient cultural heritage sites.
- Favorite recreational activities including surfing, fishing, kayaking, beachcombing, hiking, boating, diving, horseback riding and others.

PUBLIC USE

If National Seashore designation attracts more visitors to the Gaviota Coast, there must be an effective strategy for minimizing the potential for overuse. Approaches to issues of public use ranged from preserving or enhancing free beach access within the study area to limiting or prohibiting public access to protect delicate natural and cultural resources. Issues to consider are

- Disturbance of agricultural activities and private landowners by park visitors.
- The integrity of important viewsheds, cultural resources and Chumash heritage sites
- The appropriateness of intensive recreational uses such as golf, "dune-buggy" driving and dirt bike racing
- Limitation of access to certain pristine natural areas
- Management of mapping and trail signage preserve the remoteness of key areas.

PROPERTY RIGHTS

Landowners with holdings inside the study boundary

voiced concerns about property rights, loss of privacy, and over-regulation. Issues to consider are

- Fair compensation for sale of property or development rights.
- No condemnation or other forced sale of private land
- Landowner liability exposure as a result of increased public access on private land.
- Compensation for possible loss of value and any costs incurred from inclusion in the National Seashore for properties left in private ownership with use restrictions.

AGRICULTURAL VIABILITY

The present landscape we see today along the Gaviota coast is primarily agricultural, open grazing land that has been maintained by the careful stewardship of ranchers, whose operations must remain economically viable if they are to stay in business. Issues to consider are

- The potential need to convert grazing land to more intensive forms of agriculture, such as greenhouse, avocado and grape culture, to respond to market pressures for goods other than dairy products or beef.
- The challenge of preserving scenic value while protecting the business of modern agriculture.
- Increased regulation due to potential increase in resource management

POTENTIAL THREATS

Respondents noted possible threats to the Gaviota Coast. Their comments reflect concern about the effects of future land development and about possible spin-off effects of a National Seashore designation.

- State and local land use controls are subject to political manipulation. Zoning codes can be bypassed through the use of special "memoranda of understanding" and conditional use permits.
- Because development pressure is so great, time is of the essence. Suggest interim controls on development can be implemented while the feasibility study is conducted.
- National Park Service partnerships with concessionaires may unfairly influence park policy and management.
- New industrial forms of agriculture, such as grape culture, may threaten the scenic character of the Gaviota Coast.

VALUES OF THE GAVIOTA COAST

- Peace, beauty, untrammeled interface of ocean and

shore

- Beaches, ocean, surf, intertidal areas
- Ranches, farms, open space, realness (not Disneyland), rural landscape
- Biodiversity, proximity, complexity (interaction between the ocean and the land)
- Vistas, view from the water, clear air
- Convergence of marine and land ecosystems, connection between ocean and mountain, sea level to 4,300 feet
- Healthy watersheds and all they support; wetland and wildlife habitat, pristine,
- Ecosystem processes; connections between diverse ecosystems
- California's past preserved—Chumash culture and values, Spanish, Mexican, rancho lands, family farms and ranches
- Favorite commute / nice drive; wide open views of mountains, ocean, and bluffs from Highway 101
- Largest stretch of undeveloped land in southern California
- Private property rights—stewardship of the land, privacy
- My land, occupation and livelihood
- Diverse ecosystem that is easily accessible; a place to study natural history
- Inspirational feeling, immense beauty
- *"I like: the darkness at night; the green days; the clean air; the quiet; the snakes, coyotes, lions, seals, sharks, vultures, hawks, etc; the surf"*
- *"I cherish the ability to enjoy a diverse ecosystem that is easily accessible."*
- *"The pounding waves and swirling surf near Honda Point demonstrate the power of the sea and the view of the coastline as you look north to Point Sal is unequalled in southern California."*
- *"I value the productive use of the land for ranching, farming, urban development and oil exploration."*
- *"I value the freedom that a fisherman has when casting into the surf, hoping for the big one and happy people strolling along the surf line while looking at the remnants of expended sea life or watching the sea birds as they forage for food."*

VISIONS

- Keep the coast just as it is today with a traditional agricultural/grazing landscape
- Maintain access as it is now
- No more people; no tourism promotion

- Return the coast to how it was 50 years ago, without golf courses, landfill and pending development, abandoned oil industry
- Restore resources (e.g. redwoods, steelhead trout, sea otters)
- No more urbanization or subdivisions
- Protect land, habitat, and historic sites
- Preserve the spirit of ownership—landowners are the best stewards
- Emphasize local interests over outside interests
- Focus on agricultural viability. Ranchers and farmers have been good stewards and have made the landscape what it is today. Enhance the economic viability of ranching and farming. Allow flexibility for changing agricultural crops and practices
- Develop a working ranch and farm exhibit and museum
- Create a loose national park without over-construction and with minimal concern for recreation and visitors
- Provide controlled and facilitated access
- Create a National Seashore connected to Marine Sanctuary, Los Padres National Forest, Channel Islands National Park, providing layers of protection—protected and linked natural areas (coastal range, to valley, to coastal watershed and riparian zone, to coastal wetland, to nearshore and offshore marine areas, and the Northern Channel Islands)
- Create a world-class tourist destination like Monterey, featuring golf courses, equestrian trails, and other recreational amenities
- Develop a local advisory board to continue to advise the decisions and actions taken within NPS jurisdiction
- Establish a National Seashore to prevent development
- Develop a collaborative effort among parties to achieve the goals without a federal designation
- Preserve the Gaviota Coast: 1) maintain the urban limit line in western Goleta; 2) use conservation easements and transfers of development rights to preserve property rights; 3) preserve agricultural lands; 4) preserve creek and ocean water quality; 5) provide economic benefits of a National Park to surrounding communities; 6) maintain recreational opportunities for California's burgeoning population
- Engage in interagency negotiation with Vandenberg to protect the shoreline and land in perpetuity at no additional cost to the taxpayer
- Maintain productive use of the land for ranching, farming, urban development and oil exploration
- Protect and preserve the lighthouse at Point Conception, the ships memorial at Honda Point, the

historical significance of "wall beach", the boathouse and Native American heritage sites

- Protect the history and working aspects of the land; interpret without turning it into a circus

THREATS TO VALUES

- Conversion of grazing land to crops, residential, and intensive recreation
- Developments like Naples and Bacara Spa threaten the coast—the coast could belong only to the rich who can afford development
- Threat of development: continuation of the Southern California megalopolis
- Farming and ranching and current uses conflict with preservation: pesticides, loss of habitat, bulldozing; new industry—wine
- Lack of funding for preservation
- Landfill, oil refineries, pipelines, utility easements
- Loopholes in conditional use permits and memoranda of understanding
- New intensive agriculture (greenhouses, vineyards) could change area character
- Oil and gas production
- Piecemeal solutions
- Polarization between agricultural and environmental interests
- Political manipulation of local zoning
- Population/development pressure
- Private development proposals—golf courses, resorts, housing, urbanization
- Private property rights vs. access
- Profit motive
- Short-term thinking
- Water use by agriculture and development threatens riparian areas

TOPICS TO ADDRESS IN THE GAVIOTA COAST SEASHORE FEASIBILITY STUDY

Natural Resource Protection

- Biodiversity
- Contiguous open space for wildlife and vegetation habitat
- Corridors for animal migration
- Creek management and restoration
- Effects of agriculture and ranching on native species (land and ocean), wildness, and habitat

- Endangered species
- Geologic significance: pillow basalt rock formations at Point Sal
- Kelp beds, reefs, chaparral
- Meeting of two ecoregions; transition zone between two diverse terrestrial and offshore marine ecosystems
- Monarch butterfly habitat
- Native plants; removal of alien plant species
- Reintroduction of extirpated species like steelhead trout and sea otters
- Significance of native species diversity
- Tidal and inshore habitat
- Vernal pools
- Wetlands (part of Pacific Flyway)
- Air quality: effects of national designation on increased traffic and resulting pollution

