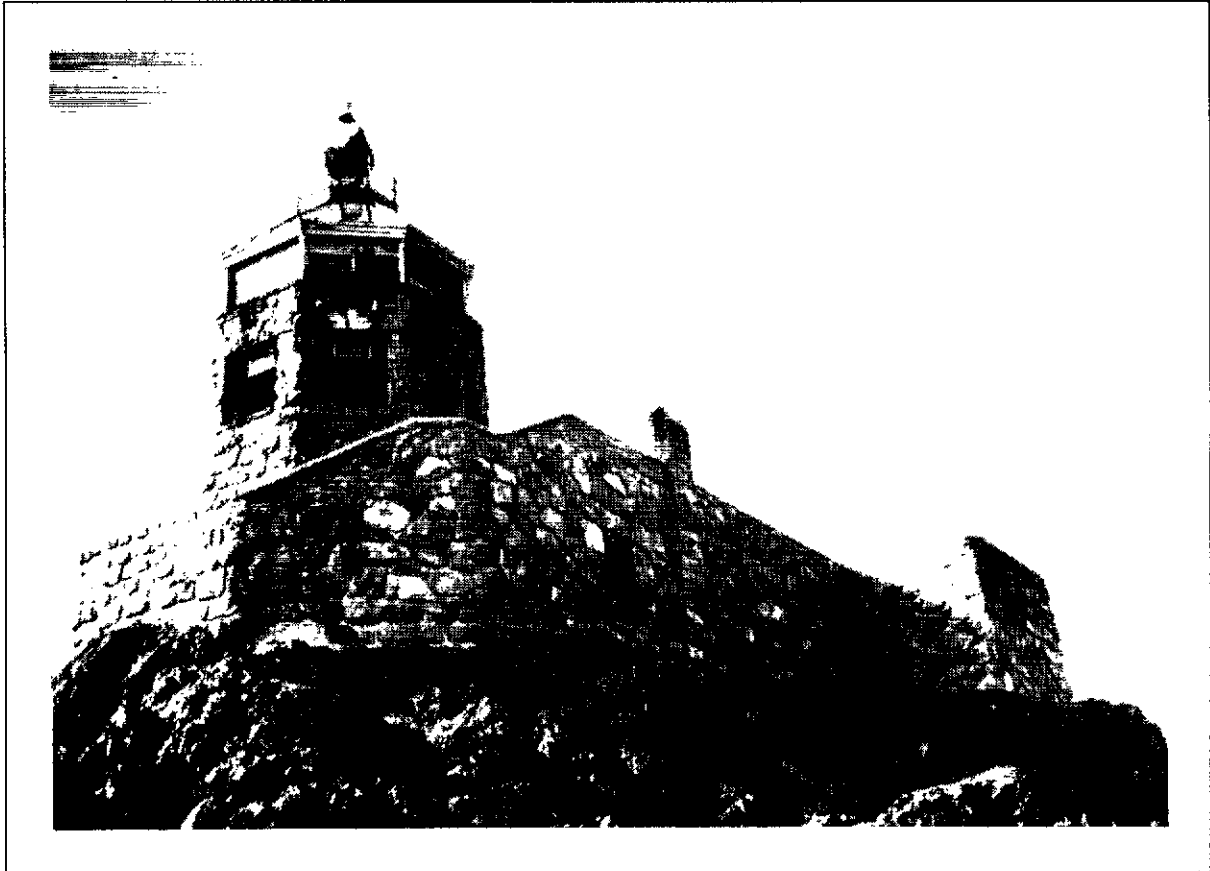




Mount Diablo State Park



General Plan

State Park and Recreation Commission
Approval - November 1989

State of California George Deukmejian, Governor
The Resources Agency Gordon K. Van Vleck, Secretary
Department of Parks and Recreation Henry R. Agonia, Director

JAMES H. QUAYLE
5941 SHIRLEY AVENUE
CARMICHAEL, CA 95608

DEPARTMENT OF PARKS AND RECREATION

STATE PARK AND RECREATION COMMISSION

P.O. Box 942896, SACRAMENTO, CA 94296-0001



Resolution 49-89
adopted by the
CALIFORNIA STATE PARK AND RECREATION COMMISSION
at its regular meeting in Concord on
November 9, 1989

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

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

NOW, THEREFORE, BE IT RESOLVED that the State Park and Recreation Commission approves the Department of Parks and Recreation's Mount Diablo State Park Preliminary General Plan, dated April 1989, including the Errata dated October 26, 1989, and including the amendments by the Commission, subject to such environmental changes as the Director of Parks and Recreation shall determine advisable and necessary to implement the provisions of said plan.

DEPARTMENT OF PARKS AND RECREATION

STATE PARK AND RECREATION COMMISSION

P.O. Box 942896, SACRAMENTO, CA 94296-0001



Resolution 50-89
adopted by the
CALIFORNIA STATE PARK AND RECREATION COMMISSION
at its regular meeting in Concord on
November 9, 1989

WHEREAS, the Department has proposed a Cultural Preserve of approximately 640 acres within Mount Diablo State Park, encompassing seven day-use areas and campgrounds and a building complex, all constructed by the Civilian Conservation Corps (CCC) between 1932 and 1942; and

WHEREAS, the buildings, campground furnishings, culverts and retaining walls built by the CCC constitute a cultural resource base having a high level of architectural and historic significance, and are all eligible for listing on the National Register of Historic Places either individually or as part of a Historic District; and

WHEREAS, designation as part of a Cultural Preserve will increase public awareness of the significance of the resources and aid in their preservation, without diminishing visitor access to the day-use and campgrounds which are subject to intense visitor use; and

WHEREAS, the boundaries of the proposed Preserve have been designed in such a way that they will not preclude the development of new parking facilities or the closure of spur roads as recommended in the General Plan; and

WHEREAS, the Civilian Conservation Corps played an important role in the early development of the State Park System and Mount Diablo State Park retains one of the largest and most representative examples of that historic contribution;

NOW, THEREFORE, BE IT RESOLVED, pursuant to Section 5019.50 of the Public Resources Code and after proceeding in accordance with the Administrative Procedures Act that the State Park and Recreation Commission hereby classifies approximately 640 acres within Mount Diablo State Park as a Cultural Preserve and names the said unit Civilian Conservation Corps Cultural Preserve.

DEPARTMENT OF PARKS AND RECREATION

STATE PARK AND RECREATION COMMISSION

P.O. Box 942896, SACRAMENTO, CA 94296-0001



MOTION
adopted by the
CALIFORNIA STATE PARK AND RECREATION COMMISSION
at its regular meeting in Concord
on November 9, 1989

BE IT RESOLVED that Mt. Diablo State Park staff and California Division of Forestry jointly prepare and present a seminar for the public to acquaint them with the present Mt. Diablo State Park fire plan. Said presentation should include fire prevention financing, new sophisticated wildfire fighting techniques, also information on control burns, modern equipment and real (as opposed to imaginary) fire dangers.

DEPARTMENT OF PARKS AND RECREATION

STATE PARK AND RECREATION COMMISSION

P.O. Box 942896, SACRAMENTO, CA 94296-0001



MOTION
adopted by the
CALIFORNIA STATE PARK AND RECREATION COMMISSION
at its regular meeting in Concord
on November 9, 1989

BE IT RESOLVED that the word "policy", which is found throughout the Mt. Diablo State Park General Plan, be replaced with the term "recommended objectives".

NOTE;

At the Commission's January 12, 1990 meeting, the word "directive" was proposed for use in the final draft of the plan instead of "policy". The Commission concurred with this proposal that meets their requirements under the November motion.

DEPARTMENT OF PARKS AND RECREATION

STATE PARK AND RECREATION COMMISSION

P.O. Box 942896, SACRAMENTO, CA 94296-0001



MOTION
adopted by the
CALIFORNIA STATE PARK AND RECREATION COMMISSION
at its regular meeting in Concord
on November 9, 1989

BE IT RESOLVED that as an amendment to the Mt. Diablo State Park General Plan, the Department of Parks and Recreation take a stronger role in encouraging the consolidation or removal of the communication towers in the park.

DEPARTMENT OF PARKS AND RECREATION

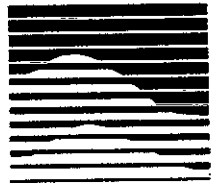
STATE PARK AND RECREATION COMMISSION

P.O. Box 942896, SACRAMENTO, CA 94296-0001



MOTION
adopted by the
CALIFORNIA STATE PARK AND RECREATION COMMISSION
at its regular meeting in Concord
on November 9, 1989

BE IT RESOLVED that the Commission moved that Alternative #2 on page 82b of the Mt. Diablo State Park General Plan be adopted and it be clarified that the preferred Commission alternative is Alternative 2, unless the present concessionaire is unwilling to implement Alternative 2; otherwise, to implement Alternative 3.



Mount Diablo State Park General Plan

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
P.O. Box 942896
Sacramento, CA 94296-0001

State of California George Deukmejian, Governor
The Resources Agency Gordon K. Van Vleck, Secretary
Department of Parks and Recreation Henry R. Agonia

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Walnut Creek development nearly surrounds the northwestern portion of the park.



Suburban development of Clayton is quickly closing in on the northeastern park boundaries.

SUMMARY

Mount Diablo State Park, in Contra Costa County in northern California, is a unique 18,000-acre "island mountain" girdled by suburban development. Rising 3,849 feet above the neighboring lowlands, Mount Diablo offers 360° views that, on clear days, can take in 35 counties and 200 miles. From the summit, you can look south, past the Livermore - Pleasanton Valleys, to Mount Hamilton. On the eastern horizon, the Sierra rises above its skyline.

Immediately northeast lie the many islands and waterways of the Delta. North, you see Mount St. Helena, the Sutter Buttes, and, on clear days, Mount Lassen. Nearby, in the northwest, is Mount Tamalpais, often seen sitting on a bed of fog. To the west lies San Francisco, with the Bay Bridge and Golden Gate Bridge connecting the city to the East Bay and Marin County respectively.

Many visitors do not venture beyond the summit and its view. However, Mount Diablo State Park is much, much more.

The core of the mountain is an ancient Franciscan plug, upthrust through 6 miles of marine sediments by pressure from the movement of two of the earth's plates against each other. A belt of sandstone envelops its foothills.

Geological diversity means diverse plant life. An April wildflower walk is likely to show you scores of coastal, valley, and mountain species. The northern exposures are generally richest in vegetation. Wildflower displays on the unshaded slopes can be stunning.

With its variety of habitats, Diablo supports an extensive food chain, and bird and mammal populations are accordingly varied. Natives range from the familiar California quail to such raptors as the golden eagle.

The park's trails, which were created mainly by equestrians, can take you through woodland, grassland, and chaparral; past seepages, ponds, streams, and seasonal falls; along lofty ridges; and up steep rock formations.

The area is rich in cultural history. The Wolwon or Bolbon, a Native American tribelet of the Bay Miwok, resided near Mount Diablo. Their principal village was called Bolbon, and was reportedly located at the base of the southeast flank of the mountain.

Mount Diablo played an important role in Miwok mythology as a place of creation and the home of the spirits. Established in 1834, the Mexican land grant Arroyo de Las Nueces y Bolbones included Pine Canyon, Little Pine Canyon, and the area surrounding North Gate Road.

The US Coast and Geodetic Survey used Mount Diablo during the mid- and late 1800s as a base point for its National Triangulation Survey, a survey undertaken to establish an accurate standard line as a base for all future surveys and observations of the United States.

During the 1930s, the Civilian Conservation Corps built a large number of facilities at Mount Diablo. The CCC stationed at Mount Diablo built and realigned the park roads, constructed hiking and fire trails, constructed

ranger residences and maintenance buildings, developed campground and picnic facilities, and built the Summit Building. The CCC work at Mount Diablo encompasses almost every type of project the CCC undertook in state and national parks. The facilities they built all belong in the style known as "rustic park architecture." This style emphasized use of natural, unfinished, and, where possible, local materials, handcraftmanship, and achievement of an "organic" relationship between human-made structures and their natural surroundings.

Mount Diablo State Park was designated as a unit of the State Park System on April 20, 1931, and was officially classified as a state park by the State Park and Recreation Commission in 1962.

Visitor attendance, those driving into the park from the two main roads, has more than doubled over the past ten years, from 250,000 in 1978 to more than 500,000 in 1988. Also, thousands of visitors hike, ride horseback, or bicycle into the park.

Most park use takes place on the summit and in the developed use areas along North Gate, South Gate, and Summit Roads. Many of these facilities are in need of repair.

There are interesting areas of the park that are little used because they are not readily accessible, or do not have facilities that invite public use. These areas have the potential to provide more access points and needed developed areas around the perimeter of the park.

To accommodate increasing visitation at the park, and to manage and protect resource values, the Department of Parks and Recreation needs to undertake major programs of resource management, building restoration, and interpretation, to enhance existing facilities, and to open up other areas for visitor enjoyment. The department must also develop new opportunities and facilities for optimizing public enjoyment of the park's natural, cultural, and recreational values.

To carry out such a program, this General Plan is prepared to guide the effort, and to support the department's requests to the legislature for funding. As presented here, the General Plan for Mount Diablo State Park emphasizes low-key recreation and preservation of the park's quiet character and beauty. The overall thrust of the plan's proposals is to provide opportunities for interpretation, enjoyment, and appreciation of the park's prime resources, while minimizing the environmental impacts of visitor activities and support facilities.

The plan's proposals can be summarized in four areas: resource management, interpretation, facilities, and operations.

Resource Management

The following resource management directives are intended to restore, protect, and perpetuate natural and cultural resources, and to provide direction for future development effort:

- o Establish resource management programs to perpetuate the unit's resource values.
- o Restore fire to its natural role in the ecosystem.
- o Implement the wildfire management plan, in cooperation with the California Department of Forestry, local fire districts, and other appropriate agencies.
- o Protect the riparian ecosystems.
- o Restore altered natural wildlife habitats, and reestablish natural ecological processes where possible.
- o Restore and enhance native grasslands and woodland understories.
- o Protect rare or endangered plants, and manage for their perpetuation.
- o Control exotic plants.
- o Use livestock grazing only for explicit park resource management or interpretive purposes.
- o Maintain the architectural and historic integrity of CCC structures.
- o Reduce the negative visual impacts of transmission facilities and easements required to maintain them.
- o Consolidate and eliminate existing telecommunication towers and equipment to the fullest extent possible.

Interpretation

These proposals will improve the educational and informational opportunities of park visitors so they can better enjoy, appreciate, and protect park resources.

- o The overall interpretive theme for the park is Mount Diablo: The Inland Island.
- o The interpretive period will include the flow of history from the earliest known occupation to the present.
- o Proposals for interpretive facilities include:

Major project recommendations

- Complete the Summit Museum Project.
- Establish a 600 - 1,000 acre interpretive ranch on park property; contract with a rancher to graze a 100-head interpretive cattle herd on the ranch; and develop interpretive facilities and volunteer support for the interpretive ranch.

- Plan and construct the Mount Diablo observatory through volunteers and private funding.
- Plan and construct the Mitchell Canyon day-use interpretive displays; renovate the existing park office as an interpretive day-use center.
- Enhance the park's interpretive activities and publications.
- Conduct further research into the park's resources.
- Plan and renovate self-guiding trails.
- Improve the Live Oak campfire center, and determine the need for other campfire centers.

Minor project recommendations

- Plan, fabricate, and install interpretive panels in areas with historic CCC-style stone stoves to inform visitors how to use them.
- Install a short-range radio transmitter to broadcast park information and interpretation.
- Plan, fabricate, and install orientation panels and bulletin boards at entry points.
- Plan, fabricate, and install interpretive panels at trailheads and pull-outs. Provide the geology auto tour (after road pull-outs are improved).
- Create a trail guide for the Fire Ecology Trail Loop.

Facilities

Summit Area of South Peak

- o Summit Building - Complete a visitor center/museum.
- o Upper Summit lot - Reduce parking at the upper lot from 35 cars to 20. This would provide space to develop day-use facilities for benches, shade trees, and a more defined landscape entry to the historic Summit Building. Upgrade restroom facilities.
- o Lower Summit lot - Repave and organize all parking areas to more efficiently use space and improve traffic circulation. Upgrade the restroom.
- o Provide displays to interpret natural, cultural, and scenic values.

Recreation Areas Along Summit Road

- o Enhance/upgrade all existing facilities. This includes parking areas, restrooms, and park furniture.

New Additions:

- o Convert the Laurel Nook group area to family campsites.
- o Develop a small astronomical observatory at the Pioneer Horse Camp.
- o At the Muir day-use area, convert the single picnic area to group use, and maintain family day-use areas.

Recreation Areas Along South Gate Road

- o Enhance/upgrade all existing facilities. This includes parking areas, restrooms, and access roads.
- o Designate the area between Rock City and the Wildcat Group Camp as a cultural preserve, and maintain its historic integrity.

New Additions: Curry Point

- o Develop a major trailhead and staging area, with interpretive kiosks and panels illustrating the natural and recreational values of the area, and the area's hiking and equestrian trails.
- o Develop a comfort station.

New Additions: Live Oak Campground

- o Remove group day-use; convert to family campsites.
- o Build a new campfire center.
- o Convert to day use after new campsites are developed in other areas of the park.

New Additions: CCC Camp

- o Relocate mobile homes to new maintenance yard in Mitchell Canyon, and convert area to day use.

New Additions: South Gate Entrance Station

- o Relocate near the state park boundary; the most feasible area is about 1/4 mile up from the boundary line.
- o Develop a new station to meet current and future storage, restroom, and utility needs.
- o Provide parking for 25-30 cars.
- o Develop a trailhead and connecting trail to the park.

Recreation Areas Along North Gate Road

- o Enhance/upgrade all existing facilities.

New Additions: Boundary Group Camp

- o Convert to group picnic areas.

New Additions: Camel Rock

- o Establish a 10-15 car trailhead parking lot and staging area in the vicinity of Camel Rock.
- o At the trailhead, establish interpretive signs and displays explaining the area's natural values and trail opportunities.

New Additions: North Gate Entrance Station

- o Acquire additional property to the west of the entrance station to develop a 40-car parking lot, a staging area, and a turn-around.
- o Provide a new station to meet current and future storage, restroom, and utility needs.
- o Acquire a public easement trail along North Gate Road from the entrance station to the park boundary.

Perimeter Recreation Areas

- o Enhance/upgrade all existing facilities.

New Additions:

- o Provide interpretive panels and kiosks at all day-use areas and campground to illustrate the area's natural and cultural values and trail use opportunities.
- o Develop a trailhead and staging area between Diablo Mines and Perkins Canyon.

New Additions: Mitchell Canyon

- o Develop a new district maintenance yard between the staff residences and the park boundary. This will be the main maintenance yard, that will also house the proposed firefighting equipment.
 - Convert the existing park office to a visitor center.
 - Relocate the California Conservation Corps mobile homes here.

New Additions: Northeast corner of the park - above Diablo Mine

- o Develop a 50-unit campground.

New Additions: Finley Road terminus (pending future acquisition)

- o Develop a trailhead, a 30-40 car parking lot, and a staging area.
- o Develop a non-exclusive handicapped camp (in Riggs Canyon).

New Additions: Macedo Ranch

- o Develop a cattle ranching interpretive exhibit and activity shelter adapted from a historic structure, or built in that style.

New Additions: Regency Meadows

- o Develop a trailhead and staging area.

Operations

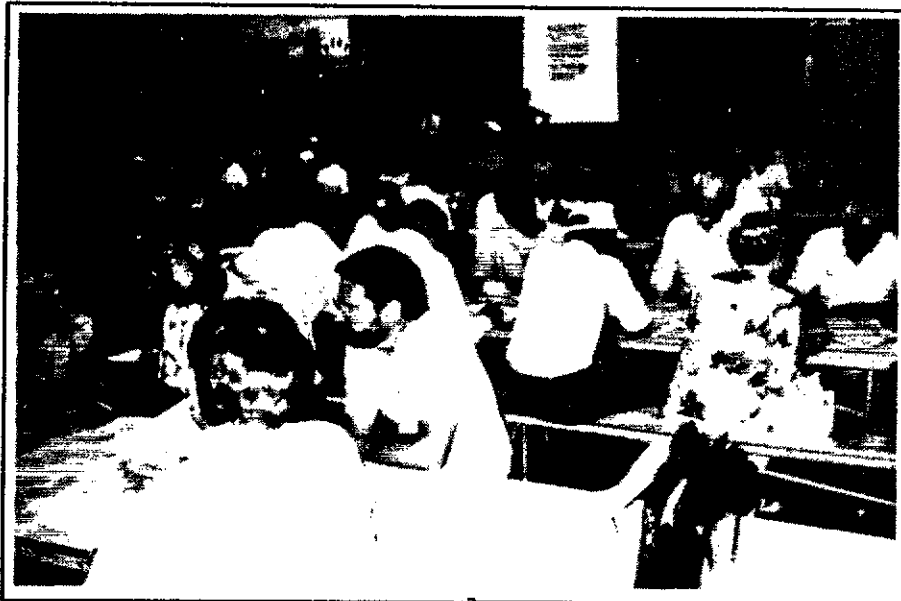
- o Encourage volunteer participation at the park.
- o Maintain cooperative relationships with Save Mount Diablo, the Mount Diablo Interpretive Association, the Mount Diablo Observatory Association, and other volunteer groups.
- o Increase staff and equipment to meet the growing needs of Mount Diablo State Park.

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- 13 General Plan Outline**
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- 15 Regional Recreation Profile**
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- 17 Public Involvement**
- 18 Involvement of Other Agencies**



There were five public meeting to help formulate the General Plan.



Here are participants discussing land use alternatives at the fourth public meeting.

INTRODUCTION

Purpose of Plan

This General Plan provides for long-term management and development of Mount Diablo State Park. Prepared by the California Department of Parks and Recreation to satisfy requirements of Public Resources Code Section 5002.2, its approval by the California State Park and Recreation Commission is required prior to any new development that would constitute a permanent commitment of natural or cultural resources.

The plan summarizes the available information about the park, documenting the planning process and the relevant data used in making land use decisions and specific management and development proposals. As conditions change, the plan may be reviewed and updated as necessary to responsibly guide departmental actions at the park. The plan, however, is not meant to provide detailed plans for site development, resource management, or park operation and maintenance. Overnight, day-use, and parking capacities indicated by the plan are approximate only, and may be less when specific site plans are prepared for funding and implementation. Details of resource management are left for inclusion in specific resource management programs that will be prepared at a later date.

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

General Plan Outline

The plan is made up of the following elements which reflect the department's responsibility to fulfill certain goals:

The **Resource Element** evaluates the natural and cultural resources of the park, and sets management directives for protection, restoration, and use of these resources.

The **Land Use Element** describes current land uses and relevant planning issues, determines proposed land uses consistent with the resources and unit classification, and outlines land use objectives and recommendations.

The **Facilities Element** describes current facilities, proposed development to enhance public recreational experiences and enjoyment of the park resources and values, and establishes priorities for park development.

The **Interpretive Element** proposes programs and facilities for public information and interpretation of the park's natural and cultural resource values.

The **Concessions Element** summarizes opportunities to provide appropriate goods or services to the public through concessions in existing or proposed facilities.

The **Operations Element** describes specific operation and maintenance requirements and guidelines unique to the park.

The **Environmental Impact Element** serves as the Environmental Impact Report required by the California Environmental Quality Act. It assesses environmental effects, and proposes mitigation measures and alternatives.

Unit Identification

Mount Diablo State Park is located in central Contra Costa County about 4 miles east of Walnut Creek, and 20 miles east of San Francisco Bay. The City of San Francisco is approximately 30 miles west of Mount Diablo.

Mount Diablo State Park lies in the Sierra Foothill and Low Coastal Mountain Landscape Province.

Mount Diablo is an isolated peak of the central Coast Ranges, and is the northern peak of the Diablo range. Because of its prominence, the mountain has served as a landmark for centuries. Although relatively low (3,849 feet), Mount Diablo dominates the surrounding foothills, and, as a result, offers an unobstructed view of the Bay Area and the Central Valley from its summit, which is among the most spectacular vistas in California. For these reasons, Mount Diablo was chosen as the starting point for the public land survey of California, begun in 1851. To this day, the Mount Diablo Base Line and Meridian, which intersect at the summit, are referred to in legal descriptions of real estate throughout two-thirds of California, as well as all of Nevada and parts of Oregon.

Other prominent features of the landscape include North Peak (3,557 feet), approximately one mile northeast of the summit; Mount Olympia (2,946 feet), one-half mile north of North Peak; Eagle Peak (2,369 feet), about two miles northwest of the summit; and the Black Hills, along the southern perimeter of the state park. The Devil's Pulpit is a striking prominence just below and east of the Mount Diablo summit.

Other major landmarks at Mount Diablo State Park are Meridian Ridge, Bald Ridge, Deer Flat, Long Ridge, Moses Rock Ridge, the Diablo Valley Overlook, Pine Ridge, Wall Point, Fossil Ridge, Black Hawk Ridge, Curry Point, Oyster Point, the Livermore Valley Overlook, Donner Canyon, Mitchell Canyon, White Canyon, Pine Canyon, Dan Cook Canyon, Sycamore Canyon, Curry Canyon, and Rhine Canyon.

Primary access to the state park is via State Highway 24 from the west, State Highway 4 from the west and east, and Interstate Highway 680 from the north and south. Two entrance roads, the North Gate Road and the South Gate Road, link the park with the nearby communities of Walnut Creek and Danville, respectively. From their convergence at park headquarters, or Junction, a single road (the Summit Road) leads four and one-half miles to the crest of the mountain.

Two major inholdings (private lands) occur within Mount Diablo State Park. They are the contiguous Turtle Rock Ranch and the Diablo Ranch complex (totaling about 135 acres), and three contiguous parcels in the northeast corner of the state park (totaling about 149 acres).

Nearby State Park System units include Franks Tract and Brannan Island State Recreation Areas to the northeast, Benicia State Recreation Area, and Benicia Capitol State Historic Park, to the northwest. The John Marsh Home project is located due east of Mount Diablo State Park.

The Planning Process

The planning process included a comprehensive evaluation of the roles various agencies are playing in providing recreational opportunities and in preserving significant natural and cultural values in this area of the state. Current recreational patterns of the many varied segments of the state's population were also examined in order to identify specific needs to be met by the park.

This information, coupled with detailed resource inventories and public comments, provided the foundation for the various development and management proposals contained in this document.

Regional Recreation Profile

Mount Diablo State Park is in an area with great recreational appeal that draws visitors from across the nation. The area offers a diversity of recreational opportunities, with just about something for everyone...coastal beaches, bays, lakes, reservoirs, mountains, historic interest, and a moderate climate.

This regional recreation area is located in the California Outdoor Recreation Resource Plan's (CORRP) District 4, which includes nine counties: Marin, Sonoma, Napa, Solano, Contra Costa, Alameda, Santa Clara, San Mateo, and San Francisco. The region contains the second largest metropolitan area in the state. Overall, Planning District 4 covers 4.7 million acres, or about five percent of the state.

Eighty percent of the 4.7 million acres is in private ownership, with the remaining 20 percent divided under state (3.3%), local (8.2%), and federal (8.2%) ownership.

Representative examples of California's natural and cultural heritage are preserved in several State Park System units in the region. Prime examples of the oak woodland and chaparral-covered slopes characteristic of the Coast Range are preserved at Mount Diablo State Park.

One of the most inspiring vistas of the San Francisco Bay area is located in Mount Diablo State Park. On clear days, large portions of Central California can be seen from the peak.

The scarcity of camping facilities is among the most serious deficiencies in recreational opportunities in the district. Many of the camping facilities that exist are located in more remote locations in the region. There is a large demand for camping opportunities closer to urban areas and along the coast (i.e., near San Francisco), where a greater portion of the tourism is focused. This is not surprising when one considers the relatively small amount of land owned and operated by federal and state park and recreation agencies. Because of the tourist attraction of this district, competition is keen between residents and nonresidents for available campsites.

The Ridglands is a name given to those portions of the Diablo Range immediately to the east of San Francisco Bay. This vast mountain area is a dominant feature of the region's landscape, and encompasses more than 1,300 square miles.

The flatlands of the Bay Area have been urbanized, but most of these grass-covered rolling hills have survived largely unspoiled, providing a scenic counterpoint to the urban area. In recent years, however, pressures and proposals for development in the Ridglands have increased significantly, presenting the threat of loss or serious degradation of this important open space resource. A need exists for public and private actions to preserve these areas.

Recreation Participation at the Unit

Mount Diablo State Park reported an annual attendance of 500,000 visitors in 1985-86; mostly residents of Contra Costa County or the greater San Francisco Bay area. The most popular recreation activities at the unit include sightseeing, nature study/observation, walking/hiking, picnicking, and bicycling. Visitation has doubled since 1978.

How many people will come to Mount Diablo State Park next year, or 20 years from now? Although a specific answer to this question is impossible to determine, there are a number of factors which indicate that there will be an increasing demand for park lands and facilities.

During the last 30 years, the state has grown tremendously. Between 1955 and 1985, California's population doubled, while attendance in the State Park System has grown ten-fold, from 7 million to almost 70 million visitors annually. In 1985-86, visitor attendance at state park units in Planning District 4 was about 9 million. Increased leisure time, higher family incomes, automobiles, greater urban populations, and a younger population have contributed to a higher general recreation participation rate.

The 20-year population growth of Contra Costa County is projected to be above the statewide average. By the year 2010, the county population will grow from 750,000 to 900,000, an increase of 17 percent. Population increase in the entire Planning District 4 is projected at 15-20 percent. Because of these factors, there will be continued growth in recreation use at Mount Diablo State Park.

Public Involvement

The public actively participated in creating this plan. From the outset, the planning team attempted to identify all parties interested in or affected by the plan, and to encourage their participation in the decision-making process. The team began planning before important land use decisions were made, and they evolved a final plan step-by-step, with active public involvement. Attendance at our five public meetings ranged from 100 to 250. Participation was spirited and particularly helpful.

The first step was to reach as many interested people as possible, through direct mail. The team developed an active mailing list of more than 1,200 names, and distributed more than 500 mail-in user surveys at the park. The user surveys allowed targeting of the broad areas of visitors' concerns, and gave people's general philosophies about what kind of place the park should be.

During this initial period, the team gathered information on the park itself, developing an information base on the cultural and natural resources of the area, the character of the communities and people who live in them, the constraints of the land and of the law, and projections of future changes. This information base provided the knowledge to make the assumptions on which the plan is based.

The planning team held public meetings at five critical stages of the plan's evolution:

- o October 2, 1985 - Issue Identification.
100 people were placed in groups to discuss and document their concerns with the park. What occurred was summarized in Newsletter #2.
- o January 29, 1987 - Meeting #2 - Presentation of the draft Resource Element and the draft Interpretive Element.
Staff took public comment on the two elements; more than 200 people attended. Newsletter #3 highlighted the draft elements.
- o September 22, 1987 - Meeting #3 - Presentation of the revised draft Resource Element, the draft Interpretive Element, and the draft Wildfire Management Plan.
More than 250 people attended the meeting. Newsletter #4 summarized what we heard at the January 29 meeting. Newsletter #5 summarized the highlights of the revised draft Resource Element and the draft Interpretive Element.
- o June 30, 1988 - Meeting #4 - This meeting focused on discussion of land use alternatives for the park.
Land Use Alternatives workbooks were passed out to the 100 people who attended the meeting. People were broken up into groups, and presented their groups' findings. Newsletter #6 highlighted the Wildfire Management Plan and land use alternatives for Mount Diablo.

- o January 25, 1989 - Meeting #5 - This meeting focused on presentation of the draft Land Use Element and the draft Facilities Element.

Staff took public comment on the two elements; more than 125 people attended. Newsletter #7 recapped what happened at the June 30 public meeting, and highlights of the draft Land Use Element and the draft Facilities Element.

The plans were reevaluated after the meeting, appropriate changes were made, and the preliminary plan and environmental impact report were issued in compliance with CEQA (the California Environmental Quality Act) for review and comment.

Final action on approval of the plan will be taken by the State Park and Recreation Commission in public hearing, after completion of the environmental review process.

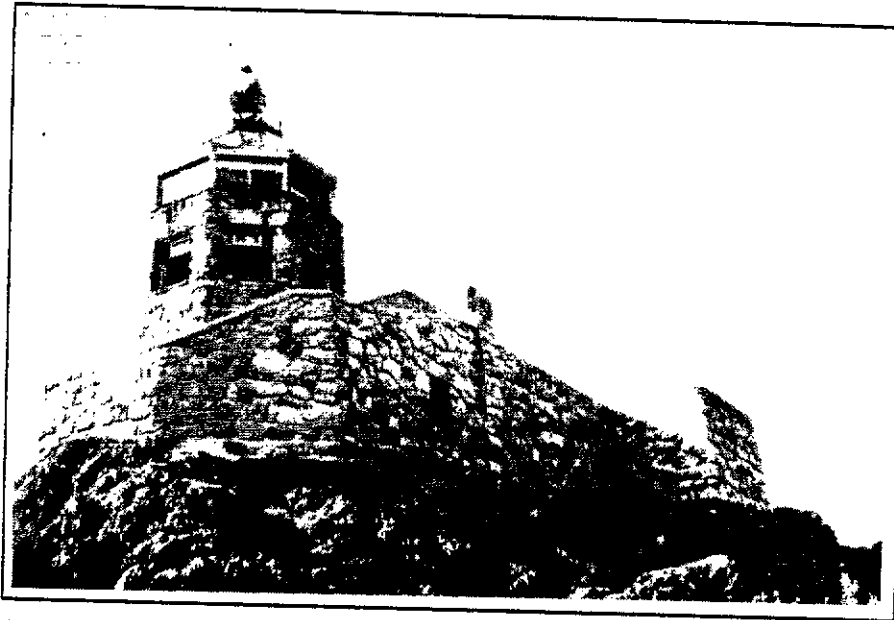
Involvement of Other Agencies

Numerous contacts were made with the following agencies that have an interest in the General Plan:

California Department of Forestry and Fire Protection
California State Parks Foundation
Contra Costa County Board of Supervisors
Contra Costa County Planning Department
Contra Costa County Fire Protection District
Contra Costa County Resource Conservation District
City of Clayton
City of Concord
City of Walnut Creek
East Bay Regional Park District
East Diablo Fire District
San Ramon Valley Fire District
Tassajara Fire District

Resource Element

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The Summit Building is the single most important Civilian Conservation Corps feature in the park.



During the 1930's, the Civilian Conservation Corps constructed a number of culverts in the park.



Graffiti on a sandstone formation in Rock City.



A retaining wall built by the Civilian Conservation Corps.

RESOURCE ELEMENT

Purpose

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

The Resource Element for Mount Diablo State Park also identifies specific resources, their sensitivities and physical constraints, and establishes department guidelines for acceptable levels of use and development with respect to these values.

Discussions about land not now owned by the Department of Parks and Recreation have been included, but these lands were not inventoried for natural and cultural resources. Some of these lands may represent potential acquisition opportunities, based on available data. However, the discussions are intended for planning purposes, and do not represent an intention or commitment for acquisition. Only those lands owned by the state at Mount Diablo as of November 1985 (about 15,000 acres) are included in the Resource Inventory, and have direct influence on this Resource Element.

Resource Summary

The following resource information is a summary and evaluation of data contained in the Resource Inventory for the unit. More detailed information is available at the Resource Protection Division office in Sacramento.

Natural Resources

Topography

Mount Diablo State Park is located in the northern end of the Diablo Range, in the Coast Ranges Geomorphic Province. Mount Diablo is the dominant feature of the Diablo Range.

Mount Diablo State Park encompasses approximately 18,000 acres, with an elevational range of 381 to 3,849 feet. Slopes vary from slight (0-8%) to greater than 50%. Terrain in approximately 60 percent of the unit is within the steepest slope category (greater than 50%); thirty percent is moderately steep (25-50%). In the unit, principal stream drainages north of Mount Diablo are Mitchell, Donner, and Back Canyons. Pine and Curry Canyons drain the south slopes of Mount Diablo. Perkins Canyon drains the east slopes of North Peak. The Black Hills extend from northwest to southeast in the southern part of the unit. Terrain is very steep in this region. Sycamore and Alamo Creek drainages divide the Black Hills into adjacent ridge systems, Fossil Ridge, Black Hawk Ridge, and Oyster Point.

Meteorology

Mount Diablo State Park has a Mediterranean climate, and experiences hot, dry summers and cool, moist winters. Proximity to San Francisco Bay and the Carquinez Strait moderates the effects of summer temperatures: during the summer months, the Carquinez Strait provides a channel for the fairly strong flow of cool marine air from the ocean into the Great Valley, and fog from the San Ramon Valley covers the south area of the unit. In contrast, the north side of Mount Diablo receives little summer fog.

Coldest temperatures occur during the months of December, January, February, and March, while warmest temperatures occur during June, July, August, and September. Winter extremes, recorded at Mount Diablo unit headquarters, are 20°F and 77°F; summer extremes are 45°F and 107°F.

Average annual rainfall recorded at unit headquarters is about 22 inches. Although precipitation can occur throughout the year, more than 90 percent occurs from November to April. During the winter months, precipitation on the summit of Mount Diablo can occur as snow.

Mount Diablo State Park is located to the east of the San Francisco Bay, and is subjected to Bay Area airflow patterns. In the unit, the predominant direction of wind during the winter is west to southwest. Winds in the spring, summer, and fall are primarily west to west-northwest, except during periods when winds are primarily from the north, northeast, and east.

Prior to 1985, wind data were not available for Mount Diablo State Park, and the nearest station was located at the Oakland Airport. Because of differences in topography, data obtained from this station are not representative for the unit.

