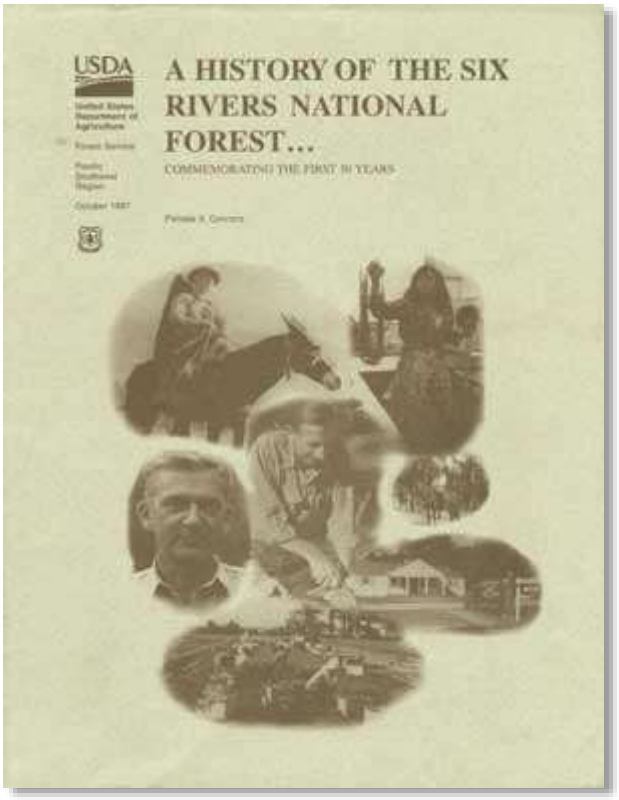

A HISTORY OF THE SIX RIVERS NATIONAL FOREST...
Commemorating the First 50 Years

By
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ACKNOWLEDGMENTS

This is a shortened version of a Six Rivers National Forest history written to commemorate the forest's fiftieth anniversary. In the seven weeks of researching and writing it, many individuals contributed to the project. I want to specially acknowledge Patti Bailey at the National Records Center. Thanks also to Richard Boyden at the National Records Center, Waverly Lowell at the National Archives, Brian Morris at the Smith River National Recreation Area, and Ted Hatzimanolis and Vern Hallin, former foresters on the Six Rivers National Forest. Finally my thanks to Heather Busam for her hard work, tenacity, and good humor in laying out this book and to Ken Wilson for believing in and promoting this idea.

FOREWORD

The Custodial, Resource Management, and Ecosystem Management Phases:

Historians often divide Forest Service administrative history—after its transfer from the Department of Interior to the Department of Agriculture—into three, broad periods: "custodial" from 1905 until about 1933, "resource management" from about 1934 through the 1960s, and modern, which some speculate will be called the "ecosystem management" period. As a player in Forest Service administrative history, the Six Rivers—non-existent as a single entity until 1947—virtually bypassed the custodial phase. Instead, its history spans the beginnings and development of the resource management period and its evolvement into an ecosystem management model. Though the Six Rivers' history reflects the past 50 years of the Forest Service as an agency, it has also led or lagged as an agent of change in land and resource management.

The Focus of this History and Its Documentation:

The Six Rivers is young, and this history focuses on the few years before its formal creation in 1947 through the mid-1960s. By zeroing-in on this short but crucial wedge of the Six Rivers' history, there was a preponderance of documentation regarding timber management with much less documentary evidence for other functional areas. It appeared that the more direct a function's tie to timber management, the more replete the documentary record. Therefore, functions such as engineering—whose traditional work was largely to develop the forest's transportation system, which, in turn, was largely dictated by timber access—had comparatively more records than functions such as range, recreation, heritage resources, or fish and wildlife. Though this imbalance was at times frustrating, it probably accurately reflects the nature of the Six Rivers' mission emphasis during its first 50 years: the push to fulfill the promise envisioned by its creation.

The Six Rivers' history spans the beginnings and development of the resource management period and its evolvement into an ecosystem management model.

The Forest Service and the American West:

To better understand the forces that helped forge the Six Rivers National Forest, it is necessary to know something about the institutional history of the United States Forest Service. Moreover, the early history of the US Forest Service is closely intertwined with the history of the American West. Until the 1891 Forest Reserve Act that allowed for creation of national forest reserves, public land policy had been entirely geared to facilitating the transfer of public domain into private hands through such provisions as the Preemption, Homestead, and the Timber and Stone Acts. Though the Forest Reserve Act provided the legal mechanism for some public domain lands to remain public, until the 1911 Weeks Act, the only eligible lands were in the West. [1]

The Forest Reserve Act was passed and the first, public, forest reserves were created in 1891 when public outrage over depletion of forests in the east and midwest was at a crescendo. Gifford Pinchot, the first Chief of the Forest Service, was a veritable engine behind this outcry and the movement to save the nation from "timber famine" and to rescue public lands from private avarice. He held an undoubted conviction that forestry and scientific management could avert disaster in the West and reclaim wasted lands elsewhere—the depth of his belief accounted for his zeal and doggedness and for the shape of early Forest Service policy and institutional culture.

. . . the depth of Gifford Pinchot's belief accounted for his zeal and doggedness and for the shape of early Forest Service policy and institutional culture.

Broadly characterized, the history of the Forest Service from its inception in 1905 through the early 1920s was a time during which the infant agency took aim at monopolies and purely profit-driven enterprises that sought to hoard public land and its resources. The agency's credo of "wise use" underscored that it had no quarrel with use... even with rather intensive use. Instead, its hostility was toward despoliation of public lands where the long range "public good" was either a missing factor or an unessential by-product of the equation. Each influencing the other, the young Forest Service eventually worked closely with many of its early nemeses: the "denudatics" in the timber industry, the "monied monopolies" behind massive water and hydroelectric projects, and the cattle and sheep "barons" who grazed their stock on public lands. During the course of these epithetic, protracted and tortuous negotiations, the Forest Service re-shaped its policies and practices and in so doing, indirectly—through regulation—re-shaped the face of the landscape under its stewardship.

Eventually, and a harbinger of the second broad period of Forest Service history, Pinchot and his immediate successors became convinced that regulated monopolies could better serve the public and the land than *laissez faire*. For example, in the arena of hydroelectric development, Pinchot came to believe that regulated monopolies—especially those created by municipalities, were better for the land and for customers than forcing a situation where hundreds of hydroelectric developments—all using their own generation and transmission systems—had the end result of spoiling the resources he was bound to protect and of costing the consumer more in electrical costs. Where economies of scale could translate to less overall abrasive land use and to public benefit in the form of lower costs, the Forest Service tended to side with monopolies; particularly if the monopoly was a municipality and structured its project to serve a variety of publicly "beneficial" uses, such as power, irrigation, flood control, flow control for desirable fishes, domestic water, and the like (Conners 1989: passim).

If we look at timber management during the first period of Forest Service history, the young agency's efforts were aimed at assiduously guarding against wanton trespass on public timberlands by private lumber men. Agency officials dutifully cruised potential timber sales to assure that the public was properly reimbursed for the timber harvested from its land; they publicly solicited for bids on timber sales to assure that no one got special treatment; and, in order to protect resource values over the long term, they inserted resource protection clauses in timber sale contracts that potential buyers often considered onerous and overboard. But despite these precautions and preoccupations, a new paradigm emerged as a response to the reality that

large timber companies had carved-out specific zones of influence. The Forest Service's philosophy reconfigured to accommodate a view that large timber companies operating on public lands could serve a public benefit while, simultaneously, pleasing their stockholders. The second broad period of Forest Service history, then, was characterized by a pattern of the agency preparing its larger timber sales in locations where there was only one, feasible prospective bidder. So, while some called it "recognizing the realities of big business," others saw the Forest Service as catering to the whims of special interests.

Today, the Forest Service appears to be emerging into a third period of its history; a time characterized by discontent with the guiding principals and solutions offered by the first two periods and by a struggle to mold a new operative ethic that integrates contemporary social, political, scientific, and economic ideas. Historian Patricia Limerick noted that this third period tends toward devaluing extractive uses and resource comodification and seeks a "greater loyalty to nature and to a distant posterity." Though the third historic period characteristics are most commonly identified with the liberal side of the political spectrum, both the left and right sides scoff at the first era's notion of government technocrats who form, implement, and monitor land use decisions free from special business and/or political interests. The faith in bureaucrats to efficiently and effectively manage the national forests in the public interest deflated during the latter part of the second period. Indeed, the tangle of population pressures, resource scarcities, the degraded quality of basic resources (such as air, water, and soil), and the sheer complexity of ecosystem relationships make the bare questions of "what is in the public interest" and "what is best for the land" confounding puzzlers.

Today, the Forest Service appears to be emerging into a third period of its history. . .

Hopes For This History. . . A Sense of the Forest Service, the Six Rivers National Forest, and Ourselves:

This work is rich in quotes. As often as appropriate, I wanted people from the past to speak in their own voices. I hope that this history is a step toward documenting the Six Rivers National Forest's heritage and that we—employees and other interested publics—gain a sense of this agency and ourselves as constantly changing... as both reflections and as active agents in the history of our own time. My hope is that this history will be sound, readable, and thought-provoking; that it will spark further interest and study, and that it will help those interested in this young national forest to better understand its roots and to better guide its future.

