

Redwood Creek Watershed

Vision for the Future





Photograph by Charles Kemard

Redwoods at Muir Woods
National Monument

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Preface

Successful management of the Redwood Creek watershed requires a coordinated effort among the watershed's public and private landowners and resource managers. To develop this coordinated effort, public agencies* in the Redwood Creek watershed joined with the public to create a "watershed vision." This vision provides a foundation for land managers, residents, and businesses to manage the watershed for its ecosystem function, local residents and visitors, educational opportunities, cultural and agricultural resources, recreation, and rural character.



Photograph by M. Perry

Flowing water in Redwood Creek.

* Public Agencies in the Watershed Vision

California Department of Fish and Game

California Department of Parks and Recreation

Marin Municipal Water District

Marin County

Muir Beach Community Services District

National Park Service, Golden Gate National

Recreation Area

This vision does not alter or override existing policies of the participating agencies. Rather, it will serve as guidelines to support future planning and projects in the watershed, ensuring that planning and projects within the scope of this vision strive to meet the common goals described herein. While management focus is likely to change over time as we learn more about the watershed, its resources, and the effects of management actions, this vision is intended to provide a broad, durable foundation for future planning, decision-making, and cooperative management that will persist over the coming years.

Photograph by M. Perry



The community of Muir Beach.

The Watershed

The Redwood Creek watershed extends from the peaks of Mt. Tamalpais, Marin County's tallest mountain, to the Pacific Ocean and is nestled in one of the nation's most densely populated regions (see foldout map). The watershed encompasses an area of less than nine square miles, yet it harbors an incredibly diverse ecosystem and rich assemblages of plant and animal species. Within this small watershed are found grasslands, coastal chaparral, mixed hardwood and old-growth redwood forests, seasonal wetlands, and riparian woodlands that extend in an unbroken mosaic from the mountain's ridge tops to the sea. This watershed is also home to



Location of the Redwood Creek watershed.



Photograph by NPS

California red-legged frog



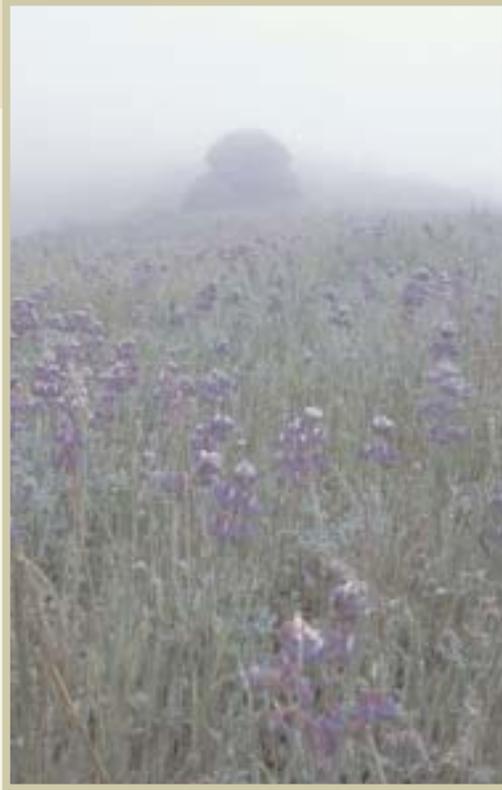
Photograph by NPS

19th Century hikers

some of the west coast's most imperiled species, such as coho salmon (*Oncorhynchus kisutch*), steelhead (*O. mykiss*), northern spotted owl (*Strix occidentalis caurina*), and the California red-legged frog (*Rana aurora draytonii*).

An indication of its ecological value, the watershed is included in one of 25 global biodiversity “hot spots” recognized by The Nature Conservancy and targeted by the global conservation community as key to preserving the world’s ecosystems¹. It is also within the Golden Gate Biosphere Reserve, one of 411 reserves designated by the United Nations Educational, Scientific, and Cultural Organization’s (UNESCO) Man and the Biosphere Program to provide a global network representing the world’s major ecosystem types.

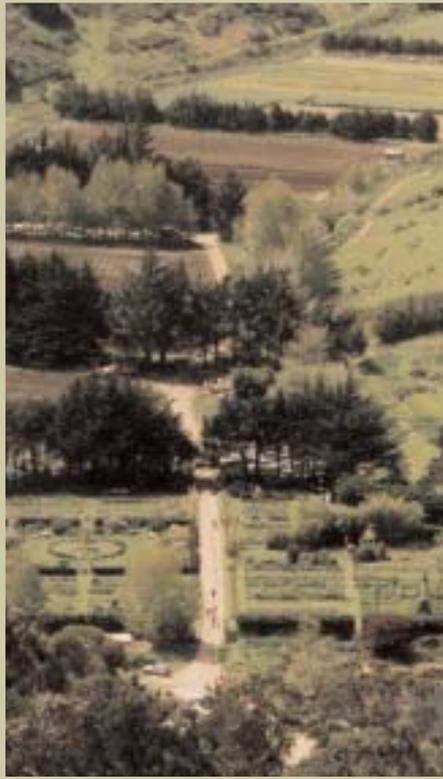
¹ Stein, B.A., L.S. Kutner, and J.S. Adams, eds. 2000. *Precious Heritage: The Status of Biodiversity in the United States*. Oxford: Oxford University Press.



