

UNIT 125

MCARTHUR-BURNEY FALLS MEMORIAL STATE PARK

GENERAL PLAN

June 1997

McARTHUR-BURNEY

FALLS MEMORIAL STATE PARK



GENERAL PLAN

June, 1997

DEPARTMENT OF PARKS AND RECREATION

STATE PARK AND RECREATION COMMISSION

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**Resolution 11-97
adopted by the
CALIFORNIA STATE PARK AND RECREATION COMMISSION
at its regular meeting in Redding on
June 18, 1997**

WHEREAS, the Director of the Department of Parks and Recreation has presented to this Commission for approval the proposed McArthur-Burney Falls Memorial State Park General Plan; 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 and resources;

NOW, THEREFORE, BE IT RESOLVED that the California State Park and Recreation Commission approves the Department of Parks and Recreation's McArthur-Burney Falls Memorial State Park Preliminary General Plan dated January 1997, subject to such modifications as the Director of Parks and Recreation shall determine advisable and necessary to implement the provisions and objectives of said plan.

McArthur-Burney Falls Memorial State Park

General Plan

June, 1997

Pete Wilson
Governor

Douglas P. Wheeler
Secretary for Resources

Donald W. Murphy
Director
Department of Parks and Recreation

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



This general plan is dedicated to the memory of David E. Bartlett, District Superintendent of the Northern Buttes District at the time it was written. It reflects his concern for the protection of park resources and high standards for service for park visitors.



Springs feeding
Burney Creek rise
in the southeastern
corner of the park.



The creek plunges
over Burney Falls, and . . .

. . . ends its run
when it mixes with the
waters of Lake Britton.



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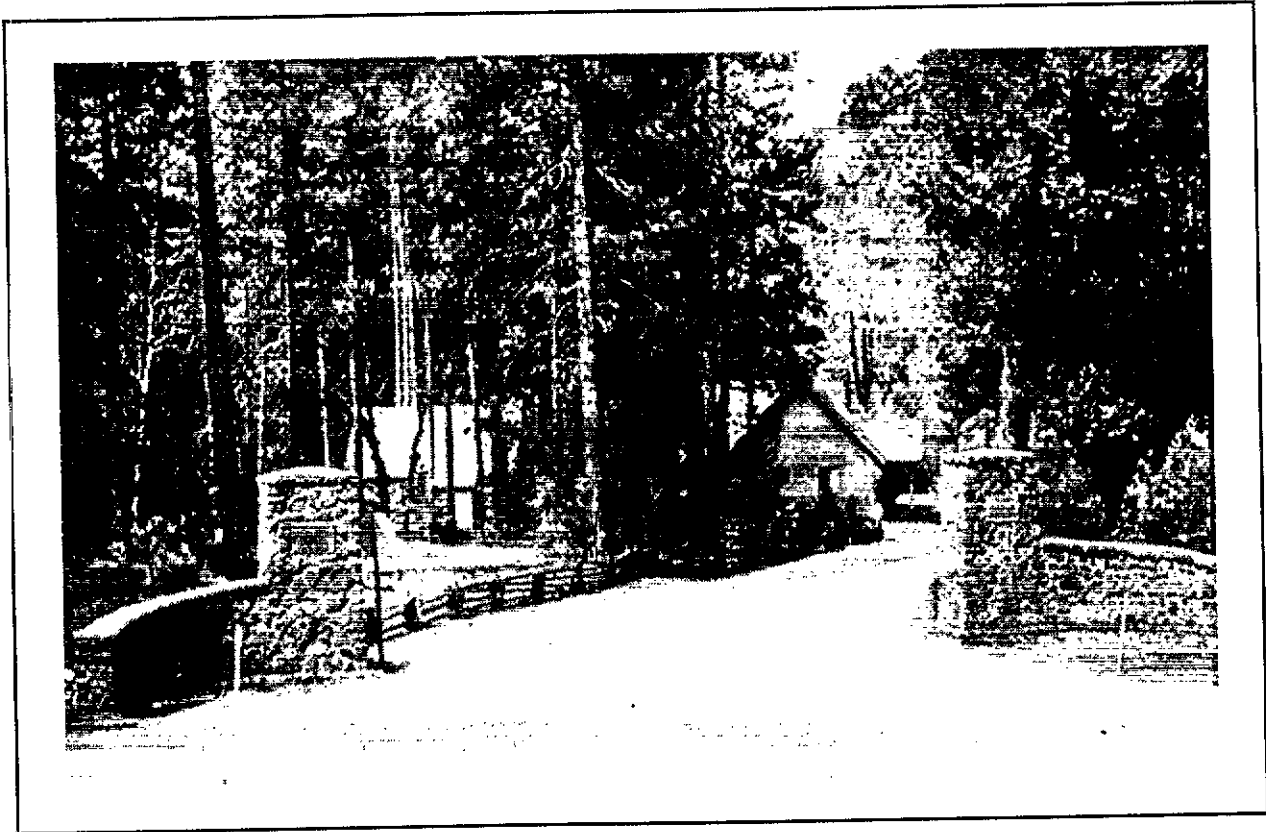
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Stone gates mark the existing entrance to the park off Highway 89.

Introduction

INTRODUCTION

PARK DESCRIPTION

McArthur-Burney Falls Memorial State Park is located 65 miles east of Redding and ten miles northeast of Burney in Shasta County. State Highway 89 runs through the eastern part of the park six miles north of its intersection with State Highway 299. The park contains 910 acres of mostly forested land.

Situated approximately half-way between Mount Shasta and Lassen Peak, the state park is on the eastern edge of the Cascade Mountain Range. It occupies a portion of a broad plateau broken by hills and volcanic mountains and cut by the canyons of the Pit River and its tributary, Burney Creek. Burney Falls, the reason for the park's existence, is on Burney Creek approximately midway in its run through the park. The creek flows into Lake Britton, a Pacific Gas and Electric Company (PG&E) reservoir that fills the Pit River Canyon north of the park.

Most of the park is relatively flat. However, the slopes of Burney Canyon and above the lake are steep. Several hills surround the park's central area, including a low ridge around which Highway 89 bends as it passes through the park.

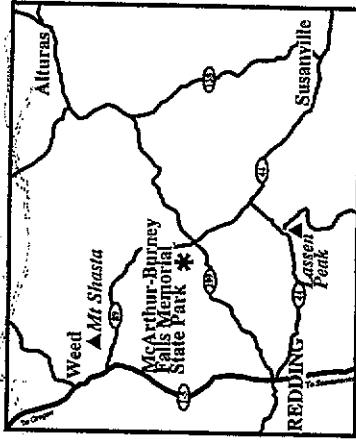
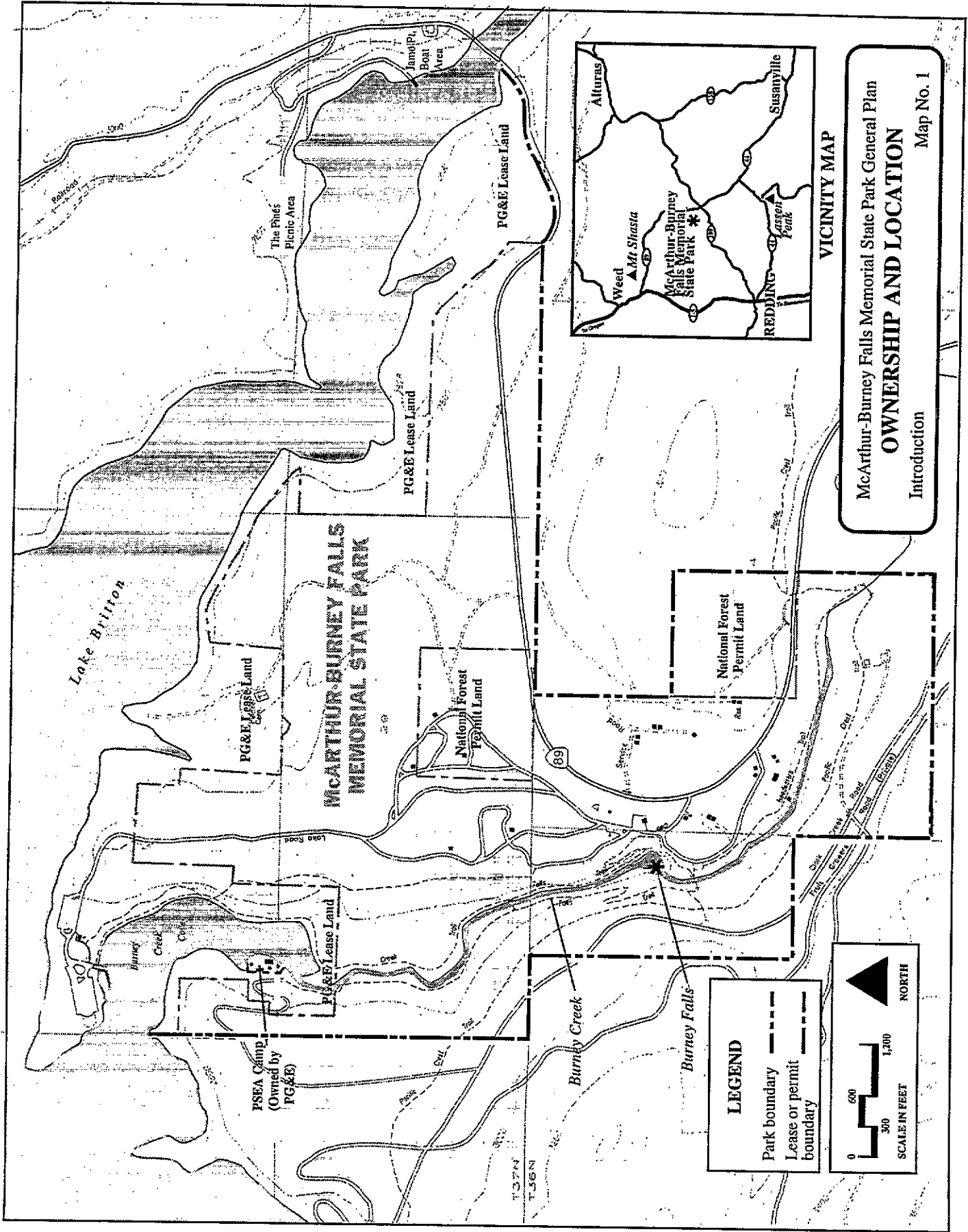
RECREATIONAL OPPORTUNITIES

Though the public use areas in the park amount to less than 130 acres, they support many diverse recreational activities. Viewing the falls is a high priority for most first-time visitors. Picnicking is popular both near the falls and at Lake Britton. The family campgrounds are full throughout most of the summer. Day visitors and campers alike walk the park's trails and fish the creek. They also take advantage of the access that the park provides to the lake for boating and other water recreation.

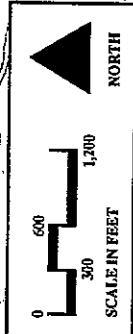
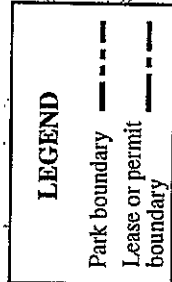
Interpretive activities are well attended, including day hikes, evening campfire programs, and other presentations, such as star interpretation at the lake during the summer. Many people visit the small visitor center. Visitors also buy merchandise and food at the park concessionaire's store.

The park serves as a day use destination for people from the Redding area. This northeastern corner of California also draws visitors for overnight use from the San Francisco Bay Area, the fast-growing Los Angeles basin, and the Sacramento environs. As all of these urban centers will continue to grow, demand for access to the park can also be expected to increase.

One response to this pressure could be to maximize development of facilities at McArthur-Burney Falls. However, the quality of visitors' park experience has been of utmost importance in the preparation of this general plan. The park has a limited developable land base. It also contains many sensitive resource values, including Burney Falls and its scenic environs, as well as essential habitat for a recovering population of bald eagles.



McArthur-Burney Falls Memorial State Park General Plan
OWNERSHIP AND LOCATION
Introduction
Map No. 1



THE RELATIONSHIP OF THE PARK TO OTHERS

McArthur-Burney Falls Memorial State Park does not exist in isolation. During the course of its operation, park staff needs frequent interactions with other public agencies, as well as private companies and individuals. There are ownerships and jurisdictions that overlap or otherwise relate to the park that are discussed in several places in this plan. The Resource Element contains descriptions of the park's cooperation with other agencies charged with resource management. The Land Use and Facilities Element includes information about nearby landholders who interact with the department. The element also discusses other agencies with jurisdictions involving planning or management responsibility affecting park land. The Operations Element describes the many federal, state, and local agencies with which the department cooperates in the day-to-day operation and management of the park.

AESTHETIC RESOURCES AND SPIRIT OF PLACE

The plateau upon which the park lies was once a tranquil place. The Pit River, almost too distant to be heard, sighed from the depths of its canyon. Burney Canyon resounded with the roar of the falls and the cheerful gush of the creek. Forests of conifers and oaks interspersed with lush meadows clothed the plateau, the scattered hills, and the slopes of the canyons. The area abounded with a wide variety of animals. The people who were fortunate enough to live in this place before Euro-American settlers came revered the falls as sacred.

Changes to this scene began slowly but escalated during the twentieth century. After settlement of the Pacific Coast and the birth of California, this remote part of the state retained its isolation. Well into the twentieth century, paved roads were rare, and the sounds of construction were fleeting. The park area still remains far from the lights of the city, and clear nights reveal thousands of stars and the Milky Way, now hidden from most urban dwellers.

Within the last few decades, more and more vacationers have sought the solitude of northeastern California and come to the park. Now, the park's developed areas reflect its popularity. Buildings, roads, and parking lots dominate the landscape near the falls. Pedestrians, bicycles, and automobiles crowd park roads. Damming the Pit River has created a bright lake with a swim beach jammed with adults and children when the weather is warm. Motorboats, waterskiers, and jet skiers roar by. Scents of campfires and automobile emissions sometimes vie for the attention of visitors who have come to breathe the fresh and vibrant air. A major highway now carries traffic, including thunderous trucks, to within 800 feet of the falls, flooding the surrounding picnic grounds, visitor center, and campfire center with noise during most of the day and early evening. On a busy day, the falls' roar is audible only at the canyon rim.

It is during the quieter parts of the year that some of the ancient tranquillity returns. However, asphalt and compacted earth remain, although sometimes hidden beneath a soothing blanket of snow.

Spirit of place refers to qualities that imprint upon peoples' senses and make a place memorable. What people see, hear, smell, and feel create an intangible spirit they can later recall. However, people bring their own expectations and preferences to a place, with senses focused upon particular aspects of their surroundings. Therefore, each visitor takes away his or her private version of the sense of a place.

Department visitor surveys reveal that some visitors felt their time at the park was tainted by the placement of facilities and level of development. Some comments were: "Too overrated, too overcrowded . . . " ; "There is a lot of motor traffic through campground to lake – cars driving up and back." Others offered suggestions such as: "Move parking lot next to falls to area of picnic tables – that would improve natural area next to falls that has been made very sterile."

On the other hand, most visitors tended to overlook such intrusions, perhaps because they didn't arrive expecting a primarily natural experience. Thus, visitor surveys also contain many enthusiastic comments: "You have a gorgeous park here!" "This is the closest we'll get to heaven here on earth. We'll be back next year . . . " "Beautiful escape." Some families return year after year: "We have been coming here for the past 10 years and we LOVE the park."

However, general planning for this park has been based on the assumption that there are negative aspects of the park experience that a majority of the visitors share, either consciously or subconsciously. Therefore, this plan has been prepared with the intention of improving and enhancing the park's spirit of place. In the future, visitors should be better able to experience the park's inherent natural qualities with less impact from built intrusions, especially near the falls. Unhindered by distracting developments, individuals will approach the falls with a restored sense of anticipation, arrival, and wonder at the great roar and grandeur of the plunging white water – a primal force that has shaped this land.

THE GENERAL PLAN

PURPOSE AND NEED FOR GENERAL PLANNING

Section 5002.2 of the California Public Resources Code requires preparation of a general plan for a State Park System unit before it can receive funding for development projects that would result in a permanent commitment of its resources. A general plan is projected to be a guide for approximately 20 years. It identifies and analyzes the relative importance of the park's various resources, provides directives for their preservation and management, and makes proposals for their appreciation through interpretation. It proposes improvements to attain expected optimal patterns and intensities of land uses and describes the nature and location of future developments. It outlines future operational needs. It also provides guidelines for evaluating potential land additions to the park and for responding to various impacts from outside the park.

FORMAT AND CONTENT

This general plan is made up of a series of elements:

- The Resource Element evaluates the park's natural and cultural resources and establishes directives for protection, restoration, management, and use of these resources.
- The Land Use and Facilities Element describes current park land uses and proposes future land use patterns to establish directions for park management and use that will best fulfill park goals. It proposes developments to enhance public enjoyment of the park's resources and other values. It also establishes

design criteria for park developments to protect the park's aesthetic values and for the welfare and safety of park visitors.

- The Interpretive Element proposes facilities and programs for public education and interpretation of the park's natural and cultural resources and information about park regulations.
- The Concession Element evaluates the existing concession and outlines the importance of repositioning these services.
- The Operations Element describes current and projected operational and maintenance goals and activities for the park.
- The Environmental Impact Element provides the environmental impact assessment required by the California Environmental Quality Act (CEQA). The entire general plan constitutes the Environmental Impact Report.

THE REASONS FOR PREPARING THIS GENERAL PLAN

McArthur-Burney Falls is one of the oldest state parks, having existed for over 70 years. The initial 160 acres were given to the State of California by Frank and Ethel McArthur, who wished to see the falls and their setting preserved for all time for the people of the state.

Since then, the park has seen various uses, including a Civilian Conservation Corps camp in the 1930s. The first camping and day use facilities were built in the late 1920s. Some current facilities were originally constructed in the mid-1930s and, by the 1950s, the park had begun to assume its present-day appearance.

Park development projects were responsive to demand and use patterns at the time of their construction. In some parts of the park, what worked well 30 or 40 years ago has not remained satisfactory as visitation grew. Although many facilities served the public adequately for decades, some began to reach an age and condition that required their replacement. Past developments had been accomplished without comprehensive planning to consider the needs of the park as a whole. During recent years, increased attention to the importance of careful resource management and the pressures of increased use pointed to the need for a general plan to reexamine the park's resources and its ability to meet the expected public use needs of the next two decades.

THE PLANNING PROCESS

The general plan was prepared by a team of park professionals from the department's Northern Buttes District, the Cascade Sector, and the Northern Service Center in Sacramento. Evaluation of existing conditions of the resources and facilities at the park began in June of 1994. The team conducted field reviews, research, and interviews to compile an information base during the next several months. This work included specific information relating to vegetation, wildlife, the area's prehistory and history, surrounding land uses, and visitor use patterns and desires.

Contacts with a number of agencies and other parties outside the department took place throughout the process. There was extensive communication with many of

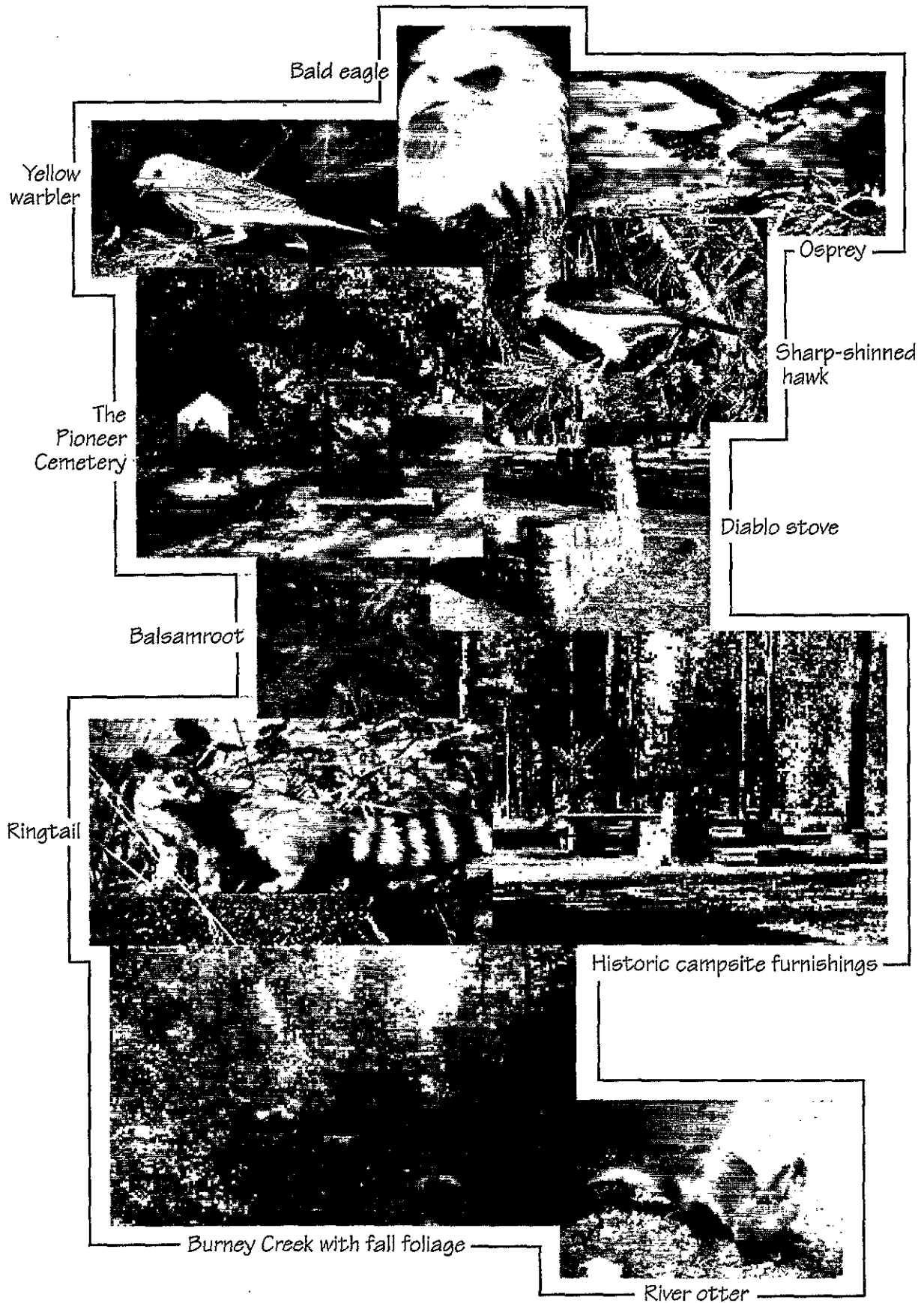
these contacts, including the California Department of Fish and Game and several other state agencies, PG&E, the Lassen National Forest, the park concessionaire, and representatives from the local Native American community. Interviews were also conducted with staff and volunteers at the park. A broad-based general plan mailing list was developed containing addresses of individuals, government agencies at the local, county, state, and federal levels, interest groups, commercial interests, local media, and local Native American representatives. The first public involvement meeting to learn what issues and concerns were important to the public was held at the park during July of 1995.

After that meeting, the team clarified the purpose of the general plan by summarizing the issues the plan would resolve and ranking them in order of importance. They were:

1. Problems relating to vehicular, pedestrian, and other circulation at the park
2. The appropriate future carrying capacity of the park
3. Congestion around the facilities on the east side of Burney Creek and the falls
4. Improvements to the park's interpretive facilities
5. Natural resource management problems
6. The kind and configuration of camping facilities
7. Adequacy and condition of the park's trails
8. Cultural resource management problems
9. Location of the park's concessions facilities
10. Location and condition of the park's day use facilities
11. Adequacy of operations facilities
12. Meeting standards for accessibility for persons with disabilities
13. Examining the park's mission/purpose
14. Condition of the infrastructure/utilities
15. Current and future interpretive activities
16. The appropriateness of concession merchandise

The team presented draft general plan proposals in May, 1996, at a second public meeting in Burney. Comments received at the meeting were taken into account as the general plan was written during the summer of 1996. It circulated for review within the department during the fall.

The McArthur-Burney Falls Memorial State Park Preliminary General Plan went out for California Environmental Quality Act (CEQA) review in January, 1997. The expectation is that the State Parks and Recreation Commission will act upon the general plan during the summer of 1997.



Resource Element

RESOURCE ELEMENT

The Resource Element identifies specific natural and cultural resources at McArthur-Burney Falls Memorial State Park along with their values, sensitivities, and physical constraints. It then establishes department guidelines for acceptable levels of use and development concerning these values, sensitivities, and constraints. The element also sets forth long-range management objectives for these resources and identifies specific actions or limitations required to achieve these objectives. Through development of a Resource Element, the department complies with Division V, Chapter 1, Section 5002.2(b) of the Public Resources Code and Title 14, Chapter 1, Section 4332, of the California Code of Regulations.

RESOURCE SUMMARY AND EVALUATION

The following resource information is a summary and evaluation of data contained in the Resources Inventory for McArthur-Burney Falls Memorial State Park. More detailed information contained in this inventory is available at the department's Northern Service Center in Sacramento.

NATURAL RESOURCES

Meteorology

The climate of northeastern California is variable over relatively short distances partly because of topographic variation due to the mountains. The mountains in this area greatly affect the local weather, including temperature, precipitation, and winds. The region is remote from the moderating influence of the Pacific Ocean and experiences a more continental type of climate than the coastal areas of California.

McArthur-Burney Falls Memorial State Park and its vicinity experience great seasonal temperature variation. The average annual temperature in the town of Burney is 47.5° F. From July through September, the average maximum temperature is 80° F or higher. Average minimum temperatures exceed 40° F from June through August. During December and January, the average maximums are less than 45° F. The average minimum temperatures are below 20° F. Minimum temperatures average below freezing from October through April.

Average annual precipitation in Burney is 27.45 inches, some of which falls as snow. About 74% of the precipitation occurs from November through March. December and January are the wettest months, and the driest are July and August.

Topography

McArthur-Burney Falls Memorial State Park is located within the Cascade Range and Modoc Plateau natural region or geomorphic province. The park encompasses 910 acres of forested landscape, with about five miles of streamside and lake shoreline, including a portion of Lake Britton. Elevations range from approximately 3,080 feet above sea level in the park's west central portion to 2,757 feet at high water along the shoreline of Lake Britton. Park topography is variable, with slopes ranging

from slight (0-8%) to very steep (greater than 50%). The park is drained by Burney Creek, which empties into Lake Britton within its boundaries.

Park topography is primarily a result of regional volcanic activity and erosion of this landscape by weathering and streams. Most of the park consists of a lava plateau bisected by a moderate sized stream (Burney Creek) that flows into a lake (Lake Britton). Three features dominate the park's landscape: 1) Burney Falls, 2) the canyon of Burney Creek, and 3) Lake Britton. The most prominent feature is 129-foot-high Burney Falls, near the park's headquarters. The major source of water for Burney Falls is a series of springs beginning about three-quarters of a mile upstream. Normally, Burney Creek is dry during the summer and autumn upstream of these springs. At the falls, numerous streams and rivulets issuing from the cliff face augment the flow of the creek. Downstream from the falls, Burney Creek has carved a 160-foot-deep canyon through layers of basalt and diatomaceous earth. Near the falls, the canyon walls are steep and confining, with some slopes exceeding 100%. Burney Creek flows into Lake Britton about .8 mile downstream from the falls.

Lake Britton is an artificial body of water impounding the flow of the Pit River and backing up into the lower end of Burney Creek to form Burney Creek Cove. The south shore of the lake constitutes the northern boundary of the park. Steep banks drop directly into the lake along much of the shoreline. The largest level area bordering the lake is a peninsula on the eastern side of the cove that was raised with fill material.

Geology

McArthur-Burney Falls Memorial State Park and the surrounding area exhibit a composite of landforms representative of the Cascade Range, Modoc Plateau, Klamath Mountains, and Basin-Ranges physiographic provinces.

The lower Burney Creek basin, which includes the park, is located in an indefinite border zone between the Cascade Range and Modoc Plateau provinces. The basin lies between highly faulted Hatchet Mountain to the west and the steep escarpments of Fort Mountain to the northeast. Like Fall River Valley immediately to the east, lower Burney Creek basin displays a geomorphology comparable to that of the Modoc Plateau. The Modoc Plateau consists of block-faulted ranges with intervening valleys filled with broad-spreading basalt flows. This description also applies to the lower Burney Creek basin. However, other physical features of the basin, such as orogenic volcanism displayed by the cone of Burney Mountain just south of Burney, are more akin to the Cascade Range. Geologists typically place the lower Burney Creek basin in the Cascade Range.

The oldest exposed rocks in the Burney Falls area date from the Miocene Epoch (26 to 12 million years ago). They include volcanic mud flows, basalt and andesite lavas, and some volcanic sediments. These rocks are best viewed in the Pit River canyon just downstream from Lake Britton. Volcanic rocks also believed to be of Miocene age are east of Highway 89, in the vicinity of a former Civilian Conservation Corps camp that was at the park in the 1930s. Other Miocene Epoch rocks (tuff-breccia) are exposed on the lower half of the cliff face at Burney Falls.

Most of the shoreline of Lake Britton east and north of the falls area consists of rocks probably dating from the early or middle Pliocene Epoch (12 to 6 million years ago). Diatomite, a lightweight, porous, slightly permeable rock composed of fossilized

microscopic algae, is exposed along much of the south shore of Lake Britton and lower Burney Creek. Some tuff and sand are interbedded with the diatomite.

During the late Pliocene Epoch (6 to 3 million years ago), erupted basalt covered the terrace now occupied by the park and flowed into areas just north of present-day Lake Britton. Drainage in the area prior to these eruptions was restricted to discrete stream channels. The basaltic flows interrupted this drainage pattern, creating a wide, level, and partially permeable surface. This surface allows rainfall and streams entering the valley to sink through some of the fracture zones in the basalt to the level of the buried stream channels. Water collects below the surface in underground reservoirs (aquifers) and follows the channels until intersecting the surface at the lower end of the basalt flow. This is the process giving rise to the springs that provide most of the volume of Burney Falls.

Burney Falls achieved its current appearance through the retreat of cascades or rapids upstream from the mouth of Burney Creek to the hard basalt at the falls. Initially the outlet of the creek into the Pit River was subterranean. In time, the erosive power of winter surface runoff and springs created a surface drainage for the stream. The cascades moved southward through the soft, underlying diatomite at the lower end of Burney Creek at a rapid rate. Eventually, the cascades encountered tough basalt caprock and underlying tuff-breccia. At this point, the stream began to form a waterfall. Although tuff-breccia is erosion-resistant, it is more easily eroded than basalt. Undercutting of the basalt caprock formed Burney Falls, which grew over a long time to the current height of 129 feet.

Soils

McArthur-Burney Falls Memorial State Park is located in the Lava Plateau Region (Soil Region VI). Soil Region VI encompasses the Modoc Plateau area of northeastern California and includes mountains and intermountain valleys. Average elevations range from 4,000 to 7,000 feet above sea level. Cool to warm summers and cold, snowy winters characterize the climate of this region. In general, soils are derived from basic igneous rocks and basic rock alluvium. Vegetation is predominantly sagebrush scrub, juniper woodland, and ponderosa pine forest.

Ten soil mapping units denoting eight soil series occur in the park. See Table 1.

TABLE 1
McArthur-Burney Falls Memorial State Park
Soil Mapping Units

<u>Numerical Designation</u>	<u>Name</u>
224M	Nanny(taxadjunct)
700BT	Talus (rubble land)
717	Cohasset
756V	Supan (variant)
7124	McCarthy
7201	Burney
7202	Arkrigh
9122	Britton
7124/9122	McCarthy/Britton Complex
9122/9322	Britton/Wolfin Complex

The park's soils are derived from basic igneous rocks, volcanic alluvium, and lake sediments, or diatomite. These soils range in depth from moderately shallow to deep and are typically well drained. Erosion hazards are mostly slight to moderate, although certain soils on steep slopes adjacent to Lake Britton have a high erosion potential. Some areas along Burney Creek downstream of the falls are devoid of a soil mantle, consisting of rocky talus material on steep slopes. The most common soil in the park is 7201 Burney, which is a deep soil (40-80 inches) that occurs on mostly level areas throughout the park.

The U.S. Department of Agriculture Soil Conservation Service has determined the suitability of various soils that occur in the park. Potential land uses for which the standards for suitability apply in park units are septic tank absorption fields, shallow excavations, roads and streets, dwellings without basements, camping areas, picnic areas, paths and trails, and road fill. With the exception of the 224M Nanny soil, which covers less than 3% of the park, soils have moderate to severe limitations for all categories of land use. The most common limiting factors are slope and depth to rock. Careful planning and a greater investment of resources can overcome moderate to severe limitations.

Hydrology

McArthur-Burney Falls Memorial State Park is in the Lake Britton and Lower Burney Creek Hydrologic Subareas of the Burney Hydrologic Area, as defined by the Department of Water Resources. The Burney Hydrologic Area lies within the Sacramento Water Basin, which provides water to the Sacramento River.

The park's principal hydrologic feature is Burney Creek. Although the park borders the shore of Lake Britton, an impoundment of the Pit River, it is the hydrologic features and resources of the Burney Creek watershed that overwhelmingly influence the hydrologic and related resources of the park unit.

Burney Creek is a major tributary of the Pit River. It originates at Burney Mountain and the western side of the Thousand Lakes Wilderness (U.S. Forest Service) and flows in a generally northerly direction toward the town of Burney. From Burney, it continues generally north into the park, coursing over 129-foot-high Burney Falls and ultimately entering Lake Britton. About 1.6 miles of Burney Creek is in the park.

The total estimated area of the Burney Creek watershed is approximately 185 square miles, of which about 234 acres are within the park. Appendix A is a map of the Burney Creek watershed.

During the summer, Burney Creek is dry along a slightly inclined section of streambed that extends several miles upstream of the state park. This section of creek is seasonally dry due to diversions and other consumptive uses and to rapid percolation of the stream into porous and fractured rock. However, approximately 0.2 miles inside the park's southeastern boundary, the creek channel is fed by a multitude of cold freshwater springs. These springs, combined with sheets of springs around the base of the falls, provide perennial flows to the lower 1.4 miles of Burney Creek (all within state park ownership). Estimated average flows of this reach of creek typically vary from nearly 150 cubic feet per second (cfs) during the dry season to approximately 300 cfs during the spring run-off period. During much of the year, water quality in the lower 1.4 miles of the creek is very high.

Surface runoff from almost 73% of the state park (about 676 acres, including leased lands) is directly tributary to the Lake Britton/Pit River watershed. Seasonal runoff from a portion of the lands in the eastern section the park is intercepted by a shallow drainage that provides an important water source for the meadow community occurring within the area.

The beach, boat launch parking lot, and lake shore are prone to periodic flooding. Such flooding results from abnormally high precipitation in the watershed combined with the manipulation of water levels by PG&E for the production of hydro-electricity.

Groundwater provides almost all domestic and industrial water needs in the Burney Hydrologic Area. This has not been in short supply, although Burney Water District wells have exhibited many feet of draw-down in recent years. The demand for water from the hydrologic area is growing, as evidenced by a 30% increase in the number of wells drilled in the six-year period, 1988-1994. It is not known at what point increased upstream water extractions and diversions will adversely affect the volume of water that provides flows to Burney Falls and lower Burney Creek. The groundwater quality in the Burney Hydrologic Area is very high. However, it is vulnerable to contamination because of the permeable volcanic terrain.

Plant Life

McArthur-Burney Falls Memorial State Park lies in the transitional zone between the Cascade North Sierra Region of the California Floristic Province and the Great Basin Region of the Transmontane Floristic Provinces. The park contains floral and vegetation elements of both provinces, although there is a greater affinity with the California Floristic Province. This floristic province encompasses most of California and a small portion of Nevada, Baja California, and Oregon.

Only common plant names are used in the Plant Life Section. The corresponding scientific names appear in Appendix B.

Special Plants

Special plants are listed annually on the California Department of Fish and Game's (CDFG) Special Plant List. Those species listed by the U.S. Fish and Wildlife Service, the CDFG, and the California Native Plant Life Society as rare, threatened, or endangered are a subset of the Special Plant List. One special plant species, Bellinger's meadowfoam, occurs in the park at the north end of the meadow bisected by Highway 89. Under California law, this plant is eligible for state listing. Sensitive Wildlife Habitat and Special Plants appear on Map # 3.

Plants Of Special Interest

Plants of special interest are species of scientific, educational, or interpretive value. These include plants that are uncommon, at the limit of their native range, of unusual size, form, color or beauty, or have important and unusual relationships with animal life. There are five plant species in McArthur-Burney Falls Memorial State Park that fit one or more of these criteria. A small population of aspen grows along the banks of Burney Creek at the lowest known elevation for the species in California. Similarly, the two known sugar pine in the park grow at an elevation near the species lowest reported limits. Although common in the park, the California endemic mountain

misery reaches the northernmost limits of its distribution in Shasta County. Incense cedar and snowplant are common to the park, but are endemic to the California Floristic Province.

Alien Species

Alien species are not a major concern in the park. The most common are annual grasses and forbs, most of which are well established in California. There are a few isolated scotch broom plants near the current park entrance, but no other invasive alien species have been identified in the park.

Plant Communities

There are nine plant communities or plant associations recognized at McArthur-Burney Falls Memorial State Park. See Map #2, Plant Communities. The communities are:

- Westside Ponderosa Pine Forest
- Sierran Mixed Conifer Forest
- Black Oak Woodland
- Ponderosa Pine/Oak Woodland Association
- Willow-Ash Riparian Forest
- Alder-Vine Maple-Ash Riparian Forest
- Montane Dry Meadow
- Montane Manzanita Chaparral
- Mountain Mahogany Chaparral

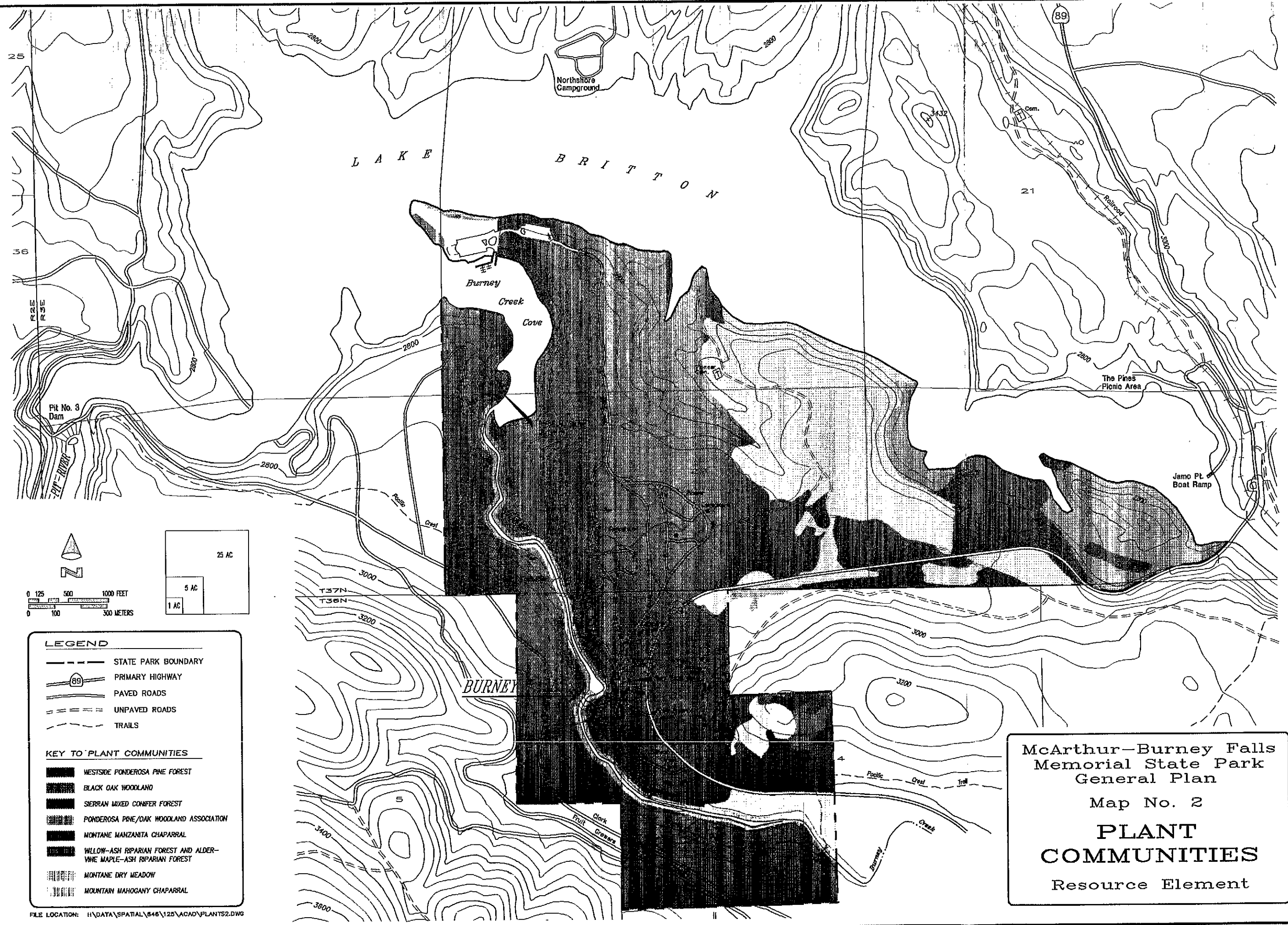
Westside Ponderosa Pine Forest

This community is dominated by ponderosa pine, which usually accounts for more than 50% of the canopy coverage. Common components of the canopy include California black oak and Oregon white oak. Past land management practices, especially fire suppression, have altered the structure and composition of this community. Reduction of the typical open character of these forests has favored the establishment of more shade tolerant species, such as incense cedar and Douglas-fir.

The understory composition is dependent on several factors, such as moisture availability, aspect, canopy closure, and disturbance. In locations with a more open canopy, shrubs, such as greenleaf manzanita, deerbrush, squaw carpet, mountain misery, squawbush, rubber rabbitbrush, and bloomer goldenbush, dominate the understory. Areas with a more closed overstory support an understory of forbs and grasses, including nodding trisetum, cheat grass, *Poa* sp., Lindley's annual lupine, and blue-eyed Mary.

Sierran Mixed Conifer Forest

Sierran Mixed Conifer Forest occupies the more moist areas of the park, including portions of the Lake Britton lakeshore and Burney Creek Canyon. Douglas-fir and incense cedar are co-dominants in the canopy, with lesser numbers of ponderosa pine. California black oak and Oregon white oak are minor canopy components. Canopy closure is typically 50% or greater, exceeding 70% on wetter sites. The understory is usually sparse, consisting of small trees and/or light grass cover.



LEGEND

- STATE PARK BOUNDARY
- PRIMARY HIGHWAY
- PAVED ROADS
- UNPAVED ROADS
- TRAILS

KEY TO PLANT COMMUNITIES

- WESTSIDE PONDEROSA PINE FOREST
- BLACK OAK WOODLAND
- SIERRAN MIXED CONIFER FOREST
- PONDEROSA PINE/OAK WOODLAND ASSOCIATION
- MONTANE MANZANITA CHAPARRAL
- WILLOW-ASH RIPARIAN FOREST AND ALDER-VINE MAPLE-ASH RIPARIAN FOREST
- MONTANE DRY MEADOW
- MOUNTAIN MAHOGANY CHAPARRAL

McArthur-Burney Falls
Memorial State Park
General Plan
Map No. 2
**PLANT
COMMUNITIES**
Resource Element

Commonly encountered plants are greenleaf manzanita, mountain pink currant, deerbrush, mountain misery, and bracken fern.

Black Oak Woodland

Black Oak Woodland readily intergrades with other communities in the park, especially Ponderosa Pine/Oak Woodland Association and Sierran Mixed Conifer Forest. Its occurrence is limited to the eastern one-third of the park in locations adjacent to Lake Britton. California black oak is the dominant canopy species, with scattered ponderosa pine and Oregon white oak. The primary constituents of the understory are small oak trees and shrubs such as squawbush and cluster rose.

The stands of Black Oak Woodland in the park are primarily even-aged, reflecting past disturbance, most likely fire. This stand structure is typical of the classic type, which is an intermediate successional stage maintained by fire or other disturbance.

Ponderosa Pine/Oak Woodland Association

This community occupies an area east of the Pioneer Campground and north of Highway 89. It is defined as a vegetation association that possesses attributes of both Westside Ponderosa Pine Forest and oak woodland types (Black Oak and Oregon White Oak). The community has two phases, one dominated in the canopy by ponderosa pine and Oregon white oak, and the other dominated by ponderosa pine and California black oak. Distribution of these three species is variable, and it is not unusual to encounter nearly pure stands of a single species. Canopy closure varies from less than 50% to greater than 75%.

The understory of both phases is similar, ranging from a sparse grass savannah to areas with scattered shrubs. Commonly encountered shrubs are squawbush, rubber rabbitbrush, greenleaf manzanita, squaw carpet, and buckbrush. Areas with a grass savannah contain nodding trisetum, cheat grass, Lindley's annual lupine, blue-eyed Mary, and *Poa* spp.

Willow-Ash Riparian Forest

This community is restricted to a narrow corridor immediately next to Burney Creek upstream of Burney Falls. Dominant overstory species are arroyo willow and Oregon ash. In some locations, Oregon white oak and ponderosa pine form a partial secondary canopy overtopping the smaller willows and ash. Canopy closure is generally less than 75%. The understory is typically dense, mostly consisting of small willows and sedges.

Alder-Vine Maple-Ash Riparian Forest

The character and species composition of the riparian vegetation changes as one progresses downstream along Burney Creek. The downstream plant community is differentiated from the riparian forest upstream of the falls primarily based on the dominant overstory species. Along the streambanks, white alder, vine maple, and Oregon ash dominate the canopy. Mountain dogwood, American dogwood, and vine maple are the dominant species in the primary canopy away from the immediate streamside. In these areas, Douglas-fir and, to a lesser extent, incense cedar form a secondary canopy overtopping this deciduous forest. Common understory plants

include cluster rose, thimbleberry, Sierra gooseberry, and sapling-sized specimens of the overstory species. Canopy coverage typically exceeds 90%.

Montane Dry Meadow

There are two known locations in the park that support montane dry meadows. The largest meadow occupies the uppermost portion of a small drainage located east of the Pioneer Campground and bisected by Highway 89. Its species composition and physical structure are somewhat similar to those of a vernal pool. In early spring, cut-leaved orthocarpus, Layne's monkey flower, common large monkey flower, Colorado rush, mouse-ear chickweed, and Spanish clover are in flower. Later in the spring, blooms of mountain monardella, Spanish clover, willow-herb, silver European hairgrass, and medusa head become abundant.

A second smaller montane dry meadow occupies moderately steep slopes of a minor drainage about a half-mile south of the Pioneer Cemetery. The most common plants are western buttercup, common large monkey flower, Spanish clover, Lemmon's stipa, red-stemmed filaree, and *Cryptantha* sp.

Montane Manzanita Chaparral

In the park, Montane Manzanita Chaparral is a poorly developed community that is most likely a post-fire successional stage that follows burns in Westside Ponderosa Pine Forest and Sierran Mixed Conifer Forest. It occurs only in dry locations in the southern part of the park. Greenleaf manzanita is the dominant species, which accounts for more than 90% of the woody cover. Rubber rabbitbrush and squaw carpet are minor components of the community. Herbaceous species commonly encountered on its fringes include Lindley's annual lupine, naked-stemmed *Eriogonum*, and minute willow-herb.

Mountain Mahogany Chaparral

This community is a type of montane chaparral dominated by mountain mahogany and, to a lesser extent, buckbrush and naked-stemmed *Eriogonum*. Vegetative cover exceeds 75%. It is limited in extent within the park, occupying slightly less than 10 acres on upper hillslopes east of the park's reservoirs. It is not clear whether this community is in climax or represents a shrubby intermediate stage leading to a conifer-dominated community.

Animal Life

McArthur-Burney Falls Memorial State Park contains an assemblage of terrestrial vertebrates typical of the southern Cascade region that occupies the northeastern corner of the state. Most vertebrates occurring here are common and widespread throughout California. However, because of the rugged and undeveloped nature of the region, some species considered uncommon or rare elsewhere in their range are common here. A list of the common and scientific names of wildlife species known or predicted to occur at the park appears in Appendix C.

The park contains a rich assemblage of vertebrate species due to the variety of habitats available in and adjacent to it. Lake Britton provides good habitat for aquatic life-forms and numerous species of avifauna.

Habitat Types

The Wildlife Habitat Relationship System (WHR) developed by the Department of Forestry and Fire Prevention and the Department of Fish and Game (DFG) was utilized to predict, by habitat type, which terrestrial vertebrate species may occur at the park. The habitat types described in this section are more general than those described in the preceding Plant Life section, and are meant for use as a predictive tool only. When developing resource management plans, department staff should refer to existing plant communities, not habitat types. The relationship between WHR habitat types and vegetation communities (as described in the Plant Life Section, above) occurring in the park appears in Appendix D.

The WHR distinguishes ten distinct wildlife habitat types at McArthur-Burney Falls Memorial State Park (including Lake Britton). These include Sierran Mixed-Conifer, Ponderosa Pine, Montane Hardwood-Conifer, Montane Hardwood, Montane Riparian, Montane Chaparral, Wet Meadow, Riverine, Lacustrine (i.e., lake), and Urban.

