



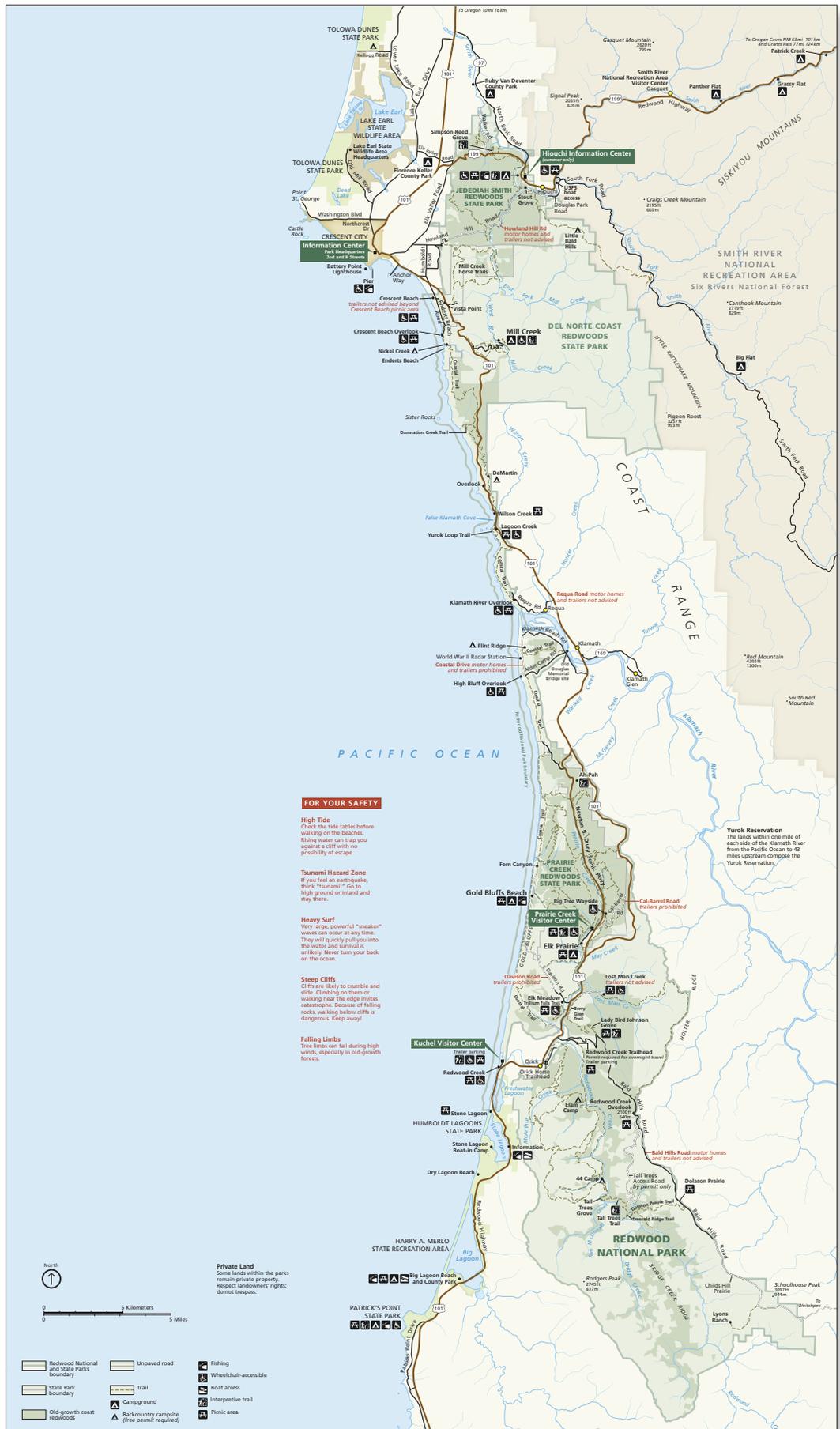
Foundation Document

Redwood National and State Parks

California

September 2016





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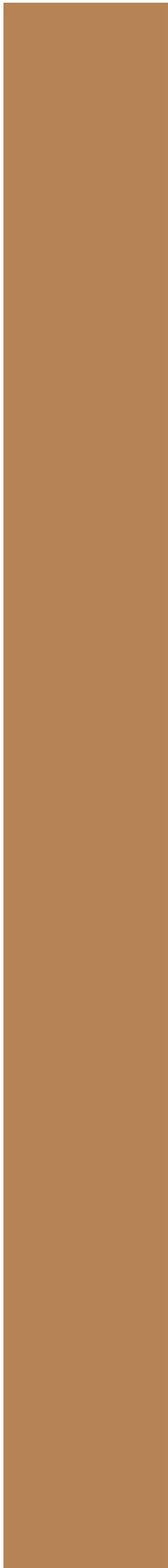
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Mission of the National Park Service

The National Park Service (NPS) preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The National Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

The NPS core values are a framework in which the National Park Service accomplishes its mission. They express the manner in which, both individually and collectively, the National Park Service pursues its mission. The NPS core values are:

- **Shared stewardship:** We share a commitment to resource stewardship with the global preservation community.
- **Excellence:** We strive continually to learn and improve so that we may achieve the highest ideals of public service.
- **Integrity:** We deal honestly and fairly with the public and one another.
- **Tradition:** We are proud of it; we learn from it; we are not bound by it.
- **Respect:** We embrace each other's differences so that we may enrich the well-being of everyone.

The National Park Service is a bureau within the Department of the Interior. While numerous national park system units were created prior to 1916, it was not until August 25, 1916, that President Woodrow Wilson signed the National Park Service Organic Act formally establishing the National Park Service.

The national park system continues to grow and comprises more than 400 park units covering more than 84 million acres in every state, the District of Columbia, American Samoa, Guam, Puerto Rico, and the Virgin Islands. These units include, but are not limited to, national parks, monuments, battlefields, military parks, historical parks, historic sites, lakeshores, seashores, recreation areas, scenic rivers and trails, and the White House. The variety and diversity of park units throughout the nation require a strong commitment to resource stewardship and management to ensure both the protection and enjoyment of these resources for future generations.



The arrowhead was authorized as the official National Park Service emblem by the Secretary of the Interior on July 20, 1951. The sequoia tree and bison represent vegetation and wildlife, the mountains and water represent scenic and recreational values, and the arrowhead represents historical and archeological values.

Mission of California State Parks

Our Mission

To provide for the health, inspiration, and education of the people of California by preserving the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.

California Department of Parks and Recreation

The California Department of Parks and Recreation manages 280 park units, which contain the finest and most diverse collection of natural, cultural, and recreational resources to be found in California. These treasures are as diverse as California: From the last stands of primeval redwood forests to vast expanses of fragile desert; from the lofty Sierra Nevada to the broad sandy beaches of the southern coast; and from the opulence of Hearst Castle to the vestiges of colonial Russia.

California State Parks contain the largest and most diverse natural and cultural heritage holdings of any state agency in the nation. The state park system includes state parks, state natural reserves, state historic parks, state historic monuments, state beaches, state recreation areas, state vehicular recreation areas, state seashores, and state marine parks. Within the system are natural and cultural preserves, lakes and reservoirs, coastal beaches, historic homes, Spanish-era adobe buildings, lighthouses, ghost towns, museums, visitor centers, conference centers, and off-highway vehicle recreation areas. Together, state park system lands protect and preserve an unparalleled collection of culturally and environmentally sensitive structures and habitats, threatened plant and animal species, ancient American Indian sites, historic structures and artifacts—the best of California's natural and cultural history.

With over 340 miles of coastline, 970 miles of lake and river frontage, 15,000 campsites, and 4,500 miles of trails, the state park system provides wonderful recreational, educational, and inspirational opportunities for over 67 million visitors a year.



Introduction

Every unit of the national park system will have a foundational document to provide basic guidance for planning and management decisions—a foundation for planning and management. The core components of a foundation document include a brief description of the park as well as the park’s purpose, significance, fundamental resources and values, and interpretive themes. The foundation document also includes special mandates and administrative commitments, an assessment of planning and data needs that identifies planning issues, planning products to be developed, and the associated studies and data required for park planning. Along with the core components, the assessment provides a focus for park planning activities and establishes a baseline from which planning documents are developed.

A primary benefit of developing a foundation document is the opportunity to integrate and coordinate all kinds and levels of planning from a single, shared understanding of what is most important about the park. The process of developing a foundation document begins with gathering and integrating information about the park. Next, this information is refined and focused to determine what the most important attributes of the park are. The process of preparing a foundation document aids park managers, staff, and the public in identifying and clearly stating in one document the essential information that is necessary for park management to consider when determining future planning efforts, outlining key planning issues, and protecting resources and values that are integral to park purpose and identity.

While not included in this document, a park atlas is also part of a foundation project. The atlas is a series of maps compiled from available geographic information system (GIS) data on natural and cultural resources, visitor use patterns, facilities, and other topics. It serves as a GIS-based support tool for planning and park operations. The atlas is published as a (hard copy) paper product and as geospatial data for use in a web mapping environment. The park atlas for Redwood National and State Parks can be accessed online at: <http://insideparkatlas.nps.gov/>.



Part 1: Core Components

The core components of a foundation document include a brief description of the park, park purpose, significance statements, fundamental resources and values, and interpretive themes. These components are core because they typically do not change over time. Core components are expected to be used in future planning and management efforts.

Brief Description of the Parks

Redwood National and State Parks (the parks) in extreme northwestern California, consist of four units: Redwood National Park (under the jurisdiction of the National Park Service) and three state parks—Prairie Creek Redwoods, Del Norte Coast Redwoods, and Jedediah Smith Redwoods State Parks (under the jurisdiction of the California Department of Parks and Recreation). Together, these parks in Del Norte and Humboldt Counties encompass some 131,983 acres, 71,715 acres of which are federally owned and fall within Redwood National Park. This national park system unit stretches about 50 miles in length with 37 miles of coastline and varies in width from 0.5 mile to 8 miles. Park headquarters are in Crescent City, California, which is equidistant (350 miles) between San Francisco, California, and Portland, Oregon. Five information centers provide orientation, information, and trip-planning advice.

Early efforts of the Save the Redwoods League and other conservationists led to the creation of California state parks to protect the area's remaining old-growth coast redwoods from extensive logging that threatened the existence of the oldest and largest trees. Prairie Creek Redwoods State Park, Del Norte Coast Redwoods State Park, and Jedediah Smith Redwoods State Park were developed in the 1920s and Redwood National Park was established in 1968 and expanded in 1978. Together, these parks preserve about 40,000 acres of old-growth redwood forests, which represent most of the last remaining old-growth coast redwood groves on Earth. In addition, the parks protect the world's largest coast redwood forests and its tallest living trees. Important not only for their massive size, coast redwood trees anchor one of the most productive ecosystems on Earth. This environment is highly differentiated and provides habitat for numerous plants and animal species, from the forest canopy down to the forest floor.

The diverse ecosystems of northern California have supported human life for thousands of years. The Chilula, Hupa, Tolowa, and Yurok peoples have been intimately connected to the land within Redwood National and State Parks since time immemorial. Descendants of these original residents continue to live nearby and help guide the parks' interpretation of the ancestors' lifeways. European American settlers brought vast changes to established patterns of human influence on the landscape, bringing with them new forms of ranching, farming, industry, government, and commerce. Later mechanization and industry practices nearly decimated old-growth redwood forests, which spurred a lengthy environmental movement to save the redwoods. Redwood National Park's museum collection chronicles all of these aspects of park history and culture. Park staff and partners work to preserve and interpret sites, buildings, and landscapes that reflect this evolving chronology of human influence on the land with places such as the Lyons Ranches Historic District, Bald Hills Archeological District, Me-weehl 'O Le-gehl (Gann's Prairie), Prairie Creek Fish Hatchery, and the World War II B-71 Radar Station.

The National Park Service and California Department of Parks and Recreation jointly manage Redwood National and State Parks under a cooperative management agreement first signed in 1994. This agreement was designed to streamline management of the parks by allowing staff, funds, and resources to be shared and used by both agencies. As part of the agreement, both agencies follow a single general management plan / general plan, completed in 2000. Approximately 1,400 acres of federal land and waters under the jurisdiction of the National Park Service within the parks are also within the boundary of the Yurok Reservation. The Yurok Tribe and the Department of the Interior are entering into an agreement that will direct the National Park Service and the Yurok Tribe to engage in a joint comprehensive management plan for the area within both the Yurok and national park boundaries.

Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Redwood National and State Parks was drafted through a careful analysis of the enabling legislation and legislative history that influenced the development of Redwood National Park, plus the declarations of purpose from the California State legislature for each of the three state parks. Redwood National Park was established when the enabling legislation adopted by Congress was signed into law on October 2, 1968 (see appendix A for enabling legislation). The purpose statement lays the foundation for understanding what is most important about the park.

REDWOOD NATIONAL AND STATE PARKS share in the perpetual stewardship of ancient coast redwood forests, streams, coastal ranges, and coastline; for the enjoyment, education, and inspiration of people forever; with a commitment to watershed-scale restoration of damaged landscapes.



Park Significance

Significance statements express why a park’s resources and values are important enough to merit designation as a unit of the national park system. These statements are linked to the purpose of Redwood National and State Parks, and are supported by data, research, and consensus. Statements of significance describe the distinctive nature of the park and why an area is important within a global, national, regional, and systemwide context. They focus on the most important resources and values that will assist in park planning and management.

The following significance statements have been identified for Redwood National and State Parks. (Please note that the sequence of the statements does not reflect the level of significance.)

1. Nearly half of the world’s remaining old-growth coast redwood forest, including some of the oldest and tallest trees in the world, are found in Redwood National and State Parks. These forests provide an important refuge for a diverse community of plants and animals and help protect the world’s climate through their ability to sequester massive quantities of carbon.
2. Redwood National and State Parks are the ancestral lands of the Chilula, Hupa, Tolowa, and Yurok people. Through their resilience, the Hupa, Tolowa, and Yurok people remain on their homelands today, and continue to rely on the landscape and its resources for spiritual, cultural, and physical sustenance as they have done since time immemorial.
3. Redwood National and State Parks provide opportunities to experience and draw inspiration from the natural sounds and scenic views including subtle variations of light and fog found within the natural cathedral of old-growth redwood forests. The wilderness character, exceptional air quality, and dark night skies found within this landscape enhance and contribute to the quality of this experience.
4. Redwood National and State Parks’ unique combination of powerful flooding events and unstable geology, violent earthquakes, and tsunamis generated by uplift near the intersection of three tectonic plates, make it one of the most rugged and wild landscapes along the Pacific Coast of the continental United States.
5. The intensity of 20th century old-growth redwood logging spurred controversy and unparalleled conservation efforts that resulted in the establishment of the three state parks and a national park that comprise Redwood National and State Parks. The contrast between the old-growth forests, visibly damaged ecosystems, and ongoing restoration efforts provide a stunningly graphic example of the evolution of resource practices and our nation’s conservation values; this example fosters for the public a deeper understanding of, and appreciation for, the protection of complex and fragile ecological systems.



6. The 1978 Redwood Act that expanded Redwood National Park and the 2002 expansion of Del Norte Coast Redwoods State Park established a precedent for park land protection by prescribing comprehensive management for watershed restoration and recovery of damaged ecosystems extending beyond park boundaries. The internationally recognized restoration efforts of Redwood National and State Parks have continued to evolve and set a standard for building ecological resilience through cooperative management.

Fundamental Resources and Values

Fundamental resources and values (FRVs) are those features, systems, processes, experiences, stories, scenes, sounds, smells, or other attributes determined to warrant primary consideration during planning and management processes because they are essential to achieving the purpose of the park and maintaining its significance. Fundamental resources and values are closely related to a park's legislative purpose and are more specific than significance statements.

Fundamental resources and values help focus planning and management efforts on what is truly significant about the park. One of the most important responsibilities of NPS managers is to ensure the conservation and public enjoyment of those qualities that are essential (fundamental) to achieving the purpose of the park and maintaining its significance. If fundamental resources and values are allowed to deteriorate, the park purpose and/or significance could be jeopardized.