Cultural Resource Protection

- Archeological resources
- Chumash sites and values
- Continuity of agriculture, family farms
- Working landscape
- Reagan Ranch
- Significance of the lighthouse at Point Conception, the ships memorial at Honda Point, "wall beach", the boathouse and Las Cruces stage stop near Gaviota, Reagan ranch, adobes, prehistoric sites, Native American artifacts
- Spanish/Mexican history/landgrants/ranchos including Juan Bautista de Anza journey

Recreational Resources

- Beach access and recreation without fees
- Trails: hiking, bicycling and equestrian; coastal and mountain
- Driving (Highway 101)
- Fishing, hunting, walking dogs on beach
- Nature appreciation
- Ocean dependent uses (surfing, kayaking, swimming, diving, snorkeling, boat launching)
- Wildlife viewing

Scenic Resources

- Natural scenery
- Open space and vistas

- Sense of space
- Undeveloped coastline and coastal bluffs
- Views from offshore and air

Property Rights

- Assurance that private land will stay in private ownership over time
- *"Private owners (family farms) have been long-time stewards of this land - their rights must be considered in this process. Many are very concerned about losing property rights."*
- How would landowners be compensated for: (1) federal acquisition of their land, or (2) any loss of value or increase in cost of operating as part of a national seashore?
- Compensation for loss of development rights, privacy, impacts of public access
- Impacts / regulations on residents', inholders', and adjacent landowners' use of their land
- Impacts / regulations on upstream farmers
- Landowner liability exposure from public use on their land
- Concerns about condemnation or other forced sale of land
- Lack of trust in leasebacks

Agricultural Viability

- Relationship between landscape and economics
- The agricultural landscape that people value is dependent upon economic viability of agricultural operations
- Degree of change allowed
- Farmers may need to change agricultural uses or expand their operations to maintain viability
- Conflict between agriculture and public access – trespass, vandalism, gates left open, liability
- Degree of regulation
- Conflicts between agriculture and natural resources—prefer cow over coyote
- Cultural differences between NPS management and ranching

Public Use

- Degree of access
- Access along Highway 101 to the ocean for casual use
- Access for all, not just the wealthy
- Access at beach and dunes
- Access continued at present level with preference given to county residents
- Camp and backpack along the National Seashore like you can along the “Lost Coast” in Humboldt County
- Controlled access to reduce pressure on agriculture
- Equestrian access to beach and surf
- Expand coastal access
- Extend coastal trail to Lompoc
- Hiking link from sea to forest from Gaviota State Park
- No motorized access
- Limit mountain bikes
- More access without disturbing private property
- Places that are hard to get to should remain that way
- Some easy, some difficult access
- Preserve the freedom to fish in the creeks, in the kelp beds or from the shoreline within the proposed project area
- Pristine areas should have limited or no access
- Access to Point Conception should be limited to protect the harbor seal colony
- Protect and preserve public access to the beaches at El Capitan State Park, Jalama, Surf (near Lompoc) County Parks and open access surfing beaches east of Gaviota State Beach
- Protection of resources must be balanced against providing access
- Fifteen million people in Los Angeles and Ventura Counties want access to open space and natural resources within an easy drive
- Interest in limited public access to areas currently off-limits on Vandenberg AFB.
- Demand for additional recreational opportunities, such as coastal and mountains-to-sea trails; camping; boating
- Would fishing and hunting be allowed? Would pets be allowed?
- Access to Native American sacred sites for Native Americans, not for others
- Consider reopening Point Sal for public use
- Public access to Honda Point, Point Conception Lighthouse, the South Vandenberg Boat Dock, and other historic or cultural sites on Vandenberg AFB

would be valuable even if limited a few days per year

- A back-country permit system could be used to limit access

Level of Services

- Camping, and what types to allow
- Impacts of more use—trespassing, need for facilities like restrooms, pollution
- Minimal recreational development
- No golf
- No new campgrounds
- Passive recreation; no facilities, no motorized vehicles
- Permits, guided tours
- Trails—shoreline and to the mountains
- Visitor center at old Gaviota Store
- Visitor facilities would threaten the integrity of Gaviota
- We don’t want lots of facilities such as signs and parking

Socioeconomic Impacts

- Resource protection measures and management plans should allow landowners the freedom to continue profitable farming or ranching operations
- Impacts on communities’ ability to grow and spread out
- Impacts on property values
- Need a carrying capacity study to establish an access strategy economic impacts and analysis
- Consider traffic impacts; consider public transit
- Taking property off the tax rolls is detrimental to schools
- The National Park Service should prepare a detailed Social Impact Assessment that examines the impacts the proposed seashore will have on tourism, beach access, recreational use, and other factors such as property values, possible diversion of development pressure to the north county, and whether jobs will be created or lost
- The imposition of Environmental Impact Statement mitigations on private landowners within the project area by other government agencies (Fish and Wildlife Service, Environmental Protection Agency, etc.) as the NPS begins to “manage” the project could adversely impact cash flow to the property owners and tax revenue to the government

MANAGEMENT ISSUES

- Sources of funding (e.g. fees, concessions)
- Don't use national defense or highway funds to support a park
- Implications of national designation: (1) Uses and degree of development allowed permitted under each designation; (2) Potential conflicts between levels of government and jurisdictions
- Implications of local control/current stewards
- Provide opportunities for cooperative resource management programs with local schools and organizations; funding for local organizations and government for cooperative projects
- Need to protect resources from potential negative impacts of increased visitation
- Need to avoid over-commercialization
- What will be the relationships between the federal, state, and local agencies that will have jurisdiction in this area?
- Local governments have a stake in the discussion of how lands that are protected are managed and, where appropriate, made available for public access and recreation
- How does Vandenberg AFB fit into a national seashore management team?
- Who would own the land in the national seashore?
- Will additional funds for road maintenance be available for roads in and around the study area?

MECHANISMS FOR PROTECTION

- Acquire land from willing sellers with compensation to landowners
- Add incentives to Williamson Act
- Use Williamson Act 20 year contracts
- Agricultural open space authority
- Use conservation easements
- Compensate landholders for loss of privacy, impacts of public access
- Continue stewardship of private owners, families that go back many generations
- Design a collaborative effort among parties to achieve the goals without a federal designation
- Employ transfer of development rights (TDRs)
- Establish a trust for funding
- Install wind generators, with net metering and CA buyback program to fund management, infrastructure [but need to prevent them from becoming "bird blenders"]

- Keep property taxes low
- Keep the status quo of state and local regulation
- Partner with Vandenberg AFB
- Provide inheritance tax relief
- Provide landholders incentives for preservation
- Use money from oil development to buy, preserve, and restore ecosystems

NATIONAL SEASHORE BOUNDARY

- To treat the coastline from Coal Oil Point to Point Sal as one coastline for planning or any purpose is ridiculous. It needs to be broken into at least 4 different sections with each section having a different plan and a different priority. Each section needs a different name and the term "Gaviota Coast" scrapped or only applied to the section starting at Coal Oil Point
- Rather than start at Coal Oil Point at the south, why not start just west of Naples. From there to Point Sal it's a relatively clean sweep of undeveloped land
- Include the entire watershed in the boundary (applies to use of the Vandenberg boundary)
- Your boundary should stop at the railroad tracks that parallel the seashore. Why in the world do you need to go to the mountaintop?
- I would suggest that the northerly boundary be the Santa Maria River rather than Point Sal. The dunes complex between Point Sal and the river's estuary is one of the finest dunes in the world, and merits consideration for inclusion

REACTIONS TO THE IDEA OF A GAVIOTA COAST NATIONAL SEASHORE (ALL DIRECT QUOTES)

