

# general management plan

**REDWOOD**



**NATIONAL PARK / CALIFORNIA**

**RECOMMENDED:**

Kenneth Raithel, Jr.  
Assistant Manager, Western Team, Denver Service Center

August 15, 1980

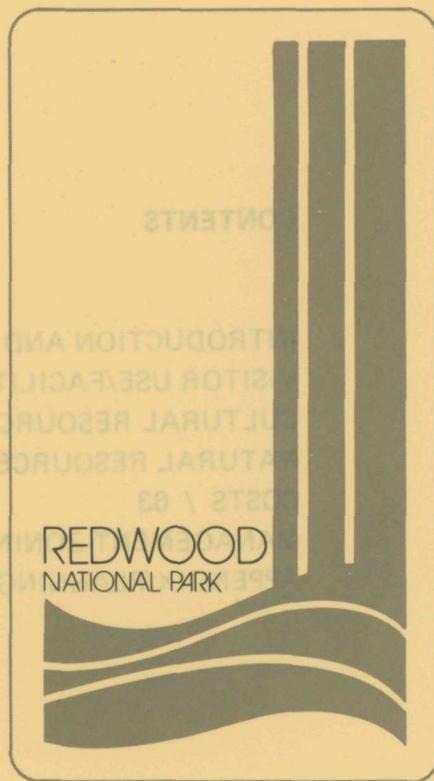
Robert D. Barbee  
Superintendent, Redwood National Park

August 19, 1980

**APPROVED:**

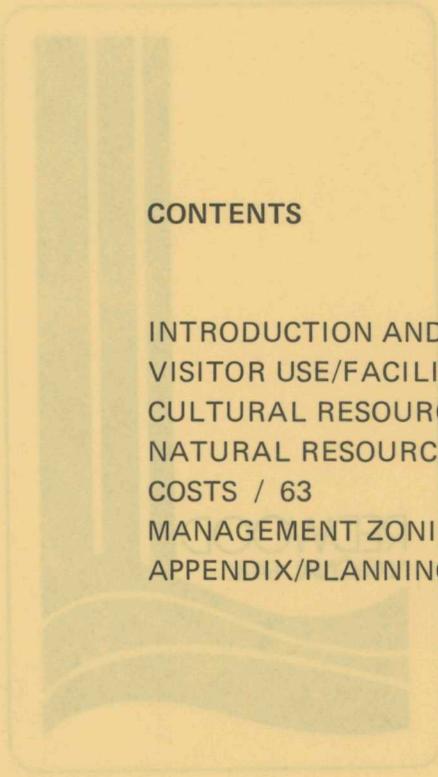
Howard H. Chapman  
Regional Director, Western Region

# general management plan



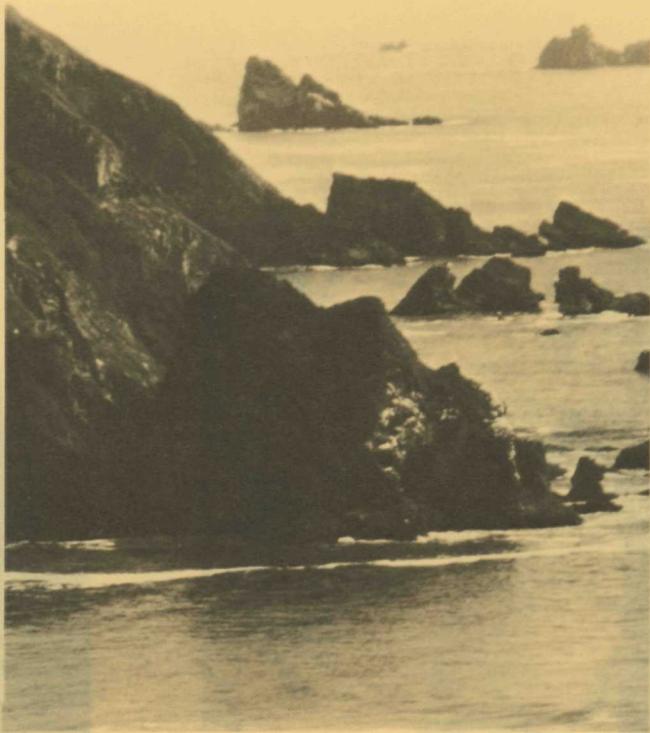
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General management plan



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This is Redwood National Park . . . a mosaic of moods and textures, dominated for ages by the ocean and the magnificent redwoods.





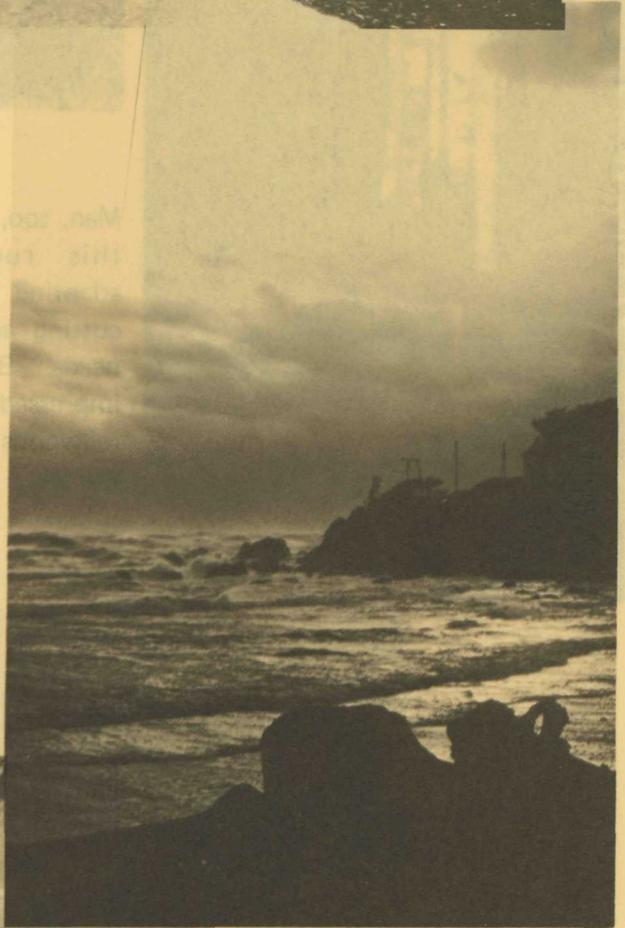
Summer fog sends fingers up the valleys and spills over low ridges... and is dramatically pierced by shafts of light.

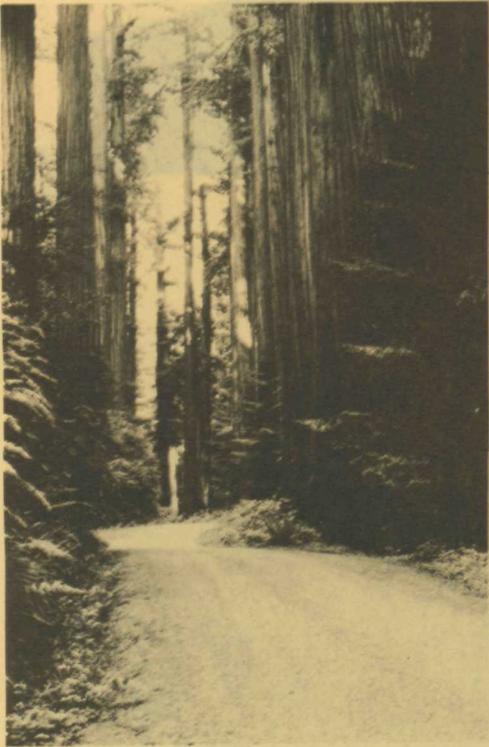




Man, too, has slowly become a part of  
this rugged environment — first  
clinging to the landscape, then  
contending with it to meet his  
needs, but always he has been  
impressed by the quiet majesty of the  
land and the awesome power of

Rivers flow majestically to the ocean, and  
the sea pounds the bluffs and rearranges  
broad sandy beaches.



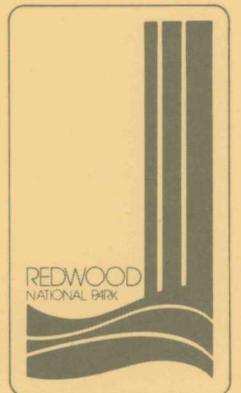


Man, too, has slowly become a part of this rugged environment — first adapting to the landscape, then cutting and shaping it to meet his needs. But always he has been impressed by the quiet majesty of the redwoods and the awesome power of the sea.



# INTRODUCTION AND CONCEPT

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## INTRODUCTION

Redwood National Park was established by Congress in 1968 to preserve some 58,000 acres of northern California coastal redwood forest for public inspiration, enjoyment, and study (Public Law 90-545). However, the original park boundary did not include enough land to ensure the degree of preservation for Redwood Creek that had been envisioned. Therefore, this act was amended in 1978 by Public Law 95-250,

to protect existing irreplaceable Redwood National Park resources from damaging upslope and upstream land uses, to provide a land base sufficient to insure preservation of significant examples of the coastal redwood in accordance with the original intent of Congress, and to establish a more meaningful Redwood National Park for the use and enjoyment of visitors.

Among other things, the 1978 legislation expanded the park by 48,000 acres in the Redwood Creek watershed; provided for the rehabilitation of that watershed; authorized the acquisition of the lands for a bypass of Prairie Creek Redwoods State Park; provided for the reduction of local economic impacts resulting from park expansion, including impacts on local employment; and required the preparation of a general management plan.

## PURPOSE OF THE PLAN

This General Management Plan for Redwood National Park is intended to guide management of the park for a ten-year period. It outlines specific actions for visitor use and facilities development, cultural resources management, and natural resources management (including the broad objectives of the rehabilitation of Redwood Creek watershed). Annual reviews of park conditions in the meantime may affect specific actions or management techniques, but the National Park Service is confident that thoughtful planning and thorough public review have produced sound and sensible guidelines for the life of the plan. These guidelines are flexible, and specific actions may be modified to meet changing conditions (for example, travel patterns or national priorities). This flexibility, however, will not prevent steady progress toward ensuring the preservation of "significant examples of the primeval coastal redwood forests, and the associated streams and seashore" (Public Law 90-545).

Two factors that have complicated planning at Redwood, and also management, are the narrow, elongated configuration of the park and the complex land status. Most of the superlative redwood groves, except for those in the Redwood Creek unit, lie within

three magnificent redwood state parks, which are more or less tied together by corridors of federal park land. Of the national park's total authorized 106,000 acres of land area, 27,470 acres are in state parks. To enhance the visitor experience and to facilitate park management, the National Park Service will cooperate with the state of California and Humboldt County to manage state, county, and national park lands as one management entity. This will require the support of the heads of administering agencies and close working relationships at the planning and operating levels. Although planning for Redwood National Park presupposes that the state and county parks will be donated to the federal government for national park purposes, such actions may not take place for several years. In the interim, harmonious working relations among the involved agencies must be established at the operating level. Interagency communications need to be highly developed toward this end, and the development of this plan aids in the realization of such a cooperative planning approach.

#### SCOPE OF THE PLAN

Because the National Park Service's long-range program for Redwood National Park depends on the actions that will be undertaken for visitor use and facilities development, cultural resources management, and natural resources management, the scope of each of these plan components is described below:

For visitor use and facilities development, strategies are outlined for interpreting park resources, for providing for visitor use and safety, and for supplying necessary services for proposed activities. The development necessary to accomplish these goals is also detailed.

For cultural resources management, the significant historic and archeological resources that will be preserved are identified and the types of treatment recommended to preserve them are indicated.

For natural resources management, the goals and major actions for conserving the park's natural resources, for upgrading environmental quality, and for rehabilitating the Redwood Creek watershed are described.

Two other sections of the plan are costs of implementation and management zoning:

The costs of implementation are based on current estimates for development (approximately \$7,543,500, in 1979 dollars) and operations (approximately \$4,500,000 annually, in 1979 dollars). The implementation schedule for proposed

developments is adjustable in that the proposals can be implemented in a shorter or longer period, depending on economic conditions. In addition, Congress has authorized a special appropriation of approximately \$33 million for the watershed rehabilitation program in Redwood Creek basin.

Management zoning shows how the park will be managed when all actions proposed in this General Management Plan have been implemented.

The significance of the park, critical influences and constraints to be considered in its management, and the objectives that are to be achieved through the implementation of this General Management Plan are all discussed in a separate document, the "Statement for Management." Because the "Statement for Management" is subject to annual review and revision, as actions called for in this plan are accomplished, the objectives will be revised. Changing conditions can also be addressed in a timely fashion in the statement to ensure that park management activities are directed to protecting resources, accommodating visitor use, and allowing for efficient park operations. (The present objectives are appended to this plan.) The plan and its effects on natural and cultural resources, and also on the socioeconomic environment, are discussed in the 1979 Draft Environmental Statement and the 1980 Final Environmental Statement.

## THE PLANNING CONCEPT: A REGIONAL POTENTIAL

Redwood National Park is one facet of California's north coast region. It is generally not a single destination for visitors, rather it is an area that people visit as they travel to other places. This General Management Plan addresses that premise by proposing programs, activities, and facilities that will allow visitors to enjoy their stays, regardless of how long, and to learn as much as they want about Redwood's unique aspects. The plan's success, however, depends to a large degree on how complementary the activities and services provided by the park and the adjoining communities prove to be.

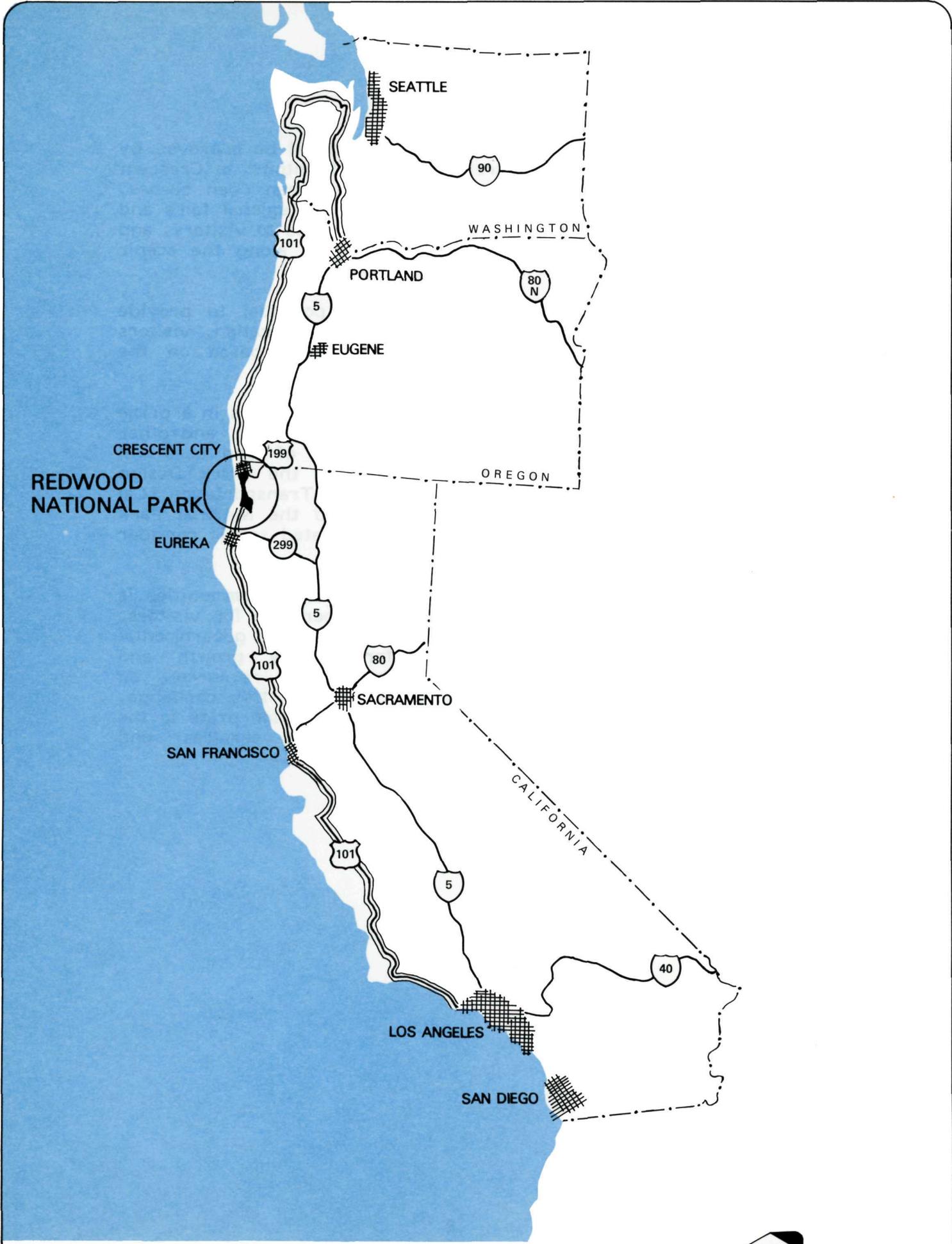
Coordinated regional actions are especially important if the park is to make an inspirational, educational, and recreational contribution to the well-being of the region. The park should strongly influence the quality of the experience for visitors to the region, but it must not attempt to satisfy all needs and desires, many of which can be more adequately provided by other governmental agencies, surrounding communities, and private enterprises.