The following fundamental resources and values have been identified for Redwood National and State Parks:

- **Ancient Redwoods.** Redwood National and State Parks preserve some of the largest contiguous ancient coast redwood (*Sequoia sempervirens*) stands in the world. Nearly half of the world's remaining old-growth redwoods and several of the world's tallest trees are found within parks' boundaries.
- **Physical Processes and Water Resources.** A constant interplay of physical, climatic, and oceanic processes shape the parks' landscapes of rugged coastlines, wild rivers and streams, rich estuaries, and inland marshes and lagoons. These landscapes showcase the diversity of the parks' water resources and the transformative properties of crashing waves, fierce winds, and the geological instability of the coast.
- **Ecosystem Diversity.** The almost 132,000 acres (53,400 hectares) in Redwood National and State Parks represent a mosaic of incredibly varied but interconnected ecological communities that house an astonishing level of biodiversity. Old-growth redwood forests, second-growth stands, oak woodlands, open meadows, tidal and estuarine zones, and the park's rivers and coast and their associated wildlife contribute to the park's broad range of flora and fauna.
- **Ecological Integrity.** Since the 1978 Redwood National Park Expansion Act, many of Redwood National and State Parks' efforts have been dedicated to revitalizing or restoring degraded lands on a watershed scale. Increasing ecological resiliency and maintaining habitat connectivity is crucial for preserving native biodiversity, threatened and endangered species, and ecosystem function.





- **Scenic Resources and Natural Sounds.** The parks' natural environment provides benefits to visitor experiences found in Redwood National and State Parks. Clean air, dark night skies, scenic daytime experiences, and natural soundscapes contribute to visitor appreciation and experience of healthy biological communities and feelings of solitude.
- **Traditional Culture and Use.** The Chilula, Hupa, Tolowa, and Yurok peoples have been intimately connected to the land included within Redwood National and State Parks since time immemorial and continue their traditional use of resources for spiritual, cultural, and physical sustenance. Redwood National and State Parks recognize and respect the continued connection of American Indians to this landscape.
- **Cultural Sites and Landscapes.** Sites and landscapes found throughout the parks show the pre-contact, historic, and continued cultural use of land and resources by local Chilula, Hupa, Tolowa, and Yurok people. Nineteenth and 20th century landscapes are representative of settlement, military developments, economic development, and conservation movements in the region.
- **Science and Education.** The rich biodiversity and old-growth redwood ecosystem of the parks provide research and educational opportunities relating to old-growth redwoods, threatened and endangered species, ecosystem interconnectivity, resilience, restoration, and the effects of climate change. Redwood National and State Parks foster a learning laboratory for all ages through an extensive education program aimed at creating new environmental stewards and supports research to understand and manage the natural resources of the parks. The parks' education programs play a significant, ongoing role in the development of national environmental education practices.
- **Partners in Stewardship.** Partnerships with other public agencies, federally recognized tribal governments, local communities, and other organizations and private entities are vitally important for the successful management, maintenance, and improvement of ecological integrity and cultural authenticity at Redwood National and State Parks. Since 1994, the National Park Service and the California State Parks have jointly managed the four parks that comprise Redwood National and State Parks in a national model for collaborative management and landscape-scale resource protection.
- **Opportunities for People to Connect to the Landscape.** Redwood National and State Parks encourages visitors and local residents to interact with the landscape and build personal connections to park resources facilitated by a variety of active and passive recreational pursuits.

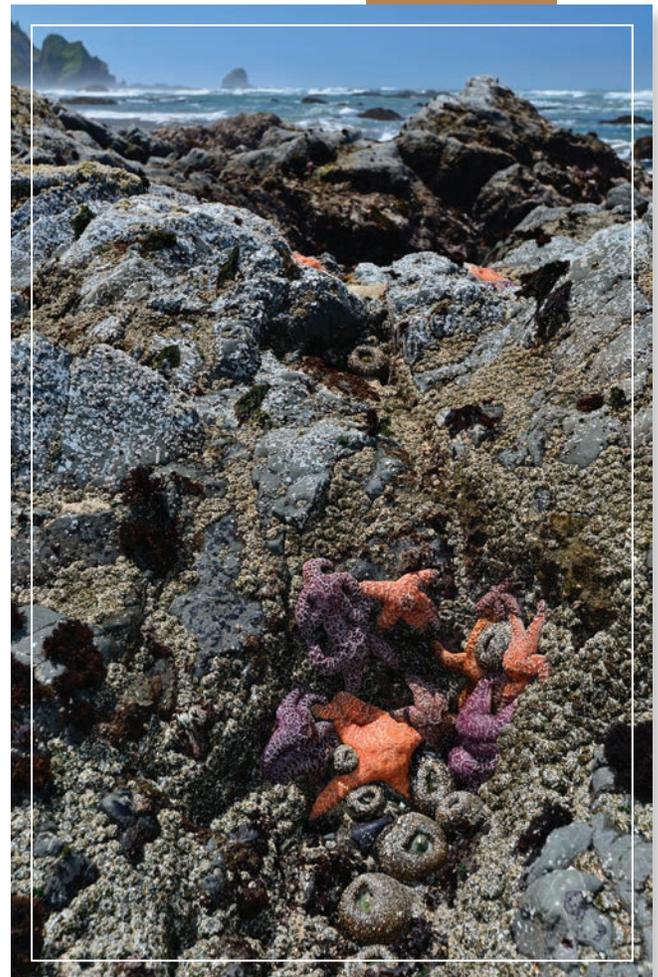
Interpretive Themes

Interpretive themes are often described as the key stories or concepts that visitors should understand after visiting a park—they define the most important ideas or concepts communicated to visitors about a park unit. Themes are derived from, and should reflect, park purpose, significance, resources, and values. The set of interpretive themes is complete when it provides the structure necessary for park staff to develop opportunities for visitors to explore and relate to all park significance statements and fundamental resources and values.

Interpretive themes are an organizational tool that reveal and clarify meaning, concepts, contexts, and values represented by park resources. Sound themes are accurate and reflect current scholarship and science. They encourage exploration of the context in which events or natural processes occurred and the effects of those events and processes. Interpretive themes go beyond a mere description of the event or process to foster multiple opportunities to experience and consider the park and its resources. These themes help explain why a park story is relevant to people who may otherwise be unaware of connections they have to an event, time, or place associated with the park.

The following interpretive themes have been identified for Redwood National and State Parks:

- The ancient redwood forest evokes a nearly universal experience that provokes the human spirit, but challenges human description.
- As an icon of and inspiration for the modern conservation movement, the coastal redwood forest represents a living example of our changing and sometimes competing cultural and social values over time.
- These rare forests, watersheds, and marine environments are home to an interrelated biotic community of plants and animals and provide increasingly important refuges for a number of rare and endangered species. The restoration of these ecosystems offers hope for the future of these irreplaceable species and the human capacity for inspiration, stewardship, and sustainability.
- The journeys of the Chilula, Hupa, Tolowa, and Yurok peoples, who continue to inhabit these rich and diverse lands, reveal cultural clashes of horrific proportion and stories of human resilience that provide enduring lessons about human rights, resourcefulness, interdependence, and respect for life.
- One of the most geologically active areas in the world, the dynamic landscapes of Redwood National and State Parks are shaped by powerful earth movement, dramatic water events, and a changing climate. These same forces continue to shape the entire Earth and instill in us an awareness of the interconnectedness, overwhelming power, and resilience of nature.
- Seeking a better life, settlers arriving on the wave of the largest mass migration in US history—the gold rush—carved a home in these rugged but resource-rich lands through both convergence and conquest, bringing titanic change to the land and its peoples, fueling unprecedented growth but leaving future generations longing for that which is irreplaceable.



Part 2: Dynamic Components

The dynamic components of a foundation document include special mandates and administrative commitments and an assessment of planning and data needs. These components are dynamic because they will change over time. New special mandates can be established and new administrative commitments made. As conditions and trends of fundamental resources and values change over time, the analysis of planning and data needs will need to be revisited and revised, along with key issues. Therefore, this part of the foundation document will be updated accordingly.

Special Mandates and Administrative Commitments

Many management decisions for a park unit are directed or influenced by special mandates and administrative commitments with other federal agencies, state and local governments, utility companies, partnering organizations, and other entities. Special mandates are requirements specific to a park that must be fulfilled. Mandates can be expressed in enabling legislation, in separate legislation following the establishment of the park, or through a judicial process. They may expand on park purpose or introduce elements unrelated to the purpose of the park. Administrative commitments are, in general, agreements that have been reached through formal, documented processes, often through memorandums of agreement. Examples include easements, rights-of-way, arrangements for emergency service responses, etc. Special mandates and administrative commitments can support, in many cases, a network of partnerships that help fulfill the objectives of the park and facilitate working relationships with other organizations. They are an essential component of managing and planning for Redwood National and State Parks.

Special Mandates

The 1978 Redwood National Park Expansion Act (“Redwood Amendment”) expanded Redwood National Park and is particularly notable for clarifying and supplementing the NPS General Authorities Act of 1970 and the National Park Service Organic Act of 1916. The act mandated that all national park system units be managed and protected “in light of the high public value and integrity of the national park system.” Furthermore, no activities should be undertaken “in derogation of the values and purposes for which these various areas have been established,” except where specifically authorized by law or as may have been or shall be directly and specifically provided for by Congress. By amending the General Authorities Act of 1970, the Redwood Amendment reasserted the high standard of protection prescribed by Congress in the Organic Act. It also expanded the park’s influence in the form of a 33,000-acre Park Protection Zone established on private land upstream of the park. The Redwood Amendment and the creation of the Park Protection Zone established a precedent for park land protection by prescribing comprehensive management for watershed-scale restoration and recovery of damaged ecosystems extending beyond park boundaries.



Redwood National Park is designated a Class I area under the Clean Air Act amendments of 1977 (42 United States Code 7401 et seq.) which provides special protection for air quality, sensitive ecosystems, and clean, clear views. This designation bestows an “affirmative responsibility” on federal land managers to protect air quality and related values, including visibility, plants, animals, soils, water quality, cultural resources, and public health from adverse air pollution impacts.

Among other special mandates, Redwood National and State Parks include segments of the Smith and Klamath Rivers. These rivers are designated in both the California and national wild and scenic rivers systems, and are primarily under US Forest Service (USFS) administration. Approximately 1,400 acres near the mouth of the Klamath River is within Redwood National Park boundaries and managed by the National Park Service.

Some states, including California, passed legislation modeled after the federal Wilderness Act to protect state-owned wildlands. Redwood Heritage State Wilderness (Jedediah Smith Redwoods State Park) and Murrelet State Wilderness (Prairie Creek Redwoods State Park) are protected under the California Wilderness Preservation Act of 1974. While not included in the National Wilderness Preservation System, the two California wilderness areas in Redwood National and State Parks are managed “for preservation and protection in their natural condition” under state law.

California also recently passed the Marine Life Protection Act, which designated a series of marine reserves along the state’s coast. The reserves restrict or prohibit the harvest of marine resources. The Reading Rock State Marine Conservation Area and False Klamath Rock Special Closure are within the parks’ marine boundaries.

Administrative Commitments

Administrative commitments for Redwood National and State Parks are tracked in a database and routinely updated as needed. Due to the high number of commitments, they were not included in the foundation document.

Assessment of Planning and Data Needs

Once the core components of part 1 of the foundation document have been identified, it is important to gather and evaluate existing information about the parks’ fundamental resources and values, and develop a full assessment of the parks’ planning and data needs. The assessment of planning and data needs section presents planning issues, the planning projects that will address these issues, and the associated information requirements for planning, such as resource inventories and data collection, including GIS data.

There are three sections in the assessment of planning and data needs:

1. analysis of fundamental resources and values (see appendix B)
2. identification of key issues and associated planning and data needs
3. identification of planning and data needs (including spatial mapping activities or GIS maps)

The analysis of fundamental resources and values and identification of key issues leads up to and supports the identification of planning and data collection needs.

Analysis of Fundamental Resources and Values

The fundamental resource or value analysis table includes current conditions, potential threats and opportunities, planning and data needs, and selected laws and NPS policies related to management of the identified resource or value. Please see appendix B for the analysis of fundamental resources and values.

Identification of Key Issues and Associated Planning and Data Needs

This section considers key issues to be addressed in planning and management and therefore takes a broader view over the primary focus of part 1. A key issue focuses on a question that is important for a park. Key issues often raise questions regarding park purpose and significance and fundamental resources and values. For example, a key issue may pertain to the potential for a fundamental resource or value in a park to be detrimentally affected by discretionary management decisions. A key issue may also address crucial questions that are not directly related to purpose and significance, but which still affect them indirectly. Usually, a key issue is one that a future planning effort or data collection needs to address and requires a decision by NPS managers.

The following are key issues for Redwood National and State Parks and the associated planning and data needs to address them:

- **Visitor Services and Experience.** Visitation to Redwood National and State Parks is increasing, and the parks struggle with providing the facilities, interpretation, and services expected by visitors today. Staffing is insufficient to maintain visitor infrastructure, ensure visitor safety, and provide visitor orientation and interpretation. The parks are also concerned about relevancy and whether they are reaching young or diverse audiences.

Existing visitor facilities are not well planned or integrated. Facilities are designed for nuclear families traveling by car and do not accommodate the diversity of visitors and transportation methods that the parks hope to attract. The five visitor information centers are poorly located, duplicate purposes to some extent, and have limited opportunities for engagement that may be found with newer exhibits. The overlap between the state and national park visitor centers is also ineffective and inefficient. Many park facilities and roads cannot accommodate RVs, which are used by a large portion of summer visitors.

The gateway communities nearest the parks (Crescent City, Hiouchi, Klamath, and Orick) provide limited visitor services. Visitor orientation is challenging in a linear park with a major highway through the middle of it. The parks lack a well-defined “welcome” experience as visitors enter by highway and are unclear that they are in a park, much less where they should go for information. It is also challenging to get visitors to leave the highway and stop to engage with the parks.

- *Associated High Priority Planning Needs:* Hiouchi Flat development plan, long-range interpretive plan, operations and staffing plan update, visitor use management plan, visitor center planning



- **Ecosystem Restoration, Management, and Stewardship.** Most of the Redwood National Park expansion area, all of the Mill Creek watershed in Del Norte Coast Redwoods State Park, and other areas now in the parks were heavily impacted by logging at the time of establishment, and while great strides have been made toward restoration, there is still more to be done. Significant areas still require restoration of degraded watersheds, forests, and streams to conditions where prioritized sediment risks are reduced, slopes are stabilized, forests attain old-growth characteristics, and lands and waters support resilient animal and plant communities. Embedded in this issue are actions to remove legacy logging roads, manage second-growth forests, and improve habitat in the Redwood Creek estuary.

In addition, a changing climate, invasive organisms, diseases, and upstream impacts from logging activities, agriculture, and development outside the parks threaten the Redwood National and State Parks ecosystem. Watershed and forest restoration that facilitates stream function, habitat connectivity, rare species retention, and forest health is key to providing ecosystem resiliency. Constant monitoring and management actions are required to keep the invasive threats to a minimum.

Ecosystem management and restoration also needs to consider traditional cultural knowledge and practices of local Chilula, Hupa, Tolowa, and Yurok people who are ancestral to these lands in addition to science-based methodologies (for example, use of fire in prairie management).

- *Associated High Priority Planning Needs:* Beach and dune management plan, mouth of the Klamath River comprehensive management plan, resource stewardship strategy, strategic plan

- **Tribal Government Relationship and Involvement.** Federally recognized tribes seek greater roles in park management and decision making as part of their own foundational goals for self-determination and self-governance, stewardship of ancestral lands, and access to places for the continuance of cultural and traditional practices. Tribes are frustrated by what they see as a lack of transparency from the state and national parks, lack of access to traditional resources, and inability to have issues addressed. State and federal laws, regulations, and policies pertaining to parks are restrictive when it comes to access to traditional foods, medicines, and materials on ancestral lands.

The National Park Service and California Department of Parks and Recreation interact with the tribes on a government-to-government level and have made some strides in recent years with the Yurok Tribe and its members in the negotiation of cooperative agreements for cultural practices and ceremonies. The parks continue to be interested in working with the tribes to pursue mutually beneficial opportunities that could bridge existing barriers to cultural practices, self-governance, and stewardship as they relate to the parks. More could be done to negotiate similar agreements with other federally recognized tribes with ancestral association with the park.

A particular area of concern is the approximately 1,400 acres near the mouth of the Klamath River, which are managed by Redwood National Park and are contained within the boundaries of the Yurok Reservation. Questions to address include management of cultural sites, resource management, visitor use, gathering and traditional use, interpretation, visitor services, etc.

- *Associated High Priority Planning and Data Needs:* Beach and dune management plan, cultural resource condition assessment, mouth of the Klamath River comprehensive management plan

- **Community Relationships and Relevancy.** Building strong community relationships and relevancy has been a long-term challenge and goal at Redwood National and State Parks. Relationships with community organizations and park neighbors are stronger than they once were during the period of controversy at the establishment of the national park. Local communities continue to experience economic and social challenges and seek opportunities to grow and benefit from the presence of the parks.

There are limited visitor services in Crescent City, Hiouchi, Klamath, and Orick, the gateway communities nearest the parks, which means that many visitors travel farther to Eureka / Arcata / Brookings / Grants Pass for these services. Working with partners to improve gateway community visitor amenities could increase visitor satisfaction and awareness of the parks as well as support the local economy.