The summit and lower flanks of Mount Diablo can be covered by fog at any time during the year. Fog at 2,000 feet and below occurs frequently during the winter. In late spring and early summer, fog is common on the south slopes of Mount Diablo, and sometimes reaches the summit. Low summer fogs are less frequent than in the San Francisco Bay Area. When they occur, they are of short duration.

Topographic relief in the unit creates a wide range of microclimatic conditions. Temperature extremes are greater on the summits of peaks due to exposure, and in low valleys, where cool, heavy air collects. Precipitation is higher at the summit of Mount Diablo than on the lower slopes, and seasonal airflow results in greater precipitation on south slopes than on north slopes. Rugged topography also affects exposure to sunlight, with south-facing slopes being warmer and drier, and north-facing slopes being cooler and moister.

Six air pollutants are measured within the San Francisco Bay Area Air Basin: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, hydrocarbons, and total suspended particulate matter. California air quality standards for ozone have been exceeded in Contra Costa County. By California standards, any exceedance places the county in a "non-attainment" designation for a pollutant. Contra Costa County has also been designated as an "attainment/non-attainment" area for carbon monoxide pollution. This

designation reflects the levels of pollution for urban vs. rural areas within the county. In general, the eastern half of the county is in an attainment area, meaning that the standard has not been exceeded. Temperature inversions and upper altitude winds affect dispersion of pollutants in the county. Based on extrapolation of data obtained at Oakland Airport, Mount Diablo State Park is situated in an inversion layer throughout much of the year. During winter, spring, and fall, the lower elevations of the unit are often in a stagnant air zone, trapped beneath the inversion layer. Temperature inversions can also result in measurable temperature differences over very short distances. For example, the upper slopes of Mount Diablo can be 10°F to 20°F warmer than the lower slopes.

Hydrology

Situated at the northern end of the Diablo Range of the California Coast Ranges, the state park extends into three hydrologic units; the North Diablo Range, the South Bay, and the Suisun hydrologic units, as defined by the California Department of Water Resources.

The character of the watersheds in the park area is typical of the Coast Ranges, where steep ridges and deep canyons dominate. The source of surface water runoff and groundwater is from precipitation, which comes mostly as rain, between the months of November and April.

Creeks and streams in the area are mostly intermittent, reflecting the seasonal distribution of rainfall. Winter flows are higher, and increase during and immediately following storms. Base flows generally decrease following the rainy season, and disappear when the groundwater table drops below stream channel elevations.

Significant uses of the water supply inside and outside the unit have been mainly for agricultural, residential, and livestock watering purposes.

The state park contains part of seven major watersheds; Marsh Creek, Mt. Diablo Creek, Pine Creek, Green Valley Creek, Sycamore Creek, Alamo Creek, and Tassajara Creek. The general direction of flow of the major drainages radiates from Mount Diablo peak.

Approximately 27 percent of the state park is in the Marsh Creek watershed. This watershed is a major drainage system in the North Diablo Range hydrologic unit, and directs its flows toward the San Joaquin Delta area, eventually discharging into Big Break north of the community of Oakley. Although Marsh Creek itself does not extend into the park, three of its tributaries drain the eastern portion of the park. The three tributaries are Dunn Creek, Perkins Canyon creek, and Curry Canyon creek. Other hydrologic features of the watershed in the state park include Alder Creek, Mountain Springs Creek, Sheepherder Springs, Sycamore Spring, Hunt Spring, Frog Pond, Hidden Pond, Chase Pond, and Sheepherder Pond.

Approximately 32 percent of the state park area is in the Mt. Diablo Creek watershed. This watershed is a part of the Suisun hydrologic unit, and its surface water runoff is directed to Suisun Bay. Mitchell Creek and Donner Creek, two major tributaries of Mt. Diablo Creek, drain the northern portion of the park. A one-mile stretch of Mitchell Creek in the park has surface

water flows all year. Other features in the Mt. Diablo Creek watershed include Deer Flat Creek, Back Creek, Mimulus Spring, Big Spring, and an unnamed reservoir.

The Pine Creek watershed includes about 23 percent of the state park, draining the western section. Surface water runoff originating in this watershed is directed into Walnut Creek, and then into Pacheco Creek, before being discharged into Suisun Bay. The Pine Creek watershed is within the Suisun hydrologic unit. Hydrologic features in the park portion of the watershed include two major tributaries, Arroyo Del Cerro and Little Pine Creek; a number of springs, including Peach Tree Springs, Orchid Spring, Coffeeberry Spring, Silver Spring, and Moses Rock Spring; and a reservoir known as Pine Pond.

The remaining southern portion of the park (about 18 percent of the total park area) is in parts of the four major watersheds.

Groundwater in the park plays a minor role in the hydrology of the area. Groundwater in the area is recharged naturally by precipitation. Percolation areas are the stream channels, where a portion of the precipitation and subsequent runoff percolates into the ground. There have not been any surveys to determine the depth, quality, and quantity of the groundwater.

All seven major drainages into which the park extends have areas that are subject to flooding. However, most of these areas are located downstream from the park, in the lower reaches of the drainages. Flood-prone areas have not been mapped in the park.

Water quality information for the park area is limited. Both bacterial and chemical pollution of surface waters is occurring. Bacterial contamination in and around water sources occurs as a result of livestock concentrating in these areas during the dry season. Chemical pollution of water in the lower portions of Dunn Creek and its tributary, Horse Creek, is occurring, as a result of heavy metal contamination from the tailings and tailings pond located at the privately owned Mt. Diablo Mine site, and partially on park property. The principal contaminants include arsenic, cadmium, chromium, lead, mercury, nickel, and selenium. Preliminary surveys have indicated that water in the creeks is highly conductive, and additional water quality studies are needed.

Geology

The core of Mount Diablo is thought to be a piercement structure, composed of rocks of the Franciscan complex, and a special sequence of rocks called an ophiolite. Ophiolites have recently taken on a special significance as indicators of former plate tectonic terranes. Elevated as a result of plate tectonic interactions about four million years ago, the northern highlands of the park (Eagle Peak, Meridian and Olofson Ridges) were originally formed beneath a marginal basin, offshore of North America, from 165 to 180 million years ago. They are composed of what would be considered oceanic crust, as opposed to continental crust.

The relatively recent and rapid uplift of Mount Diablo was made possible by the Mount Diablo fault, which has been largely obscured by extensive Quaternary-aged landslides around the southern extent of the Franciscan and ophiolitic core. Younger sedimentary beds generally dip away from Mount Diablo; in the south, they have been overturned.

The basement complex of Mount Diablo occupies an area of about 18 square miles. The basement rocks form the central piercement structure, which is in fault contact with all the surrounding rocks. The central "plug" is divided into two parts, separated by a narrow northwest-trending band of serpentine. North of the serpentine band is the aforementioned Mount Diablo ophiolite (diabase, pillow basalts, basalt flows, and volcanic breccia). South of the serpentine are rocks of the Franciscan complex (greenstone altered from basalt, graywacke, chert, shale, and glaucophane schist in a sheared shale matrix).

South of Mount Diablo, the sedimentary rocks decrease in age to the south, with the oldest rocks closest to the mountain. The sandstone beds in this area tend to be resistant to erosion; thus, they are ridge-formers. Intervening shale layers erode readily, and form the lows.

Landslides are abundant on the steep slopes of Mount Diablo, including deep-seated rotational slides, shallow-seated debris avalanches, and earthflows. Rainfall has been observed to correlate well with landslide activity. Rainfall in excess of 7 inches per storm generally causes many landslides, especially if the ground has been saturated by previous storms (generally 10-15 inches). Ancient landslides tend to be particularly susceptible to additional slope failure following sustained rainy periods, as are certain geologic formations (the Neroly Formation, the Orinda Formation, and the San Pablo Group).

Mount Diablo's position amidst and between major Bay Area faults makes it susceptible to ground shaking from earthquakes, surface rupture at the lower elevations along active fault traces, rock falls along road cuts, boulder dislodgement, and seismically-induced landslides. An earthquake swarm centered on the Diablo-Greenville fault occurred in January 1980, along Morgan Territory Road. Many rock falls and roadfill failures occurred as a result.

The area of the state park has been explored for gold, silver, copper, and mercury. Mercury is the only metal which has been extensively mined (Mount Diablo Mine on Morgan Territory Road, just south of Marsh Creek Road). The source minerals were cinnabar and metacinnabar, associated with silica-carbonate rocks and serpentine.

The sedimentary rocks surrounding Mount Diablo have been studied for paleontological resources. Rich assemblages of Miocene flora and fauna have been studied, as well as older foraminifera from the Upper Cretaceous sediments. Sandstone blocks rich in molluscan fossils locally quarried from the area (Fossil Ridge) were used in construction of the Summit Building, as well as fireplaces and other rockwork throughout the park.

Soils

Mount Diablo State Park is located in the Central Coast Range and Valleys Soil Region (Soil Region V). Soil Region V is characterized by large valleys, undulating hills, and steep mountain ranges. Fifteen major soil series and one rock-soil association have been mapped in the unit:

Alo clay	Lodo clay loam
Altamont clay	Los Gatos loam
Cropley clay	Los Osos clay loam
Diablo clay	Millsholm loam
Dibble silty clay loam	Perkins gravelly loam
Gaviota sandy loam	Positas loam
Gilroy clay loam	Vallecitos loam
Zamora silty clay loam	Rockland-Xerorthents Association

These soils derive largely from sedimentary rocks, sedimentary rock alluvium, and basic igneous rock. Surface-soils are alkaline or acidic; subsoils can be calcareous.

Vallecitos Loam and the Rockland-Xerorthents Association are the dominant soil series in the unit, and have formed in several types of parent materials. Vallecitos soils were formed in material weathered from metamorphosed sedimentary rock, and occur primarily in the southern portion of Mount Diablo State Park. Dominant types of vegetation on this soil are grassland, live oak forest, and blue oak forest and woodland. The Rockland-Xerorthents Association is the dominant formation in the northern half of the unit. These soils were formed in material weathered from sedimentary and basic igneous rock, and have a severe erosion potential. Scrub and chaparral plant communities are the dominant vegetation on this soil association. Extensive areas of live oak forest also occur on the association north of Mount Diablo. Serpentine chaparral is restricted to Rockland-Xerorthents soils derived from serpentine; the rock outcrop community occurs solely on Franciscan or igneous rocks.

Other prominent soils in Mount Diablo State Park include the Gilroy and Lodo soil series in the northern part of the unit, and Dibble, Lodo, Los Osos, and Millsholm soils in the southern portion of the unit. Gilroy soils derive from basic igneous and metamorphic rocks. The remainder of the soils are underlain by sandstone and shale. Grassland, blue oak woodland/forest, and live oak forest are the principal types of vegetation associated with these soil series.

Soils in Mount Diablo State Park have been designated by the USDA-SCS for several land uses. Of the 15 major soil series and the rock outcrop association mapped in the unit, all have one or more severe constraints, as determined by SCS, which would affect facility development and recreational use. Principal limiting factors are slope, depth to rock, slow permeability, too clayey, shrink/swell potential, and low strength.

Plant Life

There is a wide diversity of native vegetation in Mount Diablo State Park. Eight vegetation types and fourteen corresponding plant communities occur in the unit:

<u>Vegetation Types</u>	<u>Plant Communities</u>
Coastal Scrub	Central Coastal Scrub
Chaparral	Coastal Sage Scrub
	Mixed Chaparral
Valley and Foothill Grasslands	Serpentine Chaparral
	Cismontane Native Grassland
Streambank Woodland and Forest	Cismontane Introduced Grassland
Oak Woodlands	Southern Riparian Woodland
	Blue Oak Woodland
	Valley Oak Woodland
Broadleaf Evergreen Forest	California Juniper Phase
Closed-Cone Coniferous Forest	Live Oak Forest**
Lower Montane Coniferous Forest	Knobcone Pine Forest
	Coulter Pine Woodland
	Rock Society*

Central coastal scrub vegetation is composed of dense shrubs that are not drought-deciduous. It occurs in areas having greater available moisture than in sites dominated by coastal sage scrub. Typical coastal scrub species are coyote brush (Baccharis pilularis ssp. consanguinea) and poison-oak (Toxicodendron diversilobum). In the unit, species found in the central coastal scrub also form an understory to coast live oak and canyon live oak woodlands. In these sites, cream bush (Holodiscus discolor), oso-berry (Osmaronia cerasiformis), and snowberry (Symphoricarpos mollis) are associated understory species. One representative site of central coastal scrub is on the upper slopes of Oyster Ridge.

Coastal sage scrub occurs on steep south-facing rocky slopes; in areas having thin soil and good drainage; and as a seral stage to chaparral in areas of recent disturbance or fire. Coastal sage scrub, often called "soft chaparral," occurs on drier sites than chaparral. Coastal sage scrub vegetation is composed of dense, drought-deciduous species which have affinities to interior and semi-desert regions. Representative species include California sagebrush (Artemisia californica), black sage (Salvia mellifera), and sticky bush monkey-flower (Mimulus aurantiacus). In Mount Diablo State Park, coastal sage scrub occurs in an edaphically determined mosaic, with chaparral in areas such as Mitchell Canyon, the Inner Black Hills, and on North Peak. An exception is Dan Cook Canyon, where coastal sage scrub occurs on more mesic sites.

* The term "Rock Society" follows Bowerman from The Flowering Plants and Ferns of Mount Diablo, California (1944), referring to the associations of species restricted to, or occurring on, rock outcrops, talus slopes, and rocky ground.

** Includes Coast Live Oak forest and Interior Live Oak forest.

Mixed chaparral is a dominant vegetation within Mount Diablo State Park, where it occurs on exposed, rocky, north-facing slopes and ridges, or on slightly mesic south-facing slopes. Chaparral forms a dense, almost impenetrable cover, with little or no understory vegetation. Chaparral species are highly adapted to drought, and to cyclic fires. Dominant species include chamise (Adenostoma fasciculatum), manzanita (Arctostaphylos spp.), toyon (Heteromeles arbutifolia), and ceanothus (Ceanothus spp.). During the first year following a fire, a dense cover of herbaceous annuals and perennials often appears. Annual herbs include fire poppy (Papaver californicum) and whispering bells (Emmenanthe penduliflora). Two major types of mixed chaparral are found in Mount Diablo State Park: chamise-dominated and manzanita-dominated.

Serpentine chaparral is similar in composition to mixed chaparral, but also includes species largely restricted to serpentine soil. Vegetation cover is usually dense, although patches of bare ground often occur. In the unit, leather oak (Quercus durata) and bigberry manzanita (Arctostaphylos glauca) are found on serpentine in the vicinity of Murchio Gap. The serpentine endemic, procumbent bird's beak (Cordylanthus nidularius), also occurs at this site.

Due to widespread livestock grazing and prolonged drought resulting in introduction and establishment of non-native species, large stands of native perennial grassland are not found in Mount Diablo State Park. Species which characterize native grassland, purple needlegrass (Stipa pulchra), pine blue grass (Poa scabrella), and California melic (Melica californica), are found throughout the unit, but not extensively. Perennial species occur primarily in areas which are not grazed.

Introduced annual grassland is found at Mount Diablo State Park, especially on south-facing slopes in the southern portion of the unit. The boundaries of existing annual grassland sites are essentially those maintained previously by perennial grasses. The ability of annual grassland species to avoid summer drought as seeds, and their resistance to damage by intensive grazing, has enabled them to persist in habitats normally colonized by native perennial species. Dominant species include wild oat (Avena fatua), slender wild oat (Avena barbata), soft chess (Bromus mollis), and ripgut brome (Bromus diandrus).

Riparian woodland occurs in a narrow band along streambanks in deep canyons and gullies; species composition varies with the amount of available moisture. Dominant species in the moister canyons are white alder (Alnus rhombifolia), western sycamore (Platanus racemosa), big-leaf maple (Acer macrophyllum), Fremont cottonwood (Populus fremontii), and willow (Salix lasiolepis, S. laevigata). Understory species include California coffeeberry (Rhamnus californica) and poison-oak. In drier canyons, canyon live oak (Quercus chrysolepis) and interior live oak (Quercus wislizenii) occur immediately above the riparian zone, with California bay (Umbellularia californica) the dominant species in the riparian zone.

In addition to major riparian zones, numerous springs and ponds occur in Mount Diablo State Park. These springs vary in areal extent and in species composition.

Blue oak woodland is common in the unit, where it forms an open, savanna-type of vegetation on lower foothills. It occurs on south-facing, rolling hillsides, as well as on margins of canyons, or in drier gullies. In several areas, woodland approaches forest with an increasingly dense canopy cover. Pine bluegrass, blue wild-rye, California fescue, and herbaceous annuals and perennials are understory species. Blue oak (Quercus douglasii) and digger pine (Pinus sabiniana) are the dominant overstory species.

Extensive valley oak woodland does not occur in Mount Diablo State Park. Populations of valley oak (Quercus lobata), with an understory of shrubs and grasses, are found at Black Point, Deer Flat, and Curry Canyon. Valley oak forms open savanna-like vegetation on heavier soils adjacent to Mitchell and Donner Canyons, and southwest of Pine Ridge.

California juniper (Juniperus californica) occurs as small stands and isolated trees in several areas in the upper elevations of Mount Diablo State Park. The trees are often windpruned and low-growing. Bowerman (1944) considers California juniper to be a member of the oak woodland (foothill woodland) vegetation type on Mount Diablo, rather than a distinct vegetation type, primarily because associate species characteristic of the California juniper woodland do not occur in the unit. Within Mount Diablo State Park, California juniper occurs with annual grassland, scattered digger pine, and narrowleaf goldenbush (Haplopappus linearifolius) on metamorphic rock outcrops.

Species of live oak forms a dense forest on north-facing slopes and along the less mesic riparian corridors in the unit. Canyon live oak, coast live oak (Quercus agrifolia), interior live oak, madrone (Arbutus menziesii), and California bay are overstory species. The understory is dominated by thin grass (Agrostis diegoensis) and Torrey's melic (Melica torreyana).

Live oak forest dominated by coast live oak is restricted to elevations of less than 2,800 feet within the unit. It changes from north-facing slopes at lower elevations to south-facing slopes near its upper elevational limit. Above this limit, interior live oak increases in canopy cover, especially on colder, drier, north-facing slopes. Near the summit of Mount Diablo, interior live oak forms a dense, low-canopied forest. Coast live oak forest and interior live oak forest intergrade with mixed chaparral on drier, rockier slopes, with annual grassland, and with blue oak woodland.

Knobcone pine forest occurs primarily on south-facing sandstone outcrops in the Inner Black Hills. Vegetation peripheral to the knobcone pine forest is manzanita chaparral. The mature stand of knobcone pine (Pinus attenuata) is dense, with no understory development. Knobcone pine is adapted to cyclic fires; its cones open through exposure to heat generated by a fire. In 1981, the area to the east of Knobcone Point burned. Numerous knobcone pine seedlings now occur in this area.

Populations of Coulter pine (Pinus coulteri) occur primarily on Eagle Ridge north of Twin Peaks, in Uncle Sam Canyon, in Mitchell Canyon, and on Meridian Ridge, and represent one of the northernmost sites for this species. Coulter pine woodland in the unit has developed on steep, rocky, north-facing exposures at an unusually low elevation. The pines form an open stand, and have an understory of shrubby coast live oak, poison-oak, and western hop-tree (Ptelea baldwinii var. crenulata). Native bunchgrasses and herbaceous perennials are also frequent in the understory.

The term "Rock Society" refers to the associations of species restricted to, or occurring on, exposed rock. The best development of this type of vegetation is seen near the summits of Mount Diablo, North Peak, and Eagle Peak. Vegetation is usually sparse, and consists primarily of herbaceous species. Several of the rare, endangered, and special-interest plant species are found in this association, including: Sanicula saxatilis, Streptanthus hispidus, Phacelia phacelioides, Erigeron miser, Allium acuminatum, and Lewisia rediviva. Prostrate California juniper (Juniperus californica) frequently occurs on rocky outcrops as well.

Sixteen plants listed by the California Native Plant Society (CNPS) as rare or endangered species, or as plants of limited distribution, are reported from Mount Diablo State Park. Two of these are listed by the state as rare.

Rare and Endangered Plants

<u>Arctostaphylos auriculata</u> ²	Mount Diablo manzanita
<u>Calochortus pulchellus</u> ³	Mount Diablo fairy lantern
<u>Calochortus umbellatus</u> ³	Oakland star tulip
<u>Campanula exigua</u> ³	Chaparral harebell
<u>Cordylanthus nidularius</u> ^{1,2}	Procumbent bird's beak
<u>Erigeron miser</u> ³	Rayless fleabane
<u>Eriogonum truncatum</u> ²	Mount Diablo buckwheat
<u>Eriophyllum jepsonii</u> ³	Jepson's yellow yarrow
<u>Helianthella castanea</u> ²	Mount Diablo helianthella
<u>Hesperolinon breweri</u> ²	Brewer's dwarf flax
<u>Juglans hindsii</u> ²	Northern California black walnut
<u>Malacothamnus hallii</u> ³	Hall's malacothamnus
<u>Phacelia phacelioides</u> ²	Mount Diablo phacelia
<u>Sanicula saxatilis</u> ^{1,2}	Rock sanicle
<u>Streptanthus hispidus</u> ²	Mount Diablo jewel flower
<u>Stylocline amphibola</u> ³	Mount Diablo cottonweed

In addition to rare species, several special-interest plants are also found in Mount Diablo State Park. These include 1) Coulter pine--northern limits of species; 2) Hooker's onion (Allium acuminatum)--disjunct from Northern California; 3) Bitter Root (Lewisia rediviva)--unusual color form, and subject to overcollection; 4) Canyon gooseberry (Ribes menziesii var. hystriculum)--limited distribution of variety.

Ninety-two species of exotic plants are reported in Mount Diablo State Park. Many of these species are associated with grazed areas. The most widespread of these species are exotic grasses, bur clover (Melilotus spp.), and filaree (Erodium spp.).

Animal Life

Mount Diablo State Park is in the ecoregion defined as the California Chaparral Province. Six major terrestrial biotic communities occur in the unit: riparian woodland, grassland, chaparral, foothill woodland, coniferous woodland, and rocky areas and cliffs.

¹ State-listed "rare".

² Listed as "Rare and Endangered in California and Elsewhere" (List 1b) by CNPS.

³ Listed as "Plants of Limited Distribution" (List 4) by CNPS.

The riparian woodland communities are very important to wildlife throughout the year, by providing watering areas, nesting sites, seasonal and daily migration routes, abundant cover, and a variety of food resources. Riparian woodlands are perhaps the most popular home or habitat of wild animals in California. They produce good "edge" habitats, typically offering sharp contrasts to adjacent communities. In the unit, the extent of riparian habitat is relatively small when compared to the other biotic communities. They are confined to areas immediately adjacent to the lower stream courses, where water occurs at or near the surface of the ground throughout much of the year. The importance of riparian woodland communities is evident in the abundance and diversity of animals found in them. Animals commonly associated with the riparian woodland areas of the park include amphibians such as the California newt, California slender salamander, and Pacific treefrog; reptiles such as the western pond turtle, common garter snake, and western aquatic garter snake; birds such as the black phoebe, northern oriole, and many species of hawks, woodpeckers, vireos, warblers, and sparrows; and mammals such as the raccoon and black-tailed deer.

The grassland communities offer a habitat with an abundance of food, but with little value in cover for wildlife. Grasslands are areas of open country, with no trees. In late spring and summer, the annual grasses die, and form the driest and hottest habitats in the park. Because of these characteristics, many of the animals found in the grasslands find shelter in other nearby biotic communities. Grasslands make up about 27 percent of the park area. Animals commonly found include the horned lark, western meadowlark, American kestrel, turkey vulture, black-tailed hare, California ground squirrel, and several other rodent species.

The chaparral communities provide a habitat type that is made up of mostly stiff-branched, small-leaved shrubs. Vegetation is generally very dense, and provides excellent shelter for many animals. In addition to shelter, the buds, flowers, berries, nuts, seeds, and other vegetable parts of many chaparral plants are important food sources for many birds and mammals. Approximately 28 percent of the unit is chaparral. Animals commonly inhabiting chaparral communities of the park include the Pacific gopher snake, Anna's hummingbird, California quail, greater roadrunner, California thrasher, dusky-footed woodrat, and brush rabbit.

The foothill woodland and coniferous woodland communities offer wildlife habitat not afforded by the other biotic communities. The canopy formed by the trees provides good shelter for many animals such as the great-horned owl, red-shafted flicker, plain titmouse, white-breasted nuthatch, and dark-eyed junco. The trees also provide a good food source for many animals, including the acorn woodpecker, scrub jay, and black-tailed deer. Thirty-eight percent of the park area is foothill woodland; five percent is coniferous woodland.

The rocky areas and cliffs in the park provide excellent shelter for many animals. The dens of coyotes, gray foxes, mountain lions, and bobcats are often found in these rocky habitats. Many reptiles, including the Northern Pacific rattlesnake, prefer to inhabit rocky areas, because surface temperatures are generally warmer than temperatures in surrounding communities. Many birds require cliffs or rock outcrops for nest and roost sites. Often seen in these communities are turkey vultures, golden eagles, prairie falcons, ravens, white-throated swifts, violet-green swallows, and cliff swallows.

Historical influences on the native fauna in the unit include Euroamerican activities of hunting, which extirpated animals such as tule elk and possibly pronghorn, California grizzly bear (now extinct); predator and pest control; and introduction of non-indigenous animals. Other influences include disturbances such as grazing, mining, fire exclusion, and development.

One threatened wildlife species is known to occur, and one endangered species possibly occurs in the park. The Alameda striped racer, a subspecies of the striped racer, is state-listed as threatened, and occurs in the unit. This racer is usually associated with chaparral habitats, but may also occur in grassland, open woods, and on rocky slopes. Mount Diablo State Park contains important habitat for the Alameda striped racer.

The San Joaquin kit fox, state-listed as threatened and federally-listed as endangered, is known to occur along the western foothills of the San Joaquin Valley, east of the park. Kit fox occurrences in the unit are possible, although none have been reported.

Ten other animal species occurring in the park are of special interest because of their important scientific, educational, or interpretive values. These animals, which may require special management protection, are the California red-legged frog, sharp-tailed snake, northern harrier, sharp-shinned hawk, Cooper's hawk, golden eagle, prairie falcon, gray fox, mountain lion, and Berkeley kangaroo rat, which is possibly now extirpated in the unit.

The California ground squirrel is a special-interest species that may require management control. Ground squirrel populations can reach unnaturally high densities that often cause adverse impacts on the environment.

Four species of fish were collected from the waters of Mount Diablo State Park. Mount Diablo State Park aquatic habitats consist of vernal pools, ponds, and streams. Many of the ponds are natural, but all have been used by cattle, as is or modified, and are operated as stock watering ponds by the concessionaire who grazes cattle in the unit. Only one pond, Pine Pond on Pine Creek, contains fish, including largemouth bass, redear sunfish, and mosquitofish. All of these fish are introduced species.

The only other fish collected from Mount Diablo State Park were rainbow trout, taken from Mitchell Creek. Mitchell Creek supports a small remnant population of rainbow trout, suspected of being native, and known to be the only remaining wild rainbow trout population in the Walnut Creek drainage basin. Steelhead/rainbow trout once ascended Mount Diablo Creek and adjacent streams, spawning in the upper tributary areas. Resident rainbow trout populations also once existed in suitable areas. Extensive urbanization, including installation of migration barriers to anadromous fish and introduction of exotic fish species, has resulted in elimination of several native fish species from this drainage. A recent survey concluded that rainbow trout are no longer found in the San Ramon Valley area. That survey overlooked Mitchell Creek, and its population of rainbow trout remained unknown until surveys were conducted for the inventory of Mount Diablo State Park.

This rainbow trout population may be of significance for several reasons. Native strains of rainbow trout throughout the west have been hybridized with domesticated rainbow trout strains introduced through fish planting programs.

This occurred long before the ability to recognize the different strains or "races" was developed, or before fishery managers recognized the unique characteristics that some of these races exhibited. Attempts to reconstruct prehistoric rainbow trout distributions and movements through the genetic influences of various races are met with a general homogenization of the sampled populations through hybridization with transplanted rainbow trout. Pure populations, such as is suspected to occur in Mitchell Creek, may provide key components to this puzzle. This suspected race may also provide some important attributes that may be of value to fishery managers. This population probably also genetically represents the race of rainbow trout that once inhabited the San Ramon Valley area.

One of the first descriptions of rainbow trout (described as Salmo rivularis, Ayers 1855) appeared in Volume One of the Proceedings of the California Academy of Natural Sciences (1854-1857), and contains a description of specimens "...taken a few miles back of Martinez toward the foot of Mount Diablo." It is impossible to pinpoint the exact collection locality, but if the rainbow trout in Mitchell Creek were part of this originally described population, then they also have considerable historic value.

The present population in Mitchell Creek is very small, and the total population of fish probably does not exceed 500 individuals.

Pacific tree frogs were observed at Pine and Frog Ponds. No other amphibians were observed during surveys for the inventory. The surveys did not coincide with times of peak amphibian activity, and active searches for amphibians were not conducted. Red-legged frogs have been reported at Pine and Frog Ponds.

Ecology

Mount Diablo State Park, having outstanding natural values, is one of the most significant examples of California's foothill and low coastal mountains ecological region. It is in a unique geographic location, with Mount Diablo being a rather isolated eastern extension of the Coast Ranges at this latitude.

Mount Diablo's natural environment is rich and varied. Its geologic features play an important role in this characteristic. The core of the mountain is composed of altered volcanic rocks (basalts and diabase) and Franciscan complex rocks, including greenstone, graywacke, chert, shale, and schist, plus a belt of serpentine.

Geological diversity results in diverse plant life. Many plants found in the southern part of the state reach their northernmost distribution here, as well as those plants from the north reaching their southernmost extensions. As a result, the ranges of many species which do not occur together elsewhere overlap on Mount Diablo. More than 600 plant species are known to occur in the state park. Of these, 16 species are rare or endangered, including several endemic species.

With its variety of habitats, Mount Diablo State Park supports a diverse fauna. More than 250 species of fish, amphibians, reptiles, birds, and mammals may be found, including one threatened snake species. Invertebrates are also well represented, with more than 200 species known to occur in the park.

The biotic assemblage of plants and animals, together with the abiotic environment in which they exist, comprise the ecological system. The interdependence of the system's components is the basis of the ecosystem concept in ecology.

In the park, two major types of ecosystems are represented: terrestrial and aquatic. Approximately 98 percent of the state park is terrestrial, and less than 1 percent is aquatic. In addition, an ecosystem in between terrestrial and aquatic is wetland, with characteristics belonging somewhat to both, representing approximately 1 percent of the state park.

Each of these major types of ecosystems can be further subdivided into smaller systems, or ecological units. Nineteen ecological unit types have been established for the state park. Several of them are important examples of ecosystems of regional or statewide significance.

In a 1973 State Parks and Recreation Statewide Landscape Preservation Study, Mount Diablo State Park was ranked first, with the highest overall evaluation score, as the most suitable site to preserve as an example of the Sierra Foothill and Low Coastal Mountain Landscape Province.

Cultural Resources

Native American Sites

There are twenty-three recorded Native American sites at Mount Diablo State Park. These sites are of four basic types: bedrock mortars accompanied by petroglyphs (CA-CCo-21, 375, 382, 383/84, 395, 487, 429, and 416), bedrock mortars only (CA-CCo-529, 523, 484, and 396), petroglyphs only (CA-CCo-531, 486, 482, and 424), and aboriginal chert quarries (CA-CCo-524, 527, and 528). Three other types of sites were recorded: an aboriginal camp site (CA-CCo-415), a hunting location (CA-CCo-526), and a site of uncertain function (CA-CCo-493).

Euroamerican Standing Structures and Sites

During the 1930s, the Civilian Conservation Corps constructed a number of buildings, campgrounds, culverts, and retaining walls at Mount Diablo State Park. These facilities constitute a cultural resource base with a high level of historic and architectural significance. These resources are excellent examples of "rustic park architecture," a distinctive style developed between 1916 and 1942 by the National Park Service. Drawing on folk traditions, the rustic ethic emphasized the use of natural and local materials, handcrafting, and harmonious integration of human-made structures with the natural environment. During the 1930s, the National Park Service administered CCC work in the nation's state and local parks.

Each of the standing structures and other CCC-built facilities at Mount Diablo State Park has individual significance and value. However, these cultural resources should be viewed as part of a larger and more significant whole, which gives the developed areas of Mount Diablo State Park a unique appearance and feeling.

There are seven buildings constructed by the CCC at Mount Diablo State Park; six of these are located in the park service area. There are three residences: the Warden's Cottage (HS 1, feature a), a Park Residence (HS 1, feature e), and a Seasonal Residence (HS 1, feature c). All are built in a rustic cottage style, and exhibit simple, handcrafted decorative details, such as notched gable ends, wide-plank entry doors, hand-split shakes, and hand-forged metal hardware. The interior of the Park Residence (feature e) is particularly noteworthy for its careful detailing and high level of integrity.

The remaining structures in the service area include the Maintenance Office (HS 1, feature d), the Carpentry and Maintenance Shop (HS 1, feature f), and the Auto and Welding Shop (HS 1, feature g). All are simple wooden structures which have been minimally modified since their construction in the 1930s.

The Summit Building (HS 2) is the single most important CCC feature in the unit. It is a monumental structure, built of native sandstone boulders and large sandstone blocks. The building is an excellent example of rustic park architecture, and has retained its exterior integrity. It is eligible for listing on the National Register of Historic Places.

There are 124 individual stonework culverts in Mount Diablo State Park which were constructed by the CCC. Each culvert is unique, ranging in design from simple, square rockwork basins to elaborate structures, incorporating basins, retaining walls, rock drains, and free-standing walls.

There are also elaborate culverts and drainage ditches constructed in some of the campgrounds. The most noteworthy occur in the lower Arroyo Campground, at the Buckeye Group Camp, and in conjunction with the Maple and Laurel picnic nooks.

The CCC designed and constructed twenty-nine campground or picnic areas at Mount Diablo State Park. Each camp/picnic area was built in a manner consistent with the principles of rustic architecture and the guidelines supplied by the National Park Service in its design books, Park and Recreation Structures (1938) and Park Structures and Facilities (1935). Stoves and tables are built of native stone, are handcrafted, and exhibit evidence of individual workmanship and embellishment. While almost all of the campgrounds, with the exception of Live Oak, contain some CCC features, only a few now contain a majority of CCC furnishings. These campgrounds are Rock City, Arroyo, Buckeye, Barbeque Terrace, Wildcat, Bridal, and Maple Nooks. These areas retain a sufficient level of integrity for inclusion in a National Register historic district.

In the period between 1948 and 1953, the Division of Beaches and Parks expanded the park development begun by the CCC. The division built four ranger residences, the South Gate Residence (HS 3), the North Gate Residence (HS 4), the Arroyo Residence (HS 6) the Tin City Residence (HS 7), a headquarters building (HS 5); it also developed one new campground at Live Oak, and completed and/or refurbished several campground/picnic areas.

The facilities built by Beaches and Parks are stylistically consistent with the earlier CCC construction; however, the buildings lack the handcrafted detailing that distinguishes CCC structures. Likewise, the picnic furnishings are more uniform and standardized, and less frequently employ local materials, or evidence individual craftsmanship.

Response

The Wildfire Management Plan is not the only fire preparedness effort that the Department is making (see Response #1). Furthermore, cattle grazing does not constitute "fire planning" (see Wicklinsen response).

Comment #10

The perimeter fuel-break in the Wildfire Management Plan leaves large exposures of park grasslands, and chaparral and woodlands adjacent to residential areas with nothing to stop wildfires from sweeping down into these residential areas. Without grazing, fuel will build up in these areas, increasing the fire hazard to the residences and increasing DPR's liability.

Response

The perimeter fuelbreak is only part of a comprehensive fire planning effort (see Response #1). Furthermore, grazing alone does not prevent or stop fires, as was noted in the 1981 Atlas Peak Fire, where flames spread across a large expanse of grazed stubble 4" high and burned several structures. For this reason many of the residential areas around the mountain are required to have disced firelines within their open space.

Comment #11

Diablo Ranch is providing a service to the Blackhawk Country Club by grazing the common open space. Without the ability to graze Mt. Diablo leased lands, Diablo Ranch will not be in a position to graze our open space.

Response

It is not the Department's responsibility to provide such services for private lands. If the Diablo Ranch cannot continue to provide that service for Blackhawk Country Club, perhaps another rancher can. In addition, the landowner could consider incorporating fire prevention techniques outlined in the Wildfire Management Plan.

Comment #12

Marin County has returned to grazing the countryside because of the fires that were fed by excess fuel buildup.

Response

The County of Marin has allowed grazing on two of its properties, but it is not a widespread practice. Grazing was recently banned from the Roy's Redwoods unit near Woodacre because it was found to conflict with recreational use. Mt. Burdell near Novato has been grazed with cattle, however, presently cattle grazing is limited as part of a study of grazing effects on native perennials. The grazing lease at Mt. Burdell is intended

Charles McLaughlin was a railroad contractor, and an agent for the Central Pacific Railroad. His holdings on Mount Diablo were part of a large land empire that he built up through his railroad dealings. In the vicinity of Mount Diablo, McLaughlin owned the southern section of Mitchell Canyon, Deer Flat, White and Curry Canyons, and large tracts of land in sections 11 and 12 (T1S, R1W), near the present park headquarters. He also held land in the Hidden Pond area of section 7. Most of this land was used for stock raising and grazing.

In 1873, William Cameron, one of the builders of the first toll road on the mountain, established a large estate in what is now the southern portion of the park. The estate went through rapid changes of management and ownership, all of which were directly or indirectly tied to the Central Pacific Railroad until 1877, when David Colton, a business associate of the "Big Four," bought out the railroad's interests in the property. Between 1878 and 1912, the estate, known variously as Cook Farms and Oakwood Park Stock Farms, was enlarged by Colton's heirs, who raised stock, bred thoroughbred horses, and established several hundred acres of fruit orchards on the property. The estate eventually encompassed the areas of Dan Cook Canyon, Rock City, Devil's Slide, and the central portions of the park, along what is now the South Gate Road.