Under the concept proposed in this plan, the national park and the state parks will offer people opportunities to appreciate the natural environment, while the adjacent communities will continue to provide complementary recreational activities and services for visitors. Proper planning and execution will result in an integrated regional recreation system.

Many outstanding opportunities throughout the region can be best provided through interpretation, education, and recreation offered by others in cooperation with the National Park Service. Representatives of the various national, state, local, and private groups will be asked to participate in developing action plans for areas within the park and the region.

Nearby communities should be encouraged to provide for visitor needs and comfort. By doing this, they can help protect the outstanding resources within the park and increase the economic base of the region because a variety of quality accommodations and services will be needed. To accomplish this, the towns should seek planning and financial assistance from a variety of governmental agencies.

Crescent City has the potential to develop additional motel accommodations, commercial campgrounds, restaurants, community activities, visitor attractions, and other visitor services. Promoting the recreational aspects associated with an enlarged deep-sea sportfishing industry and developing the recreational potential of the harbor and beach area will supplement those activities proposed on private lands and in national forests.



# LOCATION

Redwood National Park \_\_\_\_\_ U.S. Department of the Interior \_\_\_\_\_ National Park Service



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The Crescent City dock and waterfront area could be improved by creating a visitor use area stretching from downtown to Crescent Beach within the park. It could incorporate green open spaces, marinas, restaurants, malls, and sitting areas. Regional fairs and festivals could be held to enhance its attractiveness to visitors, and boat trips from here could allow for sightseeing along the scenic coast and for angling.

Klamath, like Crescent City, has excellent potential to provide opportunities for visitors to the region. At this location, visitors could participate in varied recreational activities based on the Klamath River.

Orick, astride the major southern access to the park, is in a prime location to provide accommodations, community activities, and other tourist services and attractions. The allocation of land uses will require cooperation between Humboldt County, the Orick Design Review Committee, the California Department of Transportation (Cal Trans), the California Coastal Commission, and the National Park Service, particularly in the legislatively designated scenic corridor and at Freshwater Lagoon.

If the growth and development of these neighboring communities is unplanned, the result will be a discordant experience for visitors. If, however, the citizens, industries, businesses, and governmental entities work together to provide for orderly growth and development that is in balance with the natural resources, an overall improvement will occur. In the midst of this challenge, Redwood National Park can act as a catalyst to foster pride in the environment and the provision of quality services and accommodations for visitors.

# VISITOR USE / FACILITIES DEVELOPMENT

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## OVERVIEW

### VISITOR USE

Redwood National Park, with its cathedral-like groves and rugged Pacific shore, can offer visitors an experience that is spiritually uplifting and refreshing. This experience can be ensured by carefully selecting use areas, by designing environmentally compatible facilities to accommodate various uses, and by interpreting park resources. Facilities envisioned by the plan will be specifically designed to feature their environmental settings, while buffering the effects of human activities.

Long-established visitor use patterns--that is, how people move through the park and use its resources--will not change. Camping at developed areas, participating in nature walks, and attending interpretive programs at the three state parks will be activities that will continue to be offered. Additional use areas and facilities within the national park will be created to allow people to seek new outdoor recreational opportunities. More of the park will be made accessible, but fragile areas will be protected from the destructive effects of overuse. Use will be distributed to reduce undesirable crowding, something many people have come to escape.

The most significant proposals in terms of physical change in the park involve the development of activity centers and sites. These visitor developments will each feature one aspect of the park's natural environment. Interpretive themes at the activity centers will be "Redwoods and the River" in the Jed Smith unit and "Flora and Fauna of the Redwoods" in the Prairie Creek unit. Themes at the various activity sites will include "Upland Redwoods" at Mill Creek Campground; "The Coast" at Crescent Beach North and South, and also at Lagoon Creek; and "Redwoods to the Sea" at Skunk Cabbage Hill. (See the Interpretive Themes map.)

This concept for interpretation will allow visitors to get an impression of each of Redwood's unique geographic areas and in a fashion that suits their travel plans and interests. At each activity center or site, park users will also be able to get specific information about features and activities within that area, and many of the sites will serve as trailheads or "jumping-off points" for further exploration of the park. Three-dimensional park topographic models at the activity centers will help communicate the variety of ways to enjoy the park and use its facilities.

Information systems will be revised to overcome the disorientation that visitors sometimes experience because of Redwood's long, narrow, and piecemeal configuration. People will be contacted early

in their visits and told about the location of recreational opportunities in the park, and comprehensive information will also be distributed. Information centers will be established at Crescent City, Klamath, and Orick. Techniques for informing visitors will include the following:

Providing more directional information through better signs, strategically located waysides and information facilities, and appropriately stationed park information staff

Offering trip-planning information through the publication of a Redwood National Park guidebook and the construction of the activity centers at either end of the park, where park interpretive staff will be available to help visitors plan their stays

Making books, guides, and pamphlets available about natural and cultural history, and about outdoor recreation in the park

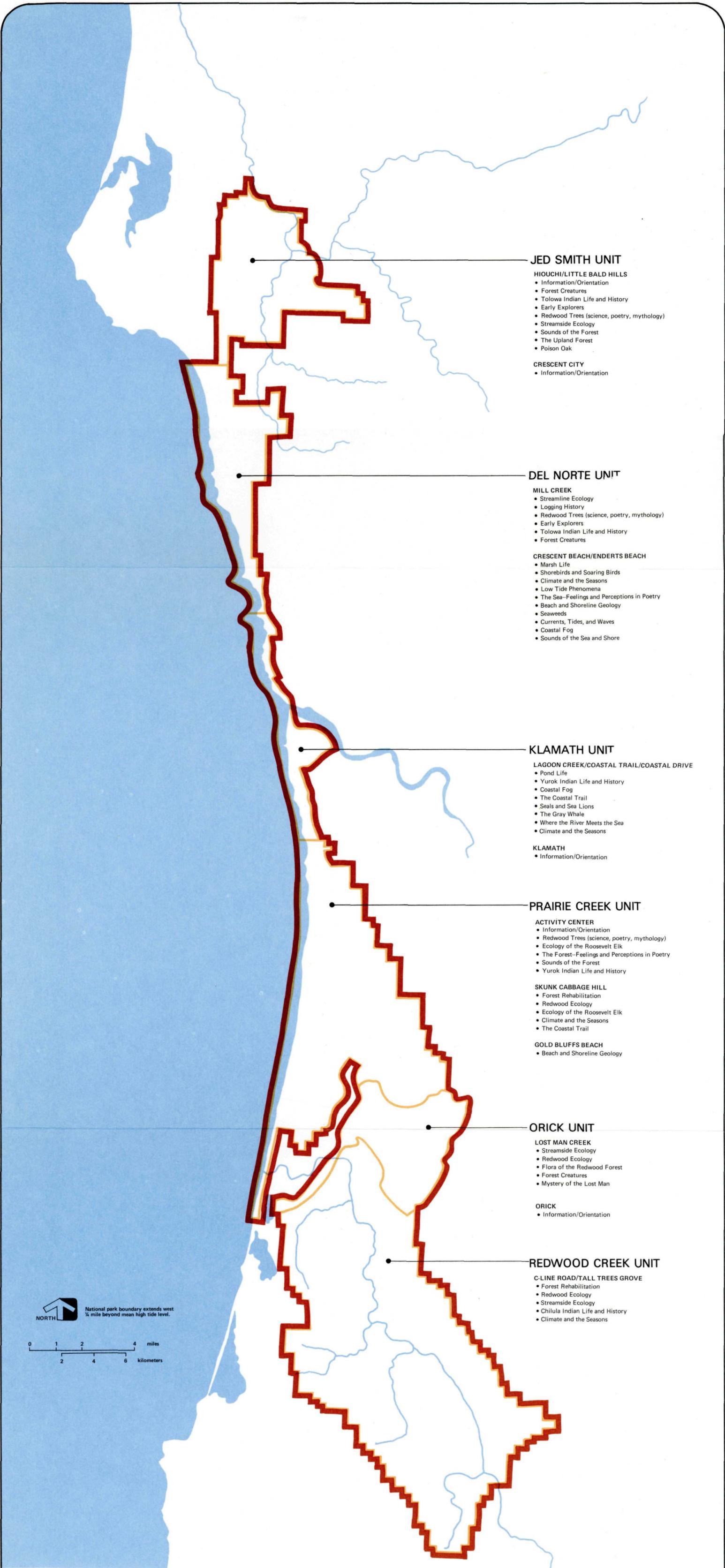
Offsite programs about park resources and recreational opportunities can be conducted cooperatively with public schools to complement their own curricula. Portable interpretive programs can be developed for this use once the needs have been identified by the schools.

Facilities, recreational opportunities, and programs for special populations will be provided throughout the park. Special populations are considered to be any visitors who require particular types of facilities or aids to fully enjoy their experiences in the park. Such visitors include those with sensory impairment, ambulatory limitation, and mental retardation, and also foreign visitors, the elderly, and the very young.

Economic conditions must not be a deterrent for visitors wanting to use the park. Therefore, Redwood will remain a nonfee area. Special fees will be charged for activities such as transportation services or camping.

The two "environmental living program" schools will be used primarily for educational group activities related to park programs. When not being used for educational purposes, they will be used as campgrounds that can be reserved by organized groups. The outdoor schools can also be used on a reservation basis as training facilities for interpreters for the National Park Service, Forest Service, state parks, or any agency or institution wanting to enhance its own programs.

Because Native Americans have inhabited the Redwood National Park area for centuries, their continued use of the park is as important as the preservation of natural surroundings. The culture and



**JED SMITH UNIT**

- HIOUCHI/LITTLE BALD HILLS**
- Information/Orientation
  - Forest Creatures
  - Tolowa Indian Life and History
  - Early Explorers
  - Redwood Trees (science, poetry, mythology)
  - Streamside Ecology
  - Sounds of the Forest
  - The Upland Forest
  - Poison Oak
- CRESCENT CITY**
- Information/Orientation

**DEL NORTE UNIT**

- MILL CREEK**
- Streamline Ecology
  - Logging History
  - Redwood Trees (science, poetry, mythology)
  - Early Explorers
  - Tolowa Indian Life and History
  - Forest Creatures
- CRESCENT BEACH/ENDERTS BEACH**
- Marsh Life
  - Shorebirds and Soaring Birds
  - Climate and the Seasons
  - Low Tide Phenomena
  - The Sea--Feelings and Perceptions in Poetry
  - Beach and Shoreline Geology
  - Seaweeds
  - Currents, Tides, and Waves
  - Coastal Fog
  - Sounds of the Sea and Shore

**KLAMATH UNIT**

- LAGOON CREEK/COASTAL TRAIL/COASTAL DRIVE**
- Pond Life
  - Yurok Indian Life and History
  - Coastal Fog
  - The Coastal Trail
  - Seals and Sea Lions
  - The Gray Whale
  - Where the River Meets the Sea
  - Climate and the Seasons
- KLAMATH**
- Information/Orientation

**PRAIRIE CREEK UNIT**

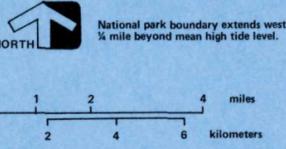
- ACTIVITY CENTER**
- Information/Orientation
  - Redwood Trees (science, poetry, mythology)
  - Ecology of the Roosevelt Elk
  - The Forest--Feelings and Perceptions in Poetry
  - Sounds of the Forest
  - Yurok Indian Life and History
- SKUNK CABBAGE HILL**
- Forest Rehabilitation
  - Redwood Ecology
  - Ecology of the Roosevelt Elk
  - Climate and the Seasons
  - The Coastal Trail
- GOLD BLUFFS BEACH**
- Beach and Shoreline Geology

**ORICK UNIT**

- LOST MAN CREEK**
- Streamside Ecology
  - Redwood Ecology
  - Flora of the Redwood Forest
  - Forest Creatures
  - Mystery of the Lost Man
- ORICK**
- Information/Orientation

**REDWOOD CREEK UNIT**

- C-LINE ROAD/TALL TREES GROVE**
- Forest Rehabilitation
  - Redwood Ecology
  - Streamside Ecology
  - Chilula Indian Life and History
  - Climate and the Seasons



**INTERPRETIVE THEMES**

traditions of the Native Americans can enhance the meaning and nature of the park for other visitors. Through an understanding of the local culture and traditions, the public will have opportunities to gain a greater appreciation for the significance of the park's natural wonders to a different culture. Consequently, involving Native Americans in park interpretive programs will ensure that their culture and religious traditions are represented in the park's plans and programs.

The National Park Service will continue to work with the Native American heritage advisory committees to implement this proposal. Through these committees, Native Americans will be encouraged to practice their traditional ceremonies in the park to the extent that they are consistent with the values for which Redwood National Park was established. They will also be urged to share their traditions, culture, and history with park visitors.

Cooperative programs for information/orientation services and for interpretation will be developed with local, state, and other federal agencies, principally with the Forest Service and the California Department of Parks and Recreation. An interagency interpretive exchange will enrich programs for everyone involved as well as help each agency by expanding program capabilities. Informational materials, graphics, schedules, and brochures can also be shared with nearby agencies.

#### BEACH USE MANAGEMENT

The management of beaches within the park will take into account resource protection and visitor use considerations. Commercial fishing and sportfishing will be allowed in accordance with applicable state laws. Commercial wood gathering will not be allowed on federal park lands. Gathering firewood for local use will be allowed by permit on a seasonal basis at designated locations. Provisions for specific beaches are discussed below under individual planning/management units.

#### ACCESS AND CIRCULATION

Access and circulation for visitors is complicated because Redwood National Park's primary road system--U.S. 101 and U.S. 199--is also the heart of the region's highway network. This problem will be greatly alleviated when the U.S. 101 bypass of Prairie Creek Redwoods State Park is completed for use by nonpark traffic. In addition, low-speed scenic-driving opportunities will be made available by converting some former logging roads to one-way park roads.

The complete park circulation system will involve both a circulation system inside the park on Park Service roads and one outside the park on state and county roads. The interior system will enable visitors to participate in a variety of visual, interpretive, and recreational experiences, and it will also provide opportunities for walking, horseback riding, boating, bicycling, automobile touring, and riding on public conveyances. Visitors can thereby choose different degrees of personal involvement with the redwood forest, the ocean's edge, and other park resources. The exterior system, which will connect with various elements of the interior system, will allow access for food, accommodations, and regional recreation pursuits.

Although most visitors use their own automobiles for transportation, visitors in the future may well rely upon alternative transportation modes. A coordinated effort by commercial bus companies to provide visitors with an easy and flexible way of seeing this highway-oriented park will soon be a necessity. If bus companies cooperate by using well-marked trailheads as flag stops and by providing service to the activity centers, the options for visitors to see the park without using cars will be significantly expanded.