The parks seek to continue to improve relationships with neighbors and communities in Crescent City, Hiouchi, Klamath, and Orick and to pursue opportunities to expand program outreach to Arcata, Eureka, Brookings, Grants Pass, and other population centers in Curry, Josephine, Humboldt, and Del Norte Counties. Providing opportunities for all Americans, including members of the local communities, to find personal relevance, value, and meaning in the parks is a priority and will continue to build support for the parks. The parks will continue to create opportunities for members of local communities to find this personal relevance through the continuous engagement of new audiences, innovative programs, and increased dialogue about park resources and significant stories.

- *Associated High Priority Planning Needs:* Long-range interpretive plan, operations and staffing plan update, strategic plan

- **Resource Protection.** Park resources are threatened by a variety of human factors including both intentional and unintentional impacts. Poaching redwood burls continues to be an ongoing issue, with serious impacts to a fundamental park resource—old-growth redwoods. Recreational climbing of old-growth redwood trees is an emerging threat that may also affect redwood trees and canopy ecosystems. Marijuana cultivation is another ongoing problem with serious negative impacts to vegetation, wildlife, water resources, and visitor safety. Sufficient staffing to properly monitor park resources and provide visitor safety is also a challenge.

Unintentional impacts to resources from visitor use, including social trails, off-road parking, anthropogenic noise, and human-wildlife interactions are also a major concern. As park visitation increases, carrying capacity is tested. For example, overflowing parking lots are common on holiday weekends and at some popular attractions throughout the summer season, but the parks have no mechanism to limit park visitation. Access to human food at campgrounds, picnic areas, and trailheads attracts corvids (jays and ravens), which prey on eggs and nestlings of the threatened marbled murrelet. These resource protection concerns go beyond law enforcement and will require multidisciplinary efforts to address, including education, community outreach, and facility improvements.

Vandalism to the parks' historic structures and archeological sites continues to be a problem and theft of archeological items has been documented. Monitoring cultural resource site conditions is a challenge for all but the most heavily visited sites, or sites that are in proximity to planned park projects. This affects the parks' ability to monitor fluctuations in human-caused impacts, sea level rise, and climate change.

- *Associated High Priority Planning and Data Needs:* Beach and dune management plan, cultural resource condition assessment, long-range interpretive plan, operations and staffing plan update, resource stewardship plan, strategic plan, visitor use management plan

Other Important Issues

In addition to the key issues described above, park staff identified information management as an important issue.

- **Records and Data Management.** The parks receive and generate substantial amounts of records and data, but it is not well organized, making it difficult to access. There is a need to recognize and manage administrative records, particularly all types of park resources data, reports, studies, etc., as a core resource for park management.

Currently, divisions and branches within divisions manage records. File plans documenting which files are managed and by whom have not been written. Only the individual file managers are aware of what they are collecting. Additionally, these files are not subjected to the requirements of NPS Director's Order 11 pertaining to technology management and the National Archives-approved disposition schedule.

Instructions do not exist regarding permanent archival requirements for the prolific digital materials created by park employees. Lack of direction for archival management creates either additional unsustainable workload for curators and administrative employees, or, in some cases, may make the data essentially worthless (e.g., photos without location information). Currently, only the correspondence of the superintendent is included in a digital document library program used to capture outgoing memos and letters. This program is only being managed in the absence of, and anticipating the development of, an enterprise-level document management program from the Department of the Interior.

Planning and Data Needs

To maintain connection to the core elements of the foundation and the importance of these core foundation elements, the planning and data needs listed here are directly related to protecting fundamental resources and values, park significance, and park purpose, as well as addressing key issues. To successfully undertake a planning effort, information from sources such as inventories, studies, research activities, and analyses may be required to provide adequate knowledge of park resources and visitor information. Such information sources have been identified as data needs. Geospatial mapping tasks and products are included in data needs.

Items considered of the utmost importance were identified as high priority, and other items identified, but not rising to the level of high priority, were listed as either medium or low priority needs. These priorities inform park management efforts to secure funding and support for planning projects.

Criteria and Considerations for Prioritization. The following criteria were used to evaluate the priority of each planning or data need:

- Ability to address multiple issues. Many issues are interrelated. For example, visitor capacity issues are interrelated with resource protection issues.
- Emergency/urgency of the issue, related to safety.
- Consider park significance and protection of fundamental resources and values.
- Enhance visitor experience.
- Funding availability for the planning effort, study, or data collection.
- Feasibility of completing the plan or study.
- Opportunities, including partnerships or other assistance.
- Sequence of needs and order of actions.
- Regulatory requirement.

High Priority Planning Needs

Beach and Dune Management Plan (joint with state parks).

Rationale — The California State Parks North Coast Redwoods District has begun a beach and dune management plan, which overlaps with Redwood National Park. A joint plan will capitalize on a regional perspective to beach and dune management to address a variety of issues for both state and national parks. The plan will seek to make use, permitting, and regulations more understandable and efficient for staff, visitors, local residents, tribes, and other users. In addition, resources are interrelated between state and national park land, so a joint plan will provide consistency.

Scope — The beach and dune management plan will address human use and access to the beaches and dunes (including traditional tribal uses and vehicular use by staff), wildlife concerns, invasive plant management, opportunities for education and interpretation, and regulations and enforcement. It will seek a solution to the current complexity in permitting for certain traditional uses, including the Yurok Jump Dance ceremony, which moves between state park beaches and areas within the national park. Existing conditions will be described for each beach. A variety of existing plans (e.g., vehicle beach access plan, snowy plovers, invasive species) can be incorporated into this planning effort.

Hiouchi Flat Development Plan (partially underway, joint with state parks).

Rationale — The Hiouchi Flat area is a popular destination for many visitors. However, it is challenged by outdated facilities, crowding, hazardous access to a popular campground and day use area from a major high-speed highway, and two visitor centers across the highway from each other. Campers and other visitors desiring to use the parks facilities across the highway or to purchase supplies from the adjacent commercial area must walk or bicycle on the highway shoulders next to traffic, or drive, contending with a mix of through-traffic including large trucks and local users. Funds have already been spent to develop the concept for the Hiouchi Flat area and to begin compliance, which will be wasted if the remainder of the project is not completed. This planning is challenged by the presence of old-growth redwood forests and significant cultural resources.

Scope — A development concept plan has been initiated for the Hiouchi Flat area, along with preliminary natural and cultural resource inventories. Scoping has been completed, but full National Environmental Policy Act (NEPA) and California Environmental Quality Act compliance remains and is currently unfunded. The development concept requires the creation of a combined visitor center at the entrance of Jedediah Smith State Park and removing two existing visitor centers in the area. The campground entrance would be moved east 2,000 feet from the existing entrance on U.S. Highway 199 to improve traffic flow and safety, and Jedediah Smith Campground would be redesigned. The Americans with Disabilities Act-accessible trail routes would connect this day use area to the community and important nearby features.

Long-Range Interpretive Plan.

Rationale — Relevancy to young and diverse audiences is a top priority for the parks, but the current long-range interpretive plan is out of date and does not include current communication methods. Multiple agencies, tribes, and organizations provide interpretation for the parks. Many visitors also rely on private party information on the Internet and in print advertising, which may be misleading or simply incorrect. A long-range interpretive plan is needed to identify effective, efficient, and practical ways to address interpretation, education, and visitor experience goals and issues.

Scope — A long-range interpretive plan provides a vision for the future (5–10 years) of interpretation, education, and visitor experience opportunities. A long-range interpretive plan identifies the parks’ interpretive themes, describes visitor experience goals, and recommends a wide variety of both personal (programs, personal contacts) and nonpersonal (interpretive media and facilities) interpretive services and outreach activities that will best communicate the parks’ purpose, significance, and themes. A key factor is communication via multiple formats to reach a diversity of audiences. Web resources and social media can be leveraged for some audiences, while more traditional print and personal media will reach others. Local tribes will be consulted as part of the planning process, and the plan will review and consider opportunities for cooperative interpretation. Since interpretive materials and programming rely on up-to-date resource knowledge, the long-range interpretive plan would be completed after or concurrently with the resource stewardship strategy.

Mouth of the Klamath River Comprehensive Management Plan.

Rationale — Redwood National Park owns and manages approximately 1,400 acres near the mouth of the Klamath River that are also within the boundary of the Yurok Reservation. The parks are working with the Yurok Tribe to overcome a variety of issues as they relate to this area. Developing a plan to manage the boundary overlap areas as a cooperative effort between the National Park Service and the Yurok Tribe is an important and necessary step toward long-term ecosystem-based management of this area of the parks.

Scope — This plan would be done cooperatively with the National Park Service and the Yurok Tribe and would address the 1,400-acre boundary overlap area. The plan would address concerns regarding management of cultural sites, resource management, gathering and traditional use, interpretation, and visitor uses and services.

Operations and Staffing Plan Update.

Rationale — Appropriate staffing is necessary for the protection and maintenance of park resources and facilities, visitor education and services, and other mission critical work. An effective staffing plan can also support workforce development, succession planning, long-term consistency, diverse hiring, retention, manageable workloads, and ultimately, staff morale. In times of declining budgets, changing visitor demographics, and new resource knowledge, an operations and staffing plan can outline a desired staffing structure to meet these new needs. The last staffing plan was completed in 2006 and is largely out of date, especially as Redwood National Park is currently reorganizing its upper level management structure.

Scope — The operations and staffing plan will assess current and projected operational needs and determine staffing needed to achieve the parks mission while considering what positions need to be added and what could be consolidated or eliminated. This plan would outline a desired staffing structure that the parks can work toward over time as opportunities arise through retirements and transfers. In addition, it will outline roles and responsibilities, knowledge and skills required by employees, and can identify gaps in the existing staffing model. Opportunities to improve communications and support among management and staff and between divisions would also be considered. This plan would only address operations and staffing for Redwood National Park and would not dictate operations for the state parks that are doing their own parallel operations planning. Where possible, the national and state parks could coordinate their operation plans to maximize efficiency and effectiveness.

Resource Stewardship Strategy.

Rationale — The parks have complex challenges related to the restoration, management, and stewardship of the ecosystems they protect. A number of resource projects are underway or will begin in upcoming years, but the parks could benefit from a comprehensive prioritization of resource management planning needs to guide project development and implementation. A resource stewardship strategy is also important to support the protection and restoration of the parks' fundamental resources.

Scope — A resource stewardship strategy is a long-range planning document for the parks to achieve their desired natural and cultural resource conditions, which are derived from relevant laws and policies identified in the parks foundation document, general management plan, or other park plans. As part of a planning portfolio, the resource stewardship strategy serves as a bridge between the parks foundation document and everyday management of natural and cultural resources. A resource stewardship strategy evaluates the major components of the parks' fundamental resources that must be protected into the future; establishes science- and scholarship-based methods to evaluate success in protecting these resources; determines measurable targets for success; and includes a comprehensive strategic plan for achieving and maintaining those targets over time. Although this is an NPS process and template, it would make an effort to consider resources throughout the national and state parks, as these are interrelated. Other resource management plans will tier off this effort, including: Lower Prairie Creek management plan, comprehensive watershed plan, long-term old-growth redwood monitoring plan, Redwood Creek Estuary management plan, and planning for adaptation to climate change.

Strategic Plan.

Rationale — A strategic plan is needed to help the parks establish a clear direction, identify goals, and prioritize actions for the near future. The parks have many projects competing for limited funds and staff time. The parks also have communication challenges between locations, grade levels, and agencies. The strategic plan would generate a vision for project priorities, promote agreement among staff, keep efforts from drifting over time, and provide guidance over the short and long term. The plan would also help improve operational efficiency and resilience by setting the framework for an interdivisional and collaborative approach to park management.

Scope — Strategic planning would identify the most effective and timely ways to address major operational, organizational, administrative, and resource issues. The process involves identifying the greatest challenges and opportunities for the parks, establishing a clear vision and goals for the future, setting priorities, and establishing an implementation time line. Strategic plans typically cover a period of 3 to 5 years.

Visitor Use Management Plan.

Rationale — A visitor use management plan is needed to address a variety of visitor use and experience concerns, as described in the key issue Visitor Experience and Resource Protection. Visitation is increasing, and the parks have been experiencing visitor capacity issues during peak periods and resource impacts due to visitor actions. In addition, visitor orientation in the parks is challenging. The parks aim to improve visitor circulation, enhance opportunities for key visitor experiences, and ensure visitor safety.

Scope — The visitor use management planning process examines current and potential visitor opportunities and develops long-term strategies for protecting resources while providing access, connecting visitors to key visitor experiences, and managing use. The plan incorporates best practices for managing visitor use to achieve and maintain desired conditions, while meeting legal requirements. The plan would include an assessment of visitor facilities and recommendations for improvements (e.g., campsites, trails, day use areas), transportation planning (e.g., shuttles, bicycling, one-way roads, RV management, seasonal road closures), and identification of strategies for addressing various visitor use issues (e.g., crowding, visitor conflicts, resource impacts). The plan may also consider the feasibility and appropriateness of providing new or expanded recreation opportunities such as bicycling on dirt roads or access to additional areas of the parks.

Visitor Center Planning.

Rationale — The current visitor center configuration with five visitor centers is inefficient. Challenges facing the various visitor centers include small size, poor design or use of spaces never originally intended to serve visitor center functions, locations that are distant from the resources that visitors want to see, difficult for visitors to find, duplicate purposes, and limited opportunities for engagement that may be found with newer exhibits. The Kuchel Visitor Center in the south is vulnerable to tsunami threat, sea level rise, and stream channel migration of Redwood Creek. Northern visitor centers (Crescent City, Hiouchi, and Jedediah Smith) are redundant and inefficient. Two of the visitor centers (Kuchel and Crescent City) are not in an area where visitors can see the primary park resource—the redwoods.

Scope — Two planning efforts are currently underway, which, combined with administrative actions, could address the visitor center issue. Under the Hiouchi Flat Development Plan, the existing Hiouchi and Jedediah Smith visitor centers will be replaced with a single visitor center. In the south end of the parks, Redwood National Park and the Save the Redwoods League have just signed an agreement to begin planning a new visitor center at the Orick Mill A site, which would replace the Kuchel Visitor Center. Once these projects are complete, administrative decisions could then be made about the Crescent City and Prairie Creek Visitor Centers—probably either their closure or conversion to visitor contact stations. However, if either of these current projects falls through, the parks will need to make some more structured decisions about the use of their current facilities. In this case, a visitor center planning effort would make decisions about which visitor centers should remain open, which should be converted to contact stations, and which need major upgrades. The plan would include a consideration of staffing requirements and visitor information needs, as well as plans for needed building and exhibit upgrades. These plans would provide an opportunity for the parks to make the facilities more sustainable with quieter machinery, fully sustainable outdoor lighting, efficient water fixtures, and energy efficient equipment.

High Priority Data Needs

Cultural Resource Condition Assessment.

Rationale — The Redwood National Park cultural resource program is in transition to becoming more prominent within the parks management structure. A cultural resource condition assessment will be a way to guide the program through this transition, ensure future planning needs are met and appropriately prioritized, while also assessing the most efficient use of fiscal resources. Since the parks have also determined that a resource stewardship strategy is a high priority and logical next step to the foundation statement, a cultural resource condition assessment would be needed to guide the parks through the cultural resources portion of that process.

Scope — The condition assessment process helps identify data gaps and research needs, and may lead to funding initiatives to address the most important information needs. For various cultural resource categories, such as archeological resources, cultural landscapes, historic structures, and museum collections and archives, the cultural resources condition assessment would identify

- condition indicators
- condition measures
- condition status-trend-confidence
- rationale for status-trend-confidence
- preliminary actions to improve condition

The condition assessment would include information to be used for resource management actions and decision making. Comprehensive strategies to move resource condition toward a management target would be identified. The status of key scientific data and information relative to the parks' fundamental resources and values would be included. Although this is an assessment based on a NPS process and template, it would make an effort to consider resources throughout the national and state parks because they are interrelated.

Visitor Surveys.

Rationale — Greater understanding of park visitation patterns and visitor use and needs in gateway communities is needed for planning decisions, visitor use management, and interpretive and educational programming. Visitor use data would feed into other planning efforts including a visitor use management plan and an updated long-range interpretive plan. Visitor use data and research, broad-based and site-specific, would be necessary to understand and guide visitor behavior in high-use areas. The parks have done previous visitor surveys but that information is now outdated as things have changed substantially since the last survey.

Scope — The surveys would study visitor use patterns and collect demographic data. The parks are also interested in finding out about how well they are conveying primary messages and how visitors are consuming information (printed materials, waysides, website, social media, third-party books/sites, etc.). Analysis of the collected data would be highly useful because this was a missing aspect of many previous surveys. Some existing data could be incorporated for analysis as well, in instances when it is recent enough to be relevant.