When Charles McLaughlin died in 1890, his land holdings were inherited by his daughter, Kate McLaughlin Dillon. Between 1890 and 1906, McLaughlin's daughter sold most of her father's holdings at Mount Diablo. White Canyon and Deer Flat were purchased by Dominic Murchio, an Italian immigrant, who had previously established a ranch along Mitchell Creek north of the present park boundary. Over a period of eighty years, the Murchio family added all of upper Mitchell Canyon to their ranch.

In 1912, Louise Boyd, Colton's niece, sold the Oakwood Stock Farms to a group of investor-developers led by Robert Burgess, a Berkeley businessman. Burgess' development company had elaborate plans to subdivide the farm into an exclusive residential park, to establish a country club, and to open Mount Diablo to the public.

There were several attempts to develop Mount Diablo as a scenic attraction. In 1873, the first wagon road up the mountain was constructed by a group of local investors interested in drawing tourists and local sightseers. Prominent among these investors was Joseph Hall, who built the Mountain House hotel about a mile below the summit. A large, gable-roofed building with a false front and a long veranda, the hotel was a popular tourist attraction through the 1880s. The hotel declined in the 1890s, and Hall abandoned his enterprise in 1895. The empty hotel building burned circa 1900.

In 1912, the development company which purchased Oakwood Stock Farms built a new toll road (Mount Diablo Scenic Boulevard), which was accessible to automobile traffic. They also planned an ornate observation tower-hotel to be built on the summit. The road was completed in 1915, but the tower-hotel was never realized.

In 1863, copper ores with traces of gold were found on the slopes of Eagle Peak. This discovery set off a short-lived copper and gold rush on the mountain. No mining of any consequence resulted from these discoveries. In

1863-64, quicksilver (mercury) was also discovered on the northeast side of North Peak, and in Perkins Canyon. This mineral was mined intermittently until the 1950s. The most important quicksilver production occurred off park property, but tailings and wastes from quicksilver mining operations can be found within the unit's boundaries.

From as early as 1800, when the mission at San Jose used the oak woodlands at the base of the mountain for winter pasture, the rich grasslands on the western side of the mountain have been used to graze stock. Raising of thoroughbred horses occupied most of the southern portion of the state park from the 1870s until World War I. The dense chaparral covered northeastern slopes of the mountain were less well adapted to grazing, and have been the principal areas of mining activity, although Perkins Canyon was also used for raising thoroughbreds in the 1930s.

Mount Diablo served as a central point for three major nineteenth-century land and resource surveys; the survey of the public domain begun in 1851, the U.S. Coast and Geodetic Surveys, 1852-1892, and the State Geological Survey, 1860-1864.

On July 18, 1851, Col. Leander Ransom, Deputy Surveyor General, and a crew of six men established the initial point of the Mount Diablo meridian by placing a flag at the summit of Mount Diablo. From this initial survey point, the crew established the cardinal points, and planted ninety-three township, section, and quarter section posts, thus beginning the survey of public lands in California.

The U.S. Coast and Geodetic Survey used Mount Diablo on several occasions as a base point for its national triangulation survey, a survey undertaken to establish an accurate standard line as a base for all future surveys and observations of the United States. Triangulation surveys were conducted at Mount Diablo in 1852, 1858, 1876, 1880, 1884, and 1892. The 1876 survey erected a signal station (a three-story structure) at the summit, which was later equipped by Joseph Hall for use of Mountain House guests. The station burned in 1891.

In 1860, the California Legislature appointed Josiah Whitney as State Geologist, charging him to make a complete geological survey of the state. The survey was to provide maps and "full" scientific descriptions of the state's rocks, fossils, soils, minerals, and botanical and zoological products. The actual field work was conducted under the direction of William Brewer. In May 1862, the Geological Survey spent ten days at Mount Diablo, gathering fossils and botanical specimens, and measuring the mountain's height. Brewer considered the mountain a key to many geologic formations in the state.

Although Mount Diablo is 3,849 feet high, the surrounding topography allows for an unobscured view in all directions. Under ideal conditions, it is estimated that 40,000 square miles of California and Nevada are visible from the summit. Over the years, a series of structures has been built to enhance these remarkable viewing opportunities.

The first recorded structure was the 1876 Geodetic Survey Signal Station, discussed above. Twenty-five years after the signal station burned (1891),

plans for construction of an elaborate "Torre de Sol" were laid by the Mount Diablo Development Company, but the medieval, quasi-Rhineland "castle" was never built. In 1928, Standard Oil of California constructed a 75-foot aviation beacon to serve as a guide for commercial aircraft. The tower was jointly promoted by Standard Oil and the U.S. Department of Commerce, which was anxious to encourage the development of commercial aviation. At some point between 1920 and 1939, there were also a wooden observation platform and a small Spanish Revival "museum" building on the summit.

Mount Diablo was one of seven state parks that came into existence before the establishment of the California State Park System in 1927. In 1921, the State Legislature created a "state park and game refuge" on 630 acres on the summit of Mount Diablo. This park was administered by its own appointive Mount Diablo State Park Commission.

In 1927, Frederick Law Olmsted prepared a California Park Survey for the newly formed State Park Commission. Olmsted recommended acquisition of 5,000-6,000 acres at Mount Diablo to "amplify" and "round out" the small state park already located at the summit. Between 1931 and 1937, major properties were acquired along the route of the historic Scenic Boulevard, the North Gate Road, and at the summit.

The most significant and largest structure to crown the summit was constructed in 1939-1942 by the Civilian Conservation Corps. Plans for a museum and observation tower were begun in 1934, and were developed and elaborated over the next five years. The project was given final approval in 1939, with work commencing sometime that same year. The building, a fine example of National Park Service rustic architecture, was completed in 1942. Installation of the planned museum was first delayed and finally abandoned due to continual problems with leakage in the interior of the building. In 1984, under the auspices of the State Parks Foundation, plans were begun for restoration of the Summit Building interior, and installation of a permanent museum. A small display area/visitor center has been operated by volunteers in the Summit Building for several years. This was organized and staffed by the Mount Diablo Interpretive Association.

During the 1930s, the Civilian Conservation Corps built a large number of facilities at Mount Diablo. The CCC stationed at Mount Diablo built and realigned the park roads, constructed hiking and fire trails, constructed ranger residences and maintenance buildings, developed campground and picnic facilities, and built the Summit Building already discussed. The CCC work at Mount Diablo encompasses almost every type of project the CCC undertook in state and national parks. The facilities they built all belong in the style known as "rustic park architecture". This style emphasized use of natural, unfinished, and, where possible, local materials, handcraftsmanship, and achievement of an "organic" relationship between human-made structures and their natural surroundings.

The range of projects undertaken and the clear expression of the rustic esthetic make the surviving CCC facilities at Mount Diablo among the best examples of CCC achievement in California's parks. They are of both historic and architectural significance.

The end of the CCC and the lack of available workers during the war years (1942-45) brought a hiatus in park development, but with the conclusion of the war, the Division of Beaches and Parks undertook an energetic development program at Mount Diablo. This development expanded on the work begun by the CCC. Architecturally, it represents the last phase of rustic park architecture before it was abandoned in the 1950s. Although of lesser historic and architectural value than the CCC products, these facilities should be recognized as an important part of the State Park System's history.

Mount Diablo State Park grew very little between the late 1940s and 1965, when an ambitious acquisition program was initiated. As part of this program, several thousand acres have been added to the park, including the Macedo Ranch in Pine Canyon, the Murchio Ranch (Mitchell and White Canyons, and Deer Flat), the Devil's Slide area, Black Hawk Ridge, parts of Curry Canyon, the lower Alder Creek drainage, Meridian Ridge, and Donner and Perkins Canyons. Save Mount Diablo, a non-profit organization, played an active and important role in several of these land acquisitions.

In 1965, the State of California acquired the Green Ranch, an inholding on the upper southeastern slope of Mount Diablo. Between 1966 and 1980, portions of the Diablo Ranch located in Pine Canyon were purchased by the State of California. The core of the Diablo Ranch, a working cattle ranch, remains a private inholding within the park boundaries. Under an agreement, the ranch provides interpretive ranching demonstrations.

Esthetic Resources

Mount Diablo State Park is an area of rugged scenic terrain, with varying distance zones, complex topographic forms, and a diversity of natural vegetation. Significant wildlife populations and the presence of water in the landscape contribute to the scenic resources of the unit.

Mount Diablo dominates the unit; the panoramic view from its summit is unsurpassed in central California. Panoramic vistas are also available from the summits of North Peak and Eagle Peak. Three scenic overlooks, Livermore Valley Overlook, Curry Point, and Diablo Valley Overlook, offer middleground panoramas in the unit, and distance panoramas of the surrounding urban areas and foothills.

Many areas of scenic interest are found in Mount Diablo State Park, and introduce visitors to outstanding natural scenes. Rock City is composed of large, monolithic boulders of tan, weathered sandstone. The contrast between the outcrops and surrounding vegetation is striking. Similarly, Black Hawk and Fossil Ridges, with their spine-like vertical strata, contrast with the grays and greens of surrounding vegetation. Densely wooded Mitchell Canyon offers shade, lush vegetation, and the quiet sounds of running water.

Numerous species of birds are found in the unit, and many types of wildflowers color the hillsides during the spring. Lush green savannas gradually turn golden brown during the summer. In the fall, maples, grapevines, oaks, poison-oak, cottonwoods, and willows turn brilliant colors. Some people enjoy the pastoral scene of cattle grazing on the hillsides, while others feel that cattle detract from a natural scene.

The historic park facilities of native stone and handcrafted wood, constructed by the CCC during the 1930s, give some of the developed portions of the unit a unique esthetic character. Such facilities are picturesque, and designed to blend with the natural environment.

Due to the proximity to urban areas, views from the interior of the unit encompass surrounding urban encroachments. The most significant negative visual features are high-voltage electrical transmission towers and lines which traverse the unit; microwave, television, and radio transmission facilities on the summits of Mount Diablo and North Peak; and the extensive quarries on the slopes of Mount Zion.

Other negative features include graffiti carved into the sandstone outcrops and gullies, and other erosional features resulting from road construction and concentrated livestock activity. Cross-fencing, watering tanks, and cattle droppings detract from natural features along hiking trails. The presence of fire roads throughout the unit also impairs the natural landscape, and the esthetic quality of the unit.

Recreation Resources

Mount Diablo has been a focal point for recreational activity since the 1860s. Originally, access to Mount Diablo was by boat to San Francisco Bay, and then by horse-drawn carriage. Mount Diablo Scenic Boulevard, constructed in 1915, provided access to motorized vehicles.

Since 1921, when the state acquired title to portions of Mount Diablo near its summit, visitation has grown steadily to more than 500,000 visitors in 1988. Heaviest recreational use occurs from March through September, with occasional heavy winter use following a snowstorm.

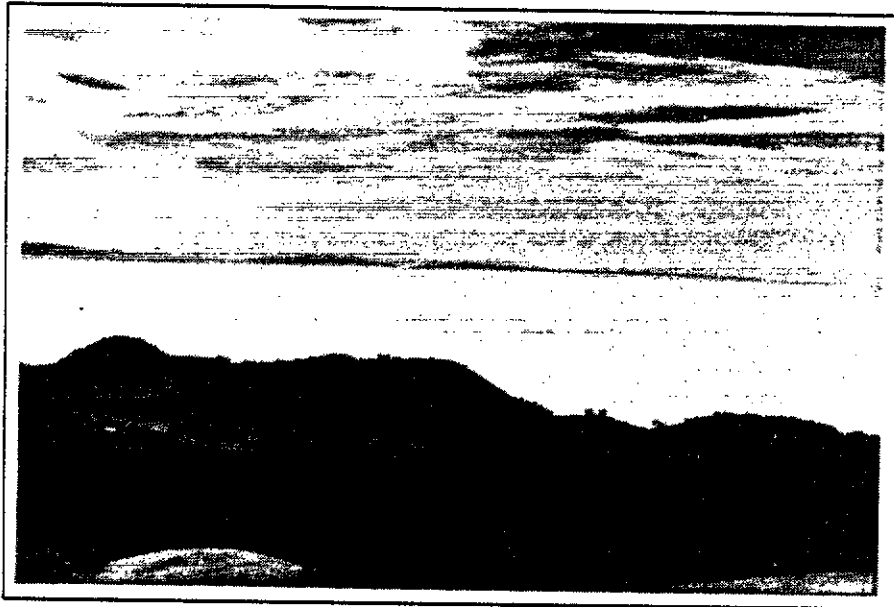
Because of its proximity to urban areas and adjacent regional recreation areas, its relatively large size, and diverse resources, Mount Diablo State Park provides excellent recreational opportunities for park visitors. The potential is very high to link other regional parks and open spaces with Mount Diablo State Park by appropriate trail corridors. Major recreational activities that occur in the park include:

Camping	Picnicking
Hiking	Snow Play
Horseback Riding	Nature Study
Jogging	Photography
Sightseeing by Car	Bicycling

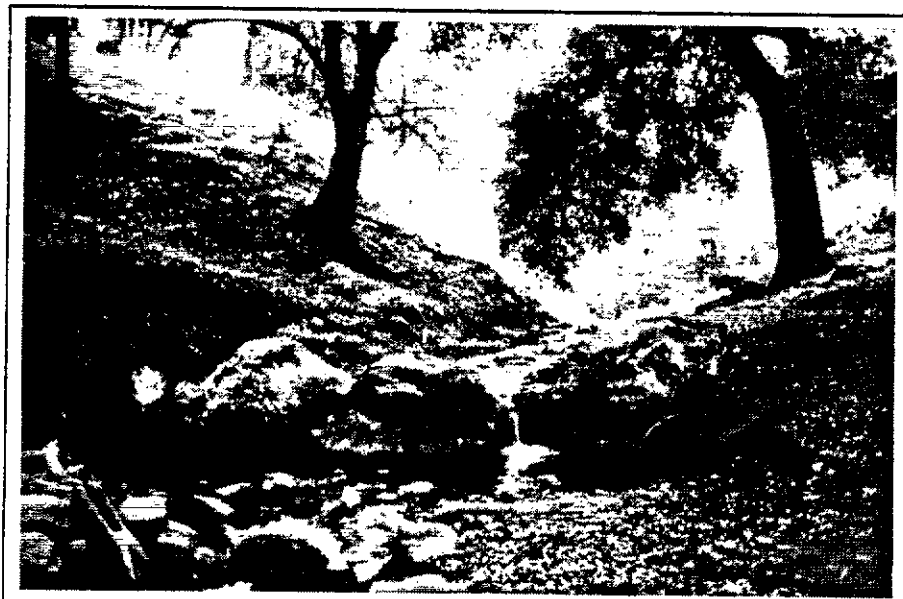
Developed facilities include thirteen picnic areas, four group campgrounds, two horse camps, and three family camps.

In 1974, 1,500 acres in the unit were studied for wilderness values, and named the North Peak Roadless Area, under provisions of the California Wilderness Act. A roadless area is a reasonably compact area of undeveloped land which possesses the general characteristics of a wilderness, and in which there is no improved road that is suitable for public travel by motorized vehicles intended primarily for highway use. No official classification action has been taken since that time.

Major constraints and limiting factors which affect recreational activities within the unit are wildfire hazard, high temperatures, strong winds, icy roads during winter, rockfalls, and unstable or muddy trails.



To the south of the park, a blanket of fog covers the San Ramon Valley.



Riparian areas are popular both for wildlife and people, particularly during the warm summer months.

Resource Directive Formation

Classification

Primary Classification

Mount Diablo was one of seven state parks that came into existence before the establishment of the State Park System in 1927. In 1921, the State Legislature created a "State Park and Game Refuge," specifically for the purpose of preserving the spacious, scenic character of the natural features at Mount Diablo. The original state park, which consisted of 630 acres near the summit, was administered by its own "Diablo State Park Commission," appointed by the governor.

The 1928 California Park Survey prepared by Frederick Law Olmsted for the new commission recommended acquisition of 5,000 to 6,000 acres of land in Pine Canyon and "on the slopes of Mount Diablo," to "amplify" and "round out" the small state park already acquired at the summit.

With the passage of the 1928 State Parks Bond Act, money for acquisition became available. A program of acquisition was initiated in 1931, along the lines recommended by Olmsted. Between 1931 and 1937, major acquisitions were made that brought state ownership to approximately 2,650 acres. Subsequent acquisitions, including those of Save Mount Diablo, from 1940 to date have greatly expanded the boundaries to the present area of about 18,000 acres. Mount Diablo State Park was classified and named by the State Park and Recreation Commission in 1963. Classification establishes management and public use direction, and affords protections under the California Public Resources Code (PRC 5019.53). The code for state park classification is quoted in full below.

5019.53. State Parks. 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 such ecological regions of California 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 area 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 modification of lands, forests, or waters. Improvements which do not directly enhance the public's enjoyment of the natural, scenic, cultural, or ecological values of the resource, which are attractions in themselves, or which are otherwise available within a reasonable distance outside the park, shall not be undertaken within state parks.

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

Subclassifications

The Classification Act (Section 5019.50 et seq., Public Resources Code) establishes several categories of units that may be included within the boundaries of another unit of the State Park System. These categories include state wilderness, natural preserve, and cultural preserve. Each of these categories may be appropriate to certain portions of Mount Diablo State Park.

Under the terms of the California Wilderness Act of 1974, as amended (Chapter 1.3 of Division 5 of the Public Resources Code, beginning with Section 5093.30), Mount Diablo State Park was studied to identify roadless areas in it, and to determine whether such areas should be recommended for establishment as state wildernesses.

The general plan process establishes a mechanism for further determination of values that may warrant inclusion in one or more of these subclassifications. Suitable areas will be identified and addressed in the Land Use Element of the General Plan. Each of these categories, as defined by the Public Resources Code, is included here for clarification of the department's objectives in establishing such areas.

5019.68. State wildernesses.

State wildernesses, in contrast with those areas where man and his own works dominate the landscape, are hereby recognized as areas where the earth and its community of life are untrammelled by man and where man himself is a visitor who does not remain. A state wilderness is further defined to mean an area of relatively undeveloped state-owned or leased land which has retained its primeval character and influence or has been substantially restored to a near-natural appearance, without permanent improvements or human habitation, other than semi-improved campgrounds, or structures which existed at the time of classification of the area as a state wilderness and which the State Park and Recreation Commission has

determined may be maintained and used in a manner compatible with the preservation of the wilderness environment, or primitive latrines, which is protected and managed so as to preserve its natural conditions, and which:

(a) Appears generally to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable.

(b) Has outstanding opportunities for solitude or a primitive and unconfined type of recreation.

(c) Consists of at least 5,000 acres of land, either by itself or in combination with contiguous areas possessing wilderness characteristics, or is of sufficient size as to make practicable its preservation and use in an unimpaired condition.

(d) May also contain ecological, geological, or other features of scientific, educational, scenic, or historical value. State wildernesses may be established within the boundaries of other state park system units.

5019.71. Natural preserves.

Natural preserves consist of distinct areas of outstanding natural or scientific significance established within the boundaries of other state park system units. The purpose of natural preserves shall be to preserve such features as rare or endangered plant and animal species and their supporting ecosystems, representative examples of plant or animal communities existing in California prior to the impact of civilization, geological features illustrative of geological processes, significant fossil occurrences or geological features of cultural or economic interest, or topographic features illustrative or representative or unique biogeographical patterns. Areas set aside as natural preserves shall be of sufficient size to allow, where possible, the natural dynamics of ecological interaction to continue without interference, and to provide, in all cases, a practicable management unit. Habitat manipulation shall be permitted only in those areas found by scientific analysis to require manipulation to preserve the species or associations which constitute the basis for the establishment of the natural preserve.

5019.74. Cultural preserves.

Cultural preserves consist of distinct areas of outstanding cultural interest established within the boundaries of other state park system units for the purpose of protecting such features as sites, buildings, or zones which represent significant places or events in the flow of human experience in California. Areas set aside as cultural preserves shall be large enough to provide for the effective protection of the prime cultural resources from potentially damaging influences, and to permit the effective management and interpretation of the resources. Within cultural preserves, complete integrity of the cultural resources shall be sought, and no structures or improvements which conflict with such integrity shall be permitted.

These subclassifications establish certain protections for the resources, and guide the department in their management and operation. The policies in this Resource Element are designed to assist the department in achieving the goals outlined in the Public Resources Code definition of state parks, state wildernesses, and natural and cultural preserves, so as not to preclude future subclassification opportunities (see Land Use Element).

Declaration of Purpose

The Declaration of Purpose defines the purpose of the unit, and the broadest goals of management. At the time of classification, a declaration of purpose for this unit was not recommended or adopted by the (then) State Park and Recreation Commission. Thus, Mount Diablo State Park has not had a formal declaration of purpose, making it one of only a very few units in existence before the Classification Act that lacks a formal declared purpose. A declaration of purpose is required by the Public Resources Code, Section 5002.2(b), "setting forth specific long-range management objectives...consistent with the unit's classification." The Declaration of Purpose for Mount Diablo State Park shall be as follows:

The purpose of Mount Diablo State Park is to make available to the people for their inspiration, enlightenment, and enjoyment, in essentially natural condition, the outstanding scenic features including the summit peaks and surrounding landscape; the outstanding natural values including geology and plant and animal life; the significant historical and archeological resources; and the scientific values therein.

The department shall define and execute a program of management to perpetuate the unit's declared values, and provide recreational facilities and interpretation that make these values available in a manner consistent with their perpetuation.

Zone of Primary Interest

The zone of primary interest is a declaration of the department's concern for any environmental changes outside the unit that could seriously jeopardize or degrade State Park System values.

At Mount Diablo State Park, the department is concerned about any development or land use outside the unit that would adversely affect park values and purposes in the unit. This also applies to viewsheds from and in the unit where activities and developments may be obvious or conspicuous to visitors who are in the park.

The Mount Diablo Mine, located in an inholding near the northeast corner of the unit, is a source of toxic pollution, and is of public health and safety concern.

Residential development occurs along portions of the state park's north, west, east, and south boundaries. The department has a major concern for these adjoining developments, and the threat of wildfire ignition and spread into or out of the State Park.

Resource Management Directives

Management of State Park System resources is governed by provisions of the Public Resources Code, the California Administrative Code, policies adopted by the State Park and Recreation Commission, and Resource Management Directives adopted by the director. These are applied systemwide, and are intended to control activities that affect State Park System resources and values. Specific directives that pertain to existing or potential resource issues or problems at Mount Diablo State Park are presented below under the same major headings, and in the same sequence, as in the Resource Summary.

The term "natural" is used in several contexts in this document. Where the term refers to the outdoor environment, it shall always mean those features and processes that are native and indigenous to this state park, having evolved here prior to Euroamerican influence and modification, and those that have continued unaltered by human influence. Thus, physical and biological features such as water, plants, and animals are natural when they were present in the outdoor environment of this state park before Euroamerican contact.

NATURAL RESOURCES

Hydrologic Resources

General Hydrologic Resources

Springs and waterways are important park features that have natural, esthetic, and recreational values. Riparian areas are fragile, and soil disturbance, or loss of vegetation, can significantly increase sedimentation and degradation of the aquatic environment. Bacterial contamination of surface waters from livestock is a potential public health concern when cattle are in or near the state park, especially in the dry season, when cattle tend to congregate near waterways.

Directive: The department shall manage springs and waterways in the unit for protection of the quality, quantity, and biological integrity of these important features. Surface water shall be protected from chemical and bacterial pollution. Management programs shall be developed and implemented to monitor and improve the quality of degraded hydrologic resources. Monitoring of pollution shall be included in any park management or interpretive plan that uses livestock in the state park where water features are affected or used to accommodate grazing. Previously and currently used hydrologic resources such as springs, creeks, and ponds that have been artificially modified and are no longer necessary for such use under the plan shall be restored to natural conditions.

Hydrologic Systems - Offsite Land Use

Offsite land uses (e.g., construction development, mining, grazing, and recreation) outside the park can affect hydrologic features in the park.

Directive: The department shall work with other governmental agencies and be actively involved in land use decisions for all lands adjacent to the park that may affect hydrologic resources. Measures to maintain natural water quality, channel flow, and sediment rates shall be recommended and supported.

Water Pollution from Mount Diablo Mercury Mine

Preliminary surveys indicate that water from the Mount Diablo Mercury Mine site and from springs nearby on state park land is contaminated with heavy metals such as arsenic, cadmium, chromium, lead, mercury, nickel, and selenium. Primary sources of contamination are most likely the mine tailings and tailings pond, but also may include leachate from the mine. This is a potential health hazard to state park users, and has an impact on native plants and animals.

Directive: The department shall cooperate with the California Regional Water Quality Control Board, other appropriate agencies, and the landowner, to develop and implement a plan to eliminate the water contamination problem at the Mount Diablo Mercury Mine site.

Pine Pond

Pine Pond, located in Pine Creek, is an artificial impoundment, and was presumably built to control flooding and sedimentation downstream. It is used by a livestock concessionaire for stock watering. The pond has undergone extensive sedimentation from actively eroding slopes along Pine Creek. Having nearly silted in, the dam's flood hazard reduction capabilities are greatly diminished. Wildlife values are relatively high here due to the availability of surface water features, especially during the dry season. The recreational value of the pond is poor, other than as related to wildlife viewing. Dam and spillway structures are an attractive nuisance, and a potential hazard to park users, and water quality in the impoundment may become unsafe for water contact recreation during periods of cattle use.

Directive: The department shall develop long-term management objectives for the Pine Pond dam and reservoir. Management considerations shall include water and wildlife values, the appropriateness of the dam, spillway structures, and reservoir for park purposes, and the health and safety of park visitors and downstream residents.

Geologic Resources

Seismicity

Mount Diablo is in a seismically active region, with a history of damages from great quakes along the San Andreas and Hayward fault zones, and persistent seismic activity associated with the Concord, Calaveras, Clayton, and Greenville faults. Ground shaking, surface rupture, and seismically-induced slope failures and rockfalls have been well documented.

Directive: The potential for seismic activity shall be considered during designing of new facilities in Mount Diablo State Park. Structures should not be constructed immediately downslope of rocky outcrops or steep bank cuts, due to the potential for major damage from seismically-induced rockfalls which can result, even from moderate seismic activity.

Landslides

Landslides, debris avalanches, debris slides, and block falls all occur in Mount Diablo State Park, and pose public hazards and resource threats in the form of catastrophic events and day-to-day activity.

Directive: Maps showing landslides and related features, debris flows, and landslide, blockfall, and rolling boulder susceptibility shall be updated as new information is received, and as new landslide areas are recognized. Generally, new buildings, roads, pipelines, water tanks, and septic tanks shall not be constructed on landslides or areas recognized as having a high potential for slope failure. If facilities must be constructed in landslide areas, a site-specific geologic report shall be prepared early in the project planning process in order to evaluate the geologic conditions which would affect the proposed facility. This study and supporting maps shall be used to propose special modifications to the facility to lessen the potential impact from slope failures or landslides.

Paleontology

Mount Diablo State Park contains geological formations rich in fossil resources from microscopic foraminifera to diverse assemblages of vertebrates. Marine mollusks from the Briones Formation are visible in the locally derived sandstone blocks which were used to construct the summit building. Bone and/or teeth fragments from salmon, turtle, crane, rabbit, beaver, sabre-toothed cat, mastodon, horse, camel, antelope, and llama have been found in a rich fossil deposit near the park boundary. Abundant fossil plant material has also been documented, including leaf impressions in clays and silts, wood and bark impressions in some of the sandstones, and tree trunks, large roots, and carbonized wood clasts.

Directive: The paleontological resources in Mount Diablo State Park are scientifically important and significant resources which shall be protected from unauthorized disturbance. A plan for protection of paleontological resources in the unit shall be prepared and kept current at the park. The plan will show locations of resources, methods for protection, and notification of undocumented fossil resource discoveries, which will be coordinated with the University of California Museum of Paleontology.

Soil Resources

Erosion and Sedimentation

Roads, trails, streambanks, use areas, and hillslopes are experiencing erosion to varying degrees in Mount Diablo State Park. Soil creep down steep slopes, and streambank failures adjacent to an actively downcutting stream can be considered natural erosion. However, erosion is also a result of past and present land uses, including fire suppression activities, mining, ranching, and park use. When human activities increase erosion beyond natural rates, the accelerated erosion resulting from those activities is considered undesirable. Park roads, service roads, fuel breaks, and power line corridors, which often traverse steep, unstable areas and parallel streams, interrupt the flow of surface runoff, and artificially concentrate surface

flow in ravines, ditches, and culverts. These facilities and modifications, as well as historic surface land use, have resulted in rill and gully erosion of slopes. Soil disturbance along heavily-traveled roads and trails, fuel breaks, fences, and riparian areas can increase erosion and the potential for shallow-seated slope failures, and also increase sediment loads in streams.

Sediment can act as a pollutant, or can transport pollutants. Increased sediment loads in streams can reduce light penetration, and affect the diversity and distribution of aquatic organisms and plants. Potential sources of sedimentation include erosion following wildfire, disturbance associated with roads, concentrated public use, livestock grazing, and susceptible types of soil.

Directive: The department shall prepare and implement a program to protect and manage soil resources in Mount Diablo State Park. The program shall provide recommendations for roads to be retained for management purposes, and recommendations for restoration of disturbed soil areas to a natural condition. When road building, livestock grazing, recreational use, and wildfire suppression activities are being planned, the department will do site-specific soils investigations to identify sensitive soil areas, and mitigate adverse impacts.

Plant Resources

General Vegetation Management

State parks are to be managed to restore, protect, and maintain native environmental complexes, and indigenous flora and fauna (PRC 5019.53). Further, it is a policy of the department to preserve and perpetuate representative examples of natural plant communities common to a unit and the region (Policy No. 7; Resource Management Directives, 1831.1).

The plant communities at Mount Diablo State Park have been influenced by past land use practices, suppression of natural fires, and invasion by exotic species. The net result of such impacts is alteration of the composition and structure of natural communities.

The primary objective of vegetation management at Mount Diablo State Park shall be to manage toward a natural condition, with a minimum of disruption to natural processes. A secondary objective shall be to restore and perpetuate the native plant communities that prevailed in the area prior to Euroamerican influences.

Directive: The department shall develop and implement a vegetation restoration and management plan for Mount Diablo State Park to meet the above objectives. The plan shall identify management units (which may contain more than one vegetation type or plant community), and establish management actions for each unit, considering management needs and costs, appropriate methodology or techniques, and alternatives. The vegetation restoration and management plan contains components which address specific policies for individual vegetation types or plant communities. All components of the vegetation restoration and management plan do not have to be completed before work can be done in individual management

units. However, applicable components in that unit must be completed. A monitoring and evaluation program shall be incorporated into the plan, determine the effectiveness of the plan as implemented, and guide any adjustments.

Restoration of the Ecological Role of Fire

Prior to 1900, fires burned regularly throughout Mount Diablo and vicinity, and were an essential process in development and perpetuation of native plant communities. Fires were most often started by lightning in the late summer and early fall, and by the intentional or accidental activities of Native Americans. Wildfires began to be effectively suppressed in the early 1920s, and since that time, fires have only infrequently burned through the state park. These fires often occurred after abnormal accumulations of fuel, and resulted in destructive wildfires.

Directive: Fires are an important part of the ecological process and shall be restored to the plant communities at Mount Diablo State Park, through the techniques of prescription burning. A unit-wide prescribed fire management plan shall be developed following the department's policies and guidelines. This plan shall be consistent with and made a part of the vegetation restoration and management plan.

Riparian Woodland Zone Management

The term "wetland" refers to any watercourse or body of water, the lands underlying or adjacent to these waters, and the wildlife and natural communities dependent on the wetland habitat (Public Resources Code, Section 5812). As defined, riparian zones are classified as a type of wetland. In recognizing the significance of wetland ecosystems, the Public Resources Code (Sec. 5816) requires that the department "give particular recognition to opportunities for protecting and preserving wetlands lying within, or adjacent to, existing units of the State Park System..."

Riparian zone ecosystems, composed of diverse plant species and a stratified community structure, are of central importance to terrestrial and aquatic wildlife. Vegetation associated with riparian zones furnishes food, cover, and nesting habitat for numerous animal species. The vegetation also buffers climatic factors that influence water temperature, and provides shelter and protection for fish and other aquatic organisms. Streamside vegetation can stabilize channel banks, reduce sedimentation, and filter the downstream dispersal of pollutants.

Currently, 94% of the riparian zones in the unit are included in an agreement that allows grazing by livestock. In Mount Diablo State Park, concentrated visitor use and cattle grazing in riparian zones have resulted in vegetation trampling, soil erosion and compaction, and water pollution. Periwinkle (Vinca major) and poison hemlock (Conium maculatum), invasive exotic species, have become established in the Mitchell Creek riparian zone.

Directive: Riparian ecosystems in Mount Diablo State Park shall be protected. Heavy visitor use and concentrated livestock grazing shall be excluded from riparian zones. Recreational facilities and activities in,

or in close proximity to, riparian zones shall be closely monitored and controlled. Riparian areas shall be addressed in the vegetation restoration and management plan, and appropriate restoration and protection measures shall be identified and implemented.

Grassland Management

Extensive changes in the grassland and woodland understory have occurred as a result of long-term, grazing, fire suppression, and introduction of non-native species. Virtually all of the grassland and grass understory, approximately two-thirds (10,000+ acres) of the park, have been affected. The native grasslands and grass understories have largely been converted to non-native species. Currently, about 78% of the grasslands and about 54% of the grass understories are grazed. Species which characterize native grassland (purple needlegrass, pine bluegrass, squirreltail, and California melic) and herbaceous understory (blue wild rye, California fescue, and thin grass) occur throughout the unit, but are not abundant.

Under natural conditions, the density of native bunchgrasses is variable. When sparse, numerous herbaceous perennial and annual species are commonly associated with the bunchgrasses. In the grassland, these species include goldfields, bird's-eye gilia, popcorn flower, brodiaea, and mariposa lily. Species common in the woodland understory include broad-leaf aster and California sweet cicely.

Directive: Restoration and enhancement of grasslands and woodland understories shall be addressed in the vegetation restoration and management plan. The plan shall include identification of populations of native grasses in the state park, and appropriate restoration and management actions, including techniques such as fire and the control of non-native species. The goal shall be to restore native grasslands in the park.

Oak Woodland and Forest Management

Large areas of oak woodland and forest occur in Mount Diablo State Park. Currently, 66% of the oak woodland and 44% of the oak forest in the unit are included in agreements that permit grazing by livestock. Through fire suppression, grazing pressures, rodent proliferation, and habitat modification, oak trees in California and in the unit have experienced a very low rate of natural regeneration. Most oak woodland and forest areas in the state park display a loss of natural age structure which is represented in a healthy population by a variety of different age classes. A plant community composed of only older age classes, as is found among the oaks at Mount Diablo State Park, is considered to be an unstable community.

Directive: Natural diversity of age classes shall be restored and maintained in oak populations in Mount Diablo State Park. Regeneration among the oak tree species shall be addressed in the vegetation restoration and management plan, and appropriate restoration and protection measures shall be identified and implemented. A program to monitor oak recruitment and mortality shall be the basis for identifying management needs and assessing the effectiveness of the program.

Exotic Plant Species

Many exotic species have become naturalized in Mount Diablo State Park; in many areas, they are successfully competing with native species. Perpetuation of native plant communities is dependent upon control and removal of exotic plants.

Directive: The department shall control exotic plants that have become established in the unit; the highest priority for control efforts shall be given to those exotics that are most invasive and conspicuous in the landscape, and those species that compete with native species. Exotic plant species shall be addressed in the vegetation restoration and management plan. Each species shall be mapped, and a management plan for its control shall be developed and implemented. Control of aggressive exotic species in sensitive habitats, areas adjacent to private property, and high visitor use areas shall be given priority.

Rare or Endangered Plant Species

Sixteen plants listed by the California Native Plant Society as rare or endangered, or of limited distribution, have been identified in Mount Diablo State Park. Two of these species are listed by the state as rare. Although populations of several species have been accurately located, site-specific information for the majority of these sensitive plants is needed. As a result, rare or endangered plants could be inadvertently destroyed by development of facilities, maintenance programs, visitor use, or other activities.

Directive: Rare or endangered plants in Mount Diablo State Park shall be protected and managed for their perpetuation in accordance with state law (PRC, Div. 2, Ch. 10, Sec. 1900 and 1911).

Systematic surveys for rare and endangered plants shall be made throughout the unit. For each species, populations shall be mapped, and a management plan for its protection and perpetuation shall be prepared and implemented as part of the vegetation restoration and management plan. Prior to any potentially deleterious activity, including site-specific development, trail or facilities construction or relocation, or prescribed burns, additional surveys for rare or endangered plants shall be made during the appropriate flowering season in the areas that will be affected.

Special-Interest Plants

Four plant species at Mount Diablo State Park, Coulter pine, bitter root, Hooker's onion, and canyon gooseberry, are of special interest. These plants have been so designated because they are at the extreme limits of their distributions, are subject to overcollection, are disjunct, or are of limited distribution. Although these special-interest plants are not rare in California, populations in the unit could be inadvertently destroyed through modifications to their habitats. At present, Hooker's onion and canyon gooseberry are not being adversely affected, and populations of these species appear to be stable.

Directive: Distribution of all special interest species in Mount Diablo State Park shall be determined, and they shall be managed for their perpetuation. Plans for their management shall be included in the vegetation restoration and management plan. The effect of prescribed fire management on Coulter pine shall be an important consideration of this plan. Prior to any potentially deleterious activity, including site-specific development, trail construction, and prescribed burns, additional surveys for bitter root shall be made on rock outcrops and talus slopes in Mount Diablo State Park during the appropriate flowering season in areas that might be affected.

