

CALIFORNIA COASTAL COMMISSION

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STAFF RECOMMENDATION
ON CONSISTENCY DETERMINATION

Consistency Determination No.	CD-11-00
Staff:	MPD-SF
File Date:	1/26/2000
45th Day:	3/11/2000
60th Day:	3/26/2000
Commission Meeting:	3/14/2000

FEDERAL AGENCY: **National Park Service**

PROJECT LOCATION: Redwood National and State Parks, Humboldt and Del Norte Counties (Exhibits 1-2)

PROJECT DESCRIPTION: General Management Plan (Exhibits 2-7)

SUBSTANTIVE FILE DOCUMENTS: See page 17.

EXECUTIVE SUMMARY

The National Park Service (Park Service) has submitted a consistency determination for a General Management Plan to provide comprehensive guidance for managing the resources and visitor use of Redwood National and State Parks. The Plan is intended to encompass an overall framework to enable the parks to be managed in a manner consistent with resource protection goals of the Park Service, which include protection, preservation, and interpretation of natural and cultural resources, and providing access to the full spectrum of resources to enhance visitor enjoyment and understanding of Redwood National and State Park.

The Plan covers both Redwood National and State Parks, which are a combination of federal and state lands; however this consistency determination addresses solely those federal actions and activities conducted on federal lands within the boundaries of Redwood National Park. The General Management Plan (GMP) contains proposals at varying levels of specificity. Future site-specific planning and implementation measures on federal lands seaward of the coastal zone boundary or affecting the coastal zone will be accompanied as needed by consistency determinations that provide additional details for each proposal.

The fundamental goals of the Park Service and the Coastal Act are synonymous, and the proposed management plan protects and supports coastal public access and recreation, in a manner balancing competing uses and protecting environmentally sensitive habitat, water quality, wetlands, rare, threatened and endangered species, marine resources, scenic public views, and archaeological resources. The plan also takes into account geologic hazards. In addition, the Commission will have the opportunity to review specific implementation proposals at a future date. At this time, insofar as the plan identifies and proposes overall solutions for balancing competing recreational uses, these need to be considered at this time for overall consistency with Coastal Act policies. Potential conflicts that have raised controversy in the development of the plan include: (a) overnight use at Freshwater Spit, which the Park Service intends to curtail, by limiting the use of Freshwater Spit to day use; (b) limiting off-road vehicle use on beaches. The Park Service has proposed resolutions of these issues in a manner consistent with Coastal Act public access and resource protection policies, and, as stated above, physical modifications associated with their implementation will also undergo future Commission federal consistency review. The plan is consistent with the applicable policies (Sections 30210-30214, 30220-30222, 30230-30233, 30234, 30234.5, 30240, 30244, 30253) of the Coastal Act.

STAFF SUMMARY AND RECOMMENDATION

I. Project Description. The National Park Service (Park Service, or NPS) has submitted a consistency determination for a General Management Plan (GMP) to provide comprehensive guidance for managing the resources and visitor use of Redwood National and State Park (the Park, or RNSP). The purpose of the plan is to provide an overall direction for resource preservation and visitor use in Redwood National and State Park and a basic foundation for decision making for the next 15 to 20 years. The primary goals of the plan include the protection, preservation, and interpretation of natural and cultural resources, and providing access to the full spectrum of resources to enhance visitor enjoyment and understanding of Redwood National and State Park.

More detailed implementation plans will be prepared for actions and programs to be tiered off the GMP/EIS. Those which might affect the coastal zone will require additional federal consistency determinations and afford further Commission review. The major programs outlined

in the GMP that are included in this consistency determination, because they occur in or affect lands in the coastal zone include (and are summarized further below):

1. Management Zoning, including Marine Management Zone
2. Watershed Restoration, including Management and Restoration of the Redwood Creek Estuary
3. Vegetation Management
4. Cultural Resource Management
5. Public Use, Recreation, and Visitor Safety
6. Facility Development

1. **Management Zoning.** Redwood National and State Park is divided into nine management zones that describe the desired resource conditions and visitor experience, and the type of facilities allowed (Exhibits 3-6). Developed zones have been restricted to as small an area as necessary to provide essential services. Park Service facilities in the coastal zone that are identified as developed zones are the Crescent Beach Education Center, the Redwood Hostel at Wilson Creek, the Requa maintenance facility, and the Redwood Information Center. (Also, while U. S. Highway 101 runs through the park and is not subject to proposals in the GMP, the Park Service will continue to work closely with Caltrans to ensure protection of the redwood forests in the highway corridor and that travelers on the highway would have a world-class scenic travel experience.)

The GMP describes a marine management zone, all of which lies within the coastal zone boundaries. The marine management zone includes 3,627 acres in Del Norte County and 2,312 acres in Humboldt County of coastline and ocean waters lying between the mean high water line and extending westward one-quarter mile to the Congressionally-established national park boundary. Visitors to the coastline in Redwood National and State Park may experience a range of conditions varying from areas that have never been altered by human beings (steep cliffs in the primitive zone and offshore rocks in the marine management zone) to areas developed specifically for visitor use (Redwood Information Center in the developed zone).

Backcountry zones are intended to preserve resources in a pristine state while allowing for primitive developments to serve visitors. There are two subcategories of backcountry zone, mechanized and non-mechanized. The two backcountry zones are distinguished primarily by whether mechanized forms of visitor transportation such as mountain bikes are allowed on trails (backcountry mechanized). Unpaved trails, primitive campgrounds and camping areas, and walk-in picnic areas are allowed in the backcountry zones. The Coastal Trail south of Enderts Beach, and the Nickel Creek, DeMartin, and Flint Ridge primitive campgrounds are zoned as backcountry mechanized.

In frontcountry zones, resource protection takes precedence over development. A full range of facilities to serve visitors is allowed in frontcountry zones but resources must be the dominant feature. Crescent Beach and Enderts Beach are frontcountry zones, as are the Lagoon Creek

picnic area, the High Bluff overlook along the Coastal Drive south of the Klamath River, and Freshwater Spit.

The cultural zone is applied to areas whose primary resources are archeological, historical, or ethnographic properties, or cultural landscapes, or where the intended use is associated with American Indian traditions. The area south of the Klamath River mouth and the mouth of Redwood Creek and its estuary are major cultural zones within the coastal zone.

2. Watershed Restoration. This program involves removal of, and projects to control erosion on, abandoned roads to prevent excessive sedimentation of park streams and degradation of aquatic resources caused by road erosion and failure. The majority of actions under this program will take place outside the coastal zone in the Redwood Creek basin, but lands and resources that lie downstream in the coastal zone would be affected. The Redwood Creek estuary in the coastal zone is affected by the watershed restoration program upstream, as well as being directly affected through restoration proposals described in the GMP. The watershed restoration program will have a beneficial effect on the Redwood Creek estuary and other lands in the coastal zone through reduction of excess sediment that would otherwise move downstream and be deposited into the estuary to the detriment of the wildlife and anadromous fish habitat and the estuarine wetlands.

3. Vegetation Management. The major vegetation management programs are management of second growth forests, prairie and oak woodland restoration, fire management, and exotic plant control. Actions that would occur in the coastal zone include control of exotic plant species and restoration of native dune communities at Freshwater Spit, and restoration of other naturally occurring plant communities. The majority of vegetation management actions occur outside the coastal zone but could indirectly affect the coastal zone through restoration of large-scale ecosystem processes.

The fire management program includes both suppression of wildland fires and use of prescribed fire to meet resource management objectives. Most fire management actions occur outside coastal zone boundaries in the drier interior areas of the Park. Prescribed fire is being used as a tool primarily to restore native plant communities in which fire was an important ecological process.

4. Facility Development and Public Use, Recreation, and Visitor Safety. Facilities to serve visitors or the Park administrative needs are allowed in all management zones, with the most intensive development allowed in developed zones and no new development or new uses allowed in primitive zones other than existing trails.