The Sierran Mixed-Conifer habitat type is comprised of mixed conifer vegetation with a shrub understory. This habitat type occurs in about 35% of the state park, primarily west of the lake access road. The complex structural heterogeneity and vegetative composition provide habitat for numerous animal species, including mule deer, coyote, and gray fox. Black bears may be found in this habitat, especially following a disturbance that stimulates shrub growth. Bald eagles and peregrine falcons use this habitat for perching and foraging, while osprey nest here.

The Ponderosa Pine habitat type consists of areas forested primarily by ponderosa pine. This habitat occupies about 39% of the land base of the park and occurs chiefly in its central portion. The species of wildlife that occur in the Sierran Mixed-Conifer and Montane Hardwood-Conifer habitats occur in this habitat type, including numerous passerine species. Rotting and hollowed-out logs are an important habitat element, as they provide an environment for amphibians, reptiles, and mammals, including Pacific tree frog, western fence lizard, and others. Because ponderosa pines attract several wood-boring insect species, woodpeckers find this habitat ideal. Bald eagles nest in tall ponderosa pines overlooking Lake Britton.

Elements of coniferous forest, montane hardwoods, and mixed chaparral combine in the Montane Hardwood-Coniferous wildlife habitat type. This habitat type occurs on flats and mild slopes in the northeast part of the state park on approximately 15% of its land base. Mammal diversity is high in this habitat, as exemplified by California ground squirrel, porcupine, coyote, gray fox, mountain lion, black bear and mule deer. Snags provide an important habitat element of this and other woodland communities. Cavities in snags afford nesting habitat for numerous bird species including pileated woodpeckers, chestnut-backed chickadees, and the aggressive European starling, a non-native species.

Montane Hardwood habitat in the park is dominated by black oak and Oregon white oak, with a sparse understory. This habitat type occupies about 6% of the park in its northeast section on mild to steep slopes. Bird and mammal species characteristic of this habitat include acorn disseminators like scrub jays, Stellar jays, acorn woodpeckers, and western gray squirrels. Other species occupying this habitat are reliant upon acorns as a major food source, including band-tailed pigeons and mule deer.

Montane Riparian vegetation is valuable as wildlife habitat, regardless of seral stage. Riparian habitat comprises about 1.5% of the park. It provides water, thermal cover, migration corridors, and diverse nesting and feeding opportunities. Riparian areas occur on both sides of Burney Creek and in small, disjunct patches along the margins of Lake Britton. Two of the wildlife species using this habitat at the state park include yellow warbler and ringtail.

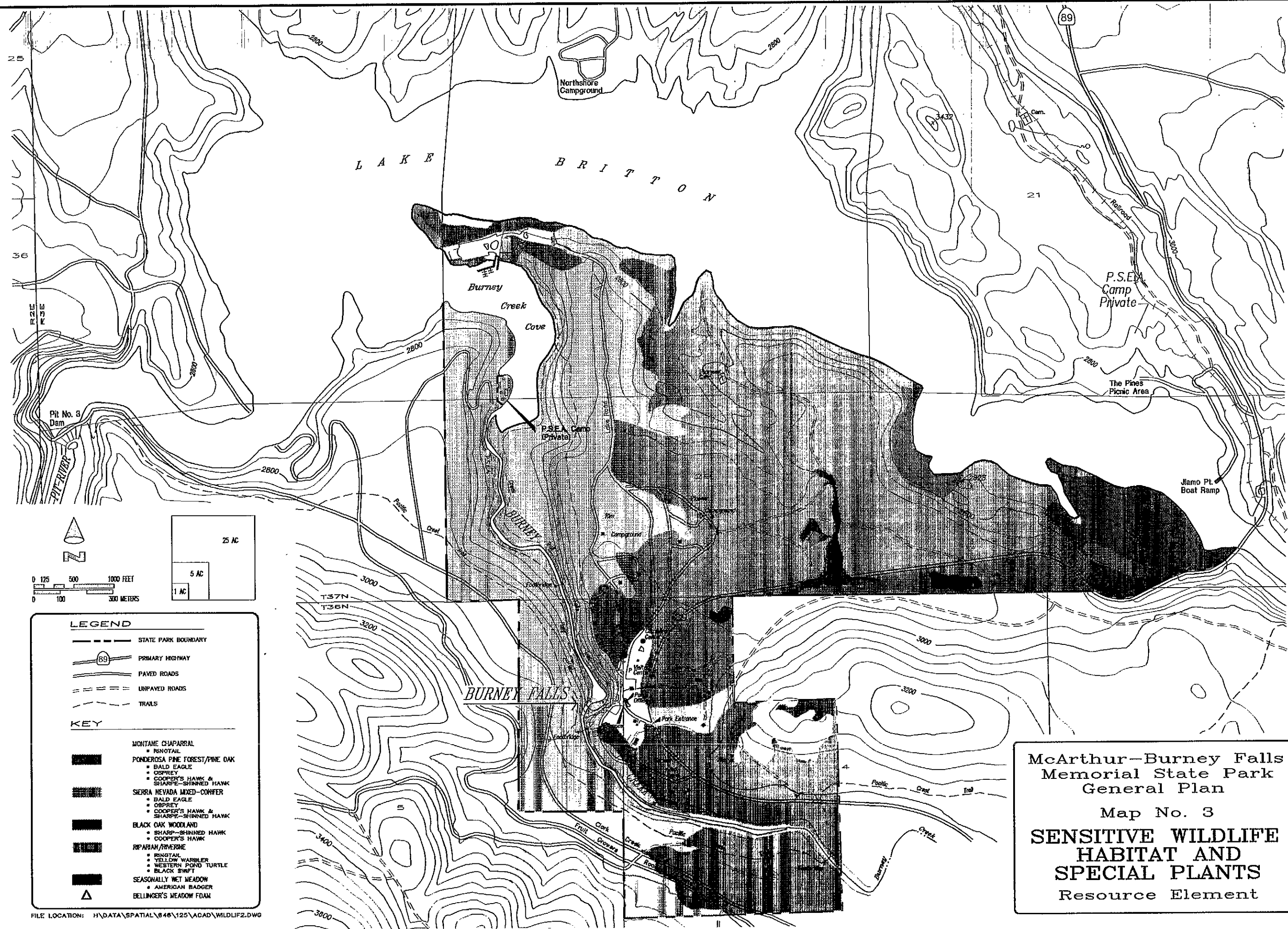
Montane Chaparral is primarily comprised of shrub species. Chaparral occupies moderate slopes in about 1.5% of the state park. This habitat provides winter foraging areas and escape cover for the Lake Britton mule deer herd. Likewise, it is important foraging habitat for mountain lions, whose primary prey is mule deer. Brush rabbits and black-tailed jackrabbits eat twigs, evergreen leaves, and bark from chaparral. Shrubs provide seeds, insects, protection from predators and climate, as well as singing, roosting, and resting sites for many species of birds. Some birds found here include chipping sparrows and wrentits. Because of the lack of water in montane chaparral, relatively few amphibians are present. However, most of the reptile species occurring in the park unit are represented in this habitat type.

Wet Meadow habitat is typified by the presence of water at or near the ground surface during most of the growing season. An impervious soil layer, in association with near-level topography, prevents water from seeping into the soil and allows it to spread over the landscape. Plant community structure is simple, consisting primarily of herbaceous plants and grasses. During the summer and early fall, the meadow dries sufficiently to allow occupation by deer mice and other rodents that are hunted by red-tailed hawks and northern harriers. Mule deer feed in this habitat, especially seeking forbs and palatable grasses. These seasonally wet meadows were addressed as "dry meadows" in the Plant Life Section. The Wet Meadow complex comprises approximately 2% of the park.

The Riverine habitat of Burney Creek possesses significant wildlife resources. American dippers forage in the creek. Western pond turtles utilize the creek most of the year, leaving it only to breed, aestivate, and perhaps over-winter in upland habitats. Bullfrogs, an exotic species, and Pacific tree frogs also occupy this habitat type. River otters and beavers use the lower reaches of the creek.

Lake Britton, which belongs to PG&E and is not part of the state park, provides important foraging habitat for several wildlife species that breed or winter in the park unit. This Lacustrine (i.e., lake) habitat provides feeding and loafing habitat for numerous species of water birds. Even the air above the lake is important foraging habitat for swallows searching for flying insects, many of which spent early life stages as larvae in the lake. Bald eagles and osprey feed on fish captured in the lake.

Urban habitat occurs within the park as human developments. Urban habitat has been developed within the Ponderosa Pine, Sierran Mixed-Conifer, Montane Riparian, and Montane Hardwood-Conifer habitat types (see above). Urban developments include lawns, roads, parking lots, housing, corporation yards, and historical structures. While these developments provide habitat for species such as robins, that favor lawns, and Steller's jays, that scavenge in picnic areas, human alterations also disrupt wildlife by destroying natural habitats. Human-caused disturbance favors introduced species, such as starlings, that compete with native species for habitat resources.



McArthur-Burney Falls
Memorial State Park
General Plan
Map No. 3
**SENSITIVE WILDLIFE
HABITAT AND
SPECIAL PLANTS**
Resource Element

Wildlife Corridors

Habitat fragmentation and the elimination of wildlife corridors are a cause for concern to land managers who are responsible for maintenance of natural wildlife communities. Fragmentation and the resultant isolation of wildlife populations lead to the local extinction of those species that can only succeed in large, contiguous tracts of habitat. It may also result in the endangerment of low-density, wide-ranging species. Conversely, species that are better able to tolerate human-modified environments become dominant. Those species are frequently aliens and/or pests.

The establishment and maintenance of habitat linkages that connect various wildlands can partially alleviate wildlife habitat fragmentation. Habitat linkages are corridors of natural habitat free of disturbances, such as roads and other developments. They provide wildlife movement routes between larger areas of habitat.

The state park, in concert with lands owned by PG&E and the U.S. Forest Service (i.e., the Lassen and Shasta-Trinity national forests), function to provide over 100,000 acres of contiguous open space in the area. However, logging roads and other disturbances bisect these lands, making the quality of its open spaces variable.

Historical Influence

Historical land use in the state park has included a variety of disturbance factors that affect native wildlife populations. These include logging, grazing, hunting, development (especially of State Highway 89) and the introduction of exotic plants and animals. Localized population extirpations and population declines have been documented for species such as Northern goshawk and Pacific fisher. Conversely, several species are now much more common following Euro-American settlement. The brown-headed cowbird, formerly rare in California, is increasing both in range and numbers. This nest parasite lays its eggs in the nests of other passerine species. Upon hatching, young cowbirds expel other nestlings, thereby eliminating competition for food and space. This behavior has had a tremendous negative impact on the host species' populations in California.

Non-native Animals

Of the several species of animals introduced into Shasta County, the European starling, English house sparrow, wild turkey, and bullfrog occur in McArthur-Burney Falls Memorial State Park. European starlings are behaviorally aggressive and displace native birds by occupying their nesting cavities. Bullfrogs prey on aquatic organisms, which has contributed to the decline of native frog species.

Sensitive Animals

McArthur-Burney Falls Memorial State Park is within the ranges of 43 sensitive species of animals. Several are currently listed as threatened, endangered, or as candidates for listing by the state or federal governments. Sixteen of these species are confirmed or strongly suspected to occur at the park unit; an additional species, the foothill yellow-legged frog, may possibly be present. Appendix E lists these species. Sensitive species habitat at the park is presented on Map #3. Most areas mapped as sensitive species habitat occur in wildland areas of the park unit. These areas were

designated as sensitive habitats based upon either confirmed sightings of sensitive species or on the appropriateness of the habitat for sensitive species.

Aquatic Life

The aquatic resources of McArthur-Burney Falls Memorial State Park are associated with two bodies of water, Burney Creek and Lake Britton.

Burney Creek provides permanent aquatic habitat for several species of animal life, including native and introduced fish, aquatic invertebrates, and other wildlife. The creek above Burney Falls is managed as a "put-and-take" sport fishery by the Department of Fish and Game. Hatchery-reared rainbow and Eastern brook trout are periodically released into this section of creek to provide anglers with fish. Below the falls, the creek is managed by the Department of Fish and Game as a wild trout creek, and is not planted with fish. However, some planted fish wash over the falls and become established in the lower section of the creek.

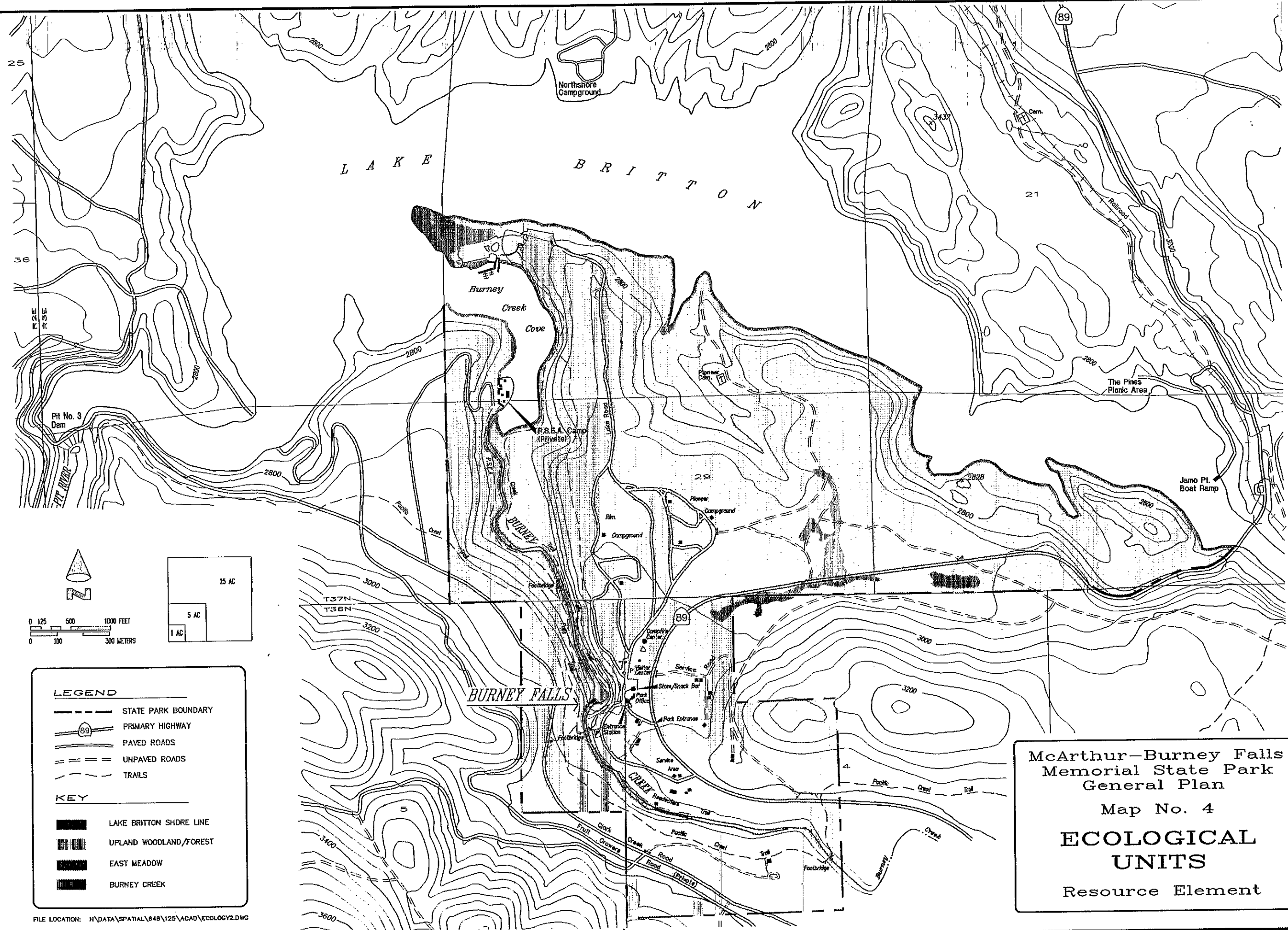
Non-native species, such as brown trout, Eastern brook trout, largemouth bass, golden shiner, bluegill, and brown bullhead dominate the species composition of fish in the creek. Native fish include Pit sculpin, riffle sculpin, marbled sculpin, and rainbow trout. A variety of substrates, stream habitat types, and vegetation contribute to suitable habitat for a diverse assemblage of invertebrate species in Burney Creek. Insects such as mayflies, stoneflies, and caddisflies inhabit the creek. Several species of mollusks also occur in the creek. Those with limited distributions are the fingernail clam (*Anodonta californiensis*) and California floater (mussel) (*Pisidium ultramontanum*).

At least 26 species of fish are reported to occur in Lake Britton, some of which provide an important food source for bald eagles, ospreys, river otters, and other wildlife species. The lake is also used by humans for fishing and other water sports.

Ecology

The intent of the Ecology Section is to provide the reader with an overview of the general ecological processes that occur in the park and the natural features that are affected by them. The section begins with a synopsis of information from the preceding natural resource summaries and goes on to describe the ecological units (areas) of the park and related management concerns.

McArthur-Burney Falls Memorial State Park is part of the Northeast Volcanic Ecological Region (PRC 5019.53), which occupies the northeastern portion of the state. Warm, dry summers and cold, wet winters characterize the region. The park is a biologically diverse area and supports significant natural resources. Foremost is the Burney Creek drainage, which includes Burney Falls, the springs that provide perennial flows to the creek (and waterfall), and the riparian zone that supports various species of wildlife. Within the park unit, several sensitive biological elements occur, including: a "Pit River Drainage Rough Sculpin/Shasta Crayfish Spring Stream", which is an aquatic community type with high inventory priority as recognized by the California Rivers Assessment Program and the California Natural Diversity Database; one sensitive plant taxon, Bellinger's meadowfoam; and 16 sensitive animal taxa that are confirmed or strongly suspected, including bald eagle, golden eagle, osprey, sharp-shinned hawk, Cooper's hawk, northern goshawk, American peregrine falcon,



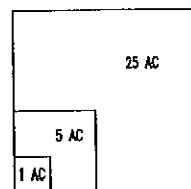
LEGEND

- STATE PARK BOUNDARY
- PRIMARY HIGHWAY
- PAVED ROADS
- UNPAVED ROADS
- TRAILS

KEY

- LAKE BRITTON SHORE LINE
- UPLAND WOODLAND/FOREST
- EAST MEADOW
- BURNEY CREEK

0 125 500 1000 FEET
0 100 300 METERS



yellow warbler, black swift, Vaux's swift, purple martin, ringtail, mountain lion, pale big-eared bat, American badger, western pond turtle, and foothill yellow-legged frog.

An understanding of the ecological processes at work in the state park was achieved by subdividing it into ecological units (EUs). These EUs constitute ecosystems whose boundaries were based primarily on analysis of vegetation, landforms, and ecological processes. Exotic and native systems were considered alike. Descriptions and locations of primary features and discussions of their sensitivities, importance, influences, and impacts in each ecological unit appear below. Refer to Map #4 for an orientation to the locations and extent of these ecological units. The map delineates four EUs: Burney Creek, East Meadow, Lake Britton Shoreline, and Upland Forest/Woodland.

Burney Creek Ecological Unit

The incised streambed of Burney Creek, its narrow and undeveloped floodplain, and its riparian corridor are the components of this EU. The hydrology of the creek has a major influence on the plant and animal life within the EU.

The creek, from the base of Burney Falls to its mouth at Lake Britton, is designated as a "Pit River Drainage Rough Sculpin/Shasta Crayfish Spring Stream" by the California Rivers Assessment Program. Shasta crayfish (*Pacifastacus fortis*), an endangered species, was either extirpated from Burney Creek or never occurred there. It is not presently known to occupy the creek. While a few rough sculpin (*Cottus asperimus*) have been collected from Lake Britton, their normal distribution is limited to areas upstream of the lake, and none have been observed or collected in Burney Creek. Sensitive species occurring within the Burney Creek EU include ringtail, yellow warbler, black swift, and western pond turtle. Of botanical interest, quaking aspen reaches its lowest elevational limit in California in this ecological unit.

The Department of Fish and Game manages a sport fishery in the park. This fishery occurs above the falls in a perennial portion of Burney Creek. Hatchery-reared fish are planted in the spring and summer months to maintain the fishery.

Management concerns in this EU include: potential future groundwater overdraft that may reduce stream flows in the state park; potential groundwater contamination from hazardous material spills because of the porous volcanic geology of the area; competition for resources between native and non-native animal species (including non-natives that immigrate or that are introduced) reducing native population densities; adverse human impacts on riparian and stream communities; and potential nest parasitism of neotropical migrant songbirds by brown-headed cowbirds.

East Meadow Ecological Unit

This small EU occurs in the north-central portion of the state park. Its boundaries follow the ephemeral drainage patterns as identified by meadow vegetation. Underlying clay soils retard drainage water from seeping, thereby allowing for a situation similar to a vernal swale. Mild topographic gradients allow seasonal flows to spread out and maintain meadow vegetation.

Bellinger's meadowfoam, a sensitive plant species, occurs here. Several sensitive predatory species may forage in this habitat during the dry season, when rodents have

moved back into the area. The American badger and golden eagle may be found foraging here during the dry summer.

Any changes in the hydrology of this EU could have adverse impacts on the meadow community.

Lake Britton Shoreline Ecological Unit

This EU is subject to processes related to Lake Britton, including shoreline fluctuation caused by hydro-electricity generation and shoreline erosion caused by wave action.

Very small patches of riparian vegetation occur in a few infrequent locations along the margin of Lake Britton. This vegetation is tolerant of repeated cycles of flooding and drying that are caused by reservoir management.

Areas with steeper slopes are vegetated by coniferous and hardwood species. Bank erosion caused by wave action on these slopes has resulted in several downed trees in the lake and along the shore.

Yellow warblers and bank swallows, both sensitive bird species, have been observed in this EU. The former species probably nests there. Peregrine falcons, purple martins, Cooper's hawks, osprey, and bald eagles use this EU for perching or foraging. At some time during the tenure of this general plan, PG&E could raise the lake level by 1 to 3 feet in elevation. Such a rise in surface water may destroy riparian habitat within the EU, thereby impacting sensitive species found there.

Most of the shoreline of Lake Britton is within essential bald eagle habitat (see Map #5 under Resource Management Directives, below). Areas with nesting habitat should have restricted access during the nesting season, January through July.

Upland Woodland/Forest Ecological Unit

The Upland Woodland/Forest EU includes all portions of the state park outside the Burney Creek, East Meadow, and Lake Britton Riparian EUs. Recurrent wildfire (or lack thereof) defines the structure and composition of this largest EU.

Plant communities in this EU include Ponderosa Pine/Oak Woodland association, Westside Ponderosa Pine, Sierran Mixed Conifer Forest, Black Oak Woodland, Montane Manzanita Chaparral, and Montane Dry Meadow.

Before Euro-American settlement, recurring wildfire and Native American burning maintained the open park-like character of the ponderosa pine communities. With the arrival of Euro-American immigrants, a policy of fire prevention and suppression has substantially increased living and dead biomass. The open character of the forests has been reduced, favoring the establishment of shade-tolerant species like Douglas-fir and incense cedar, while reducing the stands of ponderosa pine.

The overall trend in the forest communities is toward less healthy conditions; they are either in decline or in a static, stagnant condition. Disease, insect pests, and overcrowding in some locations has contributed to the decline of tree populations. Most of these problems can be attributed to a lack of periodic fires in the ecosystem.

Intermittent drought periods contribute to the buildup of dead biomass. During these periods, trees must compete for diminished supplies of soil moisture and available nutrients. With these shortages, ponderosa pines may not be able to produce the sap needed to ward off attacks by pathogens like the western pine beetle (*Dendroctonus brevicornis*). Pine beetles attack and destroy several trees in one location, creating pockets of heavy fuel loads. Wind throw also contributes to heavy fuel loading at the park.

Most developed areas in the park unit occur within the Upland Woodland/Forest EU. Wildlife habitat in campgrounds and day use areas is fragmented and generally degraded from overuse. Rim and Pioneer Campgrounds have operated for several decades. The cumulative impacts from this use are heavy soil compaction, minimal shrub cover, lack of woody litter, and "lateral cankers" on numerous trees in campsites. The Pacific Crest Trail campground provides a horse corral for equestrian use. Grain in horse dung, together with insects attracted to it, provide a supplemental food source for brown-headed cowbirds, a pest species that nest parasitizes neotropical migrant song birds.

Outside of developed use areas, habitat quality is at a level that supports a wide array of wildlife, including mule deer, black bear, and mountain lion. Several sensitive wildlife species have been observed or are suspected to occur in this EU within the park unit, including bald eagle, osprey, yellow warbler, black swift, Vaux's swift, golden eagle, and peregrine falcon.

An ongoing problem at the park is the supplemental feeding of wildlife by visitors. This feeding provides a source of food otherwise unavailable to wildlife and contributes to unnatural populations of some species (e.g., California ground squirrels). Over-population leads to problems such as intense competition for resources with other species, habitat degradation, and possible increased nest predation by species such as the Steller's jay. Feeding by visitors also brings wild animals into proximity with humans, thereby increasing the possibility for injury due to biting and the transmission of disease.

Management concerns in this EU include loss of the ponderosa pine communities and dangerous fuel buildups from the preclusion of fire, the increase of brown-headed cowbird populations concurrent with increased equestrian use in the park, and supplemental feeding of wildlife by park visitors.

ETHNOGRAPHY

The Native Americans of the Burney Falls area are presently called the Pit River Nation as a group. However, the area inhabited by the Pit River peoples has a time-depth of some 7,000 years. Linguistically, there are two major sub-groups, the Achumawi and the Atsugewi, which form the Palaihnihan branch of the Hokan family of languages.

The Atsugewi and the Achumawi, though generally ethnographically separate, share a similar culture. Sometimes the Atsugewi are referred to as the Hat Creek Indians, and the Achumawi as the Pit River Indians. All these terms, and a variety of others, are modern appellations and have variants (e.g. Ahjumawi). The word, pit, in Pit River derives from the deer hunting technique of digging deep pits to trap the animals. These pits were scattered widely on the plains surrounding the Pit River.

The Achumawi consist of nine tribelets, or bands: the Itsatawi, the Ilmawi, the Madesiwi, the Ajumawi, the Atwamsini, the Astariwawi, the Hammawi, the Qosalektawi, and the Hewisedawi. The Atsugewi are divided into two tribelets, or bands: the Atsuge and the Apwaruge. It is the Itsatawi, the Ilmawi, and the Atsuge who were most closely associated with the area now known as McArthur-Burney Falls Memorial State Park.

The Warner Range of mountains to the east defined the traditional boundary with the Northern Paiute. Mount Shasta to the north and Mount Lassen to the south generally defined the western boundary. West of this boundary are the Shasta, Wintu, and Yana tribes. South of the Pit River peoples are the Maidu, while the Modoc lived to the north.

In the past, the Modocs were a primary enemy and penetrated Pit River territory for periodic slave raids. Though the Pit River peoples' relations with other tribes were variable, families were often closer to, for example, a Maidu band if they were related by marriage than to another band of the Pit River. Inter-tribe warfare was local rather than pan-tribal.

Ethnographically, the band was the largest political unit. Bands were groups of small size definitely owning a restricted territory and had no appellation except for the name of their tract or its best known spot. They were wholly autonomous, though they usually spoke a dialect identical with that of several of their neighbors.

Generally, big game used as food sources were deer, antelope, and occasionally elk; small game were badger, ground hog, squirrel, rabbit, mink, and martin. There were a variety of birds eaten, including ducks, geese, cranes, sage hens, and quail. Salmon, suckers, pike, and trout were important fish. Staples in the diet, besides acorn in the western area, included a variety of bulbs and tubers, the most significant being epos (*Perideridia spp.*), as well as wild garlic and wild turnip. Wild buckwheat, sunflower seeds, and a variety of seed-bearing grasses were useful.

The Achumawi tended to inhabit the Pit River basin and the mouths of its tributaries, while the Atsugewi tended to use the upper portions of the tributaries. Achumawi individuals had ownership of fishing rights along the Pit River. However, Atsugewi often had specialized rights to fish for salmon in areas in which they had no ownership.

Though abundant water made summers productive in fish, game, and edible plants, heavy snows often forced residence in winter villages for up to six months. Such conditions demanded storage of foodstuffs to ensure survival. Among these peoples, the response to such conditions was to develop a strong cultural value for work, or work ethic.

Winter villages consisted of closely grouped semi-subterranean earth or bark lodges, usually clustering around a chief or rich man's house. Some of the larger lodges would house several families. Summer structures were usually brush houses or ramadas, sheltering fewer people closer to their seasonal exploitation activities.

The present-day religion of the Achumawi and the Atsugewi are intertwined with concepts of power, generalized California shamanism, and folk medicine. Plants from

all vegetation zones and from such diverse plants as trees, herbs, and mosses provide medicines.

Power is desirable, comes in many forms, and is granted to a person by the guardian spirit of that power. Though usually something actively sought after in a quest to a mountain top, spring, or other special place, the spirit of a power can also come to a person in a dream. Guardian spirits can aid a person in almost anything, and a person considers himself unlucky if he does not have at least a minor spirit to help in hunting, gathering, or to ward off sickness. Thus, there is a gradation in degree of power from the unfortunate with none at all to the powerful shaman with a number of spirits at his command. A person, male or female, must undergo a particular rigorous program of singing and fasting to acquire the doctoring power to be a shaman.

Spirit guardians include such things as clouds, trees, shadows of trees, rocks, water, insects, snakes, lizards, various mammals, fish, birds, thunder and lightning, stars, sun, daylight, and sky. Certain spirits confer special abilities depending on the character of the animal or object with which the spirit is associated. For example, beaver power confers gambling luck and enables a person to swim long distances underwater, lightning power gives the possessor control over lightning and the ability to make rain, and daylight power enables a person to rise at the first sign of dawn. The spirits often appear as dwarves and inhabit sweathouses at the bottom of springs or lakes or live in caves. The pool of Burney Falls is an important part of the Achumawi and Atsugewi belief system. It is traditionally a place where power is sought.

ARCHAEOLOGICAL RESOURCES

The park is within the Lake Britton Archaeological District that was listed on the National Register of Historic Places on April 14, 1975. The intent of the National Register nomination was to recognize the importance of sites that were actively eroding along the lake shoreline. The National Register district includes over 90 archaeological sites of which at least 20 are former major village sites with architectural features clearly visible. The majority of these sites are around the eastern (upper) end of Lake Britton outside the park. However, there are 22 known archaeological sites in the park.

The significance of the National Register district lies in the potential of sites to provide information on prehistoric settlement, diet, village life, and change over time. The sites around Lake Britton were expected to be valuable for understanding prehistoric economies and subsistence along the Pit River. Extensive middens with fresh water mussels indicated this area was of major importance to the native populations of northeastern California.

In the 1980s and 1990s, PG&E funded major excavations at lakeshore sites subject to erosion. This research was part of a multi-year program to stabilize banks at several sites. Many biological, mechanical, and engineering strategies were used to halt the loss of midden soils. This stabilization program included extensive consultation with local Native Americans and monitoring of fieldwork. Results include several reports and publications that have made substantive contributions to archaeological knowledge. Overviews of prehistory, ethnohistory, and Euro-American history were prepared, along with plans for research. These research designs have provided a useful theoretical and methodological framework for further archaeological investigations.

The Middle Fork of the Pit River has a long and varied history. The earliest human occupation of the area began at least 7,000 years ago, though evidence of hunting and seed milling is rare. About 5,000 years ago, there was an increase in the number of sites used and the number of milling stones left behind. This period coincides with the oldest radiocarbon and obsidian dates for Lake Britton. Acorn processing in northeast California dates from about 3,300 years ago. This food resource was locally abundant around Lake Britton and became a main staple. King salmon and steelhead trout gradually became the main flesh staple for Pit River peoples. (Burney Falls and the Pit River Falls east of Lake Britton marked the upper limit of anadromous fish runs.)

Though acorns and fish were seasonal resources, they were relatively abundant, dependable, and storable. Black oak produces a good acorn crop every other year. Oregon oak produces a good crop one year in four. These foods were supplemented by collecting mussels, roots, and berries, and by hunting game. River mussels became an important part of subsistence by about 1000 AD. Evidence from burned seeds suggests that extensive pine nut exploitation also began about 1,000 years ago. These subsistence resources supported a relatively large and sedentary population along the Pit River. The area now flooded by Lake Britton had numerous permanent settlements that were probably occupied all year.

Information is now available on settlement and subsistence changes over the past 5,000+ years based on research at Lake Britton. A revised cultural chronology for the Middle Pit River has been proposed, following models of adaptation to environmental, demographic, and cultural factors. There were periods of intensified use of riverine resources that corresponded with population expansion and increased trade. There were also times when freshwater mussels diminished in size and availability, perhaps through overuse. These times correlate with site abandonment and disuse. This kind of information makes all sites in this district particularly valuable resources for research.

Most prehistoric sites in the park are inconspicuous to an untrained eye, consisting of little more than a sparse scatter of obsidian flakes. These small pieces of volcanic glass come from nine major sources within 50 miles of Lake Britton. Each of these natural sources has its own unique chemistry of trace elements. The origin of flakes has been determined through x-ray fluorescence. The majority of obsidian at Lake Britton came from Medicine Lake Highlands, Bucks Mountain in the Warner Mountains, and the Tuscan Buttes.

As part of PG&E's archaeological work at Lake Britton, two sites in the park were partially excavated. These two sites, SHA-383 and -1401, are along the lakeshore on lands owned by PG&E. Sparse surface scatters of obsidian and basalt were matched by very sparse subsurface deposits. Both sites may be edge vestiges of larger sites that have eroded away. These sites contributed only limited information on topics such as dates of occupation, obsidian sources, and mussel use. They were judged to have little potential significance compared to other sites around Lake Britton.

The other shoreline site within the park, SHA-418, is in a heavily used environment at the beach. The development of parking lots, a swim beach, boat ramp, and a picnic area has obscured most surface traces of this large site. The arrangement of rock cobbles along pathways may be a reuse of stones that were once part of archeological features. Though the surface of SHA-418 lacks physical integrity due to heavy disturbance and ongoing use, it may have intact subsurface deposits.

Some archaeological sites in the park have other qualities that add to their significance. Three rock art sites are known in the park, SHA-1402, -1443 and -1745. One site has four rock alignments that have spiritual significance, according to a monitor who worked on the survey team. Two sites have small circular depressions or "cupules" carved into otherwise smooth-faced boulders. These two sites are located along the rim of the Pit River Canyon in relatively remote areas of the park. They may have been created as part of a vision quest by residents of a village now deep underwater. The rock art sites are in esthetically inspirational locations, but their original purpose may never be known with certainty. They do possess interpretive and spiritual value.

Two sites in the park have visible surface remains of small dwellings. These surface housepits are circular depressions representing collapsed huts. They have special interpretive and scientific value that relates to the understanding of homes and households. Native American informants consider both sites to be associated with pilgrimages to Burney Falls. These particular sites, some distance from the falls, may be remnants of prehistoric visits to the falls by neighboring peoples from Big Lake and Goose Valley. They may have been left by individual adults as they prepared to seek their life's guiding vision by a plunge into the pool below the falls. The falls were a source of good luck and power if one led a spiritually clean life. Otherwise, there was danger, and the possibility of death. One nearby site, SHA-468, has several housepits and midden and may represent the remains of a late prehistoric village. Elsewhere around Lake Britton, there are remains of large semi-subterranean winter houses. These structures were used as sweat lodges, multi-family residences, and assembly houses. No such structures have been found in the park.

The falls and pool together are still recognized by local Indian people as a sacred site. This is a place where coming of age ceremonies might be held, marking the transition from puberty to adulthood. At this time and later in life, youth might hope for a vision of their guardian spirit by fasting, bathing, swimming, and other rituals. Native Americans are expressly critical of the present "circus-like atmosphere" near the falls on busy summer days. In their view, existing roads and buildings intrude on the tranquility and health-giving quality of the falls environment. They generally accept the department's mission to provide public access but criticize the approach to the falls as too immediate, too congested, and too commercialized.

A unique site in the park, SHA-1414, has profound importance as a large prehistoric cemetery. Native Americans are especially concerned about protecting this site from all unnecessary disturbance. Indian people have been diligent in monitoring projects near this site and at other sites with burials around Lake Britton. Repairs have been made to places that are occasionally disturbed by vandals.

The majority of park lands have now been examined for cultural sites. Twelve of the 22 known archeological sites were reinspected as part of inventory work on this general plan. Several supplemental site records were completed. The inventory of cultural sites and features is considered comprehensive, with a few qualifications. Over 700 acres have been professionally surveyed. All developed areas of the park have been intensively searched for archaeological features and artifacts. All park lands with new proposed uses or facilities have been inspected for possible sites. These surveys have employed controlled reconnaissance techniques, with field crews spaced at 15- to 20-meter intervals. The steep slopes of the Pit River canyon and

lower Burney Creek Canyon have been scanned. The dense forests and manzanita fields east of the park entrance have only been partially surveyed.

The shorelines around Lake Britton have myriad old ditches that supplied irrigation water to farms and ranches in the Pit River valley below. These ditch segments have not been formally recorded as linear sites. Though they are remnants of the pioneer and settlement era that ended in 1924, they are not considered a significant historic resource. This evaluation is based on a lack of physical integrity and a lack of connections to fields and settlements that now lie under Lake Britton.

New discoveries of isolated features and artifacts may still occur. Some sites may still lie buried under forest duff, meadow sediments, or parking lots. Some sites may have been destroyed by the growth of trees. Others have been lost to natural or lakeshore erosion. Past park development and use may have completely removed surface evidence of prehistoric use from the campground and falls vicinity.

ETHNOHISTORY

This northeastern corner of California was remote and outside the realm of Spanish colonial influence. The earliest non-aboriginal encroachments into this area were by trappers and mountainmen, coming through as early as the late 1820s. It is not clear what knowledge the Atsugewi and Achumawi had of events taking place outside their traditional territory, although they were in contact with tribes that had earlier contact with foreign intruders.

The legal status of Native Americans after the 1846 conquest of California by the United States was close to non-existent. The Treaty of Guadalupe Hidalgo required recognition of citizenship for Indians in the ex-Mexican areas of California and was the legal instrument by which the government justified its control of all of California. Thus, it should have affected the Indians of all of California. However, the United States Government chose to ignore this aspect of the treaty. Indeed, the 1849 California Constitution deprived Indians of citizenship. Later laws prohibited Indian testimony in the courts – they could not testify against their aggressors. This was a period of documentable anti-Indian bias. It was not until 1924 that Congress extended citizenship to all Indians. However, the Bureau of Indians Affairs interpreted this act of Congress as "... not in any way alter[ing] the control of the Office of Indian Affairs over the tribal or individual property of the Indians."

During 1849-1852, at the direction of Congress, attempts were made to establish treaties and reservations throughout California. In August of 1851, Dr. O. M. Wozencraft, one of the treaty makers, secured treaties at Bidwell's Ranch at Chico Creek and at Reading's Ranch at Cottonwood Creek. The latter provided for a reservation 35 miles square at the head of the Sacramento Valley for Indians of the northern Sierra Nevada, northern coast, and southern Cascade Ranges. Wozencraft then made fruitless attempts to contact the Pit River peoples. Eventually, 18 treaties were concluded affecting almost 140 tribes or bands (excluding the Pit River peoples). Congress rejected all 18 treaties in reaction to pressure from a strong California anti-Indian lobby. The conditions of the rejected treaties were essentially kept secret until about the turn of this century.

The earliest Euro-American settlers started immigrating to the western Modoc Plateau, the area around Burney Falls, in the mid-1850s, rather late in California's

history. At this time roads started being blazed through the region, and farming began in the local area. With the application of United States land laws to the western plateau, the new immigrants began to homestead the traditional territorial lands of the Pit River peoples or buy them outright from the government. Changes in the landscape ensued with the cutting of trees, water drainage, tilling and plowing of the soil, and construction of houses singly and in communities. However, Euro-American immigration was never as dense as in other parts of California because of the area's remoteness.

Such intrusions onto traditional lands could not help but elicit a violent response from the various Palaihnihan-speaking Native Americans. In 1856, Indians attacked a stage and killed ferry operators at Fall River. In 1857, there was a massacre of immigrants at Hat Creek, probably by Atsuge. In revenge, Euro-American volunteers, the so-called Pit River Rangers, mistakenly annihilated a friendly Apwaruge village on Beaver Creek, some 15 air miles east of the present-day park.

The U.S. Army arrived in 1857 and established Fort Crook about eight miles northeast of the falls, where they maintained a presence until 1867. When the military arrived, the Indians sued for peace. The military aided in the settlement of the area and acted as a buffer against any Indian reprisals for losses of land. There were skirmishes, but no major battles, with the Pit River peoples. However, some 412 Pit River lives were lost to military operations between 1851 and 1859.

Shortly after the Apwaruge village incident, all the Indians who could be located in the plateau area were removed to the Round Valley Reservation in northeastern Mendocino County. A mixture of Native Americans taken from several tribal areas in northern California populated this reservation. The Pit River peoples were unhappy at Round Valley, even when they were not actually starving, and many would not stay. They drifted back to their own traditional territory using Mount Shasta as their guide.

Except for the Round Valley and Tule River reservations, by 1866 all the reserves and farms were extinguished or sold by the government, leaving large populations of California Indians homeless. Starting in the 1890s, though basically from 1910 to 1929, purchases of land were made, mainly by the government, to furnish allotments, rancherias, and reservations to provide homes for these Indians, including many Achumawi. These Indians continued to gather native foods and to practice shamanism. Some worked for ranchers or in the local sawmills.

The destructive events of California Indian and Euro-American interaction elicited a variety of revivalist pan-Indian movements in response. In northeastern California, this took the form of the Ghost Dance of 1870 and a revival of 1890, which originated with the Nevada Paiute. A variation, the Earth Lodge Religion, originated with the northern Yana. The Ghost Dance, a messianic movement, centered on a prophet announcing the end of the world or the return of the dead. It usually included the destruction of all White people and a return of the world to the Indian. When the predicted changes failed to occur, the Ghost Dance movement generally died out.

With the development of hydroelectric resources in the Sierra and Cascade mountain ranges, new corporations entered the area. One such company was the Mount Shasta Water and Power Company, soon to become part of the Pacific Gas and Electric Company. It began buying land, including Pit River Indian allotments, around the Pit River and Fall River hydrologic network. In 1972, factions of the Pit River

people staged sit-ins and initiated litigation to regain some of the lost forest land acquired by PG&E.

In 1951, after the Indian Claims Commission Act of 1946, the Pit River people – the Achumawi and the Atsugewi – were able to file a claim as a separate tribe. They presented their case in 1957 and received a favorable ruling in 1959. However, formal federal recognition of the Pit River Tribe (the Achumawi and Atsugewi peoples) was not until 1976, and their Constitution was not approved until 1987.

The Pit River Nation is attempting to reestablish an economic and cultural base in the communities surrounding the park. They have an active tribal council that addresses the pressing concerns of unemployment and health. They have developed a casino in the community of Burney and established health clinics for the Pit River peoples.

EURO-AMERICAN HISTORY

South Carolinian itinerant wanderer, Samuel Burney, drifted into Long Valley (the future Burney Valley) in late 1858 accompanied by a Mill Creek Indian boy. Thomas Preadmore, a local settler who lived at the upper end of Long Valley about seven miles from the modern-day state park, hired Burney to tend his property while he traveled to San Francisco on business. Burney accepted, and he took up residence in Preadmore's creekside cabin. Native Americans living along Hat Creek had a grudge against Preadmore over the settler's treatment of Indian women and came seeking revenge. Burney apparently was aware of the angry natives around the cabin but ignored the danger. He and the boy paid for Preadmore's trespasses with their lives.

While this was the extent of Burney's involvement with the area, the mostly unnamed region began to take on the Burney name. The cascade above the Pit River, located in the lower part of Long Valley, became known as Burney Falls, although Samuel Burney probably never saw the great waterfall over the lava cliff in what is now McArthur-Burney Falls Memorial State Park. The stream, the valley, and the nearby mountain to the south also acquired Burney's name.

A wagon road was developed one-half mile east of the falls, angling in a generally northeast to southwest direction. This was a secondary route that began at the Fort Crook Army post in upper Fall River Valley, ran through Cayton Valley, across the Pit River at what would become Peck's Bridge, through Long Valley, around Hatchet Mountain, and on toward Redding. The main route from Fort Crook to the Sacramento Valley passed far to the east.

Established in 1857, Fort Crook brought more settlers, first to Fall River Valley and then along the Pit River. At first, the Army conducted a series of violent manhunts against the native Indians of Fall River Valley, the Pit River, and Hat Creek. Then, the regular soldiers also rendered some protection to local Indians against state militia forces and the destructive raids of the Modocs from the north and the Mill Creek Indians to the south. However, the fort and its garrisons encouraged more Euro-American settlers, who dispossessed the native Indians and allowed and encouraged more and more ranchers to claim desirable land in eastern Shasta County.

By the time Fort Crook closed in 1867, eastern Shasta County was secured for Euro-American occupation. The Native Americans were reduced to eking out a

starvation diet on what was left of their once extensive hunting and gathering grounds, or they sought out day labor from ranchers. The White community treated the natives with semi-tolerance, fear, disgust, and amusement.

The isolation of Burney Falls was not broken until 1877, when the Ray family of Missouri, Indiana, and points west, moved into the open woodlands that spread to the east of the falls. A few other land speculators had looked at the falls or spoken of a claim but did not follow through with patents. Seeking grazing land, Issac Ray, the eldest son of John Ray, claimed the 160 acres around the falls and developed a homestead. Then in 1882, he traveled to Marysville and bought the land outright from the U.S. Government for cash. His father bought a claim to the south, which Issac purchased in 1885. This gave Issac Ray 320 acres of grazing and timber land in this remote section of Shasta County.

The Rays constructed a crude open-shed water-powered sawmill, dug a ditch along the east bank of the stream that must have originated at a diversion dam far up Burney Creek, and produced rough-cut lumber to build their house, their barns, outbuildings, and fences. Issac Ray also apparently produced lumber that was turned into furniture, closets, and cupboards. Where he found a market for his cabinetry skills is unknown. On this site, the family survived and grew from three children to six, raised cattle and fowl, and planted small house gardens. For one year, 1889, Issac Ray leased the sawmill to John Felch, who owned property directly south of the Ray's original purchase.

In 1906, economic conditions of unknown origin forced Issac Ray to sell his property at the falls and move on. Behind him, he left the family homestead: a large barn and corrals, a frame house wherein the laughter of his children had first been heard, and a gutted sawmill above the head of the falls. He took the simple mechanics of the sawmill with him: belting, cams, and blade of worn iron. Ray sold his original 160 acres, which contained Burney Falls, to Judge J. W. Logan of San Francisco, a land speculator.

The same year that Issac sold the first half of his holding, his oldest son, Ernest, already a married family man, bought the southern half of the Ray Ranch from his father. Today, the former southern parcel once owned by John, Isaac, and Ernest Ray is marked by a barn dating from around 1900 in the storage yard of the Hat Creek Construction Company, about a mile south of the state park.

As far as can be determined, the Logan family did nothing with the land around the falls. Local lore indicates Logan tried to sell the property at overly high prices. No one was interested, not even Minneapolis-based T. B. Walker's Red River Lumber Company. That company had acquired huge amounts of land in Shasta County by trading sage-brush-dotted property in San Bernardino County to the U.S. Government for the future San Jacinto National Forest, which today is part of the San Bernardino National Forest's San Jacinto Wilderness. With a foothold in eastern Shasta County, it bought more land to increase its huge holdings but showed no interest in the open land around Burney Falls. That country then was much more open, and the few yellow pines of a size suitable for harvest were not worth the effort of a big concern like the Red River Lumber Company.

In the second decade of the twentieth century, hydroelectric power became an economic factor along the Pit River. Above the mouth of Fall River, the Pit River was a

minor stream with little force. Below that point, with the added volume of Hat Creek, the Pit River became a major watercourse as it flowed toward its junction with the Sacramento River. The deep canyons of the Pit River below Fall River Mills offered tremendous potential for hydroelectric power.

Mount Shasta Water and Power Company and Pacific Gas and Electric Company began to buy property along the Pit River to create lake storage behind proposed power-generating dams. In Fall River Valley, PG&E acquired water rights from the McArthur brothers and other valley ranchers. The company's plan was to build a diversion dam on Fall River and then take the water through a tunnel to the future Pit River One Power Plant before dumping it back into the Pit River.

Reacting before the fact, Frank McArthur, a rancher from Likely Valley in Modoc County, convinced his brother, Scott, a Fall River rancher, to buy the Logan property that contained Burney Falls. The McArthurs had convinced themselves that PG&E planned to dam and divert Burney Creek above the falls. Scott purchased 160 acres around the falls and transferred it to Frank and Ethel McArthur. The McArthurs gifted the property to the State of California for one dollar in May, 1920.

A period of frustration for the McArthur family then began. Frank had, in effect, given the property to the state, but California had no tradition of legal policy for accepting a parcel of land donated for recreational use with restrictions. McArthur had included clauses in his gift-deed that forbid commercial logging, which seemed to imply that commercial activities could not occur on the property. While California already owned a large parcel known as Redwoods Park (today's Big Basin State Park), that park was operated as a commercial resort with private facilities. However, in 1920, California had no idea what to do with Burney Falls. The governor's office filed the deed away and forgot it.

McArthur refused to be quiet about his gift. In 1922, the deed was finally located, and the property transferred to the Division of Forestry to manage. Forestry had no administrative office designed to manage property deeded to the state for recreational purposes and so ignored it. McArthur did not stop his barrage of correspondence and, after a fire roared through the Burney Falls area in 1924, he increased his efforts to have the property properly managed by the state. Finally, in 1925, Forestry reluctantly assigned a custodian to manage the property as a public facility and gave it a name, McArthur Memorial Park.