Rock Society Plants

The summits of the four peaks, the main peak, North Peak, Eagle Peak, and Mt. Olympia, support an unusual assemblage of plant species. Because of the relatively harsh conditions found at the upper elevations of the summits, and the isolation of these peaks from any other similar habitat types, many of the species found in the rock society are endemic to Mount Diablo, are restricted to only a few high peaks in the Diablo Range, or are geographically disjunct populations. The elevation and isolation have made the summit areas desirable as destination points for sightseeing, as well as suitable for development of various types of observation and communication facilities. The unique association of unusual plant species warrants protection from degradation that can result from uncontrolled public access and development.

Directive: In order to preserve and perpetuate the species typical of the rock society found at the upper elevations of Mount Diablo State Park, any further development of facilities, or maintenance of existing facilities, shall be undertaken with the least amount of disruption to this unique plant community. The vegetation restoration and management plan shall include provisions for monitoring this vegetation type and restoration of those areas which have been negatively affected.

Fire Prevention and Suppression

Wildfire can be a threat to natural resources, facilities, and human life and property. A prescribed fire management program which simulates the historic natural fires of this region will reduce the damage from future wildfires, but cannot eliminate the threat of destructive wildfires during periods of fire weather conditions and from human-caused ignitions. For these reasons, the Department requires that a Wildfire Management Plan be developed for every State Park System unit that experiences wildland fires.

Because conventional fire control facilities and procedures can result in more serious and long-lasting impacts on park resources than the wildfire itself, development of special standards and procedures applicable to the park environment is important.

Undesirable effects of suppression activities can be avoided by using a planned program of modified fire suppression, dividing the park into compartments bordered by existing natural and artificial firebreaks. In the event of a wildfire, suppression activities are concentrated along the borders of a compartment, thus minimizing resource damage. The program also identifies resource sensitivities of the park should additional suppression

activities be required. Wildfire contingency planning in this manner will greatly reduce the likelihood of damage from suppression activities, while providing for necessary protection of park resources and public safety.

Directive: The department shall continue to work with the California Department of Forestry and Fire Protection, local fire districts, and other appropriate agencies to implement and keep current a wildfire management plan at Mount Diablo State Park. This plan shall address all aspects of wildfire planning, including prevention, presuppression, and suppression. The plan shall identify modified fire suppression methods designed to preserve sensitive park resources while protecting human lives and facilities.

Planning and implementing a fuel modification zone, part of a wildfire presuppression action, can substantially reduce the threat and spread of wildfire. This method of fire protection is being successfully employed in some State Park System units, with fuel types and conditions (including adjacent residential property values) that are very similar to those at Mount Diablo State Park. Preparation of the zones may include techniques such as mowing, discing, and plowing of grassland fuels, and pruning and thinning of brushlands to accomplish fuel reduction in strips that would prevent the spread of wildfire. The Wildfire Management Plan for the unit will identify the most critical areas where such zones are needed. The plan will also prescribe details such as width of zones, fuel loading and composition reductions, frequency of maintenance; and make recommendations for cooperative measures with adjacent landowners, such as buffer zones of non-combustible plant material.

Directive: Fuel modification zones shall be included as part of the Wildfire Management Plan. Zones shall be established along the state park boundary where appropriate, to inhibit the spread of wildfire. The width of the fuel modification zones will vary as determined by vegetation type and fuel loading, slope and soil erosion hazard, adjacent development, and the proximity and probability of potential ignition.

Wildfire protection techniques used by the department that are consistent with resource preservation include fuel reduction and firebreaks in interior areas, and fuel modification zones at the perimeter.

Replacement of native perennial bunchgrasses with introduced annual species, a situation which is perpetuated by livestock grazing, has increased fuel loading and fire hazard in both grassland and woodland understory. The native perennial species that once dominated California's grasslands produce much less on a yearly basis than annuals, and remain green well into the summer season. The annual grasses that now characterize these grasslands are especially productive under a grazing regime, and highly flammable once they have dried out. Because biomass production peaks by April, and yearlong grazing reduces this only incrementally each month, the standing crop reaches its lowest level in November or December, long after the season of highest fire danger has passed. In addition, grazing use is spotty, with large areas of fuel virtually untouched, while equally large areas are heavily used. Due to the excessive level of grazing necessary to achieve uniform fuel reduction, which would need to occur early in the season to be effective, grazing cannot be relied on as a management tool for reduction of fire hazard.

Directive: The department shall continue to provide fire hazard abatement to protect life and property, and to preserve resource values. Primary consideration shall be given to use of fuelbreaks at the perimeter and the use of prescribed fire and mechanical fuel reduction in interior areas of the state park. Grazing used as part of a comprehensive program to restore the native perennial bunchgrasses, which are less flammable than exotic annuals, may be considered when the objective is to reduce the wildfire hazard by increasing native species in the grassland and woodland understory. With implementation of the Wildfire Management Plan, fire hazard abatement shall not be considered adequate justification for grazing of livestock.

Landscaping

When used as landscaping, exotic plant species can detract from the natural appearance of a unit, and become naturalized and displace native plant species. Exotic species can also have lower habitat value for native wildlife, can be more prone to insect attack and disease, and can require permanent irrigation.

Directive: Landscaping in the unit should consist of species indigenous to the unit, and should come from plant materials collected on site. Exceptions can be made in areas where exotic species are perpetuated for historical reasons, or in gardens or yards adjacent to housing. Landscaping with exotic plants capable of naturalizing and spreading shall be avoided.

Wildlife Resources

General Wildlife Management

Animals are important components of the natural ecosystem, interrelating with and affecting other elements. Wildlife in a natural setting also adds a great deal of interest and variety to park visitors' experiences. Protection and perpetuation of natural wildlife populations is a major management objective at the park.

Directive: The department shall actively strive to restore altered natural wildlife habitats, and reestablish natural ecological processes where possible. The department shall avoid practices that cause significant imbalances in natural wildlife populations.

If it is necessary to regulate animal populations in the park, the methods used shall be based on sound principles of ecosystem management, shall be consistent with the general policies of the department, and shall avoid disturbance to other natural values of the park and to its visitors.

Threatened and Endangered Wildlife Species

The Alameda striped-racer, listed by the state as a threatened species, occurs in Mount Diablo State Park. The park is one of the few remaining areas having important habitat for this snake.

Mount Diablo State Park may also provide important habitat for the San Joaquin kit fox, state-listed as threatened and federally-listed as endangered. Although no sightings have been reported, their occurrence in the park is possible.

Statewide protection and management guidelines for the Alameda striped racer and the San Joaquin kit fox have been identified by the California Department of Fish and Game.

Directive: Threatened and endangered wildlife species in Mount Diablo State Park shall be protected and managed for their perpetuation in accordance with state law.

Plans shall be prepared and implemented for management of all threatened or endangered animal species, and protection of their habitats occurring in the park.

Special-Interest Animal Species

Several wildlife species have been discussed in the Resource Inventory as being of special interest, and as requiring special monitoring and management. Some of these animals require management for protection and habitat enhancement, and to minimize human-wildlife conflicts.

Directive: The special-interest animals identified in the Resource Summary shall be given a high management priority. Programs or projects undertaken at the park shall be planned and designed so habitat for desirable, native, special-interest animals will be perpetuated.

Reestablishment of Extirpated Native Fauna

Reestablishment of extirpated fauna into the park is an important step toward restoration of the area's natural faunal and floral habitat. Extirpated fauna, when reestablished, could be a park resource that would have special scenic appeal and visitor interest.

Directive: The department shall assess the feasibility and desirability of reestablishing extirpated fauna in the park. If feasible and desirable, the department shall work in cooperation with the Department of Fish and Game and other interested agencies to accomplish reestablishment.

California Ground Squirrel

Unnaturally high densities of California ground squirrels present potential threats of habitat degradation, cause costly structural damage to facilities, and can result in disease outbreaks (primarily sylvatic plague).

Studies and experience indicate that ground squirrels often thrive in areas where natural habitat conditions have been modified by uses that result in removal or substantial reduction of ground cover.

An integrated management program, combining habitat modification and direct animal control, is the most sound, long-term method of ground squirrel control. Direct methods of control such as poisoning and trapping can reduce animal numbers. However, these methods can have significant negative impacts on non-target animals, and usually furnish only temporary ground squirrel control. The reproductive potential of ground squirrels is so great that as long as their preferential habitat remains unaltered, ground squirrels will reoccupy the same space, and return to their former numbers in a short period of time.

Habitat management is an ecologically based method of ground squirrel population control. This method involves breaking the ground squirrel predator-watch system by restoring the natural habitat through revegetation of denuded ground, encouraging predation, and destroying existing burrow systems.

Rodent damage to facilities is often encouraged by design, construction, and types of building material used. The majority of animal damage can be prevented through proper design and construction.

Directive: A management threshold of unacceptable ground squirrel damage shall be established. When monitored activity indicates that the management threshold has been or will be exceeded, appropriate control measures will be implemented. An integrated management approach shall be used to control California ground squirrel populations wherever control is needed. Direct control methods such as poisoning and trapping shall be used only when immediate control is needed, and habitat management will not effect such control.

The department shall design and construct facilities that will discourage the buildup of rodent populations.

Feral Pig Control

Feral pigs have become a serious problem at Mount Diablo State Park. Feral pigs are not a part of the native fauna, and their presence is having a significant adverse effect on the native environmental complexes that the unit encompasses. Feral pig feeding habits include uprooting vegetation in sensitive areas that can bring about severe ecosystem alterations. Other impacts on natural resources include soil disturbance and erosion, fouling springs and streams, and destruction of native wildlife.

Directive: It shall be a goal of the department to control and eliminate pigs in Mount Diablo State Park. The feral pig population shall be monitored, and its effect on the ecosystem shall be assessed. A specific management program for feral pig control and eradication shall be developed and implemented when necessary, and efforts shall be made to deal with the problem before more resource damage has occurred.

Mitchell Creek Rainbow Trout Population

Mitchell Creek supports a small, remnant population of rainbow trout suspected of being native, and known to be the only remaining wild rainbow trout population in the Walnut Creek drainage basin.

Only 13 fish were captured during inventory of a 240-foot section of Mitchell Creek. Based on this sample, an estimate of the rainbow trout population (of fish 1 year of age or older) in the 3,500 lineal feet of live summer stream is only about 190 fish. Considering the limited habitat available, and the low summer flows, maintenance of this population is viewed with concern.

Directive: Mitchell Creek shall be managed for perpetuation of the aquatic ecosystems which support a rainbow trout population. A management plan shall be developed and implemented in cooperation with the Department of Fish and Game to protect fish populations.

Ecological Values

Livestock Grazing

State Park System policy and philosophy, and enabling legislation, mandate that state parks be managed by the department with a primary purpose of restoring, protecting, and maintaining native environmental complexes and indigenous flora and fauna. While livestock grazing is an appropriate use of private land, and of public lands managed for multiple commodity and recreational uses, it is generally incompatible with state park management objectives. State park resources are managed for their preservation and public enjoyment, and not for their commercial use.

Grazing by livestock on Mount Diablo has resulted in changes to the natural, physical, and esthetic environment; these changes have affected the resources and values the department is charged with protecting and interpreting for public benefit.

Historically, grazing pressure, combined with drought, fire suppression, and introduction of weedy exotic species, fostered many changes in the composition and structure of the natural plant communities. In the grasslands, native perennial bunchgrasses have been replaced with introduced annual species. Other changes are due to the habits of grazing animals: livestock tend to congregate in areas under trees and around water sources, creating a favorable seedbed for undesirable exotic plant species; and livestock seasonally browse oak seedlings, preventing recruitment into the oak populations.

Livestock can compete with native ungulate populations directly by forage use. Livestock grazing creates conditions favorable to proliferation of ground squirrels, while other rodent populations may be reduced through more vulnerability to predation. Livestock can pollute surface waters and break down streambanks, reducing water quality and adversely affecting habitat for aquatic organisms. By compacting the soil, livestock reduce infiltration of precipitation, which reduces the amount of water available to the vegetation, and contributes to excessive runoff, accelerated erosion, and subsequent sedimentation. Soil compaction due to congregation of livestock under the oak trees, particularly valley oaks, increases susceptibility of the trees to oak root fungus.

The presence of a grazing operation has also altered the esthetic and recreational values of the unit. Range improvements, such as fencing and development of water for livestock use with dams and springboxes, alter the

natural landscape. Fencing and the presence of cattle can inhibit recreational use, providing a deterrent to park visitors' entry into and use of a grazed area. Waste products and the attendant insects can provide an unpleasant environment for recreationists. Cattle, especially in the wet season, damage hiking trails, and often create their own trails.

Directive: Livestock grazing will be used in Mount Diablo State Park only for explicit park management or interpretive purposes. Livestock grazing may be used to achieve specific resource management purposes on a limited experimental basis, or for interpretive purposes over a limited area, when the projected benefits outweigh the negative impacts to the affected resources. Livestock grazing in conjunction with park interpretive programs shall be limited to those areas that the department determines are necessary for interpretation. The location and number of acres grazed in connection with any interpretive or management program will be only determined by those needs, and not by economic needs. Operational and siting considerations for any agreement that allows livestock grazing are addressed in the Land Use Element of the General Plan.

Currently, about 78% of the grasslands, about 66% of the oak woodlands, about 44% of the oak forests, and about 94% of the riparian woodlands are included in an agreement that allows grazing by livestock; these plant communities represent about 54% of the total acreage of the unit, about 79% of the total acreage suitable for grazing, and about 83% of the total forage produced. Grazing practices have fostered specific problems at Mount Diablo State Park. Use of the woodlands and riparian areas is significant year-round, but is particularly heavy during the summer months, when these are the only areas where green forage is available. Access by livestock to riparian areas in Mitchell, Donner, Curry, and Pine Canyons has eliminated the multilayered community structure typical of riparian vegetation, through browsing on seedlings and trampling of existing vegetation. Unique and fragile flora around many of the springs have been eliminated or significantly degraded by impoundment or containment in springboxes. Those springs not developed in this fashion but still subject to livestock use have been also degraded by trampling. Browsing of oak seedlings has resulted in unhealthy stand structure in the oaks, with a predominance of older size classes.

Livestock use in the unit has resulted in soil displacement and compaction. Use of the steeper slopes in the unit has resulted in "terracing" across the slopes, creating parallel bands of impervious, compacted soil, with limited vegetative cover. In areas of heavy clay soils adjacent to lower Mitchell and Donner Creeks, and southwest of Pine Ridge, livestock use in winter, when soils are saturated and residual mulch levels are low, has resulted in compaction, loss of infiltration, and increased runoff.

Development of special park management standards and procedures is important to correct the long-lasting impacts associated with conventional range management practices.

Directive: All livestock grazing in Mount Diablo State Park at the interpretive ranch shall be contingent on completion of a livestock grazing management plan, prepared by the department, that provides for protection of resources and their management toward a natural condition, with minimal disruption of natural processes. The plan shall consider, secondarily, minimization of conflicts with the recreational and esthetic

values of the state park. The grazing management plan shall be prepared prior to entering into any future grazing leases or agreements; including extension or renewals of existing leases or agreements. This plan shall be incorporated into the vegetation restoration and management plan.

The plan shall identify resource sensitivities and operational constraints, and outline resource and grazing management alternatives. A monitoring program shall also be included in the plan to provide information necessary to measure, evaluate, modify, or terminate management activities.

Current agreements allowing grazing in Mount Diablo State Park are insufficient to ensure continued protection of many of the park's natural features. Season, frequency, and intensity of use by livestock are critical factors in oak regeneration, grassland restoration, plant community structure, soil compaction, wildlife interaction, and recreation issues. Much more specific terms in the agreement are needed to meet park management objectives.

Directive: The grazing management plan described in the previous policy shall provide the resource protection foundation for future grazing leases or agreements. The plan will limit grazing to purposes and areas defined in the General Plan, protect areas from overuse where grazing is permitted, and ensure that sensitive resources are protected in areas where grazing is employed. To ensure that park management objectives are met, any grazing lease or agreement shall be based on the plan.

CULTURAL RESOURCES

Management of the cultural resources at Mount Diablo State Park is governed by state statutes, departmental policies, and directives. The following portions of the Public Resources Code pertain to management of cultural resources: Chapter 1, Section 5019.74 (when Cultural Preserves are designated); Chapter 1.7, Section 5097.5 and Chapter 1.75, Section 5097.9. Department of Parks and Recreation Resource Management Directives pertaining to cultural resources include: 10, 24-25, 32, 50-52, and 58 through 76.

Archeological Sites

Archeological and Historic Research

There are twenty-three recorded prehistoric sites at Mount Diablo State Park. Only a small portion of the existing park has been surveyed for archeological resources. The Department of Parks and Recreation recognizes the importance of archeological and historic research in protection and interpretation of cultural resources at Mount Diablo State Park.

Directive: The department shall develop a program of ongoing archeological and historic research at Mount Diablo State Park. This plan shall provide for the survey of new park additions for archeological and historic resources. Archeological and historical societies, universities, and interested groups or individuals shall be encouraged to participate in this program.

Native American Religious Significance

Mount Diablo is widely recognized by Native Americans as a place of religious and ceremonial significance. The mountain played a central role in Native American mythology. It is the focal point of the Costanoan creation myth recorded by Kroeber, and of a number of Miwok legends recorded by Barrett and Kroeber. The Miwok myths regarding Mount Diablo also have parallels in Costanoan and Yokut mythology. These myths and legends are an integral part of traditional Native American religious beliefs.

Directive: The department recognizes Mount Diablo as a site of traditional religious significance to Native Americans. The department shall strive to manage facilities in the unit, particularly those at the summit, in a manner consistent with the traditional religious and ceremonial significance which Native Americans accord to the mountain.

Euroamerican Resources

CCC Architecture

The remaining standing structures, campgrounds and camp furnishings, culverts, and retaining walls built by the CCC during the 1930s are significant examples of National Park Service "rustic architecture," and of the historic accomplishments of the CCC.

Directive: The department shall strive to maintain the architectural and historic integrity of CCC structures. To the maximum extent feasible, the department should not modify the exterior appearance of CCC structures and facilities, nor the interior of those structures, where the historic fabric remains relatively unaltered. Compatible materials, consistent with the style and character of the structures, should be used in maintenance and repair.

The Summit Building is the largest and individually the most significant CCC building at Mount Diablo State Park. It is one of the few monumental rustic buildings constructed by the CCC in the California State Park System.

Directive: Any renovation, restoration, or maintenance of the Summit Building shall be carried out in compliance with the department's responsibilities to protect its significant historic structures. All work undertaken shall be reviewed by the State Office of Historic Preservation, and shall be determined to have the least damaging effect on the historic fabric of the structure.

Of the several campgrounds and picnic areas designed and constructed by the CCC at Mount Diablo State Park, those which best preserve rustic design elements and historic furnishings are: Rock City, Arroyo, Buckeye, Barbeque Terrace, Wildcat, lower Junction, Maple and Bridal Nooks, and Stagecoach. These resources are eligible for inclusion in a National Register historic district.

Directive: The department shall develop and implement a plan for preservation, restoration, and maintenance of historic CCC campgrounds. The plan shall provide for restoration of these campgrounds to their dominant (CCC) period of historic and architectural significance.

The stonework culverts and headwalls built by the CCC in conjunction with the park road system are significant historic resources.

Directive: The department shall retain and maintain historic culverts and headwalls when practical. All road maintenance and repair shall be carried out in a manner consistent with the objective of preservation, except where major road realignment or repair makes such preservation infeasible.

The cultural resources located in the Rock City area have been subject to vandalism. Present access routes and lack of adequate and well-defined parking facilities are factors which have contributed to destruction and deterioration of these resources. The department also recognizes that timely repair and maintenance of historic furnishings reduce vandalism.

Directive: The department shall seek means to reduce impacts to cultural resources, and to control access, parking, and vandalism in the Rock City area to protect significant historic resources.

Several buildings and portions of the campgrounds constructed by the CCC are eligible for inclusion on the National Register of Historic Places. Eligible buildings include the Summit Building (HS 2), the Warden's Cottage, the Park Residence, the Seasonal Residence, the Maintenance Office, the Carpentry Shop, and the Auto and Welding Shop (HS 1, features a-g). Campground/picnic areas include Rock City, Arroyo, Buckeye, Barbeque Terrace, Wildcat, Junction Camp, and Maple and Bridal Nooks.

Directive: The department shall prepare or assist any historical organization or other interested groups or individuals in preparing the appropriate National Register nominations.

Division of Beaches and Parks Architecture

The campground/picnic facilities built by the Division of Beaches and Parks between 1948-1953 represent a continuation of CCC work, and properly belong in the rustic architectural tradition. These resources are an important aspect of the history of the California State Park System. Campground/picnic areas in this category include: Live Oak, Muir, Grapevine, Oak Knoll, Blue Oak, Toyon, Roundtop, Pines, Lookout, Rocky Point, Bridal Nook, and Canyon Nook.

Directive: The department should strive to retain and maintain the CCC-style Division of Beaches and Parks facilities wherever possible. Where these facilities are retained, their maintenance and repair should be consistent with the historic fabric of the furnishings. However, if these facilities are removed or replaced, their parts should be stored and used for repairing other furnishings.

Ranch Structures

The Murchio and Macedo ranch houses and the Macedo barns and outbuildings (HS 8, 10, and 14) in Mount Diablo State Park are of local historic significance.

Directive: Whenever historic ranch houses and structures are retained, the department should retain their essential integrity, and strive to maintain proper adaptive use.

Mitchell Canyon and Perkins Canyon Dams

The historic dams in Mitchell and Perkins Canyons are of local historic significance.

Directive: The department shall retain the Mitchell Canyon and Perkins Canyon dams until or unless natural resources or public safety are threatened.

Prescribed Fire in Cultural Resource Areas

The recorded Euroamerican resources have varying degrees of resistance to fire. Some of the archeological sites contain resources susceptible to fire damage. In addition, only a small part of the park has been surveyed for archeological resources. Prescribed burn programs in proximity to recorded archeological and historic resources or in previously unsurveyed areas could damage cultural resources.

Directive: When prescribed burning is planned for areas that have not been surveyed for archeological resources, an archeologist shall be consulted. If potential for damage to archeological resources exists, an archeological survey shall be made, and protective measures taken as needed.

ESTHETIC RESOURCES

Cross-Fencing and Stock-Watering Structures

Portions of Mount Diablo were used for cattle and sheep ranching prior to their acquisition as a unit of the State Park System. Cattle grazing is currently taking place in the unit, with cross-fencing installed to facilitate grazing practices. In several areas, springs and seeps have been altered, and enclosed in concrete tanks. In the park context, the esthetic qualities of the open landscape and water sources have been reduced significantly by cross-fencing and stock-watering structures.

Directive: When interior fencing and stock-watering structures are no longer required to manage or restrict livestock, the department shall remove all such structures unless they possess significant historic value.

Utility Easements

Public utility high-voltage power transmission lines are located near the eastern boundary of Mount Diablo State Park. These power lines reduce significantly the esthetic qualities of the unit by their conspicuous structures, and by the presence of the roads which are necessary to maintain them.

Directive: It is the goal of the department to ultimately remove or greatly reduce the visual impact of high-voltage power transmission lines at Mount Diablo State Park. Utility access roads and corridors, where maintained, shall meet State Park System standards to minimize erosion and esthetic degradation.

Communications Facilities

Radio, television, and microwave transmission towers and facilities are located on the summits of Mount Diablo and North Peak. These structures are highly visible, and cause a significant impact on panoramic vistas and natural viewsapes in the unit. North Peak, located in the immediate viewshed of Mount Diablo, is an especially prominent feature in the Mount Diablo summit panorama. The impact of North Peak communications facilities on the natural landscape is, therefore, magnified due to the prominence of North Peak.

Directive: The goal of the department shall be to reduce the negative visual impacts of transmission facilities and the easements required to maintain them. To this end, lessees shall be encouraged to modify their facilities so negative visual impacts are minimized. The department shall work toward consolidation of communication facilities in the unit.

RECREATION RESOURCES

Recreation Facilities and Activities

The most valuable recreational opportunities at Mount Diablo State Park are those based on enjoyment of the park's prime resource values. These include enjoying scenic vistas, hiking, horseback riding, mountain bicycling, nature

study, primitive camping, and photography. Public road access through the central portion of the park provides opportunities for activities including bicycling, sightseeing, picnicking, and car camping.

Directive: Recreational facilities that enhance the public's enjoyment of the natural, cultural, scenic, and scientific values of the state park shall be encouraged.

The department will cooperate with local jurisdictions to plan appropriate trail corridors to and from the park.

Public Events and Uses

Requests are received from members of the public for permission to hold yearly competitive equestrian events, and to a lesser extent, to use hang-gliders in the unit. These recreational activities can and often do introduce people to the natural features of the park, and many stay on to enjoy them. Such events and uses can, however, create certain impacts. The intent of management is to minimize the impact of these events and uses on the resources, or on the experience of other park visitors.

Directive: Public events and uses of the state park shall be compatible with the values, as stated in the Declaration of Purpose.

Factors that shall be considered in permitting such events are environmental conditions, the location and timing of the event, the impact on other park users and on sensitive biological, cultural, or esthetic resources, and any adverse impacts noted from similar previous events.

Applications for competitive events and uses shall be made to the state park office. The number of permitted events shall be limited to the extent necessary to provide harmonious use by all visitors.

Allowable Use Intensity

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

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

Allowable use intensity determinations establish guidelines for development and use an area can sustain without an unacceptable degree of deterioration in the character and value of the scenic, natural, and cultural resources.

Determinations are based on analysis and integration of resource management and protection objectives, resource constraints, and resource sensitivities information.

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

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

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

Based on the preceding factors, allowable use intensity for Mount Diablo State Park was determined as shown on the Allowable Use Intensity Map. Constraints and sensitivities identified and mapped in the resource evaluation process were used to establish categories delineated on the Allowable Use Intensity Map (resource maps and other supportive documents are on file with the Department's Resource Protection Division).

Three use intensity categories are established. Representative examples of appropriate activities and facilities for each category are listed in the legend of the map. The following are general descriptions of the allowable use intensity classes which are mapped.

Category I -- Low

This category includes areas having sensitive geological, paleontological, ecological, cultural, and/or esthetic resources that could be significantly affected by concentrated use or development. It includes the natural, scenic landscape, which offers outstanding opportunities for nature observation, sightseeing, and hiking. Lands mapped include rare and endemic plant locations, riparian corridors along watercourses, significant oak woodlands and forests, Coulter and knobcone pine woodlands, significant chaparral communities, native grasslands, threatened, endangered, and special-interest animal life habitats, scientifically important rock outcrops and fossil forms, and archeological and historic sites. It also includes lands of steep topography and soil instability that severely limit the potential for public vehicle access and site development.

Category I lands are open for public access by foot or horseback; however, use should occur only on designated trails. Motorized management access is not allowed except in emergency situations, or for occasional, necessary maintenance.

Category II -- Moderate

This category includes scenic landscape that offers opportunities for unstructured and unconfined forms of recreation, such as sightseeing, hiking, and environmental camping. It also includes lands in close proximity to public access and development. It also includes areas of sensitive geological, paleontological, ecological, cultural, and/or esthetic resources that may be affected by concentrated use or development, and certain areas that are unsuitable presently for inclusion in Category I due to the extent of existing disturbance, such as from past land use practices or high-intensity public uses. Steep topography and soil instability may limit use or development potential.

Category II lands are open for public access by foot or horseback; backpacking, and environmental camping at designated campsites; and vehicle access over established routes for special events by permit, or for management purposes only.

Category III -- High

This category includes areas with gentle topography, relatively stable soils, and/or good vehicle access, suitable for moderate-to high-intensity site development and use. Lands mapped in this category include existing moderate- to high-intensity use sites, and some lands potentially developable to this standard that are not limited by physical characteristics or sensitive resource considerations, except that certain lands contain some sensitive geological, soil, paleontological, ecological, and/or esthetic resources, and areas of cultural sensitivity that, although intended for moderate to high use, are now being excessively affected, and should be given special consideration if modification is proposed or use changes.

Areas mapped also include scenic corridors along travel routes where turnouts have been provided for stops or for access to trails, and for other informal uses.

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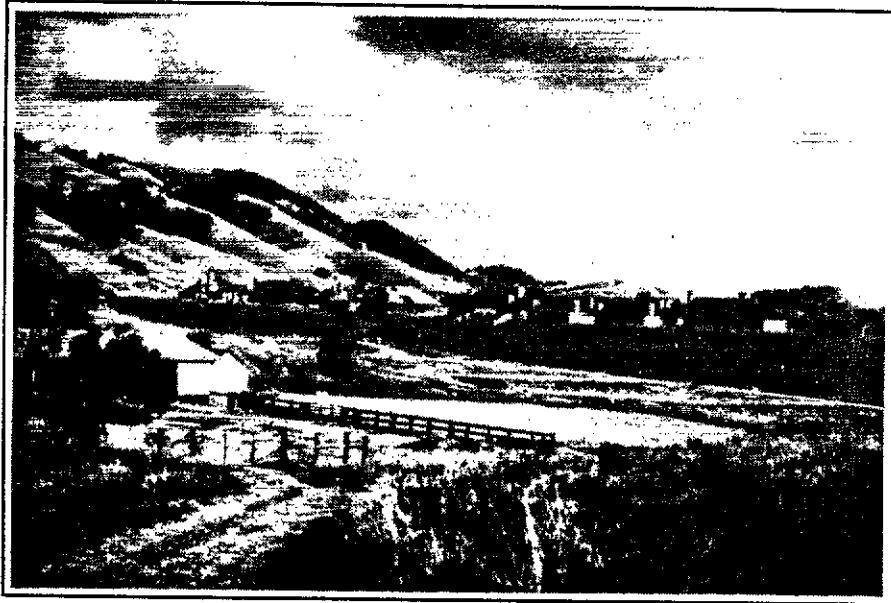
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The Macedo Ranch area is the location for the proposed Macedo Ranching Heritage Demonstration Area.



Hikers coming down Eagle Peak.

INTERPRETIVE ELEMENT

Interpretive programs and facilities orient, inform, and inspire park visitors so they can better enjoy, appreciate, and protect park resources.

This Interpretive Element analyzes interpretive resources, establishes the interpretive themes, and recommends new interpretive programs and facilities.

Mount Diablo State Park has a fortunate combination of rich interpretive resources, panoramic views, many visitors, and an active interpretive association.

Interpretive Considerations

Visitors: Their Needs and Expectations

Most visitors to the park come to escape urban pressures, to enjoy the scenery, and to see the view from the summit. Sunny days in late winter and early spring bring people to the park for wildflower displays and outdoor fun.

Horseback riders and hikers use the same trails. They need well-maintained and clearly signed trails. Bicyclists share the summit road with car traffic. Although cyclists are not legally permitted on the trails, mountain bicyclists are allowed on certain fire roads.

Occasionally, hang-gliders use the peak as a launching area. Some visitors are disappointed that there is no water recreation in the park. Amateur astronomers come to the park to get away from city lights.

Environmental Influences on the Interpretive Experience

Environmental conditions which affect views and viewing are significant since the mountain's scenic qualities attract many visitors. Atmospheric moisture, dust, haze, and smog negatively affect viewing quality. Communication towers, power lines, and the quarry on Mount Zion are negative influences on the park's viewshed. Noise from the quarry is also a negative factor.

The view from the summit is often a disappointment to summer visitors, as visibility is poor then. Clear conditions occur mostly after winter storms, a time of relatively few visitors. The summit can be windy and uncomfortable. Some visitors experience motion sickness on the winding drive to the summit, and others feel that the drive is dangerous or prohibitively long. There are few pull-outs for enjoying views or for interpretive signs. During peak visit times, the summit road becomes congested near the top, and parking is a problem.

Winter hikers often find the trails wet and muddy, while summer trekkers experience heat and dust. Drinking water is not available beyond developed areas, and the steep terrain discourages many.

Cattle grazing has some negative effects on interpretive and recreational values in the park. Some visitors like seeing cows in the park, while others avoid lingering in areas where cattle are present. Fenced areas may give visitors the impression that they might be on private land. Cattle droppings

and associated flies can be unpleasant on hiking trails. Springs and streams are degraded by cattle. Some plants of interest to hikers, botanists, and photographers may disappear with grazing.

Vandalism is a severe problem in the Rock City area. The soft sandstone boulders, which make Rock City so interesting, are covered by graffiti, and scattered with broken glass. The great potential for vandalism of interpretive signs is a consideration for this area.

Existing Interpretive Media and Facilities

Existing interpretive facilities in the park are minimal. The Mount Diablo Interpretive Association operates a small visitor center/museum in the Summit Building. A few interpretive panels are installed in the lower part of the Summit Building tower. A nature trail, the "Fire Ecology Trail," circles the summit. The beginning section of the trail is wheelchair-accessible. A natural history exhibit of local wildlife was installed in one of the windows of the junction ranger office. Small, covered orientation/bulletin boards are located at the junction ranger station, and at Mitchell Canyon. A small, little-used campfire center is located at Live Oak Campground.

Interpretive activities peak during spring when flowers are blooming, the weather is ideal, and the mountain is especially green and beautiful. Many visitors come to experience "April on the Mountain." During this time of high park attendance, docents and rangers lead many nature walks. A ranger-led equestrian nature ride is now offered out of Macedo Ranch. Stargazing activities also occur in Mitchell Canyon. Occasionally, rangers and docents give off-site talks to schools and other groups. Interpretive publications are made available by the Mount Diablo Interpretive Association.

Interpretive programs and development at Mount Diablo State Park should be coordinated with the efforts of nearby parks, agencies, and institutions. These include the East Bay Regional Park District's Black Diamond Mines Regional Preserve and Briones Regional Park; Walnut Creek open space areas (including the Borges Ranch); and the Lindsay Museum.

The Black Diamond Mines Regional Preserve interprets coal and silica sand mining between 1855 and 1949. The Old Borges Ranch interprets turn-of-the-century ranching through ranch tours and overnight living history programs. The Lindsay Museum is an environmental education center and wildlife rehabilitation center visited by more than 100,000 people annually. The Lindsay Museum is currently raising funds to relocate to Walnut Creek's Heather Farm Community Park.

A limited-term agreement was signed in 1985 between the owner of the Diablo Ranch (a private inholding) and the department. This agreement stated that the ranch owner could graze cattle on certain park lands, subject to certain fees and conditions, in exchange for offering interpretive programs of the ranch and its operation. The agreement stipulated that four major and twelve lesser interpretive events be held annually. The following describes the present interpretive program at the Diablo Ranch:

The owner notifies the park office when a major ranch operation, such as a spring or fall roundup and branding, is to be open for viewing by the public. The unit staff notifies the media. At certain times on the day of the event, interested visitors are led to the ranch by a ranger. Visitors observe various cattle-handling procedures, such as separating calves from cows, ear-tagging, dehorning, branding, castrating, and immunizing. The ranger gives some interpretation, and the rancher interprets as the demands of the operation permit. These tours are offered in the morning and in the afternoon, and they last about 90 minutes. Participation varies from none to about fifty people. Field trips are offered to organized groups at other times. School and other youth groups (such as Scouts, Bluebirds, day-care centers, and elementary school classes) receive a general orientation of the ranch facilities and operations, and see cows nursing calves. Equestrian groups also make arrangements to stop at the ranch on organized rides in the park.

Interpretive Period

No defined interpretive period is established for Mount Diablo State Park. Interpretation will address the flow of history from ancient geological time to the present. However, individual themes will emphasize certain periods.

Interpretive Themes

The overall interpretive theme for the park is Mount Diablo: The Inland Island. The mountain's physical dominance in the landscape creates an island-like impression. Its elevation and geological origins create climatic, floral, and faunal conditions quite different from the surrounding valleys. Today, the mountain is an island park surrounded by increasing development.

Primary Theme: Building an Island-Mountain

Mount Diablo can be interpreted as a geologic island. The processes of crustal movement, rock formation, and development of the Diablo Range should be explained. Recent theory on the uplifting forces which caused the core rocks to pierce the overlying bedded rocks should be interpreted.

Describing the piercement process will also help explain the faulting and tilting of the once bedded rock layers which surround the mountain's base. These tilted sedimentary rocks bear fossil impressions of plants and animals of past environments of the Diablo area. This presents an excellent opportunity to interpret the life of ancient deep seas and shallow Miocene seas, as well as later Miocene and Pleistocene terrestrial environments.

The significant paleontological discoveries at the Black Hawk Ranch should be interpreted.

Primary Theme: Islands of Life

This theme interprets the flora and fauna of the mountain using the concept of ecological communities, the tendency of certain species to associate. These associations are named for the dominant plant species. The most easily recognized plant communities, their characteristic animal inhabitants, and

interesting aspects should be interpreted. Examples from Mount Diablo communities and species can demonstrate ecological processes, such as life cycles, survival adaptations, migration, community succession.

It is important that visitors understand that the concept of ecotones is only an observational tool which helps us understand nature by simplifying them. In reality, these ecological islands are interconnected in complex ways. The importance of ecotones to wildlife, and the fact that they are constantly shifting influences like fire, should be interpreted.

Interpret and address rare or endangered species found on the mountain species of particular scientific or esthetic interest. Common flowers should be interpreted.

Second Managing the Island-Mountain

As the communities grow, park visitation will increase, and so will the need for meeting recreational needs while protecting the park's resources. Interpretation can reduce resource damage, visitor accidents, and enforcement by presenting park regulations and management policies, and explaining purposes. Orientation to historic, recreational, and interpretive opportunities is another important aspect of park interpretation.

