

BUTANO STATE PARK



Final General Plan and Environmental Impact Report

Approved by the State Park and Recreation Commission
October 2008



Butano State Park

Final General Plan and Environmental Impact Report

This document represents the Final General Plan and Environmental Impact Report approved by the State Park and Recreation Commission on October 31, 2008.

© 2008 California State Parks

All photographs copyright California State Parks unless otherwise noted.

This document is also available as an electronic file at: www.parks.ca.gov

Cover photo: Wooden flume, Little Butano Creek area



Resolution 26-2008
Adopted by the
CALIFORNIA STATE PARK AND RECREATION COMMISSION
at its regular meeting in Pescadero, California
October 31, 2008

**General Plan and Environmental Impact Report for
Butano State Park**

WHEREAS, the Director of California State Parks has presented to this Commission for approval the proposed General Plan and Environmental Impact Report ("the Plan") for Butano State Park ("Park"); and

WHEREAS, the Plan provides conceptual parameters and guidelines for the long-term management, development, operations, and future public use and enjoyment of this unit; and

WHEREAS, the Plan includes an Environmental Impact Report (EIR) as a part of a General Plan, pursuant to Public Resources Code (PRC) Section 5002.2 and the California Code of Regulations (CCR) Section 15166 (CEQA Guidelines), providing discussion of the probable impacts of future development, establishing goals, policies and objectives, and addressing all the requirements of an EIR; and

WHEREAS, the Plan is subject to the California Environmental Quality Act (CEQA) and functions as a "tiered EIR" pursuant to PRC 21093, covering general goals and objectives of the Plan, and that the appropriate level of CEQA review will be conducted for each project relying on the Plan;

NOW, THEREFORE BE IT RESOLVED: That this Commission has reviewed and considered the information and analysis in the Plan prior to approving the Plan, and this Commission finds and certifies that the Plan reflects the independent judgment and analysis of this Commission and has been completed in accordance with the California Environmental Quality Act; and be it

RESOLVED: In connection with its review prior to approving the General Plan, this Commission independently finds that the environmental conclusions contained in the Environmental Analysis Section of the Plan are supported by facts therein and that each fact in support of the findings is true and is based on substantial evidence in the record and that mitigation measures or other changes or alterations have been incorporated into the Plan which will avoid or substantially lessen the potential impacts identified in the Plan; and be it

RESOLVED: The location and custodian of the Plan and other materials which constitute the record of proceeding on which the Commission's decision is based is: State Park and Recreation Commission, P.O. Box 942896, Sacramento, California 94296-0001, Phone 916/653-0524, Facsimile 916/653-4458; and be it

CONTINUED FROM PAGE 1

RESOLVED: The California State Park and Recreation Commission hereby approves the Department of Parks and Recreation's General Plan dated March 2008 and Final Environmental Impact Report prepared for Butano State Park, and be it

FURTHER RESOLVED; that a Notice of Determination will be filed with the Office of Planning and Research within five days of this approval.

Attest: This Resolution was duly adopted by the California State Park and Recreation Commission on October 31, 2008 at the Commission's duly-noticed public meeting at Pescadero, California.

By: ORIGINAL SIGNED BY Date: 10-31-08

Louis Nastro
Assistant to the Commission
For Ruth Coleman, Director
California State Parks
Secretary to the Commission

BUTANO STATE PARK

Final General Plan and Environmental Impact Report

State Clearinghouse #2003102090

October 2008

Arnold Schwarzenegger
Governor

Mike Chrisman
Secretary for Resources

Ruth Coleman
Director of Parks and Recreation

State of California
The Resources Agency
Department of Parks and Recreation
P.O. Box 942896
Sacramento, CA 94296-0001





Photo on reverse: Butano State Park entrance

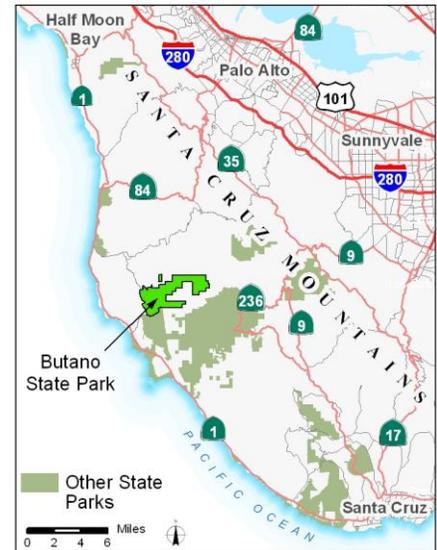
EXECUTIVE SUMMARY

PARK DESCRIPTION

Butano State Park (SP), approximately 4,630 acres, is located in western San Mateo County, approximately 25 miles south of Half Moon Bay and 30 miles north of Santa Cruz. The park is in the Santa Cruz Mountains region, within 60 miles of the major metropolitan centers of San Jose and Oakland, and within 40 miles of the city of San Francisco and heavily populated eastern San Mateo County. Cloverdale Road, via State Highway 1, provides the primary public access.

The park's main visitor use area is developed in a small secluded redwood forest valley, with a network of trails that connects with the backcountry at the park's higher elevations. The backcountry terrain and vegetation varies from riparian canyons to dry rocky hillsides partially covered in coastal scrub and conifers.

The area was logged extensively in the late 19th and early 20th centuries. This logging, plus private development plans, spurred acquisition of the park in 1957 to preserve some of the finest remaining stands of old growth redwoods in the southern end of their range.



Location of Butano State Park

PURPOSE FOR THE GENERAL PLAN

Butano SP has been a state park for over fifty years, yet a general plan for the park has never been completed. The need for formal planning was highlighted by recent acquisitions, new potential for regional natural lands and open space connections, a growing demand from the expanding California population for new recreation options and coastal access, and the opportunity to coordinate planning with several other state parks in the region. A comprehensive planning effort was initiated to create a long-term and visionary general plan that would be commensurate with the park's significance within the region as well as in the California State Park System.

REGIONAL PLANNING CONTEXT

This plan was developed by California State Parks as part of a regional planning effort, along with general plans for Año Nuevo SP (including the former Año Nuevo State Natural Reserve) and Big Basin Redwoods SP. These parks not only are

Recent additions to the park, new potential for regional open space connections, and growing demand for recreation were factors in the decision to develop this general plan.

in proximity to each other, they share natural, cultural, and visitor demographic characteristics, and face similar issues. Regional characteristics and common issues were researched at the beginning of the planning process and used as a foundation for the resulting park plans. The general plan process also recognized each park's unique assets and needs separately. The plans recognize the close relationship between California State Park units and other nearby public and private lands, and emphasize the potential for regional collaboration in resource management, recreational use, education and interpretation, and park management.

For each plan, park issues and opportunities were identified and goals and guidelines developed as part of the regional planning approach. Planning zones were created for each park to assist in shaping appropriate management strategies and projected levels of visitor use. Three Butano SP planning zones were developed and are described in **Table ES-1**, Management Zones.

KEY ISSUES AND OPPORTUNITIES

The following are the primary planning issues addressed by the General Plan:

- **Recreation Demand and Visitor Opportunities:** California's rapidly growing population and shifting demographics have created new and increased demands for recreation facilities, amenities, programs, and concession services. Butano SP, along with other surrounding regional open space and natural areas, can play an important role in providing more diversified and accessible recreational activities and help serve a high regional demand for recreation in the nearby high density urban centers of the greater Bay Area.
- **Public Access and Circulation:** Butano SP is attracting many more visitors than when it first opened in 1957. This has impacted visitor access and circulation within the park. The park's entrance area, in particular, can become overcrowded on busy weekends and during the peak summer season. The plan provides proposals to expand visitor capacity in the area and improve circulation. The plan also encourages development of alternative transportation in and around these regional parks to reduce traffic congestion and air polluting vehicle emissions.

- **Regional Planning Approach:** Butano SP is surrounded by several California State Park System units as well as other open space, natural, and recreational lands, including the Cloverdale Coastal Ranches, Año Nuevo SP, Big Basin Redwoods SP, and Pigeon Point Light Station State Historic Park. Inter- and intra-agency regional management and planning will be actively sought to enhance recreation, resource protection, education, and interpretation in the area, plus increase the efficiency of park maintenance and operations.
- **Wildlife and Habitat Protection:** Plant and animal species composition has shifted and populations and habitats in and around the park have declined due to past land use and current human activities. Strategies for ecosystem management and regional collaboration for natural resource management are emphasized in the plan. Additional focus is provided for the special status species found in the park, which include the San Francisco garter snake, coho salmon, steelhead, California red-legged frog, and marbled murrelet. Conservation of the state and federally listed marbled murrelet, a sea-going bird which nests in old growth redwoods and Douglas-fir, is of high importance and nesting habitat of this bird will be protected.

The plan emphasizes strategies for ecosystem management and regional collaboration for natural resource management.

KEY PLANNING CONCEPTS AND PLAN PROPOSALS

Key Planning Concepts

- Coordinate with area partners and adjacent natural lands and open space properties on regional land management, sensitive resource protection and habitat linkages, recreation, trail networks, interpretation, and education. Explore acquisitions for these same purposes as properties become available.
- Provide a trail system that offers a range of trail experiences, including hiking, biking, and equestrian use. Connect to regional trail systems and destinations, including the California Coastal Trail.
- Manage park resources as an ecosystem, maintaining the natural processes, abundance, and diversity of plants and animals.
- Minimize sensitive resource impacts while expanding recreation opportunities and services.

- Work with federal, state, and local agencies to provide effective and efficient regional natural resource management.
- Incorporate sustainable design principles into the design, development, operations, and maintenance of park facilities and programs.

Key Plan Proposals

- Provide additional day use and overnight accommodations, where possible, to serve the visitor needs reflected by California's changing demographic trends. Consider group picnic and camping facilities, alternative overnight accommodations, and ADA-compliant recreational facilities where appropriate and compatible with the intimate park setting.
- Improve park circulation and access for vehicles, pedestrians, equestrians, and bicycles. Redesign existing day use parking to minimize traffic conflicts and congestion during peak use.
- Continue to protect sensitive habitats and survey for special status plant and wildlife species. Implement appropriate management techniques to protect sensitive habitat and special status species.
- Establish a trailhead and trail connection from the park through Año Nuevo SP to the coastline. Coordinate with the Peninsula Open Space Trust to develop a trail connection from the park through the adjacent Cloverdale Coastal Ranches to the coast.
- Remove the former nature lodge building from the Little Butano Creek riparian zone.
- Provide additional cultural resource interpretation in the visitor center and at historic sites. Interpret the story of the Jackson Flats homestead and research, survey, and interpret the history and significance of the cultural resources related to the site of the historic sawmill.
- Maintain or renovate the existing facilities in the Gazos Mountain Camp area to support park programs, educational, and recreation activities that do not adversely affect sensitive resources.
- Provide additional trail camps in backcountry locations.

MANAGEMENT PLANS

Some of the goals and guidelines comprising Chapter 4, Park Plan, recommend the preparation of specific management plans and more detailed site investigations subsequent to the adoption of the General Plan, including the following:

- Interpretation Management Plan
- Roads and Trails Management Plan
- Watershed Management Plans
- Wildfire Management Plan
- Scope of Collections Statement

ENVIRONMENTAL ANALYSIS

The environmental analysis and the consideration of alternatives contained in the General Plan were prepared in conformance with the California Environmental Quality Act (CEQA) requirement to analyze and disclose the potential environmental effects of a proposed action. The environmental analysis is programmatic in scope and serves as a first tier EIR. Tiering is a process where a lead agency prepares a series of environmental documents, progressing from general concerns to more site-specific evaluations with the preparation of each new document. The environmental analysis in this document analyzes broad environmental matters and does not contain project-specific analysis for the facilities that are considered in the General Plan. It is a reference for future environmental documents that will provide more detailed information and analysis for site-specific developments and projects.

The General Plan includes guidelines that direct future project-level environmental review of site-specific projects to avoid or minimize potential adverse effects to resources during construction or operations of the facilities and improvements. Specific projects would also undergo subsequent CEQA review as appropriate. Because the General Plan contains goals and guidelines that are designed to avoid or minimize potential adverse environmental effects, no significant program-level impacts were identified.

**Table ES-1
Management Zones**

| | ENTRANCE AND FACILITIES ZONE | GAZOS MOUNTAIN CAMP ZONE | BACKCOUNTRY ZONE |
|--|--|---|--|
| AREA DESCRIPTION | This zone is located in the lower portion of the Little Butano Creek watershed at the park entrance. It contains most of the park's visitor services and recreation opportunities, including initial visitor contact, orientation, picnic and campgrounds, and visitor center. | This zone is located southeast of the primary park entrance and is adjacent to Gazos Creek and Gazos Creek Road. It includes the former Gazos Mountain Camp classrooms, offices, cabins, maintenance facilities, and outdoor activity areas within a forest setting. | The Backcountry Zone is generally characterized by the steeper, more rugged terrain in the park's higher elevations, forested mountains, and riparian corridors within the Little Butano Creek, Gazos Creek, and Butano Creek watersheds. Most of the park is in the Backcountry zone. |
| RESOURCE CHARACTER & MANAGEMENT (Carrying Capacity Objective) | This zone will be managed to preserve and enhance the combination of recreation opportunities and resource values, plus provide for administrative functions. The redwood and Douglas-fir forest ecosystems and the riparian corridors will be protected as important features and essential elements that define this park's distinct identity and its visitor experiences. | This zone will be managed for its natural, scenic, educational, and recreational values. Management of the Gazos Creek riparian area and the surrounding redwood/Douglas-fir forest will encourage natural processes, protect sensitive species, and preserve scenic views. | The Backcountry will be managed primarily to preserve its cultural, natural, and scenic resources and sense of solitude, while expanding trail and primitive camping recreation opportunities. |
| VISITOR EXPERIENCES (Carrying Capacity Objective) | Recreation and administration facilities will remain small-scale to maintain the park's intimate character. Public use areas will be separated from park administration, staff housing, and operations and maintenance facilities as much as possible to reduce congestion and | The Gazos Mountain Camp area will retain appropriate existing facilities for adaptive uses that are compatible with protection and enhancement of the natural resources. | A low level of visitor use contributes to the remote character of the Backcountry. |

| Table ES-1 Management Zones | | | |
|--|---|---|---|
| | ENTRANCE AND FACILITIES ZONE | GAZOS MOUNTAIN CAMP ZONE | BACKCOUNTRY ZONE |
| | <p>user conflicts in this primary visitor use area.</p> <ul style="list-style-type: none"> • High to medium level of use • Frequent contact with others | <ul style="list-style-type: none"> • Medium level of use • Moderate contact with others | <ul style="list-style-type: none"> • Low level of use • Infrequent contact with others |
| VISITOR USES | <p>Visitor facilities provide interpretation of the natural and cultural resources, as well as day use and overnight camping. There are also limited park administration, staff housing, and operations facilities in this area.</p> | <p>Appropriate uses may include park programs, educational, and recreation activities. Provides day use and overnight opportunities for individuals and groups.</p> | <p>Hikers, bicyclists, and equestrians can explore the park on an extensive trail system and connect with the region's network of multi-use trails to venture into the surrounding Santa Cruz Mountains and coastal areas. Trail camps provide backcountry camping.</p> |
| RANGE OF APPROPRIATE FACILITIES | <ul style="list-style-type: none"> • Visitor center • Trails • Trailheads • Parking • Office/Storage • Interpretive elements • Staff housing • Restrooms • Individual & Group Picnic sites • Individual & Group Campsites • Maintenance/Ops. Bldg. | <ul style="list-style-type: none"> • Classrooms • Offices • Restrooms • Cabins • Vehicle parking • Concessions • Interpretive elements • Outdoor activity areas • Trails • Maintenance facilities | <ul style="list-style-type: none"> • Trails • Trailheads • Trail camps • Restrooms • Regional trail connections |

TABLE OF CONTENTS

| | |
|--|-------------|
| EXECUTIVE SUMMARY | ES-1 |
| 1 INTRODUCTION | 1-1 |
| 1.1 Location and Regional Context | 1-1 |
| 1.2 Site Characteristics | 1-1 |
| 1.3 Purpose Acquired | 1-2 |
| 1.4 Sense of Place | 1-2 |
| 1.5 Purpose of the General Plan | 1-3 |
| Combined General Plan/EIR | 1-4 |
| Tiered CEQA Analysis | 1-4 |
| 1.6 Organization of the General Plan | 1-6 |
| 1.7 Subsequent Planning | 1-6 |
| 1.8 The Planning Process | 1-7 |
| The Planning Hierarchy | 1-8 |
| Interagency and Stakeholder Involvement | 1-9 |
| 2 EXISTING CONDITIONS | 2-1 |
| 2.1 Regional Land Use | 2-1 |
| 2.2 Regional Recreation Facilities | 2-2 |
| Public Recreation Facilities | 2-2 |
| Private Recreation Facilities | 2-5 |
| 2.3 Existing Park Land Use and Facilities | 2-6 |
| Parkwide Land Use | 2-6 |
| Park Attendance Levels | 2-7 |
| Day Use Facilities | 2-7 |
| Overnight Facilities | 2-8 |
| Circulation | 2-9 |
| Administration and Maintenance | |
| Facilities | 2-12 |
| Utilities | 2-13 |
| Employee Housing | 2-13 |
| Concessions | 2-13 |
| Accessibility of Park Facilities | 2-13 |
| 2.4 Significant Resource Values | 2-14 |
| Physical Resources | 2-14 |
| Natural Resources | 2-27 |
| Cultural Resources | 2-35 |
| Aesthetic Resources | 2-53 |
| Interpretation and Education Resources | 2-56 |
| Recreation Resources | 2-58 |
| 2.5 Park Support | 2-60 |



| | | |
|------------|---|-------------|
| 2.6 | Planning Influences | 2-62 |
| | Systemwide Planning | 2-62 |
| | Regional Planning | 2-65 |
| | Regulatory Influences | 2-70 |
| | Regional Agencies and Non-Governmental Organizations | 2-74 |
| | Demographics, Trends, and Projections | 2-76 |
| | Opportunities for Public Input | 2-83 |
| 3 | ISSUES | 3-1 |
| 3.1 | Planning Assumptions | 3-1 |
| 3.2 | Parkwide Issues | 3-2 |
| | Wildlife and Habitat Protection | 3-2 |
| | Recreation Demand and Visitor Opportunities | 3-3 |
| | Park Planning and Management in a Regional Context | 3-3 |
| | Public Access and Circulation | 3-4 |
| 3.3 | Specific Area Issues | 3-4 |
| | Entrance and Facilities | 3-4 |
| | Backcountry | 3-5 |
| | Gazos Mountain Camp | 3-5 |
| 4 | PARK PLAN | 4-1 |
| 4.1 | Classification | 4-1 |
| 4.2 | Declaration of Purpose | 4-2 |
| | Proposed Declaration of Purpose | 4-3 |
| 4.3 | Vision | 4-4 |
| 4.4 | Planning Zones and Area-Specific Guidelines | 4-5 |
| | Entrance and Facilities Zone | 4-5 |
| | Gazos Mountain Camp Zone | 4-7 |
| | Backcountry Zone | 4-9 |
| 4.5 | Parkwide Goals and Guidelines | 4-10 |
| | Physical Resource Management | 4-10 |
| | Natural Resource Management | 4-13 |
| | Cultural Resource Management | 4-20 |
| | Visitor Use and Opportunities | 4-23 |
| | Interpretation and Education | 4-33 |
| | Park Operations | 4-41 |
| 4.6 | Managing Visitor Capacity | 4-47 |
| | Visitor Capacity Management Methodology | 4-48 |



| | | |
|------------|---|-------------|
| 5 | ENVIRONMENTAL ANALYSIS | 5-1 |
| 5.1 | Introduction | 5-1 |
| | Purpose of the EIR | 5-1 |
| | Focus of the EIR | 5-1 |
| | Subsequent Environmental Review Process | 5-1 |
| | Contents of the EIR | 5-2 |
| 5.2 | EIR Summary | 5-3 |
| | Summary of Impacts and Mitigation | 5-3 |
| | Summary of Alternatives Considered | 5-3 |
| 5.3 | Project Description | 5-4 |
| 5.4 | Environmental Setting | 5-5 |
| 5.5 | Environmental Effects Eliminated from Further Analysis | 5-5 |
| | Agriculture Resources | 5-5 |
| | Land Use and Planning | 5-6 |
| | Mineral Resources | 5-6 |
| | Population and Housing | 5-6 |
| | Public Services | 5-7 |
| 5.6 | Environmental Impacts | 5-7 |
| | Aesthetics | 5-8 |
| | Air Quality | 5-9 |
| | Biological Resources | 5-10 |
| | Cultural Resources | 5-13 |
| | Geology and Soils | 5-13 |
| | Hazards and Hazardous Materials | 5-14 |
| | Hydrology and Water Quality | 5-16 |
| | Noise | 5-18 |
| | Recreation | 5-18 |
| | Transportation and Traffic | 5-19 |
| | Utilities and Service Systems | 5-20 |
| 5.7 | Other CEQA Considerations | 5-21 |
| | Unavoidable Significant Environmental Effects | 5-21 |
| | Significant Irreversible Environmental Changes | 5-21 |
| | Growth-Inducing Impacts | 5-22 |
| | Cumulative Impacts | 5-23 |
| 5.8 | Alternatives to the Proposed Plan | 5-24 |
| | Alternative 1: Facility Improvement and Resource Protection | 5-25 |
| | Alternative 2: Increased Backcountry Development | 5-27 |
| | Alternative 3: No Project | 5-28 |



| | | |
|----------|--|------------|
| 6 | PUBLIC REVIEW | 6-1 |
| | 6.1 Introduction | 6-1 |
| | 6.2 List of Commenters | 6-2 |
| | 6.3 Comment Letters and Responses | 6-2 |

| | | |
|----------|-------------------|------------|
| 7 | REFERENCES | 7-1 |
|----------|-------------------|------------|

TABLES

| | | |
|------|-----------------------------------|------|
| ES-1 | Management Zones | ES-6 |
| 2-1 | Fiscal Year Attendance | 2-6 |
| 2-2 | Day Use and Overnight Facilities | 2-7 |
| 2-3 | Roads and Trails | 2-12 |
| 2-4 | Air Pollution Summary | 2-19 |
| 2-5 | Selected County Populations | 2-79 |
| 4-1 | Desired Outcomes and Indicators | 4-52 |
| 5-1 | Plan Alternatives | 5-30 |
| 6-1 | List of Written Comments Received | 6-2 |

APPENDICES

| | |
|---|--|
| A | Location of EIR-Required Content in the General Plan/EIR |
| B | Publicly-Owned Recreational Facilities in the Vicinity of Butano State Park |
| C | Privately-Owned Recreational Facilities in the Vicinity of Butano State Park |
| D | Existing Trails |
| E | Existing Roads |
| F | Soil Types |
| G | Beneficial Uses of Water |
| H | Sensitive Plant Species for Which Suitable Habitat Exists within Butano State Park |
| I | Sensitive Wildlife Species That Occur or for Which Potential Habitat Exists within Butano State Park |
| J | California Population 1960-2020 |
| K | Acronyms and Abbreviations |
| L | Glossary |



FIGURES

| | |
|-----------|------------------------------|
| Figure 1 | Regional Map |
| Figure 2 | Location Map |
| Figure 3 | Existing Facilities |
| Figure 4 | Existing Roads and Trails |
| Figure 5 | Alquist-Priolo Fault Zones |
| Figure 6 | Watersheds and Streams |
| Figure 7 | Coastal Zone |
| Figure 8 | Vegetation Communities |
| Figure 9 | Wildlife Habitat |
| Figure 10 | Natural Resource Sensitivity |
| Figure 11 | Cultural Resources |
| Figure 12 | Planning Zones |
| Figure 13 | Proposals |

REPORT CONTRIBUTORS

Inside Back Cover





INTRODUCTION

Photo on reverse: Hiking trail

CHAPTER 1: INTRODUCTION

1.1 LOCATION AND REGIONAL CONTEXT

Butano State Park (SP) is located in San Mateo County, approximately 30 miles northeast of Santa Cruz and 25 miles south of Half Moon Bay (see **Figure 1**, Regional Map). The park is situated in the Santa Cruz Mountains, a section of the California Coast Ranges paralleling the Pacific coast and running in a northwest direction from Watsonville to South San Francisco, and is within 60 miles of the major metropolitan centers of San Jose, San Francisco, and Oakland. The Santa Cruz Mountains region includes many recreation and open space providers such as California State Parks, Santa Cruz and San Mateo County Parks, the Midpeninsula Regional Open Space District, the California Department of Fish and Game, the Santa Cruz Water Department, the University of California, the Sempervirens Fund, and the Peninsula Open Space Trust. In addition to public natural lands and open space providers, the region contains small towns, rural housing, small business, timber companies and private recreation providers.



Second growth forest, a typical scene in much of the park.

1.2 SITE CHARACTERISTICS

The park consists of approximately 4,628 acres of canyons and uplands characterized by coast redwood and mixed evergreen forests, oaks, chaparral, rugged terrain, and mountain streams. The western boundary of the park is approximately two miles east of the ocean.

At the west entry to the park, visitors are greeted by park staff in a kiosk adjacent to the park's visitor center. The visitor center offers natural history interpretation and contains park administrative offices. A short distance up the park road is a day use/picnic facility with parking, and farther east the Ben Ries Campground offers 38 campsites and a campfire center under the redwoods. Trails from the campground follow Little Butano Creek or travel up the forested slopes of the backcountry, offering quiet solitude among the large evergreen trees and canyon slopes. The eastern uplands of the park contain several areas of relatively gentle terrain. The



majority of streams and creeks in these uplands drain to Little Butano Creek, which flows west out of the uplands and eventually enters the ocean north of the boundary of the state park.

On the southeast side of the park is a parcel of land that includes the former Gazos Mountain Camp. This facility consists of a complex of buildings in a redwood forest. Access to the camp is on Gazos Creek Road, a county road, adjacent to Gazos Creek. The creek continues southwest forming the boundary between Año Nuevo and Butano SPs and flows into the ocean at the north end of Año Nuevo SP.

1.3 PURPOSE ACQUIRED

In the 1920s developers planned to build homes on land that is now part of Butano SP, but were thwarted by the collapse of the stock market in the late 1920s. The Save-the-Redwoods League commissioned a study for the potential for a park in the Butano area, recognized as containing some of the best remaining stands of old growth coast redwoods in the state. Butano SP came into existence in 1957 to further protect California's native coast redwood habitat and to provide recreational opportunities for the state's growing population.

At Butano and other state parks, visitors can begin or rekindle a connection to the natural world and California's cultural heritage.

1.4 SENSE OF PLACE

Each of California's state parks inspire a unique sense of place. Most visitors begin to sense the essence of a park when they first enter the park environment – the feeling of being in a special place set aside in perpetuity to preserve and protect a set of extraordinary values. This awareness of a certain place often leads to a sense of belonging and reconnection. State parks offer visitors opportunities to reconnect to the natural world and our cultural heritage, providing lasting impressions and memorable experiences.

Butano SP preserves an environmentally diverse segment of the California coastal landscape. Different areas in this complex system of diverse landforms and climatic influences impart different feelings to individuals exploring the park. The ocean to the west sends cooling fogs and salt-laden winds and rains into the canyons of the park; when clouds and fog are absent the sun bakes the hills, especially south-facing slopes covered with knobcone pine and chaparral. The



majestic coast redwoods shelter a unique plant and wildlife habitat, and sunlight often beams through high branches imparting a cathedral-like quality to the space below. The mountainous Little Butano Creek watershed also sets a dramatic context for the park.

Visitors to Butano SP experience distinct settings in various areas, each with its own sense of place. These experiences are found in gentle hills covered with grass, wildflowers and live oaks on the west side of the park; the towering coast redwood/Douglas-fir forest and shaded understory in the canyons and campground area; and along various trails that traverse the drier uplands and ridges.

The developed areas of the park provide campgrounds and visitor facilities that are comfortable areas for relaxation. The park's main campground and campfire center are located within a redwood forest where visitors experience the quiet strength of the ancient trees and the plant and animal species beneath them. Hikers explore the park on trails that lead up a canyon following Little Butano Creek, passing reminders of past occupants of the land that is now part of the state park. Other trails lead up to the ridges of the mountains above, where the slopes are drier and support chaparral and pines. From the eastern highlands, hikers experience expansive vistas of the rolling terrain below and the ocean in the distance. The redwood trees and beauty of this coastal environment inspired the creation of the park, and continue to inspire those who visit this special place.

1.5 PURPOSE OF THE GENERAL PLAN

The general plan is the primary management document for a park within the California State Park System, establishing purpose and management direction for the future. By providing a defined purpose and vision with long-term goals and guidelines, it provides the framework for a unit's resource stewardship, interpretation, visitor use, operation, and development. Subsequently, this established framework helps guide daily decision-making and serves as the basis for developing more detailed management and site-specific project plans.

This General Plan was developed to serve as a long range management tool that provides guidelines for fulfilling Butano SP's purpose. This document does not attempt to provide detailed management or development proposals, but rather provides conceptual direction and parameters for future



management and development actions. Specific objectives and strategies for implementation of the General Plan are intended to be developed in subsequent planning efforts as they are needed, including the preparation of management plans and specific project plans.

This General Plan document was prepared by California State Parks to satisfy the requirements of the California Public Resources Code (PRC) Section 5002.2. The PRC specifies that a general plan will be prepared prior to development of any new facilities and shall consist of elements of discussion that will evaluate and define the proposed management of resources, land uses, facilities, concessions, operation of the unit, and any environmental impacts. The Butano SP General Plan was submitted to the State Park and Recreation Commission for consideration and final approval on October 31, 2008.

COMBINED GENERAL PLAN/EIR

The California Environmental Quality Act (CEQA) of 1970 establishes a requirement for state agencies to analyze and disclose the potential environmental effects of a proposed action. The environmental impact report (EIR) is usually a freestanding document intended to meet the requirements of CEQA. However, CEQA also encourages options to avoid needless redundancy and duplication, such as combining general plans and EIRs (CEQA Guidelines Section 15166) and the use of tiering, a process where a lead agency prepares a series of environmental documents, progressing from general concerns to more site-specific evaluations with the preparation of each new document (CEQA Guidelines Section 15152). This General Plan also serves as a first-tier EIR as defined in Section 15166 of the CEQA guidelines. The analysis of broad environmental matters found within the Environmental Analysis section will be a reference for future environmental documents that will provide more detailed information and analysis for site-specific developments and projects.

When the lead agency combines a general plan and an EIR all CEQA requirements must be covered and the document must identify where the requirements are met. Please see **Appendix A** for a table indicating the location of required elements of the EIR within this document.

TIERED CEQA ANALYSIS

This General Plan/ EIR serves as a first-tier EIR, as defined in Section 15166 of the CEQA Guidelines. Individual and/or site-



specific projects and appropriate CEQA compliance will follow the General Plan/EIR. The analysis of broad potential environmental impacts discussed in the Environmental Analysis section of this document will provide the basis for future second-level environmental review, which will provide more detailed information and analysis for site-specific developments and projects. These projects include facility development projects and future studies. Planning and feasibility studies for park management, recreation, and resource protection are ongoing.

This document provides discussion of the probable impacts of future development and establishes goals, guidelines, and objectives to implementing such development in a manner which will avoid or minimize such environmental impacts. This approach is consistent with a tiered approach to EIRs.

Where a proposed project covers a wide spectrum of action, from the adoption of a general plan, which is by definition tentative and subject to further refinement, to activities with a site-specific impact, CEQA requires that “environmental impact reports shall be tiered whenever feasible[.]” (Public Resources Code sec. 21093(b).) Tiering is defined as “the coverage of general matters and environmental effects in an environmental impact report prepared for a policy, plan, program, or ordinance followed by narrower or site-specific environmental impact reports...” (PRC sec. 21068.5; CEQA Guidelines sec. 15385). While a tiered EIR may not defer all consideration of impacts to a point in the future, it can legitimately indicate that more detailed studies and project-specific impacts may be considered in future environmental documents. Generally, the courts have recognized that environmental studies at the general plan level will be general. It has been found acceptable that a more detailed analysis be considered later in the process.

The level of detail addressed in the Environmental Analysis section is comparable to the level of detail provided in the land use proposals of the plan. What is critical, and what is set forth in the plan, is the formulation and eventual adoption of a set of goals and guidelines designed to minimize and mitigate impacts that might occur from the implementation of projects under the General Plan.

For example, the General Plan designates park property into management zones. Goals and guidelines are proposed for each of these zones which provide conceptual parameters for future management actions.



1.6 ORGANIZATION OF THE GENERAL PLAN

Chapter 1 - Introduction gives an overview of the park's characteristics.

Chapter 2 - Existing Conditions identifies the natural, cultural, interpretive, recreation, and aesthetic resources of the park, including a discussion of the demographic and recreation trends in California that are relevant to the planning process. This information provides a foundation to understand the specific park issues.

Chapter 3 - Issues describes current challenges and planning issues facing the park.

Chapter 4 - Park Plan presents a purpose and vision statement that describes the park's future characteristics. Parkwide and area-specific goals and guidelines address the existing issues and provide park management and development proposals. This section also includes a description of the adaptive management process that will be used to maintain resources and positive visitor experiences at the park. The Park Plan is considered the preferred alternative.

Chapter 5 - Environmental Analysis discloses the preferred alternative's effect on the environment, including any significant and potential significant effects that may result from implementing the General Plan. Potential mitigation measures and alternatives to the proposed project are also discussed in this section. This is considered a Program EIR which will inform decision-makers and the public about the environmental consequences of the adoption of the General Plan, consistent with the requirements of the California Environmental Quality Act and CEQA guidelines.

1.7 SUBSEQUENT PLANNING

Major programs and projects implemented during the lifespan of the General Plan will require additional planning, such as management plans or specific project plans. Management plans define the specific objectives, methodologies and/or designs for accomplishing the management goals discussed in the General Plan. Occurring on an as-needed basis, management plans typically focus on specific management



topics, goals, or issues. Typical examples include resource management plans, trails plans, operations plans, interpretive plans, concession plans, and facility development plans.

Specific project plans are the detailed implementation plans necessary to accomplish specific projects. Future planning efforts may include the preparation of specific plans to protect sensitive resources or site-specific plans for new visitor facilities.

Subsequent planning efforts also include preparing project-specific environmental compliance documents to implement the management plans and proposed park development projects. These compliance documents will tier off and be consistent with the General Plan's Program EIR. The General Plan may also be amended if significant new acquisitions are added to the existing park or if other circumstances render parts of the General Plan inapplicable.

1.8 THE PLANNING PROCESS

Butano SP has been a state park for many years, yet a general plan for the park has never been completed. A comprehensive planning effort was initiated to create a long-term and visionary general plan that would be commensurate with the park's significance within the region as well as in the California State Park System. This General Plan was prepared by a multi-disciplinary team from the Department's Santa Cruz District, Santa Cruz Mountains Sector, Northern Service Center, and Planning Division in Sacramento. The team conducted field investigations, research, interviews, and surveys to compile a planning information base. This work included specific information related to the land, water, vegetation, wildlife, habitats, aesthetics, the area's prehistory and history, surrounding land uses, recreation patterns and demographic trends, and visitor use patterns, needs and desires. This planning effort examined not only the area within park ownership, but also considered planning information in the surrounding region.

An initial public meeting was held at the Russell Administrative Center in Pescadero on August 26, 2003 to inform the public about the park's resources and to identify various public concerns and issues regarding planning for the park. Soon after this public meeting the park planning was put on hold due to Department reorganization and staffing and budget challenges. Planning resumed in 2005 with further data gathering and analysis, identification of issues and



The planning team shared plan concepts and draft proposals, answered questions, and collected public feedback at the December 2007 Public Open House.

The Mission of the California Department of Parks and Recreation is to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.

opportunities, and assessments of visitor and recreation needs. A subsequent open house was held in Pescadero on December 8, 2007 to share progress on the draft proposals and maps and to receive public input on the draft Butano SP and Año Nuevo SP general plans.

Newsletters provided information about the planning process and where to obtain additional information on upcoming public meetings, provided summaries of public comments, and explained major issues and planning team proposals. Planning information was also made available to the public on the Department's website.

This active participation by the public, organizations, local governments, and other agencies in the development of the park's concepts, goals, and proposals influenced the direction and content of the General Plan.

THE PLANNING HIERARCHY

The following planning hierarchy provides direction for the future of Butano SP:

- **California State Parks Mission:** The mission sets the fundamental parameters within which California State Parks acquires, plans, and manages its 278 park units.
- **Classification:** In addition to the Department's mission, park management and development is further directed by park unit classification as specified by the California Public Resources Code. Butano is classified as a State Park.
- **Declaration of Purpose:** A broad statement of direction that is unique to Butano SP. The Declaration of Purpose required by Public Resources Code, Section 5019.50 is determined by the park's prime resources and recreation opportunities in terms of the larger context of the State Park System.
- **Regional Planning Considerations for California State Parks Located in the Santa Cruz Mountains:** Developed in response to a regional analysis, these considerations address existing issues and recreation trends and provide ongoing guidance to achieve the long-term vision for California State Parks located in the Santa Cruz Mountains. The regional vision provides a philosophical direction and serves as a guide for the desired condition of these parks.
- **Park Vision:** The vision statement for each park is a view of the desired future conditions. It expresses what



the park should ultimately be and look like as well as what kinds of visitor experiences should be available in the future.

- **Parkwide Management Goals and Guidelines:** Topical guidance of a scope relevant for the entire park. These goals and guidelines were developed in response to an evaluation of existing conditions and are intended to address existing issues, foreseeable trends/patterns, and provide ongoing guidance for the incremental actions that will be taken over time to realize the long-term vision for the park.
- **Planning Zones:** Land use concepts for the park that characterize types of resource conditions and visitor experience within certain specific geographic areas.
- **Specific Area Goals and Guidelines:** Management goals and guidelines that clarify goals for a specific area.

INTERAGENCY AND STAKEHOLDER INVOLVEMENT

Participation by pertinent agencies and organizations was sought throughout the planning process to ensure a broad consideration of concerns and interests as well as compliance or consistency with relevant policies, regulations, and plans. Early consultation with agencies on prominent issues such as habitats, endangered species, and recreation needs was conducted to ensure that their input would have timely consideration during the planning process. These agencies and other organizations included the U.S. Fish and Wildlife Service, California Department of Forestry and Fire Protection, California Department of Transportation, California Department of Fish and Game, the Sempervirens Fund, Save-the-Redwoods League, and the Peninsula Open Space Trust.







Photo on reverse: View from Butano ridge

CHAPTER 2: EXISTING CONDITIONS

2.1 REGIONAL LAND USE

Land use patterns in the Santa Cruz Mountains as well as on the San Mateo and Santa Cruz county coasts have not changed dramatically in the recent past. The general character of land use surrounding Butano SP is a mix of natural lands, coastal terrace and valley agriculture, hillside grazing, timber production, and small residential properties. The community of Pescadero is located approximately 3.5 miles north of the park at the intersection of Cloverdale Road and Pescadero Road.

Butano SP shares its southern border with Año Nuevo SP and Big Basin Redwoods SP is nearby. Pescadero State Beach (SB), Bean Hollow SB, and Pigeon Point Light Station State Historic Park (SHP) are to the northwest along the coast. Portola Redwoods SP, Pescadero Creek County Park, Michelson Ranch, and several other recreational and open space lands are located north of the park. Large undeveloped Peninsula Open Space Trust (POST) properties are located adjacent to the park's west side.

Private ownership around the park generally consists of relatively large or very small parcels of land. Large parcels of private forested lands, some in timber production, are located between Butano SP and Big Basin Redwoods SP to the east, and also on the park's northern border. There is a small community of residential properties over the park's north ridge in a canyon along Butano Creek. The Boy Scouts of America own a large property adjacent to the northeast side of the park, and west of the park is Costanoa, a large private recreational development offering lodging, camping, food service, and trails connecting to Año Nuevo SP, regional trails, and local points of interest. See **Figure 1**, Regional Map, and **Figure 2**, Location Map, for the types of land use and land ownership surrounding the park and in the region.



Año Nuevo Point and the Santa Cruz Mountains, viewed from Pigeon Point.

2.2 REGIONAL RECREATION FACILITIES

A variety of recreational activities are available within a ten-mile radius of Butano SP from a diversity of providers, both public and private. See **Appendix B**, Publicly-Owned Recreational Facilities in the Vicinity of Butano State Park, for a list of recreational facilities and activities offered by state and local agencies. Federal, state and local agency facilities are briefly summarized below. **Figure 1** illustrates the proximity of other recreation lands in the region to State Park properties.

PUBLIC RECREATION FACILITIES

Federal Parks

In 2005, Congress voted to add over 4,000 acres to the Golden Gate National Recreation Area (GGNRA) in northern San Mateo County, six miles south of Half Moon Bay. This property rises from Highway 1 along the coast to the nearly 2,000-foot peak of Montara Mountain on the east. The National Park Service is currently gathering public suggestions for the use of the property and plans to open this area to public access in the future.

The largest concentration of federal natural areas in the region other than in the GGNRA is to the northeast of the park along the southern shores of San Francisco Bay where there are several national wildlife refuges, and the California Coastal National Monument located along the California coastline.

State Parks

Numerous state parks are located relatively close to Butano SP. Big Basin Redwoods, Portola Redwoods, and Henry Cowell Redwoods SPs are well established and have camping and picnic facilities. Año Nuevo SP, on the coast southwest of Butano SP, focuses on interpretation of the elephant seals and other marine mammals that use the beaches. Año Nuevo SP (inland area) is a more recent unit of the State Park System, not yet developed for public use, sharing Butano SP's southwestern edge. Northwest of Butano SP along the coast is Pigeon Point Light Station SHP and a series of state beach units that includes Bean Hollow SB, Pescadero SB, Pomponio SB, and San Gregorio SB. Castle Rock SP, on a ridge northeast of Big Basin Redwoods SP, is largely undeveloped except for primitive backpacking camps, unusual rock formations



popular with rock climbers, and trails that are part of a more extensive trail system linking the Santa Clara and San Lorenzo valleys with Castle Rock SP, Big Basin Redwoods SP, and the Pacific Coast.

Big Basin Redwoods SP, Portola Redwoods SP, and Henry Cowell Redwoods SP all contain redwood forest. Because of this they complement Butano SP, helping to fulfill the public's desire to see, learn about, and appreciate redwood trees close up, as well as providing recreation, accommodations, and interpretation. Trails link Butano SP with Big Basin Redwoods SP, Año Nuevo SP, Portola Redwoods SP and Castle Rock SP, as well as with other parks and preserves.

California State Parks has recently acquired two properties along the Santa Cruz County coast that are currently managed by Wilder Ranch SP. State Parks acquired approximately 407 acres from a total of some 6,831 acres of the Coast Dairies property, located between Waddell Beach and Wilder Ranch SP. This ranch property includes agricultural lands, redwood forest, beaches, and other natural and cultural resources. The entire Coast Dairies property was purchased from Coast Dairies and Land Company by The Trust for Public Land (TPL) using grants from the State Coastal Conservancy. In August 2006 over 400 acres of property on the coastal side of Highway 1 near the town of Davenport (approximately five miles of coastal bluff property) and seven acres on the inland side of Highway 1 was transferred to California State Parks. The balance of the inland portion of the property is to be transferred to the U.S. Bureau of Land Management (BLM) and a nonprofit group, Agri-Culture, in 2008.

Acquisition of this Coast Dairies property allows California State Parks to conserve and enhance the biological open space values of the property; provides State Parks with a substantial area of coastal frontage to use for public access, trails and staging areas, and scenic observation; creates new and diverse recreational and educational opportunities by making available to the public an additional 4.2 miles of coastline property; and allows the state to maintain and enhance sustainable agriculture by continuing the agricultural farming that has existed for decades.