The custodian had almost no authority or money. He lived in a World War I surplus tent with a board floor and a small wood-burning stove. He spent most of his time clearing brush, cleaning up the damage from earlier forest fires, and welcoming the rare visitor who could reach the park over rutted dirt roads.

PG&E was building the dam below the confluence of Burney Creek and the Pit River that would create Lake Britton. As the lake began to fill, the company declared a piece of property surplus just to the north of the original park. The 160 acres was gift-deeded to the Division of Forestry, making McArthur Memorial Park a 320-acre park. The park went to the State Park System shortly after its creation in 1926, and a new "warden" arrived at Burney Falls. He created the park's first public campground on the donated PG&E land, cutting lanes to the crude unimproved campsites.

The name of the unit caused a great deal of confusion to the public, as its name gave no clue where it was. To help tourists find the park once they got near Lake Britton, the warden put up a large portal-style sign to guide vacationers off the road into a wagon lane at the southwestern corner of the McArthur-gifted property. The portal, which visitors drove through, used imported redwood logs to support a large sign welcoming tourists to the park. The guests were also informed of a 25-cent charge and that firewood could be bought. In time, the place name, Burney Falls, was added to clarify the location of the state park.

Between 1928 and 1930, a log cabin was built as a home for the warden. The cabin became known as the Entry Cabin, though at first the entry road into the unit passed between the cabin and Burney Creek. Not until about 1946 did the entrance road pass in front of the cabin.

The various assigned wardens from 1925 to 1934 tried to make McArthur Memorial Park attractive for visitors. Many tourists were dedicated trout fly fisherman who came to test their skills on famous Hat Creek and seeking a place to camp. The late 1920s witnessed some dramatic increases in travelers and campers as automobiles grew more reliable and service facilities became more common even in isolated sections of the state like eastern Shasta County. The Great Depression curtailed travel and recreation, but it also created a public works force that developed the first major facilities for recreation at the state park.

That work force, created in March 1933, was the federal-government-sponsored Civilian Conservation Corps. The Civilian Conservation Corps officially and unofficially adopted a number of nicknames for itself. An early recognition was the CCC, but it also called itself the "Three Cs," the "Cs," and "The Corps." There were also company numbers and unit nicknames, plus internal company task divisions too numerous to mention.

In the spring of 1934, the first company arrived at the park for a six-month stay. Altogether, four different companies served at the unit, arriving in May and departing in October. From 1934 through 1937, the "Three Cs" converted the makeshift park into a tourist attraction and facility. While the warden at the unit had worked hard to improve the appearance of the landscape and create useful campsites, he had been alone. Now, each year he had the help of 200 young men.

The "Cs" created their own camp facilities and then went to work on clean up and construction. They dug out burnt snags, cleared brush, installed campsites with mortared lava rock stoves, and constructed roadways and parking sites. They furnished the park with water service and toilets and worked over old roadways and ditches as trails for hiking or walking. An observation point was built overlooking the falls. The "Cs" left behind not only the remnants of their camp but a functioning state park campground when they withdrew in 1937.

It was still a problem for people to get to the park along the rough dirt road coming from the developing highway between Redding and Alturas. The California highway system, born of the Public Good Roads Bond Acts of 1910 and 1918, reached northern California in the mid-1930s. Some road construction was part of federal work fare programs. Nevertheless, the Depression, which dramatically effected California between 1931 and 1938, kept people at home. The Depression was followed by gasoline and rubber tire rationing during the World War II years.

Beginning in 1935, the United States and California public works departments combined to build a new highway from Mount Shasta to Bakersfield, designated 83/89. Work began in the Burney Falls area in mid-1937, and a rock oil sealed highway was finished by the winter of 1939-1940. Improvements on the highway were curtailed due to the U.S. involvement in World War II. In 1951, the federal government surrendered its sections of "Highway 83" to the State of California, and state's Department of Public Works (Highways and Roads Division) improved the alignment and hard surfaced the highway with asphalt. As the highway work progressed, the State Park System designed a new entrance for tourists, who now passed through a rustic stone gate into McArthur-Burney Falls Memorial State Park.

HISTORIC FEATURES

The oldest historic features at the unit are portions of the Fort Crook-Burney Valley-Redding Road. The road, in place by 1860, entered the unit from the north after crossing the Pit River beneath what are now the waters of Lake Britton. The road originally crossed the river by way of a ferry that became known as Peck's Ferry (or later Peck's Bridge) after owner Albert Peck. It climbed out of the Pit River Canyon along the east edge of a deep ravine past the future site of Peck's cemetery. It then continued south across open meadows until it reached the north edge of a lava flow. It curved southwest above a boggy meadow and passed east of the Ray property and Burney Creek. Above the springs, it paralleled the creek, bending again to the southwest. It then took on its modern appellation of Black Ranch Road until it reached the outskirts of the town of Burney. For more than ninety years, this was the route used to travel from the village of Burney to Burney Falls.

Several wagon lanes from the east and south entered the Ray farm area and connected the homestead with the road. The farm lane from the east is known today as the Pioneer Cemetery Trail. The route from the south, altered by the construction of Highway 89, is often just a faint path through the woods until it reaches the unit service area, where it becomes a paved service road. Numerous other wagon lanes angled off the Fort Crook Road in this century, but closure by the park staff has caused them to become overgrown and fade from view.

The Pioneer Cemetery is at the top of the ravine leading up from the Pit River along the Fort Crook-Burney Valley Road. It might more correctly be called "Peck's Cemetery." Albert Peck, who owned the land, allowed the local farming community to begin burying their dead at the site by the end of the 1870s. No parcel or gift deed exists in the official records of Shasta County. However, names on a stone plaque at the entrance to the cemetery and on existing headstones indicate use of the site from the 1880s until the early 1920s by families actively farming in the northern end of Burney Valley. The cemetery is probably as much as twice the size of the appearance given by the chain-link fenced property of today. Depressions indicating burials can be seen in front of the fenced area all the way to the road alignment.

At some point before 1929, a primitive campground was installed on the 160-acre property donated by PG&E directly north of the McArthur property. Except for dirt lanes leading to parking sites, no facilities were available. The CCC removed this campground while building the Rim Campground and overlaid portions of it when the campground was enlarged.

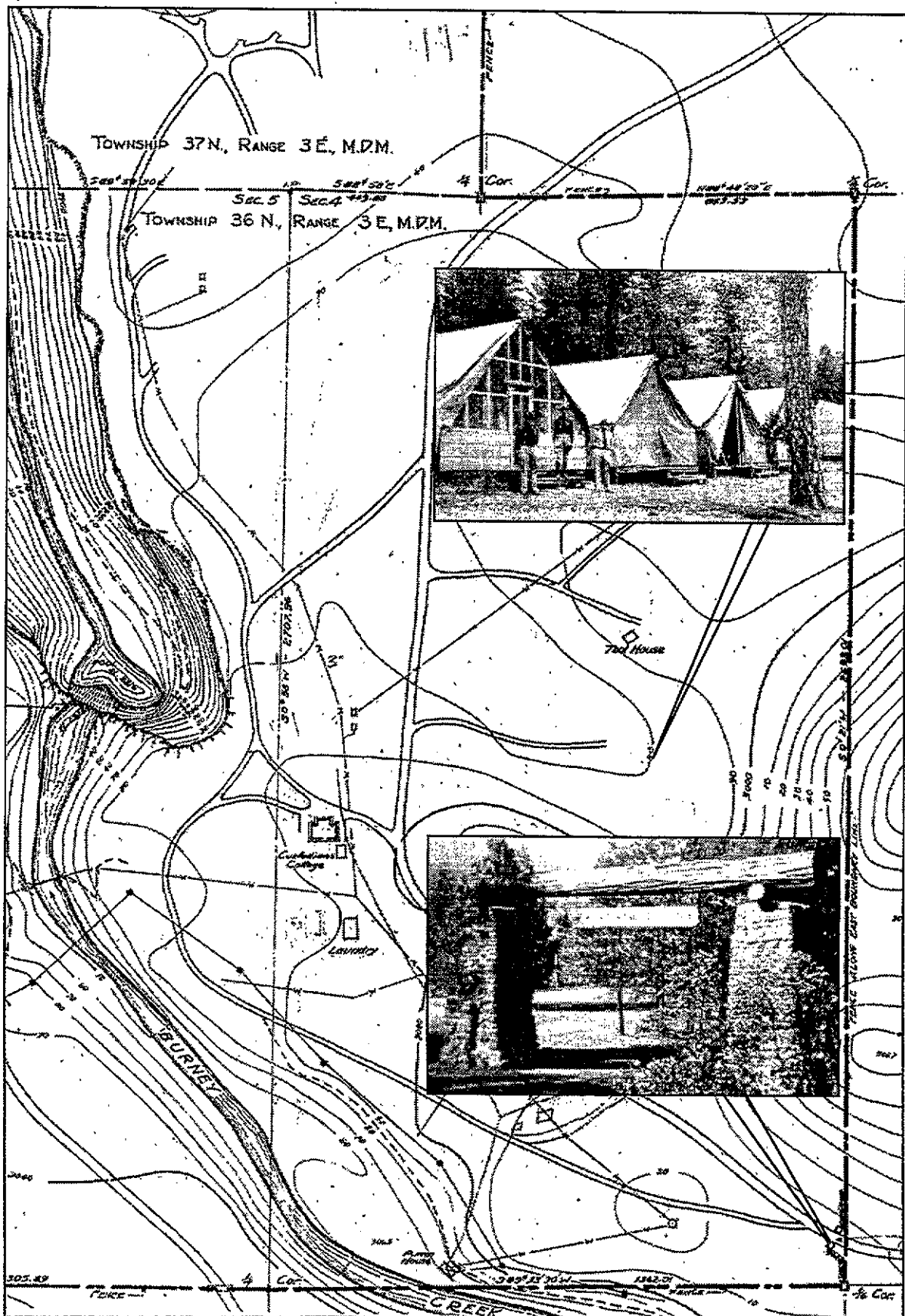


Figure 1: Map of the southeastern part of McArthur Memorial Park dating from the late 1930s before construction of Highway 89. It does not show the CCC camp, which was seasonal, although the pointer indicates approximately where the camp was. The falls are near the left edge of the frame, while the former gate appears in the lower right corner.

A second set of historic features dates from the time of the Civilian Conservation Corps camp east of Highway 89. The site features four standing wooden buildings, three concrete foundations and two archaeological sites. One substantial building known as the Red Barn was originally a latrine and bath house. There are also three shack-type buildings. Two are rough-sawn lumber structures with tarpaper roofing now covered by sheet metal that were one-room storage buildings. The third, of the crude sawn lumber, was an automobile garage and now serves to store firewood.

Typically, permanent buildings had concrete floors and were well built. Temporary buildings might have been of vernacular style, rough cut with tarpaper or shingled roofs. Many temporaries were hauled in by transport companies and dumped where each building would be erected. Foundations and floors were of concrete blocks; walls and roofs were prefabricated and bolted together. When the company moved on, the buildings were unbolted, loaded on flatbed trucks, and hauled to the next camp location. This should explain why locations of structures' sites in former "Three Cs" camps are often so difficult to determine without a map or photographs.

Tents were another type of temporary structure, usually World War I square squad tents, called Sibleys by the men of the "Cs." They may or may not have had floors depending on the time the company, or detachments of a company, expected to stay in the area. There were also partial cabins with wooden floors, chest-high walls, and framed roofs that were covered with canvas.

There are three concrete foundations in the CCC camp area. One located west of the Red Barn appears to have been the foundation for a hot water heater for the bath house once located in the barn. The second foundation, located east of the garage, is a concrete pad, reinforced with railroad iron, that was used for maintenance and repair of heavy caterpillar tractors by the California Department of Forestry (CDF) during the 1960s. Foundation #3, while similar to CCC-era construction, was built in the early 1960s, also by CDF. These two foundations, plus water pipe and faucets, are the only visible elements of a CDF inmate fire protection mobile unit. CDF leased seven acres east of the old garage (a CCC-era building now used to store wood) from 1962-1967.

One of the two archaeological sites consists of a two-tier earthen shelf where the squad tents once stood that housed the CCC company during its seasonal stay each year. Opposite this site and across the road is the site of the company kitchen and mess hall. East of the tent quarters site and the mess hall site, but no longer visible, would have been other buildings. These would have consisted of a recreation room, mail room, canteen, offices, storage buildings, and living quarters for the Camp Commander and his executive, known as a subaltern.

These facilities were no doubt built in 1934 by the only California company assigned to the state park. The other three companies were from the states bordering the lower Mississippi River. In 1937, the camp's temporary buildings were dismantled and hauled away.

The 24 months of CCC activity at McArthur-Burney Falls Memorial State Park completed the removal of the old campground and construction of Rim Campground. The new campground had mortared lava rock camp stoves and wooden tables. Also constructed were roads and picnic sites, some with rock fireplaces, water lines, electrical lines, and toilets. A two-pillar mortared lava rock entrance gate stood where the Fort Crook Road approached the park from the south. The gate replaced the old

log entrance portal and supported a large hand-cut wooden plank with the words: "McArthur Memorial Park." The gate and sign beckoned the motorist to leave the Fort Crook Road and enter the park on what had been the wagon road, now graded and improved. Traces of the road are apparent from the gaps in the trees leading from Highway 89 to the park unit's service yard. The remains of the CCC-built gate, bulldozed out of existence by the Highway 89 construction crew, still lie just west of the old entrance. Also in this area is a low lava rock wall that must have once delineated the then south boundary of the state park.

Three types of stoves with chimneys have been identified in the campground built by the Cs, and one type (2 examples) of square barbecue exists in the current picnic grounds. While basically similar, the camp stoves appear to represent three different years of construction: Type A (circa 1935); Type B (circa 1936); and Type C (circa 1937). More study needs to be done to positively date the three different types.

In the picnic grounds north of the concession and its parking lot is a log cabin built by the "Three Cs." The cabin was moved from the "Cs" camp and converted to a small visitor center. Why the "Three Cs" originally built the log cabin is unknown. It may have been the idea of the park ranger who had a great deal to say about what projects this federal work force would accomplish.

RESOURCE DIRECTIVE FORMATION

CLASSIFICATION

This park unit was one of the earliest adopted into the State Park System. The core area of the park, including Burney Falls, came to the State in 1920 as a gift from Frank and Ethel McArthur. The State Park System took over the already enlarged property in 1926. Since then, additional properties have been added to the park.

The original property was donated specifically to preserve Burney Falls to provide for its public appreciation and enjoyment. Early elements of the State Park System were given one of two administrative titles: state park or state beach. In the early 1960s, a study was conducted that led to the inclusion of a new classification system in the Public Resources Code, Section 5019.53. The wording of the section appears in full in Appendix G. As a result, the park was officially classified McArthur-Burney Falls Memorial State Park in May, 1963.

RECOMMENDED DECLARATION OF PURPOSE

The Public Resources Code, Section 5002.2(b), requires a Declaration of Purpose "setting forth long-range management objectives . . . consistent with the unit's classification."

The Declaration of Purpose defines the purpose of the unit in the context of the State Park System. It includes an identification of prime resources, a broad statement of management goals consistent with the unit's classification, and a general statement of appropriate recreational opportunities.

The impetus and purpose for the inclusion of McArthur-Burney Falls Memorial State Park in the State Park System was to preserve Burney Falls, an important and

outstanding scenic wonder. The natural features include riparian habitats, seasonally wet meadows, upland forests and woodlands of ponderosa pine, Douglas-fir, and incense cedar, California black oak and Oregon white oak, each hosting a variety of wildlife species. Scenic and recreational opportunities are associated with the natural and cultural features. The following is the Declaration of Purpose for the park:

McArthur-Burney Falls Memorial State Park Declaration of Purpose

The purpose of McArthur-Burney Falls Memorial State Park is to present the falls as a scenic wonder and to make available for inspiration, enlightenment, and enjoyment, in an essentially natural condition, the outstanding scenic features and natural values of the park. These include Burney Falls and the lower canyon of Burney Creek; the scenic mountain and forest landscapes typical of the southern Cascade Mountain Range, the riparian habitats associated with Burney Creek and Lake Britton, the seasonally wet meadows, the variety of forest communities, including the ponderosa pine forest, Sierran mixed-coniferous forest, black oak woodlands and Oregon white oak woodlands; the geology, plant and animal life; the significant historical and archaeological resources; and the scientific values therein.

The natural, scenic, and cultural resources associated with these lands are entrusted to the Department of Parks and Recreation for stewardship in perpetuity. The department's mission is to protect these resources and prescribe and implement a program of resource management to perpetuate the park's declared values. The department will provide opportunities for safe, enjoyable, and educational experiences in a primarily natural setting. This will be accomplished through well-planned facilities, programs, visitor services, and maintenance. Park management shall regulate visitor uses as necessary to keep them compatible with perpetuation of park resources.

RESOURCE MANAGEMENT DIRECTIVES

This section of the Resource Element includes a body of directives. This is to fulfill the Public Resources Code requirement (Sec. 5002.2(b)) for a "... declaration of resource management policy" in the Resource Element "setting forth the precise actions and limitations required for the achievement of the objectives established in the Declaration of Purpose."

GENERAL DEPARTMENT RESOURCE DIRECTIVES

In the early 1970s, the Director of the Department of Parks and Recreation adopted a series of Resource Management Directives designed to assist in the perpetuation, enhancement, and management of most of the categories of resources in the State Park System. The directives were subsequently modified and expanded. They have statewide application and are intended to control resource activities in all units of the system.

The directives in this general plan are consistent with those Resource Management Directives, but they are more detailed and more specific in their application to McArthur-Burney Falls Memorial State Park. The directives in this

element are grouped in the same sequence and under the same major headings as the resources discussed in the preceding Resource Summary.

Inasmuch as the prime resource of McArthur-Burney Falls Memorial State Park and the reason for its establishment is Burney Falls, together with Burney Creek and the forest ecosystem of which they are an integral part, all management directives for park resources at McArthur-Burney Falls Memorial State Park area intended to perpetuate its aquatic and forest resources and their appreciation by park visitors.

PARK RESOURCE DIRECTIVES

Natural Resources

Hydrologic Resources

Burney Creek

Burney Falls owe their magnificence to the unique geology and hydrology of the Burney Hydrologic Area. As such, there is a need for further study to predict the impact that future water development in the entire watershed may have on flows in the lower 1.4 miles of Burney Creek. It is the objective that these potential impacts be identified, monitored, and prevented or corrected before major natural values are lost. In so doing, the department will continue its active involvement in the planning for local activities and land use decisions that might have an adverse impact on the water features of Burney Creek. Evaluation of both natural and human-induced impacts to springflow at McArthur-Burney Falls Memorial State Park could be greatly enhanced by re-establishment of a gauging station downstream from Burney Falls. This would provide valuable scientific information necessary to develop informed resource protection measures and policies.

Directive: The department shall strive to be actively involved in land use decisions for all lands that may affect the park and its hydrologic resources. Detrimental land uses are those that may have a deleterious effect on park resources and may include timber harvesting, mining, grazing, road and building construction, surface water diversion, and groundwater extraction or regulation. Measures to monitor and maintain natural water quality, channel flow, and sediment transport rates shall be determined, recommended, and supported. Development of facilities by the department shall be designed and implemented so sedimentation or erosion cause no adverse environmental effects.

Soil Resources

Soil Erosion

Certain areas at McArthur-Burney Falls Memorial State Park are subject to ongoing erosion problems. Sites of primary concern are volunteer trails along Burney Creek created by uncontrolled visitor use, shortcut volunteer trails between switchbacks near Burney Falls, and some locations along the shoreline of Lake Britton (especially upstream of the day use area). When human activities increase erosion

beyond natural rates, the accelerated erosion resulting from those activities is undesirable.

Directive: The department shall minimize human-caused, unnatural, or destructive erosion at McArthur-Burney Falls Memorial State Park by developing and implementing a unit-wide soil erosion program to protect and manage soil resources. Erosion problem areas shall be identified and monitored, criteria for evaluation of erosion problems will be developed, and eroded sites shall be prioritized for corrective action.

Erosion shall be prevented and controlled by means that are consistent with the purposes of the park and with department policies, that are as unobtrusive as possible, and that fit naturally into the environment, with the objective of restoring a more natural condition. Areas that have been eroded shall be restored to natural contours, if possible, and revegetated with appropriate native plant species when necessary.

Trail Development

Hiking trails are the primary means for visitors to experience the park's undeveloped areas. For this reason, they are a critical component of any development plan. They may also constitute significant environmental impacts in terms of aesthetics, altered surface drainage, and damage to vegetation and cultural sites. In addition, they may bring visitors to areas with sensitive plant and/or wildlife populations.

Directive: A unit-wide Trails Plan shall be prepared for trails specified in the general plan. Such a plan should consider the full range of cumulative effects on unit resources. New trail construction shall minimize effects on natural, cultural, and scenic resources. All existing trails not a part of the general plan shall be evaluated by the Trails Plan for possible abandonment and restoration to natural contours and conditions.

Plant Life

Special Plants

Special plants are listed annually on the California Department of Fish and Game's Special Plant List. Those species listed by the U.S. Fish and Wildlife Service, the California Department of Fish and Game, and the California Native Plant Society (CNPS) as rare, threatened, or endangered are a subset of the Special Plant List. Species that are proposed for listing by the federal government and state candidates for listing are legally protected as if they were listed. Species listed by CNPS on their lists 1A and 1B meet the criteria for listing and are protected as such. Other species locally sensitive and important to the management of park units are also considered special by the department.

Facility development, maintenance programs, visitor use, or other activities can inadvertently destroy special plants, especially when the exact population locations, habitat requirements, and tolerances are not known.

A population of Bellinger's meadowfoam, a CNPS List 1B plant, occurs in McArthur-Burney Falls Memorial State Park. Although not likely, additional populations of this plant and other special plant species could be found.

Directive: Special plants within McArthur-Burney Falls Memorial State Park shall be protected and managed for their perpetuation in accordance with state law (PRC, Division 2, Chapter 10, Section 1900). Management plans will be developed for all special plant species found within the park. All populations found shall be mapped.

Before any site-specific development, heavy use activities, or prescribed burns, additional surveys for special plants shall be made during the appropriate flowering seasons in the areas that will be impacted.

Landscaping Plant Materials

Non-native species can detract from the natural appearance of the park, escape into the wild, and displace native species.

Directive: Landscaping in developed areas shall consist of species indigenous to the area. Non-native species, used because no indigenous species are suitable for the purpose or location or that are used for interpretive reasons, shall be species incapable of naturalizing and spreading into other areas of the park and species not requiring a permanent irrigation system, with exception for areas next to employee housing.

Natural vegetation in campgrounds and other high visitor use areas shall be managed to mimic native vegetation patterns consistent with safety and aesthetic objectives and State Park System values.

Alien Plants

Alien plant species are currently not a major problem at McArthur-Burney Falls Memorial State Park. However, diligence is necessary to prevent the establishment and spread of non-native species that could displace native species and disrupt natural communities.

Directive: The department shall pursue a long-range objective of preventing the establishment of alien plant species.

Livestock Grazing

While livestock grazing may be an appropriate use of private land and of public lands managed for multiple commodity and recreational uses, it is generally incompatible with the State Park System management objectives of preservation and public recreation. The Public Resources Code prohibits the commercial exploitation of resources in units of the State Park System.

Directive: Livestock grazing is prohibited in McArthur-Burney Falls Memorial State Park.

Vegetation Management

Preservation and perpetuation of representative examples of natural plant communities are statewide goals for the department. In addition, a central goal of natural area management in the State Park System is to restore, protect, and maintain native ecosystems and indigenous flora and fauna.

Logging, residential and agricultural development, livestock grazing, and especially alteration of the fire regime since the mid-nineteenth century have had an impact on plant communities at McArthur-Burney Falls Memorial State Park. These impacts have caused a shift in species composition, changes in the structure of plant communities, and a change in the pattern of communities at a landscape level. In particular, fire suppression activities have altered the composition and stand structure of the Ponderosa Pine Forest and Oak Woodland communities both within the park and on adjoining lands.

Directive: The primary objective of vegetation management in McArthur-Burney Falls Memorial State Park shall be to manage toward a natural condition with a minimum of disruption to natural processes. A secondary objective shall be to perpetuate and restore the native plant communities that prevailed before Euro-American settlement.

To achieve these objectives, the department shall develop and implement a unit-wide Vegetation Management Plan for McArthur-Burney Falls Memorial State Park. The plan should include at least the following features:

1. Identified management units that may include more than one plant community;
2. An evaluation of current conditions, disturbance factors, and successional patterns;
3. An estimate of plant community composition and structure and conditions in the pre-Euro-American era;
4. Site-specific and quantifiable vegetation goals for each management unit;
5. Analysis of landscape level patterns (the interaction of topography, drainage/watersheds, plant communities, and land ownership and use in the local area and region outside the park unit boundaries) and their implications for wildlife habitat in the unit and on adjacent lands;
6. An evaluation and prioritization of restoration opportunities for all management units based on the rarity, present condition, level of threat, and feasibility of restoration for each of the management unit's plant communities;
7. Establishment of management actions for each management unit that consider management needs, treatment cost, appropriate technology and techniques, and alternatives;
8. Presentation of the Vegetation Management Plan to the public in an appropriate forum; and
9. A monitoring and evaluation program that quantifies management effects and is the basis for adjustments to the plan.

All components of the Vegetation Management Plan need not be completed before specific projects in individual management units are implemented; however, applicable components for each management unit must be completed before commencing work.

Prescribed Fire

Plant communities in the park and on adjacent lands have evolved with fire, both natural and human-caused. A policy of fire exclusion by state and federal agencies during this century has altered the pre-Euro-American fire regime and created significant changes in the species composition and stand structure of the native plant communities. This shift in vegetation has created more dense canopies and a shrubby understory with the growth of numerous trees of pole size and smaller. This is especially true of the Ponderosa Pine and Oak Woodland communities, which cover more than half of the park area. These changes dramatically increase the possibility of catastrophic wildfire on park lands.

Prescribed fire is a tool that allows modern managers to mimic conditions that existed before Euro-American settlement. Fire has affected the evolution of individual species and the pattern of vegetation across the landscape.

Directive: The use of prescribed fire should be considered for ecosystem management in the unit. If prescribed fire is deemed necessary, a unit-wide Prescribed Fire Management Plan that details an ongoing program of prescribed fire use shall be prepared consistent with the Vegetation Management Plan. The plan should identify, as nearly as possible, the pre-settlement fire regime by estimating timing, frequency, intensity, and extent of these fires for each plant community in the unit.

The plan for prescribed fire use shall be consistent with the department's prescribed fire management policies and contain program objectives, guidelines, and treatment constraints, specific burn plans, and provisions for monitoring and evaluation. Particular care shall be taken to minimize deleterious effects on the park's natural, cultural, and scenic resources. Mechanical manipulation to achieve program objectives shall be minimized. A program of prescribed fire shall not preclude in any way the necessity for wildfire prevention and suppression.

Wildfire Suppression And Prevention

Wildfire can be a threat to human life and property and can also severely damage State Park System resources. Because conventional fire control facilities and procedures often cause longer lasting damage to resources than does fire itself, the development of standards and procedures applicable to this park is necessary.

Directive: A Wildfire Management Plan that addresses wildfire prevention, presuppression, and suppression shall be developed by the department in cooperation with the responsible fire control agencies. This plan shall include prevention measures; criteria, standards, and location of fire access roads and fire protection facilities; visitor evacuation routes; and acceptable fire suppression procedures.

The plan shall be consistent with primary unit resource values and major unit objectives. Department standards require a minimum disturbance of soil and primary emphasis on avoiding adverse aesthetic impacts in the location, construction, and maintenance of fire roads and fuelbreaks. Suppression methods shall cause the least resource damage commensurate with effective control.

Forest Pest Control

Outbreaks of forest insects, particularly bark beetles, occur from time to time in the park, as in all other pine forest regions of California, and severe infestations may kill significant numbers of forest trees. These insects are naturally associated with the trees, and their periodic outbreaks are normal and to be expected. Park forests are not being managed for commercial purposes, and therefore loss of commercial value of the trees killed by insects cannot be used as a rationale to control them. Some large ponderosa pine trees found in the campground are of both aesthetic and biological value and, where possible, should be protected from destruction by forest pathogens.

Directive: If individual landmark trees in areas of visitor concentration are recognized as threatened by insect activity, they may be individually treated with preventive spray to prevent significant loss. These trees will continue to be under the constraints of the department's Tree Safety Program.

In areas outside of visitor concentration zones and park facilities (i.e., wildland areas), the killing of trees by native insects shall be recognized as a natural process, and killed trees shall not normally be felled or removed. Exceptions shall be permitted only in the case of: a) any tree that falls within the constraints of the department's Tree Safety Program; b) emergency situations; or c) approved resource management projects such as prescribed fire management and plant community restoration. (Note: An approved resource management plan should be completed prior to project work.)

Animal Life

Wildlife Management

Animal life is an important part of natural ecosystems and adds interest and variety to the park experience for visitors. McArthur-Burney Falls Memorial State Park encompasses valuable wildlife habitat used by many species. Protection and perpetuation of natural wildlife populations are major management objectives at the park. Habitat features of significant value such as nest sites and wildlife corridors need to be considered in any park planning.

Directive: The department shall protect and perpetuate native wildlife species and their habitats and shall avoid significant imbalances caused by Euro-American influences. Natural habitats altered by Euro-American influences since 1800 AD should be restored as nearly as possible to the conditions that would have existed had natural processes not been disrupted.

Regional Cooperation

Recognition that natural ecosystems interact and change in response to their surroundings is fundamental to achieving the goal of conserving natural diversity. Ecosystem processes and elements must necessarily range across park boundaries. Therefore, State Park System units must be seen not as isolated reserves but as integral parts of complex economic, social, and ecological systems of relationships encompassed by the greater geographic region.

The department recognizes the desirability of involvement in land management decisions for lands outside park boundaries when possible to protect significant natural, cultural, scientific, and recreational values. Principles developed by the emerging discipline of landscape ecology help to deal with the complexity of managing natural processes across a landscape of different ownerships, each with its particular set of management objectives. Protecting whole watersheds, preserving migration corridors, and preventing habitat fragmentation or isolation are some of the goals accommodated by this broader view. Management activities that reflect this regional framework include cooperative planning and management with adjacent land management agencies and interest groups. Easements and leases can also provide landscape linkages and wildlife corridors between separate, protected natural areas.

Directive: The department shall work with pertinent government agencies (such as the Department of Fish and Game, the Department of Forestry and Fire Protection, the Regional Water Quality Control Board, the Department of Water Resources, the U.S. Forest Service, the U.S. Fish and Wildlife Service, and the Shasta County Planning Commission), private owners, and other organizations to insure that preserves, wildlife habitat, and natural processes of mutual interest are effectively managed at a regional level. Cooperative agreements, memoranda of understanding, and other instruments should be used when possible.

Special Animals

Special animals are defined as those species listed on the Department of Fish and Game's Natural Diversity Data Base Special Animals List. Species listed by state and federal agencies as threatened, endangered, of special concern and fully protected, and species under investigation as candidates for listing are on this list. Other species, locally sensitive and important to the management of the park unit, are also considered special by the department.

Several special animal species occur or possibly occur within McArthur-Burney Falls Memorial State Park (Appendix E). They are a primary resource management concern and require careful consideration when making land management decisions. Sensitive species habitats appear in Map #3.

Directive: Threatened, endangered, and candidate wildlife species in the state park shall have a high priority for development of, and inclusion in, management plans. These species shall be protected and managed for their perpetuation in accordance with state and federal law.

Specific management plans shall be developed, when appropriate, for animal species that are threatened or endangered, as well as for other

special animal species. Management shall focus on the identification and protection of critical habitat. Specific habitat management guidelines may be incorporated into the vegetation plan for the park unit. Population characteristics of special animal species should be monitored in the park.

The occurrence of these species, the locations of their active reproductive areas, and other important life requisites should be documented. Information on location of special species shall not be generally available to the public. Programs or projects in the state park shall be planned and designed so that sensitive wildlife will not be adversely affected.

Bald Eagle

Bald eagles formerly bred statewide except in the southern California deserts. In the late nineteenth and early twentieth centuries, habitat loss, mortality, and disturbances reduced their range. By the early 1970s, the species no longer nested on the coast nor inland from Lake Tahoe southward.

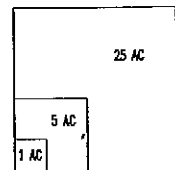
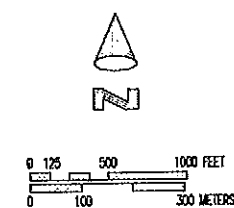
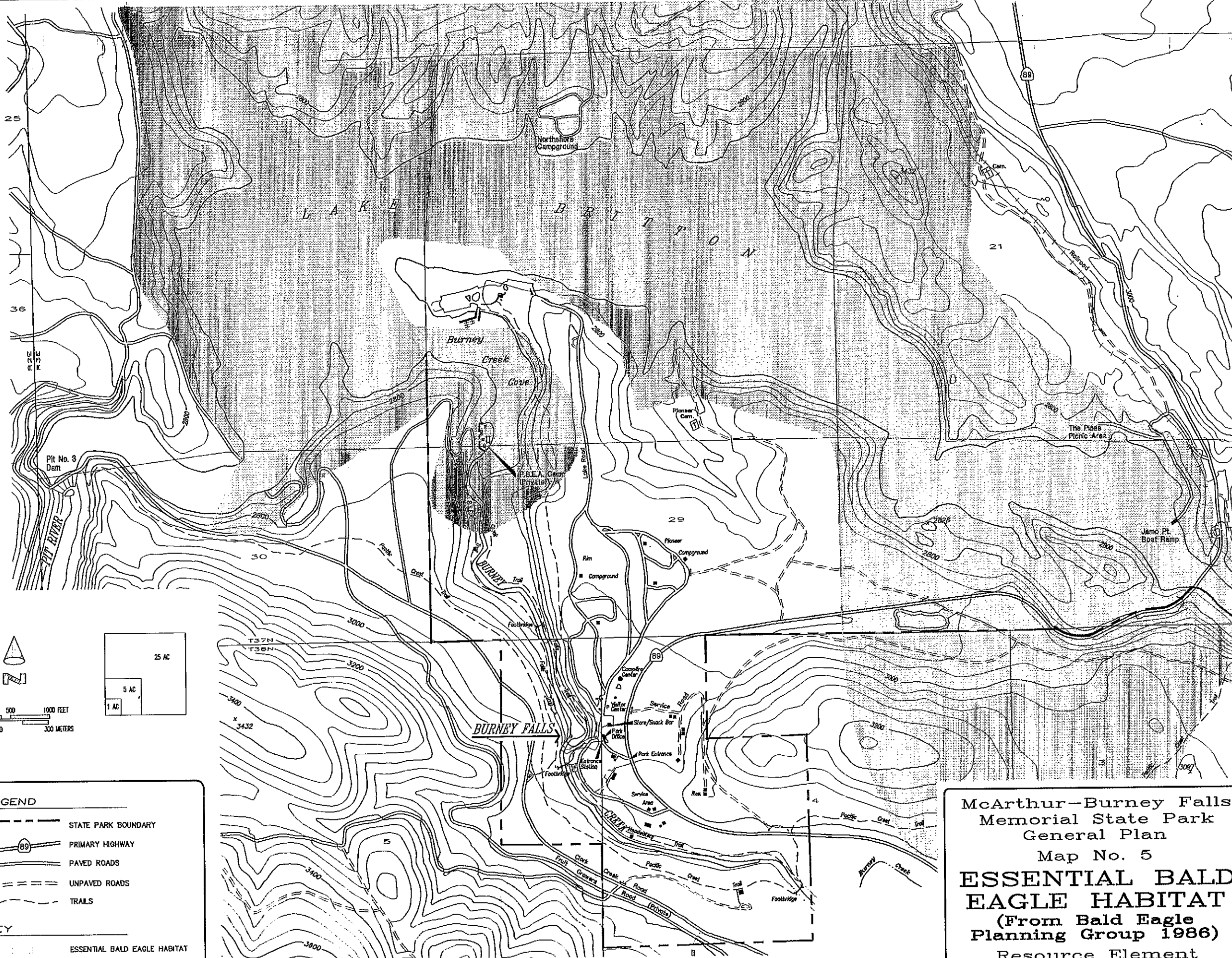
This large raptor nests primarily in tall conifers near water (lakes, rivers, reservoirs, marshes, fresh water inlets, and small confined bays). Limiting factors for the bald eagle include habitat loss or degradation from logging, mining, pesticide effects, recreational use, and residential and commercial development. Human intrusion into nesting habitat frequently disturbs bald eagle breeding behavior, causing reproductive failure.

The 1940 federal Bald Eagle Protection Act provided full protection to bald eagles. The federal Endangered Species Act in 1967 listed the species as endangered, with a revised listing in 1978. The eagles have been similarly protected under California endangered species acts since 1971, with a revised listing in 1980. In 1995, bald eagles were reclassified by the federal government as threatened.

The Pit River Interagency Bald Eagle Management Plan is an example of regional cooperation for the management of bald eagles, now a federally listed threatened and state-listed endangered species. This plan was developed by the Bald Eagle Planning Group, a consortium of representatives from PG&E, the Department of Fish and Game, the U.S. Fish and Wildlife Service, the U.S. Forest Service, and Bureau of Land Management. It was implemented in 1986 to protect bald eagle habitat in the Pit River drainage. The Department of Parks and Recreation consulted with the Bald Eagle Planning Group throughout the development of the plan.

The Pit River Interagency Bald Eagle Management Plan provides recommendations for bald eagle roosting, foraging, and nesting habitat, including seasonal closure of nesting habitat and levels of human use in essential (foraging, roosting and nesting) habitats. It also discusses silviculture prescriptions for the maintenance of nesting habitat. Essential Bald Eagle habitats appear on Map #5.

It is an objective of the department to protect and perpetuate sensitive wildlife species and to retain the diversity of native organisms endemic to the unit.



LEGEND

- STATE PARK BOUNDARY
- PRIMARY HIGHWAY
- PAVED ROADS
- UNPAVED ROADS
- TRAILS

KEY

ESSENTIAL BALD EAGLE HABITAT

McArthur-Burney Falls
Memorial State Park
General Plan
Map No. 5
**ESSENTIAL BALD
EAGLE HABITAT**
(From Bald Eagle
Planning Group 1986)
Resource Element

Directive: The bald eagle is a listed species; the bird and its habitat are protected by federal and state laws. The department shall consult with the Department of Fish and Game and the U.S. Fish and Wildlife Service on the best management practices for the species' habitats within McArthur-Burney Falls Memorial State Park. At this time, these management practices are included in the Pit River Interagency Bald Eagle Management Plan. Therefore, it is recommended that the department adhere to guidelines and recommendations promulgated in that document until the document is no longer necessary, as declared by the Department of Fish and Game, or has been superseded by updated guidelines. Areas within the park that support known nesting habitat, as identified in the Pit River Bald Eagle Management Plan, shall have restricted access during the nesting season, January through July. Should the need arise, the department shall consult with the Department of Fish and Game and the U.S. Fish and Wildlife Service regarding clarification or modification of elements of the Pit River Interagency Bald Eagle Management Plan as they affect department operations, maintenance, resource management, interpretation, and facilities development.

Wildlife Requiring Special Management Consideration

Some wildlife species, both native and alien, can affect natural population dynamics of other wildlife populations or cause public safety concerns, requiring special management. Feral or domestic dogs, cats, and horses are unnatural in the ecosystem and adversely affect native wildlife through disturbance, predation, or competition for resources. The sight or intimidating action of a stray or uncontrolled dog can disturb a visitor's experience.

Brown-headed cowbirds are a management concern because of their parasitism of nests, which threatens native songbirds. Although not currently at a problematic population level at McArthur-Burney Falls Memorial State Park, this species is spreading because of habitat changes throughout California and could be more common in northeastern Shasta County in the future. The rising popularity of horseback riding contributes to the spread of cowbirds by providing them an unnatural, supplemental food source in the form of undigested grains, as well as insects attracted to horse feces.

The supplemental feeding of California ground squirrels by park visitors contributes to periodic population explosions of this species. In the past, high populations of California ground squirrels have undermined the integrity of the Falls Trail by locating burrows beneath the pavement. It is not uncommon for ground squirrels to bite visitors that are feeding or trying to pet them. While California ground squirrels are known to carry fleas that, if infected, can vector plague to humans, there has been no incidence of plague reported for McArthur-Burney Falls Memorial State Park. However, such an occurrence is possible.

Directive: When it is necessary to regulate animal populations, methods shall be used that are based on principles of ecosystem management consistent with the general policies of the department and that avoid disturbance to other natural values of the park. When control, removal, or other management actions are required, a specific management plan shall be developed that considers the biology and behavior of the species, the

legal mandates and restraints for management, and the need for public education programs about the prescribed management.

Aquatic Life

Burney Creek Native Aquatic Life Restoration

Burney Creek provides native fish habitat and a sport fishery managed by the Department of Fish and Game. The sport fishery is largely based upon planting of native and non-native hatchery-reared fish in the creek above Burney Falls. This practice is popular among sport anglers, but it is not wholly compatible with native species and ecosystem management. Planted fish compete for food and habitat with native fish and prey upon smaller individuals. Planted hatchery-reared rainbow trout can also impact native populations by interbreeding and altering the population's gene pool. This can result in increasing susceptibility to parasites and disease (hatchery populations can also be a source of disease). While a large percentage of planted fish may be removed by recreational fishing pressure, many individuals become resident in the park.

Immigration of non-native fish from areas of Burney Creek upstream of the state park during periods of high flow also occurs. These immigrants compete with and also prey upon native species of fish and amphibians.

It is the mission of the Department of Parks and Recreation to protect and perpetuate naturally-occurring native species while, at the same time, providing high quality recreation for the visiting public. It is important that practices having detrimental effects on native, naturally-occurring species be curtailed, but it is also important to afford a quality recreational fishing experience to visitors. It is desirable that genetically-incompatible fish, as well as invasive non-native species, be eradicated from the portion of Burney Creek occurring within the boundaries of McArthur-Burney Falls Memorial State Park.

Directive: Department staff should endeavor to restore the native fishery of Burney Creek while providing for quality sport fishing. Department staff should work with the Department of Fish and Game and the California Fish and Game Commission toward eliminating the practice of planting hatchery-reared fish in Burney Creek within the boundaries of the state park.

Archaeological Resources

Treatment of Archaeological Sites

The department is committed to preserving the values that make archaeological sites significant. This commitment is supported by state law, state Executive Order W-26-92, and several departmental policies. For example, the department's Resource Management Directive #59 requires staff to consult with an archaeologist before conducting any underground work.

All the prehistoric sites in the park are considered significant because of their inclusion in a National Register district. They are also significant for the potential

information that can be derived from their study. The intent of this plan is to protect and perpetuate all known archaeological sites in the park except for SHA-418 at the lake, and SHA-1541 in the campground.

Directive: Where the preservation and avoidance of sites are wholly impractical, archaeological methods will be used to preserve information that can contribute meaningfully to the understanding of prehistory. PG&E's archaeological research designs for Lake Britton will be used to perform all necessary studies in the park. If any of the sites on PG&E lands cannot be preserved or avoided in the future, a PG&E archaeologist will be consulted prior to implementation of any studies.

Minor Archaeological Sites

The development projects proposed in this general plan will not significantly affect archaeological resources. The proposed new entrance, new contact station, and new main park road can all be built without impacting any known site. A new concession building and observation platform can be constructed without disturbing cultural resources. Replacement campsites, roads, and parking lots can readily avoid known sites.

Existing land uses make preservation of two sites in the park difficult or questionable. Site SHA-1541 is a very small flake scatter within the campground. There may be no depth to this forest site.

Directive: A resource management or stewardship project is recommended to collect obsidian flakes at SHA-1541 for dating and analysis, with testing for the presence of subsurface materials. Results of this study would preserve what could be learned at this time from this minor site and recommend treatment for what still remains.

Involvement of Local Native American People

The department is committed to working with the Pit River Indian people to preserve and protect cultural sites within the park. The heritage values of several sites are extraordinary, from both a local and statewide perspective. There are some areas without evidence of cultural use on the ground surface where there may possibly be buried sites.

Directive: The department will consult with local Native American people, who are knowledgeable about these heritage values, on plans to construct or remove ground-based facilities. Native Americans will be invited to participate as monitors during major projects near sensitive areas. Such projects include, but are not limited to, removal of paved parking near the falls and construction of a new entrance road.

Indian Cemetery

Department staff will periodically monitor the prehistoric Indian cemetery in the park to detect disturbances.

Directive: A management plan for SHA-1414 is recommended to protect and preserve this site of transcendent importance to the local Native American community. Such a plan could provide a syllabus for training staff, a format for documenting observations, and an outline of possible responses to vandalism and trespass. Consultations with Native American representatives would be invaluable to the creation and application of this management plan.

Euro-American Resources

Historic Trails

Directive: Historic trails will be protected as a cultural resource but may be continued as trails. Interpretation will play a key role in explaining the history of transportation and farm usage of the land in the state park.

The Gate House (Residence #1)

In 1927, the nascent State Park System authorized a cabin for the then warden at the entrance of the then 335-acre memorial park. In the mid-1930s, the Civilian Conservation Corps reconstructed the cabin into a more modern and livable house. Then, in the 1950s, the cabin-house was again reworked. The Gate House has been on its current foundation since 1927, retains a historic site, and contains material of the original cabin.

Directive: The Gate House will be preserved and protected as a historical entity of the state park. Before any additional alterations are made to the cabin-house, a Historic Structures Report should be completed.

Civilian Conservation Corps Structures

The work of the Civilian Conservation Corps is summarized in the Historic Resources section of this element. The mortared stone stoves, the stone overlook at the falls, the surviving buildings, including the log cabin, and the debris of the second stone portal with its adjacent stone wall are now considered historic and a part of the story of the state park and the early history of the Department of Parks and Recreation.

Directive: The historical resources of the Civilian Conservation Corps will be protected and preserved for the future as a visible portion of the history of the state park. Adaptive use of these structures is allowed. Removal of any of these items, due to deteriorating conditions or conditions of public safety will be reviewed by a department cultural staff member on a case-by-case basis.



The falls observation platform is a major focus of the day use area near the falls.



Some recreational activities pass from generation to generation at the park. This father learned to fish on this bridge from his own father.



There are places in the park that are not suitable for public use. This seasonally wet meadow could not endure heavy foot traffic and is also the site of a rare plant.

Land Use and Facilities Element

LAND USE AND FACILITIES ELEMENT

The land use discussion in a general plan addresses the need to balance the department's dual missions of preserving and protecting a park's resources while also providing opportunities for public use. It defines appropriate patterns of human activity in the park. The Land Use and Facilities Element describes current land uses, as well as the condition and appropriateness of the kinds, number, and placement of the park's existing facilities. It identifies existing conflicts and deficiencies and goes on to propose improvements to create a more harmonious and manageable land use pattern, as well as facilities that will be consistent with that pattern.

LAND CLASSIFICATIONS

SHASTA COUNTY

The 1993 Shasta County General Plan classifies the park and national forest land around it as "public land." All private land adjacent to the park is classified "timberland." That general plan states that timberland is "land dedicated to commercial forest management" and is "important to the . . . natural resource values of Shasta County." Zoning in the area has not been classified.

DEPARTMENT OF INTERIOR

Burney Falls is a National Natural Landmark. The NNL guidelines describe it as "a nationally significant natural area that has been designated by the Secretary of the Interior. To be nationally significant, a site must be one of the best examples of a type of biotic community or geologic feature in its physiographic province." The designation does not dictate management practices but is intended to encourage land managers to consider a landmark's significant natural values in future land management decisions.

NATIONAL REGISTER

The park is included in an archaeological district that is listed on the National Register of Historic Places, as previously discussed in the Resource Element.

PARK SURROUNDINGS

ADJACENT OWNERSHIP

Three landholders own property adjacent to the park. PG&E's Lake Britton defines the park's entire northern boundary. PG&E manages the lake for recreational use. PG&E also owns most of the land around the lake and leases 225 acres on the south shore to the department to operate as part of the park. The land contains the Pioneer Cemetery, which is under the jurisdiction of the Burney Cemetery District. It is a closed cemetery at DPR's request and receives no care. The company's Pacific Service Employees' Association (PSEA) Camp for its employees is on the west side of Burney Creek Cove and is an inholding within the area that the company leases to the department.

The rest of the land surrounding the park is forested. Land owned by the Shasta-Trinity National Forest (but administered by the Lassen National Forest) abuts the park for a quarter of a mile along its southern boundary and for the same distance along the eastern boundary. The department has an agreement to operate two parcels of land amounting to 74 acres within the park by special use permit from the national forest.

The third landholder is Fruit Growers Supply Company. Company lands border the park for over three miles along its western, southern, and eastern boundaries. Property belonging to the Fruit Growers and the Shasta-Trinity National Forest is timbered, and both engage in selective cutting.

NEARBY RECREATION

There are a number of other recreational opportunities near McArthur-Burney Falls. PG&E operates several facilities that provide public access to Lake Britton. Northshore Campground is located on the north shore of the lake across from the park. Dusty Campgrounds is on the north shore east of the Highway 89 bridge on national forest land but is operated by PG&E. There are also lake day use facilities at The Pines Picnic Area and Jamo Point, west of Highway 89 just north of the bridge. These have picnic sites, a boat ramp, and a large fishing pier accessible to disabled persons. PG&E's PSEA Camp also fronts on the lake and allows lake access for its guests. Therefore, the department does not have control either of the amount of use or kinds of uses on the lake. The County Sheriff's Office patrols the lake.