- *A bad effect is that it could limit flexibility of agricultural operations.*
- *A good effect from the National Seashore designation is more dollars for conservation easements—also it would slow development and reduce development conflicts*
- *Concern for regulation of landowners inside the boundary and those upstream in watershed*
- *Change the name of the proposed seashore; Gaviota applies only to the lower half. Consider calling the seashore Point Conception, Point Arguello, or Honda Point*
- *Favor National Seashore, but start saying NO to visitor facilities*
- *How will the National Park Service deal with the two petroleum plants, the landfill, the power line easements, transportation, aircraft, etc.? These*

elements are not conducive to a protected area

- *I am afraid of losing my home*
- *I am concerned about attracting more people with the national designation*
- *I am writing in support of the proposed Gaviota National Seashore. This spectacular coastline is under extreme pressure from development, not only adjacent to urban Goleta, but in remote areas such as Cojo Ranch as well*
- *Although we live in Oregon, we travel extensively visiting areas that provide recreation in scenic and unspoiled areas...Areas such as the Gaviota Coast are important getaways and should be protected*
- *I want to go on record of opposing this National Seashore as currently proposed.*
- *I'd like to see [the Gaviota Coast] under national control to prevent development.*
- *Local officials cave in too easily*
- *If National Park Service buys land, it could be taken off the tax rolls and lead to opposition*
- *Increased bureaucratic presence, being continually compartmentalized. Conflicting jurisdictions of government cause problems*
- *Landowners/ranchers/farmers are concerned that the National Seashore status may lead to increased outside pressure*
- *National control makes me feel positive - locals are susceptible to development pressures, don't trust them to protect*
- *Preservation of the Gaviota Coast will accomplish the following: (1) maintain the current urban limit line in western Goleta; (2) conservation easements and transfers of development rights will preserve property rights; (3) preserve agricultural lands; (4) preserve creek and ocean water quality; (5) provide economic benefits of a National Park to surrounding communities; (6) maintain valuable wildlife corridors; (7) provide desperately needed open space and recreational opportunities for California's burgeoning population*
- *The budget to support this project must be clearly identified and funding sources revealed prior to any NPS recommendation to proceed with the Gaviota Coast National Seashore*
- *There does not appear to be any value added by creating a national seashore that encompasses an active military reservation, a portion of the Los Padres National Forest, scores of working ranches and a large urban area. Fully half of the proposed project is currently managed by the United States Air Force*
- *We raise avocados, and the last thing we need, is to*

catch people taking our crop and be told it is O.K.; it belongs to the National Park

- *With our growing population, we need more land on which to spread out and grow, otherwise we will be forcing more people into high density ghettos which cause more crime and disease*
- *We don't need another layer of bureaucracy telling us what to do with the land we steward*
- *Will NPS allow integrated management process to be applied to rare and endangered species, or put an end to offshore oil production? If not, then addition of another federal entity will exacerbate, not help, the current environmental issues*

NATIONAL PARK SERVICE MANAGEMENT OF OTHER AREAS (ALL DIRECT QUOTES)

- *Can the National Park Service be trusted with stewardship of this land?*
- *Channel Islands National Park has driven off agriculture*
- *Concern about over-management – e.g. Yosemite micro-management*
- *Making it a park a la Yosemite could destroy what we are trying to protect*
- *The Santa Monica Mountains National Recreation Area changed fuel management - there is a lack of grazing and fire breaks*
- *The Point Reyes lease back policy ended with the owners losing the right to ranch. The leases are bogus because the terms can change with each new Congress*
- *My major concern is that designation of the region as a national seashore may end up attracting more visitation and recreational use of the area, which may end up resulting in the extirpation of some species that have a precarious toehold in some of their last remaining viable habitat in coastal California...Perhaps some other protective designation would be more appropriate. The term "national seashore" to me brings to mind places where recreation is of primary importance. This is one part of coastal California where recreation should take a back seat to biological resource concerns*
- *I feel as if "Conception" would be a much more appropriate name for the proposed national seashore ("Conception Coast National Seashore" or "Point Conception National Seashore"). Point Conception is at the heart of the region under consideration, and is one of the main geographical reasons for the biodiversity of the region. It is a much more recognized geographical name than "Gaviota", and one of the most prominent geographical features on the map of California*

SUITABILITY AS A NATIONAL SEASHORE

- How does the presence of such uses as petroleum plants, Tajiguas landfill, railroad easement, oil pipelines, highway, air traffic corridor, schools, developments (Bacara Spa and Naples), golf courses affect the significance of the area and the feasibility of a National Seashore?
- Over half the area is already protected; this is a good anchor for future efforts
- With existing zoning in place (ag preserve, Coastal Commission), national seashore designation isn't necessary

NEED FOR MORE INFORMATION

- What are the benefits of national seashore designation?
- What federal funding would be available? Would funds for visitor information services and interpretive facilities be available to communities outside the Seashore?
- What are the legal implications for interested parties?
- What are the implications for landowners within the study boundaries?
- What are the compatible uses within each type of NPS designation?
- What protection is there if the federal government doesn't own the land?

2. Scoping Update: July – November 2000

The NPS re-opened the scoping comment period from September to November, 2000. The following section summarizes the additional issues raised in the course of the extended comment period. It was initially published in a June, 2001 newsletter.

PROTECTION OF RESOURCES

- The EIS should address the biological, geological, and ecological linkages to the surrounding bioregion, and the potential effects on local aquifers.
- Fragile resources such as tidepools and shorebird habitats must be protected if there is increased visitor use.
- Solitude is a valuable "resource" of the Gaviota Coast. A carrying capacity analysis should address impacts on the quality of the visitor experience.
- The area around Point Conception is known as the "Western Gate" by the Chumash population and other native populations.

- Existing local, state and federal regulations are insufficient protection from development pressures.

EXISTING PROTECTIONS

- Real estate values at Hollister Ranch are enhanced by legal restrictions (CC&Rs) placed on the property which limit the number of people who may be registered for access at Hollister Ranch for each parcel, regardless of how many people have an ownership in that parcel. Hollister Ranch has a managed access program for educational and scientific purposes.

ECONOMIC IMPACTS

- The Vista Del Mar Union School District derives some revenue from local property taxes (most revenue is derived from local oil and gas industry). What would be the potential effects of alternatives on revenues? Also, the District must provide for and maintain its own waste and water systems. The water system includes a six-mile, District-owned, operated and maintained water line connecting the District well with the Vista de Las Cruces School.

PUBLIC USE

- The shore area around Point Conception can be hazardous. There are dangerous riptides, undertows, tidal surges and wave conditions, and high offshore winds that can blow light craft into hazardous offshore waters.

POTENTIAL THREATS

- If a park were to be created in phases, protection of the area from Goleta to Gaviota should be the highest priority as it is directly in the path of the westward urban expansion of urban southern California.
- The potential for higher risk of wildfire associated with increased visitation should be addressed and analyzed.

SUGGESTIONS FOR RESOURCE PROTECTION

- The National Seashore authorization at Point Reyes has not negatively impacted the agricultural and grazing lands in the area. If anything, the Seashore has created an opportunity for farmers and ranchers to continue farming and ranching without the pressures of selling out. It is a win-win situation.
- Only locally based conservation measures should be taken to protect the Gaviota Coast.
- Suggested alternatives include a private agricultural land trust that would manage a strictly voluntary conservation program. The trust would be managed by a board of property owners within the area boundaries, and would be supported by an advisory council comprised of men and women selected for

expertise in land conservation, biology, economics, real estate, law and fund-raising, including one or two National Park Service staff or other agency.

- Another alternative is the creation of a special agricultural preservation district designed by the agricultural stakeholders in a consensus process led by the Cattlemen's Association and Farm Bureau and affected property owners. The primary goals of the District would be preservation of agricultural lands, preservation of property values, and protection against restrictions on grazing and farming practices and the adverse impacts of incompatible public uses.
- A key component of a Gaviota National Seashore should be a bike trail from Coal Oil Point to Point Sal. Bike access would help reduce traffic congestion and air pollution.
- Oil and gas extraction could continue on lands held by NPS, under long-term conditional leases. This would enable regulation by NPS and still generate tax revenue.