Visitor facilities include visitor centers, trailheads, trails, camping areas and campgrounds, picnic areas, scenic overlooks, roads and parking areas, and comfort stations. Visitor facilities within the Coastal Zone are located at the Redwood Information Center, Freshwater Spit, High Bluff Overlook, primitive campgrounds at Flint Ridge, DeMartin Prairie, and Nickel Creek, the

Crescent Beach picnic area, the Klamath River overlook at Requa, the Lagoon Creek picnic area and trailhead, and several overlooks and parking areas along the Coastal Drive. The Yurok Brush Dance site on the south bank of the Klamath River estuary is also within the coastal zone.

The Park Service proposes to expand the park trail system and to engage in coordinated planning with other agencies for a regional trail system with links between park trails and trail systems outside the park. A major goal of the trail program is to develop trail links between the California Coastal Trail and inland trails. Trail and backcountry management plans currently being prepared might require future federal consistency determinations for trail construction and backcountry use management proposals that are located in or affect use of lands in the coastal zone.

5. Visitor Access and Circulation/Roads. The GMP proposes minor changes to several public roads located in the coastal zone. Changes to road design that might affect resources or use of lands in the coastal zone will trigger additional federal consistency review. Such projects include: Enderts Beach Road, Crescent Beach picnic area, Alder Camp Road, Davison Road-Gold Bluffs Beach Road to Fern Canyon, and Coastal Drive, all of which will require site-specific planning and, if changes are proposed, will be subject to additional consistency review.

6. Administrative Facilities. The Park Service's primary maintenance facility is located in the former Air Force Radar Station at Requa. This facility lies about 800 feet above sea level in a geologically unstable area within the coastal zone. This facility and associated utilities would continue to be upgraded and improved to meet current codes. If the structural integrity of the buildings or the safety of the occupants is significantly threatened by geological instability, the maintenance functions would be relocated and the site restored. Also, Park Service housing at Crescent Beach will be removed when no longer needed as housing and the site restored with native vegetation.

II. Procedures. Redwood National and State Parks are a combination of federal and state lands. Three units of the California State Park system lie within the legislated boundary of Redwood National Park—Prairie Creek Redwoods, Del Norte Coast Redwoods, and Jedediah Smith Redwoods State Parks. The Park Service and the California Department of Parks and Recreation signed a Memorandum of Understanding (MOU) in 1994 for the cooperative management of parklands within the national park boundary as Redwood National and State Park. In the MOU, the two agencies committed to develop a single joint management plan for the parks to provide consistent policies and guidance for future management of the Park.

This consistency determination applies solely to federal actions and activities conducted on federal lands within the boundaries of Redwood National Park. Two of the state parks, Prairie Creek Redwoods and Del Norte Coast Redwoods, have lands within the coastal zone. Actions within the coastal zone in these parks will be subject to California Coastal Commission review under the state process.

The General Management Plan (GMP) contains proposals at varying levels of specificity, with later decisions to be tiered off the broad EIS. This consistency determination evaluates all these in as much detail as is presently available. Future site-specific implementation planning on federal lands within coastal zone boundaries or affecting the coastal zone will be accompanied as needed by consistency determinations that provide additional detail for each proposal. (Note: Future implementation plans for the entire park are summarized in Exhibit 7.)

The regulations implementing the Coastal Zone Management Act (CZMA) provide for phased federal consistency review in cases where federal decisions to implement an activity are also made in phases. Section 930.37 (c) of those regulations states:

... in cases where major Federal decisions related to a proposed development project will be made in phases based upon developing information, with each subsequent phase subject to Federal agency discretion to implement alternative decisions upon such information (e.g., planning, siting, and design decisions), a consistency determination will be required for each major decision. [15 C.F.R. Section 930.37(c)]

Thus, the Park Service's consistency determination is for a document generally describing the management goals and overall development plans for the National Park. Because many of the activities identified in the management plan are still at the conceptual stage, additional Commission consistency review will be required after completion of final project-specific plans and supporting environmental documents, a procedure which the Park Service has agreed to. As a result, the Commission's analysis of the consistency determination for the draft GMP includes identification of those activities that could require additional consistency review.

Historically when the Commission has reviewed these types of conceptual or management plans, the Commission's usual practice has been to review the plan at a general level, noting potential problem areas and projects which would be likely to affect the coastal zone if built. For these projects additional consistency determinations will be necessary. The Commission has found this approach to be a practical one, since: (1) it provides the Park Service in advance of specific project implementation notice of what issues are likely to arise under the California Coastal Management Program, and (2) it provides the Commission with an overall planning context within which to review specific projects subsequently proposed. The Commission can also ease its administrative burden by identifying at the General Management Plan stage those projects that do not affect the coastal zone or where effects are sufficiently minor to allow authorization through the negative determination procedure.

To that end, the Commission is informing the Park Service that consistency determinations or negative determinations may be required for any of the following specific projects which the Park Service intends to implement under the draft GMP: (a) redesign of Freshwater Spit facilities in conjunction with the conversion from overnight to day use; (b) changes to public

access needed to enforce existing park regulations prohibiting off-road vehicle use; (c) minor changes to several public roads located seaward of the coastal zone boundary; and (d) detailed trail plan and tidepool area management.

To ease in the administrative burdens, the proposals/specific plans may be consolidated into a single (or groups of) consistency determination(s). Also, some of these proposals/specific plans may pose only minor issues may be reviewed administratively through the negative determination process. The Park Service should continue to consult with the Commission staff on the most appropriate form for review.

III. Status of Local Coastal Program. The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the LCP has been certified by the Commission and incorporated into the California Coastal Management Program (CCMP), it can provide guidance in applying Chapter 3 policies in light of local circumstances. If the LCP has not been incorporated into the CCMP, it cannot be used to guide the Commission's decision, but it can be used as background information. The Del Norte and Humboldt County LCPs have been certified by the Commission and have been incorporated into the CCMP.

IV. Federal Agency's Consistency Determination. The National Park Service has determined the plan consistent to the maximum extent practicable with the California Coastal Management Program.

V. Staff Recommendation. The staff recommends that the Commission adopt the following motion:

MOTION: I move that the Commission agree with consistency determination CD-11-00 that the plan described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program (CCMP).

STAFF RECOMMENDATION:

*Staff recommends a **YES** vote on the motion. Passage of this motion will result in an agreement with the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.*

RESOLUTION TO AGREE WITH CONSISTENCY DETERMINATION:

The Commission hereby agrees with the consistency determination by the National Park Service, on the grounds that the plan described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the CCMP.

VI. Findings and Declarations:

The Commission finds and declares as follows:

1. Public Access and Recreation. Sections 30210-30212 of the Coastal Act provide for the maximization of public access and recreation opportunities, acknowledging that such access needs to be managed to take into account natural resource protection needs. Section 30212.5 provides that where appropriate and feasible, public facilities, including parking areas or facilities, "shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area." Section 30213 provides for the protection of lower cost visitor and recreational facilities. Section 30214 provides that:

(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

(1) Topographic and geologic site characteristics.

(2) The capacity of the site to sustain use and at what level of intensity.

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

The Park Service's overall goals for Redwood National Park are synonymous with those of the Coastal Act, which are to maximize public access in recreation in a manner balancing competing recreational uses, distributing recreational opportunities to avoid overcrowding of any single area, and managing access and recreation in a manner protecting sensitive habitat and other coastal resources. To accomplish these goals, the management zoning described in the GMP prescribes resource conditions and visitor experiences that are acceptable in each zone. Facilities and use levels allowed in each zone must not exceed the conditions set for protecting resources

or for the desired visitor experience. Developed and frontcountry zones in which roads and parking are allowed are well-distributed in areas that are able to withstand impacts along the 35 miles of park coastline. The GMP identifies several areas of the Park as susceptible to crowding and calls for carrying capacity studies prior to redesign of the areas. None of these areas is subject to federal consistency review. The present use of Freshwater Spit for overnight camping is considered by some members of the public to be in excess of the social carrying capacity because the spit is crowded by vehicles that block the view of the ocean. GMP proposals for Freshwater Spit address the resource impacts from this overnight use.

Insofar as the plan identifies and proposes overall solutions for balancing competing recreational uses, these need to be considered at this time for overall consistency with Coastal Act policies. Potential conflicts that have raised controversy in the development of the plan include: (a) overnight use at Freshwater Spit, which the Park Service intends to curtail, by limiting the use of Freshwater Spit to day use; (b) limiting off-road vehicle use on beaches.