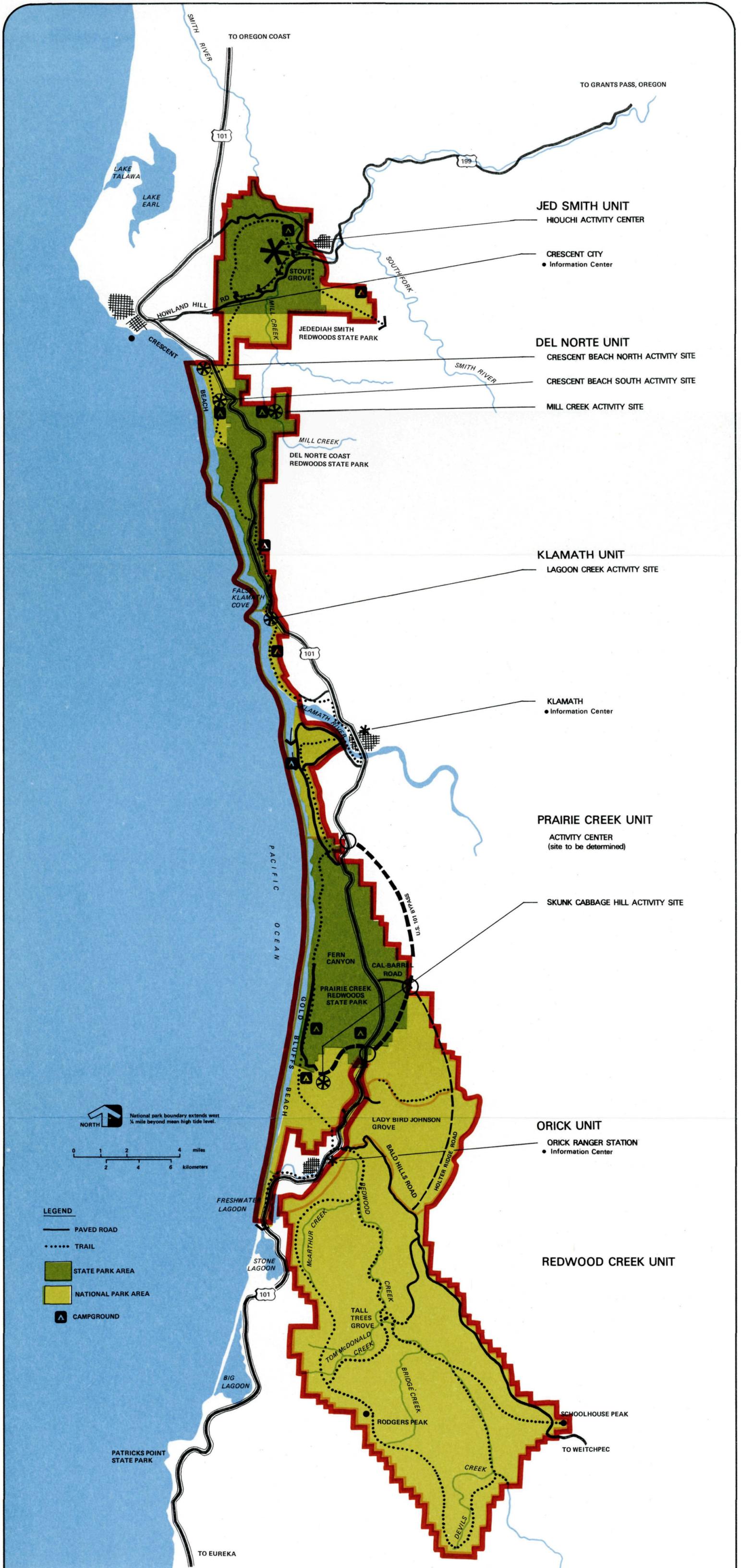
A recognized regional objective is the expansion of tourism; thus, the attraction of vacationers to the north coast region by means of increased transportation services must be supported by the community at large, financially underwritten by many agencies, adequately advertised, and made as comfortable and convenient as possible.

The C-Line road shuttle will continue to provide bus service to Redwood Creek and Tall Trees Grove, with departure times based on the schedule of the commercial bus line that serves the Orick area by way of U.S. 101. With the expansion of the Park Service shuttle program, visitors will also be able to get to Gold Bluffs Beach or to one of the trailheads.

Much of the park will be accessible by trails and paths, and the Coastal Trail will run the entire length of the park. Walk-in campgrounds will be provided in conjunction with developing a comprehensive trail network (see Facilities Development map).

#### FACILITIES DEVELOPMENT

The natural features and recreational opportunities of the park will always be focal points for many visitors to the region, but specific services for visitors--restaurants, motels, and developed campgrounds--will continue to be provided in the local communities. Commercial facilities that might be provided within the park--stables, shuttle systems, and limited food services--would be operated on a concession or special use basis.



# FACILITIES DEVELOPMENT for Visitor Use

The activity centers will integrate a number of separate functions, ranging from providing the type of information park users will need to encouraging people to explore the park on their own. The success of the centers will depend on thoughtful designs based on an understanding of human behavior in park settings, careful attention to detail and construction, and continuing conscientious operations after construction. The following design elements should ensure that the centers achieve their purpose.

The Highway Approach--A signal to travelers that they are entering the park.

The Sign--A special, custom-made, and straightforward sign.

The Entrance Road--A preview of what lies ahead: indications of concentrated activity; graceful curves; low-speed, one-way designs.

The Parking Area--Clearly identifiable circulation routes, and the softening of visual impacts by thick plantings. The main path to the activity center should be clearly visible from all parts of the parking area.

The Entry Plaza--Restrooms with hot water and an adjacent waiting area with parkwide orientation/information.

The Main Gateway--A wide entrance that begins at the rest area and that is easily identified from all parts of the parking area. Discreet signs will indicate what lies ahead.

The Resource Filter--A path through a natural zone between the parking area and the landing. Entry into the resource will be emphasized rather than entry into a building.

The Landing--The terminus of the entry path, and the reception area for the activity center. This will be slightly higher than the path or the activity deck to reinforce its significance as a landing and to provide an overview of the deck. National Park Service people will greet their guests here and make them feel welcome. The landing will also be a good place to dispense information about using the park by means of a guidebook if it is small enough that people can easily take it with them. Dispensers should be simple and located where circulation is good.

The Activity Deck--A sheltered outdoor room with both built-in and loose furniture so groups can adjust a space to fit their own needs. Any decoration or exhibitry must provide information that will aid people in deciding how they can use

the park. A topographic model is a universally valuable information device that people of all ages can relate to. National Park Service people should circulate among groups to provide assistance as required.

Alcoves--Areas of various sizes along the edges of the activity deck where small groups will be able to establish some territory of their own. Alcoves might be slightly above or below the activity deck.

The Sunshine Cafe--A comfortable place to sit, where visitors can relax, regroup, and refresh themselves. The place should be an outdoor terrace with some shelter, and it should focus on the surrounding natural setting, with wide stairs leading into the natural environment. Food served here should be simple but hearty. Books and publications for sale should be offered.

The following amenities are important details of furnishing and operation that will make the activity centers especially pleasant for visitors:

Staffing--People who enjoy public contact and are knowledgeable about ways to use the park should be assigned to the activity centers. The emphasis of contact will be to make visitors feel welcome and to provide personalized trip-planning information. A minimum of one staff person should be assigned permanently or at least seasonally to each center so that it becomes his or her place to take care of. This will provide the critical human thread that gives life to inanimate physical space.

Canopies--Tentlike roofs must be used to provide shelter on rainy days and to create outdoor rooms. The translucent quality of canvas or clear roofs results in beautiful light-and-shadow patterns. Canopies over patios should be capable of being easily opened or closed.

Site Furniture--Places to sit, lie down, lean on, and climb on should be built into the architectural components of the center. Also, lots of loose furniture--small tables, comfortable chairs with arms, and rocking chairs--will make the centers places where people can rearrange the furniture to suit their own wishes.

Guidebooks--Publications should inform people of their options for using the park. They should provide navigational information (Where am I? Where is that place? How do I get there?), trip-planning information (What can we do here? What choices do we have?), experiential information (What do we need to know to do that? What preparations are required? What equipment do we need? Where can we get it? What skills

are required?). The staff and guidebook should complement each other to ensure that visitors make the most of their stays in the park.

Graphics--Simple, clear graphics should be used, and they should be coordinated with publications and signs throughout the park. Consistency (typeface, color, symbols, materials, size) is the key to communication throughout a large park.

Programs--A variety of spontaneous or scheduled programs--art, educational, or entertaining--could be offered by all kinds of people, not just park staff. These programs could be offered in any part of the activity center.

## PARK OPERATIONS

### Organization

The long shape of the park, the location of the adjacent communities, and the segmentation of the park create both problems and opportunities in the placement of park management facilities. The location of the gateway communities in relation to the park permits them to be used for administrative sites that facilitate both the coordination of internal/external affairs and the conservation of park resources.

The central administrative headquarters for the general management of the park and coordination of park/community activities will remain in Crescent City.

The location of maintenance centers will be based upon criteria of visitor services and resources management needs, as well as on geographically administrable units. A central park maintenance facility will be developed in the Klamath area by reusing the Requa radar station.

### Employee Quarters

Housing will be provided for seasonal or transient personnel. A shortage of adequate housing in the low- to middle-income categories is particularly acute in the vicinity of the park around Klamath and Orick. Rentals in all categories are practically nonexistent, the rate of turnover is slow, and housing prices are so high that purchase on a short-term basis is economically infeasible. Park Service compounds will not be created because they are contrary to the concepts of cooperative resources management and Park Service employee participation and integration in the communities.

### Forest Service Facilities

With the development of management facilities for the park staff and the development of employee housing within the communities, the Forest Service facilities at the Yurok Redwood Experimental Forest will be returned to the Forest Service. The Park Service currently uses these facilities, known as the Redwood ranger station, for offices, shops, and residences.

### Jurisdictional Considerations

The Park Service will seek concurrent jurisdiction of federal lands and state-owned submerged lands within the authorized national park boundaries. For efficient use of a limited number of personnel and for harmonious working relations, federal and state personnel should have reciprocal enforcement authorities over state park and national park lands.

Highways and roads will continue under state and county management as long as their use is primarily for commercial and through traffic. Where the use is primarily recreational, the Park Service will accept right-of-way donations that are unencumbered. Law enforcement on commercially important roads will continue to be handled by the state; however, the Park Service will provide public services in the national park similar to those offered in other national parks.

Until the state and county highway and road rights-of-way are donated to the federal government, the implementation of planning decisions may be delayed. U.S. Highways 101 and 199 will not change status until bypasses have been constructed.

Within the national park, a number of former owners have retained rights of use and occupancy for residential purposes during their lifetime or for periods up to 25 years. Particularly in the Hiouchi area, this land status may cause a long delay in park development and otherwise complicate resources management. The California-Pacific Mill occupies, under a 27-year agreement, a strategic site for visitor use along the beach west of Orick.

## PARK PLANNING/MANAGEMENT UNITS

Six planning/management units have been designated for Redwood National Park. From north to south, they are Jed Smith, Del Norte, Klamath, Prairie Creek, Orick, and Redwood Creek.

## JED SMITH

In Jedediah Smith Campground, 43 campsites will be relocated from the Smith River floodplain to open land east of the existing campground. A bicycling/hiking trail will be developed from the existing riverside picnic area to the eastern boundary, linking Hiouchi Hamlet with the campground and adjoining visitor areas.

The Hiouchi Flat activity center on the north bank of Smith River across from Stout Grove will replace the functions currently provided at the Hiouchi ranger station. Pedestrian access to Stout Grove will be from the activity center by way of the existing seasonal footbridge. The parking area in Stout Grove will be closed during summer months. Visitors who require special access to the grove will be accommodated.

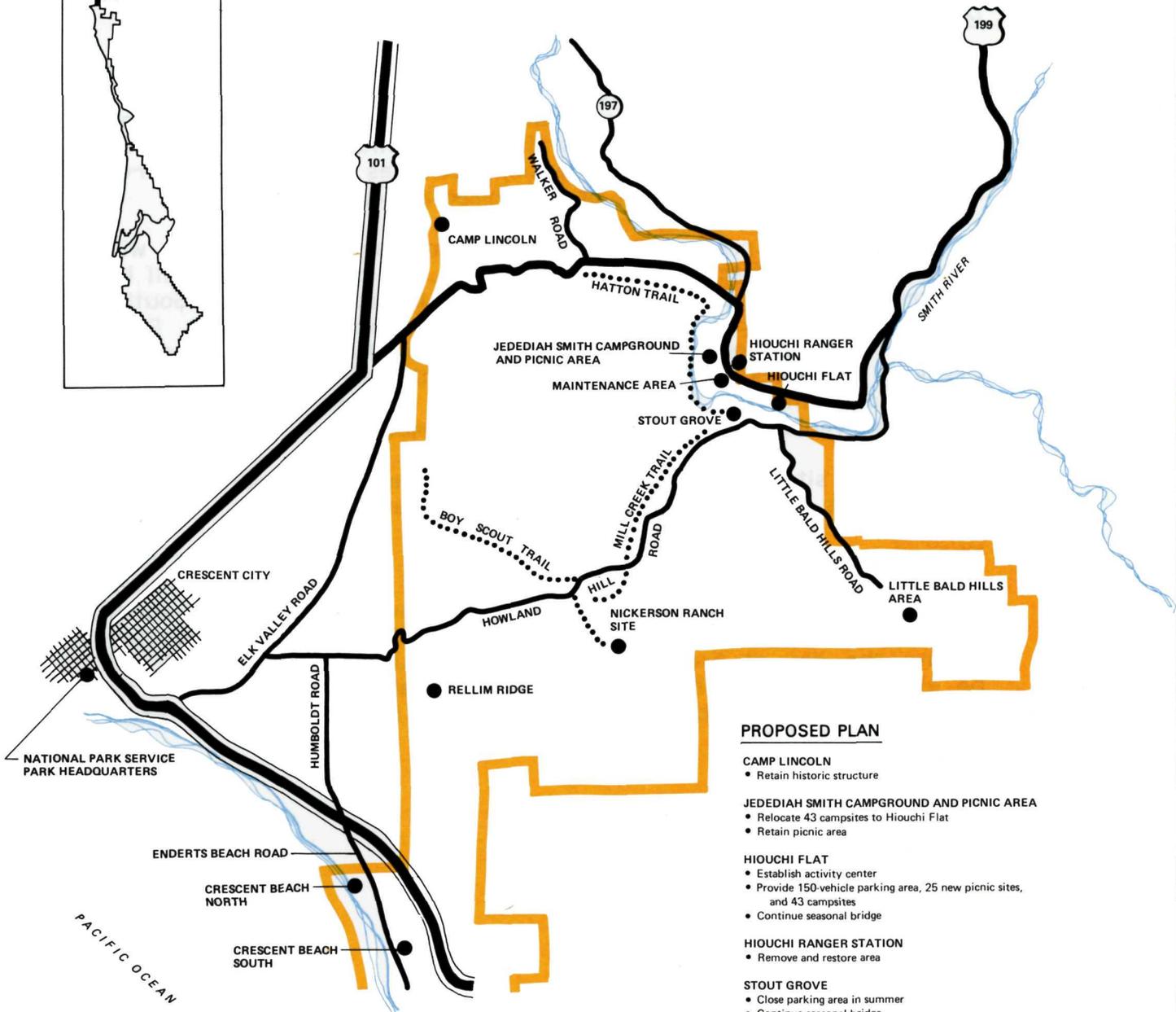
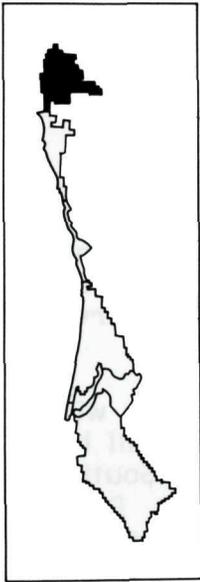
Howland Hill Road will be designated one-way from Stout Grove west to the park boundary. Trailheads along the road will be improved so visitors will be able to identify them more easily. Signs along this corridor should assist visitors, but they should not interfere with the visual experience.

Little Bald Hills Road will be converted to a hiking trail, with a 10-vehicle parking area at its junction with Howland Hill Road. Ten primitive campsites will be established along the trail near the eastern park boundary. A new section of trail will connect the Boy Scout Trail and the Hatton Trail, forming a loop trail through the interior of the unit. An additional section of trail will be developed along Rellim Ridge from the Nickerson Ranch to the coast.

The existing maintenance area in the state park will be relocated, thereby allowing more space for visitor activities between the existing campground and the Hiouchi activity center.