Photograph by Charles Kennard

Lupine, a native plant in the watershed.

In addition to its ecological importance, the watershed is rich in human history. For thousands of years before European colonization of the Bay Area, native people who today call themselves the Coast Miwok lived in the watershed and throughout the region. In fact, the name “Mt. Tamalpais” is a Spanish derivation of the Coast Miwok language meaning “west hill” or “coast hill.” After European colonization, Mt. Tamalpais and the redwood forest of Muir Woods attracted hikers, scientists, conservationists, and many other visitors. By the turn of the 20th century, the work of numerous local conservation groups to protect the mountain from urban development helped give rise to the American environmental conservation movement. Since William Kent’s donation of Muir Woods to the federal government in 1908, almost the entire watershed has been either donated to or purchased by public agencies and private stewards, to allow its protection from urban development and sprawl.



Photograph by Jim Bones

Gardens at Green Gulch Farm.

Today, ninety-five percent of the watershed is publicly owned and managed as parkland by the Marin Municipal Water District, California Department of Parks and Recreation (Mt. Tamalpais State Park), and National Park Service (Golden Gate National Recreation Area and Muir Woods National Monument). These areas are popular destinations for Bay Area residents and visitors. Each year, more than a million people visit the watershed to be among its old-growth redwoods, experience its scenic beauty, hike or ride its extensive trail network, and visit its historical and cultural treasures. Three private communities also reside in the watershed — the communities of Muir Beach, Muir Woods Park, and Green Gulch Farm (a part of the San Francisco Zen Center). These communities contribute to the watershed and rely on it for clean water and the quality of life that it offers.

Even though most of the land in the watershed is protected in public ownership, its resources and the public's ability to enjoy



Cape ivy and pampas grass, invasive plants along Redwood Creek.



Flooding on Pacific Way at Muir Beach.



Congested parking at Muir Woods National Monument.

Photographs by NPS

them remain vulnerable to factors both within and outside of the watershed. Some key factors affecting the watershed include: overcrowding in the parks, traffic congestion on roads throughout the watershed and in the surrounding region, diversion of water from Redwood Creek and its tributaries for residential and agricultural uses, invasion by non-native plant and animal species, increased fuel loading and alteration of native plant communities due to fire suppression, and flooding of local roads.

Creating the Vision



Photograph by M. Perry

Hiking at Muir Woods
National Monument.

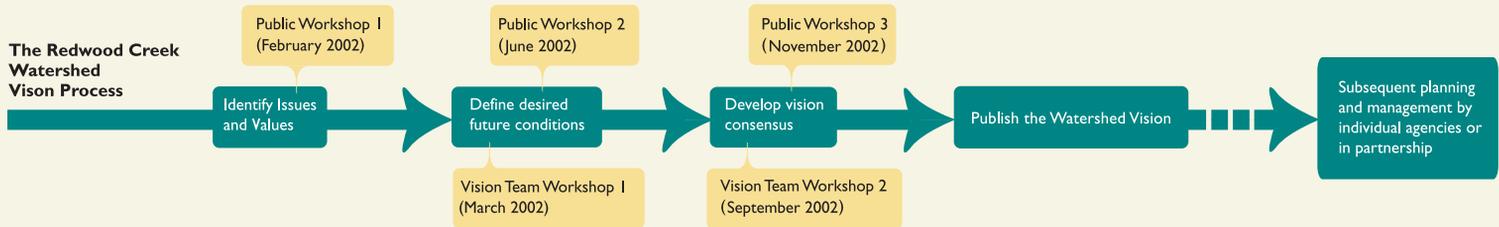
The watershed vision was created through a one-year collaboration among agencies, the public, and a watershed "vision team." Through this effort, public agencies in the watershed worked with the public and the vision team to identify issues and values in the watershed and define desired future conditions for watershed resources. Public participation was essential to creating the vision and included three public workshops, as well as opportunities for input through the project website (www.redwoodcreek.org) and written response forms. The vision team included technical experts from a range of creative and scientific disciplines, as well as community organizations and leaders. This team, which contributed to the process through two workshops, helped synthesize input from the public and agencies to frame issues and define desired future conditions for the watershed vision.



