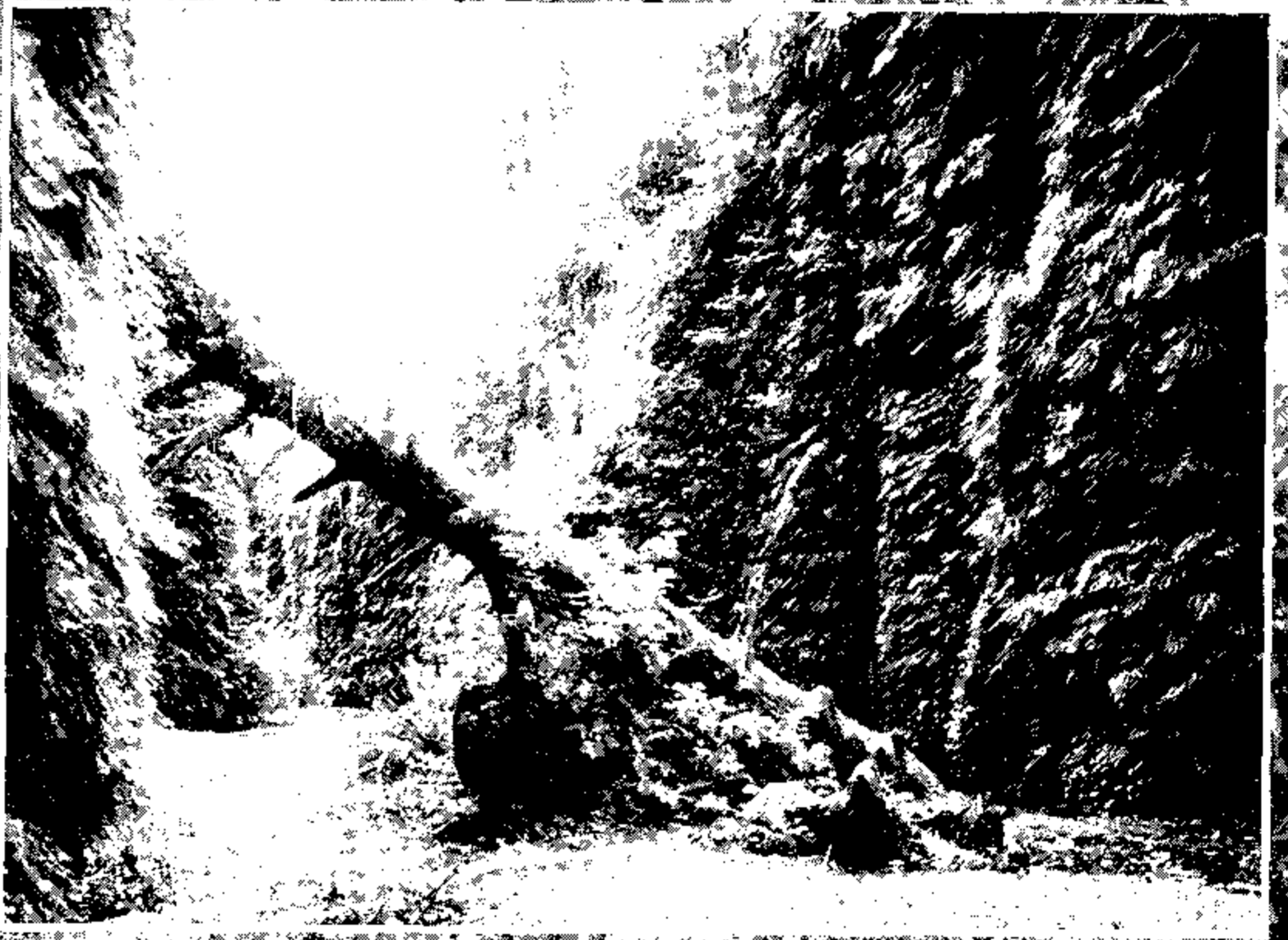


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Vol. 1



Volume 1  
Final  
General Management Plan / General Plan  
Environmental Impact Statement / Environmental Impact Report

# REDWOOD

National and State Parks  
Humboldt and Del Norte Counties • California

NATIONAL PARK SERVICE

PROFILM

FINAL

GENERAL MANAGEMENT PLAN / GENERAL PLAN

ENVIRONMENTAL IMPACT STATEMENT / ENVIRONMENTAL IMPACT REPORT

Volume 1

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**REDWOOD**

NATIONAL AND STATE PARKS

Humboldt and Del Norte Counties, California

This document presents and analyzes four alternatives for the management and use of Redwood National and State Parks, a 105,516-acre cooperative federal-state park area that preserves some of the last remaining stands of the world's tallest trees along 35 miles of scenic northwestern California coastline. After public review and appropriate revision, the approved plan will serve as a joint management plan for the entire federal-state area.

The concept under alternative 1, the proposed action alternative, would emphasize the protection of the parks' resources and values and provide various opportunities for visitors to enjoy the parks' resources. Under alternative 2, no action, which describes existing trends, the agencies would continue existing resource protection, preservation, and restoration; this alternative provides a basis of comparison for the other alternatives. Under alternative 3, the agencies would emphasize the preservation and restoration of the parks' resources and values; opportunities for public use and enjoyment would be limited to experiences that are consistent with this high degree of emphasis on resource stewardship. Under alternative 4 the agencies would provide, consistent with their overarching obligations to protect the parks' resources and values, a wide spectrum of appropriate visitor experiences that relate to the parks' resources.

Impacts of the alternatives are described in this document. They include major beneficial impacts from watershed and estuary restoration, some adverse effects from proposed facility development and visitor use activities, and substantial economic benefits from park visitation, operations, and construction in the Humboldt-Del Norte area. These impacts vary by alternative.

The *Draft General Management Plan / General Plan, Environmental Impact Statement / Environmental Report* was available for public review from July 9 to October 9, 1998; comments and responses on that document are reprinted in volume 2. The *Final General Management Plan / General Plan, Environmental Impact Statement / Environmental Report* has been revised to reflect substantive comments and concerns received during the comment period, and the text has been refined and clarified where necessary. This final document will be distributed for a 30-day minimum period before it is approved. A California State Parks and Recreation Commission public hearing will be held during this period. Following that, a federal "Record of Decision" and a state notice of determination will be issued. For further information contact

Superintendents, Redwood National and State Parks  
1111 Second Street, Crescent City, CA 95531  
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## SUMMARY

Redwood National and State Parks (RNSP) in California include Redwood National Park, under the jurisdiction of the National Park Service (NPS), and three state parks — Prairie Creek Redwoods State Park, Del Norte Coast Redwoods State Park, and Jedediah Smith Redwoods State Park — under the jurisdiction of the California Department of Parks and Recreation (CDPR). Together, these parks include some 105,516 acres of land in Del Norte and Humboldt Counties in extreme northwestern California. A joint (federal and state) general plan is needed to provide comprehensive guidance for managing the parks and is required by federal and state laws — federal law requires a general management plan and state law requires a general plan. The purpose of this joint general management plan is to provide a comprehensive direction for resource preservation and visitor use and a basic foundation for decision making for the parks for the next 15 to 20 years. This joint general management plan, hereafter referred to as the joint plan (or the plan), is being developed through a cooperative effort between the federal and state agencies and the public in an effort to manage the similar resources in the parks as one complex. The joint plan will be adopted by federal and state decision makers after adequate analysis of the benefits, environmental impacts, and costs of alternative courses of action, and thorough consideration of public input.

The focus of this joint plan is on *why* the parks were established and *what* resource conditions and visitor experiences should be achieved and retained over time. The joint plan considers the parks in their full ecological and cultural contexts. The connections among the various programs and management zones in the parks are identified, thus helping to avoid the potential for solving problems in one area but creating new problems in another. The joint plan constitutes the first phase of tiered planning and decision making. More detailed, site-specific analysis of

alternatives and specific proposals will be required in subsequent phases of planning before any major federal or state actions are undertaken. Four alternatives are presented, and the impacts of implementing those alternatives are analyzed. A brief summary of the major actions under the alternatives, as well as the actions that are common to all alternatives, and the impacts thereof, are presented below.

### THE NEXT STEP

This two-volume *Final General Management Plan/General Plan/Environmental Impact Statement/Environmental Report*, which includes agency and organization letters and responses to all substantive comments, has been distributed. After distribution of this final joint plan/environmental impact statement, there will be a no-action period of at least 30 days. During this no-action period, a California State Park and Recreation Commission public hearing will be conducted near the parks, a final plan will be selected and approved by the National Park Service and the California Department of Parks and Recreation, and a federal "Record of Decision" and state notice of determination will be issued to document these approvals.

### ACTIONS COMMON TO ALL ALTERNATIVES

The parks' goals and management zones are particularly useful in providing guidance in managing areas for which there are no specific action statements and in resolving future issues. There are 10 park goals broken into three categories: preserve and protect the parks' resources, provide for the public enjoyment and visitor appreciation of the parks, and maintain collaborative relationships with gateway communities and local American Indian tribes. The nine management zones are the developed zone,

## SUMMARY

frontcountry zone, mechanized backcountry zone, nonmechanized backcountry zone, primitive zone, transportation zone, Bald Hills zone, cultural resource zone, and marine management zone. No federal wilderness areas would be proposed.

Common to all alternatives would be watershed restoration through removal or treatment of abandoned logging and ranch roads that are contributing unnatural amounts of sediment into streams and threatening the redwoods along the streams in the parks. Two approaches would be used — landform restoration (partial or complete) and/or road decommissioning. Partial landform restoration is the complete removal of all major logging roads and limited removal of minor logging roads (skid roads) that are the biggest threat to the parks' resources. Some minor roads would remain after partial landform restoration. Complete landform restoration is the complete removal of all major and minor logging roads. The road decommissioning approach focuses on reducing the potential for erosion at stream crossings and unstable road segments. Some roads that do not pose serious threats to RNSP resources might be decommissioned under the landform restoration approach.

Although the most substantial damage to RNSP resources from logging occurred in the Redwood Creek basin, there are places in or just outside the state parks that need restoration or other treatment. These areas have not yet been inventoried to assess needed restoration. The emphasis would continue to be on the Redwood Creek basin; however, under all alternatives RNSP staff would monitor the effects of activities in these other areas/watersheds, and RNSP watershed restoration staff would take appropriate steps if significant threats to resources were anticipated.

Adverse impacts on wetlands from activities proposed under any alternative would be avoided to the greatest extent possible.

If any state or federally listed or proposed threatened or endangered species are found, or if designated critical habitat exists, in areas that

would be affected by construction, visitor use, or restoration activities proposed under any of the alternatives in this joint plan, RNSP staff would first consult informally with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and/or the California Department of Fish and Game. RNSP staff would attempt to avoid, minimize, rectify, reduce, compensate, or otherwise mitigate any potential adverse impacts on state or federally listed or proposed or candidate threatened or endangered species. Should it be determined through informal consultation that an action or proposed project might adversely affect a listed or proposed species, RNSP staff would initiate formal consultation under section 7 of the Endangered Species Act or with the California Department of Fish and Game, as required under the *California Fish and Game Code* and the California Endangered Species Act.

Marine plants and animals and tidepool and other intertidal communities would be inventoried and monitored. If additional protection were necessary, RNSP staff would work with the California Department of Fish and Game to modify regulations that apply to offshore waters within RNSP boundaries. RNSP staff would continue to participate in the North Coast Area Planning Committee to help ensure protection of resources from offshore shipping traffic.

The parks' archeological, historic, and ethnographic resources would continue to be identified, evaluated, and nominated, as appropriate, for listing on the National Register of Historic Places. The emphasis in actions involving both cultural and natural resources would be weighted towards protecting and preserving whichever resource would be most easily damaged. In addition, RNSP staff would continue to work in concert with the representatives of American Indian tribes and preservation interest groups to achieve an emphasis on the management of cultural resources similar to that for interpretation, education, and visitor use.

In accordance with applicable NPS and CDFR policies and agreements, and with pertinent

legislation and executive orders, the parks would place an emphasis on working with local American Indians in the areas of consultations, government-to-government relations, interpretation, traditional activities, resource management, and sustainable economic development.

Carrying capacity analyses would be conducted to establish carrying capacities for several sites in the parks. Standards would be set, and if necessary, actions would be taken to bring the resource condition or visitor experience back to the accepted standard.

All new and rehabilitated facilities would be designed to meet or exceed state and federal standards for accessibility and to encourage use by visitors of all abilities.

U.S. Highways 101 and 199 would remain the main access routes to and within the parks. RNSP staff would work with the California Department of Transportation (Caltrans), the Federal Highway Administration, and local government agencies to ensure that visitors would have a world-class scenic travel experience while traveling on the 101 and 199 highway corridors and that these routes would convey to travelers a sense of being in a park environment. The protection of the redwood forests would be of paramount importance. RNSP staff would work with state, regional, and local transportation agencies to address issues related to traffic needs and foster improvements in tourism and travel information. RNSP staff would also work with federal, state, and county agencies to ensure that environmentally sensitive maintenance operations were used on portions of the highways and roads that pass through the parks.

Several action plans, including (among others) a backcountry management plan, a comprehensive RNSP trail plan, a Redwood Creek estuary aquatic resource management plan, a second-growth forest management plan, an erosion control and disturbed lands restoration plan, a comprehensive RNSP trail plan, a Bald Hills visitor use management plan, and an alternative

transportation plan, would be completed before any approved actions were implemented. Mitigation measures would be undertaken for facility construction.

Also, NPS and CDPR facilities would be consolidated wherever it would be cost-effective to do so.

The major impacts of actions that are common to all alternatives would be as follows. The failure of stream crossings and road benches before watershed restoration activities were complete could result in increased sediment inputs into Redwood Creek and its tributaries. Watershed restoration would have a major beneficial cumulative impact of decreasing runoff, erosion, and sedimentation into Redwood Creek and its tributaries and would help in the overall recovery of that ecosystem. The potential for significant erosion from abandoned and poorly maintained roads upstream of the parks would continue, with an associated potential for major adverse cumulative impacts on downstream RNSP resources. Cooperative activities with upstream landowners would have a major beneficial impact of reducing the potential sediment loads and reducing the potential for major adverse impacts on downstream resources.

Listed species and their suitable habitats would be both positively and negatively affected by RNSP operations, visitor use, and proposed developments identified in this joint plan. These activities would be managed to avoid or minimize potential adverse impacts on listed species.

Cultural resources in the Bald Hills would benefit because actions and priorities would be established to clarify management goals, reduce conflicts between natural and cultural resource management, and accommodate interpretation, visitor use, and traditional uses with minimum damage to resources. Partnership efforts with American Indian tribes and preservation groups would enhance the management and interpretation of cultural resources.

## ALTERNATIVE 1

Under this alternative, the agencies would emphasize the protection of the parks' resources and values and would also provide a variety of opportunities for visitors to enjoy RNSP natural and cultural resources. In-depth interpretation would be provided both in facilities and onsite. Orientation would help visitors easily access both facility- and resource-based interpretation and visitor opportunities. Major developments would be focused along U.S. Highways 101 and 199. New visitor services and facilities in the parks would be provided as long as sensitive resources were not affected.

Watershed restoration within the national park would be increased over current levels, emphasizing partial landform restoration (obliterating major roads and selected minor roads) and doing so relatively quickly — in about 17 years. Watershed restoration upstream of the national park in the Redwood Creek basin, which would depend on opportunities offered by property owners and the availability of resources, would be done primarily through road decommissioning and erosion prevention and would also be accomplished quickly — in about 17 years. Increased funding would be needed to accomplish the restoration work in this timeframe. The National Park Service would play a leadership role in organizing a multijurisdictional, multidisciplinary approach to addressing the restoration of the estuary while seeking to retain current land uses in the lower Redwood Creek valley.

Second-growth forests would be managed to accelerate the return of characteristics found in old-growth forests. Priority would be given to forest stands that are critical to ecosystem restoration with some consideration of visitor use. After evaluation, selected naturally occurring prairies, and prairies and oak woodlands that were maintained by American Indian land use practices or natural phenomena, would be restored. A fire management program would be established to support resource management strategies, including the restoration of fire in old-

growth forests, prairies, oak woodlands, and coastal shrub communities as a natural process.

Historic structures would be stabilized, protected, and preserved as appropriate. Cultural landscape inventories or reports would be prepared for potential cultural landscapes.

All functions at the Redwood Information Center would remain, and interpretive facilities, exhibits, and sales areas would be upgraded as opportunities arise. However, if the building is damaged or destroyed, a new primary visitor center would be built outside the tsunami zone between Orick and Prairie Creek and adjacent to U.S. Highway 101. Opportunities for constructing the new facility would be sought through public, private, and/or tribal partnerships. The new center would include museum quality exhibits, a dedicated auditorium for multimedia presentations, book sales, and trip-planning services.

The Hiouchi Information Center and the Jedediah Smith Redwoods State Park visitor center functions would be combined into a new facility that would be built in the Hiouchi area. This facility would provide orientation information at the northern end of the parks and in-depth interpretation of the natural and cultural themes appropriate to the area. The facility would include interior exhibits, a dedicated auditorium, book sales, campground information, and trip-planning. The Jedediah Smith Redwoods State Park visitor center would be retained to support campground operations.

Information and orientation services at the Crescent City center would continue until incorporated in a multiagency information center that could be developed in the area. RNSP staff would help plan and operate this center.

The Prairie Creek Redwoods State Park visitor center would be retained, continuing to provide interpretation of and orientation to area resources.

Information about Del Norte Coast Redwoods State Park would be provided primarily through the Crescent City headquarters/information center until those functions were transferred to a new multiagency facility in the Crescent City area.

A comprehensive RNSP trail plan and a back-country management plan would be developed to guide the development of an expanded trail system for the parks, specify the location of primitive camping areas, and prescribe policies and regulations for the use of backcountry areas by hikers, bikers, and equestrians. Current trails would serve as the nucleus for developing the expanded trail system. High priorities for new hiking trails would be to establish links between existing trails. Portions of trails that adversely affect sensitive resources would be considered for *relocation or removal*.

If visitor demand for additional campground facilities exists — and this would be periodically evaluated — a greater number and variety of developed campsites than currently exist would be provided outside of sensitive resources areas. No campgrounds accessible by vehicles would be constructed in the Bald Hills.

*Additional primitive campsites* — walk-in, backpacking, equestrian, and bicycle — would be provided in the parks, consistent with *applicable* management zone characteristics.

Freshwater Lagoon Spit would be designated for day use only; overnight camping would be phased out over a three-year period, allowing the private sector the opportunity to develop replacement camping facilities elsewhere. A fee would be charged for overnight camping during the three-year phase-out period.

Regulations prohibiting off-road vehicle use in the parks would be enforced except for use that is essential to provide access for commercial surf fishing activities. Off-road vehicle use for commercial surf fishing at Freshwater Lagoon Spit, Gold Bluffs Beach, and Crescent Beach would continue by renewable, nontransferable

annual permit only. Only permits issued between March 1996 and September 1, 1999, would be renewed, and no new permits would be issued. Off-road vehicle use on beaches in connection with traditional American Indian cultural/religious activities that are consistent with the parks' purposes would continue only at Gold Bluffs Beach under a CDPR permit system. Vehicle use would be managed to prevent resource damage and minimize public use conflicts.

Some minor improvements would be made to several roads in the parks. New entrances would be developed to Jedediah Smith and Del Norte Coast Redwoods State Parks.

RNSP management plans, visitor services, and marketing efforts would be coordinated with local interests to achieve mutual strategies and objectives in the areas of public services and facilities, tourism, and the preservation of community values. RNSP staff would also provide technical assistance and advice to individuals or businesses interested in developing appropriate/complementary visitor services in gateway communities.

State wilderness areas would be created for portions of Jedediah Smith Redwoods State Park and Prairie Creek Redwoods State Park.

The major impacts of implementing alternative 1 would be as follows. Watershed restoration would result in decreased rates of soil erosion and improved downstream terrestrial, riparian, and aquatic habitat. Redwood Creek estuary restoration would result in floodplain and wetland restoration and improved water quality and fish habitat. Construction activities would cause some short-term adverse impacts, but these would be appropriately mitigated.

There would be some beneficial impacts on threatened and endangered species and no significant adverse impacts. The protection and preservation, management, and interpretation of the parks' cultural resources would be enhanced and, with appropriate mitigation, there would be



## SUMMARY

no adverse impacts on these resources. Visual quality would be improved, there would be some minor access and circulation benefits, and the visitor experience would be enhanced.

There would also be substantial economic benefits in the two-county area from facility construction and projected increase in visitor use of the parks when compared to existing conditions or the no-action alternative. Acquisition from willing sellers only of land (or sufficient interest in land) in the 100-year floodplain needed to restore the Redwood Creek estuary might result in modest land use impacts from loss of agricultural production or displacement of several ranches. Some local groups would be adversely impacted by certain actions, such as closing Freshwater Lagoon Spit to overnight use and eliminating vehicle access to the beach for commercial fishing. Some businesses and residents who would experience lower sales of tourism-related goods and services. A substantial portion of the adverse effects would likely occur in the Orick area.

### ALTERNATIVE 2 — NO ACTION

Under alternative 2, the no-action alternative, the managing agencies would continue what they are doing for natural and cultural resource protection, preservation, and restoration. Orientation information would be provided primarily through interpretive facilities, and in-depth interpretation would be provided through a combination of personal services and interpretive media such as brochures or wayside exhibits. Major development would be focused along U.S. Highways 101 and 199, and the agencies would encourage that visitor services and facilities be developed outside the parks. Facilities would be retained in areas with sensitive resources.

Watershed restoration within the national park, at the current rate of about 2 miles of restoration per year, would continue, requiring about 66 years. Erosion control/prevention efforts upstream of the park, which would depend on opportunities offered by property owners and

availability of funding sources and emphasize road decommissioning and erosion prevention, would treat about 4 miles per year and require about 227 years. Lower Redwood Creek valley hydrologic processes and flood control structures would be retained, where possible, to protect natural and cultural resources, existing land uses, and aquatic and wildlife resources and their habitats. Second-growth forests would be allowed to mature without intervention. The Bald Hills prairies would be managed according to existing management plans. Prescribed fire or cutting would be used to remove encroaching conifers in prairie and oak woodland areas. The fire program would be managed as described under the NPS 1994 *Fire Management Plan* and the CDPR *Prescribed Management Fire Policies and Procedures*. All wildland fires would be extinguished. Through project-specific prescribed fires, the role of fire would be reintroduced into ecosystems where it historically had a role.

Under alternative 2, cultural resource management would be similar to the proposed action.

No federally funded primary visitor center would be constructed in the parks; however, one might be constructed outside the parks by a nonfederal entity. The small visitor center at Jedediah Smith Redwoods State Park and the visitor center at Prairie Creek Redwoods State Park would be retained. The Redwood Information Center would be retained, as would the Crescent City facility. The Hiouchi information center would continue to be opened on a seasonal basis. Information for Del Norte Coast Redwoods State Park would be provided primarily through the Crescent City information center at RNSP headquarters.

Four additional developed campgrounds and additional campsites in existing state park campgrounds would be provided per approved plans. No vehicle-accessible campgrounds would be provided in the Bald Hills. Additional primitive campsites would be provided as per approved plans. The current hiking, equestrian, and mountain biking trails would be retained,

and trails called for in approved plans would be constructed.

Existing management of camping at Freshwater Lagoon Spit would continue. RV camping would be restricted to single row along the highway. Tent camping would be allowed on the south end of the beach. Limits of stay would be designated. Chemical toilets would be provided, but water would not.

Regulations prohibiting off-road vehicle use would be enforced, except for use that is essential to provide access for commercial surf fishing activities. Off-road vehicle use for commercial surf fishing at Freshwater Lagoon Spit and Gold Bluffs and Crescent Beaches would continue, but only by permit. Off-road vehicle use on beaches in connection with traditional American Indian cultural/ religious activities that are consistent with the parks' purposes would continue at Gold Bluffs beach under a CDPR permit. Vehicle use would be managed to prevent resource damage and minimize public use conflicts.

There would be no major changes in the roads in the parks.

RNSP staff would actively support and assist local communities in efforts to foster appropriate and sustainable economic development, to develop infrastructure needed for community development and RNSP facilities, and to develop services and facilities that support tourism and provide connections between the communities and the parks. RNSP staff would also provide technical assistance to and cooperate with communities.

There would be no state wilderness proposals under this alternative.

The major impacts of implementing the no-action alternative would be as follows. Long-term beneficial and adverse impacts from watershed restoration activities (within and upstream of the national park) would be the same as alternative 1, except that it would take much longer to complete, increasing the risk of major

resource damage before completion. Restoration of the estuary would not occur, so potential floodplain and wetland restoration, improved water quality, and enhanced fish habitat would not be realized and existing major adverse impacts would continue. There would be some construction activities that would cause minor, short-term adverse impacts, but these would be appropriately mitigated as in alternative 1. There would be no adverse effects on threatened and endangered species or cultural resources under alternative 2. In general, existing adverse impacts on visual quality would continue. There would be no access and circulation impacts. The visitor experience would be enhanced somewhat by new camping and trail use opportunities. There would be moderate regional economic benefits from facility construction and growth in visitor use but fewer benefits compared to the proposed action.

### ALTERNATIVE 3

Under this alternative, the agencies would emphasize the preservation and restoration of the park's resources and values; opportunities for public use and enjoyment of the parks would be limited to experiences that are consistent with this high degree of emphasis on resource stewardship. In-depth interpretation would be provided only in ways that would not affect sensitive resources, and educational programs would emphasize the public's role in resource protection. Major developments would be focused along U.S. Highways 101 and 199 and outside the parks. Most new visitor services and facilities would be provided outside the parks.

Watershed restoration within the national park, which would emphasize complete landform restoration — obliterating all major and minor roads quickly to address short- and long-term erosion potential — would be completed in about 17 years. Efforts upstream of the parks, which would depend on opportunities offered by property owners and availability of nonpark resources and emphasize road decommissioning and erosion prevention, would treat up to 54

## SUMMARY

miles per year and require about 17 years to complete. Increased funding would be needed to accomplish the restoration work in this time-frame. The Redwood Creek estuary would be restored, along with adjacent creeks and sloughs, to pre-levee and pre-breaching conditions.

Management actions would be used to reduce the time in which second-growth forests reattained characteristics and processes found in mature forests. Managing second-growth stands that are critical to ecosystem restoration would be emphasized. After evaluation, selected naturally occurring prairies, and prairies and oak woodlands that were maintained by American Indian land use practices would be restored. An aggressive fire program would be established that would emphasize restoring the natural fire regime to the greatest extent possible. The fire program would use prescribed fire and wildland fire to support land use and resource management strategies, including the restoration of fire as a natural process in old-growth forest ecosystems.

Cultural resource management under alternative 3 would be similar to the proposed action except a somewhat stronger emphasis would be placed on preserving resources than in the other alternatives.

There would be a new primary visitor center constructed outside the parks along Highway 101 or 199, but preferably in the southern part of the parks. The Prairie Creek Redwoods State Park visitor center would be retained. The small visitor center at Jedediah Smith Redwoods State Park would be removed, and information on this state park would be provided through the Crescent City information center at RNSP headquarters. Interpretive functions would be relocated from the Redwood Information Center to the new primary visitor center; the building would be salvaged and the site would be converted to day use. The Hiouchi Information Center would be removed, and services would be provided through the Crescent City headquarters/information center. Information and orientation

for Del Norte Coast Redwoods State Park would be provided through the Crescent City center.

Campsites in sensitive resource areas would be considered for removal and relocation. No vehicle accessible campgrounds would be provided in the Bald Hills. Primitive camping would be restricted to existing designated sites. Trail maintenance would be emphasized over new construction. Equestrian and mountain bike trail sections in sensitive resource areas would be removed, relocated, or redesignated as hiking trails.

Overnight camping would be eliminated at Freshwater Lagoon Spit, and the area would be designated for day use only.

Regulations prohibiting off-road vehicle use would be enforced, except for use that is essential to provide access for commercial surf fishing activities. Off-road vehicle use for commercial surf fishing at Freshwater Lagoon Spit, Gold Bluffs Beach, and Crescent Beach would continue until the year 2001 but by permit only. Only permits issued in 1996 would be renewed, and no new permits would be issued. Off-road vehicle use on beaches in connection with traditional American Indian cultural/religious activities that are consistent with the parks' purposes would continue at Gold Bluffs Beach under a CDPR permit system. Vehicle use would be managed to prevent resource damage and minimize public use conflicts.

A section of Newton B. Drury Scenic Parkway through Prairie Creek Redwoods State Park would be relocated out of the prairie. Use of some of the roads would be reduced, and selected roads would be converted to trails.

RNSP staff would actively support and assist local communities in efforts to foster appropriate and sustainable economic development, to develop infrastructure needed for community development and RNSP facilities, and to develop services and facilities that support tourism and provide connections between the communities

and the parks. RNSP staff would also provide technical assistance to communities.

State wilderness areas would be created for portions of Jedediah Smith Redwoods State Park, Prairie Creek Redwoods State Park, and Del Norte Coast Redwoods State Park.

The major impacts of implementing alternative 3 would be as follows. Watershed restoration would result in the greatest beneficial impacts on soil erosion and downstream aquatic resources in the long term. Estuary restoration would result in floodplain and wetland restoration, improved water quality, and enhanced fish habitat. Construction activities would cause some short-term adverse impacts on resources, but these would be appropriately mitigated. There would be greater beneficial impacts on threatened and endangered species than under the proposed action and no-action alternatives. In general, cultural resources would benefit from implementing this alternative, and visual quality would be improved. Although there would be some minor access and circulation benefits, some areas of the parks currently accessible by vehicle would no longer be accessible under this alternative. The visitor experience would be diminished somewhat due to a reduction in these opportunities. There would be regional economic benefits from facility construction and growth in visitor use, but less than under alternative 2; however, there would be beneficial short-term impacts associated with construction and other development under this alternative that would exceed alternative 2. Some local groups would be adversely impacted by certain actions, including commercial fishermen, ranchers who might be displaced, and redwood burl and wood carvers who gather wood from the beach.

#### **ALTERNATIVE 4**

Under alternative 4, the agencies would provide, consistent with their overarching obligations to protect the parks' resources and values, a wide spectrum of appropriate visitor experiences that relate to the parks' resources. Although RNSP

resources and values would be protected, complete restoration would receive less emphasis than it does currently. Interpretation, orientation, and visitor facilities would be provided at many locations throughout the parks to facilitate hands-on experiences. Major development would be focused along U.S. Highways 101 and 199. New visitor services and facilities would be provided in and near the parks by the federal and state governments and in partnership with others.

Watershed restoration within the national park would be basically the same as in alternative 1 and would be increased over current levels. It would be completed in about 17 years and would be accomplished mainly through partial land-form restoration — obliterating major roads and selected minor roads. Watershed restoration upstream of the park, which would depend on opportunities offered by property owners and the availability of resources, would be done primarily through road decommissioning and erosion prevention and would be accomplished in about 17 years. Increased funding would be needed to accomplish the restoration work in this time-frame. Lower Redwood Creek valley hydrologic processes and flood control structures would be maintained as in alternative 2, no action. Water level management to conserve salmonid habitat and protect the Redwood Information Center would also continue.

Priority would be given to managing second-growth forest areas where visitor use and enjoyment would be increased to reattain characteristics and processes found in mature forests; other second-growth forest areas would be allowed to mature on their own. Selected prairies, oak woodlands, and forest openings would be maintained or restored, based on opportunities for visitor use and enjoyment. Wildland fires that have the longer-term potential to reduce visitor enjoyment, restrict long-term visitor use, or have any chance of spreading to private property would be suppressed. Prescribed fire would not be used if it would adversely impact visitor enjoyment over the long term.

## SUMMARY

Cultural resource management under alternative 4 would be similar to the proposed action except there would be a stronger emphasis on onsite interpretation, adaptive rehabilitation, and visitor use, additional cultural demonstrations would be available for visitors, and research and collections would be more readily available to the public.

*In cooperation with RNSP staff, tribal governments and/or a private entity could construct a primary visitor center adjacent to the parks, possibly in connection with a destination lodge. The Jedediah Smith and Prairie Creek Redwoods State Park visitor centers would be retained. A small visitor center would be developed near Mill Creek campground. The functions at Redwood Information Center would be relocated to the new primary visitor center, and the building would be salvaged and the site would be converted to day use. Information and orientation services would remain at the Crescent City information center unless an opportunity arose for these functions to be relocated to an appropriate multiagency facility in or near the Crescent City area. The Hiouchi information center would be removed, and a larger visitor center would be built in the Hiouchi area.*

A greater number and variety of developed campsites than currently exist would be provided in state parks' campgrounds, and possibly new campgrounds would be added in the state parks. Consideration would also be given to constructing vehicle accessible campgrounds in the Bald Hills. A greater number and variety of primitive camping experiences would be provided than currently exist. The system of hiking trails would be retained as described for alternative 1, except that more trails and trail connections would be developed, and a regional hiking, biking, and equestrian trail system would be developed.

Camping would be restricted to the north end of Freshwater Lagoon Spit. Camping capacity would be reduced. Water and restrooms would be provided, and fees would be charged. Sufficient interest in land at the site would be acquired to develop capital improvements.

Regulations that prohibit off-road vehicle use would be enforced, except for use that is essential to provide access for commercial surf fishing activities. Off-road vehicle use for commercial surf fishing at Freshwater Lagoon Spit and Gold Bluffs and Crescent Beaches would continue under a permit system. Off-road vehicle use on beaches in connection with traditional American Indian cultural/ religious activities that are consistent with the parks' purposes would continue at Gold Bluffs Beach under a CDPR permit. Vehicle use would be managed to prevent resource damage and minimize public use conflicts.

Significant improvements would be made to the roads in the parks under this alternative.

RNSP staff would actively support and assist local communities in efforts to foster appropriate and sustainable economic development, to develop infrastructure needed for community development and RNSP facilities, and to develop services and facilities that support tourism and provide connections between the communities and the parks. RNSP staff would also provide technical assistance to communities.

A state wilderness area would be created for a portion of Jedediah Smith Redwoods State Park.

The major impacts of implementing alternative 4 would be as follows. Watershed restoration would result in decreased rates of soil erosion and improved downstream terrestrial, riparian, and aquatic habitat. Restoration of the Redwood Creek estuary would not occur, so potential floodplain and wetland restoration, improved water quality, and enhanced fish habitat would not be realized, as in alternative 2. Construction activities would be the greatest in this alternative, causing additional short-term adverse impacts, but these would be appropriately mitigated. There would be some beneficial impacts and some adverse impacts on threatened and endangered species depending on the species. This alternative represents a less comprehensive and integrated approach to resource management, interpretation, and visitor services

than the proposed action. Visual quality would be improved over the long term, albeit not as much as under the proposed action. There would be some major access and circulation benefits, and the visitor experience would be expanded significantly. There would also be substantial

regional economic benefits from facility construction and growth in visitor use compared to alternative 2. Implementing this alternative would result in the greatest beneficial regional economic impacts of any of the alternatives.

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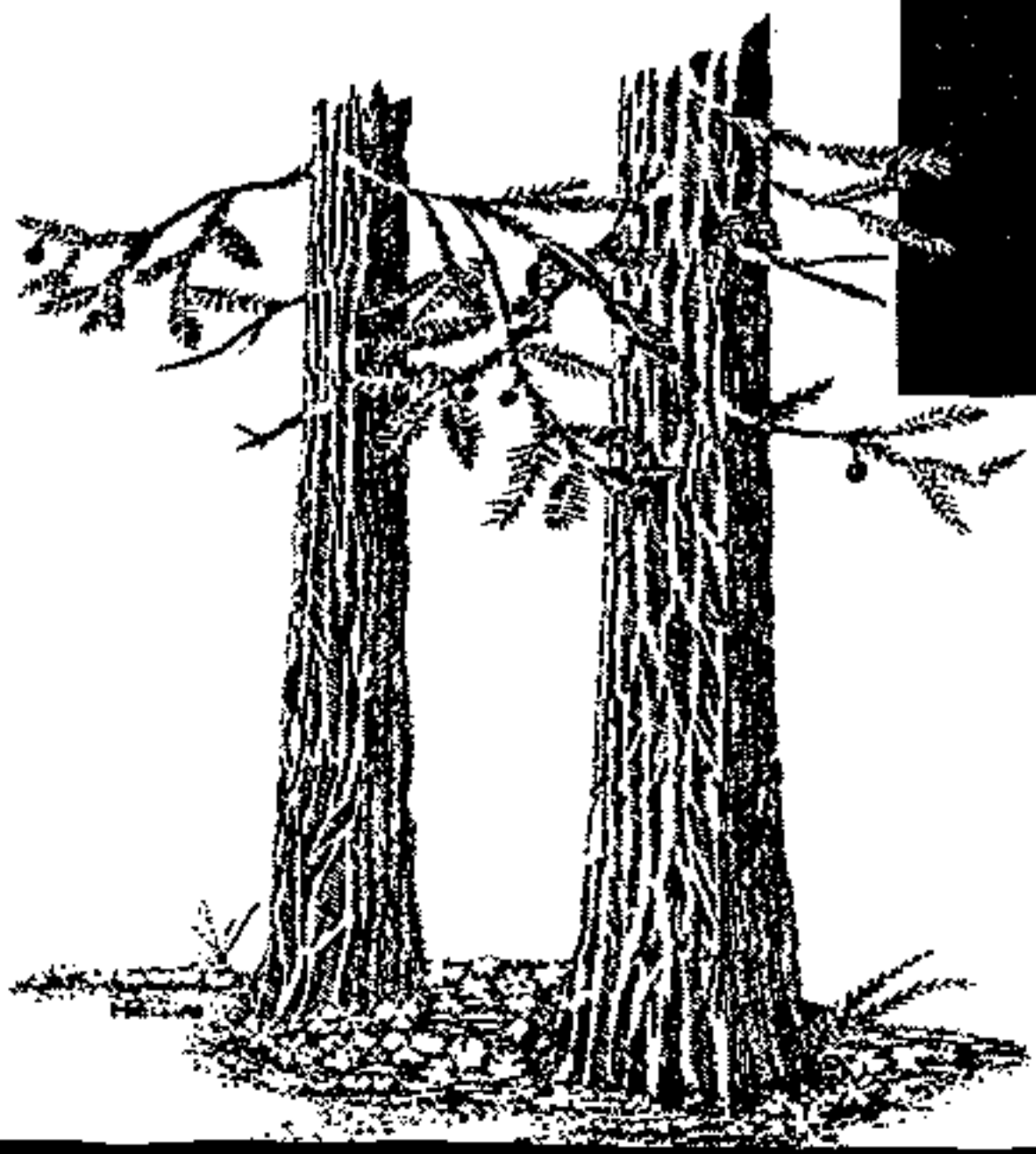
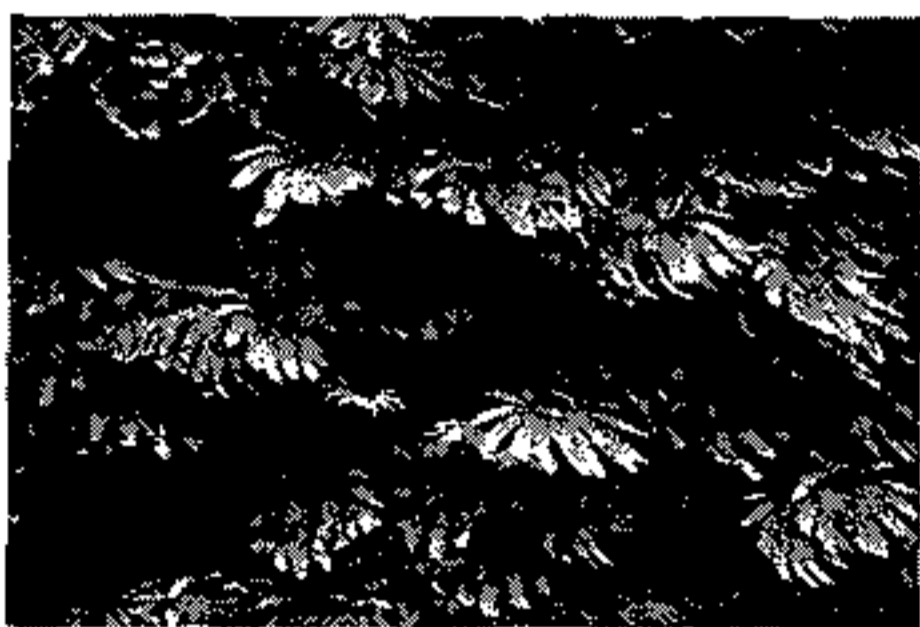
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## INTRODUCTION

## THE JOINT PLAN

### WHAT IS A GENERAL MANAGEMENT PLAN / GENERAL PLAN?

Redwood National and State Parks in extreme northwestern California consist of four units — Redwood National Park, which is a federal park under the jurisdiction of the National Park Service (NPS), and three state parks — Prairie Creek Redwoods State Park, Del Norte Coast Redwoods State Park, and Jedediah Smith Redwoods State Park (see Region and Vicinity maps) — which are under the jurisdiction of the California Department of Parks and Recreation (CDPR). Together these parks, in Del Norte and Humboldt Counties, encompass some 105,516 acres. Guidance is needed for managing the parks. The national park is required to prepare a general management plan; the state parks are required to prepare a general plan. The purpose of a joint federal-state plan is to provide a clearly defined, coordinated direction for resource preservation and visitor use and a basic foundation for decision making and managing these four parks for the next 15 to 20 years.

Although the federal requirements for the general management plan differ somewhat from the state requirements for general plans, this joint general management plan / general plan (hereafter referred to as the joint plan) is being developed through cooperative efforts between the federal and state agencies in an effort to manage this complex of parks as a whole. This joint plan is being developed with a joint environmental impact statement / environmental report and in consultation with the interested public. The joint plan will be adopted by NPS leadership and the State Park and Recreation Commission after adequate analysis of the benefits, environmental impacts, and costs of alternative courses of action (see the cost analysis details in appendixes A and B).

The focus of the joint plan is on *why* the parks were established and *what* resource conditions and visitor experiences should be achieved and retained over time. The joint plan takes a long-range view, which may be many years into the future when dealing with timeframes of natural and cultural processes. The joint plan considers the parks in their full ecological and cultural contexts — as units of the national and state park systems and as parts of the surrounding ecosystem and region. The connections among the various programs and management zones in the parks are identified, thus helping to avoid the potential for solving problems in one area but creating new problems in another as a result of not fully considering the broader implications of a specific decision.

The joint plan constitutes the first phase of tiered planning and decision making. The steps involved in this planning process are illustrated in the following chart. This document completes the first and second entries under step 5. Because this joint plan is relatively general, more detailed, site-specific analyses of specific proposals in the approved plan will be required before undertaking any additional major federal or state actions.

### STATE PARK POLICY DECLARATIONS

The *California Public Resources Code* (sec. 5002.2) requires that state park general plans contain certain elements and declarations. In accordance with that requirement, this joint plan establishes general management policies for Jedediah Smith Redwoods State Park, Del Norte Coast Redwoods State Park, and Prairie Creek Redwoods State Park. Their classification as state parks by the California State Park and Recreation Commission sets general management policies as provided for in section 5019.53 et seq., *California Public Resources Code*:

DONE TO DATE	THE PLANNING PROCESS STEPS
	Note: Opportunities for public input continue throughout the entire process.
✓	<p>① <b>Gather data and determine issues and concerns</b></p> <ul style="list-style-type: none"> <li>• Assemble information to describe the parks' existing conditions.</li> <li>• Identify and analyze issues and concerns related to the parks' environment, management, and visitor uses, as well as those related to local communities and the region.</li> </ul>
	▼
✓	<p>② <b>Develop the parks' purpose and significance and goals</b></p> <ul style="list-style-type: none"> <li>• Refamiliarize ourselves with the legislative purposes of the parks.</li> <li>• Document the elements that make the parks uniquely significant.</li> <li>• Develop goals and management strategies.</li> </ul>
	▼
✓	<p>③ <b>Develop and analyze management alternatives for the parks</b></p> <ul style="list-style-type: none"> <li>• Prepare a range of development and management alternatives for the parks.</li> <li>• Analyze the impacts of each alternative.</li> <li>• Identify mitigation measures.</li> </ul>
	▼
✓	<p>④ <b>Prepare a public review draft general management plan / general plan / environmental impact statement / environmental impact report</b></p> <ul style="list-style-type: none"> <li>• Distribute draft to organizations, agencies, and individuals for their review and comment</li> <li>• Hold public meetings.</li> </ul>
	▼
✓	<p>⑤ <b>Prepare final general management plan / general plan / environmental impact statement / environmental impact report</b></p> <ul style="list-style-type: none"> <li>• Revise the plan / environmental impact statement/report as needed, based on public comments and other relevant information.</li> <li>• Distribute final plan to organizations, agencies, and individuals.</li> <li>• Hold California State Park and Recreation Commission public hearing.</li> </ul>
	▼
	<p>⑥ <b>Publish a record of decision / notice of determination</b></p>
	▼
	<p>⑦ <b>Begin plan implementation</b></p>

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

Klamath-Siskiyou Mountains, southwest mountains and valleys, redwoods, foothills and low coastal mountains, and desert and desert mountains.

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

All elements required to be included in state park general plans are contained in this document. The statement of purpose for Redwood National and State Parks as set forth in this joint plan serves as the declared purpose for the three included state parks. The management of Redwood National and State Parks will be consistent with the requirements established for classified state parks. Further, the management zones, goals, strategies, and actions contained in this joint document serve as resource management policy as well as give general guidance for land use, facilities, concessions, and operation of the state parks as required by law.

## PURPOSE OF AND NEED FOR THIS JOINT PLAN

The 1980 *General Management Plan* for Redwood National Park assumed that the three state parks, which were already within the congressionally designated national park boundary, would be transferred through donation to the National Park Service. This did not occur, which nullified portions of the 1980 management plan that applied to state park lands and meant that portions of the management plan that applied to state park lands were never implemented. The California Department of Parks and Recreation produced the *State Redwoods Parks, General Plan* in 1985. In 1994 the National Park Service and California Department of Parks and Recreation signed a memorandum of understanding (see appendix C) and agreed to cooperate in managing the four parks to improve the protection of the resources, better serve visitors, and realize fiscal benefits from reducing duplicated services. Both the National Park Service and the California Department of Parks and Recreation agreed that a new joint management plan was needed to define joint goals and strategies for managing the four parks as a whole and to coordinate the development of facilities and operations.

Significant portions of the parks are within the ancestral territory of the Yurok Tribe and other

American Indian groups. About 1,100 to 1,200 acres of land and waters within the Yurok Reservation are federal lands within the parks that are administered by the National Park Service. Although the Yurok Tribe has established a tribal government and a memorandum of understanding exists (see appendix D) between the parks and the Yurok Tribe, this joint plan will help solidify the relationship and promote better understanding and communication.

This joint management plan, when approved and adopted, will replace both the 1980 federal *General Management Plan* and the 1985 *State Redwoods Parks, General Plan* for these four parks.





# THE PARKS

## BRIEF DESCRIPTION OF THE PARKS

The four units of Redwood National and State Parks (RNSP) encompass about 105,516 acres, are about 50 miles in length with 35 miles of coastline, and vary in width from 0.5 mile to 8 miles. The legislated national park boundary includes federal and state park lands. RNSP headquarters are in Crescent City, California, which is equidistant (350 miles) from San Francisco, California, and Portland, Oregon. Redwood National Park was established in 1968 and expanded in 1978 (see appendix E). Prairie Creek Redwoods State Park was established in 1923, Del Norte Coast Redwoods State Park in 1925, and Jedediah Smith Redwoods State Park in 1929 (see appendix F). Some lands within the RNSP boundary are privately owned.

The north-south mostly two-lane U.S. Highway 101 is the main road through the parks, winding its way through forested hills and along the rugged coastline. A 12-mile bypass around Prairie Creek Redwoods State Park was completed in 1992. Three miles northeast of Crescent City, U.S. Highway 199 joins U.S. Highway 101 and provides an east-west route through Jedediah Smith Redwoods State Park. On its western side, the national park boundary extends 0.25 mile beyond the Pacific Ocean's mean high tide line, and the National Park Service exercises jurisdiction over the waters, intertidal lands, and submerged lands. The coastal jurisdiction of state park lands extends 1,000 feet west of the ordinary high-water mark.

Three major river systems and numerous coastal streams traverse the parks. These include portions of Redwood Creek and the Smith and Klamath Rivers. Within the parks, some of the alluvial valleys are relatively flat, with much steeper inner gorges in many of the river valleys. The Smith and Klamath Rivers are part of the federal and state wild and scenic river systems — the federal system since 1981 by congressional action and the state system since 1972 by an act of the state legislature.

## BOUNDARY REFERENCES

The legislated Redwood National Park boundary includes national (federal) park lands and three state parks, each with its own boundary (as indicated on the general plan maps in this document). Although the goal is to manage these federal and state lands as a single complex of parks, there are times in this document when differentiation between national park land and/or actions and state park land and/or actions becomes important — such as describing statutory authorities or requirements or permitting procedures that apply only to federal lands or state park lands.

For the purposes of this document, then, the term Redwood National and State Parks (RNSP) will be used when referring to state and federal park lands. The terms Redwood National Park, the national park, or national park lands will be references only to federal park lands. References to state parks or state park lands will be to the specific state park or a general reference to the state (CDPR) redwood parks.

Two distinctive physiographic provinces, the coast and the mountains, typify the parks. The 35-mile coastline is mostly rugged, rocky, and difficult to traverse, although there are some grass- and brush-covered rolling slopes. Broad beaches and nearly level uplifted marine terraces characterize the coastal areas around Crescent City. In the central and southern portions of the parks, there are broad alluvial valleys near the mouths of the Klamath River and Redwood Creek. Along the coast of Prairie Creek Redwoods State Park, the 8-mile stretch of Gold Bluffs Beach lies at the foot of the nearly vertical Gold Bluffs, rising 100–400 feet in height. Off-shore there are numerous seastacks that provide habitat for various birds. Inland lie the north-northwest trending mountains of the Coast Ranges. Elevation in the parks varies between sea level to more than 3,000 feet. Rapid tectonic uplift, abundant, intense rainfall, and sheared

bedrock make much of the parks highly erodible, deeply incised, and generally rugged. The average slope in the park ranges between 40% and 70%.

A compilation of basic natural and cultural resource information and maps for the three state redwoods parks can be found in the *Inventory of Features*, which was developed for the 1985 *State Redwoods Parks, General Plan* (see appendix G).

The climate along the coast area is cool and moist, with only minor variations in temperature, and heavy fogs are nearly a daily occurrence during the summer. The densely forested (mostly redwoods and Douglas-fir) Coast Range receives the heaviest rainfall of any area in California — 60–100 inches annually.

The major natural resources are the coast redwood forest ecosystem, the coastline, the rivers, the oak woodlands, and the prairies. There are 856 natural plant species (699 native and 157 nonnative) and 202 native resident wildlife species. There are five species of birds and two species of fish listed or proposed for listing as threatened or endangered. Many bird species (370) have been recorded in the parks.

The archeology of pre-European settlement within Redwood National and State Parks indicates about a 4,500-year continuous record of habitation extending to after European contact at about 1850. At the time of contact, the Yurok, Tolowa, and Chilula lived along the coast and rivers of what is now Redwood National and State Parks. They were not the only American Indians in northwest California, but they are the three groups that had territories that are now within the parks. There were also strong influences from the greater Northwest Coast Cultural Area to the north. Fish, game, and acorns were particularly significant foods. In addition to villages of wooden plank houses and sweat-houses, there were temporary summer camps. Woodworking and basketry were important industries. There was an extensive trade network.

Today, the traditional territories of two American Indian peoples, the Yurok and the Tolowa, include lands now within the parks. The Chilula, whose territory included park lands in the Redwood Creek basin, were almost decimated; those who remained were assimilated by the Hupa to the east of the parks. Since 1978 RNSP staff has held regular consultations with local American Indians and tribal governments about a wide range of issues.

Although Europeans probably sighted the Humboldt coast as early as 1579, there were few sea and overland explorers until much later. In spring 1828 Jedediah Smith led the first overland party to penetrate the mountains of interior northwest California and traversed what is now the parks, reaching the coast near Crescent City before turning northward. In 1848 gold was discovered in the upper Trinity River area. American Indians were displaced by the incoming miners, and reservations were established.

A number of coastal towns were established as supply centers for the gold miners. Trails following routes established by the Indians led to the mines. Farmers and ranchers were soon attracted to the north coast. Commercial fisheries were established in the last quarter of the 19th century, and the dairy industry also became important. Toward the end of the 19th century, the timber industry was established in the area. This ended the era of economic self-sufficiency, because products were destined for the world beyond California.

Tourism became important to the economic base of the north coast region after the Old Redwood Highway (now portions of Highway 101) was completed in 1923. Construction of this highway coincided with the 1918 establishment of the Save-the-Redwoods League, a significant event in the history of conservation, not only along the north coast but also nationally. Prairie Creek, Jedediah Smith, and Del Norte Coast Redwoods State Parks were set aside as tree preserves in the 1920s. Significant development for visitor use in these parks was undertaken by the Civilian Conservation Corps in the 1930s.

## INTRODUCTION

In 1963 the National Park Service conducted a special study of the California coast redwoods. Five years later the 58,000-acre Redwood National Park was established; it was expanded in 1978 to about 105,516 acres, which includes C DPR lands in the state parks.

## PURPOSE OF THE PARKS — WHY THEY WERE SET ASIDE

*The reason(s) for which the parks were established provides the most fundamental criterion for determining the appropriateness of actions proposed in this joint plan.*

Through federal statutes and declarations of purpose, the U.S. Congress and the California Park and Recreation Commission, respectively, have established the individual purposes of the four parks that make up Redwood National and State Parks. These purposes are as follows:

**Redwood National Park** was established “to preserve significant examples of the primeval coastal redwood (*Sequoia sempervirens*) forests and the streams and seashores with which they are associated, for purposes of public inspiration, enjoyment, and scientific study, there is hereby established a Redwood National Park in Del Norte and Humboldt Counties, California.” (Public Law 90-545, October 2, 1968)

[I]n order to protect existing irreplaceable Redwood National Park resources from damaging up slope 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. (PL 95-250, March 27, 1978)

The purpose of **Jedediah Smith Redwoods State Park** is to make available to people

forever, for their inspiration and enjoyment, in a condition of unimpaired ecological integrity, the great forests of lower Mill Creek and of the Smith River, together with all related scenic, historic, scientific, and recreational values and resources of the area. (July 1965 State Park and Recreation Commission Declaration of Purpose)

**Del Norte Coast Redwoods State Park** is established “to make available to the people, for their inspiration and enjoyment forever, the scenic grandeur of the coast of Del Norte County from False Klamath Cove northward to Crescent Beach, where the coast redwood forest uniquely clothes the slopes directly facing the ocean; embracing also the important inland forests within the drainage of Mill Creek, adjoining Jedediah Smith Redwoods State Park; together with all scenic, historic, scientific, and recreational values and resources of the area.” (November 1964 State Park and Recreation Commission Declaration of Purpose)

The purpose of **Prairie Creek Redwoods State Park** is to “make available to people forever, for their inspiration and enjoyment, in a condition of unimpaired ecological integrity, the great forests of Prairie Creek Basin and adjacent areas west to the sea, including the wide ocean beach; together with all related scenic, historic, scientific, and recreational values and resources of the area.” (July 1963 State Park and Recreation Commission Declaration of Purpose)

Based on these individual statements of purpose, the National Park Service and the California Department of Parks and Recreation have developed administratively the following statement of purpose to provide general guidance to the management of the complex of four parks that comprise Redwood National and State Parks:

**Redwood National and State Parks** were established to preserve significant examples of the primeval coastal redwood forests and

the prairies, streams, seashore, and woodlands with which they are associated for purposes of public inspiration, enjoyment, and scientific study, and to preserve all related scenic, historical, and recreational values.

## **SIGNIFICANCE OF THE PARKS — WHY THEY ARE SPECIAL AND IMPORTANT**

*The following statements define the significant attributes that relate to the parks' purpose and why the parks were established. Knowing the parks' significance helps managers set protection priorities and determine desirable visitor experiences.*

- Redwood National and State Parks preserve the largest remaining contiguous section of ancient coast redwood forest. This ecosystem includes some of the world's tallest and oldest trees, and it is renowned for its biotic diversity and inspirational atmosphere. The forest community includes a number of rare and endangered species, dependent on the integrity of the whole for their survival.
- More than one-third of the lands within the parks have been heavily impacted by timber harvest and are the subject of an internationally recognized restoration program designed to restore integrity and recover lost values. Erosion related to logging roads is being reduced, natural topography is being restored to hillslopes crossed by roads, and topsoil is being returned to the surface to speed revegetation and retain genetic integrity of the vegetation.
- Redwood National and State Parks are near the junction of three active tectonic plates of the earth's crust. Steep, highly erodible landscapes and frequent earthquakes characterize the region and are all related to the geologic forces generated at plate boundaries. These forces influence not only the natural characteristics of the parks, but human use and habitation as well.
- Redwood National and State Parks contain a rich variety of biotic communities from the Pacific Coast to the interior mountains. The mosaic of habitats within the parks includes old-growth forests, prairies, oak woodlands, and riverine, coastal, littoral, and near-shore marine environments. These habitats are increasingly important refugia for rare and endangered species.
- Redwood National and State Parks contain 35 miles of scenic Pacific Ocean coastline and about 105,516 acres of coastal topography. The heavy rainfall and powerful rivers are part of the intricate and dynamic hydrologic system. This system, which includes portions of the watersheds of Redwood Creek, the Klamath River, and the Smith River as well as the Pacific Ocean, provides a rich diversity of aquatic and riparian habitats. The Klamath and Smith Rivers are designated federal and state wild and scenic rivers.
- Redwood National and State Parks preserve the legacy of 19th and 20th century conservation efforts that led to the establishment of three state parks in the 1920s, a national park in 1968, and an expansion of the national park in 1978. These federal and state lands are cooperatively managed to ensure the highest level of resource protection and visitor enjoyment. United Nations world heritage and international biosphere reserve status was granted in the 1980s.
- Four American Indian cultures with ties to Redwood National and State Park lands — the Tolowa, Yurok, Chilula, and Hupa peoples — represent a diverse indigenous presence. These groups maintain traditional lifeways, including arts, ceremonies, and methods of subsistence as well as three distinct languages. The archeological record of these peoples, extending back more than 4,500 years on RNSP lands, includes sites listed on the National Register of Historic Places. These resources are especially important because of their direct association with contemporary American Indian communities, who continue to

rely on these resources for their spiritual, cultural, physical, and economic sustenance.

- RNSP landscapes represent more than 150 years of land use practices by non-Indian peoples, including exploration, mining, fishing, ranching, timber cutting, and settlement. Some historic structures, roads, trails, and railroad beds remain. Logging practices were developed here that permitted the cutting of timber on an unprecedented scale. The intensity of logging spurred an environmental movement. The debate about land ethics continues today.

## INTERPRETIVE THEMES — WHAT VISITORS SHOULD KNOW

*Based on the parks' purpose, significance, and primary resources, the following primary interpretive themes are those ideas about RNSP resources that are so important that every visitor should have the opportunity to understand them. The primary themes below cover those ideas that are critical to a visitor's understanding of the parks' significance. (They are not a comprehensive list of everything there is to interpret in the parks.)*

- The ancient coast redwood ecosystem preserved in Redwood National and State Parks protects some of the world's most majestic forests and is home to an interrelated biotic community. The coast redwood, a species that has produced some of the world's tallest individual trees, is well adapted to the environmental conditions of its range.
- The mosaic of habitats within Redwood National and State Parks, which includes ancient forest, prairies, oak woodlands, and coastal and near-shore marine environments, provides increasingly important refugia for a number of rare and endangered species.
- Steep, highly erodible landscapes and frequent earthquakes are related to local geologic forces

generated near the junction of the three tectonic plates of the earth's crust that underlie the region.

- The Yurok, Tolowa, and Chilula Indians historically lived on lands now included in Redwood National and State Parks. The Chilula Indians were later assimilated into the inland Hupa culture, east of the parks. The diverse traditional lifeways of these indigenous groups continue today.
- Attracted by the diverse natural resources of the northern California coast, residents developed a number of industries including mining, farming, ranching, fishing, and logging.
- Redwood National and State Parks preserve the living legacy of 19th and 20th century conservation efforts, which helped spur a worldwide environmental movement and set aside diminishing redwood forests as parks, parks that now provide a testing ground for cooperative management and large-scale restoration of severely impacted forest lands.

## PARKS' GOALS AND MANAGEMENT STRATEGIES

*Given the purpose, significance, and what visitors should have the opportunity to learn, goals and management strategies were developed to provide guidance in preserving and protecting what is significant and communicating the primary themes to the visitor.*

The parks' goals are listed in the "Actions Common to All Alternatives" section. The more specific management strategies change somewhat with each alternative and are listed in each alternative section according to specific topics (natural resource management, cultural resource management, education and interpretation, etc.). Please see those sections for the listings of management strategies.

## ISSUES AND CONCERNS

*Having at least a broad understanding of why the parks have been set aside, what resources are significant, what the public should have the opportunity to learn, and what are the goals and management strategies for the parks, managers can look at conditions and determine what the obstacles are to achieving those goals and strategies.*

The issues and concerns are listed in the “Alternative 1 — the Proposed Action” section according to specific topics (natural resource management, cultural resource management, education and interpretation, etc.). Please see that section for a discussion of the issues.

## ISSUES BEYOND THE SCOPE OF THE JOINT PLAN

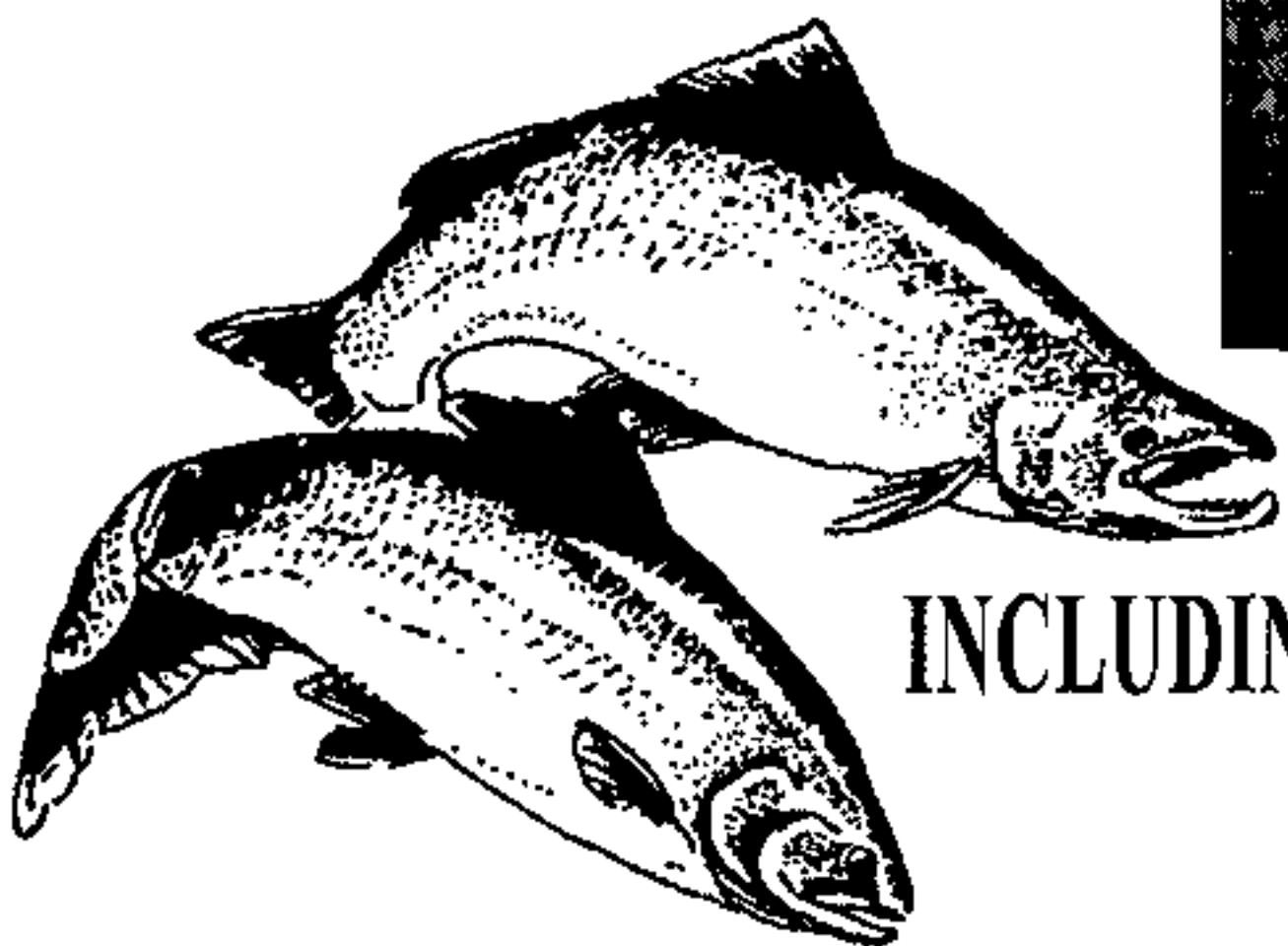
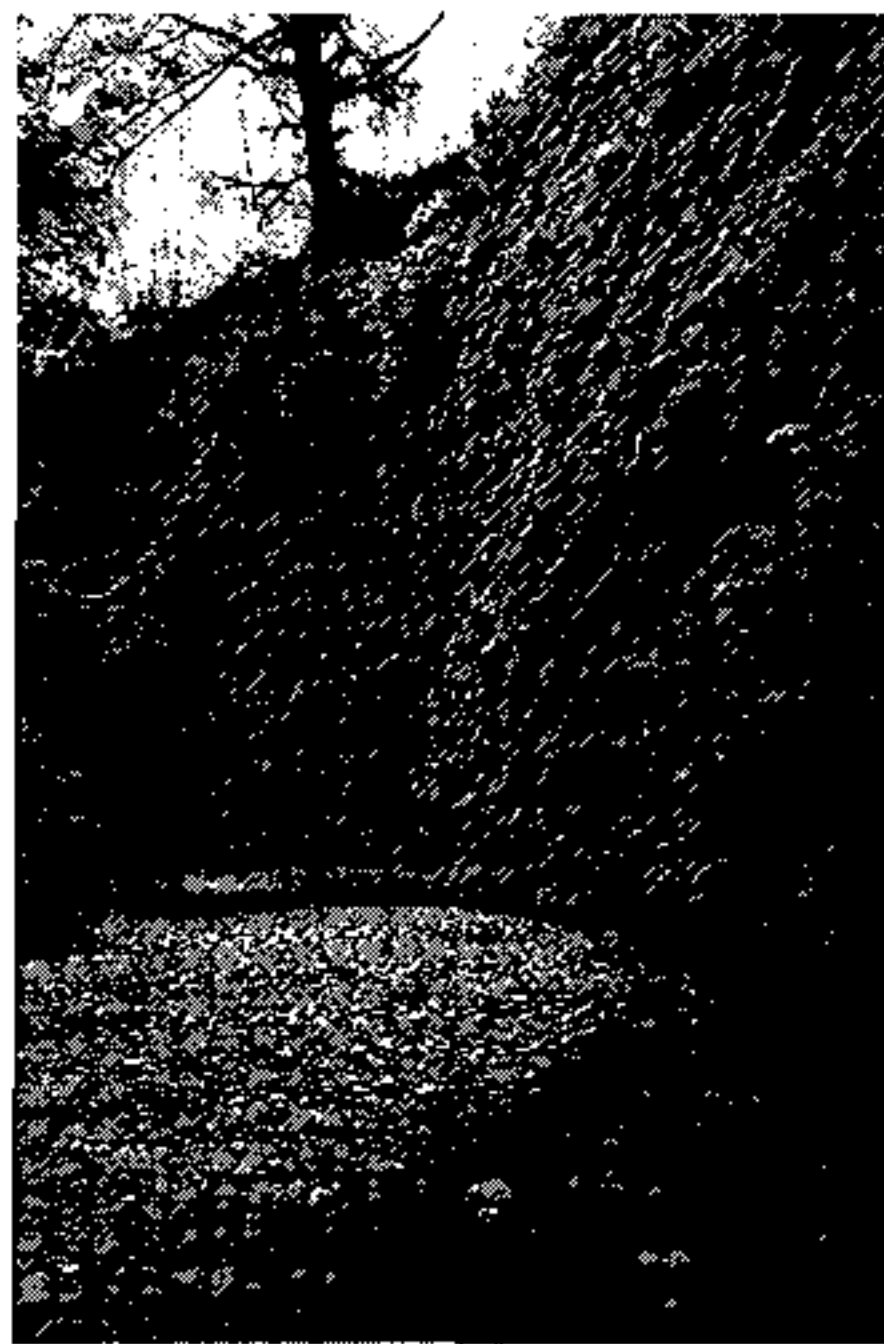
Other issues and concerns that were raised during the public involvement process were considered beyond the scope of this joint plan. Many of these issues are covered under existing more detailed planning documents or will be resolved in more detailed future planning that will tier off this joint plan.