The U.S. Forest Service operates developed campgrounds along Highway 89 both north and south of the park. The national forest permits dispersed camping with no developed facilities in some areas near the park, such as Rock Creek seven miles to the north. Other camping opportunities are available south along Highway 89. A trailer park is two miles distant, a private campground 20 miles away, and a private recreational vehicle park four miles farther.

Private resorts are located near the park along Clark Creek Road. A store and gas station serve passers-by on Highway 89 about one and one-fourth mile southeast of the park entrance. Of all these, McArthur-Burney Falls Memorial State Park is the only one with tent camping facilities open all year.

PARK VISITATION

Total annual park visitation increased from 114,000 in 1961 to over 145,000 by 1970. By 1987, it had topped 200,000 and has fluctuated around that level since. The enormous popularity of recreation at the lake has contributed to this growth.

Since 1983, the average annual paid day use attendance has been 104,163 visitors per year, with the first six years below that number. In 1989, total day use visitation rose to 117,014. In the early 1990s, a fee increase and an economic recession reduced average annual day use figures. However, the enduring popularity of the park and the return of a growing demand for day use recreation seems to correlate with other long-term trends in northeastern California.

Park staff turn potential day use visitors away at the contact station when parking lots are full. For the past several years, this has occurred every Memorial Day, July Fourth, and Labor Day, as well as two to four other weekends. This has amounted to

an average of 925 vehicles each year. The busiest periods require closing the park entrance, when an uncounted number of day users must be turned away.

Family camping has been on reservation since 1983. During that time, the number of people camping in the park each year has been stable. Overnight attendance has varied from a low of 56,836 in 1985 to a high of 67,146 in 1990. The park now has an average of 62,864 visitor-nights per year. It is open for camping every day of the year, though it may close briefly during major winter storms. In January, the average number of overnight campers is 34. The camping reservation system does not record the number of turnaways of potential campers. However, an average of 1,450 vehicles are turned away each summer at the contact station.

See Appendix H for a more thorough statistical analysis of visitation for the park.

A BRIEF HISTORY OF LAND USE AND FACILITY CHANGES AT THE PARK

During the park's early years, human use of the land now within it was spread out beyond the area to which it is now confined. The 1930s Civilian Conservation Corps camp occupied the forested slope east of the present entrance and had a baseball field on land south of the Pioneer Cemetery. Entry to the park was southeast of the existing entrance, and park traffic and use at that time were generally west of and separate from the CCC facilities. The "Cs" built Rim Campground during their tenure at the park.

With completion of Highway 89 in 1951, the park entrance was moved roughly 1,600 feet northwest to its present location. The CCC camp was no longer active, and the highway isolated the slope where some of the buildings still remained.

Construction of the park office and day use developments near the falls began in the late 1940s. During the 1950s, day use grew in the narrow neck of land north of the new entrance between the falls and the highway. In 1955, the concession building was added, scarcely more than 300 feet from the falls. Traffic entering the park then passed between the new building and the falls and entered Rim Campground from the south.

The late 1950s brought the construction of a boat ramp, restroom, and swim beach at the lake and extension of the road from the entrance to the lake. The 1960s brought construction of a contact station in the middle of the road across from the office, as well as the Pioneer Campground. In the 1970s, docks were added at the lake.

Over the years, heavy traffic entering the park has created increased congestion and conflicts where the road passes through the middle of the falls day use area and the campgrounds. Pedestrians and bicyclists clog the road in the many places, especially around the contact station and between the concession and the falls.

LAND USE DESIGNATIONS

The Existing Land Use Map (#6) shows the land use pattern that has resulted from past growth at the park, while the Proposed Land Use Map (#7) depicts the pattern that will result from implementing the proposals in the general plan. The maps employ four land use categories. The Day Use and Camping areas are called public use areas

because they are the primary parts of the park containing facilities intended for use and enjoyment by the public.

1. **Day Use:** These are public use areas dedicated to serving visitors who arrive and leave on the same day. Activities in these areas include parking, picnicking, short hikes, sightseeing, interpretation, sales of food and merchandise, contact with park staff, and recreation at the lake. Several trails also originate within the day use area that extend into other land use areas. In addition, a day use parking lot serves for en route camping at night.
2. **Camping:** These public use areas provide facilities for visitors remaining in the park overnight in tents or recreational vehicles.
3. **Operations:** These areas provide space for park staff to conduct administrative, maintenance, repair, storage, and other functions (e.g., wood cutting) necessary for operation of the park. They also contain staff residences.
4. **Open Space:** This category includes most of the park acreage. Human influences are limited. Public use facilities consist only of park roads and trails, and use of these is low intensity. These lands are primarily shaped and influenced by natural processes. Appropriate visitor activities in the open space areas include hiking, guided interpretation, nature observation, and sightseeing.

LAND USE CHOICES AND CHANGES

As the Existing Land Use Map indicates, traffic circulation and congestion on the east side of the falls are related to many other problems at the park. Extension of the 1950s entrance road to the lake allowed the park's main circulation route to disrupt the public use areas in the park's core. The high level of lake use became a distraction from the natural resource that the park had been established to protect – the falls. Planning choices had to be made to create a clear vision of the purpose of the park as the twenty-first century nears. The result was to reassert the overriding importance of Burney Falls as a scenic wonder and the park's prime resource.

Two key land use improvements are essential to support and reinforce the prominence of the falls. One is to remove automobile traffic from the area by relocating the park entrance. The other is to relocate developed day use facilities away from the heavily impacted canyon rim directly east of the falls. The Proposed Land Use Map depicts the new pattern, where vehicular circulation will be outside the park's public use areas. This will allow consolidation of camping use and of the falls day use area.

In addition, the day use area will expand to the north. These land use improvements will foster many associated benefits for the park. The following goal statements summarize changes this general plan will promote. The statements present a general direction that will be further clarified later in this element in the descriptions of proposals for the various areas within the park.

LAND USE AND FACILITIES GOALS

Guiding Vision: Present Burney Falls and its setting to the public as a scenic wonder.

Goal: Improve visitors' experience of Burney Falls by:

Restoring an environment that allows for a sense of anticipation and appreciation of the park's natural beauty as visitors approach the falls.

Removing large areas of pavement from the area east of the falls and reintroducing native vegetation where facilities have been taken out to create a more attractive landscape around the falls and to buffer different activities from each other; and

Goal: Eliminate the existing traffic bottleneck at the park entrance and remove congestion and conflicts between different kinds of traffic from the park's road system by:

Removing the main park road from the falls day use area to end traffic congestion and conflicts between foot and vehicular traffic in that area; and

Reducing the impacts of vehicular traffic on campers by removing through traffic from the middle of the family camping facilities.

Goal: Consolidate use areas to remove incompatible intrusions and for improved operational efficiency and management by:

Consolidating the family, group, and hike and bike camping facilities in one area;

Placing parking lots next to the use areas they serve to eliminate the need for visitors to cross park roads to reach their destinations; and

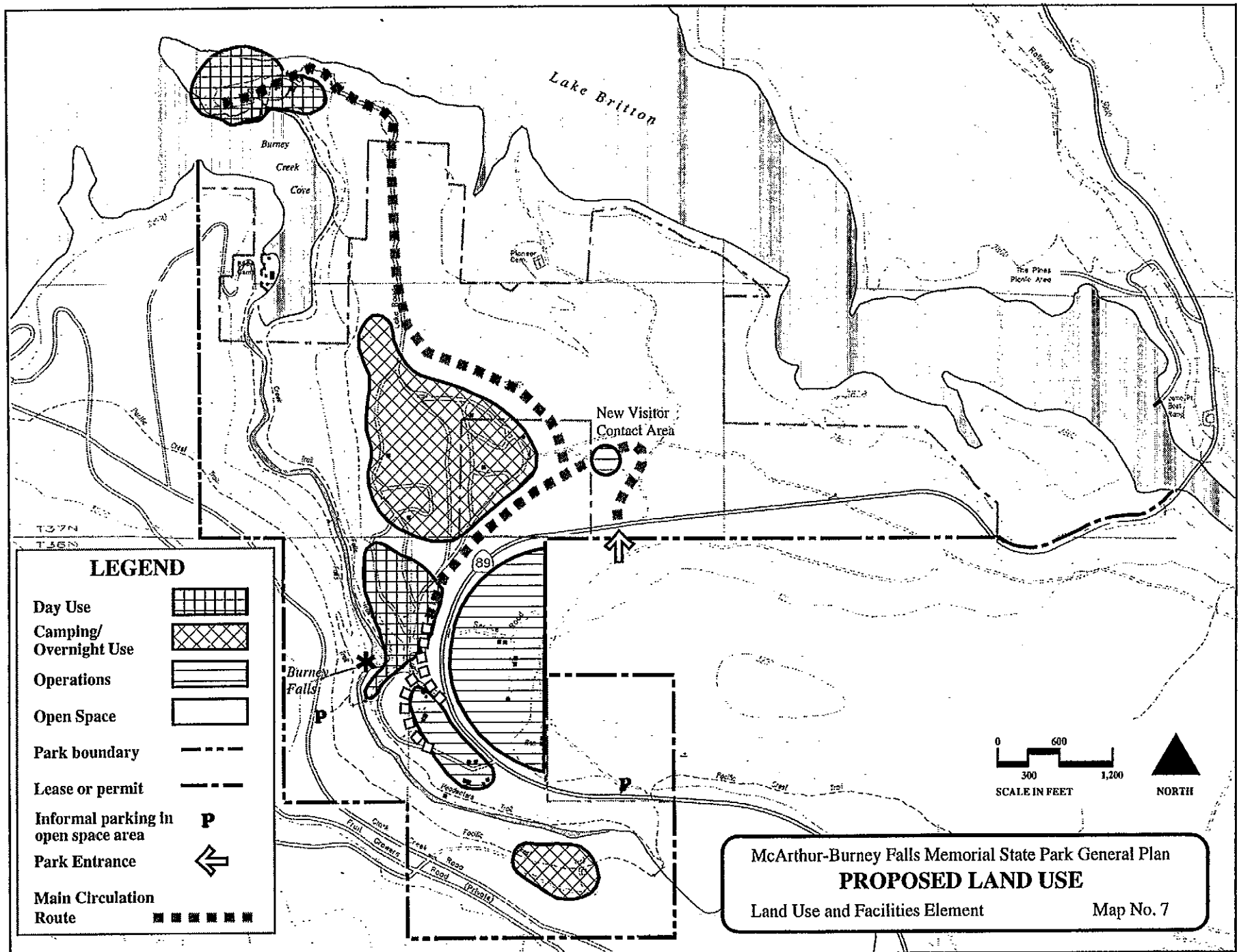
Working toward the eventual rerouting of Highway 89 so it no longer divides the park, thus reducing the amount and speed, as well as noise, of traffic within the park.

Goal: Upgrade park facilities to best serve all visitors by:

Relocating day use facilities farther north and away from the highway to provide a quieter and more aesthetic day use experience with less sense of crowding at busy times;

Furnishing improved falls day use facilities, including a new interpretive center, concession building, parking for automobiles and large vehicles, and better pedestrian circulation routes;

Redesigning the camping areas to create a better experience for visitors desiring more quiet or additional choices regarding campsite spacing and screening, better facilities for recreational vehicles, and more facilities for those with disabilities;



Providing facilities where possible that would be able to serve visitors during the shoulder- and off-seasons;

Creating a more logical and easily followed pedestrian trail system; and

Upgrading the park's utilities where necessary.

Goal: Assess the condition of the park's natural and cultural resources and provide for their management and protection by:

Applying the resource directives set forth in the Resource Element.

LAND USE AND FACILITIES PROPOSALS

This section begins with discussions of area development plans and design criteria, which appear in many of the proposals presented in this element. Each has bearing upon the character and quality of proposed improvements.

QUALITY ASSURANCE FOR GENERAL PLAN PROPOSALS

Area Development Plans

Proposals set forth in a general plan are nonspecific by intent. Typically, a general plan identifies the broad categories of facility development within a park's various areas, but it does not present detailed designs. Where major facilities developments or relocations will occur, area development plans are required to examine facilities' placement and set patterns for future vehicular and other circulation.

An area development plan (ADP) evaluates and demonstrates how a project will relate to long-range plans for a discrete area, as well as the park as a whole. It insures that a proposed project does not impact the future goals or visions approved for the park area in the general plan. It also assures that any one phase of development will not eliminate options for those that follow.

An ADP is the necessary first step in planning and design for development of future facilities. It generally consists of a drawing showing the various components of a specific project with a written narrative describing how the project will fit into the total area. The ADP also analyzes interrelationships of a subject site or project with adjacent land and facilities. It should cover the overall area that may ultimately be included or affected; it should examine both existing and proposed facilities and circulation routes; and it should also include an evaluation of resource impacts and mitigation beyond the immediate site.

Graphics used for an ADP should be "to scale," accurately portraying relationships of the project's elements. Various scales can be selected, but the one chosen should be sufficient to show significant resources, anticipated building sizes, and the sizes of roadways, parking, and trails, if included. If appropriate to the comprehensive decisions that need to be made, utility corridors or major roadways that serve the area should also be included.

Design Criteria

Design criteria provide guidelines to ensure that future facilities improvements are compatible with the character of the landscape at the park. Another purpose is to assure that future designs adhere to specific codes relating to facility development, including the Americans with Disabilities Act. Design criteria with park-wide or general application appear below. Specific design criteria for particular areas in the park will appear in the discussions relating to those areas.

General Design Criteria Relating To The Needs Of Visitors With Disabilities

The Department of Parks and Recreation's standards guiding design of facilities for persons with disabilities adhere to the current provisions of Title 24 of the California Building Code and appear in the department's document, *Access to Parks Guidelines*. The standards recognize four levels of accessibility in state parks according to degree of difficulty. Level 4 designates facilities and sites "intended for independent use by the majority of people with disabilities" and "implies access by a continuous and integrated path of travel to all support facilities. . . ." Levels 3 through 1 each designate greater difficulty of access, with Level 1 being "highly challenging or even inaccessible for persons with some disabilities."

Needs of visitors with disabilities have been taken into account in many existing facilities at the park. As of summer 1996, the falls observation platform had been made accessible. Other improvements were also underway, including the construction of a Level 4 accessible campsite and provision of more accessible restrooms and shower facilities. However, the AmeriCorps National Civilian Community Corps performed a survey of the park for accessibility in June, 1996, that revealed many deficiencies yet to be corrected.

One intention of this plan is to increase accessibility wherever possible throughout the park, particularly in the core area. Proposed linkages between camping and day use facilities will constitute a Level 4 access network. A general plan is not the proper format in which to present detailed designs. However, it is appropriate to specify that all future site and facility designs and recreational programming will consider the needs of visitors with disabilities. Proposed accessible facilities recommended include ramps for access, specially surfaced trails, additional modified campsites, another accessible observation platform, and designated parking close to facilities. Public transit vehicles that serve the park in the future could be equipped to accommodate wheelchairs.

General Design Criteria for Park Architecture

Park structures should be screened from view from the highway by siting and landscaping. Structures should reflect the surrounding landscape type in color, building materials, and scale. They should be no larger than necessary to fulfill their functions and should be energy efficient. Building materials for new park structures should convey a rustic simplicity in harmony with the natural character of the park. Building interiors must be accessible and functionally usable by visitors with disabilities. Restrooms should be sited to be conspicuous but should not be focal points.

General Design Criteria For Roads

New and repaired roads should be sufficiently wide to carry peak expected traffic without giving the impression of excessive paving. They should be held at as low a grade as possible, flowing gently on curving alignments where feasible. The intent is to give visitors a positive aesthetic experience while traveling through the park. Paving should be toned to a color that will blend with the surroundings. Curbs should be used only where necessary to accommodate drainage or safety needs.

Bicycle lanes should be provided on park roads only where necessary for safety. Otherwise, bicycles can move with vehicle traffic or on paved paths where designated.

General Design Criteria For Trails

Before substantial changes occur in the routes, surfaces, or designations of any of the park's trails, a park-wide Trails Plan will be prepared. Generally, no new trails should be constructed in the park unless new destinations developed pursuant to general plan proposals require trail connections to assist visitor flow. Trails in the park's public use areas may be paved. Most trails in open space areas should remain unsurfaced. Paved trails should be toned to a color to blend with surrounding soils. Unsurfaced trails should be free of tripping hazards and follow natural contours, where possible, while avoiding excessive grade changes.

Trail design and layout should provide logical routes that are easy to follow, encourage visitors to stay on the trails, and discourage shortcutting switchbacks. Alignments should enhance visitors' aesthetic experience. Trail signs should indicate destinations, distances, and difficulty. Interpretive messages to educate trail users regarding safety and the need to respect park resources could assist in the management of some trails.

General Design Criteria For Signs

There is a need for additional advance signing on the highway to inform travelers about the distance to the park and to indicate upcoming entrances. Within the park, the number and size of signs should be kept to the minimum needed to convey necessary information on resource values and park regulations. This will help maintain the natural and open character of the park. Grouping signs where possible will avoid sign clutter. Keeping signs to the minimum height necessary will avoid intruding on views. Signs should not conflict with pedestrian or other traffic, with door openings, or vehicle operation. Ideally, informational signs should be located at natural gathering places and compatible with the design of site furniture.

General Design Criteria For Landscaping

When grading, the natural contours of the land should be retained where possible. Plant materials should be native to the plant community(ies) and location of the landscaping. Irrigation systems should only be used to establish new landscaping.

EXISTING CONDITIONS AND PROPOSED IMPROVEMENTS

This section of the element is organized to allow readers easy reference to the existing conditions and plan proposals for each of the park areas in turn. Existing

conditions appear first. Where appropriate, various factors affecting future site design or other improvements are included under the heading, "Considerations." Proposed solutions to land use and facilities problems and deficiencies appear next, followed by applicable design criteria not included above. Discussions begin with the park entrance and contact area and progress to the day use areas, camping areas, and areas dedicated to park operations. The park's open spaces are treated last. The Existing Conditions Map (#8) and the General Plan Map (#9) on the following pages provide orientation to the areas and summarize existing conditions and proposed changes.

Park Entry And Circulation

Park Entrance

Existing Conditions

The existing park entrance area extends along the entrance road from the stone gate on Highway 89 to the contact station. The entrance has several shortcomings. It is located on a highway curve and was constructed at a time when traffic was generally slower and recreation vehicles were smaller. Sight distances northbound for vehicles turning into and out of the park are shorter than would be preferable. With just over 450 feet of stacking space for the contact station, the waiting line of incoming vehicles sometimes backs up to the highway. This creates difficult decisions for drivers on the highway, especially those wishing to turn into the park.

Considerations

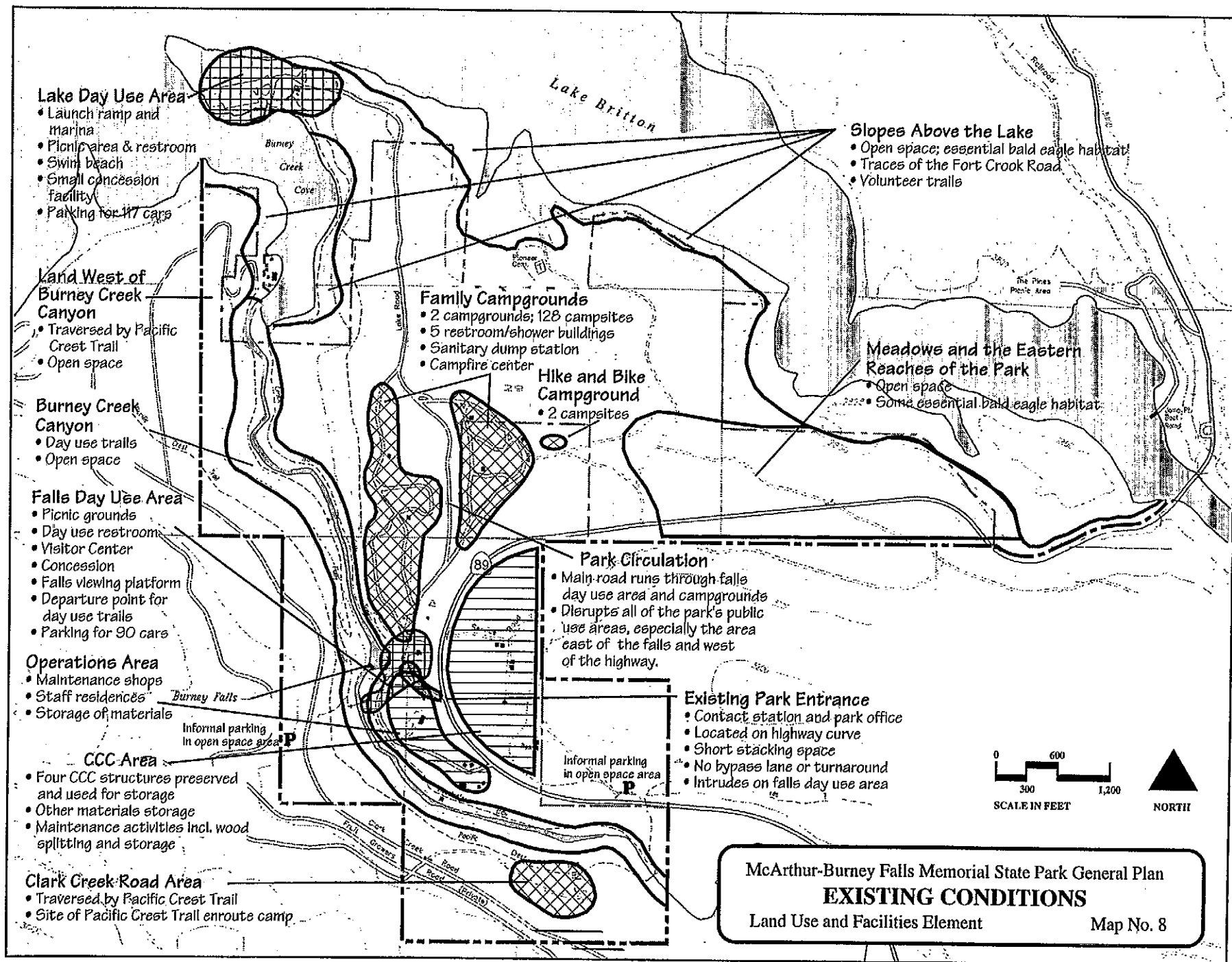
The narrowness of the space between the falls and the highway severely limits the possibility of improving the entrance in its current location. The entrance road could be closer to the highway, passing east of the concession building, but room for adequate contact facilities does not exist. Moreover, this would still leave the main entrance on a curve and would still route all entering traffic close to the park's prime resource, the falls.

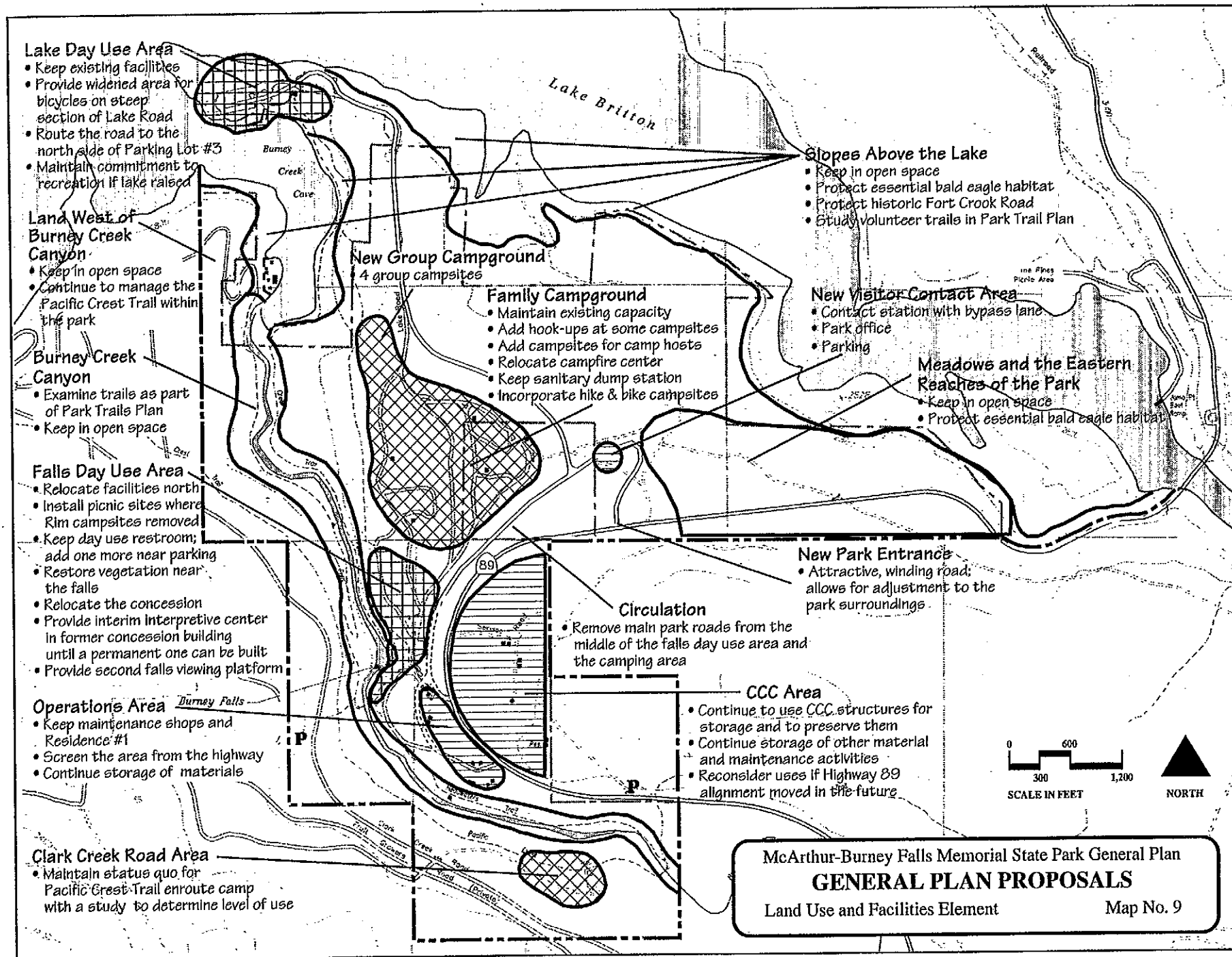
Park Entrance Proposals

The new park entrance will be north beyond the highway curve along a straight stretch of highway. This will remove the burden of entering traffic from the vicinity of the falls and provide a superior first impression of the park for visitors. It will have appropriate sight distances and up to four times the existing stacking space. Future design will address left-turn and acceleration and deceleration lanes on the highway, as well as various cautionary devices to warn oncoming traffic to slow. The existing entrance will be retained with a lowered profile to serve as an emergency exit from the park.

Design Criteria

The new entrance road should have a gently curving route to take advantage of the wooded setting. This should provide relief from the intensity of high speed highway driving and give visitors time for transition, or adjustment, to the park setting.





Visitor Contact Facilities

Existing Conditions

The existing contact area consists of a tiny contact station and the park office, located on either side of the busy incoming traffic lane. The contact station has neither the space nor equipment for people staffing it to work easily. Lack of a bypass lane makes it necessary for visitors who have left the park and returned to wait in line with those who have not yet entered. There is no turnaround except for the expanse of asphalt at the intersection of the entrance road and the service road just north of the contact station. Parking for visitors wishing to ask questions at the contact station or park office is limited to two spaces, both of which can be taken up by a car with a trailer or a long recreational vehicle. People desiring to speak with park staff when exiting the park often park inappropriately at the service road intersection or on the edge of the exit lane.

The park office is cramped for staff who must use it. It lacks adequate meeting and storage space. The entrance to the building is directly off the incoming traffic lane. Visitors needing to enter the office must walk in the road.

Considerations

The contact station, its associated parking, and the park office should be close to each other, and circulation among them should be safe and easy. The facilities should function well with the new entrance road. Resource constraints must also be taken into account (see Design Criteria, below).

Visitor Contact Area Proposals

An existing opening in the forest east of Pioneer Campground will be the site of the proposed visitor contact facilities. There is ample space for sufficient parking and a turnaround. This will better accommodate visitors who need to stop and ask questions or decide to leave rather than continuing into the park. Options are available for positioning these facilities. Details need to be determined in an area development plan prepared prior to development. The area development plan will also address connections between the new contact area and the park's other public use areas.

The new contact station will be designed to handle the traffic load expected at peak times. A bypass lane will ease traffic flow for returning visitors and service and emergency vehicles. The building will have a restroom, office space, and equipment to better facilitate dealing with reserved camping spaces and other matters not anticipated in the 1960s.

A new park office will improve upon the existing one by providing adequate meeting, training, and storage space. It will have working space for the staff anticipated to be necessary to operate the park when the general plan is implemented. A public phone should be available to serve people requiring this service but not needing to enter the park proper.

Design Criteria

The locations of these facilities should not unnecessarily impact nearby resource values, including the surrounding forest, a nearby montane dry meadow containing a rare plant eligible for listing, essential bald eagle habitat in the eastern reaches of the park, cultural remains, the Pioneer Cemetery Trail, or traces of the historic Fort Crook Road.

The park office and contact station should be sited to minimize conflicts between pedestrians and vehicles. The area development plan should provide for parking to serve both the contact station and the park office. The turnaround should accommodate busses and large recreational vehicles. Planning will also have to consider the safety and needs of pedestrians and bicyclists coming from the both the falls day use area and the campgrounds.

Circulation

Existing Conditions

Lake Road, the main park road, currently passes through the heart of the falls day use area and between the two campgrounds. Because this road is also a convenient route, pedestrians often use it rather than nearby trails for walking from parking areas or from their campsites to the park's day use facilities. This causes considerable congestion on the road and conflicts between automobiles and pedestrians, as well as bicyclists, skateboarders, and rollerbladers, during the park's busy months.

Considerations

The narrowness of the area between the falls and the highway constricts the possibilities for improving park circulation in this area (see "Considerations" under Park Entrance, above).

Circulation Proposals

A new park road system will begin at the entrance station in the new visitor contact area. Immediately west of the entrance station will be an intersection. The main road will carry day use traffic south along an alignment west of and parallel to Highway 89 to the parking area serving the Falls Day Use Area. Beyond the parking area, a service road will connect with the existing park entrance and will serve as an emergency park exit in the future. The road turning right at the intersection will lead camping and lake traffic northwest. The road will skirt the east side of the family campground and furnish access to it and the group campground. North of the campgrounds, the road will join the remaining segment of the existing Lake Road.

Visitors frequently return to the contact station and park office for information, with problems, or to buy firewood. These functions will be removed from the day use area in the future. Special accommodations for pedestrian and bicycle access to new areas will have to be a part of all area development plans. It is the intent of this plan to avoid excessive paving widths on park roads. For example, bike lanes would not be appropriate along all roads. Interior roads can accommodate most bicycle activity. However, the plan recommends installation of a separate mixed-use path to serve

bikers and pedestrians from the contact area to the falls day use area and from the contact area to the campgrounds.

Design Criteria

The new road system should be aligned to provide visitors with a scenic access to all areas of the park and should discourage high speeds. In the vicinity of the falls day use area, space between the road and highway should be buffered with native vegetation to screen it and adjacent day use parking from passers-by on the highway.

Day Use Facilities

Falls Day Use Area

Existing Conditions

The park's main day use area extends from the contact station to the south end of the family campgrounds and from the edge of the highway to the bottom of the canyon near the falls. Paved roads and parking lots greet visitors as they pass the contact station, but there is no logical circulation pattern to direct them where to go.

Most day use visitors come to the park by automobile, although some drive motorhomes or cars with trailers. The day use area has no formal provisions for bus or other large vehicle parking, although tour busses arrive frequently during the busy season.

The building and 26-car parking area serving the seasonally busy park concession lie directly across from the falls on the east side of Lake Road. This location accounts for much of the congestion east of the falls. The concession building is small, lacks adequate storage space, and has congested interior circulation. In addition, the entrance, though accessible, is subject to cross-traffic inside and outside and tends to collect a crowd.

Abutting the north side of the concession parking lot is a 25-table picnic area for day use visitors. The park's small visitor center is north of the picnic area. It is in a CCC log cabin moved for this purpose from the former CCC camp on the other side of the highway. The building is small and remote from main routes of travel to and from the falls. The park's campfire center lies north of the visitor center on the northeastern edge of the day use area several hundred feet from the closest campsites.

Across Lake Road from the picnic area is a 36-car day use parking lot and a restroom for day visitors. This parking lot is also used at night for en route camping for visitors with recreational vehicles. No matter which of the two day use parking lots visitors use, they must cross roads to reach some of their day use destinations.

Additional day use parking exists along the service road leading to the Operations area south of the falls. This informal lot is unsurfaced, serves approximately 20 automobiles, and usually begins to fill after the other lots are full.

The existing falls observation platform has an excellent view of the falls from the east. It has recently been improved for easier use by visitors with disabilities. The

space on the canyon rim through which visitors must pass to reach the platform now contains various plaques and signs but has no purposeful design to furnish visitors with a sense of arrival at the park's prime resource.

The day use area segment of the Rim Trail runs from the vicinity of the bridge above the falls past the falls observation platform and north along the western road in Rim Campground. North of the campground, it leaves the roadway and becomes a well-defined dirt trail down to the lake. Above the top of the falls, a large expanse of compacted earth marks where visitors mingle and have regularly climbed over to the fence to look at the view. The trail meanders on the canyon rim above the observation platform, and foot traffic from the east crosses it in several places, causing confusion. A large expanse of soil has become compacted and bare. In Rim Campground, a volunteer trail has resulted from visitors walking along the edge of the canyon behind the campsites.

Considerations

The locations of the facilities in the falls day use area are haphazard, neither conducive to logical circulation nor a high quality visitor experience. The area has much congestion at times of heavy use and contains unattractive expanses of asphalt and redundant circulation routes in some locations. In other places, pedestrian circulation routes are lacking. This generally promotes a sense of confusion, especially for first-time visitors.

The graphics in the park brochure are unclear about the exact location of the Rim Trail in the day use area. The trail sometimes resembles a sidewalk and, at others, follows the roadway. It is poorly marked. Pedestrians often walk on Lake Road rather than on the nearby trail, contributing to the road's congestion. In addition, visitors walking or bicycling between the campgrounds and the falls area now take advantage of the campground roads, as well as Lake Road.

Natural vegetation that once enhanced the canyon rim has been nearly eliminated, lost to building sites or roads. The McArthurs' gift deed for the land encompassing the falls contained language stating that it was "the object of the grantors . . . to preserve for all time . . . the beauties of that certain water fall situate on the granted premises and known as Burney Falls."

Falls Day Use Area Proposals

Proposals for this area aim to reestablish the falls as a scenic wonder by relocating day use facilities away from them. This will allow much of the land now impacted by automobile traffic to be restored to a natural-appearing condition. Preparation of an area development plan will precede actual design of the buildings, parking, trails, and other elements that will make up the relocated day use complex. The area development plan will assure that development of the facilities proposed for the falls day use area will occur in an integrated and sensitive manner.

Future parking will serve up to 100 cars, five long recreational vehicles, and three busses. It will be between the new road described under Circulation, above, and the relocated falls picnic area. Visitors will be able to access day use facilities without crossing any lanes of through traffic. Future improvements in public transportation to

the park, including public busses and a possible excursion train-bus link, could ease some of the burden of private vehicles in the park.

Areas where existing developments have been removed will be restored using native vegetation to reestablish a natural-appearing, park-like setting. These areas will include a buffer between the day use area and the campgrounds, portions of the land currently containing day use facilities north and east of the falls, and parts of the service road to the Operations area.

Day use picnic facilities will replace a yet-unspecified number of campsites in the southern portion of Rim Campground. These campsites will be relocated elsewhere in the campground. See Family Campground proposals, below. In some cases, former camping facilities will be converted for picnicking. CCC-era stone stoves in existing campsites can remain. Provisions for groups to use the picnic area could include group barbecue facilities. The relocated picnic ground will be easily accessible from the new day use parking area and will also have direct access to a relocated concession. The existing day use restroom should be retained in its present location to serve the day use picnic area.

There are compelling reasons for relocating the concession. The building it occupies near the falls could effectively serve for interpretation. Lack of space for storage and limited space for additions make improvements to the existing building for concession use difficult. When parking areas and picnic facilities are located farther north, the existing concession would be distant from both. The new location (to be determined by the area development plan) should have easy access from parking and picnic areas and be close enough to the campground that campers will be able to reach it using foot trails, rather than driving.

A temporary interpretive center with exhibits will be placed in the existing concession building after the concession function is relocated. As an interim measure, the structurally sound building can be adapted for this purpose at far less cost than new construction. In this location, the interpretive center will be able to help augment the sense of anticipation as visitors approach the falls. The log cabin housing the existing visitor center will be moved to a place where it can become an interpretive annex. Visitors will be able to access the interpretive center easily from new day use trails. A small parking lot for visitors who would have difficulty walking a long distance may need to be provided near the proposed facility.

Ultimately, there should be a permanent interpretive center to meet interpretive needs at this resource-rich park. The relocated concession, interpretive center, and an additional day use restroom could be located near each other to constitute a visitor-serving node close to day use visitors' point of arrival. All should be easily accessible from the parking areas, and the interpretive center should be near the pedestrian flow toward the falls. The exact location of these facilities will be determined by the area development plan.

The existing falls observation platform will remain. Access will be over a spur from a new trail paralleling the canyon rim. The area on the canyon rim above the platform requires redesign to convey a sense of arrival at the falls to visitors. In addition, a new observation platform will be constructed at the point near the top of the falls where a view down the canyon is available. The platform will be raised to afford a good

vantage point and will be accessible for all visitors. An evaluation of the geology of the site must be part of the planning for this facility.

The area needs a redesigned trail system to guide visitors along the canyon's east rim without the discontinuity that now exists. The falls day use area development plan will provide for a new meandering paved trail, generally sited farther from the canyon rim than the current route between the Rim Trailhead and the bridge above the falls. New trails should lead day use visitors from the new parking area past the eventual location of the permanent park interpretive center and concession to the falls observation platforms. The area development plan should also provide for similar trail connections to the falls area from the campground. The trails should allow visitors to "discover" the falls as they approach them through the stand of restored vegetation. All trails in this area will be fully accessible to visitors with disabilities.

Design Criteria

The area development plan for new day use facilities and trails will provide a coherent, harmonious design. Actual facilities improvements will have to occur in phases. See Table #4 at the end of this element.

Because of the proximity of some new parking areas to the highway, parking lot design should avoid the perception of expansive paved spaces, as well as the sense that visitors are arriving at a very large public use area. Several small lots would be preferable to one or two large ones to convey this impression. There should be minimal use of such urban controls as curbs. Parking should be screened from the highway. It should be invisible from places within the day use area where it could be a visual intrusion. This can be achieved by preserving as many as possible of the existing trees and major shrub areas and by planting additional vegetation, if necessary.

Lake Day Use Area

Existing Conditions

Developments at this day use area include two parking lots with a combined capacity of 117 spaces, a picnic ground, restroom, swim beach, and marina. The marina includes a small docking area and a launch ramp. Many visitors using the campgrounds launch their boats from the park and store them at the marina during their stay. Over recent years, demand for these services has increased.

There are nine picnic tables at the swim beach in addition to the formal picnic area and also some log benches. A subsidiary of the concession collects the department's fees for the launching ramp and also rents boats and sells snacks.

As Lake Road descends to the lake, it is often the site of conflicts between automobiles and bicyclists. Its steep and narrow roadway, coupled with the adjacent inside drain swale, aggravate this problem. In addition, visitors using the parking lot across from the picnic area must cross the road to reach the picnic tables.

Considerations

Because the lake is an electricity-producing reservoir, PG&E raises the water level over the weekend and then draws it down during the week. The maximum allowable water level elevation is 2,757 feet, which leaves the lower day use parking lot dry. However, the department's lease with PG&E allows a potential rise of three additional feet in the high water level.

Lake Day Use Area Proposals

The steep part of the road paving should be widened to include the drainage swale area, thereby expanding the usable surface when a conflict arises. An evaluation of the geology of the area around the road would have to be part of the planning for any widening. Coupled with this, people will be encouraged to use trails rather than the road for access to the lake.

Lake Road will be rerouted to the north side of the picnic ground parking area, and the lot will be restriped so that parking will abut the picnic area. Some grading and paving work will be necessary to make the curves around the parking lot negotiable by vehicles going on to the lower lot. Additional cultural resource studies and monitoring may be necessary before and during this work.

Future improvements to facilities at the lake area picnic ground will include furnishing tables accessible by visitors with disabilities. In addition, provisions for group picnicking here will expand services for groups visiting the park. These could include a group barbecue.

Regardless of possible raises in the high water level of Lake Britton, the department is committed to continuation of the high quality outdoor recreation activities supported by the lake. If some of the park's popular lake facilities become unusable due to flooding, mitigation for effects on resources, recreation, and revenue will be necessary. The department should explore options that may include relocation of some or all parking from the lower lot uphill, raising the land level with additional fill, or a combination. Future adjustments would require extensive investigations in cooperation with PG&E, as well as an area development plan.

Camping Facilities

Family Campground

Existing Conditions

The park now has two family campgrounds that cover approximately 50 acres directly north of the falls day use area. Rim Campground contains 62 campsites and lies close to the rim of the canyon. Ten of the campsites in this campground are southwest of the camping area proper, extending almost to the northern falls day use area parking lot. The day use restroom is next to one of the campsites. Pioneer Campground lies east of Rim Campground and contains 66 campsites.

Each campsite contains a table and fire ring or stove. Some campsites in Rim Campground retain the old stone "Diablo" stoves originally installed by the CCC. Foot

traffic is heavy in the campgrounds. Vegetative screening between campsites is practically non-existent.

Parking spurs vary in length. Some are long enough for motorhomes or cars with trailers. Parking for each campsite is expected to accommodate two cars. Many campsites often contain more than two vehicles.

Lake Road passes between the two campgrounds, dividing the camping area and introducing undesirable levels of noise and traffic. Pedestrians tend to use Lake Road as a trail south to the day use area, as well as north to the lake.

Considerations

Major disruptions in the campgrounds are from traffic on Lake Road, day use hikers on the roadway in Rim Campground, and the proximity of the day use restroom. Resource sensitivities prohibit moving the camping area elsewhere within the park to isolate it more from traffic and day use activity. Such a move might not be appropriate, given the advantages currently enjoyed by campers from being close to Burney Falls, the creek, and amenities available in the day use area.

Family Campground Proposals

An area development plan should precede significant changes within the campground. It should include replacement of campsites removed from Rim Campground. It may include possible resiting and rehabilitation of other campsites, as well as circulation into, out of, and within the campground. Removal of Lake Road from the camping area and construction of a new road to the lake will consolidate the two existing campgrounds and isolate the area from through traffic. Establishing a buffer between the camping and day use areas will reduce existing conflicts between uses.

Other proposals include installation of hook-ups at selected campsites for visitors with recreational vehicles. This will encourage more off-season use of the park and reduce generator noise. In addition, up to three campsites with hook-ups for camp hosts can be placed within the campground. Parking for campsites should be paved. Numbers of parking spaces for campsites and overflow parking should conform to department standards in effect at the time.

The campground's total capacity will remain at 128 family campsites. Its main access will be off the new park road leading to the lake. The park's sanitary dump station will remain in its present location on the edge of the campground area. It will have easy-in and easy-out access for en route travelers not using the campground. As mentioned under Circulation, above, the existing park entrance will be retained as an emergency exit from the park for campers and day use visitors.

Design Criteria

The redesigned campground should aim to maintain and, where possible, improve the quality of the camping experience at McArthur-Burney Falls. Roads should retain their narrow character, avoiding long, straight stretches of pavement, to encourage campers to drive slowly. Design should also take into account the distance of campsites from restroom/shower buildings, with a 400-foot maximum as a goal. Other

factors requiring consideration will be the optimal locations for camp host sites and visitor campsites with hook-ups. The number of campsites accessible to visitors with disabilities will be consistent with department standards applicable at the time of their construction. The area development plan should include recommendations for restoration of vegetative screening between campsites.

Group Camp

Existing Conditions

Though there is no group camp at the park, informal use by organized groups and groups of families occurs in the family campgrounds. There is a need for a formal group camping facility.

Considerations

A relatively level site would permit mingling and assembly for small or large groups. Siting the campground near existing developed facilities can help keep groups away from areas containing sensitive resources.

The Proposed Group Camp

This new camping facility will be located north and west of the family campground in an area that will not visually or audibly impact the family campground. The group camp will consist of clustered group campsites. Individually, each will serve small groups. In combination, they could ultimately serve larger groups up to a capacity of 100 persons. The eventual capacity of the camp will be determined through ongoing resource monitoring. The camp will have a restroom with showers. It may also be able to act, when needed, as an environmental education camp. If not already reserved by groups, it will be available for use by family campers.

Design Criteria

Design of the group camp's restroom and shower building and site furnishings should be consistent with its forested site – small in scale, rustic in appearance, and natural in material and color.

Hike and Bike Camp

Existing Conditions

Two hike and bike campsites were constructed east of Pioneer Campground in 1995. These serve visitors who arrive at the park without vehicles. Many hikers on the Pacific Crest Trail use the hike and bike camp. They appreciate the park's amenities and the concession, which is an official cache point for PCT users.

Considerations

The camp is currently located near the proposed routes of the new roads to the falls, campground, and the lake. It will have to be relocated before the new roads are constructed. It would be subject to the same considerations regarding sensitive resources as the group camp. Integrating it with the park's other camping areas would have operational benefits and would keep it close to park features that people using the camp currently enjoy. However, future siting must consider effects on family campsites.

Hike and Bike Camp Proposals

The camp will be moved to a place on the periphery of the family campground that will afford easy access from and to the Pacific Crest Trail, and to the concession, showers, campfire center, and other park facilities. The new camp will consist of two separate campsites with a total capacity of up to 20 campers.

Design Criteria

The new hike and bike camp's site furnishings should be designed to be consistent with the forested site – small in scale, rustic in appearance, and natural in material and color.

Pacific Crest Trail Camp

This enroute trail camp for hikers and trail users with horses on the Pacific Crest Trail is located between Burney Creek and Clark Creek Road near the park's southern boundary (the Clark Creek Road Area, discussed below). The camp was installed under the "environmental camp" program during the early 1980s. It has six campsites, two Shasta toilets, and a small corral. It also has running water, although this is not engineered to department standards.

Considerations

The entrance to the camp is three miles by road from the park entrance. It is difficult for Operations staff to manage the camp and control unauthorized use in this remote part of the park.

Pressure for expanding use of the camp as an equestrian trailhead raises concerns about increased impacts on resources and additional operational needs. The space it occupies is small and is capable of serving only a few horses at a time. It is too limited to provide an adequate land base for expanded or more frequent use. The camp is within a few hundred feet of the Burney Creek riparian zone, and department resource managers have concerns that horse dung could foster an increased cowbird population, which could parasitize the nests of songbirds in the riparian area.

Pacific Crest Trail Camp Proposals

The camp will continue to be maintained for enroute use by people using the trail. Data regarding its use will be collected and evaluated. In addition, a regional study will be conducted to evaluate alternative sites and a better water source.

Campfire Center

Existing Conditions

The existing campfire center lies in the northeastern part of the falls day use area near the visitor center. Besides its popularity at night, the campfire center serves Junior Ranger programs during the day. Traffic noise from Highway 89 is a problem during both day and evening programs.

Considerations

The campfire center would function more effectively in a quiet, more natural-appearing, site. Such a location would improve visitors' experience and the ability of staff and volunteers to present programs. Because some programs occur during the day, the orientation of the facility should consider the direction of the sun, as well as shade from the surrounding trees, during the hot summer busy season.

Proposed Campfire Center Location

The campfire center will be relocated to the proposed buffer area between the family campground and the falls day use area. It will have trail access from the campground and day use area and vehicular access for Operations staff, volunteers, and visitors with disabilities.

Design Criteria

The appearance of the relocated campfire center should be consistent with its wooded setting. The screen and other necessary structures should have a rustic appearance. Benches should afford all a good view. Low-profile lighting at ground level will be an aid for those coming or leaving in the darkness.

Park Operational Facilities

The Operations Area

Existing Conditions

The Operations area extends from the park office and contact station southeast, paralleling the canyon rim above the falls to the area around the staff's park entrance. The area contains Residence #1, which sits just inside the park gate, as well as the other park residences and the park shops. Materials are stored near the shops area and are visible from the highway.

Considerations

One alternative possibility considered was to move Operations facilities across the highway from the existing park entrance. However, this would further isolate the park shops and residences from public use areas and would require frequent crossings of the highway. It would also interfere with uses already occurring in that location. See the discussion for the CCC Area, below.

Proposals for the Operations Area

The shops will remain in the Operations area. Storage of some materials will move east of the highway. Installation of vegetation and fencing will block the view of that which remains. Access to the shops area from the new interior circulation system will pass around Residence #1 and join the remaining segment of the existing service road.

The proposals in the adopted Housing Study for the Northern Buttes District will guide future disposition of park residences. Some provisions will continue in the Operations area for volunteers who furnish seasonal help at the park. Residence #1 is a historically significant structure. It will be kept in its existing use as a park staff residence. Its location, with easy access to the park road system, will allow staff living there to reach most developed areas quickly.

CCC Area

Existing Conditions

Four historic CCC structures remain on land east of Highway 89 and are in adaptive use for storage. The CCC log cabin, relocated to the falls day use area and now serving as the visitor center, was originally here, as well. This area is used for materials storage, as well as splitting and storing wood for sale to campers, and also contains the park's water reservoirs.