OTHER ISSUES TO BE ADDRESSED BY THE STUDY

- The EIS must include a comprehensive analysis of the economic value of the land if left undeveloped (determine the value of fishing, hunting, recreation, agricultural activities, etc.).
- The Draft report and EIS should be available on the project website, in both *PDF* and *HTML* formats. Also, provide CD ROM versions, and make documents available at all public library branches in Santa Barbara, Ventura and San Luis Obispo, as well as city and county offices.
- There are several utility easements through the study area, including a Southern California Gas Co. natural gas pipeline.
- Add the Guadalupe Dunes between Point Sal and the Santa Maria River to the study area.
- Poorly designed parking lots along US highway 101 are very dangerous (the narrow shelf of land makes egress/ingress difficult)
- Santa Barbara County is currently designated as being in non-attainment for both the state and federal one-hour ambient air quality standards.
- The EIS should assess impacts of increased fishing from shore on near shore fish stocks. It should also address sport and commercial fishing allocation.

3. Desired Future Conditions Workshops: July 2000

The NPS convened two one-day invitational workshops on July 26 and 27, 2000 to seek community perspectives on the future of the Gaviota Coast – the conditions that community members desired to see along the coast in the future. The NPS also sought discussion on how to achieve and sustain these conditions. The summary below represents the main ideas discussed, but does not represent consensus or agreement among the workshop participants. It was initially published in a June, 2001 newsletter.

AGRICULTURE

- Agriculture is an important component of the Gaviota Coast. Family farmers have made the coastal area what it is today, have a close relationship to the land, want to keep the land in agriculture, with flexibility to change crops and practices to stay economically viable.
- Consider a designated agricultural preservation area with flexibility and respect for property rights, voluntary sale of conservation easements, and oversight by the agricultural community.
- The agricultural community representatives saw no need for NPS presence in the area.

NATURAL/CULTURAL RESOURCE PROTECTION

- Protect Chumash sites and other culturally significant sites
- Maintain and connect wildlife areas and promote healthy functioning watersheds.
- Minimize impacts on ecological systems.

RECREATION

- Need greater access to the shoreline, especially for north county residents.
- Include private, for-profit recreational opportunities, e.g. campgrounds, eco-tourism opportunities, hunting, guest ranches.
- Focus new public access/park areas in a coastal corridor along Highway 101.
- Acquire land from willing sellers where public access is appropriate.
- Visitation must not exceed the capacity of the area, overburden infrastructure, damage natural and cultural resources, detract from the recreational experience, or impact private property.

DEVELOPMENT

- Limit future commercial and residential development.
- Maintain the urban/rural boundary.

PLANNING PROCESS SUGGESTIONS

- Evaluate development pressure in the area, considering undevelopable land, zoning, planned infrastructure, etc.
- Assess the economic impacts of NPS proposals, including tax base and property value impacts.
- Address the interface between public and private lands.
- Consider a wide range of techniques, such as agricultural and conservation easements, an agricultural land trust, local development standards, zoning, agency coordination, collaborative management, incentive-based stewardship, habitat conservation banking, conservation buyers, transfer of development rights, state conservancy, open space district, entrepreneurial approaches, government support for private land management, Williamson Act contracts, and estate tax elimination.

4. Protection Strategies Worksheet: January - September, 2002

The NPS distributed a Protection Strategies Worksheet in January, 2002, seeking public suggestions and workable mixes of conservation strategies to help inform and focus the study alternatives. The worksheet included a description of the alternative protection strategies under consideration by the NPS; a description of possible protection strategies, and maps of the study area which could be marked up and returned to the NPS with comments.

The following section includes a general summary of the wide range of comments received. It is separated into two sections. The "General Comment Summary" highlights the range of comments that addressed the study area in general. The "Geographic Specific Comments" section summarizes comments received about specific geographic areas. These summaries were initially published in an October, 2002 newsletter.

General Comment Summary

Comments About Current Programs and Policies

Many comments were received stating that current land use protections are adequate to protect the resources of the study area. Additional comments were received

stating that current programs and policies are not adequate to protect the coast from development. Comments included:

- The area is already protected by measures currently in place such as existing zoning and the Williamson Act agricultural preserve.
- Current programs and policies are not solely effective in protecting natural resources in the face of mounting development & population pressure.
- Existing tools are available to landowners to allow them to continue conservation efforts.
- Development pressures are very high near the urban limit line, resulting in adjacent lands going up in value creating a demand to develop moving up the coast inch by inch.
- Development pressure and urban sprawl are not threats in this area.
- Current programs will not permanently protect the coast from sprawl.
- Private property rights may be affected, including possible devaluation of private property in and around the area.
- Landowners have not been adequately involved in the study process.
- Because land values are high on the Gaviota Coast, the local / state authorities do not have sufficient fiscal resources to achieve adequate conservation.
- Government policy conflicts with running long-term agricultural operations.
- Recreational opportunities already exist in the area.
- Increased tourism and recreation could result in increased traffic congestion, resource damage, and an economic shift from current high-paying jobs in the high-tech sector to low-paying jobs in the tourist service sector.
- NPS would interfere with missions on Vandenberg AFB.

Comments About Natural and Cultural Resource Protection and Interpretation

Protection, rehabilitation, and interpretation of the unique natural and cultural resources of the study area is a priority for many people who sent comments.

- Natural and cultural resources have been well preserved on the Gaviota Coast because of restricted access and good land stewardship by landowners.
- Visitor access should be low impact, low intensity.
- Trails should avoid sensitive resources and/or agricultural areas.
- Manage access by limiting it to scheduled tours with trained docents or naturalists and carefully planning

for the scale, location, and design of visitor facilities.

- Develop a management structure with a long-term commitment to protection of the resources in order to balance resource protection and recreation.
- Not all portions of the study area are appropriate for public access.
- Establish a biological research and monitoring program in coordination with local organizations and the University of California, Santa Barbara, in order to ensure that recreational use is compatible with protecting sensitive resources.
- Sustain and improve wildlife corridors.
- Protect the study area on a watershed basis.
- Restore wetlands.
- Restore salmon and steelhead populations to coastal streams.

Comments About Chumash Sites and Involvement

Many comments include concerns that important Chumash sites should be protected.

- Preserve Chumash archeological sites / ancestral burial sites along the coast through participation of local bands of Chumash.
- Existing policies ensure that Chumash sites are secure and protected, and the Chumash have full access to them for traditional and ceremonial purposes.
- More opportunities for Chumash education, interpretation and access to ancestral sites should be included in a recommended alternative for the study area.
- A Chumash homeland should be recognized.

Comments About Limiting Development

Limiting the amount of development along the coast is a priority for many people.

- Additional conservation programs, including NPS designation, are necessary to adequately protect the coast from the pressures of development, especially between Goleta and Gaviota State Park.
- NPS designation would cause tourism-related development along the coast.
- Increased recreation and tourism will negatively impact resources.

Comments About Public Access

Developing public access for recreational use was a frequent comment; however, there were many concerns that public access should be on a limited basis to avoid impacts to resources and agriculture.

- Implement the section of the California Coastal Trail from Pt. Sal to Coal Oil Point.
- Develop trails that connect the mountains to the coast in various locations including existing parks and preserves such as Arroyo Hondo and Gaviota State Park. Types of trails suggested: paved bicycle trails, hiking trails, equestrian trails.
- Constructing trails and trailheads will disrupt the ecosystem by human impact pollution from vehicles, trash, noise and trampling of small plants and insects.
- Access and protection of resources are compatible if trails and access points are limited and carefully designed to avoid impacting sensitive resources and agricultural lands.
- Trails through private lands should be created only with permission and cooperation of the local landowners.
- Existing public access is adequate.
- Public access and agriculture are not compatible.
- Provide visitor centers, camping, and lodging in appropriate locations.

Comments About Private and Local Land Protection

Many comments emphasized that private and local stewardship have created and protected the landscape and resources that people value today. Many people stated that private and local action can protect the study area, through actions such as: updating the Local Coastal Plan; establishing a regional council to address land use on the Gaviota coast; designating an overlay zoning district for the Gaviota coast; establishing a resource conservation district; developing a transfer of development rights program; use of conservation and agricultural easements; and developing stewardship plans with landowners.