Photograph by NPS

The Vision Team at work in the watershed.

The process used to create the vision is shown below...



The Vision

Stated simply, the vision is that **“the Redwood Creek watershed exists as an intact natural ecosystem that offers opportunities for people to learn about, experience, and protect a rich blend of nature, rural character, and cultural history in an urbanized area.”** This vision is stated as a set of Guiding Principles for managing the watershed and Desired Future Conditions for the watershed’s natural and cultural resources, resident and visitor communities, and local infrastructure, facilities, and emergency services.

These Desired Future Conditions are “what” statements describing goals for resource conditions and human experience for the watershed’s future. They do not prescribe how to attain these conditions. Determining how best to meet these conditions and where they should apply in the watershed will be accomplished in future planning either on a watershed-wide basis or for individual projects or jurisdictions within the watershed.





Photograph by Charles Kennard

Guiding Principles

1. Land management agencies, local communities, and the public work together to build support for and implement the watershed vision.
2. The watershed is managed as a model of the interdependency of all resources and beings, acknowledging the presence and activities of people historically and currently.
3. The natural beauty and rustic character of the landscape is maintained.
4. Sustainable land management and resource use practices are used to ensure natural and cultural resources protection, resident quality of life, and quality of visitor experience.
5. An adaptive, scientifically based approach provides the foundation for informed resource decision-making and management of the watershed's resources, and scientific research in the watershed is encouraged and supported.
6. Education is provided as a foundation for future watershed protection and stewardship.
7. Opportunities for human and cultural experiences and interaction with the natural environment are fostered.
8. People are active stewards of the watershed, and land management agencies provide an example for and promote stewardship of the watershed's resources by watershed residents and visitors.



Photograph by M. Perry

Redwood Creek.

Desired Future Conditions: Natural Resources

1. The watershed is managed as an intact, continuous, and linked system from the ridge tops to the ocean, with all parts contributing to the health of the whole.
2. Ecosystem management in the watershed is founded on the restoration and protection of natural processes and disturbance regimes, such as fire and flooding.
3. Native plant communities are healthy and comprise a mosaic of diverse cover types, including native grasslands, chaparral, riparian woodland, hardwood and redwood forests, and wetlands.

4. Restoration and protection of a full range of natural geomorphic and hydraulic functions (such as sediment transport, channel migration, and recruitment of large wood) in Redwood Creek from its headwaters to the Pacific Ocean support complex instream and floodplain structure that, in turn, supports a diverse community of native aquatic and riparian-dependent species.
5. Aquatic ecosystem health is not impaired by water diversion or water quality degradation.
6. Invasion by and the adverse effects of non-native plant and animal species on the ecosystem are reduced or reversed, and imperiled habitats are restored.
7. Special status and locally rare plant and animal species are protected and, where appropriate, their populations are expanded.
8. Human-caused erosion on watershed lands does not impact fish and aquatic habitat.



Photograph by NPS

Northern spotted owl.



Photograph by NPS

Coho salmon.



Photograph by NPS

The Mt. Tamalpais and
Muir Woods Railway.



Photograph by NPS

Golden Gate Dairy.

9. Native wildlife populations are viable and diverse, and key habitats and habitat linkages (i.e., corridors) are protected and restored.
10. Potential negative impacts of surrounding land uses are minimized.

Desired Future Conditions: Cultural Resources

1. Residents and visitors are connected to the human history of the Redwood Creek watershed — its heritage as the ancestral homeland of the Coast Miwok, its role in agriculture in western Marin County, and its place in the history of recreation and the environmental conservation movement — through the preservation and interpretation of historically significant properties embodying this history.
2. Archaeological sites in the watershed are identified, preserved, and interpreted.
3. The Coast Miwok heritage in the watershed is maintained and enhanced through cooperation with the Federated Indians of the Graton Rancheria, the tribe descending from the Coast Miwok inhabitants of the watershed.
4. The public agency landowners in the watershed work cooperatively to identify, preserve, and interpret archaeological sites, artifacts, structures, and cultural landscapes of historic significance on public lands in the watershed.



Photograph by M. Perry

Bicyclists at the State Park Visitor Center.



Photograph by NPS

Interns at work in the watershed.

5. Historically significant structures are preserved, rehabilitated, and re-used, where opportunity allows and as appropriate.