In 2005 several local, state and federal agencies partnered with TPL to permanently protect a 154-acre coastal property called Sand Hill Bluff, located between the Coast Dairies property and Wilder Ranch SP. This property is also managed out of Wilder Ranch SP. California State Parks has acquired over 70 acres closest to the shoreline to manage for public



access, recreation, resource protection, and agricultural leasing.

County Parks

San Mateo, Santa Cruz, and Santa Clara counties all contain parks near Butano SP. The three nearby San Mateo County parks, Pescadero Creek, Memorial Park, and Sam McDonald Park, are relatively large and offer camping, interpretive, and trail opportunities similar to some of the nearby state parks.

Santa Cruz County's nearby parks are the smallest and most locally-oriented of the county parks around Butano SP, mainly emphasizing recreational facilities such as playgrounds and ball fields. The exception is Quail Hollow Ranch, which provides trails and interpretation.

The three nearby Santa Clara County parks provide a variety of recreation experiences. Sanborn Skyline Park has camping, hiking, and interpretation similar to the San Mateo County parks. Upper Stevens Creek Park offers hiking trails, biking trails, and a wilderness experience. Stevens Creek Park focuses on activities similar to a more urban day use park, including picnicking, trails for hikers, bikers, and equestrians, boating, fishing, and archery.

Midpeninsula Regional Open Space District

The Midpeninsula Regional Open Space District (MROSD) was first created in 1972 to preserve open space along the spine of the coastal range running the length of the San Francisco Peninsula and along the boundary separating Santa Cruz and Santa Clara counties. The recent MROSD's Coastside Protection Program expanded this boundary to provide open space and agricultural preservation and management services along the San Mateo County coast. The current MROSD boundary extends from the southern border of Pacifica to the San Mateo/Santa Cruz County line. The MROSD protects viewsheds, provides recreation opportunities in an ecologically-sensitive way, and educates the public about these lands. The MROSD has an active acquisition program to accomplish these goals.

The primary recreation facilities within MROSD properties are trails for hikers, bikers, and equestrians. Trail networks connect to other MROSD lands or nearby parks. Generally, trailheads and support facilities are located on land in other ownership; however, some of the MROSD properties encourage a variety of public uses. Interpretation through self-guided experiences and docent-led tours are also priorities of the MROSD.



PRIVATE RECREATION FACILITIES

The Santa Cruz Mountains are a primarily natural setting just over a prominent ridge from a large metropolitan area. This population supports a large number of retreats and conference centers in the region near Butano SP, mainly in the Boulder Creek-Felton area. San Mateo County is relatively undeveloped on the coastal side of the Santa Cruz Mountains but contains many parks, natural lands, and other open space properties owned by private landowners and nonprofit organizations.

Privately-owned overnight facilities supplement the camping provided by the state and county parks in the area. The Costanoa lodge and campground on Highway 1 provides a variety of overnight accommodations ranging from indoor lodging to outdoor individual campsites including some sites with full RV hookups. The Golden Gate Council of Hostelling International operates a hostel at Pigeon Point Light Station SHP, with both private and shared rooms. The Felton-Boulder Creek area has a number of campgrounds, two of which serve RVs. In addition, several motels, lodges, and bed and breakfasts are located in the surrounding Santa Cruz Mountains region. The Peninsula Open Space Trust has been working with California State Parks and other partners to develop trails and interpretation and education programs at its Cloverdale Coastal Ranches.

Butano SP is also close to services including restaurants and stores in the nearby communities of Pescadero and San Gregorio. Additionally, a variety of private recreational opportunities are available in the vicinity, including golf courses, horseback riding, fishing, vineyards, theaters, galleries, and museums. See **Appendix C** for further information about privately-owned recreational facilities in the region.

2.2 EXISTING PARK LAND USE AND FACILITIES

PARKWIDE LAND USE

Historic use of this property has included logging, agriculture, lumber milling, and ranching. Today this land is utilized for resource preservation, open space, watershed conservation, wildlife sanctuary, and recreation and educational activities. The existing land use of the park complements the relatively undeveloped nature of the Santa Cruz Mountains and the coast located between Half Moon Bay and Santa Cruz. Rugged topography, sensitive resources, and government regulations have limited land developed for public use to a small percentage of the park's acreage. Distance from transportation routes, topography, and the location of prime natural, cultural, and recreation resources have contributed to the current land use patterns within the park.

Following acquisition in 1957, facilities were built at Butano SP to support low-intensity recreation activities. Facilities and programs offer a variety of ways for visitors to enjoy and appreciate the natural and cultural resources of the park. The entrance area, on the western boundary of the park, provides picnic sites, a campground, staff housing, and administrative, interpretive, and maintenance facilities. Visitors can choose from several overnight camping experiences, including tent sites, walk-in sites, and a backcountry trail camp. Activities include picnicking, hiking on the numerous trails, and riding mountain bikes on the park's extensive system of trails and fire roads.

The majority of the park is undeveloped backcountry, containing steep topography and sections of old growth and second growth redwood, Douglas-fir, and knobcone pine forests. Fire and maintenance roads, trails, bridges, interpretive signs, and overlooks are improvements in the backcountry. This area provides outstanding opportunities for solitude and unconfined recreation. Existing land uses within the backcountry include hiking, horseback riding, biking, nature study, tent camping, and orienteering.

| | |
|-----------|--------|
| 2006/2007 | 79,415 |
| 2005/2006 | 67,879 |
| 2004/2005 | 55,947 |
| 2003/2004 | 79,942 |
| 2002/2003 | 85,385 |
| 2001/2002 | 68,475 |
| 2000/2001 | 43,500 |
| 1999/2000 | 28,833 |
| 1998/1999 | 25,357 |
| 1997/1998 | 23,748 |

Source: California State Parks, 2007



PARK ATTENDANCE LEVELS

The numbers of visitors paying for day use and camping have fluctuated over the years due to many factors, including changes in fees, but have generally reflected an upward trend. See **Table 2-1**.

DAY USE FACILITIES

Visitors using day use facilities in the entrance area first stop at the park entrance kiosk to obtain information and pay user fees. The visitor center provides interpretive exhibits to help park visitors understand the natural and cultural history of Butano SP and to obtain additional park information. The visitor center building also provides staff and volunteer offices.

The day use picnic area is located near the entrance kiosk and has 12 parking spaces, eight picnic table sites, six barbeque pits, and a disabled-access restroom. The day use picnic area is adjacent to the Six Bridges Trail and provides access to the park's trail system. During the peak season demand exceeds the number of picnic sites.



The picnic area, located near the park entrance kiosk.

Table 2-2 provides a summary of the park's day use and overnight facilities. See **Figure 3** for the general location of day use facilities.

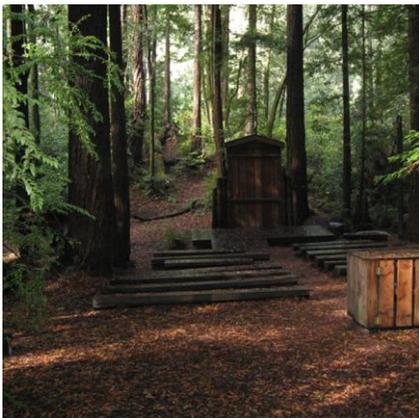
| Table 2-2 Day Use and Overnight Facilities | | | | |
|---|-----------------------------------|----------------------------------|---------------------|--|
| Facility | Description | Number of Sites/Vehicle Capacity | Number of Restrooms | Comments |
| Entrance Kiosk | Visitor Services | 6 | 0 | Serves day and overnight visitors |
| Visitor Center | Visitor Services, Interpretation | 2 | 1 | Serves day and overnight visitors |
| Picnic Area | Picnicking | 8/ 12 | 1 | Three water access locations |
| Ben Ries Campground | Campground | 38/ 78 | 2 | 20 drive-in and 18 walk-in sites |
| Campfire Center | Visitor Services | 0 | | 75 seats; 120 to 140 person total capacity |
| Trail Camp | Camping | 8/ 0 | 1 | |
| Gazos Mt. Camp | Environmental Education, Research | 40 vehicles | 3 | 20 cabins, 3 central restrooms, lodge, 2 classroom buildings |

OVERNIGHT FACILITIES

Ben Ries Campground

The Ben Ries Campground, situated in an old growth redwood forest on a hillside east of the entrance area, is open year-round and contains 20 drive-in and 18 walk-in campsites. Each campsite can accommodate up to eight visitors and three vehicles and contains a picnic table and barbeque pit. The walk-in campsites can accommodate one vehicle. The campground has two restroom facilities and several trash and recycle receptacles. Dogs are permitted in the campground and in developed areas, providing they are controlled with a leash at all times.

With the exception of campground host sites, there are no utility hook-ups in the park. RVs and trailers are limited to 24 feet long. Campground facilities are available by reservation only. The campground is very popular and is usually at capacity during the peak summer season and on many weekends.



The park's Campfire Center under the redwoods.

Trail Camp

Trail Camp, located on the east side of the park, is a walk-in campground with eight campsites, each with a picnic table, food locker, and a tent site. The camp has a restroom facility and a trash receptacle. Water is available only from Butano Creek, a quarter mile from camp.

Campfire Center

The approximately 75-seat campfire center is currently used for interpretive programs, entertainment events, and group gatherings. The center consists of wooden benches constructed from logs arranged in an amphitheater configuration facing a stage/screen and stone fire pit. The center is primarily used for evening activities and serves visitors using overnight accommodations.

Gazos Mountain Camp

Southeast of the primary park entrance is the Gazos Mountain Camp area, occupying approximately 12 acres within the Gazos Creek watershed. This area has a large open meadow, second growth and old growth redwoods, and a historic mill pond. The facilities feature a lodge, 20 small cabins, two classrooms, and restroom and shower facilities. Vehicle access is along paved Gazos Creek Road (a county road). Adjacent property owners have an easement through this



area allowing access to properties outside the state ownership.

Prior to acquisition the entire property was logged repeatedly (1870s–1985). During its logging phase the area had a wood milling facility and it was later used as a children's camp and a social club/resort.

The Sempervirens Fund bought the Gazos Mountain Camp property in 1997 and transferred it to California State Parks in 2001. The nonprofit Pescadero Conservation Alliance (PCA) has leased the property and has been converting the camp to an educational and field research facility to collect and study natural resources data. In the process, several buildings have been rehabilitated, utilities have been upgraded, and fire suppression equipment has been installed. Use by the general public is managed through the programs offered at the camp in order to protect the sensitive resources known to occur in the area. The operating agreement includes limits on the numbers of visitors, among other requirements, to protect nesting habitat for the marbled murrelet in the area's old growth redwoods.



Cabin #10 in the Gazos Mountain Camp area.

See **Figure 3**, Existing Facilities, for the approximate location of these overnight facilities in the park and **Table 2-2** for a summary of the park's overnight facilities.

CIRCULATION

Park Access from Area Communities

The entrance to Butano SP is located on Cloverdale Road, a winding rural road that connects to Pescadero Road on its northern end, and Gazos Creek Road on the south. Gazos Creek Road connects to State Highway 1, a two-lane highway with occasional passing lanes. Pescadero and Gazos Creek roads are also rural winding and narrow roads. Butano SP is approximately 30 miles north of Santa Cruz and about the same distance south of Half Moon Bay, reached from both of these towns via Highway 1.

Many visitors travel to the park from the eastern San Francisco Peninsula and the Santa Clara Valley. There are four roughly east-west highways that connect to Highway 1 from these areas—Highways 17 and 9 from the Santa Clara Valley and Highways 84 and 92 from the Peninsula. Highways 17 and 92 are the most-used. All of these routes, although scenic, may be challenging because they are winding mountain roads.



According to the California Department of Transportation (Caltrans), over five million people in 2.2 million vehicles per year drive past the Santa Cruz/San Mateo County line on Highway 1, situated between Big Basin Redwood SP's Waddell Beach and Año Nuevo SP. Tourists visiting the elephant seals at Año Nuevo SP and the beaches along the coast are a portion of these travelers. Visitor attendance at Butano SP has more than doubled since 1997, resulting in increased vehicle traffic on the park's access and internal roads.

Public Transit to the Park

San Mateo County's SamTrans bus system serves the community of Pescadero, three miles north of the park, with one round trip in the morning and one round trip in the afternoon from Half Moon Bay north on Highway 1. SamTrans connects with the Bay Area Rapid Transit (BART) system on the west side of San Francisco Bay at Millbrae, and on the east side of the Bay to Pittsburg, Dublin, and Fremont. At the Millbrae transit hub, the CalTrain commuter system runs from San Francisco south to Gilroy. Bicycles are allowed on all three public transportation systems.

The Santa Cruz Metropolitan Transit District (SCMTD) provides bus service approximately 12 miles south of Butano SP on Highway 1 at Waddell Creek. Service is twice a day and on weekends, connecting to downtown Santa Cruz, with connections available to the Monterey-Salinas Transit system traveling south. Bicycle transport accommodations are currently available on SCMTD buses.

Circulation Within the Park

The paved park entrance road extends approximately one mile east from the park's boundary on Cloverdale Road. All park developed facilities and trailheads, except for those located in the Gazos Mountain Camp area, are reached via this single road (see **Figure 3**, Existing Facilities, and **Figure 4**, Existing Roads and Trails). Parking is available at the entrance kiosk for visitor center and backcountry trail access. There is a picnic area with paved parking approximately 200 yards east of the entrance kiosk.

The park's campfire center and the Ben Ries Campground are another 200 to 300 yards east of the picnic area. Overnight campers park at designated campsites in the campground and generally use pedestrian paths and routes to access activities and facilities located in the campground



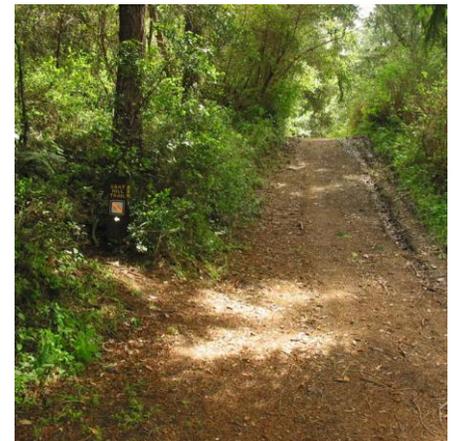
area. Campers can also drive from campsites to the campfire center and to day use facilities located in the entrance area.

The park road is gated and unpaved beyond the campground. The road continues for approximately 1.5 miles where it meets the east end of the Butano Creek Trail. The Butano and Olmo fire roads, managed and maintained by the California Department of Forestry and Fire Protection (Cal Fire), offer hikers, mountain bikers, and equestrians access to the higher eastern portions of the park. The Gazos Mountain Camp area, at the east end of the park, is reached via paved Gazos Creek Road, approximately 3.5 miles from the intersection with Highway 1.

Trails

Trails offer visitors a range of experiences within the park, from walking through the heart of old growth redwoods, backpacking or bicycling to the east side of the park, to accessing other regional parks via connecting trails. Unpaved roads in the park, including unpaved fire roads, are designated multi-use trails, providing access to hikers, bicyclists, and equestrians. Day hikers and backpackers can utilize all of the approximately 30 miles of park trails and roads. There are approximately 17.5 miles of trails designated for hiking in the park. Bicycles are permitted on the approximately 8.5 miles of unpaved roads and 4.5 miles of paved roads, and equestrians are allowed on unpaved roads. Leashed dogs are allowed on paved roads and fire roads, but are not allowed on designated hiking trails.

Trailheads are located in the entrance area and campground area. According to park staff the majority of visitors day hiking venture no more than approximately 1.5 miles from day use and camping facilities, while only a small percentage hike greater distances or to camp in the backcountry trail camp located 5.5 miles east of the park entrance. There are currently no disabled access trails within the park. For further information on the park's roads and trails see **Table 2-3, Appendix D, Existing Trails, and Appendix E, Existing Roads.**



Goat Hill Trail

| Table 2-3 Roads and Trails | | | |
|---------------------------------------|--------------------|---|---|
| Name (#) | Description | Designated Use | Approximate Length in Park (Miles) |
| Butano Fire Road (28)* | Unpaved | Authorized vehicles; hiking, equestrian, mt. biking | 5.2 |
| Olmo Fire Road (29) | Unpaved | Authorized vehicles; hiking, equestrian, mt. biking | 3.2 |
| Park Entrance Road (30) | Paved | Public Road | 1.0 |
| Gazos Creek Road (31) | Paved | Public Road (county road) | 3.6 |
| Ray Linder Trail (36) | Unpaved | Hiking | 1.0 |
| Indian Trail (37) | Unpaved | Hiking | 0.9 |
| Canyon Trail (38) | Unpaved | Hiking | 2.8 |
| Doe Ridge Trail (39) | Unpaved | Hiking | 1.6 |
| Jackson Flats Trail (40) | Unpaved | Hiking | 2.8 |
| Butano Creek Trail (41) | Unpaved | Hiking | 1.5 |
| Goat Hill Trail (42) | Unpaved | Hiking | 1.8 |
| Gazos Trail (43) | Unpaved | Hiking | 0.8 |
| Mill Ox Trail (44) | Unpaved | Hiking | 0.5 |
| Six Bridges Trail (45) | Unpaved | Hiking | 1.0 |
| Año Nuevo Trail (46) | Unpaved | Hiking | 1.3 |
| Candelabra Trail (57) | Unpaved | Hiking | 1.5 |

*Note: The numbers refer to roads and trails noted on **Figure 4**, Existing Roads and Trails.

| Summary | (miles) |
|--------------------------------|----------------|
| Total Hiking Only | 17.5 |
| Total Unpaved Road (multi-use) | 8.4 |
| Total Paved Roads (multi-use) | 4.6 |

ADMINISTRATION AND MAINTENANCE FACILITIES

Administrative offices are located in the visitor center building in the entrance area. The current visitor center was built in 2003/4. The main room of this building serves as an interpretive area, with offices for park administration and volunteers occupying the remaining building space.

There is a small park maintenance facility and staff residence area. This facility supplements a larger maintenance facility serving Butano SP located at the Rancho del Oso area in Big Basin Redwoods SP, approximately 12 miles south of Butano SP on Highway 1.

UTILITIES

The park has separate septic systems serving the visitor center, the picnic area, the Ben Ries Campground, trail camp, and staff residence buildings. Little Butano Creek supplies water that is processed in a water treatment facility east of the campground. From there potable water flows by gravity to the entrance area facilities. Downstream of the visitor use area, within the park, is a small dam on Little Butano Creek. The dam allows the diversion of a limited amount of water from the creek between November 1 and the end of April each year by off-site agricultural lessees of the Peninsula Open Space Trust, which owns property west of the park.

The Gazos Mountain Camp facilities have obtained water from local springs and surface water diversions. This area of the park has a large septic system located adjacent to the lodge for sewage and wastewater.

Pacific Gas and Electric Company provides electric service to park facilities through buried lines. AT&T provides the entrance area and staff residences with telephone service through buried lines and provides one pay telephone at the entrance kiosk. An abandoned landing field in the eastern uplands of the park supports a radio repeater station.

EMPLOYEE HOUSING

Employee housing at Butano SP serves park staff and employees working at other parks located within the Santa Cruz District. Employee housing is desirable on site for increased security, emergency response, and to provide alternatives to the high cost of living in the Santa Cruz area. Butano SP provides three houses, three cabins, and two trailers for seasonal and permanent employee residences. These residences are located at the entrance area, near the Ben Ries Campground, and at Goat Hill.



An employee residence within the park.

CONCESSIONS

Currently there are no concession operations in the park.

ACCESSIBILITY OF PARK FACILITIES

Americans with Disabilities Act (ADA)-compliant facilities within Butano SP include the picnic area restroom and the visitor center. Designated accessible parking is provided. None of the campground facilities are currently ADA-accessible. The restroom in the campground by site #10 is usable, but assistance may be needed for access. Additional



State Parks will explore methods to provide universal access for all park visitors in all program areas.

information on the accessibility of Butano SP can be found in the June 2000 Santa Cruz District, Mountain Sector, Butano State Park Accessibility Survey, and the California State Parks Accessibility website.

As the General Plan is implemented, universal access for all park visitors will be considered for all program areas. This includes facilities and accessible routes to all facilities areas. Accessible interpretive techniques will be used in the development of interpretive displays and interpretive programs, both guided and self guided. Accessibility would not be limited to public use areas, but also employee areas and park housing areas. Currently there are no projects under construction specifically to improve accessibility in the park. As of July 2007, the Department's ADA improvement program has scheduled a Butano SP project for the year 2014 to improve existing camping accessibility. The Department is continually improving existing facilities throughout the State Park System to comply with the Americans with Disabilities Act.

2.4 SIGNIFICANT RESOURCE VALUES

PHYSICAL RESOURCES

The information in this section was compiled from existing documents and field research. For more detailed information on the park's natural resources please refer to the References section of this document and the Department's ongoing unit data file updates.

Topography

The topography of the Santa Cruz Mountains is largely a result of uplift and deformation due to movement along the San Andreas fault system. Dominant landforms within the park are the steep-sloped canyons of Little Butano and Gazos creeks and their adjoining rounded ridgetops. Elevations range from approximately 106 feet at the junction of Gazos Creek Road and Cloverdale Road to a 1,734-foot summit along a ridgetop divide between Gazos Creek and the south fork of Butano Creek.

Climate

Butano SP is located within the Mediterranean Climate Zone. The year round climate along the California coast is mild and not subject to severe seasonal change due primarily to the



moderating influence of the Pacific Ocean. Cool temperatures and medium to strong west and northwest winds dominate offshore waters and lower inland elevations during the summer. Occasionally, offshore circulation patterns permit hotter, continental temperature regimes to become established in the park, usually lasting only one to two days. Temperature ranges can be greater in the upper elevations of Butano SP and farther away from the marine influence.

A primary influence on the climate at Butano SP is the eastern North Pacific High, a semi-permanent high pressure area that intensifies and migrates northward during the summer months, keeping storm tracks well to the north. During this time of the year California receives little or no precipitation from Pacific storms. In winter, the North Pacific High decreases in intensity and retreats southward, allowing north Pacific storms (i.e. low pressure centers) to move into and across the state. The El Niño phenomenon of cyclical ocean warming increases the severity and frequency of winter storms, and increases the amount of precipitation.

Storms originating in the Gulf of Alaska are the major precipitation sources for the state. However, in winter, some precipitation arrives from the subtropics. Infrequent tropical storms (monsoonal moisture) may reach central California from northern Mexico during the summer and early fall.

Temperature

The average annual temperature for the Santa Cruz Mountains area ranges from 55° to 59° Fahrenheit (F). The overall temperature range is about 25° F to 102° F, with extremes occurring rarely. The warmest months are July, August, and September, with the coldest months being December, January, and February.

The proximity to the ocean moderates the temperatures in Butano SP. The annual mean temperature at Butano SP is approximately 56° F, ranging from 30° F to 95° F. The closest monitoring station is at San Gregorio, approximately 15 miles to the north. The annual mean average temperature is 55.1° F, based on data from 1971 to 2000. The mean reported average daily maximum and minimum temperatures are 65.2° and 44.8° F, respectively. Daily extremes on record are 99° F in October 1987 and 20° F in December 1998. The average temperatures for adjacent Big Basin Redwoods SP may be more indicative of temperatures in Butano SP. At Big Basin Redwoods SP, temperatures range from 30° to 40° F in the winter to 80° to 90° F in the summer.

Precipitation

The wet season along the California coast is from October through April. Annual average rainfall varies greatly within the Butano SP watersheds, increasing with increasing elevation due to orographic effects. The rainfall totals vary from 28 inches at the park entrance to approximately 40 inches at the eastern boundary on the Butano-Gazos Ridge. The Goat Hill rain gauge data indicated an annual average of approximately 33 inches. Summer precipitation (June to August) is usually limited to trace amounts or drizzle associated with occasional summer fog (CDPR c.1980). Precipitation amounts for the park are based on limited data from 1970-1976. More recent rainfall data is not available.

Based on data from the San Gregorio monitoring station, the mean average annual rainfall (1971-2000) is 29.52 inches, which correlates to the Butano SP rain gauge data at the park entrance. The highest recorded monthly rainfall was 17.15 inches in February 1998 (an El Niño year). The highest recorded daily rainfall, based on records from 1954-2001, was 6.37 inches on October 13, 1962. Snow is a rare occurrence on the California coast, but trace amounts have been recorded in 1972, 1974, and 1976, and 4.0 inches of snow was recorded in January 1962.

Summer fog is not common in Butano SP due to the blocking effect of the low coastal hills. There are many more sunny days in Butano SP than on the coast. Fog does make its way inland through the drainages of Pescadero and Butano Creeks to the north.

Wind

The prevailing wind direction year round in fair weather is from the north and west, tending north in winter and west in spring and summer. Strong west winds are common in the spring, but the summer winds are typically light and seldom gusty. Occasionally in late summer hot, dry east winds from the Sierra and the Central Valley, generated by an offshore low pressure area, affect the park and raise the fire danger. Winter winds are variable, predominantly from a southwesterly direction during storms, but typically shift to a northwesterly direction after the passage of the cold front.

Potential Effects of Global Climate Change on the Park

Climate change refers to change in the Earth's weather patterns including the rise in the Earth's temperature due to an increase in heat-trapping or greenhouse gases in the atmosphere. Greenhouse gases include carbon dioxide,



methane, nitrous oxide, and sulfur hexafluoride among others. Human activities are adding large amounts of greenhouse gases to the atmosphere. Combustion of fossil fuels for heat, electricity, and transportation is the main source of these gases.

Heat-trapping emissions in the world's atmosphere have greatly increased since industrialization, contributing to a rise in average temperatures world-wide and other climate changes. How great this climate change is in the future will depend on the actions taken to limit future releases of heat-trapping emissions and new technologies developed to address the problem. At least some additional warming is inevitable in the next decade, even in the unlikely scenario that the most stringent measures to reduce heat-trapping gases are immediately put in place.

Some potential effects of climate change on Butano SP may include:

- **Habitat loss and shifts:** Some climate change computer models predict decreased rainfall on the California coast, while others predict no change or greater rainfall. If coastal rainfall increases, most of the increase will be lost as runoff, and the dry summer/wet winter current climate pattern will persist. Warmer temperatures in summer will cause increased drying from evaporation. The combination of warmer temperatures and drier summer conditions may eliminate some plant communities and animal habitat, greatly fragment other habitat, and cause some habitats to shift. The moisture-dependent wetland, riparian, and redwood forest plant communities could be especially affected at Butano SP. Since the park is in the southern end of the coast redwood's range, these trees are especially vulnerable to the effects of warming.
- **Fire danger:** As the climate warms and possibly dries, wildfires may become more frequent in some areas of California. The San Mateo coast may see a small increase in fires. Both knobcone pine forest and chaparral plant communities located on the higher park ridges are very prone to fire. The plant species in these communities are adapted to fire and can usually regenerate, but increased fire could cause wildlife losses and contribute to poor air quality in the park.
- **Severe storms and flooding:** Climate change may alter the frequency and intensity of winter storms. While this would not directly affect visitors during the usual

Warmer temperatures and drier summer conditions from global climate change may fragment, shift, and even eliminate some plant communities and animal habitats that are now found in the Butano area.

summer season of park use, storms and resultant flooding and mudslides could damage park infrastructure and access roads.

- Fishery habitat change: Over the next century, spawning streams may warm above temperatures suitable for cold water fish such as salmon and steelhead. Reduced summer stream flow due to evaporation will also cause a loss of fish habitat.
- Possible visitor use increase: California central coast parks have historically been used in the summer by many Central Valley residents escaping the heat. As the Central Valley summer temperatures climb even higher, the number of visitors from these hotter areas could also climb.

Air Quality

Butano SP is located within the San Francisco Bay Air Basin (SFBAB). The Bay Area Air Quality Management District is the local agency that regulates air quality in the SFBAB. In addition to regulating air quality standards, the Bay Area Air Quality Management District has established a Climate Protection Program to reduce pollutants that contribute to global climate change and affect air quality (see also Regulatory Influences).

Existing Air Quality

The main factors that determine air quality are the locations of pollutant sources (such as urban or industrial areas) and the influence of topographic and climatic/meteorological conditions. Wind direction, wind speed, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants.

Butano SP is located within the southwestern portion of the SFBAB which includes Santa Clara, San Mateo, Contra Costa, San Francisco, Marin, Napa, southern Sonoma, and western Solano counties. Emission sources in the SFBAB are industrial facilities, several airports, and a dense freeway and surface street network. Though separated by the Coast Ranges (Santa Cruz Mountains) to the northeast, wind can move air pollution from the metropolitan San Francisco Bay area south through small gaps in the mountains; however, most pollutants from the urbanized Bay Area are transported to the Central Valley. The SFBAB is a non-attainment zone for ozone and PM₁₀.

| Table 2-4 Air Pollution Summary ^a | | | | | | |
|---|-----------------------|-----------------|-------------|-------------|-------------|-------------|
| Pollutant | Standard ^b | 1985 | 1990 | 1995 | 2000 | 2003 |
| Ozone | | | | | | |
| Highest 1 hour average, ppm ^c | 0.09 | 0.16 | 0.13 | 0.16 | 0.15 | 0.13 |
| Number of standard violations ^d | | 45 | 14 | 28 | 12 | 19 |
| Particulate Matter PM₁₀ | | | | | | |
| Highest 24-hour average, µg/m ^{3c} | 50 | ND ^e | 165 | 74 | 80 | 60 |
| Number of standard violations ^d | | ND | 93 | 42 | 42 | 30 |

- a. Data from the California Air Resources Board, (California Air Resources Board, 2005)
 b. State standard, not to be exceeded. Exceedances shown in **bold** type.
 c. ppm – parts per million; µg/m³ – micrograms per cubic meter
 d. Number of days in a given year that violations of the applicable standard were measured.
 e. ND – No Data

Ozone

Ozone, a colorless gas that is odorless at ambient levels, is the chief component of urban smog. Ozone is a secondary air pollutant that is produced in the atmosphere when hydrocarbons (ROG - Reactive Organic Gas, or non-methane hydrocarbons such as aldehydes, ketones and ethers) and nitrous oxide (NO_x) precursors react in the presence of sunlight. Motor vehicle emissions are generally the primary source of ozone precursors. Low wind speeds or stagnant air coupled with warm temperatures and clear skies provide the optimum meteorological conditions for ozone formation; therefore, summer is generally the peak ozone season. Wind then disperses the ozone, creating a regional problem.

The SFBAB continues to violate the State ozone air quality standards, posing a challenge to State and local air pollution control agencies. However, the emission levels for ozone precursors, NO_x and ROG, have been trending downward since 1975 due to stricter motor vehicle controls and oil refinery and other industrial emission standards. Ozone concentrations have declined 21% during the last 20 years.

Particulate Matter (PM)

PM₁₀ consists of a mixture of particles and droplets 10 microns or less in diameter ("coarse" particles) that have varied chemical composition. PM contains a subgroup of smaller



particles ("fine" particles) less than 2.5 microns designated as $PM_{2.5}$. These smaller particles pose a greater health risk because their small size allows them to deposit deep in the lung and they contain substances that are particularly harmful to human health.

Sources of ambient PM include: combustion sources such as trucks and passenger vehicles, off-road equipment, industrial processes, residential wood burning, and forest/agricultural burning; fugitive dust from paved and unpaved roads, construction, mining, and agricultural activities; and ammonia sources such as livestock operations, fertilizer application, and motor vehicles. In general, combustion processes emit and form fine particles ($PM_{2.5}$) whereas particles from dust sources tend to fall into the coarse (PM_{10}) range.

Most of the State, including the SFBAB, is designated as non-attainment for PM_{10} standards. Due to the variety of sources and the size and chemical composition of the particles, the PM_{10} problem can vary widely from one area to another. PM_{10} concentration also varies with the seasons. Wildfires, agricultural practices, and dust storms are potential spring and summer season sources, while wood burning is a fall and winter season source. Dry weather and windy conditions cause higher coarse PM emissions, resulting in elevated PM_{10} concentrations. Direct emissions of PM_{10} increased in the SFBAB between 1975 and 2000 and are projected to continue increasing due to the growth in emissions from area-wide sources, primarily fugitive dust.

Geology

Butano SP is located in the Coast Ranges, a northwest-trending chain of mountains that formed primarily due to movement along the San Andreas Fault and associated faults. Regionally, the igneous, metamorphic, and sedimentary basement rocks are part of the Jurassic to Cretaceous aged Salinian Block, a tectonic block bounded on the east by the San Andreas Fault. These rocks originated some 350 miles to the south and began moving north during the Miocene (26 to 7 million years ago) as the San Andreas Fault was activated. The Salinian Block (Pacific Plate) continues to move in a relative northerly direction along the northeast-trending San Andreas Fault Zone.

The Tertiary rocks of Butano SP increase in age from west to east. The western border of Butano SP is underlain by the Pliocene-Upper Miocene aged Purisima Formation. In the central portion of Butano SP east of the San Gregorio Fault, the Lower Pliocene Santa Cruz Mudstone underlies the



majority of Butano SP. A narrow band of Upper Miocene Santa Margarita Sandstone trends through the park, separating the Santa Cruz Mudstone from the easternmost outcrops of mid-lower Eocene Butano Sandstone. Younger Holocene-age stream channel deposits (alluvium) consisting of clay, silt, sand, gravel, and larger materials are found along Gazos Creek, Little Butano Creek, and tributary creeks.

The Purisima Formation consists of gray to greenish-gray to buff fine-grained sandstone, siltstone, and mudstone, with some porcelaneous shale and mudstone, chert and volcanic ash (Brabb, et al. 1998). The Purisima is easily eroded and susceptible to slope failures (ESA/Madrone 1982).

The Santa Cruz Mudstone is a brown and gray to light gray, buff, and light yellow siliceous mudstone with non-siliceous mudstone and siltstone and minor amounts of sandstone (Brabb, et al. 1998). Weathering reduces the strength of the Santa Cruz Mudstone and makes it very susceptible to slope instabilities (ESA/Madrone 1982).

Santa Margarita Sandstone is a light-gray to grayish-orange to white, friable, very fine to very coarse-grained arkosic sandstone. Fine-grained sandstone often contains glauconite. A quartz and feldspar pebble conglomerate crops out locally at the base of the section. This unit has a maximum thickness of 60 meters.

The Butano Sandstone is a light gray to buff, very fine to very coarse grained arkosic sandstone in thin to very thick beds interbedded with dark gray to brown mudstone and shale, with minor conglomerate (Brabb, et al. 1998). Butano Bluffs, located along the Butano Fire Road, is the only known significant surface outcrop of Butano Sandstone. The sandstone is wind-carved and contains caves.

Soils

Information on soils at Butano SP is taken from two U.S. Department of Agriculture publications and the online soil series database (USDA 1961, 1973, and 2002). The soils present within Butano SP are: Butano, Hugo-Josephine, Lobitos, Pomponio, Santa Lucia, and the Rough Broken Land classification.

The Butano series is developed on sloping to steep topography underlain by siliceous shales of the Purisima Formation and Santa Cruz Mudstone, and occurs in the western part of Butano SP. The Lobitos, Pomponio, and Santa Lucia series are present along the western border of Butano



Butano Bluffs along the Butano Fire Road, the only known significant surface outcrop of Butano Sandstone.



SP, formed on sandstone and shale of the Purisima Formation. The Pomponio series, a loam to clay loam, has a dense claypan subsoil underlain by the parent shale. Rough Broken Land is a miscellaneous land type that is found on steep, rocky uplands, with slopes generally greater than 41%. Rock outcrops occupy about half of the surface area, and there is seldom more than a 10-inch thickness of soil. This land type is found in the western and through the central portion of Butano SP, mostly developed on the Santa Cruz Mudstone. The eastern quarter of Butano SP contains the Hugo-Josephine sandy loam developed on Santa Margarita and Butano sandstones.

The variability in erosion hazard is due to the slope; the hazard increases with increasing slope. The Butano, Hugo-Josephine, Pomponio, and Santa Lucia soils are all rated severe for septic systems (leach fields) and therefore are not suitable. Additional soil properties are summarized in **Appendix F**.

Geologic Hazards

The following potential geologic hazards must be considered when planning new buildings, campsites, roads, or trails within Butano SP.

Seismic Hazards

Butano SP is located in the seismically active central California coast region. The closest major active (Holocene to Recent) fault, which trends across Butano SP's western boundary, is the San Gregorio Fault, considered a segment of the San Andreas Fault (see **Figure 5**). The San Gregorio Fault, a right lateral strike slip fault, actually occupies a broad zone with several active traces extending from Butano SP west across adjacent Año Nuevo SP and continuing offshore. These faults are delineated on the official Alquist Priolo Earthquake Fault Zone Map, Point Año Nuevo and Franklin Point quadrangles (California Geological Survey 1982). Therefore, the possibility of ground surface rupture within the western portion of Butano SP should be considered when planning future development.

The San Gregorio Fault is capable of generating an earthquake with a Maximum Moment Magnitude of 7.3 (Petersen, et al. 1996). The Seismic Shaking Hazard Map (California Geological Survey 2003) shows that Butano SP lies within a zone that has a 10% probability of experiencing moderate to strong shaking on the order of 0.4g to 0.8g peak ground acceleration within 50 years. In addition, the San Andreas Fault, located 15 miles to the east, is capable of generating an earthquake of magnitude 7.0 (Santa Cruz



Mountain segment). Any new structures must be built according to the specifications in the most current accepted edition of the Uniform Building Code or California Building Code. Secondary seismic hazards, such as liquefaction and landsliding, may occur during an earthquake. Strong seismic shaking may trigger movement on any existing landslides.

Liquefaction

Liquefaction could occur in loose, granular materials (alluvium) below the water table, such as along stream channels and in unconsolidated, disturbed materials. According to the liquefaction hazard maps from the Association of Bay Area Governments (ABAG), the liquefaction susceptibility at Butano SP is mainly very low to low. The Gazos Creek and Little Butano Creek drainages within the west portion of the park are ranked as moderate. The Arroyo de los Frijoles drainage is ranked as high, but only a small portion is present within the western area of the park (ABAG 2005).

Landslides

Most of the Gazos Creek drainage that forms the southern border of Butano SP is mapped as "mostly landslides" (USGS 1997). Specific landslide and sediment sources have been mapped along Gazos Creek as part of the Gazos Creek watershed study (Balance Hydrologics, Inc. 2003). The USGS map also shows that the lower reaches of Little Butano Creek are mapped as "mostly landslides." The areas of Jackson Flats and Goat Hill are probable landslides (possibly ancient inactive landslides), based on criteria by Brabb and Pampeyan (CDPR c. 1980). These features include isolated ponds and depressions (hummocky topography), abundant natural springs, abrupt slope changes, smaller superimposed landslide deposits, steep, arcuate scarps, irregular soil and vegetation patterns, tilted trees, and flat benches within steep slopes.

The underlying geology contributes to landslide susceptibility since the underlying mudstones, shales, and sandstones are weak and fine-grained (ESA 2004). The Santa Cruz Mudstone, which underlies the majority of Butano SP, tends to form deep and large (approximately 100 acre) rotational landslides, with several of the largest in the middle reaches of Gazos Creek (Balance Hydrologics, Inc. 2003).



Hydrology and Water Resources

Watersheds

Butano SP contains three primary watersheds: Gazos Creek, Little Butano Creek, and Butano Creek. A small portion of the Arroyo de los Frijoles watershed is also within the park (see **Figure 6**, Watersheds and Streams). Gazos Creek defines the southern portion of Butano SP, forming part of the boundary with Año Nuevo SP. Approximately 22% of the Gazos Creek watershed is contained in the park. The Little Butano Creek watershed, with approximately 34% of the watershed within the park, encompasses the central area of Butano SP. Portions of the headwaters of the South Fork Butano Creek are in the northeast part of Butano SP and approximately 11% of the Butano Creek watershed occurs in the park. A very small amount (0.4%) of the Arroyo de los Frijoles watershed occurs in the western portion of the park. The Gazos Creek watershed is within the Big Basin Hydrologic Unit, as designated by the Central Coast Regional Water Quality Control Board (CCRWQCB). Butano Creek and its tributaries are within the San Mateo Coast Hydrologic Unit as defined by the San Francisco Regional Water Quality Control Board (SFRWQCB). Butano Creek is also a tributary to Pescadero Creek and is occasionally included in the Pescadero Creek watershed. These two creeks flow into the Pescadero Marsh before discharging to the Pacific Ocean (ESA 2004).

Gazos Creek, Little Butano Creek, and upper Butano Creek have been identified as important for recovery of coho salmon and steelhead.

Gazos Creek

The Gazos Creek Watershed Assessment and Enhancement Plan (Conrad and Chartrand 2003) identifies the creek as a priority watershed for restoration of habitat and recovery for coho salmon and steelhead trout. Gazos Creek originates partly within the southern portion of Butano SP, flows through privately owned land, and forms the northern boundary of Año Nuevo SP before it passes through private lands and then flows out to sea at Año Nuevo SP. The overall watershed area is approximately 16 square miles. In the upper watershed, the three tributaries (North, Middle, and South Forks) flow through steep narrow canyons. In the lower 2.5-3 miles, the topography is less steep with rolling hills surrounding the riparian zone. A lagoon is present at the mouth of Gazos Creek, west of Highway 1 (Coastal Watershed Council 2005).

Butano and Little Butano Creeks

The combined Butano-Pescadero watershed is the largest coastal watershed between the Golden Gate and the San Lorenzo River (ESA 2004). Little Butano Creek, with a watershed of approximately 3.2 square miles (CDPR c. 1980),



is the southernmost tributary to Butano Creek, flowing west from Butano SP until it encounters a trace of the San Gregorio Fault. Little Butano Creek then turns northwest and follows the fault alignment until it intersects Butano Creek. The Pescadero-Butano Watershed Assessment, Final Report (ESA 2004) identifies the upper portion of Butano Creek as having moderate priority for anadromous fish habitat conservation and restoration, while Little Butano Creek has a high priority ranking. The higher ranking designation indicates higher quality habitat is present and should be protected. The Master Plan for the Coast Redwood, Santa Cruz Mountains Redwood Conservation Strategy, identifies the Butano Creek and Pescadero Creek watersheds as priority watersheds based upon the concentration of ancient redwood forest, watershed size, and proportion of the watershed that is protected (Save-the-Redwoods League 2003).

Other water bodies within Butano SP include several marshes or wetlands associated with old landslide deposits at Goat Hill, Jackson Flats, and the Ben Ries Campground. The 2.5 acre Goat Hill marsh primarily receives surface water runoff, but remains moist all year implying some spring or subsurface input. The five acre Jackson Flats marsh, a spring-fed impoundment, has a balanced inflow and outflow with little seasonal fluctuation. At the Ben Ries Campground, several small ponds described as sag ponds retain water in the wet season only (CDPR c. 1980). They are described as being developed on a landslide, but alternatively may have resulted from movement along the trace of the San Gregorio Fault that passes through the western portion of the park.

There are marshes at Goat Hill and Jackson Flats. Both retain moisture throughout the year.

Groundwater Resources

Groundwater within Butano SP is limited to alluvial deposits along stream channels, with some storage in fractured bedrock units. Springs and seeps originating from the Purisima Formation and/or Santa Margarita Sandstone feed the marshy areas of Jackson Flats and Goat Hill, as well as providing inflow to Little Butano Creek and its tributaries. The Santa Cruz Mudstone stores water in extensive fracture systems, and likely provides summer baseflow to creeks in the Gazos Creek watershed (Balance Hydrologics, Inc. 2003). Two test wells were drilled; one at Little Butano Flats (alluvial deposits) and one at Goat Hill into an unknown source. The groundwater encountered was limited in volume and of poor quality (CDPR c. 1980).