Freshwater Spit Visitor Use

Freshwater Spit is the southern gateway to the Park. The spit was stabilized and widened with fill when U. S. Highway 101 was rerouted onto the spit in the 1950s. The fill area of the spit is a highway right-of-way owned by Caltrans and has been used for many years for overnight camping, primarily by recreational vehicles.

In the early 1980s after the expansion of the national park, the Park Service agreed to manage the overnight camping to protect park resources and values. The Park Service leased the area from Caltrans. Overnight use is allowed along a 1.5-mile-long strip of fill parallel to the west side of U.S. Highway 101. There is a 15-consecutive-day camping limit, with a 30-day annual limit. No fee is charged, although a \$7 donation is requested. Park Service policies require that a certain level of facilities, including drinking water, must be provided if a camping fee is charged. The overnight use results in sanitation and public safety problems which the Park Service manages by providing portable toilets, garbage dumpsters, and law enforcement patrols.

During the summer months, the entire length of the spit is occupied by overnight users. Overnight use degrades resources and detracts significantly from the outstanding visual qualities of the area by blocking the view of the beach and ocean. Merchants in the local community of Orick believe that the campers at Freshwater Spit contribute significantly to the economy of Orick through purchases of gas, food, and supplies. Private RV park owners in the area believe that allowing free camping constitutes unfair competition with their businesses.

The Park Service proposes to change the use of Freshwater Spit from overnight to day use to provide all visitors with the opportunity to enjoy the outstanding scenic values and to improve public health and safety. Site-specific planning and design will be required to implement the proposal, which will require additional consistency review when a specific redesign of Freshwater Spit facilities is proposed conjunction with this conversion. The new facility would be developed to include structured parking, safe access to the highway, pedestrian access to the

beach, and appropriate interpretive exhibits and support facilities. Overnight use would be phased out over a 3-year period to allow the private sector the opportunity to develop replacement camping facilities nearby. A fee would be charged for overnight use during the phase-out period.

Freshwater Spit use –After leasing the area from Caltrans, the Park Service developed management alternatives for the spit in 1990 that were reviewed for consistency with the Coastal Act by the Coastal Commission in consistency determination CD-22-90. The Commission was very concerned with continuing adverse impacts from unmanaged overnight use at the spit. In reviewing CD-22-90 the Commission reiterated a finding it had adopted in reviewing the Park Service's original Management Plan consistency determination in 1979 (CD-17-79), as follows:

The present use of the spit creates an undesirable visual intrusion on views of the ocean and the highly scenic lagoon area and creates unnecessarily crowded conditions, but inappropriate redesign of the area could reduce access to the tidelands and eliminate low-cost recreational facilities. The Commission finds that, to be consistent with the policies of the Coastal Act, redesign of the spit area should be specified in sufficient detail to assess its impacts and should include the following components:

- 1. Maintenance of access to state tidelands and Freshwater Lagoon*
- 2. Reduction of overnight use in conjunction with the construction of new low cost overnight facilities in the park and on private lands in the area.*
- 3. Concentration of parking areas and support facilities to maintain open vistas of the ocean and Freshwater Lagoon from US 101.*
- 4. Management and patrol of the Freshwater spit and of other similar beaches, including Wilson Creek and Crescent Beach, to minimize informal overnight use in unauthorized areas within the national park boundary.*

Thus, the Park Service's current proposal is consistent with the above long-standing past Commission direction on this issue.

Off-Road Vehicle Use on Beaches

Vehicles are operated on federally administered beaches at Freshwater Spit and north of the mouth of Redwood Creek at Hidden Beach (Humboldt County), and in Del Norte County at the mouth of the Klamath River and Crescent Beach. This off-road vehicle use occurs in violation of Park Service regulations that apply service-wide. Vehicle use at Crescent Beach is subject to a Del Norte County permit system but the other beaches are presently open to all properly registered vehicles capable of driving on soft sand. Vehicles are required to stay on the wave slope of the beach 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.

Some of the vehicle use is by commercial fishermen fishing for surf fish and smelt in accordance with the provisions of the legislative history of the 1968 legislation that established Redwood National Park. Other vehicles travel on the beaches for recreational activities such as sportfishing, beachcombing, and wood gathering, or for access for traditional American Indian uses.

Removal of wood from the beaches is facilitated by off-road vehicle access. While limited wood gathering for the purpose of campfire wood collection is allowed under Park Service regulations, off-road vehicle access facilitates removal of large pieces of woody debris for commercial purposes. Large woody debris on beaches in the Northwest provides shelter, nutrients, hiding places, perches, and nesting habitat for numerous species of wildlife. Wood also plays a key role in energy dissipation during storms and promotes the entrapment and retention of sand and the formation of dunes. These natural functions and processes are disturbed when large woody debris is regularly removed from the beaches after storms.

The Park Service proposes to enforce its service-wide regulations (36 CFR 4.10) prohibiting off-road vehicle use in national parks, resulting in elimination of all off-road vehicle use other than that which is essential to provide access for commercial surf fishing activities. These regulations are based on the requirements of Executive Orders 11644 and 11989 which established policies and constraints to protect the resources found on federal public lands from the adverse effects of off-road vehicle use.

Because of the provision in Redwood National Park's legislative history, off-road vehicle use associated with commercial fishing will be phased out over the long term, rather than eliminated immediately. Off-road vehicle use associated with commercial surf fishing at Freshwater Spit and Crescent Beach would continue by renewable, nontransferable annual permit only. Only permits issued between March 1996 and September 1, 1999 would be renewed. No new permits will be issued. Any permit not renewed in a given year will be terminated. Off-road vehicle use of beaches in connection with traditional American Indian cultural/religious activities consistent with the purposes of the parks will continue only at Gold Bluffs Beach in Prairie Creek Redwoods State Park.

The purpose of eliminating off-road vehicle use on federally owned or administered beaches is to maintain consistency in managing Park Service units, to protect a nationally significant natural setting and resources, and to reduce public safety and public use conflicts that result from vehicles and pedestrians using the same beach. The Park Service noted that the Del Norte Co. LCP also identifies adverse effects from vehicular traffic on tidal flats at Crescent Beach, which the LCP indicated resulted in significant mortality to sand beach organisms.

As stated above concerning managing access at Freshwater Spit, past Commission actions have also expressed the concern and direction for minimizing vehicular use of beaches. Finally, the Park Service has also committed to providing a more developed and detailed trail plan and

tidepool management, and submitting the plan to the Commission for subsequent consistency review. The Park Service concludes:

All oceanfront federal lands in RNSP are and will continue to be available for recreational use consistent with NPS regulations and policies, and management zoning as described in the GMP. Management zoning allows recreational uses consistent with the desired resource condition and visitor experience. The GMP proposal for converting Freshwater Spit to day-use only is consistent with the proposing that the phase-out occur over a 3-year period to allow private facilities to replace this use nearby. In addition, conversion of Freshwater Spit from overnight to day-use will improve public safety, by reducing potential earthquake and tsunami hazard to visitors ... [see pages 15-16 below]. The NPS anticipates that parking will be managed so as to maintain open vistas of the ocean uninterrupted by vehicles parked along the length of the spit. Aesthetic values will be enhanced further by removing portable toilets and garbage dumpsters from the spit, with restrooms and trash containers provided at the new day-use parking area and the existing Redwood Creek picnic area. Finally, it should be noted that overnight camping is also available at the state park campgrounds, including oceanside camping at Gold Bluffs Beach campground in Prairie Creek Redwoods State Park and at Clam Beach County Park in Humboldt County 25 miles south of Freshwater Spit. Numerous private campgrounds are available at Trinidad, Klamath, and Crescent City.

In conclusion, the Commission agrees with the Park Service that the proposed management plan protects and supports coastal public access and recreation, in a manner balancing conflicts between competing recreational uses and protecting environmentally sensitive habitat and other coastal resources. In this way, the Park Service will implement the management measures proscribed in Section 30214 of the Coastal Act. Finally, the Park Service will continue to coordinate the implementation of these management measures to enable the Commission to further review specific proposals. The Commission concludes that the proposed plan is consistent with the public access and recreation policies (Sections 30210-30214 and 30220-30222) of the Coastal Act.