- Develop one or more transportation hubs.
- Provide shuttle service to various locations.
- Provide more frequent bus service.
- Develop management policies to resolve human/wildlife conflicts with mountain lions, elk, and other animals.
- Protect and restore natural dune communities.
- Review policy for allowing dogs on hiking trails.
- Explore better management practices with respect to dead and downed wood collection.

Other issues and concerns were inappropriate given the legislative or policy mandates for the state parks or the National Park Service.

- Manage Redwood Creek basin as a wilderness.
- Realign Highway 101 to improve the visitor experience.
- Remove trees along the highway so visitors can see the coast from more locations.

Also, the Yurok tribe expressed an interest in reestablishing traditional hunting activities on its ancestral lands within the parks. However, given that hunting in parks is prohibited by both federal and state laws, hunting is not discussed in this document.



**ALTERNATIVES,  
INCLUDING THE PROPOSED ACTION**

## INTRODUCTION TO THE ALTERNATIVES

This chapter presents four alternatives, including a proposed action and a no-action alternative, for guiding the parks in the following major topic areas: management zones; natural resource management and protection; cultural resource management and protection; education and interpretation; public use, recreation, and visitor safety; visitor access and circulation/roads; interdependence of parks and communities; administrative facilities; land acquisition; and wilderness. Alternative 1 provides an emphasis on the protection of the parks' resources and values and also provides a variety of opportunities for visitors to enjoy the resources. Alternative 2 is a no-action alternative — what would happen under a continuation of existing approved plans; it provides a basis for comparing the other alternatives. Alternative 3 emphasizes the preservation and restoration of the parks' resources while limiting visitor experiences to those that are consistent with this emphasis on resource stewardship. Under alternative 4 the agencies would provide for a wide spectrum of appropriate visitor experiences that relate to the parks' resources while meeting overarching obligations to protect the parks' resources and values. Costs would vary for implementing each alternative (see appendixes A and B for these costs).

There are some actions that would be common to all alternatives, including the parks' goals, a description of the management zones, the overall concept of restoring disturbed lands, some actions related to cultural resource management and protection, wetlands, threatened and endangered species, visitor access and circulation, boundary map adjustments, and mitigation, that are presented here to avoid unnecessary repetition. Other actions or portions of actions are also common to all alternatives, but they are repeated within each alternative to avoid breaking up the flow and continuity of the alternatives. Tables 7–10 at the end of this section of the document summarize and compare the alternatives and the

impacts of implementing the alternatives, including those actions and impacts that are common to all alternatives.

The parks' goals and management zones are particularly useful in providing guidance in managing areas for which there are no specific action statements and in resolving future issues. Management strategies complement the locational guidance of zones by providing parkwide guidance.

Under the framework of management zones, the parks would be divided into different zones, and within each zone different resource conditions would be achieved and different types of activities, management, and facilities would be permitted. The description of the management zones appears in the "Actions Common to All Alternatives" section because the conditions achieved and the management and facilities activities permitted in each zone would not change from one alternative to the next. What would change from alternative to alternative is the location, shape, and size of the different management zones. For example, alternative 3, which emphasizes the preservation and restoration of the resources, might have more of the primitive and backcountry zones (where there would be very few visitor facilities) than alternative 4, which emphasizes a variety of visitor experiences.

Unique to each alternative is a concept of the overall goal of that alternative; a set of maps showing the location, shape, and size of each of the management zones for that alternative, and another general map showing actions that would take place at specific locations; management strategies(s) for each major topic; and the issues and actions to resolve the issues. **The issues are listed only for the proposed action; however, they are the same for all the alternatives.**

A glossary of terms that are used in this document can be found just before the "Selected



References” section at the end of this document. However, it may be helpful here to provide an

understanding of the use of “sensitive resources” and “sensitive areas” in this document.

**“Sensitive Resources” or “Sensitive Areas”**

The terms sensitive resources and sensitive areas are used throughout this document. Sensitive resources are resources that are specifically protected by law, regulation, guideline, policy, or executive order; or resources that are easily damaged by use; or resources that are rare or unique in the parks and the region. The most common examples of sensitive resources or sensitive areas in the parks are the old-growth redwoods, the wetlands, the prairies, threatened and endangered species and their habitat, and cultural resources including archeological sites, ethnographic sites, and sites that are of importance to American Indians. Rather than repeat this list, these resources are referred to as sensitive resources or sensitive areas throughout the document.



## BACKGROUND

### DISTURBED LANDS

#### Past Commercial Logging and Park Expansion

Before 1978 much commercial logging and associated road building were done just upstream and upslope of the 1968 park lands. More than 38,000 acres (70%) of the expansion area added to the park in 1978 (in the Redwood Creek watershed) had already been logged. In timber harvest areas, road networks are the primary source of erosion. There were 415 miles of abandoned logging roads and 3,000 miles of skid roads in these cutover areas (see the Roads in Redwood Creek Basin map). The 1978 park expansion (PL 95-250) came about because of this extensive logging. The logging roads and post-logging exposed slopes were prone to erosion, and over time massive amounts of the eroded sediment washed into Redwood Creek and its tributaries in the national park (see next subheading on "Past Logging in Old Growth" for details on previous logging techniques).

The increased sediment caused the water in the creeks and tributaries to rise, eroding the stream-banks and stream channel — carrying away soil that shallow-rooted streamside redwoods needed to keep them upright. The redwoods were being directly impacted and threatened by upstream logging outside the park, and in the early 1970s environmentalists were alarmed at the large trees that were falling because of the undermining erosion. The 1978 expansion (about 48,000 acres) increased the amount of federal/national park land along the Redwood Creek corridor, protecting more lands near the creek and its tributaries from logging, and included more land upslope within the national park so that it also would be protected from logging. The additional lands in this expansion area were logged (cutover) lands that would require extensive and expensive rehabilitation, a situation that was uncommon for national park system lands.

The initial watershed restoration (rehabilitation) program in the 1980s in the national park focused on erosion control efforts through road removal and removing fill from streams, and 190 miles of roads have been removed with these techniques. Over time, assessment of the restoration methods has resulted in improved treatments. The emphasis is now on watershed restoration rather than just road removal. The restoration goal is to restore watersheds to conditions that would have existed before logging occurred. For more information please see the discussion of erosion in the "Natural Resources" chapter of the "Affected Environment."

#### How Does Logging outside the Parks Affect Trees inside the Parks, Miles Away?

Erosion, a natural process, is yielding unnatural amounts of sediment into streams. Roads built to transport harvested trees are prone to erosion (see next section on "Past Logging in Old Growth" for details on past logging techniques). There is some evidence that the brush cover and canopy of trees removed by logging no longer function to protect soils from erosion, although this source of sediment has decreased within the parks as vegetation has regrown. Through time, the sediment eroding from the slopes and roads washes into creeks and tributaries and moves downstream. Sediment fills the stream channels and they become shallower and wider. Trees that were growing near or on the banks — streamside environments are the places redwoods prefer and where they grow the best and the tallest — are now closer to the banks or even in the water. The soil around and under the relatively shallow redwood roots erodes, especially during floods. The wind can more easily topple the trees when soils are eroded from around the roots.

Tree roots must have ample oxygen for survival. The deposition of coarse sediment originating upstream results in moisture draining away from the roots, robbing them of oxygen held in the water. Streamside redwood and Douglas-fir cannot survive.

## Past Logging in Old Growth

Old-growth redwood is significantly larger and heavier than other commercial timber species, and it requires bigger yarding (moving of trees from the point of felling to a landing where felled trees are concentrated before loading on trucks for transport to market) and hauling equipment. The result is large-scale land disturbance. At the time when much of what is now the national park was harvested, old-growth timber was still abundant, and much of the lower quality or less marketable wood was left where it fell, used to cushion the fall of other redwoods or to construct stream crossings in place of culverts. Some of these practices are not allowed under the state's current *Forest Practice Rules*.

The logging haul roads in the parks are 30–50 feet wide, closely spaced cut-and-fill roads; many are well armored with gravel or crushed rock. They were commonly used by “off highway” trucks, which carried much larger loads than those allowed on public roads. To minimize yarding distances, large landings (50–100 feet wide and long) that were used to stockpile and load logs onto trucks were frequently spaced along the haul roads. Many of the drainage structures installed along these old haul roads would not be allowed today. Most of the larger streams had culverts, but often there were logs, other woody debris, and fill placed in the channel beneath the culvert to reduce the length of culvert needed. Many culverts are undersized for a 50-year-return-interval storm. Where streams needed to be crossed, typically logs and other woody debris were placed in the channel, and then soil was pushed in on top, creating a Humboldt crossing. Some stream crossings had no drainage structures at all.

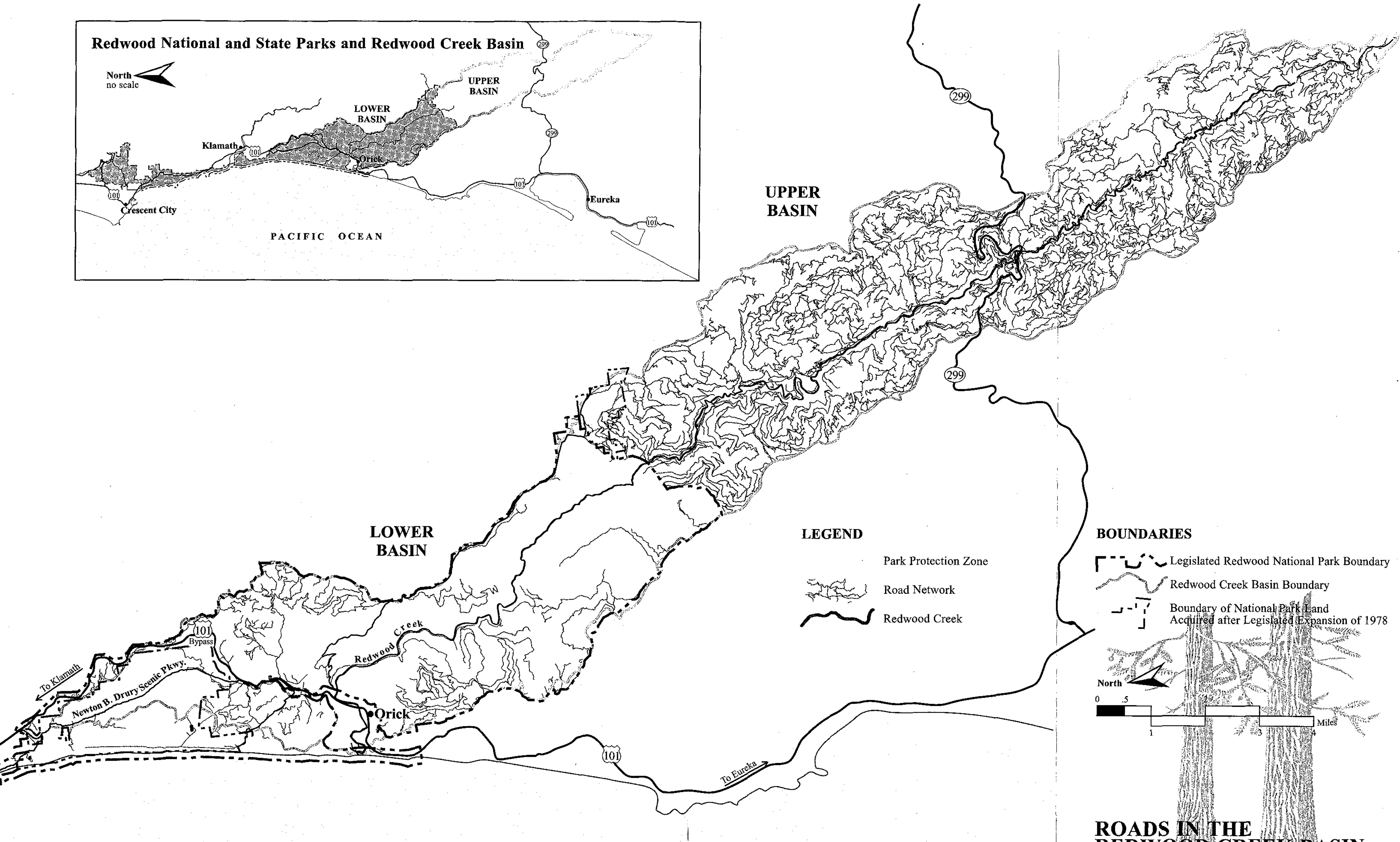
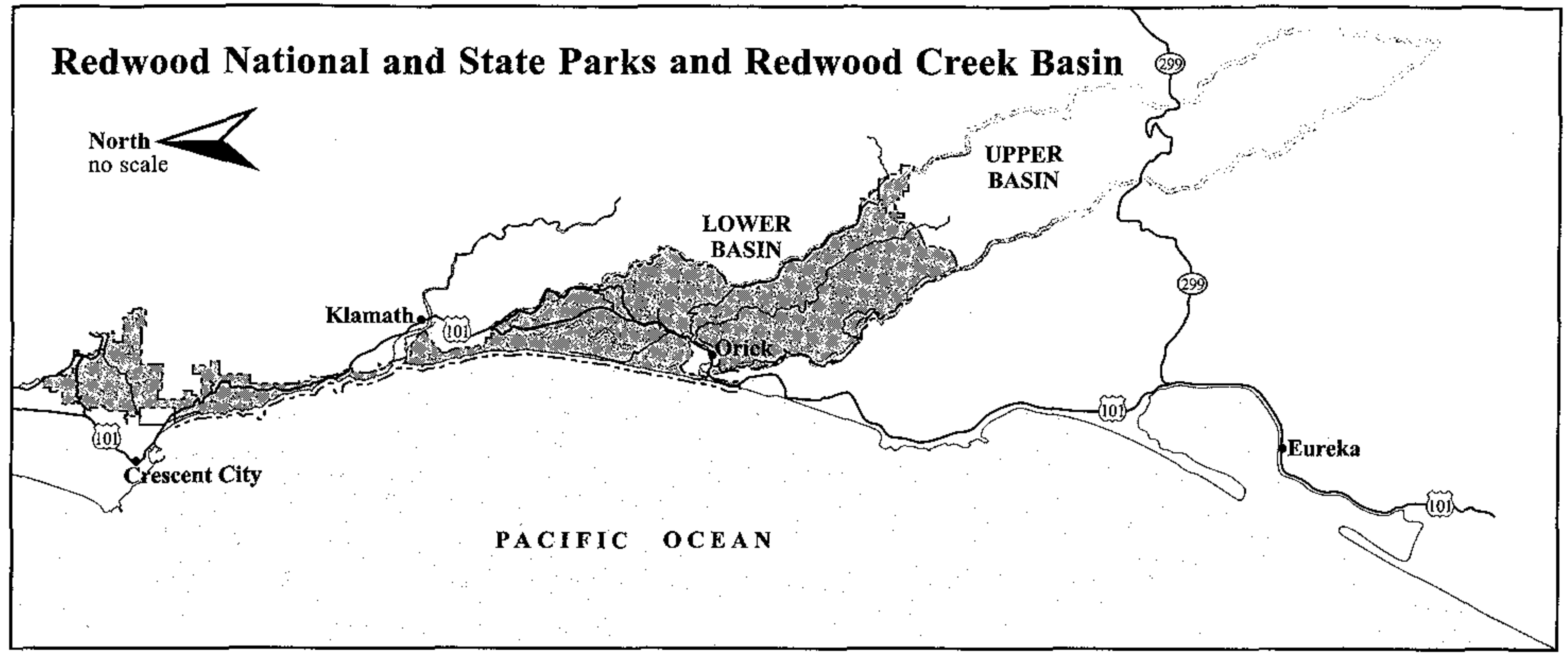
In tractor yarded areas, bulldozers were used to pull the logs of the individual trees to the landings on the haul roads; the routes they carved by cutting and filling are known as skid roads. Where a route was used repeatedly, or even just once with several old-growth logs

dragging behind the bulldozer, the skid roads could become as wide as the smaller haul roads.

Layouts (beds onto which trees are felled) are unique to old-growth redwood logging. Old-growth redwood trees are very brittle and, to minimize breakage during falling, layouts are constructed for as many trees as possible. Before powerful bulldozers were developed in the late 1940s, or in cable-yarded areas, these beds were made of other less valuable trees. During the period when most of the parklands were logged, tractor yarding predominated and, in those areas, bulldozers were used to create the layouts. They were cut into the hillslopes, like a road, in whatever direction was most favorable for felling the tree. They are typically the width of a large bulldozer's blade (~15 feet) and the length of the tree's height (200 to 350+ feet) and they have a straight, even grade.

Where convenient, layouts might be later used as roads, and roads were sometimes made into layouts, only to be used as a skid road again. It is often difficult to distinguish between layouts and skid roads or between haul and skid roads. There are no consistent distinctions between the various uses of the roads/hillslope cuts that can be made simply in terms of their width. However, they all disrupt the natural drainage network.




As a consequence of the immense size and weight of the redwood timber and the equipment used to remove it, there has been a large amount of ground disturbance on the parks' logged lands, especially in those areas that were tractor-yarded. Ground disturbance to the hillslopes from cable yarding is significantly less because bulldozers were not used to cut layouts and skid roads and drag out the logs. Instead, a cable system was set up at the landings, the fall of the tree was cushioned by other trees or uphill falling, and then the logs were dragged to the landings using the cables. Because most of the parks' logged lands were tractor-yarded clear-cuts, the degree of disturbance is much greater than would be found in cable-yarded areas.




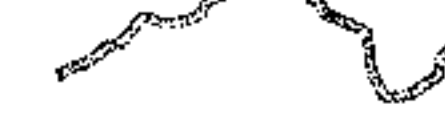
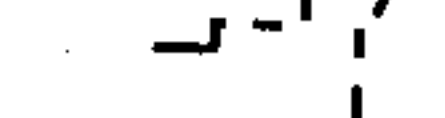
**UPPER  
BASIN**

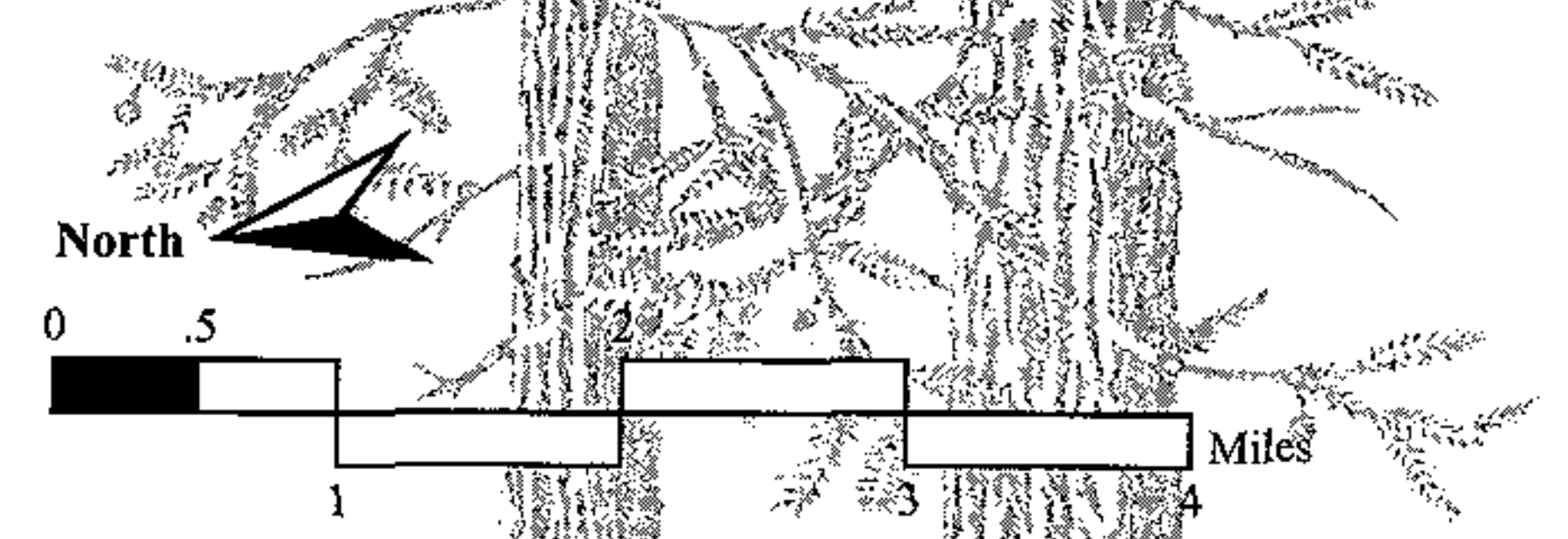
**LOWER  
BASIN**

**LEGEND**

-  Park Protection Zone
-  Road Network
-  Redwood Creek

**BOUNDARIES**

-  Legislated Redwood National Park Boundary
-  Redwood Creek Basin Boundary
-  Boundary of National Park Land Acquired after Legislated Expansion of 1978



**ROADS IN THE  
REDWOOD CREEK BASIN**

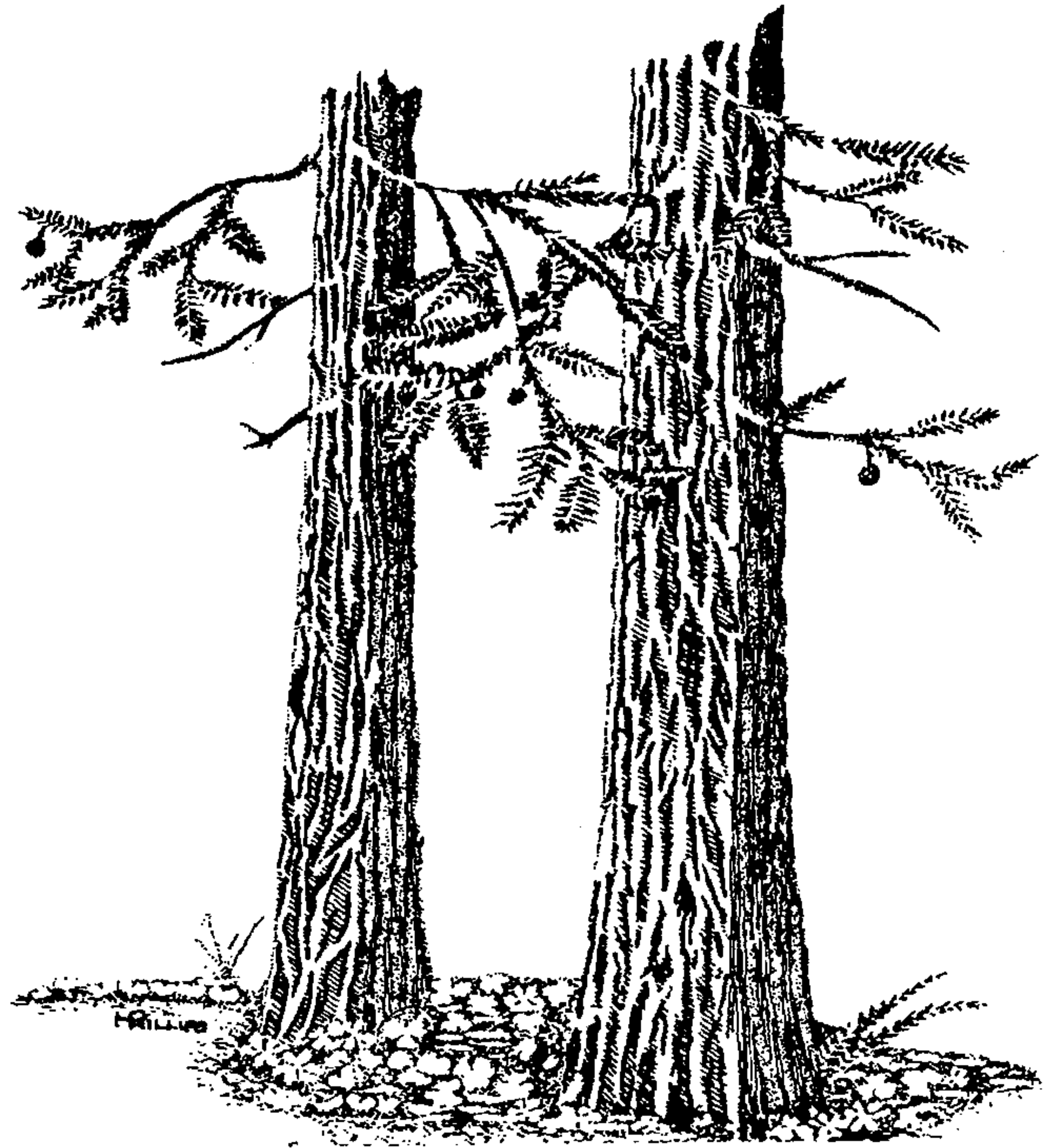
Redwood National and State Parks • California  
NPS • DSC • Sept. 99 • 167 • 20074A

ON MICROFILM

PACIFIC OCEAN

## THE PARK PROTECTION ZONE

A separate park protection zone (PPZ), a zone of about 33,000 acres of private land immediately upstream and upslope from the national park boundary, was also established as part of the 1978 expansion of the park (PL 95-250). RNSP staff has more review authority over plans for timber harvest in the park protection zone than in areas upstream from this zone. For example, the California Department of Forestry has always allowed RNSP staff to participate in preharvest inspections on PPZ lands. However, on private lands further upstream, the California Department of Forestry allows the landowner(s) to determine whether RNSP staff participate in these inspections.



## ACTIONS COMMON TO ALL ALTERNATIVES

### PARKS' GOALS

*The following goals are based on the purpose and significance of the parks and the parks' primary interpretive themes. These broad, conceptual goals focus on results and desired future conditions, not on efforts or actions. From these goals flow the management strategies and specific actions proposed in the plan.*

#### **Preserve and Protect the Parks' Resources**

The natural and cultural resources of the parks are preserved and protected.

Lands, ecosystems, and processes that have been altered by modern human activities are restored or replicated.

Redwood National and State Parks serve as a laboratory for scientific study and research that promotes preservation, restoration, and understanding of the parks' resources. Management decisions about resources and visitor use are based on and supported by adequate scientific information.

#### **Provide for the Public Enjoyment and Visitor Appreciation of the Parks**

RNSP visitors and the general public experience, understand, and appreciate the parks' resources, and support their preservation.

RNSP visitors and the general public understand the significance of American Indian cultures in the history of the region and their historic and contemporary ties to park lands.

Visitors are satisfied with the availability, accessibility, diversity, and quality of RNSP facilities, services, and appropriate recreational opportunities.

Visitors experience the parks in a safe manner.

RNSP facilities serve ongoing needs and demands, are sustainably designed and constructed (see glossary), and are appropriately located and maintained.

#### **Maintain Collaborative Relationships with Gateway Communities and Local American Indian Tribes**

Relationships with gateway communities are founded in cooperation. Joint efforts are directed toward developing/strengthening facilities, services, and information delivery systems that facilitate public access to and appreciation for the resources and values of the parks and the surrounding region and that also enhance the economic well-being of local communities.

Formal government-to-government relationships with local American Indian tribes are based on applicable laws and regulations. Collaborative relationships are based on mutual interests in managing and protecting the lands, waters, and other resources within the parks and are guided by an understanding of and respect for the tribes' geographic, economic, and cultural ties to the parks' resources and values.

### MANAGEMENT ZONES

*Management zones provide future guidance in managing areas of the parks for which there currently are no issues or action statements.*

The parks are a mosaic of resources that are influenced by a variety of factors, including natural forces, how and when visitors use these resources, and how easily the resources could be changed by management activities and visitor use. Management zoning is a tool that is used to identify how different pieces of the mosaic would be managed to achieve the overall goal of each alternative and the desired conditions in each zone. A particular combination of physical, biological, social, and management conditions is specified for each management zone. To achieve these conditions, different types and levels of use, management, and facilities are allowed in each management zone.

Nine zones are described that apply to alternatives 1, 3, and 4. Five zones cover most of the parks — the development zone, the frontcountry zone, the two backcountry zones, and the primitive zone. The separate Bald Hills zone allows management of the complex interplay between the natural and cultural history of this area. A cultural resource zone, a transportation zone with two subzones, and a marine management zone cover the remaining portions of the parks. The following table shows the zones and their characteristics.

The zones for the no-action alternative (alternative 2) are taken from the *General Management Plan for Redwood National Park* (NPS 1980) and use slightly different terms. These zones are described under the alternative 2 discussion.

The boundaries on the zoning maps in this document that accompany each alternative are approximate.

Activities and facilities allowed in more restrictive zones such as the primitive or backcountry zones would also be allowed in less restrictive zones, such as the frontcountry or developed zones, but not vice versa. Not all activities or facilities allowed in a zone would be expected in all portions of a zone. For example, utility corridors are allowed in developed, frontcountry, and transportation zones, but not all of these zones contain utility corridors.

Visitors in areas near the edges of the more restrictive backcountry and primitive zones that are near higher use zones would have fewer opportunities for solitude. For example, the interior of the backcountry zone and the portion of the backcountry zone that borders a primitive zone would be expected to provide greater opportunities for solitude than the edge of the backcountry zone adjacent to a frontcountry zone.

Areas zoned backcountry, nonmechanized, and primitive within the three state redwoods parks that are of sufficient size would be proposed to the California State Park and Recreation Commission for classification as state wilderness in accordance with the state's *Public Resources Code*.

TABLE 1: THE MANAGEMENT ZONES

Zone	Resource Condition or Character	Visitor Experience	Appropriate Kinds of Activities or Facilities
<p><b>Developed Zone</b></p>	<ul style="list-style-type: none"> <li>• Facilities and other signs of human activity rather than resources would be the dominant features in this zone, but natural elements would also be present.</li> <li>• Resources would be intensively managed for visitor use and RNSP operational needs. Visitors and facilities would be intensively managed for resource protection and public safety.</li> <li>• Visitors might see resources that receive special protection by law or that are easily damaged from this zone, but these resources would generally not be included within this zone.</li> <li>• This zone would be restricted to as small an area as necessary to provide essential services.</li> </ul>	<ul style="list-style-type: none"> <li>• Facilities would be convenient and designed to harmonize and blend with the adjacent resources.</li> <li>• These areas would provide opportunities for many social interactions, and the probability of encountering other visitors or RNSP staff would be very high.</li> <li>• There would be little need for visitors to physically exert themselves, apply outdoor skills, or make a long time commitment to see an area of interest once they have arrived there.</li> <li>• Opportunities for adventure or solitude would not be emphasized.</li> <li>• Quiet would not be expected, and noise levels would occasionally be high.</li> </ul>	<ul style="list-style-type: none"> <li>• visitor centers</li> <li>• large parking lots</li> <li>• picnic areas in heavily impacted areas away from primary resources and where infrastructure may be provided</li> <li>• administrative facilities including housing, maintenance shops, offices, and storage areas</li> <li>• use of motorized equipment</li> </ul>
<p><b>Frontcountry Zone</b></p>	<ul style="list-style-type: none"> <li>• Zone would contain predominantly natural features, but structures and the sights and sounds of people would be evident.</li> <li>• Visitors, sites, and facilities would be intensively managed to ensure resource protection and public safety.</li> <li>• The natural environment would be modified for essential visitor and RNSP operational needs, but only in a way that harmonizes with the setting and retains the dominant characteristics of the surrounding environment.</li> </ul>	<ul style="list-style-type: none"> <li>• Visitors would feel that they were in a natural park setting, but development would be evident.</li> <li>• There would be easy access to developed or transportation zones.</li> <li>• There would be ample opportunity for social interaction.</li> <li>• At certain times of day or season, there would be opportunities for solitude, but in general the probability of encountering other visitors would be high. The probability of encountering RNSP staff would be moderate.</li> <li>• This zone would offer a fairly structured experience, with onsite interpretation and education.</li> <li>• Visitors might be required to make a short time commitment and might need to physically exert themselves to a very small degree.</li> <li>• There would be limited challenge or adventure and little need for outdoor skills.</li> <li>• Quiet would not be required as an essential part of visitor enjoyment, but moderate to low noise levels would be desirable.</li> </ul>	<ul style="list-style-type: none"> <li>• trailhead parking</li> <li>• high-standard and high-use trail corridors that access prime features such as cultural sites or scenic areas</li> <li>• trails that are accessible to visitors with disabilities</li> <li>• scenic overlooks off transportation corridors</li> <li>• picnic areas with limited infrastructure</li> <li>• large, drive-in campgrounds and associated administrative facilities</li> <li>• utility corridors in otherwise natural areas</li> <li>• hardened trail surfaces, interpretive facilities and signs, and limited infrastructure would be allowed</li> <li>• use of motorized equipment</li> </ul>



Zone	Resource Condition or Character	Visitor Experience	Appropriate Kinds of Activities or Facilities
<p><b>Backcountry Zone, Mechanized</b></p>	<ul style="list-style-type: none"> <li>• This zone would appear mostly natural, containing natural areas with generally pristine conditions and previously disturbed areas that have been or will be restored to natural conditions, as well as areas containing facilities of a more primitive nature than those in the frontcountry zone.</li> <li>• Resource modification and degradation from visitor use would be low in this zone.</li> </ul>	<ul style="list-style-type: none"> <li>• This zone would provide visitors a sense of being immersed in a natural landscape.</li> <li>• The visitor experience would emphasize discovery.</li> <li>• Visitors would feel somewhat distant from most comforts, conveniences, and facilities.</li> <li>• The chance of solitary experiences would increase with increasing distance from transportation, developed, or frontcountry zones. The chance of encountering visitors or RNSP staff would be very low in most of the zone.</li> <li>• Visitors would generally have to commit a block of time, have outdoor skills, and exert themselves to use areas in this zone. There would be possibilities for challenge and adventure.</li> <li>• Quiet would generally be expected, but occasional moderate noise levels, especially near transportation and frontcountry zones and primarily from other visitors and maintenance activities, would be tolerated.</li> <li>• Visitors might periodically encounter ongoing rehabilitation and restoration projects.</li> </ul>	<ul style="list-style-type: none"> <li>• Essential facilities would be evident, but the facilities would be very limited and would harmonize with the natural environment. Mechanized forms of visitor transport for recreation, such as bicycles, would be allowed on trails designated for such use. Motor vehicles (as defined by 36 CFR 1.4) for visitor recreation would be prohibited.</li> <li>• Facilities or structures would not be placed near easily damaged resources unless the resources could be protected and the facility was unobtrusive.</li> <li>• Facilities would be more rustic, in harmony with the less developed nature of this zone, and could include <ul style="list-style-type: none"> <li>• small walk-in or equestrian campgrounds with water and compost or pit toilets</li> <li>• small designated camping areas with no amenities</li> <li>• designated unpaved hiking or equestrian trails or designated biking trails with bridges</li> <li>• trails with no improvements</li> <li>• walk-in picnic areas</li> <li>• small signs for visitor safety and resource protection.</li> </ul> </li> <li>• A moderate level of management of both resources and visitors would be provided for visitor safety and resource protection, e.g., restricting off-trail use.</li> <li>• The parts of this zone that are adjacent to frontcountry zones would be expected to contain greater levels of development than the interior of this zone or than areas adjacent to primitive zones. The parts of this zone that are adjacent to primitive zones would be less suitable for the development of facilities or for recreational uses that involve mechanized equipment (such as mountain bikes).</li> </ul>

Zone	Resource Condition or Character	Visitor Experience	Appropriate Kinds of Activities or Facilities
<b>Backcountry Zone, Nonmechanized</b>	<ul style="list-style-type: none"> <li>• Same as backcountry mechanized subzone, but no noise from use of mechanical forms of transportation would be allowed within the zone.</li> </ul>	<ul style="list-style-type: none"> <li>• Visitor experiences in these areas would be similar to the description for the backcountry mechanized zone, with gradually less noise and intrusion as visitors move through this zone toward the primitive zone.</li> <li>• Visitors might periodically encounter ongoing rehabilitation and restoration projects.</li> </ul>	<ul style="list-style-type: none"> <li>• Facilities would be more primitive than those allowed in the backcountry mechanized zone. After disturbed areas in this zone have been restored, no form of mechanical transport for visitor recreation such as bicycles would be allowed. Other activities or facilities allowed could be               <ul style="list-style-type: none"> <li>• hiking or equestrian trails</li> <li>• generally unimproved stream crossings with infrequent trail bridges only where needed for public safety</li> <li>• designated areas for camping, normally without facilities</li> <li>• small signs essential for visitor safety</li> </ul> </li> </ul>

Zone	Resource Condition or Character	Visitor Experience	Appropriate Kinds of Activities or Facilities
<p><b>Primitive Zone</b></p>	<ul style="list-style-type: none"> <li>• This zone would be the most natural of all the zones, and would have areas with pristine conditions as well as areas with dense vegetation that are extremely difficult to enter or move through without trails; thus this zone is unlikely to be visited by most RNSP visitors.</li> <li>• This zone includes areas where very low use is desirable to protect certain resources.</li> <li>• The tolerance for resource degradation from visitor use would be low.</li> <li>• A low noise level from human-caused sources would be an essential resource condition in the interior of the zone.</li> </ul>	<ul style="list-style-type: none"> <li>• Visitors to the primitive zone would experience a natural setting, with the least evidence of development of any of the zones.</li> <li>• The primary experience would be one of discovery only, in an area that would be difficult to walk through.</li> <li>• Human use after the restoration of lands damaged by previous land use would likely be extremely low, either due to management restrictions or physical difficulty for human access.</li> <li>• Evidence of impacts from others would be minimal.</li> <li>• Chances for social interaction or encounters with RNSP staff or other visitors would be extremely low.</li> <li>• Opportunities for independence, closeness to nature, tranquility, and solitude would be ample.</li> <li>• There would be many opportunities for challenge and adventure. Visitors would have to exert themselves physically and perhaps mentally, and commit a relatively large block of time to explore in this zone because of the generally difficult topography, dense vegetation, and lack of developed access. Outdoor skills such as route-finding would be necessary.</li> <li>• Visitors might periodically encounter ongoing rehabilitation and restoration projects.</li> </ul>	<ul style="list-style-type: none"> <li>• No facilities or development would be allowed in this zone other than existing trails.</li> <li>• No new trails would be constructed in this zone.</li> <li>• Only foot access would be permitted.</li> <li>• Heavy equipment would be needed temporarily to restore natural conditions in damaged watersheds included in this zone.</li> <li>• Following the restoration of previously disturbed areas, management would be limited to those actions necessary to protect human health and safety and to restore natural processes that have been or continue to be altered by modern human influences. Onsite management and restrictions would be minimized and would be subtle.</li> </ul>
<p><b>Little Lost Man Creek Research Natural Area Subzone<sup>1</sup></b></p>	<ul style="list-style-type: none"> <li>• This research natural area would be intended to be the most pristine area within the national park.</li> <li>• Natural processes would be allowed to continue unhindered by any management action.</li> <li>• A low noise level from unnatural or human sources would be essential in the interior of the zone.</li> </ul>	<ul style="list-style-type: none"> <li>• Visitors would not be encouraged to enter this zone.</li> <li>• Evidence of modern human presence would be limited to unobtrusive equipment for scientific research.</li> <li>• The probability of encountering other visitors or NPS staff would be very low.</li> <li>• Visitors would need to physically exert themselves and apply outdoor and route-finding skills to make their way in this zone. They might need to make a long time commitment to see the area.</li> <li>• Opportunities for solitude would be excellent.</li> </ul>	<ul style="list-style-type: none"> <li>• No permanent structure or modification or facilities would be appropriate except the minimum necessary to conduct nonmanipulative scientific research.</li> <li>• By NPS policy, activities in resource natural areas are restricted to nonmanipulative research, education, and other activities that would not detract from the area's research values.</li> </ul>

1. The Little Lost Man Creek Research Natural Area would be a subzone of the primitive zone. This zone encompasses 2,250 acres of largely unmodified forested stream basin. Because public entry is assumed to be extremely low because of the difficulty of walking through this zone, special or intensive management would be unnecessary at this time. A research natural area is defined under NPS management policy as a special designation granted by the NPS director and applied to prime examples of natural ecosystems and areas with significant genetic resources with value for long-term baseline observational studies or as control areas for comparative studies involving manipulative research outside the national park. These areas are to be managed to provide the greatest possible protection of site integrity.

Zone	Resource Condition or Character	Visitor Experience	Appropriate Kinds of Activities or Facilities
<p><b>Transportation Zone</b></p> <p>High-Standard Subzone — covers paved state highways</p>	<ul style="list-style-type: none"> <li>• U.S. Highways 101 and 199 and State Highway 197 are in this zone and are under the control of the California Department of Transportation (Caltrans).</li> <li>• The desired conditions for RNSP resources in this zone must be integrated with the requirements to provide safe and efficient transportation for highway users.</li> <li>• Resources might be highly modified within this narrow corridor for operational and safety needs.</li> <li>• Adjacent RNSP resources and the visual qualities of the road corridor would be recognized as having significant regional value and would be protected accordingly.</li> <li>• The protection of ancient redwood forests would be of paramount importance.</li> <li>• This subzone would be made as narrow as possible to allow for the protection of the resources adjacent to the subzone and to limit the intrusion on RNSP resources and visitor enjoyment of the parks. However, this subzone would be wide enough to accommodate the development of safety pullouts, scenic overlooks, trailheads, and interpretive exhibits where appropriate.</li> <li>• Noise generated by traffic in this zone might affect the resources, particularly wildlife, in adjacent zones.</li> </ul>	<ul style="list-style-type: none"> <li>• The highway corridors should provide a world-class transportation experience.</li> <li>• All travelers should have a sense of being in a park environment. The experience would be primarily visual or vicarious.</li> <li>• The subzone would be used by visitors for touring the parks, enjoying scenic overlooks, and gaining access to other zones.</li> <li>• The visitor experience would depend on a motorized vehicle or bicycle and involve driving or bicycling along well-maintained paved roads. Portions of the highways, particularly Highway 101, are not well suited to safe and leisurely bicycling because of the speed and size of motorized vehicles on the highways and because the shoulders are narrow or absent.</li> <li>• Facilities for basic visitor orientation and signs would create a sense of arrival and awareness of being in a park.</li> <li>• Visitor attractions would be convenient, but visitors unfamiliar with the area might have difficulty identifying and stopping at attractions along Highway 101 because of the speed of travel.</li> <li>• The probability of encountering other users would be very high.</li> <li>• There would be no need for visitors to exert themselves, apply outdoor skills, or spend a long time in the zone.</li> <li>• Noise generated by traffic and maintenance activities in this zone might compromise resource values in adjacent zones, particularly quiet and a sense of solitude.</li> </ul>	<ul style="list-style-type: none"> <li>• The placement of signs and facilities would require the approval of Caltrans.</li> <li>• Recreational activities such as bicycle riding would be accommodated within public safety and resource constraints.</li> <li>• Visitor use and operational facilities would be intensively managed for safety of all users.</li> <li>• Activities and facilities could include               <ul style="list-style-type: none"> <li>• paved roadways with associated signs, barriers, and traffic control devices,</li> <li>• law enforcement and other restrictions on visitor activity</li> <li>• interpretive media</li> <li>• utility corridors</li> <li>• scenic overlooks, trailheads, and safety pullouts</li> </ul> </li> </ul>

Zone	Resource Condition or Character	Visitor Experience	Appropriate Kinds of Activities or Facilities
<p>Low-Standard Subzone — applies to most other roads in the parks</p>	<ul style="list-style-type: none"> <li>• Some low-standard roads are under county control.</li> <li>• A moderate amount of resource modification would be necessary to provide for RNSP operational needs, public safety, and administrative access.</li> <li>• This subzone would be as narrow as possible to allow for the protection of adjacent resources.</li> <li>• Noise in this subzone would be less than in the high-standard subzone because of the lower traffic speeds and volume.</li> <li>• There would be correspondingly less effect on the wildlife in adjacent zones.</li> </ul>	<ul style="list-style-type: none"> <li>• The visitor experience would be primarily visual within this subzone and would depend on driving a motorized vehicle or bicycling along a paved or unpaved road.</li> <li>• This subzone would be used by visitors for touring the parks, seeing resources, enjoying scenic overlooks and interpretive media, and gaining access to other zones in the parks.</li> <li>• Visitor attractions would be convenient and might be easier to stop at than in the high-standard subzone because of the generally lower speed of travel.</li> <li>• Bicycling along these roads would be safer than in the high-standard subzone because of less traffic and lower speeds.</li> <li>• Chances to observe the natural environment would be important.</li> <li>• There might be a sense of adventure, but there would generally be little need for visitors to exert themselves, apply outdoor skills, or spend a long time in the area.</li> <li>• The probability of encountering other visitors or RNSP staff would be moderate to low.</li> <li>• Some roads in this zone would be closed to visitors in motorized vehicles.</li> <li>• Noise generated by traffic and maintenance in this subzone might compromise resource values in adjacent zones, particularly quiet and a sense of solitude, but the impact on visitors would be much less than in the high-standard subzone.</li> </ul>	<ul style="list-style-type: none"> <li>• Activities and facilities could include <ul style="list-style-type: none"> <li>• paved or unpaved roads and associated signs, barriers, and other traffic control devices</li> <li>• paved or unpaved pullouts</li> <li>• interpretive media</li> <li>• roadside parking and picnic areas with comfort stations</li> <li>• utility corridors</li> <li>• scenic overlooks, trailheads, and safety pullouts</li> </ul> </li> <li>• Visitors and facilities would be intensively managed for safety.</li> </ul>

Zone	Resource Condition or Character	Visitor Experience	Appropriate Kinds of Activities or Facilities
<p><b>Bald Hills Zone</b></p>	<ul style="list-style-type: none"> <li>• The Bald Hills contain a unique mixture of cultural influence on an uncommon natural resource. Although the natural resources might be the most prominent feature, the existence of the Bald Hills can be attributed to a long history of cultural effects. Within this zone, cultural resources and their protection might take precedence over natural resources or vice versa.</li> <li>• The contributing elements of the historic and archeological national register districts, such as structures, orchards, roads, water systems, and archeological sites, would be preserved. Vegetation management would be implemented according to the <i>Bald Hills Vegetation Management Plan</i> (1992).</li> <li>• Essential facilities would be evident, but the facilities would be limited and would harmonize with the natural and cultural environment.</li> <li>• Resource modification and degradation from visitor use would be low in this zone.</li> <li>• This zone would include recently disturbed areas with processes that have been or will be restored to near natural conditions.</li> </ul>	<ul style="list-style-type: none"> <li>• The Bald Hills zone would provide visitors with a sense of being immersed in a natural landscape with opportunities to appreciate the cultural history of the area. Awareness of the natural environment might be a prominent part of the experience in portions of this zone, while in other areas the cultural environment might be the prominent experience.</li> <li>• The visitor experience would emphasize discovery.</li> <li>• Visitors would feel somewhat distant from most modern comforts, conveniences, and facilities. Some facilities would be provided for visitor support and enjoyment of the resources.</li> <li>• The chance of solitary experiences would increase with increasing distance from the transportation zone. The chance of encountering visitors or RNSP staff would be low in most of the zone, although visitors might encounter staff engaged in various resource management activities.</li> <li>• Visitors would generally have to commit a block of time, and exert themselves in some areas, to visit this zone. In general, there would be possibilities for challenge and adventure, and learning about of past human influence in a seemingly natural landscape.</li> <li>• Quiet would generally be expected, but occasional moderate noise levels, especially near transportation zones and primarily from other visitors and maintenance activities, would be experienced.</li> </ul>	<ul style="list-style-type: none"> <li>• Appropriate facilities in this zone are those that would harmonize with the essential characteristics of the natural and cultural resources and that would be critical to visitor enjoyment and understanding of the zone, including <ul style="list-style-type: none"> <li>• small walk-in campgrounds with water and compost or pit toilets</li> <li>• primitive trails with no improvements</li> <li>• walk-in and roadside picnic areas</li> <li>• small signs or appropriate wayside exhibits for visitor interpretation and safety and resource protection</li> <li>• self-guiding tours</li> </ul> </li> <li>• Facilities or structures would not be placed near easily damaged resources unless the facility was unobtrusive and the resources could be protected.</li> <li>• Special emphasis would be placed on the protection of American Indian sacred and ethnographic sites.</li> <li>• A moderate level of management would be provided for visitor safety and resource protection, e.g., restricting off-trail use, fire line construction around barns, etc.</li> </ul>

Zone	Resource Condition or Character	Visitor Experience	Appropriate Kinds of Activities or Facilities
<p><b>Cultural Resource Zone<sup>2</sup></b> — includes cultural roads and trails</p>	<ul style="list-style-type: none"> <li>• Within this zone, cultural resources might take precedence over natural resources.</li> <li>• The desired character or condition of resources in this zone would depend on the specific resource.</li> <li>• The surrounding areas, and in certain cases the resources themselves, might be modified for resource protection and visitor safety. However, the modification of the essential or defining characteristics of the resource would generally only be allowed with research and extensive documentation. Some of these resources might be in areas that are substantially developed, but the resources themselves would be protected through sometimes intensive management of visitor use.</li> </ul>	<ul style="list-style-type: none"> <li>• A broad spectrum of visitor experiences would be available in this zone.</li> <li>• The visitor experience would vary with the type and sensitivity of the resource. In some cases, visitors would be able to experience the site as the original human users did; entry to other sites would be subtly discouraged, prohibited, or intensively managed to protect the resource.</li> <li>• Awareness of the natural environment might be a prominent part of the experience in much of this zone; however, this awareness might be an almost insignificant part of the experience at other sites in this zone.</li> <li>• The probability of encountering other visitors or RNSP staff would vary substantially for different sites.</li> <li>• Generally, there would be little need for visitors to exert themselves, apply outdoor skills, or spend a long time in the zone.</li> <li>• Opportunities for solitude and tranquility would not be critical to the primary experience in most areas within the zone.</li> </ul>	<ul style="list-style-type: none"> <li>• Appropriate facilities in this zone are those that would harmonize with the essential characteristics of the resource and that would be critical to visitor enjoyment and understanding of the site.</li> <li>• The nature and location of the resource with respect to other zones would partly determine what activities or facilities were appropriate.</li> <li>• Low-standard roads, trailheads and trails, picnic areas, vault toilets, fencing, signs, and interpretive media would be appropriate in some areas. In other areas such as sites sacred to American Indians, no structure that would draw unwanted attention to the site or facilities would be provided. Facilities that divert visitor attention from sacred sites might be appropriate.</li> </ul>

2. For their protection, archeological sites and some of the resources that are held as significant by American Indians within this zone will not be identified on maps or documents

Zone	Resource Condition or Character	Visitor Experience	Appropriate Kinds of Activities or Facilities
<p><b>Marine Management Zone</b></p>	<ul style="list-style-type: none"> <li>• This zone is dominated by the intense physical forces of tides, waves, currents, winds, storms, and other ocean processes. Resources are pristine in those portions of the zone bounded by steep ocean bluffs and accessible to humans only at low tide or in watercraft.</li> <li>• Natural processes would continue unhindered by any management action in most of the zone. Management actions would be generally limited to the management of visitor use originating from the shoreline because management action would be ineffective at controlling the dominant physical processes in the zone.</li> <li>• Resource modification and degradation originating from human use along the shoreline within RNSP boundaries would be low.</li> <li>• Resource modification by human use would occasionally be overcome by physical processes originating outside RNSP boundaries. Physical processes would sometime return the resources to a natural state.</li> <li>• Resource extraction and public use in the zone would be consistent with applicable federal and state laws.</li> <li>• Sites and sounds of human use would be present in those portions of this zone adjacent to developments and roads, but along the undeveloped portions of this zone at the base of ocean cliffs evidence of human presence would be generally unnoticed.</li> </ul>	<ul style="list-style-type: none"> <li>• The visitor experience in this zone would be determined by the nearness to other zones. In those portions of the zone adjacent to developed zones, visitors would be able to see and hear evidence of occasionally intensive development. In portions of the zone accessible only by foot at low tide or by watercraft, visitors would experience the natural sights, sounds, and smells of the ocean and the rugged coastline.</li> <li>• Opportunities for social interaction would vary greatly in this zone. During some seasons and at some locations, visitors would have excellent opportunities for solitude. At other seasons and locations, visitors would have a very high probability of encountering other visitors or RNSP staff or people engaged in commercial or recreational fishing, beachcombing, or other recreational activities allowed under applicable regulations.</li> <li>• Visitors might be able to experience this zone with minimal effort, e.g., as a view, or with great effort and some challenge and adventure, e.g., a hike beneath ocean cliffs only at low tide.</li> <li>• Onsite interpretation and education would greatly enhance visitor understanding of this zone.</li> <li>• Education about physical processes that dominate the zone would be essential to ensure safe visitor use in all parts of this zone. Access by land to portions of the zone might be prohibited temporarily to ensure visitor safety.</li> </ul>	<ul style="list-style-type: none"> <li>• Most facilities and structures would be unable to withstand the physical forces that dominate this zone. Facilities and signs that might be in this zone would be considered temporary because of the high probability of damage by the ocean.</li> <li>• Access would be by foot, motor vehicle, or watercraft, consistent with applicable regulations.</li> <li>• Tidelands and submerged lands within this zone may be owned by the state of California or its political subdivisions, and some management actions may be subject to the jurisdiction of other agencies.</li> </ul>



## RESTORING DISTURBED LANDS

The various alternatives present and analyze the impacts of two approaches for treating abandoned logging and ranch roads — the **landform restoration approach** and the **road decommissioning approach** (see table 2). In Redwood National and State Parks, most of the abandoned logging and ranch roads are within the Redwood Creek basin. *However, more roads needing treatment are outside of park boundaries — 1,110 miles of roads upstream of park boundaries compared to 155 miles slated for treatment within the park.* There are two types of landform restoration — partial and complete. **Partial landform restoration** is the complete removal of all major logging roads and limited removal of minor logging roads (skid roads) that are the biggest threat to the parks' resources. Some minor roads remain after partial landform restoration. **Complete landform restoration** includes the complete removal of all major and minor logging roads. The road decommissioning approach focuses on reducing the potential for erosion at stream crossings and unstable road segments. In contrast, the landform restoration approach focuses on the obliteration of roads and reshaping them to the prelogging configuration of the landscape. A road or portion of a road must be completely removed to reshape the landform to its original configuration. Some roads that do not pose serious threats to RNSP resources may be decommissioned under the landform restoration approach. The alternatives described in this document include components of both of these restoration treatment styles.

Common to both approaches are constructing rolling dips at stream crossings and minimal road maintenance until the roads are treated through the restoration program. In addition to road decommissioning and restoration on parklands in lower Redwood Creek, RNSP staff would provide technical assistance upon request to private landowners for erosion prevention on roads upstream from park boundaries. Erosion prevention techniques include constructing rolling dips at stream crossings, replacing deteriorating or undersized culverts, and reconstructing unstable road fills. Some road segments in the upper basin would be decommissioned, when agreed upon by the landowners. This work in the upper basin would protect downstream

alluvial redwood groves and aquatic habitat in the main stem of Redwood Creek, including the reach within the national park. As much as possible, road maintenance and watershed restoration activities would be done before the rainy season or when areas have dried out.

### Restoring Disturbed Lands outside the Redwood Creek Basin

Throughout this document, the calculations, numbers, and miles of roads used in describing the watershed restoration program apply only to the Redwood Creek basin, the lower part of which is within the national park and the upper part of which is upstream (south) of the national park boundary. Because the most direct and extensive damage to what is now RNSP land occurred in the Redwood Creek basin, the inventory of needed restoration work has been done almost solely for this area.

Although the most substantial damage to RNSP resources from logging occurred in the Redwood Creek watershed, this is not the only watershed in or just outside the RNSP boundary that needs restoring or other treatment. For example, the Mill Creek basin in Jedediah Smith Redwoods State Park, the upper west branch of Mill Creek in Del Norte Coast Redwoods State Park, and those portions of the Prairie Creek watershed containing the headwaters of the east side tributaries in Prairie Creek Redwoods State Park have been impacted by past logging activities. These areas have not yet been inventoried to assess needed restoration.

Although the emphasis would continue to be on the Redwood Creek basin, under all alternatives RNSP staff would monitor the effects of activities in these other areas/watersheds, and RNSP watershed restoration staff would take appropriate steps if significant threats to resources were anticipated.

Efforts to reduce erosion potential at stream crossings on national park lands are common to all alternatives. The construction of rolling dips or drains at stream crossings would eliminate excess water from flowing down the road surfaces or inside drainage ditches and causing accelerated erosion, gullyng, landslides, or road

## PAST WATERSHED RESTORATION PROJECT SITES

### BEFORE

#### Ah Pah Road

Before restoration —  
road crosses a  
stream channel.



### DURING

#### Ah Pah Road

During restoration —  
excavation of road fill  
down to original  
stream channel.

### AFTER

#### Ah Pah Road

After restoration — one  
year after reconfiguration,  
stream channel appearance  
is similar to what would  
occur with natural processes.



## EXAMPLES OF ROAD FAILURES AND PROBLEMS

### West Side Access Road

January 1997, the capacity of the drainage ditch on the side of the road next to the hillslope (the inboard ditch) was exceeded, resulting in flooding across the road and causing erosion of the outer edge of the road.



January 1997, road erosion caused by culvert failure from age-related problems.



### M-8/M-Line Junction

Landslide January 1997, lower view of slide into Redwood Creek.



M-8/M-Line Junction  
Landslide January 1997,  
top view of slide above Redwood Creek.



**TABLE 2: COMPARISON OF METHODS OF TREATMENT FOR ABANDONED LOGGING ROADS**

<b>Method of Treatment*</b>	<b>Road Decommissioning (primarily in the Redwood Creek Basin upstream of the National Park)</b>	<b>Landform Restoration (primarily in the Redwood Creek Basin within the National Park)</b>
<b>Summary</b>	Reduce erosion potential at stream crossings, unstable road segments, and along steep, unstable hillslopes. Restore primary hydrologic patterns.	Reduce erosion potential at stream crossings and along all intervening road segments. Restore prelogging landforms and hydrologic patterns by reconstructing natural topography.
<b>Treatments</b>	Remove culverts, uncover buried stream channels, decompact road surfaces, and excavate only the unstable road fill. Configure the treated slopes for long-term drainage.	Remove culverts, uncover buried stream channels, pull back all road fill, and decompact road surfaces. Restore the shape of the original slope and original drainage patterns. Spread the original topsoil, forest duff, and organic matter on the finished surfaces.
<b>Duration of Program</b>	Would require less time for treatment of each road segment compared to landform restoration.	Would require more time for treatment of each road segment compared to road decommissioning.
<b>Miles of Logging Roads to be Treated</b>	911 miles upstream of the parks	155 miles in the parks
<b>Benefits to Resources</b>	More quickly protect a greater amount of aquatic habitat against immediate erosional threats. Could provide better overall protection in the event of a large storm occurring relatively soon. Minimize new impacts on forest vegetation. Short-term protection provided by erosion prevention including rolling dips.	Provide better long-term protection to a shorter length of aquatic habitat within a given period of time. More long-term stability with fewer failures after end of program. Faster reestablishment of soil and vegetation. Short-term protection provided by erosion prevention including rolling dips.
<b>Threats to Resources during and after Treatments</b>	Hillslope failures could occur after completion of the program, especially along road segments that have not been fully restored. Failures before and after program completion could damage downslope and downstream resources.	Due to the slower treatment rate, more road mileage would be left untreated for a longer time and vulnerable to catastrophic erosion during a large storm. Failures from untreated roads, before completion of program, could damage downslope and downstream resources.
<b>Cost per Mile</b>	Less than landform restoration.	More than road decommissioning.

\* Methods vary by 25% to 40% per site in terms of cost and time required. Increased funding would speed the progress of either method of treatment and allow the RNSP staff to remove abandoned roads more quickly and completely.

fill failure. These erosion control sites would be monitored and maintained, the road would remain drivable, and the treatment would not preclude more intensive restoration treatments in the future.

**Within the National Park**

Landform restoration would be most comprehensive near high visitor use areas. In these areas, major roads and minor roads would be removed, restoring the natural shapes of

hillslopes. Rolling dips would be constructed on all remaining roads as necessary to address short-term erosion hazards on roads until they are removed.

Accomplishing the watershed restoration techniques described in alternatives 1, 3, and 4 within the national park would require a significant increase in annual funding — for about 17 years. At the discretion of RNSP managers and in consideration of available resources, the level of erosion control and restoration work within the national park might vary from the preferred technique of partial landform restoration to road decommissioning and erosion prevention. However, the preferred technique(s) would be implemented whenever possible given adequate fiscal and personnel resources. Similarly emphasis for specific projects might be directed at any time from erosion control work within the national park to erosion control or related efforts in the upper basin.

In the absence of increased funding, managers would retain and exercise the flexibility necessary to achieve the highest priority projects. A future erosion control and disturbed lands restoration plan will explore more detailed site-specific implementation priorities for watershed restoration activities.

### **In the Upper Redwood Creek Basin**

RNSP staff would engage in cooperative activities with upstream landowners. These activities might include, but would not be limited to, review of proposed timber harvest plans and activities; erosion prevention and road removal in cooperation with landowners; improvements in the location, design, and maintenance of active roads; and database development for cooperative basinwide resource management.

As directed by the 1978 legislation, RNSP staff would continue to monitor and study “erosion and sedimentation originating within the hydrographic basin of Redwood Creek with particular effort to identify sources and causes including differentiation between natural and man-aggravated conditions” (PL 95-250).

## **WETLANDS**

Areas in the parks that would be affected by soil or vegetation disturbance would be surveyed for the presence of wetlands as part of project planning. If areas are present that might be classified as wetlands under either the Army Corps of Engineers or NPS definitions, a more detailed wetland delineation (mapping) would be performed. The California Department of Parks and Recreation would use the broader NPS wetland definition and guidelines for protecting wetlands.

Wetlands that have been damaged or degraded by previous land use would be considered for restoration, either to mitigate adverse impacts or to meet the goals and intent of the NPS wetland protection guidelines. Original functions and values of each wetland would be restored to the greatest extent practicable.

Adverse impacts on wetlands from activities proposed under any alternative in this joint plan would be avoided to the greatest extent possible. Any adverse impacts on wetlands for which mitigation is prescribed would be mitigated on at least a 1:1 ratio in the same drainage and as close as possible to the impacted area.

## **THREATENED AND ENDANGERED SPECIES**

If any state or federally listed or proposed threatened or endangered species were found, or if designated critical habitat exists in areas that would be affected by construction, visitor use, or restoration activities proposed under any of the alternatives in this joint plan, RNSP staff would first consult informally with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and/or the California Department of Fish and Game. RNSP staff would attempt to avoid, minimize, rectify, reduce, compensate, or otherwise mitigate any potential adverse impacts on state or federally listed or proposed or candidate threatened or endangered species. Ongoing staff actions and RNSP operations would also be included in consultations. Should it be determined through informal consultation that an action or proposed project might adversely affect a listed or proposed species, RNSP staff would

initiate formal consultation under section 7 of the Endangered Species Act or as required under the *California Fish and Game Code* and/or the *California Endangered Species Act*.

**Conservation Strategy for Protecting Threatened and Endangered Species**

Redwood National and State Parks' dual missions of resource protection and visitor services require unique strategies to protect rare, threatened, and endangered species. Impacts from management actions on listed species are frequently uncertain due to a lack of population and life history information. Redwood National and State Parks would limit areas and periods of work and designate primitive zones to mitigate the potential for unknown and unexpected impacts. In primitive zones, protection of all species would be paramount, and disturbance by human activities would be limited to those necessary to restore and maintain ecosystem function.

No state or federally listed, proposed, or candidate threatened or endangered plant species have been confirmed in Redwood National and State Parks, although RNSP botanists are investigating reports that individuals of two federally listed plant species were discovered in two different locations. Staff botanists would continue to conduct surveys for these and other rare or sensitive species incidental to other projects. If sensitive plants were located, more intensive surveys of similar habitats would be conducted to determine the extent of rare plant populations in the project area. Management emphasis of sensitive plant species would be on the population level to ensure their survival within the parks. Should any sensitive plants be discovered in project areas, the plants would be protected from human-caused disturbance, and the project would be redesigned to avoid direct impacts on the plants and their specific habitat if possible. Should it be determined through informal consultation that an action or proposed project might adversely affect a listed or proposed species, RNSP staff would initiate formal consultation with the U.S. Fish and Wildlife Service under section 7 of the Endangered Species Act or with the California Department of Fish and Game, as required under

the *California Fish and Game Code* and the *California Endangered Species Act*.

**MARINE AND COASTAL RESOURCES**

RNSP managers would inventory marine plants and animals and tidepool and other intertidal communities and monitor their condition. If additional protection was necessary to preserve marine communities, RNSP staff would work with the California Department of Fish and Game to modify existing regulations that apply to offshore waters within RNSP boundaries and the overlapping area of special biological significance (see explanation in the "Water Resources/Surface Water" section of the "Affected Environment."

RNSP policies, and also federal and state legislation, dictate complete protection of marine mammals and of seabirds and their nesting sites within the parks through cooperation with state and federal agencies. RNSP staff would cooperate with state and other agencies where marine interests might be related to RNSP lands and waters including reintroducing extirpated native species and protecting state and federally listed threatened or endangered species.

The National Park Service and the California Department of Parks and Recreation are concerned with the potential impact from offshore ship traffic. A major oil or hazardous material discharge from this activity poses a serious threat to RNSP resources. To ensure that marine and coastal resources are protected from this type of event, RNSP staff actively participated in the development of the *North Coast Area Contingency Plan* pursuant to the Oil Spill Act of 1990. The plan identifies sensitive coastal areas and habitats and delineates a protection and cleanup strategy should a major discharge of oil or a hazardous substance occur. RNSP staff would continue to participate on the North Coast Area Planning Committee to help ensure continued protection of resources from offshore shipping traffic.

## CULTURAL RESOURCE MANAGEMENT AND PROTECTION

Note: See also the following "Relationships with American Indians" section for additional related material.

The National Park Service, as caretaker of many of the nation's most significant cultural resources, is mandated by a variety of historic preservation laws, e.g., the National Historic Preservation Act (1966 and as amended, most recently, in 1992) and the Archeological Resources Protection Act (1979) to preserve, protect, and manage cultural resources under its jurisdiction for the enjoyment and enlightenment of present and future generations. According to the National Park Service's *Cultural Resource Management Guideline* (1997),

[c]ultural resource management involves research — to identify, evaluate, document, register, and establish other basic information about cultural resources; planning — to ensure that this information is well integrated into management processes for making decisions and setting priorities; and stewardship — under which planning decisions are carried out and resources are preserved, protected, and interpreted to the public.