- Farmers and ranchers have played an important stewardship role in preserving the Gaviota coast.
- Streamline regulations so that agricultural and conservation lands are treated differently.
- Require voter approval for lot size changes.
- Establish a regional council under County mandate. With a regional council local, state and federal members would work together to determine if development proposals would impact the study area.
- Establish a Resource Conservation District with direct participation by landowners and agriculturists to regulate activities and raise funds to help farmers and ranchers improve the health of their land.
- Transfer of development rights:
 - Develop a transfer of development rights (TDR)

program to help address growth and development at the urban edge.

- ❑ A TDR program would work well for landowners who want to sell since it could be done at market value and on a private basis.
- ❑ A TDR program would put economic and ecological pressure on cities that are experiencing growth at a rapid rate.
- Easements:
 - ❑ Pursue conservation and agricultural easement programs either as a primary means of land conservation or as a tool to be used in conjunction with any NPS designation.
 - ❑ Target easements to lands most threatened by development to make the best use of funding.
 - ❑ Easements can benefit private land conservation by providing funds for efforts such as fencing to keep cows out of streams, retirement of grazing lands, and offering limited public access on a voluntary basis.
- Funding:
 - ❑ Existing land conservation efforts by the Trust for Public Land and the Land Trust for Santa Barbara County are adequate to protect the study area.
 - ❑ Additional funding is necessary for easements.
 - ❑ Funding sources could include the establishment of a State Land Conservancy or Open Space District with a parcel tax or other revenue.
- Open Space District / State Land Conservancy:
 - ❑ Do not establish such districts because of the additional layer of bureaucracy.
 - ❑ A State Land Conservancy would duplicate the current efforts of existing land trusts that have the expertise and capacity to carry out effective transactions.
 - ❑ The State lacks the resources to support funding for an Open Space District or Land Conservancy.
 - ❑ A State Gaviota Coast Land Conservancy and County Open Space District can be effective entities to partially fund the necessary acquisitions of easements and in-fee title.

Comments About Land Acquisition

Many people commented that land acquisition is not necessary to protect the coast while others suggested that land acquisition could be prioritized. The range of comments include:

- No land acquisition is necessary.
- Focus land acquisition efforts on private lands that are poised for development.

- Focus land acquisition efforts on areas where opportunities exist to enhance scenic, cultural, natural, and recreation resources.
- Expand the existing state and county park system to provide more land for open space and recreation.
- Land should only be purchased from willing sellers.

Comments About the National Park Service

Suggestions for NPS involvement ranged from including the entire study area in a national seashore designation to the position that an NPS designation would negatively impact surrounding communities with impacts associated from increased tourism.

- Include the entire study area in a National Seashore designation.
- NPS designation would negatively impact surrounding communities with demands associated from increased tourism.
- A National Seashore designation would protect endangered species, provide an intact ecosystem where other species will thrive as well as providing for recreational activities, and allow for permanent protection of the resources.
- NPS provides expertise in visitor management and interpretation.
- Focus NPS designation or acquisition along the coast; use easements or other private and local land conservation tools for upland areas.
- Lands adjacent to areas already protected by land trusts, state or county parks should be a high priority for protection.
- The "Continue Current Programs and Policies" alternative is preferred. NPS involvement is not wanted.
- The proposed Preserve alternative would work best because this approach emphasizes watershed protection.
- The proposed Reserve is the best option since this would include the establishment of a congressionally-chartered local board of directors offering an effective way of ensuring balanced representation of public and private stakeholders.
- NPS designation will bring excess regulation of private landowners, interference with Vandenberg Air Force Base missions.
- The National Park Service does not have the ability to provide adequate funding for a new park unit.
- NPS participation would qualify this effort for federal grants and other funding.
- The feasibility study process should be stopped.

Other Comments

Other general suggestions that did not fall in any of the aforementioned categories include:

- Establish a Gaviota Coast Marine Sanctuary or Marine Reserve that would tie in with the Channel Islands National Park.
- Return existing public lands to private ownership.
- Allow more housing to be built on the Gaviota Coast.

Geographic Specific Comments

The following is a summary of area- specific comments received to date organized by geographic area. These comments need to be viewed in the context of the preceding summary of more general comments, in order to understand the full range of comments received.

We have grouped the geographic- specific comments into the following areas:

- **Goleta Urban Area (Bacara Resort to Coal Oil Point)**
- **Gaviota State Park to Goleta Urban Area**
- **Jalama Beach to Hollister Ranch (including Bixby Ranch and Point Conception)**
- **Vandenberg Air Force Base (including Point Sal)**

Please note that some of these comments include suggestions regarding private property. These comments are presented in order to provide an accurate summary of the comments we have received. They represent the opinions and ideas of those who sent them; they do not represent NPS plans or proposals. The NPS will evaluate these ideas for their feasibility and suitability and incorporate those that are appropriate into alternatives in the Draft Feasibility Study Report. As we have described previously, the NPS will consider all ideas and suggestions in light of property ownership. The NPS recognizes and accepts that public access to private property is limited to those cases where easements have been granted, or where State or local regulations have required the dedication of public access rights. The NPS would acquire land only if authorized to do so by Congress. Any such Congressional authorization could include a provision limiting acquisition to tracts that owners are willing to sell. Transactions would be made in good faith at fair market value.

Goleta Urban Area (Bacara Resort to Coal Oil Point)

Comments About Current Programs and Policies:

- Ellwood: the City of Goleta, the developer, the State, and the Trust for Public Land are involved in a coordinated effort to relocate development away from the sensitive areas and purchase as much land as possible for public ownership.
- A component of the park expansion would be the Ellwood Shores proposal to create a combination park and preserve encompassing the UCSB Devereux Reserve, the monarch butterfly preserve and the extensive bluff lands and beach at the edge of the urban area. This would provide extensive additional beach access and recreational facilities at the edge of the urban area where such facilities are most likely to be heavily utilized.

Comments About Public Access:

- Develop coastal trail and trailheads. Provide public access to beach.
- Develop a trail along northern boundary of Los Padres National Forest down near Winchester Canyon.
- Provide public access and a parking lot at Coal Oil Point for community access to Sands Beach.
- Property in this area has potential for development and needs to be protected; there is potential for recreational and natural resource protection from the beach inland.

Comments About Private and Local Protection:

- Conservation efforts and funding for land acquisition and procurement of agricultural & conservation easements should be focused here.

Comments About the National Park Service:

- NPS could provide assistance with (1) TPL transaction (2) design plans for low profile visitor facilities, and methods for controlling visitor impacts and (3) funding and consultations with local agencies on restoration of coastal habitat.

Gaviota State Park to Goleta Urban Area

Comments About Current Programs:

- Keep State parks under current management.
- Development pressures are very high near the urban limit line.

Comments About Natural and Cultural Resource Protection and Interpretation:

- Have a visitor center to depict & interpret natural resources, the historical & cultural aspect of Gaviota Pass, its significance as transportation corridor, wildlife significance, riparian corridors. Include education

experience.

- Protect historic/cultural resources related to agriculture and cattle grazing and agricultural landscape.
- Protect wildlife habitat.
- Protect upland viewshed of Brinkman property for coastal trail users; preserve/restore wildlife habitat.
- Preserve and restore natural areas on Las Varas Ranch.

Comments About Chumash Sites and Involvement:

- Build cultural center for Chumash.
- Protect burial sites at Dos Pueblos.

Comments About Public Access:

- Provide trail connectors from the coast to the Los Padres National Forest at West Camino Cielo Road through the county-owned property at Baron Ranch near Tajiguas, from Ferren Road near Ellwood. These trails are designated Proposed Recreation Trails by the County of Santa Barbara and are part of Goleta Valley Community Plan. Provide trailhead parking areas for each of the trail connectors. Provide other connector trails from El Capitan Ranch, which was recently acquired by State Parks, Arroyo Hondo, El Capitan State Beach, and the Dos Pueblos Assoc. proposed golf course area. Provide trails along northern study boundary down to Refugio State Beach.
- Public access from the highway corridor and beach to the national forest should be opened somewhere in Goleta corridor (on public lands in a public corridor or through the lands of only willing participants). Expansion of public recreation must be on lands acquired from willing sellers and not located on narrow easements forced through private land.
- Develop the California Coastal Trail, provide connections, and visually enhance it; develop public access to the beach where possible; preserve/restore natural areas. Develop a new section of the trail at Las Varas Ranch, for public access to beach. There is potential for trail development from beach to crest of mountains.
- An existing bikeway connects El Capitan & Refugio State Beaches on the ocean side of Hwy 101. The county opened a 1.5-mile stretch on El Capitan Ranch. Horse trail can continue along the access road. Trail should continue on north side as the railroad is too close to the cliffs. There are possibilities for segments of hiking trails.
- Develop a trail alongside existing railroad tracks. Develop an upper high-tide trail section when the beach trail is impassable.
- Extend the bike trail from UCSB to Gaviota State Park and possibly Vandenberg to keep bicycles off of 101 and provide scenic coastal trail.