Water Quality

The Central Coast and San Francisco Bay Regional Water Quality Control Boards regulate water quality in the region and provide water quality standards and management criteria as required by the Clean Water Act. These standards and criteria are presented in the 1994 Water Quality Control Plan (Basin Plan) for the Central Coast Basin (CCRWQCB 1994) and the 1995 Water Quality Control Plan (Basin Plan) for the San Francisco Bay (SFRWQCB) region. The Basin Plans identify the beneficial uses and water quality objectives for the Central Coast and San Francisco Bay regions. Surface water beneficial uses that apply to creeks in Butano SP are listed in **Appendix G**. The SFRWQCB Basin Plan does not list specific beneficial uses for all creeks, such as Butano or Little Butano creeks. However, there are beneficial uses for Pescadero Creek which will apply to its tributaries, including the Butano Creek watershed. The Gazos Creek beneficial uses will apply to all Gazos Creek tributaries.

Surface water quality is good within the Gazos Creek watershed, with no impairments noted. Water quality parameters (temperature, dissolved oxygen, turbidity, pH, and conductivity) measured at monitoring sites within the Gazos Creek watershed are all within acceptable parameters. A macroinvertebrate survey showed that the creek condition is good (Coastal Watershed Council 2005). However, a geomorphic assessment conducted in 2003 indicates that there are some landslides and failed roads in the watershed that are potential sources of sediment that can degrade water quality and habitat for aquatic organisms (Balance Hydrologics, Inc. 2003).

Butano Creek is listed by the SFRWQCB as an impaired stream due to sediment/siltation from non-point sources. This is an impairment to steelhead habitat. Within Butano SP, Little Butano Creek shows relatively little impact from logging and is developed on rocks that have a low sediment yield. Because of these factors, Little Butano Creek provides limited but good quality spawning for anadromous fish (ESA 2004).

Groundwater quality is highly dependent on the composition of the water-bearing strata. Wells and springs located in proximity can have large variations in water quality and mineral content. The groundwater quality and yield can change dramatically after earthquake events, resulting in increases and decreases in available water. Two test wells drilled in the park yielded limited volumes of water with high levels of dissolved inorganic salts (CDPR c. 1980).

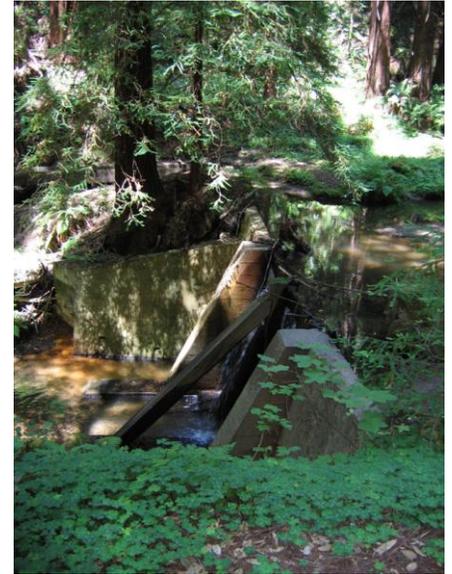


Flooding

According to the Federal Emergency Management Agency (FEMA) maps (2003) the 100-year floodplain for Butano Creek extends inland from the coast to the western boundary of Butano SP. It may actually extend into the park, since in many cases FEMA has not analyzed and mapped the floodplains on State Park property. Further studies may be necessary if future development is planned near Little Butano Creek. The 100-year floodplain for Gazos Creek does not extend into Butano SP.

Water Supply

Drinking water supply for the park comes from Little Butano Creek. Water flows in a piping system where it collects in a basin inside a pump house. There is a small wooden dam that impounds and diverts water via a wooden flume for use outside of park boundaries by lessees of the Peninsula Open Space Trust (POST) which owns agricultural land west of the park. In 2002, POST acquired 100% of the water rights for Little Butano Creek and 50% of the water rights for Gazos Creek (POST 2000; Powers 2006). The Gazos Mountain Camp facilities have used spring and surface water in the camp area for its water supply.



The small dam in Little Butano Creek is part of an agricultural water system used by lessees at Cloverdale Coastal Ranches.

NATURAL RESOURCES

Plant Life

Vegetation Types

Butano SP contains vegetation types that are representative of the western slopes of the Santa Cruz Mountains. Based on the U.S. National Vegetation Classification system (Grossman et al. 1998), there are nine different vegetation alliances (equivalent to series and plant community) in the park. The most comprehensive listing of vegetation types for California is maintained by the California Natural Diversity Data Base (CNDDDB) (CNDDDB 2003), which is based on *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995) and conforms to Grossman et al. (1998). The CNDDDB is maintained by the California Department of Fish and Game (CDFG). This listing incorporates elements of the earlier CNDDDB vegetation system described in Holland (1986).

Two of the nine vegetation types in Butano SP are considered by the CNDDDB to be rare natural communities of high inventory priority and are identified by bold type. See **Figure 8**



for the location of these vegetation communities in the park. The vegetation types found in the park are:

- **Arroyo Willow Alliance**
- California Annual Grassland Alliance; **California Oatgrass Alliance**
- Canyon Live Oak Alliance; Interior Live Oak Alliance
- Coyote Brush Alliance
- Douglas-fir Alliance
- Knobcone Pine Alliance
- Redwood Alliance

The Arroyo Willow Alliance is found adjacent to perennial streams in the park, especially along the lower reaches of Little Butano Creek. It is dense, closed-canopy vegetation dominated by arroyo willow (*Salix lasiolepis*), with scattered wax myrtle (*Myrica californica*) in the canopy, but mostly lacking developed shrub and herbaceous layers.

Locations identified as California Annual Grassland Alliance; California Oatgrass Alliance are comprised of two vegetation types that are essentially equivalent in function and structure, but are quite different in species composition. They are so intermingled that distinct boundaries are difficult to determine, hence they have been mapped as a single type. However, most of the areas identified as grasslands consist of the primarily non-native California Annual Grassland series, which is dominated by slender wild oat (*Avena barbata*) and soft chess (*Bromus hordeaceus*).

Canyon Live Oak Alliance and Interior Live Oak Alliance vegetation types are of limited distribution in the park. Canyon live oak (*Quercus chrysolepis*) and California bay (*Umbellularia californica*) are dominant in the canopy of the former vegetation type, while interior live oak (*Quercus wislizenii*) is the dominant species in the canopy of the latter type. The understory for both vegetation series is usually sparse and open, but can include poison oak (*Toxicodendron diversilobum*), bush monkey flower (*Mimulus aurantiacus*), chamise (*Adenostoma fasciculatum*), mountain iris (*Iris douglasiana*), brittle-leaved manzanita (*Arctostaphylos tomentosa*), and various ferns.

Like the preceding oak vegetation types, the shrub-dominated Coyote Brush Alliance is found in the western portion of the park. This vegetation is dominated by coyote brush (*Baccharis pilularis*), and to a lesser extent poison oak

and California coffeeberry (*Rhamnus californica*). The herbaceous layer is sparse or lacking.

The Douglas-fir Alliance is the second most common vegetation type in the park. Redwood (*Sequoia sempervirens*) and tan oak are common constituents of the canopy, but in fewer numbers than the dominant Douglas-fir. Commonly encountered plants in the shrub and herbaceous layers include sword fern (*Polystichum munitum*), wild ginger (*Asarum caudatum*), redwood sorrel (*Oxalis oregano*), hedge nettle (*Stachys bullata*), and California blackberry (*Rubus ursinus*).

The Knobcone Pine Alliance occupies dry, ridgetop locations in the eastern portion of the park. Knobcone pine (*Pinus attenuata*) is the sole tree in a very open canopy. Common understory species include brittle-leaved manzanita, chamise, giant chinquapin (*Chrysolepis chrysophylla* var. *minor*), yerba santa, and bush monkey flower.

More than half of Butano SP is vegetated by the Redwood Alliance, most of which has been previously logged. Redwood is the dominant tree, with lesser numbers of Douglas-fir, tanoak (*Lithocarpus densiflorus*), and Pacific madrone (*Arbutus menziesii*) occupying the canopy. Common shrub and herbaceous species include California huckleberry (*Vaccinium ovatum*), thimbleberry (*Rubus parviflorus*), chain fern (*Woodwardia fimbriata*), western sword fern, creeping snowberry (*Symphoricarpos mollis*), redwood sorrel, hedge nettle, slinkpod (*Scoliopus bigelovii*), red clintonia (*Clintonia andrewsiana*), redwood violet (*Viola sempervirens*), trail plant (*Adenocaulon bicolor*), western wake-robin (*Trillium ovatum*), false Solomon's seal (*Smilacina racemosa*), fairy bells (*Disporum hookeri*), striped coral root (*Corallorhiza striata*), spotted coral root (*Corallorhiza maculata*), and yerba de selva (*Whipplea modesta*).

Special Status Species

Special status plants are those listed on the CDFG's *Special Vascular Plants, Bryophytes, and Lichens List*. Species officially listed or candidates for listing by the U.S. Fish and Wildlife Service (USFWS), CDFG, and the California Native Plant Society (CNPS) as rare, threatened, or endangered are included in this list. Species that are proposed for listing by the federal government and state candidates for listing are legally protected as if they were listed, and species listed by CNPS on their lists 1A and 1B meet the criteria for listing and are protected as such.

Nine different vegetation alliances occur in Butano State Park. Over half of the park area is vegetated by the Redwood Alliance.

The California Native Plant Society has established five list categories to describe the state's rare, threatened, and endangered vascular plants. List 1A is comprised of plant species presumed to be extinct in California because they have not been seen or collected in the wild for many years. Plant species listed as 1B are considered rare, threatened, or endangered throughout their range, and with few exceptions are endemic to California. Species on this list are eligible for listing under provisions of the California Endangered Species Act. Species appearing on List 2 are considered rare, threatened, or endangered in California, but are more common elsewhere. CNPS List 3 consists of plant taxa that lack the necessary information to assign them to other lists or to reject them. Plants on List 4 comprise a watch list of plant taxa that are of limited distribution in California. Other species locally sensitive and important to the management of park units are also considered special by California State Parks.

There are no special status plant species known to occur within the boundaries of Butano SP according to the CNDDDB. Of the 73 special status plant species for San Mateo County reported by CNPS (2001), suitable to marginally suitable habitat exists within the park for 24 of these species, which are identified in **Appendix H**. Nine of these species are CNPS List 1B plants, one is List 2, one is List 3, and thirteen are List 4. In addition to their CNPS status, three of the species are listed by the USFWS as Species of Local Concern. These are bent-flowered fiddleneck (*Amsinckia lunaris*), coast rock cress (*Arabis blepharophylla*), and stinkbells (*Fritillaria agrestis*).

Exotic Plants

Past activities such as agriculture, homesteading, and logging have contributed to the introduction of invasive exotic plants into the park. Species of concern are those that are invasive and/or difficult to eradicate, including pampas grass (*Cortaderia jubata*), and French broom (*Genista monspessulana*). Areas with grassland vegetation are also of concern because they support the most extensive stands of exotic species in the park and provide an annual dominated habitat type that can be readily exploited by weedy non-native species. This is especially true for the Cloverdale Road corridor, which is dominated by non-native annual grasses. The annual grasses typically do not have deep root systems and do not hold the soil in place as well as native grasses, as evidenced by erosion gullies occurring on the hillsides along Cloverdale Road.



Animal Life

In the Santa Cruz Mountains prior and ongoing land use practices, especially logging, have created a mosaic of pristine native habitats, habitats in various stages of succession, and other lands that provide little or no wildlife habitat value, such as areas converted for agriculture, road development, and home sites/businesses. The once pristine and fairly extensive redwood forest has undergone the most change of any habitat type from pre-Euroamerican conditions. The varied habitats represented in Butano SP, combined with the strategic connection at locations along its boundary to Año Nuevo SP, make this park very important for wildlife. The park contains valuable old growth and older second growth redwood habitat. The park's connectivity to other California State Park units and the nearby extensive system of regional and county parks provides important movement corridors for wildlife between native habitat areas within the Santa Cruz Mountains Bioregion.

Butano SP encompasses a number of different wildlife habitats within its more than 4,600 acres. Although probably best known for the redwood-Douglas-fir forest blanketing the deep main canyon of the park, the coastal grassland, alder woodland, oak woodland, and chaparral present in the park also provide important wildlife habitat. The redwood-Douglas-fir habitat in the park is home to some highly-specialized species that are adapted to the old growth stages of these forests. High on the ridge tops above the canyon, the predominant habitat type is chaparral and knobcone pine. This warmer and drier environment is home to reptiles and birds more adapted to the sometimes harsh conditions on the ridges. In contrast, alder riparian woodland can be found along Little Butano Creek, which runs through the heart of the park. Butano SP also contains vernal wetlands/mountainside marshes on terraces at Jackson Flats and Goat Hill, which support populations of native amphibians. Near the park entrance, annual grassland and oak woodland contribute to the diversity of habitats in the park. Refer to **Figure 9** for the distribution of wildlife habitats in Butano SP, which are classified using CDFG's California Wildlife Habitat Relationships System.

Amphibians

Butano SP provides quality habitat for amphibians in the redwood and Douglas-fir forests as well as in aquatic habitats. Rough-skinned and California newts (*Taricha granulosa* and *T. torosa*) can be found in and near creeks and ponds, which they depend on during their larval stages. The redwood and

Butano SP is very important for wildlife because of its wide variety of habitats and connection to other parklands.



Douglas-fir forest is home to salamanders such as the ensatina (*Ensatina eschscholtzii*) and California slender salamander (*Batrachoseps attenuatus*), which thrive under fallen and rotting logs in the moist forest duff. Pacific tree frogs (*Hyla regilla*), California red-legged frogs (*Rana aurora draytonii*), and California newts can be found in the riparian and aquatic habitats of the park.

Reptiles

A variety of species of lizards and snakes can be found in Butano SP. Western fence lizards (*Sceloporus occidentalis*) and western skinks (*Eumeces skiltonianus*) are common inhabitants of a number of the habitats, including coastal scrub and oak woodland. Freshwater emergent wetlands support aquatic garter snakes, including potential for the San Francisco garter snake (*Thamnopsis sirtalis tetrataenia*). The adjacent upland habitats are home to western rattlesnakes (*Crotalus atrox*) which can be seen warming themselves in exposed areas on sunny days.

Birds

The exuberant song of the winter wren can often be heard over the rest of the bird song chorus along Gazos Creek and other streams, which includes American robins (*Turdus migratorius*) and Wilson's warblers (*Wilsonia pusilla*). The Douglas-fir and redwood forests of Butano SP are home to birds such as the Steller's jay (*Cyanocitta stelleri*), brown creeper (*Certhia americana*) and winter wren (*Troglodytes troglodytes*), a tiny bird with a bursting, musical song that echoes through the forest. The old growth redwood forest is habitat for the marbled murrelet (*Brachyramphus marmoratus*). Along the streams of the park, migrants such as Wilson's warblers, Swainson's thrushes (*Catharus ustulatus*), and black-headed grosbeaks (*Pheucticus melanocephalus*) nest in the montane riparian habitat. In the more open coastal scrub and grasslands of the park, a number of species are present, including wrentits (*Chamaea fasciata*), white-crowned sparrows (*Zonotrichia leucophrys*), and Bewick's wrens (*Thryomanes bewickii*). Annual grasslands provide good hunting grounds for numerous species of raptors, including red-tailed hawks (*Buteo jamaicensis*).

Mammals

Mammals are present in every habitat type in Butano SP. California gray squirrels (*Sciurus griseus*) are present in the forested habitats of the park, and are closely associated with oaks (Zeiner et al. 1990b). Larger species such as coyote



(*Canis latrans*), bobcat (*Felis rufus*), and black-tailed deer (*Odocoileus hemionus*) can also be seen throughout Butano SP in annual grasslands and other habitats.

Invertebrates

Invertebrates are perhaps the least studied, yet most diverse and abundant taxonomic group present in Butano SP. Bright yellow banana slugs (*Ariolimax columbianus*) are present in and characteristic of the redwood forest of the park.

Although few studies of the invertebrates of the area have been done, they are a critical component of a healthy ecosystem. Invertebrates are important pollinators for native plants and an important food source for many species of wildlife, including birds, reptiles, amphibians, and small mammals.

Special Status Animals

Butano SP is home to a number of special status animals, those that are listed as threatened or endangered by the state and/or federal government, California fully protected, California Species of Special Concern, or are of local concern.

Special Status Amphibians

The California red-legged frog, a federally threatened species, is present in the riparian habitats of Butano SP. Ensatinas, a type of salamander found under logs and in the leaf litter of redwood and Douglas-fir forests, are a California Species of Special Concern.

Special Status Reptiles

The federally endangered San Francisco garter snake is the rarest and most colorful of the reptiles found in the Santa Cruz Mountains. The species is highly aquatic and potentially occurs in the slower moving sections of the park's streams, especially near Cloverdale Road.

Special Status Birds

The state endangered and federally threatened marbled murrelet is a seabird that nests in the upper branches of the largest old growth redwood trees and travels daily to the ocean where it joins other diving seabirds to hunt for fish. It has been listed because of population declines throughout its range in California, Oregon, and Washington primarily due to habitat loss (USFWS 1997, Pacific Seabird Group 2003). Current major threats include logging or modification of habitat, oil



Banana slugs are a common sight in the park.



spills, and predation of eggs by Steller's jays and common ravens. Egg predation is particularly evident in the Santa Cruz Mountains population. Marbled murrelet surveys in the Santa Cruz Mountains have shown a drastic reduction in detections of murrelets in the past ten years. At Big Basin Redwoods SP the average number of occupied site behavior detections has gone from 55 in 1995 to less than five in 2005 for the annual survey period. The numbers from other parks also show a similar decline (Suddjian 2005).

Special Status Mammals

Numerous bat species that are recognized as California Species of Special Concern and/or High Priority by the Western Bat Working Group are potentially present in Butano SP, including the pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), long-legged myotis (*Myotis volans*), fringed myotis (*Myotis thysanodes*), and western mastiff bat (*Eumops perotis*). The Santa Cruz Mountains region is home to a population of mountain lions, and Butano SP is an important component of a network of protected lands that lions range through. Large predators like these are critical components of healthy ecosystems.

Aquatic Life

The creeks of Butano SP support aquatic wildlife, including rare and endangered species. Aquatic amphibians and reptiles are present in addition to fish. Federally threatened steelhead trout (*Oncorhynchus mykiss*) and state endangered and federally threatened coho salmon (*Oncorhynchus kisutch*) are present in Gazos Creek (CDPR 2001). The steelhead spawning in the streams of the park are part of the Central California Coast ESU (Evolutionarily Significant Unit). Additionally, some of the creeks within the park could contain resident species such as prickly sculpin (*Cottus asper*) and coast range sculpin (*Cottus aleuticus*).

Please see **Appendix I** for a listing of sensitive wildlife species that occur, or for which potential habitat exists, within Butano SP and **Figure 10** for the potential locations of sensitive species within the park.

Exotic Animals

Signs of wild (feral) pigs (*Sus scrofa*) have been observed in the park. Pigs can cause significant damage to natural resources by disturbing soil, uprooting native plants, and harming ground-nesting birds and other native wildlife.



CULTURAL RESOURCES

The area encompassing Butano SP, Big Basin Redwoods SP, and Año Nuevo SP contains a great variety of landscapes and habitats. The ecological productivity of this area has been shaped by past geologic, climatic and cultural events. Of principal interest to planning are the relationships of past human societies to the landscape and the archaeological evidence of their developments. Refer to **Figure 11** for the general location of important cultural sites in the area.

In addition to the historic structures and associated archaeological features contained within the boundaries of the study area, approximately 12 prehistoric archaeological sites are currently recorded within Butano SP, a dozen more at Big Basin Redwoods SP, and 40 at Año Nuevo SP. Butano and Big Basin Redwoods State Parks have not been as thoroughly surveyed as Año Nuevo and it is likely that many more sites will continue to be discovered.

The archaeological record is one of the only places to obtain data on the earliest history of the people, landscape, and ecology of the study area. Archaeological sites scattered along the upland ridges within Butano SP and Big Basin Redwoods SP have been impacted by historic logging activities, road grading, and trail construction. There is a rich record of both prehistoric and historic land use represented within the study area and these resources can greatly enhance the public experience in the parks through appropriate interpretation and site stewardship.

Año Nuevo SP provides good examples of what can be learned about the prehistoric groups who inhabited coastal California. Past archaeological investigations at Año Nuevo SP have uncovered evidence of a long history of human interaction with the local ecology. The magnitude of the sites and the nature of their contents have provided clear evidence of the importance of these lands to prehistoric Native California Indian societies. In addition to examining the archaeological record, it is important to understand what we know from the written record through ethnographical studies.

Ohlone Lifeways

Ethnohistoric observations written at the time of first European contact in 1769 and during the subsequent colonization document that several different tribelets controlled territory along the peninsula coast and Santa Cruz Mountains. Populations seasonally relocated from the coastal edge to locations in the nearby Santa Cruz Mountains (Palou, Vol. 3 in

Bolton 1926:3:293-303; Crespi in Stanger and Brown 1969:88). Spanish Mission records show that coastal communities ultimately joined with a larger Bay Shore alliance network (King 1994:203-228; Milliken 1983; 1991). The study area was controlled by a single independent Native California Indian political entity recorded by the Spanish missionaries as the "Quiroste" (pronounced *Keer-osh-tee*) nation. The Quiroste were one of fifty politically independent tribelets that comprised the larger Ohlone group. The Ohlone's cultural sphere existed within the San Francisco and Monterey Bay regions. Information about the Quiroste can be found in historic accounts and, more importantly, from the archaeological sites scattered throughout the landscape.

When the Spanish missionaries first arrived, the native people lived in groups that included extended families or clans that formed villages. Feuds between members of some villages were not uncommon, but relatives sought to avoid conflicts through payments made in shell beads. Within the villages, clan members belonged to different clubs or societies. Membership usually involved initiation where novices learned the customs of the organization, and used shell beads to pay dues. Different membership-driven organizations sponsored ceremonial events, each having their own distinctive costumes and regalia. Abalone (*Haliotis*) shell pendants were frequently used as badges of membership and rank. Together the various organizations formed the fabric of society and directed the storage and redistribution of surplus food resources, aided in the construction of village buildings, planned hunting strategies, and followed the seasonal cycles of nature that would determine where and when they should relocate the villages and clans.

Both men and women could be members of various societies and an elite group of women, called *Mayen*, directed the construction of large circular dance houses that were excavated several feet below the surrounding ground level. The *Mayen* selected the most virtuous individuals to represent various spiritual forces that were personified in dances and ceremonies. This practice was called *Kuksui*. *Kuksu* dancers wore woven feather bandoleers made from woodpecker quills placed edge to edge that draped over their foreheads and down their shoulders. Young children were initiated into the various societies and were taught proper manners and customs acceptable to their community by their elders. Once membership was invoked, they earned status and rank over the term of their lives.

Men typically governed the political structure of the village and did the hunting while women handled the gathering and



processing of vegetal foods. Each village had a “head man” and the many villages throughout the Santa Cruz Mountains and coast each had its head man. Men wore little or no clothing, a trait common among hunting people who must avoid retaining the human scent so that they could better blend in with their natural surroundings. Women wore a braided tule reed skirt with a rear apron made from finely tanned deerskin.

During the historic period, the Spanish arrival resulted in dramatic environmental changes. These changes led to the subduing of the local coastal people. Those that were not relocated to missions suffered from poor nutrition and repeated exposure to introduced diseases that decimated their population. Nonetheless some survived and their descendants continue to live in the region (Milliken et al. 1993). Today the descendants of the mission people use the designation of Ohlone to encompass the families from as far south as Soledad and Monterey, all the way northward to Livermore and San Francisco. Some of the Ohlone have further subdivided into discrete family groups such as the Carmel Band of Rumsen, the Pajaro Valley Indian Association of Watsonville, the Mutsun of San Juan Bautista, the Amah Band of Gilroy, and the Muwekma Tribe of Santa Clara Valley. The descendants of the Ohlone continue to visit Butano, Año Nuevo, and Big Basin Redwoods State Parks, and participate in the archaeological research.

Prehistory

Archaeological findings from Año Nuevo SP and other peninsula coastal sites reveal a succession of several cultural periods spanning the Early, Middle and Late Holocene ages. These sites have provided interesting insights into the local cultural prehistory and their adaptive responses to episodes of significant environmental change.

The study area overlays a larger fabric of dynamic cultural transformations that began sometime over 12,000 years ago when people first arrived along the west coast of North America. Legacies of dramatic (even cataclysmic) episodes of environmental changes have led to the recognition of four major climatic shifts that have transpired during the time of human occupation. These changes define the Late Pleistocene, Early, Middle and Late Holocene epochs.

Approximately 10,000 years ago, during the Early Holocene period, the progressively rising sea began to encroach up the level coastal terrace terrain that once extended considerably farther offshore until it reached its present height by Middle

Holocene times, some 6,000 years ago (Bickel 1978; Brown 1994). With the stabilization of sea level, marine and terrestrial plants and animals developed distinctive behaviors and territorial distributions that allowed for predictable, patterned resources important to human societies. Cyclical patterns of seasonal food availability and repetitive use of these resources by the early people has resulted in the distribution of extensive archaeological deposits at locations where residential and/or task specific activities became established.

During the Middle Holocene (6700 to 3400 BC), stone mortars and pestles appear in the archaeological record. These artifacts indicate that acorns had increased in importance as a dietary staple since they were used for processing. This addition augmented an earlier reliance on hard seeds (tarweeds, clarkia seeds, and others) that were milled through the use of handstones and milling slabs. With the increasing reliance on acorns as a food staple, access to productive oak woodlands became a primary factor in the subsistence economy.

Coastal sites, such as those at Año Nuevo SP, contain a greater frequency and diversity of large side-notched chert projectile points and knives that are identical to Early period south coast forms (Hildebrandt and Mikkelsen 1991; Hylkema 1993:99-119; Hylkema 2002; Jones 1993; Jones and Hylkema 1988; Olsen and Payen 1969). Regionally, the Monterey chert outcrop at Año Nuevo SP came to function as the principal source for chipped stone tool material, including projectile points, for coastal people. These robust point forms suggest that there was an emphasis on hunting large game, most likely tule elk.

Within the regional study area, a specific site in Quiroste Valley (Whitehouse Creek) (SMA-196) dates to this time. By the end of the Middle Holocene the overall artifact assemblage, along with a combined dietary focus on ocean mussels, marine mammals, and deer or elk, became the precursors to a consistent reliance on coastal resources that persisted through most of the Late Holocene. The ancestral Ohlone Indian people of the study area lived in a landscape of great ecological diversity. Their environment brought them in proximity to marine, sandy beach, rocky shore, tidal and freshwater marsh, grassland prairie, oak grassland savanna, riparian, chaparral, mixed hardwood, and evergreen forest habitats.

Archaeological evidence from sites in the regional study area shows that productive ecological zones, in terms of native subsistence needs, involved littoral and grassland habitats



concentrated along the narrow coastal terraces and upland meadows in the Santa Cruz Mountains. Within the upland meadows interspersed along Ben Lomond ridge above Big Basin, archaeological deposits do not reveal any reliance on interior San Francisco Bay resources, but do indicate a close dependence on coastal resources. It is likely that the meadows concentrated game into narrow resource patches and repetitive seasonal use of the uplands accounts for the substantial depth of archaeological deposits depths in these areas. The types of bones found in these sites suggest that this seasonal foraging occurred in the summer. In contrast, a contemporaneous site at Año Nuevo contained abundant adult and juvenile northern fur seal bones that point to a winter occupation of the coastal terrace.

The ancestral Ohlone used a large number of plants for food, medicine, and tools. Acorns were a staple although the rugged terrain and dispersal of oak forest within the coastal zone effectively constrained access to acorns (Hylkema 1991:40-46). Sporadic distributions of bedrock mortar milling stations along the upper ridgelines and slopes on the interior Santa Cruz Mountains and within Big Basin Redwoods SP reveal the laborious extremes that coastal people experienced to add acorns to their diet.

Although the ancestral Ohlone did not develop a maritime tradition, offshore marine resources were actively pursued. Most open coastal sites contain the remains of mollusks, fish, a variety of sea mammals, and ocean-going sea birds such as cormorant, pelican, tufted puffin, marbled murrelet, and others (Hylkema 1991; Hylkema with Hall 1985). While the total volume of shell represented at open coastal sites within the study area varied in accordance with the depth of archaeological deposits and the duration of site occupation, the range of species present was found to be remarkably consistent through time. Most notably, the overall contribution of mollusks to the diet remained consistent.

In addition to the shellfish, the hunting patterns along the peninsula coast changed to include different mammals from both land and sea. Marine mammals were hunted with clubs, harpoons, spears, and darts. Elephant seal bones are absent from the regional archaeological record although many other marine mammal species are represented at sites spanning the past 5000 years (Hylkema 2002). Of particular interest are the remains from the northern fur seal (*Calorhinus ursinus*) and one of the most important discoveries of northern fur seal bones occurred at Año Nuevo (Hylkema 1991).

Sea otter remains at Late period coastal sites increased in frequency over Middle period Año Nuevo Phase sites. The range of bone elements indicated that they were most likely hunted more for their furs than their meat (Hylkema with Hall 1985). It is likely that they were harpooned among the kelp beds from tule reed boats. Although this watercraft was unsuitable for open sea, at least one historic account mentions that they were used offshore below the sheltered reach of Point Año Nuevo (Fages 1937:70).

The local coastal economy remained constant until AD 1100. Shortly after that date the coastal way of life began to change. Other Native California Indian groups from the interior areas of the state created a higher demand for various shells that were used as markers for wealth and status. The shells gave the coastal groups a valuable trade item. Evidence of this trade was discovered in an archaeological site at Big Basin Redwoods SP with the discovery of five projectile points that were made from obsidian that came from Napa. This stone tool source supplemented local Monterey chert, some of which was quarried from a partially submerged Monterey chert outcrop at Año Nuevo SP.

Summary of Peninsula Coast Prehistory

Archaeological data from sites throughout central California have shown a steady progression to a specialized, collector adaptive mode that emphasized reliance upon storable vegetal food resources, acorns in particular. This trait is often cited as the principal reason for demographic patterns associated with the cultural development of the region (Baumhoff 1963:155-236; Basgall 1987:21-52; Mayer 1976:30; and others). By the terminal phase of the Middle Holocene many archaeological sites began to exhibit greater social organization in tandem with increased use of mortars and pestles. Hildebrandt (in Elsasser 1986: 97) has demonstrated that an increased reliance on an acorn economy emerged as early as 2500 BC. Starting at that time, human burial patterns changed when various communities began burying deceased members of their groups within their villages. Social distinctions also appeared in the form of unique grave-associated artifacts distributed among a few individuals. This pattern continued throughout the subsequent Late Holocene.

With the advent of the Late Holocene, relatively small, mobile communities perpetuated an older generalized subsistence economy that emphasized a meat diet supplemented with processed hard seeds, acorns, fish, and mollusks. Storage of food resources was not a critical aspect of the coastal lifeway, and a foraging economy was the optimal strategy



(Hylkema 1991). However, after a period of prolonged drought between the years of AD 800 to 1100 (Jones and Kennett 1999), a transformation in the regional socio-political structure occurred and hierarchically ranked societies emerged. Logistically organized labor groups extended out from residential bases and returned with resources that were frequently stored for longer periods of time, forming what has come to be known as a collector economy. An increasing emphasis on wealth resulted in an increasing demand for abalone and Olive snail (*Olivella*) shells. These materials were used as markers of wealth and status by people throughout the interior of central California, and this put the coastal people in a unique position as providers (Hylkema 2002). By c. AD 1100 to the 1770s an elaborate social hierarchy had emerged, consistent with the ethnographic record.

Historical Overview

California Indians

California Indian villages were located in the vicinity of Whitehouse, Pescadero, and San Gregorio creeks throughout much of the prehistoric as well as historic periods. During the winter, California Indian groups living along the coast moved into the Santa Cruz Mountains to avoid exposure to winter storms. Because of the rugged nature of the mountains, along with the presence of grizzly bears, ridgetop routes were used in order to avoid the dense redwood forests. One of the principal routes was along the ridge that separates Big and Little Butano basins. An extensive midden site was found near the headwaters of Little Butano Creek, as well as along other ridges throughout the Santa Cruz Mountains.

According to some sources, it was the California Indians who gave the name Butano to the region, meaning a gathering place for friendly visits. Other sources indicate that the name was given by the Spanish, where it apparently means a drinking cup made out of a cow horn. The earliest recorded reference to the word Butano was in 1816, which refers to the canyon as *el butano* (Brown 1975). By the late nineteenth century, 'The Butano' was being used to refer to the forest encompassing a 10-square mile area around the basin of the various branches of Butano Creek. Other iterations of the name have been applied to geographic features, including Butano Pocket (*Bolsa del Butano*), Butano Creek, Butano Falls, Butano Hill, and Butano Ridge. Relatively recently, the name Big Butano has been applied to the main fork of the creek to differentiate it from the drainage of Little Butano Creek to the south (encompassed by the current state park).

There are conflicting theories of the origin of the name "Butano." Some sources say it was given to the area by the California Indians and means "a gathering place for friendly visits."



Spanish Period

The land encompassing what is now California remained largely un-exploited during its control by Spain. During the 1540s, Portuguese explorer Juan Rodriguez Cabrillo, acting on behalf of the Spanish Crown, led the first naval expedition to explore the coast of what is now California, and claim the land for Spain. While some scholars claim he made no note of Año Nuevo Point, others claim he called it "Cabo de Nieve" (Snowy Cape). Cabrillo and other early explorers did, however, note the extensive populations of seals and other marine mammals during their journeys. Years later, Sebastian Vizcaino was sent to explore the coast of California in 1602. Reaching Año Nuevo Point on New Years day of 1603, chaplain and diarist on the expedition, Father Antonio de la Ascension labeled the place on his map, "Punta de Año Nuevo" (Le Boeuf 1975:1; Holland 1963:149). Following Vizcaino's expedition, there was virtually no Spanish exploration of Alta California for over a century and a half.

In 1769, Don Gaspar de Portola was placed in charge of an expedition to establish settlements in Alta California. After months of extremely difficult travel, the party reached Monterey Bay. From there they continued north, eventually sighting Año Nuevo Point, which they believed to be the northernmost point on the Monterey Bay. The expedition camped at Whitehouse Creek, trading beads with the Indians, whom they termed "Costaños," though they identified themselves as the Quiroste. On Monday, October 23, the expedition encountered a large Indian village in what is now Año Nuevo SP. The Spanish called this camp Casa Grande because of the large lodge house there.

Later, an inland route from San Francisco Bay to southern California was blazed by a Spanish soldier, Pedro Fages, effectively isolating the coastal region for many years thereafter.

Missions

To counter encroachment by foreign powers, the Spanish utilized three separate institutions in their attempts to settle and control California. These included missions, presidios (military forts), and pueblos (secular towns). A mission was generally established near a concentration of native peoples, and its main purpose was to convert them to Christianity and teach them farming, ranching, and other "civilized" practices. Mission Dolores (founded in 1776) and Mission Santa Clara (1777) attracted some of the Quiroste, while Mission Santa Cruz contained 553 Native California Indians soon after its



founding. Unfortunately, European diseases took their toll upon Native California Indians, decimating their numbers.

The coastal region of San Mateo County was used for livestock grazing from the Santa Cruz mission, which reportedly owned over 2,900 head of cattle. Native California Indians tended many of these mission herds in what were termed the ranchos, or outlying grazing areas. By 1825, 16 men and one woman were stationed in the Año Nuevo region to attend to these herds, which extended as far north as Pescadero. The cattle produced not only beef but hides and tallow, which were the main exports for the area.

Mexican Independence

Following the successful separation of Mexico from Spain in 1821, several major changes occurred in California. Foremost among these changes was the opening up of the area to outside trade. Both British and American companies became dominant in the profitable hide and tallow trade during this period. The mission system also declined in power and importance following independence. In 1834, the entire system was dismantled, and all land holdings were secularized and subdivided. The mission lands were granted to the government to be deeded to private citizens.

Mission Santa Cruz was included in the secularization, and mission lands were divided and parceled out to prominent Mexican citizens. In the San Mateo coast area, several rancho parcels were granted, including Rincon de la Ballena (between Bean Hollow and Gazos Creek), and Rancho Butano to the north. Soon thereafter, however, a grant of land was given to Simeon Castro, which included both of the above ranchos. The resulting legal dispute was not resolved until many years later. Castro's Rancho Punta de Año Nuevo consisted of over 17,000 acres, including much of what is now Año Nuevo SP, as well as Butano SP (DPR 1974:4). By 1842, Castro took possession of the rancho, although he continued to live in Monterey. Largely through caretakers, he ran large herds of cattle on the land, as well as grew wheat, corn, melons, and potatoes (Stanger 1966:35).

Early Anglo Settlement

Following the Gold Rush, large numbers of Americans began arriving in California. In 1850, California became a state, and thousands of acres of rancho property began to be turned over to American citizens. Many of the large ranchos were purchased by wealthy European Americans. In 1851, Isaac Graham of Santa Cruz acquired the Rancho Punta de Año



The land grant map for Rancho Punta de Año Nuevo.
(Courtesy of the Bancroft Library, University of California)



Nuevo from the Castro heirs, encompassing all of what would become Butano SP. Graham was a longtime California resident, and one of its most infamous personages. Although he did not live on the rancho, he leased much of the land out for cattle ranching. Because of financial troubles, Graham was unable to hold onto the property, and it was sold at public auction in 1862 to John H. Baird, for \$20,000. Baird quickly sold the property to Loren Coburn for \$30,000. Coburn purchased both the Rancho Butano and Rancho Punta de Año with his brother-in-law Jeremiah Clark. After buying out Clark, Coburn leased much of the land to a northern California family dairy enterprise by the name of Steele.

Dairies

The Steeles had arrived in California from Ohio beginning in the mid-1850s, operating several dairies in Sonoma County. They soon began to make cheese, which was eagerly awaited in San Francisco. By 1857, George, Isaac, Edgar, and Rensselaer Steele leased land in Marin County. Demand for their cheese caused the Steeles to expand their herd and seek out new country. Beginning in 1862, the Steeles leased 17,763 acres of the Año Nuevo rancho from Coburn. The lease was for \$6,000 per year for ten years plus all taxes on the rancho. A stipulation allowed for the Steeles to buy 7,000 acres of the ranch south of Gazos Creek when the lease expired, at \$6 per acre. The Steeles exercised the option to buy the 7,000 acres, while Coburn retained the northern portion of the rancho (Steele 1948:10).

San Mateo County had become an important dairy producer for the growing city of San Francisco. Cheese and butter came from the coast side of the county, while milk was shipped from dairies on the bay side. By the 1880s, many saw bright prospects for the growth of coastal San Mateo County. In large part, this hope was driven by expectations for completion of the Ocean Shore Railroad. The agricultural products of the coast would be easily transported to San Francisco, and other smaller markets by way of this railroad, it was hoped (Alley 1883).

Lumbering

Meanwhile, lumbering had also become a prominent economic activity in this region. As settlement south of San Francisco grew, the redwood trees prevalent in the Santa Cruz Mountains were exploited for their commercial use. While the eastern slopes up to the summit were harvested beginning in the 1850s, the coastside areas were further from shipping points, markets, and transportation facilities, making

logging operations difficult. By the 1870s, the accessible timber on the eastern slope had been largely harvested. Logging then focused on the coastside watersheds of the Purisima, Tunitas, San Gregorio, Pescadero, and Gazos creeks. Most local creeks dried up in the summer, requiring steam-powered mills for effective logging operations. Small shingle mills were often set up in small, remote canyons where oxen teams could not reach. Transporting the lumber to market proved extremely difficult and expensive. With no deep water port on the nearby coast, shipping the lumber from the few small wharfs (Waddell's, Gordon's Chute at Tunitas, Pigeon Point) was generally not cost effective. Prices of lumber also varied widely, based upon changing demand as the result of fires or other disasters. These price fluctuations frequently put small operations out of business (Hynding 1982). Nevertheless, several mills were established on the coast side of the mountains beginning in 1867, and some businesses thrived for a time.

The focus of most early lumbering in the area appears to have been along Gazos Creek. The Birch and Steen shingle mill was located approximately 0.5 miles west of the confluence of Bear Creek and Gazos Creek, and about five miles from the ocean. It was eventually sold to Horace Templeton who moved the mill upstream, began milling lumber, and organized the Pacific Lumber and Mill Company. Lumber was floated down a flume to the intersection of Cloverdale Road and Gazos Creek Road where it was hauled to Pigeon Point for shipping. Despite a promising beginning, the mill closed following the death of Templeton in 1873. The nationwide Panic of 1873 put several other mills in the Santa Cruz Mountains out of business. It would be several years before business would begin to pick up again. In 1882, James McKinley (brother of the future president) reactivated the Pacific Lumber mill, and soon was supplying the increasingly powerful and expanding Southern Pacific Railroad. The mill was renamed the "McKinley Mill" (Stanger 1967). Business continued to ebb and flow based upon the larger national, regional, and local economies.

Mills had also been built in the Half Moon Bay vicinity, including a steam-powered one established by the partnership of Rufus Hatch and George Borden in 1885. The Hatch and Borden partnership owned more than 1,000 acres in the Purisima canyon and operated several mills in the canyon for the next 60 years. A small town of mostly European-Americans emerged further downstream along the Purisima. Several other small, short-lived communities emerged to the south of Half Moon Bay, including Tunitas and Lobitos. Difficult transportation and the rise of Half Moon Bay

generally led to the abandonment of these hamlets. During this period, the lands that would make up Butano SP were owned by logging companies, and were extensively logged.

Pescadero

By the early 1860s, the small town of Pescadero had emerged along this portion of the San Mateo Coast, and was soon served by several stage lines. Aside from Half Moon Bay, Pescadero was the only other town of any size during this period. By 1868 Pescadero had become the fourth largest town in the county (having just been annexed by San Mateo County that year). The town thrived as a result of it being a transportation hub for adjacent farms and lumber mills. Stages ran from Redwood City over the mountains via Searsville and La Honda to Pescadero. During periods of bad weather, mail and passenger stages were routed through Boulder Creek, passing through what is now Butano SP. The route followed those used by California Indians, along the ridgelines along Little Butano and Gazos. These routes were used until the 1880s.

By the turn-of-the-century, the long anticipated Ocean Shore Railroad that was to connect San Francisco with the San Mateo coastal area (en route to Santa Cruz) was finally being built. The anticipated contracts to supply the railroad with ties led to more lumbering activity in the mountains. By this time, the advent of the steam donkey engine and new circular saw in the 1880s led to more efficient logging operations and a greater depletion of old growth redwoods. Following the 1906 earthquake, which devastated San Francisco, demand for lumber rose again. Many fled the city for the bayside of the peninsula, which also led to increased demand for lumber. Several mills were built on Gazos Creek, as well as other locations (such as on Butano and Little Butano Creeks).

Homesteads

Though most of the Santa Cruz Mountains were too rugged to be suitable for homesteading, the canyon of Little Butano Creek was one notable exception. There are several areas of flat open spaces that allowed for limited farming and ranching. The most pronounced of these consist of Little Butano Flats (at the entrance to the current park), Jackson Flats immediately below the north ridge, and Goat Hill on the south ridge. One of the first to arrive was William Jackson and his wife Isabella, who filed on three separate 160 acre parcels of land in 1861. Jackson built a small house in the heart of his property, on the north side of the canyon. The area in which they settled became known as Jackson Flats. Jackson



eventually acquired a total of 400 acres, and had four children, Mary, William, Fannie, and Thomas.