Contact with visitors will be retained at the headquarters in Crescent City. The plaza area will be redesigned to offer a better facility for conducting interpretive activities.

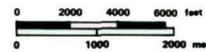
Housing in the extreme eastern area of the unit will be retained to provide suitable units for seasonal and temporary employees. All other housing units will be removed after the lease-back period.



**PROPOSED PLAN**

- CAMP LINCOLN**
  - Retain historic structure
- JEDEDIAH SMITH CAMPGROUND AND PICNIC AREA**
  - Relocate 43 campsites to Hiouchi Flat
  - Retain picnic area
- HIOUCHI FLAT**
  - Establish activity center
  - Provide 150-vehicle parking area, 25 new picnic sites, and 43 campsites
  - Continue seasonal bridge
- HIOUCHI RANGER STATION**
  - Remove and restore area
- STOUT GROVE**
  - Close parking area in summer
  - Continue seasonal bridge
- HOWLAND HILL ROAD**
  - Designate as one-way west from Stout Grove
- LITTLE BALD HILLS ROAD**
  - Convert to trail
  - Provide 10-vehicle parking area at trailhead
- LITTLE BALD HILLS AREA**
  - Designate 3 miles of existing roadbed as trail
  - Provide 10 primitive campsites
- BOY SCOUT TRAIL**
  - Connect to Hatton Trail
- RELLIM RIDGE**
  - Construct 3-mile trail from Nickerson Ranch to Crescent Beach
- CRESCENT CITY**
  - Redesign visitor contact facility

Jed Smith Unit



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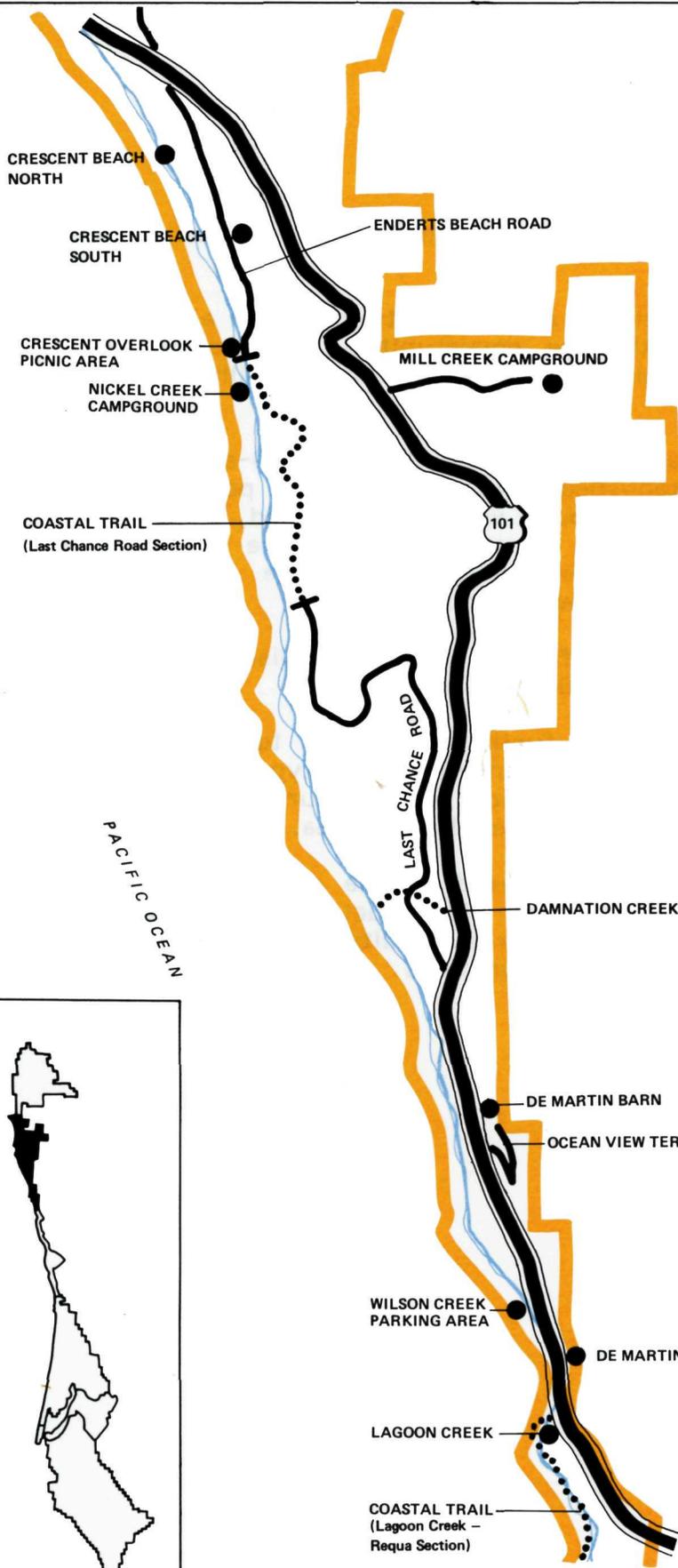
## DEL NORTE

At Del Norte, day and overnight visitor opportunities that focus on the Pacific coast will continue to be provided. The narrow coastal strip, accentuated by a combination of wide, flat beaches and steep, rock-faced slopes, makes the opportunities available in this unit unique to the park. The daytime activities here will also serve many of the recreation needs of the immediate community.

At the existing Crescent Beach North picnic area, a boardwalk will be constructed adjacent to the marsh area. A beach shelter will be constructed at the picnic area. At Crescent Beach South, picnicking and special programs will be provided. The Park Service will manage that part of Crescent Beach from Cushing Creek to the park boundary in concert with the existing Del Norte County ordinance. (The county closes its portion of the beach to recreation vehicle use from June 1 to September 15.)

An activity site will be developed at Mill Creek Campground, and it will serve as a trailhead and information center.

The Coastal Trail will run the length of this unit, with campgrounds at the north and south ends. The westernmost sites at Nickel Creek Campground in the north will be relocated about 300 feet to the east to separate them from activities conducted during the day at Enderts Beach. The southern campground will be at the De Martin barn site, where 12 walk-in campsites will be provided. A trailhead parking area will be developed in the Ocean View Terrace/Rudisell Road area.



**PROPOSED PLAN**

**CRESCENT BEACH NORTH**

- Establish activity site
- Construct marsh boardwalk and beach shelter

**CRESCENT BEACH SOUTH**

- Establish activity site
- Convert Pozzi farm to picnic area
- Provide 25-vehicle parking area

**NICKEL CREEK CAMPGROUND**

- Relocate westernmost sites

**COASTAL TRAIL, LAST CHANCE ROAD SECTION**

- Close Last Chance Road to vehicles and designate as part of Coastal Trail

**DAMNATION CREEK TRAILHEAD**

- Retain

**MILL CREEK CAMPGROUND**

- Establish activity site
- Retain maintenance area as minor facility

**DE MARTIN BARN**

- Provide 12 walk-in campsites

**OCEAN VIEW TERRACE/RUDISELL ROAD**

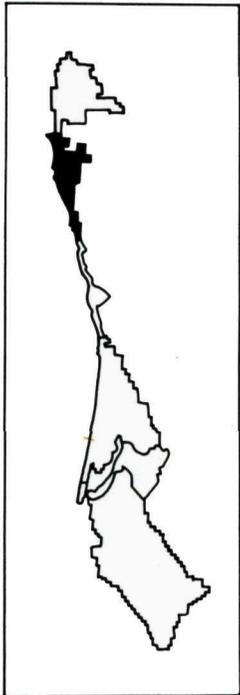
- Remove houses as leases expire
- Provide 20-vehicle parking area at trailhead

**COASTAL TRAIL, DE MARTIN PRAIRIE SECTION**

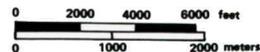
- Provide trail from south end of Last Chance Road to Lagoon Creek trailhead

**WILSON CREEK**

- Upgrade parking area



Del Norte Unit



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## KLAMATH

The Klamath unit will offer predominantly coastal hiking opportunities.

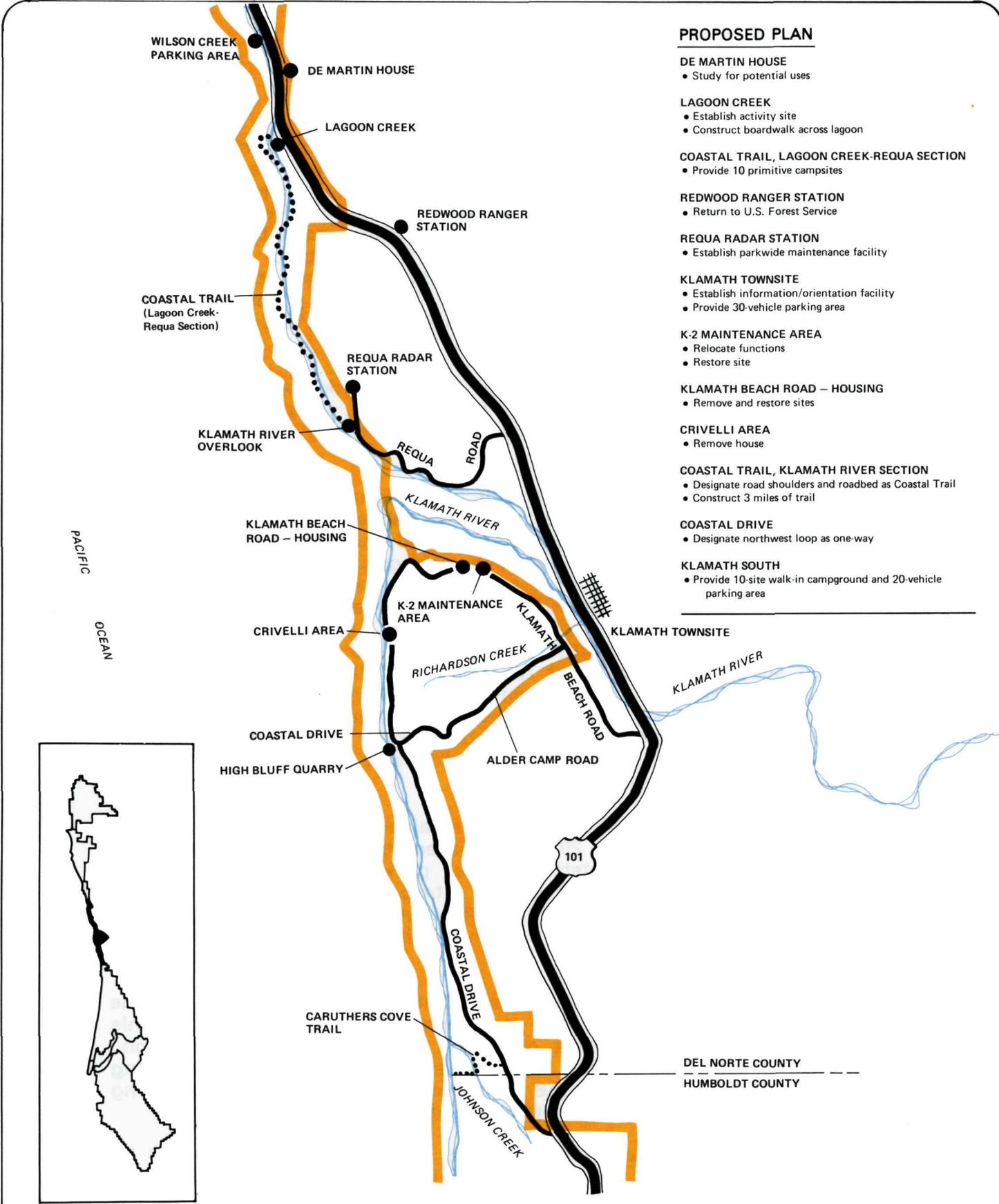
Lagoon Creek will be developed as an activity site, and a boardwalk will provide visitors with new opportunities to observe lagoon wildlife. This site will also be used as a major trailhead for the Coastal Trail.

Approximately 2 miles south of Lagoon Creek, a 10-site primitive campground will be established. In the southern portion of the unit, a 10-site walk-in campground will be established, along with a 20-car trailhead parking area. A new section of the Coastal Trail will be developed in the Richardson Creek drainage. The Crivelli house will be removed and the area restored.

A small information/orientation facility will be established at Klamath townsite, depending on the availability of land.

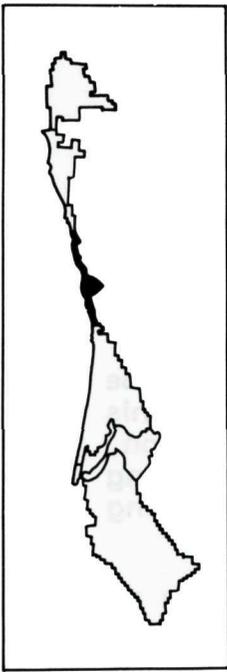
The De Martin house will be further evaluated to determine its suitability/capability as a bed-and-breakfast-type hostel. In addition, the National Park Service will encourage the private development of hostel facilities in the Klamath area.

The Requa radar station will be used as the central maintenance facility for Redwood National Park. The structures now utilized for maintenance will be studied for their suitability to provide for other park administrative or operational functions.

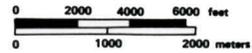


**PROPOSED PLAN**

- DE MARTIN HOUSE**
  - Study for potential uses
- LAGOON CREEK**
  - Establish activity site
  - Construct boardwalk across lagoon
- COASTAL TRAIL, LAGOON CREEK-REQUA SECTION**
  - Provide 10 primitive campsites
- REDWOOD RANGER STATION**
  - Return to U.S. Forest Service
- REQUA RADAR STATION**
  - Establish parkwide maintenance facility
- KLAMATH TOWNSITE**
  - Establish information/orientation facility
  - Provide 30-vehicle parking area
- K-2 MAINTENANCE AREA**
  - Relocate functions
  - Restore site
- KLAMATH BEACH ROAD – HOUSING**
  - Remove and restore sites
- CRIVELLI AREA**
  - Remove house
- COASTAL TRAIL, KLAMATH RIVER SECTION**
  - Designate road shoulders and roadbed as Coastal Trail
  - Construct 3 miles of trail
- COASTAL DRIVE**
  - Designate northwest loop as one-way
- KLAMATH SOUTH**
  - Provide 10-site walk-in campground and 20-vehicle parking area



Klamath Unit



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## PRAIRIE CREEK

The Prairie Creek unit will serve as a "park entrance" for northbound travelers, and the activity center will be designed to fulfill an identified need for information, orientation, and interpretive services in the southern portion of the park. While this plan endorses the concept of a southern activity center, the ultimate location of this center must be the subject of a coordinated effort between the National Park Service and the California Department of Parks and Recreation. This plan proposes that the state work with the Park Service in a joint agency study to identify a mutually acceptable site and design.

An activity site will be established in the Skunk Cabbage Hill area. This site will have day parking for 100 cars, 20 picnic sites, and 50 walk-in and 50 vehicle campsites. A trail will connect this area with the Coastal Trail.

The Coastal Trail in this unit will be designated along Gold Bluffs Beach, from Caruthers Cove to Skunk Cabbage Hill. The existing campground on the beach will be removed and the site converted to day activities. A 25-site walk-in campground will be developed near Major Creek, along with a 25-vehicle parking area. Facilities at Espa Lagoon will be reduced, and the overlook will be removed.

The Park Service will continue to allow vehicle access to Gold Bluffs Beach south to Mussel Point for commercial fishing. Access will be limited to identified access points. The Park Service will manage vehicular beach use to ensure the preservation of the attributes of a wild beach; therefore, wood gathering on federal lands will be allowed in concert with regulations for adjoining state park lands (50 pounds and one piece).

Prairie Creek Campground will be retained, but the southernmost campsites (approximately 20 sites adjacent to and in the prairie) will be removed. The existing state park headquarters will be converted for use as offices for interpretive personnel, a work area, and a trail center. The maintenance/housing area functions will be relocated to Requa, and the facilities will be removed from the prairie.

Shuttle transportation, which will feature interpretation, will be provided to resources in the southern section of the unit. This service could include stops at Skunk Cabbage Hill, Fern Canyon, Prairie Creek Campground, and the activity center. Visitors using the shuttle will also have the option to expand their stays by using many of the trails in Prairie Creek Redwoods State Park.