Table 1. Summary of High Priority Planning and Data Needs

Beach and dune management plan (joint with state parks)
Cultural resource condition assessment
Hiouchi Flat development plan (partially underway, joint with state parks)
Long-range interpretive plan
Mouth of the Klamath River comprehensive management plan
Operations and staffing plan update
Resource stewardship strategy
Strategic plan
Visitor use management plan
Visitor center planning
Visitor surveys

Table 2. Other Planning and Data Needs

Planning or Data Needs	Priority (M, L)	Notes
Administration/Operations/Facilities		
Plans		
Digital data management plan	M	
Land protection plan (update)	M	
Road plan	M	For abandoned/legacy logging roads. Parkwide plan, with public review and National Environmental Policy Act compliance, to determine which roads to keep for administrative or visitor use and which to decommission.
Site development plan for Mill Creek watershed	M	Likely to be a California State Parks-led plan, with National Park Service involvement.
Data Needs and Studies		
Crime data in the parks	M	To target law enforcement actions (problem oriented policing).
Cultural knowledge preservation and interpretation study	M	Document traditional cultural management practices that can be incorporated into park planning and management.
Road condition assessment/inventory	M	
Visitor Experience		
Plans		
Accessibility self evaluation and transition plan	M	Address accessibility issues and increase opportunities for a more diverse visitor base.
Sign plan (update)	M	
Park concessions plan (update)	M	
Redwood National and State Parks learning center feasibility study	M	For both scientific research and adult learning.

Table 2. Other Planning and Data Needs		
Planning or Data Needs	Priority (M, L)	Notes
Natural Resources		
Plans		
Climate change scenario planning	M	Concerns include greater fire risk due to drier air, oceanic changes (rise, acidification, increased temperature), and biological range shifts (intertidal marine organisms). Improved climate models for park lands.
Condor reintroduction plan	M	2016 Centennial Funding for infrastructure for 2018 release. Joint NEPA process with Yurok Tribe and US Fish and Wildlife Service.
Second growth forest management plans	M	For management of second-growth forest.
Comprehensive watershed rehabilitation plan	M	A comprehensive plan in each watershed would address the forest conditions (silvicultural management) followed by road removal and recontouring. Plans would address subwatersheds that have legacy roads, old landings, skid trails, and other sediment sources that are failing into streams and rivers. To be completed for each watershed in the park. Watersheds throughout the park, including the Mill Creek watershed (logged over lands acquired in 2005) and the Redwood Creek watershed, will be brought into an integrated prioritization framework for subwatersheds and road segments so that California State Parks and the National Park Service can work effectively toward parkwide priorities. Bridge Creek is a major watershed in the park with severe sediment and erosion issues. It is a noteworthy example of a watershed plan for its cost and for the severity of the issues in this basin.
Invasive animal management plan	M	Inventory and monitoring is also included in data needs.
Lower Prairie Creek comprehensive management plan	M	Address forest, watershed, and stream restoration, road to trail conversion, appropriate visitor services, and the restoration/use of structures (i.e., fish hatchery) in the planning unit and scenic corridor.
Sudden Oak Death management plan	M	Consider implications of climate change and increased wildfire.
Redwood Creek estuary restoration plan	M	
Submerged resource management plan	M	For marine resources in 0.25-mile boundary, also mouth of Klamath River.
Visual resource management plan	M	This plan will use the information from the visual resource inventory to establish goals and strategies for protection of scenic/historic views.

Table 2. Other Planning and Data Needs		
Planning or Data Needs	Priority (M, L)	Notes
Natural Resources		
Data Needs and Studies		
Climate change vulnerability assessments	M	
LiDAR-derived digital elevation models to improve hydrographic data and flow paths	M	Data can be used to upgrade stream flow path in park geodatabase and create high resolution channel digital elevation models.
Second growth forest inventories	M	Some of these occur already, but more are needed.
Data on effectiveness of past restoration projects	M	Need to study what happens during the next significant rain/erosional event. The last big storm (1997) was only about a 10-year storm/ flow so the majority of road removal and watershed restoration has not been put to the test of performing under a 25-year or greater event.
Old-growth forest data and monitoring	M	Including landscape scale old-growth forest data, change over time, fire effects data in old-growth system, impacts of social trails in old-growth forest, canopy monitoring. Long-term monitoring to detect change over time.
Data on impact of marijuana cultivation upstream of park	M	
Water quality monitoring	M	Some water quality monitoring already takes place, but this would expand the effort to include air quality components in water quality management strategies/plans to be more aware of potential acidification and/or nutrient enrichment effects from nitrogen and sulfur deposition and the effects of mercury on aquatic and terrestrial environments.
Oceanic water conditions data	M	Including water quality, temperature, CO ₂ , etc. There is some land-derived pollutants monitoring occurring already through California Areas of Special Biological Significance but it is limited.
Offshore fisheries data	M	Mine data from other agencies.
Sediment transport and hydrodynamic modeling (sediment risk data and analyses)	M	
Coastal and barrier beach modeling	M	
Stream assessments for fish habitat quality and barriers	M	
Wetlands monitoring	M	
Elk monitoring	M	Could also include LiDAR data on elk habitat.

Table 2. Other Planning and Data Needs		
Planning or Data Needs	Priority (M, L)	Notes
Natural Resources		
Data Needs and Studies (continued)		
Amphibian monitoring	M	Including chytrid fungus data.
Rare species inventories and monitoring	M	Demographic data for threatened and endangered species.
Habitat studies (marine and wetland)	M	Develop employment, educational, or intern opportunities for Elk Valley and Smith River Rancherias to partner with the parks to study these marine and land ecosystems.
Night sky monitoring	M	Park is working toward “International Dark Sky Park” designation.
Acoustic resource inventory and monitoring	M	Geospatial modeling predicts that the ambient sound levels at the park are close to natural sound levels and that natural sounds dominate in the environment. Ground-based data has not yet been collected.
Air quality monitoring	M	<p>Park is a Class I airshed with a long history of monitoring. This monitoring effort would be continued and expanded to include:</p> <ul style="list-style-type: none"> • Special studies to examine pollution dose-response relationships in sensitive park ecosystems. • Monitoring mercury and other toxic contaminants in park biota. • Include inland air quality monitoring.
Climate monitoring and projection	M	
Comprehensive visual resource inventory	M	The inventory would identify scenic and NPS/visitor values for the visual setting and be the basis for the visual resource management plan.
Georeferenced aerial photo sets for a full range of dates across the entire park	M	Geocorrect and georeference photos currently in park’s collection for use in GIS mapping and analyses.
Parkwide science synthesis report	M	Searchable data database.
Temporary study to monitor wet deposition rate in park/ permanent national atmospheric deposition program station for park specific deposition data	M	Interpolated nitrogen wet deposition rate in the park is high, likely driven by high precipitation and the nearest wet deposition monitor (NADP) is about 125km away, way too far to be representative.
Special study to examine pollution dose-response relationships in sensitive park ecosystems	M	

Table 2. Other Planning and Data Needs		
Planning or Data Needs	Priority (M, L)	Notes
Cultural Resources		
Plans		
Historic preservation plan for historic barns and structures	M	
Long-term cultural resources monitoring plan	M	
Museum emergency operation plan	M	
Museum management plan (update)	M	
Museum preservation maintenance plan	M	
Data Needs and Studies		
Anthropological overview and assessment	M	
Archeological surveys	M	Particularly from Wilson Creek north to Crescent City.
Bald Hill ethnographic traditional cultural properties feasibility study	M	Consult with Yurok and Chilula Tribes.
Collect oral histories	M	
Cultural landscape inventories/reports	M	Boyes Ranch (State Park) Camp Lincoln (State Park) Hobbs Wall Company Historic District (State Park) Howland Hill Road (State Park) Jedediah Smith Headquarters District (State Park) Kelsey Trail / Murphy's Ranch (State Park) Lady Bird Johnson Grove Old Redwood Highway Prairie Creek CCC District (State Park) Prairie Creek Headquarters District (State Park) Tall Trees Grove
Ethnographic studies	M	Particularly regarding plant use and gathering.
Find out more about exclusivity of tribal stories	M	Which can be shared, which cannot.
GIS modeling of cultural features using historical maps and aerial photos	M	
Historic resource study	M	Complete historic resource study to streamline cultural landscape inventories and nominations, including historic barns and structures.
Historic structure reports	M	All park historic structures.

Table 2. Other Planning and Data Needs		
Planning or Data Needs	Priority (M, L)	Notes
Cultural Resources		
Data Needs and Studies (continued)		
LiDAR data for cultural resources	M	Discerns historic features with a high level of accuracy; use for infrastructure development planning and locating resources in remote areas of the park.
Lyons Ranches Historic District circulation network history study	M	
Museum scope of collections statement	M	
National register nomination updates for: <ul style="list-style-type: none"> • Omen (CA-DNO-2/CA-DNO-7) • Redwood Highway • Endert’s Beach Archeological Sites (CA-DNO-14 and CA-DNO-15) in consultation with Tolowa Tribe • Bald Hills Archeological District and Extension • Klamath Air Force Station 	M	
National register nominations for: <ul style="list-style-type: none"> • Village complex at mouth of Wilson and Lagoon Creeks • Jump Dance traditional cultural property • Murphy Ranch (if eligible) • (FINISH) Hiouchi Flat • (FINISH) Jedediah Smith Campground 	M	
Submerged cultural resource inventory	M	
Traditional trail circulation and use study	M	

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Redwood National and State Parks

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Appendixes

Appendix A: Enabling Legislation for Redwood National and State Parks

Public Law 90-545

AN ACT

October 2, 1968
[S. 2515]

To establish a Redwood National Park in the State of California, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, in order 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.

Redwood National Park, Calif. Establishment.

SEC. 2. (a) The area to be included within the Redwood National Park is that generally depicted on the maps entitled "Redwood National Park," numbered NPS-RED-7114-A and NPS-RED-7114-B, and dated September 1968, copies of which maps shall be kept available for public inspection in the offices of the National Park Service, Department of the Interior, and shall be filed with appropriate officers of Del Norte and Humboldt Counties. The Secretary of the Interior (hereinafter referred to as the "Secretary") may from time to time, with a view to carrying out the purpose of this Act and with particular attention to minimizing siltation of the streams, damage to the timber, and assuring the preservation of the scenery within the boundaries of the national park as depicted on said maps, modify said boundaries, giving notice of any changes involved therein by publication of a revised drawing or boundary description in the Federal Register and by filing said revision with the officers with whom the original maps were filed, but the acreage within said park shall at no time exceed fifty-eight thousand acres, exclusive of submerged lands.

Boundaries.

Publication in Federal Register.

(b) The Secretary is authorized to acquire by donation only all or part of existing publicly owned highways and roads within the boundaries of the park as he may deem necessary for park purposes. Until such highways and roads have been acquired, the Secretary may cooperate with appropriate State and local officials in patrolling and maintaining such roads and highways.

SEC. 3. (a) The Secretary is authorized to acquire lands and interests in land within the boundaries of the Redwood National Park and, in addition thereto, not more than ten acres outside of those boundaries for an administrative site or sites. Such acquisition may be by donation, purchase with appropriated or donated funds, exchange, or otherwise, but lands and interests in land owned by the State of California may be acquired only by donation.

(b) (1) Effective on the date of enactment of this Act, there is hereby vested in the United States all right, title, and interest in, and the right

to immediate possession of, all real property within the park boundaries designated in maps NPS-RED-7114-A and NPS-RED-7114-B, except real property owned by the State of California or a political subdivision thereof and except as provided in paragraph (3) of this subsection. The Secretary shall allow for the orderly termination of all operations on real property acquired by the United States under this subsection, and for the removal of equipment, facilities, and personal property therefrom.

(2) The United States will pay just compensation to the owner of any real property taken by paragraph (1) of this subsection. Such compensation shall be paid either: (A) by the Secretary of the Treasury from money appropriated from the Land and Water Conservation Fund, including money appropriated to the Fund pursuant to section 4(b) of the Land and Water Conservation Fund Act of 1965, as amended, subject to the appropriation limitation in section 10 of this Act, upon certification to him by the Secretary of the agreed negotiated value of such property, or the valuation of the property awarded by judgment, including interest at the rate of 6 per centum per annum from the date of taking the property to the date of payment therefor; or (B) by the Secretary, if the owner of the land concurs, with any federally owned property available to him for purposes of exchange pursuant to the provisions of section 5 of this Act; or (C) by the Secretary using any combination of such money or federally owned property. Any action against the United States for the recovery of just compensation for the land and interests therein taken by the United States by this subsection shall be brought in the Court of Claims as provided in title 28, United States Code, section 1491.

78 Stat. 900.
16 USC 4601-7.

68 Stat. 1241.

(3) Subsection 3(b) shall apply to ownerships of fifty acres or less only if such ownerships are held or occupied primarily for nonresidential or nonagricultural purposes, and if the Secretary gives notice to the owner within sixty days after the effective date of this Act of the application of this subsection. Notice by the Secretary shall be deemed to have been made as of the effective date of this Act. The district court of the United States for that district in which such ownerships are located shall have jurisdiction to hear and determine any action brought by any person having an interest therein for damages occurring by reason of the temporary application of this paragraph, between the effective date of this Act and the date upon which the Secretary gives such notice. Nothing in this paragraph shall be construed as affecting the authority of the Secretary under subsections (a) and (c) of this section to acquire such areas for the purposes of this Act.

(c) If any individual tract or parcel of land acquired is partly inside and partly outside the boundaries of the park or the administrative site the Secretary may, in order to minimize the payment of severance damages, acquire the whole of the tract or parcel and exchange that part of it which is outside the boundaries for land or interests in land inside the boundaries or for other land or interests in land acquired pursuant to this Act, and dispose of so much thereof as is not so utilized in accordance with the provisions of the Federal Property and Administrative Services Act of 1949 (63 Stat. 377), as amended (40 U.S.C. 471 et seq.). The cost of any land so acquired and disposed of shall not be charged against the limitation on authorized appropriations contained in section 10 of this Act.

(d) The Secretary is further authorized to acquire, as provided in subsection (a) of this section, lands and interests in land bordering both sides of the highway between the present southern boundary of Prairie Creek Redwoods State Park and a point on Redwood Creek

near the town of Orick to a depth sufficient to maintain or to restore a screen of trees between the highway and the land behind the screen and the activities conducted thereon.

(e) In order to afford as full protection as is reasonably possible to the timber, soil, and streams within the boundaries of the park, the Secretary is authorized, by any of the means set out in subsections (a) and (c) of this section, to acquire interests in land from, and to enter into contracts and cooperative agreements with, the owners of land on the periphery of the park and on watersheds tributary to streams within the park designed to assure that the consequences of forestry management, timbering, land use, and soil conservation practices conducted thereon, or of the lack of such practices, will not adversely affect the timber, soil, and streams within the park as aforesaid. As used in this subsection, the term "interests in land" does not include fee title unless the Secretary finds that the cost of a necessary less-than-fee interest would be disproportionately high as compared with the estimated cost of the fee. No acquisition other than by donation shall be effectuated and no contract or cooperative agreement shall be executed by the Secretary pursuant to the provisions of this subsection until sixty days after he has notified the President of the Senate and the Speaker of the House of Representatives of his intended action and of the costs and benefits to the United States involved therein.

"Interests in land."

SEC. 4. (a) The owner of improved property on the date of its acquisition by the Secretary under this Act may, as a condition of such acquisition, retain for himself and his heirs and assigns a right of use and occupancy of the improved property for noncommercial residential purposes for a definite term of not more than twenty-five years or, in lieu thereof, for a term ending at the death of the owner or the death of his spouse, whichever is later. The owner shall elect the term to be reserved. Unless the property is wholly or partially donated to the United States, the Secretary shall pay the owner the fair market value of the property on the date of acquisition minus the fair market value on that date of the right retained by the owner. A right retained pursuant to this section shall be subject to termination by the Secretary upon his determination that it is being exercised in a manner inconsistent with the purpose of this Act, and it shall terminate by operation of law upon the Secretary's notifying the holder of the right of such determination and tendering to him an amount equal to the fair market value of that portion of the right which remains unexpired.

(b) The term "improved property", as used in this section, means a detached, noncommercial residential dwelling, the construction of which was begun before October 9, 1967, together with so much of the land on which the dwelling is situated, the said land being in the same ownership as the dwelling, as the Secretary shall designate to be reasonably necessary for the enjoyment of the dwelling for the sole purpose of noncommercial residential use, together with any structures accessory to the dwelling which are situated on the land so designated.

"Improved property."

(c) The Secretary shall have, with respect to any real property acquired by him in sections 5 and 8, township 13 north, range 1 east, Humboldt meridian, authority to sell or lease the same to the former owner under such conditions and restrictions as will assure that it is not utilized in a manner or for purposes inconsistent with the national park.