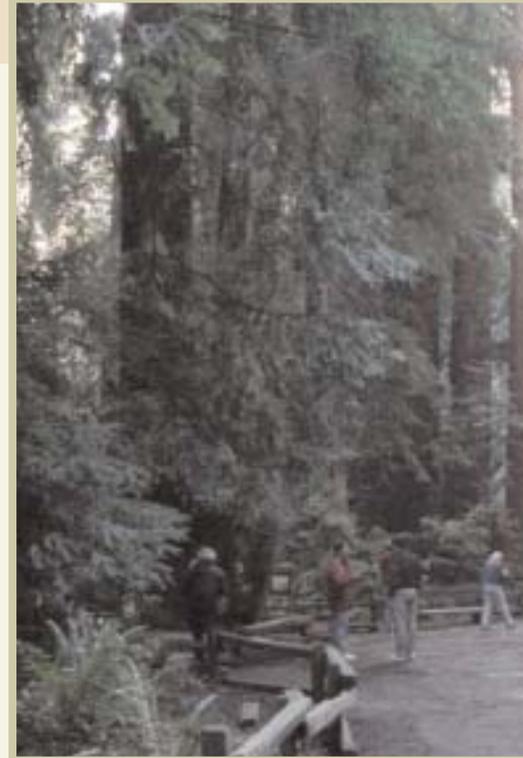
Desired Future Conditions: Visitor Experience

1. Visitor experiences that are unique to this watershed are encouraged.
2. The watershed provides a range of visitor experiences from wild to structured and from solitary to shared.
3. Access to the watershed and recreational opportunities are provided for a range of trail users through a well-designed, comprehensive trail system.
4. Visitor uses and use levels are compatible with protection of natural and cultural resources of the watershed and visitor enjoyment.
5. Public education about watersheds, watershed management, and resource sustainability is provided through a range of programs both within and outside of the watershed.
6. Visitors to the watershed are active stewards of watershed resources as volunteers, educators, students, land managers, and citizen experts.
7. People visit the watershed in a manner that minimizes traffic congestion and its related negative impacts to communities and watershed resources.

8. Visitor use rules and regulations for each land management agency in the watershed are made readily available and understandable for park visitors.
9. Visitor services are adequate to support visitor experience but are kept minimal to protect the natural and cultural resources and rural character of the watershed.

Desired Future Conditions: Resident Community

1. Resident communities are an integral part of the watershed and have minimal impacts on the natural environment.
2. Local residents are active stewards of the watershed and implement sustainable resource practices in their communities.
3. Watershed visitor traffic, parking, and recreation have minimal impacts on local communities.
4. Domestic water supply needs are met while minimizing impacts to natural resources.



Afternoon light through the redwoods at Muir Woods



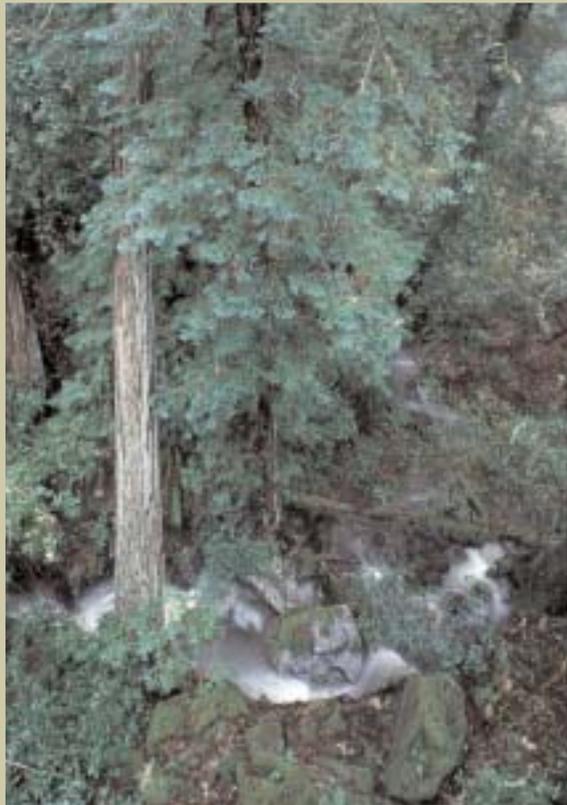
Photograph by NPS

National Monument.

5. Sustainable agriculture minimizes impacts on natural resources and provides visible connections to food production and our agricultural history.

Desired Future Conditions: Infrastructure, Facilities, and Emergency Services

1. Water use throughout the watershed is monitored, and its effects on the watershed's creeks and aquatic resources are understood.
2. Infrastructure and its maintenance are appropriate to the anticipated use and public safety, while minimizing impacts on natural and cultural resources.
3. Infrastructure management is coordinated among responsible agencies, businesses, utilities, and residents.
4. Emergency services are provided throughout the watershed.



Photograph by Charles Kennard

To order a printed copy of *Redwood Creek Watershed: Vision for the Future* or for more information about the watershed please contact :

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Redwood Creek Watershed website:
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Public Agencies in the Watershed Vision

California Department of Fish and Game
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Muir Beach Community Services District
National Park Service, Golden Gate National Recreation Area

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