E.P. Mullen homesteaded on the south side of Little Butano canyon in the early 1860s. Mullen established a goat ranch on the property, giving the name to Goat Hill. Mullen's daughter continued to live on the ranch with her husband, William M. Taylor. The Taylors remained until the late 1800s.

In 1873, Taylor built a shingle mill on the south bank of Little Butano Creek. Partnering with William Jackson, the two operated the mill for almost 10 years. By the 1880s, Sheldon "Pudy" Pharis had purchased property in the upper Little Butano basin. Known as the "shingle king," Pharis built one of the first shingle mills in the Santa Cruz Mountains in 1863, and apparently operated as many as seven mills. Pharis purchased the Taylor mill, along with many others in the area. In 1885, however, Pharis committed suicide, and the mill ceased operation.

Peninsula Farms

Several parcels of land north of Gazos Creek, including Little Butano Flats were developed into a farming cooperative known as Peninsula Farms beginning in 1923. The property was subdivided into 41 parcels, many of which were further subdivided in later years. A manager of the cooperative built what is now the lower park residence (Residence #1), as well as the flume on Little Butano Creek.

New Ownership

In the 1920s, the Goat Hill property was purchased by Peter Olmo. Olmo operated a dog kennel, as well as a small turkey farm on the property. At roughly the same period, Joe Bacciocco purchased the Jackson property, along with the house built by the Peninsula Farms. Bacciocco, a wealthy San Franciscan meat wholesaler, did not live at the house, but instead used it as a weekend retreat. Bacciocco hosted parties that became infamous during the period of Prohibition. He hired local resident Hans Carlson to serve as caretaker for the property from 1936 to 1952. Land speculators initiated the purchase of much of the Bacciocco property, surveying forty homesites. Many of these homesites were in the location of what would become the present campground. The drastic decline of the stock market in 1929 sealed the fate of the land speculators, and no development occurred in the Butano area. Bacciocco retained ownership of the land.

As described above, this region soon became a rich lumber resource. Several lumber companies acquired vast tracts of land in what is now Butano SP. A large area in the watershed of Pescadero Creek was known as "The Butano," and was owned by the Western Shore Lumber Company and Mr. T.J. Hopkins. This area generally was centered on Butano Creek. The Butano Development Company owned several private holdings in this area "for subdivision as camp sites" (Lathrop et al. 1928). Land encompassing the watershed of the Little Butano Creek was owned by those individuals described above, as well as extensive holdings by the Pacific Lumber Company.

Early Preservation Efforts

Conservation groups had been lobbying to preserve California's coastal redwoods beginning in the 1880s. This movement had its earliest and brightest victory in the creation of Big Basin Redwoods State Park in 1902. By 1921, the preservation group Sempervirens Club set their sights upon land along Butano Creek, which contained some of the best remaining stands of old growth redwoods in the state. In 1928, a statewide park survey called for the addition of 12,000 acres to Big Basin Redwoods State Park (encompassing Butano Creek). Though timber prices declined over the next few years (and thereby the value of the land), funds were not available for this purchase. As they had in the past, timber prices rose again, and logging activity was renewed in the early 1930s. In 1932, the Save-the-Redwoods League commissioned a study for the potential for a park in the Little Butano Creek area though no land purchases were made. By World War II, the Pacific Lumber Company had purchased a great deal of the property in the area surrounding the valley of Little Butano Creek. Meanwhile, in 1941, San Mateo County planned to purchase 160 acres in what was referred to as the Butano tract (along Butano Creek). The county planned to develop the area for recreation with the assistance of the Civilian Conservation Corps (CCC). This plan did not come to fruition, likely as a result of the war.

Post World War II

Landscape architect Frederick Law Olmsted, Jr., under contract with the state, surveyed the Little Butano area in 1946, recommending that a park not be considered for this region. Olmsted instead urged the acquisition of land in the Butano area. This area was favored by most conservationists, while Little Butano was not. Conservationists had, by this time, placed emphasis not only on saving the old growth redwoods, but also providing easy access to them by the

Lobbying to preserve
the Santa Cruz
Mountains coastal
redwoods began in the
1880s. The Little
Butano Creek area was
first studied for its
park potential in 1932.



large metropolitan areas of the San Francisco Bay area. Conservation efforts, however, were helped by the fact that Butano remained a rugged and relatively inaccessible area, making development difficult. The decline of lumber prices following the end of World War II also assisted in the conservation efforts (DPR 1974:8).

Efforts were again made to purchase the Butano beginning in the late 1940s. Many private groups (perhaps foremost among them the Loma Prieta Chapter of the Sierra Club) sought the establishment of a state park in the area. The State Park Commission was apparently convinced, and planned to acquire 4,500 acres encompassing Butano and Little Butano valleys. The commission set aside funds to purchase sections of the land on a matching basis. San Mateo County agreed to donate their tract of land in the area, known as the San Mateo County Memorial Park (Zimmermann 1948). In 1954, the state appraised 1,040 acres in the Butano area at \$800,000. The owner (presumably the Pacific Lumber Company), however, would not sell for less than \$1,600,000. The State Park Commission prepared to initiate condemnation proceedings. Lacking the support of local counties (San Mateo, San Francisco, and Santa Clara), the Commission began looking at alternate areas, including the Little Butano area (*Sierra Club Bulletin* 1955 January:19).

The Butano Forest Associates was formed to assist the state in acquiring and preserving 5,000 acres of the Butano and Little Butano watersheds. In 1951, the organization agreed to donate \$5,000 in exchange for having a 40-acre redwood grove named for their organization. Apparently, the Division of Beaches and Parks agreed, and accepted the money. The first acquisition was made in 1956, consisting of 320 acres of government land. Soon thereafter it was designated "The Butano." Olmo's property, including their residence, was deeded to the state on March 31, 1958. In 1959, the state had acquired a total of 1,900 acres. Much of this land had already been logged extensively, and those trees remaining were primarily second growth. The park was not open to the public until many years later, when facilities were completed.

A request for \$336,489 was made in the 1962/1963 budget for the first phase in the development of a 90-unit campsite in the new park. The first campground included 40 units with a graded dirt road, water system, and a single comfort station. In 1961, Benjamin Ries, Park Supervisor of the newly formed Butano SP, was killed in an accident at the park. Soon thereafter, the campground was named in his honor. Plans were made for many more campgrounds, along with improved roads, trails, comfort stations, combination

buildings, and electricity. The road through the park to the campground was completed in 1964 (with a bridge over the creek constructed that year). Overhead power lines were finally installed in 1967. By 1980, the park contained 2,186 acres.

Built Features Within the Park

The following is a list of known historical-period resources within Butano SP. (See also **Figure 11**). These resources require further evaluation and recordation to determine the appropriate treatment and protective measures.

Historic Structures

Three existing buildings were acquired as a part of the creation of Butano SP. Each was originally a residence (Park Residence #1, and #2, and Park Office/Shop).

Park Residence #1 is described below under *Historical-Period Archaeological Resources*.

Park Residence #2 (Storage Shed)

This building was constructed by the Olmo family in the early 1920s, adjacent to their main residence. The shed was originally used as a summer kitchen. The property was deeded to the state in 1958 and was remodeled in 1963.

Park Office/Shop

Built in the early 1920s for the Peninsula Farms, this building was part of 3.86 acres of land purchased by Joseph Bacciocco in 1926. The building served as the residence for Bacciocco's caretaker, Hans Carlson. Carlson was an early resident of the area, and lived in this building from 1936 to 1952. It was used as a park office and shop following state acquisition. Three rooms were apparently built onto the original structure in 1936. Bacciocco himself lived in the main residence (Residence #1).

Historical-Period Archaeological Resources

Several areas of historical-period occupation no longer contain standing structures. Because of the nature of their occupation, however, there are likely to be archaeological remains. Though by no means a complete list, the following sites are likely to contain buried resources.



Park Residence #1

This building was referred to as the lower residence, and was located approximately 250 feet from the main park road. It was apparently built in 1920 by the Peninsula Farm Corporation for use by managers of the operation. The property was acquired by Joseph Bacciocco in 1925 for \$5,000. This was Bacciocco's main residence, which he used as a retreat and for entertaining during Prohibition. The building, together with 404 acres, was purchased by the state in 1957 from Bacciocco for \$120,000. The building was dismantled in 1979 due to extensive wood rot and termite damage. Archaeological remains may exist, however.

Jackson Flats

Individual homesteaders arrived in Little Butano Canyon beginning in the 1860s, the first being William Jackson, who filed on 160 acres of land in 1861. Jackson built a small house in the heart of his property, on the north side of the canyon. The family lived on this property through the late nineteenth century, at which point some of the children moved further upstream.

Goat Hill

In the early 1860s, E.P. Mullen homesteaded this area, establishing a goat ranch on the property. Mullen's daughter continued to live on the ranch with her husband, William M. Taylor. They constructed several structures on the property. There are nine buildings depicted in the area of Goat Hill on the USGS topographical map of the Año Nuevo quadrangle in 1943. These were likely owned by Olmo by this time, and may represent the various structures built by Peninsula Farms and Olmo, as well as Mullen. This is also where Park Residence #2 is located. Archaeological remains from these buildings are likely.

Timber Harvest Resources

Taylor Shingle Mill

In 1873, William Taylor built a shingle mill on the south bank of Little Butano Creek. Taylor partnered with William Jackson, and the two operated the mill for almost ten years. There are no standing buildings or structures remaining, but archaeological resources are likely to be present.

Gazos Sawmill

A sawmill located in the clearing adjacent to the Gazos Mountain Camp was constructed sometime in the 1870s and



operated for decades at this site. Though no buildings or structures remain, there are likely archaeological resources remaining from this occupation.

Other features

A small mill site that once contained a steam donkey engine is located along a ridgeline above Little Butano Creek. This site requires further evaluation and recordation to determine the appropriate treatment and protective measures.

Transportation Features

Stage routes

Several stage routes in the late nineteenth century served the small community of Pescadero. During inclement weather, alternate routes passed through what is now Butano SP, following some of the same routes used by the Native California Indians, including Little Butano and Gazos ridges. These routes still retain roads today, largely following the ridgelines through park property.

Landing Strip

A large dirt landing strip is located along a ridgeline above Little Butano Creek. The history of this feature is unclear, though it was in place by 1955 at the latest. It was allegedly one of three emergency landing fields associated with a squadron of P-40 fighters based in Half Moon Bay during the opening months of World War II. The landing strip has not been used for many years and its significance appears to be limited according to previous evaluations.

Flume

The existing wood flume located along the lower reaches of Little Butano Creek within the current park boundary was apparently constructed by a manager of the Peninsula Farms subdivision in the 1920s. It has been restored in recent years by agricultural operators who have leased agricultural land outside the park boundary from the Peninsula Open Space Trust, which owns the water rights for Little Butano Creek. The agricultural lessees operate the dam and flume diversion system, which is a gravity-flow system.

Museum Collections

The museum collections at the park are informal and consist of a variety of objects and photographs related to the park's cultural and natural history, including taxidermied animal



specimens and miscellaneous natural history objects. These objects are located in the visitor center. Natural and cultural history reference books are located in the park office.

AESTHETIC RESOURCES

Scenic Resources

Scenic resources often provide a unique sense of place to an individual park, as well as to specific areas within a park unit. Scenery has been defined as the general appearance of a place and the features of its views or landscapes. It consists of biophysical elements (landforms, water, and vegetation) and cultural, or manmade, elements. Scenic quality is an important and valuable resource, especially on public lands. Many people value the quality of the scenery and have high expectations of scenic quality, especially when visiting California's State Parks. Butano SP has been recognized for its natural beauty and outstanding scenic qualities.

The primary visual resources of Butano SP are the views inside the park, especially of majestic redwood trees, and the spectacular vistas of the surrounding rugged terrain of the Santa Cruz Mountains and the coast from the park's higher elevations. These are the special scenic resources that provided part of the motivation to preserve this inspiring landscape.

The visual quality of this area is very important not only for visitors to the park, but also on a local, regional, and state level, as indicated in local and regional land use plans (such as the San Mateo County General Plan and Local Coastal Program), and the state scenic highway designation of Highway 1. Views from major roads to, near, and within the park are how many people experience this landscape. Consequently, the enhancement, preservation, and protection of scenic quality are important public issues in this region.

Overview of Scenic Character

Highway 1 and several local roads serve as gateways to the park. The scenic resources along Highway 1 in this vicinity are considered to be of high quality. While driving toward the park visitors can see a variety of terrain, land uses, and vegetation. Rich contrasts between wide marine terraces, high ridges, the ocean, and dry chaparral areas near lush forests add visual diversity to the scenery.



The path to the campfire center passes through quiet redwood forest typical of the campground area of the park.

The western side of the Santa Cruz Mountains is heavily influenced by marine weather patterns. Summer fog can produce a cool, misty, and quiet quality to the coastal areas, occasionally reaching into the park's canyons and redwood forest. Along with a variety of weather conditions (such as fog, wind, and rain), the changing seasons contribute to a transformation of vegetation in form, texture, and color. The most noticeable are the seasonal displays of wildflowers and the changing colors of deciduous vegetation and grasses which are especially pronounced in the autumn and spring.

Butano SP has a wide variety of scenic resources. The park is located away from the immediate coast with the bulk of its property situated between two high ridges of the Santa Cruz Mountains. On its western side, gentle grassy slopes near the park entrance represent the transition from coastal terrace to mountainous terrain and offer visual relief from the hills and steep slopes in and around the park. Past the park's visitor contact area visitors are immediately immersed in a towering, shady redwood forest deep in a canyon. Traveling east from the campground on park trails, the landscape gains elevation and changes from a densely-vegetated riparian environment to open forest on rugged, dry slopes. A typical hike starts by a meandering creek in a lush riparian corridor, travels upslope through mixed evergreen forest on a steep hillside displaying a variety of forms, textures, and colors, and finally passes through an open canopy of knobcone pine forest where it intergrades with dense stands of mixed chaparral in the upper reaches of the park. From the slopes and the high overlooks on the east side of the park visitors have spectacular views of the Pacific Ocean to the west as well as views of the eastern peaks and surrounding foothills of the Santa Cruz Mountains.

Scenic Qualities of Three Park Environments

There are a variety of scenic elements throughout the park, three of which have important scenic characteristics: the redwood forest; lush riparian areas along the park's creeks; and the views from the uplands of the mountainous terrain within and surrounding the park, along with glimpses of the Peninsula Open Space Trust's Cloverdale Coastal Ranches to the west of the park entrance and the ocean beyond.

The Redwood Forest

In general, the park's redwood forests are located along the cooler, wetter north- and east-facing slopes of the creek drainages. The Ben Ries Campground gives visitors the opportunity of having a more complete experience of the redwood forest environment during both day and night.

Visitors can walk on several trails that take them through redwood/Douglas-fir-forested areas. Although the forest is densely shaded, glimpses of the sky can be seen through a canopy of green. When sunlight streams through the upper branches it can give the atmosphere a cathedral-like quality. The understory vegetation provides a variety of textures, forms, and colors to the landscape. Changing weather conditions contribute to the scenic qualities of the redwood forest.

Most of the facilities and structures in the park, situated in lower elevations and in redwood-forested areas at the base of the canyons, complement its scenic qualities by harmonizing with the natural environment, primarily through the use of natural/native building materials (primarily stone and wood), siting structures and other facilities unobtrusively within the trees, and the use of dark brown colors to blend with the existing landscape.

Riparian Areas Along Little Butano and Gazos Creeks

Butano SP contains the upper reaches and canyon of the Little Butano Creek watershed and a long section of the Gazos Creek watershed and canyon. These creeks support locally dense riparian environments with a mix of vegetation that displays an ever-changing variety of color, form, and texture throughout the seasons.

Park Views

Butano SP offers views of the rolling, tree-covered mountainous terrain within and surrounding the park as well as glimpses of the ocean to the west from upper elevation overlooks along trails and fire roads.

In addition, the core area of the Cloverdale Coastal Ranches is visible from the west side of the park. The ranch buildings are situated in a low, flat grassy area surrounded by steep slopes which creates a beautiful setting for these structures.

Auditory Resources

The predominant sounds at Butano SP are natural ones, of wind in the trees, bird calls, and moving water. The park does not have flow-through vehicle traffic and is situated far from Highway 1 to the west, so traffic noise is limited to those relatively few vehicles traveling between the entrance, campground, and picnic areas.



A scenic view to the adjacent Cloverdale Coastal Ranches.



INTERPRETATION AND EDUCATION RESOURCES

Current Regional Interpretation

The regional interpretive study area includes park units from San Gregorio SB in the north to Lighthouse Field SB in the south and from Año Nuevo SP in the west to Castle Rock SP in the east. Within this area there are six State Beaches, two State Historic Parks, seven State Parks, and a number of county parks and open space preserves. This area was chosen to reflect common park visitor access routes along the coastal Highway 1 and the interior Highways 9 and 236.

The major interpretive resources in the regional interpretive study area include redwood ecology, logging, preservation, and recreation; coastal and sustainable agriculture and ranching; maritime exploration and commerce; marine mammals; tidepools; wetlands; Native California Indians; the Santa Cruz Mission; endangered species; and geology.

Following is a list of interpretive centers in the regional study area with their current interpretive focus:

- **Año Nuevo State Park:** elephant seals and other marine mammals, rocky shore and dune ecology, the Ohlone, Spanish exploration, dairy ranching, maritime history
- **Big Basin Redwoods State Park:** redwood ecology, homesteading, logging, preservation and recreation; geology; plant communities; animal adaptations; the Civilian Conservation Corps
- **Butano State Park:** plant communities, nocturnal animals, amphibians
- **Henry Cowell Redwoods State Park:** redwood ecology, logging, and preservation
- **Memorial Park, San Mateo County:** redwood ecology
- **Natural Bridges State Beach:** coastal ecology and geology, monarch butterflies
- **Pigeon Point Light Station State Historic Park:** the lighthouse, the keepers house, the Fresnel lens, the many shipwrecks, and other places to visit
- **Portola Redwoods State Park:** redwood ecology
- **Skyline Ridge/Russian Ridge, Midpeninsula Regional Open Space District:** pond ecology



- **Santa Cruz Mission State Historic Park:** California Indian experience at the mission, secularization of the mission, early American history at Santa Cruz
- **Wilder Ranch State Park:** coastal dairy ranching, ranch history, and the park's plant communities and the animals that live in them

Area interpretive techniques also include campfire programs, self-guided trails and interpretive panels, and staff or docent-led hikes and programs in many of the parks of this area. New exhibits are currently planned for Año Nuevo SP (Marine Education Center), and Castle Rock SP. Pescadero State Beach's Pescadero Marsh Natural Preserve has a marsh boardwalk to interpret this coastal wetland.

The Peninsula Open Space Trust (POST) has developed trailside kiosks, in conjunction with California State Parks, at Cloverdale Coastal Ranches near Pigeon Point. The kiosk panels interpret light station history and area natural history. POST also plans to interpret habitat restoration, California red-legged frogs, and San Francisco garter snakes on other trailside panels. POST partners are providing education programs at the Cloverdale Coastal Ranches on sustainable agriculture and wildlife tracking.

Current Park Interpretation

Butano SP has a modest interpretive program suitable to a relatively small park with largely summer use patterns.

Interpretive Facilities

A relatively new visitor center is located at the park office structure and includes an information and sales counter, exhibits, and a relief map. The exhibits cover the following topics: the park's plant communities (knobcone pine and fire, Douglas-fir, grassland, oak woodland and fungi, redwood forest and logging history, alder woodland and lichens), nocturnal animals (bats, ringtail, and owls), the banana slug, the marbled murrelet, amphibians, ferns, the bobcat, and California Indian use of elderberry.

There are outdoor interpretive panels at two locations in the park: a panel on redwoods in the walk-in section of the campground, and a panel on newts located in the picnic area. A campfire center is located near the campground.



The visitor center displays mainly highlight the park's natural history.

Interpretive Programs

Interpretive programs include guided nature walks, Junior Ranger programs, roving interpretation about marbled murrelet conservation, and campfire programs. Girl Scout and Boy Scout troops and other organized groups often participate in the nature walks and Junior Ranger programs.

Educational Programs

The park provides school group programs on a by-request basis, provided a staff person or docent is available to lead the program. The estimated average number of programs is two per year. Most groups that request programs are in the grade 4-6 range. The program topic depends on the needs of the requesting educator. The most common topics are redwood ecology and riparian habitat issues.

RECREATION RESOURCES

Since the original acquisition of the land that established Butano SP, the general pattern and intensity of visitor use has been moderate day use picnicking, hiking, and drive-in and walk-in camping near Little Butano Creek. Low intensity trail use and trail camping are the primary recreation activities in the backcountry area.



A trail camp is available for overnight stays in the backcountry.

Visitor Support and Orientation

Visitor support includes facilities such as visitor centers, campgrounds, picnic areas, restrooms, day use parking areas, and trailheads. These facilities serve the needs of park visitors and enhance their experience in the park. The park has a well-defined main entrance and arrival point from Cloverdale Road. Vehicular access to visitor facilities located in the forested Little Butano Creek watershed are connected to the main entrance. A secondary road, Gazos Creek Road, provides access to the Gazos Mountain Camp area in the adjacent Gazos Creek watershed to the south. The Gazos Mountain Camp is a developed area that includes a meadow, lodge, cabins, classrooms, restrooms with showers, parking, and picnic facilities. The nonprofit Pescadero Conservation Alliance is currently renovating the area for use as an environmental education and field research facility.

Trail Use

Trail use in Butano SP is a main recreation activity and the primary way to explore the various areas of the park. The trail network includes hiking-only trails and trails managed and



maintained as multi-use (designated for hiking, mountain biking, and equestrian use), as well as providing a variety of experiences in the park's many natural environments (see **Table 2-3**). This trail network (approximately 26 miles) also provides connections to the Santa Cruz Mountains and coastal natural lands and open space areas that include other state parks and public open space properties.

Camping

Camping is a recreation activity that has been offered since the establishment of the park. The Ben Ries Campground is a small drive-in and walk-in campground located within a redwood forest containing healthier and more developed understory vegetation than some of the larger campgrounds found at other nearby state parks. It is an important overnight facility in the regional network of campgrounds. Interpretive programs are provided at the nearby campfire center and the park's visitor center.

There is a hike-in trail camp located on an inland ridgetop area which offers an alternative experience to the enclosed quiet redwood forest ambience of the Ben Ries Campground. This trail camp is part of a larger regional network of trail camps located in the Santa Cruz Mountains.

The nearest state park campgrounds in the region are north on Highway 1 at Half Moon Bay SB and south on Highway 1 at the Rancho del Oso campground in Big Basin Redwoods SP. Additional inland regional forested campgrounds are available at Big Basin Redwoods SP, Portola Redwoods SP, and Henry Cowell Redwoods SP. There are also coastal campgrounds at New Brighton SB, Seacliff SB, and Sunset SB near Santa Cruz. Costanoa, a private resort along Highway 1 adjacent to Año Nuevo SP, offers a variety of overnight accommodations including tent cabins, RV campsites, and equestrian campsites.

There is growing interest and demand for alternatives to traditional tent camping as the average age of the general population increases. Such alternative facilities include cabins, tent cabins, and yurts that allow park visitors to enjoy overnight stays without having to set up camps or invest in camping gear. These alternatives would also provide additional accommodations for visitors with special needs and accommodations for overnight park visits outside of the traditional summer peak season (especially during variable weather conditions).

Park managers will need to adapt recreation opportunities in response to changing demands as the park's visitor demographics evolve, while preserving the park's essential character and resources.

As nearby Bay Area and park visitor demographics continue to evolve, recreation in Butano SP will need to respond to those demographic changes while still preserving the park's vital and character-defining resources. This may include adding group facilities or converting some existing day use and overnight facilities to group use for visitors who prefer recreation with more social interaction. To accommodate demographic changes and recreation preferences, clusters of nearby state parks in a region may also be managed in such a way to identify those parks with greater opportunities or facilities for group or other specialized uses, while other parks are identified for more individual or family use. Butano SP may be a park unit that is more appropriate for the more traditional individual family use because of the limited additional development areas due to the park's rugged terrain and site constraints.

Emerging Recreation such as Geocaching

Geocaching is a new and developing sport where participants use global positioning system (GPS) receivers to locate caches hidden in various locations by other GPS users. The GPS coordinates of the caches are posted on the internet so that other GPS users can find the caches. Once found, a cache may provide the visitor with various rewards—from trinkets to pointing out an exceptional view seen from that particular location. Participants are urged by geocache advocates to practice the sport in an honorable and non-destructive manner. Laws, policies, and guidelines are in place in both National and State parks which provide park managers authority to manage activities such as geocaching. As this type of sport gains in popularity and concerns for geocache activity near sensitive resource areas increase, park managers may need additional resources and direction. California State Parks is currently developing statewide guidelines specific to geocaching activity. Approximately ten known geocache sites are currently located within the park, most in the backcountry adjacent to existing trails.

2.5 PARK SUPPORT

There are volunteer groups, nonprofit agencies, advocacy groups, and cooperative associations that assist with operations, maintenance, and interpretation at the park. Typical park support activities include trail patrols and maintenance, special events, interpretive programs, facility



maintenance, habitat restoration, and land acquisition. Approximately ten volunteer docent naturalists support interpretive programs at Butano SP and approximately 35 Butano trail volunteers work out of a small park building dedicated to trail improvement in the park.

The **Pescadero Conservation Alliance (PCA)** is a nonprofit organization whose purpose is to restore the ecological health of the San Mateo coast. The PCA has been renovating the former Gazos Mountain Camp facilities for use as a field research station and outdoor environmental education facility with the goal to integrate environmental education activities with real-world projects in environmental research, restoration, land stewardship, and community cooperation.

The **San Mateo Coast Natural History Association** supports volunteers and staff who provide educational and interpretive activities to park visitors and provides items such as maps and books for the public in the visitor center.

The **Santa Cruz Mountains Bioregional Council** is a nonprofit public benefit corporation whose purpose is to conserve native plant and animal biodiversity in the Santa Cruz Mountains Bioregion. The Bioregional Council works to preserve and restore native plant and animal biodiversity and processes through information sharing, coordinating activities, fostering biological research, initiating land conservation and habitat enhancement projects, and supporting public education. Council members include individuals from state and federal resource management agencies, local governments, land trusts, open space districts, educational institutions, conservation groups, and private properties.

The **Save-the-Redwoods League** contributes to the permanent protection of redwood forest, funds environmental restoration, supports research to expand knowledge about the redwood forest, and educates the public about the redwoods and the redwood forest ecosystem.

The **Sempervirens Fund** works closely with California State Parks to preserve and protect the natural character of the Santa Cruz Mountains and encourages public enjoyment of this environment. The Fund purchases threatened redwood forest lands in the Santa Cruz Mountains region and fosters public participation in activities such as reforestation and trail projects.

The **Trail Center** provides and promotes non-motorized trail opportunities in San Mateo, Santa Clara, Santa Cruz,



Alameda, and San Francisco counties. Trail Center volunteers have provided support for a trail on a southern portion of the existing Olmo Fire Road, extending approximately 1.5 miles from the Goat Hill vicinity to connect to Gazos Creek Road and Año Nuevo SP.

The **Wildlands Restoration Team**, a volunteer-based organization dedicated to preserving the rich biodiversity of the Santa Cruz Mountains, has removed exotic vegetation from the park.

2.6 PLANNING INFLUENCES

Planning for California State Parks must be extensive to consider issues that cross statewide, regional, and local boundaries. Federal, state, county, and community agencies are responsible for providing oversight and review of various planning-related policies and laws. Additionally, local planning information is essential in assisting California State Parks with relevant information regarding natural, cultural, recreational, and aesthetic resources, existing land uses, and education and interpretation programs pertinent to the park.

The following systemwide, regional, and regulatory planning influences were considered in developing the General Plan guidelines.

SYSTEMWIDE PLANNING

Systemwide planning improves the ability of the Department to fulfill its mission by establishing policies, methods, and guidelines for managing state-owned park land. This enables the Department to apply a more consistent approach to implement various aspects of park planning, preservation, development, and operation throughout the park system. It is the intent of this General Plan to be consistent and current with the Department's systemwide planning and policies. The following are elements of those systemwide planning policies, procedures and guidelines.

Public Resources Code

In addition to the State Constitution and Statutes, California Law consists of 29 codes covering various subject areas (*California Code of Regulations*). The California Public Resources Code (PRC) addresses natural, cultural, aesthetic, and recreational resources of the state. PRC sections 5019.50



to 5019.80, Classification of Units of the State Park System, provide guidelines for the designation of state park units and guiding principles for state park improvements. The PRC also classifies different types of state park improvements of park units.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires state and local agencies to regulate activities with consideration for environmental protection. If a proposed activity has the potential for a significant adverse environmental impact, an Environmental Impact Report (EIR) must be prepared and certified as to its adequacy before taking action on the proposed project. General plans require a Programmatic EIR, and park development projects require appropriate environmental review, which may include an EIR.

California Department of Parks and Recreation Administrative Manual

The *Department Administrative Manual* provides the policies and procedures by which California State Parks function. Departmental manuals are intended to contain general matters of policy and procedure. When there is information and specifications too lengthy to include in a manual these more detailed materials will be prepared and issued in the form of handbooks, with each handbook devoted to a single topic (such as planning or trail maintenance).

California Department of Parks and Recreation Operations Manual

The *Department Operations Manual* (DOM) provides the policies and procedures that are pertinent to the operation of the State Park System. It is intended as a working document for Department personnel.

Section 0300, Natural Resources

The DOM Section 0300, Natural Resources, is the basic natural resource policy document for the State Park System. The policies, definitions, processes, and procedures contained in this chapter guide the management of the natural resources under the jurisdiction of the Department of Parks and Recreation, including naturally occurring physical and biological resources and associated intangible values, such as natural sounds and scenic qualities. These policies, definitions, processes, and procedures amplify the legal codes in the PRC, the California Code of Regulations, and the

California State Park and Recreation Commission's Statement of Policies and Rules of Order as they pertain to the natural resources of the State Park System.

Section 0400, Cultural Resources

The DOM Section 0400, currently under revision, will be the basic cultural resource policy document for the State Park System. Until it is complete, Section 1832 of the Resource Management Directives (California Department of Parks and Recreation 1979b) and the Cultural Resources Management Handbook (California State Parks 2001a) provide the policies, definitions, processes, and procedures to guide the management of cultural resources under the jurisdiction of the Department, including prehistoric and historic archaeological sites, historic buildings, features and landscapes, and Native California Indian cultural resources. These policies, definitions, processes, and procedures highlight the legal codes in the PRC, the California Code of Regulations, State Historic Building Code, the Secretary of the Interior's Standards, a Memorandum of Understanding between California State Parks and the Office of Historic Preservation, Executive Order W-26-92, and the California State Park and Recreation Commission's Statement of Policies and Rules of Order as they pertain to the cultural resources of the State Park System.

The Accessibility Guidelines detail procedures to make the park accessible to all visitors, while maintaining the quality of park resources.

California State Parks Accessibility Guidelines

The Americans with Disabilities Act (ADA), the federal law that prohibits discrimination on the basis of disability, is applicable to all programs, services, and activities by the state, including the preparation of state park general plans. In compliance with the ADA, the Department published the *California State Parks Accessibility Guidelines* in 2005, which were first issued in 1994. The Guidelines detail procedures to make state parks universally accessible while maintaining the quality of park resources. The Department has also published *All Visitors Welcome: Accessibility in State Park Interpretive Programs and Facilities* (California State Parks 2003b), which provides guidance on developing accessible interpretive programs and facilities.

The Department's *Transition and Trail Plans for Accessibility in State Parks* (California State Parks 2001b) outlines its commitment to achieve programmatic access throughout California State Parks. This vision is embodied in the Butano SP General Plan.



California Recreational Trails Plan

The *California Recreational Trails Plan (Phase One)* (California State Parks 2002c) addresses the mission and overall role of the California State Parks Statewide Trails Office as well as provides guidelines for future actions of the Statewide Trails Office. The mission and vision of the Statewide Trails Office is to “. . . promote the establishment and maintenance of a system of trails and greenways that serves California's diverse population while respecting and protecting the integrity of its equally diverse natural and cultural resources. The system should be accessible to all Californians for improving their physical and mental well-being by presenting opportunities for recreation, transportation, and education, each of which provides enhanced environmental and societal benefits.”

The *California Recreational Trails Plan* serves as a guideline for establishing and maintaining trails in California and integrates the Department's trail programs with local government agencies and private organizations that operate and maintain the trails. The *Trails Plan*, the *Trails Policy*, and the *Trails Maintenance Handbook* serve as planning and maintenance guides for trails within the park system.

California State Park System Plan

The *California State Park System Plan* describes both the challenges that face the State Park System as well as the goals, policies, objectives, and proposals for new programs and initiatives needed to guide the State Park System.

Systemwide Concessions Policies

The Department partners with a variety of businesses, nonprofit organizations, and public agencies through concession contracts, cooperative agreements, and operating agreements to offer the public goods and services. How these opportunities are made available to the public is regulated by the *California Public Resources Code*, Section 5080 et seq.

REGIONAL PLANNING

Consideration of regional planning influences is important for any park plan because it enables planners to anticipate and coordinate with regional planning efforts and issues that affect the park. For this General Plan, planning considerations include the region around Butano SP, Año Nuevo SP, Big Basin Redwoods SP, Portola Redwoods SP, and Castle Rock SP, as well as the northern boundary of Henry Cowell Redwoods SP.

Butano SP is integrated within a regional landscape of open space recreation areas, habitat preservation areas, and recreational trail networks. Consideration is also given to major access routes traveled by most visitors as well as connections to other regional recreation destinations.

Butano SP is part of the region's chain of parks and open space areas, and like these many other public and private open space ownerships, the park plays an important role in preserving natural and cultural resources and providing recreational opportunities and facilities. A number of non-governmental organizations, such as the Peninsula Open Space Trust, the Sempervirens Fund, and The Trust for Public Land, have also been acquiring property along the southern San Mateo and northern Santa Cruz coast with the intent of preserving it in perpetuity as open space.

Policies and recommendations of existing regional planning documents that are most pertinent to planning for Butano SP are summarized below.

Regional Plans and Programs

San Mateo County General Plan and Local Coastal Program

The 1986 San Mateo County General Plan calls for preservation of agricultural lands for agricultural use, protection of native habitats, animals and plants, and protection and enhancement of the natural visual quality of county lands. It proposes the continued provision of recreational lands for the "physical, mental, and spiritual quality of life of San Mateo County residents." It also defines what the County would like California State Parks' role to be:

- "...to give priority to developing existing facilities."
- "...to provide park and recreation facilities of statewide significance."
- "...to be "the principal agency to acquire, develop and maintain Coastal beaches."

The San Mateo County General Plan lists land use objectives for rural areas as: a) preserve natural resources; b) provide for the managed productive use and monitoring of resources; c) provide outdoor recreation; and d) protect public health and safety.

The 1998 San Mateo County Local Coastal Program (LCP) offers specific policies in support of the general policies of the 1986 San Mateo County General Plan. The LCP is focused on



the Coastal Zone within the county. The LCP describes the Local Coastal Program as "...a comprehensive set of land use policies for the Coastal Zone in order to meet the requirements of the California Coastal Act of 1976. These policies encourage the development of recreation-oriented, visitor-serving facilities and the concentration of new development within rural service centers, while providing the maximum protection of access to beaches, the preservation of scenic values, and the protection of agricultural lands." All development in the Coastal Zone requires either a Coastal Development Permit or an exemption from coastal permit requirements.

The following are summaries of the San Mateo County LCP policies that relate to California State Parks' planning process:

- The Coast Highway south of Half Moon Bay, Cloverdale Road, and Gazos Creek Road (from Highway 1 to Cloverdale Road) are designated as Scenic Roads which affords them high levels of scenic protection.
- Priority is given to visitor-serving and commercial recreation facilities on designated Mid-Coast lands and throughout the South Coast over private residential, general industrial or commercial development but not over agriculture or coastal-dependent industry.
- California State Parks is encouraged to give priority to the Mid-Coast (Gray Whale Cove, Montara, and Half Moon Bay State Beaches) for the development of public recreation facilities. Require new development of South Coast recreation facilities to be phased in accordance with a long-range development program that gives priority to development of Mid-Coast facilities.
- Support a trails program that connects recreation facilities along the coast and which connects coastal and inland recreation facilities.
- The Gazos Creek Coastal Access to Butano SP Trail (via Gazos Creek Access Road) is designated as a Local Coastal Program Trail.
- California State Parks is encouraged to prohibit overnight RV parking in State Parks parking lots.
- California State Parks is designated as the primary agency for the acquisition, development and maintenance of public recreation and visitor-serving facilities (including the Pacific Ocean Corridor Trail) in the Coastal Zone.

- Non-impacting recreational facilities and uses can locate on agricultural land if in compliance with conversion policies from the Agricultural Component of the county General Plan. Non-impacting recreational facilities and uses can exist next to agriculture if separated by a barrier and if structures are visually compatible with the agricultural areas.
- Developments must comply with sensitive habitat policies while not substantially altering the natural environment or interrupting views.
- As feasible, California State Parks is required to remove pampas grass and invasive brooms from its lands.

Cloverdale Coastal Ranch Plan



Peninsula Open Space Trust's Cloverdale Coastal Ranches property shares a boundary with Butano SP.

The Peninsula Open Space Trust (POST) acquired the 5,638-acre Cloverdale Coastal Ranches, west of Butano SP, in 1997 when it was the largest undeveloped and unprotected property on California's central coast. It is an important element in the central coast open space network. In 1998 POST completed an integrated management plan, the Cloverdale Coastal Ranch Plan. The vision of this plan is to provide a new interdependent land stewardship and preservation system as well as demonstrate the integrated and healing relationship of nature and human culture. The elements of this vision include sustainable agricultural practices and communities, restored natural coastal ecosystems and landscapes, and a range of recreational and educational activities that are in harmony with the land. Goals in the plan include: open space and recreation connectivity with Butano SP and Año Nuevo SP; creation of beach access and trail corridors; protection of scenic views from public road and trails; prevention of development; continuation of private agriculture; and protection of sensitive habitats and natural areas. POST will seek to accomplish its vision and goals through a variety of partnerships with land owners and managers, funding partners, volunteer partners, and education and research partners. Community involvement is an important part of the Cloverdale Coastal Ranch Plan programs.

Master Plan for the Coast Redwoods, Santa Cruz Mountains Redwood Conservation Strategy

The Master Plan for the Coast Redwoods is a document developed by the Save-the-Redwoods League to provide a science-based conservation strategy for the entire coast redwood ecosystem and guide the League's conservation program. A regional plan focuses on the League's

conservation strategy specifically for the Santa Cruz Mountains coastal redwood forests. The objectives of this plan are to identify priorities for stewardship, restoration, and acquisition. The Master Plan gives the League a context to evaluate and prioritize conservation actions and to identify conservation partners and opportunities for collaboration. As identified in the League's master plan, the greatest stresses to the redwood forest community are habitat loss and fragmentation, and the loss of old-forest components.

California Wildlife: Conservation Challenges (California Wildlife Action Plan)

This document, the state's wildlife action plan, was developed and produced as a collaboration between CDFG and the Wildlife Health Center at the University of California, Davis. It is a comprehensive wildlife conservation strategy that addresses wildlife and habitat issues in all of California's ecological regions. Regional chapters, such as the Central Coast, describe the problems and threats that may adversely affect wildlife and their habitats. The threats identified for the central coast region are growth and development; intensive agriculture; excessive livestock grazing; water management conflicts and degradation of aquatic ecosystems; recreational pressures; and invasive species.

Recommended region-specific conservation actions that are pertinent to California State Parks and Butano SP are found in the Central Coast Region chapter. Some of these conservation actions include working to protect large, relatively unfragmented habitat areas and wildlife corridors; protecting sensitive species and important wildlife habitats; working to restore fish passage in aquatic systems important for anadromous and wide-ranging fish populations; and providing resources and coordinating efforts to control existing occurrences of invasive species and prevent new introductions.

Midpeninsula Regional Open Space District Master Plan and Regional Open Space Study

The Midpeninsula Regional Open Space District's (MROSD) Master Plan (1992) and Regional Open Space Study (1998) guide their open space preservation efforts. The master plan sets forth guidelines for MROSD acquisitions and shows the relative desirability of potential open space land acquisitions for the purpose of "preserving a regional greenbelt along the crest of the hills along the San Francisco peninsula." The regional open space study shows the general extent of lands and public access improvements (both existing and under



consideration) to complete the MROSD's greenbelt mission. Both documents are submitted to the counties, cities, and other conservation-oriented local, state, and federal agencies and organizations for review and comment in order to encourage coordination with their planning and policies.

The MROSD can provide locally based, long-term stewardship of some lands and offer easement opportunities to willing sellers for agricultural lands. Over the next 15 years, the MROSD anticipates it could purchase or manage approximately 11,800 acres of land within the entire Coastside Protection area. The MROSD promotes watershed protection and is involved in regional recreation planning efforts such as the Skyline-to-the-Sea Trail, the Bay Trail, and the Bay Area Ridge Trail.

Coast Dairies Long-Term Resource Protection and Access Plan (February 2004)

The Coast Dairies property, over 6,800 acres of northern Santa Cruz County coastal dairy ranch land, is the centerpiece of a regional network of conservation open space, providing opportunities for regional trail development and other recreational linkages, such as beach access. California State Parks has acquired approximately five miles of coastal bluff property and seven acres of inland property. The remainder of the inland property is expected to be transferred to the BLM and a nonprofit group.

A collaborative effort by California State Parks, BLM, TPL, and the Santa Cruz community, the Coast Dairies Plan is a broad planning document and management plan. All transferred property will be managed in accordance with the Coast Dairies Plan. The plan's vision is to preserve the distinctive character and resources of the area which is marked by the interface of the natural rugged coastline, sandy pocket beaches, coastal marine terraces, pastoral grasslands, densely forested upland and riparian corridors, and the developed uses of coastal agriculture, mining, Highway 1, and the town of Davenport. The Coast Dairies Plan provides broad direction and guidance on managing and protecting natural and physical resources, visitor use, and development on the property.

REGULATORY INFLUENCES

There are a number of agencies involved in planning or regulatory authority in this region. A portion of Butano SP is within the coastal zone and is under the jurisdiction of the San Mateo County Local Coastal Program (see **Figure 7**, Coastal



Zone). The coastal zone designation regulates development activities and use intensity that could have implications for park development and visitor use. The park also spans areas regulated by various air and water quality boards and regional planning agencies. These regulations are also considered in the park's planning and management decisions.

California Coastal Commission, Central Coast District

The California Coastal Commission was established by voter initiative in 1972 and made permanent by the Legislature through adoption of the California Coastal Act in 1976. The Coastal Commission, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone. Development activities, which are broadly defined by the Coastal Act to include (among others) construction of buildings, division of land, and activities that change the intensity of use of land or public access to coastal waters, generally require a coastal permit from either the Coastal Commission or the local government.

The California Coastal Commission jurisdiction in the coastal zone applies to all private and public entities. It covers development activities, including any division of land, a change in the intensity of use of state waters, and of public access to them. The Coastal Act includes specific policies (see Division 20 of the PRC) relating to such activities as public access and recreation, lower cost visitor accommodations, terrestrial and marine habitat protection, visual resources, landform alteration, agricultural lands, water quality, transportation, development design, and public works.

For all non-federal projects at Butano SP within the coastal zone, compliance with the Coastal Act is administered through a Local Coastal Program by the county (see San Mateo County General Plan, Local Coastal Program).