Pam Conners, Historian
US Forest Service, Six Rivers National Forest
September 1997

"The Six Rivers is Now Officially on the Map"

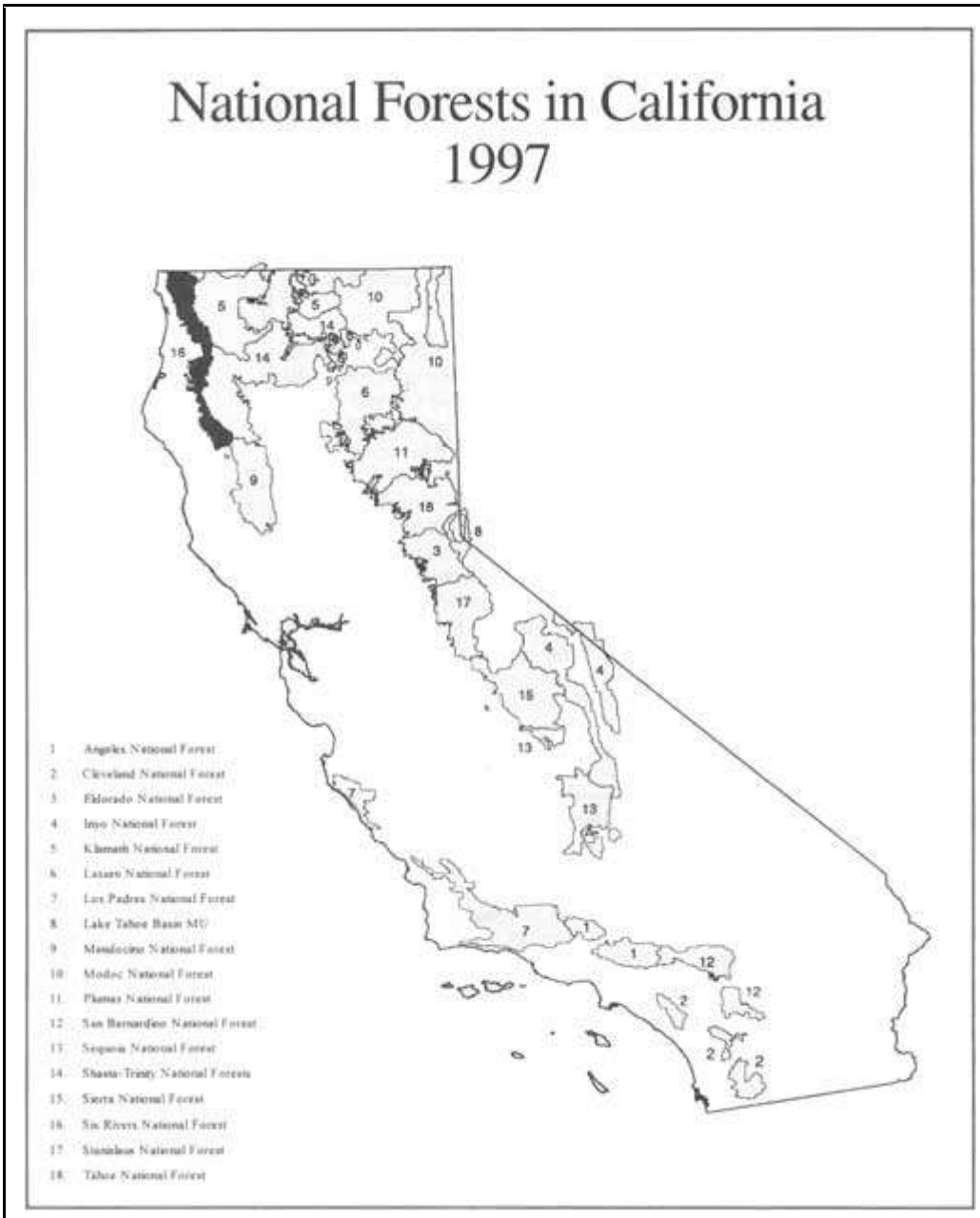
"There Are A Lot Of Things Brewing..."

June 3, 1947 marked the official beginning of the Six Rivers National Forest. Presidential Proclamation 2733 formalized creation of this, the youngest of the Pacific Southwest Region's national forests:

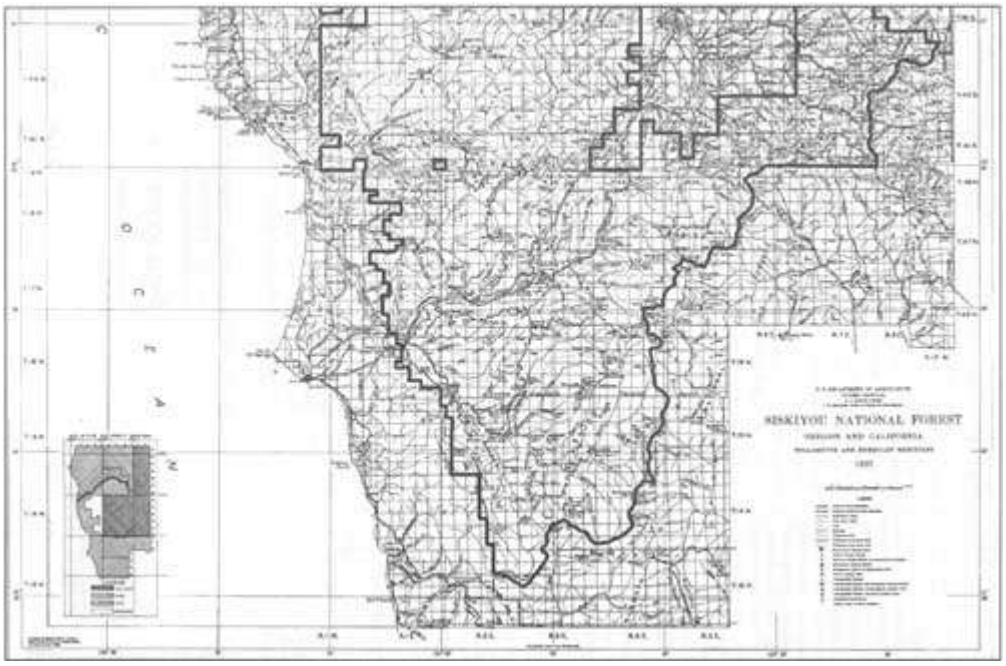
WHEREAS it appears that it would be in the interest of administrative management to consolidate certain portions of the Siskiyou, Klamath, and Trinity National Forests, within the State of California, into a national-forest unit designated as the Six Rivers National Forest:

NOW, THEREFORE, I, HARRY S. TRUMAN, President of the United States, under and by virtue of the authority vested in me by section 24 of the act of March 3, 1891, 26 Stat. 1103 (16 U.S.C. 471), and section 1 of the act of June 4, 1897, 30 Stat. 11, 36 (16 U.S.C. 473) do proclaim that all lands within the exterior boundaries of those parts of the Siskiyou, Klamath, and Trinity National Forests lying west of the following-described line are hereby eliminated from those forests and are consolidated to form and shall hereafter constitute the Six Rivers National Forest: ... [US Presidential Proclamation 2733 1947].

The proclamation continued by describing the boundaries of the new national forest. The Six Rivers' initial 900,000 acres was an amalgam of three, long-established national forests from two regions: the Siskiyou of Region 6, and the Klamath and Trinity national forests of Region 5. [2] Formerly part of the Siskiyou headquartered in Grants Pass, Oregon, a net of 308,138 acres was transferred from Region 6, being almost all of its Gasquet Ranger District. A net of 222,335 acres was transferred from the Klamath National Forest headquartered out of Yreka, California, and comprised about 75 percent of the old Orleans Ranger District. A net of 395,572 acres was transferred from the Trinity National Forest, headquartered in Weaverville, California, which encompassed about 75 percent of its Lower Trinity and all of its Mad River ranger districts. Subsequently, 14,492 acres comprising the Northern Redwood Purchase Unit (NRPU) were also transferred from the Trinity National Forest to the new Six Rivers (USDA, ES n.d.: 2). [3] In drawing the new lines, some district boundary adjustments were made to provide for "a logical inter-forest boundary" (Cronemiller and Kern 1950: 1). [4] With the addition of the NRPU, the Six Rivers embraced 1,108,368 acres; 940,537 acres of which were national forest system lands and the remainder being privately held lands within the forest boundary (HT 7-20-52). Without elaborating on the history and maneuverings behind establishment of the new national forest, the employee newsletter for Region 5, the *California Ranger*, succinctly announced that: "The Six Rivers Forest is now officially on the map. The proclamation was signed by President Truman on June 3" (CR 6-11-47).



The long, slender Six Rivers National Forest—formally established in 1947 from pieces of the Trinity, Klamath, and Siskiyou national forests—is the youngest national forest in California.



This piece of a 1937 Siskiyou National Forest map shows the southern part of the Siskiyou that was transferred from Region 6 to Region 5's new national forest in California's north coast. On the eastern side of that area, the boundary between the Siskiyou and the Klamath national forests was the Siskiyou and Del Norte county line.

Though the proclamation was not official until June 3, 1947, formation of a new national forest from pieces of the Siskiyou, Klamath, and Trinity had been bandied about for several years, and the notion had been a serious consideration at least since latter 1935. It was in that year that California's Regional Forester—then titled "District Forester—Stuart B. Show ordered preliminary surveys in the area and began to push for a separate national forest in the north coast of California [5] (HT 3-13-49).

The earliest piece of inter-regional correspondence found thus far referencing the potential transfer of Region 6's California lands to a Region 5 forest was November, 1942. Lyle F. Watts, Regional Forester for Region 6, was on the verge of becoming Chief Forester for the Forest Service. Watts was at a meeting in Denver when Region 5 Forester Stuart B. Show's letter, referencing the transfer, arrived in Portland. H. J. Andrews, acting in Watts stead and lacking background information on the topic, wrote to Show: "I have your letter of November 25 about the transfer of the Gasquet District to Region 5." Andrews promised to take a copy of Show's letter to Denver in order to discuss it with Watts (Watts 11-30-42). From the tone and content of this letter, it is obvious that Watts and Show had already discussed and were in agreement about the transfer of California lands from Region 6 to Region 5, even though there was no clearly defined new national forest to which it would be attached.