SEC. 5. In exercising his authority to acquire property by exchange, the Secretary may accept title to any non-Federal property within the boundaries of the park, and outside of such boundaries within the limits prescribed in this Act. Notwithstanding any other provision of law, the Secretary may acquire such property from the grantor by

exchange for any federally owned property under the jurisdiction of the Bureau of Land Management in California, except property needed for public use and management, which he classifies as suitable for exchange or other disposal, or any federally owned property he may designate within the Northern Redwood Purchase Unit in Del Norte County, California, except that section known and designated as the Yurok Experimental Forest, consisting of approximately nine hundred and thirty-five acres. Such federally owned property shall also be available for use by the Secretary in lieu of, or together with, cash in payment of just compensation for any real property taken pursuant to section 3(b) of this Act. The values of the properties so exchanged either shall be approximately equal or, if they are not approximately equal, the value shall be equalized by the payment of cash to the grantor or to the Secretary as the circumstances require. Through the exercise of his exchange authority, the Secretary shall, to the extent possible, minimize economic dislocation and the disruption of the grantor's commercial operations.

SEC. 6. Notwithstanding any other provision of law, any Federal property located within any of the areas described in sections 2 and 3 of this Act may, with the concurrence of the head of the agency having custody thereof, be transferred without consideration to the administrative jurisdiction of the Secretary for use by him in carrying out the provisions of this Act.

SEC. 7. (a) Notwithstanding any other provision of law, the Secretary shall have the same authority with respect to contracts for the acquisition of land and interests in land for the purposes of this Act as was given the Secretary of the Treasury for other land acquisitions by section 34 of the Act of May 30, 1908 (35 Stat. 545; 40 U.S.C. 261), and the Secretary and the owner of land to be acquired under this Act may agree that the purchase price will be paid in periodic installments over a period that does not exceed ten years, with interest on the unpaid balance thereof at a rate which is not in excess of the current average market yield on outstanding marketable obligations of the United States with remaining periods to maturity comparable to the average maturities on the installments.

(b) Judgments against the United States for amounts in excess of the deposit in court made in condemnation actions shall be subject to the provisions of section 1302 of the Act of July 27, 1956 (70 Stat. 694), as amended (31 U.S.C. 724a), and the Act of June 25, 1948 (62 Stat. 979), as amended (28 U.S.C. 2414, 2517).

SEC. 8. The present practice of the California Department of Parks and Recreation of maintaining memorial groves of redwood trees named for benefactors of the State redwood parks shall be continued by the Secretary in the Redwood National Park.

SEC. 9. The Secretary shall administer the Redwood National Park in accordance with the provisions of the Act of August 25, 1916 (39 Stat. 535; 16 U.S.C. 1-4), as amended and supplemented.

SEC. 10. There are hereby authorized to be appropriated \$92,000,000 for land acquisition to carry out the provisions of this Act.

Approved October 2, 1968.

75 Stat. 415.

Appropriation
authorization.

Appendix B: Analysis of Fundamental Resources and Values

Fundamental Resource or Value	Ancient Redwoods
Related Significance Statements	Significance statements 1, 5, and 6.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Coast redwood (<i>Sequoia sempervirens</i>) can grow to over 350 feet in height, reach over 25 feet in diameter, and live for more than 2,000 years. • The parks protect approximately 39,000 acres of old-growth redwood forest, around 45% of the remaining old-growth redwoods in the world. While these trees were once common along the Pacific Coast, less than 5% of the earth’s old-growth redwood forests remain today. • The park’s old-growth forests have been extensively logged and fragmented, particularly in the upper Mill Creek and lower Redwood Creek watersheds. • The parks protect some of the world’s tallest and largest coast redwood trees. • The park is recognized by the United Nations Educational, Scientific and Cultural Organization as a Biosphere Reserve and as 1 of 13 natural World Heritage Sites in the United States. • Since the park’s old-growth forests have been fragmented by past logging, there are considerable edge effects where the forest meets logged lands. • The park exists in a challenging socio-political environment, with poaching of redwood lumber and burls is an ongoing issue. • Canopy research has revealed a thriving and diverse array of biological organisms inhabiting the old-growth redwood canopies. • There is a general lack of scientific knowledge related to old-growth conditions and trends. <p>Trends</p> <ul style="list-style-type: none"> • There is increased knowledge of the tallest/biggest trees through social media use. Access to these trees has increased through the development of social trails. • The park’s old-growth forests as a whole seem to be remaining stable, but they represent a finite resource, with less than 4% of all historic old-growth trees remaining along the northern Pacific coast. • The proximity to the coast and maritime influences creates uncertainty in the long-term projection of climate change in the parks. Management strategies, with respect to the park’s old-growth forest communities, will have to be adapted because of this uncertainty.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Privately owned land adjacent to park boundaries is susceptible to resource extraction. • Too much emphasis on fire suppression can lead to an increase in fuel buildup. • The desire to suppress fires quickly can lead to the removal of old-growth redwood trees that would otherwise have survived a fire event, representing a loss to the park’s premiere resource and associated habitat. Decisions to suppress fires need to be measured against the park’s mission to preserve and protect old-growth trees. • The long-term effects of climate change on the redwoods are unknown, but may include increased drought stress and wildfire. • Burl and wood poaching can damage trees and nearby resources. • Inappropriate visitor activities, including climbing trees and creating social trails, can damage old-growth redwoods and the forest understory. • Bypass or realignment of U.S. Highway 101 / Last Chance Grade could lead to redirected traffic flow, habitat damage, and possible tree removal.

Fundamental Resource or Value	Ancient Redwoods
<p>Threats and Opportunities</p>	<p>Opportunities</p> <ul style="list-style-type: none"> • Forest restoration in young redwood stands can help accelerate the time under which second growth forests can develop habitat characteristics and functions more typically found in late serial/old-growth forests. • Enhancing the cooperative relationship between Redwood National and State Parks and local fire management agencies would help foster a better understanding of each agency's priorities and improve the decision-making process with respect to unplanned fires in the park. • Oral histories of old-growth logging would offer a different perspective for interpretation and would help convey the importance of logging to the regional economy and the challenges of conservation to visitors.
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • Vulnerability assessment. • Old-growth forest data and monitoring. • Parkwide science synthesis report.
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Resource stewardship strategy. • Land protection plan (update). • Climate change scenario planning.
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • National Environmental Policy Act of 1970 (42 USC 4321) • Federal Noxious Weed Act of 1974, as amended • Clean Water Act • Clean Air Act (42 USC 7401 et seq.) • Executive Order 13112, "Invasive Species" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (§1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS Management Policies 2006 (§4.1) "General Management Concepts" • NPS Management Policies 2006 (§4.1.4) "Partnerships" • NPS Management Policies 2006 (§4.4.1) "General Principles for Managing Biological Resources" • NPS Director's Order 18: <i>Wildland Fire Management</i> • NPS <i>Natural Resource Management Reference Manual 77</i> • NPS <i>Wildland Fire Management Reference Manual 18</i>



Fundamental Resource or Value	Physical Processes and Water Resources
Related Significance Statements	Significance statements 3, 4, and 5.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Almost 40 miles of Pacific coastline and portions of the Smith River and the Klamath River are protected by the parks. Historically, the coastline found within Redwood National and State Parks has been considered an area of low priority for research and management. However, regional and global impacts to ocean resources do impact the parks’ coastline. • Much of the coastline is difficult to access, which has limited both human impacts and monitoring activities. • According to a 2008 water resource condition report, the overall coastline health is good but heavily influenced by human activity. • Information from a 1977 study of intertidal and subtidal biota is being updated through the NPS Inventory & Monitoring program. The parks are one of several NPS units in the Marine Rocky Intertidal Network that collaborate to monitor the health of rocky intertidal zones on both Pacific and Atlantic coasts. No comprehensive mapping of marine habitat types has been conducted along the parks’ coastline. • Klamath River and Smith River are designated in both the federal and California wild and scenic river systems. Most of the lengths of these rivers are under US Forest Service administration. • Terrestrial and aquatic habitat in the upper Prairie Creek watershed is relatively pristine since the majority of the watershed occurs within the unlogged portion of Redwood National and State Parks. • There is a statewide fish advisory due to mercury with consumption guidelines for certain fish caught in local lakes and reservoirs. Redwood NSP has lagoons and ponds that fall within the statewide advisory. • The Mill Creek watershed, although heavily logged and roaded, is in relatively good condition because the underlying geology is relatively stable and less sheared and fractured than Redwood Creek. As a result, it is less prone to mass wasting and erosion. • Redwood Creek is listed as sediment and temperature-impaired under the Clean Water Act due to past and current logging activities in a watershed prone to soil erosion. • Redwood National and State Parks lie near the junction of the North American, Pacific, and Gorda tectonic plates in one of the most seismically active regions of the United States. Here, rapid uplift associated with the area’s frequent earthquakes, combined with unstable soils, steep slopes, heavy rainfall, and legacy land uses such as timber harvesting and road construction, contribute to high erosion. • Redwood National and State Parks are designated as marine water quality protected areas, also known as Areas of Special Biological Significance by the State Water Resources Control Board. • Redwood National and State Parks contracts with the US Geological Survey for hydrological monitoring on Redwood Creek. This data is used to support evaluation of the Clean Water Act 303d listing for Redwood Creek. • Three out of four salmonid fish species are listed as federally threatened in Redwood National and State Parks. <p>Trends</p> <ul style="list-style-type: none"> • Redwood Creek continues to recover from past sediment and logging impacts. • Continued lack of maintenance for legacy logging roads has led to increased erosion as roads fail. • Illegal marijuana cultivation is increasing around the park. Impacts to Redwood National and State Parks water quality and quantity from these operations is unknown. • Redwood National and State Parks and the rest of northern California have recorded sea level rise and increased ocean acidification, which have been connected to broader climate change. Long-term effects of climate change are uncertain. • A published study claimed fog levels were declining, but more research and monitoring data are needed to confirm.

Fundamental Resource or Value	Physical Processes and Water Resources
<p>Threats and Opportunities</p>	<p>Threats</p> <ul style="list-style-type: none"> • Failing and unmaintained roads can lead to erosional and mass wasting events that degrade water quality. • Climate change has the potential to disrupt marine and estuary habitats, produce drought or flash flooding conditions, raise water temperatures and sea level, produce extreme weather events, increase wildfire, and cause shifts in broadleaf species into conifer forests stands. • Upstream land uses, including increased large-scale marijuana cultivation as well as continued clear-cut logging could add to river sediment, divert water, and pollute rivers and creeks. • Warming water temperatures directly affect river and coastal fish species. • Dams and water diversions on the upper Klamath have adverse effects on water quality and quantity on the lower Klamath. • Commercial and recreational fishing can deplete salmonid populations. • Natural disasters such as earthquakes and tsunamis in connection with global sea level rise could change the coastal landscape, altering coastal resources and causing widespread damage to park facilities. • Increasing population and community development could alter river levels. <p>Opportunities</p> <ul style="list-style-type: none"> • Restoration efforts designed to protect the park's water resources would improve estuary, wetland and riparian ecosystem health. • Conservation easement along Redwood Creek could be a tool to protect against development on upriver, privately owned land. • The existing watershed landowners association is a good source for future partnerships and support. • Maritime research would give Redwood National and State Parks better understanding of the resources under their management along the Pacific coast. • Collaborations with the Bureau of Land Management could provide more comprehensive offshore resource management and increased interpretation. • The national park holds a 99-year lease with the California State Lands Commission for the underwater lands between the shoreline and the NPS boundary 0.25 miles from the shore. This lease allows the submerged lands to fall under NPS law enforcement jurisdiction.
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • Vulnerability assessment. • LiDAR-derived digital elevation models to improve hydrographic data and flow paths. • Data on impact of marijuana cultivation upstream of park. • Water quality monitoring. • Oceanic water conditions data. • Offshore fisheries data. • Intertidal monitoring. • Sediment transport and hydrodynamic modeling. • Coastal and barrier beach modeling. • Stream assessments for fish habitat quality and barriers. • Wetlands monitoring. • Habitat studies (marine and wetland). • Climate monitoring and projection. • Parkwide science synthesis report.

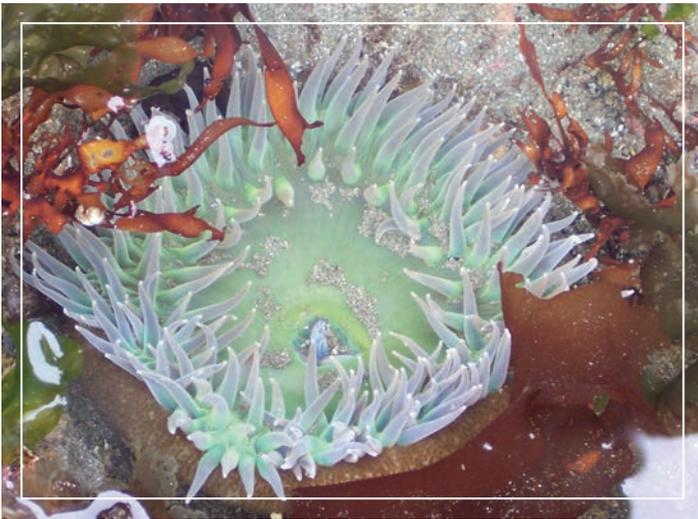
Fundamental Resource or Value	Physical Processes and Water Resources
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Climate change scenario planning. • Beach and dune management plan. • Mouth of Klamath River comprehensive management plan. • Resource stewardship strategy. • Site development plan for Mill Creek watershed. • Comprehensive watershed rehabilitation plan. • Lower Prairie Creek comprehensive management plan. • Redwood Creek estuary restoration plan. • Submerged resource management plan.
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • National Environmental Policy Act of 1970 (42 USC 4321) • Wild and Scenic Rivers Act (1968) • Clean Water Act • Clean Air Act (42 USC 7401 et seq.) • Water rights adjudication and law • Executive Order 11514, “Protection and Enhancement of Environmental Quality” • Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources” <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director’s Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (§1.6) “Cooperative Conservation Beyond Park Boundaries” • NPS <i>Management Policies 2006</i> (§4.1) “General Management Concepts” • NPS <i>Management Policies 2006</i> (§4.6.1) “Protection of Surface Waters and Groundwaters” • NPS <i>Management Policies 2006</i> (§4.6.2) “Water Rights” • NPS <i>Management Policies 2006</i> (§4.6.4) “Floodplains” • NPS <i>Management Policies 2006</i> (§4.7.2) “Weather and Climate” • NPS <i>Management Policies 2006</i> (§4.8.1.1) “Shorelines and Barrier Islands” • Director’s Order 77-2: <i>Floodplain Management</i> • Special Directive 93-4 “Floodplain Management, Revised Guidelines for National Park Service Floodplain Compliance” (1993) (replaced by Director’s Order 77-2: <i>Floodplain Management</i>)



Fundamental Resource or Value	Ecosystem Diversity
Related Significance Statements	Significance statements 1 and 5.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • The 2008 State of the Parks Report reported that the overall condition of natural resources at Redwood National and State Parks rated a “fair” score of 69 out of 100. • The parks include fragmented old-growth redwood forests. These pockets of ancient trees are separated by second-growth forest. • Coastal redwoods dominate the old-growth redwood forests. Some commonly encountered associated plant species include Douglas-fir, big leaf maple, California bay laurel, tan oak, California hazel, woodrose, redwood trillium, redwood sorrel, sword fern, and bracken fern. • The parks’ varied ecosystems provide habitats for nine species of state and/or federally listed threatened and endangered species and one species that is a candidate for listing under the Federal Endangered Species Act: the marbled murrelet, northern spotted owl, fisher, chinook salmon, coho salmon, steelhead trout, eulachon, beach layia, western snowy plover, and Steller’s sea lion. • Land mammals ranging from shrews to Roosevelt elk are found throughout the park’s forests, woodlands, and meadows. Prairie Creek Redwoods State Park became a Roosevelt elk refuge in 1923. • Plants and animal communities along the beaches, intertidal zones, and offshore rocks have adapted to sometimes harsh ocean conditions such as salt-spray, winds, tides, and storm surges. • Marine life, including saltwater fishes, birds, and large mammals, inhabit this ecologically rich strip of the Pacific coast. Salmon and freshwater species inhabit the parks’ rivers and streams. • American Indians historically maintained grassland habitats through frequent burns. Fire suppression and other historic disturbance issues have led to the encroachment of Douglas-fir or other conifer/woody species. • Prescribed fires are implemented to improve native plant diversity, reduce or eliminate nonnative plant species, and to restore a disturbance regime critical to the health and maintenance of the ecosystem. • The National Park Service currently has more management plans in place than the California Department of Parks and Recreation. While the two agencies jointly manage Redwood National and State Parks, there is a need for additional management plans to support the joint general management plan (2000) and Mill Creek Watershed general management plan amendment (2011) in regard to California State Park resources. <p>Trends</p> <ul style="list-style-type: none"> • Interactions between humans and black bears, mountain lions, and elk are hazardous for both humans and the animals, and require intensive management. Elk create a serious traffic hazard on U.S. Highway 101 that occasionally results in elk mortality. • All park elk herds except the Boyes Prairie herd are increasing in numbers. The Boyes Prairie herd seems to have been negatively affected by the highway bypass and is decreasing. • The barred owl, a native species of management concern, is overtaking spotted owl habitat within the park. The two species are in direct competition. The spotted owl population is declining. • Habitat for the Oregon silverspot butterfly seems to be improving. • Woodland species encroachment on coastal prairies and historic grasslands has increased with the lack of fire and more focused management activities. • Aquatic and terrestrial invasive species are becoming an increasing concern and are spreading at a high rate. • Public awareness of ecosystem importance and stewardship has been increasing with widespread, environmental children’s programming, park interpretation, and effective use of electronic and social media.