### Research

RNSP staff conducts research to support planning for and management of RNSP resources. Much research regarding these cultural resources has already been undertaken, including archeological surveys and excavations, historical studies, artifact analysis, and consultations with American Indians. To further the identification, evaluation, and documentation of cultural resources, the agencies propose to

- continue to prepare archeological surveys and assessments of RNSP lands
- prepare cultural landscape inventories and/or cultural landscape reports for all landscapes potentially eligible for listing on the National Register of Historic Places

- initiate ethnographic overviews/traditional use studies of the parks
- prepare historic structure reports for buildings and structures, as necessary
- prepare an administrative history of Redwood National and State Parks
- continue to develop the parks' museum curatorial program
- maintain the List of Classified Structures, updating it to reflect changes in condition or management and to include new structures as they are placed on or become eligible for listing on the National Register of Historic Places

### Planning

General management planning for cultural resources is not only guided by research but also by the National Park Service's *Management Policies* (1988) and the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (1995). These policies and standards provide guidelines for preservation planning. The *Secretary's Standards* also provide guidelines for the treatment (preservation, rehabilitation, restoration, or reconstruction) of historic resources that are either listed on or eligible for listing on the National Register of Historic Places.

In addition, because political, social, and economic trends outside of a park's boundaries can profoundly affect managers' abilities to protect its cultural resources, RNSP staff seek to work with surrounding landowners and to actively participate in the planning processes of neighboring jurisdictions to help ensure that actions outside of the parks do not impair RNSP resources and values. Throughout the joint planning process, opportunities were also provided for other federal and state agencies, such as the U.S. Forest Service and the California Department of Parks and Recreation, Office of Historic Preservation, as well as American Indian tribes and the public at national, regional, and local levels, to voice their concerns about the management of the parks' cultural resources. Thus, this joint plan reflects an interdisciplinary effort that includes a cross section of national and state park personnel, including planners and resource specialists; representatives of state and local

governments, agencies, and organizations; and other interested parties and members of the community-at-large.

In addition, further consultation with the California Department of Parks and Recreation, Office of Historic Preservation, Yurok Heritage Preservation Officer, and the Advisory Council on Historic Preservation, as necessary, would be conducted for all actions described in the plan that might affect cultural resources, once plans for these actions become more specific (see appendix H).

## Stewardship

Stewardship is the integration of research and planning to avoid or minimize adverse effects on cultural resources and to identify both the most appropriate uses of and treatment of cultural resources. The following strategies for managing the cultural resources of Redwood National and State Parks are common to the four alternatives described in the joint plan:

- Any action that affects cultural resources would be undertaken only if it is consistent with the parks' purposes and applicable NPS and CDPR policies, guidelines, and standards. Any preservation, rehabilitation, restoration, and reconstruction efforts, as well as the daily, cyclical, and seasonal maintenance of cultural resources, would be undertaken in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and any applicable state regulations.
- The emphasis in actions involving both cultural and natural resources would be weighted toward the protection and preservation of the resource(s) that would be most easily damaged.
- The parks' archeological, historic, and ethnographic resources would continue to be identified, evaluated, and nominated, as appropriate, for listing on the National Register of Historic Places.
- Options for the parks' historic structures would include adaptive rehabilitation, the

historic property leasing program, preservation, interpretation, and discovery sites. Non-historic noncontributing features would be removed from the parks' cultural landscapes.

- RNSP staff would continue to work in partnership with representatives of American Indian tribes and preservation interest groups to achieve an emphasis on the management of cultural resources similar to that for interpretation, education, and visitor use. Expertise available from sources outside the parks would be recruited on a cooperative, collaborative basis to expand RNSP staff capabilities and share information. In addition to the tribes, these sources could include professional and avocational organizations and societies, academic institutions, and qualified volunteers.
- The nature and extent of visitation and use would be managed in a manner that minimizes impacts on the parks' cultural resources.
- RNSP staff would work with neighboring landowners and jurisdictions to ensure that adjacent land management practices would not impair the parks' cultural resources, viewsheds, or distant vistas.
- RNSP staff would develop solutions to accessibility requirements that minimize impacts on cultural resources.

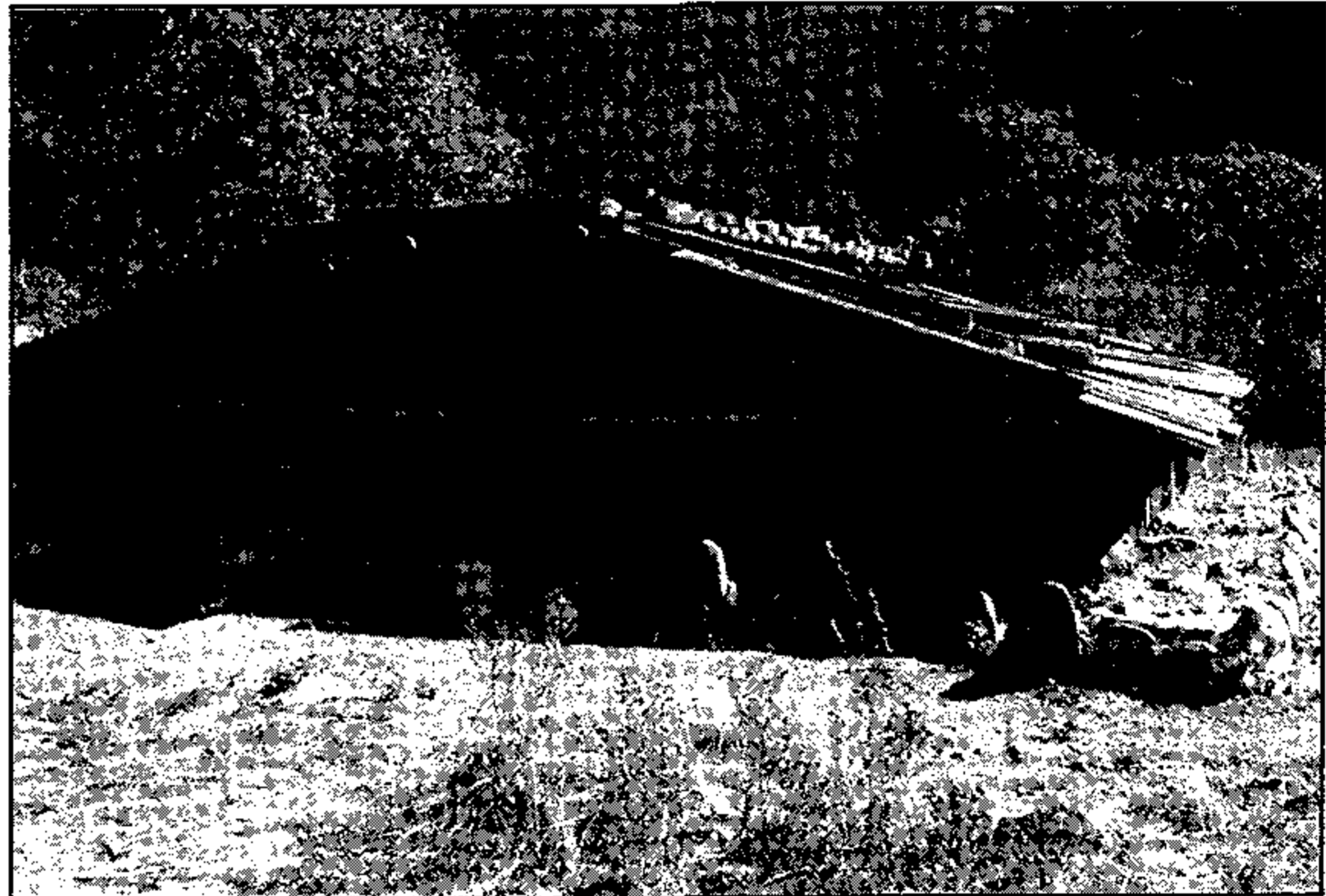
## RELATIONSHIPS WITH AMERICAN INDIANS

### Management Strategies

- Consult regularly and maintain government-to-government relations with American Indian tribes and groups who have traditional ties to resources within the parks to ensure productive, collaborative working relationships.
- Ensure the participation of American Indian tribes and groups in managing the parks' natural and cultural resources of interest and concern to them.



- Involve American Indian tribes and groups in the parks' interpretation program to promote the accuracy of information presented regarding American Indian cultural values and to enhance public appreciation of those values.
- Participate as partners with American Indian tribes and groups in planning and conducting projects and initiatives that have mutual benefit, that enhance the quality of the experiences of visitors to the parks, or that enhance the levels of public appreciation of the parks' resources and values.
- Support sustainable economic development and the availability of appropriate visitor services in American Indian communities adjacent to the parks.
- Support the continuation of traditional American Indian activities on RNSP and aboriginal lands, to the extent allowed by applicable laws and regulations.
- Collaborate with the Yurok Tribe to resolve jurisdictional, resource management, and public use issues on lands and waters that are within both the Yurok Reservation and the national park.



Traditional Yurok dwelling made from split redwood logs.  
NPS photo.

## Government-to-Government Relations/Consultations

American Indian tribes in general, and the Yurok Tribe in particular, are seeking more involvement in the planning and implementation of resource management actions on their ancestral lands. Federally recognized Indian tribes have unique legal relationships with the National Park Service and the California Department of Parks and Recreation, based on federal and state laws, regulations, and policies. These relationships are strengthened by the local American Indians' special geographic, economic, historical, and cultural ties to the lands and resources now within the parks. Federal and state legislation

and NPS and CDPR policies all recognize these relationships and require consultations and government-to-government interactions. Other federal laws impose additional obligations on federal agencies and authorize additional activities that influence these relationships; they also provide opportunities to collaborate in managing and protecting the parks' resources and values. The 1996 memorandum of understanding for government-to-government relations, signed by the National Park Service, the California Department of Parks and Recreation, and the Yurok Tribe, reflects both the legislation and policies cited above and the actions described below (see appendix D).

RNSP staff would continue to consult and collaborate with American Indian tribes and groups concerning all issues and proposed actions that might affect American Indian cultural or economic activities. RNSP staff would continue to meet regularly with the Yurok Tribal Council and, if requested, would meet with additional tribal governments on a regular or periodic basis. In addition, RNSP staff would work with tribal representatives to fulfill the intent of the Tribal Self-Governance Act (PL 103-413) and other applicable legislation, as well as to pursue agreements for the purposes of carrying out programs, services, and activities in or near the parks that are of mutual interest and benefit.

## **Interpretation**

Visitors to the parks are generally unaware of the historical and contemporary connections that local American Indians have to the parks' lands and resources. Enhancing visitor understanding and appreciation of local American Indian cultures and their spiritual, cultural, and economic ties to the parks' lands and resources would promote a better public understanding of the parks' overall significance.

Local tribes would assist in planning, and local American Indians would participate in and contribute to the parks' interpretation and education programs. Opportunities include providing training for RNSP staff, drafting and reviewing relevant exhibit and interpretive material, providing appropriate Indian-made items for sale or display in the parks' visitor centers, demonstrating American Indian traditional arts, and serving as presenters in special interpretive programs.

## **Traditional Activities on Park and Aboriginal Lands**

Among the local Yurok, Tolowa, and Hupa, many aspects of the traditional lifeways continue, on both RNSP and adjacent lands. The parks contain sites that are integral to the practice of traditional American Indian spirituality. Certain dances are held, and others are being revived, that entail the maintenance of dance sites with their traditional structures and the fabrication of dance regalia. Many of the arts, such as canoe making and basket weaving, also are practiced, which require certain natural resources — many of which are found within the parks. These arts are sources of economic as well as spiritual sustenance.

The National Park Service and California Department of Parks and Recreation would continue to support American Indian traditional activities within and adjacent to the parks. Access and privacy for traditional ceremonial purposes would be ensured. RNSP staff would notify tribal officials if downed old-growth redwood logs that are salvaged from administrative activities such as watershed

rehabilitation or road repair projects are available to the tribes for cultural purposes such as constructing traditional structures and dugout canoes. Within the parks, the collection of certain natural materials by American Indians for traditional uses would be allowed in conjunction with the maintenance and interpretation of designated cultural and ethnographic landscapes and as otherwise authorized under applicable laws and regulations. Local tribes would be afforded the opportunity to participate in the identification, designation, and management of such cultural and ethnographic landscapes.

## **Resources Management Collaboration**

The National Park Service, California Department of Parks and Recreation, and local American Indian tribes and groups share major interests in managing and protecting resources within and adjacent to the parks, and the potential for productive collaboration is high. There has been a comprehensive resources management program in the parks since the early 1980s. Professional staff includes geologists, hydrologists, botanists, fire specialists, fish and wildlife specialists, and a geographic information system office. The Yurok Tribe has also established a resources management program that includes fisheries, forestry, and watershed restoration specialists and a geographic information system. Both the Yurok Tribe and the parks have cultural resources staff, and the Yurok tribal heritage preservation officer has jurisdiction over all lands within the boundaries of the Yurok Reservation, including those within the parks that overlap. Other tribes with interests in park lands also have resources management staff.

RNSP staff and the Yurok Tribe would share relevant, nonproprietary information pertaining to the inventory and management of resources within the parks. Research, transfer of technology, and technical assistance are important components of this government-to-government relationship. Natural and cultural resources management staff from the parks and the Yurok Tribe would collaborate on joint projects or programs of mutual interest and would meet on a regular basis to discuss various aspects of their programs including: future plans, project results, staffing, and research data, particularly in

watershed rehabilitation and vegetation management. Similar relationships would be established if additional tribes or groups also request collaboration or technical assistance.

## **PUBLIC USE, RECREATION, AND VISITOR SAFETY**

If not carefully managed, public use has the potential to damage natural and cultural resources. To determine the level of visitor use that could be allowed without adverse impacts on resources or visitor experience, a visitor carrying capacity analysis would be conducted, and carrying capacities would be established for several sites in the parks. These site-specific capacities would be based on standards and indicators of resource condition and visitor experiences. Indicators for resource condition and visitor experience would represent the desired conditions and would be measurable and quantifiable rather than subjective.

Some examples of indicators are the amount of vegetation on the ground within a 15-foot radius of a large redwood tree, the number of shortcut trails, or the number of other hikers a visitor may encounter on a weekend day. Examples of standards are 75%, 50%, and 25% of ground vegetation typically seen around a comparable redwood tree, or no more than zero, 10, or 20 visitors encountered on a weekend day. Conditions for each indicator would be monitored, and when an indicator exceeds the acceptable standard for a given level of use, predetermined management actions would be taken to bring the resource condition or visitor experience back to the accepted standard.

Also, all new and rehabilitated facilities would be designed to meet or exceed state and federal standards for accessibility and to encourage use by visitors of all abilities. Additional aspects of accessibility would be addressed during more detailed site planning and facility design.

## **VISITOR ACCESS AND CIRCULATION**

U.S. Highways 101 and 199 would remain the main access routes to and within the parks. Minor realignments might take place in the future, but the highways are expected to remain generally within current alignments over the life of this joint plan. If major realignments take place during the life of this joint plan, RNSP staff would work with the California Department of Transportation (Caltrans), the Federal Highway Administration, and the counties to ensure proper protection of the values and resources of the parks. RNSP staff would also work with these agencies to ensure environmentally sensitive efforts to remove major traffic impacts on the parks' resources and values from these highways.

RNSP staff would work with Caltrans, the Federal Highway Administration, and local government agencies to ensure that visitors would have a world-class scenic travel experience while traveling on the 101 and 199 highway corridors and that these routes would convey to travelers a sense of being in a park environment. The visual qualities of the road corridors that have significant regional value would be identified and protected. Associated recreational activities, such as bicycle riding, would be accommodated within public safety and resource constraints. In all cases, the protection of ancient redwood forests would be of paramount importance. RNSP staff would work cooperatively with state, regional, and local transportation planning agencies to address issues related to future traffic needs and to foster improvements in tourism and travel information. RNSP staff would also work with federal, state, and county agencies to ensure that environmentally sensitive maintenance operations were used on portions of the highways and roads that pass through the parks.

## BOUNDARY MAP ADJUSTMENTS

PL 95-625 requires that NPS general management plans include measures for protecting the parks' resources and "indications of potential modifications to the external boundaries of the unit and the reasons therefore." The official legislated national park boundary map included in the 1978 Expansion Act does not accurately depict current landownership due to state and federal land acquisitions since the date of the act. The official map must be updated to reflect the changes that have occurred since 1978, and provisions should be made to keep the map current in light of expected future land acquisitions.

Recent NPS land acquisitions in the scenic corridor (16 U.S.C. 79[c][d]) between Orick and Prairie Creek Redwoods State Park, and in the park protection zone (16 U.S.C. 79[b][c]), and minor boundary adjustments elsewhere would be included in the legislated national park boundary by publishing a revised drawing or boundary description in the *Federal Register*. Recently acquired CDPR lands would also be included in the revised drawing. Future acquisitions of land or interests in lands would be included in the boundary through a similar *Federal Register* notice.

## WILDERNESS PROPOSALS

The lands in the Redwood Creek basin within the national park represent the largest block of contiguous federal lands within Redwood National and State Parks. However, no wilderness area would be proposed for these federal lands because it is anticipated that, for the life of this plan, the National Park Service will be required to maintain access roads and use heavy equipment throughout the Redwood Creek basin to carry out its watershed restoration activities. These activities are inconsistent with wilderness designation.

State wilderness proposals vary by alternative (see state *Public Resource Code* sections in appendix F for a description of state wilderness).

## FUTURE ACTION PLANS NEEDED

The development of the alternatives in this document sets the overall vision and direction for the parks and identifies future planning needs and a sequencing strategy for those needs. However, the following studies will be needed, under any alternative, to fully implement the approved final joint plan for managing the parks. New or updated plans would cover both national and state parks. These plans would be accompanied by an appropriate environmental compliance document as required by NPS and/or CDPR policies and guidelines. The list below is not intended to show priority order or exclude other planning needs that might be identified in the future. These plans will be done in a logical sequence to ensure that there is consistency of implementation among plans and consistent tiering down from this *General Management Plan / General Plan*.

**Backcountry Management Plan:** The goal of backcountry management would be to develop flexible strategies to protect the parks' resources while providing visitors with a safe, high-quality experience. This plan would address campsite locations and other backcountry facilities, campsite size limits, reservation and permit systems, stock use, trash and sanitation, and emergency services. This plan would also address use of the primitive zone as well as hiking, camping, and equestrian and mountain bike use. The backcountry management plan would be guided by the desired resource conditions and visitor experiences of the appropriate management zones.

**Redwood Creek Estuary Aquatic Resource Management Plan:** This plan would outline issues, resource conditions, and threats to aquatic habitats in the estuary, summarize past research, and describe alternatives for restoring natural processes and physical conditions. It will update the 1983 *Management Alternatives for the Redwood Creek Estuary* (NPS 1983b).

**Second-Growth Forest Management Plan:** This plan would identify management alternatives to speed the return of ancient forest structure and functions on the approximately

50,000 acres of previously harvested forest in the parks.

**Vegetation Management Plan:** This plan would identify and describe the parks' vegetation communities, and alternatives for protecting, restoring, and maintaining these communities.

**Erosion Control and Disturbed Lands Restoration Plan:** This plan would list the priorities for restoration treatments in RNSP watersheds to minimize erosion and restore lands disturbed by past logging and describe the criteria used to establish the priorities. Criteria include sensitivity of threatened resources, degree of threat, and the cost-effectiveness of timely treatment. This plan would update the 1981 *Watershed Rehabilitation Plan*.

**Coordinated Resource Management Plan:** This plan would analyze the physical and biological conditions within watersheds upstream of the parks, describe the concerns and objectives of landowners, and translate these analyses and concerns into a set of recommended land management practices for each watershed.

**Comprehensive RNSP Trail Plan:** This plan would describe trails and associated facilities needed to provide recreational opportunities for hikers, equestrians, and bicyclists in the parks. Trails and facilities would be consistent with the resource conditions and visitor experiences set forth in the management zones established in this general plan. **Note:** This trail plan would not be done if alternative 2 is chosen as the approved alternative.

**Land Protection Plan:** As required by its *Management Policies*, the National Park Service would complete this plan to guide future federal land acquisition in the parks. The plan would identify the alternative land protection methods to be used for the protection of resources, for visitor use, and for development; identify the minimum interests necessary to acquire for those purposes; and establish priorities for the acquisition of land or interests in land.

**Wildland Fire Implementation Plan:** This plan would identify specific actions needed to implement the appropriate management response to wildland fires. It would describe operational activities; funding, equipment, and personnel needed to control wildland fires; and timeframes and conditions for taking action. The plan would contain information to evaluate strategic management alternatives against safety, environmental, social, economic, political, and resource management criteria. This plan would be a supplement to the next revision of the 1995 *Fire Management Plan*.

**Alternative Transportation Plan:** This plan would assess the need to develop, and opportunities to provide, methods and systems of transportation that enhance visitor access and circulation within and adjacent to the parks and that also reduce impacts on the parks' resources and values.

**Circulation and Access Plan at Prairie Creek Redwoods State Park:** This plan would examine vehicle circulation in the Elk Prairie area. Alternative circulation patterns and alignments of the road would be presented.

**Bald Hills Visitor Use Management Plan:** This plan would guide development of appropriate visitor facilities and visitor use in the Bald Hills and along Bald Hills Road. The plan would address protection and interpretation of viewsheds and other cultural and natural resources. The plan would specify interpretive themes to be presented at various locations throughout the Bald Hills and describe the media used to convey the information to visitors. Visitor uses of the Bald Hills, visitor access to the Bald Hills, and the development of recreational opportunities such as overnight camping, scenic overlooks, picnicking, interpretive trails, and vehicle parking areas and pullouts along the Bald Hills Road would be included in the plan. Planning for visitor use of the Bald Hills would be coordinated with the proposals in the backcountry management and the comprehensive trail plans and would be consistent with the resource conditions and visitor

experiences set forth in the management zones established in this general plan.

**RNSP Architectural and Design Guidelines:**

This plan would provide the basis for managing the visual resources of the parks, including construction materials and design details, plant materials, and architectural features. The plan would include an inventory of the natural and cultural features unique to the parks and the region, identify the most significant visual characteristics, and provide specific suggestions on how to reinforce and incorporate those characteristics into facility design. The guidelines would also address environmentally sound construction methods, materials, and maintenance techniques, and accessibility for all RNSP users.

**MITIGATION MEASURES  
FOR FACILITY CONSTRUCTION**

Most construction activities would be done in areas that have already been disturbed by facilities, roads, parking areas, and trails. Mitigation measures would be employed to minimize temporary impacts from construction on soils, streams, wildlife, fisheries, vegetation,

riparian zones, and other resources. Such measures would include silt fences, erosion control blankets, sand bags, mulch, and reseeded where appropriate and necessary. Topsoil and vegetation would be salvaged from the construction area and stockpiled for later use in revegetation efforts. Efforts would be made to prevent contamination of the soils with subsoil layers, gravels, or other construction materials. All utilities would be placed underground where practicable.

An undisturbed natural vegetation buffer zone would be maintained along streambanks to protect the riparian zone and aquatic resources from adverse impacts. To minimize contamination from petrochemicals from construction equipment seeping into the soil, vehicles and other machinery would be maintained and checked frequently to identify and repair any leaks. Appropriate restrictions would be imposed on construction and restoration activities in areas that have occupied habitat or unsurveyed suitable habitat for northern spotted owls or marbled murrelets. (For more information see the discussion of rare, threatened, and endangered species in the "Affected Environment" part of this document.)

# ALTERNATIVE 1 — PROPOSED ACTION

## CONCEPT

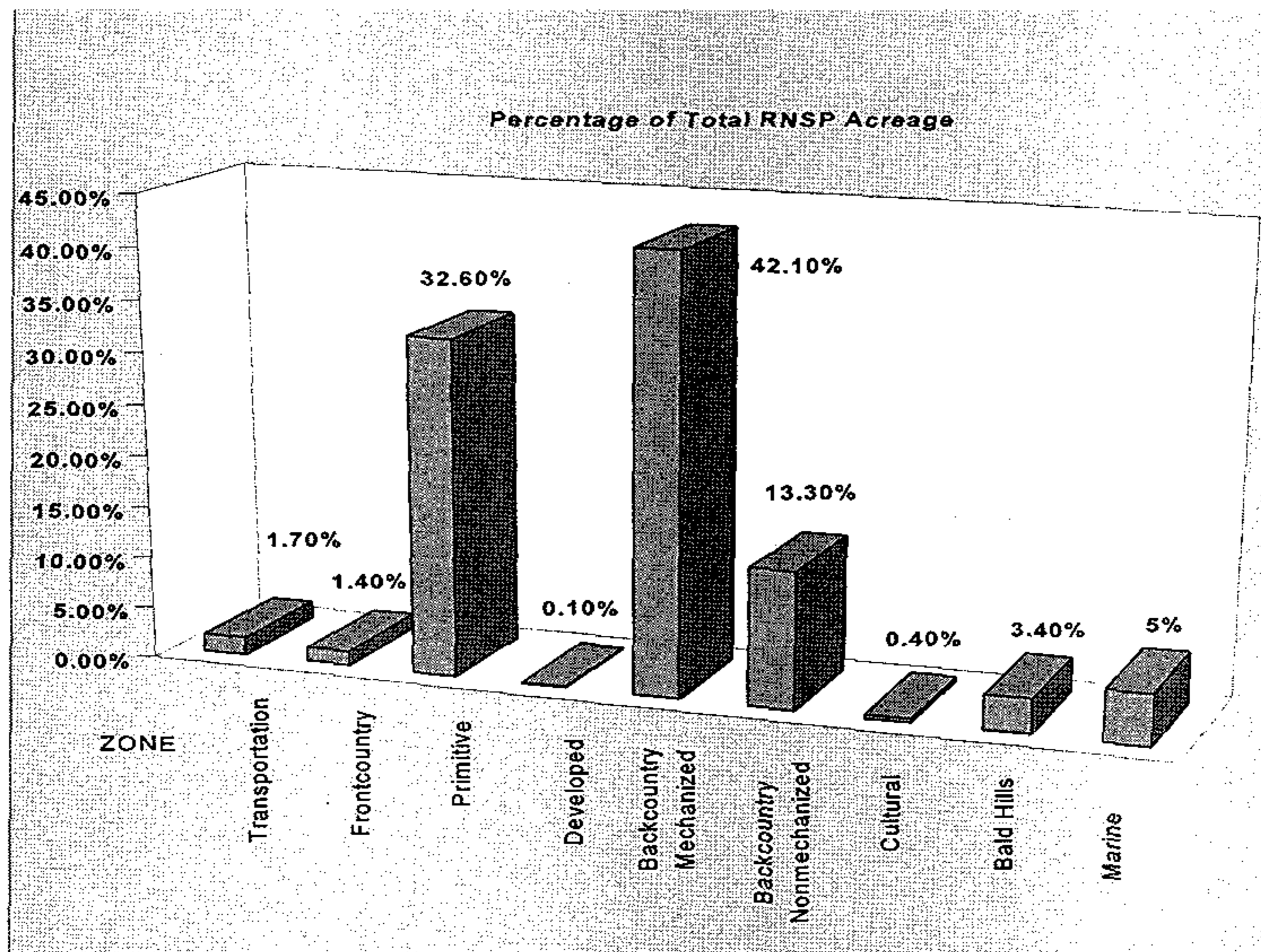
Under this alternative, the agencies would emphasize the protection of the parks' resources and values and would also provide a variety of opportunities for visitors to enjoy the parks' natural and cultural resources. In-depth interpretation would be provided both in facilities and onsite. Orientation would help visitors easily access both facility-based and resource-based interpretation and visitor opportunities. Major developments would be focused along U.S. Highways 101 and 199. However, new uses and facilities to enhance visitor experiences in sensitive resource areas of the parks would be required to be low impact. New visitor services and facilities in other areas of the parks would be provided to enhance visitor experiences if the services and facilities did not impact sensitive resources (see Alternative 1 Management Zoning

and Alternative 1 General Plan maps). This alternative is the agencies' proposed action

## MANAGEMENT ZONES

Reflecting the goal of similar emphasis on both resource protection and visitor use under this alternative, acreages of the developed, front-country, backcountry, and primitive zones in table 3 are each intermediate between alternative 3 (which emphasizes resource preservation) and alternative 4 (which emphasizes visitor use) (see Alternative 1, Management Zoning maps a, b, and c). About 13.6 miles of trails in the primitive zone would remain. No new trails would be constructed in the primitive zone, including 28 miles of trails that have been proposed in previous planning documents.

TABLE 3: MANAGEMENT ZONES, PROPOSED ACTION (ALTERNATIVE 1)



## NATURAL RESOURCE MANAGEMENT AND PROTECTION

### Management Strategies

- Ensure that all resource management efforts are consistent with and supportive of the perpetuation of the redwood forest ecosystem as the prime resource of the parks.
- Restore and maintain the RNSP ecosystems as they would have evolved without human influences since 1850 and perpetuate ongoing natural processes.
- Actively participate in land use decisions for activities such as logging, mining, and the development of highways and subdivisions adjacent to the parks to minimize impacts on RNSP resources and values.
- Cooperate with the timber industry, private landowners, and other government agencies to accomplish long-range resource management planning and reduce threats to the RNSP resources.
- Acquire and analyze baseline inventory data to determine the nature and status of the natural resources under RNSP stewardship.
- Monitor selected resources and environmental factors to detect change and to distinguish natural variation from local and bioregional human-induced resource threats.
- Aggressively pursue strategies to prevent theft and commercial exploitation of RNSP resources.

### Issues and Actions

#### *Watershed Management and Restoration in the Redwood Creek Basin, in and upstream of the Park*

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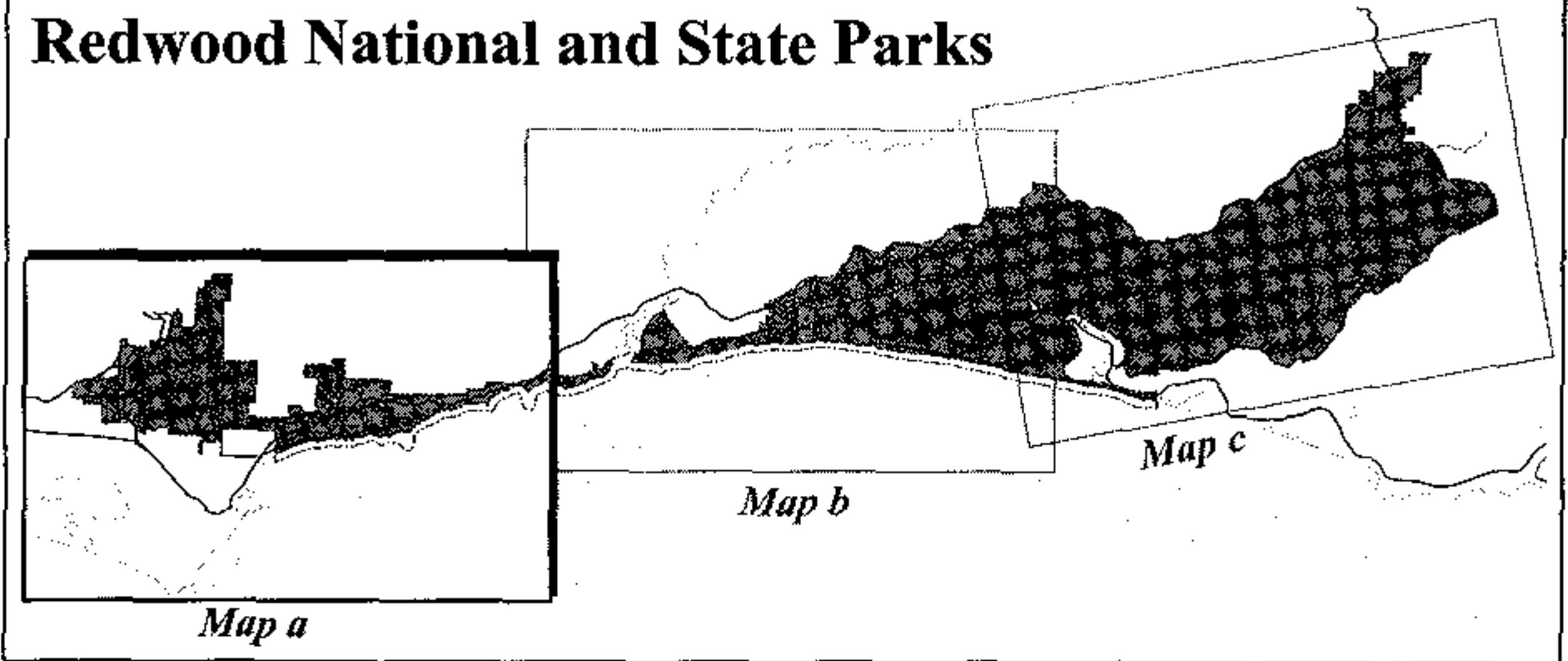
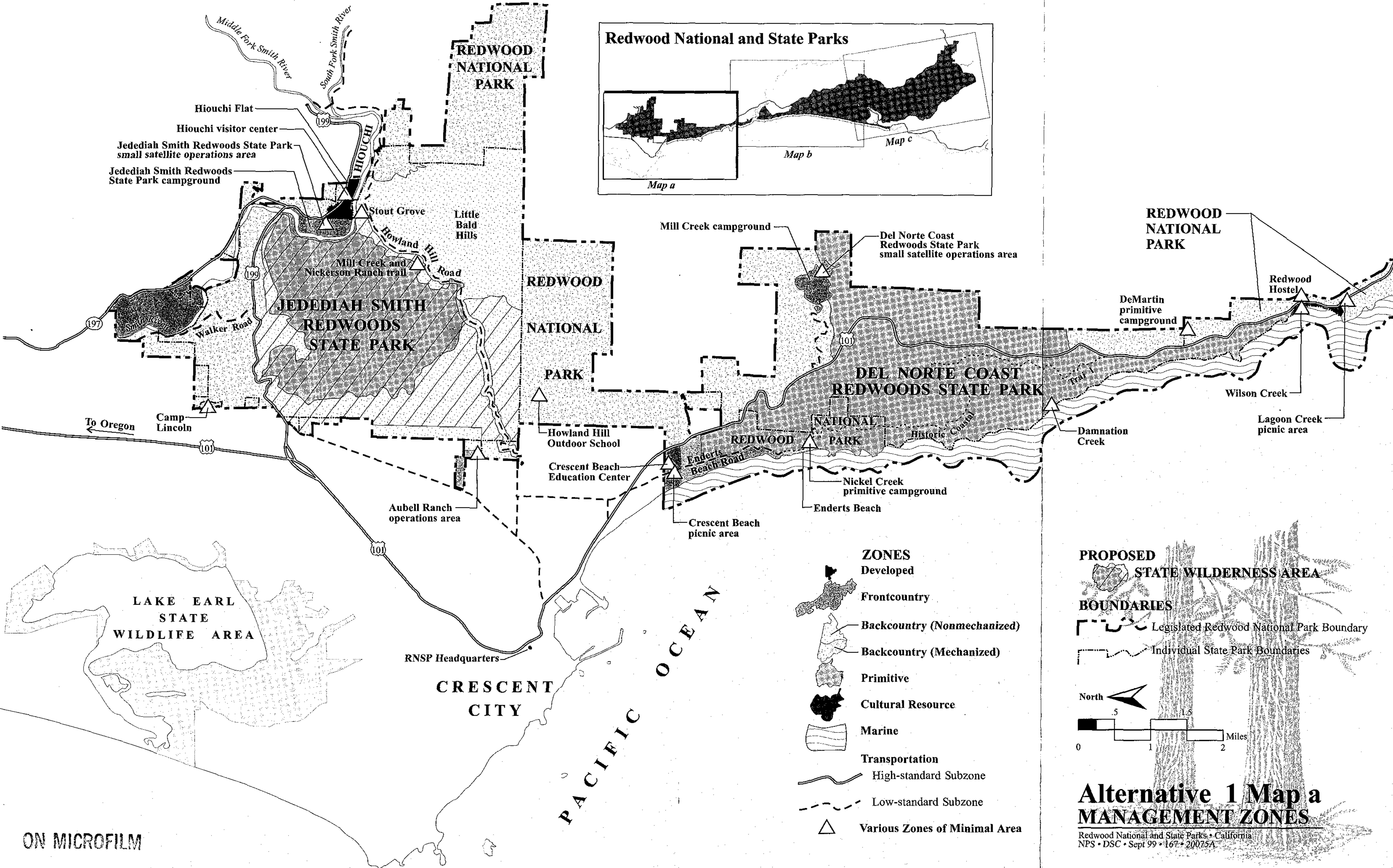
**Issues within the National Park.** Erosion and sedimentation threaten the aquatic and riparian resources of certain streams within the parks, primarily Redwood Creek and its tributaries. Recent major storms and the resulting severe erosion and damage to the parks' resources have underscored the need to accelerate significantly the current rate of watershed restoration efforts within and upstream of the parks to prevent catastrophic resource degradation within the parks. Features of the landscape in the Redwood Creek basin that are most susceptible to erosion are a

result of intense land use that preceded establishment and expansion of the national park and promulgation of California's *Forest Practice Rules*. Naturally high erosion rates were greatly accelerated by the combination of timber harvest, logging, road construction, and major storms.

Since 1978, erosion control efforts within the parks have focused on the removal of former logging roads because poorly located and designed roads are major contributors of sediment to downstream and downslope resources. Within the Redwood Creek basin alone, there were approximately 415 miles of former logging roads included within the national park boundary, and currently there are an estimated 1,110 miles of logging roads upstream of the national park. In 1978 it was anticipated that watershed restoration efforts within the national park would be completed by 1993. However, due to a shortage of resources, only 190 miles of roads have been removed to date, and the current rate of road removal averages about 2.5 miles per year. Of the remaining 225 miles of road, 155 miles are targeted for removal; decisions on removing the final 70 miles are pending evaluation of administrative needs for those roads weighed against their erosion potential and long-term maintenance costs.

**Issues upstream of the National Park.** About 85% of the 1,110 miles of logging roads located in the Redwood Creek basin upstream of the national park were constructed before the 1983 amendments to the state *Forest Practice Rules* were in effect, and more than 50% of these roads are currently not maintained. Of the total estimated erosion potential from all roads within the Redwood Creek basin (5,185,000 cubic yards of sediment), 85% is associated with roads upstream of the national park on private timberlands. These poorly constructed and maintained roads represent a major threat to resources along the main stem of Redwood Creek in the national park. To date, RNSP staff working with private landowners and staff from the Bureau of Land Management have treated about 24 miles of logging roads upstream of the national park to eliminate erosion potential. The ability of RNSP staff to participate in further cooperative erosion control efforts is limited by the lack of resources.





Redwood National and State Parks

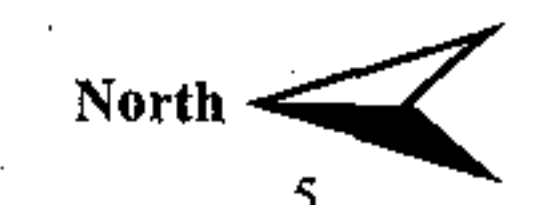
Map a

Map b

Map c

**PROPOSED STATE WILDERNESS AREA**

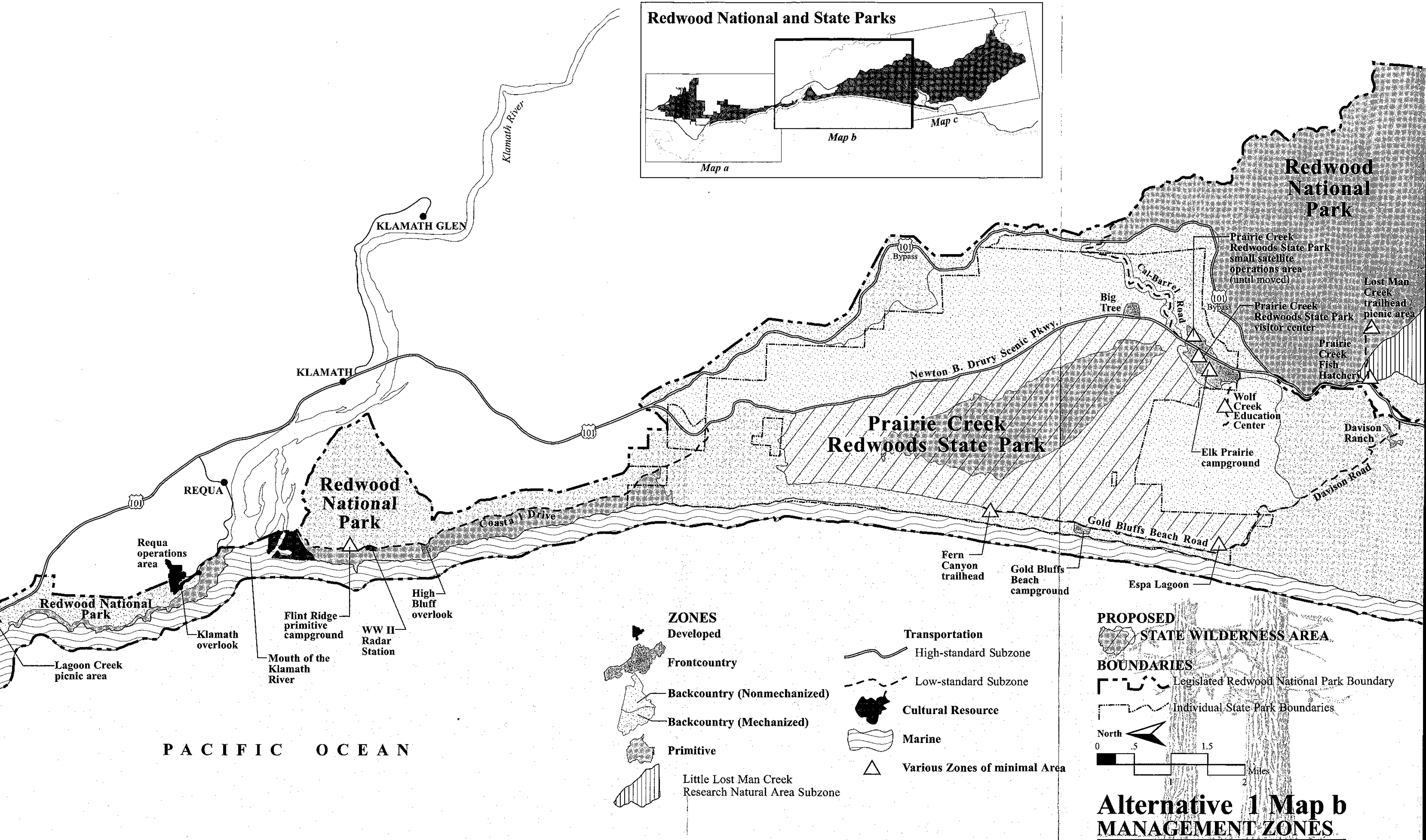
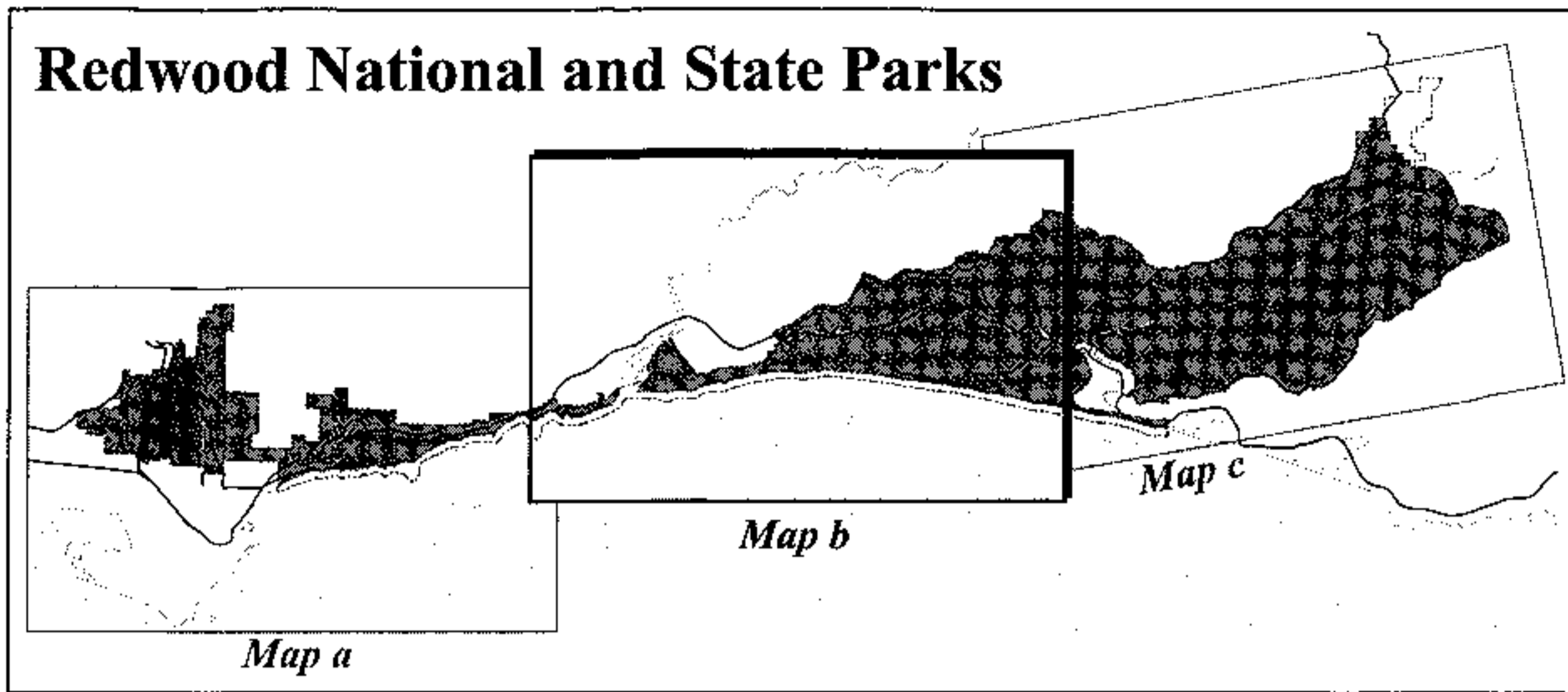
**BOUNDARIES**  
 - - - - - Legislated Redwood National Park Boundary  
 - - - - - Individual State Park Boundaries



**Alternative 1 Map a  
MANAGEMENT ZONES**

Redwood National and State Parks • California  
 NPS • DSC • Sept 99 • 167 • 20075A

ON MICROFILM



- ZONES**
- Developed
  - Frontcountry
  - Backcountry (Nonmechanized)
  - Backcountry (Mechanized)
  - Primitive
  - Little Lost Man Creek Research Natural Area Subzone
- Transportation**
- High-standard Subzone
  - Low-standard Subzone
- Cultural Resource**
- Marine
  - Various Zones of minimal Area











- PROPOSED STATE WILDERNESS AREA**
- BOUNDARIES**
- Legislated Redwood National Park Boundary
  - Individual State Park Boundaries
- North
- 0 .5 1.5 2 Miles

**Alternative 1 Map b  
MANAGEMENT ZONES**

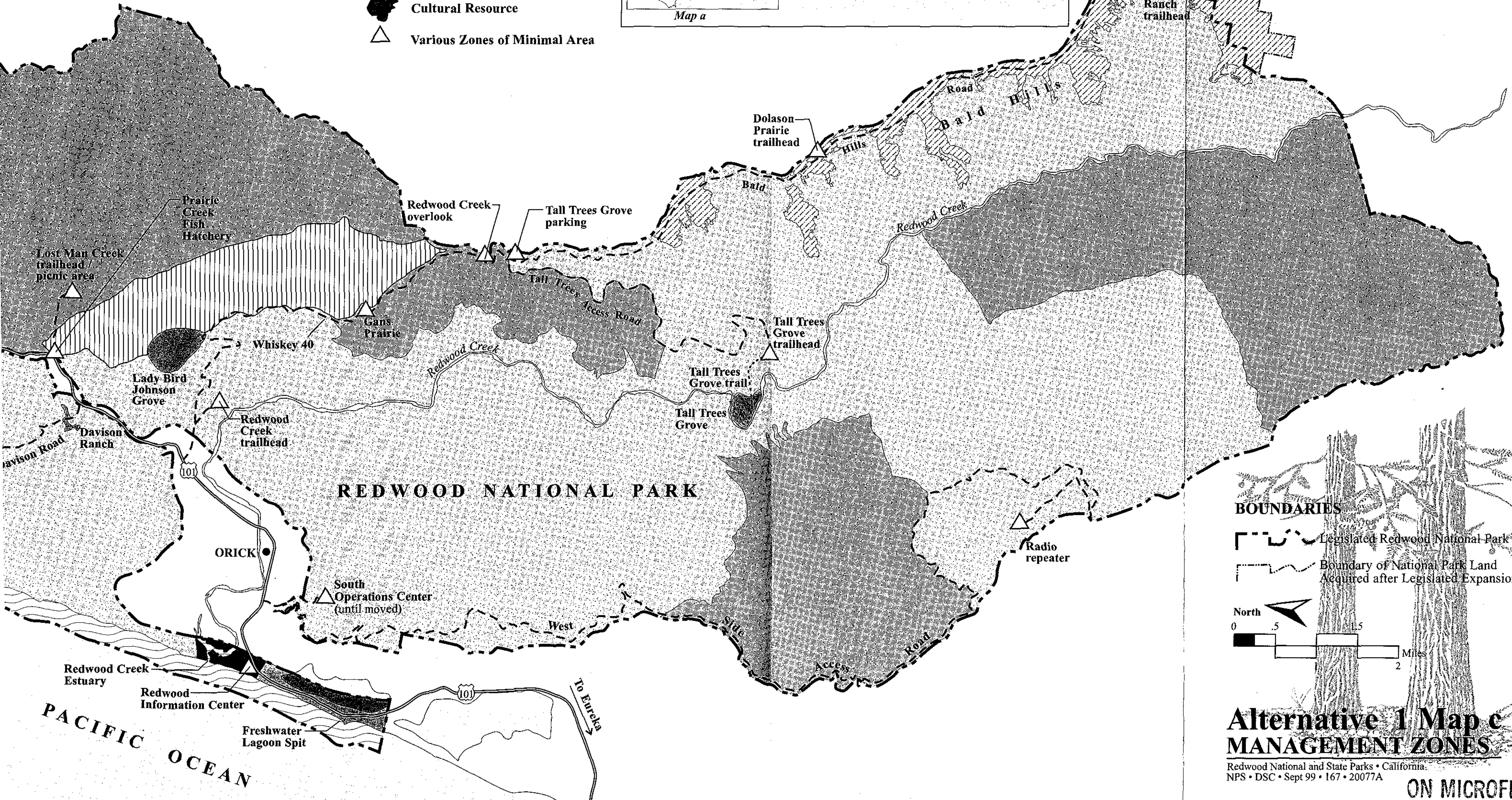
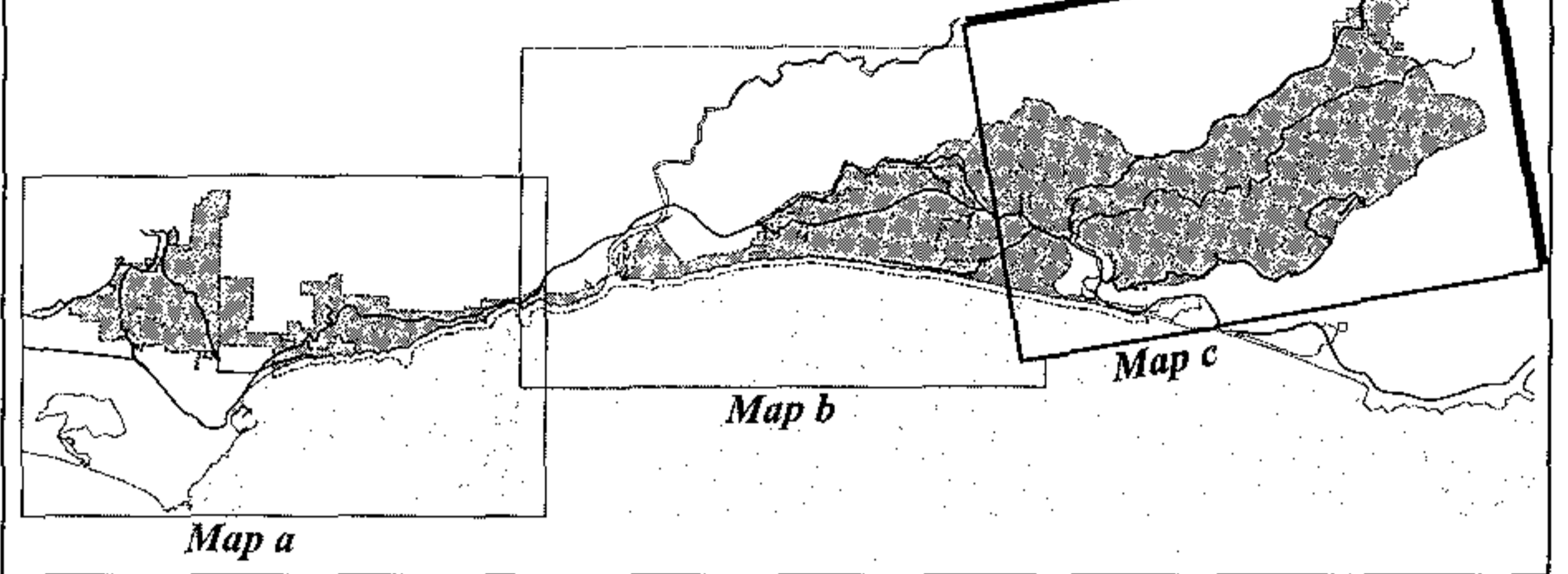
Redwood National and State Parks • California  
NPS • DSC • Sept 99 • 167 • 20076A



ON MICROFILM

**ZONES**

-  Frontcountry
-  Backcountry (Mechanized)
-  Bald Hills
-  Marine
-  Primitive
-  Little Lost Man Creek Research Natural Area Subzone
- Transportation**
-  High-standard Subzone
-  Low-standard Subzone
-  Cultural Resource
-  Various Zones of Minimal Area

**Redwood National and State Parks**



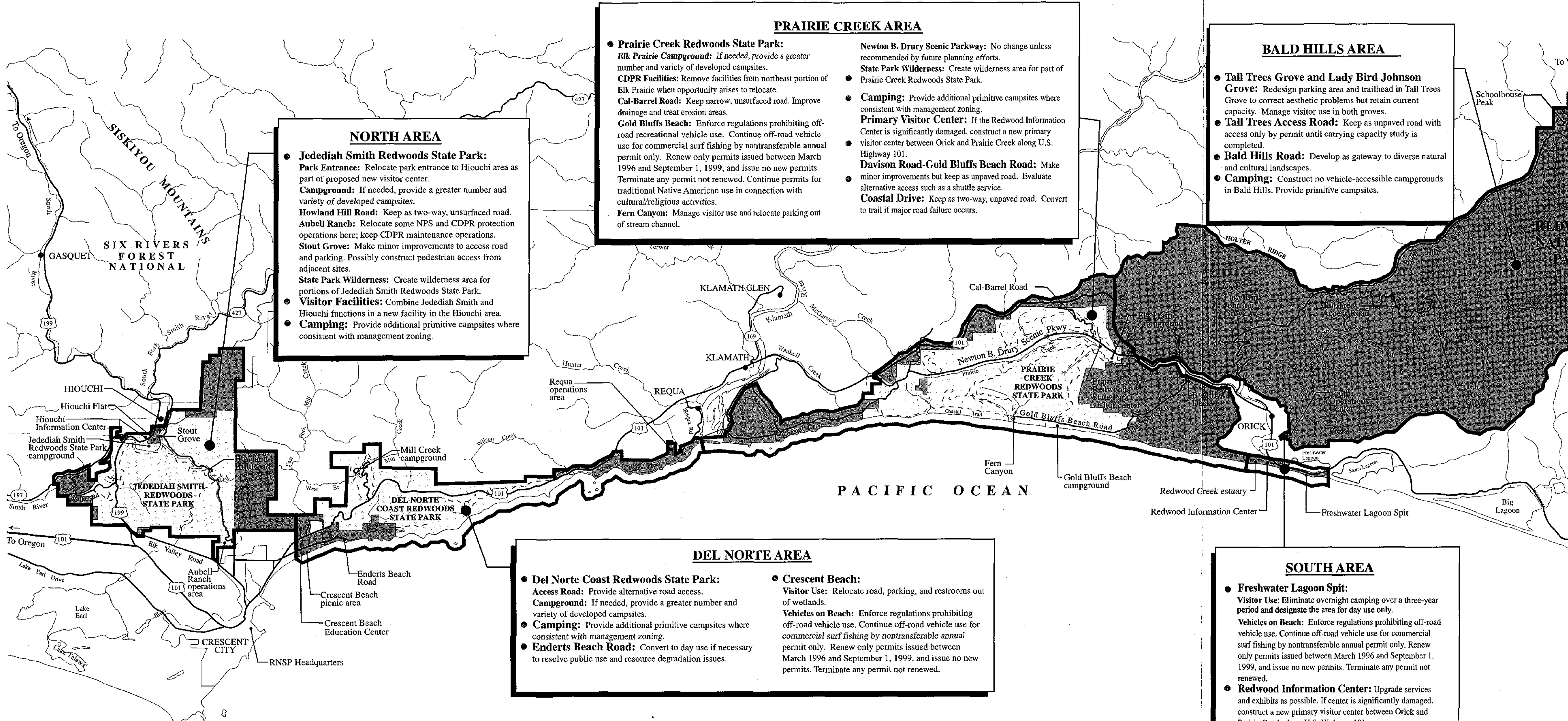
- BOUNDARIES**
-  Legislated Redwood National Park Boundary
  -  Boundary of National Park Land Acquired after Legislated Expansion of 1978



**Alternative 1 Map c  
MANAGEMENT ZONES**

Redwood National and State Parks • California  
NPS • DSC • Sept 99 • 167 • 20077A

ON MICROFILM



**NORTH AREA**

- **Jedediah Smith Redwoods State Park:**  
**Park Entrance:** Relocate park entrance to Hiouchi area as part of proposed new visitor center.  
**Campground:** If needed, provide a greater number and variety of developed campsites.  
**Howland Hill Road:** Keep as two-way, unsurfaced road.  
**Aubell Ranch:** Relocate some NPS and CDFR protection operations here; keep CDFR maintenance operations.  
**Stout Grove:** Make minor improvements to access road and parking. Possibly construct pedestrian access from adjacent sites.  
**State Park Wilderness:** Create wilderness area for portions of Jedediah Smith Redwoods State Park.  
**Visitor Facilities:** Combine Jedediah Smith and Hiouchi functions in a new facility in the Hiouchi area.  
**Camping:** Provide additional primitive campsites where consistent with management zoning.

**PRAIRIE CREEK AREA**

- **Prairie Creek Redwoods State Park:**  
**Elk Prairie Campground:** If needed, provide a greater number and variety of developed campsites.  
**CDPR Facilities:** Remove facilities from northeast portion of Elk Prairie when opportunity arises to relocate.  
**Cal-Barrel Road:** Keep narrow, unsurfaced road. Improve drainage and treat erosion areas.  
**Gold Bluffs Beach:** Enforce regulations prohibiting off-road recreational vehicle use. Continue off-road vehicle use for commercial surf fishing by nontransferable annual permit only. Renew only permits issued between March 1996 and September 1, 1999, and issue no new permits. Terminate any permit not renewed. Continue permits for traditional Native American use in connection with cultural/religious activities.  
**Fern Canyon:** Manage visitor use and relocate parking out of stream channel.
- **Newton B. Drury Scenic Parkway:** No change unless recommended by future planning efforts.  
**State Park Wilderness:** Create wilderness area for part of Prairie Creek Redwoods State Park.
- **Camping:** Provide additional primitive campsites where consistent with management zoning.  
**Primary Visitor Center:** If the Redwood Information Center is significantly damaged, construct a new primary visitor center between Orick and Prairie Creek along U.S. Highway 101.  
**Daivson Road-Gold Bluffs Beach Road:** Make minor improvements but keep as unpaved road. Evaluate alternative access such as a shuttle service.  
**Coastal Drive:** Keep as two-way, unpaved road. Convert to trail if major road failure occurs.

**BALD HILLS AREA**

- **Tall Trees Grove and Lady Bird Johnson Grove:** Redesign parking area and trailhead in Tall Trees Grove to correct aesthetic problems but retain current capacity. Manage visitor use in both groves.
- **Tall Trees Access Road:** Keep as unpaved road with access only by permit until carrying capacity study is completed.
- **Bald Hills Road:** Develop as gateway to diverse natural and cultural landscapes.
- **Camping:** Construct no vehicle-accessible campgrounds in Bald Hills. Provide primitive campsites.

**DEL NORTE AREA**

- **Del Norte Coast Redwoods State Park:**  
**Access Road:** Provide alternative road access.  
**Campground:** If needed, provide a greater number and variety of developed campsites.
- **Camping:** Provide additional primitive campsites where consistent with management zoning.
- **Enderts Beach Road:** Convert to day use if necessary to resolve public use and resource degradation issues.
- **Crescent Beach:**  
**Visitor Use:** Relocate road, parking, and restrooms out of wetlands.  
**Vehicles on Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing by nontransferable annual permit only. Renew only permits issued between March 1996 and September 1, 1999, and issue no new permits. Terminate any permit not renewed.

**SOUTH AREA**

- **Freshwater Lagoon Spit:**  
**Visitor Use:** Eliminate overnight camping over a three-year period and designate the area for day use only.  
**Vehicles on Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing by nontransferable annual permit only. Renew only permits issued between March 1996 and September 1, 1999, and issue no new permits. Terminate any permit not renewed.
- **Redwood Information Center:** Upgrade services and exhibits as possible. If center is significantly damaged, construct a new primary visitor center between Orick and Prairie Creek along U.S. Highway 101.
- **Redwood Creek Estuary:** Take leadership role in addressing restoration of the estuary while maintaining current land uses.
- **South Operations Center:** Relocate many national and state park functions to new facility in Orick.

**LEGEND**

- State Park Land
- National Park Land
- Legislated Boundary for Redwood National Park

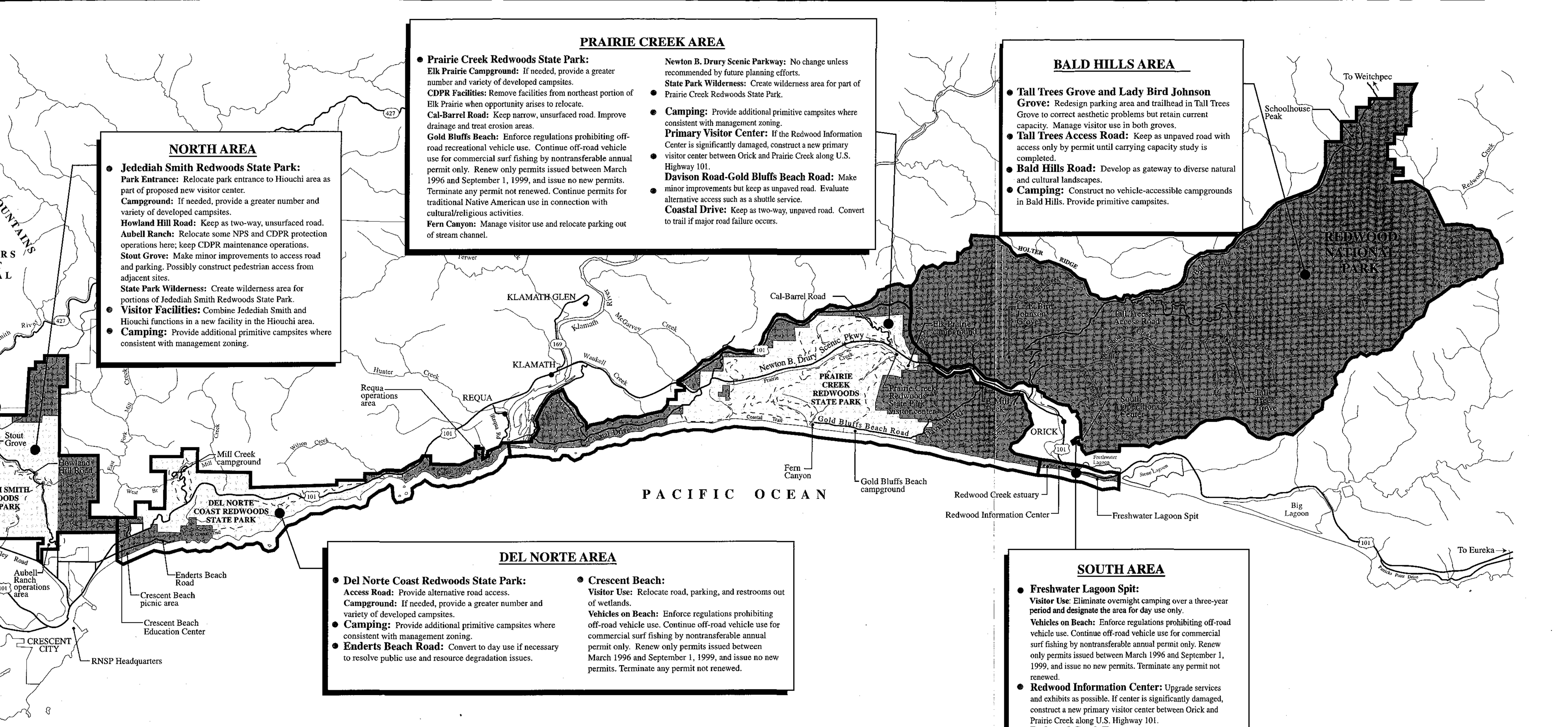
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**NORTH AREA**

- **Jedediah Smith Redwoods State Park:**  
**Park Entrance:** Relocate park entrance to Hiouchi area as part of proposed new visitor center.  
**Campground:** If needed, provide a greater number and variety of developed campsites.  
**Howland Hill Road:** Keep as two-way, unsurfaced road.  
**Aubell Ranch:** Relocate some NPS and CDPR protection operations here; keep CDPR maintenance operations.  
**Stout Grove:** Make minor improvements to access road and parking. Possibly construct pedestrian access from adjacent sites.  
**State Park Wilderness:** Create wilderness area for portions of Jedediah Smith Redwoods State Park.  
**Visitor Facilities:** Combine Jedediah Smith and Hiouchi functions in a new facility in the Hiouchi area.  
**Camping:** Provide additional primitive campsites where consistent with management zoning.

**PRAIRIE CREEK AREA**

- **Prairie Creek Redwoods State Park:**  
**Elk Prairie Campground:** If needed, provide a greater number and variety of developed campsites.  
**CDPR Facilities:** Remove facilities from northeast portion of Elk Prairie when opportunity arises to relocate.  
**Cal-Barrel Road:** Keep narrow, unsurfaced road. Improve drainage and treat erosion areas.  
**Gold Bluffs Beach:** Enforce regulations prohibiting off-road recreational vehicle use. Continue off-road vehicle use for commercial surf fishing by nontransferable annual permit only. Renew only permits issued between March 1996 and September 1, 1999, and issue no new permits. Terminate any permit not renewed. Continue permits for traditional Native American use in connection with cultural/religious activities.  
**Fern Canyon:** Manage visitor use and relocate parking out of stream channel.
- **Newton B. Drury Scenic Parkway:** No change unless recommended by future planning efforts.  
**State Park Wilderness:** Create wilderness area for part of Prairie Creek Redwoods State Park.
- **Camping:** Provide additional primitive campsites where consistent with management zoning.  
**Primary Visitor Center:** If the Redwood Information Center is significantly damaged, construct a new primary visitor center between Orick and Prairie Creek along U.S. Highway 101.
- **Davison Road-Gold Bluffs Beach Road:** Make minor improvements but keep as unpaved road. Evaluate alternative access such as a shuttle service.
- **Coastal Drive:** Keep as two-way, unpaved road. Convert to trail if major road failure occurs.