Davison Road, following its donation to the Park Service, will be realigned to connect the beach with U.S. 101 north of the bypass.

**PROPOSED PLAN**

**COASTAL TRAIL, OSSAGON RIDGE SECTION**

- Convert logging road trace to trail

**COASTAL TRAIL, GOLD BLUFFS BEACH SECTION**

- Designate as Coastal Trail route

**FERN CANYON**

- Provide shuttle bus access

**GOLD BLUFFS BEACH CAMPGROUND**

- Remove 25-site vehicle campground
- Use site for day activities

**CAL-BARREL ROAD**

- Connect to Bald Hills Road by way of Holter Ridge

**PRAIRIE CREEK REDWOODS STATE PARK HEADQUARTERS**

- Convert to trail center

**PRAIRIE CREEK CAMPGROUND AND PICNIC AREA**

- Remove 20 walk-in/bike-in sites in prairie and restore area

**PRAIRIE CREEK HOUSING AND MAINTENANCE AREA**

- Remove

**ESPA LAGOON**

- Remove overlook and restore area

**MAJOR CREEK**

- Provide 25-site walk-in campground and 25-vehicle parking area

**DAVISON ROAD**

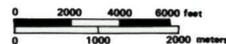
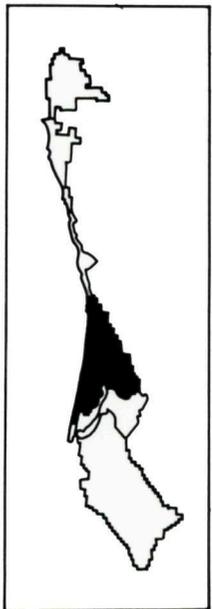
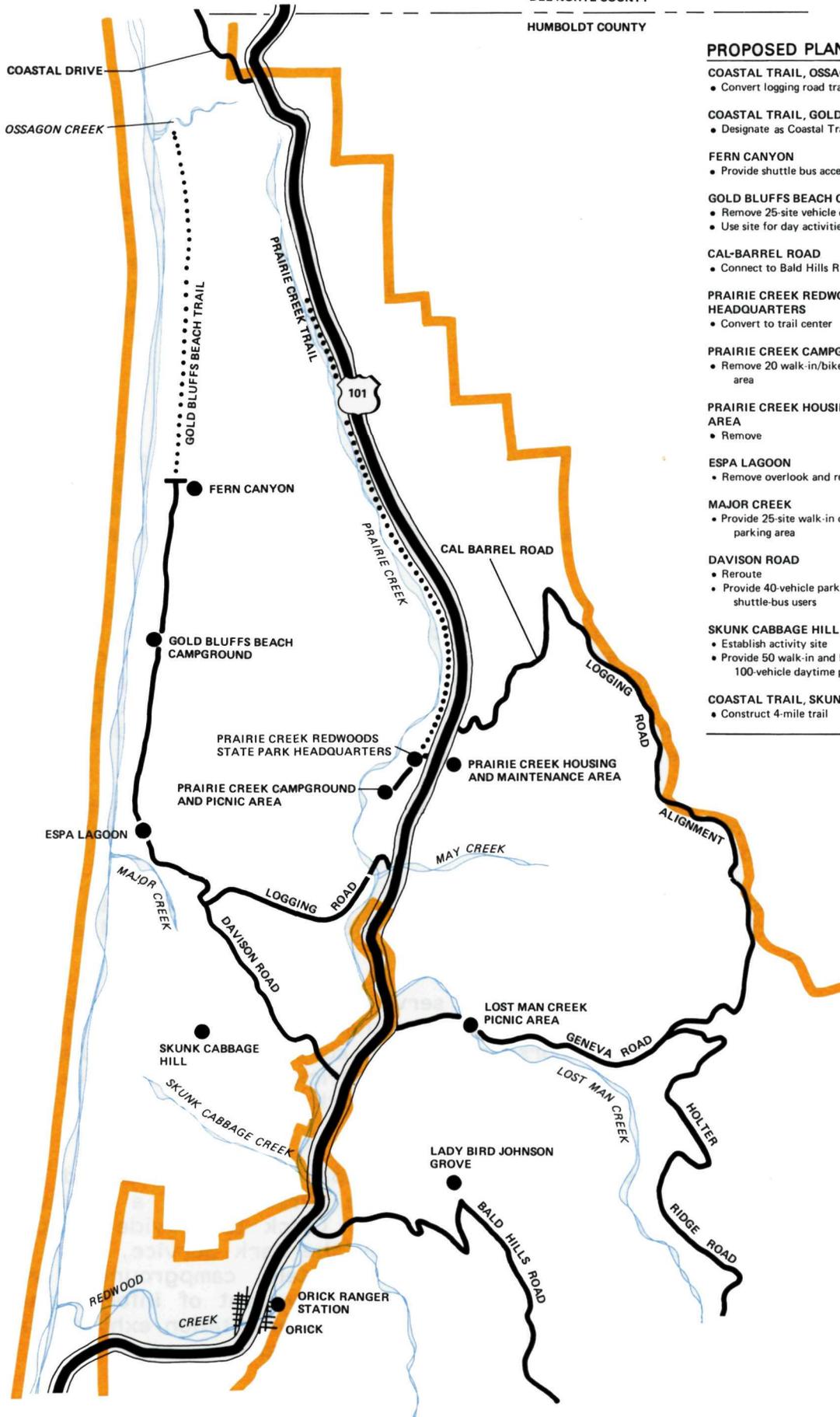
- Reroute
- Provide 40-vehicle parking area for shuttle-bus users

**SKUNK CABBAGE HILL**

- Establish activity site
- Provide 50 walk-in and 50 vehicle campsites, 100-vehicle daytime parking area, and 20 picnic sites

**COASTAL TRAIL, SKUNK CABBAGE HILL SECTION**

- Construct 4-mile trail



Near the access road to Skunk Cabbage Hill, a 40-car parking area will be developed for shuttle-bus users.

Nonpark traffic on U.S. 101 will be routed around the Prairie Creek unit by means of a new bypass. This road will interchange with park roads at May Creek and U.S. 101 in the south, at Coastal Drive and U.S. 101 in the north, and at Cal-Barrel and Holter Ridge roads in the center. Following completion of the bypass, the highway alignment within the Prairie Creek unit will be managed as a parkway.

### ORICK

Proposals for this unit will focus on changes in access and circulation. Holter Ridge Road will be upgraded to provide access from Bald Hills Road to the new U.S. 101, and it will have overlooks and trailheads for hiking into the Lost Man Creek drainage.

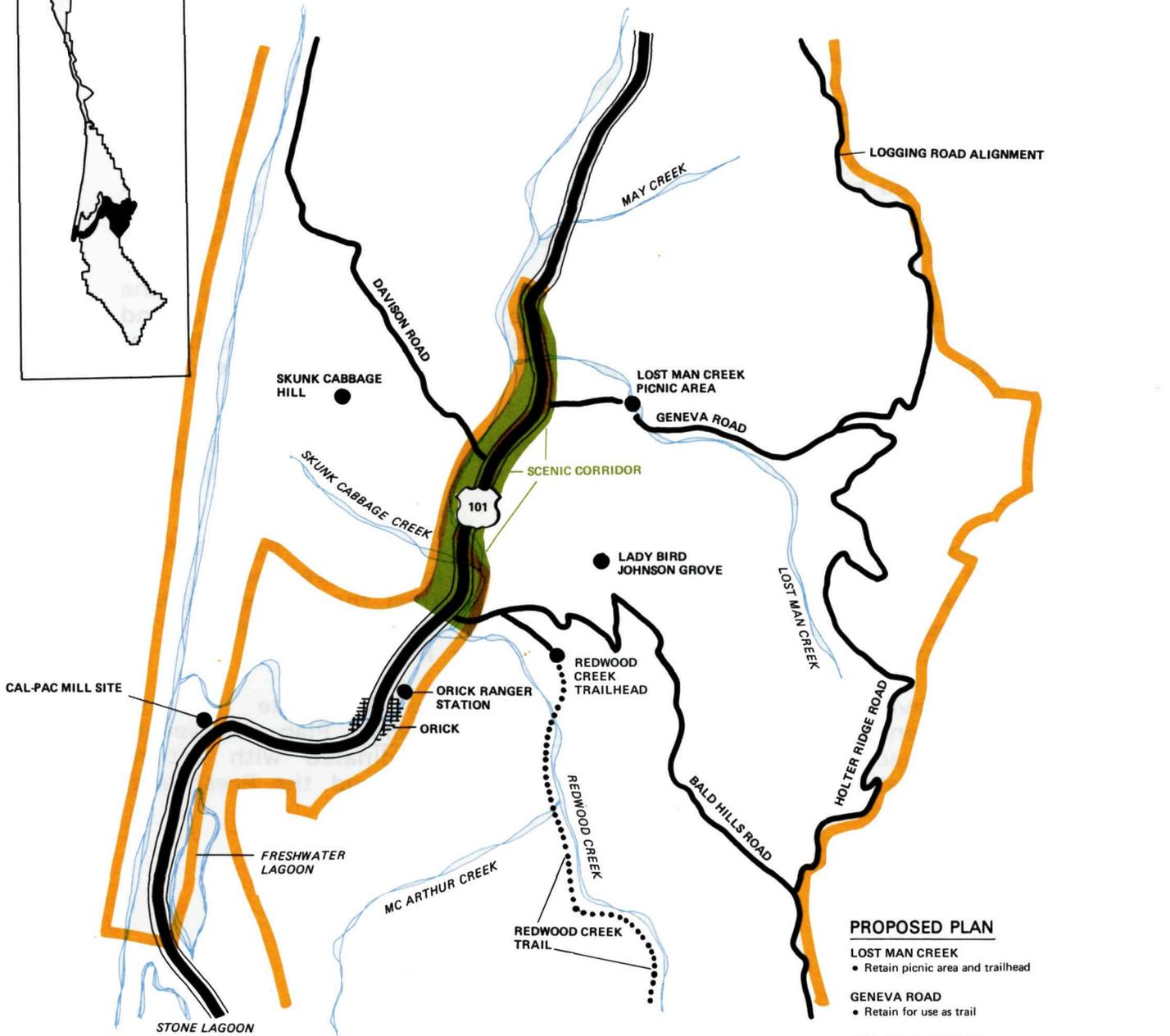
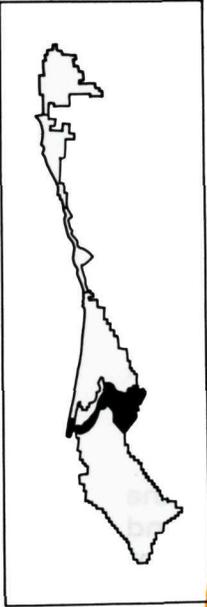
The Coastal Trail will enter this unit near Skunk Cabbage Creek and proceed south to Orick. In conjunction with Cal Trans and the Orick Design Review Committee, a suitable hiking/biking corridor will be identified along this route. The trail will run along the levee to the coast above Freshwater Lagoon and then south along the beach. The continuation of the Coastal Trail from this point will require the cooperation of the state of California.

At Redwood Creek Beach, north to Mussel Point, the Park Service will confine vehicular use to the immediate area of the access road at the mouth of the creek.

At Freshwater Lagoon, the Park Service will continue to allow commercial fishing access to the beach by way of identified access points.

The Orick ranger station will serve as the operations base for shuttle services, offices for interpretive personnel, and a visitor contact facility. The horseback riding concession for the adjacent Redwood Creek unit will be based in Orick. The field office for watershed rehabilitation will remain in Orick for the duration of that program.

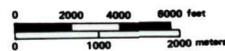
National Park Service actions oriented to visitors should be complemented by local actions within Orick. As a gateway community, it would be appropriate for Orick to provide visitors with information that is not offered by the Park Service, such as the location and availability of hotels, motels, campgrounds, and restaurants. As part of an overall improvement of informational services, the Park Service will provide park orientation exhibits for use at the Cal Trans rest stop north of Trinidad.



**PROPOSED PLAN**

- LOST MAN CREEK**
  - Retain picnic area and trailhead
- GENEVA ROAD**
  - Retain for use as trail
- HOLTER RIDGE ROAD**
  - Upgrade
  - Use to connect Cal-Barrel and Bald Hills roads
- LADY BIRD JOHNSON GROVE**
  - Retain
- COASTAL TRAIL**
  - Designate levee as part of Coastal Trail
- WATERSHED REHABILITATION COMPLEX**
  - Develop complex near Orick
- ORICK RANGER STATION**
  - Retain
- FRESHWATER LAGOON**
  - Redesign area in cooperation with appropriate agencies

Orick Unit



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## REDWOOD CREEK

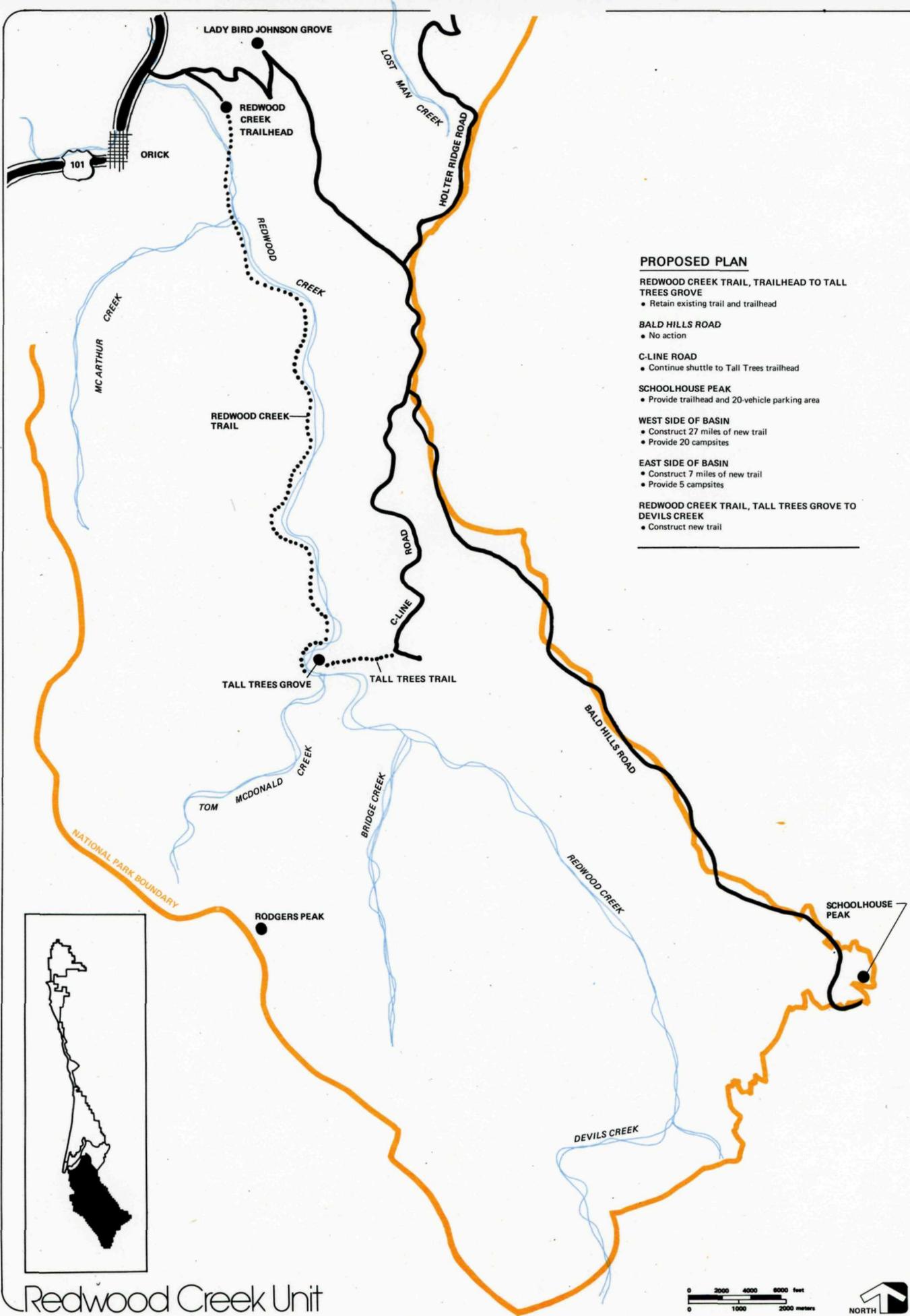
Because the Redwood Creek unit encompasses much of the lower portion of the Redwood Creek watershed, management actions will be geared to preserving and restoring the natural processes characteristic of the watershed. The variety of landforms, coupled with a diverse range of vegetation and wildlife habitats, will be the basis for a well-rounded backcountry experience, which will be reinforced by the existing trailheads, trails, and shuttle system. A backcountry trail and campsite system will be established and defined in the forthcoming backcountry use and management plan.