Considerations

The area is now unsuitable for public use. Access from and to the rest of the park would require crossing the highway. Safety and expense considerations make any kind of highway crossing for public use of the area infeasible.

CCC Area Proposals

No public use developments are proposed for the CCC area. The CCC structures will be protected and continue to serve operational needs. If the highway alignment should move farther east, this land will no longer be separated from the park's main use areas. It might then be available for public use facilities with continued protection of the CCC structures.

Park Utilities

Existing Conditions

Citizens' Utilities provides telephone service in the park. Besides telephones for park staff, there are two outdoor pay phones at the concession. Propane service is available for heating park buildings. Electrical service is provided by PG&E through a combination of overhead and underground lines. There is no electrical service to the lake facilities.

The park's water system serves domestic uses, irrigation, and fire protection. A well is located in the Operations area. Water is pumped to two concrete storage tanks on the hill in the CCC area that have a combined capacity of 150,000 gallons. The tanks are in good condition, and the park's water mains constructed in 1949 and 1960 are free of leaks or corrosion. However, laterals in the campgrounds need replacement.

The Shasta County Health Department regulates sewage disposal at the park. The park maintains individual septic tanks and leach fields systems for each facility. The level of the leach field serving the restroom at the lake is just high enough to provide clearance at the present high water level. Projected raises in the water level will require its relocation.

Proposals for Park Utilities

All above-ground lines should eventually be put underground in the developed areas of the park. Upgraded electrical service will be required for hook-ups proposed in the family campground.

PG&E's relicensing required payment to the department of funds for improvements to public use facilities. One of the projects proposed from that funding will be upgrading the water system in the camping area.

A site has been located for a new leach field to serve the lake restroom approximately 35 feet higher than the existing one, but it will require a lift station. Because of a lack of electricity at the lake, alternatives are being explored for power.

Park Open Spaces

Clark Creek Road Area

Existing Conditions

This part of the park lies between Burney Creek and Clark Creek Road near the park's southern boundary. The Pacific Crest Trail runs through the area, paralleling the west side of Burney Creek. This land is also the site of the Pacific Crest Trail camp.

Considerations

The area is three miles by road from the entrance. It is difficult for Operations staff to manage and control unauthorized use in this remote part of the park.

Clark Creek Road Area Proposals

The department will continue operation and management of the trail, according to its agreement with the U.S. Forest Service. It will also continue to operate the camp as it currently does pending studies of its use and possible alternative locations.

Land West Of Burney Creek Canyon

Existing Conditions

Property owned by the department west of Burney Creek Canyon serves as a buffer between the creek and Clark Creek Road. The only recreational developments on this land are the Pacific Crest Trail, the trail camp, and a small informal parking area for up to eight vehicles that affords access to the park off Clark Creek Road.

An arm of state-owned land projects north almost to the lake west of some of the land leased from PG&E. A private road crosses this land and furnishes access to PG&E's PSEA Camp on the lake's shore.

Considerations

Some of the northern portion of this area is essential bald eagle habitat, prohibiting park development that would increase human use within that zone. Park developments here would have access off Clark Creek Road, which is distant from the park's operational base. Most of the area is also narrow or too close to Burney Creek for recreational uses other than the Pacific Crest Trail.

Proposal for the Land West of Burney Creek

The general plan recommendation is that this land remain in its current use as open space with low impact recreation. The existing small parking lot along Clark Creek Road may remain.

Burney Creek Canyon

Existing Conditions

The creek and the riparian vegetation that fringes it constitute a separate open space zone. This zone is mostly less than 500 feet wide and traverses the park from southeast to northwest. Steep wooded, talus-strewn slopes surround the creek below Burney Falls. The creek broadens out to form Burney Creek Cove where it flows into the lake.

Developments in this area consist of several trails and three bridges that span the creek. Visitors and local residents fish Burney Creek above and below the falls. Many families have come to this park to camp and fish for decades. Some visitors who learned to fish at the park as children pass on the tradition at Burney Creek. The bridge and the east bank of the creek above the falls are the most heavily used locations for fishing.

Considerations

Several factors dictate against developing additional facilities in the canyon. These are the sensitivity of the riparian vegetation, animal species that live in the habitat it provides, and easily eroded soils on the sloping canyon walls and along the edge of the creek.

Burney Creek Canyon Proposal

There is a need to post park regulations and furnish interpretation at selected locations in the canyon to aid in the prevention of further soil erosion and trampling of vegetation.

The Slopes Above the Lake

Existing Conditions

The land on both sides of Burney Creek Cove and along the lakeshore east of the swim beach is steep and wooded. Human influences are few. A remnant of the Fort Crook Road leads down to the lake from the Pioneer Cemetery.

Considerations

The topography of this zone precludes facilities development. In addition, the area is designated essential habitat for bald eagles.

Proposal for the Slopes Above the Lake

Slopes above the lake should remain in open space. No additional facilities development will occur in the park that would encourage more public use in critical eagle habitat during the nesting season.

The Meadows and the Eastern Reaches of the Park

Existing Conditions

Meadows and wooded areas that lie east of the proposed route for the new park entrance road currently receive a low level of public use on informal trails accessing Lake Britton for fishing.

Considerations

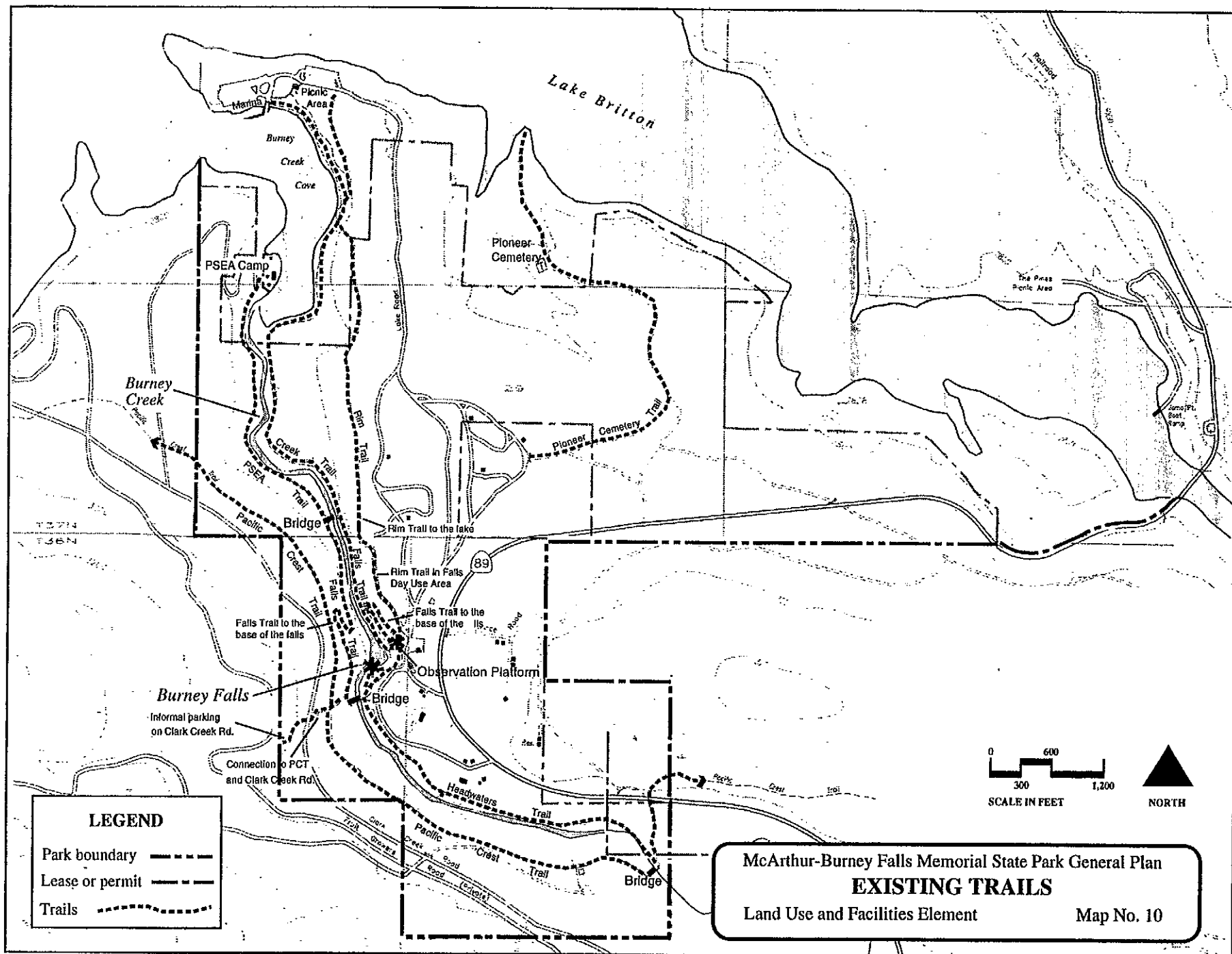
The meadows are seasonally wet and, if walked upon during that time, would be subject to permanent soil compaction and a subsequent loss of vegetation. Additionally, a rare plant has been identified in a meadow, and the wooded areas are essential bald eagle habitat.

Proposal for the Meadows and the Eastern Reaches of the Park

These areas should remain in open space. No facilities development should occur in the park that would encourage impacts on bald eagles, rare plants, or meadow ecology.

Open Space Trails

Several trails traverse open space areas in the park. Most receive heavy and, in some cases, almost constant use during the park's busy season. Parts of some trails are showing wear and most lack adequate signing. Sections of some trails may need



to be rerouted. Refer to Map #10, Existing Trails, for the routes of the trails described below.

The park Trails Plan will review the designations of all existing trails. It should be consistent with the various area development plans regarding routes and designations of proposed trails. The plan should identify designated routes for bicycles, which could include park roads.

The Trails Plan should also consider needed improvements to prevent resource degradation. It should study which volunteer trails might be appropriate to keep and which to eliminate. It should contain proposals regarding possible new trails in such areas as the campgrounds. Finally, it should evaluate the need and importance of improving some additional trails for visitors with disabilities.

The Rim Trail to the Lake

Existing Conditions

This part of the trail designated in the park brochure as the Rim Trail makes a connection between Rim Campground and the lake. It is unsurfaced but relatively level, except where it slopes down to the lake. The location where it departs from the road in Rim Campground is poorly marked, as is its other end in the lake picnic ground.

Considerations

This part of the Rim Trail receives less use than it could because of its lack of publicity. Visitors seem to prefer the smooth surface of Lake Road for walking to the lake.

Proposals for the Rim Trail to the Lake

A formal trailhead will be created where the trail departs from the paved road in Rim Campground. As this part of the campground will be included in the Falls Day Use Area in the future, the intent is to make the trail more visible. This should encourage more day use visitors to walk the trail to the lake rather than to drive or walk on the road. Moving the main park road away from the day use area should also aid in this effort. Other well-marked spur trails to access the Rim Trail will be provided from the campgrounds.

Burney Creek Canyon Trails

The Falls Trail: Existing Conditions

The Falls Trail is the most used trail in Burney Canyon and makes a circuit around the falls. It descends to the pool at the foot of the falls from the observation platform via a steep stone-walled walkway. This is designed to carry the multitudes of visitors who wish to see the water plunging downward. From there, the trail runs along the east side of the creek to a bridge below the falls, crosses it, and joins an unsurfaced trail west of the creek. Here, the trail turns south (upstream) and climbs by way of several steep switchbacks to the top of the falls. People taking shortcuts at the switchbacks have eroded the soil on the canyon wall. A short trail to the west connects with the

Pacific Crest Trail and Clark Creek Road, while the Falls Trail continues and crosses a second bridge above the falls. From this point, hikers can turn left to return to the falls day use area or right onto the Headwaters Trail.

Headwaters Trail: Existing Conditions

The Headwaters Trail follows the east bank of the creek past the springs that feed it near the park's eastern boundary. The trail joins the Pacific Crest Trail at a third bridge in this area, constructed on park property by the U.S. Forest Service when the Pacific Crest Trail was built. Frequent foot traffic from people fishing the creek alongside this segment of trail has created many volunteer paths, resulting in the trampling of riparian vegetation and soil erosion along the bank of the creek.

Creek Trail: Existing Conditions

This trail is a continuation of the Falls Trail on the east side of Burney Creek from the bridge below the falls to the picnic area at the lake. It is well traveled and provides a tranquil walk through lush riparian vegetation along lower Burney Creek and along the edge of Burney Creek Cove. Except for an up and down stretch just before reaching the lake picnic grounds, the trail is relatively level.

PSEA Trail: Existing Conditions

This trail extends from the bridge below the falls north along the west side of Burney Creek beyond the park boundary to the PSEA Camp. People from the camp access the park by this trail. Other park visitors do not frequent it, as those hiking down the canyon are usually on the east side of the creek and going to the day use area at the lake.

Burney Creek Canyon Trails: Considerations

The trails on the east side of the creek receive heavier use than those on the west side because of their nearness to the day use areas. The three bridges are popular connections for those wishing to hike along both sides of the creek.

Burney Creek Canyon Trails: Proposals

The proposed Trails Plan should study these trails carefully. Erosion along all of them has been a problem. Additional regulatory and interpretive signs may help to reduce vegetation trampling and soil loss.

Pioneer Cemetery Trail

Existing Conditions

This trail begins on the east side of Pioneer Campground and runs east along a dirt road, the route of a former Ray Ranch wagon path to the Fort Crook Road. The trail turns northeast and joins the historic road just before reaching the Pioneer Cemetery. From there, the trail descends north to a cove on the lake. It is frequently used by visitors wishing to see the cemetery.

Considerations

The new visitor contact area will be near this trail. The proposed new park road will have to cross it at some point. Development plans for this area will need to evaluate the site for this crossing carefully to assure that its placement will cause minimal interference or hazards for people using the trail and for automobile traffic.

Pioneer Cemetery Trail Proposals

The old roadways should be retained and continue to furnish trail access to the cemetery and lake. The area development plan for the future visitor contact area should pay particular attention to the need for fully accessible routes to the park office area separate from the new park roads for the use of pedestrians and bicyclists coming from the falls day use area and the camping areas.

The Pacific Crest Trail

Existing Conditions

The Pacific Crest National Scenic Trail traverses both public and private lands for more than 2,600 miles from Mexico to the Canadian border. The trail traverses the park's eastern boundary from Shasta-Trinity National Forest land just north of Highway 89. It turns south, crosses the highway, and meets the Headwaters Trail before passing over the bridge on Burney Creek. Beyond the bridge, it passes the PCT Camp and parallels the western rim of Burney Canyon for roughly 6,000 feet before leaving park property.

Considerations

The department has an agreement with the U.S. Forest Service to maintain and operate the trail on park property.

Pacific Crest Trail Proposals

It is the intention of the department to continue to manage the trail.

FACILITIES TABLES

The three tables at the end of this element describe facility changes, capacities, and possible phasing. The Existing and Proposed Facilities Table (#2) shows the numbers of existing facilities, the changes proposed, and the numbers that will exist after general plan implementation. The Visitor Capacities Table (#3) compares the visitor capacities of the park's various facilities under existing and projected levels of development. It indicates that the general plan allows for an increase of 14.7% in park visitor capacity.

Table #4 shows general plan facilities proposals and suggested phasing of implementation, indicating four phases of work. These phases describe a necessary sequence of events within each park area. They do not represent a park-wide statement of priorities. In general, Phase I work items are area development plans and projects that field staff could accomplish. Projects that should follow the preparation of

an area development plan are in Phase II. These include such development proposals as the new visitor contact area, the new park road, and changes to the falls day use area and campgrounds. The only proposal appearing in Phase III is the creation of the interim interpretive center in the building now housing the concession because that must follow the concession relocation. Likewise, the only Phase IV project is the construction of a permanent interpretive center to replace the interim facility. The exact timing of the various projects appearing on the chart will depend upon the availability of funding.

TABLE 2
McArthur-Burney Falls Memorial State Park
Existing and Proposed Public Use Facilities

Facility	Existing	Proposed Changes	Future Total
Visitor Contact Facilities			
Contact Station	1	0	1
Park Office	1	0	1
Park road system	1	0	1
Falls Day Use Area			
Automobile parking spaces near the canyon rim (Lot #2)*	35		---
Automobile parking spaces at the concession (Lot #1)*	25		---
	= 60* to be moved	+29	89
Parking for visitors with disabilities (Lots 1 & 2)*	2	+4	6
Parking for long vehicles	0	+5	5
Unsurfaced day use parking	20	-20	0
Total parking for family vehicles:	82	+18	100
Falls day use parking for busses	0	+3	3
Concession building	1	0	1
Visitor Center	1	0	1
Picnic Spaces	25 approx.	0	25 approx.
Falls observation platforms	1	+1	2
Day use restroom	1	+1	2
Campground(s)			
Family campsites	128	0	128
Campsites for visitors with disabilities**	1	+25**	26
Camp host sites	2	+1 max.	3 max.
Camp restroom/shower buildings	5	+1***	6
Hike and bike campground	1	0	1
Group campground	0	+1	1
Pacific Crest Trail en route camp	1	Study	Pending study
Lake Day Use Area			
Lake day use parking spaces (Lots #3 & #4)	116	0	116
Lake area parking for visitors with disabilities	1	0	1
Lake area picnic tables at picnic grounds	20 approx.	0	20 approx.
Picnic tables at the marina and beach	9	0	9
Restroom	1	0	1
Launch ramp	1	0	1
Concession trailer	1	0	1
Unpaved trails	20,350 linear feet	650 l.f. approx.	21,000 l.f. approx.

* The combined total of 60 regular parking spaces in parking lots #1 and #2 + 29 more spaces will be accommodated in the new parking areas proposed in this general plan. The new parking areas will also include the long family vehicle and bus spaces, as well as spaces for visitors with disabilities.

** Based on "Access to Parks Guidelines," published by the Department of Parks and Recreation, = 20% of campsites + 1. These campsites are included within the total of 128 family campsites.

*** This is the combination building that will be constructed in the group campground.

TABLE 3
McArthur-Burney Falls Memorial State Park
Average Visitor Capacities: Existing Conditions and After Proposed Changes
(Persons At One Time: PAOT)

Facility	Existing Sites	Existing Capacities	Proposed Sites	Proposed Capacities
<u>Day Use (paid) parking spaces</u>				
Falls Day Use Area parking for family vehicles				
At the existing concession	26	88	(To be relocated)	
Near the canyon rim	36	122	(To be relocated)	
Near the bridge above the falls	20	68	(To be relocated)	
Existing paid Falls Day Use Area:		278		278
<u>Day Use (free) parking spaces</u>				
Informal parking on Clark Creek Road	8	26	8	26
Informal parking SE of entrance on Hwy 89	12	40	12	40
Existing free Falls Day Use Area:		66		66
Existing total Falls Day Use Area:		344 PAOT		344 PAOT
<u>Day Use (additional) parking</u>				
Falls Day Use parking for busses	0		3 x 40 persons/bus =	120
New proposed total Falls Day Use Area:				464 PAOT
<u>Other Day Use parking</u>				
Pioneer Cemetery Trailhead	10	34	(No longer accessible for day use)	
Lake Day Use parking spaces	117	398	117	398
<u>Camping: parking spaces</u>				
Family campsites	128	589	128	589
Camp Hosts	3	6	3	6 persons
Hike and bike campground	2	?	2	20 persons
Group campground	0	---	4 small groups max.	100 persons
Pacific Crest Trail en route camp*	6	27*	6	27*
Park Totals:		1,398 PAOT		1,604 PAOT

Note: The Northern Buttes District uses the following (average) coefficients to calculate the number of persons per parking or camping space: Day Use (paid) = 3.4/parking space; Day Use (free) = 3.3/parking space; Camping = 4.6/campsite; Camp Hosts = 2 persons per campsite. The maximum allowable persons at a campsite are 8, according to department regulations, which would allow a total of 128 x 8 = 1,024 at the campground, if it were entirely filled.

* Not to exceed 27 persons.

TABLE 4
McArthur-Burney Falls Memorial State Park
General Plan Facilities Proposals
Suggested Phasing of Implementation*

Proposal	Phasing:	I	II	III	IV
<u>New Entrance, Visitor Contact Area, and Road</u>					
1. Prepare Area Dvp. Plan for new entrance & visitor contact facilities		X			
2. Construct new entrance road			X		
3. Construct contact station & park office, parking, turnaround, etc.			X		
4. Construct roads from new entrance area to the falls and the lake			X		
<u>Falls Day Use Area</u>					
5. Prepare falls day use Area Development Plan		X			
6. Construct new falls observation platform			X		
7. Relocate picnic grounds to Rim Campground area			X		
8. Construct new day use area trails			X		
9. Construct new day use parking areas			X		
10. Remove existing day use parking, roads, etc., and revegetate			X		
11. Relocate concession			X		
12. Move interp. function to former concession bldg. & move log cabin				X	
13. Construct permanent interpretive center					X
<u>Campground</u>					
14. Prepare campground Area Development Plan		X			
15. Provide additional campsites for visitors with disabilities		X			
16. Construct group camp			X		
17. Relocate southern Rim Campground sites			X		
18. Relocate roads and campsites as necessary			X		
19. Provide camp host campsites			X		
20. Provide campsites with hook-ups			X		
21. Move hike and bike camp			X		
22. Move campfire center			X		
<u>Trails</u>					
23. Prepare Park Trails Study		X			
24. Improve trails outside the day use area			X		
<u>Lake Day Use Area</u>					
25. Improve Lake Road downhill segment near the lake		X			
26. Reroute Lake Road to north side of Parking Lot #3		X			
<u>Operations Area</u>					
27. Provide screening from highway with vegetation & fencing		X			
28. Remove service road & parking lot & construct new service road			X		
<u>Utilities</u>					
29. Perform repairs on water system		X			
30. Relocate lake restroom leach field		X			

* Does not represent park-wide phasing. See text, page 24.

APPROPRIATE ADDITIONS

The following discussion and all other comments regarding additions to the park are intended for long-range planning purposes only and do not represent a commitment for acquisition. Addition of these lands would depend on many factors, including availability of funds and the willingness of owners to sell.

Land use proposals in this plan are not dependent on new land acquisitions. However, there are several properties adjacent to the park that would be desirable for the department to consider for acquisition in fee title or other interest, if they become available.

U.S. FOREST SERVICE PERMIT PARCELS

The national forest and the department have inherently different management concerns with respect to the two parcels at the park, especially regarding the management of timber. In addition, the parcels contain park facilities. The Pioneer Campground occupies one parcel. The other is traversed by the road to the CCC area, which is the site of the park's water reservoirs and a large service area, as well as historic CCC structures. The department is pursuing acquisition of these parcels from the United States Forest Service.

PG&E LEASED LAND

Recent deregulation of the utility industry in California will have an impact upon the company. How this might affect the relationship between the park and PG&E is yet unknown. It is likely that the company or a subsidiary will continue to hold the Pit River hydroelectric system and keep the FERC license. However, the land owned by the company around the lake could be affected, including the land leased to the department. If the leased land were ever offered for sale at some time in the future, the department should endeavor to maintain the management and operation of this land and the facilities on the lake through possible acquisition or other means.

PG&E EMPLOYEES' (PSEA) CAMP

This land is an inholding within the leased area operated by the park and has potential for public use at the water's edge. However, the existing buildings are not of statewide historic significance, may be substandard, would be expensive and difficult to maintain, and do not meet Americans with Disabilities Act requirements.

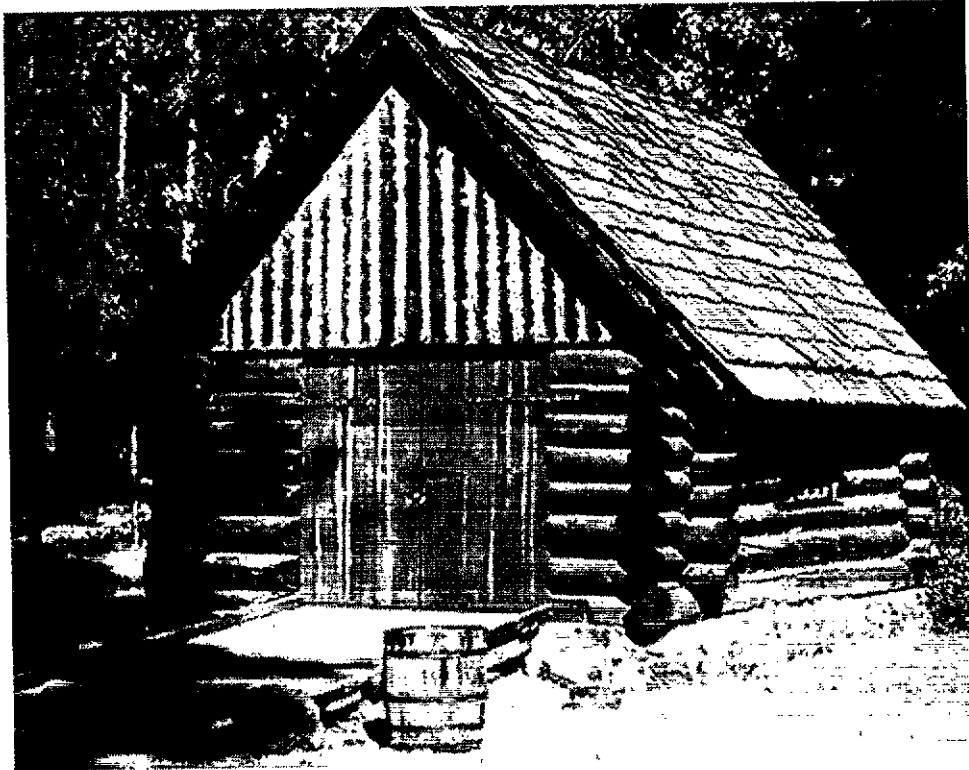
If the land should be offered to the department, various options for public use could be considered, ranging from camping to day use with access by boat or road. Special consideration would have to be given to further resource evaluation, taking into account the Bald Eagle Management Plan, operational needs, utilities requirements, and the results of lake level changes. A rise in water level would result in a reduced land base and severely limit options for the property's use by the department.

PROPERTIES EAST OF CLARK CREEK ROAD

If properties adjacent to the park boundary become available from willing sellers, the department could consider them for possible acquisition.

OTHER PROPERTIES

Properties around the park that might become available from willing sellers will need evaluation on a case by case basis to determine if they meet the department's needs and conditions for possible acquisition.



The Civilian Conservation Corps built this log cabin in the 1930s. Now, it serves as the park's visitor center.

Interpretive Element

INTERPRETIVE ELEMENT

The Interpretive Element provides guidance for ongoing and future interpretive development at McArthur-Burney Falls Memorial State Park. The element identifies factors that affect interpretation of the park's natural and cultural environments and makes recommendations that can positively influence the effectiveness of the interpretation, as well as heighten the public's understanding and appreciation of the park. The element is an abstract of the McArthur-Burney Falls Memorial State Park Interpretive Prospectus.

The story of Burney Falls and the surrounding area begins with ancient geologic origins and includes hydrology, as well as flora and fauna. The Burney Falls story also includes human history: the ethnographic and ongoing history of the Pit River peoples; the incursions of pioneers and the military; and the present-day demography of the area. The economic and environmental impacts of farming, lumbering, and the development of hydroelectric power are also important parts of the history.

The interpretive story deals, as well, with the power of the falls to create a sense of awe and of their uniqueness. The religious and philosophical aspects of the Burney Falls story reflect the falls as a source of wonder and a source of power. The gift to the state of the Burney Falls property was a relatively unusual act at the time and was part of a new trend to have the state or nation accept responsibility for stewardship of scenic areas.

INTERPRETIVE THEMES

Interpretation relies on themes to connect the park's significant resources to visitors in personally meaningful ways. The following themes each define a point of view and focus of information about the park's and the region's natural and cultural history and environment. These themes will guide interpretation in the park.

PRIMARY THEME

Burney Falls is a California Scenic Wonder That Inspires a Sense of Awe.

Burney Falls, a registered National Natural Landmark, is a spectacular natural phenomenon and inspires a sense of awe in the visitor. It is the falls that bring first-time visitors to the park, a notion not to be forgotten nor let languish. The existence of Burney Falls is the reason for the existence of the park, and the falls will remain the central theme of the park.

PRIMARY THEME

The Two Streams of Burney Falls and the Reflection of Power: Burney Falls is a Geologic and Hydrologic Wonder That Has a Powerful Influence on Both Natural and Cultural History.

The special nature of the falls is a product of hydrology and geology: water flows from the creek, springs above the falls, and through crevices in the basaltic face of the

falls. The twin flows of the falls reflect the two aspects of the Burney Falls story. These are the two streams that flow through time – the park's natural history and its cultural history. The streams do not run separate courses but, with the appearance of humans on the scene, intertwine.

In both streams, power is a basic factor: the power to move geologic elements; the power to wear down rock and form a channel; the power to support life; the power of ideas, and the power of concepts. The presence of this awesome power, this unrelenting power, cannot be ignored by the human mind. The falls' importance is a reflection of human reaction to the wonderment of the falls and how this wonderment is conceptualized in the human psyche.

SUPPORTING THEME

The Stream of Natural History: Burney Falls is a Source of Vitality for All Living Things.

The story of the natural history of the falls covers not only how the falls came about, but how they have changed over time. The falls are not just a geologic and hydrologic wonder, but are also a place where trees and other plants, insects and fish, birds and algae, and other life forms grow and transform with the shifts of time and with the arrival of humans in the area.

Possible Topics

- Geologic History
- Hydrologic History
- Flora
 - Meadow Foam
 - Aspens
 - Ponderosa: Bark Beetle Infestation
 - Oak Woodlands
 - Mountain Misery
- Fauna
 - Bald Eagles
 - Bears
 - Black Swifts
 - Trout
 - Ringtail
 - Pond Turtles
 - Osprey
 - Yellow Warblers

SUPPORTING THEMES

The Stream of Cultural History: Burney Falls Has Been a Source of Economic Sustenance for the Cultures That Have Been Attracted To Its Locale.

The Stream of Cultural History: Burney Falls Has Been a Source of Spiritual Sustenance for the Cultures That Have Been Attracted To Its Locale.

The origins of the cultural stream began much later than the natural stream but still go back to long-forgotten memory, the times of the ancestors. The cultural stream developed slowly and was not recognized by written history until recently, and then it slowly merged with written history.

The influx of new groups of humans brought change, with different ideas and different ways of living. The groups of humans living near the falls as this change began were the Achumawi and Atsugewe, peoples who over the centuries or millennia adapted to a way of life integrated with the environment. With the incursions of Euro-Americans into this area came a culture based, by comparison, on rapid change rather than measured adaptation -- a culture that often changed and adapted the environment to its perceived needs.

Possible Topics

- Pre-history
- Ethnographic History
 - Achumawi and Atsugewe
 - Ilmawi Band
 - A Place of Power
- Pioneer and Military Incursions
 - Fort Crook
 - Burney
 - Early road systems
- Pre-park use
 - Ray Farm
 - The Mount Shasta Power Company and the Pacific Gas and Electric Company
 - Harnessing Hydrology, Capturing Power
 - The Fruit Growers Association/Red River Lumber Company
 - McArthur Brothers
 - Quest to Save a Scenic Wonder
 - Pioneer Cemetery
- Burney Falls as a Park
 - Department of Forestry
 - Division of Beaches and Parks
 - The Second Park in the Modern State Park System
 - Civilian Conservation Corps
 - The Philosophy of Parks and the National Movement to Develop Parks
 - A Place of Scenic Wonder, A Place of Power
 - The Continuing Presence of the Pit River Peoples in the Park
 - The Modern Visitor to the Scenic Wonder
 - McArthur-Burney Falls Memorial State Park as a Place of Recreation

INTERPRETIVE PERIOD

The interpretive period sets the temporal framework for interpretation in the park, directing and focusing interpretive themes, facilities, and activities to represent specific years -- or groups of years, where appropriate. The primary interpretive period should be in harmony with the park's primary interpretive themes. Secondary interpretive

periods are useful to highlight eras that help tell the story and place the falls in the appropriate natural and historic contexts.

The geologic conditions that set the development of the falls into motion began some 10,000,000 years ago during the Pliocene Epoch. Human occupation began in ill-defined prehistoric times and continued into historic times and to the present. Native American culture was the main human presence until the recent contributory influence of Euro-American culture became more momentous. The technologically driven Euro-American culture brought changes to the landscape and, thus, to the area's ecology in such forms as farming, town building, lumbering, meadow drainage, road construction, canal building, and the damming of the rivers. Within the period of Euro-American cultural domination, a significant change occurred when the falls area became a state park.

The interpretive periods for McArthur-Burney Falls Memorial State Park should reflect the wonder of the falls, as well as emphasizing its natural history, human occupation, and importance as a park. The interpretive periods for McArthur-Burney Falls Memorial State Park are:

PRIMARY INTERPRETIVE PERIOD: PLIOCENE EPOCH – PRESENT DAY

McArthur-Burney Falls Memorial State Park shall represent a flow of history, both natural and cultural, that communicates the sense of wonder of Burney Falls. The primary period encompasses the whole history of the falls from their shadowy primeval beginnings to today. It includes, as secondary interpretive periods, the geologic prehistory and three cultural interpretive periods defined by their impacts on the environment. Intertwining the geologic and cultural periods are the ripples and flow of ecological change.

SECONDARY INTERPRETIVE PERIOD (NATURAL HISTORY): PLIOCENE EPOCH – RECENT TIME

The major geologic development and evolution of Burney Falls occur within this interpretive period. Time is measured in geologic terms rather than years, decades, or centuries and reflects the shaping of the falls. Burney Falls was created in geologic antiquity out of the faulted basaltic rock that began with volcanic eruptions and lava flows during the Pliocene Epoch and continued through the Pleistocene Epoch and until recent time.

Hydrologic action over large spans of time carved the small canyon that surrounds lower Burney Creek. The precipice of the falls slowly moved southward creating an ecological pocket for a variety of living things that contribute to the story of the falls. Therefore, around this stream of power is a concomitant stream of life – the plants and animals that find a place to subsist and procreate and are part of the story of Burney Falls Canyon and the western Modoc Plateau.

SECONDARY INTERPRETIVE PERIODS (CULTURAL HISTORY): EARLY PREHISTORY – LATE PREHISTORY

This interpretive period encompasses the earliest human habitation up to late prehistory. Interpretively, it represents the archaeological aspect of the plateau upon which Burney Falls is located; that is, the period just prior to our ethnographic

understanding of the area. Archaeologically, the area has a time-depth of some 7,000 years.

LATE PREHISTORY – 1920

The Achumawi and Atsugewe peoples were the primary inhabitants of the plateau area surrounding Burney Falls until the mid-nineteenth century. It is this ethnographic period, just prior to Euro-American ingress, that is defined as the late prehistory for these people. Euro-Americans began to settle in ever-increasing numbers after the mid-nineteenth century. With the influx of this new culture, there came changes in land use patterns. Economic forces, with the backing of military and legal machinery, fostered new industries such as lumbering, farming, and hydroelectric power. Old subsistence patterns became less and less viable, and the peoples of the Pit River Nation adjusted to survive. The newcomers also adapted to the changing environment, as well as to historical changes, in the larger national culture.

1920 – PRESENT

The effort by the McArthur brothers to save Burney Falls and the surrounding area for the public places them in a national movement to save and perpetuate significant scenic wonders. Burney Falls' evolution as a state park has followed the developing ethos of what a park is and what it should provide for the public. The falls do not exist in isolation from the world around them. The development of the park reflects much of that world. However, unchanging and ongoing, in human terms the falls are a scenic wonder.

With the construction of a dam, as well as other dams downstream on the Pit River, and the rise of Lake Britton, the ecology of the area underwent change. Salmon and other fish no longer had access to the upper Pit River. The relationship of the bald eagle with the Pit River changed to a relationship with Lake Britton.

The Pit River peoples have had a continuing relationship with Burney Falls and the immediate surrounding area that transcends secular concerns. It is the present-day Ilmawi Band that assumes cultural management responsibility for the area that includes the park. The falls are an important part of a belief system that is integral to Pit River society as it continues to transform, as all societies must, and adapt to the ongoing pressures of the modern American culture of which they are also members.

INTERPRETIVE FACILITIES AND MEDIA

Existing interpretive facilities include a Civilian Conservation Corps log cabin used for formal exhibits about the falls and the local fauna, a campfire center, signs at the falls overlook platform, various panels at the falls and the marina, a series of interpretive signs along the Falls Trail, and the Pioneer Cemetery. Interpretation activities include various campfire talks and shows, self-guided and guided trail hikes, canoe tours of the lake, and night-time star talks.

Selecting the appropriate methods for future interpretation is critical for effectively conveying the information; this includes issues of accessibility as noted in "All Visitors Welcome" (California State Parks: 1994). Interpretive facilities and media provide the tools and the means for communicating significant themes to park visitors. The following will require particular attention:

FUTURE INTERPRETIVE CENTER

The new temporary and, later, permanent interpretive centers and their associated programs will both be able to present information and interpretation about the park in easily accessible and central locations. The permanent building will have room to provide for exhibits, artifacts storage, curation, office work, and interpretation-related sales. The needs of environmental living programs will require the inclusion of a small classroom and video room combination.

While planning the interpretive centers, there should be consultation with interested parties, including the Pit River Nation and the Ilmawi Band. Both centers will include an interpretive vignette of an Achumawi dwelling. The Native American presence in the park should include the allocation of space in a multi-use area next to each facility for one or more Achumawi-style dwellings. The structures will be temporary in nature, constructed specifically for special events, and should be removed after termination of the events (e.g., Heritage Days).

The CCC log cabin should be relocated nearby. It should interpret the role of the CCC at McArthur-Burney Falls and in other state parks.

Recreation in the park also needs interpretation to help orient visitors to the park and to present the historical context for present-day activities.

CAMPFIRE CENTER

Campfire centers are an integral part of the camping or day use experience and are points for the dissemination of interpretive information to park visitors. The current campfire center will be relocated to conform to the redesign of the park's day use and camping use areas. The future campfire center should provide, at a minimum, the facilities now available. At the time of design, park staff should be surveyed to elicit newer needs and suggestions for more efficient interpretive usage.

INTERPRETIVE TRAILS AND OVERLOOKS

Trails provide visitors with opportunities to see the park from different vantage points and can introduce them to the different varieties of flora and fauna the park has to offer. Trails also provide aspects of cultural history and furnish visitors with the best vantage points from which to view the falls.

OUTDOOR INTERPRETIVE SIGNS

First impressions are critical to visitors, as they set the stage for the experiences to follow. Interpretive signs should be clear and consistent in appearance. They should support the themes of the park.

HISTORIC BUILDING PRESERVATION

There is no planned interpretive use for the four remaining CCC structures in the eastern portion of the park across Highway 89. However, because of their historic nature, there should be steps taken to ensure that their further deterioration will be minimal. It is not possible to anticipate their future uses, upon which possible interpretive expression would have to be dependent. Interpretive planning for

Residence #1, as well as those features existing south of the present residential area, mainly ruins from the earliest period of the park, should also be held in abeyance.

MANAGED INTERPRETIVE LANDSCAPING

The proposed changes in the approach to the falls from the day use area will offer an important opportunity to interpret native plants and ecology.

INTERPRETIVE ACTIVITIES

Participation in interpretive activities can enrich lives and give individuals positive, lasting impressions of the park's natural and cultural features. Interpretive activities should enhance interpretive themes and meet visitors' various skills and abilities.

Currently, the park provides active interpretation that includes environmental and historic guided trail walks, interpretive canoe tours of the area around Burney Cove, a Junior Ranger Program, and an annual Heritage Days event.

New opportunities should continually be explored as future improvements take place. For example, with the development of a new group camp site, there will be an opportunity to provide school groups with an environmental living experience during the shoulder seasons (the times before and after the peak-use summer months). Development of the new interpretive centers will bring an opportunity to provide appropriate quality interpretive objects for visitors to buy and provide a source of income for the park's interpretive association to further enhance the park's interpretation.

INTERPRETIVE COLLECTIONS

Interpretive collections are comprised of artifacts, other than historic structures, that contribute to a sense of place. They can be original to the site and interpretive period, accurate substitutes for original objects (period antiques or modern reproductions), or otherwise support the park's interpretive themes. For the purposes of this element, archival materials (historic photographs, letters, and so forth) are included.

At present, McArthur-Burney Falls Memorial State Park has little in the way of interpretive collections. There is a small collection of historic photographs, as well as some CCC items. There are also natural history specimens in the CCC log cabin exhibits. Most of the historic photographs and letters are stored in the park office. Other items are kept in a trailer converted for use as storage for a variety of interpretive materials. It is not expected that the collections will grow appreciably after installation of either interpretive center. Storage for collections should include curatorial space, environmental controls, and security. Development of a collections management and curation program will be necessary to properly inventory, record, manage, secure, and maintain the collections.

Interpretive artifacts at this park are subject to the same policies and procedures affecting all collections under the care of the Department of Parks and Recreation. The Department Operations Manual and in the Museum Collections Handbook, published by the Park Services Division, contains more detail about these policies and procedures. The McArthur-Burney Falls Memorial State Park Interpretive Prospectus (1997) further outlines specific information relating to the park's collections.



The concession building sits a few hundred feet northeast of the falls.



During the summer, the concession draws a crowd.

Concession Element

CONCESSION ELEMENT

Concession services are considered appropriate and valuable to the park. However, the present location creates undue congestion and hyperactivity near the falls. Frequent vehicle and pedestrian conflicts are an unavoidable result of the current circulation pattern that includes the store as a common destination. The proposal for a new concession building is based on several needs and planning considerations. The existing concession provides a relatively stable, dependable service and source of revenue.

EXISTING CONDITIONS

Concession services provide for the convenience of the general public while they are using and enjoying the park. During the summer, the concessionaire operates the campground grocery store, gift shop, and snack bar near the falls, and the subsidiary concession at Lake Britton. These services are designed to complement and enhance visitors' recreational experiences. Visitor surveys show a high degree of satisfaction with merchandise quality, employee courtesy, and the cleanliness of the facility.

The grocery store and gift shop provide camping and picnic supplies. These include food, fishing equipment, bait, film, souvenirs, and sundries. Visitors can choose to buy breakfast, lunch, and supper at the snack bar, which has outside seating only.

The concessionaire provides several other services to visitors. The store sells California fishing licenses. Campers can buy firewood in small bundles. All employees receive an orientation to the park and the State Park System to enable them to reply to visitor inquiries. The store also serves as a cache point and re-supply depot for hikers along the Pacific Crest Trail.

The concession building is near the park entrance on the east side of Burney Falls. The building sits 200 feet northeast of the contact station and 200 feet southeast of the falls overlook. The store is just 80 feet east of the main park road used by all visitors heading to the falls, the campgrounds, and the lake. Anyone using the store must cross this road to get to the falls or day use restroom. The existing location is too close to the falls, the prime resource of the park. This proximity contributes to a "Coney Island" atmosphere around the falls.

Most visitors drive to the store or walk to it along the road. There are no trails for visitors to the store. A short path south to the park office is little used. The building is surrounded by open forest to the south and east, and a 30-car parking area to the north and west. Four of these spaces are reserved for employee parking and delivery trucks. One hundred feet of asphalt parking lot separates the snack bar from the falls picnic area.

Parking lot surveys indicate that the vast majority of store and snack bar patrons between 10 AM and 2 PM are day use visitors who come to see the falls. From 4 PM to 7 PM, the majority of users are campers who have driven to the store for snacks, supplies, or to make a phone call.

The concession building, built in 1955, is wood frame, with a large expanse of glass on the north side. It is L-shaped and measures about 36 feet by 38 feet. Its total area is about 1,130 square feet. A steep, off-center gabled roof makes the building appear larger than it is. Storage sheds and a walk-in freezer are hidden from view in a fenced area on its northeast side. The total footprint of the building and outside storage is about 2,800 square feet. A limited architectural inspection in 1995 indicated the building was structurally sound, up to code, and well maintained.

Concrete walkways on the building's north and west sides provide walk-up space for the snack bar windows, a few picnic tables, two public telephones, a freezer for bagged ice, and newspaper vending machines.

At the lake, the concessionaire provides opportunities for high quality water recreation. During the summer, small boats are available for rent including paddle boats, canoes, and aluminum fishing boats with small outboard motors. Most hand-powered boat use occurs in the calm and scenic waters of Burney Cove.

Those who bring power boats to the park may rent boat slips by the day or week through the concessionaire. Some campers reserve a slip months in advance when they plan their vacation. The docks are a convenience to boat owners and help reduce congestion at the boat ramp. The concessionaire maintains the docks. The concessionaire also collects boat launch fees. A movable trailer has been used for several years at the lake for concession operations. A small variety of snack foods and beverages are sold to boaters, beach users, and picnickers. Electricity is not currently available at the lake, making it difficult to provide hot or frozen foods.

The concession is open by the Friday before Memorial Day and continues operation through September 30. By agreement, hours of operation for the store and snack bar have been from 8 AM to 6 or 8 PM daily. Hours of operation at the lake vary slightly. The current concessionaire is City Concession Company of Arizona, Incorporated.

No other services are available within eight miles of the park except for a seasonal convenience store four miles south on Highway 89. Though the park store generates additional traffic within the park by campers, the concession greatly helps reduce the amount of vehicle traffic in and out of the park. Returning summer campers depend on the store for incidental supplies.

CONCESSION PROPOSALS

Existing concession services are compatible with the purposes, missions, values, and spirit of the park. The concession has a long history of service to and acceptance by the public. It is expected that a concessionaire will continue to provide goods, services, and facilities to the public during the busiest time of the year.

A new location is envisioned for the store, gift shop, and snack bar operations. The exact location will depend on the future area development plan. A new concession location is essential for improvement of traffic and circulation patterns. The new location will better distribute visitors in the environment and will not create or contribute to congestion near the falls. The new store location should also serve day use visitors and campers equally well. The relocated concession will be among

several proposed facilities on the east rim of Burney Canyon that will broaden and better define the day use zone.

The new store should be connected to other use areas by a web of paved pathways. Future area development plans should make it possible for visitors to walk between snack bar, picnic area, and restrooms without crossing a road or parking lot. From the store, visitors should also be able to walk to the falls overlooks, interpretive center, campground, and trailheads without crossing vehicular traffic. The proposed location will be several hundred feet closer to the campground, making it easier for campers to reach the store.

The new concession building will include space for storage and employee work areas. Outside storage will be unnecessary, except for propane. The new building will likely be smaller than the 2,800-square-foot footprint of the existing building and outside storage combined. The building will be designed to meet the needs of disabled visitors, following department and ADA guidelines. These needs include accessible entry, adequate space for internal circulation, and convenient countertop height. A loading dock or delivery area will be included, with good access for service trucks.

The specifics of future concession activities, merchandise, and programs are not controlled, managed, or limited by this general plan. In principle, souvenirs and merchandise being sold within the park shall be consistent and compatible with the park's interpretive themes. Department management will continue to be the responsible for guidance, oversight, and an ongoing relationship with the concessionaire.

Statewide concession policy and individual concession contracts will provide additional control language needed to manage the current, evolving service. New proposals will be studied on a case by case basis to determine if they are feasible and appropriate.



THE CONTACT STATION

The park's contact station is its communications hub. It serves as the phone dispatch center, a place where visitors can bring their questions, and also the point where they receive their first greetings when they enter the park.



Park staff lead evening presentations at the campfire center during the summer months.



Operations Element

OPERATIONS ELEMENT

The Operations Element is not intended to be an operations plan for the park but rather an overview of existing operational activities and the expected effects of general plan proposals. It does not make operational recommendations or decisions on staffing needs or the specific functions of that staff. It does identify the basic types of operational services provided at the time of the plan's preparation. It discusses operational problems related to resource and visitor services issues and will address operational benefits or impacts anticipated after implementing the plans' proposals.

ORGANIZATION

At the time of the preparation of this general plan, the Northern Buttes District headquartered in Oroville, under the Park Stewardship Division of the Department of Parks and Recreation, administers McArthur-Burney Falls Memorial State Park. The Cascade Sector of the Northern Buttes District operates the following parks in addition to McArthur-Burney Falls: Ahjumawi Lava Springs State Park, Castle Crags State Park, Shasta State Historic Park, and Weaverville Joss House State Historic Park. A State Park Superintendent bears the responsibility for all aspects of the operation of the sector and reports to the District Superintendent of the Northern Buttes District, who, in turn, reports to the Northern Division of Park Stewardship.

EXISTING OPERATIONAL SERVICES

Overall operations within the park are generally divided into two functions: Visitor Services and Technical Services. Employees reporting to the park as their work location are assigned to one of these functions. Employees at the sector or district offices, with assistance as needed from the park employees, carry out a third function, Administrative Services. In actuality, Visitor Services and Technical Services staff perform considerable administrative work generated at the park level.

VISITOR SERVICES

A Supervising Ranger has the responsibility to oversee the Visitor Services function, which provides for law enforcement, campground management, patrol, presentation of interpretive activities, fee collections, processing revenues, tree safety inspections, supervision of Visitor Services Park Aids, volunteer coordination and supervision, Cooperating Association liaison, maintenance of assigned vehicles and equipment, emergency medical services, snow plowing, facility maintenance and housekeeping as needed, communicable disease prevention, and training.

Visitor Services staff also works the entrance station, collects use fees, administers the campground and reservation system, answers phone and radio calls, dispatches for other staff, prepares assigned reports, and provides for housekeeping of the office and entrance station. Visitor Services maintains maximum staffing from late May through Labor Day.