Fundamental Resource or Value	Ecosystem Diversity
<p>Threats and Opportunities</p>	<p>Threats</p> <ul style="list-style-type: none"> • Poaching of redwood burls, large mammals, fish, mushrooms, and butterflies can affect populations of targeted species and deteriorate ecosystem health. • Conflagration could destroy a large portion of habitat. • Infrequent fire regimes could decrease habitat diversity and degrade habitats as fire-adapted species suffer and oak and grassland habitats are overtaken by nonnative plants and woody species. • Density and a uniform, closed canopy in second-growth forests could negatively affect ecosystem health. • Sudden Oak Death and Port Orford cedar root rot disease can transform native forests. • Corvids (Steller's jays and common ravens) are a direct predation threat to the marbled murrelet population due to increased densities caused by human food availability in high use visitor areas. • Diseases such as sea star wasting disease could become more prevalent. • Driving on the beach could destroy intertidal and marine habitats. • Exotic mange could infect the parks' elk and deer population. • Sea level rise could impact coastal species and habitats. • Climate change could lead to changes in storm intensity and frequency, coastal fog development and distribution, drought cycles, and temperature/humidity levels. These changes can contribute to alterations in ecosystem process and function by affecting fire intensity and natural return interval rates, increasing erosional events, and impacting plant and wildlife organisms and relationships. • Warmer, wetter winters and hotter, drier summers projected under climate change could decrease the survival of northern spotted owls. • Nitrogen deposition (from air pollution) in the park is above critical loads for lichen and forest vegetation types, suggesting they are at risk for harmful effects. Some species of forest lichens are very sensitive to excess nitrogen, and may decrease in abundance as nitrogen increases. Wetland areas are sensitive to nutrient enrichment effects of excess nitrogen from deposition and run-off, which can help invasive plant species to grow faster and out-compete native vegetation adapted to lower nitrogen conditions. • Estimated wet mercury deposition is high and predicted levels of methylmercury in park surface waters are moderate. High mercury concentrations in birds, mammals, amphibians, and fish can result in reduced foraging efficiency, survival, and reproductive success. • Historic land use in park environments has contributed to habitat loss, fragmentation, and introduction of nonnative species. • Major road corridors through the parks serve as pathways for the introduction of nonnative vegetation and create dangerous conditions for humans and wildlife. <p>Opportunities</p> <ul style="list-style-type: none"> • Estuary restoration can improve estuarine health and populations of all estuary-dependent species. • Second growth thinning can remove nonnative tree species in stands and accelerate late seral stage condition recovery. • Prescribed burns can improve the overall condition of fire-adapted habitats and alter understory growth and fuel loading. • Fragmentation of old-growth stands can be reduced through focused management on stands of second growth between old-growth stands. • The park can collaborate with outside partners and landowners to help develop wildlife and vegetation corridors. • Increase public awareness of marine protected areas. • Increase collaboration on resource management projects with local tribes. • Increase public education on the variety of ecosystems represented in the park to increase general awareness and highlight the importance of conservation, preservation, and stewardship of park resources.

Fundamental Resource or Value	Ecosystem Diversity
Data and/or GIS Needs	<ul style="list-style-type: none"> • Vulnerability assessment. • Second-growth forest inventories. • Old-growth forest data and monitoring. • Stream assessments for fish habitat quality and barriers. • Wetlands monitoring. • Elk monitoring. • Amphibian monitoring. • Rare species inventories and monitoring. • Habitat studies (marine and wetland). • Parkwide science synthesis report. • Temporary study to monitor wet deposition rate in park/ permanent National Atmospheric Deposition Program station for park specific deposition data. • Special study to examine pollution dose-response relationships in sensitive park ecosystems.
Planning Needs	<ul style="list-style-type: none"> • Resource stewardship strategy. • Condor reintroduction plan. • Second growth forest management plans. • Invasive animal management plan. • Climate change scenario planning.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • National Environmental Policy Act of 1970 (42 USC 4321) • Wilderness Act (1964) • Wild and Scenic Rivers Act • Endangered Species Act of 1973, as amended • National Invasive Species Act • Lacey Act, as amended • Federal Noxious Weed Act of 1974, as amended • Cave and Karst Protection Act of 1988 • Clean Water Act • Clean Air Act (42 USC 7401 et seq.) • Executive Order 13112, "Invasive Species" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS <i>Management Policies 2006</i> (§4.1) "General Management Concepts" • NPS <i>Management Policies 2006</i> (§4.1.4) "Partnerships" • NPS <i>Management Policies 2006</i> (§4.4.1) "General Principles for Managing Biological Resources" • NPS <i>Management Policies 2006</i> (§4.7) "Air Resource Management" • NPS <i>Management Policies 2006</i> (§4.7.2) "Weather and Climate" • NPS Director's Order 18: <i>Wildland Fire Management</i> • NPS <i>Natural Resource Management Reference Manual 77</i> • NPS <i>Wildland Fire Management Reference Manual 18</i>



Fundamental Resource or Value	Ecological Integrity
Related Significance Statements	Significance statements 1, 4, 5, and 6.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Broad restoration efforts include watershed restoration, second growth forest restoration, nonnative plant management, and prescribed fire management. • Around 4,000 acres of oak woodland and coastal grassland have been the focus of aggressive nonnative species removal efforts, which has helped the health of the native vegetation as well as wildlife habitat. • The park is restoring more than 100 acres of coastal dune habitat on northern Gold Bluffs Beach by removing nonnative plant species to improve the natural habitat or the pink sand verbena and the western snowy plover, a federally listed threatened species. • Fish habitats have been improved through placement of large in-stream wood structures, removal and modification of unnatural fish barriers, reestablishment of streamside vegetation, and modification of existing flood-control levees. • The park is working with partners to propose a Redwood Creek estuary restoration project that would restore a fully functioning estuarine ecosystem while preserving the benefit of levee flood control protection. • The park is implementing a comprehensive corvid management strategy to conserve threatened marbled murrelets. • Abandoned and failing timber roads contribute to runoff, erosion, and increased temperature and sediment in Redwood Creek. • The park includes numerous fire-adapted species and ecosystems, but past emphasis on fire suppression have limited wildfires. Prescribed burning in certain habitats are included in the park’s fire management plan. <p>Trends</p> <ul style="list-style-type: none"> • Since 1978, the National Park Service has removed approximately 220 miles of abandoned logging roads from the parks to improve watersheds by reducing road-related erosion and sedimentation of streams. • Marijuana cultivation is taking place on private and public lands in northern California and Oregon. • The number of invasive species and the size of established nonnative species populations have fluctuated in recent years. • Populations in areas surrounding the park have been on the rise, leading to increased development and land usage as well as associated noise and artificial light.

Fundamental Resource or Value	Ecological Integrity
<p>Threats and Opportunities</p>	<p>Threats</p> <ul style="list-style-type: none"> • Past timber harvesting and logging road construction have the potential to adversely affect park ecosystems. • Noise and artificial light could affect ecological function, wildlife, and habitats. • Sudden Oak Death disease could cause widespread mortality of tanoak and black oak trees. • Climate change has the potential to disrupt marine and estuary habitats, produce drought or flash flooding conditions, raise water temperatures and sea level, produce extreme weather events, increase wildfire, and cause shifts in broadleaf species into conifer forest stands. • Marijuana growing operations could siphon water away from the park. • Invasive species could replace native plants and wildlife and affect the larger ecosystem. • Corvids prey on the nests of snowy plovers and marbled murrelets and constitute one of the primary threats to these threatened species. Human food availability increases corvid population densities near high use visitor areas. • Development adjacent to the park and industrial encroachment could limit restoration efforts outside the park and create additional air, sound, and light pollution. • Timber companies could sell their nearby landholdings to private owners for development, which could negatively affect park ecosystems adjacent to the park boundary. • Nitrogen deposition (from air pollution) in the park is above critical loads for lichen and forest vegetation types, suggesting they are at risk for harmful effects. Some species of forest lichens are very sensitive to excess nitrogen, and may decrease in abundance as nitrogen increases. Wetland areas are sensitive to nutrient enrichment effects of excess nitrogen from deposition and run-off which can help invasive plant species to grow faster and out-compete native vegetation adapted to lower nitrogen conditions. <p>Opportunities</p> <ul style="list-style-type: none"> • Greater awareness of ecological threats and impacts through interpretation, education, and outreach programs can help increase public stewardship and conservation activities. • Restoring Redwood Creek estuary will aid in the recovery of threatened and endangered salmonid species. • Increased second-growth management can help foster late-seral conditions and remove nonnative tree species. • Scientific research can help inform restoration activities and shape future management decisions. • Cooperative management with the tribes, other state and federal agencies, and outside stakeholders can expand conservation efforts. • Increased volunteerism can support monitoring, nonnative plant removal, and other restoration efforts.
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • Vulnerability assessment. • LiDAR-derived digital elevation models to improve hydrographic data and flow paths. • Second-growth forest inventories. • Data on effectiveness of past restoration projects. • Old-growth forest data and monitoring. • Data on impact of marijuana cultivation upstream of park. • Offshore fisheries data. • Coastal and barrier beach modeling. • Stream assessments for fish habitat quality and barriers. • Wetlands monitoring.

Fundamental Resource or Value	Ecological Integrity
<p>Data and/or GIS Needs (continued)</p>	<ul style="list-style-type: none"> • Elk monitoring. • Amphibian monitoring. • Rare species inventories and monitoring. • Habitat studies (marine and wetland). • Parkwide science synthesis report. • Acoustic resources inventory and monitoring. • Night sky monitoring.
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Climate change scenario planning. • Beach and dune management plan. • Mouth of the Klamath River comprehensive management plan. • Resource stewardship strategy. • Land protection plan. • Second growth forest management plans. • Comprehensive watershed rehabilitation plan. • Invasive animal management plan. • Lower Prairie Creek comprehensive management plan. • Sudden Oak Death management plan. • Redwood Creek estuary restoration plan.
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • National Environmental Policy Act of 1970 (42 USC 4321) • Wilderness Act (1964) • Wild and Scenic Rivers Act • Endangered Species Act of 1973, as amended • National Invasive Species Act • Lacey Act, as amended • Federal Noxious Weed Act of 1974, as amended • Clean Water Act • Clean Air Act (42 USC 7401 et seq.) • Executive Order 13112, "Invasive Species" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS <i>Management Policies 2006</i> (§4.1) "General Management Concepts" • NPS <i>Management Policies 2006</i> (§4.1.4) "Partnerships" • NPS <i>Management Policies 2006</i> (§4.4.1) "General Principles for Managing Biological Resources" • NPS <i>Management Policies 2006</i> (§4.7.2) "Weather and Climate" • NPS <i>Management Policies 2006</i> (§4.9) "Soundscape Management" • NPS <i>Management Policies 2006</i> (§4.10) "Lightscape Management" • Director's Order 47: <i>Soundscape Preservation and Noise Management</i> • NPS <i>Natural Resource Management Reference Manual 77</i>



Fundamental Resource or Value	Scenic Resources and Natural Sounds
Related Significance Statements	Significance statement 3.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Redwood National and State Parks have been classified as a Class I area through the Clean Air Act, which requires federal land managers to protect resources sensitive to air pollution such as scenic views and ecological resources. • Redwood National and State Parks is in a relatively unpopulated, rural area and the coastline is one of the least developed areas in California. The park now includes some of the best natural sound and lightscapes in the northern California coastal region. • In addition to dark night skies, the park hosts diverse scenic daytime experiences as well. For example, the interplay of light and fog deep within an old-growth redwood stand can evoke a quality of “cathedral luminescence” and uninterrupted views of the ocean and coastline may enhance visitors’ feelings of solitude and wilderness. • Natural sounds are an intrinsic part of visitors’ experience and are connected to the parks’ sense of remoteness and the solitude experienced in the redwood forests. • Drone activity is currently prohibited in the National Park Service and is managed in the state parks under the California Code of Regulations. On June 19, 2014, the NPS Director signed Policy Memorandum 14–05, Unmanned Aircraft – Interim Policy that bans public use of unmanned aerial systems in national parks. • Redwood National and State Parks is in an upwind location from most emission sources in the air basin, which limits its air pollution. • Visibility within the park is sometimes limited by both natural factors (fog, rain, low clouds, and salt spray haze) and human-caused pollutants. However, it is still better than many parts of the country. • There is little influence from artificial light at the park. At Redwood National and State Parks, most observers feel they are in a natural environment. The Milky Way is visible from horizon to horizon and may show great detail, with fine details such as the Prancing Horse. Zodiacal light (or “false dawn” which is faint glow at the horizon just before dawn or just after dusk) can be seen under favorable conditions, and there is negligible impact to dark adaptation of eye sight looking in any direction. • The acoustic environment at Redwood National and State Parks has little influence from noise. Sound related functions such as ability to hear, ability to be heard, and ability to sleep all remain intact in most areas of the park. Visitors can experience natural sounds more often than human-caused sounds.

Fundamental Resource or Value	Scenic Resources and Natural Sounds
Current Conditions and Trends	<p>Trends</p> <ul style="list-style-type: none"> • Sections of the parks near its boundaries and along major roads such as Bald Hills Road are vulnerable to future development. • Overall visibility is improving from reductions in pollution-caused haze. From 2004 to 2013 visibility remained unchanged on the clearest days and improved on the haziest days. • Between 2000 and 2020, overall California air pollutant emissions are projected to be reduced by almost 40 percent and include highway vehicles, marine shipping, and non-road engines. These emission reductions reflect the maturity of California's emission control program, and should improve air quality conditions at Redwood National and State Parks. • An economic downtrend in communities surrounding the park has led to increased poaching, crime, and drug activity. • Telecommunication infrastructure has become increasingly common in the park and could lead to visual intrusions during the day and at night. • Advancing technology and the advent of social media allows today's virtual visitors more access to the park and information relating to its resources. • Visitation has been on the rise over the past few years. • Increased visitor use and new forms of recreation are appearing at the park and can affect the natural soundscape, acoustic environment, dark night skies, and other scenic resources.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Development adjacent to the park and continued encroachment could increase air and light pollution and noise. At night, air pollution scatters artificial light, increasing the effect of light pollution on the night sky. • Climate change could affect fog levels, temperature, weather patterns, and other aspects of the natural environment. • Noise from aircraft flights, personal drone usage, and unmanned aerial systems could become a noticeable sound intrusion. • Increasing visitor use could stress park resources and contribute to anthropogenic noise in the park. • Road reroutes and expansions could increase traffic issues, air pollution, and vehicle-related noise and light. • The increase in truck traffic and the size/weight of vehicles could result in increased traffic noise. • The contribution of native birds and mammals to the natural soundscape could be diminished by nonnative invasive wildlife species. • Smoke from woodstoves, residential burning, prescribed fires, and wildfires is the primary source of air pollution in the vicinity of Redwood National and State Parks and has been identified as a seasonal and overall minor adverse effect on air quality. <p>Opportunities</p> <ul style="list-style-type: none"> • Repaving projects can use quiet pavement technology to decrease impacts of vehicular noise. • Expand interpretative and educational tools to communicate the connections between scenic views, night skies, natural sounds, air quality/pollution, climate change, ecosystem diversity, recreation, human health, and other associated resources. • The park can work with local communities to reduce light pollution in the region and help manage noise sources. • Agreements can be created to help manage adjacent land use and development. • Visitors can be connected to information about the park's natural setting through social media. • Increased visitor awareness of the park's natural setting can lead to interest in the components and develop stewardship.