**BALD HILLS AREA**

- **Tall Trees Grove and Lady Bird Johnson Grove:** Redesign parking area and trailhead in Tall Trees Grove to correct aesthetic problems but retain current capacity. Manage visitor use in both groves.
- **Tall Trees Access Road:** Keep as unpaved road with access only by permit until carrying capacity study is completed.
- **Bald Hills Road:** Develop as gateway to diverse natural and cultural landscapes.
- **Camping:** Construct no vehicle-accessible campgrounds in Bald Hills. Provide primitive campsites.

**DEL NORTE AREA**

- **Del Norte Coast Redwoods State Park:**  
**Access Road:** Provide alternative road access.  
**Campground:** If needed, provide a greater number and variety of developed campsites.
- **Camping:** Provide additional primitive campsites where consistent with management zoning.
- **Enderts Beach Road:** Convert to day use if necessary to resolve public use and resource degradation issues.
- **Crescent Beach:**  
**Visitor Use:** Relocate road, parking, and restrooms out of wetlands.  
**Vehicles on Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing by nontransferable annual permit only. Renew only permits issued between March 1996 and September 1, 1999, and issue no new permits. Terminate any permit not renewed.

**SOUTH AREA**

- **Freshwater Lagoon Spit:**  
**Visitor Use:** Eliminate overnight camping over a three-year period and designate the area for day use only.  
**Vehicles on Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing by nontransferable annual permit only. Renew only permits issued between March 1996 and September 1, 1999, and issue no new permits. Terminate any permit not renewed.
- **Redwood Information Center:** Upgrade services and exhibits as possible. If center is significantly damaged, construct a new primary visitor center between Orick and Prairie Creek along U.S. Highway 101.
- **Redwood Creek Estuary:** Take leadership role in addressing restoration of the estuary while maintaining current land uses.
- **South Operations Center:** Relocate many national and state park functions to new facility in Orick.

**LEGEND**

- ▨ State Park Land
- ▩ National Park Land
- Legislated Boundary for Redwood National Park



ON MICROFILM

**Alternative 1  
PROPOSED ACTION  
GENERAL PLAN MAP**

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**VARIOUS ZONES OF MINIMAL  
AREA — ALTERNATIVE 1**

Some relatively small areas of the parks (shown as triangles on the previous management zone maps) have been zoned differently than their surrounding areas. To clearly identify these areas and make it easy to know what zone these small areas are in, the following list has been developed.

<b>AREA</b>	<b>ZONE</b>
Hiouchi visitor center	Developed
Jedediah Smith small satellite operations area	Developed
Stout Grove	Frontcountry
Mill Creek trail and Nickerson Ranch trail	Backcountry mechanized
Boy Scout Tree trail	Backcountry nonmechanized
Camp Lincoln	Frontcountry
Aubell Ranch	Developed
Howland Hill Outdoor School	Developed
Crescent Beach Education Center	Developed
Nickel Creek primitive campground and trail from Enderts Beach Road	Backcountry mechanized
Del Norte Coast Redwoods State Park small satellite operations area	Developed
Damnation Creek	Cultural
DeMartin primitive campground	Backcountry mechanized
Redwood Hostel	Developed
Wilson Creek	Frontcountry
Lagoon Creek picnic area	Frontcountry
Flint Ridge primitive campground	Backcountry mechanized
Fern Canyon trailhead	Frontcountry
Espa Lagoon	Developed
Prairie Creek Redwoods State Park visitor center	Developed
Prairie Creek small satellite operations area (until moved)	Developed
Elk Prairie campground	Frontcountry
Wolf Creek Education Center	Developed
Prairie Creek Fish Hatchery	Cultural
Lost Man Creek trailhead/picnic area	Frontcountry
Redwood Creek trailhead	Frontcountry
South Operations Center	Developed
Redwood Information Center	Developed
Redwood Creek overlook	Frontcountry
Gans Prairie	Cultural
Dolason trailhead	Frontcountry
Tall Trees Grove parking	Frontcountry
Tall Trees Grove trailhead	Frontcountry
Radio repeater	Developed
Lyons Ranch trailhead	Frontcountry
Schoolhouse Peak	Developed

**Actions within the National Park.** Watershed restoration efforts would be increased so that an average of 9.5 miles of roads would be treated per year within the park. Partial landform restoration would be emphasized, with complete removal of all major logging roads and limited removal of minor logging roads that pose the greatest threat to the park's resources. This approach would require about 17 years to treat 155 miles of road. Accomplishing this would require a significant increase in funding.

**Actions upstream of the National Park.** The National Park Service would work cooperatively with upstream landowners and other agencies to address conditions that contribute to erosion potential. Depending on opportunities offered by property owners and the availability of resources, up to 40 miles of roads would be treated per year upstream of the national park in the Redwood Creek basin. Road decommissioning (see table 2 and glossary) and erosion prevention would be emphasized. Assuming that approximately 85% of the 1,100 miles of roads in the upper Redwood Creek basin require treatment, this approach would require 17 years to treat the existing 911 miles of logging roads. Accomplishing this would also require a significant increase in funding.

#### ***Watershed Management and Restoration in Redwood Creek Estuary***

**Issues.** The Redwood Creek federal flood control project levees, which extend for 3.4 miles from just upstream from the town of Orick westward to about 1,000 feet from the Pacific Ocean, have altered the physical and biological functioning of the Redwood Creek estuary. This has resulted in major adverse impacts such as decreased water circulation in the estuary and sloughs, fewer deepwater pools, decreased extent of wetlands and riparian habitat, deteriorated water quality, degraded juvenile rearing and adult holding habitat for fish, and reduced wildlife and invertebrate abundance and diversity in the lower Redwood Creek valley and estuary. The natural functioning of the Redwood Creek estuary is critical to the survival of anadromous fish such as salmon and steelhead.

The north and south slough channels to the embayment have become filled with sediment,

and the sloughs are now isolated from the embayment except where the mouth closes and the water level rises and during extreme high tides. This has resulted in decreased dissolved oxygen and increased algal blooms and aquatic vegetation in the sloughs. Repeated uncontrolled artificial breaching of the natural sandbar to protect private and public property has adversely affected the biological and physical functioning of the estuary.

A way to ensure the natural ecological functioning of the Redwood Creek estuary needs to be determined. Because of the complex nature of the problem, it will require a collaborative effort among the National Park Service, other federal, state, and local agencies, conservation organizations, and affected landowners to address it.

**Actions.** The National Park Service would play a leadership role in organizing a multijurisdictional, multidisciplinary approach to addressing the restoration of the estuary while seeking to retain the current land uses in the lower Redwood Creek valley. Efforts would involve private landowners, the Fish and Wildlife Service, the National Marine Fisheries Service, the California Department of Fish and Game, the Army Corps of Engineers, Humboldt County, the citizens of Orick, the Yurok Tribe, and other interested parties to develop a plan for restoring the estuary and associated fish and wildlife values. Strategies involving a combination of land acquisition, conservation easements, partial levee removal, and restructuring affected roads and drainage structures would be considered for restoring the estuary (see table 24 and the Expanded Floodplain/Levee Removal map in the "Environmental Consequences" section). The acquisition of land would be limited to willing sellers. A recommendation would be made as to how much of the federal flood control levees west of Orick would need to be removed to restore the estuary. Water level management (e.g., controlled breaching and channel manipulation) to conserve salmonid habitat by preventing the negative effects of an uncontrolled natural breach and to protect the Redwood Information Center would continue.

## Vegetation Management

**Issues.** Old-growth redwood forests are the primary resource and the purpose for establishment of these parks. The youngest second-growth forests are still recovering from timber harvest before the establishment of the parks. These forests are beginning to provide some watershed protection, but they still lack the old-growth qualities. Second-growth forests have been seeded with exotic tree species and are regrowing in a manner in which they are not expected to achieve old-growth conditions or species composition for hundreds of years. Managing second-growth forests, including restoring old-growth conditions in the shortest time period possible, reducing a potential fire hazard, and restoring habitat for threatened and endangered species and other wildlife, could be achieved by using a variety of methods and techniques.

The prairies and oak woodlands exhibit both natural and cultural values. The current program of conifer removal and burning emphasizes restoring and preserving prairies and oak woodlands in the Bald Hills. The program needs to integrate other natural and cultural values into a more ambitious restoration approach that addresses historic natural and cultural processes and practices, and effects on wildlife, cultural landscapes, and traditional American Indian uses in prairies throughout the parks.

The extent to which fire would be managed both for safety and to ensure the perpetuation of RNSP ecosystems needs to be determined. A history of fire suppression, along with the development of effective fire suppression techniques, has interrupted the fire regimes that developed in the different RNSP vegetation types and ecosystems for many centuries. A better understanding of these fire regimes is needed to determine the extent to which fire should be restored in RNSP ecosystems and how this would be accomplished. Fire might also be needed as a tool to reduce fuels that have the potential to threaten developments, resources, or public safety.

**Actions.** Action items would be as follows.

Second-Growth Forest Management — Silvicultural methods such as thinning, replanting,

and burning would be used in second-growth forests to reduce the time in which the forests regain characteristics and processes found in mature, naturally occurring forests. Managing those second-growth stands that are critical to ecosystem restoration would be emphasized. Managing second growth that would contribute to visitor use and enjoyment of the parks would also be considered. A plan for managing second-growth forests would be prepared and accompanied by appropriate environmental compliance documents.

Prairie Restoration — After evaluation, selected naturally occurring prairies, as well as prairies and oak woodlands maintained by American Indians through burning, would be restored; they would be maintained by reestablishing a historic fire regime. Certain forest openings would be restored and/or maintained where appropriate for the resource values present (e.g., wildlife habitat, cultural landscapes, or aesthetics).

Fire Management — A fire management program would be established to support resource management strategies, including the restoration of fire in old-growth forests, prairies, oak woodlands, and coastal shrub communities as a natural process. The program would be based on sound risk management, economic feasibility, the best science available, cooperation with other agencies and tribes, and consideration for public health and environmental quality. The program would allow for wildland fire suppression, prescribed fire, and, potentially, wildland fire use (allowing natural ignitions to achieve resource management strategies).

Techniques other than fire might also be used to reduce fuel hazards in second-growth and old-growth forests and around developments and structures to reduce the risks of damage from wildland fires. All prescribed fire and wildland fire use would be conducted under the approved *Fire Management Plan* for the parks that would articulate management strategies and techniques and describe contingency plans should suppression action be needed. A wildland fire implementation plan that supplements the *Fire Management Plan* would be prepared as needed to identify specific actions and describe operational requirements for this type of fire.



Prescribed fire plans would be prepared for individual burns that would provide burn objectives, prescriptions, and contingency plans in case the prescription is exceeded or suppression action is needed. An interpretive program would be established to explain the benefits of the fire management program.

### Artificial Impoundments

**Issue.** Under NPS and CDPR policies and directives, artificial impoundments should be removed from parks unless they are contributing elements to cultural landscapes. There are numerous artificial dams, ponds, and lagoons throughout the parks that have safety and resource management implications. Some artificial impoundments also have resource and recreational values.

**Actions.** Dams would be retained and maintained only where public safety or significant resources were at risk; otherwise, they would be removed. Recreational uses would continue until an impoundment was removed.

## CULTURAL RESOURCE MANAGEMENT AND PROTECTION

### Management Strategies

- Recognize the past and present existence of peoples in the region and the traces of their use as an important part of the environment to be preserved and interpreted.
- Expand the cultural resource program from one that is project and compliance based to one that includes comprehensive study.
- Integrate more closely the NPS and CDPR cultural resources management programs for the parks.
- Provide for more active integration of the cultural resources and interpretation functions. For example, explain the interplay through time between human activity and the environment and the effects of changes in technology on this interplay.
- Emphasize the development of publications for visitors that present the results of cultural resource studies.

- Actively pursue opportunities for the adaptive rehabilitation of the historic Prairie Creek Fish Hatchery.

### Issues and Actions

Note: Under this alternative, the Coastal Drive would be converted to a trail (if it fails), and most CDPR administrative facilities would be removed from sensitive resource areas. These actions, which could affect cultural resources, are described in other sections of this alternative and are not addressed further in the following discussion.

### Historic Resources — Structures

**Issues.** Some of the parks' historic structures are inadequately preserved and protected. It is a challenge for RNSP staff to preserve and protect these historic resources while providing for their use and/or interpretation.

**Actions.** Historic structures would be stabilized, protected, and preserved as appropriate. Opportunities would be sought for adaptively rehabilitating the Prairie Creek Fish Hatchery, the historic structures that are most suitable for the historic property leasing program. Options for the parks' other historic structures would include their preservation, maintenance, and active interpretation or use as discovery sites, with minimal or no onsite interpretation.

### Historic Resources — Cultural Landscapes

**Issues.** The inventory, evaluation, and documentation of the parks' cultural landscapes are incomplete. The management of certain cultural landscapes, e.g., the Bald Hills, which encompasses the Lyons Ranches Rural Historic District and the Bald Hills Archeological District, is complex due primarily to the interrelationship between landform restoration, vegetation management programs, and the concerns of American Indians. In addition, the parks' cultural landscapes are not interpreted for and appreciated by visitors.

**Actions.** Seven cultural landscapes potentially eligible for listing on the National Register of

Historic Places have been identified to date in Redwood National and State Parks, as follows:

Redwood National Park —

- Lyons Ranches Rural Historic District
- Bald Hills Archeological District
- the site of Radar Station B-71
- Prairie Creek Fish Hatchery

Jedediah Smith Redwoods State Park —

- Camp Lincoln
- Kelsey Trail

Prairie Creek Redwoods State Park —

- Prairie Creek Redwoods State Park headquarters complex

Cultural landscape inventories or cultural landscape reports would be prepared to document and evaluate the above landscapes, as well as to identify any other landscapes within the parks that would be eligible for listing on the national register. In addition, the inventories or reports would guide the preservation and management of the parks' cultural landscapes, and provide RNSP interpretive staff with the information necessary to interpret for visitors the effects over time of human actions upon the parks' natural landscapes. The cultural landscape inventories or reports would help RNSP managers decide whether or not to implement any of the actions proposed in this alternative that are in or near potential cultural landscapes.

Pending the completion of a cultural landscape report for the Bald Hills, this area would be managed in accordance with the NPS *Bald Hills Vegetation Management Plan* (1992), *Fire Management Plan* (1994), and the *Exotic Plant Management Plan* (1995); the monitoring of resource conditions in the Bald Hills area would continue. Watershed and prairie restoration activities in this area would be directed toward removing signs of recent human habitation and use, with the exception of those resources that are either historically significant or required for RNSP operations.

A visitor use management plan would be developed for the Bald Hills. The primary

emphasis of the plan would be to provide a quality visitor experience by interpreting the archeological sites, historic buildings and features, and associated landscapes and natural resources that collectively exhibit use by American Indians and Euro-Americans. The interpretive/educational component of the visitor use management plan, however, would achieve an emphasis on visitor use similar to that for the study, protection, and preservation of resources. Pedestrian access to selected sites would be encouraged, and some sites would be treated as discovery sites, with minimal or no onsite interpretation provided. The visitor use management plan would be periodically revised, as new information became available.

Many of the natural and cultural resources traditionally used by American Indians affiliated with the parks are contributing elements to the parks' historic and ethnographic cultural landscapes. The continued traditional use of these resources could be an integral component of the parks' management of these landscapes. In consultation with the local American Indian tribes, these traditional uses would be actively interpreted.

Ethnographic Resources

**Issues.** The lands comprising Redwood National and State Parks are part of the ancestral territories of the Tolowa, Yurok, and Chilula. The Chilula, who no longer exist as a group, became part of the Hupa Tribe, who are located immediately east of the parks. The parks contain numerous ethnographic resources, but few of these have been evaluated for listing on the National Register of Historic Places.

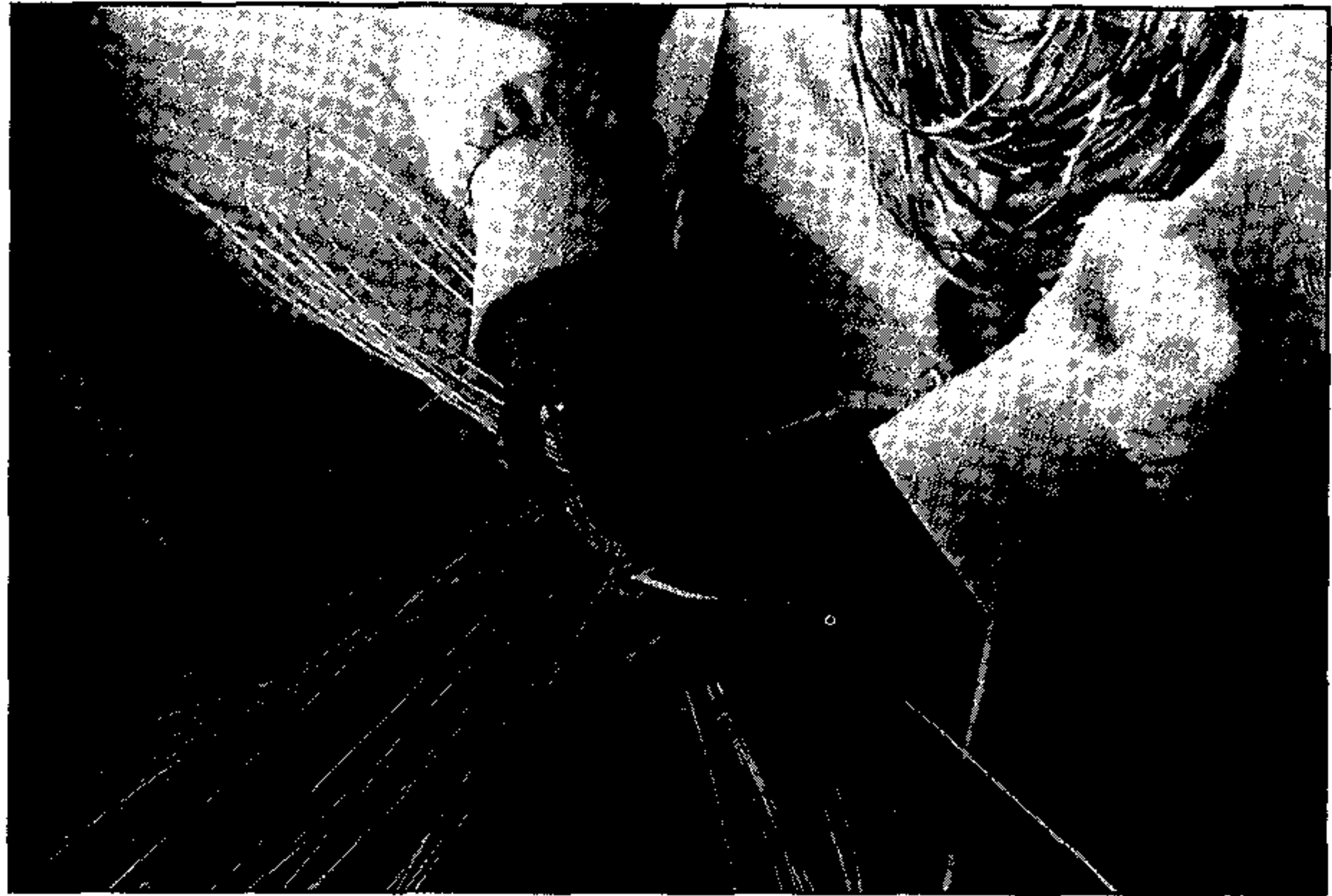
**Actions.** The historical presence of American Indians in the region would be recognized as an important cultural element of Redwood National and State Parks. Ethnographic resources would be protected from desecration and managed with an emphasis on research, inventory, evaluation, and preservation of both the resources and the practices traditionally associated with them. Opportunities for visitors to observe, experience, and learn about the traditional practices of American Indians would be encouraged, to allow visitors to develop a greater appreciation for American Indian culture, although attention

would not be drawn to the most sensitive of the parks' ethnographic resources. Many of the cultural resource studies completed for Redwood National and State Parks include ethnographic information, and ethnographic information is included in consultation records; a formal ethnographic overview and traditional use study of the parks would be completed. Recommendations concerning the national register eligibility of ethnographic resources would also be included. To make the ethnographic overview and traditional use study more useful to RNSP staff, it would also include contemporary use information. In addition, the overview would provide an inventory of ethnographic place names for use in naming developments in the parks and for describing study results (for example, soil names).

Redwood National and State Parks would develop a common understanding with the Yurok people regarding the preservation, management, interpretation, and use of the Brush Dance site. RNSP staff would facilitate the Yurok Tribe's long-term management and use of the site. Although the Brush Dance site is subject to erosion by the Klamath River during floods, no actions would be undertaken to protect the site from flooding.

### Collections

**Issue.** Irreplaceable prehistoric and historic artifacts, natural history specimens, and archival materials, including NPS resource management field records and data, are threatened with loss because the parks lack specialized work/storage/study facilities critical to museum and archival resources preservation. Natural resource management data and specimens, collected since the establishment of Redwood National Park and only recently accessioned into the RNSP museum collection, require cataloging. Many



Demonstration of basket weaving using traditional materials. NPS photo.

RNSP resource-related collections, which have yet to be identified and properly researched, exist outside of the parks among nonprofit organizations or other government agencies.

**Actions.** Curatorial activities would be consolidated into an existing facility that provides adequate workspace, storage, and equipment for cultural and natural resource collections and archives. The location of the facility would be based on interpretive and research needs.

Collections would be aggressively developed. A survey of the external and internal collections associated with Redwood National and State Parks would be undertaken to develop a finding aid that lists the location and identity of park-related materials in outside collections.

A protocol for accessioning natural resource materials into the collection and an archival processing plan would be prepared to guide processing, maintenance, and access to archival materials in an orderly professional manner.

The parks' curatorial program would include the development of a process to provide access to museum collection research information related to RNSP ecosystems and natural and cultural resources, including computer-based access.

## EDUCATION AND INTERPRETATION

### Management Strategies

- Provide in-depth interpretation of the parks' primary themes both in facilities and onsite through appropriate exhibits, waysides, publications, and visitor activities.
- Coordinate orientation and information services with those of other federal, state, and local government agencies and private organizations to enhance service to visitors to the area and improve operational efficiency.
- Support a broad spectrum of diverse educational opportunities at the outdoor schools and in local communities for students and adults within the parks' regional setting.
- Develop educational materials based on the park's primary themes for use by national and international visitors.
- Develop new visitor services and facilities in the parks in locations that will expand visitors' awareness of the parks' diverse resources and enhance visitors' abilities to gain access to resource and activity sites.
- Develop opportunities for visitors to participate in a variety of interpretive programs and activities to learn more about the parks' resources and to gain a broad understanding of visitors' roles in preserving those resources.

### Issues and Actions

#### Orientation/Information

**Issue.** RNSP managers and staff need to assess, maintain, and improve how to meet visitor information and orientation requirements.

**Actions.** Interpretive waysides, directional signs, bulletin boards and orientation kiosks would be upgraded to improve visitor orientation to RNSP resources. Information services and facilities would be coordinated through partnerships with others inside and outside the parks. Where feasible, information services would be consolidated, and designated facilities would be expanded to provide both area information and interpretation of natural and cultural resources.

#### Interpretation

**Issue.** The scope of the personal and nonpersonal services program, development of the parks' significant themes, and the types of facilities needed to provide access to resources need to be addressed.

**Actions.** Interpretive operations and media would be used to provide a similar emphasis on general and preservation information about natural and cultural history topics. Research and resource management actions would be explored in depth and fully supported.

Most of the parks' visitors would receive an in-depth interpretation of primary interpretive themes through additional facilities, publications, and programs. Additional opportunities would be provided for visitors to see and enjoy old-growth redwood forests, wetlands, prairies, and sites related to local American Indian cultures; however, visitor use of these sensitive resources would be carefully managed to protect resources.

Interpretive operations and media would be used in the Bald Hills area to provide a similar emphasis on preservation and general information about old-growth forest management, second-growth forest management, watershed resources, prairie and oak woodland vegetation, and human use.

#### Information, Orientation, and Interpretive Centers

**Issue.** Almost none of the interpretive facilities in the parks were designed or constructed to present in-depth interpretation of significant RNSP resources or allow for the expansion of visitor services. Existing small interpretive facilities provide similar and often duplicative services. Their roles and functions need to be improved or changed.

**Actions.** Action items would be as follows:

All functions at the Redwood Information Center would remain; interpretive facilities, exhibits, and sales areas would be upgraded as opportunities arise. However, the facility was constructed in an area where it is subject to severe damage or destruction. First, it is in a

tsunami run-up zone. Redwood Information Center was approved for construction at its current location in 1983 based on scientific knowledge current at that time. Since the early 1980s, considerable advances in understanding the earthquake and tsunami potential in the area have been made. It is now recognized that a major 750-mile-long fault zone that runs just offshore of the parks could rupture along its entire length with a magnitude 9 earthquake. When an earthquake occurs along this fault zone, a tsunami could occur within minutes, possibly before the ground shaking stops, posing a considerable threat to life and property. Second, the center is in an area where it could be flooded or destroyed by the shifting of the mouth of Redwood Creek.

If the facility is significantly damaged by future events, the functions of Redwood Information Center would be relocated to a new primary visitor center that would be built outside the tsunami hazard zone between Orick and Prairie Creek and adjacent to U.S. Highway 101. Opportunities for constructing a new facility through public, private, and/or tribal partnerships would be sought. The visitor center would be constructed in an area that would not impact RNSP resources but that would provide direct access to the primary resources and the opportunity to interpret the park's primary interpretive themes. Services provided at the facility would be expanded and would include museum quality exhibits, a dedicated auditorium for multimedia presentations, book sales, and trip planning. A number of hiking and driving tours would originate here. Redwood Information Center would be removed, and the site would be converted to day use with interpretive opportunities including beach access, boardwalks, and wayside exhibits.

The functions of the Hiouchi Information Center and Jedediah Smith Redwoods State Park visitor center would be combined into a new facility that would be built in the Hiouchi area. This facility would provide orientation information at the northern end of the parks and provide in-depth interpretation of the natural and cultural themes appropriate to the area. The center would include interior exhibits, a dedicated auditorium, book sales, campground information, and trip planning. A number of hiking and driving tours

would originate here. The current Hiouchi Information Center site would be converted to another type of day use facility for visitors. The Jedediah Smith Redwoods State Park visitor center would be retained and used to support campground operations.

The information and orientation services at the Crescent City information center would continue until incorporated in a multiagency information center if one is developed in the Crescent City area. RNSP staff would participate in planning and operating this center. In the interim, the National Park Service and the California Department of Parks and Recreation would seek the assistance of local governments and organizations to address conditions in the vicinity of the Crescent City information center that detract from visitor enjoyment of that facility, including public safety and security issues, inadequate parking, and incompatible activities.

The Prairie Creek Redwoods State Park visitor center would be retained. The facility would continue to provide interpretation of and orientation to the resources of Prairie Creek Redwoods State Park — Elk Prairie, Roosevelt elk, Prairie Creek, Gold Bluffs Beach, Fern Canyon, old-growth redwoods, and other resources within the parks.

Information about Del Norte Coast Redwoods State Park would be provided primarily through the Crescent City headquarters/information center until those functions were transferred to a new multiagency facility in the Crescent City area if one is built.

### Outdoor Schools

**Issue.** Two outdoor schools are operated by RNSP staff as part of the core interpretive program for five months a year. The joint plan needs to consider the optimal level of direct RNSP operation of the schools, the year-round use of the facilities for education and other purposes, and the appropriate roles of partners to assist in this work.

**Action.** The two outdoor schools would continue to be operated, primarily in fall and spring, as an overnight facility for regional kindergarten through 12th-grade students. An expanded,

revenue-generating use of the facility would be developed for winter and summer to include use for conferences and educational programming by community groups. As funding allows, the education program would also be expanded to include outreach to community schools and other educational groups. The focus of the education program would include both natural and cultural resources. Alternative ways of funding and staffing the operation would be explored.

## **PUBLIC USE, RECREATION, AND VISITOR SAFETY**

### **Management Strategies**

- Support and facilitate appropriate public use and enjoyment of the parks and participation in activities related to the parks' resources.
- Provide facilities in appropriate locations to support a variety of public uses and recreational activities.
- Provide opportunities for public access to the full range of RNSP resources and in a variety of locations.
- Manage recreational activities and settings to protect resources, promote public safety, and minimize public use conflicts.
- Ensure that public use activities are consistent with NPS and CDPR regulations and policies. Resolve situations where public use violates NPS or CDPR regulations or policies.
- Conduct carrying capacity analyses and develop detailed action plans where necessary and appropriate to address specific public use conflicts or resource protection issues.
- Develop a backcountry management plan and a comprehensive trail plan to manage public use of the parks' backcountry, including hiking, camping, and equestrian and mountain bike use, and to provide guidance concerning the development of a comprehensive trail system and other backcountry facilities.
- In cooperation with local communities and adjacent jurisdictions, maintain a safe and healthful environment for visitors as well as a coordinated, professional, public safety program.
- Where practicable, standardize and/or coordinate NPS and CDPR public use policies to avoid creating confusion for the public.

- Authorize commercial services that enhance public access to or use and enjoyment of RNSP resources.
- Provide facilities and services to a broad range of persons with different abilities in full compliance with federal and state mandates for access.

## **Issues and Actions**

### ***Visitor Use Levels***

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**Issue.** Public use, if not managed carefully, has the potential to damage natural and cultural resources. Concerns exist about the ability of certain sites and resources in the parks to accommodate current and future levels of visitation without resource degradation. Decisions must be made in the future whether to make site improvements, encourage or accommodate more visitors, limit visitation in certain areas, or redirect visitors to other sites.

**Action.** Visitor use would be limited to that which would result in no significant impacts on resources and their values. To determine the level of visitor use that would be allowed without adverse impacts on resources or visitor experience, a visitor carrying capacity analysis would be conducted for the Tall Trees Grove, Lady Bird Johnson Grove, Stout Grove, and Fern Canyon, and carrying capacities would be established. (See the discussion on "Public Use, Recreation, and Visitor Use" in the "Actions Common to All Alternatives" chapter for further description of the carrying capacity analysis process.)

Based on the results of carrying capacity analyses, the facilities and parking areas at Tall Trees Grove, Lady Bird Johnson Grove, Stout Grove, and Fern Canyon might be modified to ensure that there would be no adverse impacts on the sensitive resources in these areas.

In the Tall Trees Grove, the trailhead and parking area would be redesigned within the current limits of disturbance to improve the appearance and circulation patterns while retaining the current capacity.

In the Stout Grove, the construction of a pedestrian access from adjacent sites would be

considered, in conjunction with the carrying capacity analysis.

In Fern Canyon the parking area would be relocated out of the stream channel. The capacity of the parking area would be established based on the results of the carrying capacity analysis.

Enderts Beach road would continue to provide public access to the Crescent Beach overlook and the trailhead for the Coastal Trail leading to Nickel Creek campground. Gating the road and/or conversion to day use would occur only as a last resort if efforts to resolve resource degradation and public use issues were unsuccessful and only after thoroughly exploring alternatives.

The picnic area and beach access at Crescent Beach would be retained, but the access road, restroom, and parking would be relocated to protect wetlands. Options for retaining access to the site for visitors with disabilities would be considered during site planning.

Easily damaged cultural resource sites and sites that are important to American Indians would be treated as discovery sites. Visitor access to selected cultural sites would be on foot or managed to protect the resources.

### Recreational Activities

**Issue.** Appropriate recreational activities, when managed to protect the parks' resources and values and to avoid public use conflicts, are important components of public enjoyment of the parks. The parks provide settings for a wide variety of high-quality hiking, biking, equestrian and camping opportunities. Campgrounds in the state parks provide excellent opportunities for visitors to enjoy traditional camping experiences in outstanding natural settings. The parks' hiking, biking, and equestrian trails provide the framework for the development of an outstanding trail system. Some primitive camping opportunities exist in the parks, but additional opportunities would be provided in conjunction with the expansion of the trail system. The Redwood Creek basin, more so than any other area of the parks, offers extensive opportunities for developing trails and primitive camping areas that are isolated from the sights and sounds of traffic and

developments along local highways and access roads. The quality of these opportunities will only be enhanced through time as watershed rehabilitation projects in the basin are completed, resource conditions improve, and priority for use of the West Side Access Road shifts from exclusively administrative access to include public access as well.

**Actions.** A comprehensive RNSP trail plan and a RNSP backcountry management plan would be developed to guide the development of an expanded trail system for the parks, specify the location of primitive camping areas, and prescribe policies and regulations for the use of backcountry areas by hikers, bikers, and equestrians. The trail construction proposed in the 1984 *Redwood National Park Trails Plan*, the 1985 *State Redwoods Parks General Plan* and previously approved NPS development concept plans would be thoroughly considered in the development of the RNSP trail plan. However, the new plan would be developed in accordance with the priorities and guidance outlined below and would be consistent with the desired resource conditions and visitor experiences of the appropriate management zones. Plan development would also include an evaluation of the need for and the appropriateness of all of the parks' existing trails. Portions of existing trails that adversely affect sensitive resources would be considered for relocation or removal. The trail plan and backcountry management plan would also evaluate opportunities for developing trailheads, trails, and primitive camping areas along the West Side Access Road.

Campgrounds with Access by Vehicle — Visitor demand for campground facilities in the parks, including facilities to accommodate off-season use, would be evaluated periodically. If the need exists, a greater number and variety of campsites would be provided than currently exist. Such facilities would be located outside of sensitive resource areas. No campgrounds accessible by vehicles would be constructed in the Bald Hills.

Primitive Camping — A variety of primitive walk-in, backpacking, equestrian, and bicycle camping opportunities would be provided in the parks at sites and in areas where camping is consistent with the characteristics of the applicable management zone. Camping would be allowed

along gravel bars in Redwood Creek and the designated horse camps on the west side of Redwood Creek. Additional primitive and/or walk-in camping opportunities would be provided along trails on both the east and west sides of the Redwood Creek basin and elsewhere in the parks, including the Coyote Creek basin.

*Hiking, Biking, and Equestrian Trails* — Current trails would serve as the nucleus for developing an expanded trail system in the parks. The parks' trail system would be linked to gateway communities and to trails managed by other jurisdictions, forming a regional system of hiking, bicycle, and equestrian trails. Consideration would also be given, where appropriate and in partnership with the private sector or American Indian tribes, to connecting the parks' trail system with public use facilities adjacent to the parks. Public safety and the protection of resources would be emphasized in the location, design, and construction of trails. The network of trails would serve visitors interested in day use opportunities as well as those who seek outstanding backcountry/overnight trip opportunities. The parks' trail system would provide visitors of all ages opportunities to enjoy examples of all of the parks' primary resource settings, including old-growth forests, second-growth forests, prairies, streams, shorelines, and cultural landscapes.

High priorities for new hiking trail construction would include completing the Coastal Trail; providing trail connections between major trails such as the Coastal Trail to the Redwood Creek basin, Jedediah Smith Redwoods State Park to the Coastal Trail, and the Coastal Trail to the Pacific Crest Trail; completing trail links between Crescent City and Jedediah Smith and Del Norte Coast Redwood State Parks; and establishing a trailhead on the Aubell property for trail access into the west side of Jedediah Smith Redwoods State Park. In addition, high priority would be placed on developing new hiking trails in the Redwood Creek basin, including the East Side Trail authorized in the national park's enabling legislation. A limited number of new mountain bike trails would be constructed or designated in areas of the parks where bicycle use would not damage resources and it meets federal and state policies for such use. Mountain bike loop trails opportunities

would also be developed on existing roads in the Coyote Creek basin. In addition, the National Park Service and California Department of Parks and Recreation would pursue opportunities with state and local transportation agencies, where practicable, to provide lanes, trails, or routes for bicyclists as a safer alternative than the travel lanes of highways through the parks and gateway communities. No equestrian trails would be provided on the east side of the Redwood Creek basin.

Every effort would be made to avoid wetlands in the selection of trail routes, except for essential stream crossings and specifically selected areas where the interpretation of wetland resources would be enhanced through the construction of boardwalks

*Picnic Sites* — Additional picnic opportunities would be provided, including along the Bald Hills Road.

#### *Freshwater Lagoon Spit Visitor Use*

**Issue.** Freshwater Lagoon Spit serves as the southern gateway to the parks and is extremely popular with owners of recreational vehicles as an oceanside camping/rest area. The area is owned by Caltrans and leased by the National Park Service. Overnight use results in sanitation and public safety problems, adversely affects resources, and detracts significantly from the otherwise outstanding visual qualities of the area.

Facilities and services are inadequate to support current public use levels, and there are strong questions about whether the area is an appropriate site for a camping facility, particularly given the fact that it is in a high-hazard tsunami zone. This camping is perceived to provide inappropriate competition for nearby privately owned facilities and services, although its users do contribute to the economy of the town of Orick.

**Actions.** This site would be managed as a day use facility to provide visitors the opportunity to enjoy the outstanding scenic values of this gateway to the parks. The new facility would be developed to include structured parking, safe access from the highway, pedestrian access to the beach, and appropriate interpretive exhibits



and support facilities. RNSP staff would coordinate changes in the management or design of the site with Caltrans. If necessary, the National Park Service would seek to acquire the area from Caltrans to develop the site and manage public use appropriately.

Overnight use would be phased out over a three-year period to allow the private sector the opportunity to develop replacement camping facilities elsewhere. An appropriate fee would be charged for overnight use during the phase-out period.

Public use of Freshwater Lagoon would be managed cooperatively with other agencies having jurisdiction over those waters.

### Vehicles on the Beach

**Issue.** Vehicles are operated on beaches at Freshwater Lagoon Spit, Gold Bluffs Beach, Crescent Beach, and on the spit at the mouth of the Klamath River. Freshwater Lagoon Spit beach has three vehicle access points, which are also used for access to Hidden Beach north of the mouth of Redwood Creek. The beaches are open to all properly registered vehicles capable of driving on soft sand. Once on the beach, vehicles are required to stay below mean high tide line to avoid damaging native dune vegetation. Vehicles can cross Redwood Creek during those times when the sand berm prevents the creek from reaching the ocean or when the creek is low enough to allow safe crossing. Vehicles being used for commercial fishing at Gold Bluffs Beach are required to use specific access points.

Depending on locations, this off-road vehicle use occurs in connection with recreational activities such as sportfishing, beachcombing, and gathering wood; traditional activities conducted by American Indians; and commercial surf fishing activities, primarily for smelt, conducted in accordance with provisions of the legislative history of the 1968 Redwood National Park enabling legislation and the 1985 *General Plan for Prairie Creek Redwoods State Park*.

Vehicle use on Crescent Beach is subject to a Del Norte County permit system; vehicle use on Gold Bluffs Beach is subject to a CDPR permit system. Off-road vehicle use at Freshwater

### Off-Road Vehicle Use

Commercial surf fishing and the off-road vehicle use associated with this activity have been allowed to continue within Redwood National Park since its establishment because of language in the legislative history of the park's enabling legislation (*House of Representatives Conference Report No. 1890*, September 11, 1968) which states

The conference report recommends the inclusion in the park boundaries of a strip of offshore submerged land one-quarter mile wide the full length of the park. This is done with the understanding that fishing, both sport and commercial, will be allowed to continue in the area involved and that the laws governing the same will be the laws of the State of California.

NPS and CDPR regulations prohibit off-road vehicle use in national parks and state parks. Pursuant to Executive Orders 11644 and 11989, NPS regulations codified at 36 CFR 4.10 limit off-road vehicle use to designated routes and areas in national recreational areas, national seashores, national lakeshores, and national preserves; these regulations apply to intertidal areas within the parks even though the submerged lands are not federally owned. CDPR regulations codified at section 5001.8 of the *Public Resources Code* restrict the use of motor vehicles in state parks to paved areas and other areas specifically designated and maintained for normal ingress, egress, and parking.

Lagoon Spit and at the mouth of the Klamath River is currently not subject to permit requirements. Off-road vehicle use on beaches within the parks is inconsistent with managing and protecting these areas as nationally significant natural settings and results in public safety and public use conflicts. Also, the removal of large woody debris from the parks' beaches, which is facilitated by off-road vehicle access, is inappropriate because driftwood is an essential element of beach ecology in the parks and throughout the Northwest. Large woody debris provides shelter, nutrients, hiding places, perches, and nesting habitat for numerous species of wildlife. It also plays a key role in energy dissipation during storms and promotes the entrapment and retention of sand and the formation of dunes. This off-road vehicle use also violates NPS general regulations and statewide CDPR

regulations that prohibit off-road vehicle use in national and state parks.

**Actions.** NPS and CDPR regulations prohibiting off-road vehicle use would be enforced throughout the parks, resulting in the elimination of all off-road vehicle use other than that which is essential to provide access for commercial surf fishing activities. Off-road vehicle use associated with commercial surf fishing at Freshwater Lagoon Spit, Gold Bluffs Beach, and Crescent Beach would continue by renewable, nontransferable annual permit only. However, only permits issued between March 1996 and September 1, 1999, would be renewed, no new permits would be issued, and any permit not renewed in a given year would be terminated. These actions would be taken, despite the provision in the national park's legislative history, to meet the NPS and CDPR statutory obligations to protect the RNSP resources and enhance public enjoyment of RNSP resources and values, and to provide consistent management of vehicle use on NPS- and CDPR-managed beaches. However, off-road vehicle use on beaches in connection with traditional American Indian cultural/religious activities that are consistent with the purposes of the parks would continue only at Gold Bluffs Beach under a CDPR permit system. Vehicle use would be managed to prevent resource damage and to minimize public use conflicts.

### ***Concessions and Commercial Services for Visitors***

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**Issue.** Guidance is required to determine which types of commercial services are necessary and appropriate to provide for visitors to the parks. Should such services be provided by concessioners in the parks or by the private sector in the vicinity of the parks?

**Action.** Generally, commercial support services for visitors would be provided by the private sector through facilities outside the parks in gateway communities. Opportunities for the private sector and/or local American Indian tribes to provide visitor services could include

bus tours, hiking tours, bicycle tours or rentals, horseback riding, outfitter and guide services, boat tours or rentals, shuttle services, and specialized interpretive or ecotourism efforts that focus on natural or cultural resources within and/or near the parks.

The National Park Service and California Department of Parks and Recreation would encourage the development of services, based in gateway communities, that meet the general criteria below. All of the following criteria would be used to evaluate each proposal to provide commercial support services for visitors, whether based inside or outside of the parks.

1. The service is consistent with the mission and purposes of the parks, as described by law and applicable planning documents, and is consistent with NPS and CDPR policies.
2. The service is consistent with the preservation and conservation of the resources and values of the parks.
3. The service would enhance visitor enjoyment and understanding of the resources and values of the parks.
4. The service is necessary and appropriate for public use and enjoyment of the parks.
5. There is, or could be expected to be, sufficient public demand to support the service economically and to warrant having it.
6. The service is needed based on the quality and types of services already provided or expected to be provided in the parks' gateway communities in the timeframe required.

The existing hostel concession within the parks is a necessary and appropriate visitor service. Other commercial support services for visitors operating from facilities in the parks would be considered only if they meet the criteria above and show that facilities are required in the parks to meet NPS and CDPR visitor services goals efficiently and effectively.

All authorizations to provide commercial support services for visitors would be awarded in accordance with applicable laws and regulations, and appropriate fees would be charged.

## VISITOR ACCESS AND CIRCULATION / ROADS

### Management Strategies

- Administer the roads in the parks under NPS and CDPR jurisdiction to facilitate and enhance visitors' leisurely enjoyment of RNSP resources and public use facilities rather than catering to the needs of through traffic.
- Ensure that RNSP roads relate simply and harmoniously with the topography and surrounding environment; these roads would often be more narrow and winding and have lower speed limits than roads outside the parks.
- Provide safe opportunities for visitors to see scenic vistas and other points of interest, enjoy interpretive displays, and access trails, picnic areas, and other recreation facilities along RNSP roads.
- Provide distinctive and unobtrusive signs to orient, guide, and inform visitors.
- Provide bicycle lanes, alternative transportation systems, and one-way roads and set vehicle size limits, as appropriate, to ensure public safety and visitor enjoyment.
- Use methods such as limiting the size of parking facilities, using mass transit, or establishing public use limits and permit systems to limit the number of persons or vehicles that would be allowed access to sensitive sites where the protection of fragile resources is of concern.
- Depend on U.S. highways in the parks to serve as the primary access routes to the parks, to be managed and maintained by state and federal transportation agencies.
- Depend on Del Norte and Humboldt Counties to manage and maintain county roads within the parks that provide access to nonpark lands that serve the general public in addition to RNSP visitors.
- Work cooperatively with the agencies having primary jurisdiction on these U.S., state, and county roadways throughout the parks to promote public safety, to enhance opportunities for travelers to enjoy scenic vistas and gain access to RNSP resources and facilities, and to protect RNSP resources that are adjacent to the roadways.
- Consider entering into agreements for RNSP ownership, management, and/or maintenance of all or portions of the county roads in the parks

that are in good structural condition, that provide access primarily to park lands, and that serve primarily park visitors.

- Design, construct, and maintain RNSP roads that provide access from state highways or county roads to RNSP facilities so that they are sustainable, provide safe access for visitors and employees, and minimize the disruption of traffic on through highways.

### Issue

There are numerous roads in the parks; proposals for operation and maintenance of these roads sometimes conflict with the protection of RNSP resources and values. A long-term strategy for the operation and maintenance of these roads that ensures the protection of RNSP resources and values needs to be developed.

### Actions

#### Bald Hills Road

While recognizing that a significant percentage of the traffic using this road is unrelated to the parks, the National Park Service and California Department of Parks and Recreation would encourage Humboldt County to maintain the portion of this road that is within the parks within its existing right-of-way in a way that is consistent with its also serving as a rural gateway to an area of diverse natural and cultural landscapes. RNSP staff would work with county staff and local transportation authorities to develop or enhance opportunities for travelers to enjoy spectacular scenic vistas and pull off the road safely to hike, picnic, or enjoy interpretive exhibits. The National Park Service would provide opportunities for visitors to observe and appreciate a variety of natural and cultural resource management projects, such as prescribed fires, prairie restoration, and second-growth forest management. Through-travelers would enjoy a unique alternative route to the scenic Klamath and Trinity River corridors and the Hoopa Reservation.

#### Newton B. Drury Scenic Parkway

The road would be kept in its current alignment through the prairie unless a different alignment is

recommended based on future planning efforts. The Newton B. Drury Scenic Parkway would continue to be operated by the California Department of Parks and Recreation, with special operational/maintenance requirements defined by Caltrans.

### Jedediah Smith Redwoods State Park Entrance

The park entrance would be relocated to the Hiouchi area as part of the proposed new visitor center.

### Stout Grove

Based on the results of the monitoring efforts and a carrying capacity study, minor improvements would be made to the access road and parking area to better protect the resources.

### Del Norte Coast Redwoods State Park Entrance

The access road would be replaced with a new road and entrance station at a more geologically stable and environmentally prudent location. The current access road would be removed or converted to a trail.

### Enderts Beach Road

Enderts Beach road would continue to provide public access to the Crescent Beach overlook and the trailhead for the Coastal Trail leading to Nickel Creek campground. Gating the road and/or conversion to day use would occur only as a last resort if efforts to resolve resource degradation and public use issues were unsuccessful and only after thoroughly exploring alternatives.

### Alder Camp Road

This road would be improved to provide access to trails, a picnic area, and Alder Camp Conservation Center. Culverts would be replaced, and the road would receive routine and cyclic maintenance and repairs as appropriate. Note: All actions on the county portion of the road would depend on agreements with the county.

Roads in Redwood National and State Parks such as Davison, Cal Barrel, and Howland Hill, provide an opportunity for those who are otherwise unable to visit primitive areas of these parks on foot to do so by motor vehicle. These are low-speed scenic drives that capture a feeling of how travel through this area occurred in the past. Several of these routes are historic. Current agency management includes reengineering these roads for safety and the prevention of erosion and stream sedimentation. Although the preferred alternative refers to certain actions, should future conditions warrant, other options would be considered. These options could include changing these roads to one lane/one way. Various surface treatments would be evaluated. Widening or building new road connections that would require the removal of old-growth trees would not be considered.

### Davison Road—Gold Bluffs Beach Road to Fern Canyon

Depending on a carrying capacity study, minor road improvements (see glossary) would be made to facilitate access to Gold Bluffs Beach/Fern Canyon. The road would not be paved west of the access road to B-mill deck. Other methods of access (e.g., a shuttle) to Fern Canyon would be evaluated. Note: All actions on the county portion of the road would depend on agreements with the county.

### Cal-Barrel Road

This road would be kept as a narrow, unsurfaced dead-end park road. Drainage would be improved, and areas likely to fail would be treated to reduce the threat of erosion. No trailers would be allowed on the road.

### Howland Hill Road

The two-way unsurfaced park road would be retained and minor improvements would be made. This road would not be recommended for large trailers and motorhomes. If conditions change in the future, other maintenance and operational options would be considered, including paving the road and/or making it a one-way road.

### Tall Trees Grove

This road would be kept as an unpaved road with public access by permit only until a carrying capacity study is completed. Based on the results of that study and monitoring efforts, public access to and use of the site could be managed using other strategies to protect resources and provide the desired visitor experience.

### The Coastal Drive

Drainage and road surface improvements would continue to be made on this two-way unpaved park road. Major road failure would lead to its conversion to a trail.

## INTERDEPENDENCE OF PARKS AND COMMUNITIES

### Management Strategies

- Support sustainable economic development, the preservation of community values, and the availability of appropriate visitor services in local communities that serve as gateways to the parks.
- Participate as partners with those communities and local organizations in projects and initiatives that have mutual benefit, that enhance the quality of the overall experiences of visitors to the parks, or that enhance the levels of public appreciation and protection of RNSP resources.
- Encourage the development of appropriate sustainable visitor service facilities in the vicinity of the parks.
- Participate actively in local educational and public safety programs, and cooperate with local agencies and private interests in land use and transportation planning for areas adjacent to the parks.

### Issues and Actions

#### Lodge/Accommodations

**Issue.** In recent years there has been a great deal of interest in building a lodge in or near the parks to serve as a destination resort to attract visitors. Based on NPS and CDPR policies, the construction of such a facility within the parks is

not appropriate. However, there are opportunities for the private sector or American Indian tribes to develop lodges or similar facilities near or adjacent to the parks that could meet many of the objectives sought by project proponents.

**Actions.** The National Park Service and the California Department of Parks and Recreation would support and actively participate with private sector and/or tribal partners in their planning and development of appropriate destination facilities, such as lodges, near or adjacent to the parks that includes thematic and physical links to the resources and values of the parks.

#### Viewshed Protection

**Issue.** A strategy for viewshed protection needs to be developed to enhance and ensure quality visitor experiences.

**Actions.** Action items would be as follows.

**Scenic Corridor** — The acquisition of lands or interests in lands within the scenic corridor along U.S. Highway 101 north of Orick would be pursued as lands become available and as funding permits to protect resource values and the viewshed along that portion of Highway 101 and in the vicinity of RNSP visitor facilities in that area.

**Viewsheds** — Important visual areas would be identified, and RNSP staff would work with local governments and conservation organizations to protect these areas. RNSP staff would also support efforts to improve visual quality, such as putting powerlines underground and initiating reforestation projects.

#### Adjacent Land Uses

**Issue.** There are some adjacent land uses, such as logging, land development, and agricultural practices, that have the potential to impact RNSP resources and the visitor experience. Strategies to minimize negative impacts need to be analyzed and incorporated into this joint plan as appropriate.

**Actions.** The parks would actively participate in planning, zoning, and other land use activities that might affect RNSP resources. RNSP staff would support and promote, where feasible, land

uses that are compatible with restoration, protection, and maintenance of RNSP resources and values.

### Gateway Communities

**Issues.** Management plans, visitor services, and marketing efforts need to be coordinated with local interests to enhance the economic stability of local communities and to achieve mutual objectives in the areas of public services and facilities, tourism, and the preservation of community values.

*Options for providing coordinated information/ orientation services and facilities in the surrounding communities need to be evaluated.*

**Actions.** RNSP management plans, visitor services, and marketing efforts would be coordinated with local interests to achieve mutual strategies and objectives in the areas of public services and facilities, tourism, and the preservation of community values. RNSP staff would actively support and assist local communities in efforts to foster appropriate and sustainable economic development, to develop infrastructure needed to serve community development and RNSP facilities, and to develop services and facilities, including transportation systems, that support tourism and recreation and provide connections between the communities and the parks. RNSP staff would also provide advice and technical assistance to communities, communicate support to agencies that authorize and/or fund development projects, and participate as partners with communities in situations where mutual conservation, visitor service, or development strategies and objectives would be achieved. RNSP staff would also provide technical assistance and advice to individuals or businesses interested in developing appropriate/ complementary visitor services in gateway communities.

RNSP staff would cooperate with local communities and organizations to ensure that public information and orientation services were coordinated and provided in convenient locations.

## ADMINISTRATIVE FACILITIES

### Management Strategies

- Adequately maintain facilities needed to support RNSP administration and operations to provide a safe, sanitary, and aesthetically pleasing environment for employees.
- Evaluate structures on newly acquired lands for adaptive use as administrative facilities or remove them.
- Sustainably design new or rehabilitated facilities, construct them in appropriate locations to minimize adverse resource impacts and visual intrusions, and operate and maintain them to minimize the consumption of energy and conserve nonrenewable fuels.
- Use renewable sources of energy and energy-efficiency technology where appropriate and cost-effective.
- Relocate administrative facilities from resource areas that are easily damaged or remove them when reasonable to do so.
- If additional or replacement administrative space is required, give preference to leasing facilities in communities that are adjacent to the parks.
- Consolidate or jointly locate CDPR and NPS facilities wherever operational efficiencies or savings would be achieved.
  - Make facilities that become excess to RNSP needs available, if appropriate, for use by partners or cooperators, or remove those facilities.
- Provide housing for employees only where necessary for managing and protecting the parks.
- Dispose of housing on any newly acquired lands unless it is considered essential for operational purposes.

### Issues and Actions

#### Operations Facilities (Maintenance, Ranger Activities, Fire Protection)

**Issue.** The National Park Service and California Department of Parks and Recreation maintain a variety of facilities to support RNSP management and operations. The partnership between the agencies provides an opportunity to evaluate existing facilities and to make decisions to

eliminate, relocate, or consolidate these facilities or to construct new facilities in the interest of more efficient management of the parks and the protection of their resources.

**Actions.** NPS and CDPR facilities would be consolidated wherever it would be cost-effective to do so. RNSP headquarters would remain in the current facility in Crescent City. NPS primary maintenance facilities would continue to be in Requa, with some consolidation of CDPR maintenance facilities there; utilities and facilities at Requa would be upgraded and improved. However, a 1982 geological survey report documented complex landsliding and earth-flow movement at Requa. The primary NPS maintenance facility would be relocated when and if this activity threatens the structural integrity of the buildings or safety of their occupants. Any new facility would be planned and designed to meet both NPS and CDPR operational requirements and would have safe, dependable access to area highways and convenient access to RNSP facilities. CDPR primary maintenance facilities would remain at Aubell Ranch.

RNSP resource management employees would be located in a new facility to be constructed in the Orick area. To avoid diminishing established relationships between private and public entities and continue to enjoy mutual benefits from interagency coordination and cooperation, some employees and programs would remain in the Arcata area or alternate location to derive the greatest benefits to the parks. NPS and CDPR protection staff offices would be consolidated at the Aubell Ranch site in the north and, to the extent practicable, at the facility in the Orick area in the south.

Fire protection facilities would continue to be at Hiouchi in the north and Wolf Creek in the south; however, the National Park Service would consider moving the Wolf Creek fire cache and equipment into the Orick area facility. Interpretation staff offices would remain in the Crescent Beach Education Center in the north, in the Redwood Information Center (until a new primary visitor center is built), and in the new facility that would be constructed in the Orick area. Small satellite facilities would continue in each state park unit to support operations in those areas.

CDPR administrative facilities in the northeast portion of Elk Prairie in Prairie Creek Redwoods State Park would be removed when the opportunity to relocate them to the Orick area and/or to consolidate them with NPS facilities arises, including two 1950s residences, a barn/shed used to house vehicles and supplies, some seasonal cabins, a shop, a maintenance office, a storage area, and a gas shed; one historic house would be kept as a ranger residence.

The Schoolhouse Peak fire lookout would be retained and operated for fire protection. If no longer needed for fire protection, the facility would be removed only if a site evaluation determined that there were no appropriate public use or administrative uses for the structure.

### Housing

**Issue.** Employee housing requirements must be evaluated in accordance with current NPS and CDPR policies, and determinations must be made concerning the number and locations of housing units that are essential to managing and protecting the parks.

**Actions.** Generally, RNSP employees would live in local communities. In-park housing for permanent staff would be provided only for those needed to provide emergency services to the public or to protect RNSP resources and facilities. Otherwise, housing would be provided only for seasonal staff and volunteers essential to managing and protecting the parks. Efforts would be made to provide this housing outside the parks. NPS housing would continue to be retained in the Hiouchi, Requa, Wolf Creek, Orick, and Bald Hills areas; NPS housing at Crescent Beach would be removed when no longer needed as housing.

CDPR housing would continue to be at Jedediah Smith and Del Norte Coast Redwoods State Parks. The Boyes House at Prairie Creek Redwoods State Park would be retained for use by emergency services staff, and the Gold Bluffs Beach residence would remain as required housing (for the ranger assigned to Gold Bluffs Beach). Appropriate seasonal housing would be retained at Prairie Creek.

## LAND ACQUISITION

### Management Strategies

- Acquire the minimum interest in lands necessary to meet management strategies described under management zoning.
- Use the most practical and cost-effective method of acquisition to protect RNSP resources and values, including any combination of fee or less-than-fee options or cooperation with landowners; federal agencies, state, tribal, or local governments; and the private sector.
- Acquire lands necessary to preserve, protect, or restore significant RNSP resources and values and provide recreational opportunities that are consistent with RNSP purposes.
- Acquire those lands or interests in lands that are necessary to achieve RNSP purposes and minimize adverse impacts on RNSP resources that are the result of human activity outside the parks.
- Acquire interests in lands that are necessary to provide connections between coastal and inland trails in the parks.
- Acquire lands or interest in lands for the development of infrastructure needed for both RNSP and community uses.

### Issue

PL 95-625 requires that NPS general management plans include measures for protecting the park's resources and "indications of potential modifications to the external boundaries of the unit and the reasons therefor."

Included among CDPR responsibilities is the requirement to acquire a balanced system of areas of outstanding scenic, recreational, and historic importance. And, representative examples of California's natural and cultural resources are to be protected and made available for the enjoyment and inspiration of the people.

## Actions

### Actions for Federal Lands

The current program to acquire lands or interests in lands with significant resource, scenic, or public use values would continue as opportunities arose. However, because the legislated Redwood National Park boundary is limited to 106,000 acres, exclusive of submerged lands and publicly owned highways and roads, future acquisitions could not result in total acreage exceeding that figure without legislation authorizing an increase in the acreage ceiling. Any future federal land acquisitions would be analyzed according to relevant boundary revision criteria, which include any or all of the following:

- The proposed acquisition includes significant resources or opportunities for public enjoyment that are related to the purposes of the parks.
- The proposal addresses operational and management issues such as access and boundary identification by topographic or other natural features or roads.
- The potential acquisition protects RNSP resources that are critical to fulfilling the parks' purposes.

In addition, recommendations to expand the boundary and acquire additional lands would be preceded by determinations that the added lands will be feasible to administer considering size, configuration, ownership, costs, and other factors, and that other alternatives for management and resource protection are not adequate.

As stated in the "Boundary Map Adjustments" section, future acquisitions would be included in the legislated national park boundary by publishing a revised drawing or boundary description in the *Federal Register*.

### Actions for State Lands

The current program to acquire lands or interests in lands with significant resource, scenic, or public use values would continue as opportunities arose.



## **WILDERNESS PROPOSALS**

### **Management Strategies**

- Evaluate lands for designation as wilderness consistent with and supportive of the perpetuation of the redwood forest ecosystem as the prime resource of the parks.

### **Issue**

The California Wilderness Act of 1975 directs the consideration of roadless areas of the parks for inclusion in the state wilderness system.

### **Actions**

A state wilderness area would be proposed for a portion of Jedediah Smith Redwoods State Park to conform to the general boundary described as south of U.S. Highway 199 and Hatton Trail, west of Hiouchi and Mill Creek Trails, north of the southern park boundary, and east of the western park boundary. A transportation corridor for the Howland Hill Road would be excepted from this general boundary.

A state wilderness area would be proposed for a portion of Prairie Creek Redwoods State Park to conform to the general boundary described as south of the Ossagon Trail, west of the Newton B. Drury Scenic Parkway, north of the southern boundary of Prairie Creek Redwoods State Park, and east of Davison Road–Gold Bluffs Beach Road and the Coastal Trail.

## ALTERNATIVE 2 — NO ACTION

### CONCEPT

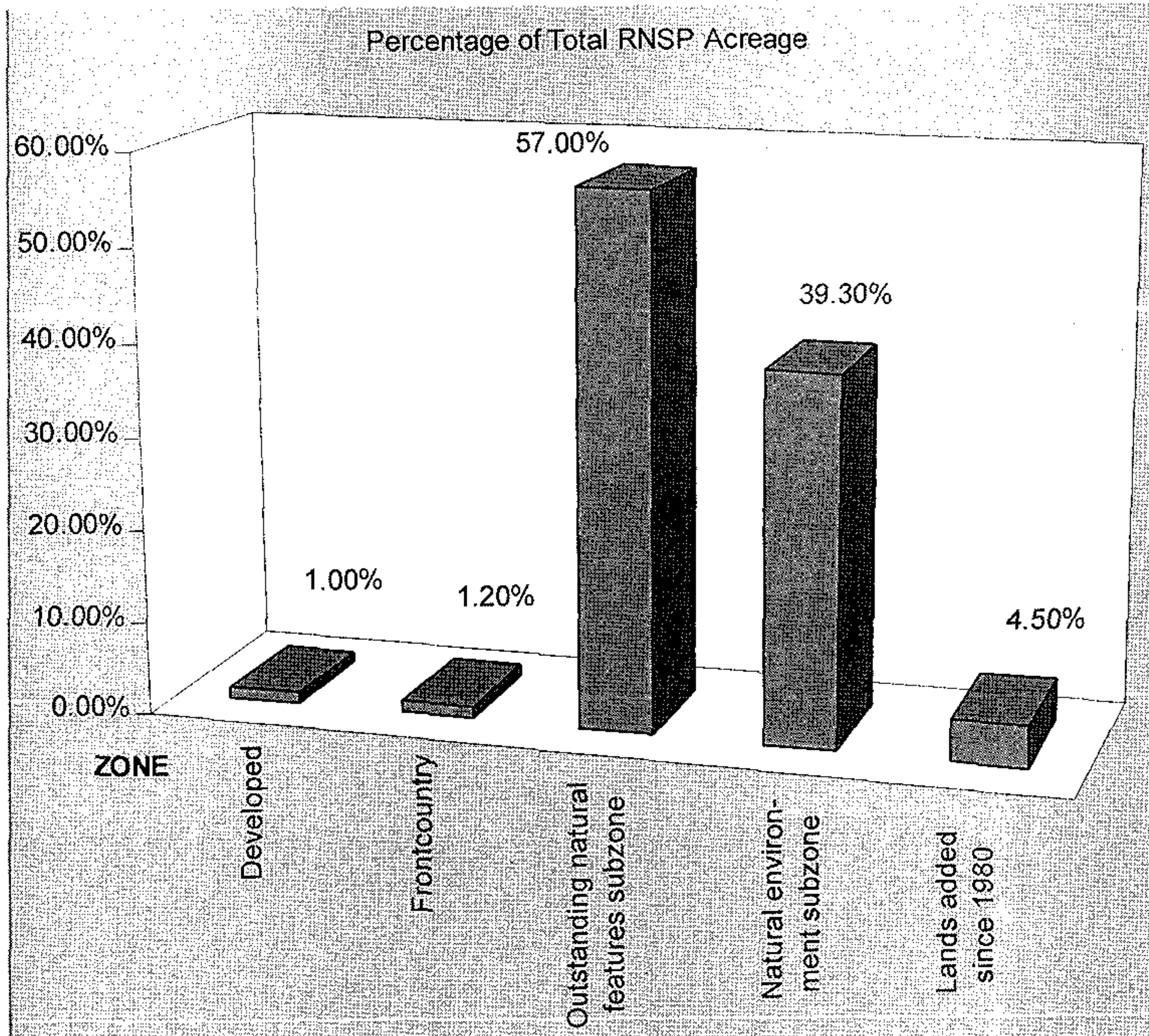
Under this alternative, which describes a continuation of existing trends to provide a basis of comparison with the other alternatives, the agencies would continue what they are doing for natural and cultural resource protection, preservation, and restoration. Orientation information would be provided primarily through interpretive facilities, and in-depth interpretation would be provided through a combination of personal services and interpretive media such as brochures or exhibits. Major development would be focused along U.S. Highways 101 and 199, and the agencies would encourage that visitor

services and facilities be developed outside the parks (see Alternative 2 Management Zoning and Alternative 2 General Plan maps.) Facilities would be retained in areas with sensitive resources. The issue statements, which are the same for all alternatives, are not repeated in alternatives 2, 3, and 4; please refer to alternative 1.

### MANAGEMENT ZONES

Under the no-action alternative, there would be a continuation of existing trends, and the guidance in the 1980 *Redwood National Park General*

TABLE 4: MANAGEMENT ZONES, ALTERNATIVE 2 (NO ACTION)



*Management Plan* and the state parks' 1985 *General Plan* would be followed. The management zoning described in the 1980 plan uses different terminology for the zones (see table 4 on previous page) than the zones described for alternatives 1, 3, and 4. It was assumed at that time that lands owned by the state and administered by the California Department of Parks and Recreation would eventually become part of the national park, and zones for state parks were based on the same criteria as national park lands.

The 1980 plan used four primary zones, each divided into subzones. The natural zone, which included the natural environment and outstanding natural features subzones, has been applied under this alternative as depicted in the 1980 plan. The natural environment and outstanding natural features subzones contain essentially the same areas included in the backcountry and primitive zones under alternatives 1, 3, and 4. The desired resource conditions and allowable visitor uses and facilities for these zones do not exactly match the criteria presented in the zoning scheme that is applied to alternatives 1, 3, and 4 (see table 1). The natural zone as described in the 1980 plan was based on vegetation types and the management objectives in the 1976 "Redwood National Park Statement for Management."

The outstanding natural features subzone would contain the parks' primary natural resources — the redwoods, streams and rivers, and the coast. These lands would be managed to preserve and protect their pristine qualities. The natural environment subzone would include land disturbed by logging activities. The watershed restoration program would return these lands to a facsimile of their natural conditions, but these lands would not have the pristine conditions found in the outstanding natural features subzone.