Vehicular access will be limited to the Bald Hills Road on the perimeter of the basin. Only shuttle bus service from the upland area down into the basin will be allowed so that the quality of natural-resource-oriented experiences will be preserved and possibly enhanced.

Packhorse trips will be established in the western drainages of the basin. These will be operated by a private business under a special use agreement.

Following the donation of Bald Hills Road, the National Park Service will investigate, in cooperation with local governments, the possibility of closing that portion of road from the Redwood Creek trailhead to Lady Bird Johnson Grove. Bald Hills Road will be connected to U.S. 101 by upgrading Holter Ridge Road.

No development at the California-Pacific Mill site will be recommended as part of this General Management Plan. However, future actions at this site should be coordinated with actions contemplated for Redwood Creek County Park and the Freshwater Lagoon spit.



**PROPOSED PLAN**

**REDWOOD CREEK TRAIL, TRAILHEAD TO TALL TREES GROVE**

- Retain existing trail and trailhead

**BALD HILLS ROAD**

- No action

**C-LINE ROAD**

- Continue shuttle to Tall Trees trailhead

**SCHOOLHOUSE PEAK**

- Provide trailhead and 20-vehicle parking area

**WEST SIDE OF BASIN**

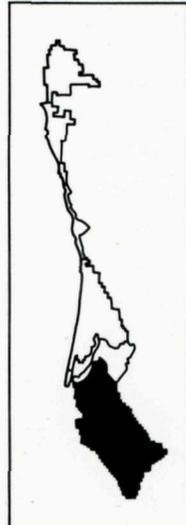
- Construct 27 miles of new trail
- Provide 20 campsites

**EAST SIDE OF BASIN**

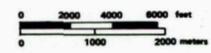
- Construct 7 miles of new trail
- Provide 5 campsites

**REDWOOD CREEK TRAIL, TALL TREES GROVE TO DEVILS CREEK**

- Construct new trail



Redwood Creek Unit



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# CULTURAL RESOURCES MANAGEMENT

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## OVERVIEW

Cultural resources management at Redwood National Park is designed to protect those significant elements associated with man's habitation and use of the redwood forests and environs. Cultural themes, and the resources representing them, assist visitors, scientists, and managers in obtaining a balanced interpretation of the park's internationally significant natural resources. Within the park boundary are resources as diverse as aboriginal village sites, architecturally significant buildings, historic trails, and areas of sacred and traditional importance to the descendants of the original Native American inhabitants. The actions proposed to protect this record of man in the redwoods are fully compatible with the legislative, executive, and regulatory requirements for cultural resources, as well as with the other elements of this General Management Plan.

## MANAGEMENT POLICIES

The National Park Service will provide for the preservation, restoration, protection, interpretation, use, study, and management of all cultural resources meeting the criteria of the National Register of Historic Places. This will be accomplished through adequate research and programming and in full compliance with the requirements of the Antiquities Act of 1906, the National Historic Preservation Act of 1966, the Archeological and Historic Preservation Act of 1974, Executive Order 11593, "Regulations for the Protection of Historical and Cultural Properties" (36 CFR 800), American Indian Religious Freedom Act (PL 95-341), "Protection of the Environment" (40 CFR 1500), Preparation of Environmental Statements: Guidelines (USDI 1974), Uniform Rules Prescribed to Carry Out Provisions of the Act for the Preservation of American Antiquities (1906), and Park Service "Management Policies" (1975).

All proposals and activities affecting or relating to cultural resources will be developed and executed with the active participation of professional specialists in history, archeology/anthropology, historic architecture, or curatorship, in accordance with Park Service management policies and current professional standards.

As private inholdings are acquired, lands will be surveyed for historical, architectural, archeological, and/or contemporary Native American resources prior to decisions or actions that may affect them (for example, Requa radar station).

Development proposals that relate to cultural resources will reflect a sensitivity to the preservation of the historical/cultural scene through compatible and complementary design. All developments with potential for ground disturbance will be preceded by archeological clearance. Before proposals with potential for impact on traditional sites are approved, local and resident Native Americans will be consulted. Projects will be designed to avoid or have minimal adverse effects on cultural resources.

Long-range resources management plans will reflect a simultaneous consideration for natural and cultural resources.

Undertakings in which the alteration or loss of cultural resources is necessary to achieve management goals will be accomplished by professionally designed salvage of information and remains, a professionally acceptable report, the proper curatorial care of excavated material and field records, and the deposit and preservation of data and artifacts in the park's museum or library/archives collections, or another designated repository.

Regularly scheduled orientation to historic preservation laws, Park Service policies for cultural resources management, and the kinds of cultural resources within the park will be given to all park staff.

## HISTORIC STRUCTURES

The reconstruction of historic structures and sites such as historic campsites, orchards, and trails will not be attempted. Visitor understanding will be provided through other interpretive techniques.

When specified, the preservation/restoration of historic structures will consist of activities to maintain existing forms. New work on such structures, when required for purposes of maintenance, will be done to restore the buildings to their originally designed character, when such restoration can be satisfactorily documented. When restoration is not possible, maintenance will duplicate the elements being replaced.

The intent of preservation/maintenance recommendations is to preserve existing original work and maintain it by compatible replacement or repair of deteriorated fabric, usually by duplicating elements being replaced (for example, deteriorated roof shingles).

Continued or adaptive use of historic structures for housing, offices, interpretation, or accommodations will allow for the remodeling of interiors. All remodeling will comply with regulations regarding modifications of historic structures. Efforts will be made to preserve original interior design details and floor plans, and the exterior historic scene.

Historic structures specified for exterior preservation/restoration will not be adapted for public or handicapped use if provisions for safety or access necessitate significant alterations that would compromise the visual integrity of the structures. Buildings specified for exterior preservation/restoration in combination with interior remodeling or rehabilitation must meet safety and handicapped use requirements, through interior modifications if necessary. The carrying capacities of historic resources will be professionally determined and will be adhered to.

Historic resource studies, historic structure reports, and historic structure maintenance guides will be programmed and prepared as recommended under "Management Actions" below.

The archeological deposits of historic sites will be clearly identified. Any actions affecting them will be designed for minimal adverse effect and will be preceded by professionally adequate data recovery.

## ARCHEOLOGICAL SITES AND DISTRICTS

The preservation and protection of archeological sites and districts will be based on historic preservation laws, National Park Service policies and standards, and techniques such as those recommended by archeologist Polly McW. Bickel (1978, 1979). These will include permanently marking sites, monitoring selected sites to determine continuing natural and human impacts, test excavation of selected sites to evaluate them and plan further preservation actions, and data recovery at sites that could be impacted by development or use. All data recovery, such as controlled surface collection and excavation, will be conducted according to current activity standards and professional standards, and will be designed to obtain the most information with the least destruction of archeological resources. When excavation is made necessary by development, it will be programmed in timely advance of construction (not less than one fiscal year).

Geographic areas not specifically covered by current archeological inventory surveys, such as inholdings or other possible land transfers, will be surveyed. This information will be used to plan protection or preservation actions, if needed. Although current inventory surveys have increased the knowledge of Redwood archeological resources, considerably more work remains to be done. Archeological resources near campsite locations and trails will need to be evaluated for the possible monitoring and mitigation of human or natural indirect impacts.

Proposals for investigation (excavation) unrelated to development will be evaluated by the park archeologist and the regional archeologist. Permits will be issued on an individual site basis, in conformity with the "Management Policies" of the National Park Service and in accordance with the Code of Federal Regulations, Title 36, Part 800.

When controlled management burns are proposed, the burn zone will be checked against existing historic and archeological site inventories. Zone boundaries will be altered to avoid impacts on these sites when possible. Research and monitoring will be conducted to determine the effects of fire management or wildfires on archeological sites.

Surface collection is proposed to professionally record and preserve artifacts that are potentially subject to adverse impact due to vandalism or proposed development actions. This surface collection will be conducted only by a professional archeologist, who will determine that this activity meets existing professional and Park Service standards.

Archeological and anthropological studies of cultural resources in the park will not be considered completed until they have been entered into a current cumulative cultural resource data base.

#### CONTEMPORARY NATIVE AMERICAN CONCERNS

The ongoing project of identifying areas of sacred and traditional importance to local Native Americans will be continued by the park archeologist. As new information is obtained, it will be added to the confidential inventory of these sites. Measures will also be taken to assure that mutually acceptable methods of protection and preservation are adopted, in conformance with Park Service management policies and legislation.

Input and active participation in methods to interpret Native American culture in Redwood National Park will be encouraged. Any programs developed for public viewing will be authenticated by local Native American advisors.

The National Park Service will continue to actively support programs and ceremonies that perpetuate the cultural heritage of local Native Americans. A brush dance area will be established at a site mutually acceptable to the relevant advisory committees and park management.

The National Park Service will continue to seek a prompt and equitable solution to the jurisdictional dispute affecting the Klamath River corridor. The Park Service does not have the authority to make a legal determination, but it will continue to supply documentation and seek a response from the Office of the Solicitor, Department of the Interior.

A formal policy regarding the collection of native plant materials will be developed by the park archeologist and park biologist, or designated management specialist, to assure compatible resources management. The input of various advisory committees will be instrumental in developing this policy. Informal agreements regarding collection permits that are already in effect will be clarified and formalized by the park superintendent with assistance from the park archeologist and park biologist.

Hunting on park lands will not be allowed.

Hiring programs will continue to recruit and employ qualified Native American applicants.

## COLLECTIONS

### Park Records

The park's official operating records will be under the control of the File Management Handbook (March 1977), its Records Scheduling and Disposition supplement, and the General Services Administration General Records Schedules, regulation 3, appendix B. Museum and library collection records will be exempt from this plan.

In general, the park will retain in the park archives copies of historically significant records relevant to management and interpretation. Original materials that may be important for interpretive use (exhibits) will be retained in the park archives.

A general archival records management plan guiding the retention of original or copy records for the park's archives will be drawn up by the park interpreter and approved by the superintendent.

The park staff will include a suitably qualified individual having the function and responsibility of records disposal officer.

### Library and Archives

The park library and archives collections will consist of books, periodicals, public documents, unpublished studies, newspapers, correspondence, manuscript collections, films, tapes, pamphlets, record photographs (as opposed to art photographs), maps and plans, and paper ephemera.

All archeological site location records will be maintained in special archives and made available only to those with authorized professional interests in archeological resources.

The library and archives will be managed according to accepted catalog and record procedures for special libraries operating under the Library of Congress system.

### Museums

Archeological, historical, and natural history collections will be managed according to Park Service museum records management policies, as outlined in "Part 2: Museum Records" of the Manual for Museums (1976).

## REDWOOD CREEK BASIN REHABILITATION

The management of cultural resources in the Redwood Creek unit will stress preservation and protection to the extent that they are compatible with the legislative intent to rehabilitate and protect the watershed.

The rehabilitation plan will contain a section directed to the management of cultural resources within the project area and immediate environs. An archeological research design has been developed for this project and will be included in the subsequent environmental documentation.

Separate consultation with the California Historic Preservation Office and the Advisory Council on Historic Preservation will be sought to assure cultural resources compliance for this project.

## MANAGEMENT ACTIONS

The preceding management policies have resulted in a variety of actions designed to manage Redwood's known cultural resources. Although extensive surveys have been undertaken, additional information will add to the inventory of cultural resources displayed below. Several changes are manifested in these charts as compared to the charts displayed in the Draft Environmental Statement, DES 79-55 (August 1979). All properties on state park lands, including archeological sites and contemporary Native American sacred sites, have been removed from the National Park Service inventory (see "Cultural Resources on State Park Lands" section). Likewise, several properties determined to be ineligible for inclusion on the National Register of Historic Places in accordance with 36 CFR Part 63 have been dropped. Because of the numerous archeological sites within the park boundary, only those sites that would be directly affected by another action of the plan, or that possess a high degree of significance by themselves, are displayed. For all other archeological and contemporary Native American sites on federal land, the intent is preservation through avoidance and scheduled monitoring.

Definitions of Terms Used for Cultural  
Resources Management

Archeological Clearance-- Field inspection prior to ground-disturbing projects to ensure avoidance, minimization, or mitigation of cultural resource impairment.

Archeological Key--DNO (Del Norte), HUM (Humboldt), and RNP (Redwood National Park) denote prehistoric and proto-historic sites recorded by the state of California and/or various Redwood surveys. CNA indicates contemporary Native American sites recorded during the 1978 ethnographic survey conducted for the General Management Plan; these are often synonymous with previously identified sites.

Archeological Resources Maintenance Guide (ARMG)--A guide to be developed for park maintenance staff, including road and trail crews, that will highlight areas of archeological sensitivity and will provide instructions for procedures if resources are encountered during project work. The guide also will provide information on how to avoid creating effects during work.

Monitoring--Determining and measuring impacts at specific sites by systematic recording and measured mapping, followed by periodic examination for vandalism, erosion, or signs of resource loss or disturbance. This information will provide a basis for planning further preservation or data recovery if needed.

Native American Heritage Advisory Committees (NAHAC)--These are informal committees of local Native Americans that consult with the park regarding matters of mutual concern. There is an NAHAC for each planning/management unit.

Onsite Consultation and Inspection--Professional examination of a site and consultation with other professionals, including the appropriate representatives of the Native American heritage advisory committees if a site is of contemporary concern, to determine the appropriate management action.

Preservation/Maintenance--Preserving existing original work and maintaining it by compatible replacement or repair of deteriorated fabric, usually by duplicating replaced elements. These actions are usually based on one or both of the following: Historic Structure Report (HSR), which provides the historical, archeological, and architectural information necessary for carrying out the appropriate level of treatment of a historic structure and its setting (preservation, restoration, or reconstruction); Historic Structure Maintenance Guide (HSMG), which guides the continuing normal maintenance and minor repairs of a specific structure.

Recording/Removal or Natural Deterioration--Certain properties included on or eligible for the National Register of Historic Places do not merit preservation because of minimal (local) significance and the excessive costs involved, and/or because the recommended action is necessary to achieve management objectives. Such actions will be accompanied by professionally designed salvage of information and remains, and a professionally acceptable report. Recordings are usually accomplished according to Historic American Building Survey (HABS) standards, which include measured drawings, maps, and photographs. Natural deterioration occasionally will require the removal of hazardous elements to assure the safety of park visitors. All work will be done in conformity with management policies and compliance requirements.

Surface Collection--The removal of artifactual materials from the ground surface of a site by using a measured grid network and a sampling method and by recording objects in their positions by photography, mapping, measurements, and written descriptions.

Testing--Limited systematic excavation to determine the significance of a site.