State Water Resources Control Board

The watersheds within Butano SP fall under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (Butano Creek, Little Butano Creek) and the Central Coast Regional Water Quality Control Board (Gazos Creek, Arroyo de los Frijoles Creek). The Regional Water Quality Control Board (RWQCB) has regulatory authority in regard to water quality at the park. The mission of the RWQCB is to develop and enforce water quality objectives and implementation plans which will best protect the beneficial uses of the state's

waters, recognizing local differences in climate, topography, geology, and hydrology.

The Regional Water Quality Control Boards fall within the oversight of the State Water Resources Control Board (SWRCB). The mission of the SWRCB is to ensure the highest reasonable quality of waters in the state, while allocating those waters to achieve the optimum balance of beneficial uses. The joint authority of water allocation and water quality protection enables the SWRCB to provide comprehensive protection for California's waters.

California Air Resources Board, Bay Area Air Quality Management District

The California Air Resources Board (ARB) regulates emission sources and oversees the activities of the local Air Pollution Control Districts and Air Quality Management Districts. The ARB regulates local air quality by establishing state ambient air quality standards and vehicle emission standards. The ARB is also responsible for monitoring and reducing greenhouse gas emissions. On September 27, 2006, the California Global Warming Solutions Act of 2006 (Assembly Bill 32) was signed. This legislation will create a comprehensive multi-year program to reduce greenhouse gas emissions in California, with the overall goal of restoring emissions to 1990 levels by the year 2020. The Act also directs state agencies to consider and implement strategies to reduce their greenhouse gas emissions.

The Bay Area Air Quality Management District's (BAAQMD) jurisdiction encompasses seven counties: Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa, as well as southwestern Solano and southern Sonoma counties. The mission of the BAAQMD is to achieve the goal of clean air to protect the public's health and the environment of the San Francisco Bay region. The BAAQMD uses a progressive approach to regulating air pollution. By adopting reasonable air quality plans and then following through with regulations sensitive to the socio-economic impacts, flexible permitting, compliance assistance, and proactive enforcement, the BAAQMD has one of the most responsive air programs in the nation. The BAAQMD has established a Climate Protection Program to reduce pollutants, including greenhouse gas emissions, that contribute to climate change. The climate protection program emphasizes collaboration with ongoing climate protection efforts at the local and state level, public education and outreach, and technical assistance to cities and counties.



California Department of Fish and Game

The California Department of Fish and Game (CDFG) is the trustee agency for the state's plant and wildlife resources. As such, it has regulatory authority over the state's special status plant and wildlife species. Any project that has the potential for direct or indirect impacts to state-listed plant or animal species or Species of Concern requires consultation with CDFG. Authorization for "take" of listed species (i.e., an Incidental Take Permit) and mitigation may be required.

Any project that involves work within a streambed or stream banks of any permanent or intermittent stream requires a permit from the CDFG under Section 1601 of the Fish and Game Code (i.e., a Streambed Alteration Agreement). A Streambed Alteration Agreement is also needed for any project that will divert, obstruct, or change the natural flow of any river, stream, or lake; use materials from a streambed; or result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake.

United States Fish and Wildlife Service

The United States Fish and Wildlife Service (USFWS) has regulatory authority over federal threatened and endangered plant and animal species and Species of Concern. Whenever a federally-listed plant or wildlife species, Species of Concern, or designated (or proposed) critical habitat occurs within a proposed project area, California State Parks is required to consult with the USFWS on direct or indirect impacts to those species or their habitat as a result of the project. Consultation with the USFWS may result in the need for an Incidental Take Permit and/or required mitigation measures.

National Marine Fisheries Service

The National Marine Fisheries Service (NMFS) has regulatory authority over federally-listed marine or anadromous fish species and their habitats. Whenever a proposed project has the potential to result in direct or indirect impacts to a federally-listed marine or anadromous fish or their habitats, California State Parks is required to consult with NMFS. Consultation with NMFS may result in the need for an Incidental Take Permit and/or required mitigation for project impacts to these species or habitats.



United States Army Corps of Engineers

The United States Army Corps of Engineers (USACOE) is a federal agency mandated to regulate certain types of activities in wetlands and waters of the U.S. under the following sections of federal law: 33 CFR – Navigation and Navigable Waters (COE); 40 CFR – Protection of Environment (EPA); Section 9 of the Rivers and Harbors Act of 1899; Section 10 of the Rivers and Harbors Act of 1899; Section 404 of the Clean Water Act; and Section 103 of the Marine Protection Research and Sanctuaries Act of 1972. Under these sections, the USACOE requires permits for the discharge of dredged or fill material into any water of the U.S. or wetland under its jurisdiction. A permit from USACOE must also be obtained for any and all structures, whether permanent or temporary, that are planned to be in or over any navigable water of the U.S. and those that affect the course, location, or condition of the water body. Types of projects requiring permits from the USACOE include placement of wharves, dams, dikes, pilings, weirs, breakwaters, jetties, bank protection, aerial or subaqueous power transmission lines, intake or outtake pipes, permanently moored floating vessels, tunnels, artificial canals, boat ramps, aids to navigation, and any other permanent or semi-permanent obstacle or obstruction. Permits are also required from the USACOE for any project that requires dredging of, or placement of fill into, any wetland or water of the U.S. and for the transportation of dredged material for the purpose of dumping it into ocean waters.

REGIONAL AGENCIES AND NON-GOVERNMENTAL ORGANIZATIONS

The following are several governmental and non-governmental organizations that are actively involved in planning and acquiring natural open space lands in this region.

Association of Bay Area Governments

The Association of Bay Area Governments (ABAG) is a regional council of local governments operated by the cities and counties of the San Francisco Bay Area. It was established in 1961 to protect local control, plan for the future, and promote cooperation on regional issues. ABAG's regional jurisdiction includes 100 cities and the nine counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma. More than six million people live in this 7,000 square mile area.



Through its role as an association of cities and counties, ABAG has been designated by the state and federal governments as the official comprehensive planning agency for the Bay Area. Its locally-adopted Regional Plan provides a policy guide for planning the region's housing, economic development, environmental quality, transportation, recreation, and health and safety. One of ABAG's functions is to provide a forum to resolve local differences through workable compromises. Its active public information program encourages citizen involvement in planning and policy decisions.

Useful ABAG publications cover demographics, transportation, air and water quality, earthquake information, smart growth, and land use planning. Understanding the conditions and trends in the region helps planners understand the visitors who come from this area and how they may affect the park.

Midpeninsula Regional Open Space District

The Midpeninsula Regional Open Space District (MROSD) is an independent special district with the single purpose of preserving regional open space lands in a natural condition. The MROSD currently manages nearly 50,000 acres of land in over 25 open space preserves in the mid-and southern portions of the San Francisco peninsula and along the San Mateo County coast. These preserves range in size from 55 acres to 15,000 acres. The MROSD's purpose is to acquire, permanently protect, and restore lands forming a regional open space greenbelt. It also provides trails for public access to these natural open space lands.

Peninsula Open Space Trust

The Peninsula Open Space Trust (POST) is a regional nonprofit organization working to protect land as parks and open space. POST has purchased property in this region using a combination of public and private funds, and has sold the land to public agencies when further public funds were available. Through this productive partnership, important open space has been protected and POST has been able to leverage its available land acquisition funds. POST has been involved most recently in open space acquisitions north of Butano SP, with its 640-acre conservation easement for Pesky Ranch, and at Pigeon Point Light Station State Historic Park, where Whaler's Cove, a three-acre parcel of land, was transferred to California State Parks in 2005. POST owns over 5,600 acres west of Cloverdale Road and Butano SP known as the Cloverdale Coastal Ranches. Stretching from the Pacific



Ocean to the base of the Santa Cruz Mountains, the land includes beaches, coastal bluffs, grasslands, creeks, and woodlands. The ranch supports many species of birds, rare plants, and large mammals. Farmers grow artichokes, leeks and Brussels sprouts on nearly 400 acres.

Save-the-Redwoods League

The Save-the-Redwoods League (League) was founded in 1918. As a leader of the movement to preserve the coast redwood and giant sequoia, the League has assisted in permanently protecting hundreds of thousands of acres of redwood forest. Its primary conservation tool is acquisition of forest land from willing sellers. The League has assisted in establishment and expansion of parks in the southern range of the redwood forest including Big Basin Redwoods, Portola Redwoods, Butano, Wilder Ranch, Julia Pfeiffer Burns, and Limekiln State Parks. The League has also developed a Master Plan for the Coast Redwoods, Santa Cruz Mountains Redwood Conservation Strategy, which outlines a regional conservation strategy for the coast redwood ecosystem.

Sempervirens Fund

The Sempervirens Fund is a nonprofit organization working to preserve redwood forest lands as parks and open space. The membership of the Sempervirens Fund consists of thousands of individuals worldwide who care about protecting the redwood forest and making it available for public enjoyment. These members make tax-deductible donations to the Sempervirens Fund, which uses the money to buy threatened redwood forest property in the Santa Cruz Mountains region.

The Trust for Public Land

The Trust for Public Land (TPL) is a national nonprofit organization working to protect land as parks and open space. TPL assists communities and government agencies to identify land for protection, identify funds that might be used to protect that land, and sometimes help raise funds through charitable campaigns and legislative or voter initiatives, often optioning or purchasing a property and holding it until it can be permanently protected by a government or community land trust. TPL has been involved in open space protection in this region, particularly at Coast Dairies and Año Nuevo SP.

DEMOGRAPHICS, TRENDS, AND PROJECTIONS

In the last 50 years, the importance of outdoor recreation to Californians has steadily grown. During the last several

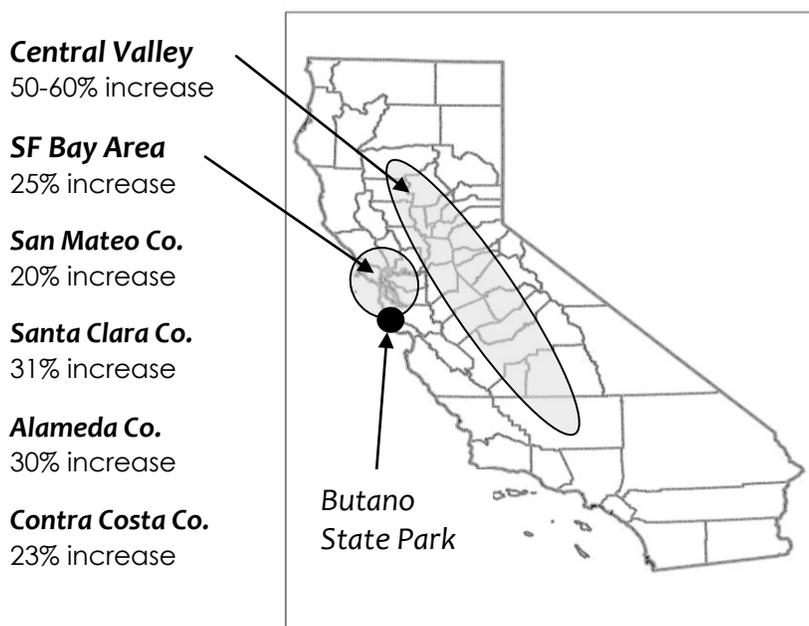


decades, changing demographics and user interests and demands require recreation planners to be responsive to several factors that will affect the future use and development of California's state parks. The following are several key factors which will affect future use patterns, management decisions, facilities, and programs at state parks located in and around the Santa Cruz Mountains.

Population Increase and Park Visitation

California's population approached 37.7 million persons as of January 2007, according the California Department of Finance. California, the nation's most populous state, represents 12.5% – one out of every eight persons – of the United States population. The state's population grew almost 1.3% in 2006, adding close to 470,000 residents, mirroring the growth pattern of 2005. The state has increased by nearly 3.8 million persons (11.2%) since the last census on April 1, 2000.

Even though the current population growth figures have slowed in comparison to earlier projections, perhaps in response to a slower national economy, population growth in California continues to remain strong. Between 1987 and 2002 the state's population grew by 25% and according to the Association of Bay Area Governments, the population of the San Francisco Bay Area is projected to increase 20% by the year 2025. This equates to an additional 1.4 million residents living in and around the San Francisco Bay. The majority of



Park Visitors—Major Areas of Origin and Population Growth 2000 to 2020

visitors to the Santa Cruz Mountains state parks live in Bay Area communities in San Mateo, Alameda, Santa Clara, San Francisco, and Contra Costa counties. Ninety-seven percent of this population participates in some form of outdoor recreation activity at least a few times a year, with almost half participating twice a week or more (Bay Area Open Space Council 2004). Due to these factors, along with California's explosive population increase, it's projected that demand for recreational opportunities in these coastal state parks will certainly increase. With the projected population growth rates in the Bay Area and California, even activities with static or declining rates of participation will grow in absolute numbers because there will simply be more people to participate.

Living costs and home prices have continued to increase in the San Francisco Bay Area, prompting home buyers to move to less expensive areas where commutes are much longer such as the Central Valley where home prices and quality of life issues are important. Yet these former residents occasionally return to the Bay Area for recreation pursuits and it is expected that the Santa Cruz Mountains will continue to be popular with Central Valley residents seeking to escape the heat of the valley during the hot summer months.

Transplanted Bay Area residents form relationships in their new communities and share their positive experiences at this park and parks nearby, such as Big Basin Redwoods SP, increasing visitation to all Santa Cruz Mountains parks by people who do not live in the immediate area. The Central Valley's population is projected to sharply rise in the next three to four decades, increasing anticipated visitation to Bay Area and Santa Cruz parks from valley communities such as Stockton, Sacramento, Modesto, Merced, and Fresno. **Table 2-5** reflects selected Bay Area and Central Valley county populations where much of the Santa Cruz Mountains recreation visitation originates. See **Appendix J** for more information on California population growth between 1960-2020.

Age and Technology Factors

By 2010, one in five Californians will be older than 60, and by 2020 the senior population will double due to the aging of the baby boomers. It is predicted that the boomers will have expectations of recreation providers and active recreational abilities that their parents didn't have due to improvements in overall fitness and advances in medical technology. In addition, baby boomers are typically better educated and more knowledgeable about legislative advocacy so the expectation is that they will ask for services more readily than



previous generations. Raised in relative prosperity, they will anticipate more amenity-rich and meaningful recreational experiences and programs, including park facilities and infrastructure such as RV campgrounds, alternative overnight accommodations, and facilities where they can use their high-tech equipment such as GPS units, bikes, kayaks, backpacking equipment, and fishing gear. In addition, baby boomers will have mobility enhancement issues, and are anticipated to be interested in conservation and heritage programs as well as volunteer activities where they can contribute their knowledge and time. They will have an appetite for adventure and high quality programs and an aversion to slowing down as they age (California State Parks 2005).

Recreation equipment is being custom designed by using the user's body mass index using graphite and titanium alloy materials. Although expensive to do so now, as technological advances continue it is expected that this 'customization' will decrease in cost and become more available to a larger consumer group. There is also a perception that custom-tailored equipment will shorten the learning curve for the skill needed for the recreation activity. As technological advances continue, new forms of recreational pursuits will appear. These activities, such as geocaching using global positioning systems, will continue in popularity as will Wi-Fi (high-speed wireless Internet access).

Implications to population changes mean that park service providers will need to expand lands, programs, services, and facilities to accommodate the future influx of anticipated user groups. Lands not acquired now may be unavailable or too costly in the future and programs and opportunities will need to be constantly evaluated and updated to reflect the interest and demands of a rapidly changing California population.

Thirty-seven percent of California's foreign-born arrived since 1960. With such a diverse group of users, greater emphasis will need to be placed on recreation programs that attract a variety of people. For example, many immigrants to the Bay Area are unfamiliar with the types of facilities and services provided at Butano SP. Ways to educate and encourage these diverse groups and newcomers to become users of and advocates for parks and recreation should be developed.

In 1960 the baby boom was the largest group in the total population of the state; in 2000, boomers were still a major group but were surpassed in numbers by the 5-9 year old age group. The most populous age groups of California's youngest

**Table 2-5
Selected County Populations**

| County | Population (2007) |
|---------------|-------------------|
| Alameda | 1,526,148 |
| Contra Costa | 1,042,341 |
| Merced | 251,510 |
| Sacramento | 1,406,804 |
| San Francisco | 808,844 |
| San Joaquin | 679,687 |
| San Mateo | 726,336 |
| Santa Clara | 1,808,056 |
| Santa Cruz | 264,125 |
| Solano | 424,823 |
| Stanislaus | 521,497 |
| Yolo | 193,982 |

Source: CA Dept. of Finance

citizens are on average two full years younger than the U.S. average, due to recent immigration. By 2020, it is projected that California's young adult group (ages 18–40) will still be the most populous in the state (California Dept. of Finance 2007), and will be more mobile, dependent on technology, and comfortable with change and cultural diversity than their predecessors. This age group is fueled primarily by recent immigration with families including young children. Unfortunately, these young (and new) Californians are not necessarily connected to outdoor recreation activities and programs of the kind California State Parks typically provides. For recreation they will most often prefer to travel, participate in extreme (at risk) sports, attend movies, and go on day trips, often combining multiple activities and experiences (California State Parks 2005).

The Bay Area's population age demographics show a typical baby boom aging pattern. However, the proportion of younger age groups in the total Bay Area population is larger than the baby boom generation's was statewide, and it is larger than the younger age groups in the statewide population. This indicates an even higher potential recreation demand by this young Bay Area age group for nearby relevant recreational facilities and experiences.

Latent Demand for Outdoor Recreation

A series of surveys of 2,512 representative adults throughout California showed that the trend for all segments of the population during the 1990s was to engage in some form of outdoor recreation. Camping grew in popularity as the decade drew to a close and has continued to be popular into the new century. California State Parks' *2002 Public Opinions and Attitudes on Outdoor Recreation in California* shows that outdoor recreation areas and facilities are still very important to the quality of life for most Californians and that there is a strong public belief that the protection of the natural environment is an important aspect of outdoor recreation (California State Parks 2002a).

Based on unmet demand and public support, Californians believe the following outdoor recreation activities should have top priority for expenditure of public recreation funds (California State Parks 2002a):

- Camping in developed sites
- Trail hiking
- Walking for fitness and fun
- Wildlife study



- Picnicking in developed sites
- Visiting historic-cultural sites
- Visiting museums, zoos, etc.
- Bicycling
- Beach activities
- Camping in RV sites

The U.S. Forest Service's *National Survey on Recreation and the Environment – 2000–2003* shows the current top recreation pursuits in the Santa Cruz Mountains area are:

- Walking and hiking
- Family gatherings
- Viewing/photographing natural scenery
- Visiting outdoor nature centers
- Picnicking in developed sites

Campground demand will continue to grow throughout California, particularly for RV and alternative campground facilities. This is for the most part true for aging baby boomers who seek convenience and relaxation and who are still inclined to enjoy camping, may have limited mobility, but have grown weary of the preparatory steps such as setting up tents. Families and single parents with young children who seek quality time with their family and less work, such as single mothers who are concerned about safety and security, are pleased with tent cabins and yurts. During the peak season and holiday weekends many state park campgrounds are full and campers are turned away. California State Parks has been able to add very few campsites during the last ten years, and no coastal campsites. Population growth and demand is so high that if California State Parks were to add 325 campsites a year, it would not keep up with demand (California State Parks 2002a). The situation for day use picnic sites is similar.

The *National Survey on Recreation and the Environment 2000-2003* indicates that camping in developed sites was an activity that approximately 37% of the residents of the Bay Area participated in. With the dramatic projected increases in statewide and regional populations, especially of younger, active people interested in family and group recreational experiences, camping will continue to be an important and well-used type of recreation facility in this park in the future.



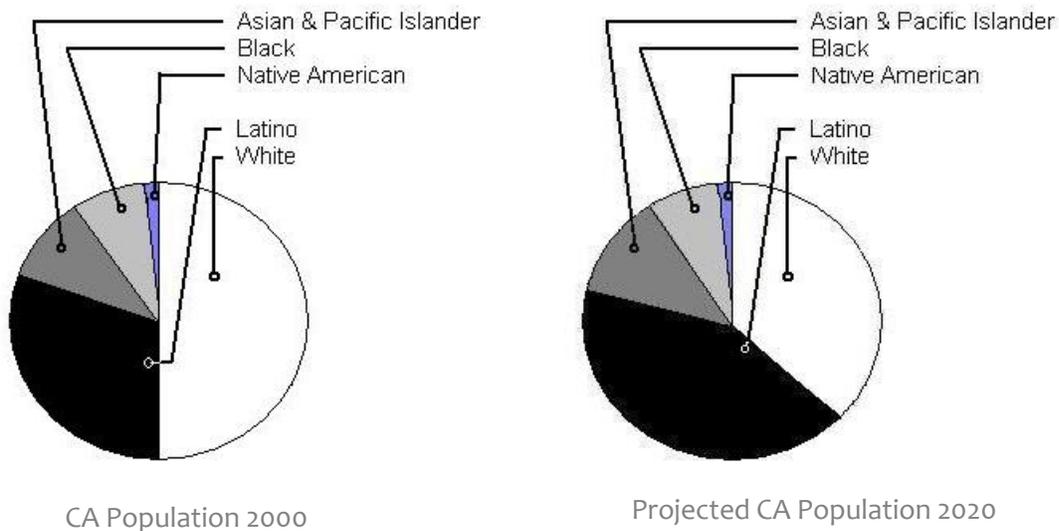
Changing Ethnic Patterns

The relatively large Latino and Asian populations located in the San Francisco Bay Area and Central Valley counties, combined with changing ethnicity patterns in California, will directly affect visitor demographics at Butano SP. A language other than English is spoken in approximately 40% of California households and, approximately 25% of K-12 students are learning English as their primary language. California ethnic facts are impressive – over one-third of Asian Americans live in California and nearly one-third of Hispanic Americans call California home.

California's total Latino population grew from 20% in 1990 to 32.4% according to the 2000 U.S. Census. Population projections for Santa Clara, Santa Cruz, and San Mateo counties show a 38% increase in the Latino population and a 49% increase in Asian populations by 2020, compared with only moderate increases or slight reductions for other ethnic groups. This increase suggests that the mix of user groups and the corresponding facility needs at parks may be changing. For example, there is a correlation between Latinos recreating in large, often family-based groups and a high demand for developed recreation sites, particularly sites with picnic tables, barbeque grills, and parking lots. Group picnics also tend to be longer in duration than for other ethnic groups, as many food items are prepared on site (California State Parks 2002a). Asian Americans also spend time outdoors with family and friends and like to be near natural areas to view and photograph wildlife and hike and bicycle on park trails (Bay Area Open Space Council 2004).

It is clear that the San Francisco Bay Area population is changing. This is also true for the Central Valley, another potential visitor base for the park. Population projections for Sacramento, San Joaquin, Yolo, and Solano counties suggest that from 2000 to 2020 there will be a 256% increase in the Latino population, which will then comprise 33% of the population in these four counties. In the same four Central Valley counties, the Asian American population is expected to double in the same time frame to comprise just over 15% of the population. African-Americans and other ethnic groups will also increase as a percentage of the population, while in certain Valley counties the percentage of whites will decrease. The implications of these demographic changes for recreation demand will compel future planners to provide recreation facilities and public participation opportunities that will satisfy these emerging user groups.





OPPORTUNITIES FOR PUBLIC INPUT

California State Parks uses a variety of methods to solicit public input during the preparation of general plans. Methods for the Butano SP General Plan included holding public meetings and workshops, posting planning information on the Department's web site for public comment, and the use of newsletters and visitor surveys. Identifying issues that the General Plan should address were also obtained during the California Environmental Quality Act Notice of Preparation comment period.

Public Meetings and Workshops

Approximately a dozen people attended a public meeting held on August 26, 2003 in Pescadero at the Russell Administrative Center of the La Honda-Pescadero Unified School District. The purpose of this meeting was to identify recreational issues and concerns for Butano SP and Año Nuevo SP, and to gather input on desired recreational activities.

A Notice of Preparation (NOP) was prepared and filed by the Department on September 30, 2003. Many issues identified and discussed at the public scoping meeting in August 2003 were included in the NOP. The purpose of the NOP is to gain input from agencies, organizations and individuals identifying additional issues that should be addressed in the General Plan/EIR. The Department received input during the NOP comment period that expressed concern for the protection of

creek habitat for threatened populations of migrating steelhead and coho salmon.

On December 8, 2007 a public open house was held in Pescadero to share plan highlights and maps, provide updated planning schedule information, and receive public input on the draft plan proposals for the Butano SP and Año Nuevo SP general plans.



Discussing plan highlights at the Public Open House, December 2007

Through public meetings, agency and stakeholder briefings, newsletters, and posting planning information on the project website, the planning process has encouraged public participation.

Visitor Surveys

Written visitor surveys at Butano SP were conducted from 1998 through 2001 and these visitor comments were examined to identify potential issues considered during the planning process. Comments were varied and were generally related to park facilities, such as the availability of showers and wildlife-proof food storage containers in the campground; and visitor experience, such as a desire for more extensive and varied interpretive programs.

Continued Public Involvement

Subsequent to the completion and approval of the General Plan, there will be public input opportunities on future management plans and project efforts that implement the recommendations of the General Plan. This includes California Environmental Quality Act public review of proposed projects.



Photo on reverse: California State Parks Ranger Ziad Bawarshi talks with a visitor at the Butano SP/Año Nuevo SP General Plan Open House, December 2007

CHAPTER 3: ISSUES

The Issues section identifies planning assumptions, key parkwide issues, and specific area issues that were identified during the planning process. These issues were identified during the statewide and regional analysis for natural, cultural, and recreational resources, public workshops, stakeholder meetings, and through discussions with state park and district staff.

3.1 PLANNING ASSUMPTIONS

The following assumptions are based on current state and federal laws, regulations, and Department policy, which formed the basis for planning and set the parameters for addressing general planning issues for Butano SP.

California State Parks will:

- Continue to manage Butano SP as a State Park, as defined by PRC Section 5019.53.
- Manage park resources as an ecosystem, maintaining the natural processes, abundance, and diversity of plants and animals.
- Manage and protect rare, threatened and endangered species and habitats, including old growth redwood, as required by federal and state laws.
- Preserve the park's cultural resources, including historic structures and landscapes, following the *Secretary of the Interior's Standards for the Treatment of Historic Properties*.
- Maintain and increase, where appropriate, the overall level of recreational opportunities for California State Parks located in the Santa Cruz Mountains region.
- Consider the issues and concerns of adjacent landowners and residents during the planning and implementation process; seek input from local, regional, and statewide interests.
- Coordinate with planning efforts in adjacent state parks and with other natural lands and open space providers and agencies, to evaluate potential



connectivity and compatibility of state park recreational opportunities and resource management programs with surrounding land uses.

3.2 PARKWIDE ISSUES

The following are the primary planning issues the General Plan addresses, either through overall parkwide management goals and guidelines or through management goals and guidelines for specific park areas. These goals and guidelines are found in the Park Plan section of this document.

WILDLIFE AND HABITAT PROTECTION

The mosaic of preserved lands in the Santa Cruz Mountains provide valuable native wildlife habitats. Butano SP is an important piece of this linked habitat.

Butano SP comprises approximately 4,628 acres of diverse habitats, including grasslands in the western section of the park, second growth redwood and Douglas-fir forests that cover most of the park, and chaparral and knobcone pine forest on drier ridgetop locations. Significant riparian areas border the Little Butano and Gazos creeks and their tributaries. Remnant stands of old growth redwood occur in a few locations of the park, such as in the vicinity of the Ben Ries Campground and near the Gazos Mountain Camp area. Past and present human influences, including logging, fire suppression, wildlife feeding, introduction of non-native plants and animals, visitor activities, and facility development have changed the conditions under which natural ecosystems have developed. These changes have created habitat fragmentation, shifts in species composition, changes in the structure and pattern of plant communities and species populations, and concerns regarding the sustainability of species populations. Sensitive habitats such as riparian areas have been impacted and native plant and wildlife values have declined in some locations. This decline has affected species such as the San Francisco garter snake, coho salmon, steelhead, and California red-legged frog. Global climate change will cause further stresses to sensitive species and habitats.

The park is an important part of a regional mosaic of preserved lands in the Santa Cruz Mountains that provide valuable native habitats for wildlife. Protecting habitats within the park as well as between the park and other surrounding public open space and natural lands is essential for maintaining healthy ecosystems. Habitat linkages with other protected areas are key to long-term sustainability and resource protection. Butano SP shares a common boundary with Año Nuevo SP. A major planning issue is how to protect



sensitive habitats and species while allowing public access to these areas.

RECREATION DEMAND AND VISITOR OPPORTUNITIES

The park's unique resources and its location near the high density urban centers around the Santa Cruz Mountains creates a high demand for recreation at the park, particularly during the peak season months of May through October. Camping, picnicking, and trail use are the most popular activities at the park, and existing recreation demand has been exceeding supply during the peak season. As the population continues to increase and diversify in the Santa Clara Valley, Bay Area, and Central Valley, the demand for outdoor recreation will also grow, both in the numbers of people desiring an outdoor experience and in the types of recreational activities they seek in the Santa Cruz Mountains.

California's demographic changes are also creating recreation demands that vary from traditional park facilities and programs. Group day use facilities, alternative overnight opportunities such as cabins or yurts, and opportunities for additional trails on flat terrain were evaluated. Butano SP, along with other regional open space and park lands, will be challenged to provide additional recreation facilities and more diversified recreational activities.

PARK PLANNING AND MANAGEMENT IN A REGIONAL CONTEXT

California's increasing population and changing ethnic mix are placing increasing demands on existing parks, natural lands, and open spaces. Recreation planning on a regional basis can provide a variety of recreation opportunities to attract and satisfy visitors and help minimize resource impacts by providing recreation opportunities in an integrated regional network of outdoor recreation areas. Continued planning and management of Butano SP should consider interagency and regional coordination and partnerships as key elements.

Butano SP shares borders with Año Nuevo SP and is in proximity to Big Basin Redwoods SP, Portola Redwoods SP, and Pigeon Point Light Station State Historic Park, as well as with several other recreational, natural, and open space lands such as Pescadero Creek County Park, Memorial County Park, and the Cloverdale Coastal Ranches. The proximity of these properties and the similarity of natural, cultural, and recreational resources provide opportunities to



manage these lands in a coordinated and integrated way to strengthen natural, cultural and scenic resource protection, enhance park operations, and improve recreational, educational, and park access opportunities. Coordinated management, integral planning, and partnerships can better identify the recreation needs and desires and improve the effectiveness of maintenance, administrative, and visitor services on a regional basis.

PUBLIC ACCESS AND CIRCULATION

During peak season the day use picnic and trailhead areas along the park entry road are heavily used. There may be opportunities to improve the park's circulation and parking, provide additional day use facilities, and reduce congestion. Visitors could also benefit from regional mass transit connections to the park. Trail opportunities within the park and those connecting regional open space, natural lands, and park lands are in high demand by multiple user groups. The park's central location within the Santa Cruz Mountains offers potential as a node for trail connections to adjacent Año Nuevo SP as well as within the region. Improving access to and within the park and enhancing regional connections is a significant aspect of this planning effort. During the planning process, additional access modes, access locations, and appropriate areas for future facility development were evaluated.

3.3 SPECIFIC AREA ISSUES

ENTRANCE AND FACILITIES

- This area provides the majority of visitor services in the park. Visitors can park, check in, pay fees, receive information, camp, picnic, access trailheads, and attend campfire programs in this location. The area also contains administration and maintenance facilities. Planning considerations include the location and amount of visitor parking, day use and overnight facilities, and the location and requirements for visitor services as well as park administrative and maintenance functions.
- Wildlife feeding and the availability of food provided by humans has disrupted natural wildlife processes and threatened the health and existence of some native wildlife species, including the marbled murrelet, a state and federally listed bird. Redwood habitat in the region



is recognized as designated critical habitat for the marbled murrelet. A factor in the decline in marbled murrelet detections and nesting success is related to nest/nestling predation by various corvid species (e.g. Steller's jay, common raven) and other predators. Planning considerations address the conservation of the marbled murrelet and other sensitive species, the health of the redwood forest habitat, and the effects of existing and proposed development.

- The small dam on Little Butano Creek is providing access to creek water for the Peninsula Open Space Trust, which owns water rights for the creek, through an historic wooden flume. Sensitive anadromous fish species migrate from the ocean to spawn in the creek below the dam. There are potential spawning grounds upstream of the dam. Continued planning should address the effects of the dam on fish and the potential for alternative methods of impoundment and/or delivery of creek water to the off-site owner, including potential removal of the dam and the restoration of fish habitat.

BACKCOUNTRY

- The backcountry, generally located in the more rugged terrain and higher elevations of the park, offers expansive vistas and a sense of solitude to the visitor. There may be opportunities to provide additional trail camps and trailheads to provide further access into the backcountry and connect to regional natural areas, open space, and park lands.

GAZOS MOUNTAIN CAMP

- The Gazos Mountain Camp has supported a variety of recreation in the past and is currently serving as a research field station that is managed by a private nonprofit organization. The redwood habitat surrounding the Gazos Mountain Camp area is recognized as habitat for the state and federally listed marbled murrelet and the current operating agreement contains restrictions on operations and use. However, there may be additional education, recreation, and interpretive opportunities for park visitors in this area. Ongoing planning considerations must address the conservation of the marbled murrelet and other special status species, the redwood forest ecosystem, and the effects of existing and proposed development.

There may be opportunities to provide more trail camps in the backcountry and connect to other regional public lands.





PARK PLAN

Photo on reverse: Second growth redwoods in trail camp

CHAPTER 4: PARK PLAN

The Park Plan establishes the long-range vision and purpose for Butano SP. Specific goals and supporting guidelines further clarify this purpose and vision. These are written to address or resolve current issues while providing a foundation for continued resource protection and preservation, as well as for facility development and interpretation of the park. The goals and guidelines also serve as design and implementation parameters for required subsequent management and development plans.

4.1 CLASSIFICATION

The California Public Resources Code defines the "State Park" classification as follows:

PRC 5019.53. State parks consist of relatively spacious areas of outstanding scenic or natural character, oftentimes also containing significant historical, archeological, ecological, geological, or other such values. The purpose of state parks shall be to preserve outstanding natural, scenic, and cultural values, indigenous aquatic and terrestrial fauna and flora, and the most significant examples of ecological regions of California, such as the Sierra Nevada, northeast volcanic, great valley, coastal strip, Klamath-Siskiyou Mountains, southwest mountains and valleys, redwoods, foothills and low coastal mountains, and desert and desert mountains.

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

Improvements undertaken within state parks shall be for the purpose of making the areas available for public enjoyment and education in a manner consistent with the preservation of natural, scenic, cultural, and ecological values for present and future generations. Improvements may be undertaken to provide for recreational activities including, but not limited to, camping, picnicking, sightseeing, nature study, hiking,

and horseback riding, so long as such improvements involve no major modifications of lands, forests, or waters. Improvements which do not directly enhance the public's enjoyment of the natural, scenic, cultural, or ecological values of the resource, which are attractions unto themselves, or which are otherwise available to the public within a reasonable distance outside the park, shall not be undertaken within state parks.

State parks may be established in the terrestrial or nonmarine aquatic (lake or stream) environments of the state.

4.2 DECLARATION OF PURPOSE

A Declaration of Purpose describes the purpose of a park and is the broadest statement of management goals designed to fulfill the vision for the park. A Declaration of Purpose for each state park unit is required by Public Resources Code, Section 5002.2(b), "...setting forth specific long-range management objectives for the park consistent with the park's classification."

The current purpose statement was approved in 1964:

The purpose of Butano State Park is to make available to the people forever, for their inspiration, enlightenment, and enjoyment, the park values of the basin of Little Butano Creek, with its Redwood forest, woodlands, and meadows typical of the southern San Mateo County coastal mountains; together with all related scenic, historic, scientific, and recreational values of the area.

The function of the Division of Beaches and Parks at Butano State Park is to manage the resources and values of the park in such a manner as to perpetuate them in accordance with the declared purpose; to interpret them effectively to the public; and to provide such facilities and services, consistent with the unit purpose, as necessary for full visitor enjoyment of the park.

PROPOSED DECLARATION OF PURPOSE

Since 1964, additional lands were acquired to include significant natural and cultural resources and recreational opportunities. During the planning process the Declaration of Purpose for the park was revised as follows:

Declaration of Purpose

The purpose of Butano State Park is to protect, preserve, and perpetuate the important natural and cultural resources and aesthetic values of the coast redwood forest and its associated ecosystems found within the Little Butano Creek, Gazos Creek, and Butano Creek watersheds. The park, with its peaceful character and outstanding scenic and recreational values, represents a successful effort to preserve a portion of the original southern range of the coast redwood forests, interconnected with other parks and public lands in the Santa Cruz Mountains.

The Department shall protect, manage, and interpret these resources in such a manner as to perpetuate them in accordance with park values, to interpret them effectively to the public, and to provide facilities and services for visitor use and enjoyment, consistent with the park classification.

4.3 VISION

This vision statement provides an overview of desired future conditions within the park.

Vision Statement

Butano State Park will provide visitor opportunities for overnight and day use experiences in its redwood forest, riparian canyons, and ridgetops within the Little Butano Creek, Gazos Creek, and Butano Creek watersheds. Trails, some leading to remote areas on the rugged upper slopes of the Santa Cruz Mountains, will offer expansive vistas of the coastal landscape and connect to nearby state and regional parks and open space. These connections to adjacent properties will also be supported through the interpretation of a shared history of land uses, including those of California Indians, Spanish explorers, historic homesteaders, ranchers, and park visitors.

The park will promote cooperative relationships with neighboring landowners and recreation managers to support public access and recreation opportunities in the Santa Cruz Mountains region. Preservation, education, and interpretation of the park's natural and cultural resources will heighten visitor awareness of the expansive forests that once occupied this region and the values of the remaining redwood forest community.

4.4 PLANNING ZONES AND AREA-SPECIFIC GUIDELINES

Three planning zones have been identified in Butano SP. Each of these zones are defined by a distinct combination of resource characteristics, landscape character, visitor activities, types of access, development potential, and management or operations requirements. As shown in **Figure 12**, these planning zones are:

- **Entrance and Facilities Zone**
- **Gazos Mountain Camp Zone**
- **Backcountry Zone**

The management intent and guidelines for each planning zone complements the broader view described in the park vision and the parkwide goals and guidelines (Section 4.5), and provides a focused direction that includes approaches to natural, cultural, and aesthetic resource protection, desired visitor experiences, recreation, interpretive, and educational opportunities, and park operations (see **Figure 13**, Proposals).

The parkwide goals and guidelines apply within each of the planning zones. Parkwide concerns, such as the protection and preservation of ecosystem elements and processes, including the protection of special status species and important cultural features, are integral components in the management of all areas.

ENTRANCE AND FACILITIES ZONE

The Entrance and Facilities Zone is located in the lower portion of the Little Butano Creek watershed. It is characterized by grasslands along Cloverdale Road transitioning to a riparian corridor along Little Butano Creek and then to redwood and Douglas-fir forests. This planning zone contains most of the park's visitor services and recreation opportunities. These include initial visitor contact, orientation, natural and cultural resource interpretation, day use activities, and overnight camping. There are also limited park administration, staff housing, and operations facilities in this area.

This zone will be managed to maintain the primary park entrance and continued visitor contact, orientation, services,



Riparian vegetation and redwood/Douglas-fir forest can be seen behind the entrance kiosk.

and recreation facilities. The combination of recreation opportunities and resource values will be preserved and enhanced. The redwood and Douglas-fir forest ecosystems and the riparian corridors will be managed as important features and essential elements that define this park's distinct identity and its visitor experiences. Opportunities to locate some visitor facilities outside of sensitive resource areas will be pursued as suitable areas are identified. Recreation and administration facilities will remain small-scale to maintain the park's intimate character. Public use areas will be separated from park administration, staff housing, and operations and maintenance facilities as much as possible to reduce congestion and user conflicts in this primary visitor use area.



The visitor center is located at the edge of the forest.

Visitors can enjoy the forest and riparian areas through a variety of recreational opportunities, including hiking, bicycling, picnicking, and camping. The Entrance and Facilities Zone contains trailheads to access the park's higher elevations and connect to an extensive regional trail network. Information about the park's history, natural resources, cultural resources, regional recreation, and trail connections is available in a small visitor center and through other interpretive media, including campfire programs.

Entrance and Facilities Zone Guidelines:

Entrance 1: Support volunteer staff and programs with office, parking, and storage accommodations, as part of the entrance and visitor center complex.

Entrance 2: Broaden the interpretive information and themes at the visitor center to include the park's cultural history.

Entrance 3: Remove the former nature lodge building from the Little Butano Creek riparian zone, and re-establish its function (trail volunteer office/storage) near the park entrance, in conjunction with other operational facilities.

Entrance 4: Develop an overlook and provide wetland interpretive information near the wetlands in the Goat Hill area.

Entrance 5: Evaluate the current development and use of the Goat Hill area (staff residence and storage) related to year-round access, road maintenance, and wildfire management. Consider the feasibility of additional seasonal or permanent staff housing (trailer pads/utilities) at Goat Hill.

Entrance 6: Evaluate the potential for restoring the Little Butano Creek streambed habitat in the vicinity of the dam for fisheries habitat enhancement. Consider alternative methods for continued agricultural water supply and distribution.

Entrance 7: Establish a trailhead and trail connection from Butano SP through Año Nuevo SP to the coastline.

Entrance 8: Coordinate with POST on possibilities for a multi-use trail connection from Butano SP through Cloverdale Coastal Ranches to the coast. Coordinate on any trail orientation and interpretation facilities as necessary. Consider partnering with Cloverdale Coastal Ranches on a natural history interpretive center. Coordinate with POST/Cloverdale Coastal Ranches for compatible land use between the public use/open space properties.

Entrance 9: Develop additional picnic sites and day use parking to accommodate large and small groups where feasible.

Entrance 10: Improve the aesthetics by unifying the appearance of buildings and other structures using colors and materials that blend with the natural environment. Ensure that the architectural style of new structures coordinates with the style of existing park structures.

GAZOS MOUNTAIN CAMP ZONE

This planning zone is located in a forested area within the Gazos Creek watershed. It is southeast of the primary park entrance and adjacent to Gazos Creek Road. Within this forest setting is a small developed site historically known as Gazos Mountain Camp. The former Mountain Camp consists of outdoor activity areas, overnight cabins, a lodge/kitchen building, meeting rooms, restrooms, vehicle parking, and maintenance/storage facilities. The surrounding landscape includes riparian vegetation and redwood forest providing wildlife habitat for common and special status species, including the marbled murrelet.

This planning zone will be managed for its natural, scenic, educational, interpretive, and recreational values. Maintenance, repair, or improvements needed to ensure continued public access and use of the area will avoid or minimize disturbance to natural areas and sensitive wildlife habitat. Opportunities for expansion of visitor facilities are limited in the surrounding area due to the sensitive habitat for



The lodge building is one of several structures remaining from the former youth summer camp.

Adaptive uses of former camp facilities must be compatible with natural resource protection and management objectives.



A meadow in the Gazos Mt. Camp area.

the marbled murrelet. Management of the Gazos Creek riparian area will encourage natural processes, protect special status species, and preserve scenic qualities.

The Gazos Mountain Camp zone will retain existing facilities in the former camp area for adaptive uses that are compatible with natural resource protection and management objectives. Appropriate day use, overnight use, and activities for park visitors may include, but not be limited to, guided walks, resource interpretation, nature study, educational programs, and research focusing on sustainable resource management and environmental restoration.