2. Environmentally Sensitive Habitat, Wetlands, Marine Resources. The Coastal Act provides:

30230: Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

30231: The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30233(a). The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: [eight specified uses].

Section 30240. (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Along with maximizing recreational opportunities the primary purpose for establishing and managing Redwood National Park is the protection and restoration of the park's wildlife values. The legislation establishing Redwood National Park set aside the park in part to preserve seashores associated with the primeval redwood forests, for purposes of public inspiration, enjoyment, and scientific study. The Pacific coastal, nearshore, and littoral environments and waters are considered significant attributes of the parks, and the Park Service recognizes that the marine environment in the Park is dominated by intense physical forces and any allowable uses must account for these forces.

Approximately 31 miles of the offshore waters in the Park between Cushing Creek and the southern end of Freshwater Spit were designated as the Redwood National Park Area of Special Biological Significance in 1974. The Park Service will continue to work with the California Department of Fish and Game to ensure that these waters are protected to the greatest extent practicable, and to seek additional protection through modification of existing CDFG regulations if needed. The Park Service will continue to inventory marine organisms and monitor their condition under general Park Service laws and policies. With the exception of those species that

can be taken under commercial and sportfishing regulations as allowed under state law, Park Service laws, policies, and regulations dictate complete protection of marine organisms.

Restoration of watersheds impacted by previous timber harvest is mandated by the 1978 legislation expanding the national park. The restoration program is designed to reduce erosion that degrades water quality and to restore natural topography of hillslopes and stream channels. Most of the restoration occurs outside the coastal zone but indirectly affects coastal resources downstream. The restoration of the Redwood Creek estuary, which directly affects the coastal zone, has been a long-term goal of the Park Service.

Management of the water levels in the Redwood Creek estuary to conserve salmon habitat and protect the Redwood Information Center requires periodic dredging to control the breaching of the sand berm separating the estuary from the ocean. Additional dredging might be necessary as part of the program to restore the functions and values of the estuary. The Park Service will take a leadership role in organizing a multidisciplinary, multijurisdictional approach to restoration of the estuary. Park Service staff will prepare the Redwood Creek Estuary Aquatic Resource Management Plan to 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. This plan will be submitted for additional federal consistency determination. The new plan will update the 1983 *Management Alternatives for the Redwood Creek Estuary*. The Commission concurred with earlier consistency determinations submitted by the Park Service for management projects for the estuary beginning in 1983 and in subsequent years (CD-31-83, CD-18-84, CD-20-85).

Water quality and human health in the coastal zone at visitor use areas at Freshwater Spit, the Redwood Creek picnic area, the Redwood Information Center, Lagoon Creek and Crescent Beach picnic areas are protected through adequate waste water treatment methods in compliance with applicable federal and state regulations.

Based on the above discussion, the Commission finds the plan will protect, and restore where feasible, wetlands, marine resources, water quality, and environmentally sensitive habitat. The Commission will be afforded the opportunity for further consistency review for specific implementation proposals. The Commission concludes that the proposed Management Plan is consistent with Sections 30230, 30231, 30233, and 30240 of the Coastal Act.

3. Commercial and Recreational Fishing. The Coastal Act provides:

Section 30234. Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. Existing commercial fishing and recreational boating harbor space shall not be reduced unless the demand for those facilities no longer exists or adequate substitute space has been provided. Proposed recreational boating facilities shall, where

feasible, be designed and located in such a fashion as not to interfere with the needs of the commercial fishing industry.

Section 30234.5. The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.

Under the management plan, as discussed on pages 10-12 above, off-road vehicle access for commercial fishing on beaches at Freshwater Spit, Klamath, and Crescent Beach will be managed under a permit system similar to that used at Gold Bluffs Beach in Prairie Creek Redwoods State Park and at those portions of Crescent Beach owned by Del Norte County. Recreational boating is not a common use of park marine waters because of the lack of safe harbors or anchorages in the Park, and rough conditions typical in marine waters of northwestern California. Beach access by motor vehicle for coastal-dependent industrial uses will be allowed to the extent such uses are consistent with regulations and statutes applicable to the Park Service and the Park. Commercial and recreational fishing will continue in park ocean waters and be governed under state laws, as provided in the legislative history for the legislation that established Redwood National Park. Limiting off-road vehicle use to vehicles used for commercial fishing only and eventually phasing out off-road vehicle use altogether will be implemented, as discussed in the previous sections of this report, "to meet Park Service statutory obligations to protect park resources and enhance public enjoyment of park resources and values, and to provide consistent management of vehicles on beaches owned by the Park Service and the California Department of Parks and Recreation within the Park."

The Commission finds that the Management Plan recognizes the importance of and contains measures to protect and provide, where feasible, commercial and recreational fishing opportunities, and that the Plan is therefore consistent with Sections 30234 and 30234.5 of the Coastal Act.

4. **Geologic Hazards.** Section 30253 of the Coastal Act provides that new development shall:

- (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
- (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

The Park Service acknowledges that the Park is located in an area subject to geological hazards (Cascadia subduction zone, local and distant source tsunamis, river and stream flooding, landslides). Where there is no feasible location for facilities outside the hazard zones, the hazards are mitigated by developing emergency action plans and procedures, and posting warnings. The Park Service staff participates in tsunami disaster planning with Humboldt and

Del Norte county emergency services offices, as well as participating in the National Tsunami Hazard Mitigation Program.

Based on public comments on the draft plan, the Park Service changed its original proposal to move the existing Redwood Information Center out of the tsunami zone. The final proposal is to relocate the center only if it should be destroyed or severely damaged by future events. The center was approved for construction in its present site based on scientific knowledge current in the early 1980s. New evidence indicates that the chance of a tsunami or damaging earthquake is substantially greater than known at that time. However, the Park Service determined the cost of relocating the relatively new structure to be excessive, based on estimates of potentially available funding. To protect visitors and employees who might occupy the center at the time of a tsunami, the Park Service staff has prepared a tsunami evacuation plan and is participating in the National Tsunami Hazard Mitigation Program. The center is also subject to damage from changes in the course of Redwood Creek that were not anticipated at the time of construction, because the sand berm at the mouth of the creek had been regularly breached to prevent flooding of private agricultural land.

If the Redwood Information Center is significantly damaged by future events, its functions would be relocated to a new visitor center to be situated somewhere in the vicinity of Orick out of the tsunami zone. The present site of the visitor center would be converted to a day-use area with interpretive opportunities including exhibits, beach access, and boardwalks to improve access to the beach and the estuary for persons of all physical abilities.

The Park Service proposal to convert Freshwater Spit from overnight use to day use is consistent with the Park Service guidelines for implementing Executive Order 11988, "Floodplain Management." These guidelines require that overnight occupation areas such as campgrounds be located out of coastal high hazard zones, because of the difficulty of providing timely warning and adequate evacuation time. Presently, there are tsunami warning signs and evacuation procedures posted on the information kiosks along Freshwater Spit.

The Commission finds that the Management Plan recognizes and adequately plans for known possible future hazards. The Park Service will provide hazard warnings where appropriate, including evacuation procedures where warranted. Further, the Park Service understands the need to relocate facilities in the event they are damaged by natural disasters. The Commission finds that the plan will minimize risks to life and property in areas of high hazard areas and will avoid the need for the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. The Commission therefore concludes the plan is consistent with Section 30253 of the Coastal Act.

5. Archaeological Resources. Section 30244 of the Coastal Act provides:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

Archeological sites, historic structures, cultural landscapes, and ethnographic properties will be preserved, protected, and managed under applicable Park Service laws, regulations, policies, and guidelines. For any actions that might affect cultural resources, the Park Service will consult with the California State Historic Preservation Office in compliance with the 1995 Programmatic Agreement among the National Conference of State Historic Preservation Officers, the Advisory Council on Historic Preservation, and the Park Service, or with the Yurok Tribal Historic Preservation Office for properties within aboriginal Yurok lands.