TECHNICAL SERVICES

A Park Maintenance Supervisor oversees the Technical Services function and provides for facility maintenance, facility housekeeping, maintenance of assigned equipment, repairs of facilities, landscaping, construction and installation of structural features, facility record keeping, facility and system winterization, snow plowing, water treatment operation, and implementation of the tree safety program. Technical Services staff also performs miscellaneous maintenance duties. Technical Services maintains full staffing from late May through Labor Day and includes persons from job-training programs.

Each year, the Visitor Services and Technical Services staffs team up to administer and supervise work by inmate crews from the Intermountain Conservation Camp. The inmates' work includes annual spring clean-up, hazard tree removal, splitting of firewood, trail clearing and repair, fence repair, and other physical labor as needed.

OPERATIONAL CONCERNS

Resource Management

The Forest

Perhaps the most pressing resource issue at the park is the health of the forest and the future of vegetation management. The dominant ponderosa pines have for years sustained an infestation of bark beetles and in some years have experienced numerous die-offs. The stress of the multi-year drought of the last decade has aggravated the condition. Fire danger is a related concern. Currently, the department Forester is developing a vegetation management plan for the developed areas of the park. Meanwhile, the Operations staff, in cooperation with the Northern Buttes District Ecologist, annually identifies specific dead or dying trees in use areas that would pose a threat to public, employee, and facility safety, and has them removed.

Burney Creek

The ecological health and purity of Burney Creek is another concern, though there is no real threat posed to it at this time. The Operations staff remain aware of activities and proposals that could potentially affect the creek upstream of the park and take action as needed.

The Department of Fish and Game has recently changed from general fishing regulations to wild trout stream management for the fishery in Burney Creek below the falls. Operations staff will probably become involved in regulations enforcement and public relations.

Lake Britton

The level, fluctuation, and purity of Lake Britton are also watched. There is a possibility that raising the lake level could inundate the swimming beach, which would have an impact on recreation facilities and uses, as well as shoreline resources.

Operation Of Camping Facilities

Group Camping

There is currently no group campground at the park. Every summer, organized groups and groups of families who make advance reservations frequently use the family campground. The entrance station staff handles numerous requests for adjacent campsites every day. There has also been a definite trend observed over the last ten years toward more vehicles being driven or towed to the park. Daily, almost every campsite has more than two vehicles (the official limit) occupying it during the summer. The ranger staff is finding it increasingly difficult to effectively enforce limits on vehicle numbers in the sites. Group campground development and overflow vehicle parking space may ease this pressure.

Pacific Crest Trail Camp

The designated Pacific Crest Trail camp developed in 1984 was built to provide users of the Pacific Crest Trail (PCT) a place to camp. It is accessible by vehicles from Clark Creek Road and includes a small horse corral to accommodate equestrian users of the trail. Walk-in environmental camping is an additional designated use.

In reality, PCT hikers have generally found the camp to be inconvenient, as it is about a mile from the park store, where they can obtain food caches and services. It is a similar distance from the campground showers. There has been little known use by equestrian users passing through. Use as an environmental camp has also been light. However, there have been numerous uses by groups seeking a primitive group site and by equestrians driving in to set up a base camp from which to take day rides on the PCT.

Hike and Bike Camp

The park staff established a hike and bike camp in 1995, which has proved very popular for through hikers on the PCT.

Trespass

There are no ongoing trespass problems. The staff remains vigilant, monitoring activities on the park boundaries, as timber harvesting and woodcutting activities occur on the adjacent properties.

Public Safety

From an operational standpoint, there are no ongoing major threats to public safety where life or serious injury are at stake. Protective barriers, signs, and ranger contacts generally keep visitors away from the top of the falls, which otherwise could be a deadly site. The tree hazard program, discussed above, protects visitors in heavy use areas. There have been fewer than five reported vehicle accidents on park roads in the last ten years. Visitor injuries requiring medical attention occur with regularity, especially during the busy use season, but no one circumstance or location appears to contribute to multiple incidents.

Violent crime is almost nonexistent in the park. Non-violent disturbances are occasional, especially in the campground, and are usually dealt with by the Rangers. Thefts of personal property are a periodic and ongoing problem. Through notices and contacts, the staff attempts to minimize this problem by encouraging greater awareness among the visitors.

Frequent types of injuries that the Visitor Services staff must treat are insect and squirrel bites. The staff endeavors to discourage public feeding to control the sources of those problems.

State Highway 89 within and close to the park is the scene of occasional accidents. Approximately four per year occur within two miles of the park entrance. Park personnel usually are involved with emergency medical treatment and/or traffic control resulting from these accidents.

Coordination With Others

Other Safety Agencies

The park staff summons ambulance services from the Shasta County Fire Department, which coordinates the response of the two local ambulance services. All permanent department staff is trained in first aid and CPR, and rangers possess First Responder training and skills. Emergency medical equipment, including oxygen, is available within the park.

The Shasta County Sheriff's Office provides backup law enforcement services to the park and also has the primary law enforcement responsibility on Lake Britton. Park staff responds when requested to emergencies, imminent dangers, and calls for backup on the lake but does not patrol it. At this time, boating recreation on the lake is growing, and personal watercraft use is increasing dramatically. Sheriff's patrols of the lake are infrequent. Increases in lake user conflicts are a foreseeable problem. Because a high percentage of park visitors use the lake, park operations will be impacted by an increased demand to attend to problems there.

The response time for assistance from the outside agencies listed above is usually 15 minutes or less.

U.S. Forest Service

The department works with the Lassen National Forest for general forest management and interpretation.

Parcels Operated By Permit

There are no significant operational issues at this time over the use of the two parcels of land that the department operates by permit from the Lassen National Forest. However, vegetation management or new development on the properties do require the participation and approval of the national forest.

Pacific Crest Trail

The U.S. Forest Service is the official management agency for the Pacific Crest Trail. However, park staff maintains that section of the trail within the park boundaries. There are no notable management problems at this time concerning the trail in the park.

California Department of Fish and Game

The Department of Parks and Recreation cooperates with the Department of Fish and Game (DFG) for wildlife management purposes and enforces applicable DFG regulations within the park.

California Department of Forestry

The unit has a Wildfire Management Plan in force, cosigned by the local Department of Forestry and Fire Protection (CDF). CDF is the primary fire control agency and will respond to and manage the suppression of any fire in or near the park. Park personnel provide initial attack on an in-park wildfire using portable fire pumper units.

The department also contracts for inmate work crews through CDF. These crews maintain trails, clean debris out of campsites, split firewood, help with major repairs, including trail repairs, and take down hazardous trees.

Local Chambers of Commerce

The Operations staff cooperates with local chambers of commerce to share public information and promote good relations between public entities.

Pacific Gas and Electric Company

There are no current problems with respect to management of the property the department leases from PG&E.

The company is required, as a condition of its license to operate hydroelectric facilities, to conduct wildlife studies, take measures to protect wildlife or mitigate their losses, and provide for recreational facilities. The Department of Parks and Recreation's only management functions with respect to Lake Britton are to maintain the park's swim beach and the buoys in front of it. The park's Operations personnel interact with the company on wildlife issues and receive the benefit of information provided about such species as the bald eagle. The department has received a one-time grant from the company for improvement of its facilities in connection with relicensing by the Federal Energy Regulatory Commission.

Park Cooperating Association

The McArthur-Burney Falls Interpretive Association ("Friends of the Falls") is the chartered cooperating association for the park. It provides service and raises funds through publications sales in the visitor center, firewood sales to the campers, and aluminum can recycling. It funds the park's interpretive program primarily through direct purchases. It administered a charitable grant for the total renovation of the CCC

log cabin for the existing visitor center. The association also co-hosts, plans, and administers the annual Heritage Day special event celebration with the park.

Volunteer Management

The volunteer program is coordinated by the ranger staff. An average of 30 volunteers perform service at the park each year. Seasonal live-in-park volunteers are usually retired couples with recreational vehicles. They stay in the park for one month or more and perform various duties, including camp checks, firewood delivery, collection and storage of products for recycling, staffing the visitor center, assisting with interpretive programs, performing minor maintenance and repairs, processing shower fee collections, and office work. Some volunteers live in the local communities and come to the park periodically to staff the visitor center and occasionally assist with interpretive programs.

Additionally, there are usually one or two volunteer weekends each year, during which a team is assembled to accomplish specified projects, usually a cleanup, maintenance, or upgrade of existing facilities. A student volunteer sometimes assists in conducting interpretive programs during the summer.

Operation Of Ahjumawi Lava Springs State Park

All operations activities for Ahjumawi Lava Springs State Park are currently performed by staff and equipment based at McArthur-Burney Falls Memorial State Park. Ahjumawi is a separate undeveloped park of over 6,000 acres and is 25 miles away from McArthur-Burney Falls.

OPERATIONS PROPOSALS RELATING TO RECOMMENDATIONS IN THIS GENERAL PLAN

Major changes are proposed for park resources and facilities by this general plan. The proposals will require many changes in park operations, some of which will be discussed in this section. A general plan does not address specific alterations of the staffing, organization, or administration of a park. It is presumed that those areas will be adjusted as necessary.

VISITOR SERVICES

The general plan envisions an operation where campground management is smooth, roads and trails are safe, conflicts are minimal, interpretive facilities are expanded and improved, and interpretive activities are of high quality. This will benefit the public impression of the park and its operation.

TECHNICAL SERVICES

This plan makes no specific changes to Technical Services operations. However, it does provide guidelines whereby natural and cultural resources will be more effectively protected than they are at this time and all facilities will be developed and maintained to be useful, attractive, and safe.

ADMINISTRATIVE SERVICES

The plan proposes no specific changes affecting administrative functions but does provide for improved administrative facilities that will be able to furnish the potential for a more flexible and efficient operation.

RESOURCE MANAGEMENT

Native Plant Communities

The plan proposes a vegetation management plan and a fire management plan to preserve or restore former native vegetative conditions. There will probably be changes in vegetation management practices, including removal and prescribed fire. Contractors and crews from inmate work camps may be directed by supervisors and staff to implement those plans. Implementation of these changes would be labor-intensive and would require a significant commitment of financial resources and personnel. There must further be an ongoing commitment to maintain the native vegetation resources in their desired condition. This must be reflected in the duties of those personnel invested with resource management responsibilities.

Soils

The plan recommends a soil erosion prevention program. As with the reestablishment of native plant communities, above, the program will require a financial and personnel commitment to implement.

Burney Creek and Falls Hydrology

The plan proposes that management staff be actively involved in land use decisions that would affect the Burney Falls watershed. This would not change current practices. Staff at all levels are currently involved in monitoring and influencing such decisions.

Lake Britton and the Park Shoreline

At this writing, there are no proposed changes in operational procedures that involve the lake and shoreline. Should a rise in the lake level result in inundation of the existing marina, beach, and parking lot with no replacement development provided, then the operation of those facilities, including concession operations, could cease.

OPERATION OF PROPOSED FACILITIES

New Entrance and Visitor Contact Facilities

These developments will not greatly change the manner in which the park is operated. The visitor services function will continue with the same hours of operation, and campground administration and reservation services will function as they currently do. However, the new location and upgraded facilities will be noticeably more efficient because the entrance station will have ample space for staff and equipment, resulting in increased service to the public.

Vehicular Circulation

The manner of operation will be relatively unchanged. The improved circulation pattern will principally benefit visitors. Day users will be less apt to drive through the campground, with the concurrent unauthorized use of campsites, a benefit to operating efficiency and camper experience alike.

An increased workload will result from the required additional road maintenance and snow plowing in winter.

Falls Day Use Area

Operation of the new facilities will be much the same as it is for the existing ones. Because of the slightly longer distance from parking areas to the falls overlook and some trails, personnel will be walking longer distances to conduct patrols, perform housekeeping and maintenance, and provide emergency medical services. Driveable trails with gated entrances could afford vehicular access to certain areas where and when needed.

Interpretive Center

A new interpretive center will be a focus of increased public visitation. At present, the log cabin visitor center is staffed entirely by volunteers and only during the summer. Its hours of operation are fairly consistent, but not assured; many days, volunteers are not available to open it. To have the more reliable operation expected for this new facility will require augmentation of paid staff or a more vigorous and larger volunteer program. Either way, it will need an increase in operational time and money.

Group Camp

Use of the group camp would replace some group use of the existing family campground, though the family campground will probably still remain fully occupied through the summer. However, this development would create an additional responsibility to both the Visitor Services and Technical Services functions. Camping registrations, maintenance, housekeeping, patrols, and problem interventions would increase to the extent that the new camp is used.

Campfire Center

The new campfire center should be a great benefit to visitors and presenters alike. Presenting programs may be easier than at the existing campfire center, if future design includes enough storage to reduce the need to haul equipment and supplies to each program.

Operations Area

Because no major changes are proposed to the existing shops and residences in this plan, there should not be any appreciable effect upon the Operations activities themselves. Some increased time and workload may occur due to the longer entrance road and the possible removal of materials stored in the Operations area to a more remote location.

Pacific Crest Trail Camp

If the enroute camping facility now located along the Pacific Crest Trail is retained, the operational demand will remain the same or possibly increase. However, should it eventually be removed, the overall demand for park operation will be eased.

Lake Day Use Area

The proposed improvements to the downhill grade on Lake Road may result in benefits to the public, as well as park Operations, because bicycle accidents may be reduced.

As noted in Resource Management above, a permanent rise in the level of Lake Britton could have a dramatic impact on the existing aquatic recreational facilities. The operation of that part of the park will be substantially affected by whatever resultant changes occur.

COORDINATION WITH OTHERS

Park Cooperating Association

A Cooperating Association has been found to be invaluable for funding interpretive projects and supplies, producing park publications, supporting volunteers, and maintaining a recycling program. This plan allows for the continuation of such a relationship with a cooperating association to aid the needs of the park.

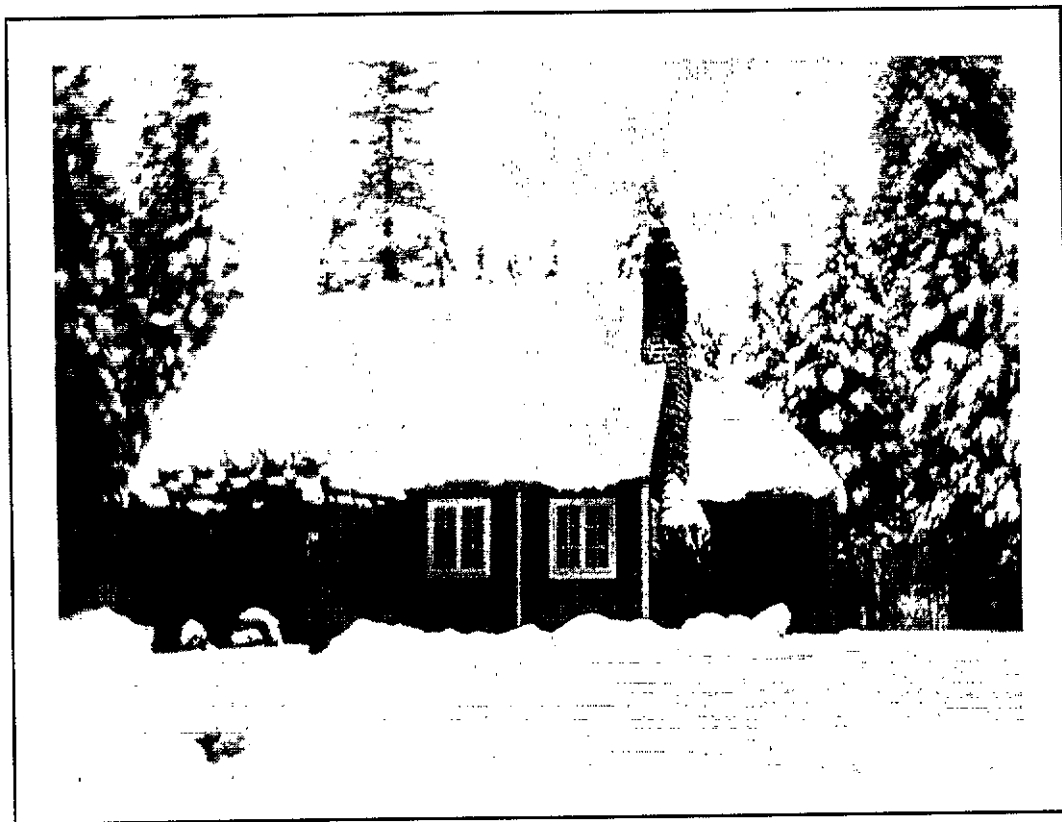
Other Agencies

It is expected, even vital, that park operations continue to work closely with other agencies as they now do. Coordination with PG&E and concurrent law enforcement jurisdictions will be necessary for appropriate management of Lake Britton recreation.

VOLUNTEER PROGRAMS

Volunteers

The operation of this unit will continue to enlist the aid of volunteers for both Visitor Services and Technical Services. Hook-up sites will continue to be made available for volunteers' self-contained vehicles as an inducement for their services. Also, as at present, visitor center staffing and other interpretation will utilize volunteers in whole or in part.



Winters at the park can be severe, as this 1933 photo of the ranger's house attests.

Environmental Impact Element

ENVIRONMENTAL IMPACT ELEMENT

SUMMARY

The general plan, with all its elements, constitutes an environmental impact report (EIR), as required by Public Resources Code Sections 5002.2 and 21000 et seq. This EIR is for the approval of the general plan. Site specific development and resource management projects for this park will be subject to subsequent environmental review as they are proposed. The discussion of impacts is commensurate with the level of specificity of the plan.

The general plan proposes facilities, land use, resource management, interpretation, and concession recommendations, as well as operational considerations. A summary of facility proposals appears on pages 72-100 in the Land Use and Facilities Element.

The adverse environmental impacts commonly associated with visitor use and facility development are increased infrastructure requirements and potential impacts to natural and cultural resources. Mitigation proposed to avoid or reduce environmental impacts generally requires resource specialists to consult with project managers in the selection of sites or alignments.

PROJECT DESCRIPTION

The Resource, Land Use and Facilities, Interpretive, Concession, and Operations Elements in the general plan recommend resource management directives, designate appropriate land uses, propose development, outline concession needs, etc. These elements constitute the project description.

DESCRIPTION OF THE ENVIRONMENTAL SETTING

Refer to the Resource and Land Use and Facilities Elements for a description of the existing environment. Generally, the following environmental resources have directed or constrained development proposals for the unit: bald eagle habitat, yellow warbler habitat, montane dry meadow and riparian corridor plant communities, and cultural (archaeological and historical) sites.

TRAFFIC

State Route (SR) 89 provides the primary access to McArthur-Burney Falls Memorial State Park. North of its junction with SR 299, peak hour traffic on SR 89 is 360 vehicles per hour, peak month Average Daily Traffic (ADT) is 3,650 vehicles per day, and annual ADT is 2,350 vehicles. South of the junction with Lake Britton Road, the peak hour ADT is 250 vehicles, peak month ADT is 3,100 vehicles, and the annual ADT is 1,850 vehicles (1994 Traffic Volumes on California State Highways, Caltrans). The level of Service (LOS) on this section of SR 89 is generally good. However, the park entrance is located on the outside of a highway turn. During periods of peak use, vehicles may back up from the entrance contact station to the highway and create traffic congestion. The existing entrance also has limited lines of sight.

SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

1. Construction of the proposed entrance road and office may potentially impact natural and cultural resources. The proposed entrance road alignment is close to a seasonal wetland. Runoff from impervious surfaces (roadways, parking lots) may carry residual pollutants to the wetland area.
2. Some vegetation will be lost in the construction of a new entrance road, office, and contact station, as well as the realignment of Lake Road. Approximately 3+ acres of the Westside Ponderosa Pine Forest plant community will be removed. This represents about 1% of this plant community within the park. No sensitive species occur within the proposed alignment. Additional areas will be disturbed. However, roughly equivalent areas of previously developed or disturbed habitat will be restored to native habitat.
3. During the construction of the new entrance road, parking lots, the access road to the falls day use area, and the new day use facilities, there may be an adverse visual impact for visitors and highway users.
4. Any construction of overlooks and trails along the Burney Creek Canyon rim and near the falls could be subject to geologic failure.

MITIGATION MEASURES

The mitigation measures below reflect the specificity of a general plan. As different elements or projects of the general plan are implemented, they will be subject to further environmental review, and project-specific mitigation measures will be developed.

1. Departmental historians, archaeologists, and a representative from the Native American community will review site-specific development proposals to determine the presence and significance of cultural resources. The alteration or removal of any historic features will be subject to PRC 5024.5 review requirements. Structures and sites will be recorded prior to removal or modification. The general siting of the visitor contact station, park office area, and entrance road has avoided known cultural resources.

All known CCC-constructed facilities will be retained. The standing structures at the CCC camp will continue in their present use as storage sheds. Most or all of the CCC-constructed camp stoves will remain where campsites are removed. They may still serve as camp stoves for picnic sites. Interpretation of the CCC role should give the public a better appreciation and help protect the remaining CCC resources in the park.

2. The group campground will be constructed in phases. The first phase capacity will be about 50 people. The department will conduct pre-project baseline studies and post-construction monitoring to determine the impacts on eagle habitat and onsite resources such as soils and vegetation.
3. Prior to any habitat restoration or construction, areas of potential impact will be surveyed for the presence of special plants including those listed as rare, endangered, or threatened. If there is a potential for adverse impact, the

department will consult with the U.S. Fish and Wildlife Service and the Department of Fish and Game to develop protective measures or redesign the project to avoid adverse impacts wherever possible.

4. All new construction will include the installation of low-flush toilets and low-flow shower heads and faucets to reduce the water supply requirements by 20 to 30%. Low-flow equipment will replace existing equipment as the need occurs.
5. Construction must be monitored to keep vehicles from entering and construction activities from impacting sensitive natural and cultural areas.
6. New paved surfaces shall be designed to drain runoff away from sensitive habitats.
7. Siting new roadways and parking areas should retain existing vegetation for screening. Vegetative screens may be planted to reduce visual impact. New and existing structures should be designed and painted to blend into the natural environment.
8. A geologist shall review proposed developments along the lower Burney Creek Canyon rim and near the falls to determine possible geologic hazards and design requirements.

ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

The general plan proposes some facilities that will increase park visitor capacity (see the Visitor Capacities Table on page 97). Any increase in visitation will increase water, sewage, and waste disposal requirements. Increased visitation will also increase traffic, air pollution, and noise impacts.

ALTERNATIVES TO THE PROPOSED PROJECT

The alternatives are arranged by use areas: falls day use area, campground area, lake day use area, entrance/contact area, residence/maintenance area, the CCC area, and the Clark Creek Road area.

FALLS DAY USE AREA

The day use facilities could be located further south, closer to the employee residence/maintenance area.

Adverse Impacts

New construction in this area would require an additional disturbance of vegetation and habitat. Campers would have to travel farther to reach facilities, which could encourage more vehicle travel.

Beneficial Impacts

The intrusion of the facilities and activities of the visitor center, concession store, restrooms, and parking areas around the scenic falls area would be reduced.

CAMPGROUND AREA

The campground capacity could be expanded by constructing additional family campsites in the proposed site of the group camp or within the existing campground area.

Adverse Impacts

Increased group campground capacity could increase human intrusions into the eagle habitat area; however, this would most likely be an insignificant increase. The demand for lakeside recreational use and facilities would increase. Without a group camp, the park would not have the potential to meet off-season uses, such as visitation by school groups, as well as peak season use.

Beneficial Impacts

Replacing the group campsite with family campsites could increase the park's visitor capacity during the peak season.

LAKE DAY USE AREA

No alternatives were proposed for this area. There is little room for expansion. The current demand would not suggest any reduction of capacity. The plan calls for the realignment of the roadway to reduce conflicts between pedestrians and vehicular circulation.

ENTRANCE/CONTACT AREA

The existing entrance road and visitor contact station could be retained.

Adverse Impacts

Traffic would continue to back up to SR 89 during peak use periods. The adverse visual and noise impacts and traffic conflicts in the falls area would continue.

Beneficial Impacts

No additional area of natural habitat would be disturbed.

RESIDENCE/MAINTENANCE AREA

The employee residential and maintenance functions could be relocated east of the highway to the area of the historic Civilian Conservation Corps seasonal camp. CCC camp construction and existing storage activities have already disturbed this area.

Adverse Impacts

The relocation would create traffic safety problems for park operational and employees' vehicles entering and exiting Highway 89.

Beneficial Impacts

Relocation of the residence/maintenance area could remove the intrusion of the structures and activities from the main body of the park, as well as their visibility from the highway.

CCC AREA

The Pacific Crest Trail camp could be relocated to this area near the gated access road off Highway 89. Water would be readily available from the nearby reservoirs, and the Pacific Crest Trail passes nearby. The residence/maintenance area could also be relocated to this area as described above. Relocation of the maintenance yard and employee residence impacts are discussed above.

Adverse Impacts

Users of a trail camp located here would experience greater highway noise and would cause greater soil erosion than at the existing trail camp due to the steeper slopes.

CLARK CREEK ROAD AREA

This area includes some of the State Park System lands west of Burney Creek. The Pacific Crest Trail camp has received slight use during its history. Alternatives for the camp are 1) closure, 2) relocation to either outside of the park or within the park east of Highway 89, or 3) conversion to a group camp.

Adverse Impacts

Closure of the trail camp would likely require establishment of a new trail camp elsewhere with attendant vegetation loss and habitat disturbance. Relocation to the east side of Highway 89 would subject users to more highway noise.

Conversion of the trail camp to a group camp could result in increased user impacts to the upper Burney Creek riparian habitat. The traffic on Clark Creek Road would increase. Because this site is not easily accessible for maintenance and ranger patrol, the potential for vandalism and illegal activities is higher.

Beneficial Impacts

Closure or relocation of the camp would remove the horse manure which, in turn, would reduce the attraction of the brown-headed cowbirds and their potential parasitism of songbird nests.

NO PROJECT

There would be no change in facilities. Resource management projects (prescribed burning, habitat management, tree hazard removal, etc.) would continue and would provide limited improvement of habitat.

Adverse Impacts

Traffic problems at the current entrance, falls day use area, and lake day use area would continue. Soil erosion along trails around the falls area would continue. The potential for cowbird parasitism of songbird nests would continue.

Beneficial Impacts

No additional vegetation would be disturbed.

**RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF THE ENVIRONMENT
AND THE MAINTENANCE AND ENHANCEMENT OF
LONG-TERM PRODUCTIVITY**

The proposed short-term uses, recreation and resource protection, should not affect the long-term biological or economic productivity of the park. The protection and preservation of the resources will not diminish any potential productive use. However, these resources were not acquired for their potential production, conversion, or harvesting for marketable products. There are no current economically productive uses of the land.

There are short-term impacts to the aesthetics and viewshed, air quality, and soil erosion resulting from construction of facilities and resource management activities. The long-term effects would be an improvement of the environment through the restoration of native plant communities, improvement of endangered species and general wildlife habitat, viewshed enhancement, and improvement of recreation opportunities.

**SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES
IF THE PROJECT IS IMPLEMENTED**

No significant irreversible impacts are projected if the general plan proposals are implemented.

GROWTH-INDUCING IMPACT OF THE PROPOSED PROJECT

The proposed project may have a minor cumulative impact on growth inducement in the area. Any improvements or increase in capacity could encourage increased use that would translate into additional tourism and its attendant demand for services. The economic impact would generally be considered beneficial.

EFFECTS FOUND NOT TO BE SIGNIFICANT

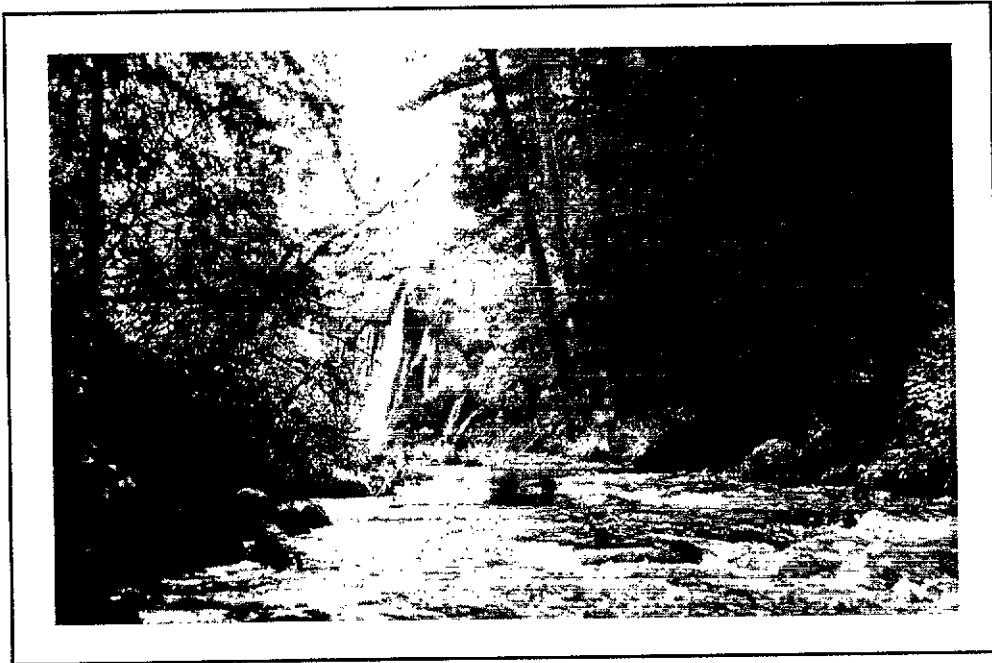
1. The addition of a group campground and improvement in falls day use facilities may encourage more visitation. These facilities are outside the critical bald eagle
-

habitat area. However, as a result, there may be more intrusions into critical bald eagle habitat. No visitor facilities are proposed in the critical or essential bald eagle habitat area. The group campground represents the greatest potential use increase. The projected maximum capacity of the group campground is 100 people.

2. Assuming maximum buildout and full occupancy (highest demand scenario) of the proposed plan, 4.6 people per campsite at 128 campsites, two people per camp host site at three sites, 100 people at the group camp site, 4.6 people per site at the six Pacific Crest Trail campsites, and 20 people at the hike and bike campsites, there would be 742 overnight users. At 25 gallons per day per overnight user, the water consumption would be 18,550 gallons per day for overnight use. Assuming 3.4 visitors per vehicle for day use and 100 parking sites at the falls area with three turnovers per day and 117 parking sites at the lake day use area with no turnovers, 3.4 visitors per car and ten parking sites at the Pioneer Cemetery trailhead, and three busses with 40 visitors each, there would be 1,572 day users. Assuming a water consumption of five gallons per day per day user, the total day use consumption would be 7,860 gallons per day. The total water consumption for a peak day would be approximately 26,410 gallons; about 3,845 gallons of this figure is a result of the increased visitor capacity or 17% above the existing maximum demand.

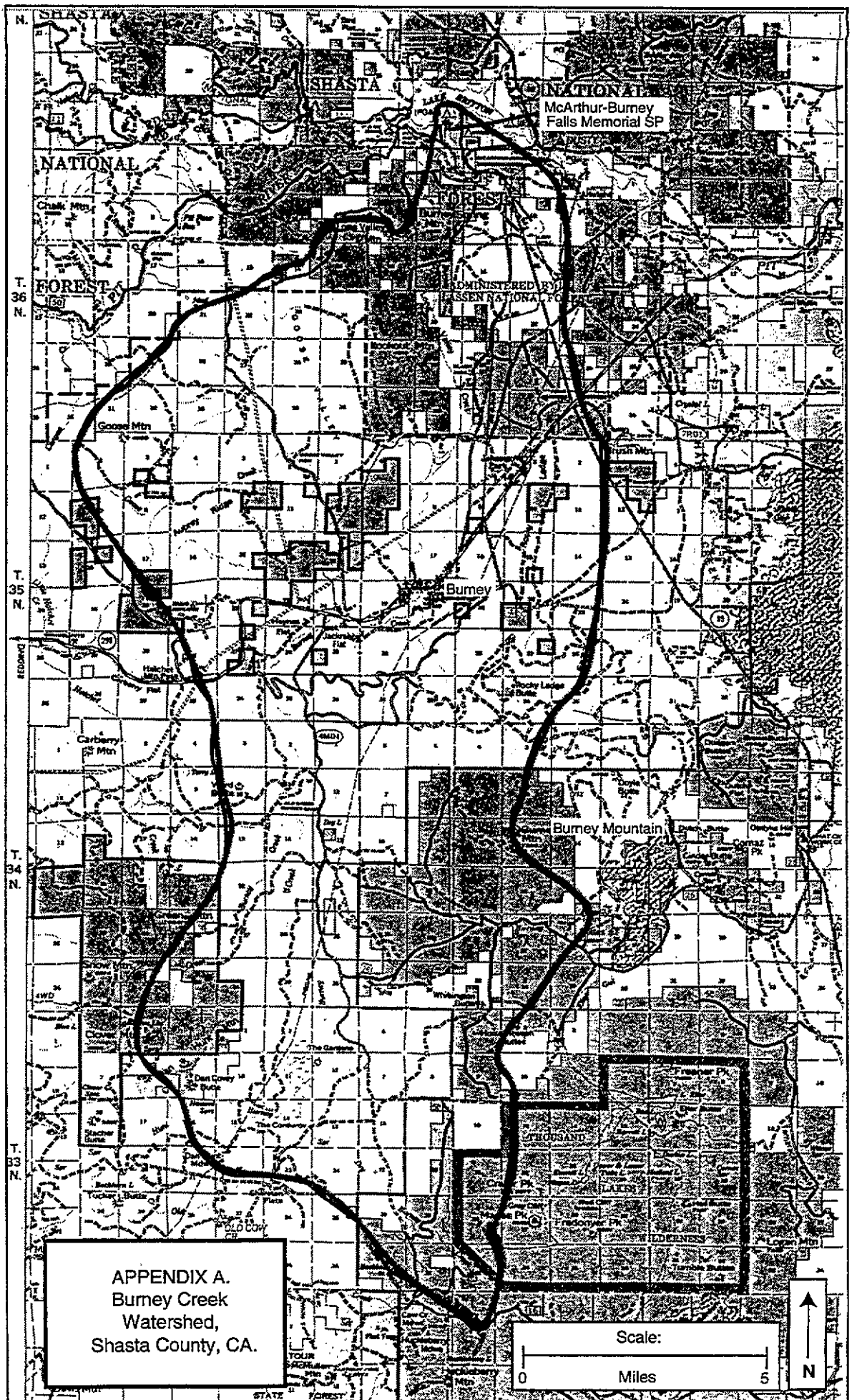
The existing water system pump can deliver 90 gallons per minute; peak day water consumption would require about 4.9 hours of pumping. The park has two water storage tanks with a total of 150,000 gallons of storage. The existing system meets current needs. The increased demand should not exceed the capacity of the aquifer. The increased demand at peak use, 3,845 gallons per day, is the equivalent to .006 cubic feet per second flow.

3. Traffic increases should not be significant. Assuming 4.6 people per vehicle at the group campground or 22 vehicles making two trips in a one-hour period, the potential increase during a peak hour is 44 vehicles per hour. Assuming that all the traffic from the group campground traveled on SR 89 between the park and the SR 299 junction and the traffic usage was equally split in direction of travel, the interval between vehicles would theoretically decline from 20 seconds to 18 seconds average time between vehicles.
4. No significant noise impacts are projected. There will be temporary noise increases during construction. However, there are no immediate sensitive receptors. Construction normally would occur during regular working hours. Relocation of interior park roads should reduce noise impacts to users by moving traffic noise farther from use areas.



Lower Burney Creek with the falls in the distance

Appendices



APPENDIX B. PARTIAL PLANT SPECIES LIST OF MCARTHUR-BURNEY FALLS MEMORIAL STATE PARK

<u>Common Name</u>	<u>Scientific Name</u>	<u>Family</u>
American dogwood	<i>Cornus sericea</i> ssp. <i>sericea</i>	Cornaceae
Arroyo willow	<i>Salix lasiolepis</i>	Salicaceae
Aspen	<i>Populus tremuloides</i>	Salicaceae
Bellinger's meadowfoam	<i>Limnanthes floccosa</i> ssp. <i>bellingeriana</i>	Limnanthaceae
Bloomer goldenbush	<i>Ericameria bloomeria</i>	Asteraceae
Blue-eyed Mary	<i>Collinsia parviflora</i>	Scrophulariaceae
Bracken fern	<i>Pteridium aquilinum</i> var. <i>pubescens</i>	Dennstaedtiaceae
Buckbrush	<i>Ceanothus cuneatus</i>	Rhamnaceae
California black oak	<i>Quercus kelloggii</i>	Fagaceae
Cheat grass	<i>Bromus tectorum</i>	Poaceae
Cluster rose	<i>Rosa pisocarpa</i>	Rosaceae
Colorado rush	<i>Juncus confusus</i>	Juncaceae
Common large monkey flower	<i>Mimulus guttatus</i>	Scrophulariaceae
Cut-leaved orthocarpus	<i>Castilleja lacera</i>	Scrophulariaceae
Deerbrush	<i>Ceanothus integrifolius</i>	Rhamnaceae
Douglas-fir	<i>Pseudotsuga menziesii</i>	Pinaceae
Greenleaf manzanita	<i>Arctostaphylos patula</i>	Ericaceae
Incense cedar	<i>Calocedrus decurrens</i>	Cupressaceae
Layne's monkey flower	<i>Mimulus layneae</i>	Scrophulariaceae
Lemmon's stipa	<i>Achnatherum lemmonii</i>	Poaceae
Lindley's annual lupine	<i>Lupinus bicolor</i>	Fabaceae
Medusa head	<i>Taeniatherum caput-medusa</i>	Poaceae
Minute willow-herb	<i>Epilobium minutum</i>	Onagraceae
Mountain dogwood	<i>Cornus nuttallii</i>	Cornaceae
Mountain mahogany	<i>Cercocarpus betuloides</i>	Rosaceae
Mountain misery	<i>Chamaebatia foliolosa</i>	Rosaceae
Mountain monardella	<i>Monardella odoratissima</i> ssp. <i>odoratissima</i>	Lamiaceae
Mountain pink currant	<i>Ribes nevadense</i>	Grossulariaceae
Mouse-ear chickweed	<i>Cerastium glomeratum</i>	Caryophyllaceae
Naked-stemmed eriogonum	<i>Eriogonum nudum</i> var. <i>oblongifolium</i>	Polygonaceae
Nodding trisetum	<i>Trisetum cernuum</i>	Poaceae
Oregon ash	<i>Fraxinus latifolia</i>	Oleaceae
Oregon white oak	<i>Quercus garryana</i>	Fagaceae
Ponderosa pine	<i>Pinus ponderosa</i>	Pinaceae
Red-stemmed filaree	<i>Erodium cicutarium</i>	Geraniaceae
Rubber rabbitbrush	<i>Chrysothamnus nauseosus</i>	Asteraceae
Scotch broom	<i>Cytisus scoparius</i>	Fabaceae
Sierra gooseberry	<i>Ribes roezlii</i>	Grossulariaceae
Silver European hairgrass	<i>Aira caryophyllea</i>	Poaceae
Snowplant	<i>Sarcodes sanguinea</i>	Ericaceae
Spanish clover	<i>Lotus purshianus</i>	Fabaceae
Squaw bush	<i>Rhus trilobata</i>	Anacardiaceae
Squaw carpet	<i>Ceanothus prostratus</i>	Rhamnaceae
Sugar pine	<i>Pinus lambertiana</i>	Pinaceae
Thimbleberry	<i>Rubus parviflorus</i>	Rosaceae
Vine maple	<i>Acer circinatum</i>	Aceraceae
Western buttercup	<i>Ranunculus occidentalis</i>	Ranunculaceae
White alder	<i>Alnus rhombifolia</i>	Betulaceae
Willow-herb	<i>Epilobium</i> sp.	Onagraceae

APPENDIX C
Animal Species: AMPHIBIANS
McArthur-Burney Falls Memorial State Park

<u>Common Name</u>	<u>Scientific Name</u>	<u>Family Name</u>	<u>Status</u>	<u>Season</u>	<u>Source</u>
Tiger Salamander	<i>Ambystoma californiense</i>	Ambystomatidae		yearlong	2
Long-toed salamander	<i>Ambystoma macrodactylum</i>	Ambystomatidae		yearlong	1
Pacific giant salamander	<i>Dicamptodon ensatus</i>	Ambystomatidae		yearlong	1
Rough-skinned newt	<i>Taricha granulosa</i>	Salamandridae		yearlong	1
Ensatina	<i>Ensatina eschscholtzi</i>	Plethodontidae		yearlong	1
Western toad	<i>Bufo boreas</i>	Bufonidae		yearlong	1,3
Pacific treefrog	<i>Hyla regilla</i>	Hylidae		yearlong	1,2,3
Bullfrog	<i>Rana catesbeiana</i>	Ranidae		yearlong	1,2,3

STATUS

- 1 = Federal Endangered
- 2 = Federal Threatened
- 3 = California Endangered
- 4 = California Threatened
- 5 = California Fully Protected
- 6 = Forest Service Sensitive
- 7 = BLM Sensitive
- 8 = CDFG Species of Special Concern
- 9 = Candidate for Federal Listing
- 10 = Rare - No Special Legal Status

SOURCES

- 1 = Wildlife Habitat Relationship Program
- 2 = CDPR n.d. McArthur-Burney Falls Resource Inventory
- 3 = Par Environmental Services, Inc. 1992. Pit 1 Project
Wildlife Studies (FERC No. 2687) Final Report

APPENDIX C
Animal Species: BIRDS
McArthur-Burney Falls Memorial State Park

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>FAMILY NAME</u>	<u>STATUS</u>	<u>SEASON</u>	<u>SOURCE</u>
Common loon	<i>Gavia immer</i>	Gaviidae		fall-spring	1,2,3,4,5,6
Western grebe	<i>Aechmophorus occidentalis</i>	Podicipedidae		yearlong	1,2,3,4,5,6
Eared grebe	<i>Podiceps capicus</i>	Podicipedidae		yearlong	1,2,4,5
Pie-billed grebe	<i>Podilymbus podiceps</i>	Podicipedidae		yearlong	1,2,4,5,6
American white pelican	<i>Pelecanus erythrorhynchos</i>	Pelecanidae		spring-fall	1,2,5
Double-crested cormorant	<i>Phalacrocorax auritus</i>	Phalacrocoracidae		yearlong	1,2,3,4,5,6
Great blue heron	<i>Ardea herodias</i>	Ardeidae		yearlong	1,2,3,4,5,6
Great egret	<i>Casmerodius albus</i>	Ardeidae		yearlong	2,4,5
American bittern	<i>Botaurus lentiginosus</i>	Ardeidae		fall-spring	1,2,4
Tundra swan	<i>Cygnus columbianus</i>	Anatidae		fall-spring	1,2,4,5
Canada goose	<i>Branta canadensis</i>	Anatidae		yearlong	1,2,4,5,6
Greater white-fronted goose	<i>Anser albifrons</i>	Anatidae		fall-spring	1,2
Snow goose	<i>Chen caerulescens</i>	Anatidae		fall-spring	1,2
Mallard	<i>Anas platyrhynchos</i>	Anatidae		yearlong	1,2,4,5,6
Gadwall	<i>Anas strepera</i>	Anatidae		yearlong	1,2,4,5
Northern pintail	<i>Anas acuta</i>	Anatidae		yearlong	1,2,4,5
Green-winged teal	<i>Anas crecca</i>	Anatidae		fall-spring	1,2,4,5
Cinnamon teal	<i>Anas cyanoptera</i>	Anatidae		yearlong	1,2,4,5
American widgeon	<i>Anas americana</i>	Anatidae		fall-spring	1,2,4,5
Wood duck	<i>Aix sponsa</i>	Anatidae		yearlong	1,2,4,5
Redhead	<i>Aythya americana</i>	Anatidae		fall-spring	1,2,4,5
Canvasback	<i>Aythya valisineria</i>	Anatidae		fall-spring	1,2,4,5
Lesser scaup	<i>Aythya affinis</i>	Anatidae		fall-spring	1,2,4,5
Barrow's goldeneye	<i>Bucephala islandica</i>	Anatidae	8	fall-spring	1,2,4
Common merganser	<i>Mergus merganser</i>	Anatidae		yearlong	1,2,3,4,5,6
Turkey vulture	<i>Cathartes aura</i>	Cathartidae		yearlong	1,2,3,4,5,6
Northern goshawk	<i>Accipiter gentilis</i>	Accipitridae	8	yearlong	1,2,4
Sharp-shinned hawk	<i>Accipiter striatus</i>	Accipitridae	8	yearlong	1,2,3,4,5
Cooper's hawk	<i>Accipiter cooperii</i>	Accipitridae	8	yearlong	1,3,4,5
Red-tailed hawk	<i>Buteo jamaicensis</i>	Accipitridae		yearlong	1,2,3,4,5,6
Golden eagle	<i>Aquila chrysaetos</i>	Accipitridae	8	yearlong	1,2,4,5
Bald eagle	<i>Haliaeetus leucocephalus</i>	Accipitridae	2,3	yearlong	1,2,3,4,5,6
Osprey	<i>Pandion haliaetus</i>	Pandionidae	8	yearlong	1,2,3,4,5,6
American kestrel	<i>Falco sparverius</i>	Falconidae	8	yearlong	1,2,3,4,5
Blue grouse	<i>Dendragapus obscurus</i>	Tetraonidae		yearlong	1,2,4
California quail	<i>Callipepla californicus</i>	Phasianidae		yearlong	1,2,4,5,6
Mountain quail	<i>Oreortyx pictus</i>	Phasianidae		yearlong	1,2,3,4,5
Turkey	<i>Meleagris gallopavo</i>	Meleagrididae		yearlong	1,2,4
Sandhill crane	<i>Grus canadensis</i>	Gruidae	4	yearlong	1,2
American coot	<i>Fulica americana</i>	Rallidae		yearlong	1,2,4,5,6
Virginia rail	<i>Rallus limicola</i>	Rallidae		yearlong	1,2,4
Semipalmated plover	<i>Charadrius semipalmatus</i>	Charadriidae		fall-winter	2
Killdeer	<i>Charadrius vociferus</i>	Charadriidae		yearlong	1,2,5
Common snipe	<i>Gallinago gallinago</i>	Scolopacidae		yearlong	1,2,5
Spotted sandpiper	<i>Actitis macularia</i>	Scolopacidae		yearlong	1,2,4,5,6
Marbled godwit	<i>Limosa fedoa</i>	Scolopacidae		winter	2

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>FAMILY NAME</u>	<u>STATUS</u>	<u>SEASON</u>	<u>SOURCE</u>
American avocet	<i>Recurvirostra americana</i>	Recurvirostridae		spring-fall	1,2,5
Herring gull	<i>Larus argentatus</i>	Laridae		fall-spring	1,2,4
California gull	<i>Larus californicus</i>	Laridae		spring &	1,2,4,5
Black tern	<i>Chionias niger</i>	Laridae	8	spring-	1,2,5
Band-tailed pigeon	<i>Columba fasciata</i>	Columbidae		yearlong	1,2,3,4,5,6
Mourning dove	<i>Zenaidura macroura</i>	Columbidae		yearlong	1,2,3,4,5,6
Barn owl	<i>Tyto alba</i>	Tytonidae		yearlong	1,2,4,5
Great horned owl	<i>Bubo virginianus</i>	Strigidae		yearlong	1,2,4,5
Common poor-will	<i>Phalaenoptilus nuttallii</i>	Caprimulgidae		spring-	2,4,5
Common nighthawk	<i>Chordeiles minor</i>	Caprimulgidae		spring-fall	1,2,4,5
Black swift	<i>Cyseloides niger</i>	Apodidae	8	spring-	1,2,3,4,6
Vaux's swift	<i>Chaetura vauxi</i>	Apodidae	8	spring-	1,3,4,5
Anna's hummingbird	<i>Calypte anna</i>	Trochilidae		yearlong	1,2,3,4,5
Rufous hummingbird	<i>Selasphorus rufus</i>	Trochilidae		spring &	1,4,5
Black-chinned hummingbird	<i>Archilochus alexandri</i>	Trochilidae		yearlong	2,4,5
Belted kingfisher	<i>Megasceryle alcyon</i>	Alcedinidae		yearlong	1,2,3,4,6
Northern flicker	<i>Colaptes auratus</i>	Picidae		yearlong	1,2,3,4,5,6
Pileated woodpecker	<i>Dryocopus pileatus</i>	Picidae		yearlong	1,2,3,4,6
Lewis' woodpecker	<i>Melanerpes lewis</i>	Picidae		yearlong	1,2,4,5
White-headed woodpecker	<i>Picoides albolarvatus</i>	Picidae		yearlong	1,2,3,4,5
Hairy woodpecker	<i>Picoides villosus</i>	Picidae		yearlong	1,2,3,4,5,6
Downy woodpecker	<i>Picoides pubescens</i>	Picidae		yearlong	1,2,3,4,5,6
Olive-sided flycatcher	<i>Contopus borealis</i>	Tyrannidae		spring-	1,2,3,4,6
Western wood peewee	<i>Contopus sordidulus</i>	Tyrannidae		spring-fall	1,2,3,4,5,6
Dusky flycatcher	<i>Empidonax oberholseri</i>	Tyrannidae		spring-	3,4
Pacific-slope flycatcher	<i>Empidonax difficilis</i>	Tyrannidae		spring-	1,2,3,4,5,6
Barn swallow	<i>Hirundo rustica</i>	Hirundinidae		spring-fall	1,2,3,4,6
Violet-green swallow	<i>Tachycineta thalassina</i>	Hirundinidae		spring-fall	1,2,3,4,5,6
Tree swallow	<i>Iridoprocne bicolor</i>	Hirundinidae		spring-fall	1,2,3,4,6
Bank swallow	<i>Riparia riparia</i>	Hirundinidae	4	spring-	1,2,5,6
Northern rough-winged swallow	<i>Stelgidopteryx serripennis</i>	Hirundinidae		spring-fall	1,2,3,4,5,6
Purple martin	<i>Progne subis</i>	Hirundinidae	8	spring-	1,2,4
Steller's jay	<i>Cyanocitta stelleri</i>	Corvidae		yearlong	1,2,3,4,5,6
Scrub jay	<i>Aphelocoma coerulescens</i>	Corvidae		yearlong	1,2,4,5
Common raven	<i>Corvus corax</i>	Corvidae		yearlong	1,2,3,4,5,6
Black-billed magpie	<i>Pica pica</i>	Corvidae		yearlong	2,4,5
Chestnut-backed chickadee	<i>Parus rufescens</i>	Paridae		yearlong	1,2,3,4,6
Mountain chickadee	<i>Parus gambeli</i>	Paridae		yearlong	1,2,3,4,5,6
Bushtit	<i>Psaltirparus minimus</i>	Aegithalidae		yearlong	1,2,3,4,5
White-breasted nuthatch	<i>Sitta carolinensis</i>	Sittidae		yearlong	1,2,3,4,5,6
Red-breasted nuthatch	<i>Sitta canadensis</i>	Sittidae		yearlong	1,2,3,4,5,6
Pygmy nuthatch	<i>Sitta pygmaea</i>	Sittidae		yearlong	1,2,3,4,5,6
Brown creeper	<i>Certhia americana</i>	Certhidae		yearlong	1,2,3,4,5,6
American dipper	<i>Cinclus mexicanus</i>	Cinclidae		yearlong	1,2,3,4,5,6
Canyon wren	<i>Salpinctes obsoletus</i>	Troglodytidae		yearlong	2,4
House wren	<i>Troglodytes aedon</i>	Troglodytidae		spring-	1,2,3,4,5,6
American robin	<i>Turdus migratorius</i>	Muscicapidae		yearlong	1,2,3,4,5,6
Varied thrush	<i>Ixoreus naevius</i>	Muscicapidae		fall-spring	1,2,4
Western bluebird	<i>Sialia mexicana</i>	Muscicapidae		yearlong	1,2,3,4,5