Existing resource management programs, such as prescribed burning and reestablishment of native bunch grasses, should be interpreted. Interpret the management goals and processes of controversial programs which will require public support for policies the department decides to follow. Grazing histories should be interpreted, along with the effects of resource management programs on park resources and communities.

The histories of the communication towers and the tower construction project should be interpreted. The historic significance of the TCI tower and the Staaviation beacon on South Peak should be presented.

Second The Island-Mountain in an Ocean of Air

This describes the interaction between mountain and weather. Interpret and demonstrate how the mountain creates its own variations of the Mediterranean climate, including: temperature inversions, fog, clouds, wind, lightning, and microclimates. The role of weathering in creating Diablo's topography and how atmospheric moisture, dust, smoke, affect viewing conditions should be interpreted.

Second The Island of Night

The mountain preserve of the night sky in a sea of brightly-lit communities of Diablo presents a good opportunity for urban dwellers to observe features which are obscured by city "light pollution." California star lore and nocturnal wildlife should also be interpreted.

Secondary Theme: Living With a Spirit Mountain: The Native American Era

The lifestyle of the Bay Miwok Bolbon people who lived around the mountain should be interpreted. Little is known of their relationship to the mountain, apart from how they used its resources. Removal of the Bolbon to the missions and their subsequent disappearance should be presented. Other Native American groups, notably the Ohlone and the Miwok, had myths about Mount Diablo which should be interpreted to show how the first Californians viewed the mountain as a place of creation, and the home of spirits.

Secondary Theme: Exploring and Settling the Diablo Region: The Hispanic Period

The Spanish explorers and early Mexican ranchers who traveled or settled near the mountain should be interpreted. The Mexican land grant Arroyo de las Nueces y Bolbones, which part of the park now encompasses (Diablo and Macedo Ranches) should also be interpreted. The early cattle ranching life and methods should be interpreted.

Secondary Theme: Working the Island Mountain: The American Period

The early American period could be interpreted by showing how the mountain was used for different resources. Ranchers grazed livestock on its flanks, while miners sought mineral wealth below. Surveyors saw the mountain as an ideal benchmark to carve up a young state primed for development. Tourist promoters built roads and facilities for the early sightseers, who lauded the peak's panoramas. Historic ranching and these early mine, road, and building sites deserve interpretation. Modern ranching in the area merits interpretation by comparison with historic ranching.

Secondary Theme: Mount Diablo: Island of Wildness at our Backdoor

The history of the park's creation, development, and expansion merits interpretation. The increasing public value of this open space and viewshed, surrounded by encroaching urban development, should be emphasized. The mountain is now and will increasingly become an important island of visual, psychological, and recreational contrast to urban tensions and limits. Early private park developments at the base of the mountain, such as Russelman Park, Curry Creek Park, Mitchell Creek Camp, and the Diablo Country Club, could also be interpreted. The continuity of park trails, streams, and geological formations with surrounding city and regional parks should be presented.

Secondary Theme: The CCC, Then and Now

The extensive works of the depression-era Civilian Conservation Corps on Mount Diablo deserve interpretation, since they are so well represented here. The goals and work of today's equivalent, the California Conservation Corps, could also be interpreted, particularly as they relate to Mount Diablo State Park and the State Park System. Interpretation should include the roadwork, culverts, buildings, campstoves, and tables built by the first CCC. The Summit Building deserves special attention. Interpretation should address proper use of the campstoves. A docent group of former CCC workers might be formed to interpret these works.

Proposed Interpretation

The Summit Building Museum Project

The Civilian Conservation Corps built the stone Summit Building in 1939-1940 to house the Work Project Administration (WPA) exhibits about the mountain's cultural and natural history. New exhibits for the Summit Building were planned in 1985 by Daniel Quan Design of San Francisco, under a contract with the department. The department will budget for production and installation of new exhibits.

One of the museum's major interpretive themes is to encourage wider visitor exploration and use of the park's resources. This prospectus summarizes the themes and media developed for the summit museum, and proposes additional interpretation in other parts of the park. Though developed separately, the two interpretive proposals should work well together. The museum exhibits quite appropriately interpret the mountain from a general point of view, while on-site interpretive exhibits will be specific to the subjects at hand.

Interpretive and Orientation Panels

Outdoor interpretive panels can interpret topics such as geology, resource management, historic sites, plant communities, wildlife, and recreation. Possible locations for panels include: Mitchell Canyon, Donner Canyon, Rock City, the Old Mountain House site, a selected CCC picnic area and/or campsite, Barbeque Terrace, the Macedo staging area, and the summit.

Orientation panels and bulletin boards would be useful at the South Gate entrance, the North Gate kiosk, the Junction Office, Mitchell Canyon, Donner Canyon, Curry Canyon, Dan Cook Canyon, Briones Trail, Pine Canyon Trail, and the campgrounds.

Self-Guided Trails

Self-guided nature trails could be created at Rock City, Fossil Ridge, Mitchell Canyon, and along the Summit Trail. The Fire Ecology Trail should be rehabilitated and improved for hikers as a circuit of the peak. It should be interpreted by a self-guiding brochure addressing the panorama of ecological, geological, meteorological, and historical features visible from the mountain. A trail interpreting a CCC camp area is desirable.

Geology Auto Tour

Many of the park's interesting geological features are visible from the road. The Mount Diablo Interpretive Association has identified pullouts where good viewing of these features is possible. When these pullouts are made safe, low-profile interpretive panels could be installed to interpret these geological points of interest.

Radio Interpretation

A short-range radio transmitter could broadcast information on local weather, park regulations, visibility, safety considerations, programs, recreational opportunities, park history, and natural history. With this transmission,

visitors would have access to a wide range of information as they drive through the park. This medium is recommended only if the transmitting antenna and equipment can use an existing tower, and will not adversely affect the view from the summit.

Campfire Centers

The campfire center at Live Oak Campground should be improved.

An Astronomical Observatory

Mount Diablo is a good location for a small astronomical observatory due to its altitude, its moderately dark night skies, and its accessibility by thousands of people. Mr. Jerome A. Hudson of U. C. Berkeley's Radio Astronomy Laboratory has presented a plan for construction of a small observatory near the Pioneer Campground. Mr. Hudson has expressed interest in providing the optics and technical advice to construct a 12-inch Cassegrain telescope. Funding would be needed to build a modest concrete block housing, and to purchase a commercially built dome. This structure would need to be as vandal-resistant as possible.

The interpretive and public service potential of such an observatory is high, and justifies its relatively moderate cost. The observatory would probably be maintained and operated by the Mount Diablo Astronomical Society, which would conduct amateur astronomical research, as well as interpreting the night sky to the general public on a regular basis.

Interpretive Facilities at the Mitchell Canyon Day-Use Area

As the primary entry into the park's wild northern slopes, Mitchell Canyon is a good place to interpret natural history. Interpretive facilities should meet the needs of the many day-use hikers and equestrians who use this area. Outdoor interpretive panels and shelters could meet visitors' basic orientation and information needs.

When the new Mitchell Canyon maintenance yard is finished, the present maintenance building will be available for another purpose. This structure could be adapted as a small natural history visitor center for this part of the park. It could serve as a sheltered gathering area for interpretive hikes and equestrian rides. It would also broaden the range of possible interpretive media to include an information desk, publication sales, audio-visual programs, and changing and permanent displays.

Ranching Interpretation at Mount Diablo State Park

Mount Diablo State Park includes a portion of the original "Arroyo de las Nuces y Balbones," an 1834 Mexican land grant ranch, as well as American period ranches. Currently, there are approximately 9,000 acres of the park open for cattle grazing through leases, which expire in 1990. Opinions differ greatly on the issue of how much grazing, if any, should continue at the park. The issue of continued grazing at the park is controversial, because grazing directly affects the park's recreational, natural, and interpretive values.

This General Plan recognizes the importance ranching has played in the early and ongoing development of the area, and proposes interpretive themes to tell this story. However, Mount Diablo was acquired to protect the park's natural and scenic resources, which are the attractions most visitors come to enjoy. Therefore, ranching interpretation, which is a secondary theme, must be viewed in the broader context of interpreting the park's total natural, recreational, and cultural resources.

Interpretation of ranching is covered under the themes of Exploring and Settling the Diablo Region: The Hispanic Period and Working the Island Mountain: The American Period. Consistent with the other cultural themes, these are classified as secondary interpretive themes.

This section of the Interpretive Element analyzes the goals, objectives, and options for ranching interpretation, and recommends a program that meets these criteria. (Note: see the Existing Interpretive Media and Facilities section of this element for a description of the existing Demonstration Ranch concession and its program).

The department recognizes both the local public support for the existing cattle-handling demonstrations on privately-owned Diablo Ranch, as well as public criticism of grazing 7,500 park acres to support this program.

The solution to this conflict is to graze only the land actually needed to support this program. One hundred cows plus their calves (totalling about 175 head) will meet interpretive demonstration needs. An interpretive range of between 600 and 1,000 acres will be needed to support this herd. Many local ranchers lease public lands in parcels of this size as a part of their overall operation.

Ranching Interpretive Goals

The goals of ranching interpretation are:

1. To relate the Diablo area's historic and continuing ranching heritage to park visitors. This includes interpreting ranching's role in the social, economic, and political development of California.
2. To actively involve the community in interpretation of their ranching heritage.
3. To provide ranching interpretive opportunities for:
 - a. scheduled visits by school and other organized groups.
 - b. drop-in visits by individuals and families.
 - c. the local community for special events.
4. To meet public demand for live cattle-handling demonstrations.
5. To interpret ranching by methods and means which are appropriate to its importance relative to other topics, and by means which are balanced with other recreational and resource needs.

Ranching Interpretive Objectives

The following objectives will meet the stated goals:

1. Provide interpretive panels, audio-visual programs, and publications about the area's ranching heritage.
2. Select a program location and a supporting interpretive range which has full public access, and which permits full department control of the interpretive program and facility development. The selected site should also be related to a historic ranch site; be able to coordinate activities and programs with adjacent parks; meet range management and resource protection needs; and be separated from centers of potentially conflicting recreational activities.
3. Cooperate with local parks, communities, and interested groups in celebrating the area's ranching heritage through regular and special event programs.
4. Organize volunteer ranching interpreters from local ranchers, charro groups, FFA, 4H, etc.
5. Provide for a representative-sized herd of cattle at the park by offering grazing opportunities to a local rancher through a concession agreement, who could lease parcels as part of a larger operation. The department has determined this to be approximately 100 cattle plus their calves (175 total). This would involve grazing 600 to 1,000 park acres.
6. About 10 long-horned cattle typical of 19th-century ranching around Diablo would be desirable for interpretive purposes. This herd could be in addition to the demonstration herd, or could be provided as part of the concessionaire's operation, or by the department, with assistance from volunteer ranching interpreters.

Interpretive Alternatives

Alternative #1: Interpret ranching without live cattle-handling by a professional rancher

Interpretive panels, audio-visual programs, historically-dressed interpreters, object displays, and publications about the area's ranching heritage can provide low-cost, in-depth, flexible, and year-round interpretive opportunities for individuals and groups. This would be a low-impact and adequate means of interpreting ranching. Trained park staff and volunteers could talk about historic ranching, and demonstrate some historic cattle handling methods using an interpretive herd of about 10 longhorn cattle.

This option lacks the larger scale of activity associated with live cattle handling of a larger herd, and it would not represent an actual economic activity of a professional rancher.

Alternative #2: Concessionaire's cattle graze up to 1,000 acres of State Park land; the department's ranching interpretation program implemented through park and concessionaire-led programs conducted on concessionaire-owned site, using concessionaire-owned cattle-handling facilities.

Positive interpretive aspects of this alternative include:

- o Preserves the public's opportunity to see live cattle-handling by a rancher.
- o Resource and recreation conflicts of grazing are limited to the area needed to support a herd sized to meet interpretive needs.
- o No state funds needed to purchase cattle-handling facilities.

Private ownership of the interpretive site and facilities has these potential negative interpretive consequences:

- o Public access to ranching interpretation may be limited to special events or pre-arranged tours.
- o Involvement of volunteer interpreters and creation and support of a cooperating interpretive association may be restricted.
- o Display of state-owned interpretive exhibits and audio-visual programs may be limited.
- o Historic ranching may be difficult to interpret adequately in a modern ranch setting.
- o Concessionaire may not want to manage a herd of about 10 longhorn cattle.
- o The department's control over the program content and quality may be difficult.
- o There is no assurance of continuity of the program site or facilities due to private ownership of the interpretive location.

Alternative #3: Concessionaire's cattle graze up to 1,000 acres of state park land; ranching interpretation through park and concessionaire-led programs conducted on state park land

Positive aspects of a new interpretive site on park land would include:

- o Preserves the public's opportunity to see live cattle-handling by a rancher.
- o Resource and recreation conflicts of grazing are limited to the area needed to support a herd sized to meet interpretive needs.

- o Full public access for:
 - a. scheduled visits by school and other organized groups.
 - b. drop-in visits by individuals and families.
 - c. the local community for special events.
- o Greater potential to involve the community as volunteer interpreters of their ranching heritage.
- o Greater potential for cooperation with local parks, communities, and interested groups in celebrating the area's ranching heritage through regular and special event programs.
- o Full interpretation of the area's ranching heritage from its beginnings to the present. Interpretation through historically-accurate livestock, costumes, tack, and corrals could be realized to its full potential.
- o Greater departmental control and potential development of the interpretive program, its exhibits, facilities, and its future.
- o Greater department control over management of the park land dedicated to support the interpretive herd.

The selected site for a new interpretive range and Ranching Heritage Demonstration Area should meet all the above criteria, and those listed under Objective #2. The Macedo Ranch area is the only park site which meets these interpretive, range management, resource protection, and recreational needs. The Macedo Ranch location has good access and parking for drop-in visitors and group tours. Cooperative ranching programs with Walnut Creek's Borges Ranch would also be possible.

To implement this proposal, the department should be prepared to provide funding for new cattle-handling equipment (squeeze chutes, calf table, portable or permanent corrals). Alternatively, this equipment could be provided through negotiation with the concessionaire, who could then be compensated with reduced grazing fees. New historic ranching interpretive programs will entail some departmental costs for volunteer costumes, historic tack, and volunteer-built historic cattle-handling facilities.

Preferred Alternative

The preferred State Park and Recreation Commission alternative is Alternative Two, unless the present concessionaire is unwilling to implement Alternative Two. Otherwise, Alternative Three is the recommended alternative.

New Activities for Visitors

Installation of new self-guided trails, the Mount Diablo Observatory, and the Mitchell Canyon Nature Center will increase the scope and availability of visitor activities in the park. A docent-guided sensory tour for blind visitors might be developed for an easily-accessible trail like the Fire Ecology boardwalk. New ranching programs and special events interpreting the Mexican Rancho period could be developed and presented by docents.

Mount Diablo Interpretive Association

The Mount Diablo Interpretive Association (MDIA) operates the present small summit visitor center, and will help staff the new summit museum when it is completed. Publication sales and dues provide funding for the association's volunteer interpretive work, which includes "April on the Mountain" activities and evening talks held throughout the year in nearby communities. MDIA has helped build and repair trails, and has printed a trail map and other interpretive publications. MDIA, along with other interested groups, should be involved in planning interpretive development. The work of MDIA is important to interpretation of Mount Diablo State Park.

The objectives of the association are:

- (a) To promote the educational and interpretive activities of the State Park System, principally in Mount Diablo State Park.
- (b) To produce and make available to park visitors, by sale or by free distribution, interpretive and educational literature and materials, including books, maps, pamphlets, visuals, and recordings.
- (c) To acquire display materials or objects pertaining to the history or natural history of the area for the purpose of adding them to the interpretive collection of the park.
- (d) To assist in development and improvement of interpretive facilities.
- (e) To give all possible aid to the State of California in conserving, developing, and interpreting the park for the benefit of the public.
- (f) To support research on the history and natural history in the park.

Interpretive Collections

Interpretive collections include natural and historic objects and photographs for demonstrations and displays. Present collections include fossils and photographed and preserved flowers. Additional photographic collections of historic and natural subjects in and near the park should be gathered, documented, and conserved. Bay Miwok artifacts and/or replicas are needed to interpret Native American history at Mount Diablo. Natural history and historic information about the mountain should be gathered and organized into a reference collection.

3. Plan, fabricate, and install orientation panels and bulletin boards at entry points.
4. Plan, fabricate, and install interpretive panels at trailheads and pull-outs. Complete the geology auto tour (after road pullouts are improved).
5. Create a trail guide for the Fire Ecology Trail.
6. Enhance the park's interpretive activities and publications.
7. Conduct further research into the park's resources.

Recommendations

Research Needs

Further research needs to be conducted on the following topics to aid the interpretation of Mount Diablo:

1. Fire ecology and plant community succession.
2. Status and survival requirements of species of scientific or esthetic interest.
3. Bolbon history and culture.
4. History and uses of the communication facilities.

Interpretive Recommendations

Interpretive projects are divided here into two classes: major projects and minor projects. Projects in both lists should be developed concurrently. No order of priorities is implied in the following listings.

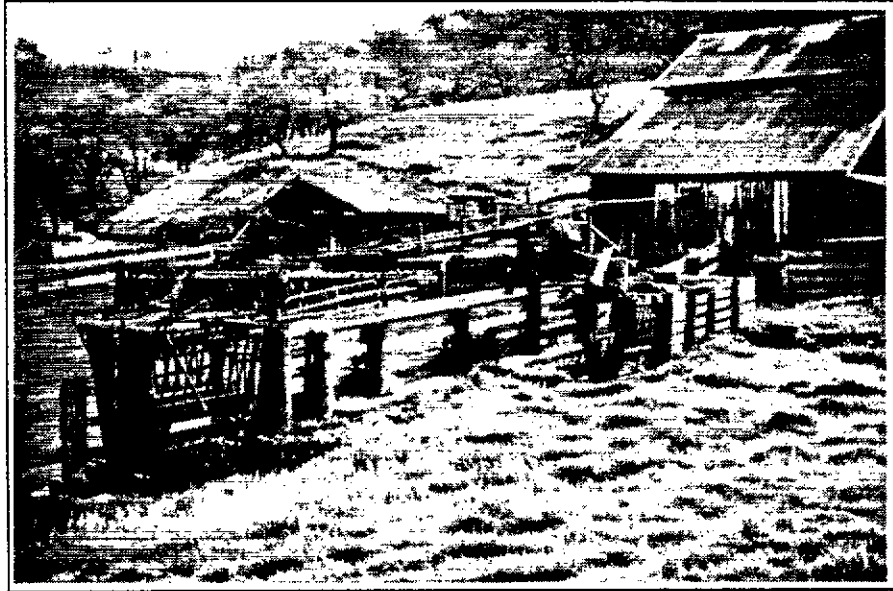
Major project recommendations

1. Complete the summit museum project.
2. Establish a 600 - 1,000 acre interpretive ranch on park property; contract with a rancher to graze a 100-head interpretive herd on the ranch; and develop interpretive facilities and a volunteer ranching interpretive association.
3. Plan and construct the Mount Diablo observatory.
4. Plan and construct the Mitchell Canyon nature day-use interpretive displays and/or renovate the existing park office as an interpretive day-use center.
5. Plan new and renovate existing self-guiding trails.
6. Improve the Live Oak campfire center.

Minor project recommendations

1. Plan, fabricate, and install interpretive panels in areas with historic CCC-style stone stoves to inform visitors on how to use them.
2. Install a short-range radio transmitter to broadcast park information and interpretation.

3. Plan, fabricate, and install orientation panels and bulletin boards at entry points.
4. Plan, fabricate, and install interpretive panels at trailheads and pull-outs. Complete the geology auto tour (after road pullouts are improved).
5. Create a trail guide for the Fire Ecology Trail.
6. Enhance the park's interpretive activities and publications.
7. Conduct further research into the park's resources.



Walnut Creeks' Borges Ranch is a working livestock handling operation.



State Park's will work with the Walnut Creeks' Borges Ranch staff to coordinate their program with the proposed Macedo Ranching Heritage Demonstration Area.

Concessions Element

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CONCESSIONS ELEMENT

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

Under legislation effective in September 1982, a Concessions Element is required in the general plan for future concessions considerations. The Public Resources Code, Section 5080.02 et seq., describes the manner in which concessions can be operated in the State Park System.

Definition

A concession is defined as authority to permit specific uses of state park lands and/or facilities for a specified period of time. The intent is to provide the public with goods, services, or facilities the department cannot provide as conveniently or efficiently, or to permit limited use of state park lands for other purposes, compatible with the public interest and consistent with the Public Resources Code.

Purpose

The purpose of the Concessions Element, which is part of the general plan for a park unit, is to evaluate existing and potential concessions in accordance with the Public Resources Code, Section 5080.03 et seq., and the classification of the park unit.

Public Resources Code, Section 5080.03(c) states:

"With respect to any unit of the State Park System for which a general development plan has been approved by the commission, any proposed concession at that unit shall be compatible with that plan."

Objectives

The objectives of the Concessions Element are to:

- o Examine previous or existing concessions in the unit.
- o Examine current and future concession needs of visitors.
- o Examine park needs for any development, services, etc., which may be included in a concession contract.
- o Recommend appropriate concessions for the park unit in accordance with the Public Resources Code, State Park and Recreation Commission policy, and the findings presented in other elements of the General Plan.
- o Examine a concession's relationship with cooperating associations, docent groups, and any other non-profit organizations affiliated with the park unit.

Scope

The Concessions Element is a guide to assist in development of concessions in state parks. The Concessions Element should provide direction as to the appropriateness of a concession in a specified unit, and to ensure consistent management practices.

The intent of a concession is to provide the public with goods, services, or facilities for a specified period of time, which the department cannot provide as conveniently or efficiently. Concessions should not create added financial burden and, whenever possible, should reduce costs and/or generate revenues to aid in maintenance of the State Park System. Concessions shall not be entered into solely for their revenue-producing potential.

It is the policy of the department to cultivate and encourage small businesses as well as ethnic and racial minority-owned/operated businesses as concessionaires in the State Park System.

It is the department's policy to generally avoid entering into convenience-type concession agreements for facilities, products, or programs that are adequately provided for a short distance outside state park unit boundaries.

It is the policy of the department that concessions shall provide facilities, products, programs, or services at prices competitive with similar businesses outside State Park System units.

Concession History and Current Services

Since 1968, the department has entered into concession contracts for grazing purposes at Mount Diablo State Park. In April 1980, the department entered into a five (5)-year concession contract with a five (5)-year option for cattle grazing. This contract expires in 1990.

The contract was amended on April 13, 1984 to include provision of an interpretive demonstration program, interpreting cattle ranching operations on the ranch located adjacent to the park on private property. The program, which is described in detail on pages 76 and 77 of the Interpretive Element in this general plan, requires four major interpretive events each year, such as: round-ups, branding, ear-tagging, dehorning, castrating, and immunizations, in addition to presenting cattle ranching methods for school groups, scouts, charitable organizations, etc.

A mobile food unit concession has operated in the lower summit parking lot, providing light food and sundry items under short-term concession contracts.

Concession Recommendations

As discussed in the Interpretive Element, ranching is important to the area's early development and current use, and may merit interpretation. At the termination of the existing grazing/demonstration ranch concession contract (1990), the department will evaluate alternatives to implement this General Plan, which may include entering into a negotiated interpretive contract in accordance with Public Resources Code Section 5080.16(c) or (d), or awarding a contract to the "best responsible bidder" through the public bidding process.

In accordance with the Interpretive Element, the new contract should limit the number of cattle, not to exceed 100 cows plus calves, and limit grazing to approximately 600 to 1,000 acres, in conformance with the grazing management plan for that area (see Resource Element, page 60). The Macedo Ranch area has been determined to be the best location for this concession. Although the Macedo Ranch area has been determined to be the best long-range location for this concession, an off-park site could be considered as an interim measure. However, a concessionaire must first demonstrate the ability of its facility to meet the goals and objectives of the proposed interpretive ranch program, and must also demonstrate that the proposed off-park program is consistent with other sections of the General Plan.

Any grazing lease or agreement shall address, but not be limited to, the following: the specific area covered by the agreement, the maximum number of animals, the maximum number of animal unit months (AUMs), the season of use, protection for sensitive areas, responsibility for improvements, and methods, procedures, and appropriate actions to enforce the agreement. Grazing of livestock shall not be allowed outside areas specifically designated for grazing purposes; trucking of livestock from one pasture to another may be required where resource considerations exist.

Food service at the lower summit parking lot does fulfill a visitor service need. A modular trailer of appropriate size and design facility may better accommodate such a concession operation, should utilities be made available.

Other potential concession activities at Mount Diablo State Park may include but are not limited to guided horseback tours. Horseback rides are currently offered under a special event permit, and have proven to be a popular service.

While it is not possible at this time to predict all potential concession activities, specific proposals will be studied on a case-by-case basis for feasibility and appropriateness.

Operations Element

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OPERATIONS ELEMENT

The Operations Element is intended to define broad operational goals for Mount Diablo State Park, and outline objectives for implementation of the General Plan. This element also identifies existing or potential operations problems and strategies for dealing with them, consistent with all elements of the General Plan.

The operational staff at Mount Diablo State Park is composed of full-time and seasonal employees. They are organized into three functions: administrative, maintenance, and visitor services. The park is managed by a district superintendent and receives support from the regional office and the department's field services office in Sacramento.

Existing Operations Summary

The operations staff assigned to Mount Diablo State Park is composed of seven rangers and six maintenance employees. Seasonal staff also assist in the park's operation and maintenance throughout the year.

Currently, most of the operational effort is spent keeping the developed areas of the park functioning. Rangers spend most of their work time patrolling the developed areas of the park, which are located along the park's 17-mile primary road system. Although Mount Diablo State Park has more than 100 miles of fire roads and trails scattered over its approximately 18,000 acreage, rangers spend little, if any, time patrolling them. The only time rangers are able to leave the developed areas is in response to accidents or emergencies occurring in the undeveloped areas of the park. Likewise, the maintenance program is limited to the developed areas of the park. This includes maintenance of three campgrounds (66 family campsites), six group camps (300 capacity), and 274 day-use picnic sites. With 9 park residences, three trailer pads, seven restrooms, 30 non-flush toilets, a maintenance shop complex, an interpretive facility, and a major road and water system, there is little time left for any maintenance efforts outside the developed areas.

Contra Costa County has been one of the fastest-growing areas in California over the past several years. This growth has seen the park's visitation more than double in the past seven years. In addition, an aggressive acquisition program has increased the size of the park from 7,000 acres to approximately 18,000 acres. This growth, both in visitors and acreage, has occurred without any increase in staffing.

When staffing was originally justified for Mount Diablo State Park, it was a typical seasonal park, in which most of the visitors who entered came in during the winter, spring, early summer, weekends, and holiday periods. These visitors entered the park via one of the two entrance roads, one in Walnut Creek, and one in Danville. These visitors entered the park to drive to the summit of the mountain to enjoy the view, or to camp or picnic in the facilities along the two roadways. With urban development taking place around the base of the mountain, starting in San Ramon Valley in the south, and continuing around to the town of Clayton on the mountain's north slope, use patterns have changed dramatically. Thousands of visitors now hike, ride

horseback, or bicycle into the park from one of the staging areas around the park perimeter. At the same time, those entering the park by the two entrance roads has doubled over the past eight years, from 250,000 in 1978 to well over 500,000 in 1988.

Special Considerations

Most of the facilities at Mount Diablo State Park are old. Many of the buildings, campgrounds, picnic areas, roads, and residences were built by the Civilian Conservation Corps in the 1930s. With few exceptions, even the newest facilities at Mount Diablo are more than 30 years old. An additional problem is created by the fact that facilities at Mount Diablo are dispersed around the perimeter of the mountain, as well as along the access roads to the summit. Traveling to the use areas requires 40 miles of driving, and approximately two and a half hours. The age, design, and unique facility layout creates an abnormally large workload for the maintenance staff.

Health and Safety

The water system at Mount Diablo State Park consists of 21 springs which feed through a series of piping systems into one of 10 underground storage tanks. Eight chlorinating systems treat the stored water at various locations prior to its being dispensed to use areas along the 15-mile primary piping system. Over the past three years, the department has received several notices from the State Board of Health regarding issues of concern involving water quality, system maintenance, and lack of regular water sample tests.

The Department is working toward rehabilitating the existing water system, and to correct deficiencies in both water quantity and quality.

The primary road system at Mount Diablo State Park is extremely old and inadequate. Part of it was built as a toll road in the late 1800s. Other portions were constructed by the Civilian Conservation Corps. Prior to 1960, the park roads were used by 20,000 to 25,000 vehicles per year, mostly during the dry season. Today, more than 200,000 vehicles per year travel over this same road system, with much of this use occurring during the wet season. Slides, slip-outs, and road surface failures, which occur routinely each winter at Mount Diablo State Park, make the condition of the primary road system one of the unit's most serious deficiencies.

During fiscal year 1988/89, the department funded a geotechnical road study program, contracting with a private consultant. This is an important step in rehabilitation of the road system itself. This study will provide the information necessary to undertake the needed repairs.

Acquisitions

Over the past ten years, Mount Diablo acreage has increased by more than 10,000 acres. Many of these acquisitions had a complex trail and fire road system on them at the time they were acquired. Many of the road and trail systems on these properties are lands owned by other agencies such as Walnut

Creek, Concord, Clayton Open Space, and East Bay Regional Parks. The Department of Parks and Recreation is under increasing pressure from local user groups and fire control districts to maintain these fire roads and recreation trails.

Telecommunication Towers

Due to the prominence of Mount Diablo's north and south peaks, they have served as sites for radio and microwave facilities and towers for many years. There are eight major communication sites on Mount Diablo (four on the south peak and four on the north peak).

Because of their impact on the park's natural and scenic resources, it is the department's desire to eliminate these facilities to the fullest extent possible. Since it is not possible to remove all facilities, the department's goal is to consolidate the telecommunication towers and equipment as much as possible on the south peak and the north peak.

The district superintendent is responsible for the administrative workload involved with negotiating leases, resolving conflicts, working with the county and other agencies, and addressing all issues concerning the impacts on park resources caused by these facilities.

Field staff, primarily rangers, at Mount Diablo State Park spend hundreds of hours annually patrolling and providing security for the communication facilities; answering questions from the public; and monitoring environmental damages and operational problems created by the operators during construction, modification, operation, and maintenance of communications facilities.

Maintenance staff is responsible for maintaining the park roads to the telecommunication sites on the summit. Road work includes brushing the roads, clearing ditches, and removing snow.

Interpretive Center

At the summit of Mount Diablo's south peak is the historic three-story sandstone building built by the Civilian Conservation Corps in the 1930s. This building was originally intended to serve as a museum, but the project was put on hold due to the advent of World War II, and never became a reality.

The Mount Diablo Interpretive Association (MDIA) currently staffs a small visitor center in a portion of the lower floor. MDIA and the department are now involved in a mutual effort to renovate it, and to make the entire building a first-class visitor or interpretive center. The center will interpret the park's natural, cultural, recreational, and scenic resources (see the Interpretive Element, page 80).

Once the visitor/interpretive center is built, it will be open to the public, and operated by volunteers.

Save Mount Diablo

Save Mount Diablo is a non-profit corporation whose goals are to acquire lands for Mount Diablo SP, and to assist with protection and preservation of all natural resources in Mount Diablo State Park and its surrounding foothills.

Save Mount Diablo has been very successful in its effort to expand the park, while at the same time promoting use that does not compromise the natural resources.

The cooperation between the department and Save Mount Diablo should continue to assure coordination in the joint effort to preserve and provide an ultimate boundary for the unit (see Appropriate Future Additions Map, p. 245).

Mount Diablo Interpretive Association

The Mount Diablo Interpretive Association is a nonprofit park cooperative whose purpose is to assist the public through interpretive methods to understand the natural and cultural features and values of Mount Diablo State Park. To achieve this purpose, MDIA volunteers and docents offer innovative interpretation to the public through a variety of programs, assisting in research of the unit's cultural and natural history, giving tours, and creating special events. The association's service is invaluable to the public.

Mount Diablo Observatory Association

The Mount Diablo Observatory Association was founded in 1988 as a cooperating organization with Mount Diablo State Park. The purpose of the association is to carry out an astronomical interpretive program, assisted by volunteers from the Mount Diablo Astronomical Society. The observatory is mentioned in the Interpretive Element, page 81. The association will raise funds for the observatory, in cooperation with the department, oversee the construction of its principal instrument--a cassegrain reflector, and administer operation of the facility once it has been completed.

Volunteers

In addition to the two above-mentioned cooperative associations, many other volunteers form an integral part of the park work force. The Contra Costa County Sheriff Search & Rescue group provides horse and 4WD vehicle patrol of the park's 128 miles of fire roads and trails during the fire season, on a regular basis. The Contra Costa County Sheriff Reserves provide law enforcement help for foot patrols during the busy spring season. The Contra Costa County District Attorney Diversion Program provides several hundred hours of labor each year for litter pick up and trail maintenance. Athenian School, a local private high school, has adopted the Summit Trail, and provides 300-500 hours of labor yearly on trail restoration. The Mount Diablo Chapter of the Boy Scouts of America provides labor for troop conservation projects, and three to six scouts earn their Eagle Badges each year for special projects. College interns with California State University campuses including Hayward, Chico, and Humboldt have recently participated in special projects (such as ground squirrel control) benefitting the park. The Bicycle Trails Council of the East Bay has done surveys, installed trail signs, and educated mountain bicycle users on trail etiquette in the park.

The involvement and support of the Mount Diablo Interpretive Association, Save Mount Diablo, the Mount Diablo Observatory Association, and other volunteers help the park meet several objectives by increasing public awareness of park values and features, and developing ways to make those features and resources more accessible to the public. This public service is fully supported by the

district. To encourage volunteer effort, park and district staff shall work closely with individuals and their organizations to assist with training, and to provide the direction and supervision necessary to ensure efficient and effective interpretive programs and public service.

Resource Management

Mount Diablo State Park is rich in natural, cultural, and scenic resources. It has received the federal designation of "Registered Natural Landmark."

An active prescribed fire management program at Mount Diablo is the primary resource management program currently underway. The purpose of this program is to reintroduce fire to the ecology of Mount Diablo, for habitat improvement and perpetuation of native ecosystems. Another major objective is to reduce unnatural fuel accumulation created by the absence of fire during the past several decades.

Other active resource management programs occurring at Mount Diablo include exotic plant control and removal, erosion control, ground squirrel control, and preservation of cultural resources, primarily CCC artifacts and facilities.

During 1988, two new resource issues have surfaced, and must be addressed. Feral pigs are in the park, and their numbers and range may be increasing. Resource damage to the oak woodland/grasslands has become evident as a result. In addition, residents of the community report that coyotes are entering residential areas and killing domestic pets, and believe they may be a threat to children.

The department will evaluate reports concerning the issues of coyotes and feral pig damage to the park. If these reports document the existence of problems, the department will work with the California Department of Fish and Game to design a program that will alleviate the problems. If a program is prepared and implemented, it will be done in a manner that conforms with the laws and policies regulating such activities.

Wildfire Management

During 1987 and 1988, a wildfire management plan for Mount Diablo State Park was developed, as a cooperative effort between the Diablo District and other fire control agencies which have jurisdiction in the park (California Department of Forestry, Consolidated Fire District, San Ramon Fire District, East Diablo Fire District, Tassajara Fire District).

A major role of this plan is to define presuppression responsibilities and activities as a means of protecting parklands and the surrounding communities and properties. This plan is also to be a tool used to define how emergency wildfire suppression activities are to be coordinated.

The department will meet with all affected agencies and review the plan each year to evaluate its effectiveness, and make changes if necessary. Maintenance of this plan, as well as a good working relationship with the allied fire control agencies, is and will remain a key element of the district's management plan.

The wildfire management plan identifies, as the district's presuppression responsibility, maintenance and brushing of more than 100 miles of perimeter and burn compartment boundaries, and spraying and brushing of 27 miles of paved roads. In addition, fire breaks have to be cleared around 20 park buildings and several public use areas.

The department is currently implementing portions of the WMP over certain fire management compartments with existing staff and resources. After current grazing agreements have expired, livestock grazing will be discontinued in those areas of the park where the department has determined all necessary components of the WMP have been implemented.

It is the intent of the department to fund and implement the wildfire management plan (WMP) as soon as feasible. The department may choose to implement the wildfire management plan on a compartment-by-compartment basis. Compartments or portions selected for treatment should be chosen based on an evaluation of benefits provided, such as increased recreational benefits, protection of sensitive natural areas, reduction of critical fire hazards (where mechanical treatments are necessary), and treatment of areas in a cost-effective manner.

If adequate funding is not available to carry out the WMP in all areas before the grazing agreements have expired, consistent with the WMP, those areas where the WMP has not been implemented will continue to be grazed under lease agreements for a prescribed season and duration of time. Grazing agreements will not be extended once the WMP has been carried out in the areas identified in the agreements.

Grazing may be allowed for interpretive purposes as proposed in the Interpretive Element, if it can be found to be consistent with the Resource and Concessions Elements.

Operational Goals and Implementation

Mount Diablo State Park is noted for the richness of its vegetation, wildlife, cultural and historic features, and view from the top. It is the declared purpose of the department to provide protection, as appropriate and necessary, to maintain and perpetuate the value of these resources. As long as programs and events can continue to be conducted without compromise to perpetuation of park features, they should be encouraged by the district.

Public recreational use at the unit has included hiking, nature study, camping, picnicking, photography, painting, star-gazing, and other such compatible day-use and night-use activities. Park staff shall seek to identify improvements or ways to reasonably facilitate compatible general public recreational use, when and where appropriate at the park. Recreational activities sponsored by individuals, groups, or organizations may be considered by special event permit, and may be approved if the activities are not in conflict with the purpose of the park or state park rules, regulations, policies, or orders.