Between 1942 and the end of World War II, little was done regarding the inter-regional land transfer and creation of the new national forest; war considerations clearly took precedence. In fact, the only documentation found thus far on the subject, after 1942 and before 1946, is from a retrospective by Russell W. Bower. In 1944, while Bower was assigned to the Northern Redwood Purchase Unit, he was asked by Regional Forester Show to:

> . . . make a study for the creation of a new National Forest in the North Coast area. The report was to be personal-confidential for his eyes only. I submitted the report, outlining the areas proposed for inclusion, a proposed organization and budget structure. Show then wrote to Lyle Watts, Regional Forester, Region 6, about the possibility of taking back the Gasquet District from Region 6.... [After approval of the idea by Watts,] Show then made arrangements for me to start negotiations with the Siskiyou Forest as to details of the proposed transfer. I made contact with the Siskiyou Forest Supervisor and received the finest kind of cooperation.... Soon after I was transferred to the Modoc and Show left for the F. A. O., so further action was deferred for a couple of years. I had the satisfaction of seeing the Six Rivers created almost exactly as first proposed [Bower 1978 vol. 5:110].

Regardless of the dearth of official correspondence about the transfer and a new national forest, there was undoubtedly a seasoning of the concept in the minds of Forest Service leadership during those three years. Moreover, tremendous wartime demands on the lumber industry and on the timber resources, as well as the anticipated post-war voracity for forest products and the fear of raging unemployment assured that the idea would not die on the vine. Adding Gasquet District to the Region 5 lands planned for the new national forest was key to creating a viable administrative unit... and forming a new national forest on California's north coast was key to utilizing the affected timberlands and to developing the north coast regional economy—providing critical raw materials and producing a huge number of jobs in a territory perennially plagued with unemployment.

By January 1946, H. J. Andrews was Regional Forester for Region 6 and Lyle Watts was Chief Forester in Washington, D.C. Andrews wrote to Show:

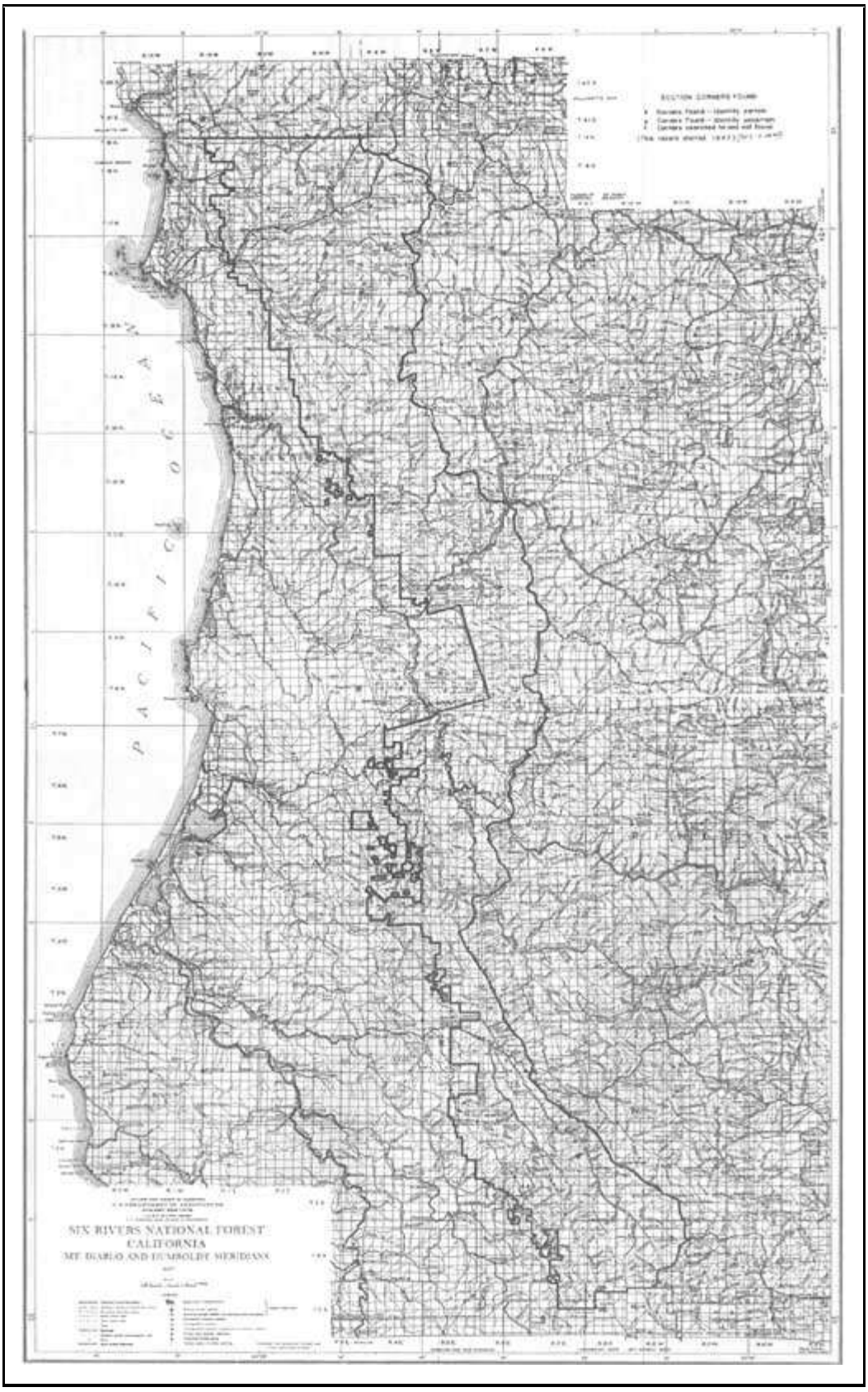
We propose the transfer of the Gasquet District lock, stock, and barrel, including personnel, improvements, property, and such heavy equipment as rightfully belongs to that District.

Andrews' letter outlined changes in the proposed boundary between Region 5 and Region 6 and suggested a series of coordinating meetings to iron-out financial adjustments and other details. He expressed conviction that the inter-regional agreements should and could be completed by early spring 1946, that recommendations for the transfer would be promptly forwarded to the Chief Forester for approval and, that upon the Chief's administrative approval, a presidential proclamation could be completed with an effective date of July 1, 1946. Regional Forester Andrews closed his letter to Show by noting:

It is with some reluctance that we offer you what has been for so long a part of Region 6, but we are consoled by the fact that the Gasquet District is going into good hands and that administration can be carried on more effectively by your Region than by ours [Andrews 1-15-46].

Work analyses were completed for financial and personnel planning, equipment and livestock were readied, and maps were re-drawn in preparation for the transfer. The skids for the transfer were undoubtedly greased when Lyle Watts was elevated from Region 6 Forester to Chief Forester; his intimate familiarity and support of the concept made agency administrative approval a shoo-in. Regional Forester Show received a telegram on February 26, 1946 that the Chief had approved the transfer of Gasquet from Region 6. [6]

On March 6, 1946, Representatives from both Regions met in Grants Pass to work out some of the details of the transfer. This was an extraordinary meeting of the minds, with many far-reaching recommendations made. One issue was whether the inter-regional boundary should follow the political boundary between Oregon and California or whether it should be defined by other administrative considerations. In the resulting memorandum of understanding (MOU), the parties recommended that the boundary be located "for economical administration, taking into account working circles, natural topographical features and community interest." Aware that this recommendation did nothing to simplify the problematic handling of Oregon and California funds, the signatories believed the advantages of using the "natural" opposed to the "political" boundary outweighed the funding inconveniences.


SIX RIVERS NATIONAL FOREST
CALIFORNIA
MT. DIABLO AND HUMBOLDT MERIDIANS
PACIFIC OCEAN

This is the first, advance copy, map of the new Six Rivers National Forest, including the Northern Redwood Purchase Unit. One of the first orders of business was to locate the section corners in order to firmly establish key boundary lines.

At that time, what was then the southeastern part of Region 6's Rogue River National Forest was administered by Region 5's Klamath National Forest under an agreement between the Rogue and the Klamath. Under the new agreement, this piece of the Rogue within the State of Oregon would be transferred to the Klamath. The signatories argued that it would not create additional problems for the Klamath, which already had some Oregon territory south of the Siskiyou Summit. On the Siskiyou National Forest, the State line was recommended as the Regional boundary except in the Illinois River country. As integral to the Siskiyou's Page Creek District and not to Gasquet Ranger District, they argued that the area was "part of a continuous timbered area that will be logged out to the North" and that the logical economic unit "should not be broken up by any artificial line just to use the State line." Interestingly, for the north-south boundary to the west, they believed the state line was okay as the regional division since the timber from the north end of the North Fork Smith River Working Circle "will no doubt go out to the East rather than to the South."

The inter-regional representatives also recommended that Gasquet District be attached to the Klamath rather than to the Trinity National Forest due to a pending change in forest supervisors on the Trinity. Seen as a temporary move in order to effect the transfer, the representatives also recommended that discussions be initiated with the Chief Forester about

> . . . establishing the Redwood Forest [later named the Six Rivers] with headquarters in Eureka by July 1 [1946].... We feel we could start this unit with two overhead men and three clerks for perhaps $22,000 for the first year. This would be a four Ranger District Forest plus the [Northern] Redwood Purchase Unit which could no doubt be administered with the Gasquet District as one unit with the Eureka staff supervision of the broader features of the redwood program.... [7] There are a lot of things brewing in the area right now which we ought to get in on.