Fundamental Resource or Value	Scenic Resources and Natural Sounds
Threats and Opportunities	<p>Opportunities (continued)</p> <ul style="list-style-type: none"> • Work cooperatively with other federal and state air quality agencies and local stakeholders to reduce air quality impacts in the park from sources of air pollution. • Partnering with nearby developers or planners could similarly help increase awareness about the importance of park scenic views, air quality and night sky.
Data and/or GIS Needs	<ul style="list-style-type: none"> • Vulnerability assessment. • Night sky monitoring. • Acoustic resource inventory and monitoring. • Air quality monitoring. • Climate monitoring and projection. • Comprehensive visual resource inventory.
Planning Needs	<ul style="list-style-type: none"> • Climate change scenario planning. • Land protection plan. • Visual resource management plan.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • The Clean Air Act (42 USC 7401 et seq.) gives federal land managers the responsibility for protecting air quality and related values, including visibility, plants, animals, soils, water quality, cultural resources, and public health, from adverse air pollution impacts <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (§1.4) "Park Management" • NPS Management Policies 2006 (§1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS Management Policies 2006 (§3.1) "General" • NPS Management Policies 2006 (§4.7) "Air Resource Management" • NPS Management Policies 2006 (§4.9) "Soundscape Management" • NPS Management Policies 2006 (§4.10) "Lightscape Management" • NPS Management Policies 2006 (§5.3.1.7) "Cultural Soundscape Management" • NPS Management Policies 2006 (§8.4) "Overflights and Aviation Uses" • Policy Memorandum 14-05 "Unmanned aircraft – Interim Policy" • NPS Natural Resource Management Reference Manual 77 • Director's Order 47: <i>Soundscape Preservation and Noise Management</i>





Fundamental Resource or Value	Traditional Culture and Use
Related Significance Statements	Significance statement 2.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • The National Park Service and the California Department of Parks and Recreation work with associated tribes through government-to-government consultation, partnerships, and formal agreements to respect the interests of these traditionally associated peoples and provide opportunities for visitors to engage with their cultures. • General agreements have been signed by Redwood National and State Parks and associated tribes for communications and other joint park-tribal efforts. • Cooperative agreements are in place between Redwood National and State Parks and individual families for traditional ceremonies to be held on parkland. There is a lack of available ceremonial sites. • The park has been collaborating with tribes to create interpretive products, ethnographic research projects, and formal interpretive training opportunities for park staff. Both the park and the tribes recognize the importance of tribal members telling their own stories through interpretation or special programming and that the tribes have requested that aspects of their traditional culture not be interpreted. <p>Trends</p> <ul style="list-style-type: none"> • There is an overall revitalization of traditional practices and ceremonies by the tribes associated with Redwood National and State Parks, which has led to an increase in ceremonies being held within park boundaries. • Throughout the National Park Service there has been a push to interpret the challenging and sometimes difficult stories related to parks. Redwood National and State Parks has shown interest in interpreting the forced removal, genocide, and forced assimilation of Northern California tribes during the 19th and 20th centuries. • Tribal leadership has expressed interest in formal interpretation training for tribal members to share stories and traditions within the parks as interpreters or volunteers. • Redwood National and State Parks management has shown an increased openness relating to cooperative management and tribal support. • Continued cooperative management and communication have led to streamlining the bureaucratic processes relating to federal, state, and tribal agencies and shared efforts. • Proposed California and federal regulations related to traditional plant gathering could affect resource management.

Fundamental Resource or Value	Traditional Culture and Use
<p>Threats and Opportunities</p>	<p>Threats</p> <ul style="list-style-type: none"> • Vandalism and looting can negatively affect ceremonial and burial sites. • Publication or widespread knowledge of the location of archeological sites could lead to additional looting and disturbances. • Lack of prosecution for Archaeological Resources Protection Act (ARPA) violations can lead to further site damage as well as lost trust and respect from the tribes. • Potential traditional consumptive use of resources could result in damage to resources. • Bureaucratic roadblocks could make cooperation and future collaborative partnerships difficult. • Limited tribal access to resources could lead to frustration and management conflicts. • Misunderstandings and conflicting values could damage the relationship between the tribes and the park. <p>Opportunities</p> <ul style="list-style-type: none"> • Partnerships with the tribes can lead to increased funding opportunities. • Fostering communication with local defense attorneys can increase knowledge of the Archaeological Resources Protection Act and the likelihood of future ARPA-related convictions. • The reintroduction of the California condor could lead to additional partnership and interpretive opportunities among the park and associated tribes. • Increased efforts can be made to ensure young tribal members are aware of career opportunities within all divisions of Redwood National and State Parks so they can work toward developing the skills and education needed to successfully apply for positions. • Multimedia products relating to area tribes' historic and current connection to the land/resources can share stories that are currently under-represented with a diverse virtual audience. • Traditional land practices, including prescriptive fires and resource gathering, can be incorporated into the park's land use and management plans. • Recognition of consumptive use and facilitating the sharing of resources can strengthen the trust between tribes and the park and support traditional ceremonies and practices. • Continued cooperative management between the park and tribes can help ensure that traditionally associated groups are engaged in current park decisions.
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • Cultural knowledge preservation and interpretation study. • Anthropological overview and assessment. • Bald Hills ethnographic traditional cultural properties feasibility study. • Collect oral histories. • Ethnographic studies. • Understanding the exclusivity of tribal oral histories. • GIS modeling of cultural features using historical maps and aerial photos. • Historic resource study. • National Register nomination updates for Endert's Beach Archeological Sites (CA-DNO-14) in consultation with Tolowa Tribe; Endert's Beach Archeological Sites (CA-DNO-15) in consultation with Tolowa Tribe; Bald Hills Archeological District; Bald Hills Archeological District Extension. • National register nominations for village complex at mouth of Wilson and Lagoon Creeks; Jump Dance ceremony traditional cultural property.
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Long-range interpretive plan. • Mouth of the Klamath River comprehensive management plan.

Fundamental Resource or Value	Traditional Culture and Use
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Antiquities Act of 1906 • Historic Sites, Buildings, and Antiquities Act of 1935 • National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq.) • Archeological and Historic Preservation Act of 1974 • American Indian Religious Freedom Act of 1978 • Archaeological Resources Protection Act of 1979 • Paleontological Resources Preservation Act of 1999 • Native American Graves Protection and Repatriation Act of 1990 • Museum Act (16 USC 18f through 18f-3) • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • Executive Order 13007, "Indian Sacred Sites" • "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79) • "Protection of Historic Properties" (36 CFR 800) <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS <i>Management Policies 2006</i> (§4.1.4) "Partnerships" • NPS <i>Management Policies 2006</i> (chapter 5) "Cultural Resource Management" • Director's Order 24: <i>NPS Museum Collections Management</i> • Director's Order 28: <i>Cultural Resource Management (1998)</i> • Director's Order 28A: <i>Archeology, 4A(3) Native American Graves Protection and Repatriation Act</i> • NPS <i>Museum Handbook</i>, parts I, II, and III • <i>The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i>

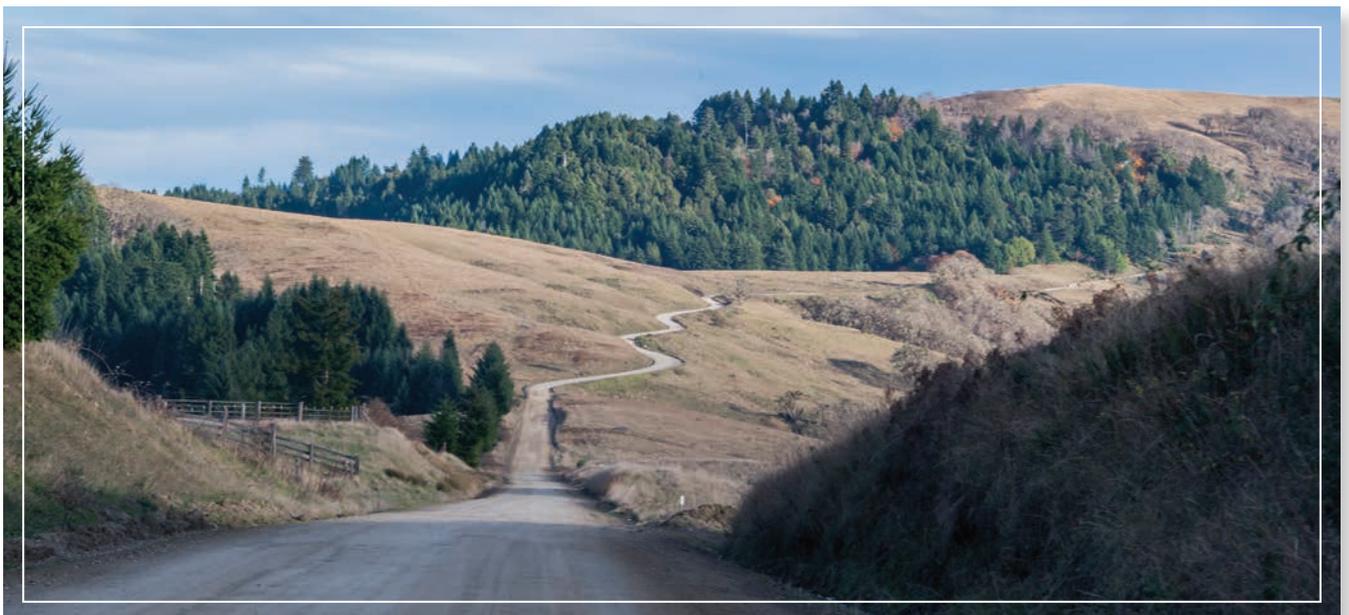




Fundamental Resource or Value	Cultural Sites and Landscapes
Related Significance Statements	Significance statements 2 and 5.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • The 2008 State of the Park Report states that Redwood National Park’s known cultural resources rated a “fair condition” score of 66 out of 100. • The National Park Service works collaboratively with California Division of Parks and Recreation but does not have management authority over cultural resources within the state parks associated with Redwood National and State Parks. • Many of the parks’ cultural resources are listed in the National Register of Historic Places or have been determined eligible for listing. The Lyons Ranches Historic District, Klamath River Radar Station B-17, Prairie Creek Fish Hatchery, Old Redwood Highway, and numerous archeological sites represent the span of human use in the area. • The Redwood National and State Parks museum and archival collections consist of 1,475,604 objects from the park (as of 2014) including American Indian basketry, crafts, and redwood dugout canoes; natural history specimens; archeological collections, and photographic collections. • The parks’ museum and archival collections are housed in a government-leased, privately owned facility in Orick that also acts as the repository for Whiskeytown National Recreation Area and Lassen Volcanic National Park. • Memorial groves dedicated to individuals and groups are found throughout the four parks that make up Redwood National and State Parks. Many of the older named groves include benches and name plaques, although recently signage and seating has been kept to a minimum. Groves are still available for dedication in the three California state parks. (Redwood National Park’s most recent memorial groves, the H. P. Nerger Memorial Grove and Thomas J. Nerger Grove, were dedicated in 2008.) <p>Trends</p> <ul style="list-style-type: none"> • Resources are being negatively affected by benign neglect and vandalism. • Traditional ceremonies being performed in the park has been increasing in response to streamlined special use permits and ongoing conversations between park management and tribal leaders. • Associated tribes do not support national register nominations on traditionally associated properties and archeological sites within the park. • The park recently hired a landscape architect to help care for cultural landscapes.

Fundamental Resource or Value	Cultural Sites and Landscapes
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Lack of funding can lead to deferred maintenance of sites and buildings. • Cultural knowledge could be lost through death of tribal elders and those associated with the park’s timber, fishing, and conservation histories. • Theft and vandalism can affect ceremonial sites and historic structures. • Erosion, fire, and other natural forces could uncover or destroy archeological sites and historic structures. Climate change may increase potential for wildfire and flooding from extreme weather events. • Lack of documentation and monitoring can lead to loss of knowledge and damage to physical resources. • Encroachment from local communities can bring incompatible development and affect cultural landscapes. • Public apathy regarding the park’s cultural resources and oral history may make it difficult to secure funding or create visitor support for history-related preservation projects. <p>Opportunities</p> <ul style="list-style-type: none"> • There is growing visitor interest in the human history of the area. • Increased involvement with associated tribes can increase interpretation and protection of tribal cultural resources. • New state laws covering the unlawful collection of archeological resources may provide more cultural resource protection in the park. • Oral histories can enrich the stories being told in the park and increase awareness and understanding of cultural resources. • Public education increases the recognition of the park’s cultural resources and their importance. • Volunteers can monitor resources and engage in preservation projects. • Past experiences with the tribes and other associated groups can help the park learn how to best manage and present cultural resources and educate staff and the public. • Logging history could be interpreted at the old Mill Creek or Orick logging mill sites. • Increased public knowledge of the scale of American Indian massacres in the mid-1800s may increase public support and funding for better interpretation of those stories.
Data and/or GIS Needs	<ul style="list-style-type: none"> • Anthropological overview and assessment. • Archeological surveys. • Collect oral histories. • Cultural landscape inventories/reports. • GIS modeling of cultural features using historic maps and aerial photos. • Historic resource study. • Historic structure reports. • LiDAR data for cultural resources. • Lyons Ranches Historic District circulation network history study. • Museum scope of collection statement. • National register nomination updates for: Omen (CA-DNO-2/CA-DNO-7); Redwood Highway; Klamath Air Force Station; Hiouchi Flat; Jedediah Smith Campground. • National register nomination for Murphy Ranch (if eligible). • Submerged cultural resource inventory. • Traditional trail circulation and use study. • Planning for adaptation to climate change.

Fundamental Resource or Value	Cultural Sites and Landscapes
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Cultural resource condition assessment. • Historic preservation plan for historic barns and structures. • Museum emergency operation plan. • Museum management plan (update). • Museum preservation maintenance plan.
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Antiquities Act of 1906 • Historic Sites, Buildings, and Antiquities Act of 1935 • National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq.) • Archeological and Historic Preservation Act of 1974 • American Indian Religious Freedom Act of 1978 • Archaeological Resources Protection Act of 1979 • Native American Graves Protection and Repatriation Act of 1990 • Museum Act (16 USC 18f through 18f-3) • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • Executive Order 13007, "Indian Sacred Sites" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" • "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79) • "Protection of Historic Properties" (36 CFR 800) <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (chapter 5) "Cultural Resource Management" • Director's Order 24: <i>NPS Museum Collections Management</i> • Director's Order 28: <i>Cultural Resource Management (1998)</i> • Director's Order 28A: <i>Archeology (2004)</i> • NPS <i>Museum Handbook</i>, parts I, II, and III • <i>The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i>



Fundamental Resource or Value	Science and Education
Related Significance Statements	Significance statements 5 and 6.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Broader formal and informal educational opportunities for the general visiting public are provided via both traditional and cutting-edge mediums throughout Redwood National and State Parks. • The nationally recognized Howland Hill Outdoor School was established by the National Park Service and opened in 1979 east of Crescent City. The school curriculum focuses on the stewardship of Redwood National and State Parks, its unique ecosystems and the natural and cultural values associated with its forest, stream, meadow, and seashore habitats. The campus continues to evolve to meet the needs of today’s students. A new propane- and solar-powered main lodge was opened in spring 2012. • Wolf Creek Education Center was established at the site of Wolf Creek Logging Camp near Orick in 1972 and was originally managed by the Humboldt County Office of Environmental Education. The National Park Service assumed management in 1985. The facility, which includes numerous overnight cabins and a multipurpose lodge with classrooms and a laboratory, is used for residential education areas during the spring and fall. During the off-season, the facility is available for rent by groups with environmental or educational purposes. • Beginning in 2016, Redwood National and State Parks plans to expand teen educational opportunities as staffing capacity allows. • Funding and personnel levels directly affect the number of research, monitoring, and educational programs the park can provide. Recent funding cuts from the National Park Service and California Department of Parks and Recreation have made it difficult to undertake new research efforts, collect monitoring data, or offer new educational and interpretive programs. <p>Trends</p> <ul style="list-style-type: none"> • In general there has been a growing interest in life-long learning and formal education opportunities for adults and seniors. • The park has been sharing more scientific information and data related to law enforcement efforts. • The creation and use of the Incident Management, Analysis, and Reporting System allows law enforcement to record known poachers both locally and nationally for better record keeping and future reference both within Redwood National and State Parks and the National Park Service as a whole. • Advances in technology have made it easier than ever to share research findings and create interest in the resources both in local and worldwide audiences. This has contributed to a growing awareness of resource importance and stewardship activities. • Overall there is reduced park funding for research. The National Park Service as an agency has become more reliant on outside organizations and universities to organize and sponsor research and monitoring projects.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • The struggling economies in gateway communities could affect the ability of local schools to participate in park educational programs. • Tree climbing and other inappropriate visitor use by school groups and others using the education center facilities can damage redwoods and affect the health of surrounding resources. • Poor access to past research can lead to a loss of knowledge and duplicated efforts. • Lack of science and education funding can severely limit programming and sponsored research efforts. • A disconnect between management-driven hypotheses and research programs could lead to inefficiencies and a lack of practical and applicable research.