Gazos Mountain Camp Zone Guidelines:

Gazos 1: Maintain or renovate the existing facilities to support park programs and educational and recreation activities that do not adversely affect significant resources. Consider concession or lease agreements to provide programs and services to the public.

Gazos 2: Recreation facilities and uses shall be compatible with sensitive habitat management. Existing uses may be modified through an adaptive management analysis of social and environmental impacts and appropriate management actions. Management and use shall be in accordance with regulatory permits or operating agreements.

Gazos 3: Maintain the area aesthetics and scenic qualities. Unify the exterior appearance of the buildings and structures through the use of appropriate materials, design details, and color selection that are compatible with the forest environment; maintain the facilities in good repair; and separate vehicle and pedestrian circulation where possible.

Gazos 4: Research, survey, record, and interpret the history and significance of the cultural resources related to the site of the historic sawmill. Protect any archeological resources found at this site.

Gazos 5: Implement appropriate actions to promote the long-term recovery and survival of the marbled murrelet. Actions would include, but not be limited to, coordination and consultation with CDFG and USFWS prior to activities that may affect murrelets or their nesting habitat, minimizing disturbance in old growth redwood habitat, educating visitors about the marbled murrelet including actions that can reduce threats to this bird, and

monitoring visitor activities and use intensity to ensure minimal impacts to the marbled murrelet (see guideline **Murrelet 1** and special status animals guidelines).

BACKCOUNTRY ZONE

The Backcountry Zone is generally characterized by the steeper, more rugged terrain in the park's higher elevations, forested mountains, and riparian corridors within the Little Butano Creek, Gazos Creek, and Butano Creek watersheds. The majority of the park is in the Backcountry Zone.

The Backcountry will be managed primarily to preserve its cultural, natural, and scenic resources and sense of solitude. The area's cultural heritage, forests, brushlands, native wildlife and plants, riparian corridors, and expansive ridgetop vistas of the Santa Cruz Mountains and the Pacific Ocean are invaluable qualities that will be protected and interpreted.

A low level of visitor use contributes to the remote character of the Backcountry. Development in this area is minimal and includes multi-use trails, fire roads, vista overlooks, and trail camps. Access into and use of the Backcountry is dependent on the unpaved road and trails. The extensive trail system allows hikers, bicyclists, and equestrians to explore the park and to connect with the region's network of multi-use trails to venture into the surrounding Santa Cruz Mountains and coastal areas, including Big Basin Redwoods SP, Año Nuevo SP, and other regional parks, natural lands, and open space preserves. Special event/scheduled shuttle tours can provide visitors with backcountry experiences, including spectacular vistas and knowledge about the region's natural and cultural heritage.

The sense of solitude engendered by the backcountry zone's remote, rugged character will be retained.

Backcountry Zone Guidelines:

Backcountry 1: Interpret the story of the Jackson Flats homestead through interpretive panels along the trail near the site and information provided in the visitor center. Conduct archival research in conjunction with an archaeological survey of the Jackson Flats property. Record and develop preservation guidelines for any existing resources.

Backcountry 2: Develop vehicle pullouts or trailhead parking along Gazos Creek Road, in coordination with San Mateo County.



A view to the Pacific Ocean from the Butano Fire Road in the backcountry.

Backcountry 3: Coordinate with San Mateo County to reduce erosion along Gazos Creek Road and improve the water quality of Gazos Creek.

Backcountry 4: Consider scheduled shuttle tours of backcountry areas using existing fire roads, if road easements and ownership will allow this on suitable routes, as part of interpretive program activities or during special events.

Backcountry 5: Provide additional trail camps in backcountry locations to accommodate small and large groups.

Backcountry 6: Coordinate with Cal Fire to manage and maintain the fire roads to reduce erosion and sedimentation.

4.5 PARKWIDE GOALS AND GUIDELINES

The parkwide goals and guidelines address existing issues and provide ongoing guidance that will be implemented to achieve the long-term vision for the park. The *goals* establish the purpose and the *guidelines* provide the direction that California State Parks will consider to achieve these goals. The following goals and guidelines address managing and interpreting the park's resources, providing recreational facilities and opportunities, and operating and maintaining the park.

PHYSICAL RESOURCE MANAGEMENT

Geology and Hydrology

Within Butano SP natural geologic and hydrologic processes are reshaping the park's landforms and changing its watercourses. These processes happen both slowly over geologic time and abruptly during earthquakes, intense or prolonged storm events, or other natural disasters. Steep topography and unconsolidated soils, periodic heavy rainfall, and occasional earthquakes make this area naturally prone to floods, landslides, slope erosion, stream bank slumping, stream sedimentation impacts, and log and debris jams. Human development and use, such as roads, trails, utilities, and recreation facilities, can increase the frequency and scale of these natural processes as well as introduce sediments, septic system wastes, and other pollutants into

watersheds. Movement on the active San Gregorio Fault, which traverses the western boundary of Butano SP, could result in surface rupture and strong ground shaking. Appropriate initial site investigation, siting, design, and operation of development and facilities is critical to avoiding and minimizing negative human impacts on water quality and habitat integrity, as well as avoiding loss of human life and property.

A close relationship between watershed integrity, water quality, facility development, and natural disaster preparedness is reflected in the following goals and guidelines. These goals and guidelines are further reinforced by implementing the policies presented in the Department Operations Manual (DOM) for watershed management, stream management, watershed and stream protection, stream restoration, floodplain management, wetlands management, water quality and quantity, water rights, geologic hazards, facility siting in geologically hazardous areas (including seismic hazard zones), and protection of geologic and soil resources. In addition to the DOM, California State Parks has developed best management practices (BMPs) for road recontouring and rehabilitation, road removal, road to trail conversion, and culvert replacement. The standard construction BMPs for erosion and sediment control from the California Stormwater Quality Association (Construction Handbook, January 2003) will also be used where appropriate.

Geology and Hydrology Goal: Minimize human impacts on natural geologic and hydrologic processes and values while protecting human life and property from potential negative effects from these natural processes.

Geology and Hydrology Guidelines:

Geology/Hydrology 1: Monitor and document the geologic and hydrologic processes affecting the park and its resources.

Geology/Hydrology 2: Determine if, where, and how human development or activities may be exaggerating the natural rates or scales of landslides, stream channel erosion, log and debris jams, and excessive sedimentation (aggradation) or degradation. Identify management actions that can reduce or avoid negative human impacts to slope and stream integrity and to water quality. Management actions could include road and trail rehabilitation or removal from highly erosive areas, stream modifications, debris management, and revegetation.

Geology/Hydrology 3: Understand and comply with the surface and groundwater beneficial uses and water quality objectives set forth in the San Francisco Regional Water Quality Control Board Basin Plan that apply to Butano SP watersheds and take appropriate actions to prevent degradation of surface and groundwater within the park. Examples of appropriate actions include ensuring that park sewage treatment meets water quality standards and planning and implementing new park projects so they do not degrade surface or groundwater quality or affect the water production rates of pre-existing nearby wells.

Geology/Hydrology 4: Cooperate with other landowners and regulatory agencies to address and remediate sediment issues affecting the park.

Geology/Hydrology 5: As appropriate, develop and use standard BMPs for erosion, sediment control, dust, and storm water runoff for park projects. Avoid storage of surplus waste materials in floodplains, in areas of potential landslides, near surface waters, or in drainages.

Geology/Hydrology 6: Maintain and manage native riparian vegetation bordering streams and springs, where feasible to filter sediments and other pollutants from runoff that enter these water bodies. Use biotechnical methods where possible when it is necessary for embankment stabilization and for stream restoration.

Geology/Hydrology 7: Include professional biological, geological, and engineering evaluations as appropriate when locating and designing permanent structures, campgrounds, roads, utilities, and trails to avoid or reduce potential damage to people and property from unstable soil, landslides, debris flows, floods, and earthquakes.

Geology/Hydrology 8: Construct all structures in the park in conformance with seismic design criteria in the most current edition of the Uniform Building Code or California Building Code.

Geology/Hydrology 9: Participate with others, such as resource/regulatory agencies and adjacent landowners, to develop watershed management plans or assessments for major watersheds contained in the park. The watershed planning effort will use current information from existing watershed assessments and studies. These watershed plans will analyze the sediment transport functions in the park's stream systems, evaluate impacts of

facilities and park use, and provide a scientific basis for selection, design, implementation, and monitoring of future fisheries habitat enhancement and sediment reduction projects. Elements of the plan or assessment may include, but would not be limited to:

- Inventory and prioritize sediment sources, and analyze the sediment transport functions in the stream systems with respect to their impact on in-stream habitat and on sediment delivery to Little Butano Creek and Gazos Creek.
- Determine if fluvial geomorphic analyses are needed and what level is required for all streams. Coordinate this analysis with other state, federal, and local agency monitoring efforts.
- Assess the impacts of park facilities and activities on the integrity of the park's ecology, watershed, and water quality.
- Determine and delineate the 100-year floodplain for Little Butano Creek and Gazos Creek.

NATURAL RESOURCE MANAGEMENT

Butano SP contains many diverse plant communities and provides habitat for special status animal species. Preservation of the park's native vegetation communities, wildlife habitats, and wildlife populations remains key to the health of local and regional ecosystems. State Parks will comply with the policies, management concepts, and principles outlined in the DOM Chapter 0300, Natural Resources. The following goals and guidelines provide further direction for natural resource management.

Natural Resource Management Goals: Protect, restore, and maintain the native ecosystems, especially vegetation complexes and wildlife populations, at Butano SP. Maintain, enhance, or restore the movement of native species through the park and regional ecosystems in order to protect and promote species abundance and diversity. Protect special status plants and wildlife within the park and manage for their perpetuation. Restore, maintain, and protect native habitats.

Vegetation Management Guidelines:

Native plant communities are essential habitat for both special status and common wildlife species. Two of the plant communities found in the park, Arroyo Willow and California Oatgrass, are designated as rare by the California Department of Fish and Game's Natural Diversity Data Base.

Preservation of the park's native vegetation communities, wildlife habitats, and wildlife populations is key to the health of local and regional ecosystems.

The long term health of the park's native plant communities, which provide habitat for native wildlife, may be threatened by the effects of climate change and invasive non-native plant species such as pampas grass and French broom.

Vegetation 1: Re-establish natural ecological processes, such as the re-introduction of fire under prescribed conditions, which are essential for the development and maintenance of native plant communities. For example, rare communities such as knobcone pine forest are fire dependent, needing recurring fire events for stand renewal. Maintain other sustainable forest management techniques to ensure healthy forests, which may contribute to the reduction of atmospheric carbon through carbon sequestration, especially in conifer tree species.

Vegetation 2: Identify any locations in the park that are heavily impacted from past management practices (e.g. logging, fire suppression, facility development) and implement appropriate vegetation and habitat restoration programs. Components of such restoration programs may include revegetation with native species, fenced enclosures, facility relocations, or temporary or permanent closures of individual campsites and picnic sites. Areas of old growth redwood forest identified in previous studies as being heavily impacted are of high management priority. Reforestation, where appropriate, can also help to positively affect climate change by reducing greenhouse gases through carbon sequestration.

Vegetation 3: Manage invasive non-native plant species with appropriate methods to prevent their establishment and spread. Priority for control efforts will be given to those species that cause damage and have the greatest potential to spread rapidly in the park.

Vegetation 4: Prescribed fire should be used as part of a vegetation management strategy, when appropriate, to achieve natural and cultural landscape management goals. This program, including the Unit Prescribe Fire Plan, will be upgraded periodically to reflect the ongoing accomplishments and necessary refinements, changes in prescribed fire science and technology, state and federal regulations, and be reviewed for consistency with other programs affecting vegetation management strategies and public safety.

Special Status Plants Guidelines:

Suitable to marginally suitable habitat exists within the park for 24 special status plants. Nine of these species are CNPS List 1B plants, one is List 2, one is List 3, and thirteen are List 4. In addition to their CNPS status, three of the species are listed by the USFWS as Species of Local Concern. These are bent-flowered fiddleneck, coast rock cress, and stinkbells.

Special Plants 1: Protect special status plant species to maintain or restore populations. Initiate surveys for special status plant species to document their distribution and abundance.

Special Plants 2: Implement appropriate management using proven ecological principles and professionally accepted methods for those species identified as at risk or with known threats.

Fire Processes Guidelines:

Fire is an important natural process that is integral to the ecology of the Santa Cruz Mountains Bioregion. Many of the plant communities within this region, including some of those in Butano SP, depend on periodic fires for renewal, regeneration, and maintenance of healthy ecosystems. This is especially true for the park's knobcone pine forest community. However, natural fire regimes have been greatly altered since the Euroamerican settlement of the area. Subsequent land use or resource utilization (e.g. logging) within the park and surrounding lands has created a mosaic of natural habitats interspersed with lands in various stages of succession. In some locations, such as publicly owned lands, it is feasible and appropriate to implement a well-planned program of prescribed fire to promote natural processes, control exotic species, avoid the build-up of dead wood and underbrush that can fuel more destructive fires, and rejuvenate and maintain healthy ecosystems. (See guidelines **Vegetation 1** and **Vegetation 4**).

The prevention and suppression of destructive wildland fires threatening human lives, property, and sensitive natural resources is of prime importance. Wildland fires can have a significant effect on park resources and operations. DOM Chapter 0300, Natural Resources, Section 0313.2 describes the Department's policy on fire management, including wildfire management (Section 0313.2.1) and prescribed fire management (Section 0313.2.2). An Interagency Agreement concerning wildland fire protection between State Parks and the California Department of Forestry and Fire Protection (Cal Fire), known as a Wildfire Local Operating Agreement, outlines

the primary responsibilities of both agencies, modified fire suppression techniques, and post-fire rehabilitation. Primary responsibilities of State Parks personnel concerning life and safety include the protection and evacuation of visitors and park personnel, area closures, law enforcement, protection of park facilities and resources, and initial fire response. State Parks has also prepared guidelines for the protection of buildings and structures near wildland vegetation (Protection of Structures from Wildland Fire Guidelines, April 2007). These guidelines are intended to minimize the probability that structures near flammable vegetation will ignite and burn during a wildland fire.

Fire 1: A Wildfire Management Plan is required for units that have significant wildland resources, such as Butano SP. The Department shall coordinate with appropriate agencies, such as Cal Fire and county and volunteer fire departments to complete and update the Wildfire Management Plan for this unit, addressing all aspects of wildfire planning, including prevention, pre-suppression, and suppression.

Wildlife Management Guidelines:

The protection and perpetuation of native wildlife species is contingent upon the successful rehabilitation and continuance of native plant and aquatic communities, combined with the removal of non-native, invasive plant and animal species. Wildlife feeding and availability of food provided by humans disrupts natural wildlife processes and threatens the health and existence of some native wildlife species, particularly the marbled murrelet.

Wildlife 1: Cooperate with federal, state, and local agencies and with open space organizations to promote effective and efficient park and regional vegetation, habitat, and wildlife resource management.

Wildlife 2: Avoid or reduce negative impacts to critical resource areas where possible and follow all applicable regulations and guidelines for minimizing adverse impacts. Evaluate the need and benefits of new facilities, including trails, with their potential negative impacts to plant and wildlife species. (See guideline **Trails 3**).

Wildlife 3: Non-native animals have the potential to disrupt naturally functioning ecosystems and displace and out-compete native wildlife for available resources. Control and/or eradicate non-native animal species that have been identified by State Parks biologists and/or park

managers as creating significant impacts to special status wildlife species and their native habitat. Utilize methods based on sound principles of ecosystem management and that are consistent with the policies contained in the DOM, Chapter 0300, Natural Resources. Priority for control efforts should be given to those species most detrimental to the environment and for which there is a reasonable probability of success.

Wildlife 4: Reduce and, where possible, eliminate wildlife access to human food and garbage by using wildlife-proof trash containers and dumpsters throughout the park, increasing the frequency of trash collection, and educating the public about the detrimental effects that human food can have on the ecological balance of the park and surrounding regions. Post signs throughout the park informing people not to feed wildlife and to cover and store food and trash appropriately. Also see listed actions for Marbled Murrelet Management and Conservation (guideline **Murrelet 1**).

Special Status Animals Guidelines:

Thirty-six special status animal species are confirmed or strongly suspected to occur within the boundaries of Butano SP. Seven of the species with confirmed sightings in the park have state and/or federal listing status. These are the American peregrine falcon, California red-legged frog, coho salmon (central California coast ESU), marbled murrelet, San Francisco garter snake, steelhead (central California coast ESU), and bank swallow. Appropriate management should be provided for all special status animal species.

Special Animals 1: Monitor marbled murrelets, San Francisco garter snakes, California red-legged frogs, and other special status animal species to identify population trends and to develop management strategies for their protection and perpetuation. Encourage and support scientific surveys and studies to be conducted in the park to gather more information about the distribution, status, and condition of sensitive natural resources.

Special Animals 2: Protect all special status native wildlife species and their habitats. Include all taxa that are locally important (including endemic species) as well as those protected by federal and/or state law. A comprehensive list of species requiring special management attention should be updated as needed. Specific programs using sound ecological principles and professionally accepted

methods are necessary to protect and rehabilitate special status animal populations and their habitats.

Special Animals 3: Minimize trail building, roadwork, and park facility maintenance activities during the breeding seasons for special status species.

Special Animals 4: Consider the needs of special status aquatic species, including California red-legged frog and anadromous fish, in the timing and implementation of any activity that results in streambed alteration or disturbance to wetlands or riparian habitat. This includes the sizing and placement of culverts beneath roads and trails throughout the park to facilitate fish passage. Culvert drainage patterns should follow the natural grade of the stream as much as possible to maximize fish passage. Work with landowners adjacent to Little Butano Creek and Gazos Creek to help re-establish suitable habitat for migratory fish.

Special Animals 5: Inspect structures for special status species, particularly for bat populations, prior to renovation or removal. Take appropriate measures to protect any identified special status species.

Marbled Murrelet Management and Conservation Guidelines:

The marbled murrelet is a federal threatened and state endangered Pacific seabird that nests in the upper branches of mature redwood and Douglas-fir trees, and has been observed in Butano SP. Protection of nesting habitat is essential for this murrelet population in the Santa Cruz Mountains to stabilize and recover. The following guideline has been developed in coordination with the California Department of Fish and Game.

Murrelet 1: The Department will coordinate with the U.S. Fish and Wildlife Service and California Department of Fish and Game toward the long-term recovery and survival of the Santa Cruz Mountains marbled murrelet population. Implement actions to minimize marbled murrelet population decline, protect and restore marbled murrelet breeding habitat, reduce the impacts of human presence on the breeding success of this bird, and contribute to the recovery of the species. This includes, but is not limited to, the following actions:

- Consult with the CDFG and USFWS prior to initiating activities that may affect murrelets and/or their nesting habitat.

- Control corvid populations and reduce the human influences that support unnaturally high corvid populations and concentrations in certain areas, such as the Ben Ries Campground. Consider corvid management through direct removal when other control measures prove inadequate. Consult with experts on appropriate methods of corvid control and/or removal.
- Improve waste patrol and cleanup in visitor use areas.
- Educate visitors about the threatened status of the marbled murrelet and why they should not feed wildlife.
- Minimize disturbances, trail building, and maintenance activities in old growth redwood habitat during the marbled murrelet breeding season (March–September).
- Coordinate the park's Tree Hazard Program with murrelet habitat protection, especially during the marbled murrelet breeding season.
- Where possible, consider relocating camping and/or picnic facilities or rotating use in areas with marbled murrelet habitat.
- Support and participate in marbled murrelet research that will contribute to the conservation of this species.

Regional Habitat Management Guidelines:

The Santa Cruz Mountains Bioregion is comprised of a mosaic of pristine or near pristine native habitats, habitats in various stages of succession, and lands converted for agriculture, road development, and home site/business purposes that provide little or no wildlife habitat value. Butano SP provides a valuable core of preserved native habitats within this bioregion that is contiguous with other protected public lands or is linked to other native habitats. These linkages, both terrestrial and aquatic, allow movement of wildlife from one suitable habitat to another. Linkages may take the form of stream corridors or parcels of wildland through developed areas. Identifying and protecting linkages between the park and other surrounding open space is essential for maintaining healthy ecosystems and supporting regional conservation.

Regional Habitat 1: Protect known wildlife habitat linkages such as stream corridors and areas of natural vegetation to permit movement of native resident or migrating fish

and wildlife and to increase species abundance and diversity. Collect baseline information to monitor the health and function of core habitat areas and these linkages. Monitor wildlife as necessary to gauge the effectiveness of linkages and to identify wildlife population trends. The effects of human uses and impacts on the integrity of the park's ecosystems and wildlife movement should be measured and, where necessary, minimized. Maintain working relationships with other landowners, such as the open space districts, to coordinate efforts to identify and preserve habitat linkages.

Regional Habitat 2: Acquire available properties from willing sellers or obtain conservation easements that would connect wildlife habitats in the park to properties in the region that preserve similar habitats, that would provide more potential habitat in the case of habitat shift due to global climate change, and that might otherwise be converted.

Regional Habitat 3: Coordinate, collaborate, and take a leadership role, when appropriate, with agencies and regional partners on recommended regional conservation actions for the Central Coast region as identified in CDFG's Wildlife Action Plan. Actions include:

- Work with agencies and government land use planning processes to establish regional goals for species and habitat protection;
- Protect large unfragmented habitat areas, wildlife corridors, and underprotected ecological community types;
- Protect sensitive species and wildlife habitats;
- Provide greater resources and efforts to control invasive species and prevent new introductions.

CULTURAL RESOURCE MANAGEMENT

Butano SP contains a variety of cultural resources representing several phases of human occupation and activities. The park contains important Native California Indian sites unique to this portion of the state. Extensive prehistoric midden sites have been found in similar environments to those found within the park, and are anticipated to also be present within Butano SP. In addition, several historical-period activities are represented within the park, including homesteading, logging, transportation-related features, and remnants of a cooperative farming subdivision; however, few of these

resources have been recorded, inventoried or formally evaluated. Efforts should be made to identify and protect significant cultural resources.

Cultural Resource Management Goal: Identify, preserve, and protect significant cultural resources in Butano SP.

Cultural Resource Management Guidelines:

Cultural 1: Conduct a comprehensive survey of historic resources in the park to include focused archival research on the history of the park (for those portions not already completed). Complete focused historic context studies for the park that will provide for more meaningful significance evaluations. In particular, the significance of historic logging activities in the park should be evaluated.

Cultural 2: Survey, record, and evaluate areas of high probability for prehistoric archaeological sites (particularly along ridgelines). Establish criteria of significance for each class of resource for sites encountered in the future. Investigate, record, and evaluate the known historical sites and areas of historic-period activity.

Cultural 3: Preserve and protect those resources found to be eligible for listing in the National Register of Historic Places or California Register of Historical Resources and that are of regional or statewide significance. Develop treatment recommendations for significant historic structures and identify compatible and non-compatible uses. Protect significant prehistoric sites through identification, preservation, and avoidance.

Cultural 4: Prior to site-specific development, areas of potential impact shall be surveyed and evaluated to determine the presence and significance of cultural resources, the potential impact, and recommended mitigation, if appropriate. Impacts may be reduced by project avoidance, site capping, structural stabilization/preservation, project design, and data recovery.

Cultural 5: Park development strategies should include cultural resource treatments, as defined by the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, for identified historic buildings, structures, sites, objects, and features, combined with the interpretive objectives for the landscape as a whole, including the periods of significance, the integrity of the landscape and

its character-defining features, and the existing condition of these individual features.

Museum Collections

Museum collections are important to understanding a park's cultural and natural histories and for interpreting that information to the public.

A Scope of Collections Statement is required for every park unit that has, or plans to have, museum objects. The purpose of the Scope of Collections Statement is to define what objects constitute the permanent collection for this park, how the objects are used, and what objects are appropriate for the park to acquire. The Scope of Collections Statement describes how the park plans to interpret, exhibit, conserve, and make collections available for public research. It includes a description of the park's museum collections, historical time periods, interpretive themes, intended uses of museum objects, and recommendations for museum acquisitions and collection management goals.

The following collections guidelines outline the appropriate management of the museum collection. The Scope of Collections Statement is the document which will provide a detailed management plan.

Museum 1: A Scope of Collections Statement (SOCS) should be prepared for this unit and updated periodically to provide clear guidelines on which objects to seek, acquire, decline, and deaccession.

Museum 2: The park's museum collections shall relate closely to the park's history, resources, interpretive themes, and values, as given in this plan and further developed in the SOCS. Documents and artifacts of people, events, cultural features, or natural features shall be protected, curated, and accessible to the public.

Museum 3: Appropriate and relevant objects should be acquired, catalogued, and maintained to preserve original elements of the cultural and natural environment, to preserve documentation of people, events, and cultural or natural features that are central to the park's purpose, and to support the interpretation of park themes as presented in the interpretation section of this plan and any future park interpretive planning. These could include documents related to land use and park history, natural history specimens, and objects related to Native California Indian lifeways, logging, milling, homesteading, and



Every park that has museum objects, such as this owl specimen in the visitor center, is required to have a Scope of Collections Statement.

redwood preservation efforts. The SOCS will specify what types of items are desirable to acquire and maintain.

Museum 4: Collections acquired for or maintained at the park shall be managed in accordance with the policies and procedures outlined in Chapter 2000, Museum Collections Management, in the Department's Operations Manual, and the procedures specified in the SOCS. The Department should establish secure and climate-controlled collections storage, management, and research space for the park's collections.

VISITOR USE AND OPPORTUNITIES

In the last two to three decades, California's population has diversified and increased exponentially. As this trend continues, the demand for outdoor recreation activities and facilities will increase.

Of the several redwood parks in the region Butano SP seems the smallest, yet it offers a range of recreation opportunities. These include camping, picnicking, and trail use in a large backcountry area. Its unique recreation value lies in the intimate setting of its central visitor area, with an extensive trail system extending out into the Santa Cruz Mountains. Opportunities exist to increase and develop new trail connections to Big Basin Redwoods SP, Año Nuevo SP, and through POST's Cloverdale Coastal Ranches property to the coast. Trails, including shared or multi-use trails, could be created to connect to nearby regional and statewide trails, the coastline, and to urban centers around the park. In addition, minor modifications to the park's existing day and overnight use facilities could expand recreation opportunities without compromising the park's intimate atmosphere. As opportunities occur, camping could be expanded into areas outside of the more sensitive old growth redwood forest. There is also potential to collaborate with POST on the adjacent Cloverdale Coastal Ranches property to develop integrated recreation facilities and programs.

The demand for more and different outdoor recreation opportunities will increase as California's population continues to grow and diversify.

Recreation

Planning for recreation facilities and programs in the park is a complex process that requires the consideration of diverse issues and the collaboration of many agencies, groups, and individuals.

Recreation Goal: Provide a range of high-quality recreational opportunities at Butano SP that allow California's diverse population to visit, enjoy, experience, and appreciate the

natural, cultural, recreational, and aesthetic resources of the park, especially the coast redwoods.

Recreation Guidelines:

Recreation 1: Provide facilities and programs that enhance the public's enjoyment and appreciation of the park's natural, cultural, recreational and aesthetic resources, the coast redwood forest in particular. Include facilities that support appropriate activities such as hiking, camping, backpacking, nature and history study, bicycling, horseback riding, picnicking, and the enjoyment of solitude.

Recreation 2: Consider relocating, removing, and/or reorganizing recreation facilities as necessary to better serve visitor recreation and protect the public, to preserve and protect park resources, and to provide efficient park administrative, public safety, and maintenance functions.

Recreation 3: Provide recreation opportunities that expand the use of the park in the spring and fall "shoulder seasons" as well as in winter to increase recreational access and opportunities. Provide cool-season recreational programs and facilities. Investigate the potential for indoor overnight accommodations as a result of future acquisition and/or conversion of existing uses to serve higher priority visitor needs.

Recreation 4: Create diversified recreation opportunities across the region's state parks to disperse recreation, reduce resource impacts in sensitive natural, cultural, and aesthetic resource areas, and provide facilities and recreational opportunities that respond to unique site characteristics. Coordinate with federal, state and county agencies and open space and community-based organizations to plan a regional network of recreation opportunities.

Recreation 5: Provide information and facilities to encourage visitation to nearby state parks and regional open space. Methods to encourage this cross-connection include information describing regional resources and the area's historic connections, location maps and park and open space access information, trail connections, and mass transit opportunities.

Recreation 6: Provide additional day use and overnight accommodations, where possible, to serve the visitor needs reflected by California's changing demographic

trends. Consider group picnic and camping facilities, alternative overnight accommodations such as cabins or yurts, provisions for RV campers, and ADA-compliant recreational facilities where appropriate and compatible with the intimate park setting. Provide opportunities for loop trails and modify existing trails to provide overlooks for scenic, natural, and/or cultural resources, and to incorporate places for photo opportunities and interpretation.

Recreation 7: Evaluate new technologies and recreational activities and incorporate those that would enhance visitor experiences and benefit recreation facilities and programs, such as the Internet for public outreach and wireless Internet access.

Recreation 8: Acquire adjacent properties or easements from willing sellers that would provide recreation opportunities and connections between Butano SP and other state and regional parks.

Access and Circulation

Access to the park is through multiple entry points, on Cloverdale Road, Gazos Creek Road, and the Butano Fire Road. The park's main visitor entrance is located off of Cloverdale Road. The extensive trail system extends out from this entrance, day use, and campground area, and connects to the upper reaches of the Little Butano Creek, Butano Creek, and Gazos Creek watersheds. There are opportunities for additional trail connections to adjacent state parks and regional open space and natural lands.

Access and Circulation Goal: Provide access to and within the park that allows public use of its recreation resources and that is well-designed, efficient, safe, easy to understand, convenient, and enjoyable. Coordinate and maintain staff and visitor access and circulation to optimize efficiency, security, emergency access, and enjoyment of the park while still keeping with the park's character and avoiding resource degradation.

Access and Circulation Guidelines:

Access 1: Establish a park access system that provides clear direction for visitor arrival to and departure from the park. Park entrance facilities should convey a sense of the park's character through sensitive design that reflects local natural and aesthetic resources and avoids negative impacts to those resources. Locate the entrance facilities

to maximize visitor contact and administrative efficiency. Coordinate with Caltrans and San Mateo County to ensure that road construction, maintenance, and signage outside the park (especially on Gazos Creek Rd., Cloverdale Rd., and Highway 1) will result in convenient, and enjoyable driving experiences for motorists as they access the park's recreation areas.

Access 2: Work with the San Mateo County Roads Department to identify immediate, short-term safety and signage improvements that can be made (including at the trail junctions/parking areas along Gazos Creek Rd. and Cloverdale Rd.) and ensure that these are incorporated into regional transportation plans and budgets.

Access 3: Conduct detailed site analysis and evaluate alternatives for the park entry to address current and future vehicular and safety needs. Develop an entry plan that identifies facility locations, defines circulation routes, includes visitor information, directional and interpretive signage, establishes sufficient buffers between use areas and sensitive habitats, and respects the site's rustic character by minimizing road widths and visual intrusions, where feasible. Conduct project level environmental impact assessments, obtain necessary permits, and prepare CEQA documents and mitigation, as required.

Access 4: Review long-term infrastructure requirements needed to handle increased future use of the park.

Access 5: Work with transportation agencies to support an integrated and efficient multi-modal transportation system that facilitates visitor access to the park. Coordinate with these agencies to provide facilities such as bus pullouts, separate multi-use paths, and transit shelters that encourage and support a variety of park access transportation modes, including pedestrian, bicycle, and equestrian access, bus, shuttle, and other forms of public and private transit.

Access 6: Evaluate existing signs along park access routes and in the park's entrance area to determine if they are adequate to direct and orient visitors entering or leaving the park to maximize efficiency and visitor safety. Remove, combine, or relocate signs that are confusing, unnecessary, or unsightly in order to establish a design continuity and park identity.

Access 7: Provide a circulation system that separates vehicular from non-vehicular traffic where feasible, and separates public from park administration and maintenance functions in order to reduce potential user conflicts and enhance non-vehicular modes of transportation.

Access 8: During the peak season, coordinate with regional transit providers or concessionaires to provide transportation alternatives between area parks and open space preserves, such as a shuttle system that provides connections from Butano SP to other local parks, natural areas, and open space preserves.

Parking

Butano SP has parking facilities (approximately 100 spaces) primarily supporting the small day use picnic area and campground. High summer recreation demand creates some traffic conflicts, especially in the day use picnic area.

Parking Goal: Provide well-designed and convenient parking facilities that minimize negative impacts to natural, cultural, aesthetic, and recreation resources.

Parking Guidelines:

Parking 1: Provide safe and convenient day use and overnight parking as well as parking for group use and special events. Design and implement parking improvements to respond to actual demand for parking to minimize formal parking lot development. Explore alternatives for accommodating special event parking, such as the use of unpaved areas and satellite parking areas. Reconfigure parking availability where necessary to address public safety concerns and improve visitor experiences.

Parking 2: Ensure there is adequate and safe parking on the park's entrance road to accommodate visitors at peak use periods. Conduct periodic parking and circulation assessments to determine future parking needs and opportunities and to identify physical and environmental constraints. These assessments will be performed, as necessary, in response to the changing visitor and operational parking demands in the park.

Parking 3: Evaluate trailhead parking potential with access off of Gazos Creek Rd. and Cloverdale Rd.

Parking 4: Limit the number of parking facilities near or adjacent to sensitive natural, cultural, and aesthetic resource areas to minimize negative impacts to those resources.

Trails

Trails are important recreational facilities within and surrounding Butano SP and opportunities for a variety of trail experiences are in high demand. The park's location within the Santa Cruz Mountains may provide an opportunity to act as a central node for trail connections within the region.

Trails Goal: Provide a trail system that offers a range of trail experiences, including hiking, bicycling, and equestrian use. The trails will provide access to park areas and many will connect to regional and statewide trail systems.

Trails Guidelines:

Trails 1: Evaluate the condition of and use intensity of existing trails. Develop new trails and trailheads as necessary to provide visitors with a range of choices for enjoying pedestrian, bicycle, and equestrian access to the park's resources. Focus on providing trails that access areas of natural, cultural, and scenic interest, backcountry areas, and trails that connect to adjacent state parks, the Cloverdale Coastal Ranches, and regional trails. Promote and encourage the use of appropriate existing unpaved roads within the park as recreation trails for hiking, biking, and equestrian use. Where possible, locate trails for multiple users along historic trail routes, such as along ridges. Improve existing trailheads and create new trailhead facilities and trail connections in the backcountry. Use the Department's *Trails Handbook* to guide trail design, construction, management, and maintenance.

Trails 2: Adapt existing trails or develop new trails to provide trails and trail loops of various lengths that will provide a range of facilities for the diverse population. All new trails and alterations to existing trails will address ADA accessibility. Provide support facilities at locations such as trailheads that incorporate ADA-compliant picnic facilities, restrooms, and other universally accessible amenities.

Trails 3: Locate and maintain trails, trailheads, and unpaved roads (designated as multi-use trails) to avoid or minimize negative impacts to natural, cultural, aesthetic, and recreation resources and to avoid areas of

geological instability. (See Unpaved Roads goals and guidelines and guideline **Wildlife 2**).

Trails 4: Trails in the park and region are often adjacent to private property or are routed through private property via easement agreements. Provide signs clarifying public property boundaries where necessary and provide trail users with information regarding park rules, wayfinding, and regulations to minimize public/private use conflicts and trespassing.

Trails 5: Coordinate with regional parks and open space providers, community-based organizations, and landowners to encourage trail connections that connect Butano SP with other parks and open space preserves. Support federal, state, and regional trail objectives and plans, such as county local coastal programs. Provide maps that show authorized park and regional trail access points and trail systems.

Trails 6: Focus on acquiring, from willing sources, recreational corridors and easements for trails that connect the park to regional state parks and other natural lands and open spaces.

Trails 7: Develop a parkwide Roads and Trails Management Plan that evaluates the park's entire circulation system (including trails, unpaved roads, and paved roads) to guide the management, maintenance, location, and use of existing and future roads and trails. Emphasize opportunities for visitors to access and enjoy the park's natural and cultural resources, its recreational opportunities and facilities, its diverse topography, natural communities, and scenic views. The management plan should be consistent with the Department's *Trails Policy*, recognize regional trail connections, recreation opportunities, resource sensitivities, habitat linkages, and population diversity, and provide opportunities for public input.



The Jackson Flats trailhead along the Butano Fire Road.

Unpaved Roads

Butano SP has unpaved roads that serve multiple uses – park operations and patrol, fire suppression and emergency access, bicycle riding, horseback riding, and hiking. Some of the unpaved roads in the park are designated fire roads that are managed and maintained by Cal Fire.

Unpaved Roads Goal: Unpaved roads will be managed and maintained to minimize negative effects to natural, cultural, aesthetic, and recreation resources.

Unpaved Roads Guidelines:

Unpaved Roads 1: Inventory and map the location and condition of unpaved roads in the park. This effort could be in conjunction with a parkwide Roads and Trails Management Plan (see **Trails 7**).

Unpaved Roads 2: Evaluate the need for existing unpaved roads and develop a plan, consistent with watershed management plans and assessments, for the removal of any unnecessary unpaved roads.

Unpaved Roads 3: Develop an unpaved road management and maintenance strategy, consistent with site-specific conditions and physical constraints.

Unpaved Roads 4: Implement unpaved road maintenance prescriptions, consistent with park watershed management plans and with park natural and cultural resources protection.

Accessibility

Currently there are universally-accessible camping, picnic, and visitor center facilities at Butano SP. Future projects will retrofit additional existing facilities to ADA standards and provide further universally-accessible facilities and recreation opportunities.

Accessibility Goal: Make Butano SP's recreation facilities universally-accessible and provide high quality recreational opportunities for all visitors.

Accessibility Guidelines:

Accessibility 1: Provide universal access to the park's recreation facilities and resources, where feasible, including buildings and their contents, historic structures and landscapes, roads, walkways, and trails, and the park's important natural and cultural resources, in accordance with the *Americans with Disabilities Act* and *California State Park's Accessibility Guidelines*. Provide universal accessibility in staff work areas and in park residences as they are developed or renovated.

Accessibility 2: Use the *California Historic Building Code* as a guideline for providing appropriate accessibility in historic structures. The code provides alternative regulations to facilitate access and use by persons with disabilities to and throughout buildings, structures, and sites designated as qualified historic buildings or properties. Reasonably equivalent access alternatives are evaluated as part of this process.

Aesthetics

All landscapes are dynamic and have multi-dimensional characteristics. Expansive vistas, focused views, the quality of light, visual patterns and textures, temperature, and scent blend together to create the park's distinctive aesthetic qualities. The park's natural and cultural features and the quality of sound in a park environment also contribute to the quality of visitor experience. Positive sounds such as birds in the trees, moving water, and the hushed quiet in the redwood forest are important aesthetic elements in the park to preserve and protect.

Aesthetics Goal: Identify and protect positive aesthetic values to preserve the fundamental character of the park for future generations.

Aesthetics Guidelines:

Aesthetics 1: Protect, preserve and enhance positive aesthetic resources and remove or screen elements that have negative aesthetic qualities to preserve the park's scenic and recreation value.

Aesthetics 2: Integrate positive aesthetic features into the design of park facilities, interpretive programs, and maintenance programs. The design style should be site-specific and contextual – reinforcing the colors, shapes, scale, and materials in the surrounding environment to integrate and complement the park's natural setting. Preserve and showcase scenic views, use native (or replicated) building materials where appropriate, use muted colors that reflect the natural surroundings, and take advantage of (or screen) ephemeral conditions (e.g. weather, wind, sunlight, etc.), as appropriate.

Aesthetics 3: Develop and implement design standards or guidelines for facilities and signage to share similarities in style and/or materials, to create a sense of park identity and visual continuity, and to reflect and preserve positive aesthetic values. Evaluate "first impressions" at the park

entrance points and in other park locations and organize, consolidate, screen, or remove unnecessary, repetitive, or unsightly elements.

Aesthetics 4: Where appropriate, visually screen parking lots, roads, operations facilities, storage areas, and other negative views from public use areas. Use native vegetation, rocks, elevation change, berms, and other methods that either use or mimic natural elements to minimize any negative visual impacts from these facilities and enhance scenic views.

Aesthetics 5: Limit artificial lighting to avoid brightening the dark night sky. Restrict night lighting to the more developed areas of the park (e.g. buildings and parking lots) and provide lighting fixtures that focus the light downward. Light levels should be as low as possible, consistent with public safety standards. Refer to the Department's Lightscape Protection Policy (DOM, Chapter 0300, 2004) when evaluating lighting.

Aesthetics 6: Minimize vehicle noise in visitor use areas through screening, separation of use, and other appropriate techniques. Locate administrative and maintenance functions away from the park's public areas, if possible, and take appropriate measures to minimize construction and maintenance noise.

Aesthetics 7: Restrict levels of sound from radios and other human-made devices. Enforce park noise standards, especially during night and early morning hours. Refer to the Department's Soundscape Protection Policy (DOM, Chapter 0300, 2004) when planning new facilities or evaluating noise standards, and comply with federal and state noise ordinances and standards.

Aesthetics 8: Coordinate with local, state, and federal agencies, open space providers and community groups, landowners, and other stakeholders to preserve, protect, and enhance positive aesthetic features and viewsheds. Follow Local Coastal Program and other applicable standards for aesthetic resources.

Aesthetics 9: Acquire property and conservation easements from willing sources to expand and protect the park's aesthetic resources.

Concessions

Concessions play a supportive role in enhancing the mission of California State Parks by providing essential and appropriate services that the Department may not have the resources or expertise to provide and are not being provided nearby by private business. Currently, there are no concessions operating at Butano SP.

Concessions Goal: Provide high quality recreation and visitor services through concessions contracts while protecting the park's natural, cultural, recreation, and aesthetic resources.

Concessions Guidelines:

Concessions 1: Provide visitor services and products that enhance recreational and/or educational experiences at the park, consistent with the Public Resources Code, Department policies, the park's purpose and classification, and General Plan guidelines.

Concessions 2: Evaluate and implement new types of concessions at the park to respond to regional and statewide recreation trends, demographic changes, and needs that are not being met by the private sector.

INTERPRETATION AND EDUCATION

The National Association for Interpretation defines interpretation as "a mission-based communication process that forges emotional and intellectual connections between the interests of the audience and the meanings inherent in the resource." Interpretation is designed to inspire the audience to care more about a subject or resource, not necessarily to teach facts.

Interpretation can enhance a park visitor's experience and their understanding of the park's resources. Interpretation promotes recreational enjoyment, visitor safety, cultural and natural resource protection and appreciation, and an understanding of management and maintenance practices. Opportunities exist to increase the effectiveness, accessibility, and efficiency of park interpretive programs, activities, and facilities. Interpretation can play a larger role in helping visitors reduce their impacts on the park's resources and promoting future park and environmental stewardship.

Education differs from interpretation in that it is aligned with established curricula, educational goals, and specific learning objectives. Education programs are usually presented to school groups. California State Parks is a leader in providing

Good interpretation
inspires the
audience to care
more about a
subject or resource.

education programs for California's grade K-12 school groups. There are opportunities to provide more outdoor environmental education and other education programs in and around Butano SP, especially in partnership with other education providers in the region.

Interpretation and Education Goal A: Increase visitor understanding, appreciation, and enjoyment of the natural, cultural, and recreational resources of the park.

Interpretation and Education Guidelines:

Interpretation 1: Use interpretation techniques to provide visitor orientation and wayfinding information.

Interpretation 2: Provide visitors with attractive, well-written information on interpretation and recreation opportunities.

Interpretation and Education Goal B: Support park management goals, including public safety and resource protection, and inspire visitors to support the park and adopt resource protection behavior beyond their park visit.

Interpretation 3: Educate visitors about safe behavior in the park.