Table 1: Archeological Resources

<u>Resource</u>	<u>Proposal</u>		<u>Action</u>	<u>Requirements</u>
	<u>Management Policy</u>	<u>Use</u>		
<u>Jed Smith Unit</u> 4-DNO-92H	Preserve	New primitive camping; eliminate vehicle access	Monitor to determine effect of increased visitation; site-specific survey of roadway; surface mapping; collecting if necessary	ARMG; all work under direction of supervisory staff archeologist
<u>Del Norte Unit</u> 4-DNO-14 CNA-8	Preserve/reduce impact	Continue use--campground	Record surficial facilities before removal; monitor	Consultations with NAHAC; work under direction of supervisory staff archeologist
4-DNO-15 CNA-7	Preserve/maintain	None	Stabilize	Consultations with NAHAC; ARMG; work under direction of supervisory staff archeologist
<u>Klamath Unit</u> 4-DNO-7 CNA-10	Preserve	None; facility removal; site restoration	Locate and map resource; surveillance; site-specific testing if necessary; monitor after project completion	Consultations with NAHAC; archeologist onsite during project implementation; work under direction of supervisory staff archeologist
4-DNO-1 CNA-11	Preserve/reduce impacts	Activity site; Yurok loop trail; picnic area	Conduct site survey for indirect effects; reroute trail; monitor	ARMG; consultations with NAHAC; all work under direction of supervisory staff archeologist
CNA-18	Protect/eliminate impacts	None	Eliminate undesignated turnouts	Consultations with NAHAC
<u>Orick Unit</u> HUM-135 CNA-26	Preserve/protect	Continue existing use--beach access	Monitor indirect effects; surveillance for vandalism	ARMG; consultations with NAHAC; archeologist and NAHAC to coordinate with Cal Trans in future
CNA-31	Protect	None	Review Cal Trans designs when feasible	Consultations with NAHAC, staff archeologist, and Cal Trans
<u>Redwood Creek Unit</u> Bald Hills Archeological District	Preserve to extent possible within watershed rehabilitation program	Trails; primitive camping; watershed rehabilitation	Site-specific surveys for direct and indirect impacts; site mapping; surface collection; testing if necessary	Research design; ARMG; consultations with NAHAC; all work under direction of supervisory staff archeologist

Table 2: Historic Resources

<u>Resource</u>	<u>Proposal</u>		<u>Action</u>	<u>Requirements</u>
	<u>Management Policy</u>	<u>Use</u>		
<u>Jed Smith Unit</u> Kelsey Trail/ Little Bald Hills Road	Preserve/ maintain	Trail	Monitor effects of in- creased use; establish carrying capacity if needed	HSMG; work under direction of staff archeologist; consul- tations with regional historian
<u>Jed Smith, Del</u> <u>Norte Units</u> Hobbs, Wall & Co. Historic District	Dependent on outcome of HSR	Continue existing uses in area	Inventory, map, and determine significance of all elements	HSR in consultation with regional historian; separate consultation with state if potential adverse impacts exist
<u>Klamath Unit</u> World War II Observation Post	Preserve/ maintain	Interpretation	Preserve and main- tain; interpret with wayside signs; moni- tor for vandalism	HSMG developed with assistance of regional cultural resources staff; consultations with park interpretive staff
U.S. Forest Service Yurok Experimental Forest Station (Redwood ranger station)	Preserve/ maintain	Adaptive use (offices)	Establish carrying capacity; maintain	HSR and HSMG de- veloped in consultation with regional historical architect
<u>Redwood Creek</u> <u>Unit</u> Dolason Half Barn (Dolason Prairie)	Preserve/ stabilize	None	Stabilize ruins; moni- tor for vandalism	HSMG; consultations with park archeologist and regional historical architect
Lyons Ranch	Preserve/ maintain/ some stabili- zation or restoration	Interpretation/ possible adap- tive use (housing)	Preserve all signifi- cant exterior features to interpret early ranching in region; adapt interior if usable for housing; test for historical archeology	HSR; HSMG; all work done in consultation with interpreter, archeologist, DSC historian
Lane Barn (Elk Camp area)	Preserve/ maintain	Continue existing use-- barn	Maintain; monitor for vandalism	HSMG
Tall Trees Trail	Unknown; research ongoing	Trail	Dependent on outcome of historic resource investigation; map and inventory features	Consultations with archeologists, area historians; final de- terminations will show in rehabilitation plan documentation; separ- ate compliance action with state

## CULTURAL RESOURCES ON STATE PARK LANDS

The following chart displays the actions the National Park Service would undertake if the state park cultural resources were added to the federal inventory. These proposals reflect the management policies at the beginning of this plan, and also substantial research and professional consultation.

With regard to contemporary Native American concerns, the Park Service strongly recommends that state park personnel seek out and initiate consultations with the Native American heritage advisory committees associated with their respective park units.

All pertinent data that have been gathered for cultural resources on state lands will be made available to the California Department of Parks and Recreation upon request. The exception will be the confidential data gathered from local Native Americans. Release of this information would depend on the approval of the appropriate advisory committees.

Table 3: Archeological Sites on State Park Lands

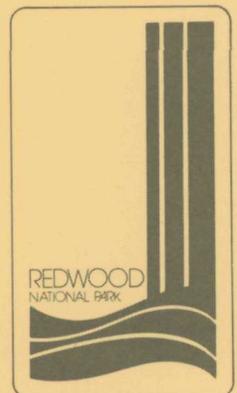
<u>Resource</u>	<u>Proposal</u>		<u>Action</u>	<u>Requirements</u>
	<u>Management Policy</u>	<u>Use</u>		
<u>Jed Smith Unit</u> 4 DNO-26 CNA-2	Preserve/ stabilize/ reduce impacts	Continue existing use-- campground	Relocate 43 sites; monitor; stabilize; conduct additional research (testing)	Consultations with NAHAC; all work under direction of supervisory staff archeologist, coordi- nated with NAHAC
RNP-S-9 CNA-5	Preserve/ research	Trail access	Conduct limited archeological testing; conduct site-specific survey of trail loca- tion	Consultations with NAHAC; work under supervision of staff archeologist; consulta- tions with historian
<u>Klamath Unit</u> 4-DNO-2,7	Preserve data	Continue existing use-- picnic area	Conduct site-specific testing; monitor with archeologist onsite during implementation	All work under direc- tion of supervisory staff archeologist; consultations with NAHAC (near CNA-10)
<u>Prairie Creek Unit</u> HUM-133 CNA-23	Preserve/ protect/ recover data	Reduce existing use--residences; restore area	Remove facility; retain 1 residence; remove overlook; restore site; conduct limited testing if necessary	Consultations with NAHAC to determine best method for site restoration; archeological clearance for facility removal; all work under direction of professional archeologist
HUM-136 CNA-20	Preserve/ recover data/stabilize	None	Stabilize; surface collection from screening midden deposit	Consultations with NAHAC; ARMG; all work under supervision of profes- sional archeologist

Table 4: Historic Sites and Buildings on State Park Lands

<u>Resource</u>	<u>Proposal</u>		<u>Action</u>	<u>Requirements</u>
	<u>Management Policy</u>	<u>Use</u>		
<u>Jed Smith Unit</u> Howland Hill Road/Plank Road	Preserve/maintain	Continue existing use on Howland Hill Road; convert to one way	Maintain; remove some vegetation along Plank Road	HSMG
Camp Lincoln Commanding Officer's Headquarters	Preserve/maintain	Retain/interpret	Maintain	HSR; HSMG
Nickerson Ranch Site	Preserve/protect	Continue existing light trail use	Monitor for indirect impacts; future re-search if warranted	Monitor by staff archeologist
<u>Del Norte Unit</u> Crescent City-Trinidad Road (Damnation Ridge section)	Record; natural deterioration	Trailhead access	Record any significant features; monitor for hazard	Work under supervision of professional historian; consultations with archeologists according to Historic American Engineering Record standards
Old Redwood Highway, Last Chance Road	Preserve/maintain	Continue light-vehicle use for administrative purposes	Maintain; monitor for hazards	Monitoring by professional historian or staff archeologist; HSMG
<u>Prairie Creek Unit</u> Prairie Creek Redwoods State Park Headquarters and Comfort Station	Preserve/maintain/reduce impacts	Trail information center	Establish carrying capacity; preserve significant exterior and interior features; maintain	HSR; HSMG; all work under supervision of professional historical architect
Indian House Tree	Preserve/stabilize	Interpretation	Stabilize existing carpentry; future work dependent on level of significance	Possible HSMG; stabilization under supervision of professional historian or archeologist
Gold Bluffs Beach Camp 2 (Upper Bluffs Camp)	Preserve site	Interpretation; research potential	Stabilize ruins; interpret mining story through informational booklet, signs	Work done through cooperative effort of professional historian, interpreter, and archeologist
U.S. Coast Guard Beach Patrol Station	Preserve/maintain residence 6	Continue existing use--housing	Maintain; protect during removal of other facilities	HSMG; monitoring by staff archeologist during facility removal
"Skid Road" (base of Miners Ridge Road)	Record; natural deterioration	Continue existing trail use	Record significant features; some limited testing if warranted; monitor for hazards	Record to standards of Historic American Engineering Record if they request; otherwise photograph and prepare measured drawings

# NATURAL RESOURCES MANAGEMENT

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## OVERVIEW

The forthcoming natural resources management plan will guide programs to protect, restore, and perpetuate the natural resources of Redwood National Park. All such efforts will be designed to respond to immediate problems, evaluate long-term trends, and assist National Park Service personnel in management techniques. The plan will be based on established Park Service policies and on legislation establishing the park and the Park Service. Coordinated efforts in watershed management throughout the Redwood Creek basin will be a primary goal. (Because of the magnitude of the rehabilitation effort, a separate plan will be prepared for that program; the program is described generally below.)

## VEGETATION

Research is being conducted to determine the successional status and factors responsible for old-growth redwood vegetation within the park and to characterize succession on cutover forestlands. The goal of such research will be to suggest management techniques that may be employed to reestablish a more nearly natural vegetation pattern on the disturbed lands (see "Watershed Rehabilitation Program"). The National Park Service has begun research to evaluate old-field successional trends to determine the processes that controlled grassland vegetation prior to settlement and to suggest methods of reestablishing a native grassland system. Prescribed burning, coupled with the reintroduction of native species, will be employed experimentally. Specific areas of research, along with those doing the research, will be contained in the forthcoming natural resources management plan.

An experimental research area of 2,250 acres encompassing a largely unmodified forested stream basin--Little Lost Man Creek--has been set aside for research purposes. Park Service policies require that the area remain free of development and that fire be treated as a natural component of the ecosystem. Special fire management rules will be established for this area to accommodate natural (lightning-caused) fire, but its escape as wildfire into nearby private timberlands will be prevented. Other areas in the park are currently being evaluated for designation as experimental research areas.

Local Native Americans may utilize native plant materials on a limited basis for traditional practices. Collection policies have been established by the Park Service. Sites will be monitored, and consultations will be held with local Native Americans to ensure that damage does not occur to park resources.

Several species of endangered or threatened plants, or candidate species, occur on serpentine soils in the Little Bald Hills area. Others are found infrequently over larger habitats, and one or two are of extremely limited distribution within the park. All will be further evaluated to ensure their protection.

## WILDLIFE

Research funded by the National Park Service is underway to study native mammals, with emphasis on those that may be locally endangered or significantly influenced by human activity inside and outside the park. A study of the status of Roosevelt elk has been completed. Research will be conducted to evaluate the status of feral pigs, an introduced species. A description of resident and migratory birds, including endangered or threatened species, will be continued. No specific management is proposed for other native mammals.

An analysis of the aquatic ecosystems of several streams is being performed as a part of the U.S. Geological Survey/National Park Service watershed research program. Stream systems will be further studied so programs can be designed to reestablish native systems where they have been altered, especially in the seriously modified drainages of cutover lands.

Additional biological information will be gathered on reptiles, amphibians, and other invertebrates in the park. Management programs will be proposed to reestablish natural processes wherever feasible.

## MARINE ZONE AND COASTAL ZONE RESOURCES

On its west side, Redwood National Park extends seaward 0.25 mile beyond the mean high tide line of the Pacific Ocean. The state of California has title to all submerged land and the land below the mean high tide line. These lands are administered by the State Lands Commission. The North Coast Region of the California Coastal Commission has designated all offshore waters of Redwood National Park as an area of special biological significance. Rules and regulations for the management of these areas in light of this designation have not been formulated.

The natural resources management plan will not propose any direct control of sport or commercial fishing within the marine zone; however, marine reserve status will be recommended for exemplary tidepool areas to prevent their modification by the collecting of game species of invertebrates and intertidal fishes.

Park policies, and also federal and state legislation, dictate complete protection of marine mammals and of seabirds and their nesting sites within the park through cooperation with state and federal agencies. The specific reintroduction of the sea otter is not now proposed; however, it may become reestablished as a result of releases made elsewhere. The Park Service will cooperate with state and other federal agencies where marine interests may be related to park waters.

The Park Service will take steps to restore that portion of the Redwood Creek estuary within the park, and it will encourage others to restore the remainder. This should be done in consultation with estuarine resource management experts, other management specialists, engineers, and landscape architects to ensure that the restoration will be not only functional but natural in appearance and that it will not damage adjacent private lands.

Tidepool and other intertidal communities will probably reestablish themselves naturally if protected from collectors and vandals. The Park Service will seek to inventory marine plants and animals and to monitor their condition and their habitat to detect changes and possible danger signals. The possibility of assistance or a cooperative program with Humboldt State University's marine laboratory at Trinidad will be explored.

An important goal of the marine resources management program will be to ensure that pollution does not degrade the north coast beaches to the extent that it has the southern California beaches. The park is in the path of ocean currents that are capable of carrying pollutants from Crescent City southward along the coast.

#### AIR AND WATER QUALITY

In compliance with the Clean Air Act, as amended 1977, the Class I quality of the airshed must be maintained. The California Air Resources Board is currently studying the effect of putting the entire park under a Class I designation. Essentially this entails including the Redwood Creek drainage acquired in 1978. In addition, air quality should be monitored to keep track of visibility and to prevent significant deterioration of air resources.

A water resources management plan will be included in the natural resources management plan. Basically, it will be an action plan that will prescribe the protection, conservation, use, and management of all of the park's groundwater and surface water resources. It will also describe these resources.

## OTHER NATURAL RESOURCES

Although the regional climate has been generally studied, details of evaporation, wind, insolation, rainfall, fog influences, and other microclimatic factors that are most significant for vegetation still need to be researched. Such studies are proposed to complement other studies that are designed to learn more about crown dieback in old-growth trees, the establishment of seedlings, the influence of fire, and the effects of visitor traffic.

## WATERSHED REHABILITATION

The rehabilitation of the Redwood Creek basin is a major program of natural resources management at Redwood National Park. It will be a program primarily directed at the elimination or reduction of sediment loss from logged slopes and logging roads. Subsequently, sediment contribution directly and indirectly into Redwood Creek will decrease. Ultimately, natural ecosystems in the park should be restored to a condition similar to what would have existed without disturbance by man. The program will also seek to minimize or eliminate man-induced erosion upstream from the park within the congressionally authorized park protection zone, while still fostering the productivity of commercial forestland.

### SPECIFIC PROJECTS

The program will consist of the following interrelated projects to restore the natural ecosystem.

#### Watershed Rehabilitation

Logged hillslopes, prairies, and ephemeral and intermittent stream channels will be rehabilitated by controlling gully, rill, and slope erosion; by reestablishing streams in their natural, prelogging channels; and by stabilizing mass movement features. Vegetation will be planted to control erosion, to restore cutover land, and to reestablish disturbed prairie vegetation.

The primary aim of erosion control on logged slopes will be to direct the flow of surface water into stable channels that are not actively eroding and to revegetate disturbed, bare soil areas. Examples of techniques include waterbars--troughs that direct runoff into natural channels or onto less erosive slope areas; check dams--small dams in gullies or minor tributary streams that trap sediment, which in turn prevents downcutting and bank erosion; and water ladders--structures in a watercourse that convey water over a channel that otherwise would be subject to downcutting and bank erosion. Other measures to stabilize eroding hillslopes will be applied on a site-specific basis.

#### Road Rehabilitation and/or Maintenance

A plan will be developed to help determine which roads will be maintained for access to rehabilitation sites and for future park management and which roads will be removed because of their erosion hazard. All other roads will be removed to prevent their future failure at stream crossings and other points of instability.

### Tributary Rehabilitation

Basinwide erosional features along perennial tributaries to Redwood Creek will be inventoried for the amounts of stored sediment and general condition. Erosion control treatments will then be prescribed where feasible for specific features within the park, the park protection zone, and perhaps the remainder of the upstream basin.

### Main Channel Rehabilitation

Streamside vegetation will be monitored where aggradation is causing or may cause deleterious effects. Active restoration programs along the main channel of Redwood Creek may then be prescribed where physical protection of riparian vegetation and redwood groves is necessary. Existing aquatic communities will also be evaluated to determine the need for actual in-channel manipulation to restore aquatic ecosystems to prelogging conditions.

### Repair and Maintenance

A routine maintenance program will be undertaken after active phases of the rehabilitation program have been completed. Such maintenance will include repairing physical structures such as check dams and water ladders.