Finally, the signatories believed it best to keep a low public profile about the transfer and resolved that "no publicity will be given the proposed move until mutually agreed to by the Regions both as to time and subject matter" (Deering 3-8-46). Regional Forester Show wasted no time forwarding the MOU to Chief Forester Watts, asking that it be approved and that Watts allot the requested sum to set up the "new National Forest headquarters at Eureka. This is the most urgent finding of the work load and boundaries report from Region 5" [8] (Show 3-11-46). Within a couple weeks of receiving the proposed memorandum of understanding, Regional Forester Show traveled to Washington, D.C. and met with Chief Watts. Temporarily dubbing it the "Northern Redwood" forest, Watts promptly approved establishment of the new unit. He told Show, however, that he could not guarantee allotment in fiscal year 1947 of the full $22,000 requested and indicated that it would be better to transfer Gasquet after the end of fire season; by that time, the Northern Redwood National Forest will have been established (Show 3-20-46 and Watts 4-1-46).

Shortly after this correspondence, Gasquet's transfer was made contingent upon creating the Northern Redwood National Forest and attaching the district to that new unit (Horton 4-15-46). While Region 6 was set to make the transfer, Region 5 scrambled to work out more administrative kinks for the proposed national forest and to finalize adjustments in the forests from which pieces were to be lopped.

Part of the Redwood Highway between Crescent City and Grants Pass, near the confluence of the Siskiyou Fork. Many of the soil types on the Six Rivers are prone to road slippage. US Forest Service photo

The Brandeberry Report

September 3 through 13, 1946, Region 5's J. K. Brandeberry visited the north coast at the behest of his boss, Assistant Regional Forester R. L. Deering. Brandeberry's report documented his objectives: to review the tentative boundaries for the new forest, to survey Eureka for office space and employee housing, and to inspect some of the operational functions on the Trinity. Brandeberry, a well-respected employee with wide-ranging experience, recommended minor adjustments from the "Recommended Reorganization of National Forest & Ranger District Boundaries and

Ranger Quackenbush "appears to be mainly interested in maintaining improvements rather than resource development which would be only natural for a non-technical man in his position."

Calculated Load." These included using the divide between the South Fork Trinity River and the Mad River rather than the river channel of the South Fork Trinity River as the eastern boundary for Mad River District. Attention was also given to whether the New River drainage should stay with the Trinity or become part of the new forest; Brandeberry ultimately recommended it stay with the Trinity. Brandeberry agreed with the line advocated by the Klamath for its boundary—closely following the county demarcation between Chimney Rock and Salmon Mountain. Prophesying some of the plaguing administrative difficulties still experienced by the Six Rivers' Orleans and the Klamath's Ukanom ranger districts, Brandeberry noted that:

Increased use can be expected with the improvement of connecting roads to the Redwood Highway so that within the next few years either an extension of the Orleans District or a new district such as the Klamath forest has suggested [reactivating the old Seiad District and creating a new district with headquarters in the vicinity of Somes Bar] would seem in order. Administration of a new district should be a part of the new coast forest, however, rather than by the Klamath forest [Brandeberry 9-25-46; cf. James 8-29-46].

Brandeberry, too, thought that the new forest should be managed through four ranger districts, with the Northern Redwood Purchase Unit being administered by the Gasquet District. His analysis indicated that the existing professional workload at Orleans was the lightest of the four districts. Interestingly, Brandeberry was apparently asked to size-up Gasquet's Ranger Quackenbush—unlike the rangers who would head-up the other districts, he was an unknown quantity....

He is a man in his late 50s, having entered the Forest Service in 1927 with a 5-year Army service in World War I. He has been a ranger on the Gasquet District for periods 1927-1931 and 1940 to date. Appears to be mainly interested in maintaining improvements rather than resource development which would be only natural for a non-technical man in his position. Buildings around headquarters, especially warehouse, are kept immaculate. Fire suppression barracks, however, apparently are not often inspected as we found them the dirtiest crew quarters I've ever experienced anywhere. Ranger Quackenbush is not as well acquainted with prominent people in Del Norte County as one might expect with his years of service in that locality. Would consider him willing and cooperative in handling any assignment [Brandeberry 9-25-46].

THE GOVERNMENT'S HANDY MAN

Your Uncle Sam he says to me, "I want a man to ride,
To pack a horse, and shoot a few, and sleep outdoors besides;"
So I signed with him as a ranger bold, to ride the forests free,
But lord! you ought to see the stunts your Uncle Sam gave me!
It's law in the morning, science at night,
Study all day, and figger and write;

He gets high-browed work on a high-browed plan,
Does the Government's handy man.
I've broke my jaw on science names for every tree and bark;
I've got to know fine points in law, jest like a Blackstone shark;
I've got to pick out min'ral land, same as a wise M.E.;*
And this here ranger job ain't jest what it's cracked up to be.
It's readin' the Manual early and late,
Rules by the hundred—get 'em all straight.
He'd rather punch cows, but he does what he can,
Does the Government's handy man.

—Arthur Chapman

**M. E. stands for Mineral Examiner. These were specially trained men called upon to examine the more difficult and contentious mineral claims on national forest system lands.*

This verse is about the life of a ranger during the custodial era of Forest Service land management; it is from The Forest Ranger, a 1919 compendium of poems collected by John D. Guthrie, a former Forest Supervisor Gifford Pinchot reviewed the draft of this book in 1917 and congratulated Guthrie on giving "the general reader a chance to understand something of what the work actually means to the men who are doing it on the National Forests."

Brandeberry had also been asked to sniff-out the local attitude around Eureka regarding the Forest Service. His findings substantiated a previous report that:

Local antagonism has been accelerated with confusion created through the recent introduction of the Douglas Bill. Sharp shooters at some of our policies have advanced the belief that the Forest Service is establishing a new Supervisor's headquarters in this area for the primary purpose of getting a further foothold for future expansion and possible development of the entire Redwood region. Since the new forest is formed by the realignment of existing administrative units, I feel rather strongly that the name should not include any reference to the redwoods or local points of interest. A suggestion for consideration is the Silcox National Forest [Brandeberry 9-25-46].

The Forest Service was often the first to bring telephone connections to remote areas. This 1934 photo shows telephone line being strung between Orleans and Somes Bar. Fred Wilder is on the reel and Lee Morford is attaching the line to the pole; the third man is unidentified. US Forest Service photo

Confusion with the Douglas Bill—about which more is written later in this history—was rather predictable given the secrecy in which the Forest Service purposefully enshrouded the transfer and proposal for a new national forest and given the unofficial name attached to the proposed forest.

Brandeberry came up short when canvassing the Eureka area for suitable space for the supervisor's office. Until something better could be found, he recommended either two available rooms in the 4th and E streets Bank of America Building or "a street floor room in the new theater building." He had no better luck in locating adequate employee housing. . . .

Brandeberry reported on a knotty communications problem between Eureka and three of the districts...

Vacant houses for rent have disappeared and turn-over from sales are pyramiding. A federal housing project is located in southwestern part of town with a long waiting list of possible tenants.... With present demands, only veterans' applications are now being accepted. . . .[I]f any of our personnel are veterans, there is reasonable expectancy to be able to get in here within a month or so [Brandeberry 9-25-46].

Administratively, Brandeberry reported on a knotty communications problem between Eureka and three of the districts traced to the absence of good commercial telephone connections between Eureka and the forest lines from Orleans, Salyer, and Mad River. Installation of radios was not a complete solution since experience had indicated communications black zones around Eureka that could not be completely remedied even with more powerful equipment.

Opening the Doors at 4th and E Streets. . . to the Anonymous National Forest

Meanwhile, as these preparations were being made, the new national forest remained anonymous. Presidential Proclamation 2733, establishing the new national forest, had been ready to issue for several months; all that was needed was a name. [9] The naming was a convoluted process and, ultimately, "Six Rivers" was chosen, having been suggested by San Francisco author, Peter B. Kyne. Kyne's suggestion stemmed from the new forest's encompassing the watersheds of six major north coast rivers: the Eel, Van Duzen, Mad, Trinity, Klamath, and Smith (RJ 12-16-46: 6).

But before the name "Six Rivers" was settled upon, a host of other possibilities had been promoted. After shying away from the name "Northern Redwood" because of the confusion over the Douglas Bill and because only a tiny fraction of the new forest encompassed redwood-growing land, the second name selected for the new unit was the "Yurok National Forest." Named for one of the major Indian groups in the north coast area, its use was never formalized due to a twist of fate. In mid-October 1946, Regional Forester Stuart B. Show responded to Chief Forester Lyle F. Watts' question of: "What does the name 'Yurok' signify? Our understanding was that this new Forest was to be named the "Northern Redwood:"

The name originally proposed for the new national Forest was 'Yurok', that of an Indian tribe which lived in the general locality. We have purposely avoided any reference to the redwoods since the acquired area in the Northern Redwood Purchase Unit which would be attached to this forest is too small to have material influence on the establishment of boundaries.