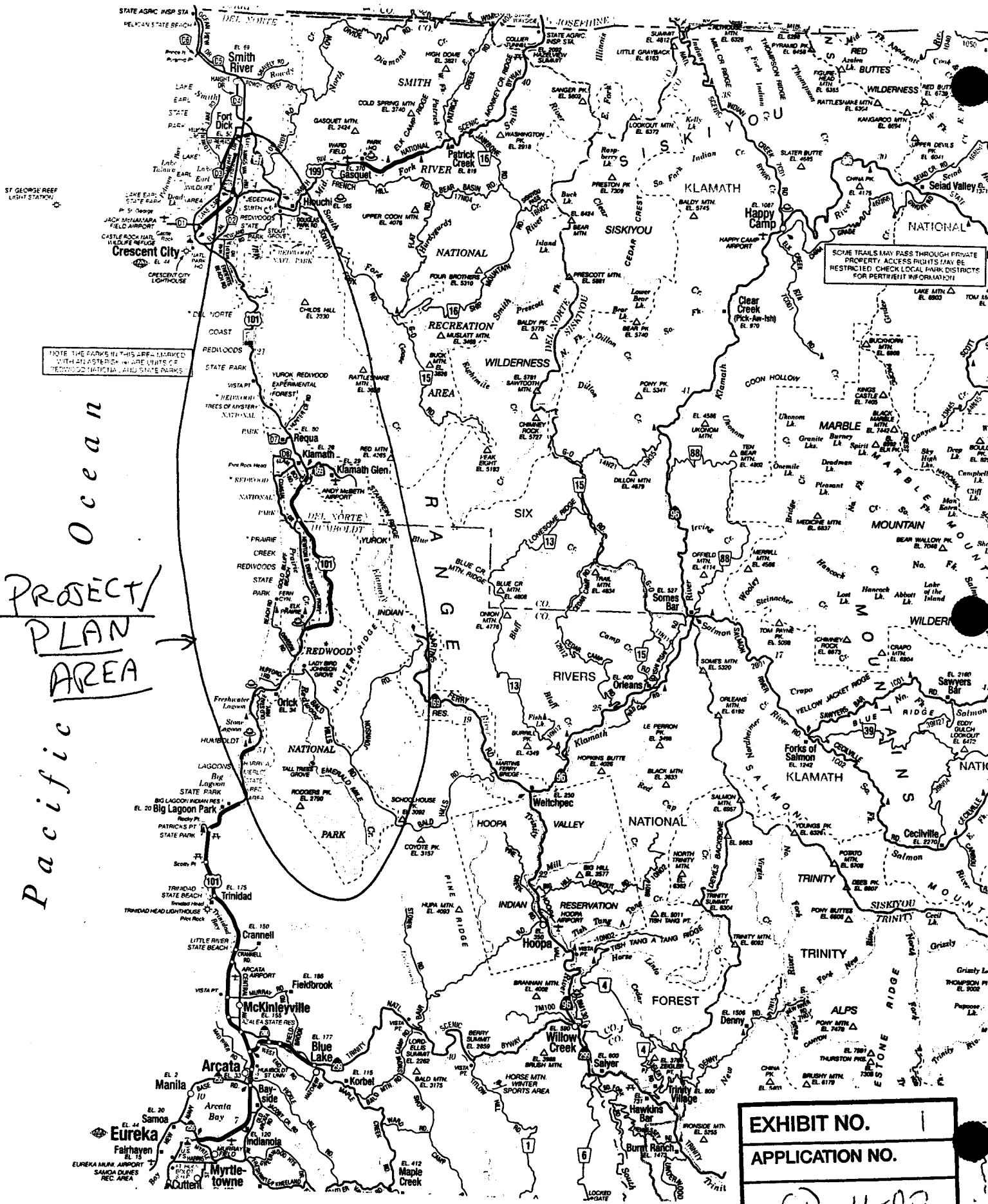
Several cultural resource properties listed on the National Register of Historic Places are located within the coastal zone, including the World War II Radar Site B-71 along the Coastal Drive south of the Klamath River, and portions of the Coastal Drive itself (the former Redwood Highway) north of the Klamath River. Areas within the coastal zone of ethnographic significance to local American Indians include Crescent Beach, Enderts Beach, the mouth of the Klamath River, the mouth of Redwood Creek, and several coastal prairies.

The Commission finds that the plan will avoid, and where appropriate, mitigate impacts to archaeological or paleontological resources as identified by the State Historic Preservation Officer, and that the plan is therefore consistent with Section 30244 of the Coastal Act.

VII. SUBSTANTIVE FILE DOCUMENTS:

1. Draft General Management Plan, Redwood National and State Parks, Humboldt And Del Norte Counties, California, Draft EIS/EIR.

2. Consistency and Negative Determinations for prior National Park Proposals at Redwood National Park: 1979 General Management Plan (CD-017-79); the 1983 Redwood Creek estuary management plan (CD-031-83) and estuary management and wetland enhancement projects for the mouth of Redwood Creek (CD-018-84, CD-020-85, CD-007-86, ND-116-94, ND-020-95 and ND-82-97); the 1990 Freshwater Spit management plan (CD-022-90); access for persons with disabilities (ND-015-94); enhancement of day use picnic area (ND-095-94); and entrance sign relocation (CD-64-89).

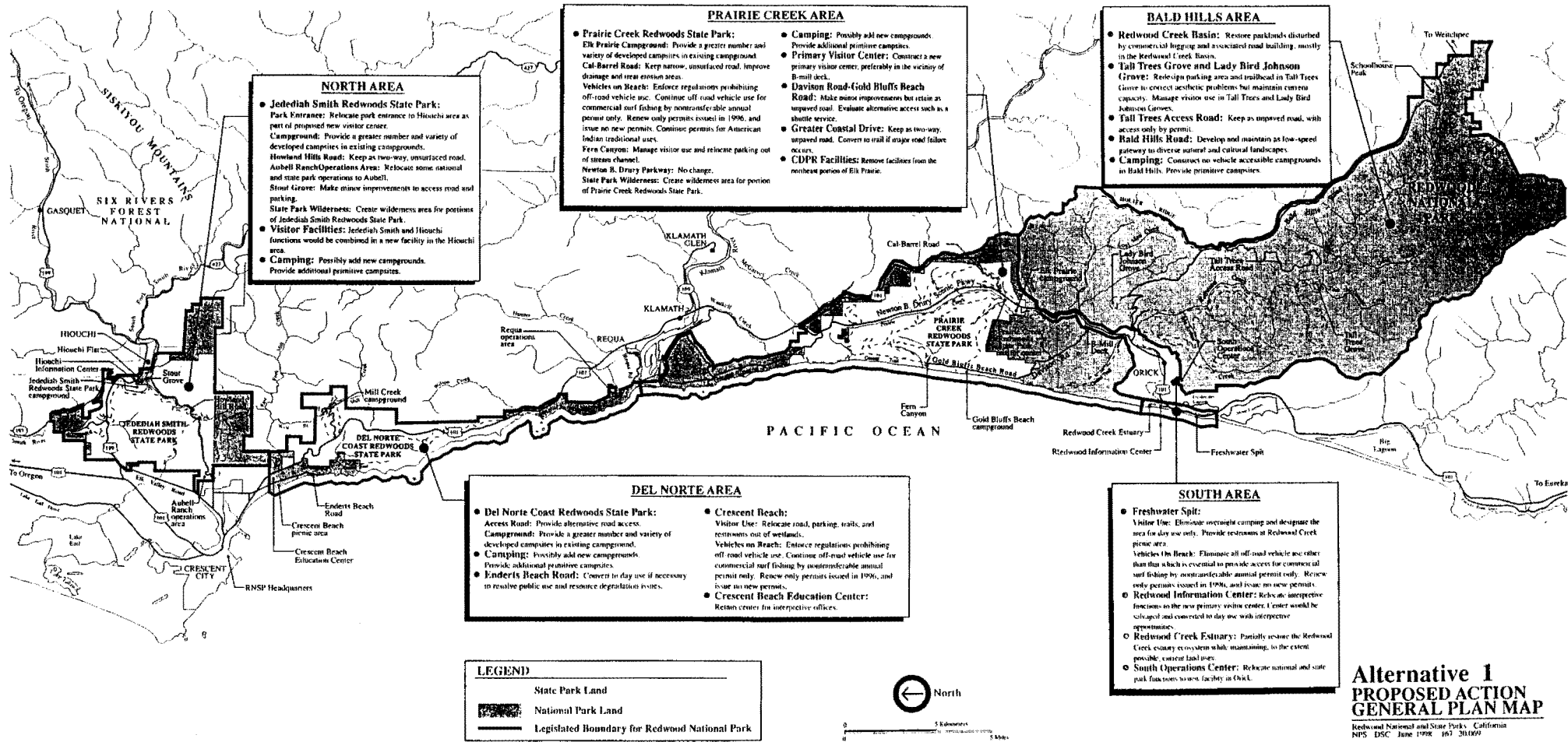


NOTE THE PARKS IN THIS AREA MARKED WITH AN ASTERISK ARE UNITS OF FEDERAL NATIONAL AND STATE PARKS

SOME TRAILS MAY PASS THROUGH PRIVATE PROPERTY. ACCESS RIGHTS MAY BE RESTRICTED. CHECK LOCAL PARK DISTRICTS FOR PERTINENT INFORMATION!