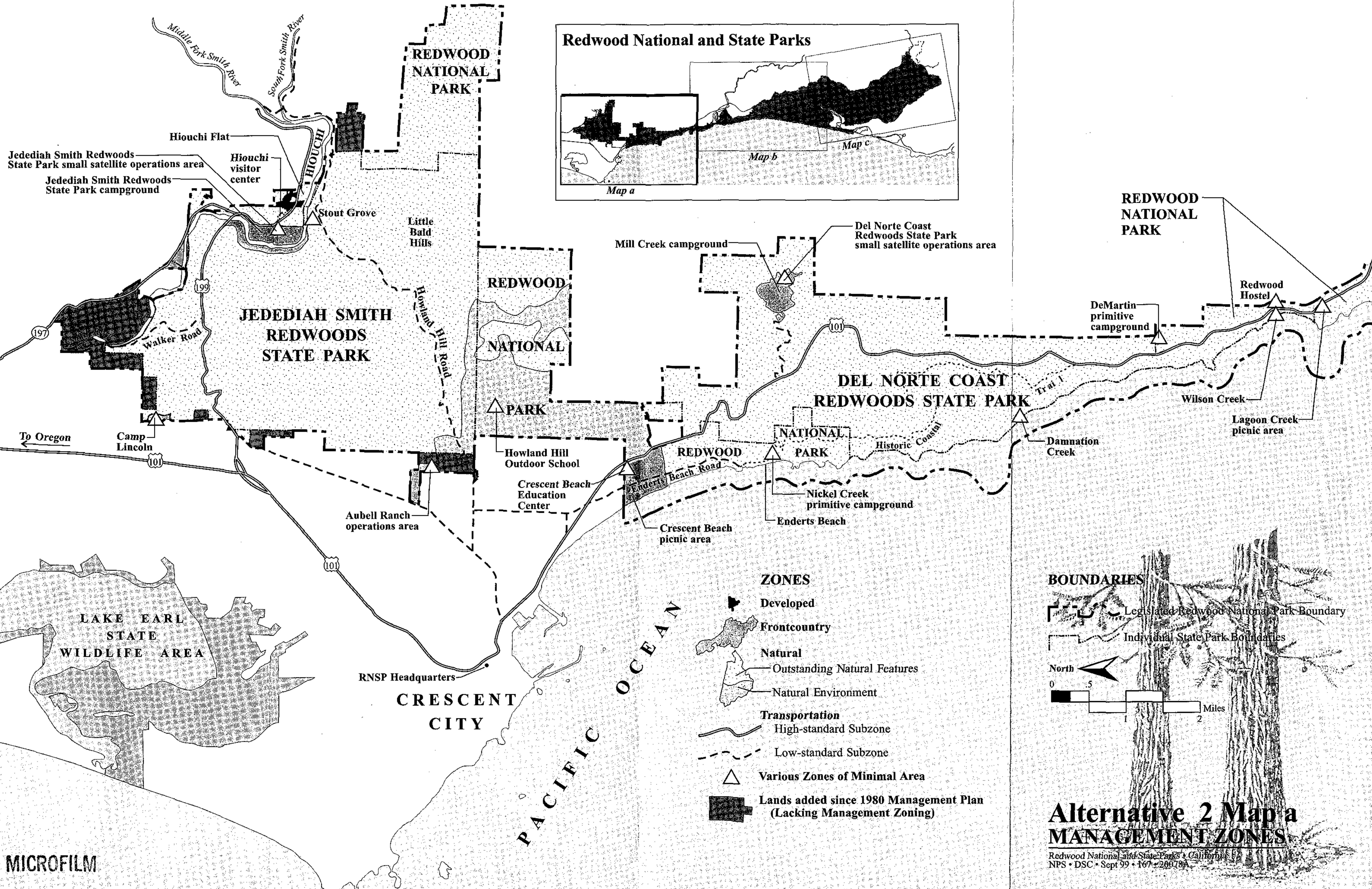
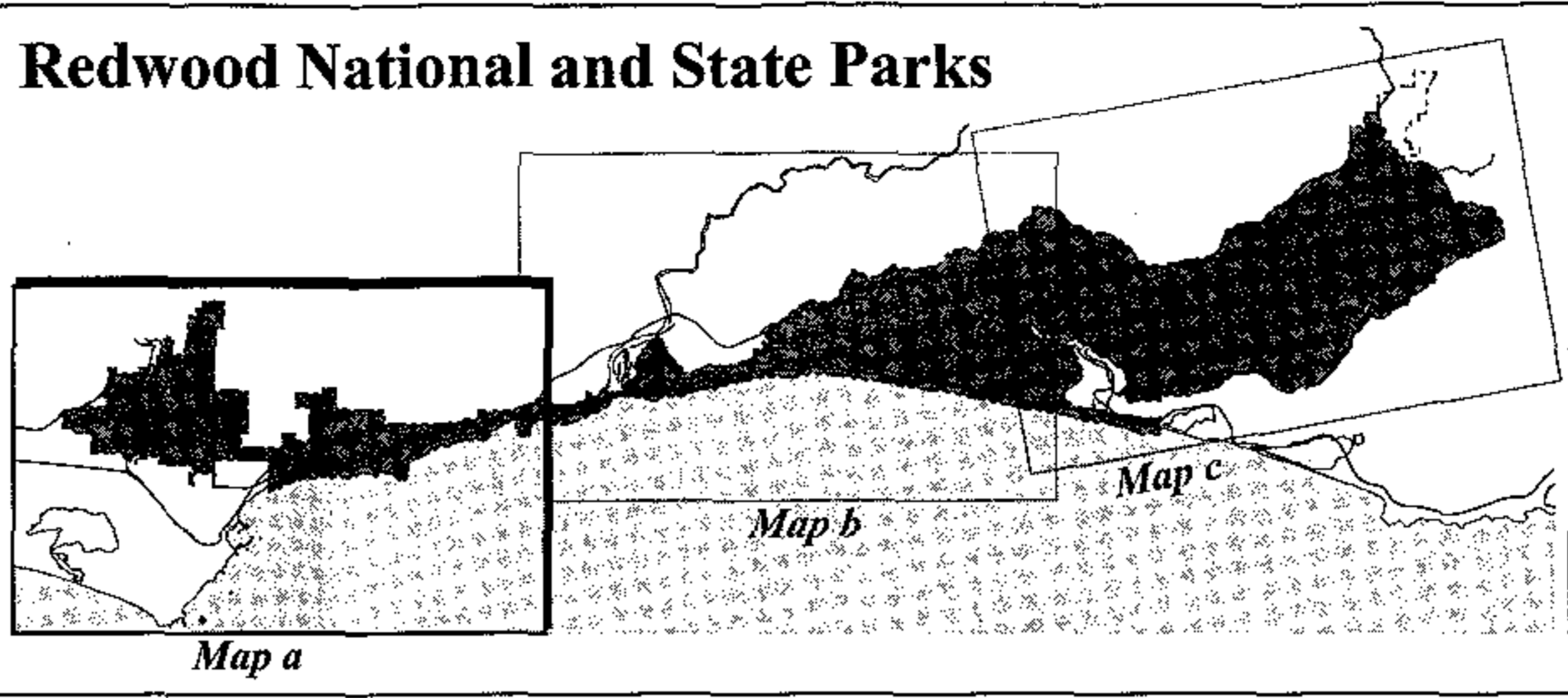
The cultural resources zone used in alternatives 1, 3, and 4 is not included in the alternative 2 map because the historic zone prescribed in 1980 included only very small areas surrounding individual historic or prehistoric sites that were

too small for the scale of map. The historic zone has two subzones, the preservation subzone and the preservation/adaptive use subzone. The acreage of the preservation subzone was not determined in 1980, but the subzone included properties listed on or nominated to the national register or on the national park's list of classified structures. These features would be managed to preserve their historic or prehistoric integrity. The preservation/adaptive use subzone as described in 1980 included less than 10 acres.

Frontcountry and developed zones depicted for the no-action alternative reflect current management rather than what was included in the 1980 plan under the park development zone. The park development zone included four subzones. The visitor support subzone (about 5 acres total in 1980) included the Redwood Information Center and the Hiouchi information center. The recreation subzone, totaling 265 acres (less than 1% of total park acreage in 1980), included the campgrounds, picnic areas, and sites accessible by automobile and managed for intensive recreational use. The residential subzone encompassed about 15 acres in 1980 and included employee housing. Houses and adjacent yards in the residential subzone would be maintained for residential purposes. The access/circulation subzone in 1980 included 140 acres of RNSP roads used by visitors. Both the residential and access/circulation subzones would be managed so as not to detract from the qualities of the surrounding natural zone.

The high- and low-standard transportation subzones in this joint plan contain roads that were included in the access/circulation subzone of the park development zone and the transportation subzone of the special use zone in the 1980 plan.

Because there is no primitive zone under this alternative, all proposed trails described in the national park's 1984 *Backcountry Trail Plan* or the state parks' 1985 *General Plan* would be constructed.



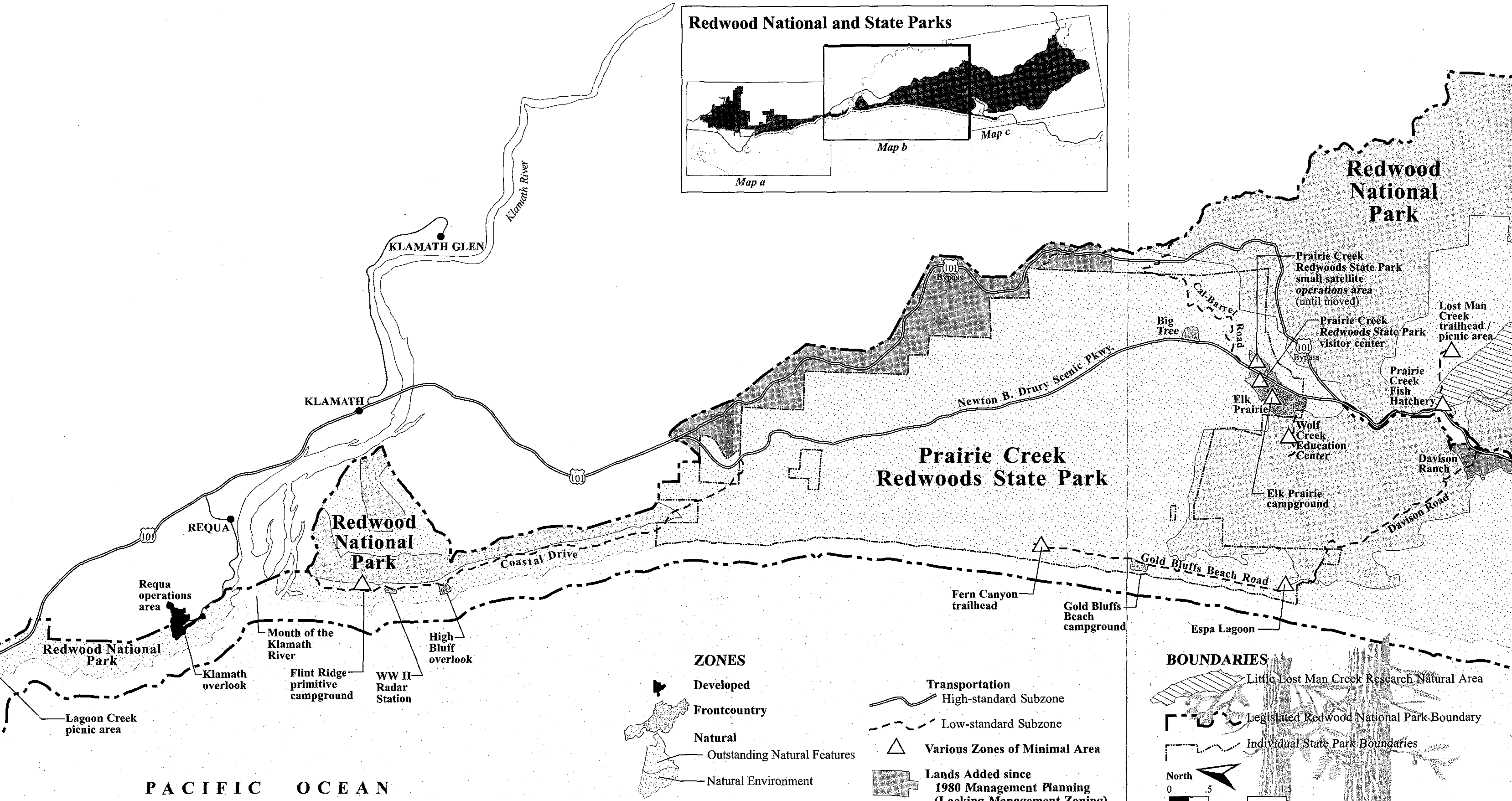
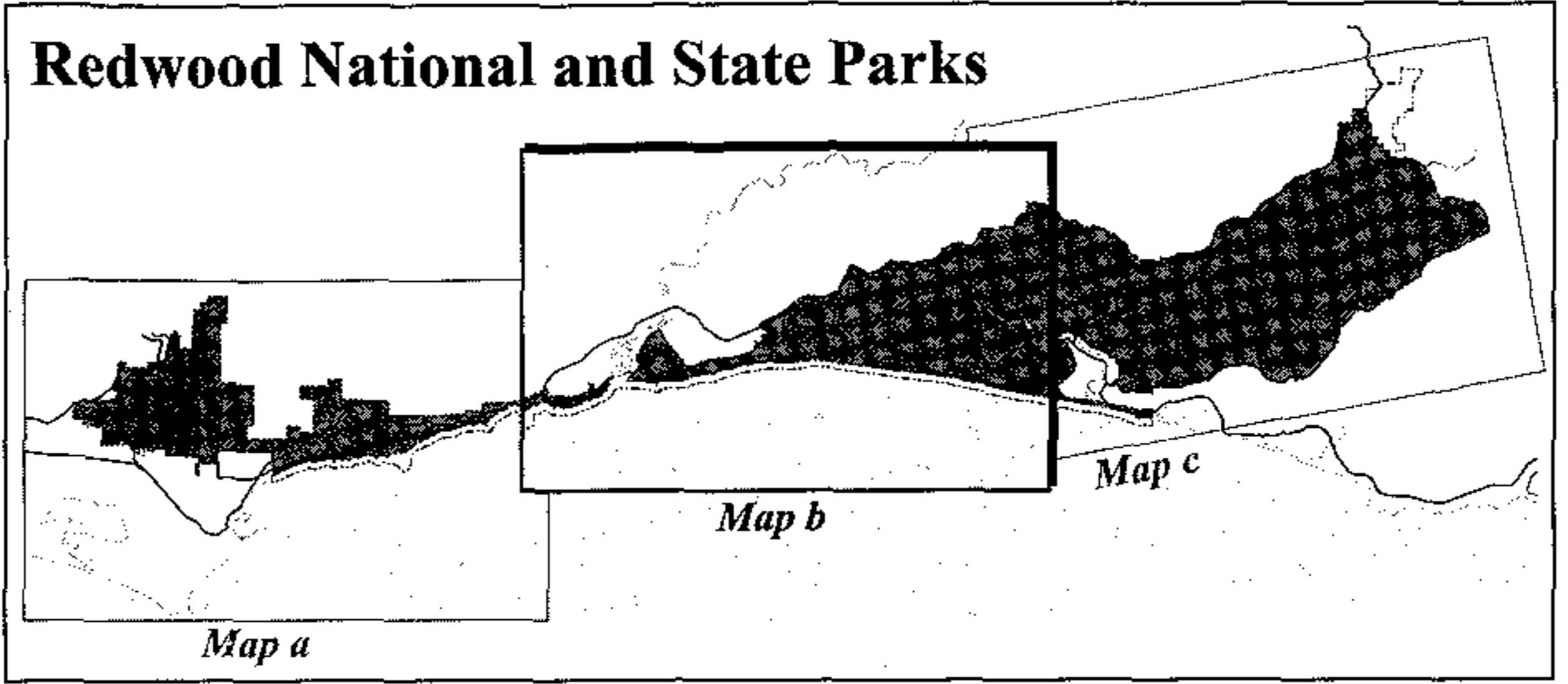
- ZONES**
- Developed
  - Frontcountry
  - Natural
  - Outstanding Natural Features
  - Natural Environment
- Transportation**
- High-standard Subzone
  - Low-standard Subzone
- Various Zones of Minimal Area
  - Lands added since 1980 Management Plan (Lacking Management Zoning)

- BOUNDARIES**
- Legislated Redwood National Park Boundary
  - Individual State Park Boundaries
- North
- 0 .5 1 2 Miles

**Alternative 2 Map a  
MANAGEMENT ZONES**

Redwood National and State Parks • California  
NPS • DSC • Sept 99 • 167 • 200789

ON MICROFILM



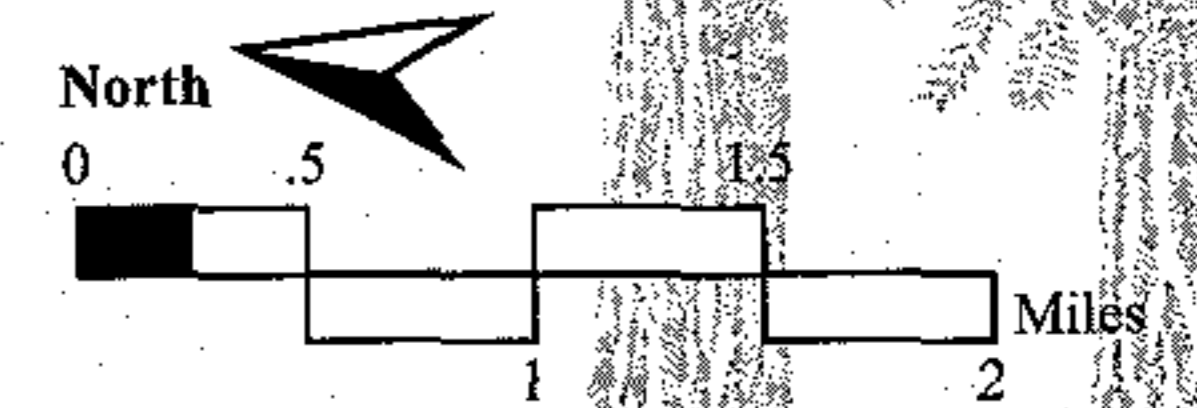
**ZONES**

- Developed
- Frontcountry
- Natural
  - Outstanding Natural Features
  - Natural Environment

- Transportation**
  - High-standard Subzone
  - Low-standard Subzone
- Various Zones of Minimal Area
- Lands Added since 1980 Management Planning (Lacking Management Zoning)

**BOUNDARIES**

- Little Lost Man Creek Research Natural Area
- Legislated Redwood National Park Boundary
- Individual State Park Boundaries



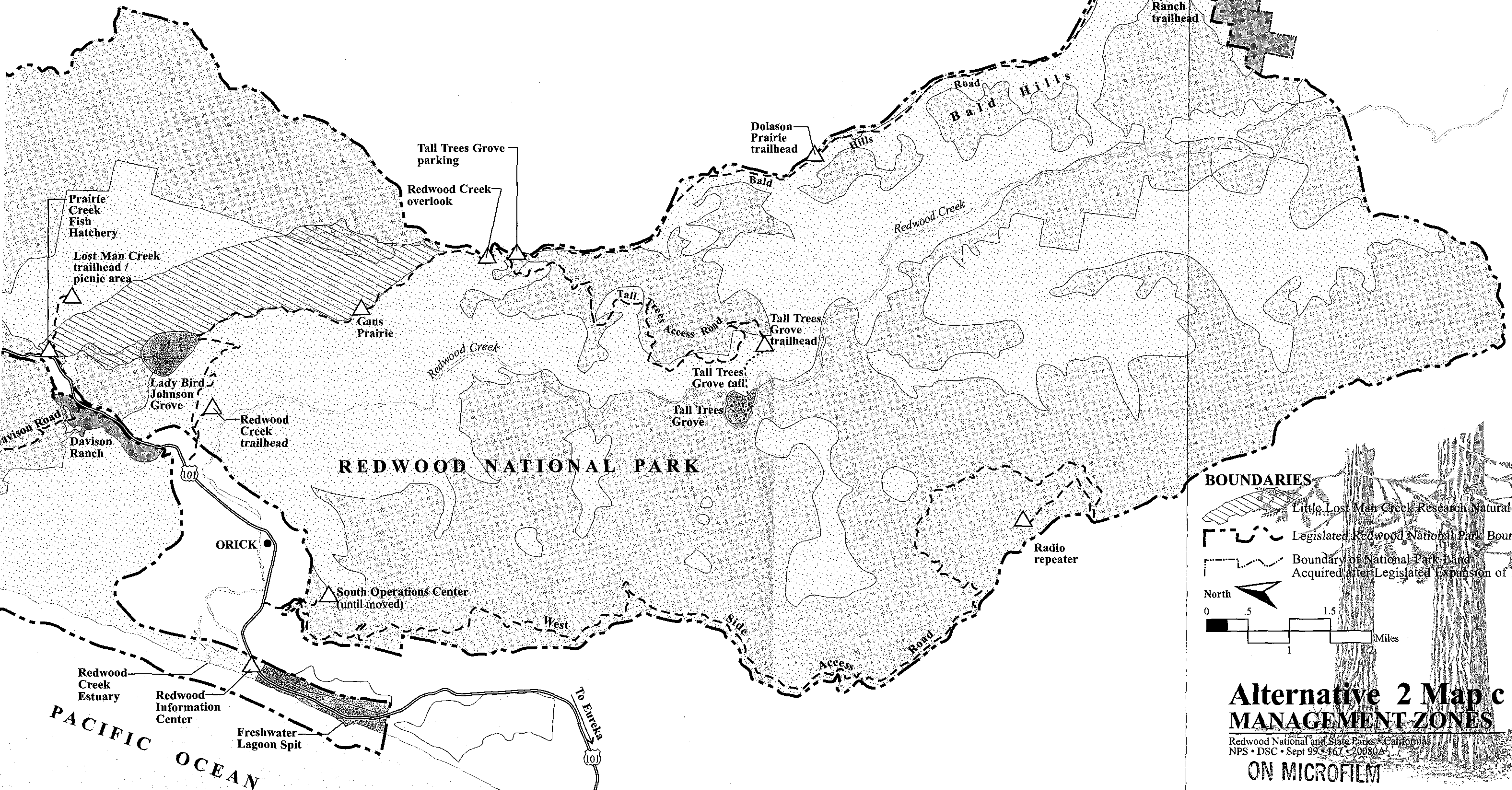
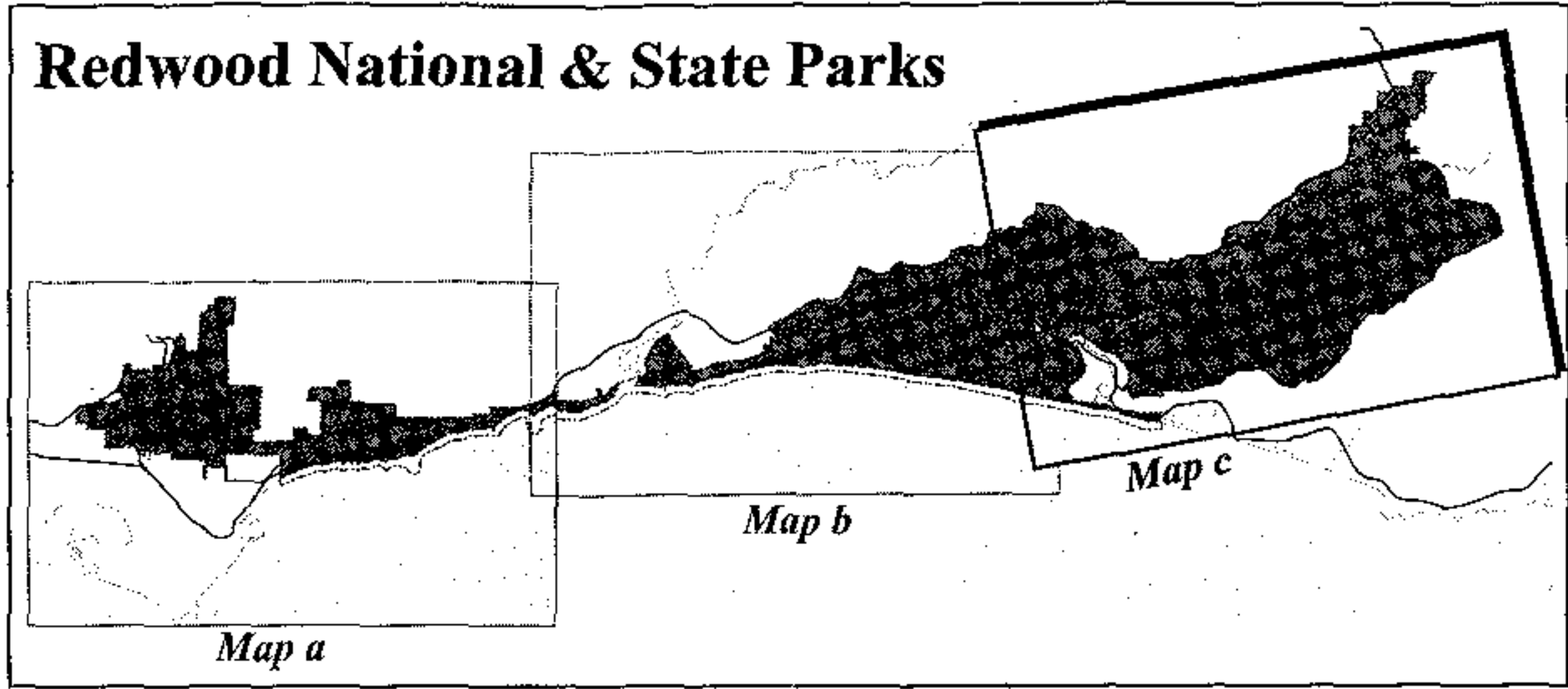
**Alternative 2 Map b  
MANAGEMENT ZONES**

Redwood National and State Parks • California  
NPS • DSC • Sept 99 / 167 • 20079A

ON MICROFILM

**ZONES**

- Frontcountry
- Natural
- Outstanding Natural Features
- Natural Environment
- Transportation
- High-standard Subzone
- Low-standard Subzone
- Various Zones of Minimal Area
- Lands Added since 1980 Management Plan (Lacking Management Zoning)



**BOUNDARIES**

- Little Lost Man Creek Research Natural Area
- Legislated Redwood National Park Boundary
- Boundary of National Park Land Acquired after Legislated Expansion of 1978

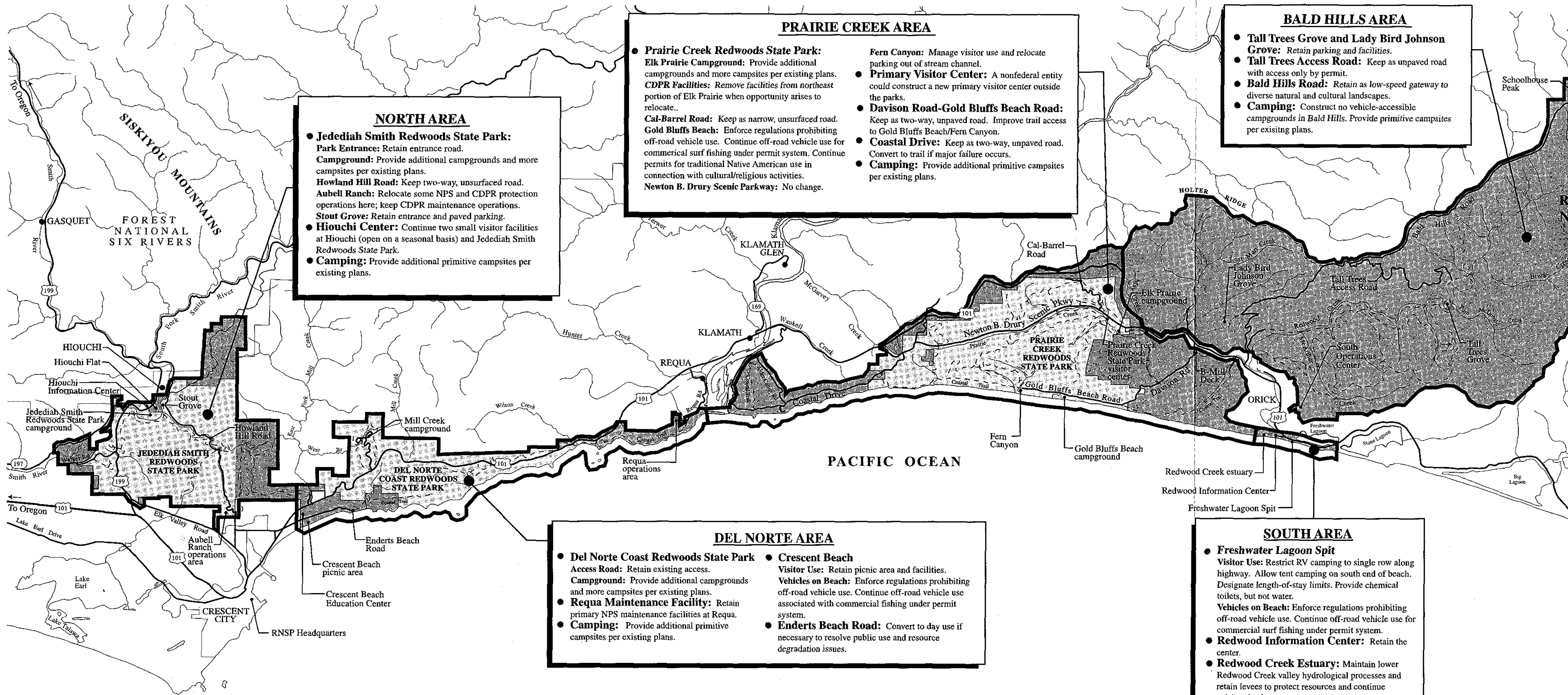
North

Miles

**Alternative 2 Map c  
MANAGEMENT ZONES**

Redwood National and State Parks • California  
NPS • DSC • Sept 99 • 167 • 20080A

**ON MICROFILM**



**NORTH AREA**

- **Jedediah Smith Redwoods State Park:**
  - Park Entrance:** Retain entrance road.
  - Campground:** Provide additional campgrounds and more campsites per existing plans.
  - Howland Hill Road:** Keep two-way, unsurfaced road.
  - Aubell Ranch:** Relocate some NPS and CDRP protection operations here; keep CDRP maintenance operations.
  - Stout Grove:** Retain entrance and paved parking.
- **Hiouchi Center:** Continue two small visitor facilities at Hiouchi (open on a seasonal basis) and Jedediah Smith Redwoods State Park.
- **Camping:** Provide additional primitive campsites per existing plans.

**PRAIRIE CREEK AREA**

- **Prairie Creek Redwoods State Park:**
  - Elk Prairie Campground:** Provide additional campgrounds and more campsites per existing plans.
  - CDPR Facilities:** Remove facilities from northeast portion of Elk Prairie when opportunity arises to relocate.
  - Cal-Barrel Road:** Keep as narrow, unsurfaced road.
  - Gold Bluffs Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing under permit system. Continue permits for traditional Native American use in connection with cultural/religious activities.
  - Newton B. Drury Scenic Parkway:** No change.
- **Fern Canyon:** Manage visitor use and relocate parking out of stream channel.
- **Primary Visitor Center:** A nonfederal entity could construct a new primary visitor center outside the parks.
- **Davison Road-Gold Bluffs Beach Road:** Keep as two-way, unpaved road. Improve trail access to Gold Bluffs Beach/Fern Canyon.
- **Coastal Drive:** Keep as two-way, unpaved road. Convert to trail if major failure occurs.
- **Camping:** Provide additional primitive campsites per existing plans.

**BALD HILLS AREA**

- **Tall Trees Grove and Lady Bird Johnson Grove:** Retain parking and facilities.
- **Tall Trees Access Road:** Keep as unpaved road with access only by permit.
- **Bald Hills Road:** Retain as low-speed gateway to diverse natural and cultural landscapes.
- **Camping:** Construct no vehicle-accessible campgrounds in Bald Hills. Provide primitive campsites per existing plans.

**DEL NORTE AREA**

- **Del Norte Coast Redwoods State Park**
  - Access Road:** Retain existing access.
  - Campground:** Provide additional campgrounds and more campsites per existing plans.
  - **Requa Maintenance Facility:** Retain primary NPS maintenance facilities at Requa.
  - **Camping:** Provide additional primitive campsites per existing plans.
- **Crescent Beach**
  - Visitor Use:** Retain picnic area and facilities.
  - Vehicles on Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use associated with commercial fishing under permit system.
- **Enderts Beach Road:** Convert to day use if necessary to resolve public use and resource degradation issues.

**SOUTH AREA**

- **Freshwater Lagoon Spit**
  - Visitor Use:** Restrict RV camping to single row along highway. Allow tent camping on south end of beach. Designate length-of-stay limits. Provide chemical toilets, but not water.
  - Vehicles on Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing under permit system.
- **Redwood Information Center:** Retain the center.
- **Redwood Creek Estuary:** Maintain lower Redwood Creek valley hydrological processes and retain levees to protect resources and continue existing land uses.
- **South Operations Center:** Relocate many national and state park functions to new facility in Orick.

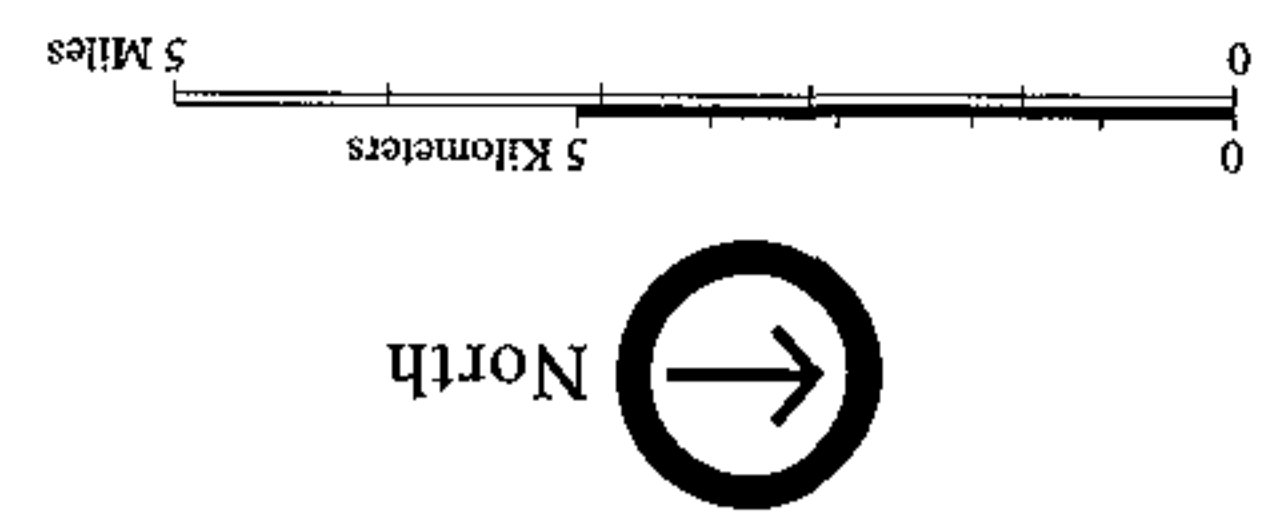
**LEGEND**

- State Park Land
- National Park Land
- Legislated Boundary for Redwood National Park

North

0 5 Kilometers 5 Miles

ON MICROFILM



**LEGEND**

- State Park Land
- National Park Land
- Legislated Boundary for Redwood National Park

**SOUTH AREA**

- **Freshwater Lagoon Spit**: Visitor Use: Restrict RV camping to single row along highway. Allow tent camping on south end of beach. Designate length-of-stay limits. Provide chemical toilets, but not water.
- **Vehicles on Beach**: Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing under permit system.
- **Redwood Information Center**: Retain the center.
- **Redwood Creek Estuary**: Maintain lower Redwood Creek valley hydrological processes and retain levees to protect resources and continue existing land uses.
- **South Operations Center**: Relocate many national and state park functions to new facility in Orick.

**DEL NORTE AREA**

- **Del Norte Coast Redwoods State Park**: Visitor Use: Retain picnic area and facilities. **Access Road**: Retain existing access. **Campground**: Provide additional campgrounds and more campsites per existing plans. **Regua Maintenance Facility**: Retain primary NPS maintenance facilities at Regua. **Camping**: Provide additional primitive campsites per existing plans.
- **Enderts Beach Road**: Convert to day use if necessary to resolve public use and resource degradation issues.

**PRAIRIE CREEK AREA**

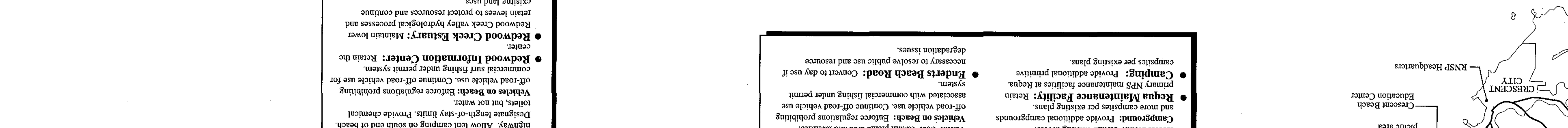
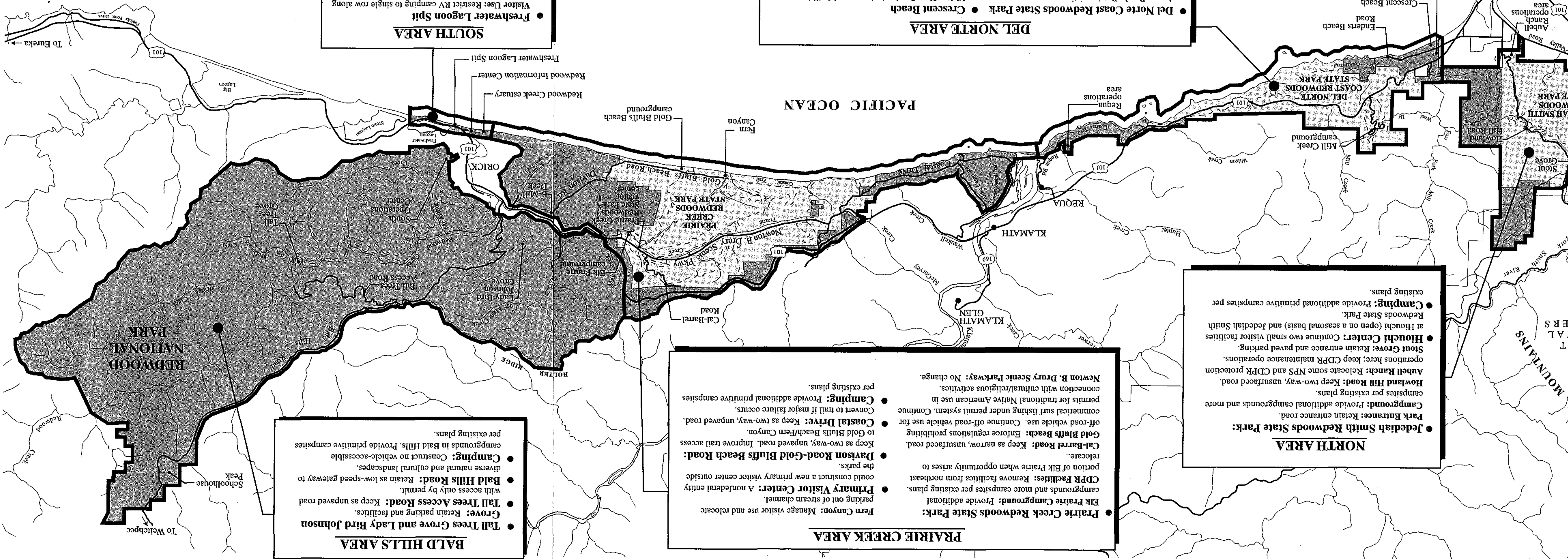
- **Prairie Creek Redwoods State Park**: Elk Prairie Campground: Provide additional campgrounds and more campsites per existing plans. **CDPR Facilities**: Remove facilities from northeast portion of Elk Prairie when opportunity arises to relocate.
- **Cal-Barrel Road**: Keep as narrow, unsurfaced road. **Gold Bluffs Beach**: Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing under permit system. Continue permits for traditional Native American use in connection with cultural/religious activities.
- **Camping**: Provide additional primitive campsites per existing plans.
- **Newton B. Drury Scenic Parkway**: No change.

**NORTH AREA**

- **Jedediah Smith Redwoods State Park**: Park Entrance: Retain entrance road. **Campground**: Provide additional campgrounds and more campsites per existing plans. **Howland Hill Road**: Keep two-way, unsurfaced road. **Aubell Ranch**: Relocate some NPS and CDPR protection operations here; keep CDPR maintenance operations. **Stout Grove**: Retain entrance and paved parking. **Houchi Center**: Continue two small visitor facilities at Houchi (open on a seasonal basis) and Jedediah Smith Redwoods State Park.
- **Camping**: Provide additional primitive campsites per existing plans.

**BALD HILLS AREA**

- **Tall Trees Grove and Lady Bird Johnson Grove**: Retain parking and facilities.
- **Tall Trees Access Road**: Keep as unpaved road with access only by permit.
- **Bald Hills Road**: Retain as low-speed gateway to diverse natural and cultural landscapes.
- **Camping**: Construct no vehicle-accessible campgrounds in Bald Hills. Provide primitive campsites per existing plans.





## VARIOUS ZONES OF MINIMAL AREA — ALTERNATIVE 2

Some relatively small areas of the parks (shown as triangles on the previous management zone maps) have been zoned differently than their surrounding areas. To clearly identify these areas and make it easy to know what zone these small areas are in, the following list has been developed.

AREA	ZONE
Jedediah Smith small satellite operations area	Developed / visitor support subzone
Stout Grove	Natural / outstanding natural features subzone
Mill Creek trail and Nickerson Ranch trail	Natural / natural environment subzone
Boy Scout Tree trail	Natural / natural environment subzone
Camp Lincoln	Historic / preservation subzone
Aubell Ranch	Developed / visitor support subzone
Howland Hill Outdoor School	Developed / visitor support subzone
Crescent Beach Education Center	Developed / visitor support subzone
Nickel Creek campground and trail from Enderts Beach Road	Natural / natural environment subzone
Del Norte Coast Redwoods State Park small satellite operations area	Developed / visitor support subzone
Damnation Creek	Natural / natural environment subzone
DeMartin primitive campground	Natural / natural environment subzone
Redwood Hostel	Developed / visitor support subzone
Wilson Creek	Natural / natural environment subzone
Flint Ridge primitive campground	Natural / natural environment subzone
Lagoon Creek picnic area	Developed / recreation subzone
Fern Canyon trailhead	Developed / recreation subzone
Espa Lagoon	Historic / preservation subzone
Prairie Creek Redwoods State Park visitor center	Historic / preservation subzone
Prairie Creek small satellite operations area	Natural / outstanding natural features subzone
Elk Prairie campground	Developed / recreation subzone
Wolf Creek Education Center	Developed / visitor support subzone
Prairie Creek Fish Hatchery	Historic / preservation subzone
Lost Man Creek trailhead / picnic area	Developed / recreation subzone
Redwood Creek trailhead	Natural / outstanding natural feature subzone
South Operations Center	Natural / natural environment subzone
Redwood Information Center	Developed / visitor support subzone
Redwood Creek overlook	Natural / natural environment subzone
Gans Prairie	Natural / outstanding natural features subzone
Dolason trailhead	Developed / recreation subzone
Tall Trees Grove parking	Natural / natural environment subzone
Tall Trees Grove trailhead	Natural / natural environment subzone
Radio repeater	Natural / natural environment subzone
Lyons Ranch trailhead	Natural / outstanding natural features subzone
Schoolhouse Peak	Developed / visitor support subzone

## NATURAL RESOURCE MANAGEMENT AND PROTECTION

### Management Strategies

- Ensure that resource management efforts are consistent with and supportive of the perpetuation of all ecosystem processes and components, including the old-growth redwood forest ecosystem as the prime RNSP resource and the marine, coastal strand, dune and prairie, riparian and wetland, Douglas-fir and spruce forest, stream, oak woodland, and serpentine ecosystems.
- Restore and maintain RNSP ecosystems as they would have evolved without disturbance by modern technology and perpetuate ongoing natural influences.
- Actively participate in land use decisions for activities such as logging, mining, and developing highways and subdivisions adjacent to the parks to minimize impacts on RNSP resources and values.
- Identify and protect those threatened, endangered, and rare species or rare natural communities as required and focus protection on those species that would most likely be impacted by RNSP activities.
- Acquire baseline information on biological and physical environments of the parks on a project-by-project basis
- Monitor selected environmental factors over time to determine the effects of human activities and influences, also on a project-by-project basis
- Undertake efforts to prevent theft and commercial exploitation of RNSP resources.

### Actions

#### *Watershed Management and Restoration in the Redwood Creek Basin, in and upstream of the Park*

---

**Actions within the National Park.** Watershed restoration efforts would continue at the rate of about 2 miles of road treated per year. Partial landform restoration would be emphasized, with removal of all major logging roads and limited removal of minor logging roads that pose the greatest threat to the resources. This approach

would require approximately 66 years to treat 155 miles of roads.

#### **Actions upstream of the National Park.**

Depending on opportunities offered by property owners and the availability of additional funding sources, an average of up to 4 miles of roads would be treated per year upstream of the park in the Redwood Creek basin. Road decommissioning and erosion prevention would be emphasized. Assuming that about 85% of the 1,100 miles of roads in the upper Redwood Creek basin require treatment, this approach would require 227 years to treat the existing 911 miles of logging roads.

#### *Watershed Management and Restoration in Redwood Creek Estuary*

---

**Actions.** The ecosystem and hydrologic processes would be maintained, and flood control structures would be retained in the lower Redwood Creek valley, where possible, to protect natural and cultural resources, existing land uses, and aquatic and wildlife resources and their habitats. Water level management (e.g., controlled breaching and channel manipulation) to conserve salmonid habitat by preventing the negative effects of an uncontrolled breach and to protect the Redwood Information Center would continue.

#### *Vegetation Management*

---

**Actions.** Action items would be as follows.

*Second-Growth Forest Management* — Second-growth forests would be allowed to mature without intervention or management action. Demonstration projects and research into restoration techniques would continue.

*Prairie Restoration* — Bald Hills prairies would be managed under the 1992 *Bald Hills Vegetation Management Plan* and 1994 *Fire Management Plan*. Prairie and oak woodland areas with little to heavy encroachment would continue to have encroaching conifers removed through prescribed fire or cutting. Coyote Creek basin would continue to be the highest priority until all areas in the basin have been burned as planned.

***Fire Management*** — The fire program would be managed as described under the NPS 1994 *Fire Management Plan* and the CDPR *Prescribed Management Fire Policies and Procedures*. All wildland fires would be extinguished. Through project-specific prescribed fires, the role of fire would be reintroduced into ecosystems where it historically had a role.

### ***Artificial Impoundments***

---

**Actions.** Dams would be retained only where public safety or significant resources were at risk. Otherwise, they would be removed or allowed to deteriorate. Recreational uses would continue until an impoundment was removed.

## **CULTURAL RESOURCE MANAGEMENT AND PROTECTION**

### **Management Strategies**

- Continue the cultural resources program within the scope of routine, on-going program activities and occasional projects from other funding sources.
- Maintain separate cultural resources programs for national park and state park lands.
- Maintain existing level of coordination between natural and cultural resources programs.
- Provide reports resulting from cultural resources studies for interpreters to use to develop interpretive materials.

### **Actions**

Note: Under this alternative, most CDPR administrative facilities would be removed from sensitive resource areas. This action, which could affect cultural resources, is described in other sections of this alternative and is not addressed further in the following discussion.

### ***Historic Resources — Structures***

---

**Actions.** The actions would be the same as described in alternative 1.

### ***Historic Resources — Cultural Landscapes***

---

**Actions.** The actions would be the same as described in alternative 1.

### ***Ethnographic Resources***

---

**Actions.** The actions would be the same as those described in the "Relationships with American Indians" section and alternative 1.

### ***Collections***

---

**Actions.** Although staff would work to meet minimal requirements, collection storage would continue to be in facilities that do not meet professional standards.

Minimal resources would be available for processing archival materials, and only as external funding became available and without the guidance of an archival processing plan.

The parks' collections would continue to be developed on a case-by-case basis without focusing on future development needs and limitations.

Computer-based access to collections would be minimal, and on a project-by-project basis.

## **EDUCATION AND INTERPRETATION**

### **Management Strategies**

- Provide orientation information at dispersed facilities and locations throughout the parks.
- Provide orientation information primarily through interpretive facilities, and provide in-depth interpretation through personal and nonpersonal services (brochures, wayside exhibits, etc.).
- Sustain a basic environmental education program at the outdoor schools targeted at kindergarten through 12th grade students, primarily during the fall and spring. Expand program to others as funding allows.

- Maintain a program that interprets the parks' significant cultural resources primarily through personal services, publications, and exhibits at a minimal level.

## **Actions**

### ***Orientation/Information***

---

**Actions.** Interpretive waysides, directional signs, bulletin boards, and orientation kiosks would be upgraded to improve visitor orientation to RNSP resources. Information services and facilities would be coordinated through partnerships with others inside and outside the parks. Where feasible, information services would be consolidated and designated facilities would be expanded to provide both area information and interpretation of natural and cultural resources.

### ***Interpretation***

---

**Actions.** Interpretive operations and media would be used to provide a similar emphasis on general and preservation information about natural and cultural history topics. Research and resource management actions would be explored in depth and fully supported. Most of the parks' visitors would receive in-depth interpretation of primary interpretive themes through additional publications and programs and a new primary visitor center if one is built. Visitors would be provided limited opportunities to see sensitive resources.

Interpretive operations and media would be used in the Bald Hills area to provide a similar emphasis on preservation and general information about old-growth forest management, second-growth forest management, watershed resources, prairie and oak woodland vegetation, and human use. Visitors would have limited opportunities to visit sensitive resource sites in the Bald Hills area.

### ***Information, Orientation, and Interpretive Centers***

---

**Actions.** Action items would be as follows.

Under this alternative, no federally funded primary visitor center would be constructed in

the parks, although one might be constructed outside the parks by a nonfederal entity.

The small visitor center at Jedediah Smith Redwoods State Park and the visitor center at Prairie Creek Redwoods State Park would be retained.

A small information center would be retained in RNSP headquarters in Crescent City. The Redwood Information Center would be retained (see "Public Safety" chapter in the "Affected Environment"). The information center near Hiouchi would continue to be opened on a seasonal basis. Information for Del Norte Coast Redwoods State Parks would be provided primarily through the Crescent City information center at RNSP headquarters.

### ***Outdoor Schools***

---

**Action.** The two outdoor schools would continue to be operated, primarily in fall and spring, as an overnight facility for regional kindergarten through 12th-grade students. An expanded use of the facility would be developed for winter and summer, including use for conferences and educational programming by community groups. As funding allows, the education program would also be expanded to include outreach to community schools and other educational groups. The focus of the education program would include both natural and cultural resources. Alternative ways of funding and staffing the operation would be explored.

## **PUBLIC USE, RECREATION, AND VISITOR SAFETY**

### **Management Strategies**

- Support and encourage appropriate public use and enjoyment of the parks and participation in activities related to the parks' resources.
- Provide opportunities for public access to a variety of RNSP resources, but primarily in locations that are accessible by road.
- Manage recreational activities and settings to protect resources and ensure public safety, and coordinate public safety programs where possible with neighboring jurisdictions.

- Minimize public use conflicts by addressing issues as they arise.
- Ensure that public use activities are consistent with NPS and CDPR regulations and policies. Resolve situations where public use violates NPS or CDPR regulations or policies.
- Address inconsistencies in CDPR and NPS public use policies as issues arise.
- Provide limited commercial services for visitors.
- Maintain and retain current public use/recreational facilities and upgrade or replace as funds become available.
- Limit construction of new facilities to trails and minor facilities that support activities such as camping or picnicking.

## Actions

### Visitor Use Levels

**Actions.** Visitor use in sensitive areas would be managed to retain resource values and current levels of impacts.

The trailhead and parking area at the Tall Trees Grove would be retained, as would the parking area, facilities, and trail access at Lady Bird Johnson Grove. The paved parking area at Stout Grove would remain at its current capacity.

At Fern Canyon, visitor use would be managed and the parking area would be relocated out of the stream channel.

Trail access to Gold Bluffs Beach/Fern Canyon would be improved.

Enderts Beach Road would continue to provide public access to the Crescent Beach overlook and the segment of the Coastal Trail leading to Enderts Beach and Nickel Creek campground; however, the road would be converted to day use if found to be necessary to resolve public use and resource degradation issues at those locations.

The Crescent Beach picnic area and associated facilities would be retained.

Visitor access to selected cultural sites would be encouraged; however, most sites would remain

discovery sites, without interpretation of their values.

### Recreational Activities

**Actions.** A backcountry management plan would be prepared that would specify the location of camping areas and describe RNSP policies and rules for use of backcountry areas by hikers, bicyclists, and equestrians. The backcountry management plan would be guided by the desired resource conditions and visitor experiences of the appropriate management zones. Other action items would be as follows.

Campgrounds with Access by Vehicles — Four campgrounds would be provided in the state parks. Additional campgrounds and campsites are called for in the 1980 *General Management Plan* and 1985 *State Redwoods Parks General Plan*. Campgrounds that are accessible by vehicles would not be constructed in the Bald Hills.

Primitive Camping — A variety of primitive walk-in, backpacking, equestrian, and biking camping experiences would be provided in designated sites and zones in the parks. Additional primitive campsites are called for in the 1984 *Redwood National Park Backcountry Trail Plan* and 1985 *State Redwoods Parks General Plan*.

There would be no primitive camping opportunities in the Coyote Creek basin. Primitive camping would continue to be allowed in the designated horse camps on the west side of the Redwood Creek basin. Camping would be allowed in the Redwood Creek corridor on gravel bars upstream of the 1.5-mile creek crossing by the Redwood Creek trail and at least 0.25 mile from the Tall Trees trail crossing.

Hiking — The current system of hiking trails would be retained and, with regional coordination, those trails called for in existing plans would be constructed, including the *State Redwoods Parks General Plan*, the 1984 *Redwood National Park Backcountry Trails Plan*, and development concept plans.

Equestrian Use — The current system of equestrian trails would be retained and

maintained and, with regional coordination, trails called for in existing plans (including the 1985 *State Redwoods Parks General Plan*, the 1984 *Redwood National Park Backcountry Trails Plan*, and development concept plans) would be constructed. No equestrian trails would be provided on the east side of Redwood Creek basin.

*Mountain Biking* — The current number of mountain bike trails in the parks would be retained. Trails called for in existing plans would be constructed.

*Picnic Sites* — Picnic sites would be retained.

### *Freshwater Lagoon Spit Visitor Use*

**Actions.** Existing management at the Freshwater Lagoon Spit area would continue. RV camping would be restricted to a single row deep along the highway. Tent camping would be allowed on the south end of the beach. Length-of-stay limits would be designated. No water or shower facilities would be provided, but chemical toilets would be provided.

Public use of Freshwater Lagoon would be managed cooperatively with other agencies having jurisdiction over those waters.

### *Vehicles on the Beach*

**Actions.** Action items would be as follows.

NPS regulations prohibiting off-road vehicle use (see alternative 1 under this topic) would be enforced throughout the parks, resulting in the elimination of all off-road vehicle use other than that which is essential to provide access for commercial surf fishing activities. Off-road vehicle use associated with commercial surf fishing at Freshwater Lagoon Spit, Gold Bluffs Beach, and Crescent Beach would continue, but by permit only. However, off-road vehicle use on beaches in connection with traditional American Indian cultural/religious activities that are consistent with the purposes of the parks would continue at Gold Bluffs Beach under a CDPR permit system. Vehicle use would be managed to prevent resource damage and minimize public use conflicts.

### *Concessions and Commercial Services for Visitors*

**Action.** Before recommending any new public services by private vendor, consideration would be made of the quality and type of existing services, public demand/need, the ability of the resources to support such services, and the economic feasibility of providing such services. In this alternative no change in policy would be anticipated — horse and hostel concessions in the parks would continue. Private concession services would be recommended, consistent with natural and cultural resource requirements, in accordance with applicable laws and policies.

## **VISITOR ACCESS AND CIRCULATION / ROADS**

### **Management Strategies**

- Administer the roads in the parks under NPS and CDPR jurisdiction to facilitate and enhance visitors' leisurely enjoyment of RNSP resources and public use facilities rather than catering to the needs of through traffic.
- Ensure that RNSP roads relate simply and harmoniously with the topography and surrounding environment; these roads would often be more narrow and winding and have lower speed limits than roads outside the parks.
- Provide safe opportunities along RNSP roads for visitors to see scenic vistas and other points of interest, enjoy interpretive displays, and gain access to trails, picnic areas, and other recreation facilities along RNSP roads.
- Provide distinctive and unobtrusive signs to orient, guide, and inform RNSP visitors.
- Establish vehicle size limits as appropriate to ensure public safety and visitor enjoyment.
- Where the protection of sensitive resources is of concern, use methods such as limiting the size of parking facilities or establishing permit systems to limit the number of persons or vehicles that are allowed access.
- Depend on U.S. highways in the parks to serve as the primary access routes to the parks, to be managed and maintained by state and federal transportation agencies.
- Depend on Del Norte and Humboldt Counties to manage and maintain county roads within the

parks that provide access to nonpark lands and that serve the general public in addition to RNSP visitors.

- Work cooperatively with the agencies having primary jurisdiction on these U.S., state, and county roadways to promote public safety, to enhance opportunities for travelers to enjoy scenic vistas and gain access to RNSP resources and facilities, and to protect the RNSP resources that are adjacent to the roadways.
- Consider entering into agreements for RNSP ownership, management, and/or maintenance of all or portions of the county roads in the parks that are in good structural condition, that provide access exclusively to parklands, and that serve primarily RNSP visitors.

## **Actions**

Action items would be as follows.

### **Bald Hills Road**

The Bald Hills Road would be maintained in the existing right-of-way as a low-speed rural gateway to an area of diverse natural and cultural landscapes where travelers could enjoy spectacular scenic vistas and some opportunities to pull off the road and enjoy scenic overlooks, interpretive exhibits, and a variety of hiking opportunities. The National Park Service would provide opportunities for visitors to observe and appreciate a variety of natural and cultural resource management projects such as prescribed fires, prairie restoration, and second-growth forest management. Through travelers would enjoy a unique alternate route to the scenic Klamath and Trinity River corridors and the Hoopa Reservation.

### **Newton B. Drury Scenic Parkway**

The road would be kept in its current alignment through the prairie unless a different alignment is recommended based on future planning efforts. The Newton B. Drury Scenic Parkway would continue to be operated by the California Department of Parks and Recreation, with special operational/maintenance requirements defined by Caltrans.

### **Jedediah Smith Redwoods State Park Entrance**

The park entrance and entrance station would be retained.

### **Stout Grove**

The entrance and parking area would remain unchanged.

### **Del Norte Coast Redwoods State Park Entrance**

The park entrance road and entrance station off Highway 101 would remain.

### **Enderts Beach Road**

Enderts Beach Road would be converted to day use if found to be necessary to resolve public use and resource degradation issues.

### **Alder Camp Road**

Maintenance and repairs would be limited to drainage and road surface improvements. Major road failure would lead to its conversion to a one-lane road providing access to the Alder Camp Conservation Center. Note: All actions on the county portion of the road would depend on agreements with the county.

### **Davison Road – Gold Bluffs Beach Road to Fern Canyon**

Access to Gold Bluffs Beach / Fern Canyon via Davison Road (county road) to Gold Bluffs Beach Road (state road) would be retained. This road would remain as a two-way unpaved road to the informal parking area near Fern Canyon. Trailers would not be allowed on these roads. Note: All actions on the county portion of the road would depend on agreements with the county.

### **Cal-Barrel Road**

This road would be kept as a narrow, unsurfaced dead-end road. No trailers would be allowed on the road.

### Howland Hill Road

The two-way unsurfaced road would be retained. This road would not be recommended for large trailers and motor homes.

### Tall Trees Grove Access Road

This unpaved road would be retained, with access only by permit.

### The Coastal Drive

Drainage and road surface improvements would continue to be made on this two-way unpaved road. Major road failure would lead to its conversion to a trail.

## INTERDEPENDENCE OF PARKS AND COMMUNITIES

### Management Strategies

- Support sustainable economic development and the availability of appropriate visitor services in local communities that serve as gateways to the parks.
- Participate with agencies and organizations in projects and initiatives that have mutual benefit or that enhance the quality of the overall experiences of visitors to the parks.
- Encourage the development of appropriate facilities to provide services to visitors in the parks' vicinity.
- Participate in local educational and public safety programs, cooperate with local agencies and private interests in tourism development initiatives, and provide input in land use decisions and transportation planning for areas adjacent to the parks.

### Actions

#### Lodge/Accommodations

**Actions.** The National Park Service and the California Department of Parks and Recreation

would encourage the private sector and/or tribal partners to build an appropriate lodge outside the parks.

#### Viewshed Protection

**Actions.** Action items would be as follows.

Scenic Corridor — Lands or interests in lands within the scenic corridor north of Orick would be acquired as they become available and as funding permits to preserve scenic views and RNSP values.

Viewsheds — Important visual areas would be identified, and the RNSP staff would work with local governments and conservation organizations to protect these areas. RNSP staff would support efforts to improve visual quality — such as putting powerlines under ground and initiating reforestation projects.

#### Adjacent Land Uses

**Actions.** Land use activities on adjacent lands would be monitored. Input on land use decisions would be provided on a case-by-case basis.

#### Gateway Communities

**Actions.** RNSP staff would actively support and assist local communities in efforts to foster appropriate and sustainable economic development, to develop infrastructure needed for community development and RNSP facilities, and to develop services and facilities that support tourism and provide connections between the communities and the parks. RNSP staff would also provide technical assistance to communities, communicate support to agencies that authorize and fund development projects, and participate as partners in situations where mutual conservation, visitor service, or development strategies and objectives would be achieved.

RNSP staff would cooperate with local communities and organizations to ensure that public information and orientation services were coordinated and provided in convenient locations.



## ADMINISTRATIVE FACILITIES

### Management Strategies

- Maintain facilities to provide a safe and sanitary work environment for RNSP employees.
- Evaluate structures on newly acquired lands for adaptive use as administrative facilities or remove them. If additional or replacement administrative space is required, give preference to leasing space in communities adjacent to the parks. Consolidate some NPS and CDPR facilities. Make facilities that are excess to the parks' needs available, if appropriate, for use by partners or cooperators or remove these facilities.
- Provide housing for employees only where necessary for the management and protection of the parks. Dispose of housing on any newly acquired land unless it is considered essential for administrative purposes.
- Maintain and replace existing housing; build no additional housing.

### Actions

#### Operations Facilities (Maintenance, Ranger Activities, Fire Protection)

**Actions.** NPS and CDPR facilities would be consolidated wherever it would be cost-effective to do so. RNSP headquarters would remain in the current facility in Crescent City. NPS primary maintenance facilities would continue to be in Requa, with some consolidation of CDPR maintenance facilities there; utilities and facilities at Requa would be upgraded and improved. However, a 1982 geological survey report documented complex landsliding and earthflow movement at Requa. The primary NPS maintenance facility would be relocated when and if this activity threatens the structural integrity of the buildings or safety of their occupants. Any new facility would be planned and designed to meet both NPS and CDPR operational requirements and would have safe, dependable access to area highways and convenient access to RNSP facilities. CDPR primary maintenance facilities would remain at Aubell Ranch.

RNSP resource management employees would be located in a new facility to be constructed in the Orick area. To avoid diminishing established relationships between private and public entities, and to continue to enjoy mutual benefits from interagency coordination and cooperation, some employees and programs would remain in the Arcata area or alternate location to derive the greatest benefits to the parks. NPS and CDPR protection offices would be consolidated at the Aubell Ranch site in the north and, to the extent practicable, at the facility in the Orick area in the south.

Fire protection facilities would continue to be at Hiouchi in the north and Wolf Creek in the south; however, the National Park Service would consider moving the Wolf Creek fire cache and equipment into the Orick area facility. Interpretation staff offices would remain in the Crescent Beach Education Center in the north, in the Redwood Information Center in the south, and in the new facility that would be constructed in the Orick area. Small satellite facilities would continue in each state park unit to support operations in those areas.

CDPR administrative facilities in the northeast portion of Elk Prairie in Prairie Creek Redwoods State Park would be removed when the opportunity to relocate them to the Orick area and/or to consolidate them with NPS facilities arises, including two 1950s residences, a barn/shed used to house vehicles and supplies, some seasonal cabins, a shop, a maintenance office, a storage area, and a gas shed; one historic house would be kept as a ranger residence.

The Schoolhouse Peak fire lookout would be operated for fire protection. If no longer needed for fire protection, the facility would be removed only if a site evaluation determined that there were no appropriate public use or administrative uses for the structure.

#### Housing

**Actions.** Generally, RNSP employees would live in local communities. In-park housing for permanent staff would be provided only for those needed to provide emergency services to the public or to protect RNSP resources and facilities. Otherwise, housing would be provided

only for seasonal staff and volunteers essential to managing and protecting the parks. NPS housing would be retained in the Hiouchi, Requa, Wolf Creek, Orick, and Bald Hills areas. NPS housing at Crescent Beach would be removed when no longer needed. CDPR housing would continue at Jedediah Smith and Del Norte Coast Redwoods State Parks. The Boyes House at Prairie Creek Redwoods State Park would be retained for use by emergency services staff, and the Gold Bluffs Beach residence would remain as required housing for the ranger assigned to Gold Bluffs Beach.

## LAND ACQUISITION

### Management Strategies

- Acquire the minimum interest in lands necessary to meet management strategies described under management zoning.
- Use the most practical and cost-effective method of acquisition to protect RNSP resources and values, including any combination of fee or less-than-fee options, or cooperation with landowners, federal agencies, state, tribal or local governments, and the private sector to manage land for public use and protect RNSP resources.
- Acquire the minimum interest in lands necessary to meet the intent of Congress to protect downstream RNSP resources from adverse impacts of upstream land uses and, in the scenic corridor, to provide an appropriate gateway to the parks.
- Acquire interests in lands necessary to preserve or protect significant RNSP resources and values.

### Actions

#### Actions for Federal Lands

The current program to acquire lands or interests in lands with significant resource, scenic, or public use values would continue as opportunities arose. However, because the legislated Redwood National Park boundary is limited to 106,000 acres, exclusive of submerged lands and publicly owned highways and roads, future acquisitions could not result in total acreage exceeding that figure without legislation

authorizing an increase in the acreage ceiling. Any future federal land acquisitions would be analyzed according to relevant boundary revision criteria, which include any or all of the following:

- The proposed acquisition includes significant resources or opportunities for public enjoyment that are related to the purposes of the parks.
- The proposal addresses operational and management issues such as access and boundary identification by topographic or other natural features or roads.
- The potential acquisition protects RNSP resources that are critical to fulfilling the parks' purposes.

In addition, recommendations to expand the boundary and acquire additional lands would be preceded by determinations that the added lands would be feasible to administer considering size, configuration, ownership, costs, and other factors, and that other alternatives for management and resource protection are not adequate.

As stated in the "Boundary Map Adjustments" section, future acquisitions would be included in the legislated national park boundary by publishing a revised drawing or boundary description in the *Federal Register*.

#### Action for State Lands

For lands or interests in lands acquired to maximize protection of RNSP values or significant resources, boundary adjustments would be sought.

## WILDERNESS PROPOSALS

### Management Strategies

- Evaluate lands for designation as wilderness consistent with and supportive of the perpetuation of the redwood forest ecosystem as the prime resource of the parks.

### Actions

No state wilderness designations would be proposed under this alternative.