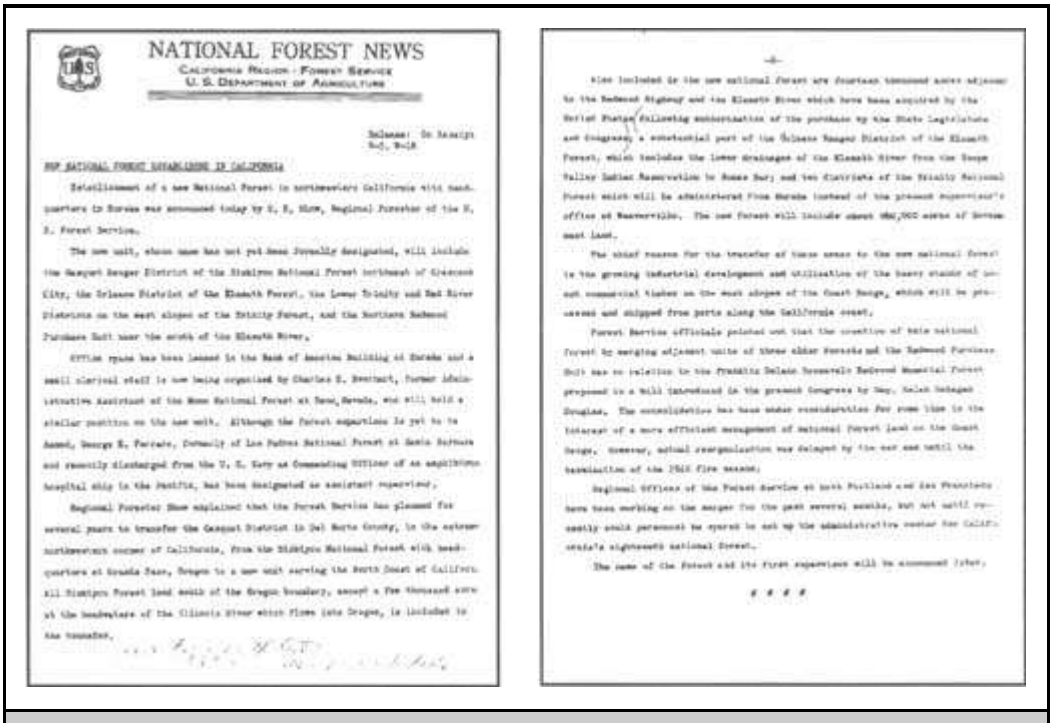
Since the selection of the name 'Yurok' we have been grieved to learn of the death of Gifford Pinchot and believe that it would be a fitting memorial to give his name to the first national forest created since his death [Show 10-17-46; cf. Watts 10-14-46]. [10]

Indeed, selection of "Yurok" National Forest had been a political hedge: "Redwood" National Forest had been the earlier front-runner as a name for the new national forest but as Regional Forester S. B. Show noted:

We were inclined to avoid any reference to the redwoods since it would tend to create a connection in the minds of some local people with the hotly discussed Douglas bill [Show 10-23-46].

More will be said later in this history about the contentious legislation to which Show referred. But briefly, the bill had been introduced during 1946 and reintroduced in 1947 and 1949 by Representative Helen Gahagan Douglas, Congresswoman from California. It proposed creation

of a large federal forest of about 2.5 million acres comprising a narrow band between Sonoma County and California's border with Oregon. Even though the land bases for the Six Rivers and the proposed Franklin Delano Roosevelt Memorial Redwood Forest were entirely distinct, the politics were indirectly linked, and the controversy that swirled around the Douglas Bill caught what would soon be called the Six Rivers National Forest in its wake. [11]



NATIONAL FOREST NEWS

California Region - Forest Service
U. S. Department of Agriculture

This announcement of the as yet unnamed Six Rivers National Forest was released in late October, 1946, well after its conceptualization and formation. The delay promoted confusion among the purposes of this national forest, the proposed Franklin Delano Roosevelt Redwood National Forest, and the Northern Redwood Purchase Unit.

The Announcement is Finally Made

Late in October 1946, an official press release was finally issued by Regional Forester Stuart B. Show formally announcing establishment of the new, still anonymous national forest with its headquarters in Eureka. [12] The Regional Office had actually wished to suspend this announcement even longer, but officials were forced to make a public statement to curb the rumor mill. Speculation had undoubtedly been further fueled by Brandeberry's Eureka inspection visit, where he had met with Chamber of Commerce people, telephone company officials, real estate owners and agents, and others. W. I. Hutchinson, Assistant Regional Forester for Information and Education (I & E) in Region 5 wrote a memo to Region 6's I & E Division, October 25, 1946:

We had hoped to delay issuance of the news release announcing the new Forest headquarters at Eureka until the name of the Forest and the Supervisor could be announced. However, several recent news stories such as the attached and the spread of rumors identifying the new headquarters with the proposed Roosevelt Memorial forest necessitate release of a formal statement as soon as possible [Hutchinson 10-25-46].

Shortly after Brandeberry's trip, office space was leased and staff were beginning to filter into their temporary headquarters on the third and fourth floors of the Bank of America building at 350 E Street, on the corner of 4th and E streets in downtown Eureka. Though the forest supervisor had not yet been selected, the Los Padres National Forest's Assistant Supervisor, George E. Ferrare, had been assigned as assistant supervisor. [13] In the press release, Show revealed that the Forest Service had, for several years, planned to transfer Gasquet Ranger District in Del Norte County from the Siskiyou to "a new unit serving the North Coast of California." This new unit would also include 14,000 acres adjacent to the Redwood Highway and the Klamath River, a large piece of the Klamath National Forest's Orleans Ranger District, and two of the Trinity National Forests' districts. Show reported that the primary reason for the new national forest was the "growing industrial development and utilization of the heavy stands of uncut commercial timber on the west slopes of the Coast Range, which will be processed and shipped from ports along the California coast." With a statement that would become a familiar refrain, the press release stated that the reorganization "has no relation to the Franklin Delano Roosevelt Memorial Redwood Forest proposed in a bill introduced in the present Congress by Rep. Helen Gahagan Douglas." It was repeated that the move had been planned for "some time" and it was purely in "the interest of a more efficient management of national forest land on the Coast Range;" only the onset of World War II and then the end of the 1946 fire season had delayed making the change a reality (USDA, FS 10-29-46).

Only a week after the initial press release, another announced the selection of William F. Fischer, then supervisor of the Cleveland National Forest headquartered in San Diego, as the first supervisor of the new national forest. Fischer was a graduate of the University of California's School of Forestry at Berkeley. He began his Forest Service career in 1933 as a field assistant for the California Forest and Range Experiment Station and later served on the Plumas, Tahoe, Mono, and Shasta national forests. Raised in the Russian River area, he had some familiarity with California's north coast forests; his new assignment was effective December 1 (USDA, FS 11-7-46).

The original staff and rangers of the Six Rivers National Forest... this photo was taken in May 1947 on the steps of the Yurok Redwood Experimental Forest Station, near Klamath. Front, left to right: Ferrare, Quackenbush, Hotelling, Smith, and West. Rear, left to right: Hallin, Fischer, Everhart, and St. John. US Forest Service photo

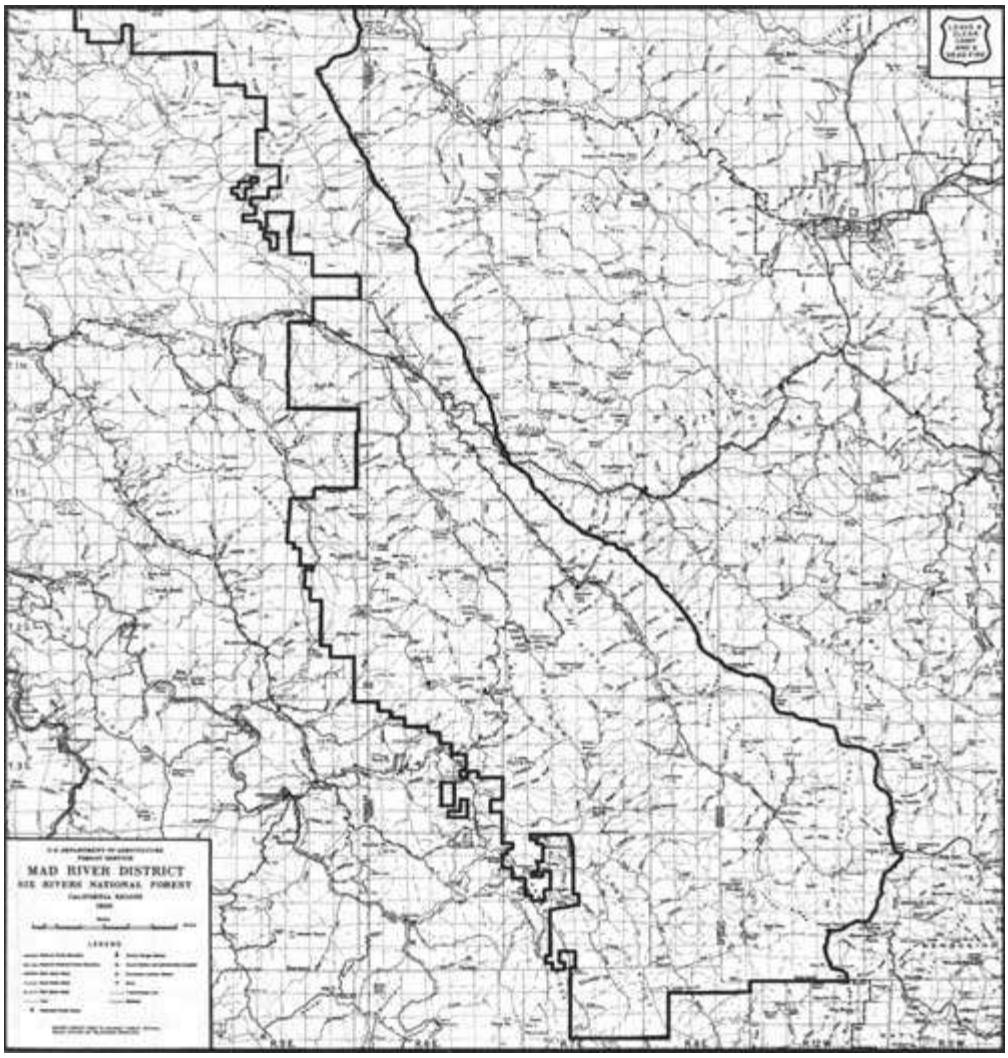
In early February 1947, Supervisor Fischer and Administrative Assistant Everhart drove to Grants Pass to meet with officials there and "more or less formally [take] over the Gasquet District." They hauled back case records and files to the Eureka supervisor's office and made arrangements for Ranger Quackenbush to spend the following week in Grants Pass to "complete the segregation of the remaining material to be transferred." Equipment was transferred as well as four mules and a horse that had been pastured at Medford (Fischer 2-6-47). Supervisor Fischer made a public announcement in April 1947 that the Lower Trinity and Mad River ranger districts would be formally transferred to the new Six Rivers National Forest on May 1 along with their current rangers and staffs. Apparently, transfer of these puzzle pieces were the last ones needed to complete the new forest. William Fischer was quoted:

. . . Supervisor Fischer and his skeleton crew did not have a forest name to inscribe on their doors or their business cards.