- Develop a trail in the mountains on the Brinkman property.
- Develop equestrian trails from Gaviota State Park through Los Padres NF down through Arroyo Hondo and Arroyo Quemado accessing coast and from Gaviota State Park down the coast to Arroyo Quemado.
- NPS could partner in facilitating the construction and maintenance of potential new trails at the County's Baron Ranch, Arroyo Hondo Preserve, and Dos Vistas Ranch.
- Provide beach access and public parking at Naples.
- Opportunities for additional coastal access exist at the old Arco site (not owned by Dos Pueblos Assoc.), at Las Varas Ranch (for sale), and Eagle Canyon.
- Protect viewshed in agricultural lands for beach or upland coastal trail users.
- Provide surfing access between Gaviota State Park and the Tajiguas landfill.
- Develop wilderness camps by existing springs in the Santa Ynez Mountains at Rock gardens and "the squat" (south of Gaviota Peak).
- Gaviota State Park provides a wide land connection between the beach and the national forest. It also presents an opportunity for increased camping. The campground is located on a flood plain and has encroached into a wetland. The campground should be removed and relocated into a more appropriate location within the canyon, which would also be protected from the strong prevailing winds which blow out of the canyon. The wetland and flood plain should then be restored.

Comments About Private and Local Protection:

- Acquisition through non-government conservation strategies (conservation easements, self-governed ag/conservation districts, state chartered open space district, Save Our Agricultural Resources initiative). Focus on Eagle Canyon (public access, habitat preservation, wildlife corridor from mountains to the sea), Dos Pueblos Assoc., Naples (some public acquisition is expected to be part of the negotiations with developer), and Las Varas Ranch (coastal access, scenic values, coastal sage habitat restoration).
- Agricultural and cattle ranching lands could continue in that use through transfer of development rights.

Comments About Land Acquisition:

- Acquire Brinkman land from willing seller at fair market value. This environment would provide an enhanced and unique trail experience for those accessing it, and could potentially be considered a "spur-trail" section of the California Coastal Trail. The

land would create a contiguous public wildland area of almost 13,000 acres. In combination with Arroyo Hondo Preserve and the conservation easement on Dos Vistas Ranch there is a coastal wildland of 15,000 acres.

- Acquire land at fair market value when available or offer to buy it. Land has potential for development; potential for recreational and natural resource protection from the beach and/or inland; provide wildlife corridor and habitat. Eagle Canyon Ranch could be an example of a developable property that, if protected, would not only preserve scenic values but also potentially provide access to the beach and inland both for people in terms of recreation and wildlife as a corridor inland towards the mountains and for habitat.
- Acquire the coastal strip for public ownership between Coal Oil Point and Gaviota State Park, from Hwy 101 to the ocean. Approximately 10 miles of this 20-mile coastline is already within the Santa Barbara Coast State Seashore. This would help protect significant scenic and biological resources and coastal access.
- Acquire Las Varas Ranch at fair market value when available or offer to buy it. This property apparently has potential for development and needs to be protected to preserve the Gaviota Coast; potential for recreational use and natural resource protection from the beach to the mountains.
- Willing seller of property (owned by a group) south of 101 by El Rancho Tajiguas because they have had no access to their property for 30+ years. Suggests that the state or NPS should purchase the property & expand Refugio State Park.
- Eagle Canyon is currently cattle grazing land. This should be a high priority acquisition or conservation easement. Development pressures are very high near the urban limit line. Locking in zoning & land acquisition is very important to stop the current trend of urban sprawl.
- Expand Refugio & El Capitan State Beaches (for increased public use) only with adjacent properties acquired from willing sellers.
- The planned expansion of El Capitan State Beach with the significant acquisition of the bulk of the El Capitan Canyon watershed connecting the beach part to the national forest will provide for a wide land bridge between the national forest and the beach.
- Gaviota Marine Terminal: Once the Gaviota Oil and Gas Facility shuts down and is removed, the marine terminal which is dependent on the gas plant will no longer be able to operate. This would create an opportunity for public acquisition of lower Alcatraz

Canyon. This area has freeway off and on ramps, overpass, infrastructure for a public campground, and beach access. Clean-up/restore land, develop public access to beach, develop a campground and/or interpretive/cultural center (Chumash Indians and/or related to the oil industry and its history along the coast); visually enhance the California Coastal Trail.

Comments About the National Park Service:

- The National Park Service already has experience in protecting similar cultural and landscape values through their National Heritage Area program by providing technical and financial assistance for a limited period. However, in this case, since the potential for development of these landscapes will continue to be a threat, unless a transfer of development rights, conservation easements or acquisition of these land occurs, the National Park Service would need to continue to be involved to achieve the ultimate goal of protection of these existing cultural resources.

Other Comments:

- Eliminate the Tajiguas Landfill, the Gaviota Oil and Gas Facility, and the Las Flores facility; restore land.

Jalama Beach County Park, Bixby Ranch, Point Conception and Hollister Ranch

Comments About Current Programs and Policies:

- Hollister Ranch owners have never permitted the public on their property, and that should continue.
- Conservancy program that has been in effect at Hollister Ranch for many years has been designed to preserve and protect the land at no cost to taxpayers.
- Hollister Ranch, even with the recent development, has been able to keep its beaches pristine, its arroyos alive with nature and its Chumash heritage intact.
- Ranch owners should not develop hotels or expensive residences. Ranch owners should continue ranching.
- Santa Barbara County zoning prohibits any further subdivision of Hollister Ranch parcels and would continue to permit agricultural and residential use only of property at Hollister Ranch.
- Public access is limited to occasional planned outings for prearranged groups hosted by the Hollister Ranch Conservancy. Access is permitted for approved scientific field research.

Comments About Natural and Cultural Resource Protection and Interpretation:

- Develop interpretative opportunities related to this sacred site of the Chumash Indians.

Comments About Public Access:

- Develop a coastal trail and provide public access: from Jalama Beach County Park to the Pt. Conception lighthouse, from Jalama Beach to Coal Oil Point, from Jalama State Beach to Point Conception along the bluff tops
- Develop bike & pedestrian trails connecting inland areas to the coast.
- Jalama Beach County Park should remain in recreational use & perhaps expanded, if resource protection can be ensured & access constraints can be adequately addressed.
- Provide access to Point Conception: Controlled public access. Develop a primitive walking trail & a primitive camp. No cars or bikes. Preserve/enhance lighthouse and its outbuildings for interpretation/ potential accommodations; i.e. a youth hostel/bed and breakfast.
- Limit public access to the stretch of coastline between Jalama Beach County Park and Point Conception. Inland of the railroad tracks, place the balance of Cojo Ranch under agricultural conservation easements. Locate a public access point in the Jalama Beach County Park and administer access through a permit system designed to protect the fragile resources and not adversely affect the agricultural operations on Bixby Ranch.
- If Bixby Ranch is sold to a conservancy, develop it as open space for multiple recreational use for the public. Develop roads to access beaches west of Hollister Ranch and north to Jalama County Beach and hiking trails on both sides of Jalama Road and perhaps convert one of the ranches into an environmental or regular campground in a foothill/mountain type setting.