## ALTERNATIVE 3 — PRESERVATION EMPHASIS

### CONCEPT

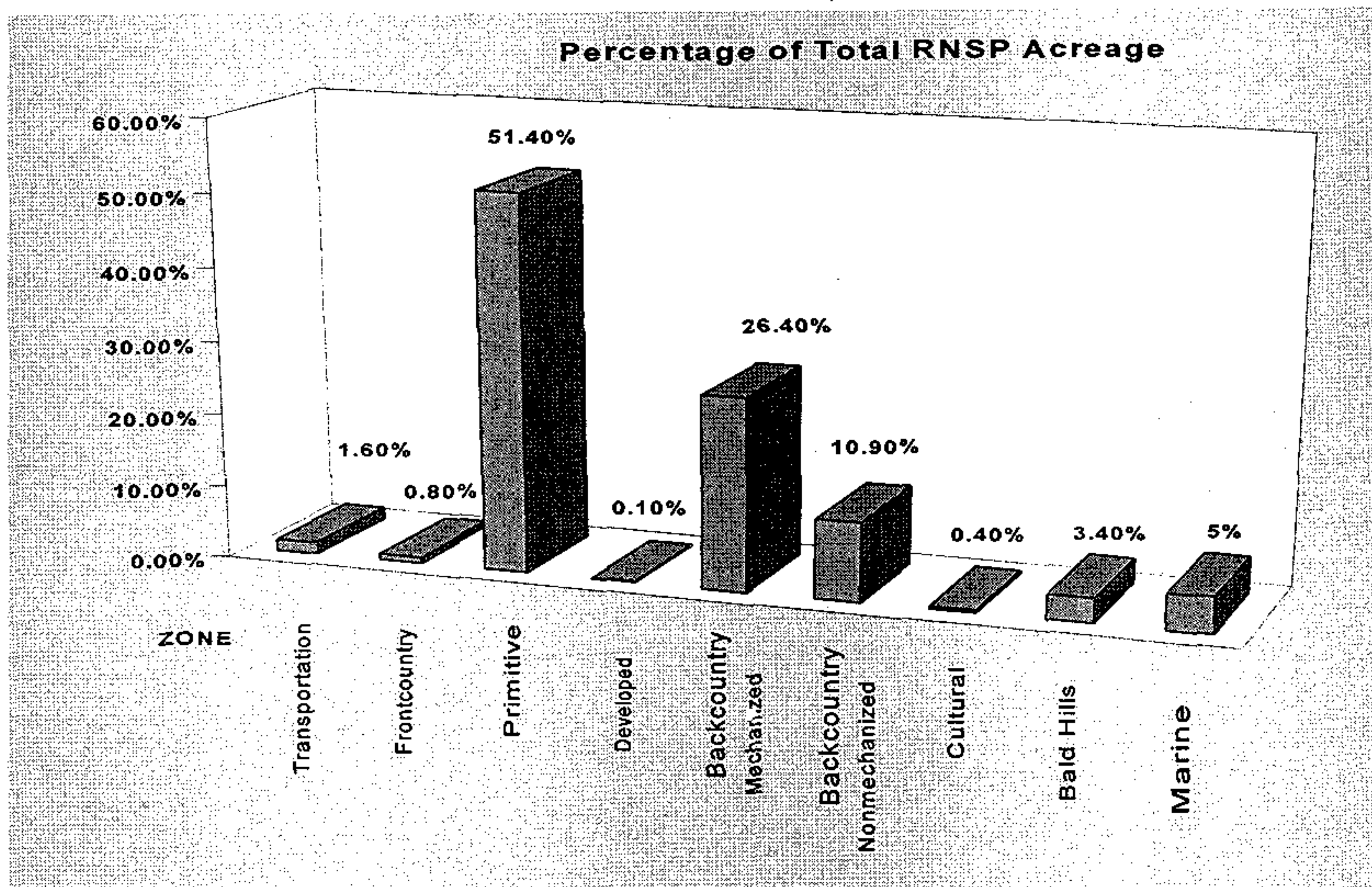
Under this alternative the agencies would emphasize the preservation and restoration of the parks' resources and values; opportunities for public use and enjoyment of the parks would be limited to experiences that are consistent with this high degree of emphasis on resource stewardship. In-depth interpretation would be provided only in ways that would not affect sensitive resources, and education programs would emphasize the public's role in resource protection. Major developments would be focused along U.S. Highways 101 and 199 and outside the parks. The relocation of facilities now in areas that have sensitive resources, and the restoration of the sites, would be considered. No new impacts would be allowed in areas with sensitive resources. New visitor services and facilities in other areas of the parks would be limited to those that protect the public and the resources. Most new visitor services and facilities would be

provided outside the parks (see Alternative 3 Management Zoning and Alternative 3 General Plan maps). The issue statements, which are the same for all alternatives, are not repeated in alternatives 2, 3, and 4; please refer to alternative 1.

### MANAGEMENT ZONES

Under this alternative, the area of developed zone is the least, and the area of primitive zone in which no development or facilities are permitted is the greatest of any alternative (see following table). Approximately 23 miles of trails would remain in the primitive zone under this zoning alternative, and no new trails would be constructed in the primitive zone, including 60 miles of trails that have been proposed in previous planning documents.

**TABLE 5: MANAGEMENT ZONES, ALTERNATIVE 3**



## NATURAL RESOURCE MANAGEMENT AND PROTECTION

### Management Strategies

- Ensure that all resource management efforts are consistent with and supportive of the perpetuation of all ecosystem processes and components, including the redwood forest ecosystem as the prime RNSP resource as well as the marine, coastal strand, dune and prairie, riparian and wetland, Douglas-fir and spruce forest, stream, oak woodland, and serpentine ecosystems.
- Restore and maintain all RNSP ecosystems as they would have evolved without disturbance by modern technology and perpetuate ongoing natural influences.
- Actively participate in land use decisions for activities such as logging, mining, and the development of highways and subdivisions adjacent to the parks to minimize impacts on RNSP resources.
- Protect all threatened, endangered, and rare species and rare natural communities.
- Acquire and analyze baseline inventory data to determine the nature and status of the natural resources under RNSP stewardship.
- Monitor selected resources and environmental factors to detect change and to distinguish natural variation from local and bioregional human-induced resource threats.
- Aggressively pursue strategies to prevent theft and commercial exploitation of RNSP resources.

### Actions

#### Watershed Management and Restoration in the Redwood Creek Basin, in and upstream of the Park

**Actions within the National Park.** About 9.4 miles of major roads and 99 miles of associated minor roads would be treated per year. Complete landform restoration would be accomplished. This approach would require about 17 years to treat 155 miles of major roads and 1,643 miles of minor roads. Accomplishing this would require a significant increase in funding.

#### **Actions upstream of the National Park.**

Depending on opportunities offered by property owners and the availability of nonpark resources, up to 54 miles of roads would be treated per year upstream of the national park in the Redwood Creek basin. Road decommissioning and erosion prevention would be emphasized. This approach would require 17 years to treat the existing 911 miles (85% of 1,100 miles) of logging roads. Accomplishing this would also require a significant increase in funding.

#### Watershed Management and Restoration in Redwood Creek Estuary

**Actions.** In the lower Redwood Creek valley, estuarine ecosystem plant and animal communities, hydrologic and biological processes, and adjacent creeks and sloughs would be restored to naturally functioning, pre-levee and pre-breaching conditions. The lower 0.6 mile of the federal flood control levees would be removed if the land needed to restore the estuary was acquired from willing sellers. Water level manipulation (controlled breaching and channel manipulation) to conserve salmonid habitat and protect the Redwood Information Center would be discontinued.

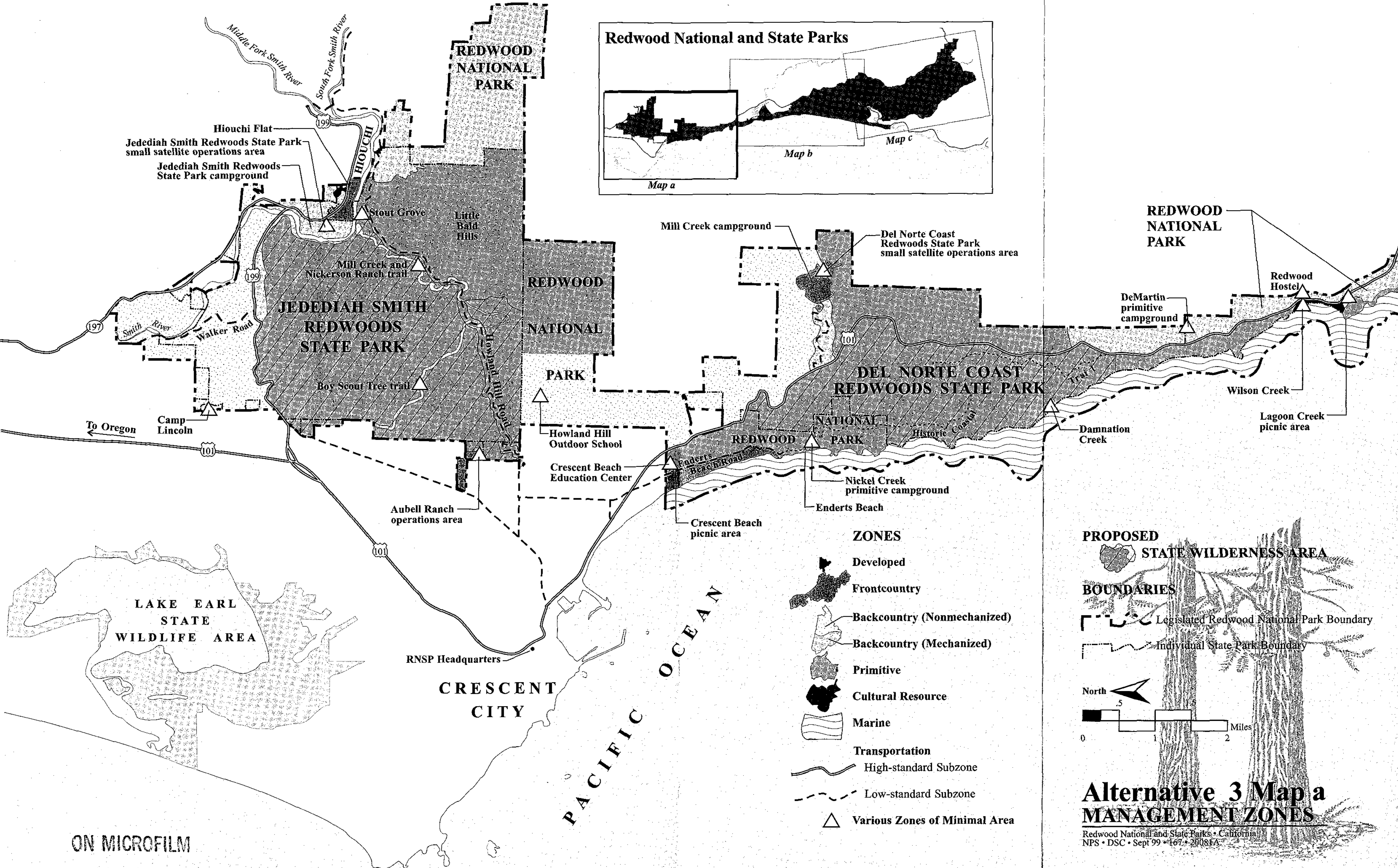
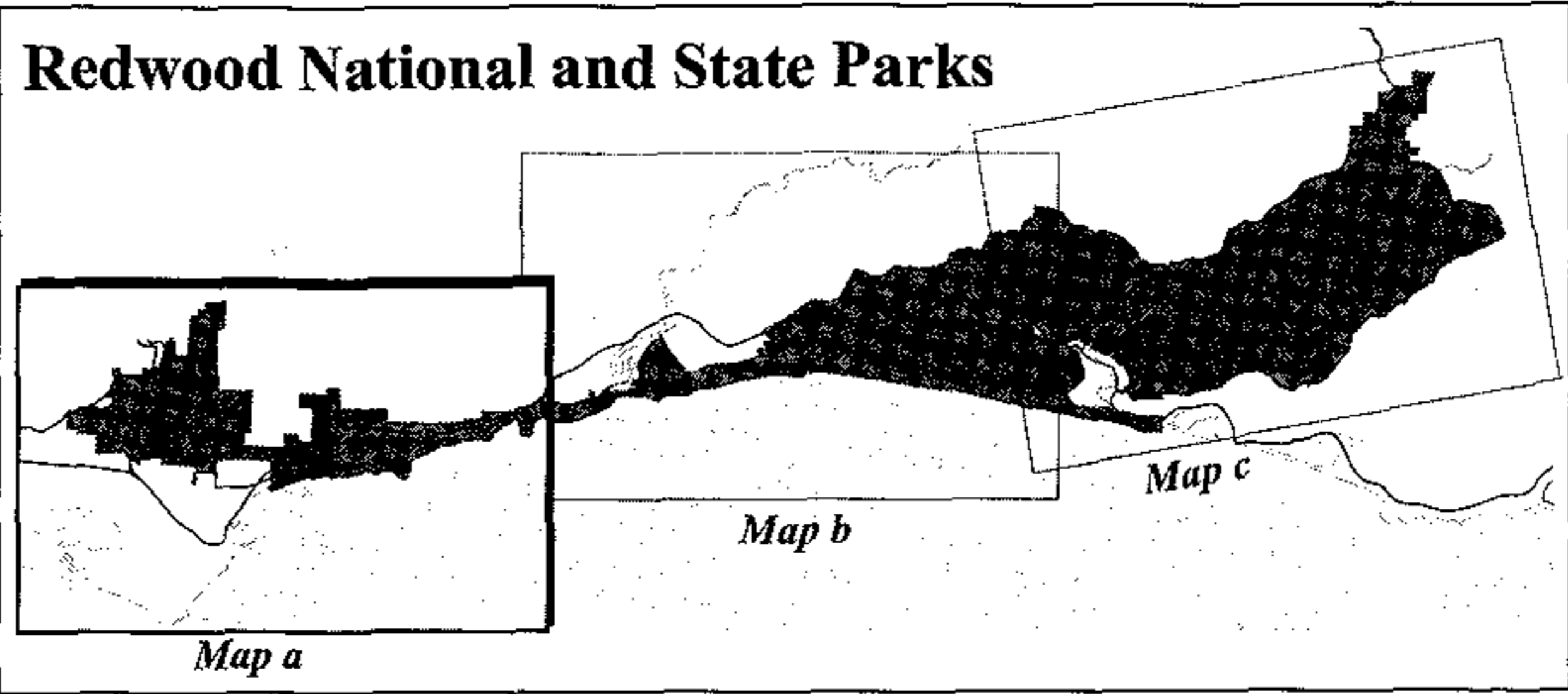
#### Vegetation Management

**Actions.** Action items would be as follows.

#### Second-Growth Forest Management —

Silvicultural methods would be used in second-growth forests to reduce the time in which the forests reattained characteristics and processes found in mature, naturally occurring forest. Managing those second-growth stands that are critical to ecosystem restoration would be emphasized. A plan for managing second growth would be prepared and accompanied by appropriate environmental compliance documents.

Prairie Restoration — After evaluation, selected naturally occurring prairies, as well as prairies and oak woodlands maintained by American Indians through burning would be restored; they would be maintained by reestablishing a historic fire regime. Also, certain forest openings would be restored and/or maintained for the resource values present (e.g., wildlife habitat, cultural values, or aesthetics).



- ZONES**
- Developed
  - Frontcountry
  - Backcountry (Nonmechanized)
  - Backcountry (Mechanized)
  - Primitive
  - Cultural Resource
  - Marine
- TRANSPORTATION**
- High-standard Subzone
  - Low-standard Subzone
- △ Various Zones of Minimal Area

**PROPOSED STATE WILDERNESS AREA**

**BOUNDARIES**

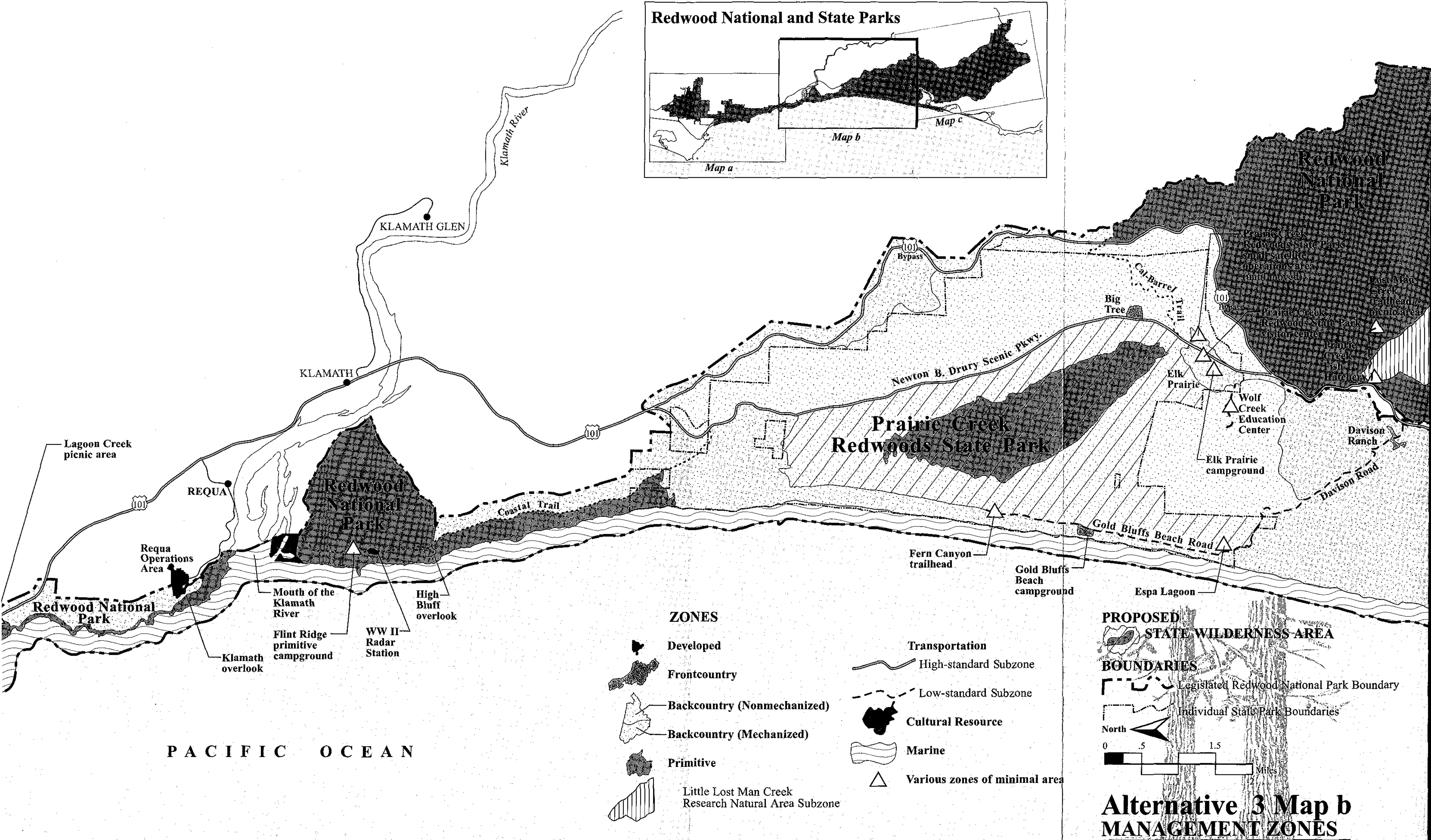
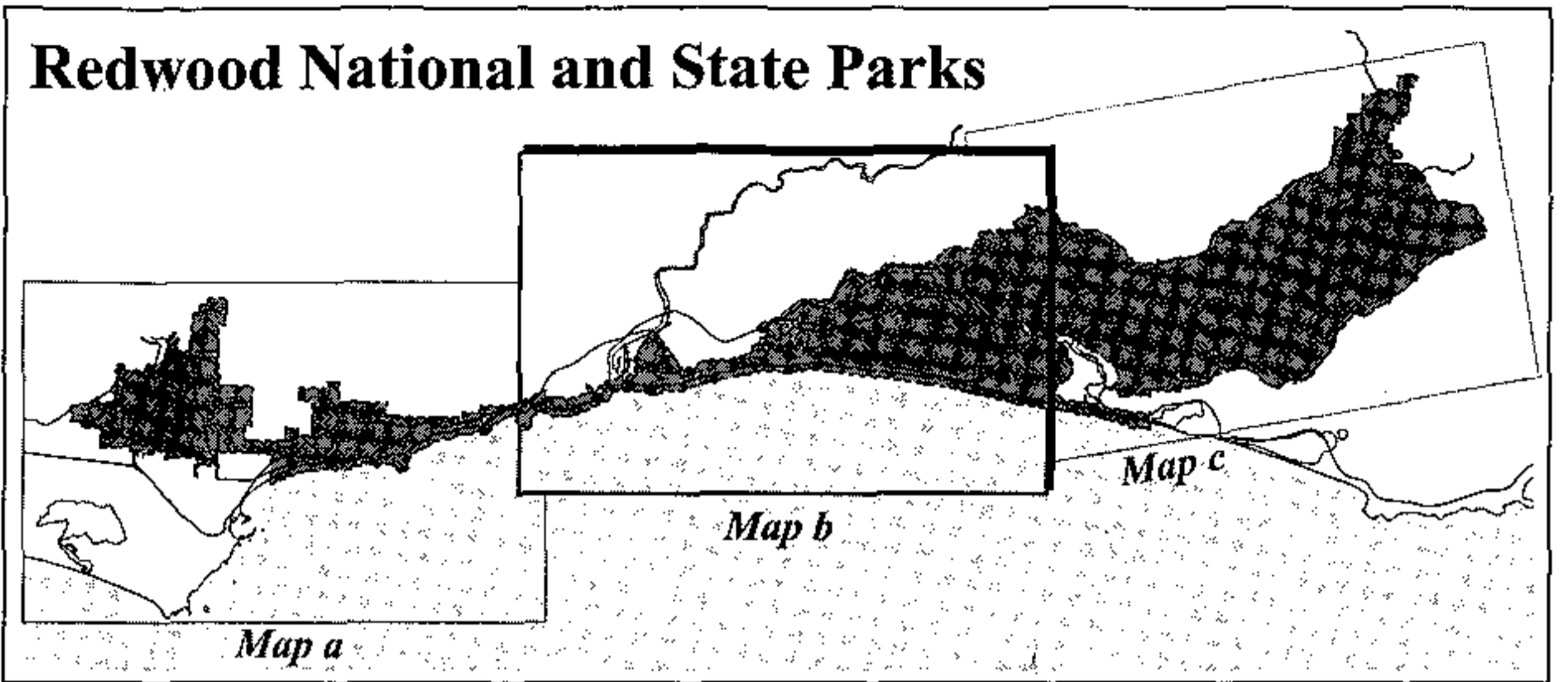
- Legislated Redwood National Park Boundary
- Individual State Park Boundary

North

0 1 2 Miles

**Alternative 3 Map a**  
**MANAGEMENT ZONES**  
 Redwood National and State Parks • California  
 NPS • DSC • Sept 99 • 167 • 20081A

ON MICROFILM













PACIFIC OCEAN

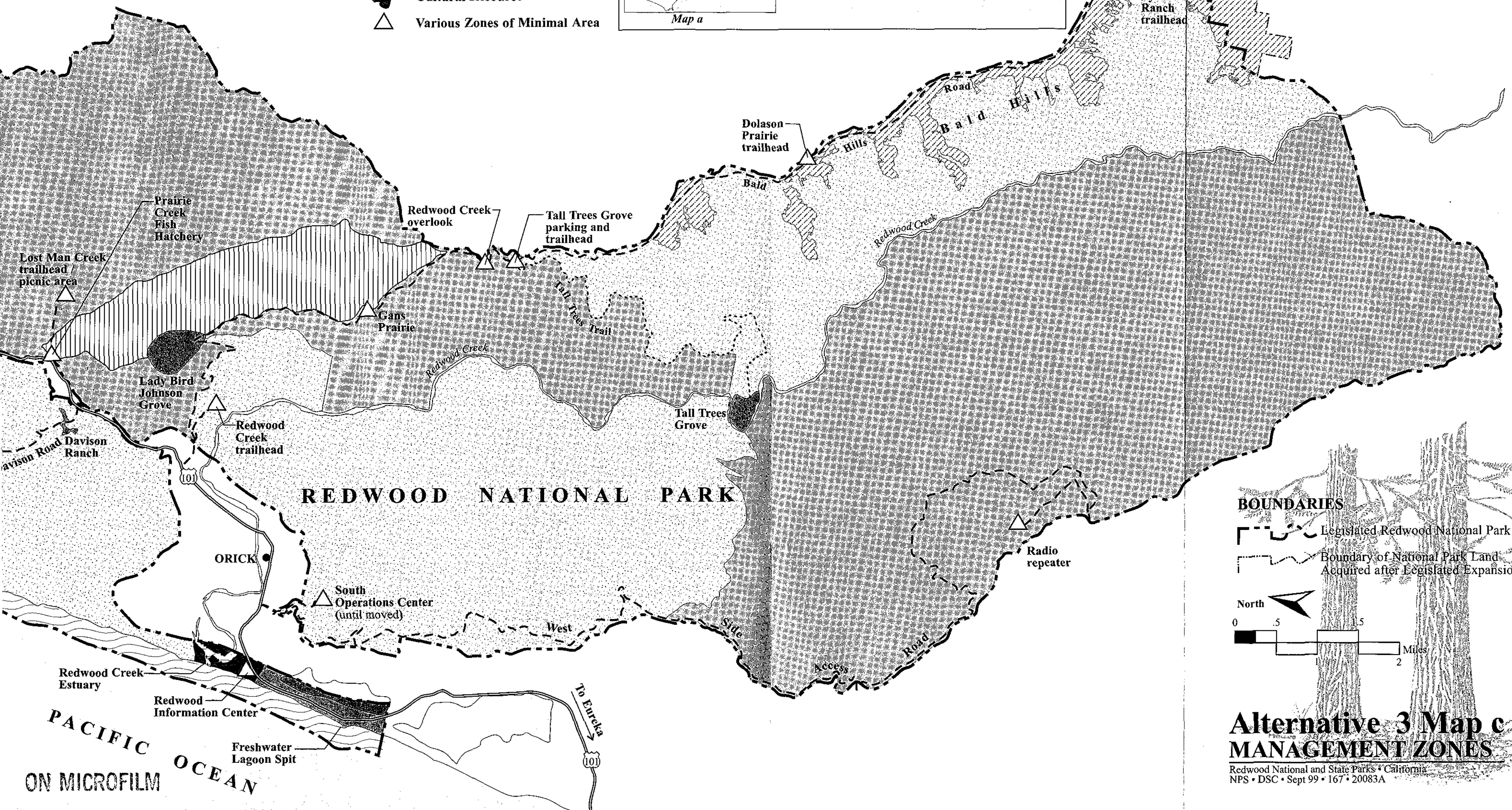
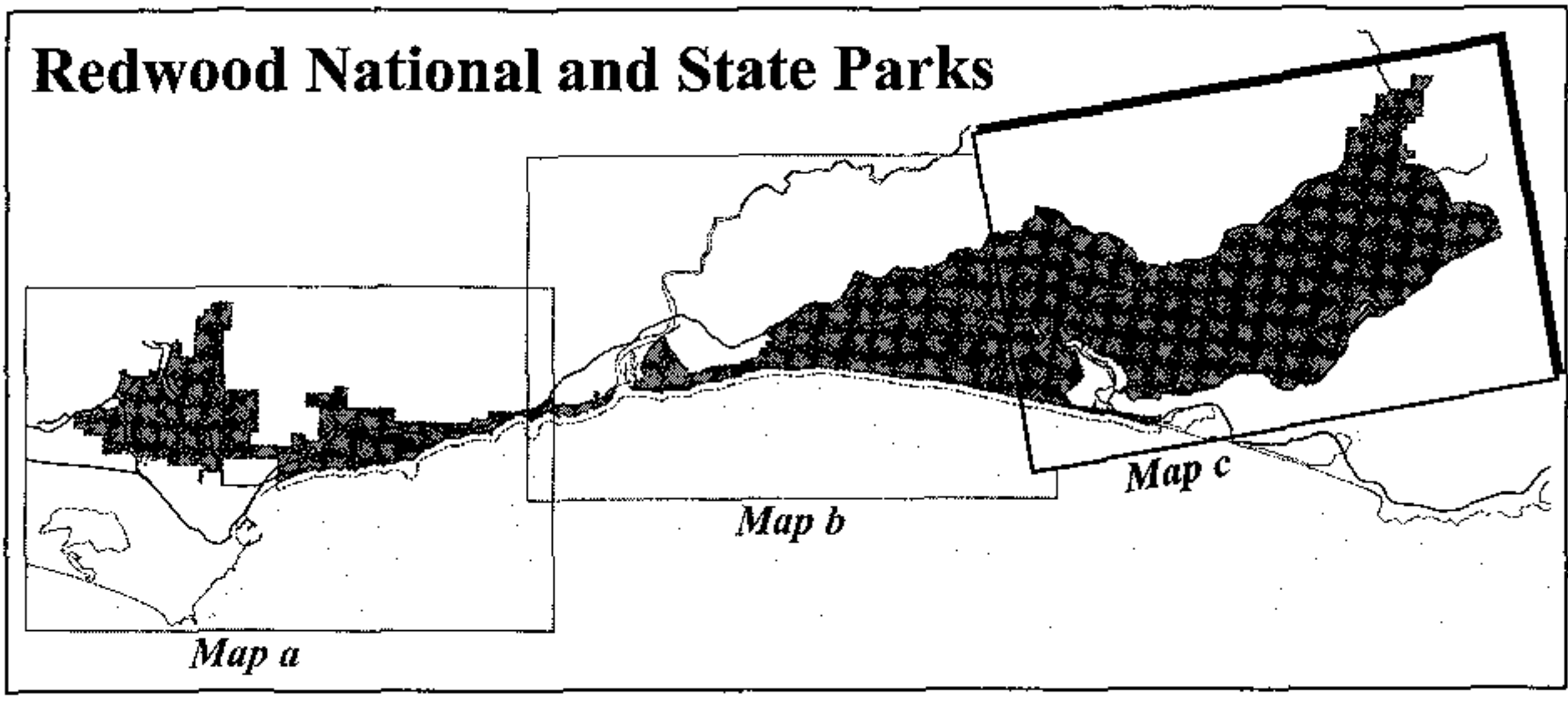
**Alternative 3 Map b  
MANAGEMENT ZONES**


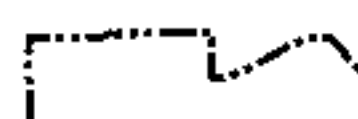
Redwood National and State Parks • California  
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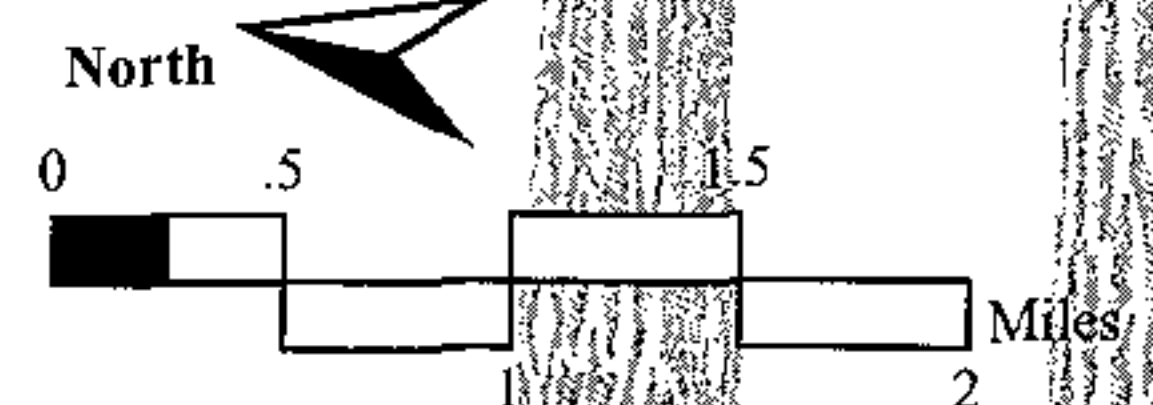
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**ZONES**

-  Frontcountry
-  Backcountry (Mechanized)
-  Bald Hills
-  Marine
-  Primitive
-  Little Lost Man Creek Research Natural Area Subzone
-  Transportation High-standard Subzone
-  Transportation Low-standard Subzone
-  Cultural Resource
-  Various Zones of Minimal Area



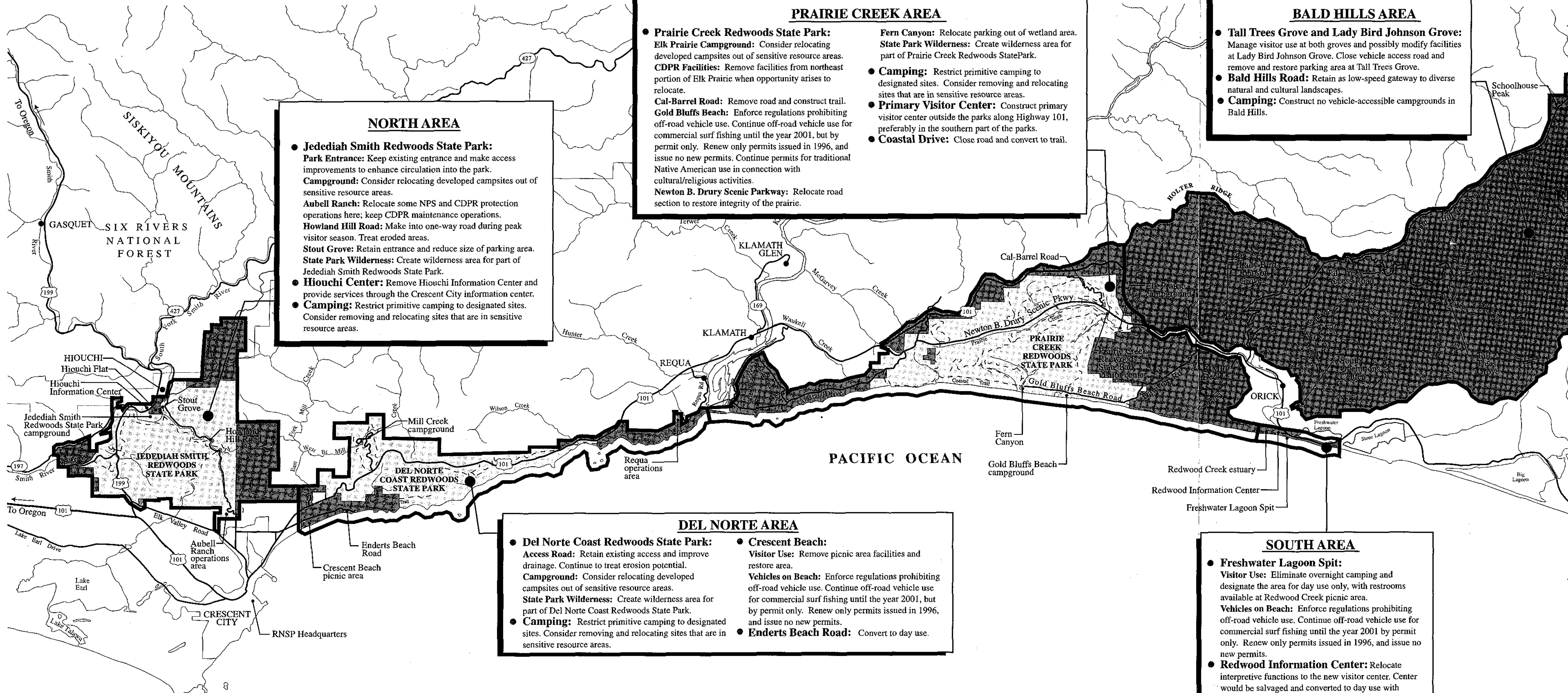
- BOUNDARIES**
-  Legislated Redwood National Park Boundary
  -  Boundary of National Park Land Acquired after Legislated Expansion of 1978



**Alternative 3 Map c  
MANAGEMENT ZONES**

Redwood National and State Parks • California  
NPS • DSC • Sept 99 • 167 • 20083A

ON MICROFILM



**NORTH AREA**

- **Jedediah Smith Redwoods State Park:**
  - Park Entrance:** Keep existing entrance and make access improvements to enhance circulation into the park.
  - Campground:** Consider relocating developed campsites out of sensitive resource areas.
  - Aubell Ranch:** Relocate some NPS and CDPR protection operations here; keep CDPR maintenance operations.
  - Howland Hill Road:** Make into one-way road during peak visitor season. Treat eroded areas.
  - Stout Grove:** Retain entrance and reduce size of parking area.
  - State Park Wilderness:** Create wilderness area for part of Jedediah Smith Redwoods State Park.
- **Hiouchi Center:** Remove Hiouchi Information Center and provide services through the Crescent City information center.
- **Camping:** Restrict primitive camping to designated sites. Consider removing and relocating sites that are in sensitive resource areas.

**PRAIRIE CREEK AREA**

- **Prairie Creek Redwoods State Park:**
  - Elk Prairie Campground:** Consider relocating developed campsites out of sensitive resource areas.
  - CDPR Facilities:** Remove facilities from northeast portion of Elk Prairie when opportunity arises to relocate.
  - Cal-Barrel Road:** Remove road and construct trail.
  - Gold Bluffs Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing until the year 2001, but by permit only. Renew only permits issued in 1996, and issue no new permits. Continue permits for traditional Native American use in connection with cultural/religious activities.
  - Newton B. Drury Scenic Parkway:** Relocate road section to restore integrity of the prairie.
- **Fern Canyon:** Relocate parking out of wetland area.
- **State Park Wilderness:** Create wilderness area for part of Prairie Creek Redwoods State Park.
- **Camping:** Restrict primitive camping to designated sites. Consider removing and relocating sites that are in sensitive resource areas.
- **Primary Visitor Center:** Construct primary visitor center outside the parks along Highway 101, preferably in the southern part of the parks.
- **Coastal Drive:** Close road and convert to trail.

**BALD HILLS AREA**

- **Tall Trees Grove and Lady Bird Johnson Grove:** Manage visitor use at both groves and possibly modify facilities at Lady Bird Johnson Grove. Close vehicle access road and remove and restore parking area at Tall Trees Grove.
- **Bald Hills Road:** Retain as low-speed gateway to diverse natural and cultural landscapes.
- **Camping:** Construct no vehicle-accessible campgrounds in Bald Hills.

**DEL NORTE AREA**

- **Del Norte Coast Redwoods State Park:**
  - Access Road:** Retain existing access and improve drainage. Continue to treat erosion potential.
  - Campground:** Consider relocating developed campsites out of sensitive resource areas.
  - State Park Wilderness:** Create wilderness area for part of Del Norte Coast Redwoods State Park.
  - **Camping:** Restrict primitive camping to designated sites. Consider removing and relocating sites that are in sensitive resource areas.
- **Crescent Beach:**
  - Visitor Use:** Remove picnic area facilities and restore area.
  - Vehicles on Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing until the year 2001, but by permit only. Renew only permits issued in 1996, and issue no new permits.
- **Enderts Beach Road:** Convert to day use.

**SOUTH AREA**

- **Freshwater Lagoon Spit:**
  - Visitor Use:** Eliminate overnight camping and designate the area for day use only, with restrooms available at Redwood Creek picnic area.
  - Vehicles on Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing until the year 2001 by permit only. Renew only permits issued in 1996, and issue no new permits.
- **Redwood Information Center:** Relocate interpretive functions to the new visitor center. Center would be salvaged and converted to day use with interpretive opportunities.
- **Redwood Creek Estuary:** Restore estuary and adjacent creeks and sloughs to naturally functioning, pre-levee, and pre-breaching conditions.
- **South Operations Center:** Relocate many national and state park functions to new facility in Orick.

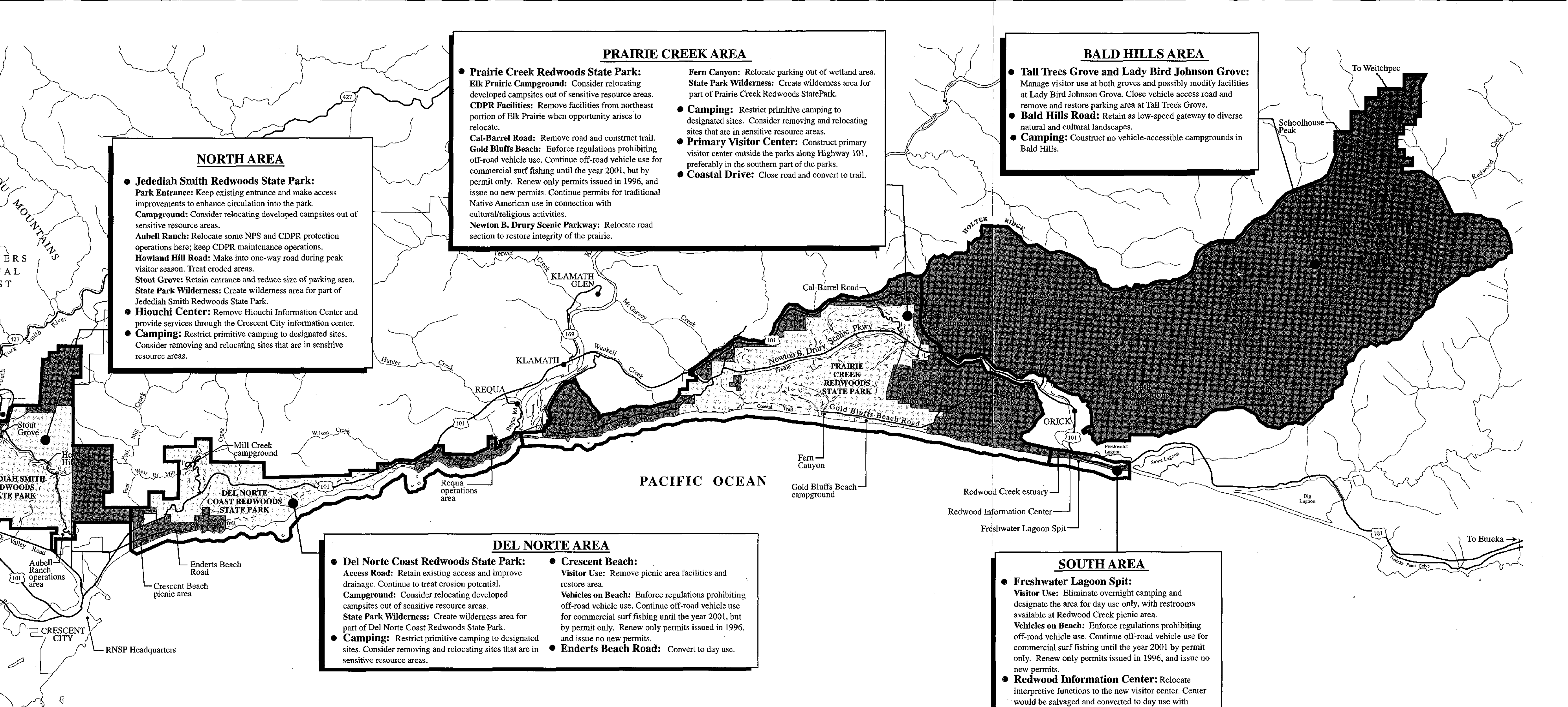
**LEGEND**

- State Park Land
- National Park Land
- Legislated Boundary for Redwood National Park

North

0 5 Kilometers  
0 5 Miles





**NORTH AREA**

- **Jedediah Smith Redwoods State Park:**  
**Park Entrance:** Keep existing entrance and make access improvements to enhance circulation into the park.  
**Campground:** Consider relocating developed campsites out of sensitive resource areas.  
**Aubell Ranch:** Relocate some NPS and CDRP protection operations here; keep CDRP maintenance operations.  
**Howland Hill Road:** Make into one-way road during peak visitor season. Treat eroded areas.  
**Stout Grove:** Retain entrance and reduce size of parking area.  
**State Park Wilderness:** Create wilderness area for part of Jedediah Smith Redwoods State Park.
- **Hiouchi Center:** Remove Hiouchi Information Center and provide services through the Crescent City information center.
- **Camping:** Restrict primitive camping to designated sites. Consider removing and relocating sites that are in sensitive resource areas.

**PRAIRIE CREEK AREA**

- **Prairie Creek Redwoods State Park:**  
**Elk Prairie Campground:** Consider relocating developed campsites out of sensitive resource areas.  
**CDPR Facilities:** Remove facilities from northeast portion of Elk Prairie when opportunity arises to relocate.  
**Cal-Barrel Road:** Remove road and construct trail.  
**Gold Bluffs Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing until the year 2001, but by permit only. Renew only permits issued in 1996, and issue no new permits. Continue permits for traditional cultural/religious activities.  
**Newton B. Drury Scenic Parkway:** Relocate road section to restore integrity of the prairie.
- **Fern Canyon:** Relocate parking out of wetland area.
- **State Park Wilderness:** Create wilderness area for part of Prairie Creek Redwoods State Park.
- **Camping:** Restrict primitive camping to designated sites. Consider removing and relocating sites that are in sensitive resource areas.
- **Primary Visitor Center:** Construct primary visitor center outside the parks along Highway 101, preferably in the southern part of the parks.
- **Coastal Drive:** Close road and convert to trail.

**BALD HILLS AREA**

- **Tall Trees Grove and Lady Bird Johnson Grove:** Manage visitor use at both groves and possibly modify facilities at Lady Bird Johnson Grove. Close vehicle access road and remove and restore parking area at Tall Trees Grove.
- **Bald Hills Road:** Retain as low-speed gateway to diverse natural and cultural landscapes.
- **Camping:** Construct no vehicle-accessible campgrounds in Bald Hills.

**DEL NORTE AREA**

- **Del Norte Coast Redwoods State Park:**  
**Access Road:** Retain existing access and improve drainage. Continue to treat erosion potential.  
**Campground:** Consider relocating developed campsites out of sensitive resource areas.  
**State Park Wilderness:** Create wilderness area for part of Del Norte Coast Redwoods State Park.
- **Camping:** Restrict primitive camping to designated sites. Consider removing and relocating sites that are in sensitive resource areas.
- **Crescent Beach:**  
**Visitor Use:** Remove picnic area facilities and restore area.  
**Vehicles on Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing until the year 2001, but by permit only. Renew only permits issued in 1996, and issue no new permits.
- **Enderts Beach Road:** Convert to day use.

**SOUTH AREA**

- **Freshwater Lagoon Spit:**  
**Visitor Use:** Eliminate overnight camping and designate the area for day use only, with restrooms available at Redwood Creek picnic area.  
**Vehicles on Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing until the year 2001 by permit only. Renew only permits issued in 1996, and issue no new permits.
- **Redwood Information Center:** Relocate interpretive functions to the new visitor center. Center would be salvaged and converted to day use with interpretive opportunities.
- **Redwood Creek Estuary:** Restore estuary and adjacent creeks and sloughs to naturally functioning, pre-levee, and pre-breaching conditions.
- **South Operations Center:** Relocate many national and state park functions to new facility in Orick.

**LEGEND**

- State Park Land
- National Park Land
- Legislated Boundary for Redwood National Park

North

0 5 Kilometers  
0 5 Miles

**Alternative 3  
GENERAL PLAN MAP**  
 Redwood National and State Parks • California  
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## VARIOUS ZONES OF MINIMAL AREA — ALTERNATIVE 3

Some relatively small areas of the parks (shown as triangles on the previous management zone maps) have been zoned differently than their surrounding areas. To clearly identify these areas and make it easy to know what zone these small areas are in, the following list has been developed.

AREA	ZONE
Jedediah Smith small satellite operations area	Developed
Stout Grove	Frontcountry
Mill Creek trail and Nickerson Ranch trail	Backcountry mechanized
Boy Scout Tree trail	Backcountry mechanized
Camp Lincoln	Frontcountry
Aubell Ranch	Developed
Howland Hill Outdoor School	Developed
Crescent Beach Education Center	Developed
Nickel Creek primitive campground and trail from Enderts Beach Road	Backcountry mechanized
Del Norte Coast Redwoods State Park small satellite operations area	Developed
Damnation Creek	Cultural
DeMartin primitive campground	Backcountry mechanized
Redwood Hostel	Developed
Wilson Creek	Frontcountry
Lagoon Creek picnic area	Frontcountry
Flint Ridge primitive campground	Backcountry mechanized
Fern Canyon trailhead	Backcountry nonmechanized
Espa Lagoon	Developed
Prairie Creek Redwoods State Park visitor center	Developed
Prairie Creek small satellite operations area	Developed
Elk Prairie campground	Frontcountry
Wolf Creek Education Center	Developed
Prairie Creek Fish Hatchery	Cultural
Lost Man Creek trailhead/picnic area	Frontcountry
Redwood Creek trailhead	Frontcountry
South Operations Center	Frontcountry
Redwood Information Center	Frontcountry
Redwood Creek overlook	Frontcountry
Gans Prairie	Cultural
Dolason trailhead	Frontcountry
Tall Trees Grove parking and trailhead	Frontcountry
Radio repeater	Developed
Lyons Ranch trailhead	Frontcountry
Schoolhouse Peak	Developed

*Fire Management* — An aggressive fire program would be established that emphasizes restoring the natural fire regime to the greatest extent possible even if it causes temporary inconvenience to visitors or temporary reduction of visitor enjoyment. The fire program would use prescribed fire and wildland fire to support land use and resource management strategies, including the restoration of fire as a natural process in old-growth forest ecosystems.

### Artificial Impoundments

**Actions.** All dams, except those that are contributing elements of significant cultural landscapes, would be removed, and stream channels would be restored. The stock watering structures in the Bald Hills are the dams or impoundments most likely to be contributing elements of these cultural landscapes; Marshall Pond and Lagoon Creek dams, the fire protection ponds in logged areas, and blocked drainages in logged areas are not be contributing elements of cultural landscapes and would be removed.

## CULTURAL RESOURCE MANAGEMENT AND PROTECTION

### Management Strategies

- Emphasize scientific research and resource preservation as primary goals of the cultural resources program.
- Enhance relationships with other agencies and organizations to increase study of the cultural history of the region.
- Orient treatment of cultural resources toward preservation and protection; de-emphasize visitor use and interpretation.

### Actions

Note: Under this alternative, the Cal-Barrel Road, Coastal Drive, and Tall Trees access road would be converted to trails; and the CDPR administrative facilities would be removed from Elk Prairie. These actions, which could affect cultural resources, are described in other sections of this alternative and are not addressed further in the following discussion.

### Historic Resources — Structures

**Actions.** Historic structures would be stabilized, protected, and preserved as appropriate. Although options for the parks' historic structures would include adaptive rehabilitation and the historic property leasing program, emphasis would be placed upon their preservation. Historic structures could also be used as discovery sites, with minimal or no onsite interpretation.

### Historic Resources — Cultural Landscapes

**Actions.** The actions would be the same as described in alternative 1.

### Ethnographic Resources

**Actions.** The actions would be the same as those described in the "Relationships with American Indians" section and alternative 1.

### Collections

**Actions.** Collection storage would be expanded to provide adequate museum work space and storage needs for the protection and preservation of natural and cultural resource collections. Storage and work locations would be based on research, resource management, and security needs.

Staff would prioritize collections processing work according to whether materials were specifically related to resource preservation and defer all requests for access to collections until all materials were properly processed.

Computer-based access to archival records would be developed to provide access for RNSP staff and the public.

## EDUCATION AND INTERPRETATION

### Management Strategies

- Provide in-depth interpretation only in ways that would not affect old-growth forests, wetlands, floodplains, threatened and

endangered species, cultural sites, and other sensitive resources.

- Develop a personal services and nonpersonal (brochures, wayside exhibits, etc.) services program that would emphasize the preservation of RNSP resources and the resolution of resource management issues rather than general RNSP information.
- Provide new visitor facilities and services outside the parks.
- Retain the outdoor school program for regional kindergarten through 12th-grade students in spring and fall with a major emphasis on natural resources.

## **Actions**

### Orientation/Information

**Action.** Most visitor orientation and information would continue to be provided through personal services and interpretive publications and in conjunction with regional partners. Activities would be provided only in the parks' developed areas. Preservation themes would be stressed.

### Interpretation

**Actions.** Action items would be as follows:

Interpretive operations and media would be used to provide a similar emphasis on general and preservation information about natural and cultural history topics. Research and resource management actions would be explored in depth and fully supported. Most of the parks' visitors would receive in-depth interpretation of primary interpretive themes through a new primary visitor center and additional publications and programs. Visitors would be provided limited opportunities to see sensitive resources. Some limited additional opportunities would be available for visitors to enjoy sensitive resources, such as old-growth redwood forests, wetlands, floodplains, prairies, and sites related to local American Indian cultures; however, visitor use would be carefully managed to protect these resources.

Interpretive operations and media would be used in the Bald Hills area to provide a similar emphasis on preservation and general informa-

tion about old-growth forest management, second-growth forest management, watershed resources, prairie and oak woodland vegetation, and human use. Visitors would have limited opportunities to see and enjoy sensitive resource sites in the Bald Hills area.

### Information, Orientation, and Interpretive Centers

**Actions.** Action items would be as follows.

A primary visitor center would be constructed outside the parks along Highway 101 or 199, but preferably in the southern part of the parks.

Prairie Creek Redwoods State Park visitor center would be retained. The small visitor center at Jedediah Smith Redwoods State Park would be removed, and information on the state park would be provided through the Crescent City information center.

The interpretive functions at Redwood Information Center would be relocated to the new primary visitor center. The facility would be salvaged, and the site would be converted to day use with interpretive opportunities including beach access, boardwalks, and wayside exhibits. (The Redwood Information Center is in the tsunami zone; see the "Public Safety" chapter in the "Affected Environment" for more information.)

The small information center at RNSP headquarters in Crescent City would be retained. The Hiouchi information center would be removed, and the services would be provided through the Crescent City information center. Information for Del Norte Coast Redwoods State Park would be provided through the Crescent City information center.

### Outdoor Schools

**Action.** The two outdoor schools would continue to be operated, primarily in fall and spring, for regional kindergarten through 12th-grade students. The education centers would incorporate natural and cultural resource management issues and methods into the curriculum.

## **PUBLIC USE, RECREATION, AND VISITOR SAFETY**

### **Management Strategies**

- Support appropriate public use and enjoyment of the parks, but emphasize activities that will generate public appreciation of and support for the parks' resources.
- Provide opportunities for public access to RNSP resources in places and ways that would result in minimal impact on the parks' resources and values.
- Manage public use primarily to protect resources; ensure that public use activities are consistent with NPS and CDPR regulations and policies.
- Ensure public safety largely through cooperative efforts with neighboring jurisdictions.
- Conduct carrying capacity analyses and develop detailed action plans, including public use limits where necessary, to prevent adverse impacts on resources resulting from public use.
- Develop a backcountry management plan and a comprehensive trail plan to manage public use of the parks' backcountry, provide guidance concerning the development of trails and other backcountry facilities, and establish limits on equestrian and mountain bike use and camping.
- Limit public access to sensitive resources, such as old-growth redwoods, cultural sites, and wetlands, and emphasize off-site interpretive techniques and programs to educate the public about the parks and their resources.
- Standardize NPS and CDPR public use policies where practicable, especially those affecting the protection of resources.
- Limit commercial services primarily to developed areas.
- Limit facilities primarily to developed areas adjacent to roads; remove facilities in sensitive resource areas such as old-growth forests, wetlands, and prairies, and at sites that are of importance to American Indians.
- Provide trail access primarily to resources in the immediate vicinity of developed areas; limit new trail development.

### **Actions**

#### ***Visitor Use Levels***

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**Actions.** Visitor use would be limited so that there would be minimal impacts on resources and their values.

Vehicle access to the Tall Trees Grove would be closed, the parking area would be removed, and the area would be restored. Trail access would remain.

At the Lady Bird Johnson and Stout Groves, a carrying capacity analysis would be conducted to identify indicators and standards, and a monitoring program would be developed and implemented. (See the discussion on "Public Use, Recreation, and Visitor Use" in the "Actions Common to All Alternatives" chapter for further description of the carrying capacity analysis process.) Visitor use in these groves would be managed, and facilities, including the trailhead and parking area in the Johnson Grove, would be modified based on the carrying capacity analysis and monitoring results.

At Fern Canyon, the parking area would be relocated farther south out of the stream channel. Enderts Beach Road would be converted to day use. The Crescent Beach picnic area and associated facilities would be removed and the area restored.

Visitors would not be directed to cultural sites that are of importance to American Indians or that have resources that could easily be damaged.

#### ***Recreational Activities***

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**Actions.** A backcountry management plan would be prepared that would specify the location of camping areas and describe RNSP policies and rules for use of backcountry areas by hikers, bicyclists, and equestrians. The backcountry management plan would be guided by the desired resource conditions and visitor experiences of the appropriate management zones. Other action items would be as follows.

Campgrounds with Access by Vehicles —

Campsites in sensitive resource areas in the state parks, such as in old-growth forest, prairies, or floodplains or near wetlands or sites that are important to American Indians, would be considered for removal and relocation. Campgrounds that are accessible by vehicles would not be constructed in the Bald Hills area.

Primitive Camping — Primitive camping would be restricted to existing designated sites. Sites that are in sensitive resource areas or that are easily damaged by human use would be removed and relocated. Primitive camping opportunities would not be provided in the Coyote Creek basin. Camping would be allowed in the Redwood Creek corridor and on the designated west side horse camps as under alternative 2. Random hiker camping would not be allowed on either the east side or the west side of the Redwood Creek basin.

Hiking — Sections of trails in sensitive resource areas would be removed or relocated. The maintenance of hiking trails would be emphasized rather than the construction of new trails.

A joint agency trail plan would be developed for Redwood National and State Parks that would be consistent with the agencies' missions and the goals established under this alternative. This trail plan would provide for limited expansion of the existing trail inventory and include limited opportunities to link with trails in adjacent jurisdictions and local communities. No trails would be constructed in sensitive resource areas. This trail plan would replace the 1984 *Redwood National Park Backcountry Trail Plan* and the 1985 *State Redwoods Parks General Plan*.

Equestrian Use — Sections of equestrian trails that are in sensitive resource areas would be removed, relocated, or redesignated as hiking trails. No new equestrian trails would be developed.

Mountain Biking — Sections of mountain bike trails in sensitive resource areas would be removed, relocated, or redesignated as hiking trails. No new mountain bike trails would be developed.

Picnic Sites at Bald Hills — These picnic sites and associated facilities would be considered for removal.

Freshwater Lagoon Spit Visitor Use

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**Actions.** In this area overnight camping would be eliminated and the area would be designated only for day use. Freshwater Lagoon Spit users would be able to use the restrooms at the adjacent Redwood Creek picnic area.

Public use of Freshwater Lagoon would be managed cooperatively with other agencies having jurisdiction over those waters.

Vehicles on the Beach

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**Actions.** NPS and CDPR regulations prohibiting off-road vehicle use (see alternative 1 under this topic) would be enforced throughout the parks, resulting in the elimination of all off-road vehicle use other than that which is essential to provide access for commercial surf fishing activities. Off-road vehicle use associated with commercial surf fishing at Freshwater Lagoon Spit, Gold Bluffs Beach, and Crescent Beach would continue until the year 2001, but by permit only. Only permits issued in 1996 would be renewed, and no new permits would be issued. However, off-road vehicle use on beaches in connection with traditional American Indian cultural/religious activities that are consistent with the purposes of the parks would continue at Gold Bluffs Beach under a CDPR permit system. Vehicle use would be managed to prevent resource damage and minimize public use conflicts.

Concessions and Commercial Services for Visitors

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**Action.** Before recommending any new public services by private vendor, consideration would be made of the quality and type of existing services, public demand/need, the ability of the resources to support such services, and the economic feasibility of providing such services. In this alternative no change in policy would be anticipated — horse and hostel concessions in the parks would continue. Private concession services would be recommended, consistent with

natural and cultural resource requirements, in accordance with applicable laws and policies.

## VISITOR ACCESS AND CIRCULATION / ROADS

### Management Strategies

- Administer the roads in the parks under NPS and CDPR jurisdiction to facilitate and enhance visitors' leisurely enjoyment of the parks' resources and public use facilities rather than to cater to the needs of through traffic.
- Ensure that RNSP roads relate simply and harmoniously with the topography and surrounding environment; these roads would often be more narrow and winding and have lower speed limits than roads outside parks
- Provide safe opportunities for visitors to see scenic vistas and other points of interest, enjoy interpretive displays, and gain access to trails, picnic areas and other recreation facilities along RNSP roads.
- Provide distinctive and unobtrusive signs to orient, guide, and inform visitors.
- Repair or relocate roads that adversely affect fragile resources or that are significant visual intrusions or convert them to trails if appropriately located for a trail; consider converting to trails those roads that are on unstable ground and that have deteriorated seriously only if the trail can be stabilized to avoid further resource damage and maintenance problems.
- Use bicycle lanes, alternative transportation systems, one-way roads, and vehicle size limits as appropriate to ensure public safety and visitor enjoyment.
- Use methods such as limiting the size of parking facilities, using mass transit, establishing public use limits and permit systems, and closing and converting roads to trails to limit the number of people or vehicles allowed in sensitive sites such as floodplains, wetlands, cultural sites, and old-growth forests.
- Depend on U.S. highways within the parks — to be managed and maintained by state and federal transportation agencies — to serve as the primary access routes to the parks.
- Depend on Del Norte and Humboldt Counties to manage and maintain all or portions of the county roads in the parks that provide access to

nonpark lands and that serve the general public in addition to RNSP visitors.

- Work cooperatively with the agencies having primary jurisdiction on these U.S., state, and county roadways to promote public safety, to enhance opportunities for travelers to enjoy scenic vistas and gain access to park resources and facilities, and to protect RNSP resources adjacent to the roadways.
- Consider entering into agreements for RNSP ownership, management, and/or maintenance of all or portions of the county roads in the parks that are in good structural condition, that provide access exclusively to parklands, and that serve primarily RNSP visitors.
- Design, construct, and maintain RNSP roads that provide access from state highways or county roads to RNSP facilities so that they are sustainable, provide safe access for visitors and employees, and minimize the disruption of traffic on through highways.

### Actions

#### Bald Hills Road

The Bald Hills Road would be maintained in the existing right-of-way as a low-speed rural access to an area of diverse natural and cultural landscapes. A few spectacular scenic vistas would be available, along with limited opportunities to pull off the road and enjoy scenic overlooks and interpretive exhibits and hiking. The National Park Service would provide opportunities for visitors to observe and appreciate a variety of natural and cultural resource management projects. Through travelers would enjoy a unique alternative route to the scenic Klamath and Trinity River corridors and the Hoopa Reservation.

#### Newton B. Drury Scenic Parkway

The prairie section of the parkway road would be relocated to restore the integrity of the prairie. The parkway would continue to be operated by the California Department of Parks and Recreation, with special operational/maintenance requirements defined by Caltrans. (The scale of this relocation is too small to show on the alternative or management zone maps.)

Jedediah Smith Redwoods State Park Entrance

The park entrance and entrance station would be retained. Access improvements would be made to improve circulation into park.

Stout Grove

The parking area would be reduced.

Del Norte Coast Redwoods State Park Entrance

The entrance road and entrance station off Highway 101 would be retained. Also, the drainage would be improved, and the erosion potential would be treated.

Enderts Beach Road

The road would be converted to day use.

Alder Camp Road

Maintenance and repairs would be limited to drainage and road surface improvements. Major road failure would lead to its conversion to a one-lane road providing access to the Alder Camp Conservation Center. Note: All actions on the county portion of the road would depend on agreements with the county.

Davison Road — Gold Bluffs Beach Road to Fern Canyon

More environmentally sound and less intrusive access, such as shuttle service, would be provided to Fern Canyon. Note: All actions on the county portion of the road would depend on agreements with the county.

Cal-Barrel Road

The road would be removed and a trail would be constructed.

Howland Hill Road

During the peak visitor season, the road would be a one-way road. Eroded areas would be improved. This road would not be recommended for large trailers and motor homes.

Tall Trees Grove Access Road

The road would be removed, and access would be only by trail.

The Coastal Drive

The road would be closed and converted to a trail.

**INTERDEPENDENCE OF PARKS AND COMMUNITIES**

**Management Strategies**

- Support sustainable economic development, the preservation of community values, and the availability of appropriate visitor services and sustainable visitor facilities in local communities that serve as gateways to the parks.
- Participate as partners with those communities and local organizations in projects and initiatives that have mutual benefit and that enhance the levels of appreciation and protection of RNSP resources.
- Participate actively in local educational and public safety programs and cooperate with local agencies and private interests in land use and transportation planning for areas adjacent to the parks.

**Actions**

Lodge/Accommodations

**Actions.** The National Park Service and the California Department of Parks and Recreation would encourage the private sector and/or tribal partners to build an appropriate lodge outside the parks.

Viewshed Protection

**Actions.** Action items would be as follows.

Scenic Corridor — Lands or interests in lands within the scenic corridor along Highway 101 north of Orick would be acquired as they became available and as funding permits to preserve scenic views and protect the parks' values.



*Viewsheds* — Important visual areas would be identified, and RNSP staff would work with local governments and conservation organizations to protect these areas. RNSP staff would support efforts to improve visual quality, such as putting powerlines underground and initiating reforestation projects.

### Adjacent Land Uses

**Actions.** RNSP staff would encourage others to minimize activities on adjacent land that would result in impacts on RNSP lands. Staff would also support and encourage land uses on adjacent lands that would preclude land uses that are inconsistent with the parks' values. Staff would also develop criteria for compatible development and uses next to RNSP boundaries. Adverse impacts from adjacent land uses would be mitigated.

### Gateway Communities

**Actions.** RNSP staff would actively support and assist local communities in efforts to foster appropriate and sustainable economic development, to develop infrastructure needed for community development and RNSP facilities, and to develop services and facilities that support tourism and provide connections between the communities and the parks. The staff would also provide technical assistance to communities, communicate support to agencies that authorize and fund development projects, and participate as partners in situations where mutual conservation, visitor service, or development strategies would be achieved.

RNSP staff would cooperate with local communities and organizations to ensure that public information and orientation services were coordinated and provided in convenient locations.

## ADMINISTRATIVE FACILITIES

### Management Strategies

- Limit administrative facilities within the parks to the minimum necessary to provide effective levels of protection for RNSP resources.

- Construct new facilities on private land outside the parks or in developed areas within the parks, with an emphasis on providing adequate facilities for conducting scientific studies and curatorial activities, resource protection activities, and maintenance activities that support resource management programs.
- Remove facilities on newly acquired lands unless they were considered essential for resource management or resource protection purposes.
- Place a major emphasis on consolidating CDPR and NPS facilities.
- Sustainably design new or rehabilitated facilities and construct them in appropriate locations to minimize adverse resource impacts and visual intrusions.
- Remove facilities inappropriately located in floodplains, wetlands, or other sensitive resource areas; noncontributing structures located in cultural landscapes, and any facility excess to the parks' needs.
- Operate and maintain all facilities so as to minimize the consumption of energy and conserve nonrenewable fuels.
- Use renewable sources of energy and energy-efficient technology where appropriate and cost-effective.
- Provide housing only for RNSP staff who are essential to protect RNSP resources.

### Actions

#### Operations Facilities (Maintenance, Ranger Activities, and Fire Protection)

**Actions.** Opportunities would be pursued for NPS, CDPR, and other agency facilities to be consolidated and located outside the parks where practicable and cost-effective. NPS and CDPR facilities would be consolidated inside the parks wherever practical. RNSP headquarters would remain in the current facility in Crescent City. NPS primary maintenance facilities would continue to be in Requa, with some consolidation of CDPR maintenance facilities there; utilities and facilities at Requa would be upgraded and improved. However, a 1982 geological survey report documented complex landsliding and earthflow movement at Requa. The primary NPS maintenance facility would be relocated outside the parks when and if this

activity threatens the structural integrity of the buildings or safety of their occupants. Any new facility would be planned and designed to meet both NPS and CDPR operational requirements and would have safe, dependable access to area highways and convenient access to RNSP facilities.

CDPR primary maintenance facilities would remain at Aubell Ranch. RNSP resource management employees would be in a new facility to be constructed in the Orick area. To avoid diminishing established relationships between private and public entities, and to continue to enjoy mutual benefits from interagency coordination and cooperation, some employees and programs would remain in the Arcata area or alternate location to derive the greatest benefits to the parks. NPS and CDPR protection staff offices would be consolidated at the Aubell Ranch site in the north and, to the extent practicable, at the facility in the Orick area in the south.