Interpretation 4: Provide interpretation on marbled murrelet protection and the impact of feeding wildlife.

Interpretation 5: Interpret other management programs to restore and preserve the park's natural and cultural resources.

Interpretation 6: Interpret State Parks' measures to reduce global climate change and inspire park visitors to adopt similar measures in their daily lives.

Interpretation and Education Goal C: Interpret the distinctive features of the park and put them into a regional and statewide context.

Interpretation 7: When developing interpretive programs and interpretation plans for the park, focus on the most important and distinctive values and stories of Butano SP, as outlined in the interpretive themes in this plan.

Interpretation 8: Interpret how park resources and stories relate to those of the local region and other state parks. Refer visitors to other regional interpretation sites for further information on related themes.

Interpretation and Education Goal D: Integrate natural, cultural, aesthetic, and recreational interpretation. Interpret processes and relationships (patterns, cycles, interactions, and adaptations) rather than isolated facts.

Interpretation 9: Interpret wildlife, plants, and people (past, present, and future) in the context of the park's ecology and history.

Interpretation 10: Demonstrate how different perceptions of area resources have led to vastly different uses, including farming, logging, nature study and appreciation, and recreation.

Interpretation 11: Provide additional cultural history interpretation; for example, cultural history exhibits at the visitor center and interpretive panels at selected historic sites.

Interpretation and Education Goal E: Make interpretation more engaging, address multiple learning styles, and accommodate people with disabilities by using varied interpretation techniques and media.

Interpretation 12: Emphasize tactile, auditory, and object-related media that are dynamic or dramatic. Use a well-designed mixture of media to make exhibits interesting and make interpretation accessible to all visitors.

Interpretation 13: Consider offering scheduled shuttle interpretive tours of backcountry areas using existing fire roads, if road easements and ownership will allow this on suitable routes. These tours could also visit other park units in the Santa Cruz Mountains and offer an overview of the area's history, geology, wildlife, and plant communities.

Interpretation and Education Goal F: Align all educational programs with California Department of Education Content Standards.

Interpretation 14: Design future school programs to be aligned with appropriate target grade content standards. Ensure that redwood ecology and riparian habitat school programs are aligned with the California Department of Education Science Content Standards for grades 4-6.

Interpretation 15: When planning a program with an emphasis in one main curriculum area, include appropriate material that addresses grade-level content standards in other curriculum areas when appropriate – for

example, include history/social science, visual arts, and English-language arts in a life sciences program.

Interpretation and Education Goal G: Increase support and resources for park interpretation.

Interpretation 16: Work with interested parties to provide environmental education, research, and restoration opportunities.

Interpretation 17: Coordinate with other area interpretation and education providers, such as the Peninsula Open Space Trust and the Cloverdale Coastal Ranches, to provide interpretive, educational, and recreational opportunities. Cooperative agreements could include sharing and coordinating recreational, interpretive, and educational facilities and programs.

Interpretation 18: Improve the park's interpretation resource library for docents and staff, onsite archive, interpretation tool and material storage area, and docent support facilities. Submit all interpretation archive materials to the park's Unit Data File to ensure it will be available in the future.

Interpretation 19: Work closely with the park's cooperating association and volunteers to improve and expand park interpretation resources, programs, and opportunities.

Subsequent Interpretation Planning

State park unit interpretation planning is divided into three levels, each more detailed than the preceding level. The first, broadest, level is the interpretation information in the unit's general plan. The general plan interpretation goals and guidelines are based on State Parks mission, systemwide interpretation operations, and resource management goals, guidelines, and directives.

The two subsequent plan levels are:

- Interpretation Management Plan
- Project Plan

It is important to develop these more detailed interpretation plans in order to present an organized, well-managed, and cohesive interpretation program in the park. Future interpretation planning for Butano State Park will build on the vision, goals, guidelines, themes, and interpretive periods as presented in this General Plan.

Interpretation Management Plan

The Interpretation Management Plan builds on the interpretive periods, themes, goals, and guidelines from the general plan to provide greater definition of the unit's interpretation. It is a shorter-range plan than the general plan. The Interpretation Management Plan is divided into two sections:

- Master Plan
- Implementation Plan

The Master Plan section expands on the themes from the general plan, makes more specific recommendations and projections, and defines media and techniques to be used in park interpretation. The Implementation Plan section prioritizes unit interpretation development projects, provides estimated costs, and recommends an approach to implement the plan. The Implementation Plan section may need to be reviewed and updated more frequently than the Master Plan section.

Interpretive Project Plans

Interpretive project plans provide yet more specific direction to the park's interpretive programs and facilities by defining specific interpretive development projects. Interpretive project plans detail the methods, media, and programs for interpreting the resources of a unit. Examples of interpretive project plans include exhibit plans, interpretive trail plans, media plans, and furnishing plans.

Interpretation Planning 1: Prepare an Interpretation Management Plan that further delineates the park's interpretive themes, periods, facilities, and media, and presents a plan for implementation. Update the management plan as needed, based on changing area conditions and park and visitor priorities.

Interpretation Planning 2: Consider preparing the Master Plan segment of the Interpretation Management Plan as a regional plan, including nearby parks such as Año Nuevo SP and Big Basin Redwoods SP, in order to coordinate interpretation on a regional level.

Interpretation Planning 3: Develop specific interpretive project plans for all Butano SP interpretation.

Interpretation Planning 4: Integrate all interpretation planning with regional and statewide interpretation planning and development, both within California State Parks and with other local agencies.

Interpretive Periods

A primary interpretive period focuses interpretation on the time period of greatest significance in the park's cultural history. The significance is determined by important events associated with the park site, or by notable existing historic or prehistoric resources at the site. Choosing the primary and secondary interpretive periods also involves considering what stories are best told in a particular park, the uniqueness of the resources, the amount of information available to draw upon, and the physical evidence available for visitors to relate to. A secondary interpretive period designates a time period that is worthy of interpretation but that should receive less emphasis than the primary period. Except for major natural phenomena such as earthquakes or fire, interpretive periods generally are just set for cultural resource interpretation.

Primary Interpretive Period

From Logging and Homesteading to Butano State Park: 1860s to 1950s

The Primary Interpretive Period includes the 1860s homesteading of William Jackson in Little Butano Canyon and E.P. Mullen's goat ranch at Goat Hill; William Taylor's 1873 shingle mill on Little Butano Creek; the 1920s Peninsula Farms on Little Butano Flats; the story of Peter Olmo; the unsuccessful 1920s campaign of the Sempervirens Club to preserve the Butano Creek redwoods; the 1930s Save-the-Redwoods League study for a park on Little Butano Creek; and the successful 1950s campaign of Butano Forest Associates to help the State acquire park lands.

Secondary Interpretive Period

California Indian Period: prehistory to 1850s

The Secondary Interpretive Period includes the prehistoric and post-European contact lifeways and histories of the Native California Indians of the area.

Interpretive Themes

Interpretation uses themes to connect visitors to the significant recreational, natural, and cultural resources of the park in personally meaningful ways. Themes provide a point of view for presenting information and inspiration through various interpretive media. The unifying theme integrates the park's themes.



Unifying Theme

Butano's ancient and second-growth redwoods and its diverse natural communities and human history offer visitors rich opportunities for recreation and reflection.

The unifying theme stresses the restorative value of a visit to "the quiet redwood park." It also emphasizes that there are other resources besides redwoods to be enjoyed and appreciated.

Primary Themes

The Redwood Theme

A Second Chance - The park's second-growth redwood forest is on its way to becoming old-growth once again.

This theme explores the specialties and adaptations of the coast redwood with an emphasis on how the redwood's resilience accounts for the rapid restoration of logged over areas of the park to their current state of integrity and beauty.

Natural Communities and Adaptations Theme

Butano State Park, along with other Santa Cruz Mountains state parks, preserves a rich variety of wild communities and species that use well-honed relationships and adaptations to survive.

This theme covers the park's natural communities from the dark moist redwood valleys to the dry ridges and peaks. These communities include: coastal scrub, grassland, coastal stream, wetland, redwood/Douglas-fir forest, oak woodland, and knobcone pine communities. This theme also covers the evolutionary adaptations that species in the park use to survive, as well as the park's special status habitats and species.

Recreation Theme

Butano Now and Tomorrow - We can enjoy Butano State Park today and preserve its many values for tomorrow.

This theme addresses visitors' need for orientation to the park, the park's recreational opportunities, and tips on how to enjoy a safe and low-impact visit.

Aesthetic Theme

The Quiet Redwood Park – Butano State Park offers a chance to slow down and enjoy the peaceful beauty of the redwood forest.

“Take time to stop and smell the roses” is a truism that many people are not able to follow in their day-to-day busy lives. At Butano SP, visitors can reconnect with nature and themselves via the scattered pattern of light sifting through the redwood branches, the soft feeling and earthy smell of the redwood duff underfoot, the muffled echo of bird calls throughout the forest, and the time and tranquility to think.

Resource Opportunities and Challenges of the Future Theme

The natural communities at Butano State Park have and will continue to benefit from restoration projects, but they also face challenges from global climate change and other stressors in the future.

California State Parks preserves, protects, and also restores natural resources in its care. Global climate change will affect the plant and animal communities at Butano SP. Some changes can be mitigated, but other changes may be irreversible. State Parks is actively working to reduce its carbon footprint and lessen the negative effects of global climate change. Park visitors will receive this message, and also be inspired to make changes in their own habits to reduce global climate change.

Secondary Themes

Physical Forces Theme

Geology, weather, water, and fire continue to shape and re-create Butano State Park's plant and animal communities.

This theme covers the geologic formation of the Little Butano Creek and Gazos Creek watersheds, how the area's topography transforms weather into microclimates, and how fire destroys and rejuvenates Butano's plant and animal communities.

Ohlone Theme

The Ohlone camped along Butano's ridgetops in summer and used them as corridors for trading marine resources inland.

This theme covers the lifeways and traditions of the Ohlone people that lived in this area.



Logging Theme

Early loggers cut Butano's redwoods to supply the changing needs of a growing state.

This theme covers the history, personalities, and technology of logging in the Butano area.

Homesteading Theme

Making a living as a pioneer in the Butano forest required hard work and ingenuity.

This theme covers the 19th century lives and lifestyles of the Jackson, Taylor, and Mullen families, and the 20th century story of Peter Olmo.

Park Preservation Theme

The people of California leave a living legacy by saving the Butano forest and founding Butano State Park.

This theme covers the preservation campaigns and personalities of the Sempervirens Fund, Save-the-Redwoods League, and Butano Forest Associates that helped the State acquire the park's lands. It also interprets preservation groups' continued support of Butano SP and the surrounding redwood forest.

PARK OPERATIONS

Infrastructure and operations are at the core of a functional park. They are integral to meeting the park's purpose and vision and managing resources and visitor uses. Because future staffing and management organization may change, interagency and intra-district cooperation and sharing of personnel and resources can help to ensure efficient operations and up-to-date infrastructure.

Interagency and intra-district cooperation can help to ensure efficient operations.

Visitor Safety

Visitor safety is closely associated with a well-designed and efficient access and circulation system. Visitor vehicular access is limited to Gazos Creek Road, Cloverdale Road, and the Park Entrance Road. Park staff also use the Butano Fire Road, the Olmo Fire Road, and the road to the water treatment plant for patrols of the park and for emergency access.

Visitor Safety Goal: Ensure inter-modal emergency access to all areas of the park.

Visitor Safety Guidelines:

Visitor Safety 1: Ensure emergency communications, radios, frequencies, and other communications are available in order to carry out visitor and public safety.

Visitor Safety 2: Work with adjoining landowners to establish right-of-way easements over the Butano Fire Road and Olmo Fire Road, where necessary, for park operations, emergency vehicle access, and recreational use.

Visitor Safety 3: Work with Cal Fire and other agencies to ensure that emergency response vehicles can reach most park locations, given the park's paved roads, bridges, and unpaved fire roads, and that alternative emergency response measures are explored.

Special Agreements

The park has a variety of legal agreements with different entities. It is important that these agreements are kept up-to-date and that they respect the purpose and vision of the park while honoring any legal requirements.

Special Agreements Goal A: Ensure that water diversions out of Little Butano Creek meet legal requirements, do not interfere with park operations, and do not have significant adverse effects on resources.

Special Agreements Guidelines:

Special Agreements A-1: Work with the current owner of the Little Butano Creek water rights (Peninsula Open Space Trust) to monitor current diversion practices and ensure that the methods comply with current legal agreements.

Special Agreements Goal B: Enhance the functionality of the park operations through coordination and cooperation with adjacent landowners. Ensure that all easements, access agreements, or other legal arrangements are in the best interests of the Department and consistent with the park's purpose and vision.

Special Agreements B-1: Contact adjacent landowners to identify any parcels that may be available from willing sellers and suitable as park additions. Investigate and seek opportunities for securing easements or parcel additions that will enhance the functionality of the park.



Special Agreements B-2: Review all legal agreements regularly and check operating language to ensure compatibility with the park's mission and operations, monitor physical effects over time, if any, and update and modify agreements as necessary.

Operations Facilities

Efficient park operations require adequate staffing and associated facilities. Currently staff administration work takes place at the unit's ranger office, at nearby Año Nuevo State Natural Reserve, at the Santa Cruz Mountains Sector Office, and at the Santa Cruz District Office. Maintenance operations are conducted out of two separate nearby offices. Identifying long-term needs and plans for multi-functional staff operations will prevent piecemeal developments and inefficient park operations.

Facilities Goal: Provide sufficient staff housing and all-season work-space for park operations, storage, and seasonal workers to meet long-term operational needs.

Facilities Guidelines:

Facilities 1: Maintain and upgrade existing park residences for staff housing and upgrade structures for fire safety and functionality.

Facilities 2: Ensure adequate office space for rangers, maintenance staff, administrative staff, and volunteers to provide self-contained, onsite management.

Facilities 3: Design multipurpose all-weather work areas for maintenance operations and for storage of supplies and tools. Locate work areas close to vehicle storage and maintenance shops.

Facilities 4: Identify temporary housing or other facility needs that would attract and provide for seasonal workers.

Utilities

Park building construction dates vary from the early 20th century to modular buildings erected in the late 1990s. Current utility needs may require upgrades to existing services. One of the biggest constraints is the limited amount of potable water for public consumption and the limited water storage and distribution. Expansion of the system is also restricted based on reliance on the current water plant and the water source, the Little Butano Creek.

Utilities Goal: Ensure long-term sustainable, environmentally compatible and energy-efficient infrastructure function for the park.

Utilities Guidelines:

Utilities 1: Upgrade the potable water supply and distribution systems to the existing park buildings and key visitor locations.

Utilities 2: Locate and map the current utility systems in the park - telephone, electricity, and water - and maintain maps in a current condition, so that staff can recognize and respond to utility problems efficiently.

Utilities 3: Identify utility needs and implement utility improvements comprehensively to avoid unnecessary site disturbance and expensive rerouting of utility corridors and junctions over time. Ensure maximum energy efficiency with all improvements, repairs, and new projects.

Utilities 4: Prepare a condition assessment of the unit's current park infrastructure and determine the long-term facility needs for water, power, and other utility systems. Develop recommendations for utility replacement, upgrades, and new construction, in support of future park development, maintenance, and operational needs. Plans for infrastructure and facilities development shall be consistent with other park management goals and guidelines identified by the General Plan.

Sustainability

The concept of sustainable design represents a desire to harmonize the built environment with natural systems by emphasizing the principles of energy conservation, waste reduction, and pollution prevention. California State Parks can apply sustainable design principles that complement the Department's mission to provide recreation opportunities while preserving resources for future generations and to focus on creating environments that promote good health. It is especially important that park units use sustainable design principles, including energy and water conservation, to reduce greenhouse gas emissions in light of the potential environmental changes due to global climate change. In doing so, the Department will also encourage the development of new technology and innovations that will reduce these heat-trapping emissions, and will illustrate to visitors examples of positive actions to reduce energy use and greenhouse gas emissions.

Sustainability Goal: Incorporate sustainable design principles into the design, development, operations, and maintenance of park facilities and programs.

Sustainability Guidelines:

Sustainability 1: Use sustainable design strategies to minimize impacts to the park's natural, cultural and aesthetic resources. Choose low-impact building sites, structures, and building and landscape materials, and maintenance and management practices that avoid the use of environmentally-damaging, waste-producing, or hazardous materials. Use natural, renewable, indigenous, and recyclable materials, and energy-efficient design.

Sustainability 2: The use of sustainable materials shall be compatible with the aesthetics goals and guidelines.

Sustainability 3: Interpret sustainable design elements in the park to encourage a sense of connection to the surrounding natural and cultural resources and inspire personal behavior that reduces negative impacts to the environment and promotes energy conservation.

Sustainability 4: Consult the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) standards. These standards have been developed to promote environmentally healthy design, construction, and maintenance practices

Sustainability 5: Use low- or zero-emission vehicles when possible, for park operations and maintenance, and a potential shuttle system. Use low- or zero-emission grounds maintenance equipment as much as practicable, such as electric trimmers, chain saws, and mowers. Substitution of lower-emission and alternative energy-source tools and vehicles will reduce air quality impacts and heat-trapping emissions, and promote energy efficiency.

Regional Planning and Community Involvement

Butano SP is located on the western slope of the Santa Cruz Mountains, with its primary use area approximately halfway between the coast and the uppermost mountain peaks. To the south and east are Año Nuevo SP and Big Basin Redwoods SP, and close by are several additional state parks with similar natural, cultural, recreational, and scenic resources. The proximity of these parks provides the opportunity for coordinated and integrated management. Working in partnership with the region's open space

agencies, recreation providers, and adjacent property owners can strengthen natural and cultural resource protection, enhance park operations, improve recreational and educational opportunities, and protect property interests in the region.

Regional Planning Goal: Integrate the planning and management programs at Butano SP with the programs of other parks, natural lands, and open spaces in the Santa Cruz Mountains.

Regional Planning Guidelines:

Regional Planning 1: Coordinate resource management, operations, staff housing, interpretation, visitor and emergency services, and facility development programs at Butano SP with other state parks in the area to provide an integrated network of regional natural lands, open spaces, and healthy ecosystems, protect cultural and aesthetic resources and high-quality recreational opportunities, and promote operational efficiencies.

Regional Planning 2: Work in partnership with state, regional, and local agencies, private landowners, and other organizations to establish a network of regional open spaces and a variety of recreational, educational, and transportation opportunities. Coordinate park planning with local natural lands and open space planning efforts such as those of the Peninsula Open Space Trust, the Midpeninsula Regional Open Space District, and other regional organizations.

Regional Planning 3: Coordinate and collaborate with universities, colleges, and other research organizations to increase the knowledge of resources in the park and in the Santa Cruz Mountains region. Acquire and maintain cooperative agreements with adjacent landowners, neighbors, and local jurisdictions responsible for zoning and land use management to provide open space buffer areas to protect sensitive park resources and to identify and preserve wildlife habitat linkages.

Regional Planning 4: Communication systems within the park and with the greater Santa Cruz Mountains region should be maintained to provide the greatest electronic transmission area possible to allow park staff to respond effectively to emergencies.

Regional Planning 5: Coordinate with state, county, city, and local organizations to provide effective and efficient

public safety programs in the park and to maintain emergency evacuation routes to allow safe and immediate exit from areas of the park where people visit, work, or reside.

Regional Planning 6: Coordinate with state, regional, and local agencies and other organizations to provide alternative transportation modes and services between Butano SP and other state and regional parks, open spaces and urban centers.

Regional Planning 7: To expand affordable housing for park employees, coordinate with other parks and agencies in the region to identify and utilize potential shared housing opportunities.

Regional Planning 8: Provide input to San Mateo County, the California Coastal Commission, and appropriate local, state, and federal agencies during environmental review of development projects regarding the visual impacts of surrounding development within the viewshed of Butano State Park, particularly if development would be visible from important viewpoints.

4.6 MANAGING VISITOR CAPACITY

The Visitor Capacity Management (VCM) section presents the initial capacity of developed facilities and the Department's methodology used to evaluate existing and desired conditions and capacity issues related to the future development and use of the park. The General Plan and this discussion of visitor capacity provides a structure to meet the requirements of the Public Resources Code, Section 5019.5, which states:

"Before any park or recreational area development plan is made, the department shall cause to be made a land carrying capacity survey of the proposed park or recreational area, including in such survey such factors as soil, moisture, and natural cover."

Butano SP contains developed areas with recreation and administrative facilities, as well as a large amount of undeveloped natural open space. The moderate visitor use that presently occurs in the park is considered to be at levels generally consistent with the park's resource management objectives.

The General Plan identifies recreation opportunities and physical constraints, and includes guidelines and alternatives for managing resources and desired visitor experiences. Using the adaptive management process described in the following section, park managers can measure visitor use and take the appropriate actions to reduce or limit negative impacts. Physical constraints for development and public use exist in the park, such as the presence of old growth and recovering redwood forests, sensitive vegetation communities and wildlife, archaeological and historic sites and features, steep topography, existing roads, easements, and drainages. These elements are limiting factors in park facilities design and area visitor capacities.

The type, quality, and character of visitor experience are also influenced by visitor demographics, population diversity, and statewide recreation trends. These dynamic influences contribute to defining the nature of what we consider desirable park experiences and conditions. Social constraints also exist due to the increased population levels and diversity in California and within the communities in the region. These population trends will have an influence on park development and facility design, and can also be viewed as opportunities for cultural awareness and exchange.

The Department's methodology focuses on the initial capacity of developed facilities and desired resource and social conditions. Subsequent surveys, analysis, and monitoring programs are necessary in order to make final determinations and adjustments in visitor capacity through future adaptive management actions. The methodology to be used in this process is outlined below.

VISITOR CAPACITY MANAGEMENT METHODOLOGY

The following represents an adaptive management cycle, or methodology, that involves research, planning, monitoring, and management actions to achieve sustainable resources and social conditions. This methodology was initiated during this general planning effort and applied with the level of detail commensurate with the conceptual nature of this plan. This includes the identification of existing opportunities and constraints and the description of desired resources and social conditions (see **Table 4-1**). Visitor capacities are included for park areas when sufficient data is presented.

Visitor Capacity Management is defined by California State Parks as:

“A methodology used to determine and maintain the desired resource and social conditions that fulfill the purpose and mission of a park. It includes establishing initial visitor capacities, then monitoring key indicators in order to identify appropriate management actions in response to unacceptable conditions.”

Adaptive Management Process

The following tasks are usually carried out during the resource inventories, unit classification, and general planning processes. Subsequent management plans and site investigations provide the more detailed information necessary for project-level analysis and impact assessments in order to initiate required mitigation and monitoring programs. These tasks are presented here for an understanding of the iterative process that California State Parks considers from the programmatic planning stages of the general plan through the project implementation and monitoring phases.

- 1. Identify Existing Opportunities and Constraints:** Through ongoing research, surveys, and site investigations we are able to document existing resources and social conditions. This data helps identify opportunities and constraints, and establishes the baseline condition for natural, cultural, and recreational resources.
- 2. Determine Vision and Desired Conditions:** The analysis of current uses and condition assessments begin to shape the types of activities and experiences that are desired. This increases our ability to determine the resource conditions we desire and the protective measures, including thresholds (standards) of acceptable resource conditions that are necessary to maintain those resource conditions.
- 3. Identify Issues and Evaluate Alternatives:** The analysis of resource and social impacts related to current use helps identify the issues, problems, and thresholds that shape the vision or desired conditions of the park. Additional surveys, studies, or site analysis may be necessary to understand the full effects of existing uses, potential alternatives, or feasibility of desired improvements. It is at this stage that the objectives of visitor use and capacity for specific units are determined, which may include quantitative limits on

certain park uses (e.g., the number of campsites or parking spaces in the park).

- 4. Develop Measurable Indicators and Thresholds:** Key indicators are identified that can diagnose whether the desired conditions for a park are being met. These indicators must be measurable and have a direct relationship to at least one desired condition (e.g. the number of exposed tree roots per mile of trail). Thresholds that reflect desired conditions are then identified for each indicator (for example: 100 tree roots per trail mile maximum). Through monitoring processes, management is alerted when conditions exceed a determined threshold or deviate outside the acceptable range.
- 5. Establish Initial Visitor Capacities:** Initial visitor capacities are formulated based on the analysis of existing conditions, alternative considerations, desired future conditions, and prescribed goals and objectives. Implementation occurs when sufficient knowledge is gained and plans are finalized. As environmental impact assessments and monitoring programs are initiated, plans are implemented and new patterns of use are generated.
- 6. Monitor Use and Identify Changing Conditions:** Through monitoring and further study we can assess the degree of impact or changing conditions that occur over a specified period of time. Thresholds and indicators are used in the monitoring process to determine when an unacceptable condition exists. Unacceptable conditions trigger management action(s) appropriate to correct the unacceptable condition.
- 7. Adjust Environmental or Social Conditions:** As monitoring efforts reveal that conditions may be approaching or exceeding thresholds, management must consider alternatives and take appropriate action. The analysis of impacts and their causes should direct management toward actions that adjust resource/experience conditions to a desired state. This may include further studies, new project design, and stronger enforcement of rules and regulations, which may also require adjustments to the initial visitor capacities.

Research, Investigations, and Monitoring

Data from research, pre-project site investigations, visitor impact assessments, post-project evaluations, and baseline resource monitoring can all be captured and used to make sure the desired condition of the park is maintained. A program of continued research and site investigations provides information and documents updated data on resource conditions and new problems as they may occur. Periodic surveys provide a measure of visitor satisfaction and identify recreation trends and public opinions on the types of activities and experiences people are seeking. These ongoing efforts build the unit data file for subsequent planning and analysis, and monitoring programs ensure that development actions achieve the desired outcomes.

Table 4-1 contains a sampling of indicators that may be developed based on some of the guidelines in this plan and their associated desired outcomes. These indicators may be modified on a regular basis, based on site-specific knowledge, recent observations in the field, and updates in scientific understanding, in order to achieve the desired outcome.

**Table 4-1
Desired Outcomes and Indicators
(Carrying Capacity Objective)**

| Goals & Guidelines | Desired Outcomes | Indicators (Environmental & Social) | Potential Management Actions & Monitoring Activities |
|---|---|---|--|
| <p>Natural Resources</p> <p>Protect all special status native wildlife species and their habitats. Include all taxa that are locally important (including endemic species) as well as those protected by federal and/or state law.</p> | <ul style="list-style-type: none"> ▪ Sustainable populations of special status wildlife species. | <ul style="list-style-type: none"> ▪ Occurrence of special-status wildlife species. ▪ Active nest sites. ▪ Presence of suitable habitat. ▪ Abundance of prey species. ▪ Periodic sightings reported. | <ul style="list-style-type: none"> ▪ Prepare and update a comprehensive list of species requiring special management attention. ▪ Periodic field surveys. ▪ Check for active nest sites prior to construction activities. |
| <p>Protect special status plant species to the degree necessary to maintain or enhance populations.</p> | <ul style="list-style-type: none"> ▪ Sustainable populations of special status plant species. | <ul style="list-style-type: none"> ▪ Occurrence of special status plant species. ▪ Presence of associated healthy plant communities. | <ul style="list-style-type: none"> ▪ Initiate a survey for special status plant species in the park. ▪ Periodic field surveys. |
| <p>Cultural Resources</p> <p>Protect significant cultural sites and features.</p> | <ul style="list-style-type: none"> ▪ Integrity and value of cultural resources retained. | <ul style="list-style-type: none"> ▪ Disturbance to known archeological sites. ▪ Retention of historic building fabric. | <ul style="list-style-type: none"> ▪ Survey, record, and evaluate areas of high probability for prehistoric archeological sites (particularly along ridgelines). ▪ Establish criteria of |

**Table 4-1
Desired Outcomes and Indicators
(Carrying Capacity Objective)**

| Goals & Guidelines | Desired Outcomes | Indicators (Environmental & Social) | Potential Management Actions & Monitoring Activities |
|---|---|---|---|
| | | | significance for each class of resource. <ul style="list-style-type: none"> ▪ Investigate, record, and evaluate the known historical sites and areas of historic-period activity. ▪ Staff observations of park resources and visitor activity during day-to-day operations. ▪ Periodic maintenance and building inspections. |
| Preserve and protect those resources found to be eligible for listing in the National Register of Historic Places. Protect significant prehistoric sites through identification, preservation, and avoidance. | <ul style="list-style-type: none"> ▪ Integrity and value of cultural resources retained. | <ul style="list-style-type: none"> ▪ Disturbance to known archeological sites. ▪ Retention of historic building fabric. | <ul style="list-style-type: none"> ▪ Develop treatment recommendations for significant historic structures and identify compatible and non-compatible uses. ▪ Staff observations of park resources and visitor activity during day-to-day operations. ▪ Periodic maintenance and building inspections. |

**Table 4-1
Desired Outcomes and Indicators
(Carrying Capacity Objective)**

| Goals & Guidelines | Desired Outcomes | Indicators (Environmental & Social) | Potential Management Actions & Monitoring Activities |
|---|---|---|---|
| <p>Recreation Resources</p> <p>Provide a range of high-quality recreation opportunities that allow California's diverse population to visit, enjoy, experience, and appreciate all of the park's resources, especially the coast redwoods.</p> | <ul style="list-style-type: none"> ▪ A variety of recreation experiences that enhance appreciation and enjoyment of the park's resources. | <ul style="list-style-type: none"> ▪ Presence of returning park visitors. ▪ Diversity of recreation activity throughout the park. ▪ Diversity in park visitation demographics. ▪ Conflict among park users and differing recreation activities. ▪ Effects on park resources with increases in park visitation. | <ul style="list-style-type: none"> ▪ Implement the adaptive management process as part of park operations. ▪ Staff observations of park resources and visitor activity during day-to-day operations. ▪ Design facilities for user needs. ▪ Visitor satisfaction surveys ▪ Evaluate new recreation opportunities, trends, and activities ▪ Respond to changing visitor demographics. |
| <p>Planning Zone Guidelines</p> | | | |
| <p>Entrance and Facilities Zone:</p> <p>Remove the former nature lodge building from the Little Butano Creek riparian zone, and re-establish current use near the park entrance, in conjunction</p> | <ul style="list-style-type: none"> ▪ Building site returned to a natural riparian condition. ▪ Visitor services and park administration | <ul style="list-style-type: none"> ▪ Riparian vegetation occurring at building site. ▪ Natural seasonal stream flows. ▪ Enhancement of riparian | <ul style="list-style-type: none"> ▪ Staff observations of park resources and visitor activity during day-to-day operations. ▪ Periodic field resource |

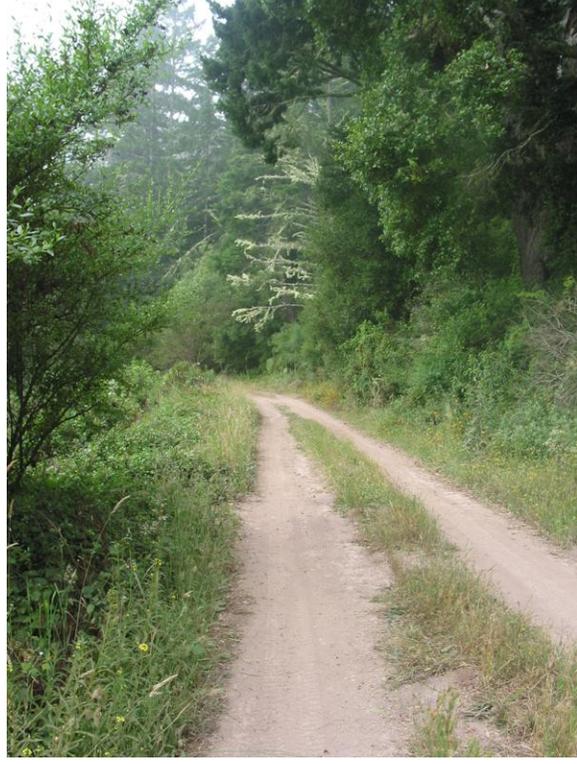
**Table 4-1
Desired Outcomes and Indicators
(Carrying Capacity Objective)**

| Goals & Guidelines | Desired Outcomes | Indicators (Environmental & Social) | Potential Management Actions & Monitoring Activities |
|---|---|---|--|
| <p>with other operational facilities.</p> <p>Evaluate the potential for restoring the Little Butano Creek streambed habitat in the vicinity of the dam. Consider alternative methods for continued agricultural water supply and distribution.</p> | <p>consolidated for more effective park operations and support for quality visitor experiences.</p> <ul style="list-style-type: none"> ▪ Original creek channel and riparian habitat restored. ▪ Agricultural water supply and distribution for agreement compliance. | <p>vegetation and habitat.</p> | <p>surveys.</p> <ul style="list-style-type: none"> ▪ Periodic maintenance inspections of stream channel and alternative agricultural water supply system. ▪ Staff observations of park resources and visitor activity during day-to-day operations and rain season periods, particularly in downstream areas near park access and development areas. |
| <p>Gazos Mountain Camp Zone:</p> <p>Adapt the existing facilities (former Gazos Mountain Camp) to support park programs, educational, and recreation activities that are compatible with the natural resources of the area, such as regional environmental education</p> | <ul style="list-style-type: none"> ▪ Visitor access through appropriate adaptive use of existing facilities. ▪ Environmental education and recreation activities in a setting that reinforces and enhances themes. | <ul style="list-style-type: none"> ▪ Presence of special status wildlife species. ▪ Active nest sites. ▪ Presence of suitable habitat. ▪ Wildlife sightings reported. | <ul style="list-style-type: none"> ▪ Periodic field surveys. ▪ Survey for active nest sites and presence of special status plant and wildlife species prior to any improvements to existing facilities. ▪ Limit the number of people |

**Table 4-1
Desired Outcomes and Indicators
(Carrying Capacity Objective)**

| Goals & Guidelines | Desired Outcomes | Indicators (Environmental & Social) | Potential Management Actions & Monitoring Activities |
|---|---|---|--|
| programs. | | | and use intensity. |
| <p>Backcountry Zone:</p> <p>Preserve the natural, cultural, and scenic resources as well as the sense of solitude.</p> <p>Provide visitor/recreation opportunities that encourage appreciation of the remote character of the Backcountry.</p> | <ul style="list-style-type: none"> ▪ Trail access to backcountry trails and regional multi-use trail network. ▪ Additional trail camps for small and large groups provided. ▪ Shuttle tours using existing fire roads as part of interpretive programs or special events. ▪ The story of the Jackson Flats homestead interpreted. | <ul style="list-style-type: none"> ▪ Presence of special status plant and wildlife species. ▪ Active nest sites. ▪ Presence of suitable habitat. ▪ Wildlife sightings reported. ▪ Erosion on trails and roads. ▪ Disturbance to known archeological sites. ▪ Conflicts between different types of trail users. | <ul style="list-style-type: none"> ▪ Periodic field resources surveys. ▪ Survey for active nest sites and presence of special status plants and wildlife species prior to establishing any new camps or improvements to existing camps. ▪ Conduct periodic trail condition appraisals and evaluate use impacts; modify trails to reduce negative impacts of recreation use. |

NOTE: These are only sample indicators and possible management actions. Indicators also pertain to additional resource topics and should be updated by park staff based on field observations, new scientific knowledge, lack of current indicators to accurately reflect changes, etc.



5 ENVIRONMENTAL ANALYSIS

Photo on reverse: Butano Fire Road

CHAPTER 5: ENVIRONMENTAL ANALYSIS

5.1 INTRODUCTION

PURPOSE OF THE EIR

This General Plan for Butano SP, with all its sections, constitutes an environmental impact report (EIR), as required by PRC Sections 5002.2 and 21000 et seq. It will be submitted to the California Park and Recreation Commission (Commission) for approval. The Commission has sole authority for the plan's approval and adoption. Following approval by the Commission, the Department will prepare specific management plans and development plans as staff and funding become available. Future projects within the park, based on the proposals in this General Plan are subject to further environmental review, permitting requirements, and approval by other agencies, such as the Department of Fish and Game and the California Coastal Commission.

FOCUS OF THE EIR

The Notice of Preparation for this General Plan was circulated to the appropriate federal, state, and local planning agencies on October 20, 2003. Written comments focusing on potential impacts to listed steelhead and coho salmon were received from the National Marine Fisheries Service. Based on known issues affecting the long-term management of the park and on comments received during the planning process, this General Plan and Draft EIR were prepared to address potential environmental impacts that may result from the implementation of the management goals and guidelines, as well as from area-specific management. Emphasis is given to potentially significant environmental impacts that may result from all future park management, development, and uses within the park that are consistent with these goals and guidelines.

SUBSEQUENT ENVIRONMENTAL REVIEW PROCESS

The tiering process of environmental review is incorporated into this EIR. Tiering in an EIR prepared as part of a general plan allows agencies to consider broad environmental issues at the general planning stage, followed by more detailed examination of actual development projects in subsequent



environmental documents. These later documents incorporate, by reference, the general discussions from the broader EIR in the General Plan and concentrate solely on the issues specific to the later projects [PRC Section 21093; California Environmental Quality Act (CEQA) Guidelines Section 15152]. This document represents the first tier of environmental review.

As a first tier of planning, this plan provides parkwide goals and guidelines for cultural and natural resource management, visitor access and circulation, recreation activities and facilities, visitor experiences, visitor safety, trails, concessions, wildfire, aesthetics, interpretation, sustainable design, operations, community and interagency relations, and acquisition. Future second tier review will provide more detailed information and environmental analysis. At each planning level projects will be subject to further environmental review to determine if they are consistent with the General Plan and to identify any potentially significant environmental impacts, mitigation measures, and monitoring that would be required by the project.

Mitigation generally requires resource specialists to evaluate the scope of work, identify the cause of the impacts, and specify measures to mitigate the impacts to a less than significant level. More comprehensive environmental review will be possible at the more specific levels of planning, where facility size, location, and capacity can be explicitly defined, rather than at the general plan programmatic level. Additional potentially significant environmental impacts and mitigation measures specific to the project will be identified at that time.

CONTENTS OF THE EIR

This programmatic EIR includes the following sections:

Introduction: This section includes a brief overview of the environmental review process, legal requirements, and approach to the environmental analysis.

EIR Summary: The EIR summary represents a summary of potential environmental impacts associated with implementation of the General Plan, an overview of the environmental effects of alternatives considered relative to the preferred alternative, and a description of any areas of controversy and/or issues that need to be resolved.

Project Description: This section provides an overview of the proposed General Plan, which is the focus of the program EIR.



Environmental Setting: This section provides a description of the physical environmental conditions in the vicinity of the project from a local and regional perspective. The environmental setting constitutes the baseline physical conditions to determine whether an impact is significant.

Environmental Effects Eliminated from Further Analysis: This section describes those environmental topics that did not warrant detailed environmental analysis and the supporting rationale for their elimination.

Environmental Impacts: This section analyzes potential environmental impacts associated with implementation of the proposed General Plan.

Other CEQA Considerations: This section contains information on other CEQA-mandated topics, including significant and unavoidable impacts, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts.

Alternatives to the Proposed Project: The alternatives analysis describes the alternatives to the proposed General Plan that are considered in this EIR and the associated environmental effects of these alternatives relative to the proposed project.

5.2 EIR SUMMARY

SUMMARY OF IMPACTS AND MITIGATION

Implementation of the General Plan is not expected to result in significant impacts on the environment. Implementation of the goals and guidelines discussed in Chapter 4, as well as the Department's compliance with federal and state laws and regulations, avoids potential significant effects or maintains them at a less-than-significant level. Additional mitigation measures are, therefore, not necessary.

SUMMARY OF ALTERNATIVES CONSIDERED

Four alternatives were considered during the planning process, including the preferred alternative (discussed in Chapter 4, Park Plan), the no-project alternative, and two additional alternatives. These additional alternatives provide resource protection and recreation facilities and attempt to reduce any potential impacts of the preferred alternative.

5.3 PROJECT DESCRIPTION

Chapter 4, Park Plan, represents the project description and establishes the overall long-range purpose and vision for Butano SP. Management goals and supporting guidelines in Chapter 4 address the currently identified critical planning issues (see Chapter 3, Issues) and are designed to avoid or reduce any potentially adverse environmental effects resulting from park use or management.

Planning areas are identified that will guide parkwide land use decisions, visitor use areas, and future development proposals. This Environmental Analysis focuses on the environmental effects of the preferred plan for three separate park planning areas: the **Entrance and Facilities Zone**, the **Gazos Mountain Camp Zone**, and the **Backcountry Zone**.

In the **Entrance and Facilities Zone** the plan proposes developing additional day use picnic sites for large and small groups along with an evaluation and possible redesign of existing day use parking to minimize traffic conflicts and accommodate a potential increase in these types of uses. The plan recommends coordination with the Peninsula Open Space Trust (POST) on the establishment of a trail through its Cloverdale Coastal Ranches property, with associated interpretive and other compatible facilities. The plan calls for development of a trailhead and trail connection from Butano SP to the coast through adjacent Año Nuevo SP. In the Goat Hill area of the park the plan proposes interpretation of the area's wetlands and an evaluation of the existing staff residence/storage areas related to year-round access, road maintenance, and wildfire, along with the potential for additional staff housing. Proposals to provide additional support facilities for park volunteers and programs in the entrance and visitor center complex and recommendations to broaden existing interpretive themes that will include the park's cultural history are also included in this planning zone.

In the **Gazos Mountain Camp Zone** the plan recommends adapting the existing structures to support park programs and activities including environmental education and research, to continue to protect sensitive habitat, and to establish high aesthetic standards for the structures by unifying their appearance and maintaining them in good repair. The plan also recommends research, survey, and recordation of the historic sawmill site.



Backcountry Zone proposals include the establishment of trailhead parking along Gazos Creek Road and to coordinate with the county to improve the water quality in Gazos Creek. In addition, the plan calls for research and interpretation of the Jackson Flats homestead, additional trail camps, and consideration of shuttle tours of backcountry areas on the park's fire roads.

Comprehensive parkwide management plans for natural and cultural resources, trails, fire management, and watershed management, as well as coordination with other agencies and organizations, are also proposed and described in Chapter 4.

5.4 ENVIRONMENTAL SETTING

Chapter 2, Existing Conditions, contains the description of the existing park environment, the local and regional environment, and important resource values within the park.

This General Plan is consistent with other applicable state and regional plans, such as the San Mateo County Local Coastal Program, the Wildlife Action Plan (Central Coast Region), the Master Plan for the Coast Redwood, the Regional Transportation Plan, and local community and open space plans including the Midpeninsula Regional Open Space District Master Plan and the Cloverdale Coastal Ranch Plan.

5.5 ENVIRONMENTAL EFFECTS ELIMINATED FROM FURTHER ANALYSIS

The following topics were eliminated from further analysis in the EIR because there is no potential for significant environmental effects resulting from implementation of the General Plan. A brief reason for their elimination is provided for each respective topic.

AGRICULTURE RESOURCES

Implementation of the General Plan would not convert any "Important Farmland" as identified by the California Department of Conservation Farmland Mapping and Monitoring Program, nor does the park contain any lands



under Williamson Act contracts. Implementation of the General Plan would not result in the conversion of any agricultural land to non-agricultural uses. Therefore, no significant effects would occur on agricultural resources and no further environmental analysis on the effects on agricultural resources is necessary.

LAND USE AND PLANNING

The General Plan proposals would not result in the division of an established community or conflict with applicable land use plans, habitat conservation plans, or the policies or regulations of any agency with jurisdiction over the project. Therefore no significant land use and planning effects would occur and no further environmental analysis on the effects on land use and planning is necessary.

MINERAL RESOURCES

Implementation of the General Plan would not result in the loss of availability of known mineral resources that are or would be of value to the region and residents of the state, or are a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, no further environmental analysis on the effects on mineral resources is necessary.

