

Redwood Renaissance

The Story of Stabilizing and Reforesting Logged-Over Lands in Redwood National Park

Redwood Forests to 1960s

Redwood forests have lived in the northern hemisphere since the time of the dinosaurs. Dramatic changes in geology and climate have reduced them to a present natural range extending from coastal northern California into coastal southern Oregon.

Man had little impact upon the majestic forests

of the redwood region before 1850. When gold was discovered and the redwood region was settled, the need for wood products grew rapidly. Commercial logging came into its own—first employing horses, then oxen and then steam donkey engines and railroads.

As demands for wood products grew after

World War II, logging activity greatly accelerated. New machinery, chain saws, large trucks, and the “modern ox”—the bulldozer—enabled industry to meet the needs of a growing and affluent nation. The old-growth or “virgin” forests began to disappear with alarming speed during the 1950s and 1960s, leaving behind cutover, eroding landscapes.

Establishment of Redwood National Park

Sensing the need for protection of rapidly diminishing redwood forests, concerned citizens became active in setting aside redwood lands as national, state, and local parks. One of these was Redwood National Park, established in 1968 to preserve a superlative example of prime coast redwood forests, coastline, and rivers in northern California. Here, in a narrow corridor of parklands along Redwood Creek, grow the world’s tallest known trees.

After park establishment, extensive logging continued on private timberlands around this narrow corridor. Large scale logging of the unstable, highly erosive Redwood Creek watershed increased landsliding and surface erosion far above pre-logging levels. Besides directly altering the landscape and causing soil com-

paction, loss of topsoil, destruction of ground cover, elimination of shade, and massive changes to small drainages, the logging activities also produced cumulative downstream impacts. These include increased streamside landslides, elevated and wider streambeds, greater bank erosion, higher winter stream discharge and lower summer discharge. These physical changes of the stream system have jeopardized the associated plant and animal communities. And a heightened water table directly threatened the Tall Trees Grove and other trees growing on alluvial terraces adjacent to Redwood Creek.

As a result of these problems, in March 1978, Congress expanded the existing 58,000-acre Redwood National Park by an additional 48,000

acres. Realizing that land-use practices adjoining the park can damage resources within the park, Congress made a landmark decision by establishing a 30,000-acre “Park Protection Zone” upstream in the Redwood Creek watershed. Of the 48,000 acres of new park lands, only about 9,000 acres are old-growth redwoods. Prairies and oak woodlands occupy about 2,500 acres. The rest is recently logged land. About 250 miles of abandoned logging roads and 2,000 to 3,000 miles of tractor trails crisscross the hillsides of the cutover lands. As part of park expansion, Congress authorized \$33 million for Redwood National Park to rehabilitate cutover forest lands, with a major emphasis on erosion control.

Watershed Rehabilitation Program

Redwood National Park’s watershed rehabilitation program has a long-term goal of speeding the recovery of natural forest, stream systems, and life communities, while protecting park values. Rehabilitation must begin with reducing excessive erosion and creek siltation resulting from past timber harvesting and road building, and by replanting forests and shaping their regrowth.

Rehabilitation work began in 1978 and is concentrating on erosion control on the approximately 30,000 acres of land logged before park establishment. Erosion control efforts are being

directed at four main problem areas: tractor-logged hillslopes, logging haul roads, active landslides, and natural prairies that are now gullied because of road construction. A watershed-by-watershed program has begun with the most seriously eroding areas restored first. Unneeded roads are being eliminated, erosion is being reduced, and young forests are being established. As rehabilitation crews work their way out of the watershed, they will leave behind healing road scars, reduced erosion, and newly-planted young forests—and a living landscape capable of completing the long restoration job through natural processes.

Fifty—a hundred—even more years may pass before most evidence of logging disappears beneath the understory of the newly developing forests—before the streams are fully recovered, and the salmon and steelhead reach their former natural abundance. But the message is one of hope: as this work is begun, there is here in Redwood National Park the unique challenge and opportunity to perpetuate and restore one of nature’s most majestic natural systems—the redwood forest.



Logging in 1978

The process of stabilizing and reforesting about 30,000 acres of logged over lands began in 1978. Centuries may pass before this forest approaches the stature it once had.

. . . a practical lesson being shared with public and private interests throughout the Pacific Northwest.

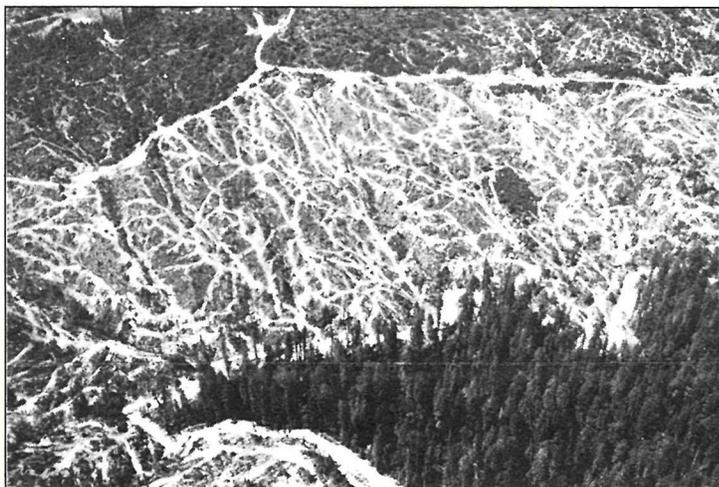


Reshaping Road Surfaces

Most logging roads on park lands will be "put to bed." This involves reshaping the road surface to the natural contour of the slope so that water runs across the former road bed rather than along it.

Tractor Trails

Tractor trails and roads divert surface water, disrupt watercourses, and expose tons of soil to rapid erosional losses. More than 7,500 tons of sediment per square mile erodes out of this 280-square-mile watershed every year.



Planting Tree Seedlings

Coast redwood, Douglas-fir, and other native trees are being manually planted to ensure the speedy redevelopment of forests similar to those previously cut. Exotic trees like the Monterey pine are being removed.



Prairies

Prairielands will be gradually restored to native conditions. Elk and deer are expected to reoccupy their native habitat, recreating an impressive scene against the backdrop of the redwood forests.

Tall Trees Grove

The Tall Trees Grove includes the world's tallest tree, measured in 1963 at 367.8 feet. It is over 600 years old—about the average for redwoods. Although the tall trees and other streamside forests are naturally subjected to flooding, sediment deposition, and erosion, logging has increased the frequency and magnitude of these events and their impacts.

Park Protection Zone

The Park Protection Zone is a 30,000 acre area upstream from the park in Redwood Creek. Here National Park Service resource managers work with private interests to limit the effects of timber harvest and other land use practices on park values downstream.