Maintenance

Facility maintenance and housekeeping shall be conducted in a manner appropriate to meet standards for public health and safety, to maintain public and departmental expectations for cleanliness and appearances, to meet

security requirements, and to extend the life span of facilities, tools, and equipment. Facilities and other structures identified as historically significant, or which lend to the historic sense of time and place, will be repaired and maintained using aged or similar materials to the extent practical.

Law Enforcement

A well-balanced enforcement program is maintained in an effort to ensure protection of all park visitors, facilities, and resources. The entire ranger staff, with the exception of the Mitchell Canyon ranger, work the main developed areas on the south peak. The majority of facilities, other than trails, are in this area, and receive the heaviest use. With this heavy use comes most of the enforcement problems.

The most common violations in the main use areas are alcohol consumption, speeding and reckless driving, and vandalism. Additional problems in the Mitchell Canyon area include off-road vehicle use, hunting/shooting, dumping/littering, drug and alcohol violations, dogs off leash or on trails, illegal camping, etc. Total citations written in the park for the past five years have increased from 258 in 1984 to 654 in 1987.

Beginning in 1987, consumption of alcohol was prohibited in the park. This was part of an effort to reduce the serious problems created by juveniles and young adults coming to the park to drink in groups. This action was undertaken when conventional enforcement measures failed. The result, after intense enforcement of this program, was a significant reduction in citations in 1988. Enforcement of the alcohol regulation should, and will, be maintained at all times to ensure public safety and enjoyment of the park.

Employee Housing

The General Plan has evaluated the issue of employee housing in the unit, consistent with department policy. Nine structures are now being used as employee housing (see page 145 for an evaluation of the structures). They are located at Mitchell Canyon (1), Macedo Ranch (1), the Rock City area (4), the South Gate Entrance Station (1), and near the Junction Intersection (2). In addition, there are three mobile trailer homes located in the Mitchell Canyon day-use area.

Three of the Rock City residences located in the park's main service area were built by the Civilian Conservation Corps during the 1930s and 1940s. The buildings are historically significant structures, and have been included in the proposed cultural preserve (see page 121).

There is a need to have an adequate number of law enforcement and maintenance staff in the park at all times to be available for emergencies or after-hours problems. Staff is responsible for the majority of law enforcement calls, receiving assistance from local law enforcement personnel only for major criminal activities or death cases.

Through a preliminary employee housing assessment, it was determined that no more than seven of the existing twelve residences may be needed to protect park resources and facilities, and to provide for the health and safety of visitors. These residences are located at: Macedo Ranch (1), the South Gate

Entrance Station (1), the service area near Rock City (1), the Arroyo day-use area (1), North Gate Road below the Junction Intersection (1), and Mitchell Canyon (2). In addition, one mobile trailer home could be moved from Mitchell Canyon to the new campground in the northeast portion of the park, when the campground is developed. Before the unit's housing assessment is completed, alternatives to employee housing such as call boxes, security fencing, camp hosts, etc., will be evaluated. If any of these alternatives prove feasible and provide the necessary level of service or protection desired, the number of employee housing units will be decreased accordingly.

As vacancies occur, the non-essential residences will be phased out as permanent residences, and will be considered for other compatible uses. Alternative uses of the five non-essential residences will be examined on a case-by-case basis as they become vacated.

Alternative uses could include: interpretation, public overnight use, operational uses, etc. If, after thorough study, alternative uses are not feasible and/or cost-effective, demolition will be considered. However, it is critical that structures in the service area near Rock City be retained, due to their historic significance.

The General Plan does not recommend any new employee housing. Any new housing contained in future acquisitions will be evaluated for retention, consistent with the department's policy.

Staffing

Implementation of the General Plan, with facilities development, resource management and protection programs, and interpretive programs and events, will correspondingly result in greater visitation and staff load. To meet the needs of the unit, further staff increases to the park are expected. The district superintendent shall recommend to the department appropriate increases in staffing, equipment, and operational expenses as may be required to fulfill operational responsibilities at Mount Diablo State Park.

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Land Use Element

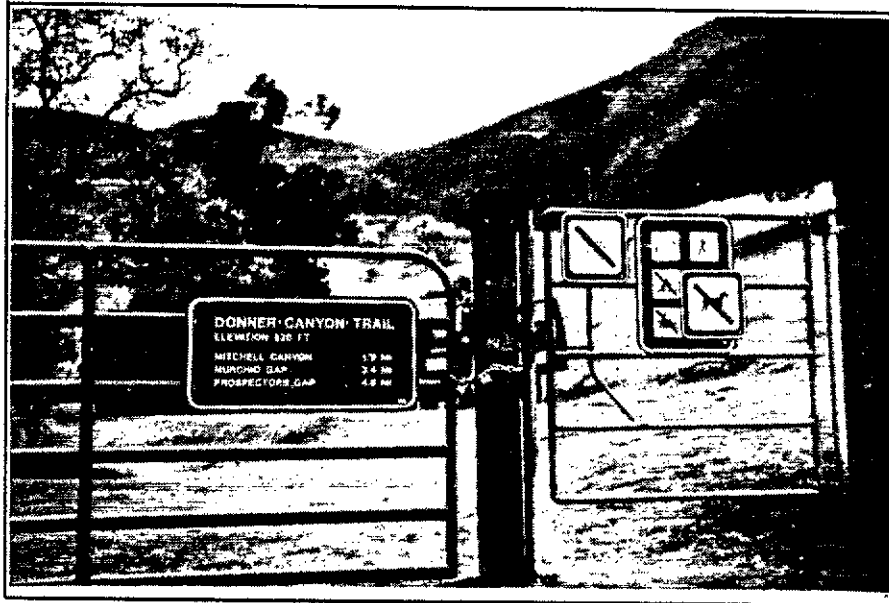
105	General Land Use Goals
106	Ecological Continuity
106	Quality Park Experiences
106	Diversified Park Experiences
106	Land Use Limitations
107	Allowable Use Intensity
107	Land Carrying Capacity
108	Existing Land Use Conditions and Assumptions
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113	<i>Trails and Access</i>
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115	<i>Mount Diablo Scenic Boulevard</i>
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120	Plan Concepts and Policies
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121	Transportation and Circulation
122	Appropriate Future Additions
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Horseback riding is a popular activity in the park.



Mitchell Canyon day use area is a popular trailhead for hikers, particularly during early spring when wildflowers are in bloom.



This trailhead to Donner Canyon and the northside of the park is popular for Clayton residents.



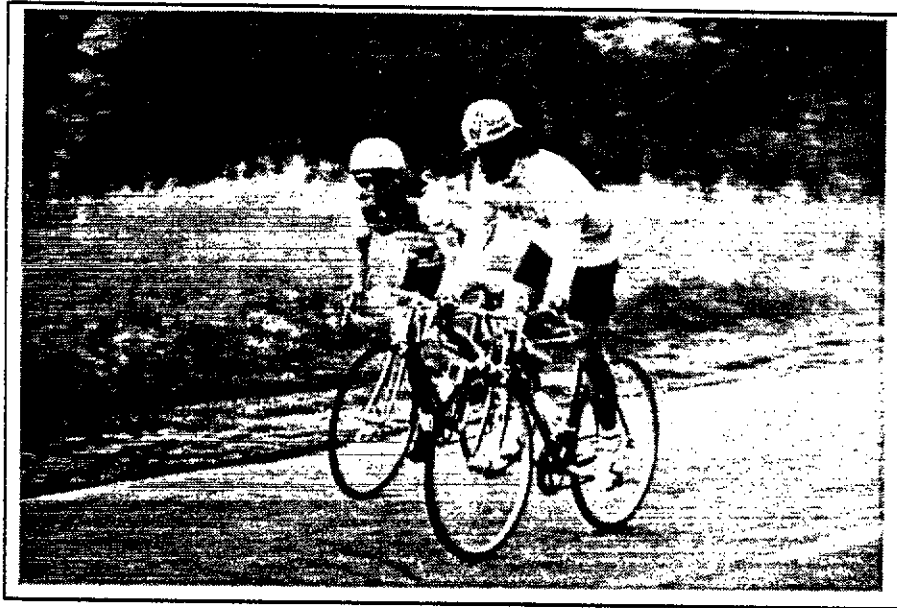
Additional perimeter parking and staging areas will provide more access points into the park and help alleviate some traffic on the park roads.



Small isolated picnic sites are among the most popular use areas in the park.



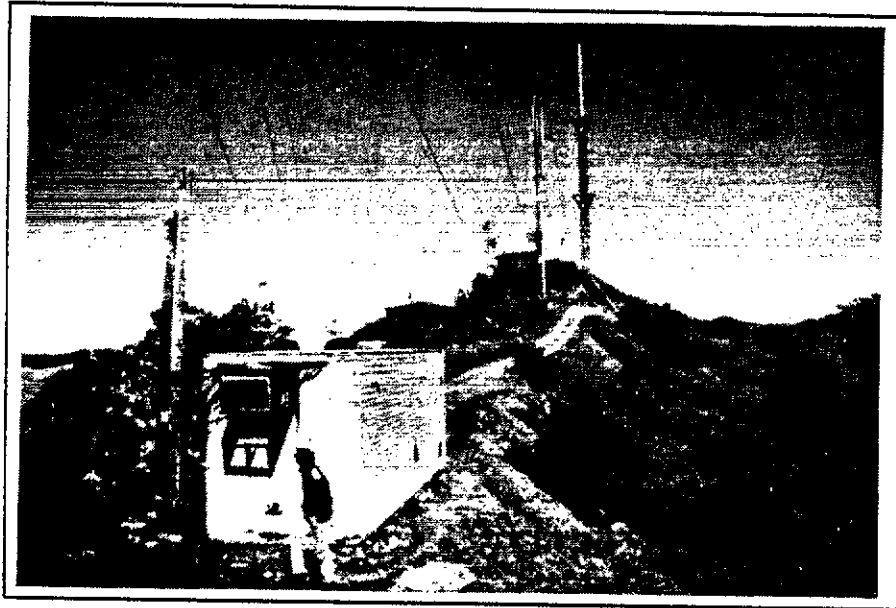
Fire roads are used by hikers, equestrians, bicyclists.



Bicycling on the park's roads is a popular and growing activity.



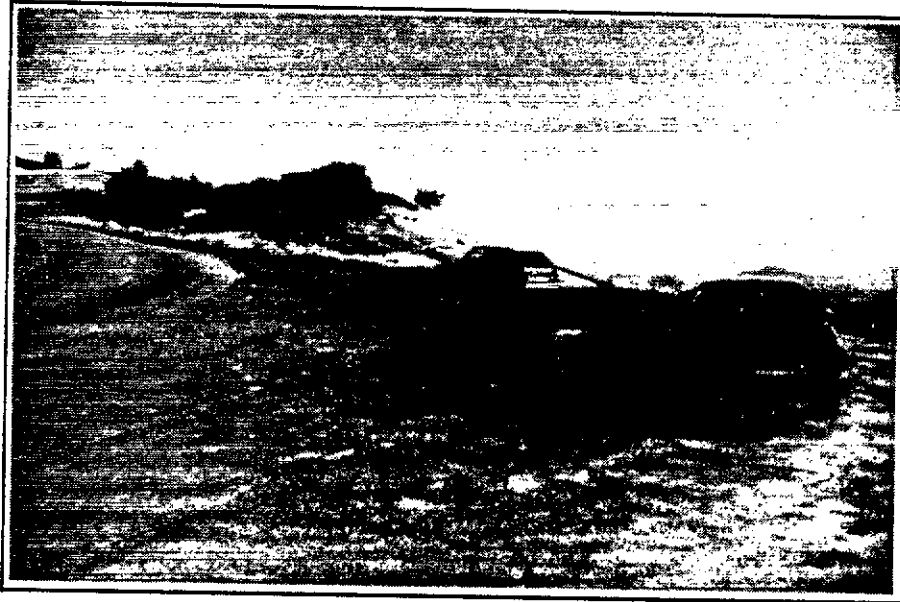
Hiking is one of the most popular activities in the park.



Telecommunication towers and equipment dominate North Peak.



The telecommunication equipment on North Peak detracts from the natural open space and wilderness feeling of the area.



Paving gravelled turnouts would provide parking and vista points and allow bicyclists on the ascent to turn out to let automobile traffic to pass.

LAND USE ELEMENT

The Department of Parks and Recreation carries the dual mission of protecting and preserving the resources of the State Park System and of providing recreation opportunities and facilities for the public through use of the State Park System. Establishment and classification of Mount Diablo as a state park recognizes the significant natural and cultural resources of the unit. These resources present diverse and high-quality recreational, interpretive, and educational opportunities for the public's enjoyment of the unit. The Land Use Element prescribes the best use of the land at Mount Diablo State Park for providing these opportunities, consistent with the programs and policies identified in the Resource Element for resource protection and perpetuation.

A land use plan defines the pattern for human activity in a given area. It establishes the character of a place by determining what happens, where it happens, and to what degree it happens. It defines routes of travel and use areas. It controls use and development, and arranges park activities and facilities so an optimum balance is obtained between visitors' enjoyment of the park and protection of park resources.

During the course of its development, the Land Use Plan takes into consideration the activities and facility needs identified by the various General Plan elements. For example, the Resource Element proposes the need to maintain the architectural and historic integrity of the Civilian Conservation Corps structures; the Interpretive Element speaks to facilities needed to implement and present interpretive themes and programs; the Operations Element identifies the need to develop certain administrative and maintenance facilities for adequately operating the park for public use; the Facilities Element recommends recreation facilities and activities based on existing needs and projected demands that were identified through the public involvement process, and from regional and statewide recreation planning information. How and where can these activities and facilities be accommodated? How can land uses be designated so as to protect resource values? The Land Use Element considers desirable and necessary land uses - undeveloped (natural and open space) and developed (interpretive, operations, recreation, and concession facilities) - and determines what uses are appropriate, and where. The Facilities Element then more specifically locates these facilities and activities within the appropriate land use zone or area.

General Land Use Goals

In setting land uses for the park, the following three general goals are important considerations which affect visitors' experiences:

1. Ecological continuity
2. Quality park experiences
3. Diversified park experiences

Ecological Continuity

Ecological continuity is set to guide appropriate land use decisions when altering the natural state. Ecological continuity means finding a new balance in which human activity is a part of the whole, in which natural ecosystems will continue to renew themselves.

Quality Park Experiences

In the objectives of the plan, "quality of park experience" is an important consideration for park visitors. For individual visitors, enjoyment of their own chosen interests will determine their satisfaction with the unit as a whole. For this reason, the selection, location, density, and intensity of recreation activities and visitor-serving facilities are critical.

Opportunities should be made available for people to enjoy individual outdoor experiences in the types of environment best suited to individual needs and values -- or, "the right thing in the right place," without the negative influences of undesirable activities.

Land use concepts directed toward attainment of quality experiences and protection of individual values include:

1. Separation of conflicting uses.
2. Enforcement of rules and regulations designed to maintain a high-quality experience for visitors.
3. Constant monitoring of activities and uses, and adjustments to land use patterns as may be necessary to gain maximum enjoyment of the resources for the greatest number of people, within the stated resource preservation objectives.

Diversified Park Experiences

Diversified park experiences is a major goal. Opportunities for recreation and park experiences need to be diverse, because people's values and needs vary greatly. A pleasant experience for one person may be something entirely different for another. Mount Diablo State Park should provide for the different needs and interests of people, to allow people to act freely in the park as long as the uses of the land remain compatible with each other, the resources, the environment, and the purposes of the park and the State Park System.

Land Use Limitations

Providing for human activity in the park in a manner that allows for perpetuation of resource values and the integrity of ecosystems involves setting limitations on how humans use the land; how many people can use an area (carrying capacity), and for what purpose (allowable use intensity). These two concepts are vital to preparation of the final Land Use Plan.

Park planners often use the concept of "carrying capacity" to refer to the number of people or the intensity of activities (allowable use intensity) that an area of land can support without losing its ability to renew itself. Managers and planners of park lands have come to realize that park lands and their associated resources also have inherent limitations with regard to the type and amount of public use they can endure without experiencing irreparable damage to resources.

How many people and what uses can be allowed at Mount Diablo State Park without compromising the integrity of the resources and the quality of visitors' experiences? This was one of the most complex questions asked in preparation of the General Plan. Essentially, the decision about carrying capacity, or number of visitors, is made by park planners based on professional experience, an analysis of existing activities, user characteristics, the regional recreation profile, and the determination of park goals, management objectives, and allowable use intensity.

Allowable Use Intensity

Allowable use intensity, which describes the intensity of activities, measures the capability of the natural and cultural resources of a site to withstand human use for a desired quality of recreation without suffering unacceptable and/or irreparable damage.

Refer to the Resource Element (pages 67-69) for a discussion of resource sensitivity and constraint factors, and how they help determine allowable use intensity and guide land-use planning decisions. The Resource Element also discusses allowable use intensity criteria by category ratings, and gives representative examples of appropriate activities and facilities.

Land Carrying Capacity

Based on allowable use intensities, the land carrying capacity for the park is set by surveying such features as soils, moisture, and natural cover, and examining the amount of existing visitor use, the capacity of existing facilities, and the desirable capacity of proposed new or improved facilities to provide additional use.

The location of access, parking, and facilities may be used to control the density and distribution of users. However, the number of parking spaces provided for vehicles is a major factor that determines carrying capacity and density of use. Although most visitors gain access to the park by motor vehicle, 25 percent now come by other means (foot, bicycle, or horse), with a projected increase to 30 percent by the year 2000. Since the carrying capacity must remain within the limits of allowable use intensity, it may need to be adjusted if allowable use intensities are adjusted. Also, cumulative and periodic effects on sensitive resources by people using lands in the vicinity of parking areas, other facilities, or natural attractions, may require limitations on public use in some areas during some seasons.

Existing facilities and activities at Mount Diablo State Park provided recreation opportunities for about 500,000 visitors in 1985-86. Use has continued to increase by 10-15 percent each year since the park was acquired. The term "instantaneous capacity" is used to indicate the maximum capacity of

- o Significant negative visual features which detract from the scenic qualities of the mountain include electric transmission towers and lines which traverse the park, telecommunication facilities and towers on both South Peak and North Peak, fire road cuts, the Diablo Mine, and the quarries of Mount Zion.
- o Other negative features which take away from the park's natural character are graffiti carved into the sandstone outcrops, erosion from livestock and road cuts, cattle fencing, livestock watering troughs, and fire roads.
- o Regional parks and open spaces are either adjacent to or in close proximity to Mount Diablo State Park.
- o The extensive trails, open space, and natural scenic qualities of the park offer solitude in the urban area.

Recreation Use

- o Visitation is about 500,000 persons a year, with a projected annual increase of 15%.
- o The projected growth of Contra Costa County in 2005 is about 911,000, or a 15% increase over present levels. Alameda County is expected to increase to 1.4 million in 2005, or a 10% increase over present levels.
- o The majority of the park users are from Contra Costa County, although other bay area counties make substantial use of the park.
- o The most popular visitor periods are spring and fall, with their mild temperatures, although occasional heavy winter use occurs following a snow storm on the mountain.
- o Day users represent about 90% of total park attendance.
- o Sightseeing from the top of South Peak is the most popular activity in the park.
- o Principal recreation activities include:

<ul style="list-style-type: none"> Sightseeing from the South Peak summit Hiking Horseback riding Bicycling Picnicking Camping Backpacking Nature study (including plant and animal study) Geology study Photography 	<ul style="list-style-type: none"> Hang gliding Special events Birdwatching Kite flying Jogging Living history program Astronomy
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- o Due to the fast growth of the county, there is increasing pressure to provide more campsites, day-use facilities, access points/trailheads, staging areas, and parking areas.

- o The Contra Costa Water District has purchased 2,500+ acres east of Morgan Territory Regional Preserve to develop a new reservoir to help meet the growing demands of the county. The estimated size of the proposed Los Vaqueros Dam and Reservoir is 19,000 acres. Recreational facilities including day-use facilities and hiking trails are proposed to be developed there.
- o All-terrain bicycling (ATB) is a popular and growing recreational activity. Advocates want access to the park's fire roads and trails.
- o A designation of wilderness would: 1) provide unique recreational opportunities for solitude and primitive and unconfined types of experience; 2) direct DPR to manage these areas to provide for public use and enjoyment, and to restore and preserve their wilderness character; 3) limit public use to non-mechanical and non-motorized forms of recreation and; 4) limit management to non-motorized methods except in emergencies involving public health and safety.

Resource Values

- o A designation of natural preserve would: 1) offer additional protections for significant unique natural resources; 2) provide for public recognition and appreciation of unique resource values; 3) direct DPR to manage these ecosystems for their scientific and educational values; and 4) prohibit roads and all facilities except trails.
- o A cultural preserve designation would: 1) limit the addition of new picnic/camping facilities and buildings in the area, 2) direct DPR to manage the area to provide suitable use and enjoyment, and to restore and preserve the historic integrity of the area, 3) not preclude addition of restrooms consistent with health and safety standards, and 4) not preclude development of adequate, centralized parking to control access and protect resources.

Physical Factors

- o More than 5 million people live within a one-hour drive of Mount Diablo State Park.
- o The total acreage of the park is more than 18,000 acres.
- o Summers are hot and dry; winters are cool and moist.
- o The upper elevations, particularly the Summit and North Peak, can experience high winds year-round.
- o Coldest temperatures occur from December through March. Warmest temperatures are from June through September.
- o The park is located in central Contra Costa County, about 4 miles east of Walnut Creek.
- o Prominent topographic features are Mount Diablo (3,849 feet), North Peak (3,557 feet), Mount Olympia (2,946 feet), Eagle Peak (2,369 feet), and Bald Ridge (2,645 feet).

- o Mount Diablo is the highest point within 40 miles, and has served as a landmark for centuries.
- o Mount Diablo offers 360-degree views, and on clear days, visitors can see 35 counties and 200 miles. However, due to increasingly poor air quality, clear viewing days are being reduced.
- o About 60% of the park has slopes of more than 50%. Most of the upper elevation flat land has been developed for recreational use, making for a very limited amount of remaining level, developable ground.
- o Springs and waterways are important park features that have natural, esthetic, and recreational values, although streams are mostly intermittent.
- o The Mount Diablo Mine, located in an inholding near the northeast corner of the unit, is a source of toxic pollution in the creek that runs through the park.
- o Grassland and grass understory cover about 10,000 acres of the park.
- o The large areas of oak woodland and forest provide shade during the extreme summer temperatures.
- o The remaining standing structures, campgrounds, and camp furnishings, culverts, and retaining walls built by the CCC during the 1930s are significant examples of National Park Service "rustic architecture."
- o The Summit Building is the park's largest and most significant CCC structure.
- o The Diablo Ranch and the Turtle Rock Ranch are private inholdings within park boundaries.
- o Mount Diablo is one of the few Bay Area peaks that receive a yearly dusting of snow.

Telecommunication Towers

- o In 1985, the legislature allocated funding to provide for a study of all existing communication equipment on Mount Diablo's North and South Peaks, including future estimated needs. The study will include technological, legal, architectural, and other means of reducing by consolidation the impact of telecommunication facilities to the resources and recreational values of Mount Diablo State Park. A complete inventory of all facilities and conceptual consolidation schemes solicited from telecommunication experts throughout the country have been completed.

Transportation and Circulation

- o Origin of Mount Diablo Visitors
 - For day use, about 60% of the visitors come from Contra Costa County and most other visitors come from other parts of the Bay Area.

- For camping, about 50% of the visitors come from Contra Costa County, and another 35% come from the rest of the Bay Area.
- Mount Diablo State Park is within a one-hour travel time of the San Francisco metropolitan area.
- o Means of travel to Mount Diablo State Park
 - Most people arrive by motor vehicle.
 - Some people walk, jog, bicycle, or ride horses to the park.
 - There are regional trail access points that connect the park to Danville, Alamo, Walnut Creek, Concord, Clayton, and the EBRPD Morgan Territory preserve.
- o Routes of Vehicle Access to Mount Diablo State Park
 - The major vehicle access to Mount Diablo State Park is via Interstate 680. Ygnacio Valley Road is the primary arterial road to North Gate Road. Diablo Road/Blackhawk Road to Mount Diablo Scenic Boulevard is the primary route to South Gate Road.
 - Vehicular access to the park is by North Gate Road, South Gate Road, Mitchell Canyon, and Macedo Ranch.
 - Clayton Road is the primary access road to the northeast side of the mountain.
 - Mount Diablo Scenic Boulevard is privately owned by the Diablo homeowners; the state has had a public use easement for this road since 1931.
- o Means of travel at Mount Diablo State Park
 - For some visitors, traveling in the unit is the most valued part of their recreation experience; these visitors may drive, ride horses, bicycle, or walk.
 - Currently, there are no state-provided transportation services such as trams or shuttles.

Planning Issues and Alternatives

An analysis of existing conditions and the results of a user survey distributed at the park allowed us to identify many problems and recreation planning issues at Mount Diablo State Park. The diverse concerns expressed in letters, interviews, user surveys, and the first four public workshops resulted in development of a series of recreation alternatives.

The alternatives were presented and discussed at our fourth public workshop. Participants were divided into small groups, and were instructed to evaluate alternative proposals. They were asked to select alternatives within specific categories (upon which the group could agree) that resolved the issues concerning them. This group effort was later presented to the entire workshop

audience. The many group plans served as important tools in helping the planning team assess the major issues, the areas of consensus, and the various trade-offs that would have to be reconciled in development of a final plan.

Individuals who were unable to attend were asked to send their comments by mail. All comments were reviewed carefully, with special attention to the modified plans prepared and negotiated by work groups at the public workshop, in order to develop a single plan that the planning team considered to be the best one for providing for public use of the park while protecting the resources.

An update of what occurred at the fourth workshop and highlights of the single plan developed from the Land Use Element and Facilities Element were summarized in newsletter #7 (see Appendix, p. 201).

Public evaluation of the alternatives identified the following significant issues and areas of general agreement:

Significant Public Issues

Trails and Access

- o The trails are not clearly marked as to destination and distance.
- o Horseback riders, hikers, and all-terrain bicyclists have conflicts on park roads and trails.
- o Trails are inadequately maintained.
- o Fire roads, which are also used as riding and hiking trails, have been excessively widened. This has caused vegetation and soil loss.
- o Local government planners have stressed the need for more access points, staging facilities, and parking areas on the periphery of the park.
- o The lack of trailheads, staging areas, and parking facilities throughout the park restricts public access to open space and trails.

Day Use Facilities

- o Facilities are constantly subject to vandalism.
- o Some facilities are outdated, and some are possibly hazardous to public health and safety.
- o Interpretive facilities are inadequate to serve visitor needs. The existing facilities, signs, etc., are in need of updating and rehabilitation.
- o There is not much room to expand facilities. There is a limited amount of level, buildable ground on the mountain.
- o During peak visitor days (i.e., after a snowfall), there are not enough parking spaces to accommodate all visitors.

- o The many small picnic nooks pose maintenance problems, although users prefer this type of layout for privacy and seclusion.

Camping Facilities

- o The Civilian Conservation Corps (CCC)-built stoves, tables, benches, etc., blend beautifully with the park's natural setting, and are much more attractive than modern, contemporary pieces. The furniture, however, is costly to restore and susceptible to vandalism, and many people do not know how to correctly use the stoves.

Telecommunication Facilities

- o The towers and its facilities conflict with public use and obstruct views from the summit area.
- o The state facility occupies an important location and obstructs views to the west from the Summit Building.

Special-Interest Activities

- o There is growing pressure from mountain bicyclists to use all of the park's fire roads and trails. Some fire roads are now open for mountain bike use. There is substantial opposition from hikers, equestrians, and environmentalists to opening all the fire roads to mountain bicyclists.
- o "Road" bicyclists want to be able to continue to use the park as they currently are despite some people who feel that they are a traffic hazard.
- o Hang-gliders want to continue to use the park. Authorized use requires a permit signed by the district superintendent, and liability insurance.

Roads

- o The park roads are minimally maintained, and are deteriorating. Numerous cracks exist throughout the roadways because there is no road base, and the roads' drainage systems need repair. Repaving the surfaces is only a temporary measure.
- o The roads' condition may pose a risk to motor vehicles and bicyclists.
- o Motorists are a hazard to some bicyclists who do not know how to deal with motorists on a narrow road.
- o The narrow, twisty, and steep roads can cause very slow driving for recreational "camper vehicles" and other large motor vehicles.
- o There is a conflict between slower "sightseeing" traffic and fast-moving motorists.
- o There are few areas along the main roads to legally pull over and enjoy the vistas, or to let faster traffic pass.

- o Significant widening of roads will create major new road cut and fill scars.
- o During busy days at the upper summit parking lot, the auto congestion disturbs the scenic experience for many people.

Mount Diablo Scenic Boulevard

- o The Diablo homeowners who own Mount Diablo Scenic Boulevard are very concerned with liability due to park-generated traffic.
- o The road is minimally maintained.
- o The road does not meet county design standards.
- o There are sight distance problems at the Blackhawk Road and Mount Diablo Scenic Boulevard intersection.

Operations and Concessions

- o Contra Costa County is one of the fastest-growing areas in California. This is putting growing demand on the park, its resources, and its facilities.
- o It is difficult for existing staff to adequately maintain the park.
- o It is difficult for staff to devote adequate time for both ranger enforcement and interpretive/resource management.
- o There are nine park residences, two park offices, and maintenance facilities that may conflict with public use.

Interpretation

- o Interpretive programs reach only a small portion of park visitors.
- o There is need to coordinate interpretive programs with other local agencies (e.g., the East Bay Regional Park District, Walnut Creek Open Space District, and Contra Costa County).
- o Many people feel that the existing Diablo Ranch interpretive concession is controversial, primarily because it affects a much larger portion of the park than is needed to adequately interpret ranching methods. It is currently supported by about 600 cattle grazing 7,500 acres, or 80% of the park's grasslands.
- o The current level of commitment to grazing prevents the department from accomplishing its primary resource management objectives. The department is directed by the Public Resources Code to "restore, protect, and maintain native environmental complexes." This management direction generally precludes livestock grazing in state parks.

- o One of the primary conflicts with the ranching demonstration program is that it commits more than 80% of the park's grasslands, 66% of the oak woodlands, 44% of the oak forests, and 94% of the riparian woodlands to livestock grazing.
- o The present interpretive grazing program limits the public's education to current cattle ranching practices. Although ranching interpretation is a part of the total park program, it is secondary to the park's primary purpose of preserving the unique natural and scenic values of the mountain.

Wilderness or Natural Preserves Designation

- o Establishment of one or more state wilderness areas has been considered. However, such a designation would conflict with the approved Wildfire Management Plan, and its requirement to use mechanized equipment to implement the plan.
- o Designation of natural preserves may be merited. However, many areas of the mountain have distinct natural significance, and it may be impractical to encompass all of these scattered, unique natural areas as manageable units.

Cultural Preserve Designation

- o Designation of a cultural preserve from Rock City to the Wildcat Group Camp would preclude development of any new picnic and/or camping facilities in the area.

Appropriate Future Additions

- o There are undeveloped parcels available for large-scale acquisition primarily to the southeast of the park to protect viewsheds, complete geographic units, and help meet growing recreational needs. However, there are parcels available around the entire perimeter of the park that could help accomplish the same goals.
- o Parcels in the Curry Canyon area would be excellent additions for needed day-use and camping facilities. However, there appear to be no willing sellers at this time.
- o The East Bay Regional Park District (EBRPD) staff has asked that acquisition be continued in the Black Hills area, to connect Mount Diablo State Park to its Morgan Territory Regional Preserve.
- o There are a number of private inholdings in the park that conflict with public use of the park.
- o The Contra Costa Water District has purchased property east of the Morgan Territory Regional Preserve to develop a proposed reservoir and recreation area. A trail connection with Mount Diablo State Park could provide a significant trail network.

Areas of General Agreement

- Mount Diablo State Park is environmentally sensitive, and should not be damaged by overdevelopment.
- The natural and quiet character of the landscape is an important recreation value.
- Recreation uses and facilities that are not damaging to existing environmental values are appropriate, such as hiking trails, interpretive facilities, and overlooks.
- Restoration of the Civilian Conservation Corps-built facilities, including the Summit Building, to bring them up to standard for interpretation and public use justified by the historic importance, is important.
- Certain uses and activities (picnicking, camping) can be appropriate with adequate location, design, and control.
- The existing trail system needs improvement. A comprehensive trail plan is needed.
- Adequate staffing will be needed to accompany new development in order to ensure public safety and park cleanliness, proper management and maintenance, and interpretation and protection of resources.
- Cooperate with the East Bay Regional Park District (EBRPD) to develop a trail corridor to the Morgan Territory Regional Preserve.
- Rehabilitate and restore existing facilities where needed.
- Organize the existing lower summit parking lot to provide for efficient use of space. This is particularly important during peak visitor days, when parking spaces are extremely limited.
- Coordinate interpretive programs and resources with surrounding local agencies.
- Seek an agreement to have the Diablo Homeowners Association and the Athenian School dedicate Mount Diablo Scenic Boulevard to the county.

Land Use Objectives

Land use objectives were set following the first four public meetings in which public issues and concerns were identified and alternative plans discussed. Based on existing conditions, assumptions, and resource protection laws and guidelines, the land use objectives outline measurable ways of reaching the land use goals previously identified; i.e., ecological integrity, quality, and diversified park experiences.

Recreation

- o Provide opportunities for park visitors to learn about and enjoy Mount Diablo's unique natural, cultural, and scenic resources.
- o Spread the recreational development and activities throughout the park primarily to the lower elevations to avoid adversely affecting any one area, and to raise the park's accessibility and visitor capacity.
- o Meet appropriate and diverse recreational needs.
 - a. Minimize conflicts between recreational users.
 - b. Promote safety through facility design.
 - c. Promote day-use and overnight activities.
 - d. Provide handicapped access and facilities where practical.
- o Plan facilities and programs to tie into nearby local recreation areas and trails.
- o Develop a comprehensive trail plan to include recommendations for standards, reconstruction, relocation, establishment of new trails, and abandonment of duplicate or trails over environmentally sensitive areas. The Mount Diablo Interpretive Association should be part of the trail committee.

Interpretation

- o Develop facilities, programs, and appropriate media consistent with the park's purpose, people's interests, and the relative importance of the resources.
- o Make programs and facilities accessible by handicapped individuals where appropriate and practical.

Land Management

- o Preserve significant natural and cultural resources.
- o Preserve recreational, scenic, and natural resources while making them available, as appropriate, for public enjoyment.
- o Implement the wildfire management plan consistent with public safety and sound park management, and cooperate with local fire chiefs. The Mount Diablo State Park Wildfire Management Plan, which was approved by the Contra Costa County Board of Supervisors, and signed by all of the local fire chiefs, provides better fire protection and control than the current situation.
- o Acquire identified properties, including inholdings that become available, to protect state park values, and to tie into nearby local and regional open spaces, recreation areas, and trails (see map 5).

- o A livestock grazing management plan to be prepared by the department shall be completed prior to entering into any future grazing leases or agreements, including extensions or renewals. For more information, see the Resource Element, pages 60 to 62.
- o Minimize the visual impacts of telecommunication towers, power lines, roads, firebreaks, and other unnatural elements or improvements.
- o The following is a summary of objectives to accomplish the goal of consolidating the telecommunication towers and facilities in the park:
 1. Take a stronger role in encouraging the consolidation or removal of the communications towers in the park.
 2. Will not further restrict public use and access.
 3. Must be safe for public use.
 4. Should improve the visual aspects of the mountain, both at the summit and from below.
 5. Must address the impact of additional traffic as a result of consolidation.
 6. Must not affect the historic Summit Building.
 7. Since the state has no funding for this project, all costs must be absorbed by the successful bidder.
 8. Must be able to accommodate reasonable future expansion and growth.
 9. Must provide continuous service during implementation and with no interference with transmissions at project completion.

Transportation

- o Balance the transportation requirements with the need to preserve the resources visitors have come to see and enjoy.
- o Provide a balance between the number of park accesses and the ability of staff to monitor and properly operate them.
- o Limit road facilities to those which serve the park. There will be no through roads.
- o Develop no significant new park roads.

Operations

- o Provide needed public and operational utilities and facilities while minimizing their impacts on the resources and on public use.
- o Seek adequate staffing levels to meet future needs.

Plan Concepts and Directives

General Land Use

Increase recreation opportunities and enhance visitor experiences:

- o Recreation activities are to continue to be low-to-medium-intensity in use areas.
- o Existing facilities and areas are to be rehabilitated or restored, made more efficient, and upgraded to better accommodate and encourage recreation use.
- o Day-use and overnight facilities will be increased.

Disperse recreation use and development around the mountain:

- o Attract visitors to appropriate low-use areas by improving the areas and providing needed facilities.
- o Provide more park access points by developing strategically located staging areas and parking areas.
- o Provide a new public access point along Finley Road by acquiring appropriate properties and developing needed facilities such as a controlled entrance, a parking area, and a trailhead at the park boundary.
- o Develop new recreation use areas:
 - o Acquire parcels or easements along Curry Canyon Road to provide public access to the east side of the mountain for future day-use and camping.
 - An interpretive area at Macedo Ranch
 - A campground for the disabled (also available for general park use), to be located in Riggs Canyon in the southeast section of the park.
 - A lower-elevation campground in the northeast section of the park.
 - New access points in and around the perimeter of the park.
 - Revitalization of Pine Pond to create a more attractive water feature.

Preserve the character and natural beauty of the Mount Diablo landscape:

- o Maximize open space.
 - Designate "open space zones" where no development can occur, and the area can maintain or revert back to a natural state. Regular operations and maintenance can still take place (see map 6).
 - Maintain the undeveloped, "wild" character of the areas surrounding and between Eagle Peak and North Peak.
 - Land use on steep, narrow canyons should be generally undeveloped and "wild."