Pacific Ocean
PROJECT PLAN AREA

EXHIBIT NO. 1
APPLICATION NO.
CD-11-00



NORTH AREA

- **Jedediah Smith Redwoods State Park:**
Park Entrance: Relocate park entrance to Hiouchi area as part of proposed new visitor center.
Campgrounds: Provide a greater number and variety of developed campsites in existing campgrounds.
Howland Hills Road: Keep as two-way, unsurfaced road.
Aubell Ranch Operations Area: Relocate some national and state park operations to Aubell.
Stour Grove: Make minor improvements to access road and parking.
State Park Wilderness: Create wilderness area for portions of Jedediah Smith Redwoods State Park.
Visitor Facilities: Jedediah Smith and Hiouchi functions would be combined in a new facility in the Hiouchi area.
Camping: Possibly add new campgrounds. 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.
Cal-Barrel Road: Keep narrow, unsurfaced road. Improve drainage and create erosion areas.
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 in 1996, and issue no new permits. Continue permits for American Indian traditional uses.
Yera Canyon: Manage visitor use and relocate parking out of stream channel.
Newton B. Drury Parkway: No change.
State Park Wilderness: Create wilderness area for portion of Prairie Creek Redwoods State Park.
- **Camping:** Possibly add new campgrounds. Provide additional primitive campsites.
- **Primary Visitor Center:** Construct a new primary visitor center, preferably in the vicinity of B-mill deck.
- **Daivison Road-Gold Bluffs Beach Road:** Make minor improvements but retain as a shuttle service. Evaluate alternative access such as an unpaved road. Convert to trail if major road follows occur.
- **Greater Coastal Drive:** Keep as two-way, unpaved road. Convert to trail if major road follows occur.
- **CDPR Facilities:** Remove facilities from the northeast portion of Elk Prairie.

BALD HILLS AREA

- **Redwood Creek Basin:** Restore parklands disturbed by commercial logging and associated road building, mostly in the Redwood Creek Basin.
- **Tall Trees Grove and Lady Bird Johnson Grove:** Restore parking area and trailhead in Tall Trees Grove to correct aesthetic problems but maintain current capacity. Manage visitor use in Tall Trees and Lady Bird Johnson Groves.
- **Tall Trees Access Road:** Keep as unpaved road, with access only by permit.
- **Bald Hills Road:** Develop and maintain as low-speed roadway to diverse natural and cultural landscapes.
- **Camping:** Construct on-vehicle accessible campgrounds in Bald Hills. Provide primitive campsites.

DEL NORTE AREA

- **Del Norte Coast Redwoods State Park:**
Access Road: Provide alternative road access.
Campgrounds: Provide a greater number and variety of developed campsites in existing campgrounds.
Camping: Possibly add new campgrounds. Provide additional primitive campsites.
Ender's Beach Road: Convert to day use if necessary to resolve public use and resource degradation issues.
- **Crescent Beach:**
Visitor Use: Relocate road, parking, trails, 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 in 1996, and issue no new permits.
- **Crescent Beach Education Center:**
 Retain center for interpretive offices.

SOUTH AREA

- **Freshwater Spit:**
Visitor Use: Eliminate overnight camping and designate the area for day use only. Provide restrooms at Redwood Creek picnic area.
Vehicles on Beach: Eliminate all off-road vehicle use; other than that which is essential to provide access for commercial surf fishing by nontransferable annual permit only. Renew only permits issued in 1996, and issue no new permits.
- **Redwood Information Center:** Relocate interpretive functions to the new primary visitor center. Center would be salvaged and converted to day use with interpretive opportunities.
- **Redwood Creek Estuary:** Partially restore the Redwood Creek estuary ecosystem while maintaining, to the extent possible, current land uses.
- **South Operations Center:** Relocate national and state park functions to new facility in Orick.

LEGEND

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

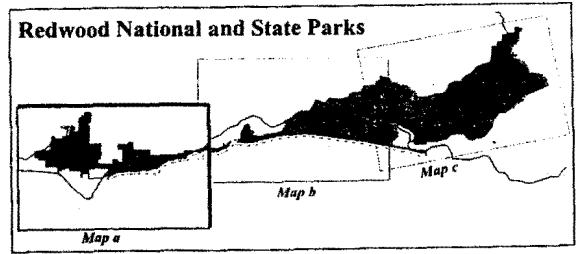
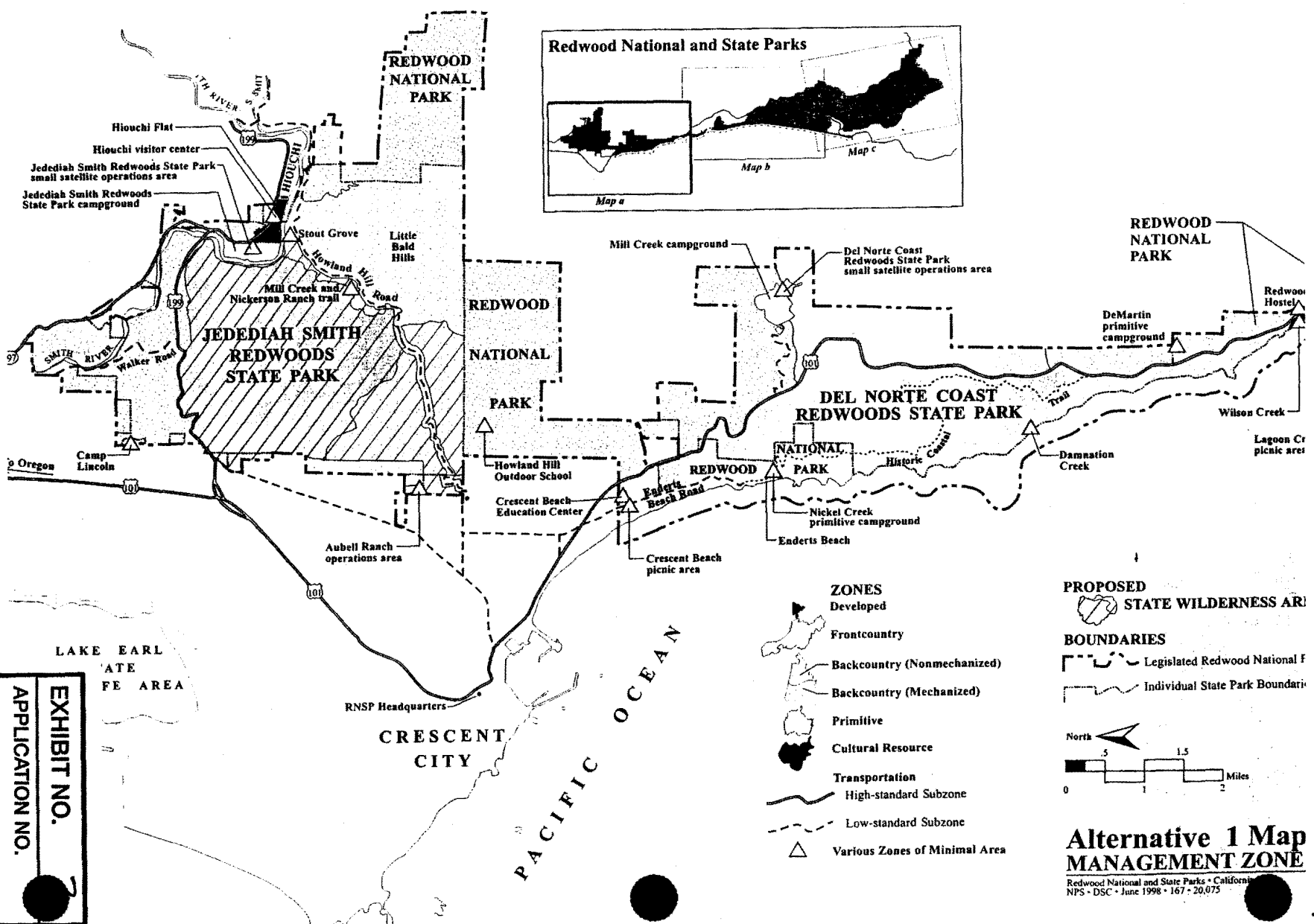