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>FAMILY NAME</u>	<u>STATUS</u>	<u>SEASON</u>	<u>SOURCE</u>
Mountain bluebird	<i>Sialia currucoides</i>	Muscicapidae		yearlong	1,2,4,5
Townsend's solitaire	<i>Myadestes townsendi</i>	Muscicapidae		yearlong	1,2,3,4,5,6
Ruby-crowned kinglet	<i>Regulus calendula</i>	Muscicapidae		yearlong	1,2,3,4,5,6
American pipit	<i>Anthus rubescens</i>	Motacillidae		yearlong	1,2,4,5
Cedar waxwing	<i>Bombycilla cedrorum</i>	Bombycillidae		yearlong	1,2,3,4,5
European starling	<i>Sturnus vulgaris</i>	Sturnidae		yearlong	1,2,3,4,5
Warbling vireo	<i>Vireo gilvus</i>	Vireonidae		spring-	1,2,3,4,5,6
Solitary vireo	<i>Vireo solitarius</i>	Vireonidae		spring-	1,2,3,4,5,6
Nashville warbler	<i>Vermivora ruficapilla</i>	Emberizidae		spring-	1,2,3,4,5,6
Yellow-rumped warbler	<i>Dendroica coronata</i>	Emberizidae		yearlong	1,2,3,4,5,6
House sparrow	<i>Passer domesticus</i>	Passeridae		yearlong	1,3,4,5
Western meadowlark	<i>Sturnella neglecta</i>	Emberizidae		yearlong	1,2,4,5
Red-winged blackbird	<i>Agelaius phoeniceus</i>	Emberizidae		yearlong	1,2,4,5
Brewer's blackbird	<i>Euphagus cyanocephalus</i>	Emberizidae		yearlong	1,2,3,4,5,6
Northern oriole	<i>Icterus galbula</i>	Emberizidae		spring-	1,2,3,4,5,6
Western tanager	<i>Piranga ludoviciana</i>	Emberizidae		spring-fall	1,2,3,4,5,6
Black-headed grosbeak	<i>Pheucticus melanocephalus</i>	Emberizidae		spring-fall	1,2,3,4,5,6
Evening grosbeak	<i>Coccothraustes vespertinus</i>	Fringillidae		yearlong	1,2,3,4
Purple finch	<i>Carpodacus purpureus</i>	Fringillidae		yearlong	1,2,3,4,5,6
Cassin's finch	<i>Carpodacus cassinii</i>	Fringillidae		yearlong	1,2,3,4,5,6
Pine siskin	<i>Carduelis pinus</i>	Fringillidae		yearlong	1,2,3,4,6
Lesser goldfinch	<i>Carduelis psaltria</i>	Fringillidae		yearlong	1,2,3,4,5
Rufous-sided towhee	<i>Pipilo crissalis</i>	Emberizidae		yearlong	1,2,3,4,5,6
Lark sparrow	<i>Chondestes grammacus</i>	Emberizidae		yearlong	1,2,4,5
Dark-eyed junco	<i>Junco hyemalis</i>	Emberizidae		yearlong	1,2,3,4,5,6
Chipping sparrow	<i>Spizella passerina</i>	Emberizidae		spring-fall	1,2,3,4,5,6
White-crowned sparrow	<i>Zonotrichia leucophrys</i>	Emberizidae		fall-spring	1,2,4,5,6
Song sparrow	<i>Melospiza melodia</i>	Emberizidae		yearlong	1,2,3,4,5,6
Orange-crowned warbler	<i>Vermivora celata</i>	Emberizidae		yearlong	1,3,4,5,6
Black-throated gray warbler	<i>Dendroica nigrescens</i>	Emberizidae		spring-	1,3,4,5,6
Townsend's warbler	<i>Dendroica townsendi</i>	Emberizidae		spring	1,3,4
Hermit warbler	<i>Dendroica occidentalis</i>	Emberizidae		spring-	1,3,4,6
Yellow warbler	<i>Dendroica petechia</i>	Emberizidae	8	spring-fall	1,3,4,5,6
Brown-headed cowbird	<i>Molothrus ater</i>	Emberizidae		yearlong	1,3,4,5,6
House finch	<i>Carpodacus mexicanus</i>	Fringillidae		yearlong	1,3,4,5
Red crossbill	<i>Loxia curvirostra</i>	Fringillidae		yearlong	1,3,4,5
American goldfinch	<i>Carduelis tristis</i>	Fringillidae		fall-spring	1,3,4,5
Horned grebe	<i>Podiceps auritus</i>	Podicipedidae		fall-spring	1,4,5
Black-crowned night heron	<i>Nycticorax nycticorax</i>	Ardeidae		yearlong	1,4,5
Ross' goose	<i>Chen rossii</i>	Anatidae		fall-spring	1
Northern shoveler	<i>Anas clypeata</i>	Anatidae		yearlong	1,4,5
Eurasian wigeon	<i>Anas penelope</i>	Anatidae		fall-winter	1
Ring-necked duck	<i>Aythya collaris</i>	Anatidae		fall-spring	1,4,5
Greater scaup	<i>Aythya marila</i>	Anatida		fall-spring	1,4
Common goldeneye	<i>Bucephala clangula</i>	Anatidae		fall-spring	1,4,5
Bufflehead	<i>Bucephala albeola</i>	Anatidae		yearlong	1,2,4,5
Hooded merganser	<i>Lophodytes cucullatus</i>	Anatidae		fall-winter	1,4,5
Ruddy duck	<i>Oxyura jamaicensis</i>	Anatidae		yearlong	1,2,4,5
Northern harrier	<i>Circus cyaneus</i>	Accipitridae	8	yearlong	1,2,3,4,5

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>FAMILY NAME</u>	<u>STATUS</u>	<u>SEASON</u>	<u>SOURCE</u>
Rough-legged hawk	<i>Buteo lagopus</i>	Accipitridae		fall-winter	1,4,5
Peregrine falcon	<i>Falco peregrinus</i>	Falconidae	1,3,5	winter	1,4,5
Black-necked stilt	<i>Himantopus mexicanus</i>	Recurvirostridae		spring-fall	1,5
Willet	<i>Catoptrophorus semipalmatus</i>	Scolopacidae		spring-fall	1,2,4
Wilson's phalarope	<i>Phalaropus tricolor</i>	Phalaropodidae		spring-fall	1,5
Bonaparte's gull	<i>Larus philadelphia</i>	Laridae		spring &	1,4,5
Ring-billed gull	<i>Larus delawarensis</i>	Laridae		yearlong	1,4,5
Forster's tern	<i>Sterna forsteri</i>	Laridae		spring-fall	1,4,5
Rock dove	<i>Columba livia</i>	Columbidae		yearlong	1,4,5
Flammulated owl	<i>Otus flammeolus</i>	Strigidae		spring-	1,4,5,6
Western screech owl	<i>Otus kennicottii</i>	Strigidae		yearlong	1,4,5
Northern pygmy owl	<i>Glaucidium gnoma</i>	Strigidae		yearlong	1,2,4
Spotted owl	<i>Strix occidentalis</i>	Strigidae	2,8	yearlong	1,4
Northern saw-whet owl	<i>Aegolius acadicus</i>	Strigidae		yearlong	1,4
Calliope hummingbird	<i>Sternellula calliope</i>	Trochilidae		yearlong	1,4
Acom woodpecker	<i>Melanerpes formicivorus</i>	Picidae		yearlong	1,3,4,5,6
Red-breasted sapsucker	<i>Sphyrapicus ruber</i>	Picidae		yearlong	1,3,4,5
Williamson's sapsucker	<i>Sphyrapicus thyroideus</i>	Picidae		yearlong	1,3,4
Nuttall's woodpecker	<i>Picoides nuttallii</i>	Picidae		yearlong	1,4,5
Black phoebe	<i>Sayornis nigricans</i>	Tyrannidae		yearlong	1,4,5
Western kingbird	<i>Tyrannus verticalis</i>	Tyrannidae		spring-fall	1,5
Cliff swallow	<i>Hirundo pyrrhonota</i>	Hirundinidae		spring-fall	1,2,4,6
American crow	<i>Corvus brachyrhynchos</i>	Corvidae		yearlong	1,4,5,9
Plain titmouse	<i>Parus inornatus</i>	Paridae		yearlong	1,4,5
Rock wren	<i>Salpinctes obsoletus</i>	Troglodytidae		yearlong	1,2,4,5
Bewick's wren	<i>Thryomnes bewickii</i>	Troglodytidae		yearlong	1,4,5
Winter wren	<i>Troglodytes troglodytes</i>	Troglodytidae		yearlong	1,4,5
Swainson's thrush	<i>Catharus ustulatus</i>	Muscicapidae		spring-fall	1,4
Hermit thrush	<i>Catharus guttatus</i>	Muscicapidae		yearlong	1,2,4,5
Wrentit	<i>Chamaea fasciata</i>	Muscicapidae		yearlong	1,4,5
Northern shrike	<i>Lanius excubitor</i>	Laniidae		fall-winter	1
Loggerhead shrike	<i>Lanius ludovicianus</i>	Laniidae	8	yearlong	1,5
Hutton's vireo	<i>Vireo huttoni</i>	Vireonidae		fall-winter	1,2,3,4
MacGillivray's warbler	<i>Oporornis tolmiei</i>	Emberizidae		spring-	1,4
Common yellowthroat	<i>Geothlypis trichas</i>	Emberizidae		spring-fall	1,4,5
Wilson's warbler	<i>Wilsonia pusilla</i>	Emberizidae		spring-fall	1,4,5
Lazuli bunting	<i>Passerina amoena</i>	Emberizidae		spring-fall	1,4,5
Green-tailed towhee	<i>Pipilo chlorurus</i>	Emberizidae		spring-	1,4,5
Savannah sparrow	<i>Passerculus sandwichensis</i>	Emberizidae		yearlong	1,4,5,6
Lincoln's sparrow	<i>Melospiza lincolni</i>	Emberizidae		yearlong	1,4,5
Golden-crowned sparrow	<i>Zonotrichia atricapilla</i>	Emberizidae		fall-spring	1,4,5,6
Yellow-headed blackbird	<i>Xanthocephalus</i>	Emberizidae		yearlong	1
Lawrence's goldfinch	<i>Carduelis lawrencei</i>	Fringillidae		spring-	1,4,5
Fox sparrow	<i>Passerella iliaca</i>	Emberizidae		yearlong	1,4,5,6
Clark's grebe	<i>Aechmophorus clarkii</i>	Podicipedidae			5
White-throated swift	<i>Aeronautes saxatalis</i>	Apodidae			5
Tricolored blackbird	<i>Agelaius tricolor</i>	Emberizidae	8		5
Grasshopper sparrow	<i>Ammodramus savannarum</i>	Emberizidae			4,5
Red-shouldered hawk	<i>Buteo lineatus</i>	Accipitridae			4,5

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>FAMILY NAME</u>	<u>STATUS</u>	<u>SEASON</u>	<u>SOURCE</u>
Swainson's hawk	<i>Buteo swainsoni</i>	Accipitridae	4		5
Dunlin	<i>Calidris alpina</i>	Scolopacidae			5
Pectoral sandpiper	<i>Calidris melanotos</i>	Scolopacidae			5
Least sandpiper	<i>Calidris minutilla</i>	Scolopacidae			5
Canyon Wren	<i>Catherpes mexicanus</i>	Troglodytidae			4,5
Prairie Falcon	<i>Falco mexicanus</i>	Falconidae	8		4,5
Common moorhen	<i>Gallinula chloropus</i>	Rallidae			5
Yellow-breasted chat	<i>Icteria virens</i>	Emberizidae	8		4,5
Least bittern	<i>Ixobrychus exilis</i>	Ardeidae			4,5
Ring-necked pheasant	<i>Phasianus colchicus</i>	Phasianidae			5
Black-backed woodpecker	<i>Picoides arcticus</i>	Picidae			4,5
Red-necked grebe	<i>Podiceps grisegena</i>	Podicipedidae			5
Vesper sparrow	<i>Poocetes gramineus</i>	Emberizidae			4,5
Brewer's sparrow	<i>Sphyrapicus ruber</i>	Emberizidae			5
Greater yellowlegs	<i>Tringa melanoleuca</i>	Scolopacidae			5
Green heron	<i>Butorides virescens</i>	Ardeidae		yearlong	2,4,5,6

STATUS

SOURCES

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4 = California Threatened

5 = California Protected

6 = Forest Service Sensitive

7 = BLM Sensitive

8 = CDFG Species of Spec. Concern

9 = Candidate for Federal Listing

10 = Rare - No Special Legal Status

1 = Wildlife Habitat Relationship Program

2 = Unit Bird List, 1978

3 = Harris, S. 1994, field notes, pers comm

4 = Bird Checklist Shasta-Trinity N.F. 1993. U.S.D.A. Forest Service

5 = Par Env Svcs, Inc. 1992, Pit 1 Proj Wildlife Studies (FERC #268) Final Report

6 = Waldron, G. 1995. Field observation

APPENDIX C
Animal Species: MAMMALS
McArthur-Burney Falls Memorial State Park

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>FAMILY</u>	<u>STATUS</u>	<u>SEASON</u>	<u>SOURCE</u>
Virginia opossum	<i>Didelphis virginiana</i>	Didelphidae		yearlong	1,2
Vagrant shrew	<i>Sorex vagrans</i>	Soricidae		yearlong	1
Water shrew	<i>Sorex palustris</i>	Soricidae		yearlong	1
Trowbridge's shrew	<i>Sorex trowbridgii</i>	Soricidae		yearlong	1,2
Broad-footed mole	<i>Scapanus latimanus</i>	Talpidae		yearlong	1,2,4
Little brown myotis	<i>Myotis lucifugus</i>	Vespertilionidae		yearlong	1,3
Yuma myotis	<i>Myotis yumanensis</i>	Vespertilionidae		yearlong	1,3
Long-eared myotis	<i>Myotis evotis</i>	Vespertilionidae		yearlong	1
Fringed myotis	<i>Myotis thysanodes</i>	Vespertilionidae		yearlong	1,3
Long-legged myotis	<i>Myotis volans</i>	Vespertilionidae		yearlong	1,3
California myotis	<i>Myotis californicus</i>	Vespertilionidae		yearlong	1,3
Small-footed myotis	<i>Myotis leibii</i>	Vespertilionidae		yearlong	1,3
Silver-haired bat	<i>Lasiorycteris noctivagans</i>	Vespertilionidae		yearlong	1,3
Big brown bat	<i>Eptesicus fuscus</i>	Vespertilionidae		yearlong	1
Hoary bat	<i>Lasiurus cinereus</i>	Vespertilionidae		yearlong	1
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	Vespertilionidae	8	yearlong	1,3
Pallid bat	<i>Antrozous pallidus</i>	Vespertilionidae	8	yearlong	1
Brazilian free-tailed bat	<i>Tadarida brasiliensis</i>	Molossidae		yearlong	1
Nuttall's cottontail	<i>Sylvilagus nuttallii</i>	Leporidae		yearlong	1,2
Snowshoe hare	<i>Lepus americanus</i>	Leporidae	8	yearlong	1
Black-tailed hare	<i>Lepus californicus</i>	Leporidae		yearlong	1,2,4
Mountain beaver	<i>Aplodontia rufa</i>	Aplodontidae	8	yearlong	1
Yellow-pine chipmunk	<i>Tamias amoenus</i>	Sciuridae		yearlong	1,2,5
Yellow-bellied marmot	<i>Marmota flaviventris</i>	Sciuridae		yearlong	1,2,4
California ground squirrel	<i>Spermophilus beecheyi</i>	Sciuridae		yearlong	1,2,4
Western gray squirrel	<i>Sciurus griseus</i>	Sciuridae		yearlong	1,2,4
Douglas' squirrel	<i>Tamiasciurus douglasii</i>	Sciuridae		yearlong	1,2,4
Northern flying squirrel	<i>Glaucomys sabrinus</i>	Sciuridae	8	yearlong	1
Botta's pocket golpher	<i>Thomomys bottae</i>	Geomyidae		yearlong	1,4
Great Basin pocket mouse	<i>Perognathus parvus</i>	Heteromyidae		yearlong	1
California kangaroo rat	<i>Dipodomys californicus</i>	Heteromyidae		yearlong	1,2
Beaver	<i>Castor canadensis</i>	Castoridae		yearlong	1,2,4
Western harvest mouse	<i>Reithrodontomys</i>	Cricetidae		yearlong	1
Deer mouse	<i>Peromyscus maniculatus</i>	Cricetidae		yearlong	1,2,4
Brush mouse	<i>Peromyscus boylii</i>	Cricetidae		yearlong	1
Bushy-tailed woodrat	<i>Neotoma cinerea</i>	Cricetidae		yearlong	1
Long-tailed vole	<i>Microtus longicaudus</i>	Cricetidae		yearlong	1
Muskrat	<i>Ondatra zibethicus</i>	Cricetidae		yearlong	1,2,4
House mouse	<i>Mus musculus</i>	Muridae		yearlong	1
Porcupine	<i>Erethizon dorsatum</i>	Erethizontidae		yearlong	1,2
Coyote	<i>Canis latrans</i>	Canidae		yearlong	1,2,5
Gray fox	<i>Urocyon cinereoargenteus</i>	Canidae		yearlong	1,2,5
Black bear	<i>Ursus americanus</i>	Ursidae		yearlong	1,2
Ringtail	<i>Bassariscus astutus</i>	Procyonidae	5	yearlong	1,2,4
Raccoon	<i>Procyon lotor</i>	Procyonidae		yearlong	1,2,4,5

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>FAMILY</u>	<u>STATUS</u>	<u>SEASON</u>	<u>SOURCE</u>
Ermine	<i>Mustela erminea</i>	Mustelidae		yearlong	1,4
Long-tailed weasel	<i>Mustela frenata</i>	Mustelidae		yearlong	1,2,4
Mink	<i>Mustela vison</i>	Mustelidae		yearlong	1,2
Badger	<i>Taxidea taxus</i>	Mustelidae	8	yearlong	1,2,4
Western spotted skunk	<i>Spilogale gracilis</i>	Mustelidae		yearlong	1,2,4,5
Striped skunk	<i>Mephitis mephitis</i>	Mustelidae		yearlong	1,2,4
River otter	<i>Lutra canadensis</i>	Mustelidae	8	yearlong	1,2,4,5
Mountain lion	<i>Felis concolor</i>	Felidae	5	yearlong	1,2,4
Bobcat	<i>Felis rufus</i>	Felidae		yearlong	1,2,4
Elk	<i>Cervus elaphus</i>	Cervidae		yearlong	1,2
Mule deer	<i>Odocoileus hemionus</i>	Cervidae		yearlong	1,2,4,5
Pika	<i>Ochotona princeps</i>	Ochotonidae		yearlong	1

STATUS

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- 8 = CDFG Species of Special Concern
- 9 = Candidate for Federal Listing
- 10 = Rare - No Special Legal Status

SOURCES

- 1 = Wildlife Habitat Relationship Program
- 2 = CDPR n.d. Resource Inventory, McArthur-Burney Falls Memorial State Park
- 3 = Museum of Vertebrate Zoology, U.C. Berkeley 1995, Museum Data Base
- 4 = Par Environmental Svcs., Inc. 1992. Pit 1 Project Wildlife Studies (FERC No. 2687)
- 5 = Waldron, G. 1995, Field observations.

APPENDIX C
Animal Species: REPTILES
McArthur-Burney Falls Memorial State Park

<u>Common Name</u>	<u>Scientific Name</u>	<u>Family</u>	<u>Status</u>	<u>Season</u>	<u>Source</u>
Western pond turtle	<i>Clemmys marmorata</i>	Emydidae	8	yearlong	1,2,3
Western fence lizard	<i>Sceloporus occidentalis</i>	Iguanidae		yearlong	1,2,3
Sagebrush lizard	<i>Sceloporus graciosus</i>	Iguanidae		yearlong	1
Western skink	<i>Eumeces skiltonianus</i>	Scincidae		yearlong	1,2,3
Western whiptail	<i>Cnemidophorus tigris</i>	Teiidae		yearlong	1
Southern alligator lizard	<i>Gerrhonotus</i>	Anguidae		yearlong	1
Northern alligator lizard	<i>Gerrhonotus coeruleus</i>	Anguidae		yearlong	1,2
Rubber boa	<i>Charina bottae</i>	Boidae		yearlong	1,2
Ringneck snake	<i>Diadophis punctatus</i>	Colubridae		yearlong	1
Sharp-tailed snake	<i>Contia tenuis</i>	Colubridae		yearlong	1
Racer	<i>Coluber constrictor</i>	Colubridae		yearlong	1,2
Gopher snake	<i>Pituophis melanoleucus</i>	Colubridae		yearlong	1,3
Common kingsnake	<i>Lampropeltis getulus</i>	Colubridae		yearlong	1,2
California mountain kingsnake	<i>Lampropeltis zonata</i>	Colubridae		yearlong	1,2
Common garter snake	<i>Thamnophis sirtalis</i>	Colubridae		yearlong	1
Western terrestrial garter snake	<i>Thamnophis elegans</i>	Colubridae		yearlong	1,3
Western aquatic garter snake	<i>Thamnophis couchi</i>	Colubridae		yearlong	1,3
Western rattlesnake	<i>Crotalus viridis</i>	Viperidae		yearlong	1,2,3

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- 9 = Candidate for Federal Listing
- 10 = Rare - No Special Legal Status

SOURCES

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- 2 = CDPR n.d. McArthur-Burney Falls Resource Inventory
- 3 = Par Environmental Services, Inc. 1992. Pit 1 Project
Wildlife Studies (FERC No. 2687) Final Report

Appendix D

Crosswalk between Wildlife Habitat Relationship (WHR) system and Terrestrial Plant Communities (Holland 1986) for McArthur-Burney Falls Memorial State Park.

<u>WHR Habitat Type</u>	<u>Terrestrial Plant Community</u>
Sierran Mixed Conifer	Sierran Mixed Coniferous Forest
Ponderosa Pine	Westside Ponderosa Pine Forest
Montane Hardwood-Conifer	Ponderosa Pine/Oak Woodland Association
Montane Hardwood	Black Oak Woodland
Montane Riparian	Willow-Ash Riparian Forest
	Alder-Vine Maple-Ash Riparian Forest
Montane Chaparral	Montane Manzanita Chaparral
	Mt. Mahogany Chaparral
Wet Meadow	Montane Dry Meadow
Riverine	No Analogue
Lacustrine	No Analogue

APPENDIX E

Sensitive animals likely to occur at McArthur-Burney Falls Memorial State Park

<u>Name</u>	<u>Status Code*</u>	<u>Habitat</u>
Pale big-eared bat <i>Corynorhinus townsendii pallescens</i>	CSC	variable
Pallid bat <i>Antrozous pallidus</i>	CSC	montane hardwood, ponderosa pine
Ringtail <i>Bassaricus astutus</i>	CFP	variable
American badger <i>Taxidea taxus</i>	CSC	early seral stage of ponderosa pine, montane hardwood, Sierran mixed-conifer, and montane chaparral
Mountain lion <i>Felis concolor</i>	0	variable
Bald eagle <i>Haliaeetus leucocephalus</i>	FT, CE	Sierran mixed-conifer, ponderosa pine, montane hardwood-conifer, montane hardwood, wet meadow, lacustrine
Northern goshawk <i>Accipiter gentilis</i>	CSC	forested areas, woodlands and montane riparian
Cooper's hawk <i>Accipiter cooperi</i>	CSC	variable
Sharp-shinned hawk <i>Accipiter striatus</i>	CSC	variable

Appendix E. Sensitive Animals likely to occur at McArthur-Burney Falls Memorial State Park (continued)

<u>Name</u>	<u>Status Code*</u>	<u>Habitat</u>
Osprey <i>Pandion haliaetus</i>	CSC	lacustrine, riverine, Sierra mixed-conifer, ponderosa pine, riparian
Golden eagle <i>Aquila chrysaetos</i>	CSC, CFP	variable,
American peregrine falcon <i>Falco peregrinus anatum</i>	FE, SE	variable
Black swift <i>Cypseloides niger</i>	CSC	variable; nest behind waterfall
Vaux's swift <i>Chaetura vauxi</i>	CSC	forested areas, especially with large diameter trees and snag for nesting
Purple martin especially <i>Progne subis</i> for nesting	CSC	forested areas, with snags
Yellow warbler <i>Dendroica petechia brewsteri</i>	CSC	willow/cottonwood riparian forest, montane hardwood
Western pond turtle <i>Clemmys marmorata</i>	CSC	montane riparian, wet meadow, riverine, lacustrine
Foothill yellow-legged frog riverine <i>Rana boylei</i>	CSC	wet meadow,
Tiger salamander <i>Ambystoma californiense</i>	C, CS	wet meadow with adjacent dry upland sites for dry season burrows

Appendix E. Sensitive Animals likely to occur at McArthur-Burney Falls
Memorial State Park (continued).

* STATUS CODES:

- CE Listed as Endangered in the State of California
- CSC California Department of Fish and Game Species of Special Concern
- CFP A California Department of Fish and Game "fully protected" species, as described in Fish and Game Code Section 4700 of Chapter 8, Section 5050 of Chapter 2, Division 6, Chapter 1, Section 5515. (Note: there are other fully protected species not included on the Special Animal List)
- FE Listed as Endangered by the Federal Government
- FT Listed as Threatened by the Federal Government
- FC Candidate for Federal listing. (Taxa for which the U.S. Fish and Wildlife Service has sufficient biological information to support a proposal to list as Endangered or Threatened).
- O Other - Species of special management concern for the Department of Parks and Recreation in McArthur-Burney Falls Memorial State Park

APPENDIX F
Animal Life: FISH
Fish Species Recorded in Burney Creek, Shasta County, CA.

Common Name	Scientific Name	Family Name
Pit-Klamath brook lamprey	<i>Lampetra lethophaga</i>	Petromyzonidae
Rainbow trout	<i>Oncorhynchus mykiss</i>	Salmonidae
Brown trout	<i>Salmo trutta</i>	Salmonidae
Eastern brook trout	<i>Salvelinus fontinalis</i>	Salmonidae
Golden shiner	<i>Notemigonus crysoleucas</i>	Cyprinidae
California roach	<i>Hesperoleucus symmetricus</i>	Cyprinidae
Speckled dace	<i>Rhinichthys osculus</i>	Cyprinidae
Brown bullhead	<i>Ictalurus nebulosus</i>	Ictalridae
Black bullhead	<i>Ictalurus melas</i>	Ictalridae
Bluegill	<i>Lepomis macrochirus</i>	Centrarchidae
Largemouth bass	<i>Micropterus salmoides</i>	Centrarchidae
Pit sculin	<i>Cottus pitensis</i>	Cottidae
Marble sculpin	<i>Cottus klamathensis</i>	Cottidae
Riffle sculpin	<i>Cottus gulosus</i>	Cottidae

APPENDIX G

STATE PARK CLASSIFICATION POLICY

5019.53. State Parks. State Parks consist of relatively spacious areas of outstanding scenic or natural character, oftentimes also containing significant historical, archaeological, 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.

APPENDIX H RECREATION USE STATISTICS

Charts 1 and 2 summarize attendance statistics at the park from 1983 to 1995. Chart 1 shows statistics for overnight use. This chart indicates the number of people who camp in the park has been very stable over the last 12 years. The average ($\bar{X}$) has been 62,864 visitor-nights per year. Overnight attendance has varied from a low of 56,836 in 1985, to a high of 67,146 in 1990. The "moving range" (mR) shows the absolute value of the change from year to year. The average change (mR) from one year to the next is 3,429.

Chart 1 shows an "upper control limit" (UCL) of 71,986 overnight visitors. This number, from statistics theory, represents three standard deviations from the average. For a stable system with normal variation, the upper control limit is a prediction that is 99.7% reliable. The "system" here includes facilities, operations, visitor desires, and everything else that affects decisions to go camping at Burney Falls. Family camping has been on reservation since 1983. If this system continues as it is, there are only three chances in 1000 that overnight use will exceed 71,986 people. The "lower control limit" (LCL) of 53,742 represents a similar prediction.

The statistical control limits are not to be confused with the park rules or physical limits of the campground. Visitors occupy all 128 family campsites every weekend and most weeknights from mid-June to Labor Day. Up to 8 people can occupy a campsite. The average number of people per campsite is 4.6. A full campground during most summer nights provides much of the stability seen in the data. July attendance averages 16,285 visitors. The control limits for July take the average plus or minus 118. There is more variation in the amount of overnight use during the "shoulder seasons." In October, the average falls to 3,181, but the control limits are $\pm$ 675. The park is open to camping every day of the year, though it may close briefly during major winter storms. In January, the average number overnight visitors is 34 for the entire month, with an upper control limit of 81.

Chart 2 presents information on paid day use visits to the park. The existing contact station was built in 1962. Since 1983, the average attendance ($\bar{X}$) has been 104,163. The first six years were below this average. The average change from year to year (mR) is 4,537. In 1989, total day use attendance was 117,014. This was significant because it exceeded the calculated upper control limit (UCL) of 116,233. There was nothing unusual or unique about 1989. It is believed that 1989 was a sign of a long term trend for increased day use. A fee increase and an economic recession in the early 1990s may have had a depressing influence on day use attendance. However, a sustained direction of increased day use is apparent when attendance data is grouped in seven-year blocks.

The 1989 data in Chart 2, and the long-term trends in Table 1 on the next page, strongly support the general plan proposal for a modest increase in the amount of day use parking.

Table 1. Total Day Use Visitors to McArthur-Burney Falls Memorial State Park

Years	Total Visitors	Average	Net Increase	% Increase
1961 to 1987	524,951	74,993	--	--
1988 to 1974	807,282	115,326	40,333	40.0
1975 to 1981	895,646	127,949	12,623	10.0
1982 to 1988	926,372	132,339	4,390	3.3
1989 to 1995	979,739	139,963	7,624	5.5

Table 1 combines paid day use with estimates of free day use. Free day use includes visitors with 10-minute passes, those who walk in, and those who fail to pay entrance fees in the off-season. What is apparent is a durable popularity to the park, and a growing demand for day use. Increased day use at the park correlates with other long-term trends for increased tourism, population growth, and economic activity in northeast California.

Potential day use visitors are turned away at the entrance when the parking lots are full. For the past several years, this has happened every Memorial Day weekend, July 4th, and Labor Day weekend, as well as on two to four other weekends each summer. Since 1983, an average of 925 vehicles are turned away at the contact station each year. At times of peak congestion, park staff must turn away an uncounted number of vehicles at the park entrance on Highway 89. Turnaways of potential campers average 1450 vehicles annually at the contact station. Many more people are deterred at the time they seek a camping reservation. The reservation service does not record the number of requests for campsites.

CHART 1. OVERNIGHT ATTENDANCE AT BURNEY FALLS

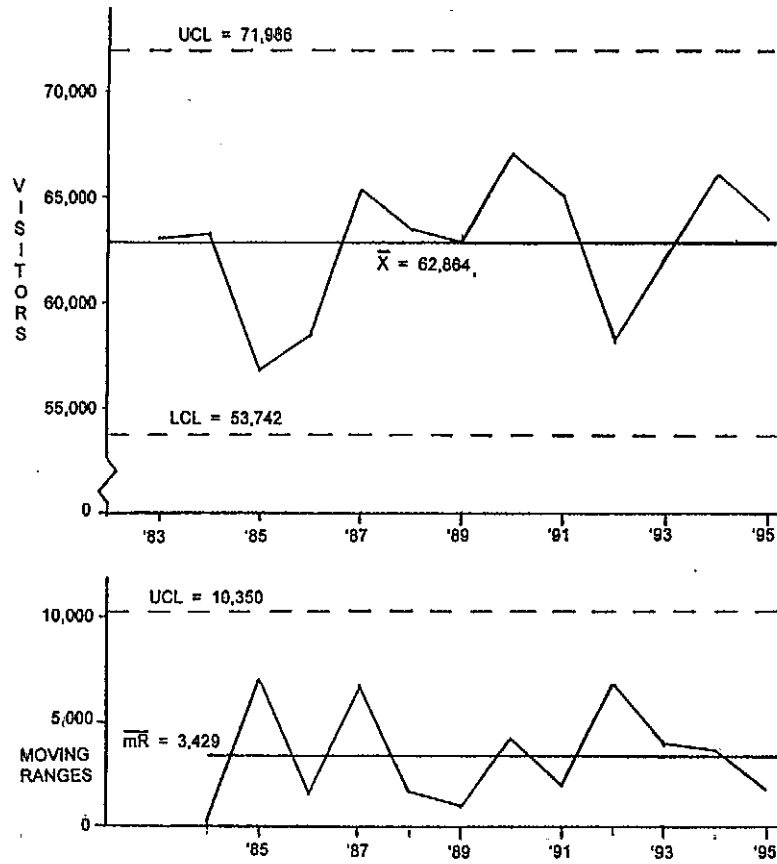
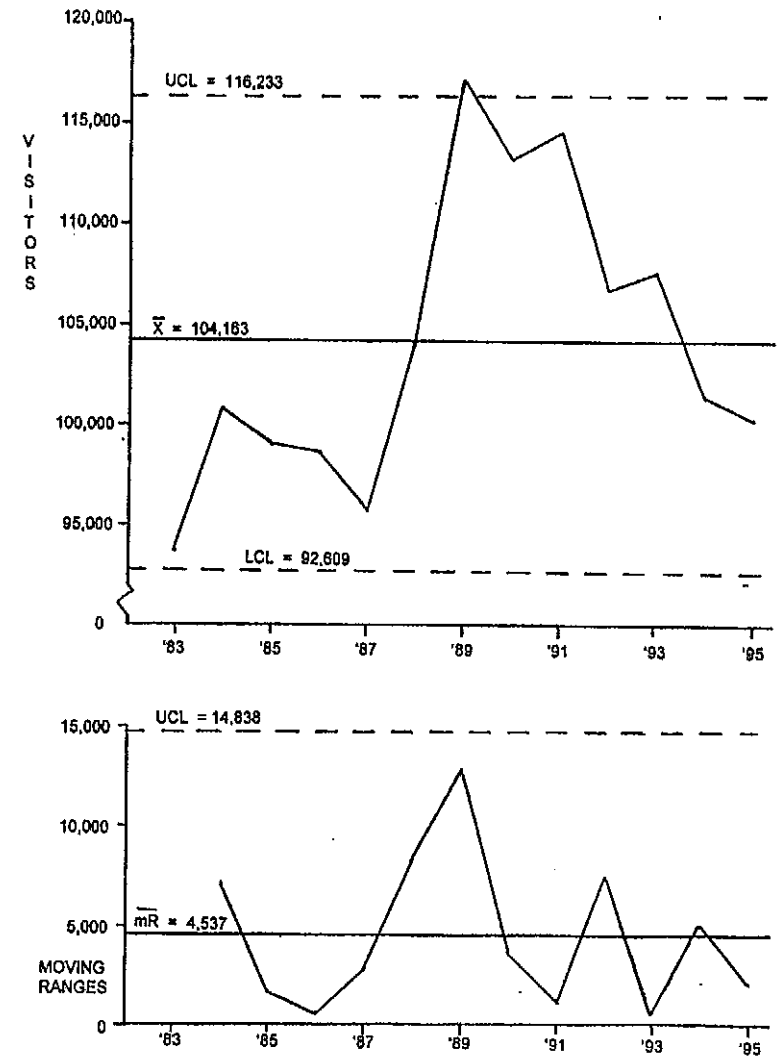


CHART 2. PAID DAY USE ATTENDANCE AT BURNEY FALLS



APPENDIX I
GENERAL PLAN NEWSLETTERS

McARTHUR-BURNEY FALLS MEMORIAL STATE PARK GENERAL PLAN NEWSLETTER

Newsletter #1

June 16, 1995

Do You Ever Wonder . .

- * WHY DOES THE PARK ENTRANCE GET SO BACKED UP?
- * WHY ARE THE PARK'S FACILITIES CROWDED NEAR THE FALLS?
- * WHAT BENEFITS DOES THE PARK PROVIDE TO THE BURNEY AREA?
- * WOULD A PERSON BE ABLE TO GET A WHEELCHAIR DOWN TO THE FALLS OBSERVATION PLATFORM ALL ALONE?
- * WHAT DOES THE PARK DO TO PROTECT THE BALD EAGLES?

Public Meetings Begin for the Park's General Plan

These and other questions will be taken up as State Park planners begin public involvement meetings for the McArthur-Burney Falls Memorial State Park General Plan. The General Planning Team will hold the first public meeting at the park's campfire center on Thursday evening, July 13, at 7:30 P.M.

What is a General Plan?

By law, general plans have to be completed for state parks before they can receive funding for major improvements. A general plan provides an opportunity to inventory and assess the condition of a park's natural, cultural, and recreational resources. It evaluates the best course for future resource management, facilities and interpretive development, and park operations for the subsequent 15 to 20 years.

The Planning Process

The planning process employed by State Park general planners has several phases. The first is information gathering. After a sufficient data base has been compiled and critical issues have been identified, the general planning team develops alternative plans that could resolve the issues. This is followed by the selection of a single best plan. That plan becomes the draft that is submitted to public agencies and interested individuals during the CEQA (California Environmental Quality Act) review. After the general planning team has responded to comments received during the CEQA review, the State Parks and Recreation Commission hears the plan to approve it. It is only after this approval that the general plan can be considered final.

(continued on page 2)

Page 1

Public Meetings Begin *(cont. from page 1)*

The Public Involvement Process

The Department makes every effort to assess public needs and opinions during the planning process. It consults the Department's Visitor Satisfaction Surveys and also convenes open workshops that occur during the preparation of the plan. These permit the public to voice concerns about the park and help to guide the development of general plan proposals. The CEQA review and open Commission hearing provide further opportunities for public comment.

What You Can Do

Come meet the General Planning Team on July 13th and let us know what you think. There will be a sign-in sheet available to you so that we can keep you informed about future public meetings and the progress of the general plan through additional newsletters like this one.

If you have any questions about the public meeting or the general plan, or if you would like to make comments and will not be able to attend the public meeting, call Bob Acrea at the Department's Northern Service Center in Sacramento at (916) 322-3122 or Joann Weiler at (916) 322-3081. You may also write to the McArthur Burney Falls General Planning Team in care of the Department of Parks and Recreation, Northern Service Center, 1725 - 23rd Street, Sacramento, CA 95816.

WHERE WE ARE: The Planning Process

- ❖ Gathering Data & Identifying Issues and Concerns
- Developing Alternative Plans
- Selecting a Single Plan
- CEQA Review
- Parks and Recreation Commission Hearing
- Preparing the Final General Plan

Page 2

McARTHUR-BURNEY FALLS MEMORIAL STATE PARK GENERAL PLAN NEWSLETTER

Newsletter #2

September 15, 1985

McArthur-Burney General Plan Progressing on Many Fronts

The McArthur-Burney Falls General Plan is being prepared by a team of Department staff with expertise in natural and cultural resources, design, and interpretation. The team has been gathering information during the spring and summer. Resource inventory work, assessment of existing conditions at the park, and public and private contacts started early this year. Public involvement began in the summer with an evening meeting held at the park's campfire center in July to hear issues and concerns.

After consideration of a broad spectrum of concerns from many sources, including the park's field staff, the public, other government agencies, interest groups, and the Pacific Gas and Electric Company, from which the Department leases land for the park, the General Plan Team developed a list of issues to be resolved in the general plan (see article at right).

With this comprehensive list in hand, the team will now be able to finish the inventory. When complete, the inventory will provide the background necessary to develop the alternative plans from which the proposals for the final general plan will be drawn.

The next opportunity for public involvement will follow the development of alternative plans. Another newsletter will let you know when that will be. Meanwhile, if you have questions or comments about the general plan, you can write:

McArthur-Burney General Planning Team
Department of Parks and Recreation
Northern Service Center
1725 - 23rd Street
Sacramento, CA 95816

Or, you can telephone JoAnn Weiler at (916) 322-3081.

The Planning Process - Where We Are:

- * Gathering Data & Identifying Issues and Concerns
- Developing Alternative Plans
- Selecting a Single Plan
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- Parks & Recreation Commission Hearing
- Preparing the Final General Plan

Cooperative Effort Defines Problems and Issues

Working together, the McArthur-Burney General Plan Team has selected the problems and issues it will focus on during the development of the general plan. The following list was derived from comments and other information received from a variety of sources (see the article in the left column).

General plan issues and areas of inquiry:

- Resolution of pedestrian & vehicle traffic circulation conflicts
- Determination of the park's carrying capacity
- Evaluation of facility congestion east of the falls
- Review of interpretive facilities
- Assessment of natural resources management
- Review of the adequacy of camping facilities
- Assessment of the adequacy of the park's trails
- Analysis of cultural resources management
- Examination of the park's concessions facilities
- Analysis of the location of day use facilities
- Evaluation of the park's operations facilities
- Determination of compliance with the standards contained in the Americans with Disabilities Act
- Reexamination of the park's mission, Spirit of Place, classification, and name
- Investigation of the adequacy of the park's utilities
- Assessment of interpretive activities
- Exploration of funding possibilities for the park
- Evaluation of the changing use patterns over past years
- Study of lake access from the park and other locations
- Assessment of the adequacy of the park's concessions operations

The above all need to be reviewed in the context of preexisting conditions which might limit the Department's latitude for making general plan proposals. For example, the Bald Eagle Management Plan, which is intended to protect the park area's population of eagles, may limit the number of additional facilities that the general plan could propose.

In addition, various federal, state, and local agencies have jurisdictions or regulatory authority that exist within the park. These agencies must also be taken into account.

Comments from the First General Plan Public Involvement Meeting

The first general plan public meeting was held at the park's campfire center on July 13th. Campers, park volunteers, and DPR staff voiced their thoughts and provided information about a wide variety of issues and concerns to the General Plan Team. Below are the notes recorded at the meeting.

Level of Use

- Does the Department have a method for determining how to balance visitor use vs. resource preservation (e.g., how many people should be let into the park)?
- Will there be a cap on parking, or will we allow more?
- Multitudes of visitors are a problem at national parks; may become more serious here (at McArthur-Burney). Do something to prepare for a growing population.
- Reservations for day use may be necessary, as they are Yosemite. Many people drive a long distance only to be turned away disappointed.
- Consider remote parking and shuttle service to the falls.
- The store is crowded at times; more demand at peak times than the facilities can accommodate.
- There is a parking problem: The park has unique characteristics that should not be sacrificed, but an additional 50-100 cars for day use would serve people.
- Protecting the environment and habitats is more important than accommodating more people.
- Still need to get people into the park; the entry lines sometimes back up onto the highway. Consider using two gates: one for day use and one for campers.
- The park's rangers are now forced to solve problems created by faulty facilities design (e.g., traffic control).
- Regarding parking during the peak season: RVs take up two or three parking spaces. Should day use RVs have an alternate parking lot?
- At some other parks, no RVs are allowed beyond the entrance. Vehicles have to disconnect.
- More people are traveling in RVs than 10-15 years ago.
- Encourage people to spread out their vacations.
- Encourage off-season use by price or other incentive (e.g., 1 day free after 5 days). (Ranger's response: It's already \$2 less for camping, although day use costs the same.)
- Has to be a limit as to how many people are in the park during the summer. We don't want them three-deep on the trail to the falls.
- The Department should not dictate to the public what they should do. It should look at public use by RVs, market activities for off-season (e.g., if we had hook-ups, people would use them).
- Campers are often return visitors, some even multi-generational, while day users are often new to the park.

Comments re Park Facilities and Park Operations

- A hike-in/bike-in campsite is new this year and has been well used. However, there is a need for additional information to let people know about it.
- Could the park increase the number of showers?
- Unisex facilities would equalize waiting and use time.
- There have been no complaints at the visitor center about the facilities or the staff.
- Generator noise is a problem in the campgrounds.
- This is a well-organized park; clean and well set up for camping.
- Would like the beginning of quiet time in the campgrounds changed from 10 p.m. to 11 p.m.
- Does the park have an interpretive association? (Staff response: The interpretive association has not been disbanded, although it isn't putting out newsletters. It still sponsors Heritage Days and raises funds.)
- Bike trails for kids would help get them off the park roads.
- Suggestion for a playground for kids.

Cultural Resources: Native American Issues

- The survey of cultural resources is incomplete. Needs to be done thoroughly before any development occurs.
- The Pit River Tribe needs to be aware of general plan work. Has concerns and should have been contacted in person before this meeting.
- There should be money for monitoring of all projects like there was at Lake Britton. Post holes or bootleg projects need to be monitored; tribe needs to be consulted; has a strong interest in this place (the park).
- Over the years, interpretive programs (about Native Americans) have been nil except for campfire programs (e.g., the pamphlet hand-out has only one paragraph on the first people). The Department should consider reconstruction of a Native American village like the Yurok village at Patrick's Point State Park. This could be done now, but maybe not in the future. Need to consult the tribe to develop an interpretive plan and specific programs and projects.

Questions about General Plans and Subsequent Budgeting

- How many general plans have been approved? Answer: 202 general plans or amendments have been approved since 1966; some parks have had more than one plan approved.
- Is funding available after general plans are approved? Answer: Funding is not assured.
- Kudos to the park staff. Suggestion to add staff with any new facilities. Answer: It used to be easier to get support budgets for staffing.
- How long until the Commission hearing? Answer: Currently scheduled for October, 1986, but it is unlikely to occur that soon.

McARTHUR-BURNEY FALLS MEMORIAL STATE PARK GENERAL PLAN NEWSLETTER

Newsletter #3

May 10, 1996

Public Meeting to Discuss Draft General Plan Proposals Wednesday, May 29th, 7:30 PM At the Lion's Hall 36002 Main Street, Burney

The General Plan Team met with the public at the park last July. Your comments there helped develop the list of issues to be addressed in the general plan. These included the need for more showers in the campgrounds, a better park entrance and vehicular and pedestrian circulation inside the park, the congestion and large amount of development around the falls, erosion along the park's trails and other resource problems, and the need for a group camp and a visitor center. Since then the Team has been completing the inventory of resources and the existing conditions of park facilities. Alternative solutions were examined to solve the problems, and from these, we selected a single set of plan proposals. You will be receiving a package soon detailing draft general plan proposals. If you have questions and will not be able to attend the public meeting, feel free to call or write Joann Weiler at the Department's Northern Service Center. The address and phone number are:

Northern Service Center
1725 - 23rd Street
Sacramento, California 95816
Joann Weiler: (916) 322-3081

The Planning Process - Where We Are

- Gathering Data & Identifying Issues and Concerns
- Developing Alternative Plans
- * Selecting a Single Plan
- CEQA Review
- Parks & Recreation Commission Hearing
- Printing the Approved General Plan

McARTHUR-BURNEY FALLS MEMORIAL STATE PARK GENERAL PLAN NEWSLETTER #3

SUPPLEMENT DRAFT GENERAL PLAN PROPOSALS

The Purpose of the McArthur-Burney Falls Memorial State Park General Plan

This general plan will be a long-range planning tool, providing a program for the future management and development of the park, as well as guidelines for current activities. Some of the management and facilities proposals contained in the plan could be carried out as soon as the plan is approved. Others will need to be scheduled for future funding. The design details of major general plan proposals will be determined when funding becomes available.