Comments About Private and Local Protection:

- Use conservation and trail easements to address concerns about ownership and control by landowners.
- Bixby Ranch: Preserve and manage Cojo Ranch for scientific and agricultural use through agricultural and conservation easements. Use agricultural land trust and conservation easements. Develop stewardship plans for farming operations.
- Since Bixby Ranch area is undeveloped, Bixby Ranch Co. should be prevented from any kind of development projects.
- Buy development rights in these areas permanently.
- Conservation efforts & funding for land acquisition and procurement of agricultural & conservation easements should be focused on Hollister Ranch, at least in the near-term.

Comments About Land Acquisition:

- Jalama Beach should be expanded under the proposal recently made by the Bixby Ranch Company to donate an additional 70 acres to the park so that the campground can be expanded and the recreational activities in that area increased.
- If the Coast Guard reservation is ever deemed excess property, the land and buildings at Point Conception should be acquired to preserve scenic values, lighthouse culture and history, and provide continued opportunities for compatible public recreation.
- Land acquisition should be an option for the northern portion of Bixby Ranch with management by existing and nonprofit landowners.
- NPS land acquisition from willing sellers should be an option for the southern portion of Bixby Ranch.

Comments About the National Park Service:

- NPS could provide expertise in visitor and resource management; benefits with federal agencies working cooperatively; cooperative partnership will allow responsible access.

Other Comments:

- Create a national marine reserve along coast closed to sport, commercial fishing—use as “rookery” for adjacent areas beach/shore zone out 3 miles along Bixby and Hollister Ranch coastlines.

Vandenberg Air Force Base Area (From Pt. Sal to Jalama Beach)**Comments About Current Programs and Policies**

- Because of security needs, Vandenberg Air Force Base (VAFB) has not been significantly impacted by humans other than in areas where military operations occur.
- Public access to Vandenberg AFB should not be allowed or even considered due to the current national & international political situation.
- All nationally significant natural, cultural and recreational resources on VAFB are currently protected for the public into perpetuity. The Air Force should continue to occupy the entire base for military purposes, for program development, training or a national emergency requiring military action, like we currently have.
- The Cold War and space launch sites on VAFB represent some significant technological and political milestones in US history and should not be considered for NPS activity. Other examples are preserved and offered for public access elsewhere.
- Establishing a national seashore that includes Vandenberg AFB will invite excessive regulation of

ballistic and space launch operations.

Comments About Natural and Cultural Resource Protection and Interpretation:

- Protect/restore wildlife habitat on VAFB.
- Restore salmon / steelhead in Santa Ynez River
- Establish an open space district at Vandenberg.

Comments About Chumash Sites and Involvement:

- Preserve sacred sites on VAFB.

Comments About Public Access:

- Develop a coastal trail and trailheads: from Jalama through the entire base, from Point Arguello to Jalama Beach County Park, from Ocean Beach County Park to Jalama Beach County Park. No pets & have fences around snowy plover nesting area.
- Develop bikeways, equestrian and hiking trails: coast to Tranquillon Peak, a trail to access Ocean Beach County Park through Vandenberg, a recreational trail alongside existing rail lines.
- Improve public beach access: From Brown Road to Pt. Sal State Beach and County owned lands at Pt. Sal, 2 miles along Ocean Beach, Hondo Canyon Creek, Tranquillon Peak for an observatory, the original coast highway area for bikes and vehicles, the old lighthouse area for history interpretation, Point Arguello from Jalama Road, Jalama County Park through the southern portion of the base, and the boathouse.
- Vandenberg should develop limited opportunities for visitor status according to the regulations of the base. Develop a land use plan that allows for base operations and public access to coexist. Have limited guided tours.
- Need public road to the "Boathouse" subject to security closure where private boats can be launched for fishing and diving, and where road access would allow fishing from the land.
- Provide rustic campsites on VAFB; a "hiker-only" camp at Ocean Beach County Park could be established to make it feasible for a long-distance backpacker/hiker to travel the coastline.
- Turn Point Sal into a state park with public restrooms, beach access stairs, and camping.

Comments About the National Park Service:

- The military, civilian and commercial space launch missions and base safety and security requirements should take priority over any park or visitor use. Any NPS program activities on Vandenberg AFB would require the approval of VAFB. The VAFB Commander should retain control over access to all base acreage and facilities.

- NPS could augment the existing resource management program on the base through visitor management and interpretation and help meet the growing demand for public access to non-sensitive areas of Vandenberg.
- A reverter agreement with Vandenberg AFB must be implemented to provide perpetual, protective stewardship of their lands whenever military purposes permit. Develop a plan that provides for continued protection of the base should the base be excessed. If the base is ever decommissioned, land should be acquired to preserve scenic values, wildlife habitat, military history, and provide relatively unrestricted access for compatible public recreation.

Comments About Land Acquisition:

- NPS acquisition for northern portion (Point Sal area) and southern portion from below Ocean Beach County Park to Jalama Beach County Park.
- Vandenberg should continue to assist in management of any land that could be acquired by the state.

Other Comments:

- Concentrated NW winds on southern portion of Vandenberg make this an ideal place for renewable energy.
- Increase agricultural land using agricultural land trust as a means to prevent other developments on VAFB.

ABBREVIATIONS AND ACRONYMS

ACEC – Area of Critical Environmental Concern
AFB – Air Force Base
AFY – acre feet/year
BLM – Bureau of Land Management
Caltrans – California Department of Transportation
CCC – California Coastal Commission
CDFG – California Department of Fish and Game
CDPR – California Department of Parks and Recreation
CFCP – California Farmland Conservancy Program
CINMS – Channel Islands National Marine Sanctuary
CLCA – California Land Conservation Act (Williamson Act)
CREF – Coastal Resource Enhancement Fund
CRMP – coordinated resource management plan
DOI – Department of the Interior
EA – environmental assessment
EIS – environmental impact statement
EPA – Environmental Protection Agency
ESA – Endangered Species Act of 1973
FWS – US Fish and Wildlife Service
HAER – Historic American Engineering Record
ICBM – Intercontinental Ballistic Missile
LTSBC – Land Trust for Santa Barbara County
NEPA – National Environmental Policy Act
NHL – National Historic Landmark
NPS – National Park Service
NRHP – National Register of Historic Places
OSD – open space district
RCD – resource conservation district
SBCAG – Santa Barbara County Association of Governments
SBP&D – Santa Barbara Planning and Development Department
SCB – Southern California Bight
SHPO – state historic preservation officer
SRS – Special Resource Study
SWP – State Water Project
TDR – transfer of development rights
URBL – Urban Rural Boundary Line
UNESCO – United Nations, Educational, Scientific and Cultural Organization
USFS – US Forest Service

GLOSSARY

agricultural preserve – Under the California Land Conservation Act (Williamson Act), an agricultural preserve defines the boundary of an area within which a city or county will enter into contracts with landowners to maintain land in agriculture or open space use.

alternatives – A collection of actions assembled to provide reasonable options for solutions to problems.

biome – Any of several major life zones of interrelated plants and animals determined by the climate, such as deciduous forest or desert.

biota – The plant and animal life of a region.

biotic – Living components of an ecosystem; all animals and plant life, including fungal and microorganisms.

buildout – The maximum planned capacity of an urban area based on their current General Plan. Planned buildout is rarely reached due to issues unforeseen during the broader General Plan process such as design, site constraints, growth management, and market forces.

coastal zone – A coastal zone is simply defined as the interface between the land and coast. For purposes of California coastal zone management, the coastal commission prepared and adopted a detailed map of the coastal zone and has filed a copy of the map with the county clerk of each coastal county.

conditional use permit – allows a city or county to consider special uses which may be essential or desirable to a particular community, but which are not allowed as a matter of right within a zoning district. Provides flexibility within a zoning ordinance.

conservation easement – Instrument of property ownership in which specified rights to property development are separated from landownership, usually to preclude any substantial change in the current use of the land. A conservation easement allows a landowner to continue to own and use his or her land and to sell it. However, the allowable uses of the land are permanently limited in order to protect its conservation values.

critical habitat – habitat designated as critical for a particular species under the Endangered Species Act, including areas on which are found those physical or biological features essential to the conservation of the species.