0 5 Kilometers
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**Alternative 1
PROPOSED ACTION
GENERAL PLAN MAP**
 Redwood National and State Parks, California
 NPS DSC June 1996 167 30169

EXHIBIT NO. 2
 APPLICATION NO.
 CD-11-00

EXHIBIT NO. 2
 APPLICATION NO. CD-11-00



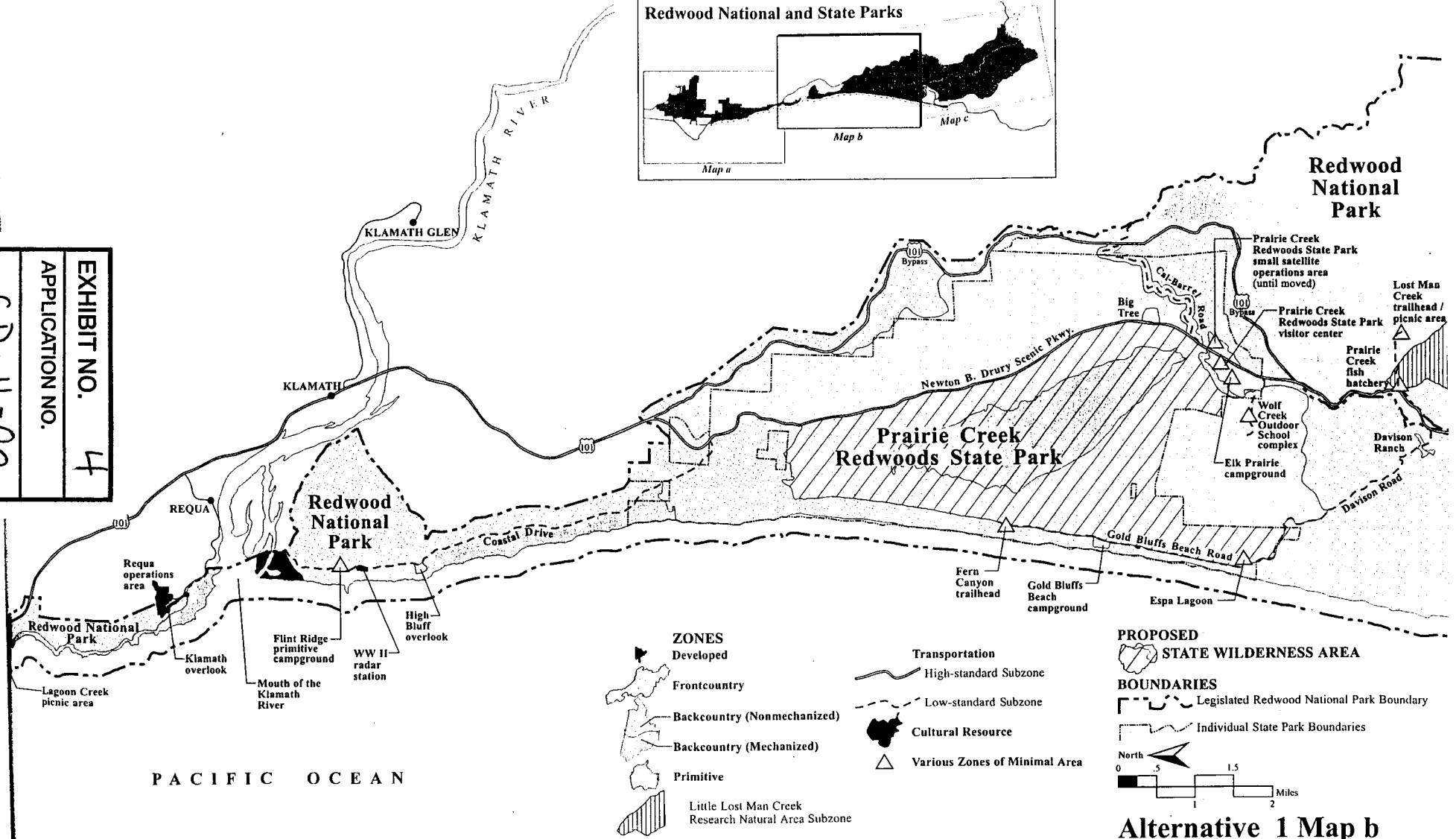
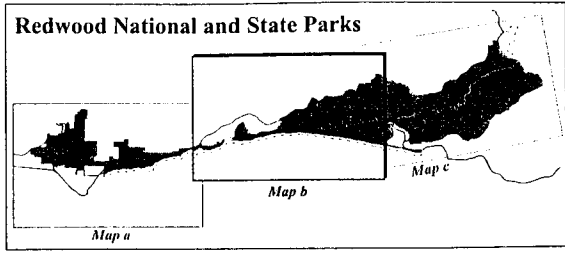
- ZONES**
- Developed
 - Frontcountry
 - Backcountry (Nonmechanized)
 - Backcountry (Mechanized)
 - Primitive
 - Cultural Resource
 - Transportation
 - High-standard Subzone
 - Low-standard Subzone
 - Various Zones of Minimal Area

- PROPOSED STATE WILDERNESS AREA**
- BOUNDARIES**
- Legislated Redwood National Park Boundary
 - Individual State Park Boundary
- North
- 0 0.5 1 1.5 2 Miles

Alternative 1 Map MANAGEMENT ZONE

Redwood National and State Parks • California
 NPS • DSC • June 1998 • 167 • 20,075