- Establishment of a designated state wilderness should be evaluated annually, and when wilderness opportunities and other management objectives become compatible, the department shall propose establishment of one or more state wildernesses in Mount Diablo State Park.
- Under present conditions, establishment of a natural preserve in the state park is not recommended at this time. Sensitive plant resources shall be managed for their perpetuation in accordance with the applicable laws, the policies, and the allowable use intensity designations.
- Restrict new development to appropriate areas near existing roads (except for trail access only).
- Locate new development adjacent to existing development or along margins of scenic or open areas where existing vegetation, landforms, or screening will minimize visual impacts.
- Substantially reduce livestock grazing to that minimally needed to provide cattle-handling demonstrations (but not more than 1,000 acres). Note: Grazing will not be removed until the wildfire management plan is implemented.
- o Designate a cultural preserve from Rock City to the Wildcat Group Camp to preserve the historic integrity of the Civilian Conservation Corps-built facilities.
- o Complete a long-range telecommunication plan that addresses the esthetic, resource, and public use problems the existing facilities present.

Transportation and Circulation

Encourage non-automobile transportation to and within the park:

- o Improve, maintain, and sign the hiking and riding trail system.
- o Encourage local transit systems (no large buses) to provide scheduling to the park when economically feasible.
- o Encourage local government agencies to plan and implement hiking and bicycle trail systems connecting to the park.
- o Develop new park trails where possible to connect park use areas, and make trails accessible to handicapped individuals where feasible.
- o Paved and unpaved roads, unless otherwise posted, are open, and trails are closed to bicycles. Unpaved roads may be closed and trails opened on a written order by the district superintendent, approved by the regional director, that specifically considers criteria which reflect the safety of all users and potential impacts to park resources and values.

- o As an alternative to driving, provide a small shuttle service from the North Gate and South Gate entrances of the mountain up to the summit during peak use times -- at such time as service of this nature is determined to be economically feasible.

- o No motorized off-highway vehicle use will be permitted in the park.

Emphasize low-impact/esthetic design criteria for new roads and utilities:

- o Design and site roads for minimum environmental impact and visibility.
- o Use sensitive road grading and rounded and revegetated cut and fill slopes.
- o Consolidate and/or esthetically improve telecommunication towers and equipment where feasible and cost-effective to minimize their visibility.
- o Locate utility lines out of view (underground where feasible).

Balance recreational use with resource and facility capacities:

- o Do not develop major new facilities along North Gate, South Gate, and Summit Roads.

Protect the safety of automobile users and other road users:

- o Rehabilitate all paved park roads.
- o Pave selected turnouts (for use by motorists and bicyclists) to allow traffic to pass safely, and, where feasible, for parking at vista points.
- o Provide general signage at both park entrances to notify motorists of speed limits, bicyclists, and road conditions.

Mitigate the problems associated with the public easement along Mount Diablo Scenic Boulevard:

- o Rehabilitate the road to acceptable county standards through a joint funding effort with the homeowners, the Athenian School, the state, and Contra Costa County. Seek an agreement to have the Diablo Homeowners Association and the Athenian School dedicate Mount Diablo Scenic Boulevard to the county. A yearly county maintenance program could then be established for the road.

Appropriate Future Additions

The lands mentioned in this discussion and shown on the Appropriate Future Additions Map (see map 5) are currently outside state park ownership, and represent potential long-range additions to the park. Many of these properties are currently being used to preserve open space, which is a compatible adjacent use. Should property in these areas become available for purchase by the state, or if conditions change which would seriously threaten park values, management or acquisition by the state should be considered.

These recommendations were prepared for long-range planning purposes only, and do not imply a land acquisition commitment.

o Northwest Parcels

Addition of these remaining large-scale parcels of undeveloped open space to the northwest of the park would serve the following purposes:

- o Be contiguous to the following local open space areas:
 - Diablo Foothills Regional Park (East Bay Regional Park District)
 - Shell Ridge Recreation Area (Walnut Creek)
 - Lime Ridge Recreation Area (Walnut Creek and Concord)
- o Complete viewsheds.
- o Complete a geographic unit for this portion of the park.
- o Offer potential day use and overnight facility development.
- o Connect and complete an extensive hiking and riding trail network from the local open spaces of Walnut Creek, Concord, and Clayton into Mount Diablo State Park.
- o Prevent the occurrence of non-compatible adjacent use that may change the resource values on this side of the park.

o Northeast Parcels

Addition of these parcels would provide improved trail access to the park, and have the potential for needed perimeter day-use and overnight facility development.

o South and Southeast Parcels

A zone of acquisition interest in this area was identified under the California Wildlife, Coastal, and Parkland Conservation Act of 1988 (Proposition 70). Properties were located in Curry Canyon and Riggs Canyon. Funded acquisition is identified in the Appropriate Future Additions Map (see map 5).

Addition of these lands would provide for:

- o Needed public vehicular access, since none exists on this side of the park.
 - o Potential day use and overnight facility development.
 - o New trail access points.
 - o Protection of a major watershed and viewshed.
 - o Morgan Territory Preserve (EBRPD) to be contiguous to the park, and would provide an important opportunity for park visitors to hike, bike, or horseback ride between Mount Diablo State Park and the preserve, and to experience the unique features of both areas.
- o Inholdings

Acquire inholdings as they become available. These acquisitions would provide for:

- o Potential developable areas for needed day-use areas and facilities.
 - o Resource protection and/or restoration.
 - o Remove any conflict between private and public use.
- o Open Space Dedications

Work with Contra Costa County and other local agencies to evaluate and study the feasibility of acquiring future open space dedications in appropriate areas; e.g., Black Hills, Anthenian Schook, Blackhawk, and to examine dedications from future developments in Walnut Creek, Danville, San Ramon Valley, and other areas as suitable additions to the park.

By working with these organizations, dedications would provide for:

- o Acquisition of compatible open space.
- o Resource protection.
- o Development of new parking and staging areas, and trailheads, where feasible; i.e., to the west of the North Gate entrance station.

Proposed Land Use Zones

The Land Use Plan (Map 6) shows the proposed uses for various areas. In designating uses for particular areas, planners worked within the limitations imposed by allowable use intensities and normal cost factors, as well as with the need to consider existing land uses and activities.

Mount Diablo State Park can provide the following basic land uses: developed day use, developed overnight use, interpretive use, operations use, natural or open space, seasonal concession use, and a consolidated telecommunication site.

The following are the identified land use areas:

Interpretive Use

Natural resource interpretation will occur in selected areas throughout the park, with detailed exhibits housed in the Summit Building. Interpretive ranching, which is now located in the privately owned Diablo Ranch, should be located at the Macedo Ranch area in the future.

The department proposes to establish an interpretive ranch on park land to support 100 cows, plus their calves. This would be located on 600 to 1,000 acres in the Macedo Ranch area. This herd and ranch will help interpret the area's ranching heritage, and will preserve public access to live cattle-handling demonstrations. (See the Interpretive Element, pages 81 to 83, for more details.

Open Space/Undeveloped

Open space includes those areas of the highest natural resource significance and scenic value. Only low-intensity recreation may take place, and there will be no developed facilities except trails.

Developed Day Use

Existing developed day-use areas will be restored and rehabilitated throughout the park. New parking and staging areas will be developed in and around the perimeter of the park.

Operations Use

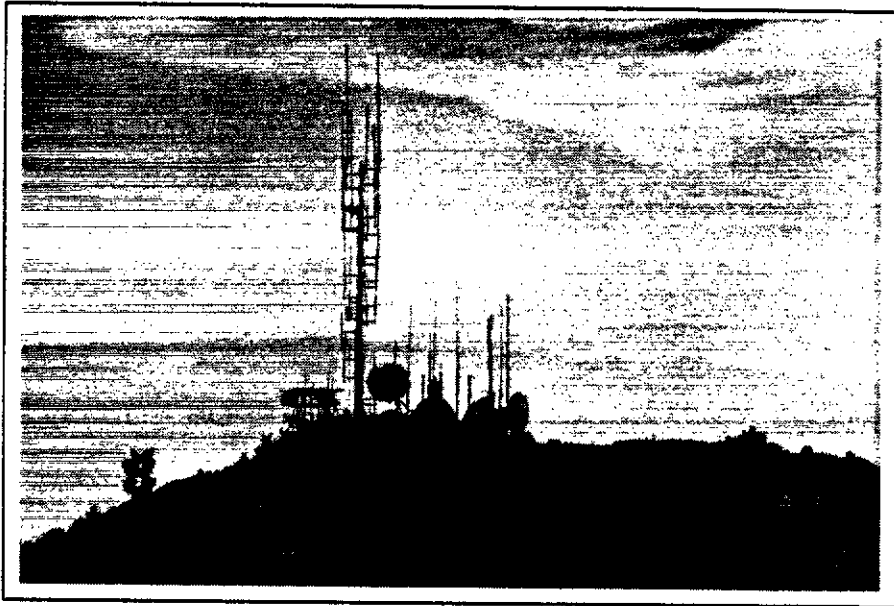
Operations areas include administration, maintenance, and service areas needed to provide support for park operations. Included are staff residences, equipment storage, park offices, etc. (Administrative offices and small storage areas may also be located in recreational or interpretive facilities. For a discussion of employee residences, see the Operations Element, page 101.)

Developed Overnight Use

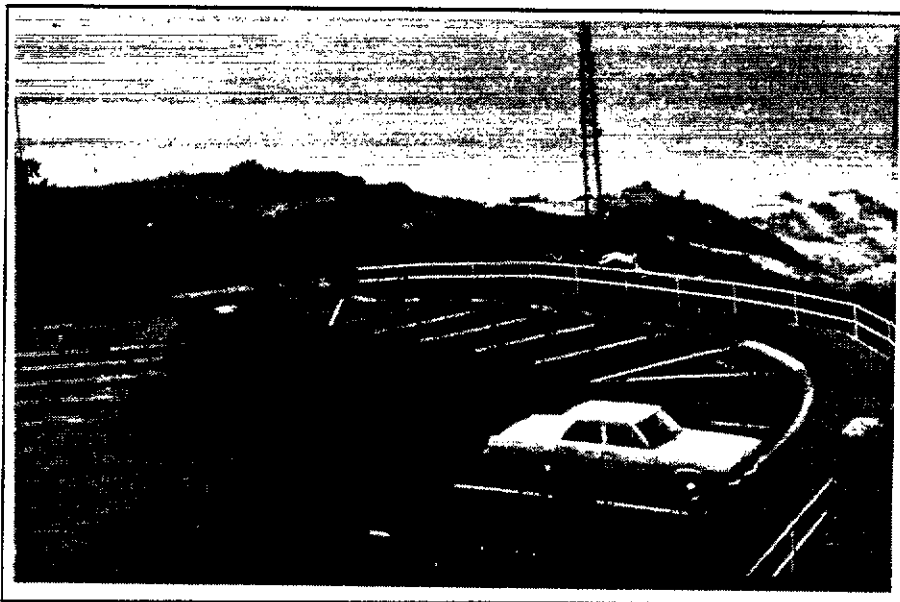
Existing developed camping areas will be rehabilitated throughout the park. A perimeter camping area will be provided, as well as a camp for the disabled.

Facilities Element

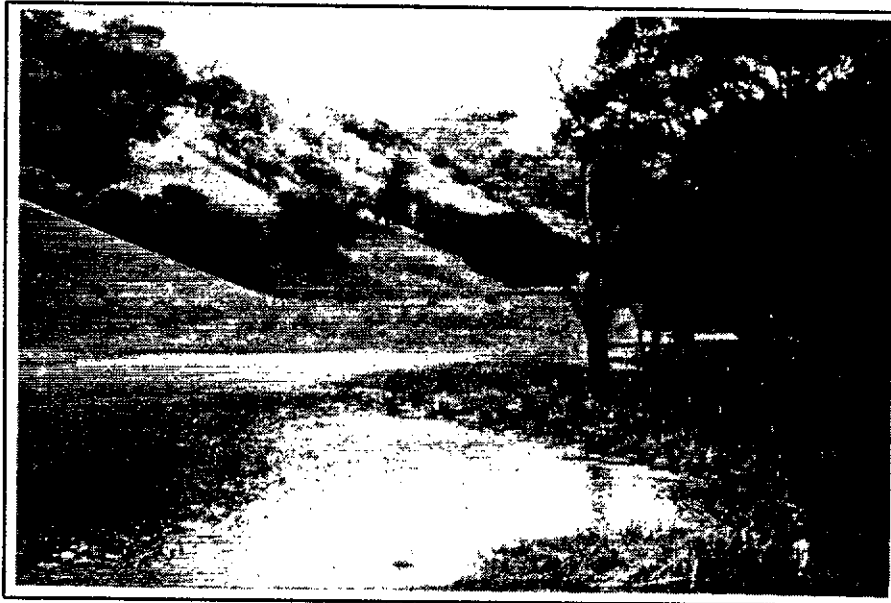
129	Facilities by Area
129	Summit Area of South Peak
129	<i>Recommendations</i>
130	Recreation Areas Along Summit Road
131	<i>Recommendations</i>
132	Recreation Areas Along South Gate Road
133	<i>Recommendations</i>
135	Recreation Areas Along North Gate Road
136	<i>Recommendations</i>
137	Perimeter Recreation Areas
138	<i>Recommendations</i>
141	Architectural Design Standards
141	Utility Concerns
142	Priorities for Development
144	Table A Facilities Inventory
145	Table B Park Staff Structures



The State's telecommunication towers and equipment detract from the view to the west. Consolidation with another facility would remove the visual problem and allow the area to be opened up for public use.



The redesign of the Summit parking lot proposes to: eliminate the broad expanse of asphalt, reduce the number of parking spaces from 35 to 20, landscape the area with native plants to enhance the entry to the Summit Building, and provide wood benches.



Pine Pond is proposed to be an important day use area and destination point for hikers, equestrians, and bicyclists.



This site, below the privately owned Mount Diablo Mines and just off Morgan Territory Road, is proposed as a major parking and staging area and trailhead. No trailhead with parking currently exists on this side of the park.



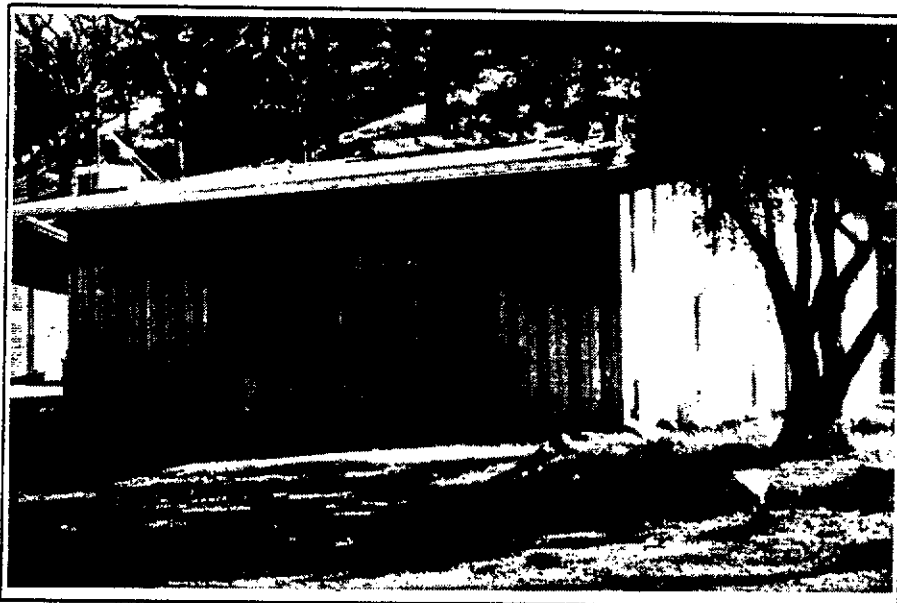
This site in Riggs Canyon is proposed for the development of a handicapped campground.



The proposed site for a new perimeter campground in the northeast corner of the park.



Park roads are minimally maintained and are deteriorating.



This office building, in the Mitchell Canyon day use area, is proposed to be converted to a seasonal visitor center operated by volunteers.

FACILITIES ELEMENT

The Facilities Element identifies existing facilities and recommends improvement or development of new facilities at Mount Diablo State Park. Architectural design concepts, utility concerns, and priorities for development are also discussed.

Various recreational and other facilities are necessary for optimum public access, use, and enjoyment of the unit. Roads, trails, campsites, restrooms, and parking areas are typical of the many types of public-use facilities to be provided. Maintenance yards, utilities, and administrative offices are examples of the other facilities needed for operation and maintenance of the park. (The Glossary of Terms, Appendix B, may be useful for definition of various types of facilities.)

Facilities by Area

Summit Area of South Peak

Located at the highest point of South Peak, the Summit Building, built in 1939-1942 by the Civilian Conservation Corps (CCC), is the major attraction for most park visitors.

Recreation facilities include an interpretive museum, a viewing platform atop the building, a fire interpretive trail, and parking for 185 vehicles (35 - upper lot, 150 - lower lot).

- The area receives heavy use throughout the year, particularly during clear visibility days and after snow storms. The summit has no day-use facilities. The Summit Building is deteriorating, and the interior is not usable. Restrooms are inadequate. Parking spaces at the lower lot are not striped. There are few interpretive signs and displays, and the building is not weather-tight.

There is potential to significantly upgrade and expand existing uses.

Recommendations

Under the principles and guidelines established (page 141), enhance/upgrade existing facilities:

1. Summit Building - Continue to implement plans to establish a visitor center/museum.
2. Upper summit lot - Reduce parking at the upper lot from 35 cars to 20. This would provide space to develop day-use facilities for benches, native trees, and a more defined landscaped entry to the historic Summit Building. Upgrade restroom facilities.
2. Lower summit lot - Repave and organize all parking spaces to more efficiently use space and improve traffic circulation. This is critical during peak use days, when traffic is extremely heavy and parking is limited. Upgrade the restroom.

New Additions:

1. Provide six to ten benches in the southern portion of the previously paved parking area of the upper lot;
2. Provide displays to interpret natural, cultural, and scenic values;
3. Provide a seasonal food and drink concession at the lower summit parking lot.

Recreation Areas Along Summit Road

Campgrounds

1. Juniper
2. Pioneer Horse Camp

Day-Use Areas

1. Muir
2. Laurel Dell
3. Diablo Valley Overlook
4. Grapevine
5. Oak Knoll
6. Blue Oak
7. Toyon
8. Round Top
9. The Pines
10. Rocky Point
11. Lookout Point
12. Livermore Valley Overlook
13. Sunset
14. Canyon Nook
15. Junction

Operation Areas

1. Residence #11 - above Sunset adjacent to Summit Trail (See Table B)

Summit Road, between the Junction Park Office and the Summit Building, is 4.75 miles long. Along the road are the above recreation use areas:

Juniper Campground is the park's largest and most popular camping area. The adjacent Laurel Nook group day-use area conflicts with Juniper users since day users park in the camping area, and use the camping facilities.

Development of a small astronomical observatory (see Interpretive Element, page 16) has been proposed in an upper elevation site of the park.

The capacity of the various day-use sites ranges from one family to groups of 20-25 persons. The one-to two-family units are the most popular, although there is a need for more group picnic sites.

A majority of the sites have some furniture built by the Civilian Conservation Corps.

All the recreation areas and facilities have suffered extreme wear due to intensive use.

On peak visitor days, the Diablo Valley overlook is congested with automobiles. Because the overlook parking area is not striped, cars are parked haphazardly, and the space is not efficiently used.

The Livermore Valley Overlook is the third largest outlook area next to the Summit and Diablo Valley Overlooks. There are no developed facilities there.

The residence, located above the Sunset day-use area and adjacent to the Summit Trail, houses staff to respond to emergencies, particularly at the summit.

Recommendations

Under the principles and guidelines established (see page 141), enhance/upgrade existing facilities for all sites.

1. Unisex flush toilets
2. New camp furniture outside the cultural preserve zone
3. Septic systems: all systems are antiquated and need replacement
4. Existing water system: see Utility Concerns, page 141
5. Access roads
6. Parking areas
7. Interpretive and park operation signage and displays

Diablo Valley Overlook

1. Organize existing parking lot

Livermore Valley Outlook

1. Paved parking area
2. Drinking fountain
3. Park furniture

Juniper Campground

1. Provide modern restroom with showers
2. Add a sanitary dump station

New Additions:

1. Convert the Laurel Nook group area to 4-6 family campsites.
2. Develop a small astronomical observatory and a new restroom with showers at the Pioneer Horse Camp.
3. At the Muir day-use area, convert the single picnic area to group use, and maintain 2-3 family day-use areas.

Recreation Areas Along South Gate Road

Campgrounds

1. Junction
2. Wildcat group camp
3. Barbecue Terrace Horse Camp
4. Buckeye group camp
5. Live Oak
6. Civilian Conservation Corps Camp

Operation Areas

1. Residence #9--Above Arroyo, between South Gate Road and Rock City Trail (see Table B)
2. Maintenance yard; 1 administrative office, 2 residences (#'s 3, 4, 5, 6) and 1 dormitory duplex (See Table B).
3. Residence #3 - adjacent to South Gate entrance station (See Table B)

Day-Use Areas

1. Park headquarters at Junction
2. Maple Nook
3. Bridal Nook
4. Curry Point
5. Horseshoe
6. Arroyo
7. Rock City
 - Uplands
 - Lower Rock City
 - Elephant Rock
 - Central Rock City
 - Big Rock
 - Grotto
 - Little Rock
8. Artist Point
9. South Gate entrance station

South Gate Road, twisting through the western half of the park, connects the Junction intersection to Mount Diablo Scenic Boulevard in the town of Diablo.

Along South Gate Road are a majority of the park's campgrounds, and some of the most popular picnic and day-use areas in the park.

The historic Civilian Conservation Corps built-facilities are widespread in this area. It is proposed that the area be classified as a cultural preserve (see Land Use Element, page 105 and cultural preserve map, map 4).

Each camp/picnic area was built in a manner consistent with the principles of rustic architecture and the guidelines supplied by the National Park Service. The Rock City, Arroyo, Buckeye, Barbecue Terrace, Wildcat, Bridal Nook, and Maple Nook areas retain a sufficient level of integrity for inclusion in a National Register historic district.

Although Curry Point is a primary gateway to Curry Canyon, the area is undeveloped and not well known.

At the former Camp Force site, recently acquired by the state, remove all facilities and development, and let the area revert back to a natural condition.

Rock City is an extensive day-use area surrounded by unique sandstone formations. The cultural resources located in Rock City have been subject to vandalism. Present access routes and lack of adequate and well-defined parking facilities are factors which have contributed to destruction and deterioration of these resources.

The South Gate kiosk is located 3 miles from the initial park boundary. Staff has little control over the 3-mile stretch. If the park is at capacity and all facilities are full, or if vehicles are too large (trailers more than 20 feet and motorhomes more than 24 feet) for park roads, people will not have the information until they have driven up the narrow, twisty road to the entrance station. Some people have used the 3 miles as a "race strip" with their cars and motorcycles.

Built in 1950, the entrance station at South Gate Road and the ranger headquarters at Junction do not meet operational needs to deal with present park demands. The kiosks do not have adequate storage, restrooms, electrical service, or heating and air conditioning.

The existing maintenance yard, located above Lower Rock City, does not have adequate space to expand to meet current and future maintenance demands. Additional space at another site is needed.

There are four historic structures located in the maintenance yard. One of these buildings was built in 1934, and three buildings were built in the 1940s. Their construction reflects the rustic architecture style. The two largest units are in good condition, but the two smallest units need major rehabilitation.

One of the buildings is used as an administrative office for maintenance operations. The other three structures, two residences and a dormitory duplex, house maintenance and ranger staff, who are immediately available to respond to emergency needs.

Based on approval of the wildfire management plan for Mount Diablo State Park, the proposed firefighting vehicles and equipment need to be strategically located and housed.

The one residence near Arroyo and the other at the South Gate entrance station were both constructed in 1948, in the rustic architecture style. The Arroyo residence needs rehabilitation, while the South Gate residence is in good condition. The South Gate residence helps control the South Gate entrance to the park. Both residences allow key staff to immediately respond to emergencies.

Recommendations

Under the principles and guidelines established (see p. 141), enhance/upgrade existing facilities for all sites. Prepare a restoration and parking plan for the cultural preserve area.

1. Unisex flush toilets.
2. Restore existing Civilian Conservation Corps built furniture, headwalls, culverts, etc.
3. Septic systems: all systems are antiquated and need replacement..
4. Existing water system: see Utility Concerns, page 141.
5. Access roads.

6. Parking areas.
7. Provide interpretive and park operation signs and displays.
8. Convert the Live Oak campground to day use when future camping facilities are developed in the lower elevations of the park.

Buckeye Group Camp

1. Improve and upgrade the entrance road.
2. Retain the historic integrity of the area.
3. Expand the parking lot to ten vehicles.

New Additions:

Junction Campground

1. New comfort station with water-conserving showers.
2. Renovate or provide new camp furniture.

Curry Point

1. Expand the parking area to accommodate 40 vehicles; pave and organize it.
2. Provide interpretive kiosks and panels illustrating the natural and recreational values of the area and the area's hiking, biking, and equestrian trails.
3. Develop a major trailhead and staging area.
4. Develop a new comfort station.

Horseshoe Day-Use Area

1. Restore existing sites.

Arroyo Day Use

1. Restore existing sites.

Rock City

1. Develop a centralized parking plan as a joint effort with the department's field and headquarters staff.
2. Close small grottos to vehicles.
3. Replace restrooms with a centrally located modern unit.

4. Develop trail signs from Rock City parking lots to the Sentinel and Gibraltar rock climbing areas.
5. Restore existing picnic sites.

Live Oak Campground

1. Remove group day use; convert to family campsites.
2. Add five campsites.
3. Build a new campfire center.
4. Replace the restroom with a modern unit, including water-conserving showers.
5. Expand parking areas where feasible.
6. Add interpretive panels.

CCC Camp

1. Relocate to new maintenance yard near Mitchell Canyon day-use area.

South Gate Entrance Station

1. Relocate near the state park boundary; the most feasible area is about 1/4 mile up from the boundary line.
2. Develop the new station to meet current and future storage, restroom, and utility needs.
3. Provide a new parking lot for 25-30 cars.
4. Pave all parking, and organize it.
5. Develop a trailhead and connecting trail to the Dan Cook Canyon trail.

Recreation Areas Along North Gate Road

Campgrounds

1. Stagecoach Group Camp
2. Boundary Group Camp

Day-Use Areas

1. Pine Pond
2. Turtle Rock Ranch (private)
3. Diablo Ranch (private)
4. North Gate entrance station

Operation Areas

1. Ranger residence #10 (See Table B)

North Gate Road has the fewest developed recreation facilities near the road, when compared to Summit and South Gate Roads. However, there are two major privately owned facilities, the Turtle Rock Ranch and the Diablo Ranch. Both are open to the public on a limited basis. The Turtle Rock Ranch can accommodate large groups of 500+ with complete picnic and recreation facilities.

The Diablo Ranch attracts primarily school groups and equestrians. School groups make reservations to be given a tour of the cattle ranch, while equestrians can use the ranch as a meeting point and rest-stop for their animals as they ride up the mountain.

Between the North Gate entrance station and the Boundary Group Camp, there are no developed recreation areas or trailheads with parking and staging areas. There is an informal trailhead in the vicinity of Camel Rock that leads to Pine Canyon and Pine Pond to the southwest, and to Donner Canyon to the northeast. The trailhead has no formal parking or facilities, and no indication where the trails lead. Pine Pond is the park's largest body of water, but no facilities are developed nearby.

Built in 1950, the North Gate entrance station does not meet operational needs to deal with present park demands. The kiosks do not have adjacent parking, adequate storage, restrooms, electrical service, or heating and air conditioning. It is about 1.6 miles from the North Gate entrance station to the state park boundary. North Gate Road is the only access route from the entrance station to the park. There is no park residence at this major access point to the park.

The park residence below Junction houses staff who are immediately available to respond to emergency needs.

Although the Boundary Group Camp is only one of two group camps along North Gate Road, it is lightly used.

Recommendations

Under the principles and guidelines established (see page 141), enhance/upgrade existing facilities.

1. Existing water system: see Utility Concerns, page 141.
2. Septic system: all systems are antiquated and need replacement.
3. Provide flush toilets.
4. Access Road.
5. Parking areas.

New Additions:

Boundary Group Camp

1. Convert to a group picnic area.

Camel Rock

1. Establish a 10-15 car trailhead parking lot and staging area in the vicinity of Camel Rock.
2. At the trailhead, establish interpretive signs and displays explaining the area's natural values and trail opportunities.

North Gate Entrance Station

1. Acquire additional property to the west of the entrance station to develop a 40-car parking lot, staging area, and turn-around.
2. Develop a new station to meet current and future storage, restroom, and utility needs.
3. Acquire a public easement hiking/equestrian trail along North Gate Road from the entrance station to the park boundary, if feasible.

Perimeter Recreation Areas

1. Mitchell Canyon
2. Donner Canyon
3. Regency Meadows
4. Northeast corner of park (above Diablo Mine)
5. Perkins Canyon access point
6. Finley Road terminus
7. Macedo Ranch

Operation Areas

1. Residence #2 at Macedo Ranch (See Table B)
2. Residence #1 at Mitchell Canyon day-use area (See Table B)

The existing and proposed perimeter use areas are becoming more important and popular as the areas around the mountain become more urbanized. The demand for more access points into the park from both local agencies and residential groups is exceeding existing park staff capabilities. In order to achieve realistic goals, i.e., within proposed future budgets, for perimeter access points to the park, expanding and/or improving the existing access points of Mitchell Canyon, Donner Canyon, Perkins Canyon, and Macedo Ranch and developing new ones at the Regency Meadows subdivision, Perkins Canyon, and the Finley Road terminus would provide adequate access points around the entire park. Public access is desirable from Morgan Territory Road. Any additional access points would likely require local funding and operational assistance.

Although Mitchell Canyon and Macedo Ranch are major trailheads to the park, both have the potential to be further developed to help meet future recreational demands. Mitchell Canyon also has the available secluded space, good access, and utilities to house a new perimeter maintenance yard.

A major trailhead, parking, and staging area at the terminus of Finley Road is needed to tie into recent and future acquisitions in the southeast portion of the park. Additional acquisition of property is needed to develop the trailhead.

There is no developed trailhead, parking, and staging area on the eastern side of the park.

The Regency Meadows subdivision, located to the north of the park and off Marsh Creek Road, dedicated 6.7 acres and a 25-foot wide public road easement to the park. A trailhead with parking would provide additional access for Clayton and Concord residents.

The Macedo Ranch area is the recommended site for a new interpretive ranch. It is the only park site that meets interpretive and park management requirements. Cattle-handling demonstrations could begin when range and corral fencing is completed, and a contract is executed with a full-time concessionaire who has portable equipment.

There is a need to develop camping facilities at lower elevations, particularly for recreational vehicles and other large camping vehicles, and for a facility for the disabled. The sites need to be relatively isolated, have level buildable areas, access to utilities, good road access, and not be in conflict with any sensitive natural or cultural resources. The area above Diablo Mines is a possible campground site, as well as another site in Riggs Canyon that has been identified for acquisition. The Riggs Canyon site has the potential to be developed as a campground, trailhead, and parking and staging area.

The residences at Mitchell Canyon, Macedo Ranch, and the two trailer pads for residences at the proposed campground above Diablo Mines would house park staff to respond to emergencies in those sections of the park.

Recommendations

Under the principles and guidelines established (see page 141), enhance/upgrade existing facilities.

Mitchell Canyon

1. Improve the existing water system for maintenance and drinking needs.
2. Pave and expand the parking lot.
3. Enhance the existing staging area.

Macedo Ranch

1. Expand the parking lot, and pave and organize it.
2. Tie into the city water system, and eliminate reliance on well water.
4. Tie into the city sewage system, and eliminate the existing septic system.

New Additions:

Mitchell Canyon

1. A new district maintenance yard between the staff residences and the park boundary. This will be the main maintenance yard that will also house equipment.
 - a. Provide storage buildings
 - b. Paved parking, roads
 - c. Relocate the California Conservation Corps mobile trailer homes here.
2. Add 6-10 picnic tables in the existing day-use area.
3. Provide interpretive panels and kiosks to illustrate the area's natural and cultural values and hiking, equestrian, and cycling opportunities.
4. Provide two new drinking fountains for the day-use/staging areas.
5. Convert the existing park office to a visitor center to be operated by volunteers.

Donner Canyon

1. Provide panels to interpret the area's natural values and hiking, equestrian, and cycling opportunities.

Northeast corner of the park - above Diablo Mine

1. Develop a 50-unit campground.
2. Provide complete utilities, restrooms, and showers.
3. Provide interpretive displays and panels.
4. Relocate two mobile trailer homes from Mitchell Canyon for staff residences.
5. Develop a group camp.

Perkins Canyon

1. Develop a 20-25 car parking lot.
2. Develop a staging area.
3. Restroom.
4. Drinking fountain.

Finley Road terminus (pending future acquisition)

1. Develop a trailhead, a 30-40 car parking lot, and a staging area.
2. Restroom.
3. Interpretive trail panels.
4. Develop a non-exclusive camp for the disabled (in Riggs Canyon).
 - a. Provide all utilities
 - b. Restrooms with water-conserving showers
 - c. Cooking facilities to accommodate groups
 - d. Dining areas
 - e. Parking for 15-20 vehicles

Macedo Ranch

1. As part of the Macedo Interpretive Ranching Heritage Center, develop a cattle ranching interpretive exhibit and activity shelter adapted from a historic structure or built in that style.
2. Develop a rancho-period stick corral and brush shelter.
3. Develop modern corrals, chutes, and equipment, as needed.

Regency Meadows

1. Develop a trailhead.
2. Provide parking for 6-10 cars.
3. Provide a small staging area.

Architectural Design Concepts

The Department of Parks and Recreation will provide standards and guidelines for design of facilities at Mount Diablo State Park. The concepts are intended to conserve natural resources, assure opportunities for use of facilities by disabled persons, and develop facilities compatible with the environment.

- o Use the principles of rustic architecture and the guidelines of the National Park Service when restoring historically significant facilities and structures.
- o On any major development or any development in the cultural preserve, representatives from all pertinent divisions of the department will coordinate with operations staff to appropriately meet all departmental architectural design standards.
- o Design and construct architectural structures which respond to the need for conservation of energy and other resources.
- o Provide outdoor furniture constructed with native materials wherever possible.
- o Encourage conservation of nonrenewable resources, and promote research, development, and use of various alternative energy sources in meeting park utility requirements. For example, solar space heating, solar water heating, and skylights will be used where practical, and water conserving devices (flow restricters, timers, etc.) will be used on all showers.
- o Design and construct new facilities, including structures, walks, and ramps, to be accessible and usable by disabled persons.
- o Emphasize use of wood and masonry materials. Roofs are to be fire-retardant.
- o Emphasize harmony between building and site.

Utility Concerns

This information is meant to provide general background of the capabilities and problems related to providing utilities for proposed park development. Further studies and negotiations with the cities of Walnut Creek, Concord, Clayton, and Contra Costa may be required, based on more comprehensive development plans for the park. (See Maps 9-10 for locations of proposed facilities.)

Funding has been requested to upgrade the park's water system. The existing water system of ten holding tanks and eight chlorinators should be consolidated to reduce the extensive and costly staff maintenance, and to provide an efficient, larger-capacity system to meet future needs. Some portions of the system are more than 50 years old; with its age and poor condition, the system threatens water quality and public health.

The proposed upgraded system would include: maintaining three holding tanks, the 20,000- and 100,000-gallon tank near park residence #11 and the 100,000 gallon tank near the Buckeye group camp, a new 500,000-gallon holding tank located in the Pioneer horse camp, and new main and service lines.

This system would supply water for the upper elevation facilities and structures from the Summit Building down to the park residence, adjacent to the South Gate entrance station.

At Macedo Ranch, a new water service and sewer line connected to East Bay Municipal Utility District (EBMUD) mains are proposed for fiscal 1990-91. This would provide needed utilities for the proposed interpretive ranch and day-use facilities.

At Mitchell Canyon, water is supplied by the Contra Costa Water District.

The new perimeter proposals, the parking/staging areas with restrooms at the North Gate entrance station, and at Perkins Canyon, would tie into EBMUD and Contra Costa Water District respectively for water.

The remaining new developments would require wells/springs for water.

With the exception of the Macedo Ranch, all other developments use or will use leach fields or holding tanks for their septic systems. The existing septic systems are beyond normal life expectancy, and need to be replaced.

Electrical service is available to all existing and proposed developments, and would be provided by Pacific Gas and Electric.

Pacific Bell provides telephone service to all park offices and residences, the Summit Building, and Mitchell Canyon; telephone service is proposed at the Macedo Ranch.

Priorities for Development

The general priorities in this section are intended to guide budget decisions in order to accomplish the most important things first, in terms of visitors' health, safety, resource protection, public access, and enjoyment. The program will be carried out over a long period of time; consequently, some priorities are likely to change as time goes on. The availability of funds or staff may also cause priorities to change. As each phase is completed, it will be prudent to evaluate how the facilities are being used, and to determine what future development is appropriate to accommodate visitors and their needs within the constraints of this plan. An overriding consideration is to provide visitor support facilities where the safety and functional capacity of accesses and access roads is adequate.

Priority 1

1. Rehabilitate and upgrade existing facilities, including day-use areas, camping facilities, roads, and utilities, particularly the water system.
2. Provide more camping and picnic facilities.

3. Develop more handicapped-accessible facilities, where feasible.
4. Restore Civilian Conservation Corps-built facilities, including the Summit Building, and those in the cultural preserve zone. Improve the Summit area by eliminating some paved parking, and landscape with native trees and shrubs to enhance the area and define the Summit Building entry.
5. Develop new park entrance stations, and relocate the South Gate entrance station closer to the park boundary.
6. Develop the interpretive ranch at the Macedo Ranch.
7. Improve the existing trail system, including signage.