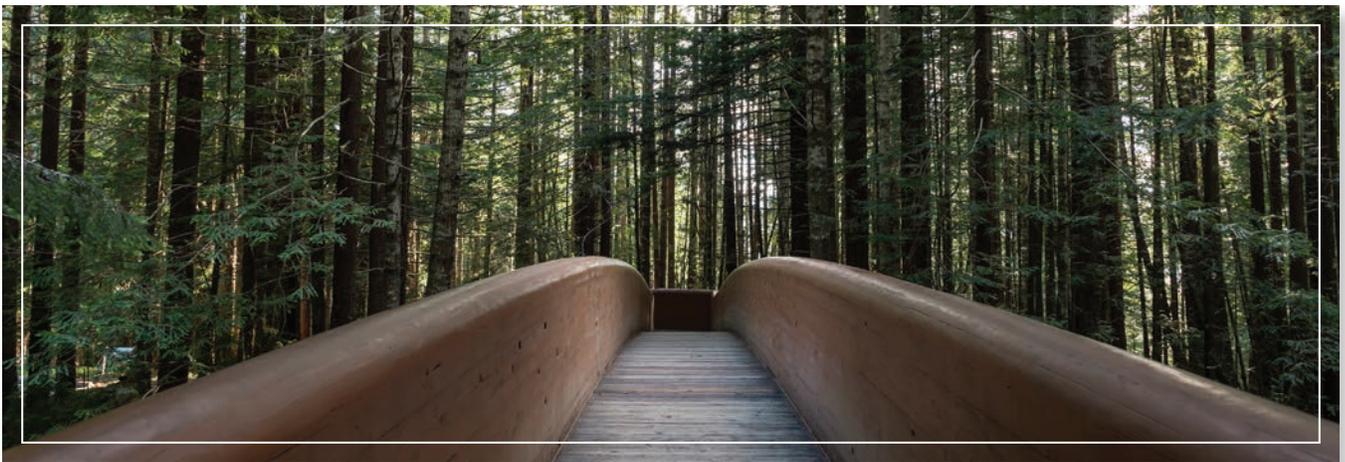
Fundamental Resource or Value	Science and Education
<p>Threats and Opportunities</p>	<p>Opportunities</p> <ul style="list-style-type: none"> • Social media can share recent findings, upcoming research efforts, and volunteer opportunities with scientists, universities, and the general public. • The park can use the popularity of redwoods to generate worldwide attention to park conditions and issues. This interest can be used to help support volunteer efforts, stewardship activities, and involvement with the park’s nonprofit partners. • An on-site or university-led learning center would centralize past research and offer a base of operations for park-university collaborations. • Synthesizing past research and making it available to partners and other interested parties for educational purposes can help inform additional research efforts related to redwoods, climate change, and ecosystem restoration. • Improved data and archive management would make past findings more accessible for park staff and outside researchers. • Increased education and outreach activities can help cultivate interest in the park and its resources in local communities. • Partnerships with local universities provide more opportunities for research, student projects, and collaboration between the park and academia. • Management-driven funding can help apply research findings and support additional educational programs. • The park-managed outdoor schools provide the opportunity to connect with local youth school populations. • Continue park Climate Friendly Park and Cool Parks Action Plan implementation with an operational Environmental Management System (EMS, NPS Director’s Order 13A) to improve park sustainability and environmental leadership.
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • Vulnerability assessment. • LiDAR-derived digital elevation models to improve hydrographic data and flow paths. • Second-growth forest inventories. • Data on effectiveness of past restoration projects. • Old-growth forest data and monitoring. • Data on impact of marijuana cultivation upstream of park. • Offshore fisheries data. • Coastal and barrier beach modeling. • Stream assessments for fish habitat quality and barriers. • Wetlands monitoring. • Elk monitoring. • Amphibian monitoring. • Rare species inventories and monitoring. • Habitat studies (marine and wetland). • Parkwide science synthesis report.

Fundamental Resource or Value	Science and Education
Planning Needs	<ul style="list-style-type: none"> • Climate change scenario planning. • Beach and dune management plan. • Mouth of the Klamath River comprehensive management plan. • Resource stewardship strategy. • Land protection plan. • Road maintenance/removal plan. • Second growth forest management plans. • Comprehensive watershed rehabilitation plan. • Invasive animal management plan. • Lower Prairie Creek comprehensive management plan. • Sudden Oak Death management plan. • Redwood Creek estuary restoration plan.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • National Environmental Policy Act of 1970 (42 USC 4321) • Endangered Species Act of 1973, as amended • National Invasive Species Act • Lacey Act, as amended • Federal Noxious Weed Act of 1974, as amended • Clean Water Act • Clean Air Act • Executive Order 13112, "Invasive Species" • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • Executive Order 13007, "American Indian Sacred Sites" • "Protection of Historic Properties" (36 CFR 800) <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS <i>Management Policies 2006</i> (§2.3.1.4) "Science and Scholarship" • NPS <i>Management Policies 2006</i> (§4.1) "General Management Concepts" • NPS <i>Management Policies 2006</i> (§4.1.4) "Partnerships" • NPS <i>Management Policies 2006</i> (§4.2) "Studies and Collections" • NPS <i>Management Policies 2006</i> (§4.4.1) "General Principles for Managing Biological Resources" • NPS <i>Management Policies 2006</i> (§4.7.2) "Weather and Climate" • NPS <i>Management Policies 2006</i> (§5.1) "Research" • NPS <i>Management Policies 2006</i> (§8.10) "Natural and Cultural Studies, Research, and Collection Activities" • Director's Order 24: <i>NPS Museum Collections Management</i> • Director's Order 28: <i>Cultural Resource Management</i> • Director's Order 28A: <i>Archeology, 4A(3) Native American Graves Protection and Repatriation Act</i> • Director's Order 77-2: <i>Floodplain Management</i> • NPS <i>Museum Handbook</i>, parts I, II, and III • <i>NPS-75 Natural Resources Inventory and Monitoring Guideline</i> • NPS <i>Natural Resource Management Reference Manual 77</i>



Fundamental Resource or Value	Partners in Stewardship
Related Significance Statements	Significance statements 1, 2, 5, and 6.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Since the 1978 Redwood Amendment, the park has been active in cooperative relationships created to protect the aquatic and riparian habitats in Redwood Creek from upstream sources of sediment and pollution. • The National Park Service entered an agreement with the California Department of Parks and Recreation in 1994 for the joint management of Redwood National and State Parks. This federal-state partnership represents a new model of park management for the National Park Service and state parks. • Redwood National and State Parks routinely partners with Humboldt State University, US Geological Survey Redwood Field Station, California Department of Fish and Wildlife, and US Forest Service for research, monitoring, invasive species control and removal, prescribed fires, and resource protection. • The Save-the-Redwoods League was established in 1918 to protect the remaining coastal redwoods. The group continues to be an active and engaged preservation partner. • The park's nonprofit friends group, Redwood Parks Association, represents the merging of the Redwood Park Association and the Northcoast Redwood Interpretive Association. The 501(c)3 organization supports Redwood National and State Parks and other northern California state parks and national recreation areas through fundraising, special events, and other visitor service assistance. • Volunteers from the California Conservation Corps and the Youth Conservation Corps have worked on restoration projects within Redwood National and State Parks. • In 2002, an array of private and public entities, including the California Coastal Conservancy, the state Wildlife Conservation Boards, and the state Department of Fish and Wildlife contributed to the purchase of the Mill Creek watershed as an addition to the park. The watershed was formally added to the state park system in 2004. • The park has assumed a leadership role when dealing with watershed-level restoration efforts. In 1995 and 2000, the park spearheaded formal agreements with private landowners for sediment source identification and correction in Redwood Creek basin. • Since 2004, the park has been part of the Redwood Creek Watershed Group, a consortium of private landowners, local and federal agencies, nonprofits, and other interested parties dedicated to improving conditions of Redwood Creek and surrounding habitats. • The park maintains an electronic agreement database of all formal cooperative agreements as part of the intrapark website. This database is available to all Redwood National and State Parks employees and can be easily updated and regularly consulted. <p>Trends</p> <ul style="list-style-type: none"> • Since the 1978 amendment and the shifted focus on watershed-level protection and restoration, the number of park partners has grown. • As groups continue to work closely and combine their efforts, partners seem to be growing more reliant on each other for funding, staffing, and other resources. • There is continued political pressure for the park to develop more partnerships as staffing resources and funding from the California Department of Parks and Recreation is decreasing.

Fundamental Resource or Value	Partners in Stewardship
<p>Threats and Opportunities</p>	<p>Threats</p> <ul style="list-style-type: none"> • Reduced funding can affect projects as well as the dedication between partnering agencies and the status of shared resources. • Bureaucracy associated with the federal and state government can make establishing/maintaining formal partnerships difficult. • Conflicts regarding organization goals can weaken partnerships. • Divergent philosophies, goals, and perspectives can make it difficult to provide continued support. • Unrealistic expectations can hurt partnerships. • Changing personnel can change the dynamic of partnerships or shift organizational priorities. • Poor communication between partners can lead to frustration. • Lack of commitment can undermine projects and leave partners unhappy. • Dependency on partners can lead to weak organizations and leave individual partners vulnerable. • A shortage of park housing for employees and volunteers limits the ability to attract a long-term seasonal and volunteer workforce. <p>Opportunities</p> <ul style="list-style-type: none"> • University students and interns are cost-effective to hire, provide important services to the park, and complete valuable research and monitoring projects. • Partnering with private and nonprofit organizations including the park’s official friends group, the Redwood Parks Association, can lead to additional funding opportunities for park projects and events. • There is an inherent strength that is formed when related agencies, organizations, and individuals can come together and offer a united front for the preservation of resources. • Partnership can create a network of shared resources, knowledge, and expertise. • When working at their best, partnerships offer increased efficiency and allow members to maximize their efforts. • More comprehensive planning efforts between the National Park Service and California Department of Parks and Recreation will provide more comprehensive and efficient management strategies and will leverage park resources.
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • None identified.
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Beach and dune management plan. • Mouth of Klamath River comprehensive management plan. • Strategic plan. • Land protection plan (update). • Road maintenance/removal plan. • Site development plan for Mill Creek watershed. • Comprehensive watershed rehabilitation plan. • Visual resource management plan.
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • None identified <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director’s Orders)</p> <ul style="list-style-type: none"> • Joint Management Agreement between the National Park Service and California Department of Parks and Recreation (1996) • NPS Management Policies 2006 (§1.6) “Cooperative Conservation Beyond Park Boundaries” • NPS Management Policies 2006 (§4.1) “General Management Concepts” • NPS Management Policies 2006 (§4.1.4) “Partnerships”



Fundamental Resource or Value	Opportunities for People to Connect with the Landscape
Related Significance Statements	Significance statements 1, 2, 3, 4, and 5.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Over one million people visit Redwood National and State Parks annually although it is difficult to accurately count park visitors because most of the parks feature open, unrestricted access. • The parks’ remote setting is ideal for quiet contemplation, stargazing, wildlife viewing, artistic pursuits, and scenic drives along historic wagon roads. • The park offers a variety of active recreational opportunities for visitors including hiking, mountain biking, cycling, kayaking, and horseback riding. The park is also looking into reintroducing park-led rafting excursions on Smith River. • Redwood National Park has a strong interpretation/education division that also provides staffing and programming to the state park units. • Many of the park’s visitor facilities, including its visitor centers, are older facilities that do not address modern visitor levels or needs. • Two unpaved roads through old growth forest require slower speeds and contribute to the rural, undeveloped atmosphere of the park, offering visitors the opportunity to take in their surroundings. • Lack of funding has delayed some facility upgrades, planning projects, and implementation of completed plans. <p>Trends</p> <ul style="list-style-type: none"> • Redwood National and State Parks overall visitation is increasing (up 8%–10% in 2015). Virtual visitation is also increasing through the use of social media and the park’s web presence. • Alternative recreational activities, including rock climbing, adventure tourism, drone use, tree climbing, and mountain biking, have been on the rise. • Visitors express the desire to include educational activities during their family leisure trips. • Requests for spaces that can accommodate large groups, such as family reunions, Boy Scout troops, and weddings, are increasing. Currently, the park does not have adequate facilities to accommodate these requests. • The park has started offering limited stargazing programs throughout the year for visitors to enjoy the dark night sky. • Redwood National and State Parks has been having a difficult time keeping up with visitor requests for facilities and management related to shifting demographics, new focuses on larger groups and accessibility, and developing types of visitor use and recreation. This lag threatens to affect the parks’ relevancy and inclusive atmosphere.

Fundamental Resource or Value	Opportunities for People to Connect with the Landscape
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Uncontrolled access to the park including social trails, tree climbing, and rock climbing, can cause irreparable resource damage. • Deteriorating conditions at visitor facilities can decrease visitor enjoyment. • Lack of funding can lead to aging infrastructure, a decrease in operations and facilities maintenance, and less staff contact. • Exceeding park carrying capacity can lead to crowded trails, roadside parking, overused facilities, and increased traffic on park roads. • Road improvements contribute to increased traffic speeds, which can affect the safety of park resources and visitors, and less time for appreciation on scenic drives. • An increased user fee may make it difficult for diverse populations to visit the park. • Vandalism, drug use, and crime within remote parts of the park can directly affect visitor experience as well as visitor and staff safety. • Lack of employee/volunteer housing can make it difficult to recruit and retain skilled and knowledgeable individuals for extended periods of time. • Noise, light, and air pollution from highway traffic, other visitors, and surrounding communities can negatively impact natural soundscapes and dark night skies, two important components of the parks' natural setting. <p>Opportunities</p> <ul style="list-style-type: none"> • Construction of additional trails would disperse visitation and lead to less concentrated impacts on resources. • Adding loop trails in the park would provide more opportunities for day-use visitors to see resources. • An artist-in-residency program would create interest in the art community and provide public programming opportunities. • Public transportation alternatives in the park would address traffic and parking issues. • Controlled access to high-use areas would lessen visitor impact and crowding. • Extended backcountry trips may appeal to a different visitor population that is not currently using the park. • Increased accessibility would allow a diverse visitor population to enjoy park resources and facilities. • Social media in the form of an app could increase interest in the park. • Gateway community development would allow visitors to orient themselves to the park and provide economic opportunities for local residents. • Additional interpretive programs and exhibits could attract a more diverse audience. • Designated areas dedicated to interpreting the forest canopy would provide interpretation of a unique aspect of the old-growth redwood forest.
Data and/or GIS Needs	<ul style="list-style-type: none"> • Crime data in parks. • Road condition assessment/inventory. • Visitor survey.

Fundamental Resource or Value	Opportunities for People to Connect with the Landscape
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Hiouchi Flat development plan. • Long-range interpretive plan. • Operations and staffing plan update. • Strategic plan. • Visitor use management plan. • Visitor center planning. • Road maintenance/removal plan. • Site development plan for Mill Creek watershed. • Accessibility self-evaluation and transition plan.. • Sign plan (update) • Park concessions plan (update).
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Americans with Disabilities Act of 1990 • Architectural Barriers Act of 1968 • Architectural Barriers Act Accessibility Standards 2006 (36 CFR §1191.1) • Rehabilitation Act of 1973 • NPS Concessions Management Improvement Act of 1998 <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (chapter 7) "Interpretation and Education" • NPS Management Policies 2006 (chapter 8) "Use of the Parks" • NPS Management Policies 2006 (chapter 9) "Park Facilities" • NPS Management Policies 2006 (chapter 10) "Commercial Visitor Services" • Director's Order 6: <i>Interpretation and Education</i> • Director's Order 42: <i>Accessibility for Visitors with Disabilities in National Park Service Programs and Services</i> • NPS Transportation Planning Guidebook

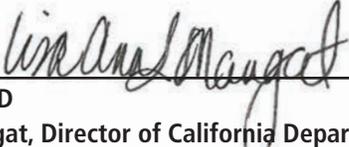
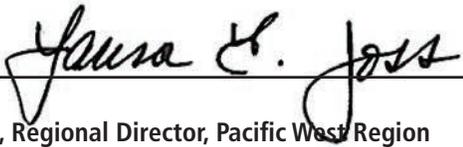




**Pacific West Region Foundation Document Recommendation
Redwood National and State Parks**

May 2016

This Foundation Document has been prepared as a collaborative effort between park and regional staff and is recommended for approval by the Pacific West Regional Director.

 <hr/>	5-26-16
RECOMMENDED Stephen Prokop, Superintendent, Redwood National Park	Date
 <hr/>	5-26-16
RECOMMENDED Brett Silver, Superintendent, North Coast Redwoods District	Date
 <hr/>	Aug 9, 2016
APPROVED Lisa Mangat, Director of California Department of Parks and Recreation	Date
 <hr/>	Sept. 7, 2016
APPROVED Laura E. Joss, Regional Director, Pacific West Region	Date



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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