### Evaluation of Rehabilitation Efforts

The monitoring of all rehabilitation and erosion control techniques will help determine their cost-effectiveness. Some noncritical disturbed areas will not be restored; this will provide control plots for comparison with sites being actively restored. Future site prescriptions will be modified according to these evaluations to ensure that the best techniques are used.

### Active Programs Within the Park Protection Zone

Timber-harvesting plans prepared by logging operators within the park protection zone are reviewed by the Park Service to ensure that downstream resources within the park are not damaged as a result of logging. Logging operations proposed for private lands upstream from the protection zone will also be reviewed if they would occur on terrain judged to be erosionally sensitive.

## Cooperative Agreements

Cooperative agreements will be developed with the state, local governments, the U.S. Forest Service, and private landowners adjacent to, and upstream from, the park to encourage the restoration of cutover lands through land conservation projects, the improvement of forests, and the enhancement of fish and wildlife habitat.

## IMPLEMENTATION

Detailed surveys and mapping using both aerial photo interpretation and field surveying will be employed to inventory problem areas. Based on this information, areas for erosion control will be selected, and subdrainage rehabilitation projects will be designed. Those areas with the greatest erosion and landslide potential, and those areas most affected by storm events, are being given the highest priority for emergency treatment, stabilization, and restoration.

When testing has been completed, large-scale subbasin restoration contracts will be let to provide site-specific, prescriptive erosion control measures, as delineated by the Park Service professional staff. Satellite industries are expected to provide the trained labor force, transportation, light and heavy earth-moving equipment, tools, pack animals, mulch, seed, seedlings, and other supplies and services required to support the rehabilitation work. It is anticipated that these satellite industries will respond to the demand for raw materials, services, and equipment and that they will absorb portions of the unemployed local labor pool.

The quality and effectiveness of all completed rehabilitation work at specific sites will be monitored by field survey crews. Ineffective or incomplete rehabilitation will be remedied where possible. This maintenance work will be carried out by contract and by park staff.

The total rehabilitation program is expected to last approximately 15 years. Initial emergency treatment and test rehabilitation projects were undertaken during the first two years (1978-1979). From 1980 to 1988, the major work will be in full progress. Once all the rehabilitation programs are underway, operations will shift gradually from the construction of erosion control structures to maintenance, road removal, and vegetation rehabilitation. In the late 1980s, a small staff will be needed for follow-up work, road maintenance, treatment of erosion problems as they arise, and the continuing assessment of the results of the program.

# COSTS

DEVELOPMENT COSTS / 65  
STAFFING/OPERATIONAL COSTS / 67  
COSTS OF MITIGATING MEASURES / 68



DEVELOPMENT COSTS\*

Phase 1	\$ 152,000
Phase 2	802,500
Phase 3	1,352,500
Phase 4	1,675,500
Phase 5	2,034,500
Phase 6	<u>1,526,500</u>
 TOTAL	 \$ 7,543,500

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\*All costs are given in 1979 dollars.

PHASE 1

Howland Hill Road Signing	\$ 1,000
Rellim Ridge Trail	65,000
Nickel Creek Campground	1,000
Crivelli House	13,500
Major Creek Campground	65,000
Cal Trans Exhibit	<u>6,500</u>
	 \$ 152,000

PHASE 2

Little Bald Hills	\$ 67,500
Boy Scout Trail	25,000
Coastal Trail (Del Norte unit)	66,500
De Martin Barn Campsites	18,000
Ocean View Terrace/Rudisell Road Parking	26,000
Coastal Trail, Lagoon Creek (Klamath unit)	49,500
Klamath South Campground	48,000
Requa	450,000
Coastal Trail, Redwood Creek Levee (Orick unit)	<u>52,000</u>
	 \$ 802,500

PHASE 3

Crescent Beach North Activity Site	\$ 420,000
Lagoon Creek Activity Site	67,500
Klamath Townsite Information Center	75,500
Prairie Creek Redwoods State Park Headquarters	32,500
Espa Lagoon	13,000
Davison Road	654,000
Prairie Creek Housing	90,000
	<hr/>
	\$1,352,500

PHASE 4

Hiouchi Flat Activity Center	\$1,267,500
Hiouchi Ranger Station	36,500
Jedediah Smith Campground	190,000
Crescent Beach South Activity Site	110,000
De Martin House	23,500
K-2 Maintenance Area	48,000
	<hr/>
	\$1,675,500

PHASE 5

Park Headquarters	\$ 105,000
Mill Creek Activity Site	130,000
Ocean View Housing	31,500
Wilson Creek Parking	13,000
Cal Barrel Road	975,000
Holter Ridge Road	780,000
	<hr/>
	\$2,034,500

PHASE 6

Hiouchi Flat	\$ 130,000
Skunk Cabbage Hill Activity Site	1,230,000
Bald Hills Road	26,000
West Side Basin (Redwood Creek unit)	99,000
East Side Basin (Redwood Creek unit)	41,500
	<hr/>
	\$1,526,500

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Note: Cost and phasing of the southern activity center must await the outcome of the proposed joint agency study.

## STAFFING/OPERATIONAL COSTS

The staffing and operational costs associated with the General Management Plan, as shown in the following table, have been evaluated in relation to the fiscal year 1979 budget. The largest commitment of personnel is for natural resources management, and 90 percent of these costs will be funded by the congressional authorization of \$33 million for the rehabilitation of the Redwood Creek watershed. Costs associated with the operation of state parks depend on the transfer of those areas to the National Park Service.

<u>Variable</u>	<u>Person Years</u>	<u>Cost</u>		
		<u>Salaries &amp; Benefits</u>	<u>All Other</u>	<u>Total</u>
<u>Administration</u>				
Existing (FY 79)	13.0	\$ 141,900	\$ 21,700	\$ 163,600
Increase	0.5	5,000	500	5,500
Subtotal	13.5	146,900	22,200	169,100
<u>Protection</u>				
Existing (FY 79)	14.8	203,200	53,200	256,400
Increase	3.0	36,500	5,500	42,000
Subtotal	17.8	239,700	58,700	298,400
<u>Interpretation</u>				
Existing (FY 79)	11.0	107,200	12,200	119,400
Increase	7.1	93,200	41,000	134,200
Subtotal	18.1	200,400	53,200	253,600
<u>Maintenance</u>				
Existing (FY 79)	33.1	430,600	355,200	785,800
Increase	3.7	53,900	32,300	86,200
Subtotal	36.8	484,500	387,500	872,000
<u>Natural Resources</u>				
Existing (FY 79)	50.6	613,800	1,631,200	2,245,000
Increase	-	-	-	-
Subtotal	50.6	613,800	1,631,200	2,245,000
<u>State Parks*</u>				
Administration	1.4	16,600	3,400	20,000
Protection	17.0	243,300	31,700	275,000
Interpretation	3.2	49,500	5,500	55,000
Maintenance	11.7	193,800	106,200	300,000
Subtotal	33.3	503,200	148,800	652,000
<u>Total</u>				
Existing (FY 79)	122.5	1,496,700	2,073,500	3,570,200
Increase	47.6	691,800	226,100	917,900
Aggregate Total	170.1	\$2,188,500	\$2,299,600	\$4,488,100

\*This assumes that the state parks are transferred to the National Park Service.

## COSTS OF MITIGATING MEASURES

The mitigating measures costed below are discussed in the Draft Environmental Statement (DES 79-55).

### SOILS

Effects of visitor use in redwood groves  
(DES, IV.A.1.c.) \$30,000

### WATER

Detailed floodplain study for the Smith River at  
Hiouchi Flat (IV.A.2.c.) 20,000

Measures to increase the rate of vegetative stabilization  
of soils to alleviate surface water turbidity and sediment  
loading caused by erosion (IV.A.2.e.) 5,000

Water quality monitoring on tributaries with new  
development (IV.A.2.e.) 1,000/year

Groundwater feasibility testing for new water sources  
(IV.A.2.e.) 10,000

Site-specific studies to determine groundwater capability  
(I.V.A.2.e) 5,000

### VEGETATION

Survey of development sites for endangered or threatened  
plant species (IV.A.3.d.) 15,000

### WILDLIFE

Survey of development sites for endangered or  
threatened species (IV.A.4.a.(3)). 20,000

### ENERGY USAGE

Parkwide transportation analysis (IV.B.4.c.) 20,000

# MANAGEMENT ZONING

NATURAL ZONE / 71  
HISTORIC ZONE / 71  
PARK DEVELOPMENT ZONE / 72  
SPECIAL USE ZONE / 72



The park is divided into several zones, based on the objectives in the "Statement for Management." These objectives are based on the significance of the resources and legislative constraints. The zoning plan describes the land use policies that should be achieved over the life span of this plan. It is assumed that lands owned by the state and administered by the California Department of Parks and Recreation will eventually become part of the national park, and their zoning was based on the same criteria that were applied to other park lands.

### NATURAL ZONE

Outstanding Natural Features Subzone. The 57,000 acres (53% of total park acreage) in this subzone will include the park's primary resources--the redwoods, streams and rivers, and coast. Since these are undisturbed lands and waters, they will be managed to preserve and protect their pristine qualities. The boundaries for this subzone were determined from vegetation studies conducted for the Draft Environmental Statement, and they include the lands in the ten vegetation types that have not been substantially modified by man. The vegetation types are old-growth redwood, prairie, Jeffrey pine woodland, chaparral, oak woodlands, freshwater marsh, riparian, coastal spruce, coastal strand, and coastal shrub.

Natural Environment Subzone. Included in this 48,250-acre subzone (45% of total park acreage) will be lands disturbed by logging activities. Through the rehabilitation program, these lands should be returned to a facsimile of their natural conditions, but they would not possess the pristine characteristics found in the outstanding natural features subzone. During the life of this General Management Plan, the watershed rehabilitation program will emphasize the restoration of these lands; however, after their return to a relatively pristine quality, they will be eligible for inclusion in the outstanding natural features subzone. Vegetation types in this subzone include recently harvested redwood forest, second-growth redwood forest, and young Douglas-fir forest.

### HISTORIC ZONE

Preservation Subzone. The total area to be included in this subzone will be determined after ongoing studies have been completed. Properties that are on or have been nominated to the National Register of Historic Places or that are recorded on Redwood National Park's list of classified structures will be included in this subzone. These properties will be managed to preserve their historic or prehistoric integrity.

Preservation/Adaptive Use Subzone. The preservation/adaptive use subzone will consist of 10 acres (less than 1% of total park acreage). Properties on the national register or the list of classified structures that will be used adaptively for administrative purposes will be included in this subzone. The U.S. Coast Guard beach patrol station at Espa Lagoon will be managed for administrative purposes, and the Alexander barn will be managed for visitor use purposes.

## PARK DEVELOPMENT ZONE

Four subzones will be included in the park development zone. They were determined by the proposals presented in this plan and by the location of existing and proposed visitor access and circulation routes.

Visitor Support Subzone. The 5 acres (less than 1% of total park acreage) in the visitor support subzone will include the northern and southern activity centers. They will be managed for visitor services.

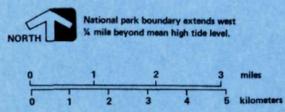
Recreation Subzone. The 265-acre (less than 1% of total park acreage) recreation subzone will consist of campgrounds, picnic areas, and sites accessible by automobile and managed for intensive recreational use.

Residential Subzone. Fifteen acres (less than 1% of total park acreage) will be included in this subzone for park employee housing. Houses and adjacent yards will be maintained for residential purposes, which will not significantly detract from the qualities of the surrounding natural zone.

Access/Circulation Subzone. Park roads used by visitors will be included in this 140-acre subzone (less than 1% of total park acreage). These roads will be managed so as not to significantly detract from the qualities of the surrounding natural zone.

## SPECIAL USE ZONE

Transportation Subzone. The 60 acres (less than 1% of total park acreage) in the transportation subzone will consist of highway rights-of-way owned by the state of California, Humboldt County, and Del Norte County. These include U.S. 101 (portions of which will be relocated), U.S. 199, California 197, Bald Hills Road, and Walker Road.



**LEGEND**

	LEGISLATED NPS BOUNDARY		
<b>ZONE</b>		<b>SUBZONE</b>	
	NATURAL		NATURAL ENVIRONMENT
	NATURAL		OUTSTANDING NATURAL FEATURES
	SPECIAL USE		TRANSPORTATION
	SPECIAL USE		UTILITIES
	SPECIAL USE		PRIVATE DEVELOPMENT
	SPECIAL USE		OFFSHORE LANDS
	PARK DEVELOPMENT		VISITOR SUPPORT
	PARK DEVELOPMENT		RECREATION
	PARK DEVELOPMENT		RESIDENTIAL
	PARK DEVELOPMENT		ACCESS / CIRCULATION
	HISTORIC		PRESERVATION

Utilities Subzone. Fifteen acres (less than 1% of total park acreage) will be set aside for a power line right-of-way along the coast and owned by Pacific Power and Light. Management will allow for access across park lands to maintain the lines.

Private Development Subzone. This 120-acre (less than 1% of total park acreage) subzone will cover two tracts where uses existed before the establishment of the park and are to continue under a 25-year retained occupancy and a 27-year lease (not shown on the map because of their small size). In addition, this subzone will include privately owned lands at the mouth of the Klamath River.

Offshore Lands Subzone. Approximately 5,939 acres will be zoned in addition to the 106,000 acres of parkland. They are owned either by the State Lands Commission or by the Crescent City Harbor Commission, and they include the lands and waters from mean high tide to 0.25 mile offshore.

**APPENDIX / PLANNING TEAM**

APPENDIX: MANAGEMENT OBJECTIVES / 79  
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## APPENDIX: MANAGEMENT OBJECTIVES

The National Park Service's mandate to administer Redwood National Park comes from Congress. Inherent in this mandate are obligations to protect the resources, to accommodate visitor use, and to allow for park operations. These obligations have been defined and established as management objectives in the "Statement for Management." The objectives represent the foundation of this plan, and all park management activities are directed toward their achievement.

### RESOURCES MANAGEMENT

Restore and maintain the natural ecosystems of the park as they would have evolved without disturbance by human technology.

Minimize the impacts on park resources resulting from current human activity outside the park.

Assess the impacts of land use changes on park resources through watershed research and stream-monitoring activities conducted in cooperation with the U.S. Geological Survey.

Protect the old-growth redwoods and other park resources from the adverse effects of timber harvesting and other activities outside the park by implementing cooperative agreements and other provisions of section 3(e) of the park's enabling legislation, based on research data and the recommendations of resources management specialists.

Cooperate with other governmental agencies and private interests in planning for the management and use of resources adjacent to the park.

Preserve the prehistoric and historic features that trace human use of the redwood region.

Develop basic resource information about the park's cultural resources and manage them in a manner that is consistent with the natural values for which the park was established.

Restore and maintain old-growth and cutover redwood groves so as to perpetuate the prime scenic resources.

Eliminate nonconforming uses within the park.

### VISITOR USE

Provide reasonable and safe access for visitor use and enjoyment commensurate with adequate resource protection.

Cooperate with other agencies in planning for improved transportation and circulation systems on or adjacent to park lands.

Communicate with park visitors before and during their stays through services and facilities that provide an appreciation and understanding of park values.

Ensure that interpretive facilities and services relate to major park themes--"the primeval coastal redwood forests, and the streams and seashore with which they are associated."

Coordinate orientation and information services with those of other federal, state, local, and private agencies.

Provide visitor use facilities necessary to achieve park purposes, consistent with the protection of resources.

Encourage the development of overnight accommodations and visitor service facilities in environmentally compatible locations in the park's vicinity.

## PLANNING TEAM

Robert Barbee, Superintendent  
Redwood National Park

Mike Donnelly, Landscape Architect, Team Captain  
Denver Service Center

Leslie Starr Hart, Cultural Resources Management Specialist  
Denver Service Center

Reed McCluskey, Environmental Specialist  
Denver Service Center

John Ochsner, Landscape Architect  
Denver Service Center

Dennis Piper, Park Planner  
Denver Service Center

John Sacklin, Environmental Specialist  
Denver Service Center

Robert Schiller, Environmental Specialist  
Denver Service Center

Jean R. Swearingen, Interpretive Planner  
Denver Service Center

Grant Werschull, Park Technician  
Redwood National Park

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