POPULATION AND HOUSING

Most visitors to Butano SP come from the metropolitan areas of northern and central California. Visitation is expected to increase as the State's population grows by 1.4% annually through 2020. Staff at Butano SP and those involved in the regional tourist-serving industries primarily live in San Mateo and Santa Cruz counties. Between 1997 and 2020 the population of San Mateo County is projected to increase by approximately 20% and a 48% increase is projected for Santa Cruz County. Guideline **Regional Planning 7** encourages cooperation with other agencies to identify and provide potential shared affordable employee housing opportunities. While implementation of the General Plan would not directly induce regional population growth, additional recreational facilities could attract additional visitation and potentially add to the employment base of the immediate area. The increase in demand for labor and housing would be met by the existing local population and no additional housing would be needed to serve growth associated with additional visitation. The General Plan does not include proposals for infrastructure that would induce additional growth in the immediate vicinity. For these reasons, significant population,



employment, and housing effects would not occur as a result of implementation of the General Plan, and no further analysis is necessary.

PUBLIC SERVICES

The General Plan proposals for new facilities at the park are limited. Existing public services such as fire and police protection, schools, parks, and other public facilities are adequate to maintain acceptable service ratios, response times, and other performance objectives for these services. Therefore, no further environmental analysis is necessary on the effects on public services.

5.6 ENVIRONMENTAL IMPACTS

The purpose of this section is to identify potential impacts of the project that may be considered significant. This analysis uses criteria from the model Initial Study Checklist (Appendix G of the CEQA Guidelines) and CEQA's mandatory findings of significance (PRC sec. 21083, Guidelines sec. 15065 and sec. 15064.5) as tools for determining the potential for significant environmental effects. A significant effect on the environment is generally defined as a substantial or potentially substantial adverse change in the physical environment.

General Plan proposals include development and maintenance of day use and overnight camping facilities, parking areas, road modifications, trails, education and research facilities, and natural resource management activities that could create adverse impacts. The impacts are considered potential because the actual size, location, and design of the proposed facilities or structures have not been determined. All park plans and projects shall be in compliance with state and federal permitting and regulatory requirements and subject to subsequent tier CEQA review and project specific mitigation. Appropriate mitigation specific to detailed project design will be implemented as necessary in later planning and development stages.

Any potential impacts at this programmatic level would be avoided or reduced to a less than significant effect by implementing the General Plan goals and guidelines, as described in the impact analysis for each topic. The analysis is organized alphabetically by topic following the model Initial Study Checklist (Appendix G of the CEQA Guidelines).



AESTHETICS

This section analyzes impacts to aesthetics that could result from the implementation of the General Plan.

Impact Analysis

Any changes that substantially degrade visual experiences for visitors to the park and others from adjacent properties have the potential to cause significant impacts. The significance of visual impacts is dependent upon expectations and perceptions. For example, the presence of recreation facilities or numerous visitors would generally be more visually offensive to visitors on a backcountry hike than in areas where higher levels of social interaction are expected, such as a picnic area or campground.

The General Plan proposals may create adverse impacts to visual resources which can be avoided or reduced by implementing the General Plan's guidelines for appropriate and sustainable setting, design, and selection of materials for park projects (see guidelines **Aesthetics 2** and **Sustainability 1**), revegetation of disturbed areas (see guideline **Vegetation 2**), and screening of facilities (see guideline **Aesthetics 4**).

Parking facilities may be visible from the existing kiosk, visitor center, campground, and picnic areas. Guideline **Aesthetics 4** describes the use of screening methods with appropriate native plants, rocks, or elevation changes. These elements could also soften the visual effect of parking areas, campground facilities, roads, and trails, buffer intrusive or distracting views and activities outside park boundaries, and enhance scenic views.

Through guideline **Aesthetics 5**, artificial lighting would be limited to developed areas of the park, be shielded or focused downwards, and emit the lowest light levels possible while meeting the park's goals for public safety.

High-profile directional, informational, and interpretive signs along trails, park roads, and local roads could contribute to visual clutter. Implementation of guideline **Aesthetics 3** calls for organizing and presenting elements that exist together in specific areas of the park in a clear and uncluttered way.

The park is located adjacent to Cloverdale Road, which is designated by the San Mateo County Local Coastal Program as a Scenic Road. Gazos Creek Road from Highway 1 to Cloverdale Road is also designated as a Scenic Road. Guideline **Aesthetics 8** calls for plan proposals to comply with Local Coastal Program standards for aesthetic resources,



which would include minimizing visual impacts from park development on these county-designated scenic roads.

Developments outside Butano SP may also be visible to visitors at viewpoints and the developments may introduce new light sources that would degrade nighttime views. With guideline **Regional Planning 8** the Department would submit input to local, state, and federal agencies during the environmental review period of adjacent development projects in an effort to encourage appropriate mitigation for any potential negative visual impacts. While the decision to implement visual mitigation measures outside Butano SP is not within the jurisdiction of the Department, it is expected that feasible mitigation would be implemented in compliance with state laws.

AIR QUALITY

This section analyzes air quality impacts that could result from implementation of the General Plan.

Impact Analysis

In general, the region has very good air quality. Dust and vehicle emissions from site preparation and construction may create temporary air quality impacts. Air quality may also be temporarily impacted by prescribed burning programs or wildfires in the park.

The air quality impacts from construction can be substantially reduced by the use of dust control measures and other construction best management practices (see guideline **Geology/Hydrology 5**). Dust control measures would be developed during site-specific planning.

Under guideline **Vegetation 4** the Department would use prescribed fire as part of a vegetation management strategy. This strategy would identify conditions under which prescribed burning would be allowed in order to minimize impacts to air quality.

There may be increased park visitation as a result of additional directional signage on regional roads as well as from expanded facilities and interpretive opportunities. Most visitors currently arrive by private vehicles. An increase in visitor use may cause a minor increase in total vehicle emissions in the region. The General Plan recommends coordinating with San Mateo County and local transit agencies to encourage and develop public transit and multi-modal transportation opportunities for visitor access to the park and to other parks and recreation areas in the region

(see guideline **Access 5**). The General Plan also recommends the use of low-emission park vehicles such as maintenance vehicles and potential shuttles to reduce emissions and contribute to better air quality (see guideline **Sustainability 5**). The plan proposals will not conflict with, obstruct implementation of, or violate air quality standards set by the California Air Resources Board.

BIOLOGICAL RESOURCES

This section analyzes impacts to biological resources that could result from the implementation of the General Plan.

Impact Analysis

The General Plan proposals have the potential to adversely affect the park's biological resources, especially where new facilities are introduced into previously undisturbed areas, such as trails and trail camps in the backcountry. Adverse impacts to biological resources can be avoided or reduced by implementing the General Plan's guidelines for protecting and preserving these resources in the park and region.

Special status wildlife, wildlife habitats, and sensitive plant communities occur at Butano SP. There are 24 special status plant species and 42 special status wildlife species for which potential habitat exists in the park. Two vegetation types occur within the park that are considered to be rare natural plant communities. Site-specific surveys for special status species and sensitive habitats will be completed as part of the planning process for resource management projects, construction, maintenance, or rehabilitation of facilities and trails. Where necessary, state and federal resource agencies will be consulted to assist with appropriate resource protection, habitat enhancement, and management techniques.

The majority of potential facility development recommended in the plan would occur in areas that have been previously disturbed (such as picnic areas and parking and circulation enhancements in the Entrance and Facilities Zone). There would be minimal adverse impacts to vegetation and wildlife in these portions of the park. Site-specific impact evaluations will occur when projects and facilities are proposed. The General Plan recommends preparation of comprehensive natural resource management plans, including marbled murrelet, fire management, trails and watershed management plans that, when completed, will also provide guidance for identification, protection, habitat restoration,

and adaptive management of the park's resources, especially special status species and sensitive habitats.

The General Plan recommends actions, in coordination with the USFWS and CDFG, for the long-term recovery and survival of the marbled murrelet, state-listed as endangered and federally-listed as threatened (see guideline **Murrelet 1**). Included are guidelines for minimizing recreational facility development in areas of marbled murrelet nesting habitat and in other special status species habitat. Noise-producing activities such as construction or maintenance activities would be minimized during the breeding season and would comply with applicable federal and state regulations (see guidelines **Special Animals 3** and **Murrelet 1**). Human food and garbage will be controlled with wildlife-proof trash containers and public education that addresses the detrimental effects of these materials on wildlife (see guideline **Wildlife 4**).

Structures would be inspected for special status species, including bat populations, and protective measures established prior to major maintenance, construction, renovation, or structure demolition (see guideline **Special Animals 5**). The federally-threatened steelhead trout and state-endangered and federally-threatened coho salmon spawn in Gazos Creek, and Little Butano Creek provides limited but good quality spawning for anadromous fish. The plan recommends that the timing of streambed alterations or disturbance to wetlands or riparian habitat take into account the needs of special status aquatic species, including migrating fish and the California red-legged frog (see guideline **Special Animals 4**).

Facility removal, rehabilitation, and development, including trails, have the potential to disturb, degrade, or remove wildlife habitat or sensitive plant communities. If there is any potential for significant adverse effects to sensitive habitat, including wetland and riparian habitat, proposed facilities will be redesigned to avoid adverse impacts. Negative impacts from activities and facility development in critical resource areas would be avoided or minimized (see guideline **Wildlife 2**). This may include limiting access to some areas of the park, or temporarily closing or relocating facilities to promote restoration (see guideline **Vegetation 2**). The plan's adaptive management process, outlined in Section 4.6, Managing Visitor Capacity, describes a process for evaluating, monitoring, and mitigating visitor impacts so that adverse impacts to wildlife are minimized.

Park management will pursue cooperation with regulatory agencies, adjacent public and private landowners, and local jurisdictions to continue resource protection and enhancement of existing habitat linkages.

Ground disturbance, including grading, soil compaction, vegetation removal, and some recreation activities, has the potential to provide habitat for non-native invasive species. The spread of invasive exotic plant species and exotic animal species may have adverse impacts by promoting the loss of native habitat and reducing species diversity. Ground disturbance could include new facility construction (structures, parking lots) as well as trail and trail camp development. Trails and roads can also become dispersal corridors for invasive plants. The plan proposes goals and guidelines to reduce and avoid any negative impacts to prevent the spread of invasive non-native plant and animal species in the park and region (see guidelines **Wildlife 3** and **Vegetation 3**).

There are important habitat linkages both within the park and between the park and surrounding properties, such as riparian corridors with continuous vegetative cover and coast redwood stands. To continue resource protection and enhancement, on-going cooperation with regulatory agencies, local jurisdictions, adjacent landowners, and recreation and open space providers will be pursued to encourage conservation easements and property acquisition from willing sellers for habitat preservation and to maintain buffers and habitat linkages (see guideline **Regional Planning 3**).

The planning areas outlined in the General Plan also support additional resource protections by designating appropriate land use, facility development, and visitor use areas. Visitor use impacts to wildlife can be substantially reduced or eliminated by placing facilities away from known nesting sites and sensitive habitat, as outlined in guidelines **Special Animals 3** and **Murrelet 1**. An expanded interpretive program for natural resources is proposed that would promote greater public understanding, education, and stewardship (see guidelines **Interpretation 4** and **Interpretation 5**).

Foremost among the necessary precautions observed during the planning and implementation of resource management actions are adherence to existing laws, regulations, and protocols. Specific activities with the potential for impacts beyond park boundaries will include disclosure of potential impacts specific to each activity. Mitigation for future significant impacts for site-specific projects shall be developed as part of the project level planning and environmental review process.



CULTURAL RESOURCES

This section analyzes impacts to cultural resources that could result from the implementation of the General Plan.

Impact Analysis

Butano SP contains potentially significant cultural resources that could be disturbed, destroyed or degraded by new development and facility improvements proposed in the General Plan. These resources include prehistoric and ethnographic sites, historic and ethnohistoric resources, and historic trails. A complete inventory of the park's cultural resources has not yet been done; therefore, the potential exists for the discovery of previously unknown prehistoric and historic sites during facilities construction, rehabilitation, resource management projects, restoration, or maintenance operations. The General Plan recommends a comprehensive inventory be undertaken for historical-period resources to assist in significance evaluations, especially for those associated with historic logging activities (see guideline **Cultural 1**). Areas of high probability for prehistoric archaeological sites will be surveyed and recorded and criteria of significance developed for each class of resource for sites encountered in the future (see guideline **Cultural 2**).

To avoid or reduce any potential impacts to cultural resources, the Department will inventory and review areas of potential impact to determine the presence and significance of cultural resources, the potential impact, and recommended mitigation, if appropriate. Impacts may be reduced by project avoidance, site capping, structural stabilization/renovation, project redesign, and data recovery (see guideline **Cultural 4**).

All construction, maintenance, or improvements of historic buildings, structures, and features will be in conformance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (see guideline **Cultural 5**). The General Plan's designated planning areas may provide additional resource protections by authorizing specific park areas for appropriate development and recreational activities.

GEOLOGY AND SOILS

This section analyzes impacts related to geology and soils that could result from the implementation of the General Plan.

Areas of potential impact will be inventoried and reviewed to determine the presence and significance of cultural resources.

Impact Analysis

The General Plan provides guidelines to protect the public from natural hazards, such as using interpretive media to educate visitors about natural hazards and how to avoid danger (see **Interpretation and Education Goal B** and guideline **Interpretation 3**). The park is subject to earthquakes, and has the potential for damage from ground shaking, ground surface rupture, liquefaction, lateral spreading, and landslides. Guideline **Geology/Hydrology 7** directs the Department to conduct professional geologic and engineering evaluations to identify potentially hazardous soils or geologic areas prior to any permanent facility development and to avoid or reduce damage to people and property from unstable soil and seismic hazards.

Areas of the park contain highly erodible soils. Land disturbance, such as grading and trail development, can trigger or accelerate soil erosion. Development of some of the General Plan's proposals would decrease permeable areas in the park, leading to greater runoff rates and concentrated flows that have greater potential to erode exposed soils. Guidelines **Geology/Hydrology 3, 4, and 5** direct the Department to follow best management practices to reduce soil erosion and stormwater runoff and to ensure water quality during facility removal, maintenance, or construction. California State Parks has developed BMPs for road recontouring and rehabilitation, road removal, road to trail conversion, and culvert replacement. In addition, the standard construction BMPs for erosion and sediment control from the California Stormwater Quality Association will also be used where appropriate. The plan also recommends biotechnical methods where possible to provide embankment stabilization and enhance stream restoration (see guideline **Geology/Hydrology 6**).

HAZARDS AND HAZARDOUS MATERIALS

This section analyzes impacts related to hazards and hazardous materials that could result from implementation of the General Plan.

Impact Analysis

During construction of facilities, ground disturbance may expose hazardous materials through excavation, especially in areas of historic land uses. Construction activities may require the use of certain potentially hazardous materials, such as fuels, oils, and solvents for construction equipment. Hazardous materials spills may occur, including into drainages. If hazardous materials are found in the park, including during

construction, building removal, renovation, and maintenance activities, all regulations for hazardous material transport, use, and disposal will be adhered to, following Department policies and procedures (Department Operations Manual, Chapter 0800, Hazardous Materials). Any releases of hazardous substances found at a specific project site shall be addressed as part of the CEQA compliance document for the project.

The Department uses pesticides and herbicides where appropriate in the park to help control pests and vegetation. Staff will follow Department policies and other state and federal requirements for herbicide and pesticide application, incorporating all safety measures and recommended concentrations. Only chemicals that are appropriate for use near water will be used in or near wetland areas. Sustainable maintenance and management practices also discourage the use of environmentally-damaging or hazardous materials (see guideline **Sustainability 1**).

The General Plan proposes the development of new facilities in the park, potentially increasing the risk of wildfire from construction activities, campfires, smoking, and other potential fire sources. The General Plan recommends the development of a comprehensive Wildfire Management Plan that will address potential wildfire risks and specify emergency actions for public safety, park structures, and adjacent landowner structures (see guideline **Fire 1**). The Wildfire Management Plan will also specify strategies for pre-suppression measures, such as the creation of defensible space around structures, wildfire education programs, and park fire regulations.

The Department shall follow the fire management policy, including wildfire management (DOM Section 0313.2.1). State Parks is also guided by an Interagency Agreement with Cal Fire concerning wildland fire protection, has prepared a draft Wildfire Local Operating Agreement (a regional wildfire plan for Butano SP, Big Basin Redwoods SP, and Año Nuevo SP), and has developed guidelines for the protection of structures from wildland fire (2007). These guidelines outline actions to minimize the probability that structures near flammable vegetation will ignite and burn during a wildland fire. The guidelines consider structural design, maintenance, and specific actions to minimize fuel in the structure ignition zone, defensible space zone, and wildland fuel zone. Some of these actions include, but are not limited to installing fire screens on chimneys; enclosing the area beneath overhanging wooden decks and foundations to prevent accumulations of organic debris below; removing dead organic matter within two feet

of any wooden part of the structure; and removing all needles, leaves, and organic debris from roofs, gutters, exterior beams, and decking.

The park is not located on hazardous materials sites nor will the plan proposals physically interfere with an adopted emergency response plan or evacuation plan. Should any hazardous substances or other health hazards be identified, appropriate warning and protective methods would be developed and implemented. Implementation of the General Plan will not result in or expose people to substantial health hazards.

HYDROLOGY AND WATER QUALITY

This section analyzes impacts related to hydrology and water quality that could result from the implementation of the General Plan.

Impact Analysis

The General Plan proposals may potentially have an impact on water quality in the park. Adverse impacts to water quality and resources can be avoided or reduced by implementing the General Plan's guidelines for protecting hydrology and water resources.

Development and recreation facilities in general have the potential to cause adverse impacts to water quality in the park's creeks and wetlands. Under guideline **Geology/Hydrology 3**, the Department would comply with applicable water quality objectives developed by the San Francisco Regional Water Quality Control Board. Guideline **Geology/Hydrology 5** recommends the use of best management practices to control erosion and surface runoff. Impacts to park water quality from grading, filling, construction equipment use and storage, and mechanical or chemical control in resources and facilities management programs would be minimized by implementing guidelines **Geology/Hydrology 2, 3, 5, 6, and 7**. Guideline **Geology/Hydrology 2** also recommends an assessment of human activities on park geological and hydrological processes, and identification of appropriate management actions that would reduce or avoid negative impacts.

Little Butano Creek and Gazos Creek contain spawning and potential spawning grounds for threatened and endangered anadromous fish species; therefore, any increase in sediment loading to the park's creeks may be considered a significant impact. Guideline **Special Animals 2** recommends protection of all special status native wildlife species and their habitats,



which would include the protection of anadromous fish from the impacts of any activity that results in disturbance to riparian habitat, including increased sediment loading in creeks. Appropriate biotechnical stream bank erosion control methods will be used where feasible to reduce sediment (see guideline **Geology/Hydrology 6**).

The plan proposes further study and analysis to determine where any remediation efforts are necessary to improve water quality in the park (see guideline **Geology/Hydrology 9**). These studies would analyze such elements as sediment sources, transport functions, and fluvial geomorphic conditions in streams, and assess impacts to ecology, the watershed, and water quality from recreation and other park activities. Based on the analysis and findings the Department would restore geomorphic function to the watershed to the extent possible, thereby substantially reducing or eliminating unnatural soil and stream bank erosion, stream sedimentation, and habitat degradation.

As part of the process to prepare site-specific plans, resource management plans, or facility construction, site-specific studies of soil conditions and facility siting will be conducted. All new projects and increased visitor use in the park will be evaluated to ensure that they do not contribute to degradation of water quality, substantially alter existing drainage patterns, or result in on- or off-site erosion, siltation, pollution, or flooding (see guidelines **Geology/Hydrology 1, 3, and 7**). Measures to reduce construction impacts include avoiding storage of surplus or waste materials in the floodplain, in areas of potential landslides, near surface waters, or in drainages (see guideline **Geology/Hydrology 5**). The Federal Emergency Management Agency has not delineated the full extent of the 100-year floodplain for Butano Creek, Little Butano Creek, and Gazos Creek. The plan calls for determination of the 100-year floodplain to ensure that developed structures in these areas would not impede or redirect flood flows (see guideline **Geology/Hydrology 9**).

Interpretive programs will educate the public about park management goals, including information on the potential effects of recreation to water quality and the importance of water quality and the environment (see guideline **Interpretation 5**).

The park would not be affected by seiches or tsunamis because it is at a higher elevation than the potential flood limits identified for these events. Mudflows may present a hazard to people and structures. Potential adverse impacts would be minimized with the implementation of guideline

Geology/Hydrology 7 which directs the Department to prepare professional geological and engineering evaluations when locating facilities.

NOISE

This section analyzes impacts from noise that could result from implementation of the General Plan.

Impact Analysis

The primary sources of noise expected to occur within Butano SP are related to construction activities, facility operations, and vehicular traffic. The addition of day use, campground, interpretive, and volunteer facilities may also add increased noise levels through normal park use. Facility development will involve construction equipment that may cause temporary increased noise levels. By implementing guidelines **Aesthetics 6** and **Aesthetics 7**, the park would take appropriate measures to minimize construction and maintenance noise and would comply with federal and state noise ordinances.

Noise impacts from vehicles would be reduced by separation of use areas, screening, and other appropriate techniques, and maintenance and service functions would be located away from public areas as much as possible (see guideline **Aesthetics 6**). The Department will follow the Soundscape Protection Policy (Department Operations Manual, Chapter 0300, 2004) by restricting sound from human-made devices and enforcing park noise standards.

The park is not located within two miles of a public use airport or in the vicinity of an active airstrip and will not expose people working or residing in the project area to excessive noise levels associated with airports. The plan proposals will not generate or expose people to excessive groundborne vibrations or groundborne noise levels.

RECREATION

This section analyzes impacts from recreation that could result from implementation of the General Plan.

Impact Analysis

The plan proposes a minimal increase of recreational resources at Butano SP with the development of day use picnicking and trail camping facilities, new interpretive facilities and information, additional trails (including loop trails), and connections to local and regional trails outside the

park boundaries. The plan also calls for recreational facilities to accommodate accessibility for disabled persons.

The plan proposes the evaluation and potential development of new forms of recreation and new technologies to respond to visitor demand and recreation trends, but also calls for restricting or modifying some types of recreation activities as necessary in order to minimize adverse resource impacts (see guideline **Recreation 2**). The plan recommends providing increased opportunities for interpretation and education, and to expand facilities and programs that allow more recreational opportunities in the spring and fall (see guideline **Recreation 3**).

The plan recommends the use of an adaptive management process that would help implement the General Plan's vision and desired conditions for natural, cultural, and recreational resources and visitor experiences in the park. This process would provide an ongoing method to evaluate and avoid or reduce impacts associated with recreational uses, visitor experiences, and park resources. Using the adaptive management process, any potentially significant impacts will be minimized to ensure protection of the park's important values and visitor opportunities as expressed in the General Plan.

The plan's proposals may increase the use of regional parks, open space, and recreation facilities by encouraging regional trail connections and interpretation of the natural, cultural, aesthetic, and recreational resources in the Santa Cruz Mountains region (see guidelines **Recreation 4** and **Recreation 5**). However, this increased use would be minor and would not cause or accelerate significant physical deterioration of the facilities. There will not be significant adverse impacts from recreational activities or facilities resulting from the implementation of this plan.

TRANSPORTATION AND TRAFFIC

This section analyzes transportation and circulation impacts that could result from implementation of the General Plan.

Impact Analysis

The General Plan proposes facilities that may require modifications to existing roads and parking facilities, directional signage, multi-use trails and trailheads, and multi-modal transportation facilities.

In the summer season and during other peak use periods, increased visitor traffic and an inadequate number of existing

picnic sites and parking spaces in the park entrance area are resulting in congestion in the park along the main park entrance road. This situation would be remedied by the plan's proposal for additional group and individual day use parking sites, monitoring parking and visitor use, and reconfiguring parking spaces in the Entrance and Facilities Zone (see guidelines **Entrance 9**, **Parking 1**, and **Parking 2**).

Separation of vehicle traffic from pedestrians, bicyclists, and equestrians, where feasible, is recommended by guideline **Access 7**, and the installation of safety signage by guideline **Access 6**. These provisions would improve traffic safety. The plan also recommends adequate roadway signage and coordination with San Mateo County and Caltrans to implement roadway maintenance and improvements to increase traffic safety (see guideline **Access 1**).

The plan does not conflict with adopted policies, plans, or programs supporting alternative transportation, such as the Regional Transportation Plan. The General Plan calls for the development of alternative transportation facilities to support more efficient and energy-saving modes of transportation, and the development of a shuttle system to transport visitors through the backcountry and to other state parks and destinations in the region (see guideline **Access 5**).

There could be a minor increase in regional vehicle traffic due to the improvement or addition of new park facilities and programs. The plan's proposals would not cause the current levels of service standards established by the county congestion management agency for roads or highways to be exceeded. The plan proposals will not cause a change in existing air traffic patterns, result in inadequate emergency access or parking capacity, or conflict with adopted policies, plans or programs supporting alternative transportation.

UTILITIES AND SERVICE SYSTEMS

This section analyzes impacts on utilities and service systems that could result from implementation of the General Plan.

Impact Analysis

The General Plan recommends facility development that may require additional sewer and water systems and additional or upgraded stormwater drainage systems. The Department would comply with the water quality objectives and requirements of the San Francisco Bay Regional Water Quality Control Board (see guideline **Geology/Hydrology 3**) and would utilize sustainable design strategies to construct and

maintain utility and service systems in the park (see guideline **Sustainability 1**).

Implementation of guidelines **Utilities 1** through **Utilities 4** would evaluate the current park infrastructure, repair and upgrade the current water supply and distribution system as necessary, identify utility needs, and develop recommendations for utility upgrades and replacement.

Currently, Butano SP is served by state-owned septic systems; therefore, plan proposals would not impact outside wastewater treatment providers. The plan's recommended development will continue to be served by state-owned septic systems.

5.7 OTHER CEQA CONSIDERATIONS

UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL EFFECTS

Evaluation at the specificity of this first tier review indicates that the potential effects from projects proposed in this General Plan can be reduced to less than significant levels with appropriate facility siting, the implementation of the goals, guidelines, and resource management programs, and further reduced with the development of specific mitigation measures when future site-specific development plans are proposed.

Until the uses, locations, and scope of facilities or management plans are specified, the actual level of impact cannot be determined. However, all plans and projects are required to be in compliance with applicable local, state, and federal permitting and regulatory requirements and subject to subsequent tier CEQA review and project-specific mitigation.

At this level of planning, unavoidable significant environmental effects are not anticipated as a result of the proposals in this General Plan/Environmental Impact Report.

SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

This first-tier environmental review indicates that no significant irreversible changes to the physical environment are anticipated from the adoption and implementation of this General Plan. Appropriate facility siting, implementation of goals and guidelines included in this plan, and the development of specific mitigation measures during the

project-level environmental review process can maintain any impacts at a less-than-significant level.

Facility development, including structures, roads, and trails, may be considered a long-term commitment of resources; however, the impacts can be reversed through removal of the facilities and discontinued access and use. The Department does remove, replace, or realign facilities, such as trails and campsites, where impacts have become unacceptable either from excessive use or from a change in environmental conditions.

The construction and operation of facilities may require the use of non-renewable resources. This impact is projected to be minor due to the limited amount of facilities planned for development and to the consideration of sustainable practices in site design, construction, maintenance, and operations as proposed in the General Plan. Sustainable practices used in design, management, and operations emphasize environmental sensitivity in construction, the use of non-toxic materials and renewable resources, resource conservation, recycling, and energy efficiency.

Destruction of any significant cultural or natural resources would be considered a significant irreversible effect. To avoid this impact, proposed development sites will be surveyed for sensitive resources; all site and facility designs will incorporate methods for protecting and preserving significant resources; and human activities will be managed to ensure resource protection.

GROWTH-INDUCING IMPACTS

With complete development of all proposals, park visitation is likely to increase. This would be due to the proposed improvements and development of additional day use and overnight facilities, interpretive opportunities, and improvements to park circulation, including new trails and trail connections from the park to regional trails, and multi-modal opportunities to access the park and surrounding areas. Additional directional and informational signage and interpretive information outside the park boundaries (on the highway, in other state and regional parks, and in the community) should raise the park's profile as a destination for recreational opportunities and the appreciation and enjoyment of natural and cultural resources.

Any improvement to recreational facilities and programs or increase in the park's design capacity can encourage increased use, which may create additional tourism and the

need for tourist services (such as recreation equipment, supplies, food, and related facilities) in adjacent communities, state parks, open space and recreation areas, and the surrounding region. The economy of the central California coast depends considerably upon recreation and tourism, and an increase in visitor use may be considered an economic benefit.

The increased visitor capacity and interpretive potential of the plan's proposals may result in the need for an increased number of permanent and seasonal park staff. The General Plan recommends consideration of additional staff housing within the park boundaries which may result in a slight housing demand to the region.

CUMULATIVE IMPACTS

Cumulative impacts refer to two or more individual effects that when considered together, are considerable or that compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines Section 15355).

Maximum development in the Santa Cruz Mountains and along the San Mateo coast would be based on the build-out of the San Mateo County Local Coastal Plan and the San Mateo County General Plan. In the vicinity of Butano SP future development may include residences in the adjacent Santa Cruz Mountains and recreation facility development in adjacent parks and open space preserves. In general, land management agencies in the Santa Cruz Mountains region recognize the importance of the natural qualities of the area that have been preserved over time, and base their planning and development efforts on the importance of preserving these values into the future. The general intent of the San Mateo County General Plan and LCP in this portion of the county is to maintain rural open space and regulate new development.

The General Plan for Butano SP was prepared concurrently and in coordination with the general plans for Año Nuevo SP and Big Basin Redwoods SP. The planning effort also coordinated as much as possible with surrounding land use

planning, resource management, and recreation networks, such as POST's adjacent Cloverdale Coastal Ranches. This coordination resulted in a general plan that is integrated with the surrounding regional open space planning on multiple levels. Future land use conflicts should be minimal.

The Department will continue to work cooperatively with regional land management agencies to achieve common management strategies that would enhance and preserve existing natural, cultural, and recreational resource values region-wide. To the extent that the loss of biological, cultural, and aesthetic resources is occurring in the region, any loss, disturbance, or degradation of these resources would contribute to cumulative impacts.

As described above, the facility development and resource management efforts that may occur with the implementation of the General Plan would not result in significant project-level environmental impacts. The goals and guidelines in the General Plan would direct management actions that would preserve, protect, restore, or otherwise minimize adverse effects related to biological resources, cultural resources, aesthetics, seismic hazards, water quality, traffic, water supply, etc. These management actions would also maintain Butano SP's contribution to cumulative impacts to a less-than-significant level.

5.8 ALTERNATIVES TO THE PROPOSED PLAN

The guiding principles for the alternatives analysis are provided by the State CEQA Guidelines Section 15126.6. The analysis describes a range of reasonable alternatives to the project (the preferred alternative) that could feasibly attain most of the basic objectives of the project, considers alternatives that could reduce or eliminate any significant environmental impacts of the proposed project, and evaluates the comparative merits of the alternatives. Following CEQA Guidelines Section 15126.6(d), the evaluation of alternatives is in less detail than is done for the proposed project. A description of the project alternatives, including the no project alternative, is provided to allow for a meaningful evaluation, analysis, and comparison of these alternatives with the preferred alternative which is described in Chapter 4. **Table 5-1** summarizes the preferred alternative, Alternative 1, and Alternative 2.

ALTERNATIVE 1: FACILITY IMPROVEMENT AND RESOURCE PROTECTION

Description

This alternative focuses on improvements to the entrance area and current visitor facilities (including the visitor center, campground, campfire center, picnic areas, parking, trails, and trailheads), with a greater emphasis on resource protection. Also, new facility development or facility improvements in other areas of the park would be limited. This alternative contains less new development of recreation facilities and visitor opportunities in the backcountry and the Gazos Mountain Camp area than what is proposed in the preferred plan. This alternative would rely more on other public lands and private facilities to serve visitors and respond to current and future recreation demand in the region. The entrance area would remain the most accessible and most concentrated visitor use area in the park.

Additional parking, trails, and trailheads would be located in the entrance area away from the most sensitive habitats. Parking would be redesigned in order to accommodate vehicles while reducing congestion and minimizing resource impacts. Additional picnic areas would be located in accessible and convenient areas to accommodate visitor activities and use. Interpretive panels would be located at trailheads, along trails, and in picnic areas. Contact with park staff and other visitors would be frequent in this area of concentrated visitor use.

Although new facility improvements would occur in the entrance area, some facilities in this same location would be removed if they are in sensitive habitats or prevent restoration of habitats and natural processes. This could reduce the overall amount and variety of visitor facilities in the park. To reduce impacts to special status species and restore habitats, structures currently located in the riparian area would be removed, trails would be realigned where possible, and visitor use near sensitive areas would be restricted and closely monitored. The campground would be reduced in size and visitor use would be rotated to reduce negative impacts to the forest understory and minimize soil compaction around the trees.

Adaptive use of the current facilities at the Gazos Mountain Camp area would be reduced to serve a very limited amount of environmental education and research activities. Renovations of the existing facilities in order to accommodate school groups would not occur. There would not be any

trailhead development (including parking or picnic areas) along Gazos Creek Road to connect to regional trails, nearby state parks, and other open space lands.

Access into the backcountry would be reduced with the potential removal or relocation of trails and trailheads, based on sensitive resource evaluations. Additional trail camps and trails serving as links to a regional trail network would not be developed in the backcountry.

Evaluation

This alternative provides moderate facility improvement and development in response to increasing demand for recreation facilities and programs, especially for day and overnight use. Improvements to recreation and interpretive facilities that are compatible with the park's natural and cultural resource management goals would be developed in the entrance area of the park. This alternative would achieve many of the General Plan objectives but would limit the use of the entire park by reducing access and reducing the use of or eliminating facilities.

Traffic and circulation improvements in the entrance area would be accomplished with this alternative and improvements to informational and directional signage would also occur. With increases in park visitation these improvements will more effectively accommodate the park traffic and circulation, although the visitor use and activities would be more highly concentrated in one area of the park.

If this alternative was implemented some, but not all, improvements to the visitor center, picnic areas, trails, trailheads, parking, and campground would be achieved as proposed in the preferred plan. The facility improvements would reflect existing visitor demand for more day use facilities and parking, but would not respond to the desire for additional overnight facilities in the backcountry, regional trail connections, and a variety of recreation experiences. This alternative would reduce the number and variety of visitor facilities parkwide, and it would not adequately respond to the future recreation demand.

This alternative would not provide multiple access routes into the backcountry, and the backcountry trail connections to regional open space and other nearby state parks would not occur. Current visitor use would become more concentrated on the trails and in the campground and day use areas (picnicking, visitor center, and parking), due to a lack of facilities elsewhere in the park. This area of the park would

require constant monitoring by park staff to ensure the desired level of resource protection. The quiet, remote quality of this park may be replaced by frequent visitor and staff contact and intense visitor use and activity.

ALTERNATIVE 2: INCREASED BACKCOUNTRY DEVELOPMENT

Description

This alternative would provide additional facility improvements, development, and activities in the backcountry to encourage greater use of this area and to disperse visitor use throughout the park. This alternative was considered to reduce potential negative impacts in the park's most sensitive habitats by limiting entrance area visitor facility development while providing improvements and development to primarily serve backcountry recreation.

Facility improvements in the core area of the park would be reduced and would consist of minor improvements to circulation and parking to reduce congestion and those necessary for visitor safety. Some facilities in the core area, such as the campground and picnic areas, may also be reduced in size or use intensity in order to focus management on sensitive natural resource preservation and restoration. This alternative would transfer concentrated visitor use from areas with more sensitive plant and wildlife habitats (i.e. the core area) to multiple use of the outlying areas of the park. The backcountry would offer additional trail camps for individuals and groups; trailheads and multi-use trails that would connect to regional trails, adjacent state parks, and open space areas; interpretive elements, including vista points and interpretive panels; and the potential for interpretive or special event shuttle tours. The existing facilities at the Gazos Mountain Camp area would be renovated for adaptive use to support environmental education and research for individuals and school groups. Sensitive resource protection would be a priority and interpretation of the natural and cultural resources would support this goal.

Evaluation

This alternative would achieve the General Plan objectives for recreation and resource protection and would provide additional visitor facilities in the backcountry area. The reduced amount of visitor facilities in the entrance area proposed in this alternative would avoid or minimize potential negative impacts to sensitive resources. Minimum traffic and circulation improvements for safety would be accomplished with this alternative.

Facility improvements at the Gazos Mountain Camp area would provide environmental education and research facilities for the region, supporting continued resource protection and preservation.

This alternative also supports additional opportunities to create a high quality visitor experience through trail connections to the California Coastal Trail, to regional state parks, and open space areas, such as the Cloverdale Coastal Ranches, and to local or regional community destinations.

As projected park visitation increases, the moderate improvements provided for in this alternative would not meet the expected future recreation demand or accommodate the traffic and increased park circulation that will increase with visitation.

ALTERNATIVE 3: NO PROJECT

Description

The California Environmental Quality Act requires an evaluation of the “no project” alternative and its impact (CEQA Guidelines Section 15126.6[e][1]). The no project alternative represents perpetuation of existing management actions, and its analysis is based on the physical conditions that are likely to occur in the future if the project (the proposed General Plan) is not approved and implemented. The purpose of describing and analyzing the no project alternative is to allow decision-makers to compare the impacts of approving the proposed General Plan with the expected impacts of not approving the General Plan. Without a general plan for Butano SP, it is assumed that the existing patterns of operation and management would continue under this alternative and no major recreational or operational facilities would be developed. Visitation increases would be somewhat smaller than under the proposed project due to less recreational opportunities and visitation capacity under this alternative. However, overall use would still be expected to increase as the state-wide and regional populations grow. Many of the management actions that would protect, preserve, and restore natural and cultural resources beyond the requirements of laws and regulations may not occur under the no project alternative.

Evaluation

The existing conditions, lack of needed facilities, and limitations would continue if the General Plan was not adopted. Without the facility improvements to

accommodate the existing visitor demand as well as a projected increase in visitor use, sensitive natural and cultural resources may be expected to degrade over time due to overuse.

Under the no project alternative the park's natural and cultural resources may not receive an increased level of protection. Resource management plans and policies for natural and cultural resources may not be developed.

Demand for recreation facilities and programs are increasing along with population increases in the San Francisco Bay Area and Central Valley. However, without a general plan, the Department would not have the authority to develop or enhance facilities to respond to this demand, especially for day and overnight use. Recreational and interpretive improvements that could enhance the visitor experience at the park's current level of use or anticipated future needs would not be developed.

Under the no project alternative a comprehensive evaluation of park, regional, and statewide trail systems may not be accomplished. Opportunities would be missed to create a higher quality visitor experience through trail linkages to the California Coastal Trail, to regional state parks and recreation and open space areas such as POST's Cloverdale Coastal Ranches property, and to local or regional community destinations.

Also under the no project alternative, land use management may not be evaluated on a parkwide basis, and the park's potential for planned and integrated land use, recreational facility development, and possible future acquisitions may not occur. Without organized land use or management plans and development guidelines, incremental cumulative impacts may adversely impact the park in the future.

Traffic and circulation improvements may not be accomplished with the no project alternative. Improvements to traffic flow and congestion at the existing entrance area may not be accomplished and improvements to informational and directional signage may not occur. The existing visual and aesthetic character of the park may not be improved under the no project alternative and existing scenic and other aesthetic resources may be affected.

| Table 5-1 Plan Alternatives | | | |
|---|--|--|---|
| | Preferred Alternative | Alternative 1 - Facility Improvement and Resource Protection | Alternative 2 - Increased Backcountry Development |
| Entrance and Facilities Zone | <p>Desired facilities and improvements:</p> <ul style="list-style-type: none"> ▪ Provide additional parking, trails, and trailheads. ▪ Redesign parking along the entrance road to reduce congestion and improve visitor experience. ▪ Provide additional picnic areas. ▪ Provide additional interpretive panels expanding visitor understanding of the park's natural and cultural features. ▪ Remove the former nature lodge building from the Little Butano Creek riparian zone; potential for additional facility removal or redesign if located in sensitive area. <p>Potential impacts from facility development and visitor use. Impacts will be minimized or avoided through the implementation of plan goals and guidelines ensuring protection of significant resources, appropriate facility location, and application of the adaptive management process.</p> | <p>Facility improvements same as the preferred plan, except:</p> <ul style="list-style-type: none"> ▪ Reduce the size of the Ben Ries Campground to improve wildlife habitat and restore natural conditions. <p>Less potential for impacts from a reduction in the size of the existing campground.</p> | <p>Less development than the preferred plan:</p> <ul style="list-style-type: none"> ▪ Minor improvements to circulation and parking (for congestion reduction and safety). ▪ Facility size reduction or reduced use intensity. <p>Less potential impacts based on fewer improvements and possible facility size reductions and/or visitor use restrictions.</p> |

| Table 5-1 Plan Alternatives | | | |
|--|---|---|--|
| | Preferred Alternative | Alternative 1 - Facility Improvement and Resource Protection | Alternative 2 - Increased Backcountry Development |
| Backcountry Zone | <p>Desired facilities and improvements:</p> <ul style="list-style-type: none"> ▪ Provide additional trail camps, trailheads, and trails for multiple users, including trail connections to regional trail systems. ▪ Potential for interpretive or special event shuttle tours. ▪ Evaluate existing and potential trails and roads (including unpaved roads), roads and trails management, maintenance, location, and use intensity through a parkwide Roads and Trails Management Plan. ▪ Develop trailheads/ vehicle pullouts along Gazos Creek Rd. <p>Potential impacts from facility development and visitor use. Impacts will be minimized or avoided through the implementation of plan goals and guidelines ensuring protection of significant resources, appropriate facility location, and application of the adaptive management process.</p> | <p>Less development and visitor opportunities than the preferred plan:</p> <ul style="list-style-type: none"> ▪ Remove or relocate some trails and trailheads to restore wildlife habitat corridors. ▪ No additional trails or trailheads developed. ▪ No trailhead development along Gazos Creek Rd. <p>Less potential for impacts than preferred alternative due to fewer proposed visitor facilities (trails and trailheads), no additional regional trail connections, and less potential visitor use.</p> | <p>More facility development than the preferred plan; more improvements, and activities providing visitor use dispersal throughout the park:</p> <ul style="list-style-type: none"> ▪ Additional trail camps. ▪ Additional trailheads and multi-use trails. <p>More potential for impacts due to increased facility development, multiple access points, and substantially more potential visitor use throughout the backcountry than the preferred alternative.</p> |

| Table 5-1 Plan Alternatives | | | |
|--|--|--|--|
| | Preferred Alternative | Alternative 1 - Facility Improvement and Resource Protection | Alternative 2 - Increased Backcountry Development |
| Gazos Mt. Camp Zone | <p>Desired facilities and improvements:</p> <ul style="list-style-type: none"> Renovate existing facilities in the former Mt. Camp area for day use and overnight use (individual visitor and group use). <p>Potential impacts from facility renovation and visitor use. Impacts will be minimized or avoided through implementation of plan goals and guidelines and permit or operating agreement conditions, ensuring protection of significant resources and appropriate visitor use and intensity.</p> | <p>Less development than preferred plan:</p> <ul style="list-style-type: none"> Adaptive use of facilities reduced. No renovations for group use. <p>Less potential for impacts due to a reduced number of facilities renovated for adaptive use and no allowable group use in former Gazos Mt. Camp area, as well as no trailhead development along Gazos Creek Rd.</p> | <p>Same as preferred plan.</p> |