EXHIBIT NO. 4
 APPLICATION NO. CD-11-00



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

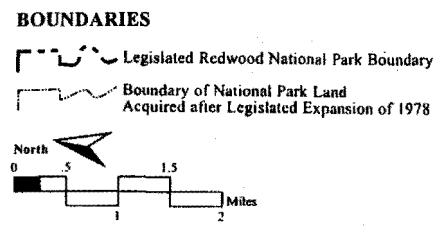
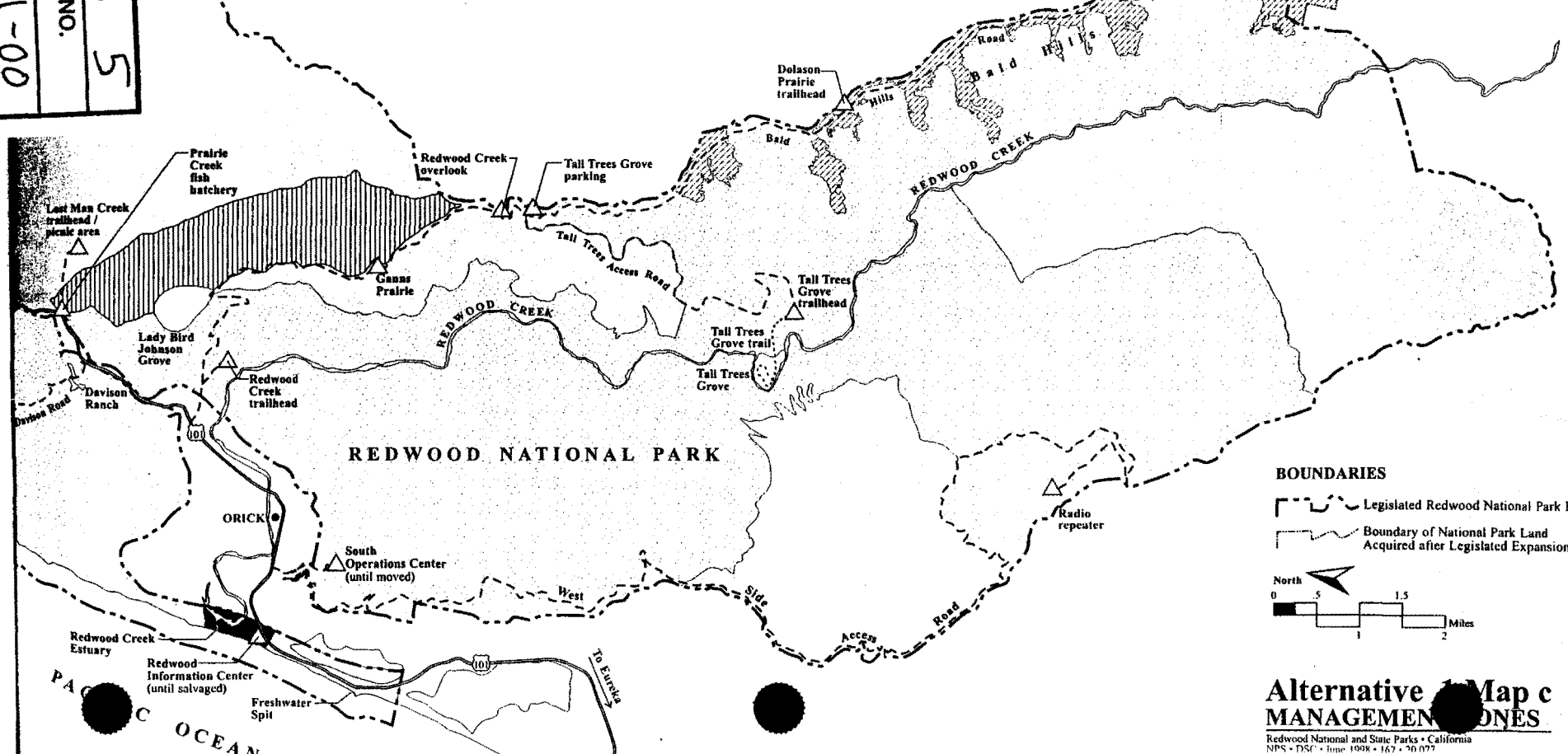
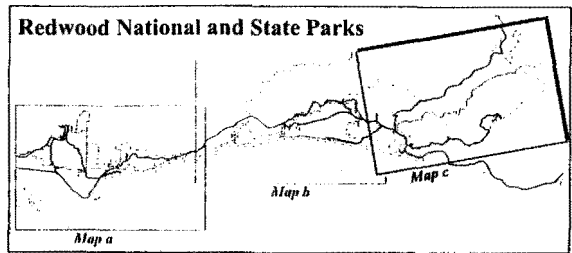
- Transportation**
- High-standard Subzone
 - Low-standard Subzone
- Cultural Resource**
- Various Zones of Minimal Area

- PROPOSED STATE WILDERNESS AREA**
- BOUNDARIES**
- Legislated Redwood National Park Boundary
 - Individual State Park Boundaries
- North
- 0 0.5 1.5 2 Miles

Alternative 1 Map b
MANAGEMENT ZONES
 Redwood National and State Parks • California
 NPS • DSC • June 1998 • 167 • 20.076

EXHIBIT NO. 5
 APPLICATION NO. CD-11-00

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



ALTERNATIVE 1 — PROPOSED ACTION

CONCEPT

To achieve a balance between resource protection and visitor use, the parks' natural and cultural resources would be preserved and protected, but restoration would be emphasized more than currently where sensitive resources were at risk. 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. Facilities would be retained in areas with sensitive resources. However, new uses and facilities to enhance visitor experiences in such 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 Alterna-

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

MANAGEMENT ZONES

Reflecting the goal of balance between resource protection and visitor use under this alternative, acreages of the developed, frontcountry, 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)

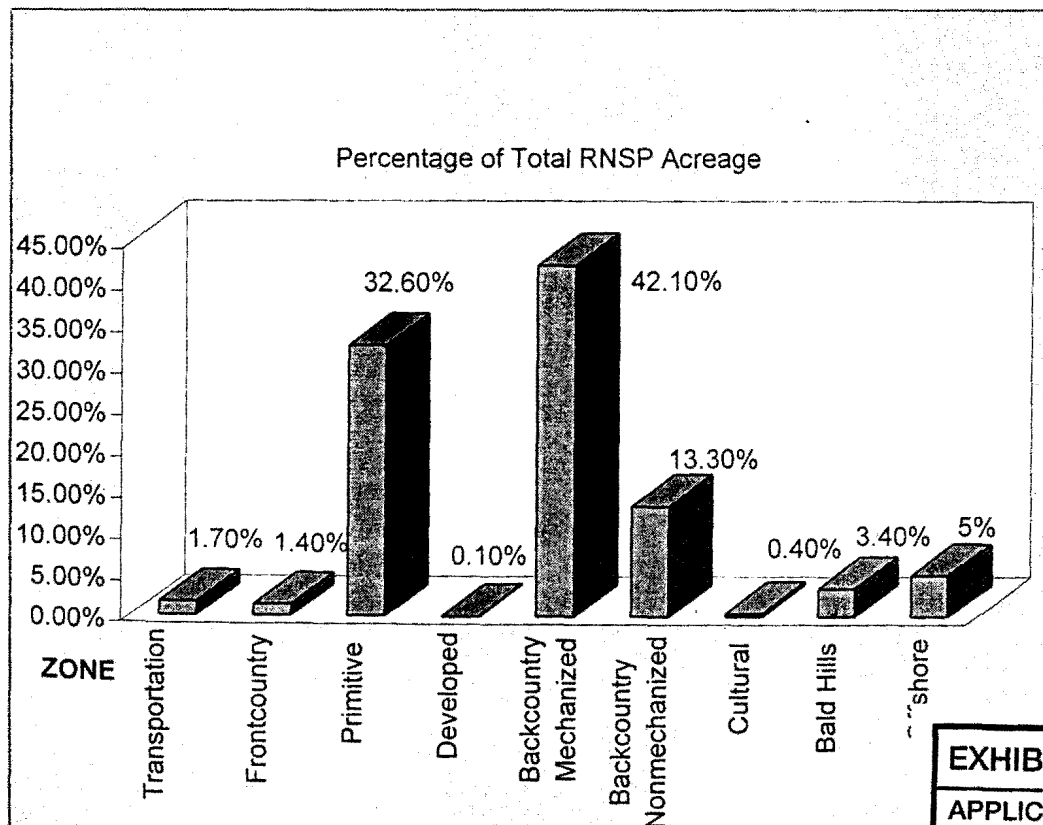


EXHIBIT NO.	6
APPLICATION NO.	
	CD-11-00

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

No federal lands would be proposed for wilderness designation. (Note: State wilderness proposals vary by alternative.)

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.

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, campsite size limits, reservation and permit systems, stock use, trash and sanitation, and emergency services. This plan would also include use of the primitive zone as well as hiking, camping, and equestrian and mountain bike use and guidance concerning the development of a comprehensive trail system and other backcountry facilities. 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*.

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 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. Trail

EXHIBIT NO.	7
APPLICATION NO.	
CD-11-00	

would be consistent with the resource conditions and visitor experiences in the management zones established in this general plan. Portions of this plan would update the Redwood National Park 1984 *Backcountry Trail Plan, Redwood and Skunk Cabbage Creeks*.

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 1995 *Fire Management Plan*.

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 locations of the road would be presented.

Bald Hills Visitor Use Management Plan: This plan would specify the interpretive themes to be presented at various locations throughout the Bald Hills, describe the media used to convey the information to visitors, identify the viewsheds to be protected and interpreted, and describe the locations of vehicle parking areas and pullouts, scenic overlooks, and interpretive trails.

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 seeping into the soil from construction equipment, 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 and marbled murrelets. (For more information see the discussion of rare, threatened, and endangered species in the "Affected Environment" part of this document.)