The transfer of these districts will complete the setup of the Six Rivers Forest. We are now in a position to handle their administration from the Eureka office. As these areas are 'West Slope' districts and used primarily by residents of the Humboldt Coastal area, this change of administrative headquarters should prove a great aid to the general public and users of the land [WTJ 5-15-47].

Thus, from disparate fragments of other national forests, the Six Rivers became a long, narrow strip, extending from the Oregon border to within about three miles of the Mendocino County line. This 135-mile long forest ranged from 2.5 to 25 miles wide, with its eastern boundary following the main divide of the Coast Range. With an average growing season of 289 days, the Six River's climate was characterized by summer fog that lessened evaporation on the slopes facing the coastal plain.

To date, the earliest piece of correspondence found from the new National Forest was an office memo dated November 6, 1946 to the Regional Office's R. L. Deering from the forest's Administrative Assistant, Charles L. Everhart. Passing along its first telephone number (Eureka 3836), Everhart relayed that the office was getting settled and that things were taking shape. He had no prospects on finding housing and noted that interim Supervisor George Ferrare was, likewise, "having a tough time...." He also reported that the "...news release on the establishment of this unit got very wide publicity and did a great deal to clarify the Pinchot - Yurok vs. FDR confusion" (Everhart 11-6-46). With the new forest having taken shape and the doors open for business, still, Supervisor Fischer and his skeleton crew did not have a forest name to inscribe on their doors or their business cards.

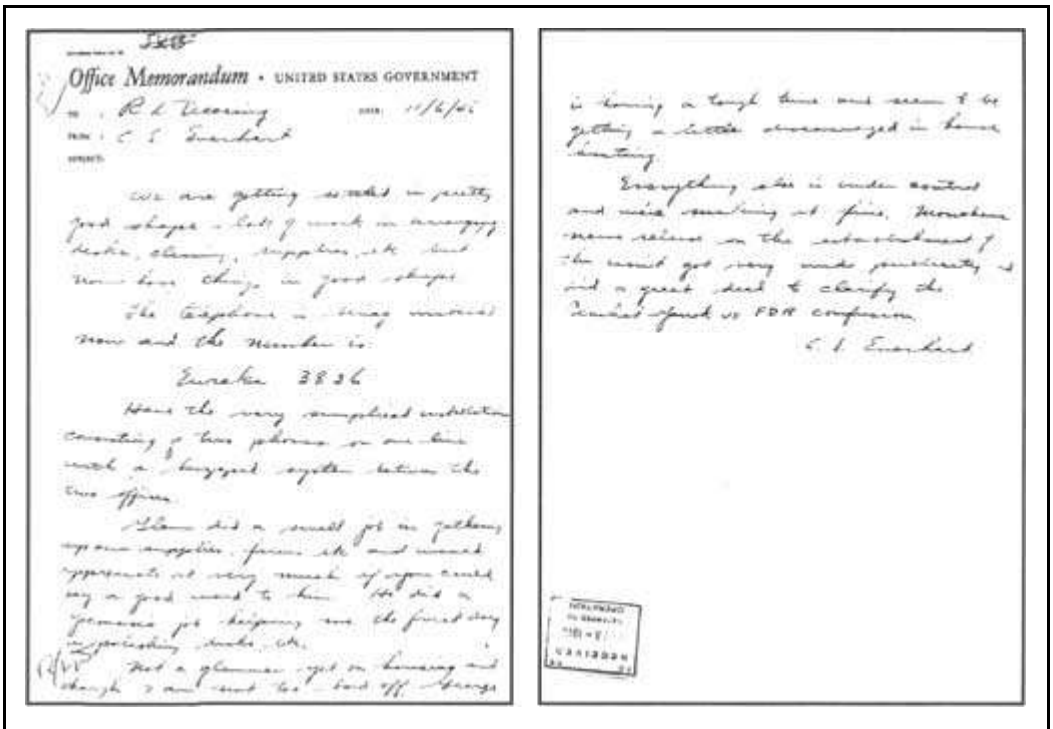


The shape and topography of the Six Rivers National Forest has made it challenging to administer. In Mad River Ranger District near Eightmile Ridge, the forest is less than two and one-half miles wide.

"Let's Limit Our Choice To A Good American Name..."

Replying to a request for suggestions in naming the new national forest, W. I. Hutchinson, the indefatigable Assistant Regional Forester for Information and Education, wrote a detailed office memorandum to the Assistant Regional Forester for Recreation and Lands. Hutchinson offered his opinion on several suggestions, but made it clear that his preference was to have the Eureka newspaper, the *Humboldt Standard,* sponsor a contest for deciding the name. He believed it would assure the higher ups in the Washington Office that "local and regional sentiment has been tested," and that it would engender a sense of ownership in the local populace.

According to Hutchinson, the three reigning principles for naming national forests and districts were that the name must be easy to spell, easy to write, and its significance should be easily understood. For all three reasons, he counseled against naming the place "Yurok." As for the "Redwood" suggestion, he thought it deceitful, since no significant stands of redwood were within the area that would ultimately comprise the national forest; moreover, it would get confused with the national forest unit being configured from the Northern Redwood Purchase Unit... the Forest and Range Experiment Station having already named its experimental substation there, the "Yurok Redwood Experimental Forest." Hutchinson thought the name "Humboldt" had merit, but discarded it because the neighboring region to the east already had a national forest named for this German naturalist. Though he thought it desirable to name a national forest for the recently deceased Gifford Pinchot, he agreed with Pinchot's widow, Cornelia, that the name "should be reserved for a more distinctive area, preferably one in which [Gifford] had a personal interest." [14] Though Hutchinson thought the name "Trinidad" had possibilities, he counseled that it could be confused with the "Trinity" National Forest. As for the name "Eureka," he strongly objected, saying that Crescent City residents and other "rival" communities along the north coast would be discommoded. Hutchinson endorsed considering the names "Bret Harte" and "Jed Smith," but believed other suggestions should be solicited either through the newspaper contest or by contacting key people outside of the Forest Service. His "key contact" list included the secretary of Save-the-Redwoods League, the California Historical Society, the Siskiyou and Shasta county historical societies, U.C. Berkeley School of Forestry, State senator and assemblymen, and historians Francis Farquhar, Erwin Gudde, and George Stewart (Hutchinson 11-12-46 and Kneipp 11-8-46).



Office Memorandum • UNITED STATES GOVERNMENT

Charles Everhart's November 6, 1946 memo is the earliest piece of correspondence yet found from the new, Forest Supervisor's Office in Eureka.

With their correspondence obviously crossing in the mail, the Washington Office again pressed Region 5 officials to offer a name for the new national forest. Using what seems to be a specious argument, Hutchinson reported that the new forest did not embrace any "outstanding topographic feature or individual" and, therefore "the next best possibility is the name of a distinguished citizen of California." He, thus, proposed Starr King National Forest. "If the name of someone more intimately identified with the Coast Range is preferred," he alternatively suggested Josiah Gregg National Forest. [15] He again admonished to not name it "Yurok," underscoring that the Yurok homeland did not include the area to be embraced by the new national forest. Besides, R. S. Monahan, writing for L. F. Kneipp of the US Forest Service's Washington Office—after listing the names of the Indian groups that inhabited the territory of the new forest—intoned in his letter to the Regional Forester for California: "Let's limit our choice to a good American name associated with northern California!" (Hutchinson 11-18-46 and Kneipp 11-8-46).

It is apparent that Hutchinson communicated with at least a few of the people on his key contacts list in naming the new national forest. An undated letter from Erwin G. Gudde, editor of *California Place Names,* started his correspondence with:

I disapprove heartily of the conventional and unimaginative naming of our natural features by heaping one name on top of the other. I believe that it is our duty to transmit to future generations a California geographical nomenclature as diversified, interesting, euphonious, and historically justified as possible [Gudde 11-19-46].

Undoubtedly to Hutchinson's chagrin, of the names proposed, the one favored by Gudde was "Yurok;" his first and second choices were "Ehrenberg" or "Josiah Gregg" national forest. [16]

If nothing else, Gudde's suggestion that the new forest's name be "euphonious," became a buzz word. A November 19 office memo from Hutchinson documented his conversation with A. L. Kroeber, the eminent University of California at Berkeley authority on California's north coast Indians. Hutchinson relayed that Kroeber's suggestions of "Kotsaoo Weroi,""Perwer," "Kertser," "Chilula," or "Nongat" were "the most euphonious of the suitable Indian names" appropriate for the new forest. Euphonious, yes, but against the criteria of being easy to spell and generally understandable, they fell short (Hutchinson 11-19-46).

Regional Office officials were becoming impatient with the naming process because it was holding-up issuance of the official proclamation for the new national forest and, therefore, stalled its formal administration. As a stop-gap compromise, Regional officials proposed a list of tentative names with the right reserved "to propose a permanent name after a more thorough canvas has been completed." The Regional Office still favored a local contest to name the new forest which, they judged, "would do much to acquaint the people with the Forest. . . and to make them feel that the consolidated unit was their Forest." Their top three suggestions were Gregg, Smith-Gregg, and Gregg-Wood national forest. Other offered names were Six Rivers and Starr King (Thompson 11-19-46). The strongest local support was for Gregg or Gregg-Wood National Forest. Eminent Californians suggested the following: California Historical Society, Gregg; Francis Farquhar, Smith; Aubrey Drury, Smith-Gregg or Jed Smith; Kenneth Smith, Silcox; Peter Kyne, Six Rivers; Emanuel Fritz, Josiah Gregg, Pardee, or Jepson; Clyde Edmonson,

Redwood Empire; and Phil Hanna, Josiah Gregg or Eureka (Thompson 11-19-46 and Tenare 11-20-46.)