Fire protection facilities would continue to be at Hiouchi in the north and Wolf Creek in the south; however, the National Park Service would consider moving the Wolf Creek fire cache and equipment into the Orick area facility. Interpretation staff offices would remain in the Crescent Beach Education Center in the north, in the Redwood Information Center in the south until the new primary visitor center was built, and in the new facility that would be constructed in the Orick area. Small satellite facilities would continue in each state park unit to support operations in those areas.

CDPR administrative facilities in the northeast portion of Elk Prairie in Prairie Creek Redwoods State Park would be removed when the opportunity to relocate them to the Orick area and/or to consolidate them with NPS facilities arose, including two 1950s residences, a barn/shed used to house vehicles and supplies, some seasonal cabins, a shop, a maintenance office, a storage area, and a gas shed; one historic house would be kept as a ranger residence.

The Schoolhouse Peak fire lookout would be operated for fire protection. If no longer needed for fire protection, the facility would be removed.

## Housing

**Actions.** Most RNSP employees and volunteers would live in local communities. NPS housing would be retained in the Hiouchi, Orick, Wolf Creek, and Bald Hills areas. A single unit of CDPR housing would be at both Jedediah Smith and Del Norte Coast Redwoods State Parks. The Boyes House at Prairie Creek Redwoods State Park would be retained for use by emergency services staff, and the Gold Bluffs Beach residence would remain as required housing for the ranger assigned to Gold Bluffs Beach. NPS housing at Crescent Beach would be removed when no longer needed. Single-family housing at Requa would be removed and sites restored.

## LAND ACQUISITION

### Management Strategies

- Acquire the minimum interest in lands necessary to meet management strategies described under management zoning.
- Use the most practical and cost-effective method of acquisition to manage land for public use and protect RNSP resources and values, including any combination of fee or less-than-fee options or cooperation with landowners; federal agencies; state, tribal, or local governments, and the private sector.
- Acquire the minimum interest in lands necessary to meet the intent of Congress to protect downstream RNSP resources from adverse impacts of upstream land uses and, in the scenic corridor, to provide an appropriate gateway to the parks.
- Acquire interests in lands necessary to preserve or protect significant RNSP resources and values.

### Actions

#### Actions for Federal Lands

The current program to acquire lands or interests in lands with significant resource, scenic, or public use values would continue as opportunities arose. However, because the legislated Redwood National Park boundary is limited to

106,000 acres, exclusive of submerged lands and publicly owned highways and roads, future acquisitions could not result in total acreage exceeding that figure without legislation authorizing an increase in the acreage ceiling. Any future federal land acquisitions would be analyzed according to relevant boundary revision criteria, which include any or all of the following:

- The proposed acquisition includes significant resources or opportunities for public enjoyment that are related to the purposes of the parks.
- The proposal addresses operational and management issues such as access and boundary identification by topographic or other natural features or roads.
- The potential acquisition protects RNSP resources that are critical to fulfilling the parks' purposes.

In addition, recommendations to expand the boundary and acquire additional lands would be preceded by determinations that the added lands will be feasible to administer considering size, configuration, ownership, costs, and other factors, and that other alternatives for management and resource protection are not adequate.

As stated in the "Boundary Map Adjustments" section, future acquisitions would be included in the legislated national park boundary by publishing a revised drawing or boundary description in the *Federal Register*.

#### Actions for State Lands

The current program to acquire lands or interests in lands with significant resource, scenic, or public use values would continue as opportunities arose.

## WILDERNESS PROPOSALS

### Management Strategies

- Evaluate lands for designation as wilderness consistent with and supportive of the perpetuation of the redwood forest ecosystem as the prime resource of the parks.

### Actions

A state wilderness area would be proposed for a portion of Jedediah Smith Redwoods State Park to conform to the general boundary described as south of U.S. Highway 199 and Hatton Trail, west of Hiouchi and Mill Creek Trails, north of the southern state park boundary, and east of the western state park boundary. A transportation corridor for Howland Hill road would be excepted from this general boundary.

A state wilderness area would be proposed for a portion of Prairie Creek Redwoods State Park to conform to the general boundary described as south of the Ossagon Trail, west of the Newton B. Drury Scenic Parkway, north of the southern Prairie Creek Redwoods State Park boundary, and east of Davison Road/Gold Bluffs Beach Road and the Coastal Trail.

Another state wilderness area would be proposed for a portion of Del Norte Coast Redwoods State Park to conform to the general boundary described as south of the northern boundary and U.S. Highway 101, west of Highway 101, north of Township 15 North, and east of the Pacific Ocean.

## ALTERNATIVE 4 —VISITOR USE EMPHASIS

### CONCEPT

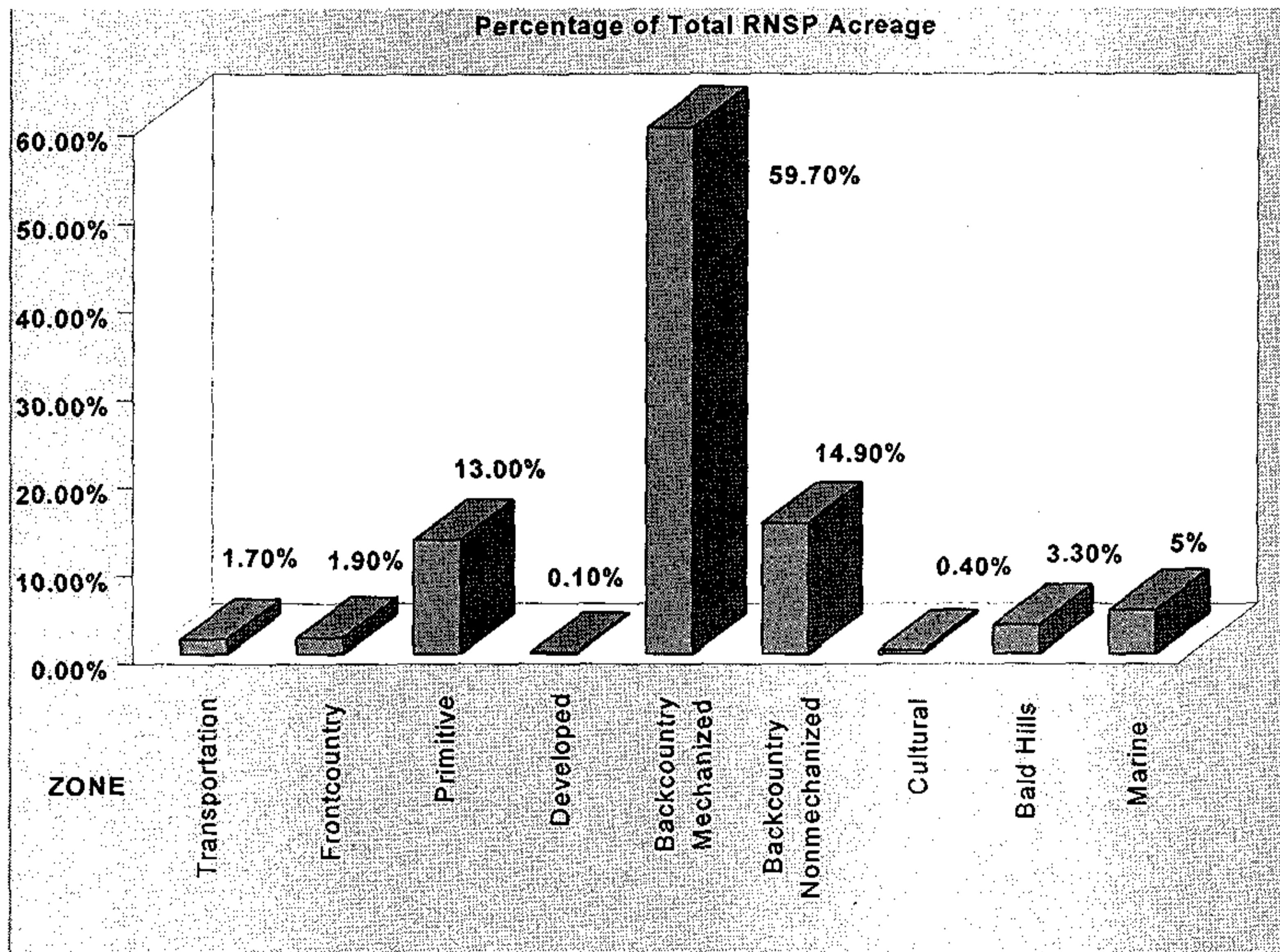
Under this alternative, the agencies would provide, consistent with their overarching obligations to protect the parks' resources and values, a wide spectrum of appropriate visitor experiences that relate to RNSP resources. RNSP resources and values would be protected, but complete restoration would receive less emphasis than it does currently. Interpretation, orientation, and visitor facilities would be provided at many locations throughout the parks to facilitate hands-on experiences. Major development would be focused along U.S. Highways 101 and 199. Facilities would be retained in areas with sensitive resources. New uses might be allowed

in these and other areas of the parks, with mitigation. New visitor services and facilities would be provided in and near the parks by the federal and state governments and in partnership with others (see Alternative 4 Management Zoning and Alternative 4 General Plan maps). The issue statements, which are the same for all alternatives, are not repeated in alternatives 2, 3, and 4; please see alternative 1.

### MANAGEMENT ZONES

This alternative has a greater percentage of total RNSP acreage (see table 6) included in zones

TABLE 6: MANAGEMENT ZONES, ALTERNATIVE 4



where development and facilities would be allowable uses. The frontcountry and backcountry zones would be larger and the primitive zone smaller than under the proposed action. Because the primitive zone would be reduced in size compared to alternative 1, only about 2 miles of trails would remain in this zone. No new trails would be constructed in the primitive zone, including the 4 miles of trails that have been proposed in previous planning documents.

## NATURAL RESOURCE MANAGEMENT AND PROTECTION

### Management Strategies

- Ensure that all resource management efforts are consistent with and supportive of the perpetuation of the redwood forest ecosystem as the prime RNSP resource.
- Restore and maintain selected RNSP ecosystems as they would have evolved without disturbance by modern technology and perpetuate ongoing natural influences on the basis of natural values and visitor use.
- Actively participate in land use decisions for activities such as logging, mining, and the development of highways and subdivisions adjacent primarily to the heavily visited areas of the parks to minimize impacts on RNSP resources.
- Acquire baseline information on some of the more significant RNSP biological and physical environments for interpretive programs and to enhance visitor experience; monitor key environmental factors over time to determine the effects of human activities and influences on both the local and bioregional levels.
- Protect threatened and endangered species and species of special concern as required by law.
- Prevent the theft or commercial exploitation of RNSP resources.

### Actions

#### Watershed Management and Restoration in the Redwood Creek Basin, in and upstream of the Park

Actions under this alternative would be the same as under alternative 1, the proposed action.

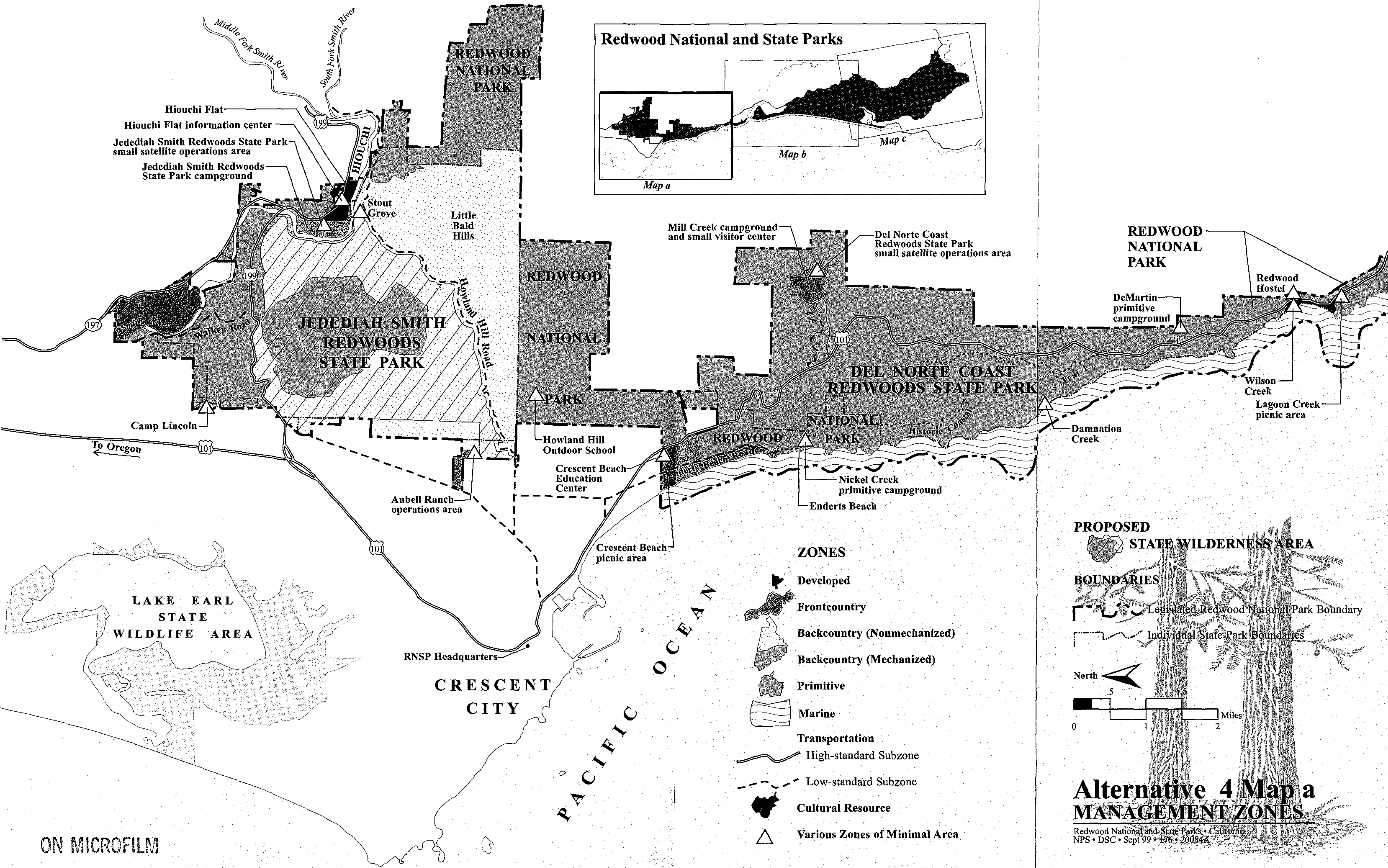
**Actions within the National Park.** Watershed restoration efforts would be increased so that an average of 9.5 miles of roads would be treated per year within the national park. Partial landform restoration would be emphasized, with complete removal of all major logging roads and limited removal of minor logging roads that pose the greatest threat to the resources. This approach would require about 17 years to treat 155 miles of road and would depend on a significant increase in funding.

#### **Actions upstream of the National Park.**

Depending on opportunities offered by property owners, up to 40 miles of roads would be treated per year upstream of the national park in the Redwood Creek basin. Road decommissioning and erosion prevention would be emphasized. Assuming that about 85% of the roads in the upper Redwood Creek basin required treatment, this approach would require 17 years to treat the existing 911 miles of logging roads and would depend on a significant increase in funding.

#### Watershed Management and Restoration in Redwood Creek Estuary

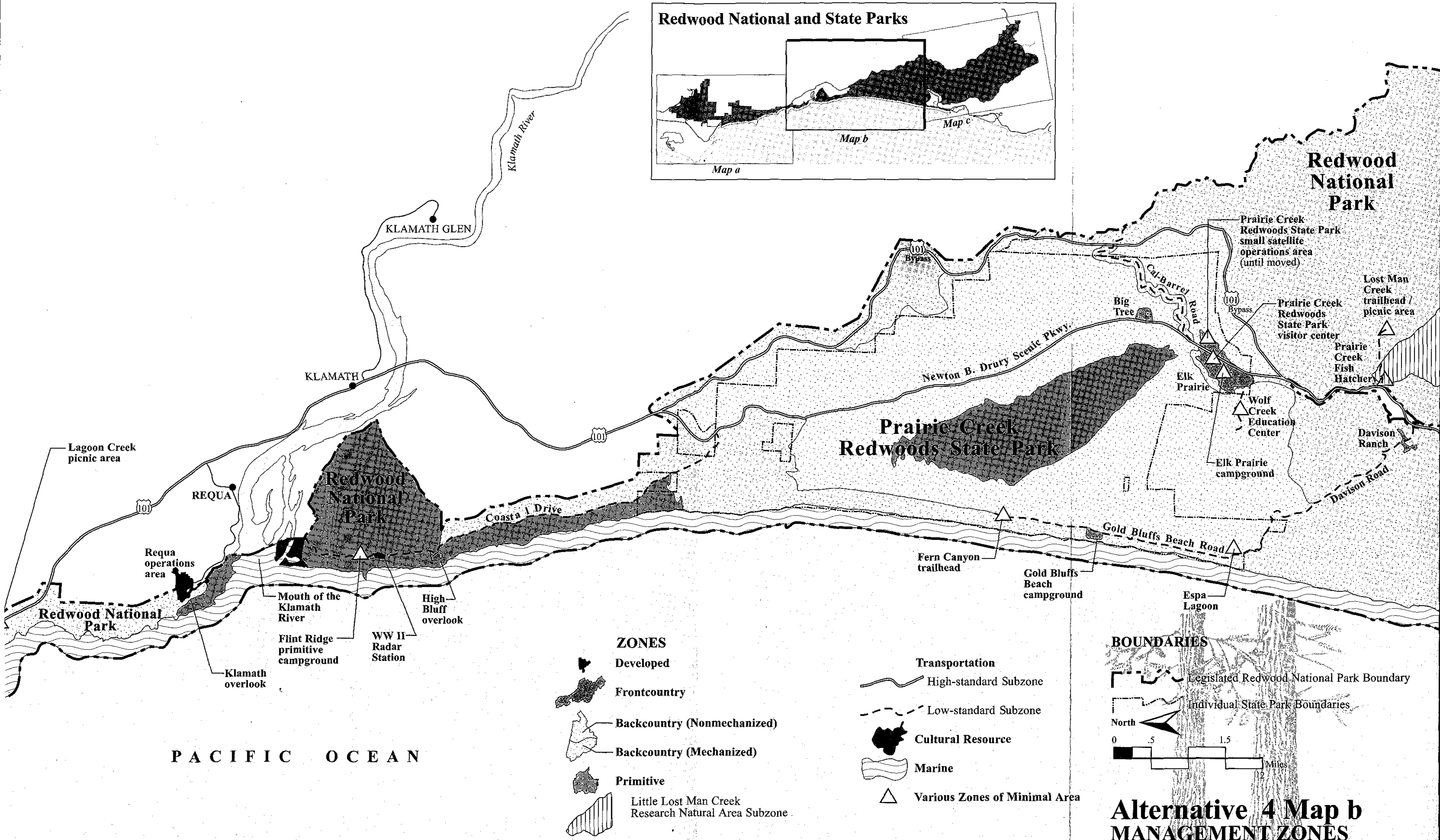
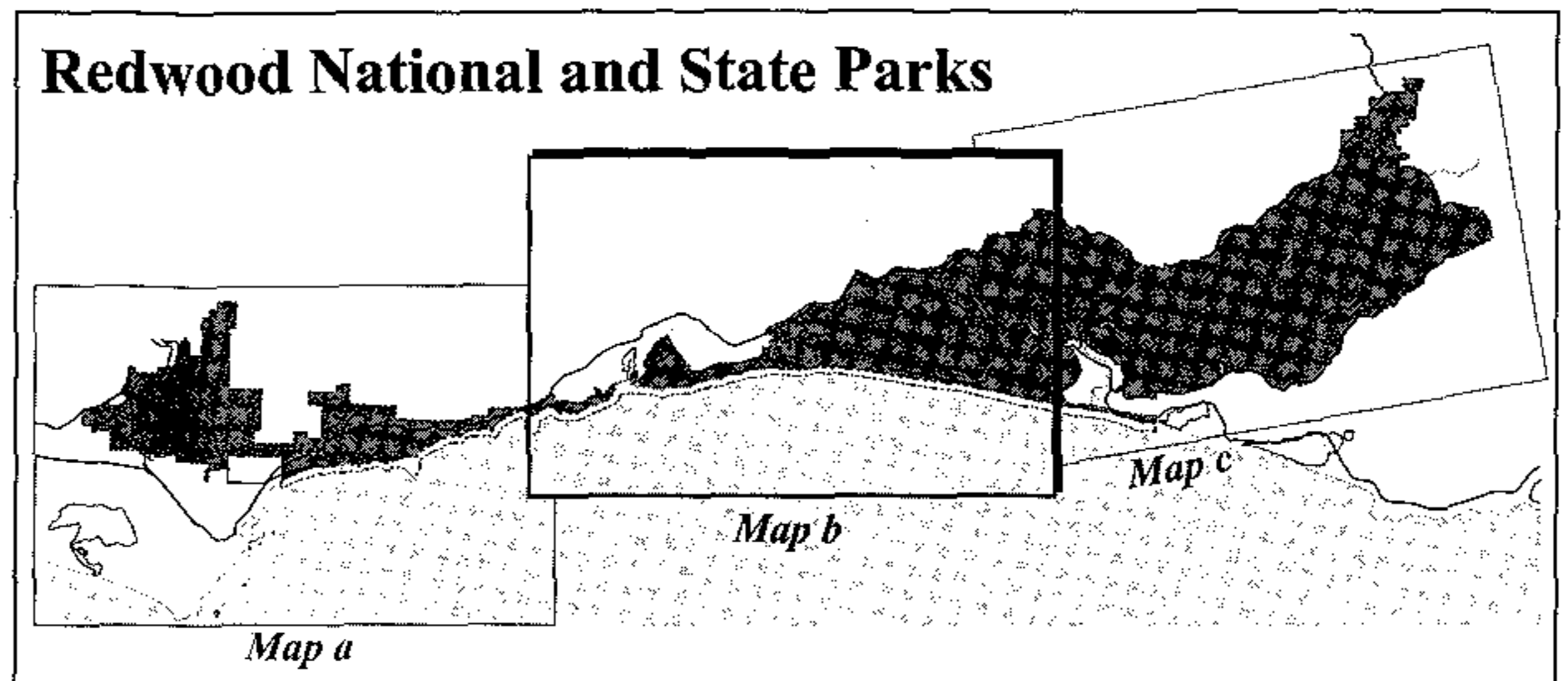
**Actions.** The ecosystem and hydrologic processes would be maintained, and levees would be retained in the lower Redwood Creek valley, where possible, to protect natural and cultural resources, existing land uses, and aquatic and wildlife resources and their habitats. Water level management (e.g., controlled breaching and channel manipulation) to conserve salmonid habitat by preventing the negative effects of an uncontrolled breach and to protect the Redwood Information Center would continue.



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**Alternative 4 Map a  
MANAGEMENT ZONES**

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**ZONES**

- Developed
- Frontcountry
- Backcountry (Nonmechanized)
- Backcountry (Mechanized)
- Primitive
- Little Lost Man Creek Research Natural Area Subzone

**Transportation**

- High-standard Subzone
- Low-standard Subzone
- Cultural Resource
- Marine
- Various Zones of Minimal Area

**BOUNDARIES**

- Legislated Redwood National Park Boundary
- Individual State Park Boundaries













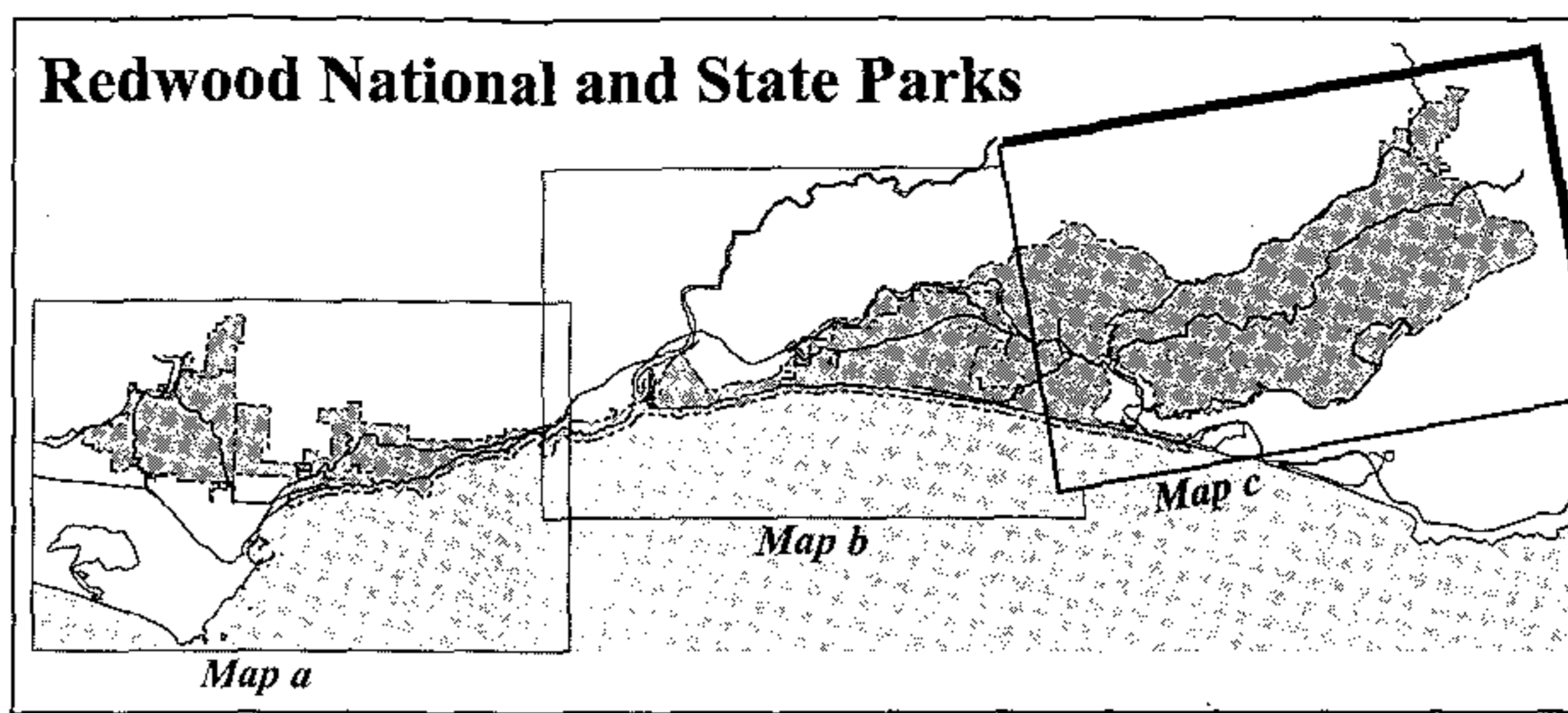
**Alternative 4 Map b  
MANAGEMENT ZONES**


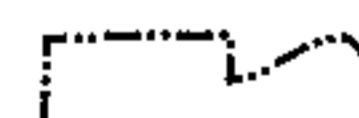
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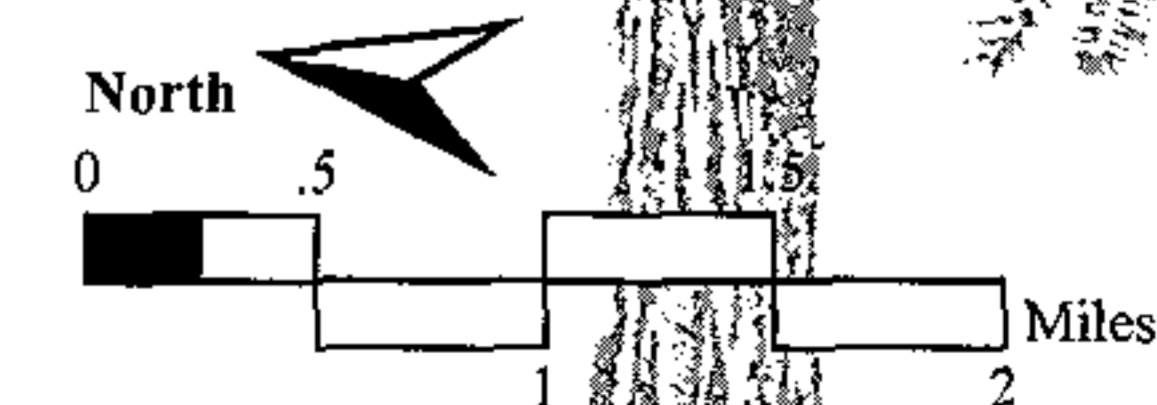
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**ZONES**

-  Frontcountry
-  Backcountry (Mechanized)
-  Bald Hills
-  Marine
-  Primitive
-  Little Lost Man Creek Research Natural Area Subzone
-  Transportation High-standard Subzone
-  Transportation Low-standard Subzone
-  Cultural Resource
-  Various Zones of Minimal Area



- BOUNDARIES**
-  Legislated Redwood National Park Boundary
  -  Boundary of National Park Land Acquired after Legislated Expansion of 1978

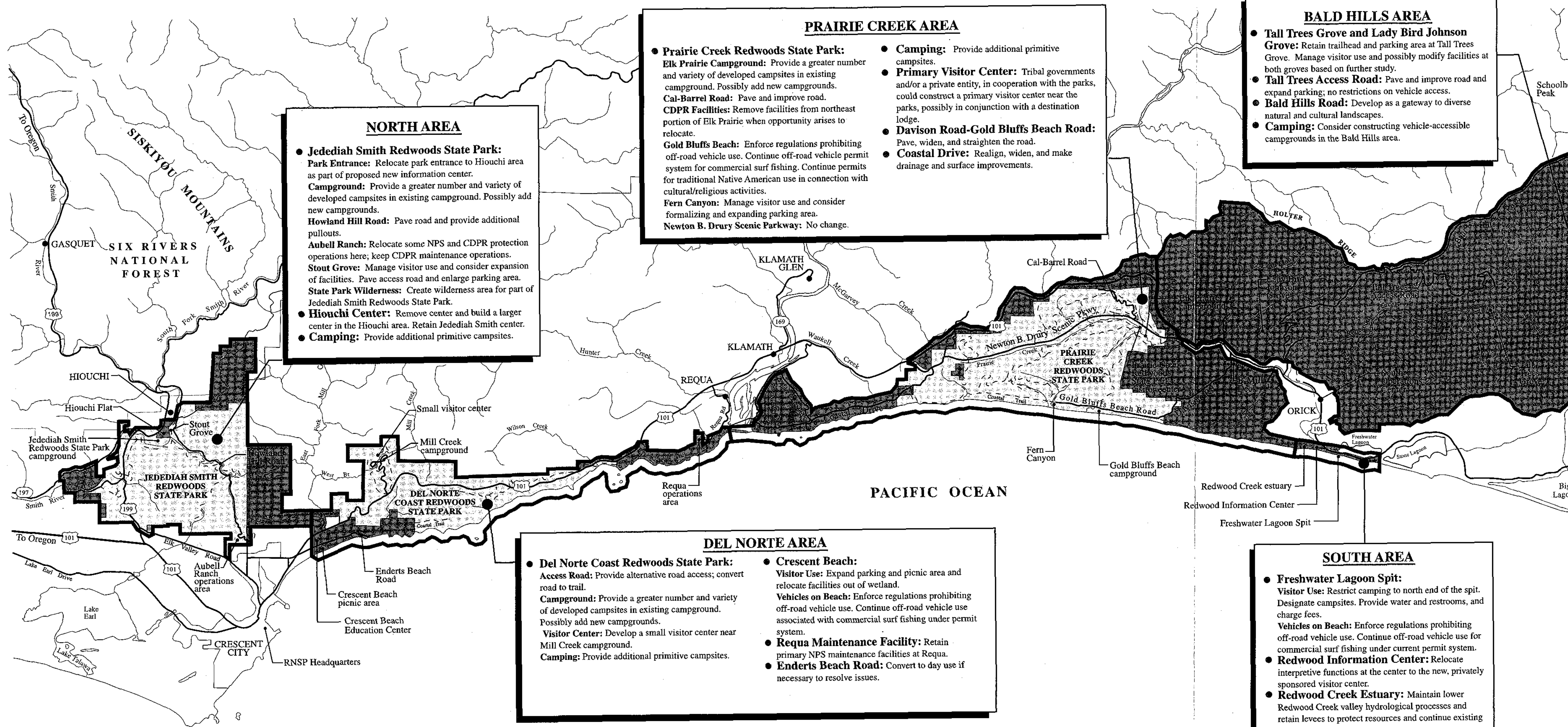


**Alternative 4 Map c  
MANAGEMENT ZONES**

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**NORTH AREA**

- **Jedediah Smith Redwoods State Park:**
  - Park Entrance:** Relocate park entrance to Hiouchi area as part of proposed new information center.
  - Campground:** Provide a greater number and variety of developed campsites in existing campground. Possibly add new campgrounds.
  - Howland Hill Road:** Pave road and provide additional pullouts.
  - Aubell Ranch:** Relocate some NPS and CDRP protection operations here; keep CDRP maintenance operations.
  - Stout Grove:** Manage visitor use and consider expansion of facilities. Pave access road and enlarge parking area.
  - State Park Wilderness:** Create wilderness area for part of Jedediah Smith Redwoods State Park.
- **Hiouchi Center:** Remove center and build a larger center in the Hiouchi area. Retain Jedediah Smith center.
- **Camping:** Provide additional primitive campsites.

**PRAIRIE CREEK AREA**

- **Prairie Creek Redwoods State Park:**
  - Elk Prairie Campground:** Provide a greater number and variety of developed campsites in existing campground. Possibly add new campgrounds.
  - Cal-Barrel Road:** Pave and improve road.
  - CDPR Facilities:** Remove facilities from northeast portion of Elk Prairie when opportunity arises to relocate.
  - Gold Bluffs Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle permit system for commercial surf fishing. Continue permits for traditional Native American use in connection with cultural/religious activities.
  - Fern Canyon:** Manage visitor use and consider formalizing and expanding parking area.
  - Newton B. Drury Scenic Parkway:** No change.
- **Camping:** Provide additional primitive campsites.
- **Primary Visitor Center:** Tribal governments and/or a private entity, in cooperation with the parks, could construct a primary visitor center near the parks, possibly in conjunction with a destination lodge.
- **Davison Road-Gold Bluffs Beach Road:** Pave, widen, and straighten the road.
- **Coastal Drive:** Realign, widen, and make drainage and surface improvements.

**BALD HILLS AREA**

- **Tall Trees Grove and Lady Bird Johnson Grove:** Retain trailhead and parking area at Tall Trees Grove. Manage visitor use and possibly modify facilities at both groves based on further study.
- **Tall Trees Access Road:** Pave and improve road and expand parking; no restrictions on vehicle access.
- **Bald Hills Road:** Develop as a gateway to diverse natural and cultural landscapes.
- **Camping:** Consider constructing vehicle-accessible campgrounds in the Bald Hills area.

**DEL NORTE AREA**

- **Del Norte Coast Redwoods State Park:**
  - Access Road:** Provide alternative road access; convert road to trail.
  - Campground:** Provide a greater number and variety of developed campsites in existing campground. Possibly add new campgrounds.
  - Visitor Center:** Develop a small visitor center near Mill Creek campground.
  - Camping:** Provide additional primitive campsites.
- **Crescent Beach:**
  - Visitor Use:** Expand parking and picnic area and relocate facilities out of wetland.
  - Vehicles on Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use associated with commercial surf fishing under permit system.
- **Requa Maintenance Facility:** Retain primary NPS maintenance facilities at Requa.
- **Enderts Beach Road:** Convert to day use if necessary to resolve issues.

**SOUTH AREA**

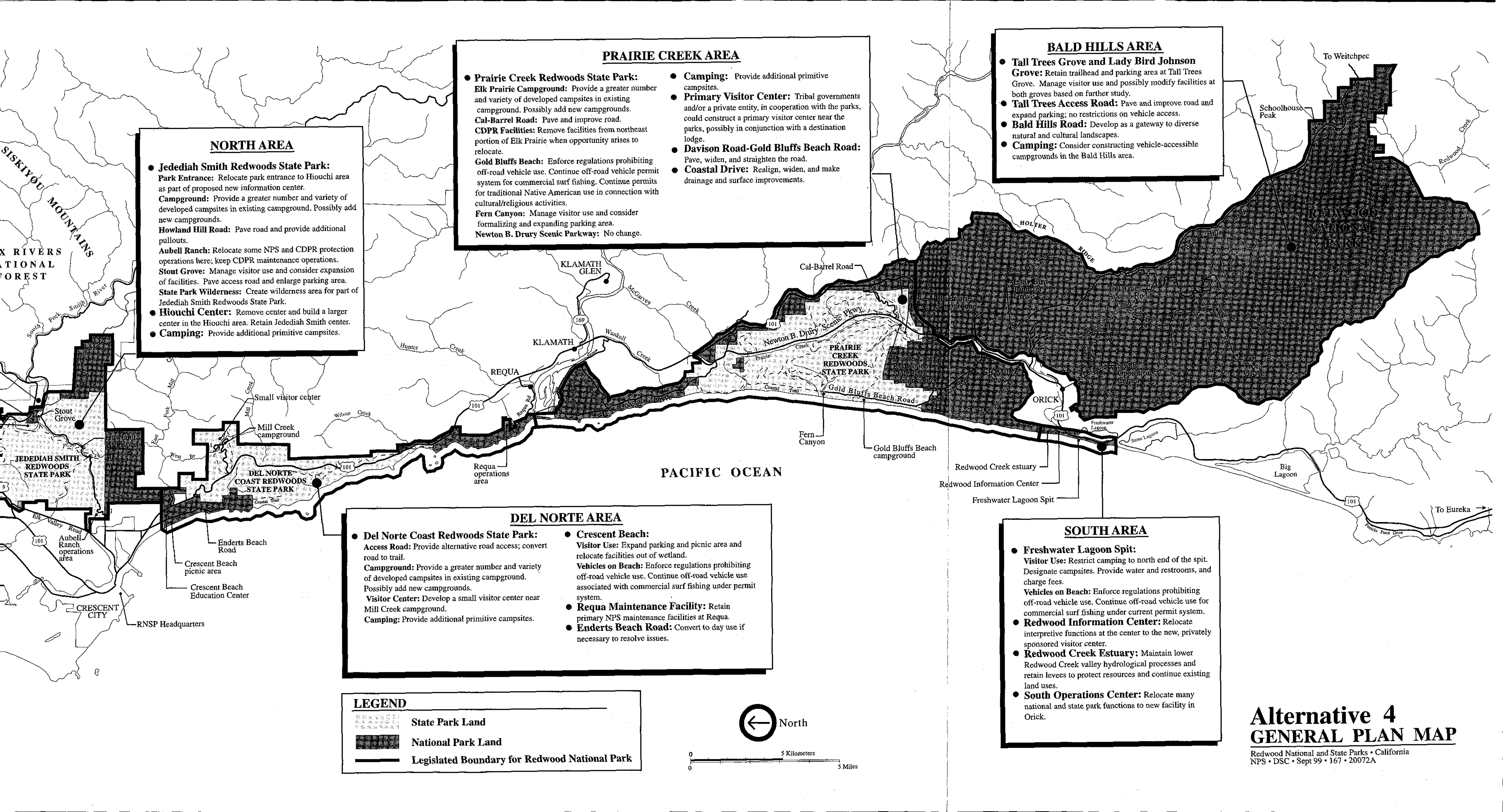
- **Freshwater Lagoon Spit:**
  - Visitor Use:** Restrict camping to north end of the spit. Designate campsites. Provide water and restrooms, and charge fees.
  - Vehicles on Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing under current permit system.
- **Redwood Information Center:** Relocate interpretive functions at the center to the new, privately sponsored visitor center.
- **Redwood Creek Estuary:** Maintain lower Redwood Creek valley hydrological processes and retain levees to protect resources and continue existing land uses.
- **South Operations Center:** Relocate many national and state park functions to new facility in Orick.

**LEGEND**

- ▨ State Park Land
- National Park Land
- Legislated Boundary for Redwood National Park

North

0 5 Kilometers  
0 5 Miles



**NORTH AREA**

- **Jedediah Smith Redwoods State Park:**  
**Park Entrance:** Relocate park entrance to Hiouchi area as part of proposed new information center.  
**Campground:** Provide a greater number and variety of developed campsites in existing campground. Possibly add new campgrounds.  
**Howland Hill Road:** Pave road and provide additional pullouts.  
**Aubell Ranch:** Relocate some NPS and CDPR protection operations here; keep CDPR maintenance operations.  
**Stout Grove:** Manage visitor use and consider expansion of facilities. Pave access road and enlarge parking area.  
**State Park Wilderness:** Create wilderness area for part of Jedediah Smith Redwoods State Park.  
**Hiouchi Center:** Remove center and build a larger center in the Hiouchi area. Retain Jedediah Smith center.  
**Camping:** Provide additional primitive campsites.

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- **Prairie Creek Redwoods State Park:**  
**Elk Prairie Campground:** Provide a greater number and variety of developed campsites in existing campground. Possibly add new campgrounds.  
**Cal-Barrel Road:** Pave and improve road.  
**CDPR Facilities:** Remove facilities from northeast portion of Elk Prairie when opportunity arises to relocate.  
**Gold Bluffs Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle permit system for commercial surf fishing. Continue permits for traditional Native American use in connection with cultural/religious activities.  
**Fern Canyon:** Manage visitor use and consider formalizing and expanding parking area.  
**Newton B. Drury Scenic Parkway:** No change.
- **Camping:** Provide additional primitive campsites.
- **Primary Visitor Center:** Tribal governments and/or a private entity, in cooperation with the parks, could construct a primary visitor center near the parks, possibly in conjunction with a destination lodge.
- **Davison Road-Gold Bluffs Beach Road:** Pave, widen, and straighten the road.
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- **Del Norte Coast Redwoods State Park:**  
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**Visitor Center:** Develop a small visitor center near Mill Creek campground.  
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**SOUTH AREA**

- **Freshwater Lagoon Spit:**  
**Visitor Use:** Restrict camping to north end of the spit. Designate campsites. Provide water and restrooms, and charge fees.  
**Vehicles on Beach:** Enforce regulations prohibiting off-road vehicle use. Continue off-road vehicle use for commercial surf fishing under current permit system.
- **Redwood Information Center:** Relocate interpretive functions at the center to the new, privately sponsored visitor center.
- **Redwood Creek Estuary:** Maintain lower Redwood Creek valley hydrological processes and retain levees to protect resources and continue existing land uses.
- **South Operations Center:** Relocate many national and state park functions to new facility in Orick.

**LEGEND**

- State Park Land
- National Park Land
- Legislated Boundary for Redwood National Park

North

0 5 Kilometers 5 Miles

## VARIOUS ZONES OF MINIMAL AREA — ALTERNATIVE 4

Some relatively small areas of the parks (shown as triangles on the previous management zone maps) have been zoned differently than their surrounding areas. To clearly identify these areas and make it easy to know what zone these small areas are in, the following list has been developed.

AREA	ZONE
Hiouchi information center	Developed
Jedediah Smith small satellite operations area	Developed
Stout Grove	Frontcountry
Mill Creek trail and Nickerson Ranch trail	Backcountry mechanized
Boy Scout Tree trail	Backcountry mechanized
Camp Lincoln	Frontcountry
Aubell Ranch	Developed
Howland Hill Outdoor School	Developed
Crescent Beach Education Center	Developed
Nickel Creek primitive campground and trail from Enderts Beach Road	Backcountry mechanized
Del Norte Coast Redwoods State Park small visitor center	Developed
small satellite operations area	
Damnation Creek	Cultural
DeMartin primitive campground	Backcountry mechanized
Redwood Hostel	Developed
Wilson Creek	Frontcountry
Lagoon Creek	Frontcountry
Flint Ridge primitive campground	Backcountry mechanized
Fern Canyon trailhead	Backcountry nonmechanized
Espa Lagoon	Developed
Prairie Creek Redwoods State Park visitor center	Developed
Prairie Creek small satellite operations area	Frontcountry
Elk Prairie campground	Frontcountry
Wolf Creek Education Center	Developed
Prairie Creek Fish Hatchery	Cultural
Lost Man Creek trailhead/picnic area	Frontcountry
Redwood Creek trailhead	Frontcountry
South Operations Center	Frontcountry
Redwood Information Center	Frontcountry
Redwood Creek overlook	Frontcountry
Gans Prairie	Cultural
Dolason trailhead	Frontcountry
Tall Trees Grove parking	Frontcountry
Tall Trees Grove trailhead	Frontcountry
Radio repeater	Developed
Lyons Ranch trailhead	Frontcountry
Schoolhouse Peak	Developed

### Vegetation Management

**Actions.** Action items are as follows.

*Second-Growth Forest Management* — The treatment of second-growth forests would emphasize increased visitor enjoyment and promote visitor use in managed areas. Treatments would be done to reduce the time necessary for forests to reattain characteristics and processes found in mature forests. Other second-growth forests would be allowed to mature without intervention or management action.

*Prairie Restoration* — Selected prairies, oak woodlands, and forest openings would be maintained or restored, based primarily on the objective of providing opportunities for visitor use and enjoyment.

*Fire Management* — Wildland fires that have the longer-term potential to reduce visitor enjoyment, restrict long-term visitor use, or have any chance of spreading to private property would be suppressed. Prescribed fire would not be used if it would adversely impact visitor enjoyment over the long term. Specimen trees in old-growth forests would be protected from fire. There would be no burning done in memorial groves.

### Artificial Impoundments

**Actions.** Artificial impoundments that have recreational values would be retained.

## CULTURAL RESOURCE MANAGEMENT AND PROTECTION

### **Management Strategies**

- Emphasize interpretation of cultural resources to the public as the primary goal of the cultural resources program.
- Develop partnerships with other agencies and organizations to provide opportunities for visitors and local residents to learn about the cultural resources of the region (e.g., lecture series, publications, films, etc.).

- Orient treatment of cultural resources toward increasing visitor access to historic sites and features.
- Provide visitor facilities in the vicinity of sites and features.

### **Actions**

Note: Under this alternative, the CDPR administrative facilities would be removed from Elk Prairie; the Cal-Barrel, Howland Hill, and Davison/Gold Bluffs Beach Roads and the Tall Trees access road would be improved and paved; and the Coastal Drive would be realigned and widened. These actions, which could affect cultural resources, are described in other sections of this alternative and are not addressed further in the following discussion.

### Historic Resources — Structures

**Actions.** The actions would be the same as described in alternative 1 but more emphasis would be placed on adaptive rehabilitation and onsite interpretation, and more demonstrations would be available than in the other alternatives.

### Historic Resources — Cultural Landscapes

**Actions.** The actions would be the same as described in alternative 1.

### Ethnographic Resources

**Actions.** The actions would be the same as those described in the "Relationships with American Indians" section and alternative 1.

### Collections

**Actions.** Materials would be added to the collection with an emphasis on what best can be used to interpret RNSP resources to the public.

Storage and work facilities would be located where they could be best used for interpretation and by researchers and by RNSP staff. Security measures would be increased to prevent loss that could occur due to greater access.

Staff would be provided access to all materials in the collections, processed and unprocessed, especially those that are suited to interpretive exhibits, e.g., photographs.

Computer-based access to the collections and research information would be focused outwardly as a general tool for access by the public.

## EDUCATION AND INTERPRETATION

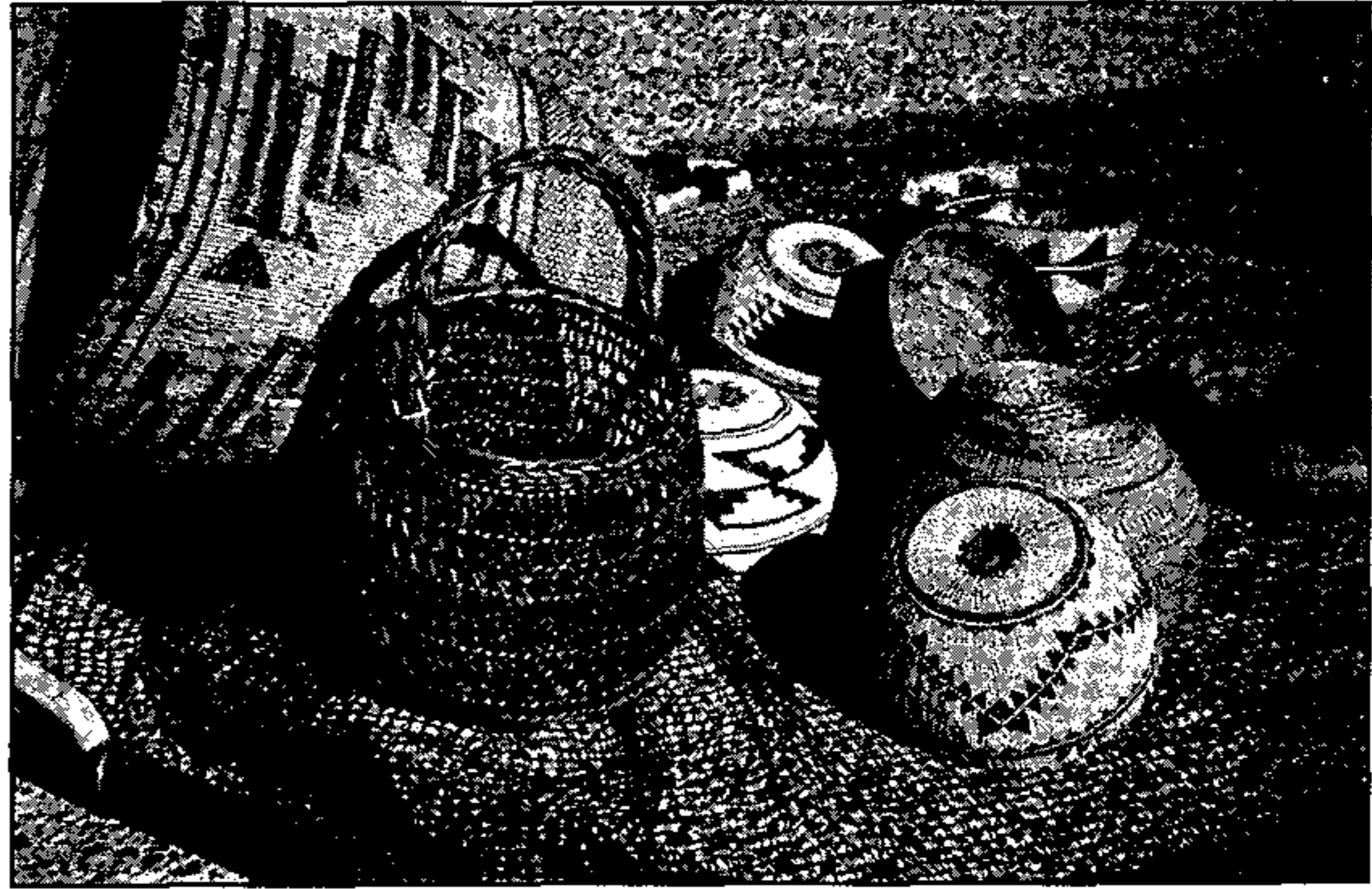
### Management Strategies

- Increase interpretation, orientation, and visitor facilities at many locations in the parks to facilitate a hands-on visitor experience.
- Provide new visitor services and facilities in and near the parks in partnership with others.
- Provide general information about natural and cultural history topics, with little emphasis on resource management issues or preservation messages.
- Develop information on, and direct visitor use toward, sensitive resource areas.
- Expand the education program at the two outdoor schools and in local communities through partnerships.

### Actions

#### Orientation/Information

**Actions.** Interpretive waysides, directional signs, bulletin boards, and orientation kiosks would be upgraded to improve visitor orientation to RNSP resources. Information services and facilities would be coordinated through partnerships with others inside and outside the parks. Where feasible, information services would be consolidated, and designated facilities would be expanded to provide both area information and interpretation of natural and cultural resources.



Traditional baskets made by American Indians associated with the parks.

#### Interpretation

**Actions.** Interpretive operations and media would be used to provide a similar emphasis on general and preservation information about natural and cultural history topics. Research and resource management actions would be explored in depth and fully supported. Most of the parks' visitors would receive an in-depth interpretation of primary interpretive themes through additional facilities, publications, and programs. Some additional opportunities would be available for visitors to see and enjoy sensitive resources, such as old-growth redwood forests, wetlands, floodplains, prairies and oak woodlands, and sites related to local American Indian cultures; however, visitor use would be carefully managed to protect these resources.

Interpretive operations and media would be used in the Bald Hills area to provide a similar emphasis on preservation and general information about old-growth forest management, second-growth forest management, watershed resources, prairie vegetation, and human use. Visitors would have added opportunities to visit cultural resource sites in the Bald Hills area.

#### Information, Orientation, and Interpretive Centers

**Actions.** Action items would be as follows.

In cooperation with the RNSP staff, tribal governments, and/or a private entity could construct a primary visitor center adjacent to the parks where there would be the best opportunity to interpret the parks' primary interpretive themes, presumably somewhere in the southern area of the parks. This could be done in connection with a destination lodge. A cooperative agreement would be required before planning and construction of the primary interpretive center so that RNSP interests would be included and ensured in the new center.

The Jedediah Smith and Prairie Creek Redwoods State Park visitor centers would be retained. A small visitor center would be developed near Mill Creek campground.

The functions at Redwood Information Center would be relocated to the new primary visitor center if and when it was built. The facility would be salvaged and the site converted to day use with interpretive opportunities including beach access, boardwalks, and wayside exhibits. (The Redwood Information Center is in the tsunami zone; see the "Public Safety" chapter in the "Affected Environment" for more information.)

Information and orientation services would remain at the Crescent City information center unless an opportunity arose for these functions to be relocated to an appropriate multiagency facility in or near the Crescent City area.

The Hiouchi information center would be removed, and a larger information center would be built in the Hiouchi area.

### Outdoor Schools

**Action.** The two outdoor schools would continue to be operated, primarily in fall and spring, as an overnight facility for regional kindergarten through 12th-grade students. An expanded, revenue-generating use of the facility would be developed for winter and summer to include use for conferences and educational programming by community groups. As funding allows, the education program would also be expanded to

include outreach to community schools and other educational groups and an onsite educational day use program. The focus of the education program would include both natural and cultural resource management.

## **PUBLIC USE, RECREATION, AND VISITOR SAFETY**

### **Management Strategies**

- Provide facilities in appropriate and convenient locations throughout the parks to support a wide variety of public uses and recreational activities.
- Provide opportunities for public access to the full range of park resources and in a variety of locations.
- Manage recreational activities and settings to protect resources while conducting efforts to enhance public enjoyment and public safety.
- Ensure that public use activities are consistent with NPS and CDPR regulations and policies.
- Conduct carrying capacity analyses and develop detailed action plans to prevent public use conflicts and adverse impacts on sensitive resources.
- Develop a backcountry management plan and a comprehensive trail plan to manage public use of the parks' backcountry, including hiking, camping, equestrian, and mountain bike use, and to provide guidance concerning the development of an extensive trail system and other backcountry facilities.
- Resolve public use conflicts by separating conflicting uses.
- Limit public use only if there is no other reasonable alternative available to protect resources.
- In cooperation with local communities and adjacent jurisdictions, maintain a safe and healthful environment for visitors as well as a coordinated, professional, public safety program.
- Standardize NPS and CDPR public use policies where practicable to avoid adversely affecting RNSP visitors.
- Provide commercial services that enhance public access to and use and enjoyment of RNSP resources.

## Actions

### Visitor Use Levels

**Actions.** Visitor use would be allowed to increase to levels that would not create unacceptable impacts on the resources; more intensive management actions (such as rangers keeping visitors on trails) would be taken to keep impacts within acceptable limits.

At the Tall Trees Grove, the trailhead and parking area would be retained. Also, at the Tall Trees, Lady Bird Johnson, and Stout Groves and at Fern Canyon a carrying capacity analysis would be conducted to identify indicators and standards; a monitoring program would also be developed and begun. (See the discussion on “Public Use, Recreation, and Visitor Use” in the “Actions Common to All Alternatives” chapter for further description of the carrying capacity analysis process.)

Visitor use in the Tall Trees and Lady Bird Johnson Groves would be managed, and facilities, including the trailheads and parking areas, would be modified based on the carrying capacity analysis and monitoring results. At the Stout Grove, visitor use would also be managed, and the expansion of the parking capacity would be considered based on the carrying capacity analysis and monitoring results. At Fern Canyon, visitor use would be managed, and consideration would be given to formalizing and expanding the parking area based on the carrying capacity analysis and monitoring results.

Enderts Beach Road would continue to provide public access to the Crescent Beach overlook and the segment of the Coastal Trail leading to Enderts Beach and Nickel Creek campground; however, the road would be converted to day use if found to be necessary to resolve public use and resource degradation issues at those locations.

At Crescent Beach, there would be unrestricted access to the beaches. The picnic and parking areas would be enlarged, and the road, parking area, trails, and restrooms would be relocated out of the wetland. Consideration would be given to constructing trails from the parking, restroom, and beach areas.

Visitors would be directed to cultural sites, which would be developed to support active use and easy access.

### Recreational Activities

**Actions.** A comprehensive trail plan and a backcountry management plan would be prepared that would specify the location of camping areas and describe RNSP policies and rules for use of backcountry areas by hikers, bicyclists, and equestrians. The backcountry management plan would be guided by the desired resource conditions and visitor experiences of the appropriate management zones. Other action items would be as follows. More hiking trails and trail connections would be developed than under the preferred alternative.

Campgrounds with Access by Vehicles — A greater number and variety of campsites in state parks would be provided in existing campgrounds outside of sensitive resources than currently exist. The possibility of adding more campgrounds in state parks would be considered. Consideration would also be given to constructing campgrounds that are accessible by vehicles in the Bald Hills area.

Primitive Camping — A greater number and variety of primitive camping experiences would be provided in designated sites and zones in the parks under this alternative than currently exist.

A greater number and locations of sites for primitive camping than in alternative 1 would be designated throughout the Coyote Creek basin. Random hiker camping would continue to be allowed in the Redwood Creek corridor, on the east and west sides of the Redwood Creek basin, and in the designated horse camps, as specified in the 1984 *Backcountry Trail Plan* for Redwood and Skunk Cabbage Creeks and described under alternative 2. In addition, more opportunities for primitive camping would be provided by designating sites along the trails and in other areas on both the east and west sides of the basin.

Hiking, Biking, and Equestrian Trails — A joint agency trail plan would be developed for Redwood National and State Parks that would be consistent with the agencies’ missions and the goals established under this alternative. This trail

plan would provide for significant expansion of the trail system in the parks and greater opportunities to enjoy hiking, biking, and horseback riding than proposed in alternative 1. The trail plan would also include numerous opportunities to link the RNSP trail system with trails managed by other jurisdictions and gateway communities, forming a regional system of hiking, biking and equestrian trails. Where appropriate, the RNSP trail system would also be linked, in partnership with the private sector or local American Indian tribes, to public use facilities adjacent to the parks.

*Picnic Sites* — Additional picnic opportunities would be provided, along with additional facilities.

#### *Freshwater Lagoon Spit Visitor Use*

**Actions.** Camping would be restricted to the north end of the spit. Water and restrooms would be provided. The camping capacity would be reduced, but designated campsites would be provided. Camping fees would be charged. These capital improvements would require the National Park Service or the California Department of Parks and Recreation to obtain a sufficient interest (fee ownership or long-term lease) in the lands to implement this alternative.

Public use of Freshwater Lagoon would be managed cooperatively with other agencies having jurisdiction over those waters.

#### *Vehicles on the Beach*

**Actions.** NPS and CDPR regulations prohibiting off-road vehicle use (see alternative 1 under this topic) would be enforced throughout the parks, resulting in the elimination of all off-road vehicle use other than that which is essential to provide access for commercial surf fishing activities. Off-road vehicle use associated with commercial surf fishing at Freshwater Lagoon Spit, Gold Bluffs Beach, and Crescent Beach would continue under a permit system. Off-road vehicle use on beaches in connection with traditional American Indian cultural/religious activities that are consistent with the purposes of the parks would continue at Gold Bluffs Beach under a CDPR permit system. Vehicle use would

be managed to prevent resource damage and to minimize public use conflicts.

#### *Concessions and Commercial Services for Visitors*

**Action.** Before recommending any new provision of public services by private vendor, consideration would be made of the quality and type of existing services, public demand/need, the ability of the resources to support such services, and the economic feasibility of providing such services. In this alternative extensive public use is envisioned, consistent with natural and cultural resource requirements. Therefore, consideration of a broad range of services would be appropriate, including guide services, hostels, bike rentals, bus tours, river running, and Freshwater Lagoon Spit campground operations. Where these services exist, they would be continued. If they were new, proposals would be sought from qualified bidders in accordance with applicable laws and policies.

### **VISITOR ACCESS AND CIRCULATION / ROADS**

#### **Management Strategies**

- Administer the roads in the parks under NPS and CDPR jurisdiction to facilitate and enhance visitors' leisurely enjoyment of RNSP resources and public use facilities.
- Ensure that park roads relate harmoniously with the topography and surrounding environment; these roads would sometimes be more narrow and winding and have lower speed limits than roads outside parks.
- Provide safe opportunities for visitors to see scenic vistas and other points of interest, enjoy interpretive displays, and access to trails, picnic areas and other recreation facilities along RNSP roads.
- Provide distinctive and unobtrusive signs to orient, guide, and inform visitors.
- Provide bicycle lanes, alternative transportation systems, and one-way roads and set vehicle size limits as appropriate to ensure public safety and visitor enjoyment.



- Improve and/or pave certain unimproved roads and enlarge parking areas to accommodate higher traffic levels and to enhance visitor access to resources.
- Use engineering solutions to protect resources; also use methods such as mass transit or establishing public use limits and permit systems.
- Depend on U.S. highways located within the parks to serve as the primary access routes to the parks, to be managed and maintained by state and federal transportation agencies.
- Depend on Del Norte and Humboldt Counties to manage and maintain county roads within the parks that provide access to nonpark lands and that serve the general public in addition to RNSP visitors.
- Work cooperatively with the agencies having primary jurisdiction on these U.S., state, and county roadways to promote public safety and to enhance opportunities for travelers to enjoy scenic vistas and gain access to RNSP resources.
- Consider entering into agreements for ownership, management, and/or maintenance of all or portions of the county roads in the parks that are in good structural condition, that provide access primarily to parklands, and that serve primarily RNSP visitors.
- Design, construct, and maintain RNSP roads that provide access from state highways or county roads to RNSP facilities so that they are sustainable, provide safe access for visitors and employees, and minimize the disruption of traffic on through highways.

## **Actions**

### **Bald Hills Road**

The Bald Hills Road would be maintained in the existing right-of-way as a rural gateway to an area of diverse natural and cultural landscapes within the parks, allowing travelers to enjoy spectacular scenic vistas and numerous opportunities to pull off the road and enjoy scenic overlooks and interpretive exhibits and to participate in a variety of hiking opportunities. Opportunities would be provided for visitors to observe and appreciate a variety of natural and cultural resource management projects, such as prescribed fires, prairie restoration, and second-growth forest management. Through-travelers

would enjoy a unique alternative route to the scenic Klamath and Trinity River corridors and the Hoopa Reservation.

### **Newton B. Drury Scenic Parkway**

This parkway road would be kept in its current alignment through the prairie unless a different alignment is recommended based on future planning efforts. The parkway would continue to be operated by the California Department of Parks and Recreation, with special operational/maintenance requirements defined by Caltrans.

### **Jedediah Smith Redwoods State Park Entrance**

The park entrance would be relocated to the Hiouchi area as part of the proposed information center.

### **Stout Grove**

The parking area would be enlarged.

### **Del Norte Coast Redwoods State Park Entrance**

The access road would be replaced with a new road and entrance station at a more geologically stable and environmentally prudent location. The existing access road would be removed or converted to a trail.

### **Enderts Beach Road**

Access would continue to be provided to the Crescent Beach overlook and the trailhead for the Coastal Trail. Enderts Beach Road would be converted to day use if found to be necessary to resolve public use and resource degradation issues at those locations.

### **Alder Camp Road**

This road would be improved to provide access to trails, picnic area, and Alder Camp Conservation Center. Culverts would be replaced, and the road would receive routine and cyclic maintenance and repairs as appropriate. Note: All actions on the county portion of the road would depend on agreements with the county.

***Davison Road–Gold Bluffs  
Beach Road to Fern Canyon***

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This road would be paved, widened, and straightened. Note: All actions on the county portion of the road would depend on agreements with the county.

***Cal-Barrel Road***

---

This road would be paved and improved.

***Howland Hill Road***

---

The road would be paved, and additional pull-outs would be provided. This road would not be recommended for large trailers and motorhomes.

***Tall Trees Grove Access Road***

---

No restrictions would be made on vehicle access. The road would be paved, and the parking area would be expanded.

***The Coastal Drive***

---

The road would be realigned and widened, and drainage and road surface improvements would be made.

**INTERDEPENDENCE OF PARKS  
AND COMMUNITIES**

**Management Strategies**

- Support sustainable economic development and the availability of appropriate visitor services in local communities that serve as gateways to the parks.
- Participate as partners with those communities and local organizations in projects and initiatives that have mutual benefit or that enhance the quality of the overall experiences of visitors to the parks.
- Encourage the development of visitor service facilities in local communities and in environmentally suitable locations in the parks' vicinity.
- Actively participate in local educational and public safety programs and cooperate with local agencies and private interests in tourism

development and in land use and transportation planning for areas adjacent to the parks.

**Actions**

***Lodge/Accommodations***

---

**Actions.** The National Park Service and the California Department of Parks and Recreation would support and actively participate with private sector and/or tribal partners in their planning and development of appropriate destination facilities, such as lodges, near or adjacent to the parks that includes thematic and physical links to the resources and values of the parks.

***Viewshed Protection***

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**Actions.** Action items would be as follows.

***Scenic Corridor*** — The acquisition of lands or interests in lands within the scenic corridor along Highway 101 north of Orick would be pursued as lands became available and as funding permits to preserve scenic views.

***Viewsheds*** — Important visual areas would be identified, and RNSP staff would work with local governments and conservation organizations to protect these areas. RNSP staff would also support efforts to improve visual quality, such as putting powerlines underground and initiating reforestation projects.

***Adjacent Land Uses***

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**Actions.** The parks would actively participate in planning, zoning, and other land use activities that might affect RNSP resources. RNSP staff would support and promote, where feasible, land uses that are compatible with restoration, protection, and maintenance of park resources and values.

***Gateway Communities***

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**Actions.** RNSP staff would actively support and assist local communities in efforts to foster appropriate and sustainable economic development, to develop infrastructure needed for community development and RNSP facilities, and to develop services and facilities that support

tourism and provide connections between the communities and the parks. The staff would also provide technical assistance to communities, communicate support to agencies that authorize and fund development projects, and participate as partners in situations where mutual conservation, visitor service, or development strategies would be achieved.

RNSP staff would cooperate with local communities and organizations to ensure that public information and orientation services were coordinated and provided in convenient locations.

## ADMINISTRATIVE FACILITIES

### Management Strategies

- Where practicable and cost-effective, establish and retain joint administrative facilities with other federal, state, or local entities to facilitate visitors' obtaining services.
- Consolidate or jointly locate CDPR and NPS facilities wherever operational efficiencies or savings and enhanced service to the public would be achieved.
- Locate facilities near local communities and developed areas of the parks.
- Make administrative facilities that become excess to the parks' needs available, if appropriate, for use by partners or cooperators to support public services.
- Retain housing necessary to provide essential services for RNSP visitors at locations near to employee work sites.
- Evaluate structures on newly acquired lands for adaptive use as administrative facilities, including housing, or remove them.