Priority 2

1. Provide interpretive displays, kiosks, and panels.
2. Develop perimeter trailheads, staging areas, and access points.
3. Develop a trailhead, staging area, and parking near Camel Rock, and at Curry Point.
4. Develop a handicapped-accessible campground facility in Riggs Canyon.
5. Improve and provide day-use facilities for the Overlook Areas.
6. Improve paved parking areas.

Priority 3

1. Develop a low-elevation campground in the northeast corner of the park.
2. Develop an astronomical observatory at the Pioneer Campground.
3. Convert selected facilities to day use or camping.

TABLE A
Mount Diablo SP Facilities Inventory

	Equestrian Campsites	Individual Campsites	Group Campsites (person capacity)	Stoves	CCC Stoves	Tables	CCC Tables	Restroom	Pit Toilet	Drinking Fountain	Water Faucets	Horse Tie Stalls	Parking Spaces	Horse Troughs	Notes/Changes
CAMPING															
Live Oak		19(5)		3	19	19		1			6		38		
Junction		6		5	1	3	3	1			3		15		Convert to day use
Juniper		34		28	6	34			4		11		90	1	
Barbeque Terrace	1		50	3	5	5	8		4	1	2	78	17	1	
Stagecoach			20	1	1	3	3		2	1	1		7		
Boundary			20	1			2		2		1		7		
Pioneer	1		30	4	2	14			2		1		7		
Wildcat			30	2	1	8	3		2		4	9	10(15)	1	
Buckeye			30	2	3		7		2	1	2		10		
Subtotal	2	64	180	49	38	84	26	2	18	3	31	87	219	3	
DAY USE															
Live Oak			20	2		4		1			1		50		
Laurel Nook			20	1		8			2		2		50		Convert to camping
Arist Point			10	1	2	5	1		2		1		12		
Rock City															
a.Uplands					2(6)	2(6)	1				2		10		
b.Lower Rock City					4(3)	7	4	1		1	3		15		
c.Elephant Rock					2(2)	3(2)					1		8		
d.Central Rk. City					3(3)	4(3)				1	4		14		
e.Big Rock					3(3)	6	3				1		12		
f.Grotto					2(2)	2(2)					2		6		
g.Little Rock					1(1)	2					2		6		
Horseshoe					3(2)	3(2)			1		3		7		
Arroyo-					6	6									
a.Upper					1	1					1		4		
b.Lower					1	1			1		1		4		
Maple Nook					1	1							1		
Bndal Nook					1	1							1		
Junction (picnic)					2	2				1			8		
Canyon Nook					1	1							1		
Sunset					4	5			2		2		12		
Rocky Point				1	4(2)	5(2)			2		2		8		
Lookout Point					2	2							5		
The Pines					2(2)	2(2)					1		6		
Roundtop					1	1					1		3		
Toyon				3(2)		3(2)			1		1		6		
Blue Oak				4	4	9			2		7		19		
Oak Knoll					1	1							6		
Grapvine					1	1							1		
Muir					2	2			1				7		
Macedo								1					50	1	
Mitchell Canyon				10		14(15)		1		1	2	30	100		
Summit-															
a.Upper						10		1		1			35(-15)		
b.Lower						1		1					150		
Subtotal	0	0	50	22	85	153	9	6	14	5	38	30	604	1	
Total	2	64	230	71	123	237	35	8	32	8	69	117	823	4	
NEW ADDITIONS:															
Curry Point								1		1			40		
Camel Rock								1		1			20		
North Gate Kiosk								1		1			40		
South Gate Kiosk								1		1			30		
Hegancy Meadows								1		1			15		
Northeast Corner		50		50		50		1		12	12		25		
Perkins Canyon								1					25		
Finley Road								1					40		
Handicappd. Camp			125	12		60		1		12	6		20		
Subtotal	0	50	125	62	0	110	0	9	0	29	18	0	255	0	
NEW TOTAL	2	114	355	133	123	347	35	17	32	37	87	117	1078	4	

NOTE: Figures in () shows increase or decrease of facilities

TABLE B
MOUNT DIABLO SP PARK STRUCTURES

Structure Number	Square feet of Unit	Square feet of Garage	Year Built	Structure Type	Location	Condition and Recommendations	Rehab. Req'd.
1	1,496 w/o basement	na	1900	Wood, 2-story with basement	Near Mitchell Canyon Day Use Area	Some foundation settlement. Provide exterior painting, new electric wiring, window repair, and roof replacement.	Yes-minor
2	960 w/o basement	780	1930	Wood, 1-story with basement	Macedo Ranch	Provide new exterior siding, paint rehabilitate foundation, replace: roof, electrical wiring, and interior ceilings.	Yes-major
3	1,815.00 w/o basement	360	1942	Wood, 1-story	Rock City/Live Oak adjacent to #4 sea. house.	Repair foundation and basement floor cracks.	Regular maintenance
4	840	na	1934	Wood, 1-story duplex	Rock City/Live Oak adjacent to #3 residence	Needs exterior siding, paint, new foundation, roof, and electrical wiring. Expand or rebuild if feasible.	Yes-major
5	672	na	1941	Wood, 1-story	Rock City/Live Oak adjacent to #4 residence	Needs exterior siding, paint, new foundation, roof, and electrical wiring. Expand or rebuild if feasible	Yes-major
6	1,026	400	1949	Wood 1-story	Rock City/Live Oak adjacent to #5 office	Paint exterior.	Regular maintenance
7	na	na	na	na	Lower Donner Canyon Heatherington loop trail	Residence burned down in 1984. Do not rebuild.	na
8	1,188	400	1948	Wood 1-story	Off South Gate Road near the Entrance Station	Repair floor joists at north east corner.	Regular maintenance
9	1,064	480	1948	Wood 1-story	Near Horseshoe day use and Rock City Trail	Repair foundation, interior walls. Replace garage roof and gutters.	Yes-major
10	1,215	400	1948	Wood 1-story	Off North Gate Road, north of Junction	Floor slopes to entry.	Regular maintenance
11	1,188	462	1953	Wood 1-story	Off Summit Trail, near Canyon Nook	Remodel and upgrade kitchen facilities.	Regular maintenance

Note: All structures will be retained due to the historic significance of the houses and the need to have staff immediately available respond to emergencies.

Environmental Impact Element

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ENVIRONMENTAL IMPACT ELEMENT

Summary

Implementation of the Mount Diablo State Park General Plan should cause no unavoidable significant adverse effects on the environment.

Development of new facilities (a campground, trailheads, parking areas, a maintenance yard) will cause adverse but not significant effects on soils, water, vegetation, wildlife, light and glare, and traffic. Traffic increases, while not causing a significant impact by themselves, will likely contribute to a significant cumulative traffic impact on local streets and highways.

Mitigation and compensation will come from new resource management programs such as a vegetation restoration program, reduction of cattle grazing, and restoration of historic structures and facilities.

PREFACE

The Environmental Impact Element (EIE) predicts the environmental effects that would result from implementation of the General Plan. Together with information in the other elements of the General Plan, it constitutes an Environmental Impact Report (EIR). You will find specific references in the EIE to information found elsewhere in the General Plan.

A general plan for a state park unit describes the department's long-term plans and policies for that unit in what must necessarily be a generalized fashion. The EIE focuses on the likely environmental effects of these generalized plans and policies; it suggests measures to mitigate these effects, and it considers the environmental consequences of alternative actions.

As specific development projects are proposed for the department's annual budget, the department will document their environmental effects as required by the state CEQA guidelines.

An initial study was done for this General Plan, and a notice of preparation (NOP) was circulated to responsible agencies and others (see Appendix C). Based on their findings, the EIE focuses on those effects likely to have a significant detrimental impact on the environment. This General Plan is, therefore, a focused EIR, as described in the state CEQA guidelines.

Project Description

See the General Plan Summary for a description of the project. More detailed descriptions are in the following sections:

Resource Element - for policies dealing with the natural and cultural resources of the park;

Concessions Element - for policies dealing with concessions in the unit;

Facilities Element - for facilities development plans;

Land Use Element - for allowable use zones;

Interpretive Element - for policies on interpretive themes and facilities;

Operations Element - for operation and maintenance policies at the park.

Description of the Environmental Setting

The natural and cultural settings of the park are described in the Resource Element.

Environmental Impacts and Proposed Mitigations

The Initial Study for the Mount Diablo State Park General Plan EIR identified potential environmental impacts related to an increase of vehicle traffic on park roads, with implications for safety, traffic flow, and air quality. The Initial Study also marked impacts of greater public use in areas where people concentrate, including impacts on soils, vegetation, and CCC-era structures in campgrounds and picnic areas.

There was one response to the Notice of Preparation for the EIR, from the Contra Costa County Consolidated Fire District (Appendix C). The district called for a fire protection plan, and specified contents for the plan. The department has since developed a wildfire management plan which has been accepted by all fire control agencies involved.

The Environmental Impact Element of the General Plan will focus on those potential impacts identified in the Notice of Preparation.

GEOLOGY, SOILS, AND HYDROLOGY

Existing Conditions

The geology, soils, and hydrology of the park are briefly described in the Resource Element. Points for environmental impact consideration are:

- o The park is subject to earthquakes.
- o The park is steep, and subject to slumps and landslides.
- o There are fossil beds in the park.
- o The park has been mined, exposing heavy metals.
- o Although there is little permanent surface water, there may not be adequate spring and well water to meet existing and proposed development.

Impacts and Proposed Mitigations

Earthquakes

Impact: People in the park may be exposed to hazardous conditions during an earthquake. The chief hazards are posed by rockfalls or landslides that could be triggered by ground shaking. The few small structures that exist or are proposed in the park are unlikely to pose safety hazards to people during earthquakes. The exception could be trailers not anchored to firm foundations.

Proposed Mitigation: See policy on p. 49, Resource Element. In addition to new facilities, existing facilities should be evaluated for earthquake-induced slide/rockfall potential. For any facility found subject to earthquake hazard, the facility should be moved to a safer spot, or management measures should be taken to reduce the hazard.

Landslides

Impact: People and property in the park may be exposed to debris flows, rockfalls, and slope failures of all types. This is most likely to occur during and after winter/spring storms, during earthquakes (particularly in conjunction with saturated soils), and during and after wildfires.

Proposed Mitigation: See policy on p. 50, Resource Element. In addition to new facilities, existing ones should be surveyed for landslide and rockslide hazards. Those facilities found to be in hazardous locations should be moved, or management measures should be taken to reduce the hazard.

Soil Erosion

Natural and human-induced erosion has been occurring on Mount Diablo (see Resource Element, p. 59).

Impact: Cattle-induced erosion (from trampled streambanks and steep and terraced cattle trails) will decline in those areas taken out of grazing. Erosion from firebreaks should decline in areas where they are reduced, and

increased where new firebreaks are installed. Erosion at the sites of proposed new facilities will increase for the usual reasons (concentrated runoff, exposed soil, loss of vegetation).

Proposed Mitigation: The usual erosion-control measures should be taken (installation and maintenance of water bars on roads, firebreaks, and trails, adequate channeling of runoff into existing watercourses, reduction of impervious surfaces such as paving, and keeping disruption of soil and vegetation to a minimum).

Hydrology-Abandoned Mines

While the Mount Diablo Mercury Mine is not in the park, a small portion of the tailings and a creek draining them are on park land. The creek is a source of contamination by mercury and other heavy metals in Marsh Creek.

Impact: No new impacts will result from implementation of the General Plan. The mine and tailings will continue contaminating Marsh Creek unless the tailings are removed.

Proposed Mitigation: The department should continue working with the Regional Water Quality Control Board and the mine's owner to stop and correct the contamination.

Hydrology - Pine Pond

Impacts: The impacts depend on which of the following actions the department finally chooses after studying the options (see Resource Element).

Do nothing: Conditions as before, but the reservoir fills in completely with sediment within a few years. Dam remains a hazard and attractive nuisance. The dam is gradually undercut or sidecut until it fails or is slowly eroded away. Much of the sediment stored behind the dam passes on downstream where it is deposited.

Remove the dam: Dam removed when there is little or no streamflow; stored sediment is removed and deposited elsewhere. Wildlife which lived in or used the reservoir die or go elsewhere. The hazard and attractive nuisance is removed.

Dredge and repair the dam: Dam dredged and repaired during low flow period, with stored sediments trucked elsewhere. Reservoir continues to hold water. Fish and wildlife continue to live in or use it. Recreational use (swimming, fishing) possible but hazardous without supervision. Dredging and repair must be repeated in approximately 20-30 years.

Proposed Mitigation: Before removing or dredging the dam, further environmental study should be done to evaluate impacts on wildlife, sedimentation, roads and traffic safety, dumping sites, etc.

Hydrology - Spring and Well Development

Besides the upgrade of the existing spring-fed water system that has already been budgeted, the General Plan foresees the need to develop local sources of water for the two new proposed campgrounds: the family campground in the northeast part of the park and the camp for the disabled in Riggs Canyon. The Finley Road terminus trailhead would also require water development. All other facilities called for in the General Plan would be dry, would hook into the existing park water system, or be connected to one of the water districts surrounding the park (see Facilities Element). It is unclear at this stage, however, what quantity and quality of spring or well water is developable at these sites.

Impact: If springs and wells are developed to supply large park facilities, this could adversely affect wildlife and plants. Spring development reduces or eliminates surface water now available to animals, and subsurface water used by phreatic (water-loving) and riparian plants such as willows. Tapping small aquifers with wells may dry up or significantly reduce summer water holes in ephemeral streams.

Proposed Mitigation: One of the first tasks in the initial planning for development of facilities will be to prove an adequate water supply. If the initial plan calls for tapping springs or wells, the environmental impacts of such water development will be examined as part of the environmental impact (CEQA) analysis required for the project. The analysis should include the feasibility of hooking into outside water lines as an alternative.

Hydrology-General Water Quality

Impacts: Surface water will continue to be fecally contaminated by humans and animals, especially livestock.

Proposed Mitigation: Monitoring of bacterial pollution (see Resource Element policy, p. 48). Fencing springs and natural streams from livestock. Portable or composting toilets along popular trails in the back country.

Vegetation

Existing Conditions

Plant Communities

The plant communities of Mount Diablo State Park are described in the Resource Element on p. 27. The Resource Element discussed adverse changes that have occurred and are occurring in native plant communities in the park. It points to a history of cattle grazing, the advent of exotic plant species, and fire suppression as causes for these changes.

Sixteen plant taxa in the park are listed by the California Native Plant Society as rare or endangered, or of limited distribution. Two of these are listed by the state as rare. In addition, the Resource Element designates four plant taxa as special interest plants because they are at the extreme limits of their distribution, are subject to overcollection, exhibit disjunct distribution, or are of limited distribution.

Plants restricted to rocky peaks and outcrops, "rock society" plants, have been subject to trampling from sightseers, and destruction during building of communication facilities.

Cattle Grazing

Riparian and phreatic vegetation is poorly developed or heavily disturbed at springs and stream courses in many parts of the park because of cattle impacts. Oak regeneration in the park has been found to be poor. This problem may also be caused in part by cattle.

The Department of Parks and Recreation considers commercial cattle grazing generally incompatible with its mission to protect natural environments. However, in order to allow for a transition period between private and public ownership and management, or to facilitate acquisition, interim grazing leases have been let in several State Park System units.

Impacts and Proposed Mitigation

Impacts: Facility Development

The General Plan calls for some new facility development, and some expansion of existing facilities. The priorities for development are listed in the Facilities Element. Some vegetation loss will occur due to the new construction or expansion of roads, trails, parking areas, campgrounds, day-use areas, and maintenance facilities. As before, visitor safety considerations will require the occasional removal of trees considered hazardous.

The most significant of these developments would be relocation of the South Gate entrance station, along with a new parking lot for 25-35 cars, and a mobile residence pad; a parking lot for 10-15 cars and a staging area at Camel Rock; a new district maintenance yard and paved parking (on a dirt lot) at Mitchell Canyon; a 50-unit campground with facilities and staff trailer pads at the NE corner above the Diablo Mine; and the Finley Road terminus and Riggs Canyon camp areas. The developments at South Gate and Camel Rock will destroy vegetation in scenic areas that are now undisturbed. Development of the maintenance facility at Mitchell Canyon is between the park boundary and staff residences, where a small strip of natural vegetation now exists. The proposed NE corner campground is in a grassland area, with a few oak trees. Some vernal pools may be in the vicinity.

Impacts: Grazing

The General Plan proposes to limit livestock grazing to a 600- to 1,000-acre interpretive ranch; hence, the continuing environmental effects of large-scale grazing on vegetation discussed above would be considerably reduced. In addition, resource impacts from this limited grazing will be avoided through implementing standards for future grazing agreements described in the Concessions Element.

Impacts: Wildfire Management

Implementation of the wildfire management plan calls for improvements and additions to the firebreak system, as well as prescribed burning. Firebreaks are disc-plowed along sections of the park boundary, causing complete removal of vegetation, primarily annual grasses. In fuel modification zones, plants will be thinned, mowed, or burned.

Proposed Mitigation

Vegetation Restoration Plan

The Resource Element of the General Plan proposes several actions to lessen the existing disruption to natural processes, and, secondarily, to restore and perpetuate the native plant communities. These proposals are to be made part of a vegetation restoration and management plan. The Resource Element also calls for a prescribed fire management plan and a wildfire management plan (the last has been completed). Specific proposals from the Resource Element include: 1) exclusion of concentrated visitor use and livestock grazing from riparian zones; 2) identification and mapping of native grasses, and development of methods for restoring native grasses; 3) restoration of oak regeneration; 4) mapping and subsequent control of exotic species; 5) further development of site-specific information for rare and endangered plant species to prevent their inadvertant destruction; 6) protection of special interest plants such as rock society plants; 7) landscaping consisting of indigenous plants; and 8) a livestock grazing management plan for areas to be grazed.

Wildlife

Existing Conditions

The animal life of Mount Diablo is generally described in the Resource Element (beginning on p. 30). The species encountered are those expected for the habitats in the park. The Alameda striped racer, a snake listed by California as "threatened," has been seen in the park in recent years. Also found in the park are some uncommon species of wildlife. Among these are the California red-legged frog, the prairie falcon, and the mountain lion. In addition, a small, isolated population of rainbow trout living in Mitchell Creek may be native to that drainage. Water is scarce on the mountain, and its presence determines to a large extent the variety, distribution, and density of wildlife in the park. For species such as mountain lions and golden eagles with large space requirements, the progressive loss of habitat outside the park reduces the number of individuals inside the park as well. Urban expansion is rapidly making the park an island as far as wildlife is concerned, and a significant reduction in the number of species inhabiting the park can be expected.

Recently, feral pigs have come into the park, and are beginning to cause resource damage. In addition, residents who live near the park have recently begun to assert that coyotes from the park are coming into their yards and killing their pets.

Impacts

New visitor facility development near streams or ponds -- e.g., Riggs Canyon, Pine Pond -- will hamper wildlife use of these important riparian and aquatic areas. More traffic on park roads will increase roadkills, especially of reptiles, which like to lie on warm pavement in the evening. Further, development of springs for park use would take water away from wildlife (see Impacts: Hydrology).

On the favorable side, the vegetation management actions proposed in the Resource Element (reduction of cattle grazing, systematic prescribed burning, management for oak regeneration, and native grassland restoration) should improve wildlife habitat. On balance, the actions proposed in the General Plan should improve conditions for most wildlife populations in the park.

Proposed Mitigation

The Resource Element (p. 59) proposes a policy to control and eliminate feral pigs in the park.

The department should also cooperate with the local officials to identify individual coyotes living in the park that have become habitual pet killers, if there are any. No coyotes or other native wildlife will be eliminated in the park without approval of the State Park and Recreation Commission, according to the laws and policies governing the department.

Air Quality

Existing Conditions

Air quality at Mount Diablo State Park is generally good, but the potential for serious air pollution in the inland valleys surrounding the mountain is great. The park is in the Bay Area Air Quality Management District. In the district, federal air quality standards are exceeded for three measured pollutants: ozone, carbon monoxide, and suspended particulate matter (PM₁₀). The nearest air monitoring stations are in Concord and Livermore. At these stations, ozone is the only measured pollutant that has exceeded the federal standard. In the past 5 years (1983-1987), the federal standard of 0.12 ppm was exceeded on an average of 5 days in Livermore, and 2.2 days in Concord.

Carbon monoxide levels may exceed state and federal standards wherever there are heavy concentrations of motor vehicles, such as on congested freeways and heavily-used street intersections.

Air quality in the Mount Diablo region is described in several recent environmental documents: for example, the EIR for the Athenian School General Plan (Contra Costa County File #2-87-SR, SCL 87062317).

Fire

Wildfires on Mount Diablo are unpredictable, and, with today's firefighting forces, mostly small events. Big fires are irregular, and, over short periods, unpredictable in their occurrence. In the past 70 years, a large fire has burned on the mountain every 11 years on the average, but the intervals between large fires have varied between 4 and 30 years. By contrast, prescribed burning is becoming a more regular and predictable event in the park.

Air Quality and Trip Generation

Air quality effects from operating Mount Diablo State Park will depend on the levels of trips generated by the park in the years to come. The Land Use Element of the General Plan projects an average increase in park attendance of 15% per year (or a 300% increase over ten years). Two separate vehicle counts from the past six years show an average increase of 5% and 8%, suggesting that the annual increase in motor vehicles will be much less than 15%.

Demographic projections indicate that visitation will increase at a more modest rate. The California Outdoor Recreation Plan (California Department of Parks and Recreation, 1988) projects an increase of only 9.4% in the populations of Contra Costa and Alameda counties between 1990 and 2000. At the same time, the population will become older (to a median of 34.3 years), with ethnic minorities increasing to almost 50% of the total. Participation in outdoor recreation has tended to be lower among older people and ethnic minorities. Moreover, the current growth in private motor vehicle use is likely to decline because of traffic congestion, fuel price increases, and government responses to concerns for air quality. For these reasons, an annual growth of vehicle trips of 10% will be used for 1990-1995 (a 60% increase reflecting the improvements called for in the General Plan), and a

lower rate of 8% will be used for 1996-2000 (resulting in a 137% increase over 1990). Assuming 150,000 motor vehicle trips to the park in 1990, there will be 240,000 trips in 1995, and 355,500 trips in 2000.

Impacts

The potential for impacts on air quality resulting from operation of Mount Diablo State Park in the years ahead come from two sources: motor vehicle trips to and from the park; and fires, especially prescribed fires, in the park.

Motor Vehicle-Caused Pollution: Assuming an increase of 60% in motor vehicle trip generation by 1995 and 137% by year 2000, the resultant change in primary pollutants has been calculated using the California Air Resource Board's model, EMFAC7PC. The results, shown in Table B, estimate that by the year 2000, park traffic will generate somewhat less total organic gases (TOG) and nitrogen oxides (NOX), and somewhat more carbon monoxide (CO). Projected emissions are lower despite greater traffic volumes because the level of pollution control on the vehicle population is expected to improve.

Fire: Large wildfires on Mount Diablo are invariably accompanied by high winds, which disperse the smoke in short order. Prescribed burning, by contrast, is conducted under a narrow range of weather and fuel moisture conditions, which preclude high winds. A permit from the Bay Area Air Quality Management District is required for burning; these are issued only on "burn days," when atmospheric conditions are favorable for smoke dispersal. Occasionally, atmospheric conditions can change during a burn, and smoke can affect nearby residential areas.

Proposed Mitigation

Motor Vehicle-Caused Pollution: As a remedy for traffic congestion in the park, the Land Use Element proposes a shuttle up the mountain at some indefinite time in the future.

Fire: No mitigation is proposed for air quality impacts of wildfires. For prescribed fire, state law (Title 17, Sec. 80100-80320) has placed stringent air quality requirements for wildland burning, which the department follows. No further mitigation is proposed.

TABLE B - EMISSIONS FROM PARK-GENERATED TRAFFIC, 1985 - 2000

Estimates given in pounds per day

	WEEKDAYS					
	TOG		CO		NOX	
	<u>Mar</u>	<u>Aug</u>	<u>Mar</u>	<u>Aug</u>	<u>Mar</u>	<u>Aug</u>
1985	50	42	548	473	42	48
2000	52	45	686	580	46	53

	WEEKENDS					
	TOG		CO		NOX	
	<u>Mar</u>	<u>Aug</u>	<u>Mar</u>	<u>Aug</u>	<u>Mar</u>	<u>Aug</u>
1985	118	89	1,342	975	106	76
2000	129	93	1,699	1,223	118	85

TOG - Total organic gases
 CO - Carbon monoxide
 NOX - Nitrogen oxides

The estimates in this table were calculated from numbers generated by EMFAC7PC, an air quality analysis program developed by Patrick C. Randall and Harry N. C. Ng of the California Air Resources Board (1987 edition).

Traffic/Circulation

Existing Conditions - Traffic Congestion

Like most fast-growing parts of California, the road system in eastern Contra Costa County cannot keep pace with the increase of traffic. This is especially true for major collectors and highways, such as Clayton Boulevard and Highway 680. During commute hours, traffic on highways and intersections often increases to very high levels.

There are two principal entrances to Mount Diablo State Park: North Gate Road, entering from Walnut Creek, and South Gate Road, entering from the community of Diablo. Lesser entrances, leading to trailheads at the park periphery, are Mitchell Canyon Road (to Mitchell Canyon and Murchio Flat) in Clayton; Regency Drive (to Donner and Back canyons) in Clayton; and Green Valley Road (to Macedo Ranch) in Danville.

Vehicle Counts, Roads Leading to Mount Diablo State Park

Daily Counts - Some counts that have been taken in recent years on roads outside the park which feed park entrances:

North Gate Road, 800' E of Castle Rock Road, both ways, weekday,
June 1987 (source: City of Walnut Creek) - 3,753 vehicles.

Diablo Road, between Green Valley and Blackhawk roads (South Gate),
both ways, weekday ADT, 1987 (source: Contra Costa County -
Athenian School GPA) - 4,000 vehicles.

Mitchell Canyon Road - no information.

Regency Drive (Donner and Back canyons) - both ways, weekday, 1977
(source: City of Clayton) - 1,600 vehicles.

Green Valley Road, 300' S of Stone Valley Road (Macedo Ranch) -
weekdays, May 1986 (source: Contra Costa County) - 8,298 vehicles.

Daily and Monthly Counts of Vehicles Entering Mount Diablo State Park

Monthly Vehicle Counts¹ (Five-Year Average, 1982-86)

South Gate Road: May (highest) - 7,200 vehicles
December (lowest) - 2,730 vehicles

North Gate, Macedo, Mitchell Canyon roads combined: same as above

1. Counts were taken above the junction of North Gate and South Gate roads; park administrators estimate that the motor vehicle count on South Gate Road approximately equals the combined number of motor vehicles using the other entrances, mostly North Gate Road.

Daily Vehicle Counts taken during high-visitation months on South Gate Road:

	<u>Av. Mon-Fri</u>	<u>Av. Sat-Sun</u>
March 1986	136	334
August 1987	117	242

Impacts - Traffic Congestion

By 1995 and 2000, we estimate that Mount Diablo State Park's motor vehicle trip generation will increase by a maximum of 60% and 137%, respectively, from 1990 numbers. This would result in the following changes on South Gate Road:

	<u>Av. Mon-Fri</u>	<u>Av. Sat-Sun</u>
March 1995	218	534
August 1995	187	387
March 2000	322	792
August 2000	277	574

Streets and highways normally carry the heaviest traffic during morning and afternoon commute hours, on weekdays. Mount Diablo State Park, on the contrary, is visited mostly on weekends and holidays, with traffic peaking in the period from late morning to early afternoon.

None of the proposed upgraded facilities is expected to generate a large number of additional trips. The General Plan, however, proposes several new public facilities. The four new facilities expected to generate the most traffic are all on the periphery of the park. They include:

- 1) The northeast corner campground off of Marsh Creek Road (approximately 50 units, plus a group campground, for a maximum of 80 parking spaces).
- 2) The Riggs Canyon campground on yet-to-be-acquired property off Camino Tassajara and Finley Road, with spaces for 30-40 vehicles.
- 3) The Finley Road terminus, also on private property at this time, with 40-50 parking spaces.
- 4) The North Gate entrance station, also requiring some additional land acquisition, with parking for 30-40 vehicles.

Trip generation into these facilities would peak on evenings before weekends and holidays. Trips out would be less concentrated.

Trip Apportionment

A 1986 survey of motorists in the park showed that about half of them were from cities in Contra Costa County, with most of the rest coming from other parts of the Bay Area. About 74% of the trips would likely involve Interstate 680 or Star Route 24.

March is normally the busiest month for Mount Diablo State Park, and Sunday is the busiest day. The average number of motor vehicles in the park for Sundays

in March 1988 was 1,196 vehicles (range = 1,020 - 1,457). Based on the 1986 survey results corrected to reflect long-term traffic counts taken in the park, trips to the park are apportioned as follows (DPR counts vehicles only on entry to the park, so trip numbers are doubled to account for the return trip):

TABLE C - MOUNT DIABLO STATE PARK TRAFFIC, SUNDAYS IN MARCH 1988

<u>Trip Route</u>	<u>% of Trips</u>	<u>Number of Trips (X 2)</u>
Via I-680 from south (enter at S. Gate/Macedo Ranch	27%	646
Via I-680 from north (enter at N. Gate/Mitchell Can.)	20%	478
Via Route 24 to South Gate/Macedo Ranch	18%	430
Via Route 24 to North Gate/Mitchell Canyon	09%	214
Via local streets to North Gate/Mitchell Canyon	22%	526
Via local streets to South Gate/Macedo Ranch	4%	096

Assuming that vehicles leave the park by the same route they arrive, the "Sundays in March" Mount Diablo State Park traffic on I-680 and Route 24 is compared with the 1988 average annual ADTs as follows:

TABLE D - MOUNT DIABLO STATE PARK TRAFFIC, SUNDAYS IN MARCH 1988

<u>Point on Route</u>	<u>Annual ADT</u>	<u>#Diablo Trips</u>	<u>% Diablo Trips</u>
I-680 at Diablo Road	118,000	1,172	0.9%
I-680 between Ygnacio Valley Road & N. Main St.	208,000	692	0.3%
Rt. 24 at Lafayette-Pleasant Hill interchange	162,000	644	0.4%

Many assumptions were made in the above analysis, but the general relationships among trips should be correct.

Future Traffic Impacts

We assume that the number of trips to the park will increase 137% by the year 2000 (p. 159 of the general plan). The number of trips on an average day are expected to increase by about that percent.

However, the number of trips on peak days will be regulated more by park capacity - i.e., the number of parking spaces - than by annual trip numbers. The general plan calls for a build-out of 1,073 parking spaces, including 201 campground spaces and 877 day-use spaces. Assuming each day-use space is used 2.5 times/day (some, such as the summit, are used more; others, such as at Mitchell Canyon, are used less), park capacity would be about 2,400 vehicles (4,800 trips) per day. This would be about 400 more vehicles, or 800 trips, than current maximums.

Given the relatively small numbers and off-peak timing of park-generated trips, park-related traffic is not expected to have a significant effect on operation of local streets and highways as a consequence of General Plan implementation.

Proposed Mitigation - Traffic Congestion

The Land Use Element proposes a shuttle up the mountain from the North Gate and South Gate entrances at some indefinite point in the future.

Existing Conditions - Traffic Safety

The park roads in Mount Diablo State Park (i.e., North Gate and South Gate roads) are narrow, winding, and steep in places, with limited sight-distances and steep drop-offs. Moreover, the roadbed and pavement are often in poor condition. Cars, light trucks, motorcycles, and bicycles share the roads, with some drivers sight-seeing, and some seeing how fast they can take the curves. As a result, between 30 and 40 vehicle accidents, but no fatalities, have been reported in the park each year since the early 80s. In 1987, consumption of alcohol was prohibited in the park, in part to reduce the accident rate. It is too early to tell if this will have an effect on accidents.

Impacts - Traffic Safety

As traffic increases on park roads, the number of accidents will vary, but the trend will probably be up.

Proposed Mitigation - Traffic Safety

The Land Use Element proposes rehabilitation of the paved roads, paved selected turnouts (to allow faster traffic to pass), and improved road signage.

Light and Glare

Existing Conditions

Glare in Mount Diablo State Park comes mainly from reflections of the sun off motor vehicles, especially window glass. This occurs on paved roads and in parking areas. Light comes from night lighting of all sorts. There is very little night lighting on Mount Diablo; the communications towers, a few houses, and some camping lanterns cause what little night light there is. Car lights are not common because the park gates are locked at dusk. This absence of light sources is one reason an astronomical observatory is being proposed for the park.

Impacts

New or expanded facilities such as campgrounds and trailheads will result in new sources of glare from parked cars, and, to a lesser extent, light from area lighting and camping lanterns. Most of the new facilities will be at widely scattered locations along the periphery of the park. Three of the four largest proposed new facilities, the northeast campground, the Finley Road terminus, and the Riggs Canyon campground, would be in secluded sites not easily seen from a distance. The fourth facility, the North Gate entrance station parking area, while in full view of North Gate Road, is also secluded from long views.

Proposed Mitigations

The department should consider screening with suitable plant materials the parking area at the North Gate entrance station.

Effects Found Not to be Significant

Should the proposed Mount Diablo State Park General Plan be carried out along with mitigation measures recommended in the policy sections of the plan, there would not be significant adverse effects involving the following aspects of the local environment (as defined in the Initial Study Checklist, Appendix C): air quality, noise, land use, natural resources, risk of upset (chemical spills, etc.), population growth, housing, energy, esthetics, and recreation.

Significant Effects That Cannot be Avoided

There are no unavoidable significant environmental effects that would result from implementation of the proposed General Plan for Mount Diablo State Park.

Relationship Between Short-Term Uses and Long-Term Productivity

Long-term management of Mount Diablo State Park has been determined to a large extent by its classification as a state park. The purposes and restraints of this classification are found in the Resource Element. Moreover, a wildfire management plan has been approved for the park, which commits the department to a specific course of long-term wildland fuels management. Finally, there are ongoing efforts to curtail the spread, and, ultimately, consolidate telecommunications equipment in the park.

The General Plan is consistent with these previous actions. In addition, the plan proposes more specific, as well as new, management directives. These directives include an allowable use intensity map, a large reduction in livestock grazing, a proposed cultural preserve, and a proposal to nominate several structures for inclusion in the National Register of Historic Places.

In short, the General Plan is written to direct the short-term uses of the park's environment toward long-term protection and maintenance of the park's natural and cultural resources.

Growth-Inducing Impacts

While providing scenic, educational, and recreational amenities to the people of Contra Costa County and the rest of California, continued development and management of Mount Diablo State Park under the proposed General Plan will not induce new growth in the area.

Cumulative Impacts

Growth of visitation to Mount Diablo State Park under the proposed General Plan will add a small increment to local and regional traffic congestion. It will also add to traffic safety problems on park roads, although the proposal for eventual use of shuttles on heavy-traffic days will effectively mitigate this impact.

Alternatives

During the public workshops held during preparation of the General Plan, almost no one favored the prospect of major new recreational development in Mount Diablo State Park. For this reason, alternatives 1 and 2 examined below would propose lower levels of development than contained in the Preliminary General Plan (alternative 3).

1. No Project

In this alternative, there would be no new facilities or resource protection measures, beyond those which are already constructed or "in the pipeline." Facilities would be repaired or replaced as needed. Limited new construction, such as water lines and trailhead parking spaces, would occur. Restoration of the park's natural or cultural resources would be delayed. The department's telecommunication equipment consolidation efforts would continue. The wildfire management plan, which is already authorized, would be implemented. This will require an ongoing program of fuel reduction and firebreak maintenance. Livestock grazing would either continue as before, or existing grazing leases will not be renewed when they expire -- both options can be done without General Plan authorization.

The environmental impacts of the "no project" alternative would be passive; i.e., the effects of not doing anything. The Resource and Facilities Elements document deteriorating natural areas and historic structures in places throughout the park. Restoration of these damaged lands and structures would likely be delayed, and -- if public use continues to increase -- so will the deterioration.

2. Restoration and Minor New Development

In this alternative, the "no project" actions would be done. In addition, restoration of historic structures and native vegetation called for in the Resource Element would be carried out, including creation of a cultural preserve and designation of allowable use intensity zones. The department would also build the new day-use and administrative facilities called for in the Facilities Element, and the new interpretive facilities called for in the Interpretive Element. No new overnight facilities, however, would be developed under this alternative.

The new development called for in Alternative #2 would cause some adverse effects on the environment in some locations, but the restoration work would improve environmental conditions in others; the deterioration mentioned in the "no project" alternative would be actively reversed. Unlike Alternative #3 (the Preliminary General Plan), this alternative would not create new impacts associated with developed campgrounds, such as increased water use and solid waste, and disturbance of soils and plant life in new locations. Alternative #2 is the environmentally superior alternative.

3. Restoration and Moderate New Development (The Preferred Alternative)

This alternative is the Preliminary General Plan. It is the same as Alternative #2, except that new overnight facilities would be developed.

These include: a new family campground with flush toilets and showers in the northeast corner of the park, off Marsh Creek Road; a new campground for the disabled with flush toilets, showers, and a kitchen and dining hall in Riggs Canyon; and flush toilets and showers at the Juniper Campground and the Pioneer Horse Camp.

The environmental impacts of this alternative are discussed in the "Impacts" section of the EIE.

G-3971L

Organizations Contacted in the Preparation of the Environmental Impact Element

City of Clayton - Traffic
City of Walnut Creek - Traffic
City of Concord - Traffic
City of Contra Costa - Traffic
East Bay Regional Park District - Trails
California Department of Parks and Recreation - All subjects