Somewhat by default, Six Rivers became the name that stuck. Responding to the Region's November 19 letter, the Washington Office's L. F. Kneipp recorded that, if it was the Region's desire to adopt a temporary name, Six Rivers would be

...the most expedient. If the name of any individual or pair of individuals is initially adopted its subsequent abandonment almost certainly will provoke controversy and resistance. But nobody will go to war over the abandonment of Six Rivers.

Kneipp noted that, because of the importance of watershed protection and flood control to the area, the name Six Rivers had "much to commend it" and that "the connotations of such a name are pleasant and appealing" (Kneipp 11-26-46). In a follow-up letter, Kneipp wrote to the Regional Forester that the issue had been brought to the staff of the Washington Office and the consensus was to issue the proclamation or public land order with the name "Six Rivers" without reference to it being a temporary name. Kneipp noted that it would not preclude an eventual change in name if warranted (Kneipp 12-5-46). Thus, the name earlier posited by Peter Kyne, author of *The Valley Of The Giants, Cappy Ricks,* and other novels set in the north coast, became the official name of the new national forest. [17]

Forest Service truck on the highway through the redwoods near Mill Creek. US Forest Service photo

Redwood. . .

Redwood, though comprising only a sliver of the national lumber product, was a pivotal element of California's north coast economy. The stories of periodic and persistent surges to create a redwood national park, a redwood national forest, and a redwood experimental forest interwove with creation of the Six Rivers National Forest. Moreover, the special character of the redwood tree commanded world-wide interest in extraordinary ways that went well-beyond its qualities as lumber.

Redwood National Park

One of the earlier national park impulses was the 1920 "Redwood Resolution" (H.R. 159). The resolution directed the Secretary of Interior, under which the National Park Service is organized, to investigate...

as to the suitability, location, cost, if any, and advisability of securing a tract or tracts of land in the State of California containing a stand of typical redwood trees... with a view that such land be set apart and dedicated as a national park for the benefit and enjoyment of the people of the United States and for the purpose of preserving such trees from destruction and extinction....

Interestingly, the secretaries of Interior and Agriculture (the U.S. Forest Service is part of the Department of Agriculture) agreed that the Forest Service would make the investigation and complete the report required by H.R. 159, with final arrangements being made between District Forester Paul G. Redington and National Park Service Director Stephen T. Mather. Setting the tenor of the effort, final plans were made between Redington and Mather at a meeting of the Save-the-Redwoods League in San Francisco, October 4, 1920; field work began October 10. [18]

Having only one rainless day during the course of its fieldwork, the study team operated on a meager $400 provided by the Save-the-Redwoods League—Congress had neglected to earmark any funding for the task. After examining the lower Klamath River, South Fork Eel River, Prairie Creek, Redwood Creek and Big Lagoon areas, the committee recommended that the federal government acquire 64,000 acres in the lower Klamath River—8,600 acres of which were Indian Allotment lands. Additionally, an 1,800 acre administrative unit for the Redwoods National Park was to be established on the South Fork Eel River—land to be donated by the Save-the Redwoods League, private individuals, and perhaps, the State of California (Hammatt 1920:2, 4, 8) [19] Much of the land proposed for the Redwood National Park was owned by the Sage Land and Improvement Company and the Hammond Lumber Company. Contacted by the investigators, both companies indicated willingness to sell these lands to the federal government at "substantial reductions over actual values" (Hammatt 1920: 40).

Among the selling points of the lower Klamath were what the investigators termed the "dilapidated but exceedingly picturesque Indian rancherias" in the small openings along the river. Unwitting of their derrogatory language yet mindful of the cultural opportunities offered by the lower Klamath, they wrote: "In the smaller eddies one passes, now and then, Indian squaws (in

their light and graceful redwood dug outs) pulling small salmon gill-nets." As another charm of the area, "Certain it is that the bucks are reliable guides and boatmen and good hunters and fishermen. The squaws are indefatigable basket makers, and both the territory and its native peoples offer exceptionally rich ground for those interested in Indian myths and customs." Moreover, the investigators reported that, in addition to the lands privately held by various timber and land companies, about 8,600 acres were composed of patented and unpatented Indian allotments, and that: "It is understood that the Department of the Interior has withheld issuing any further patents to these lands pending action by Congress on the question of establishing a park on the Klamath River." Confident that they could acquire these patented lands for the park by repurchasing them at below-market prices, they wrote that repurchases could be "at prices which, while making the Indian holders independent, will represent an extremely low price per M" (USDA, FS 1920: 14, 15, 18).

Another impulse to form a redwood national park was reported in a study completed in 1937. It quarreled with the 1920 report, contending that the recommendation to acquire the Eel River property was passé—by then, it was largely part of California State Park's Humboldt Redwoods Park. Moreover, it argued that the lower Klamath River did not qualify as a Redwood National Park because it did not comprise "an outstanding and superlative stand" of redwood. Instead, the 1937 report recommended federal acquisition of the 17,760-acre Mill Creek Tract in Del Norte County (USDA, FS 1937: n.p.). Substantial expansions to this kernel of a park culminated a generation later.

This steam donkey set at a redwood harvest operation graphically shows the aftermath of this destructive yarding method and of the effects of post-harvest intensive burning. This photograph was probably taken in the 1920s. US Forest Service photo

A Redwood National Forest

Responding to the importance of redwood to the regional economy and grave concerns over the specie's long-term viability due to destructive logging and post-harvest practices, in August 1935, the National Forest Reservation Commission authorized land acquisitions for a northern and a southern redwood purchase unit (NRPU and SRPU) for the purpose of reserving coastal redwoods in their southern and northern range as a future national forest. The SRPU acquisition boundary encompassed about 600,000 acres; the smaller NRPU boundary embraced 263,000 acres. The first priority was on acquiring redwood lands within the northern purchase unit; and primarily because of the increased workloads created by the acquisition activity for the NRPU, a new Coast Ranger District, headquartered at Crescent City, was established on the Trinity National Forest.

. . . putting the timber land under a sustained yield system would stabilize the area's lumber industry without removing tax-paying lands from the county rolls.

Local opposition to the NRPU was most vociferous in Del Norte County, and much of the correspondence directed toward the Forest Service went to the Forest Supervisor of the Siskiyou National Forest, G. E. Mitchell. Mitchell was a strong supporter of the NRPU who believed it would be in the best interests of the county to have additional acreage under Forest Service management. Because the Forest Service focused on acquiring lands that were tax delinquent, he believed that putting the timber land under a sustained yield system would stabilize the area's lumber industry without removing tax-paying lands from the county rolls. Further, since back taxes had to be paid prior to the Federal purchase of the land, the county would garner that one-time benefit in addition to the payments to counties for schools and roads of 25 percent of Forest Service receipts. Nonetheless, mass meeting were held in Del Norte County to persuade taxpayers to oppose the NRPU. One of them, organized by the Del Norte Miners' Association, sponsored a February 1939 newspaper article that depicted a map of the acreage withdrawn by the government for national forest purposes within 50 miles of Crescent City, showing a ratio of 12 federal acres to each private acre.

In contrast, the Del Norte Central Labor Council seemed generally supportive of the NRPU idea—if the Forest Service could assure a reasonably prompt start of selective redwood logging on these lands in order to rapidly contribute to the county payroll (Coates 2-22-39). The agency hedged, saying that preparation of Forest Service timber sales was dependent upon the demand for the product....

. . . the Del Norte Central Labor Council seemed generally supportive of the NRPU idea if. . .

To prosecute the industry of harvesting redwood timber on a plan that will mean the denuding of the lands and their reversion to brush and inferior species, is only a matter of destruction of a valuable resource.... We feel that if the business is put on a sustained yield basis it will stabilize not only labor but all the investments that are made in the County that are dependent on the timber resource. This will include stores, school, theaters, churches; homes, and recreational

investments.... The best timber and the best timber lands in the county are now tax delinquent because they cannot pay a suitable profit to warrant the payment of their taxes.

Mitchell further explained that the federal government was seeking to "control a sufficient amount of [redwood growing] lands in order to deal with private interests." He offered the illustration of how the government had failed in its attempt to harvest Port Orford cedar on a sustained yield basis because it managed only about a fifth of the remaining stands. So, while loggers on private lands were over-cutting its sustained yield capacity by about three-fold, the Forest Service was powerless (Mitchell 2-24-39)

Gasquet Ranger Station's satellite office in Crescent City, built by the Civilian Conservation Corps. This photo was taken in 1955. After the Northern Redwood Purchase Unit lands were no longer being held for a potential redwood national forest, this building was donated to Del Norte County fairgrounds, where it still stands. US Forest Service photo

Despite opposition, the Forest Service began its redwood land acquisition program and zeroed-in on the Northern Redwood Purchase Unit. The assiduous work of Forest Service lands examiners and negotiators had results: In 1941, the National Forest Reservation Commission reported acceptance of title to 10,704 acres of redwood lands; 4,666 additional acres of redwood timberland were approved for purchase by the commission for the NRPU:

This area, which lies north of the Klamath River in Del Norte County, Calif., is the nucleus of a national forest in the coastal redwood type. Although the area acquired is relatively small, the assets thereby accruing to the public are substantial, as the purchased lands bear an estimated mill-cut volume of 685,000,000 board feet, of which over 85 percent is redwood. Acquisition of these lands is gratifying, but if the minimum acreage necessary to form a desirable administration unit is to be assembled in a reasonable period of time an accelerated program must be made possible. A portion of the purchased redwood lands, with others to be acquired later, [sic.] have been designated as the Yurok Experimental Forest, and will be developed as a research area for the exploration of problems in silviculture and forest economics relative to the redwood type [US Congress 1941: 5-6].