### Actions

#### Operations Facilities (Maintenance, Ranger Activities, and Fire Protection)

**Actions.** NPS and CDPR facilities would be consolidated wherever it would be cost-effective to do so. RNSP headquarters would remain in the current facility in Crescent City. NPS primary maintenance facilities would continue to

be in Requa, with some consolidation of CDPR maintenance facilities there; utilities and facilities at Requa would be upgraded and improved. However, a 1982 geological survey report documented complex landsliding and earthflow movement at Requa. The primary NPS maintenance facility would be relocated when and if this activity threatens the structural integrity of the buildings or safety of their occupants. Any new facility would be planned and designed to meet both NPS and CDPR operational requirements and would have safe, dependable access to area highways and convenient access to RNSP facilities.

CDPR primary maintenance facilities would remain at Aubell Ranch. RNSP resource management employees would be located in a new facility to be constructed in the Orick area. To avoid diminishing established relationships between private and public entities, and to continue to enjoy mutual benefits from interagency coordination and cooperation, some employees and programs would remain in the Arcata area or alternate location to derive the greatest benefits to the parks. NPS and CDPR protection staff offices would be consolidated at the Aubell Ranch site in the north and, to the extent practicable, at the facility in the Orick area in the south.

Fire protection facilities would continue to be at Hiouchi in the north and Wolf Creek in the south; however, the National Park Service would consider moving the Wolf Creek fire cache and equipment into the Orick area facility. Interpretation staff offices would remain in the Crescent Beach Education Center in the north, in the Redwood Information Center in the south until the new primary visitor center was built, and in the new facility that would be constructed in the Orick area. Small satellite facilities would continue in each state park unit to support operations in those areas.

CDPR administrative facilities in the northeast portion of Elk Prairie in Prairie Creek Redwoods State Park would be removed when the opportunity to relocate them to the Orick area and/or to consolidate them with NPS facilities arises, including two 1950s residences, a barn/shed used to house vehicles and supplies, some seasonal cabins, a shop, a maintenance office, a storage

area, and a gas shed; one historic house would be kept as a ranger residence.

The Schoolhouse Peak fire lookout would be operated for fire protection. If no longer needed for fire protection, the facility would be removed only if a site evaluation determined that there were no appropriate public use or administrative uses for the structure.

### Housing

**Actions.** Generally, RNSP employees would live in local communities. In-park housing for permanent staff would be provided only for those needed to be available to provide emergency services to the public or to protect RNSP resources and facilities. Otherwise, housing would be provided only for seasonal staff and volunteers essential to the management and protection of the parks. NPS housing would be retained in the Hiouchi, Requa, Wolf Creek, Orick, and Bald Hills areas. NPS housing at Crescent Beach would be removed when no longer needed. CDPR housing would continue to be at Jedediah Smith and Del Norte Coast Redwoods State Parks. The Boyes House at Prairie Creek Redwoods State Park would be retained for use by emergency services staff, and the Gold Bluffs Beach residence would remain as required housing for the ranger assigned to Gold Bluffs beach.

## LAND ACQUISITION

### Management Strategies

- Acquire the minimum interest in lands necessary to meet management strategies described under management zoning.
- Use the most practical and cost-effective method of acquisition to manage land for public use and to protect RNSP resources and values, including any combination of fee or less-than-fee options or cooperation with landowners; federal agencies; state, tribal or local governments; and the private sector.
- Acquire the minimum interest in lands necessary to meet the intent of Congress to protect RNSP resources from adverse impacts of

upstream land uses and, in the scenic corridor, to provide an appropriate gateway to the parks.

- Acquire interests in lands necessary to preserve or protect significant RNSP resources and values and to provide connections between coastal and inland trails in the parks.

### Actions

#### Actions for Federal Lands

The current program to acquire lands or interests in lands with significant resource, scenic, or public use values would continue as opportunities arose. However, because the legislated Redwood National Park boundary is limited to 106,000 acres, exclusive of submerged lands and publicly owned highways and roads, future acquisitions could not result in total acreage exceeding that figure without legislation authorizing an increase in the acreage ceiling. Any future federal land acquisitions would be analyzed according to relevant boundary revision criteria, which include any or all of the following:

- The proposed acquisition includes significant resources or opportunities for public enjoyment that are related to the purposes of the parks.
- The proposal addresses operational and management issues such as access and boundary identification by topographic or other natural features or roads.
- The potential acquisition protects RNSP resources that are critical to fulfilling the parks' purposes.

In addition, recommendations to expand the boundary and acquire additional lands would be preceded by determinations that the added lands will be feasible to administer considering size, configuration, ownership, costs, and other factors, and that other alternatives for management and resource protection are not adequate.

As stated in the "Boundary Map Adjustments" section, future acquisitions would be included in the legislated national park boundary by publishing a revised drawing or boundary description in the *Federal Register*.

Actions for State Lands

The current program to acquire lands or interests in lands with significant resource, scenic, or public use values would continue as opportunities arose.

**Action**

A state wilderness area would be proposed for a portion of Jedediah Smith Redwoods State Park to conform to the general boundary described as south of U.S. Highway 199 and Hatton Trail, west of Hiouchi and Mill Creek Trails, north of Howland Hill Road, and east of the western park boundary.

**WILDERNESS PROPOSALS**

**Management Strategy**

- Evaluate lands for designation as wilderness consistent with and supportive of the perpetuation of the redwood forest ecosystem as the prime resource of the parks.

Table 7: Summary of Actions That Are Common to All Alternatives

<p><b>Management Zones</b></p>	<p>Management zones would be used to achieve particular combinations of physical, biological, cultural, visitor experience, and management conditions in different areas of the parks.</p>
<p><b>Natural Resource Management and Protection</b></p>	<p><b>Restoring Disturbed Lands.</b> Parklands disturbed by commercial logging and associated road building, mostly in the Redwood Creek basin, would be restored, although the timeframe would vary depending on the alternative chosen. Existing and potential stream diversions would be eliminated on national park lands in Redwood Creek basin. Landform restoration would be most comprehensive near high visitor use areas. Cooperative watershed restoration activities would occur with upstream landowners. RNSP staff would take appropriate steps in areas outside the Redwood Creek basin if significant threats to resources were anticipated. As much as possible, road maintenance and watershed restoration activities would be done before the rainy season or when areas have dried out.</p> <p><b>Wetlands.</b> Wetlands would be identified and delineated if appropriate. Wetlands that have been damaged or degraded by previous land use would be considered for restoration. Original functions and values of each wetland would be restored, and adverse impacts would be avoided to the greatest extent practicable. Any adverse impacts would be mitigated.</p> <p><b>Threatened and Endangered Species.</b> If any state or federally listed or proposed threatened or endangered species were found, or if designated critical habitat existed in areas that would be affected by construction, visitor use, or restoration activities proposed under any of the alternatives in this joint plan, RNSP staff would first consult informally with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and/or the California Department of Fish and Game. RNSP staff would attempt to avoid, minimize, rectify, reduce, compensate, or otherwise mitigate any potential adverse impacts on state or federally listed or proposed or candidate threatened or endangered species. Should it be determined through informal consultation that an action or proposed project might adversely affect a listed or proposed species, RNSP staff would initiate formal consultation under section 7 of the Endangered Species Act or with the California Department of Fish and Game, as required under the <i>California Fish and Game Code</i> and the California Endangered Species Act.</p> <p>No state or federally listed, proposed, or candidate threatened or endangered plant species have been confirmed in Redwood National and State Parks. RNSP botanists would continue to conduct surveys for these and other rare or sensitive species incidental to other projects. If sensitive plants were located, more intensive surveys of similar habitats would be conducted to determine the extent of rare plant populations in the project area. Management emphasis of sensitive plant species would be on the population level to ensure their survival within the parks. Should any sensitive plants be discovered in project areas, the plants would be protected from human-caused disturbance and the project would be redesigned to avoid direct impacts on the plants and their specific habitat if possible. Should it be determined through informal consultation that an action or proposed project might adversely affect a listed or proposed species, RNSP staff would initiate formal consultation with the U.S. Fish and Wildlife Service under section 7 of the Endangered Species Act or with the California Department of Fish and Game, as required under the <i>California Fish and Game Code</i> and the California Endangered Species Act.</p> <p><b>Marine and Coastal Resources.</b> Marine plants and animals would be inventoried, and their condition would be monitored. If additional protection was necessary, RNSP staff would work with the California Department of Fish and Game to modify regulations that apply to offshore RNSP waters. RNSP staff would cooperate with state and other agencies where marine interests might be related to RNSP lands and waters, including reintroducing extirpated native species and protecting state and federally listed species. RNSP staff would continue to participate on the North Coast Area Planning Committee to help ensure continued protection of resources from offshore shipping.</p>

<b>Cultural Resource Management and Protection</b>	<p>Actions affecting cultural resources would be undertaken only if consistent with parks' purposes and applicable CDPR and NPS policies, guidelines, and standards. Preservation, rehabilitation, restoration, and reconstruction efforts, as well as the daily, cyclical, and seasonal maintenance of cultural resources, would be undertaken in accordance with the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties</i> and any applicable state regulations.</p> <p>Emphasis in actions involving both cultural and natural resources would be weighted toward protecting and preserving resource(s) that would be most easily damaged. Parks' archeological, historic, and ethnographic resources would continue to be identified, evaluated, and nominated, as appropriate, for listing on the National Register of Historic Places. Options for RNSP historic structures would include adaptive rehabilitation, the historic property leasing program, interpretation, and discovery sites. Nonhistoric noncontributing features would be removed from the parks' cultural landscapes.</p> <p>The nature and extent of visitation and use would be managed to minimize impacts on the parks' cultural resources. RNSP staff would work with neighboring landowners and jurisdictions to ensure that adjacent land management practices would not impair the parks' cultural resources, viewsheds, or distant vistas. RNSP staff would develop solutions to accessibility requirements that minimize impacts on cultural resources.</p>
<b>Relationships with American Indians</b>	<p>The parks would emphasize working with local American Indians in the areas of consultations, government-to-government relations, interpretation, traditional activities, resource management, and sustainable economic development.</p> <p>Relations between the Yurok Tribe, the National Park Service, and the California Department of Parks and Recreation would continue to be managed in accordance with applicable laws and agreements. RNSP staff and local tribes would place special emphasis on working together on cultural resource issues. RNSP staff would continue to work in partnership with representatives of American Indian tribes and preservation interest groups to achieve similar emphasis on the management of cultural resources and interpretation, education, and visitor use.</p>
<b>Public Use, Recreation, and Visitor Safety</b>	<p>Carrying capacities would be analyzed and established for several sites in the parks to determine the level of visitor use that could be allowed without adverse impacts on resources or visitor experiences. Site-specific desired conditions would be established. Measurable and quantifiable indicators and standards and indicators would be developed to monitor those conditions. When standards were exceeded, measures to control visitor use levels would be instituted. All new and rehabilitated facilities would be designed to meet or exceed state and federal standards for accessibility and encourage use by visitors of all abilities.</p>
<b>Visitor Access and Circulation</b>	<p>U.S. Highways 101 and 199 would remain the main access routes to and within the parks. RNSP staff would work with Caltrans, the Federal Highway Administration, and local government agencies to ensure that visitors would have a world-class scenic travel experience while traveling on the 101 and 199 highway corridors and that these routes would convey to travelers a sense of being in a park environment. Significant visual qualities of the corridors would be protected. Associated recreational activities, such as bicycle riding, would be accommodated within public safety and resource constraints. Protection of the redwood forests would be of paramount importance. RNSP staff would work with federal, state, and county agencies to ensure environmentally sensitive efforts to minimize traffic and maintenance operation impacts on the parks' resources and values.</p>
<b>Boundary Map Adjustments</b>	<p>A revised drawing or boundary description of the boundary that includes NPS and CDPR acquisitions since 1978 would be put in the <i>Federal Register</i>. Future acquisitions would be included through a similar <i>Federal Register</i> notice.</p>
<b>Wilderness Proposals</b>	<p>No federal lands would be proposed for wilderness designation. State wilderness proposals vary by alternative.</p>
<b>Future Action Plans</b>	<p>The following plans would be prepared: backcountry management plan, Redwood Creek estuary aquatic resource management plan, second-growth forest management plan, vegetation management plan, erosion control and disturbed lands restoration plan, coordinated resource management plan, comprehensive RNSP trail plan, land protection plan, wildland fire implementation plan, an alternative transportation plan, circulation and access plan at Prairie Creek Redwoods State Park, Bald Hills visitor use management plan, and RNSP architectural and design guidelines.</p>
<b>Mitigation Measures for Facility Construction Activities</b>	<p>Mitigation measures would be used to minimize temporary impacts from construction. Appropriate restrictions would be imposed on construction activities in areas that have critical habitat for endangered species.</p>

**Table 8: Summary of Alternative Actions**

\* Note: Not every detail or subtopic is summarized in this table. For additional details, see the "Alternatives, Including the Proposed Action" section.

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
ALTERNATIVE CONCEPTS	<p>Emphasize the protection of the parks' resources and values and also provide a variety of opportunities for visitors to enjoy the parks' natural and cultural resources. Provide in-depth interpretation both in facilities and onsite. Help visitors easily access both facility-based and resource-based interpretation and visitor opportunities through orientation. Focus major developments along U.S. Highways 101 and 199. However, require new uses and facilities to enhance visitor experiences in sensitive resource areas of the parks to be low impact. Provide new visitor services and facilities in other areas of the parks to enhance visitor experiences if the services and facilities did not impact sensitive resources.</p>	<p>Continue what agencies are doing for natural and cultural resource protection, preservation, and restoration. Provide orientation information primarily through interpretive facilities, and provide in-depth interpretation through a combination of personal and nonpersonal services. Focus major development along U.S. Highways 101 and 199, and encourage that visitor services and facilities be developed outside the parks. Retain facilities in areas with sensitive resources.</p>	<p>Emphasize the preservation and restoration of the parks' resources and values; limit opportunities for public use and enjoyment of the parks to experiences that are consistent with this high degree of emphasis on resource stewardship. Provide in-depth interpretation only in ways that would not affect sensitive resources, and educate the public so that they would support the protection of the resources. Focus major developments would be focused along U.S. Highways 101 and 199 and outside the parks. Consider relocating facilities now in sensitive resource areas and restoring the sites. Allow no new impacts in areas with sensitive resources. Limit new visitor services and facilities in other areas of the parks to those that protect the public and the resources. Provide most new visitor services and facilities outside the parks.</p>	<p>Provide, consistent with overarching obligations to protect the parks' resources and values, a wide spectrum of appropriate visitor experiences that relate to RNSP resources. Protect RNSP resources and values, although complete restoration would receive less emphasis than it does currently. Provide interpretation, orientation, and visitor facilities at many locations throughout the parks to facilitate hands-on experiences. Focus major development along U.S. Highways 101 and 199. Retain facilities in areas with sensitive resources. Perhaps allow new uses in these and other areas of the parks, with mitigation. Provide new visitor services and facilities in and near the parks through the federal and state governments and in partnership with others</p>



TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
<b>NATURAL RESOURCE MANAGEMENT AND PROTECTION</b>				
<b>Watershed Management and Restoration in the Redwood Creek Basin, within and upstream of the Park</b>	<p><b>Within the National Park:</b> Increase watershed restoration efforts over current levels, treating an average of 9.5 miles/year. Emphasize partial landform restoration, with complete removal of all major logging roads and limited removal of minor logging roads that pose greatest threats. About 17 years would be required to treat 155 miles of roads, along with a significant increase in funding.</p> <p><b>Upstream of the National Park:</b> Work cooperatively with upstream landowners and other agencies to address conditions that contribute to erosion potential. Depending on opportunities, treat up to 40 miles of roads per year in the Redwood Creek basin. Emphasize road decommissioning and erosion prevention. About 17 years would be required to treat the existing 911 miles of logging roads, along with a significant increase in funding.</p>	<p><b>Within the National Park:</b> Continue treatment of about 2 miles of roads per year. Emphasize partial landform restoration, with complete removal of all major logging roads and limited removal of minor logging roads that pose greatest threats. About 66 years would be required to treat 155 miles of roads.</p> <p><b>Upstream of the National Park:</b> Depending on opportunities, treat up to 4 miles of roads per year in the Redwood Creek basin. Emphasize road decommissioning and erosion prevention. About 227 years would be required to treat the existing 911 miles of logging roads.</p>	<p><b>Within the National Park:</b> Treat about 9.4 miles of major roads and 99 miles of associate minor roads per year. Emphasize complete landform restoration. About 17 years would be required to treat 155 miles of major roads and 1,643 miles of minor roads, along with a significant increase in funding.</p> <p><b>Upstream of the National Park:</b> Depending on opportunities for restoration, treat up to 54 miles of roads per year in the Redwood Creek basin. Emphasize road decommissioning and erosion prevention. About 17 years would be required to treat the existing 911 miles of logging roads, along with a significant increase in funding.</p>	<p><b>Within the National Park:</b> Same as alternative 1.</p> <p><b>Upstream of the National Park:</b> Depending on opportunities, treat up to 40 miles of roads per year in the Redwood Creek basin. Emphasize road decommissioning and erosion prevention. About 17 years would be required to treat the existing 911 miles of logging roads, along with a significant increase in funding.</p>
<b>Watershed Management and Restoration in Redwood Creek Estuary</b>	<p>Play a leadership role in organizing a multidisciplinary/ multijurisdictional approach to address estuary restoration. Manage and restore estuarine functions while seeking to retain land uses in the lower Redwood Creek valley.</p>	<p>Maintain lower Redwood Creek valley hydrologic processes and flood control structures to protect resources and existing land uses.</p>	<p>Restore Redwood Creek estuary and adjacent creeks and sloughs to naturally functioning, pre-levee, and pre-breaching conditions.</p>	<p>Same as alternative 2.</p>

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
Vegetation Management	<p><i>Managing Second-Growth Forests</i> — Emphasize managing second-growth stands that are critical to ecosystem restoration and consider managing second growth that would contribute to visitor use and enjoyment of the parks. Act to reduce time for forests to regain characteristics and processes found in mature forests.</p> <p><i>Prairie Restoration</i> — After evaluation, restore selected naturally occurring prairies, as well as prairies and oak woodlands maintained by American Indians through burning. Restore and/or maintain certain forest openings for resource values.</p> <p><i>Fire Management</i> — Establish a fire management program to support resource management strategies, including restoration of fire in old-growth forests, prairies, oak woodlands, and coastal shrub communities as a natural process. Base program on sound risk management, economic feasibility, the best science available, cooperation with other agencies and tribes, and consideration for public health and environmental quality.</p>	<p><i>Managing Second-Growth Forests</i> — Allow second-growth forests to mature without intervention. Continue demonstration projects and research into restoration techniques.</p> <p><i>Prairie Restoration</i> — Manage Bald Hills prairies according to existing management plans. Use prescribed fire or cutting to remove encroaching conifers in prairie and oak woodland areas.</p> <p><i>Fire Management</i> — Implement existing fire management plans. Extinguish all wildland fires. Reintroduce fire into ecosystems where it historically had a role through project-specific prescribed fires.</p>	<p><i>Managing Second-Growth Forests</i> — Act to reduce time for forests to regain characteristics and processes found in mature forests. Emphasize managing second-growth stands that are critical to ecosystem restoration.</p> <p><i>Prairie Restoration</i> — Same as alternative 1.</p> <p><i>Fire Management</i> — Reestablish natural fire regimes to the greatest extent possible even if it causes temporary inconvenience to visitors or temporary reduction of visitor enjoyment.</p>	<p><i>Managing Second-Growth Forests</i> — Give priority to managing areas where visitor use and enjoyment would be increased; act to reduce time for forests to regain characteristics and processes found in mature forests. Allow other second-growth forest areas to mature on their own.</p> <p><i>Prairie Restoration</i> — Maintain or restore selected prairies, oak woodlands, and forest openings based primarily on the objective of providing opportunities for visitor use and enjoyment.</p> <p><i>Fire Management</i> — Reestablish natural fire regimes only when it would not reduce visitor enjoyment or visitor use.</p>

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
<b>CULTURAL RESOURCE MANAGEMENT AND PROTECTION</b>				
<b>Historic Resources — Structures</b>	Stabilize, preserve, and protect historic structures as appropriate. Options for parks' other historic buildings and structures would include preservation, maintenance, interpretation, and use as discovery sites.	Same as alternative 1.	Same as alternative 1, but place stronger emphasis on resource preservation.	Similar to alternative 1, but place emphasis upon adaptive rehabilitation or onsite interpretation of resources; allow more demonstrations.
<b>Historic Resources — Cultural Landscapes</b>	<p>Prepare cultural landscape inventories or cultural landscape reports for potential cultural landscapes.</p> <p>Until a cultural landscape report is completed for Bald Hills, manage area in accordance with existing plans.</p> <p>Develop visitor use management plan for the Bald Hills.</p> <p>In consultation with the local American Indian tribes, actively interpret traditional uses of cultural landscapes.</p>	Same as alternative 1.	Same as alternative 1.	Same as alternative 1.

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
Ethnographic Resources	<p>Recognize historical presence of American Indians as important cultural element of parks. Protect ethnographic resources from desecration, and manage these resources with an emphasis on research, inventory, evaluation, and preservation of both resources and practices traditionally associated with them. Encourage opportunities for visitors to observe, experience, and learn about the traditional practices of American Indians without drawing attention to most sensitive of parks' ethnographic resources.</p> <p>Complete ethnographic overview and traditional use study of parks.</p> <p>Develop common understanding with the Yurok people regarding the preservation, management, interpretation, and use of the Brush Dance site.</p>	Same as alternative 1.	Same as alternative 1.	Same as alternative 1.
Collections	<p>Consolidate curatorial activities in an existing facility that provides adequate work space, storage, and equipment. Undertake survey of collections associated with parks to develop a finding aid. Prepare a protocol for accessioning materials and an archival processing plan to guide processing, maintenance, and access to collections. Develop computer-based access to collections.</p>	<p>Retain collections in facilities that do not meet professional standards. Process archival materials with available minimal resources. Develop collections on case-by-case basis, without focusing on future development needs and limitations. Minimal computer-based access to collections would be available.</p>	<p>Expand facilities to provide adequate museum work space and storage. Defer requests for access until parks' collections were properly processed. Develop computer-based access.</p>	<p>Add materials to collections with emphasis on what best can be used to interpret parks' resources to the public. Locate facilities where best used for interpretation and by researchers and RNSP staff. Provide staff access to all collections. Focus computer-based access to the collections and research information outwardly as a general tool for access by the public.</p>

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
<b>EDUCATION AND INTERPRETATION</b>				
<b>Orientation / Information</b>	Upgrade waysides, directional signs, bulletin boards, and orientation kiosks. Coordinate information services and facilities through partnerships with others inside and outside the parks. Where feasible, consolidate information services and expand designated facilities.	Same as alternative 1.	Continue to provide orientation and information through personal services and publications. Provide activities only in developed areas. Stress preservation themes.	Same as alternative 1.
<b>Interpretation</b>	<p>Use interpretive operations and media to provide a similar emphasis on general and preservation information about natural and cultural history topics. Provide in-depth interpretation of primary interpretive themes through additional facilities, publications, and programs. Provide additional opportunities for visitors to see and enjoy old-growth forests, wetlands, prairies, and sites related to local American Indian cultures; protect these sensitive resources by carefully managing visitor use.</p> <p>Use interpretive operations and media in Bald Hills area to provide a similar emphasis on preservation and general information.</p>	<p>Use interpretive operations and media to provide a similar emphasis on general and preservation information about natural and cultural history topics. Provide in-depth interpretation of primary interpretive themes through additional publications and programs and a new primary visitor center if one is built. Provide limited opportunities to see and enjoy sensitive resources.</p> <p>Use interpretive operations and media in Bald Hills area to provide a similar emphasis on preservation and general information.</p>	<p>Use interpretive operations and media to provide a similar emphasis on general and preservation information about natural and cultural history topics. Provide in-depth interpretation of primary interpretive themes through additional publications and programs and a new primary visitor center. Provide limited additional opportunities for visitors to see and enjoy sensitive resources.</p> <p>Use interpretive operations and media in Bald Hills area to provide a similar emphasis on preservation and general information.</p>	<p>Use interpretive operations and media to provide a similar emphasis on general and preservation information about natural and cultural history topics. Provide in-depth interpretation of primary interpretive themes through additional facilities, publications, and programs. Provide additional opportunities for visitors to see and enjoy sensitive resources.</p> <p>Use interpretive operations and media in Bald Hills area to provide a similar emphasis on preservation and general information.</p>

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
<p><b>Information, Orientation, and Interpretive Centers</b></p>	<p>Retain functions at the Redwood Information Center and upgrade facilities and exhibits as possible. If the center is damaged or destroyed, construct a primary visitor center outside the tsunami zone between Orick and Prairie Creek and adjacent to U.S. 101. Construct the new center through public, private, and/or tribal partnerships. Remove the Redwood Information Center and convert site to day use.</p> <p>Combine functions of the Hiouchi information center and the Jedediah Smith Redwoods State Park visitor center into a new visitor center that would be built in the Hiouchi area. Retain Jedediah Smith Redwoods State Park visitor center to support campground operations.</p> <p>Continue information and orientation services at the Crescent City center until they could be incorporated in a multiagency information center in the Crescent City area. Until this center was built, seek assistance of local governments and organizations to address conditions that detract from visitor enjoyment, including safety, security, parking, and other issues at the current center.</p> <p>Retain Prairie Creek Redwoods State Park visitor center and functions.</p> <p>Provide information for Del Norte Coast Redwoods State Park through the Crescent City center until that facility's functions are transferred to a new multiagency facility in the Crescent City area.</p>	<p>Construct no primary visitor center within the parks, although one could be built outside the parks by a nonfederal entity.</p> <p>Retain the small visitor centers at Jedediah Smith and Prairie Creek Redwoods State Parks</p> <p>Retain small information center at RNSP headquarters in Crescent City, and the Redwood Information Center.</p> <p>Continue information center near Hiouchi on a seasonal basis.</p> <p>Provide information for Del Norte Coast Redwoods State Park primarily through Crescent City center.</p>	<p>Construct primary visitor center outside the parks along Highway 101 and 199, preferably in the southern part of the parks. Relocate interpretive functions at Redwood Information Center to the new visitor center. Salvage the Redwood Information Center and convert site to day use.</p> <p>Retain Prairie Creek Redwoods State Park visitor center. Remove small visitor center at Jedediah Smith Redwoods State Park and provide information through the Crescent City headquarters/ information center.</p> <p>Remove Hiouchi information center and provide services through the Crescent City headquarters/ information center.</p> <p>Provide information for Del Norte Coast Redwoods State Park through the Crescent City center.</p>	<p>American Indians and/or a private entity, in cooperation with RNSP staff, could construct primary visitor center adjacent to the parks. This could be done in conjunction with a destination lodge.</p> <p>Retain Jedediah Smith and Prairie Creek Redwoods State Parks visitor centers.</p> <p>Develop small visitor center near Mill Creek campground.</p> <p>Relocate interpretive functions at the Redwood Information Center to the new primary visitor center when built. Salvage building and convert site to day use.</p> <p>Keep information and orientation services at the Crescent City Information Center (unless opportunity arises to relocate these functions to a multiagency facility in or near Crescent City).</p> <p>Remove Hiouchi information center and build a larger center in the Hiouchi area.</p>

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
<b>OUTDOOR SCHOOLS</b>	Continue two outdoor schools. Develop expanded, revenue-generating use of the facility, including conferences and educational programs by community groups, for winter and summer. As funding allows, expand education program, focusing on natural and cultural resources. Explore alternative funding and staffing approaches.	Same as alternative 1.	Continue operation, primarily in fall and spring, for kindergarten through 12th grade students. Incorporate natural and cultural resource management issues and methods into the curriculum.	Continue two outdoor schools. Develop expanded, revenue-generating use of the facility, including conferences and educational programs by community groups, for winter and summer. As funding allows, expand education program to include outreach to community schools and other educational groups and an onsite educational day use program.

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
<b>PUBLIC USE, RECREATION, AND VISITOR SAFETY</b>				
<b>VISITOR USE LEVELS</b>	<p>Conduct visitor carrying capacity analysis and establish capacities for Tall Trees, Lady Bird Johnson, and Stout Groves and Fern Canyon. Based on results of analyses, modify facilities and parking areas at these areas to avoid adverse impacts.</p> <p><i>Tall Trees Grove</i> — Redesign trailhead and parking area within current limits of disturbance to improve appearance and circulation while retaining current capacity.</p> <p><i>Stout Grove</i> — Consider construction of pedestrian access from adjacent sites, in conjunction with carrying capacity analysis.</p> <p><i>Fern Canyon</i> — Manage visitor use and relocate parking out of stream channel.</p> <p><i>Enderts Beach Road</i> — Retain public access, but gate road and convert to day use if necessary to resolve public use and resource degradation.</p> <p><i>Crescent Beach</i> — Relocate access road, parking, and restrooms to protect wetlands.</p> <p><i>Cultural Sites</i> — Treat sensitive sites as discovery sites; manage access to selected cultural sites to protect the resources.</p>	<p>Manage visitor use in sensitive areas to retain resource values and current levels of impacts.</p> <p><i>Tall Trees, Lady Bird Johnson, and Stout Groves</i> — Retain parking and facilities.</p> <p><i>Fern Canyon</i> — Manage visitor use and relocate parking area out of stream channel.</p> <p><i>Enderts Beach Road</i> — Convert to day use if necessary to resolve public use and resource degradation issues.</p> <p><i>Crescent Beach</i> — Retain picnic area and facilities.</p> <p><i>Cultural Sites</i> — Encourage visitor access to selected cultural sites. Keep most sites as discovery sites.</p>	<p>Limit visitor use so that there would be minimal impacts.</p> <p><i>Tall Trees Grove</i> — Close vehicle access and remove and restore parking area. Retain trail access.</p> <p><i>Lady Bird Johnson and Stout Groves</i> — Manage visitor use and possibly modify facilities.</p> <p><i>Fern Canyon</i> — Relocate parking out of stream channel.</p> <p><i>Enderts Beach Road</i> — Convert to day use.</p> <p><i>Crescent Beach</i> — Remove picnic area facilities and restore area.</p> <p><i>Cultural Sites</i> — Do not direct visitors to cultural sites that are important to American Indians or that have resources that could be easily damaged.</p>	<p>Allow visitor use to increase, with management actions to keep impacts within acceptable limits.</p> <p><i>Tall Trees Grove</i> — Retain trailhead and parking area for Tall Trees Grove. Manage visitor use and possibly modify facilities.</p> <p><i>Lady Bird Johnson Grove</i> — Manage visitor use and possibly modify facilities.</p> <p><i>Stout Grove</i> — Manage visitor use and consider expansion of parking area.</p> <p><i>Fern Canyon</i> — Manage visitor use and consider formalizing and expanding parking area.</p> <p><i>Enderts Beach Road</i> — Convert to day use if necessary to resolve public use and degradation issues.</p> <p><i>Crescent Beach</i> — Expand parking and picnic facilities and relocate facilities out of wetland.</p> <p><i>Cultural Sites</i> — Direct visitors to cultural sites, which would be developed to support active use.</p>



TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
<p><b>RECREATIONAL ACTIVITIES</b></p> <p><i>Campgrounds with Access by Vehicles</i></p> <p><i>Primitive Camping</i></p> <p><i>Hiking, Equestrian, and Mountain Biking Trails</i></p>	<p>Develop comprehensive trail plan and backcountry management plan to guide development of expanded trail system, specify the location of primitive camping areas, and prescribe policies and regulations for the use of backcountry areas by hikers, bikers, and equestrians. Consider recommendations made in previously approved plans and evaluate need and appropriateness of all parks' existing trails. Consider relocating or removing portions of trails that adversely affect sensitive resources.</p> <p>Evaluate need for additional campgrounds/sites. If needed provide additional campsites outside of sensitive resources. Provide no vehicle-accessible campgrounds in the Bald Hills.</p> <p>Provide primitive walk-in, backpacking, equestrian, and bicycle camping opportunities where consistent with management zone, including in the Coyote Creek basin.</p> <p>Link new trail system to gateway communities and trails managed by other jurisdictions. Give high priority to completing Coastal Trail and providing connecting trails. Construct limited number of new mountain bike trails. Pursue opportunities to provide lanes, trails, or routes for bicyclists. Provide no equestrian trails on the east side of Redwood Creek basin.</p>	<p>Prepare backcountry management plan to specify the location of camping areas and describe RNSP rules and policies.</p> <p>Provide additional developed campgrounds and additional campsites in existing campgrounds per existing plans. Provide no vehicle-accessible campgrounds in the Bald Hills.</p> <p>Provide additional primitive campsites. Provide no primitive camping opportunities in Coyote Creek basin.</p> <p>Retain existing hiking, equestrian, and mountain biking trails, and construct trails called for in existing plans. Provide no equestrian trails on the east side of the Redwood Creek basin.</p>	<p>Same as alternative 2.</p> <p>Consider removing and relocating developed campsites in sensitive resource areas. Provide no vehicle-accessible campgrounds in the Bald Hills.</p> <p>Restrict primitive camping to existing, designated sites. Remove and relocate sites that are in sensitive resource areas. Provide no primitive camping opportunities in Coyote Creek basin.</p> <p>Develop joint agency plan that would provide for limited expansion and include opportunities to link with trails in adjacent jurisdictions/communities. Construct no trails in sensitive resource areas. Emphasize maintenance over new construction. Remove, relocate, or redesignate as hiking trails sections of equestrian and mountain biking trails in sensitive resource areas. Develop no new equestrian or mountain bike trails.</p>	<p>Same as alternative 1 except that more trails and trail connections would be developed.</p> <p>Provide more campsites in state parks outside sensitive resources areas than currently exist. Consider adding more campgrounds. Consider constructing vehicle-accessible campgrounds in the Bald Hills area.</p> <p>Provide a greater number and variety of primitive camping experiences than currently exist, including in the Coyote Creek basin.</p> <p>Develop joint agency plan that would provide for significant expansion of trail system and greater opportunities to enjoy hiking, biking, and horseback riding than alternative 1. Plan would include many opportunities to link parks' trail system with trails in adjacent jurisdictions/communities, forming a regional trail system. Where appropriate, trail system would link, in partnership with the private sector or local American Indian tribes, to adjacent public use facilities.</p>

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
<b>FRESHWATER LAGOON SPIT VISITOR USE</b>	Eliminate overnight camping over a three-year period during which the private sector could develop replacement camping facilities elsewhere in the area; designate the area for day use only and charge an appropriate fee. Coordinate changes in the management or design of the site with Caltrans; possibly seek to acquire the site.	Continue existing management. Restrict RV camping to single row along highway. Allow tent camping on south end of beach. Designate length-of-stay limits. Provide chemical toilets but not water.	Eliminate overnight camping and designate area for day use.	Restrict camping to north end of spit. Provide water and restrooms, and charge fees. Seek to acquire sufficient interest in site from Caltrans if necessary to develop capital improvements.
<b>VEHICLES ON THE BEACH</b>	Enforce regulations prohibiting off-road vehicle use other than that which is essential to provide access for commercial surf fishing use. Continue off-road vehicle use for commercial surf fishing at Freshwater Lagoon Spit and Gold Bluffs and Crescent Beaches by renewable, nontransferable annual permit only. Renew only permits issued in between March 1996 and September 1, 1999 and issue no new permits. Continue off-road vehicle use on beaches in connection with traditional American Indian cultural/religious activities that are consistent with the purposes of the parks only at Gold Bluffs Beach under a CDPR permit system. Manage vehicle use to prevent resource damage and minimize use conflicts.	Enforce regulations prohibiting off-road vehicle use other than that which is essential to provide access for commercial surf fishing use. Continue off-road vehicle use for commercial surf fishing at Freshwater Lagoon Spit and Gold Bluffs and Crescent Beaches by permit only. Continue off-road vehicle use on beaches in connection with traditional American Indian cultural/religious activities that are consistent with the purposes of the parks only at Gold Bluffs Beach under a CDPR permit system. Manage vehicle use to prevent resource damage and minimize use conflicts.	Enforce regulations prohibiting off-road vehicle use other than that which is essential to provide access for commercial surf fishing use. Continue off-road vehicle use for commercial surf fishing at Freshwater Lagoon Spit, Gold Bluffs Beach, and Crescent Beach until the year 2001 by permit only. Renew only permits issued in 1996, and issue no new permits. Continue off-road vehicle use on beaches in connection with traditional American Indian cultural/religious activities that are consistent with the purposes of the parks only at Gold Bluffs Beach under a CDPR permit system. Manage vehicle use to prevent resource damage and minimize use conflicts.	Same as alternative 2.
<b>CONCESSIONS AND COMMERCIAL SERVICES FOR VISITORS</b>	Generally, encourage the provision of commercial support services for visitors through the private sector through facilities outside the parks according to specified criteria. Continue hostel concession in the parks.	Evaluate existing services. Continue horse and hostel concessions and existing policy.	Same as alternative 2.	Evaluate quality and type of existing services, public demand/need, etc. of such services. Expand concessions services to include a broad range of services, such as guides, hostels, bike rentals, bus tours, river running, and Freshwater Lagoon Spit campground operations. Continue existing services.

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
<b>VISITOR ACCESS AND CIRCULATION / ROADS</b>				
<b>BALD HILLS ROAD</b>	Encourage Humboldt County to maintain as rural gateway to diverse natural and cultural landscapes. Develop or enhance opportunities for hiking and seeing scenic vistas and interpretive exhibits. Provide opportunities for visitors to observe various natural and cultural resource management projects.	Same as alternative 1, except that the road would be maintained for low-speed traffic, with fewer opportunities for hiking and seeing scenic vistas and interpretive exhibits.	Same as alternative 2.	Same as alternative 1
<b>NEWTON B. DRURY SCENIC PARKWAY</b>	No change (unless a different alignment is recommended based on future planning efforts).	Same as alternative 1.	Relocate road section to restore integrity of the prairie.	Same as alternative 1.
<b>JEDEDIAH SMITH REDWOODS STATE PARK ENTRANCE</b>	Relocate park entrance in the Hiouchi area as part of proposed new information center.	Retain existing entrance road and entrance station.	Retain existing entrance and make access improvements to enhance circulation into the park.	Same as alternative 1.
<b>STOUT GROVE</b>	Make minor improvements to access road and parking to better protect resources.	Retain existing entrance and parking.	Same as alternative 2 only reduce size of parking area.	Enlarge parking area.
<b>DEL NORTE COAST REDWOODS STATE PARK ENTRANCE ROAD</b>	Provide new road access and entrance station. Remove road or convert to trail.	Retain existing access and entrance station.	Same as alternative 2 plus improve drainage and treat erosion potential.	Same as alternative 1.
<b>ENDERTS BEACH ROAD</b>	Continue to provide public access to the Crescent Beach overlook and the trailhead for the Coastal Trail. Convert road to day use if necessary to resolve resource degradation issues.	Convert road to day use if necessary to resolve resource degradation issues.	Convert to day use.	Same as alternative 1.
<b>ALDER CAMP ROAD</b>	Improve road to provide access to trails, a picnic area, and Alder Camp Conservation Center.	Limit maintenance and repairs to drainage and road surface improvements. Convert to one-lane road providing access to the Alder Camp Conservation Center if road fails.	Same as alternative 2.	Same as alternative 1.

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
DAVISON ROAD—GOLD BLUFFS BEACH ROAD TO FERN CANYON	Make minor improvements but retain as unpaved road west of access road to B-mill deck. Evaluate alternative access to Fern Canyon, such as a shuttle service.	Keep two-way, unpaved road. Do not allow trailers.	Provide less intrusive access, such as a shuttle service, to Fern Canyon.	Pave, widen, and straighten the road.
CAL-BARREL ROAD	Keep narrow, unsurfaced road. Improve drainage and treat erosion areas. Do not allow trailers.	Keep narrow, unsurfaced road. Do not allow trailers.	Remove road and convert to trail.	Pave and improve road.
HOWLAND HILL ROAD	Keep two-way, unsurfaced road, with some minor improvements. If conditions change in the future, consider other maintenance and operational options, including paving the road, and/or making it a one-way road.	Retain two-way, unsurfaced road. Do not recommend large trailers and motor homes.	Make into one-way road during peak visitor season. Treat eroded areas. Do not recommend for large trailers and motor homes.	Pave road and provide additional pullouts.
TALL TREES GROVE ACCESS ROAD	Keep unpaved road, with access only by permit (until a carrying capacity study is completed, which could help identify other strategies for public access and use of the site).	Keep unpaved road, with access only by permit.	Remove road and provide trail access only.	Pave and improve road and expand parking; make no restrictions on vehicle access.
THE COASTAL DRIVE	Keep two-way, unpaved road. Convert to trail if major road failure occurs.	Same as alternative 1.	Remove road and convert to trail.	Realign, widen, and make drainage and surface improvements.
<b>INTERDEPENDENCE OF PARKS AND COMMUNITY</b>				
LODGE/ ACCOMMODATIONS	Cooperate with partners in their planning and development of appropriate destination facilities, such as lodges, near or adjacent to the parks that includes thematic and physical links to the parks.	Encourage tribal and/or private sector partners to build a lodge outside the parks.	Same as alternative 2.	Same as alternative 1.

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
VIEWSHED PROTECTION	<p>As funding permits and as they become available, acquire lands or interest in lands along Highway 101 north of Orick to preserve scenic views.</p> <p>Identify important visual areas and work with others to protect these areas and improve visual quality.</p>	Same as alternative 1.	Same as alternative 1.	Same as alternative 1.
ADJACENT LAND USES	Participate in planning, zoning, and other land use activities that might affect RNSP resources. Where feasible, support and promote land uses that are consistent with retaining RNSP resources and values.	Monitor land use activities on adjacent lands. Provide input on land use decisions on case-by-case basis.	Same as alternative 1.	Same as alternative 1.
GATEWAY COMMUNITIES	<p>Coordinate RNSP management plans, visitor services, and marketing efforts with local interests. Actively support and assist local communities in efforts to foster appropriate sustainable economic development, develop needed infrastructure, and develop services and facilities, including transportation systems, that support tourism and recreation and provide connections between communities and the parks. Provide advice and technical assistance to communities. Provide technical assistance and advice to those interested in developing appropriate/complementary visitor services in gateway communities. Cooperate with local communities and organizations to ensure that information and services were coordinated and provided in convenient locations.</p>	Actively support and assist local communities in efforts to foster appropriate sustainable economic development, develop needed infrastructure, and develop services and facilities, that support tourism and provide connections between communities and the parks. Provide technical assistance to communities. Cooperate with local communities and organizations to ensure that information and services were coordinated and provided in convenient locations.	Same as alternative 2.	Same as alternative 2.

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
<b>ADMINISTRATIVE FACILITIES</b>				
<b>OPERATIONS FACILITIES</b>	<p>Consolidate NPS and CDPR facilities wherever it would be cost-effective. Retain Crescent City headquarters. Retain primary NPS maintenance facilities at Requa (unless structural integrity of buildings becomes a safety factor) and primary CDPR facilities at Aubell. Move RNSP resource management staff to a new facility in the Orick area; retain some employees and programs in Arcata to continue mutual benefits from interagency coordination and cooperation. Consolidate national and state park protection staff offices at Aubell and, to the extent practicable, at the facility in the Orick area. Continue small satellite facilities in state parks for site operations. Retain Crescent Beach Education Center for interpretive staff offices. Remove CDPR administrative facilities in the northeast part of Elk Prairie.</p> <p>Operate Schoolhouse Peak fire lookout for fire protection. Remove when no longer needed only if no appropriate public or administrative uses are identified.</p>	<p>Same as alternative 1.</p> <p>Same as alternative 1.</p>	<p>Same as alternative 1, with added efforts to consolidate operations facilities with other agencies that are outside the parks.</p> <p>Operate Schoolhouse Peak fire lookout for fire protection. Remove when no longer needed.</p>	<p>Same as alternative 1.</p> <p>Same as alternative 1.</p>

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
HOUSING	<p>Most RNSP employees would continue to live in local communities. Provide in-park housing for permanent staff needed to provide emergency services to the public or to protect RNSP resources and facilities or for seasonal and volunteer staff housing essential to the management and protection of the parks. Make efforts to provide this housing outside the parks. Retain NPS housing at Hiouchi, Requa, Orick, Wolf Creek, and Bald Hills areas. Remove Crescent Beach housing when no longer needed. Retain CDPR housing at Jedediah Smith and Del Norte Coast Redwoods State Parks. Retain Boyes House at Prairie Creek Redwoods State Park for emergency services staff and Gold Bluffs Beach residence for ranger assigned to Gold Bluffs Beach. Retain seasonal housing at Prairie Creek Redwoods State Park.</p>	<p>Same as alternative 1, except that appropriate seasonal housing would be not be retained at Prairie Creek Redwoods State Park.</p>	<p>Most RNSP employees and volunteers would continue to live in local communities. Retain NPS housing at Hiouchi, Orick, Wolf Creek, and Bald Hills areas. Retain a single housing unit at both Jedediah Smith and Del Norte Coast Redwoods State Parks. Retain Boyes House at Prairie Creek Redwoods State Park for emergency services staff and Gold Bluffs Beach residence for ranger assigned to Gold Bluffs Beach. Remove single-family housing at Requa and restore site.</p>	<p>Same as alternative 2.</p>

TOPIC	ALTERNATIVE 1 PROPOSED ACTION	ALTERNATIVE 2 NO ACTION	ALTERNATIVE 3 PRESERVATION EMPHASIS	ALTERNATIVE 4 VISITOR USE EMPHASIS
<b>LAND ACQUISITION</b>				
<b>FEDERAL LANDS</b>	Continue program for acquiring lands with significant resource or scenic values within mandated limits. Analyze acquisitions according to criteria. (See also "Boundary Map Adjustments" in table 7.)	Same as alternative 1.	Same as alternative 1.	Same as alternative 1.
<b>STATE PARK LANDS</b>	Continue current program to acquire lands or interests in lands as opportunities arise. (See also "Boundary Map Adjustments" in table 7.)	Seek boundary adjustment for lands acquired to maximize protection of RNSP values or significant resources.	Same as alternative 1.	Same as alternative 1.
<b>WILDERNESS PROPOSALS</b>				
	Create state wilderness areas in Jedediah Smith and Prairie Creek Redwoods State Parks.  No federal wilderness would be proposed.	Make no state wilderness proposals.  Same as alternative 1.	Create state wilderness areas in Jedediah Smith, Prairie Creek, and Del Norte Coast Redwoods State Parks.  Same as alternative 1.	Create a state wilderness area in Jedediah Smith Redwoods State Park.  Same as alternative 1.
<b>ESTIMATED GROSS CONSTRUCTION COSTS</b>				
	\$15.9 million	\$10.7 million	\$8.3 million	\$38.8 million



TABLE 9: SUMMARY OF IMPACTS COMMON TO ALL ALTERNATIVES

Topic	Impact
<p><b>NATURAL RESOURCES</b></p>	<p><b>Air Quality.</b> There would be short-term, localized, minor impacts on air quality; however, no long-term impacts and no cumulative impacts would be expected.</p> <p><b>Soils.</b> There would be ongoing minor disturbances to soils and topography, such as erosion and soil compaction. The failure of stream crossings and road benches before watershed restoration activities were complete would result in increased sediment inputs into Redwood Creek and its tributaries. Watershed restoration would have a major beneficial cumulative impact of decreasing runoff, erosion, and sedimentation into Redwood Creek and its tributaries and would help in the overall recovery of RNSP ecosystems. The potential for significant erosion from abandoned and poorly maintained roads upstream of the parks would continue, with an associated potential for major adverse cumulative impacts on downstream RNSP resources. Cooperative activities with upstream landowners would have a major beneficial impact of reducing the potential sediment loads and would, through time, reduce the potential for major adverse impacts on downstream resources. If during the life of this plan other state and national parklands outside Redwood Creek basin were targeted for similar restoration work, the impacts would be similar to those summarized below and further described in the soil discussion in the chapter on "Impacts of Implementing Alternative 1 — The Proposed Action." At this point, the degree of impact from logging activities on other parklands or the beneficial impacts that would be derived from restoration work have not been quantified. These analyses would occur before implementing restoration work elsewhere in the parks.</p> <p><b>Water Quality.</b> Ongoing watershed restoration activities would have the beneficial cumulative impact of reducing the sediment-related water quality concerns over the long term.</p> <p><b>Floodplains and Wetlands.</b> The removal of abandoned roads would result in long-term benefits for riverine wetlands adjacent to, downstream of, and crossed by those roads. Impacts on Redwood Creek caused by logging activities would continue to adversely affect the lower river for some time after the watershed restoration program was completed; however, impacts would decrease as excess sediment is flushed through the river system. Impacts should also decrease with cooperative watershed management efforts upstream of the national park. Partial levee removal and watershed restoration activities within and upstream of the national park would have a major beneficial impact on the floodplain in the lower Redwood Creek valley. Cumulative impacts on wetlands would include adverse impacts from upstream land uses and the alteration of the Redwood Creek estuary by channelization and localized development. The cumulative benefit would depend on the extent of restoration within and outside of the national park boundaries and the extent of estuary restoration. Ongoing watershed and estuary restoration activities in and upstream of the national park in Redwood Creek would reduce impacts from past activities on the floodplain and wetlands near the mouth of Redwood Creek. Implementing a coordinated resource management plan to reduce erosion from private lands in the upper Redwood Creek basin and road removal activities within and upstream of the national park would decrease adverse impacts on the main channel and floodplain from future floods. However, impacts from past floods and land use would decrease as restoration proceeds, but would persist for decades to centuries until the excess sediment was flushed through the river system. The benefit for the basin would be proportional to the acreage of lands on which improved watershed management techniques were instituted. There would be a long-term benefit to the estuary, which would also be proportional to the acreage restored, from reducing the sediment that entered the estuary.</p> <p><b>Threatened and Endangered Species.</b> Listed species and their suitable habitats would be both positively and negatively affected by RNSP operations, visitor use, and proposed developments identified in this joint plan. These activities would be managed to avoid or minimize potential adverse impacts on listed species.</p> <p><b>Marine and Coastal Resources.</b> There would be minor long-term benefits for the marine ecosystem from increased knowledge of RNSP marine resources after inventorying these resources. Cooperative activities with other agencies might lead to increased protection of these resources.</p>

Topic	Impact
<b>CULTURAL RESOURCES</b>	<p>The emphasis in actions involving both cultural and natural resources would be weighted toward protecting and preserving the resource that would be most easily damaged. Cultural resources could be impacted if protection and preservation of natural resources superseded protection and preservation of cultural resources. Such impacts would be mitigated to the fullest extent possible.</p> <p>New facilities would be sited to avoid adversely impacting known cultural resources.</p> <p>Removing nonhistoric, noncontributing features from potential cultural landscapes would improve the integrity of the landscapes by returning the landscapes to more of a semblance of their historic appearances.</p> <p>Any preservation, rehabilitation, restoration, and reconstruction efforts, as well as daily, cyclical, and seasonal maintenance of cultural resources, would be undertaken in accordance with federal and state guidelines and policies.</p> <p>If previously undiscovered archeological resources were unearthed during construction activities, all work in the immediate vicinity of the discovery would be halted until resources were identified and documented and appropriate mitigation strategy developed, if necessary. If construction impacts on archeological sites could not be avoided, mitigation strategy of site testing and data recovery would be implemented to ensure that informational significance of sites would be preserved.</p> <p>If American Indian human remains, funerary objects, sacred objects, or objects of cultural patrimony were discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001) would be followed.</p> <p>Use of historic buildings and structures for interpretation or visitor services and concessions as well as landscapes and cultural resources treated as discovery sites would be more susceptible to deterioration due to overuse and vandalism. However, RNSP interpretive/educational programs would instill understanding and appreciation of value of parks' resources and how they are preserved, as well as provide understanding of how to experience such resources without inadvertently damaging them.</p> <p>Historic buildings would be candidates for historic property leasing program. If a historic property lease allowed lessee to maintain, repair, rehabilitate, or build upon property, lease would require all work to be done in accordance with applicable NPS policies, guidelines, and standards.</p> <p>If landform reconstruction was slated to occur within any of parks' potential cultural landscapes, preparation of cultural landscape inventories or reports would precede reconstruction.</p> <p>Cultural resources in Bald Hills would benefit because actions and priorities would be established to clarify management goals, reduce conflicts between natural and cultural resources management, and accommodate interpretation, visitor use, and traditional uses with minimum damage to resources.</p> <p>Partnership efforts with American Indian tribes and preservation groups would enhance both the management and interpretation of cultural resources. Actions would support protection and preservation of ethnographic resources and continuation of traditional cultural practices, as well as increase non-Indian knowledge and appreciation of American Indian cultures.</p>
<b>RELATIONSHIP WITH AMERICAN INDIANS</b>	<p>Implementing the management plan would reaffirm the commitment of RNSP staff to positive relationships with American Indians, not only in a government-to-government capacity but also through partnerships that encourage American Indian participation in the management and interpretation of the parks' resources. Ethnographic resources would be managed with an emphasis on preserving and protecting the resources and the practices traditionally associated with them. The coordination of natural and cultural resources management programs would be enhanced. There would be more opportunities for visitors to observe and learn about the traditional practices of American Indians. With appropriate mitigation, there would be no adverse impacts on the resources.</p>
<b>VISITOR ACCESS AND CIRCULATION</b>	<p>New development would attract additional visitors, and impacts would be evident in increased localized traffic</p>

Topic	Impact
<b>PUBLIC SAFETY</b>	Severe earthquakes, tsunamis, and floods could have major adverse impacts on people and resources. Appropriate siting and design of new and retrofitted facilities would help mitigate possible damage. Also RNSP staff and publications would warn visitors and inform them about the regional tsunami system being developed.

**TABLE 10: SUMMARY OF IMPACTS OF ALTERNATIVE ACTIONS**

Impact Topic	Alternative 1, Proposed Action	Alternative 2, No Action	Alternative 3	Alternative 4
Soils	<p>There could be minor, localized, short-term run-off and soil erosion from road, facility, trails, and campsite construction. Road removal and landform and hydrologic restoration on national parklands in Redwood Creek basin would have major beneficial impacts on downslope and downstream terrestrial, aquatic and riparian habitats. Moderate to major adverse impacts on hillslope hydrology, vegetation, and aquatic resources from minor logging roads that receive limited or no treatment could occur. Upstream of the national park, road decommissioning and erosion prevention treatments would have a moderate beneficial impact on aquatic habitats and alluvial redwood groves along the main stem of Redwood Creek.</p>	<p>There would be minor, localized, short-term run-off and soil erosion from construction of trails and campsites, but it would be less than under the proposed action. Long-term beneficial and adverse impacts from watershed restoration activities (within and upstream of the national park) would be the same as alternative 1, except that it would take about much longer to complete, increasing the risk of resource damage before completion of the program.</p>	<p>Removing trails and facilities out of wetlands and areas prone to erosion would reduce overall erosion and soil compaction in the parks. The watershed restoration program proposed with this alternative would have the greatest overall major beneficial impact because more minor roads would be removed, resulting in more complete restoration of landforms, hydrology, and vegetation in the lower Redwood Creek basin. Terrestrial, riparian and aquatic habitats in the lower basin would be better protected from the adverse impacts from increased runoff and sedimentation. Beneficial and adverse impacts from road decommissioning and erosion prevention activities upstream of the national park would be the same as alternative 1.</p>	<p>There would be more construction-related erosion under this alternative because more facilities are proposed for construction than with any of the other alternatives. Beneficial and adverse impacts from watershed restoration activities (within and upstream of the national park) would be the same as alternative 1.</p>
Water Quality	<p>Removing portions of the levees in the lower Redwood Creek Valley would cause increased turbidity levels over the short term, but would have a major beneficial impact on water quality in the Redwood Creek estuary over the long term. As watershed restoration programs were completed, adverse impacts on water quality in Redwood Creek and its tributaries and estuary would decrease, a moderate beneficial impact.</p>	<p>The no-action alternative would continue to have a major adverse impact on water circulation and sedimentation in the Redwood Creek estuary.</p> <p>Land use activities adjacent to and upstream of the national park would continue to contribute point and nonpoint source pollution such as turbidity and animal wastes into Redwood Creek and the estuary. As watershed restoration programs were completed, there would be a moderate beneficial cumulative impact on water quality in Redwood Creek and its estuary.</p>	<p>Removing 0.6 mi of the levee in the lower Redwood Creek valley would cause a minor, localized short-term increase in turbidity but would provide a major, long-term beneficial impact on water quality in the Redwood Creek estuary. Partial levee removal and area restoration would provide more benefit to water resources in the estuary than with actions proposed in any of the other alternatives. As watershed restoration programs are completed, there would be a major beneficial cumulative impact on water quality in Redwood Creek and its tributaries and estuary.</p>	<p>Same as alternative 2.</p>

Impact Topic	Alternative 1, Proposed Action	Alternative 2, No Action	Alternative 3	Alternative 4
<b>Floodplains</b>	Depending on landowner cooperation and which levee removal scenario was selected, there would be varying amounts of beneficial impacts on the floodplain and estuary. Overall, the more of the levee that was removed, the greater the beneficial impact on the physical and biological functioning of the lower Redwood Creek valley and estuary.	Retaining the levees in the lower Redwood Creek valley would continue to have a major adverse impact on the extent of the natural floodplain, physical and biological processes, and aquatic resources.	The beneficial impacts would be the greatest with this alternative because a greater portion of the levee would be removed and the natural extent of the floodplain, physical and biological processes, and aquatic habitats would be restored in the lower Redwood Creek valley and estuary.	Same as alternative 2.
<b>Wetlands</b>	<p>There would be major long-term benefits for intermittent and perennial stream channels immediately downstream from those areas where landforms are restored. There would be a moderate long-term benefit for stream channels immediately downstream of areas treated by control erosion. Other downstream wetlands would benefit indirectly from the restoration of natural drainage patterns.</p> <p>Constructing a new Del Norte Coast Redwoods State Park entrance road would have moderate adverse effects on wetlands, but restoring an equivalent amount of wetland values would be required for mitigation.</p> <p>There would be a long-term benefit on wetlands from removing levees and acquiring conservation easements or lands to allow flooding of agricultural land at the Redwood Creek estuary.</p>	<p>There would be major long-term benefits for intermittent and perennial stream channels immediately downstream from those areas where landforms were restored. There would be a moderate long-term benefit to stream channels immediately downstream of areas where roads were decommissioned or treated to control erosion. Other downstream wetlands would benefit indirectly from restoration of natural drainage patterns.</p> <p>The existing Del Norte Coast Redwoods State Park entrance road would be retained in this alternative, so there would be no new impacts on wetlands.</p> <p>The present extent and configuration of the wetlands in the Redwood Creek estuary would be retained.</p>	<p>Watershed restoration with an emphasis on complete landform restoration would have a major positive effect on intermittent and perennial stream channels immediately downstream from those areas. Other downstream wetlands would benefit indirectly from restoration of natural drainage patterns. These benefits are expected to be moderate to major depending on the degree to which the areas are restored.</p> <p>The existing Del Norte Coast Redwoods State Park entrance road would be retained, so there would be no new impacts on wetlands.</p> <p>There would be a long-term benefit on wetlands from removing levees and acquiring conservation easements or lands to allow flooding of agricultural land at the Redwood Creek estuary.</p>	<p>This alternative would result in major long-term benefits for intermittent and perennial stream channels downstream from areas where watershed restoration occurred. Primary drainage patterns would be reestablished, with major benefits where riverine wetlands were recreated after uncovering original channels. Other downstream wetlands would benefit indirectly from the restoration of natural drainage patterns.</p> <p>Constructing a new Del Norte Coast Redwoods State Park access road would have moderate adverse effects on wetlands, but restoring an equivalent amount of wetland values would be required for mitigation.</p> <p>The current extent and configuration of the wetlands associated with the estuary would be retained.</p>
<b>Threatened and Endangered Species</b>	The proposed action would result in some moderate beneficial impacts and no significant adverse impacts on threatened and endangered species.	No significant adverse effects.	The benefits of this alternative for threatened and endangered species would be somewhat greater than the proposed action.	This alternative would result in some beneficial and some adverse impacts depending on the species.

Impact Topic	Alternative 1, Proposed Action	Alternative 2, No Action	Alternative 3	Alternative 4
<p><b>Cultural Resources</b></p>	<p>Removing the nonhistoric Redwood Information Center and converting the site to day use and removing the nonhistoric Hiouchi information center and converting that site to another type of day use would have no impact upon the parks' cultural resources.</p> <p>Converting the Coastal Drive to a trail would possibly result in adverse impacts on this national register property.</p> <p>Expanding and enhancing the parks' curatorial program would improve preservation, research, and interpretation of parks' collections. Curatorial program would improve recordkeeping and the retrieval of information pertaining to the management and administration of the parks.</p>	<p>The parks' collection storage would continue to be inadequate. Minimal resources would be available for processing archival materials, and computer-based access to collections would be minimal.</p>	<p>Salvaging the nonhistoric Redwood Information Center and converting the site to day use and removing nonhistoric Hiouchi information center would have no impact upon parks' cultural resources.</p> <p>Converting the Coastal Drive to a trail would possibly result in adverse impacts on this national register property.</p> <p>Completing the determination of national register eligibility before converting Cal-Barrel Road or the Tall Trees access road to trails would help determine a mitigation strategy for possible impacts on these potential historic resources.</p> <p>Curatorial program would improve recordkeeping and retrieval of information pertaining to management and administration of parks.</p>	<p>Salvaging the nonhistoric Redwood Information Center and converting the site to day use and removing the nonhistoric Hiouchi information center would have no impact upon parks' cultural resources.</p> <p>Preparing determination of eligibility for Cal-Barrel and Howland Hill Roads and Tall Trees and Stout Grove access roads before improvements and paving would help determine a mitigation strategy for possible impacts on these potential historic resources.</p> <p>In addition to better preserving museum artifacts and archival materials, the curatorial program would improve recordkeeping and retrieval of information pertaining to management and administration of the parks. However, increased access to and use of the collections by RNSP staff could result in loss of artifacts or archival material due to unsupervised or inappropriate use.</p>

Impact Topic	Alternative 1, Proposed Action	Alternative 2, No Action	Alternative 3	Alternative 4
<p><b>Visual Quality</b></p>	<p>Under this alternative there would be relatively minor negative impacts on visual and scenic resources. Most negative impacts would be short term and ultimately result in long-term visual benefits. Removing overnight camping at Freshwater Lagoon Spit would enhance the landscape character and result in major long-term visual and scenic benefits.</p> <p>Although harvested areas in Redwood Creek basin would be restored and the lower basin would have a more natural appearance for RNSP visitors, revegetation to the appearance of an old-growth redwood forest would take decades or more to occur, a minor beneficial impact.</p>	<p>Under this alternative there would be moderate negative impacts on visual and scenic resources. Most long-term negative impacts would be from retaining current visitor impact levels, retaining facilities in visually sensitive areas, and continuing to allow camping at Freshwater Lagoon Spit.</p> <p>Although harvested areas in Redwood Creek basin would be restored and the lower basin would have a more natural appearance for RNSP visitors, revegetation to the appearance of an old-growth redwood forest would take decades or more to occur, a minor beneficial impact.</p>	<p>Same as alternative 1.</p> <p>This alternative would result in the most complete restoration of landforms and hydrology of all of the alternatives and over time, Redwood Creek basin would have a more natural appearance for RNSP visitors. Revegetation of the area would occur soon after restoration activities were completed, but restoration of the visual appearance of an old-growth redwood forest would take decades or more to occur, a minor beneficial impact.</p>	<p>Under this alternative there would be moderate to possible major negative impacts on visual and scenic resources. Most long-term negative impacts would be associated with increased visitor activities and use levels, extensive development of recreational facilities and roads, and allowing overnight camping (except tent camping) at Freshwater Lagoon Spit.</p> <p>Although harvested areas in Redwood Creek basin would be restored and the lower basin would have a more natural appearance for RNSP visitors, revegetation to the appearance of an old-growth redwood forest would take decades or more to occur, a minor beneficial impact.</p>
<p><b>Visitor Access and Circulation</b></p>	<p>There could be minor impacts on visitor access if the Coastal Drive failed and was converted to a trail.</p> <p>Because this alternative retains the internal road system in its current condition, impacts on circulation would generally be minor. Only minor improvements on selected roads are proposed. These would result in a slight improvement in circulation.</p>	<p>There could be minor impacts on visitor access if the Coastal Drive failed and was converted to a trail.</p> <p>No other impacts would be anticipated under this alternative.</p>	<p>Impacts on access and circulation under alternative 3 would be mixed. Many of the internal roads would be converted to trails, which would restrict significant areas of the parks to non-motorized activities. This would consolidate vehicle access to the major roads and the highways causing some increased traffic and congestion. Implementing this alternative would result in major changes in the visitor use patterns. The opportunity for and the quality of pedestrian activities would be greatly enhanced. Some popular old-growth areas of the parks would become accessible only by hiking, equestrian use, or mountain bikes.</p>	<p>Impacts on access and circulation under alternative 4 would be major. The internal roads would be paved and widened. This change would result in more vehicles on the roads. This would allow access to larger vehicles such as buses and motor homes. Many of these roads are in sensitive resource areas.</p>

Impact Topic	Alternative 1, Proposed Action	Alternative 2, No Action	Alternative 3	Alternative 4
<p><b>The Quality of the Visitor Experience</b></p>	<p>Opportunities for visitor use would be expanded. Visitors would have some limited additional opportunities to directly experience sensitive resources, although these resources would be well protected. Visitors would be more knowledgeable about their opportunities to see and do things within the parks. Both the number of visitors and the amount of time they spend in the parks would increase.</p>	<p>Visitors would have a limited number of additional recreational opportunities, and their ability to experience RNSP resources would be only slightly enhanced. Visitors would receive more orientation and interpretive information than at present.</p>	<p>Opportunities for visitor use in the parks would be diminished. Visitors would have fewer opportunities to experience sensitive resources directly. Visitors entering the parks from the north would have less opportunity to receive orientation and interpretation information.</p>	<p>This alternative would significantly increase the number of opportunities for visitor use and visitor access to park resources. The area's attractiveness as a primary tourist destination would increase. The increase in visitor use opportunities, coupled with expanded opportunities for visitors to become aware of those opportunities, would increase both the number of visitors in the parks and the time they spend there.</p>
<p><b>Socioeconomic Impacts</b></p>	<p>There would be substantial beneficial regional economic effects from increased spending in the two-county area compared to the no-action alternative. The economic benefits would be generated from both construction and operation of new facilities and increased visitor use.</p> <p>Acquisition of land (or sufficient interest in land) from willing sellers only to restore the estuary might result in modest land use impacts from loss of agricultural production or displacement of several ranches. Some local groups would be adversely affected by certain actions, including redwood burl and wood carvers and businesses that serve Freshwater Lagoon Spit campers, and commercial fishermen. A substantial portion of the adverse impacts would likely occur in the Orick area.</p> <p>There would be only modest increases in population and small beneficial effects on housing. Similarly, there would be no adverse impacts on public services.</p>	<p>There would be moderate beneficial regional economic effects from increased spending in the two-county area due primarily to baseline growth in visitation.</p> <p>There could be minor increases in population, and there would be no adverse effects on housing. Similarly, there would be minor adverse impacts on public services.</p>	<p>The regional economic effects from increased spending in the two-county area would be less than those under the no-action alternative. However, there would be beneficial short-term impacts associated with facility construction that in total would exceed the no-action alternative.</p> <p>Some local groups would be adversely affected by certain actions, including local visitors who use the Crescent Beach facilities, commercial fishermen, ranchers who might be displaced, and redwood burl and wood carvers.</p>	<p>There would be substantial beneficial regional economic effects from increased spending in the two-county area when compared to the no-action alternative. The economic benefits would be generated from both the construction and operation of new facilities and increased visitor use.</p> <p>There would be modest increases in population and small beneficial effects on housing. Similarly, there would be no adverse impacts on public services.</p>