Proposed Land Use Concepts

Several concepts guide these land use and facilities proposals. All of these improvements have been proposed with the primary intent of preserving and protecting the park's natural and cultural resources.

- Restoring and reinforcing a sense of appreciation of the park's natural beauty will be achieved by relocating the park entrance and improving circulation into the park. This will also ease the peak time bottleneck.
- Removing large areas of pavement east of the falls, reintroducing native vegetation, and relocating day use facilities farther north will allow visitors to experience the falls' magnificence in a more isolated and attractive setting.
- A larger and thoughtfully designed day use area will provide a quieter and more aesthetic experience for visitors to the falls area with less of a sense of crowding and confusion at busy times.
- Creation of a new route for vehicular traffic will ease circulation throughout the park and reduce conflicts between pedestrians and vehicles.
- Removal of the main park road from the middle of the family camping facilities will allow their consolidation and reduce the impacts of vehicular traffic upon the campers.
- Creating new trails using portions of existing park roads will result in a more logical pedestrian circulation system that will be easy to use and accessible.
- Construction of a group camp will better serve a previously neglected class of visitors.

Please refer to the attached Existing Conditions and Draft Plan Proposals maps for orientation. The letters on the Draft Plan Proposals Map refer to the proposals in the following text.

Park Entrance

Existing Park Entrance: The park's entrance is located on a curve and was constructed in the 1960s when attendance was lower, traffic was generally slower, and there were few vehicles as large as today's motorhomes. With just over 450 feet of stacking space, the line of vehicles waiting at the contact station sometimes backs up as far as the highway.

Proposal A - Relocate the Park Entrance: The park entrance will be relocated north beyond the highway curve. This will provide an attractive scene for visitors entering the park and up to four times more stacking space for vehicles. It will also remove the burden of park traffic from the falls area.

Visitor Contact Facilities

Existing Conditions: The park's tiny contact station faces the park office across the busy incoming traffic lane. It has neither the space nor the equipment for the people staffing it to work easily. The lack of a bypass lane makes it necessary for returning visitors to wait in line with those who have not yet checked in. There is no turnaround, and parking for visitors wishing to ask questions at the contact station or the adjacent office is insufficient.

Proposal B - Contact Station and Park Office: This cluster of facilities will be located in a natural opening in the forest east of the campground. Options are available for siting facilities, and details will be determined by a future area management plan to be prepared when funding is available for development.

The new contact station will be equipped with a restroom, office space, and equipment to better deal with reserved campsites and the increased visitation not anticipated when the existing one was built. A bypass lane will ease traffic flow past the contact station for returning visitors and service and emergency vehicles.

The new park office will improve upon the current one by having adequate meeting and storage space, as well as working space for the staff expected to be necessary to operate the park in the future.

There is ample space for parking and a turnaround. A public phone will be available to serve people driving by on the highway.

REMEMBER! PUBLIC MEETING

Wednesday, May 29, 7:30 PM
Burney Lion's Hall,
36002 Main Street
...

ALSO FEATURING:

- Draft Resource Policies
- Plans for Interpretation
- A Chance for You to Ask Questions and Voice Your Concerns

Vehicular Circulation

Existing Conditions: Beyond the contact station, the main park road passes between the concession and the falls and between the park's two campgrounds. Because this road is also a convenient route, pedestrians often use it rather than nearby trails for walking from parking areas or their campsites to the park's day use facilities.

Proposal C - Perimeter Road: A new road will replace the part of the present road (the Lake Road) that now passes through the falls day use area and separates the campgrounds. It will parallel the bend in Highway 89 and skirt the perimeter the family campground.

Falls Day Use Area

Existing Conditions: The day use area has been developed up to the lip of the canyon east of the

falls. Paved roads and parking lots confuse visitors as they pass the contact station, and there is no logical circulation pattern to conduct them where they should go. Parking is now in two lots on opposite sides of the Lake Road, with overflow parking in an unpaved lot off of the service road leading to the Operations shops area. Visitors must cross roads to reach their day use destinations from all of the parking lots.

The concession lies just east of the falls, and pedestrians from the concession must cross the road to get to the falls. The picnic area is between the concession and the visitor center. Many pedestrians cross it on their way between these facilities. In addition, highway noise is a major impact for the picnic area. The current visitor center is a small building and is remote from the main routes of travel to and from the falls.

There are multiple trails east of the falls that connect with trails paralleling the Burney Creek and with the Rim Trail to the lake. They are poorly marked and confusing, prompting many pedestrians to favor walking in the roadways.

The existing falls observation platform has an impressive view of the falls from the east. It has recently been improved for easier use by disabled visitors.

Proposals for Improving the Falls Day Use Area: To eliminate congestion at times of heavy use, and the unattractive expanses of asphalt, the redundant circulation routes, and the sense of confusion that now exist east of the falls, the general plan will call for relocating day use facilities north of their present location.

Proposal D - Parking: In the future, parking will be sited between the perimeter road and the new picnic area. This will eliminate the problem of people having to cross any lanes of through traffic.

Proposal E - Picnic area: The relocated picnic grounds will be easily accessible from the parking area and also have direct access to the concession and visitor center.

Proposal F - Concession: The location of a future concession building will afford direct access from the day use parking areas and will be closer to the campground so that campers will be encouraged to walk to it.

Proposal G - Visitor Center: The current concession building will be adapted for use as a larger visitor center. This location provides a better relationship with the falls than now exists and will make use of an existing facility.

Proposal H - Trail System: The park's trail system will be redesigned. New trails will be created by narrowing the pavement of existing roads south of the campground and along the eastern side of the canyon. This will furnish a paved trail system with minimal new construction that will be fully accessible to disabled visitors.

Proposal I - Rim Trail Access: In an effort to encourage more pedestrians to use the Rim Trail to the lake day use area, a trailhead will be created adjacent to the relocated picnic grounds. Other spur trails to access the Rim Trail will be provided from the campgrounds.

Proposal J - Falls Observation Points: The existing falls observation platform will be retained and will be accessed via a spur from

the new trail along the east side of the canyon. In addition, a new viewpoint will be constructed near the top of the falls where a view down the canyon is available.

Restored Natural Vegetation Area

Existing Conditions: The natural vegetation that once grew in the falls day use area has been heavily impacted by the development of facilities.

Proposal K - Proposed Vegetation Restoration: Where developments are to be removed, the land will be reclaimed and restored using native vegetation to reestablish a natural-appearing setting for the falls area and to buffer differing land uses, such as day use and camping, from each other. The areas to be planted will include parts of the land currently containing day use facilities north and east of the falls and portions of the service road to the Operations area.

Campgrounds

Existing Conditions: The park now has two family campgrounds, the Rim Campground close to the rim of the canyon and the Pioneer Campground to the east. The Lake Road passes between the campgrounds. Some of the campsites in Rim Campground sit beside a road that skirts one of the day use parking lots. The day use restroom is adjacent to one of the campsites.

Some informal group camping occurs in the family campgrounds because there is no group camp at the park. The need for a formal facility is clear.

Two hike and bike campsites have been constructed east of the Pioneer Campground to serve visitors who arrive at the park without vehicles.

Proposal L - Improvements to the Family Campgrounds: As the Lake Road will no longer run through the camping area because the perimeter road will take over its function, the two existing campgrounds can be consolidated. However, actual changes will be minimal and camping capacity will remain the same. Proposals include removal of campsites along the canyon rim with their replacement in the redesigned family campground. The former segment of the Lake Road will be integrated into an improved campground circulation pattern, and some campsites could be installed along it. Campsites with hook-ups for camp hosts will be located in the campground. The campground's main entrance will be off of the perimeter road north of the point where the entrance road joins it. An emergency ("back door") exit from the park using the current entrance will be available to campers, as well as day use visitors.

Proposal M - Proposed Group Camp: This small new campground will be located north and west of the family campground and will consist of clustered group campsites that can individually serve small groups or, in combination, serve larger ones. The camp will have a restroom with showers. It will be able to act as an environmental education camp for children and, when not reserved by groups, will be available for use by family campers. Its location adjacent to other camping facilities will make it easy to operate and allow its use to be flexible.

Proposal N - Hike and Bike Camp: The area where this camp is now located is close to what will become the new entrance and perimeter roads. Therefore, it will be moved to a place on the periphery of the family campground that will afford easy access from the Pacific Crest Trail and to the concession, showers, campfire center, and other park facilities.

Campfire Center

Existing Conditions: The existing campfire center lies near the northeastern part of the falls day use area several hundred feet from the nearest campsite. Loud traffic noise from Highway 89 can sometimes make campfire programs difficult to hear.

Proposal O - Improved Campfire Center: The campfire center will be relocated in the restored natural vegetation buffer between the family campground and the falls day use area. It will have trail access from the campgrounds and the day use area, as well as vehicular access for park staff and disabled visitors.

Operations Area

Existing Conditions: The Operations area is now accessed from the contact station area via a service road that parallels the rim of the canyon from the vicinity of the falls almost to the highway. Residence #1 sits just inside the park entrance, and other residences are located behind it and to the southeast near the shops. There is also some storage of materials for use in facilities maintenance near the shops.

Proposals for the Operations Area:

Proposal P - Service Road: The portion of the road nearest the contact station will be adapted to serve as a part of the new trail along the canyon's rim. Some other portions and the unpaved day use parking lot will be removed, except for a segment of the road immediately north of the Operations area. A new and more direct service road will furnish access to the shops area.

Proposal Q - Residence #1: This historically-significant structure will be retained to continue its current use as a residence for a park staff member. Its location, with easy access to the perimeter road, will allow the person living there to reach most developed areas of the park quickly.

Proposal R - Shops and Other Residences: The shops in the Operations area will remain. Residences will be dealt with in the future according to the provisions of the adopted Housing Study for the Northern Buttes District. Storage of some materials will be moved to the area east of the highway and vegetation and fencing will be installed to block the view of that which remains.

CCC Area

Existing Conditions: The area east of the Highway 89 curve was part of a Civilian Conservation Corps camp located at the park during the

1930s and 1940s. Five historic structures remain and are in adaptive use for storage. In addition, the area is used for splitting and storing wood for sale to campers, as well as other materials storage. There are no problems with the use of this area at this time.

Proposal S - Future Use of the CCC Area: No public use development are proposed for this area due to its isolation across the busy highway. In the event that the highway alignment should be moved farther east so that the land would no longer be separated from the park's main use areas, it might be available for some public use.

Clark Creek Road Area

Existing Conditions: At this point, a campground for Pacific Crest Trail hikers is located beside the trail south of Burney Creek. It has six campsites, two Shasta toilets, a corral, and running water.

Proposal T - Future Use of the Clark Creek Road Area: These facilities will be phased out in the future, as most PCT hikers now prefer to use the recently constructed hike and bike camp near the Pioneer Campground, horse use of the trail has been negligible, and it is difficult for park staff to operate and control unauthorized use in this remote part of the park.

Lake Day Use Area

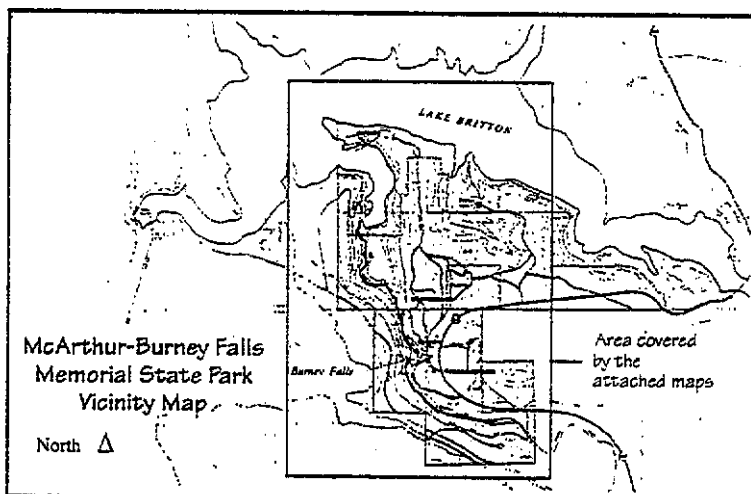
Existing Conditions: Developments at the lake area include two parking lots, a picnic area, restroom, swim beach, marina and launch ramp, and a subsidiary of the concession which collects fees for launching boats, rents boats, and sells snacks.

Pedestrians and bicyclists use the Lake Road to reach the lake day use area. The downhill segment of the road is narrow and has no shoulders, so conflicts sometimes arise between different kinds of traffic, especially automobiles and bicycles.

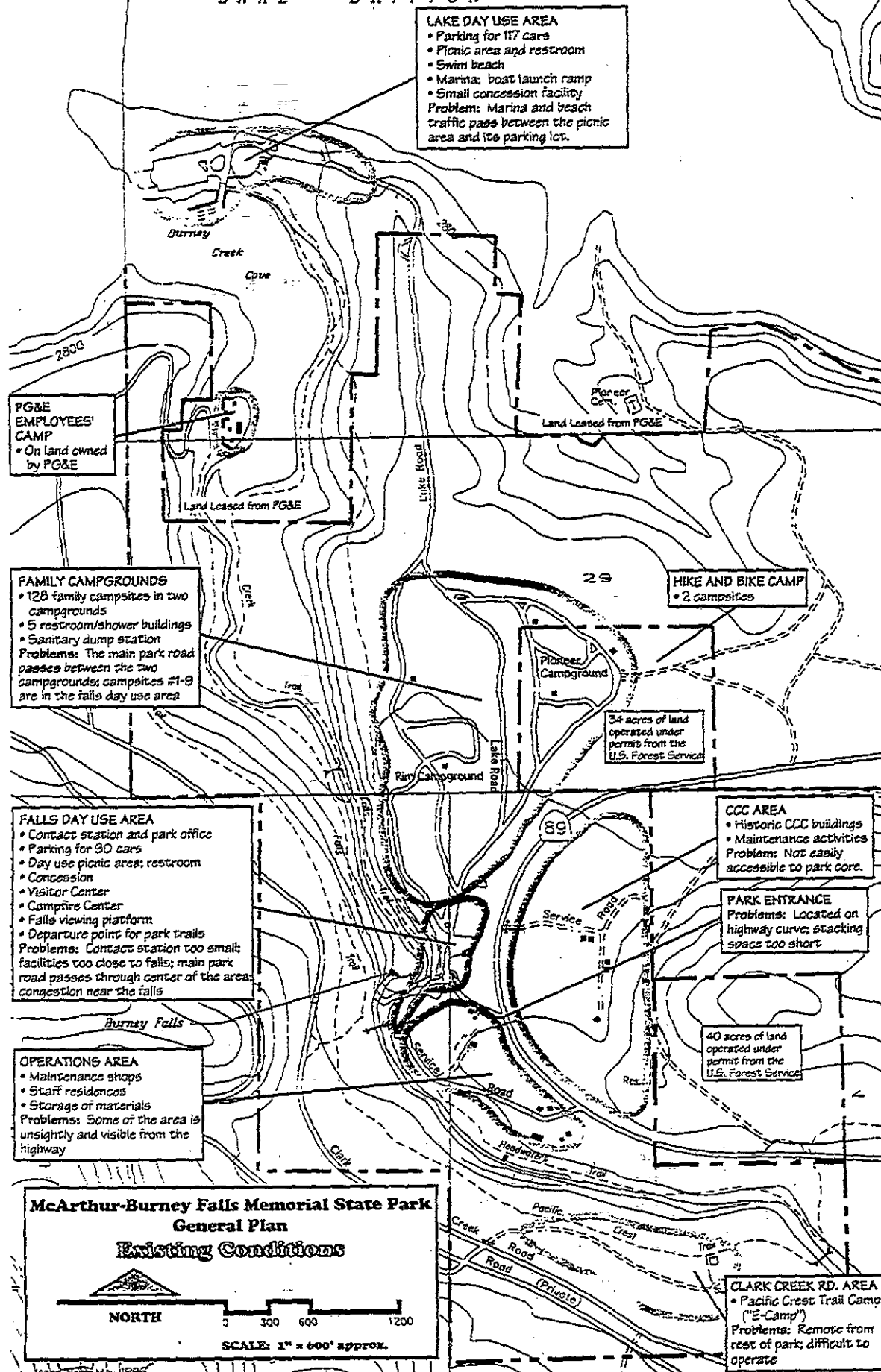
Visitors using the parking lot across from the picnic area must cross the road to reach the picnic tables.

Proposal U - Improvements to the Lake Road: The plan will propose what pavement widening will be possible along the steep part of the Lake Road by performing minimal grading on its uphill side and improving the drainage system there to provide an "escape" lane.

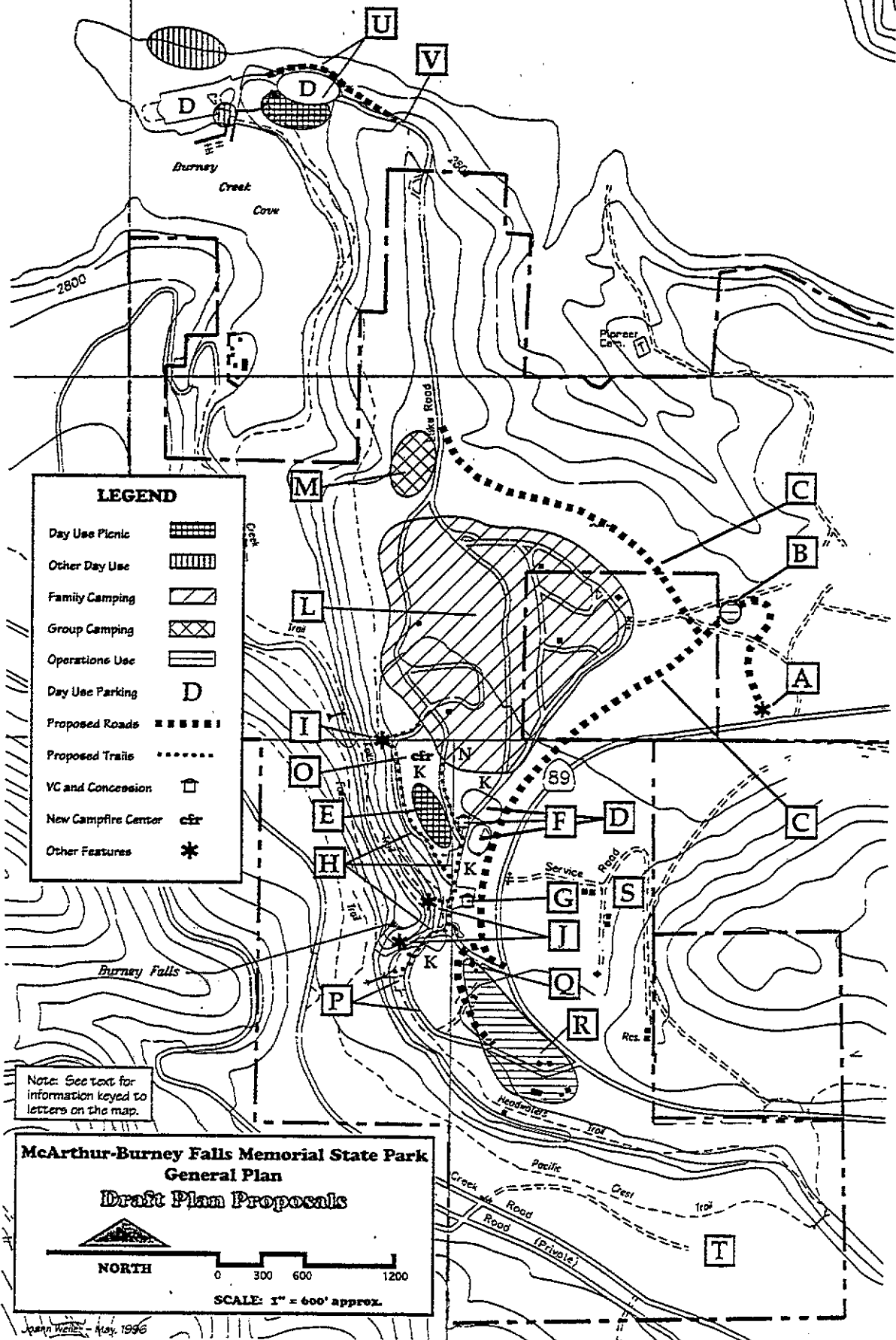
Proposal V - Improved Pedestrian Circulation at the Lake Picnic Area Parking Lot: The Lake Road will be relocated to the north side of this parking lot, and the lot will be restriped so that parking will abut the picnic area.



LAKE BRITTON



LAKE BRITTON



McARTHUR-BURNEY FALLS MEMORIAL STATE PARK GENERAL PLAN NEWSLETTER

Newsletter #4
Prepared by the Department of Parks and Recreation, Northern Service Center

August 1, 1996
Sacramento, California

Public Meeting in May Presents Draft General Plan Proposals

The McArthur-Burney Falls Memorial State Park General Plan Team met with twenty-three members of the public in Burney on Wednesday evening, May 29th. Team members presented the draft general plan proposals that had been previously distributed in the Newsletter #3 Supplement and received comments from those present.

The meeting began with a welcome and short presentation by David Bartlett, Northern Buttes District Superintendent. He explained that the general plan is being prepared by Department of Parks and Recreation planning staff from Sacramento at the request of the field to provide long-term guidance for the park's future.

Then, some of the other General Plan Team members spoke briefly about their areas of expertise. Bob Acree, team supervisor, explained that general plan proposals are meant to provide broad guidelines for approximately 20 years for the management of the park's natural and cultural resource values, park operations, and facility development and rehabilitation.

Gary Waldron, resource ecologist, outlined the resource concerns affecting this general plan. These include the flow and quality of the water in Burney Creek, soil erosion, rare and sensitive plants and animals in the park, and the provisions of the Bald Eagle Management Plan, which does not permit future development at the park that would increase public use within essential bald eagle habitat.

Jim Woodward, archeologist, described the visions of what the park could become that guided the team in its development of the draft proposals.

Joann Welter, landscape architect, explained that the draft proposals for this general plan were the result of a team process and involved an extensive inventory of the existing conditions at the park, assessment of the public's concerns, contacts with other agencies, private entities, and interest groups,

and the careful selection of issues with which the general plan should deal.

Richard Clark, interpreter, described some of the features that need additional interpretation at the park. These include the history of local Native Americans before and since European contact, as well as historic remains, such as the Pioneer Cemetery, Civilian Conservation Corps structures, and the historic Fort Crook Road. Richard also discussed the general plan's focus on the importance of the park's prime resource, Burney Falls, their traditional importance to the Native American community, and the intention to restore a more natural and attractive setting on the east rim of Burney Canyon.

Last, Rob Uelizon, the plan's environmental review specialist, outlined the process by which the preliminary general plan will be distributed for the California Environmental Quality Act (CEQA) public review later this year.

What We Heard from You:

These are the comments we received at the meeting. Responses by the General Plan Team are also included, where they were given.

Comments regarding the Pacific Crest Trail Camp:

Comment: Appreciates draft general plan proposals for traffic flow, trails. However, his organization (The Backcountry Horsemen of California) cooperates with other bodies committed to continued stock use of the Pacific Crest Trail and is opposed to closure of the park's PCT camp to horse camping. They would accept a replacement facility on National Forest land if the DPR camp were closed to horse camping but strongly prefer its continued use or that its replacement would precede its closure.

Comment (Lassen National Forest staff member): The Forest Service is looking for an alternative location for the PCT camp in the park, not in the National Forest.

Comment (Pacific Crest Trail Association member): Thinks the PCT camp is ideal - beautiful and a valuable resource, especially since it has running water. Recommends keeping it. The corral is too small and should be removed. A dung container, would eliminate the cowbird problem. The PCT is an incredible "national park" - a world-class trail and a link to our past, when people traveled over vast distances. She emphasizes the cultural aspects of the trail, "connecting parts of the world". Though the trail is not heavily used now, it could be better interpreted and promoted to be an inspiration for young people.

Comment (Member, Pacific Crest Trail Association): Would prefer the words "horse use is very light and may be growing" to its being "negligible". PCT horse use is affected by snowfall. The PCT Association is now on the web. People come from all over the world to use the PCT. Hitchhiking posts could replace the corral. Response: The question needs more evaluation. If the PCT camp isn't being used, it's hard to justify its retention. However, we understand that you don't want it removed until it's relocated. We can also appreciate that more equestrians may begin to use the PCT. However, the PCT camp was not originally designed as a base camp for a large amount of horse use. (Note: The General Plan Team has concerns about the limited land base at the camp and its nearness to Burney Creek's riparian vegetation.)

Comment (Pacific Crest Trail Association): Samuel R. Taylor State Park has a horse camp with a locked gate that accommodates six to eight rigs (horse trailers) for day use or three- or four-day rides. If the McArthur-Burney site were better known, it would get more use. It would be expensive to replace. Horsemen are responsible people. Unauthorized use is manageable with locked gates.

Comment (past DPR employee): Worked at the park when the PCT camp was established. Says the Department had an agreement with the Forest Service that it would be a trailhead. (Note: DPR file searches and DPR and Forest Service contacts with past staff members were unable to locate an agreement regarding the original intended purpose of the PCT camp.) Water availability in late summer is very limited elsewhere.

Comments regarding the park's resources:

Comment: The new administrative (service) road to the maintenance area would go through an area with big trees. Isn't this area a natural grassland? Response: No, it was part of the Ray homestead. This area was a very open forest. Vegetation "restoration" might involve taking out some trees.

Comment: Has a problem with "making the area look natural". What would be the time period of the restored natural landscape? Response: Pre-Bureau period using native vegetation.

Comment (another past DPR employee): Once planted 1,000 pine seedlings at this park. They were difficult to establish but were watered and took, though campers trampled them. Response: Describes the successful revegetation work in the S.P. Taylor campground, which employed temporary fencing.

Comment: Have the CCC buildings been established as historical? Response: All the CCC buildings are historic, as well as the tent camp area.

Comments regarding facilities:

Comment: Could we consider giving Rim Campground a rest? It's been in use for a long time. Response: The campground will be redesigned, and some campsites will be relocated to spread out use and to reduce impacts.

Comment: The park might need more development along the water. There is a beautiful lagoon at the end of the Pioneer Cemetery trail. Response: That area is in essential bald eagle habitat.

Comment: Presented his concept for the visitor contact area, which would include a food concession, store, restrooms, parking, and an inside "lobby" area for camper registration and visitor orientation. Response: This level of detail will be considered in future designs; it is not within the scope of general planning for a park.

Comment: There is a need for more Pioneer Cemetery Trail parking.

Comment: Will there be hookups in the campground? They could allow winter camping. Response: Yes, potentially.

Comment: We need more day use parking for large vehicles in addition to busses. Response: Design criteria for the parking will contain this.

Comment: The trail from the lake to the lower falls needs to be paved for disabled visitors. Response: The grades on the trail will be checked for that potential.

Comment: The new observation platform at the top of the falls is a bad idea because people from the existing observation platform could see it. Response: The suggested location is almost invisible from the current falls overlook.

because it would not be right over the top of the falls, and it will be possible to screen the new platform completely from the existing one with vegetation.

Comment: The overlook on the trail on the west side of the falls is inadequate, unsafe. It needs a safe platform.

Comment: Don't change the fishing regulations above the falls. This is part of the camping experience for kids. It's okay that fishing below the falls has changed. Also, there should be a place outside the contact station for potential campers to park and register so that they will not interfere with other people coming into the park. **Response:** The general plan does not establish regulations for the creek; the Department of Fish and Game does this.

Comment: Would the new entrance include new highway acceleration, deceleration, and left-turn lanes? Is there room? **Response:** Yes to both questions.

Comment: Regarding relocating the concession: Did we evaluate today's conditions and future needs? Do we really need a concession of the kind that is there now? There are services nearby, and I object to the merchandise it carries. **Response:** The concession has good public acceptance and a long history in the park. It provides a PCT cache point and also sells boat launch tickets.

Comment: The Department should build a tram to the base of the falls. The trail is hazardous. A tram would get disabled and elderly visitors down there, and the park could charge for it.

Comment: Additional storage in the CCC Area would involve more dangerous highway crossings for maintenance staff. Also, they would have to fight snow, which is a problem there. **Response:** This could be long-term bulk storage that needs less access.

Comment: The park needs a "more defensible" and easily discernible boundary along Clark Creek Road. Could the department trade land it owns west of the road for property it doesn't own on the east side? **Response:** Some of the land on the west side of Clark Creek Road is within the original 160-acre gift deed. Lotting any of that property up could affect that deed and would need to be carefully researched.

Comment: Beyond the planning process, is any funding available? **Response:** Some funding is available for the campground rehabilitation work now underway from FCRP's FERC relicensing. The value of general plans

is that they give a blueprint for where development should occur, as opposed to doing it randomly. A park also needs a general plan so that "approved" projects can compete for funds when they become available.

Comment: Is there a deadline for public comments following this meeting?

Response: The team established a deadline of one month, or June 28th.

Do you have more questions? Call or write:

DPR Northern Service Center
McArthur-Burney Falls Memorial
State Park General Plan
1725 - 25th Street, Suite 200
Sacramento, CA 95816
(916) 322-3081

Since the public meeting additional communications have been received by the General Plan Team at the department's Northern Service Center in Sacramento.

Letters were received from some people who had attended the meeting but wished to add further comments. The letters were generally in support of most of the draft proposals and offered constructive criticism. Some contained ideas that they hadn't expressed at the public meeting.

One letter requested that some falls day use parking for visitors with disabilities be provided closer to the falls and the proposed interpretive center. The writer, a past department staff member, went on to state that there has been almost no equestrian use of the Pacific Crest Trail through the park since the trail was established.

A letter from the Lassen National Forest District Ranger opposed the closure of the Pacific Crest Trail camp. It stated that operation of a similar camp on National Forest land would be more difficult than this one is for DPR. The letter went on to suggest that the department expand the use of the camp to include an equestrian trailhead.

Three letters from representatives of the Pacific Crest Trail Association protested closing the PCT camp and suggested that local equestrian volunteers might offer assistance with trail and camp maintenance.

Another letter provided some suggestions for routing circulation in the proposed new visitor contact area, the campground, and falls day use area.

Following a June 24th article about the general plan in the Record Searchlight, there were several phone calls from people from the Redding vicinity with an interest in the general plan.

A representative of the Citizens for Passenger Railroads suggested that the department investigate the possibility of using rail transit to ease the impact of automobile traffic on the park. The McCloud Railway has service as far as Lake Britton. The railway has recently begun a dinner train to the lake, which is popular.

A citizen whose family has owned land in the Burney area for 50 years expressed concern about the park becoming overrun. He suggested that the department begin to limit the number of people allowed to enter the park.

A representative of the Shasta County Recreation Fish and Game Commission called with comments concerning the new Department of Fish and Game regulations for fishing on lower Burney Creek. He stated that the his organization represents the opinion of the Shasta County Board of Supervisors, as well as many individuals from the Burney area. They oppose the regulations because they limit family-oriented fishing in the park. He said that his organization believes that the county does not feel that it is right for the state to change regulations for a select few. The General Plan Team mem-

ber pointed out that regulations by another state agency, even though they are carried out in a state park, are not within the scope of issues considered in a general plan. The caller stated that the organization was discussing the matter with the Department of Fish and Game.

An equestrian stated that she would like to see the Pacific Crest Trail camp kept open for trail-oriented equestrian camping. She explained that she and her family often use the PCT with their horses.

In addition, 24 letters were received concerning use of the Pacific Crest Trail camp by horseback riders. Most said that they had not been aware of the camp's existence before the general plan began. They requested that the camp be kept open and expanded for use as a trailhead and base camp for equestrians. The representative of the Backcountry Horsemen of California who spoke at the public meeting stated that his organization had reversed their earlier position and now feels that the camp should stay where it is currently located within the park.

All of the comments received at the public meeting and subsequently are being taken into consideration by the General Plan Team. In some instances, they may result in changes to the draft proposals that were presented at the meeting.

Where To From Here?

At this time, the draft general plan is being written. Department reviews will take place later this summer. After the internal review period, the draft will be assembled, edited, and formatted as the Preliminary McArthur-Burney Falls Memorial State Park General Plan. It is in this form that it will circulate for the California Environmental Quality Act review. It is hoped that the CEQA review can occur by the end of this year and that the State Parks and Recreation Commission hearing will take place next spring.

* * *

The General Plan Team wishes to extend its thanks to the many members of the public who took part in the public meetings or contacted us with your opinions and suggestions regarding the future McArthur-Burney Falls Memorial State Park.

The Planning Process - Where We Are

- Gathering Data and Identifying Issues and Concerns
- Developing Alternative Plans
- * Selecting a Single Plan; Writing the

Draft General Plan

- CEQA Review
- Parks & Recreation Commission Hearing
- Printing the Approved General Plan

McARTHUR-BURNEY FALLS MEMORIAL STATE PARK GENERAL PLAN NEWSLETTER

Newsletter #5
Prepared by the Department of Parks and Recreation, Northern Service Center

March 4, 1997
Sacramento, California

CEQA Review of McArthur-Burney Falls Memorial State Park Preliminary General Plan

The preliminary draft general plan for McArthur-Burney Falls Memorial State Park is now available for public review at these locations:

McArthur-Burney Falls Memorial State Park

Eastern Shasta County Regional Library
1080 Siskiyou Street
Burney

Shasta County Library
1855 Shasta Street
Redding

The California Environmental Quality Act (CEQA) provides a 45-day period during which individuals, public agencies, and others can submit comments. The review period will end Monday, April 21st. Comments should be returned by that date to:

Department of Parks and Recreation
Northern Service Center
1725 - 23rd Street
Sacramento, CA 95816
ATTN: Rob Ueltzen, EIR Coordinator
Phone: (916) 323-0975

After the department receives the comments, the general plan team will respond to each of them. It will then furnish copies of all the comments, as well as its responses, to all those who reviewed the preliminary general plan.

After completion of the CEQA review process, the

(continued on back page)



Recapping the Background: Why a General Plan?

The Department of Parks and Recreation is legally bound to prepare general plans and to have them approved by the State Parks and Recreation Commission before it can receive major funding for improvements in units of the State Park System.

A general plan is intended to guide park management for 15 to 20 years. It analyzes the park's resources and provides guidelines for their protection and preservation. It also depicts projected land use patterns as an aid to determining the nature and location of proposed developments and guides future additions to the park when land becomes available.

A synopsis of the key general plan proposals follows on the next page. The complete proposals and background information can be found in the copies of the draft general plan available at the locations shown in the article to the left.

Implementation of many of the proposals in the draft plan depend upon the funding available in the future, as well as statewide priorities for use of the department's limited funds. It is possible that some of the proposals may not be implemented during the life of the plan. However, the plan sets forth long-range resource goals and recommendations for public use. Therefore, it can act as a management guideline for day to day park operations, as well as appropriate land additions, regardless of the funding situation.

CEQA REVIEW PERIOD

March 4 - April 21

Please review the draft
general plan and get your
comments to us on time.

Newsletter #5

Page 2

Draft General Plan Proposals

McArthur-Burney Falls Memorial State Park is slightly over 70 years old. It began as a small park, with the entrance, day use facilities, and a campground all clustered near the falls on the east side of Burney Canyon. The park became larger over the years and now has an attendance of approximately 200,000 visitors each year. However, the patterns of land use that were established at the beginning have remained the same.

The park exhibits many problems that have resulted from superimposing more and more facilities and visitors over an outdated land use pattern. Traffic and crowds generated by the park entrance and the falls day use facilities jam the canyon rim. These overshadow the falls rather than enhancing them. Parking and other facilities are not situated to foster a logical visitor flow. The concession is close to the falls; the tiny visitor center is distant. The day use restroom is far away from the picnic grounds, concession, visitor center, and the falls, but it is next to campsites in an adjacent campground.

The lake day use area, added during the 1960s and 70s, quickly became very popular. As the general plan began, it was evident that the park's focus had expanded to include the lake, as well as the falls.

The main park traffic route, which runs from the entrance to the lake, divides the falls day use area in two, as well as splitting the park's camping areas. Campers and day visitors tend to walk on the road, as the park's trails are generally difficult to find and follow. Congestion and traffic conflicts between vehicles, pedestrians, and bicyclists are problems on the park road throughout the peak use season.

The park contains many significant natural and cultural resources. In the outlying areas and at the lake, fortunate visitors can see bald eagles soaring against the sky. Part of the park lies within land designated as essential bald eagle habitat in a management plan prepared by a task force including Pacific Gas and Electric Co. and federal and state agencies. Several other rare animals and habitats also exist within the park. Archaeological resources are testament to the importance of this land to the region's past and present Native American peoples, to whom the falls are revered as sacred. Historic features include remnants of roads and buildings dating from the military presence in the area during the 1850s and 1860s, the subsequent ranching period, and the time when the Civilian Conservation Corps was active at the park during the mid-1930s.

The general plan has attempted to resolve the park's longstanding land use problems in a way that will best preserve, protect, and restore its rich resource base.

Frank and Ethel McArthur passed the park's first 160 acres to the state in the 1920s specifically to save the falls from possible loss through hydroelectric development. It is the vision of the planning team to restore the falls to their original status as the park's prime resource.

Developing a land use concept that will support the primacy of the falls has required reconsideration of the structure of the park's circulation and facilities placement. Relocation of the park entrance will remove traffic from the brink of the canyon and also remove the park road from the day use area and from between the campgrounds. This, in turn, will permit consolidation of these land uses and will eliminate the negative impacts of through traffic. At the same time, the falls day use facilities can be relocated away from the falls to allow restoration of that area using native vegetation. Doing this will give visitors a natural space through which they can walk as they approach the falls. Day use facilities can then be placed to permit a more logical flow between them that will reduce the crowding and congestion that now exist.



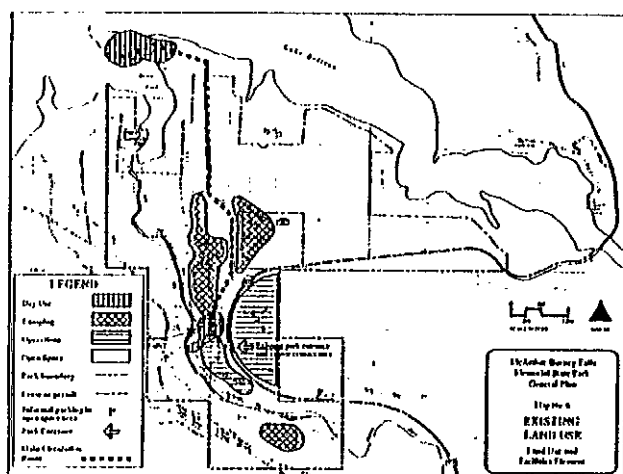
The falls observation platform

Major recommendations from the preliminary general plan that will allow these improvements to take place during future departmental funding cycles follow.

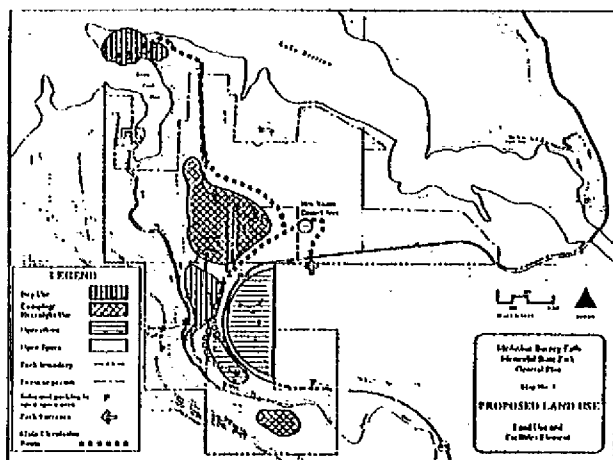
- Future Area Development Plans will address the details of circulation, facilities placement, resource impacts, and utilities corridors before any major facilities developments are undertaken. These plans will consider the following guidelines:

Park Entry and Circulation:

- Provide for a new park entrance north of the existing one, on the straight stretch of Highway 89 to improve sight distances and visitor access.
- Provide for a new contact station, park office, turnaround, and sufficient parking east of Pioneer Campground to complement the new park entrance.



Existing Land Use: This map shows the park's main circulation route (thick dashed line) running through the falls day use area and between the campgrounds. It also illustrates the overlap between the falls day use area and the western campground and the operations area to its south.



Proposed Land Use: This map shows the advantages gained from relocating the park's entrance farther east and developing a circulation system that permits consolidation of the falls day use area and the park's camping areas. With the relocation of falls day use facilities north away from the falls (asterisk), more space is available for day use facilities placement with less impact on the falls' setting and a reduction in crowding.



Burney Falls is the park's prime resource.

- Relocate the current main park vehicular route away from the midst of the falls day use area and the park's campgrounds to eliminate existing traffic conflicts and congestion. Provide a new alignment to serve the falls day use and camping areas from the east.

Day Use Facilities:

- Reestablish the falls as a scenic wonder by relocating conflicting day use facilities farther north. Restore the setting to a natural-appearing condition. Furnish an additional falls observation platform overlooking Burney Canyon. Redesign and relocate parking and picnicking areas, including another day use restroom. Redesign the area's trail system to furnish fully accessible connections between day use destinations and to camping areas.
- Move the concession store, gift shop, and snack bar to a new and larger building within the redesigned falls day use area. After the concession is moved, adapt the existing building for use as an interpretive center. Ultimately, construct a new interpretive center better able to serve the park's interpretive needs.
- Reduce the confusion of circulation and improve the quality of recreation at the lake by eliminating conflicts between automobiles and bicycle and pedestrian traffic. Consider options for the department to continue furnishing lake day use recreation if the lake level were raised in the future.

Park Trails:

- Develop a park trails plan to assure that trails will have minimal adverse effects on natural, cultural, and scenic resources.
- Create a formal trailhead to encourage more visitors to use the Rim Trail to the lake. Provide spur trails for easier

access to the trail from the campground.

- Implement measures to help reduce soil erosion and trampling of vegetation due to public use of trails and the streambank along Burney Creek.
- Maintain trail access to the Pioneer Cemetery and lake.
- Continue the present management of the Pacific Crest Trail.

Camping Facilities:

- Redesign the campground and its internal circulation after relocation of the main park road. New designs should include relocation of some sites and provision of camp host sites, hook-ups, and additional campsites for visitors with disabilities.
- Provide for the construction of a group camp with up to four camps for small groups (up to 25 people) that can also be used in combination to serve larger groups. The new camp should serve for overflow family camping when not reserved by groups and as an environmental education camp during the off-season.
- Improve visitor services and management by relocating the hike and bike camp to the edge of the family campground. Provide for two separate mini-group campsites.
- Maintain the status quo of the Pacific Crest Trail Camp as an enroute camp for users of the PCT. Monitor use and study possible alternative locations.
- Improve the quality of visitors' interpretive experience by relocating the campfire center west to the area between the falls day use area and the family campground.

Park Resources:

- Continue department involvement in all land use decisions that could affect the park's hydrologic resources. Protect the flow and quality of the streams within the park.
- Develop a park-wide erosion program to protect and manage soil resources.
- Develop a Vegetation Management Plan with the aims of managing vegetative resources toward a natural condition with a minimum of disruption to natural processes. Perpetuate and restore native plant communities.
- Prepare a Prescribed Fire Management Plan detailing an ongoing program of prescribed fire use at the park.
- Prepare a Wildfire Management Plan addressing wildfire prevention and suppression.
- Avoid the use of destructive control measures in protect-

ing against pest infestations in park vegetation.

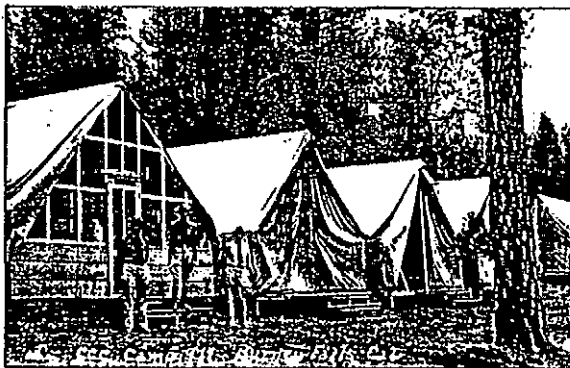
- Protect, perpetuate, and restore native wildlife species and their habitats.
- Work with other government agencies, private owners, and other organizations to insure that preserves, wildlife habitats, and natural processes of mutual interest are effectively managed on a regional level.
- Develop specific management plans to promote habitat management for special animals.
- Adhere to the recommendations in the Pit River Bald Eagle Interagency Management Plan to protect bald eagles and their habitat.
- Develop specific management plans when control, removal, or other management measures are required to regulate animal populations.
- Endeavor to restore the native fishery in Burney Creek, while at the same time providing for quality sport fishing.
- Preserve the values that make archaeological sites significant. Consult with Native American people on heritage values and invite their participation during major projects near sensitive areas. Develop a management plan to monitor and protect the Indian Cemetery.
- Protect historic trails within the park as a cultural resource while continuing their use for recreation and interpretation, as appropriate.
- Preserve and protect Residence #1 (The Gate House) as a historic structure. Prepare a Historic Structure Report be-

fore any alterations.

- Protect and preserve historical Civilian Conservation Corps resources still remaining at the park while allowing for their adaptive use.

Interpretation of Park Resources:

- Identify, provide exhibits, artifacts storage, curation, office space, and room for interpretation-related sales, as well as a classroom and video room combination, in the park's future interpretive center.
- Assure that future interpretation of the Native American presence occupies a prominent place in park interpretation.
- Provide interpretation of the park's cultural history along with its natural history on the park's interpretive trails and at overlooks.
- Furnish outdoor interpretive signs that are clear and consistent in appearance and support the park's interpretive themes.
- Interpret the restored native vegetation near the falls.
- Take advantage of the new campfire center and group camp to pursue opportunities for interpretation to school groups and others.
- Improve the storage, curation, inventory, recordation, management, and security of the park's interpretive collections.



The CCC camp at the park during the mid-1930s

The Park Survives the Flooding

The park fared well during the January, 1997, rainstorms. Burney Creek mostly stayed in its bed within the park and did no damage to park facilities. At one point, it rose enough to inundate both footings of the Rainbow Bridge below the falls. Examination of the structure after the water receded indicated that the bridge had not been affected.

Lake Britton filled faster than water could be released at the dam. Park rangers report that the lower lake day use parking lot was almost completely submerged on the morning of January 4th. The lake had risen to 2.42 feet above its usual high water level. However, this parking lot has been under water before (notably during the floods of 1986).



Former park gate dating from the mid-1930s.

CEQA Review (continued from page 1)

preliminary plan will be ready to submit to the State Parks and Recreation Commission for approval. It is anticipated that the Commission hearing will occur in the early summer. A notice announcing the hearing will be sent to everyone on the general plan mailing list.

If you have questions, you can call Joann Weiler, Project Manager, at (916) 322-3081 for further information.



A family enjoys the view at Lake Britton.

The Planning Process – Where We Are

- Gathering Data and Identifying Issues and Concerns
- Developing Alternative Plans
- Selecting a Single Plan; Writing the Draft General Plan
- * CEQA Review P P P
- Parks & Recreation Commission Hearing
- Printing the Approved General Plan

McARTHUR-BURNEY FALLS MEMORIAL STATE PARK GENERAL PLAN NEWSLETTER

Newsletter #6

Prepared by the Department of Parks and Recreation, Northern Service Center

May 27, 1997
Sacramento, California

Park and Recreation Commission Hearing on the McArthur-Burney Falls General Plan Set for mid-June

The California State Park and Recreation Commission will meet to hear the general plan, as well as other matters, in Redding on Wednesday, June 18th, in the Redding City Council Chambers, 1313 California Street. The meeting will begin at 8:30 a.m. The hearing on the general plan proposals is scheduled to start at 9:00 a.m.

The preliminary general plan for McArthur-Burney Falls Memorial State Park and the CEQA responses will be available at several locations until the Commission hearing:

Department of Parks and Recreation, Northern
Buttes District Office, 400 Glen Drive, Oroville

Cascade Sector Office, Trinity Alley off of
Highway 299 West, Shasta

McArthur-Burney Falls Memorial State Park,
24898 Highway 89, Burney

California Environmental Quality Act (CEQA) Review Complete

The California Environmental Quality Act review of the McArthur-Burney Falls Memorial State Park preliminary general plan that was announced in the last newsletter is complete. Comments were supportive and informative. The General Plan Team thanks all of you who took time to review the preliminary plan and submit comments.

(continued from column 1)

Public Library, 1855 Shasta Street, Redding

Dept. of Parks and Recreation, Northern Service
Center, 1725 - 23rd Street, Suite 200, Sacramento

Persons wishing to present written or spoken statements may do so at the hearing. Inquiries may be directed to Lorraine Lima, Department of Parks and Recreation Commission liaison, at (916) 653-0524.

Park and Recreation Commission Hearing on the McArthur-Burney Falls Memorial State Park General Plan

Wednesday, June 18, 1997

City Council Chambers

1313 California Street, Redding

The hearing will begin at 9:00 a.m.

This General Plan was Prepared by:

Staff of the California State Parks Northern Service Center:

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Richard Clark, State Park Interpreter II
Roy Martin, Associate State Park Resource Ecologist
George Stammerjohan, State Historian II
Robert Ueltzen, Associate Park and Recreation Specialist
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Joann Weiler, Associate Landscape Architect, Project Manager
Jim Woodward, Associate State Archaeologist

Operations Staff:

David Bartlett, Northern Buttes District Superintendent
Woody Elliott, Associate State Park Resource Ecologist
Steve Feazel, District Interpretive Specialist
Craig Engel, Cascade Sector Park Superintendent
Bud Luckey, Cascade Sector Supervising Ranger
Terry Pearson, Cascade Sector Park Maintenance Supervisor
Steven Moore, State Park Ranger I

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