cultural landscape – a geographic area, including both the cultural and natural resources, associated with a historic event, activity, or person, or exhibiting cultural or aesthetic values. A way of seeing landscapes that emphasizes the interaction between human beings and

nature over time. A traditional ranching area might be part of a cultural landscape.

cumulative impacts – The incremental effects of an individual project reviewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects in order to ascertain the overall effect on the environment. A cumulative impact assessment is a requirement of NEPA.

direct impacts (or effects) – Primary environmental effects that are caused by a project and occur at the same time and place.

ecotone – A transitional zone between two adjacent ecological communities, containing species characteristic of both as well as other species occurring only within the zone.

endangered species – A species of animal or plant is considered to be endangered when its prospect for survival and production are in immediate jeopardy from one or more causes. The U.S. Fish and Wildlife Service and/or the California Department of Fish and Game make this designation.

endemic – restricted to or native to a particular area or region.

entitlement – A permit or other instrument typically granted by local governments entitling the holder to develop or improve land and/or existing structures and facilities.

environmental assessment (EA) – A concise public document that provides evidence and analysis of the potential environmental and socioeconomic impacts of a proposed federal action. An EA provides sufficient information for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). An EA includes brief discussions of the need for the proposal, of alternatives, of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted. Required by the National Environmental Policy Act (NEPA).

environmental impact statement (EIS) – A public document that provides evidence and analysis of the potential environmental and socioeconomic impacts of a proposed federal action, when that action is a major action that significantly affects the quality of the human environment. Required by NEPA.

eolian – borne, deposited, produced or eroded by the wind. For example, eolian landforms include sand dunes.

feasibility study – see “special resource study”.

finding of no significant impact (FONSI) – a document prepared by a Federal agency briefly presenting the reasons why a proposed action will not have a significant effect on the human environment and why an environmental impact statement therefore will not be prepared.

floodplain – Land on either side of a stream or river that is submerged during floods. Typically discussed in terms of 50, 100, or 500 year flood events.

general plan – document which controls land uses within its jurisdiction by establishing use categories and implementing plans through the county zoning ordinances.

habitat – The physical location or type of environment in which an organism or biological population lives or occurs; often characterized by a dominant plant form or physical characteristics (ie., the oak-savanna, wetland, or a coastal habitat).

indirect impacts (or effects) – Also referred to as secondary effects, indirect impacts are caused by a project and occur later in time or at some distance from the project; however, they are still reasonably foreseeable.

infrastructure – A general term describing public and quasi-public utilities and facilities such as roads, bridges, sewers and sewer plants, water lines, storm drainage, power lines, parks and recreation, public libraries, fire stations, sidewalks and streetlights. Can also be considered a permanent installation such as lighting, sidewalks, buildings and water systems.

land use designations – A classification system for the designation of appropriate use of properties. The land use designations include the various residential, commercial/industrial, recreational and public service land uses assigned to property.

level of service (LOS) – is a qualitative measure of traffic intensity describing operational conditions within traffic stream, and their perception by motorists and/or passengers. An LOS definition generally describes these conditions in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

Local Coastal Program – Local Coastal Programs (LCPs) are basic planning tools used by local governments to guide development in the coastal zone, in partnership with the Coastal Commission. LCPs contain the ground rules for future development and protection of coastal resources. Each LCP includes a land use plan and measures to implement the plan (such as zoning ordinances). Prepared by local government, these programs govern decisions that determine the short- and long-term conservation and use of coastal resources.

marine mammal haulout area – The term used when marine mammals pull themselves out of the water to rest. Groups of marine mammals often rest closely packed together at favored haul-out sites.

mitigation – Mitigation includes: (a) Avoiding an impact altogether by not taking a certain action or parts of an action; (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; (e) compensating for the impact by replacing or providing substitute resources or environments.

open space – Land that is maintained in its natural state for its intrinsic and/or open space value (buffer, habitat preservation, heritage tree stands, park and recreation, conservation of natural resources or historic or scenic purposes.) For example, parks are often classified as open space in many city and county general plans, yet golf courses may not qualify.

open space district – A special district formed for the purpose of acquiring, operating or managing open space and conservation lands. Open space districts may receive funding from traditional property taxes or other sources.

ophiolites – Rock formations consisting of pieces of oceanic plate that have been thrust onto the edge of continental plates; thought to be the result of sea-floor rifting or crustal plate collisions.

prime farmland – land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses.

purchase of development rights (PDR) – Under a PDR program, a local government agency can set funds aside to purchase easements from landowners, using funding programs such as the California Farmland Conservancy Program.

riparian (land, area or habitat) – The land and vegetation bordering a natural watercourse such as a river or stream. Riparian habitat provides food, nesting habitat, cover, migration corridors, riverbank protection, erosion control and improved water quality, and numerous recreational and esthetic values.

Santa Barbara gyre – a large eddy created by the California Current forced offshore near Point Conception. This gyre system generally flows in a counter-clockwise direction between the Santa Barbara coast and the Channel Islands.

silviculture – a phase of forestry that deals with the

establishment, development, reproduction, and care of forest trees.

socioeconomic analysis – The task of assessing the impact of a plan or project on a community's or region's social structure, on a community's fiscal health, on a region's economic basis, and similar socioeconomic considerations.

Southern California bight (SCB) – The marine system that extends from Point Conception to Punta Banda in Baja California, Mexico. It is referred to as a “bight” because the characteristic north-south trending coastline of western North America experiences a significant curvature along the coast of southern California, creating a marine environment of complex circulation patterns.

special assessment – Assessment by a public agency on lands that will be benefited by a public service, such as the acquisition of park or open space lands or the development of facilities resulting from these assessments.

special district – Any local or regional public agency, other than a city, county, or school district, formed to designate an area within which a property tax rate will be levied to pay for a service or improvement benefiting that area. Special districts include county service areas, maintenance districts, and regional park districts.

special resource study – A study conducted by the National Park Service to determine whether an area is appropriate to be managed as a unit of the National Park System. It considers whether: (1) the resources in the area are nationally significant, (2) there are other means of protecting the area's resources, (3) the area's resources are already represented in the National Park System, and (4) if it is feasible for the NPS to protect and manage the resources. Also known as a feasibility study.

state land conservancy – An independent state agency established to fund or acquire and manage land in order to preserve open space or habitat, provide for low-impact recreational or educational uses, or other similar purposes, with a specific regional focus.

strand – a border, edge, seashore; the land bordering a body of water; the beach of the ocean; a sea or an arm of the ocean; the land alternatively covered or uncovered by the tide.

taxon – a taxonomic category or unit, as a species or family.

transfer of development rights (TDR) – A program which allows relocation of potential development from areas where proposed land use or environmental impacts are considered undesirable to another site chosen on the basis of its ability to accommodate

additional units of development beyond that for which it was zoned, with less environmental, social, and aesthetic impact.

unincorporated area – A community or rural area that is not located within a city.

urban rural boundary line (URBL) – The urban rural boundary line sets the limit for urban expansion in unincorporated areas of the county. Urban development and services cannot extend outside the boundary.

vernal pool – seasonal bodies of water that form in depressions located in soils with impenetrable substances such as clay. They typically hold water during rainy seasons and completely dry up in dry seasons. Because of these unique characteristics and their rarity, vernal pools generally support rare species.

watershed – The total area above a given point on a waterway that contributes water to its flow; the entire region drained by a waterway or watercourse; the geographical area drained by a river and its connecting tributaries into a common drainage. Usually bounded peripherally by a natural divide of some kind such as a hill, ridge, or mountain.

zoning – The division of a city or county into areas, or zones, which specify allowable uses for real property and size restrictions for buildings and lots within these areas. A zoning ordinance is a law that divides land into zones, specifies uses permitted in each zone, and standards required for each use. Typical zoning classifications include different types of agricultural, residential, industrial and commercial zones.

Majority of definitions adapted from “A Park and Recreation Professionals’ Glossary”, California Department of Parks and Recreation Planning Division, January 1, 2003, .

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D2 / April 2003