In 1944, Vern Hallin transferred from the Lassen to the Trinity National Forest as the District Ranger of the NRPU [20] But World War II had interrupted the acquisitions program for the NRPU, and war's end brought new preoccupations and priorities in public land management. The post war economic upswing and its attendant skyrocketing demand for wood products made additional land purchases less likely and, when they could be negotiated, exceedingly costly (Conners 1995: 6, 12). After the war, a few more acquisitions were made, but the strong wind propelling the idea of a redwood national forest simply fizzled. Of approximately 46,000 acres under contract to the government for the Northern Redwood Purchase Unit, only 14,492 acres had actually been purchased by the close of 1946. As reported by Ranger Hallin in an acquisition report in January, 1947:

Options expired, and the vendors, no longer under obligation to sell to the government, but after consultation with Forest Service officials, took advantage of the opportunities offered them to dispose of their lands to operating concerns attracted to the redwood region through depletion of stands of timber in the Pacific Northwest and the great demand for timber occasioned by the war (Hallin 1947).

In 1948, when Hallin was transferred to the Six Rivers Supervisor's Office as its Resource Officer, Ted Hatzimanolis took the reins at the NRPU; ironically, these lands would later become trading pieces for coalescing lands for an expanded redwood national park. [21]

An Experimental Forest

Adding to this complex weave of events in the north coast redwoods, creation of the Northern Redwood Purchase Unit also entwined with establishing the Yurok Redwood Experimental Forest as a substation of the California Forest and Range Experiment Station (CF&RES). For many years, the Forest Service's CF&RES sought a substantial tract of redwood where researchers could better unlock its silvicultural secrets and encourage the lumber industry to apply harvest and post-harvest practices that would insure healthy, productive, second-growth redwood stands for the long term.

In contrast to those who urged redwood preservation, the Forest Service's official stance was an interesting combination of both resignation and a call for action. Early studies of the coastal redwood initiated by the CF&RES led to some eye-opening conclusions. For example, after inventorying the scant 1.5 million acres of coast redwoods that grew in a narrow swath between Oregon's Chetco Creek and California's Monterey County, it was discovered that a fully stocked cutover redwood stand at 50 years old annually produced a phenomenal 1,500 to 2,300 board feet per acre; however, it was demonstrated that such second growth stocking conditions were rare, with only 150,000 of the 550,000 acres of cutover land in "reasonable productive condition." Further, to sustain the annual redwood production rate at its 600 million board foot level, one-million acres of redwood lands would be needed to maintain the industry. To make the sustainability of redwood even more tricky, of the slightly over 1.5 million acres of redwood land, 1.4 million acres were privately owned (Person 1940: 2-5).

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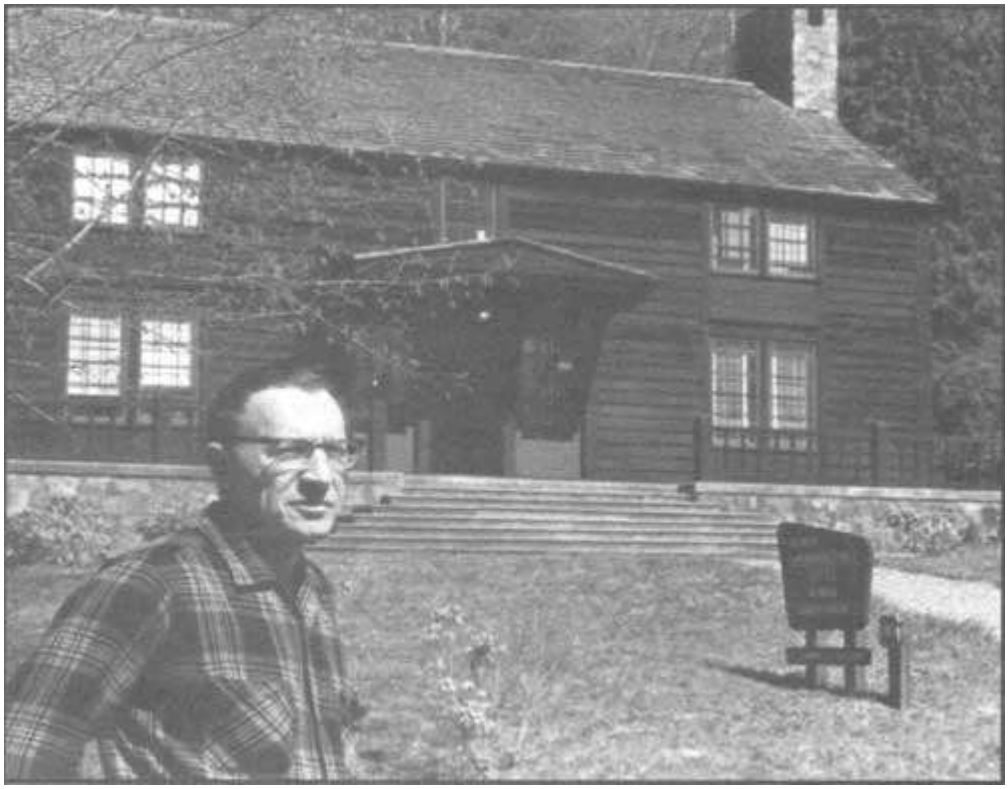
For researchers at CF&RES, the implications were crystal clear: the redwood industry was crucial to northern California's economy and, to assure its survival, the remaining 850,000 acres of virgin redwood lands must be harvested by means that maintained their productivity. To further investigate methods that assured productivity and to convincingly demonstrate research findings to industry, experimental forests in the two principal coastal redwood regions must be established and staffed with scientists...and it must be done with all due speed. As CF&RES Silviculturist Hubert Person wrote in his ground-breaking report: "It is believed that because the redwood operators are primarily interested in profitable liquidation, the development and demonstration of silviculturally adequate harvest cutting practices must depend on public agencies which at the present time means principally the California Forest and Range Experiment Station." Because the more general studies had largely been completed through the 1930s, the Redwood Management Division at CF&RES was ready to:

...undertake studies of a more intensive, long-range character, which can be prosecuted most effectively in an experimental forest... these experiments should take into consideration marking, logging, slash disposal, natural reproduction establishment, yield and fundamental ecological problems, all of which are affected by method of cutting [when converting virgin stands to productive cutover stands]. It is proposed to establish the northern experimental forest first because the results would be applicable to the area now supporting at least two-thirds of the present lumber production, and because the redwood acquisition program is at present limited to the northern unit [Person 1940: 2-5].

The California Forest and Range Experiment Station's Redwood Management Division was ready to undertake studies of a more intensive, long-range character. . .

All The CF&RES Needed Was Its Own Redwood Experimental Forest. In contrast to movements pushing to create a redwood national park, for the CF&RES and Forest Service, the redwood question was not one of old-growth preservation for the sake of tourism, aesthetics, or

even for the sake of study. Instead the redwood question was primarily one of the long-term survivability of a key California industry. For the Forest Service, disappearance of redwood old-growth stands was not the problem; maintaining productive redwood forests through successful conversion of virgin stands to highly productive second growth, was.



Ken Boe, in 1969, at the CCC built Yurok Redwood Experimental Forest administrative building. Unusual for Forest Service architecture, this building references both Colonial Revival and Forest Service Rustic styles. Originally built as the YREF office and dormitory, it later became both the Experimental Forest and the Redwood Ranger Station offices. Even later, it was the office for the Redwood National Park. Currently the Yurok Tribe uses it for administrative purposes US Forest Service, Pacific Southwest Forest and Range Experiment Station photo

For the Forest Service, the redwood question was primarily one of the long-term survivability of a key California industry.

Initially, the CF&RES endeavored to establish its experimental forests independently, unfettered by creation of any national forest in California's coastal redwood belt. Ground work for these acquisitions was laid at least by September, 1933 through CF&RES Redwood Management Division. By late 1933, the station had forwarded three proposed acquisition areas to the Director of Research E. I. Kotok: Casper Experimental Forest, located 20 miles west of Willits; Van Duzen River Experimental Forest, located just southeast of Eureka; and the Weott Experimental Forest (Person 1940:1). Unable to cinch a deal on any of these lands—and seeing the growing support for a much larger redwood national forest—it was decided that one or more experimental forests could be carved from the impending redwood purchase unit acquisitions. But as early as March, 1935, CF&RES officials had become frustrated in their attempts to acquire a redwood experimental forest by riding the coat tails of the Redwood National Forest movement. Person complained in a letter to H. W. Cole of the Hammond & Little River Redwood Company of San Francisco, with whom he had been negotiating for lands in the Van Duzen and Eel River areas: "The delay in this acquisition [of a Redwood National Forest] may make it desirable to return to our original idea of acquiring an experimental forest independently." Person noted that: "Recent developments have convinced us that, because of the greater production in Humboldt County [compared with Mendocino County], as well as the much greater timber resources and the recent interest shown in improved methods of logging, the Humboldt area would be most favorable for the undertaking of long-term redwood management studies." Person also explained that: "From the standpoint of the administrative branch, there was an objection to the Van Duzen area because of the fear that the National Park Service might take over a large part of this area for purely park purposes. It is believed however, that an experimental forest could be selected from the Van Duzen area which would be free from this objection and otherwise the area is highly desirable" (USDA, FS Person 3-11-35).

When on August 29, 1935 the National Forest Reservation Commission established purchase area boundaries for a Northern Redwood Purchase unit of 263,000 acres and a Southern Redwood Purchase unit of 600,000 acres, Forest Service officials then focused their efforts within these broad zones with the ultimate aim of forming a manageable national forest unit. Out of these lands, CF&RES would be able to demarcate its experimental forests.

By September, 1935, Person at CF&RES had assembled data on four areas suitable for experimental forests: two proposals within each of the purchase units established by the Commission. The two proposals in the SRPU were Deer Creek, located 20 miles west of Ukiah, and Gualala River, about eight miles northeast of the town of Gualala. In the NRPU the proposals had been whittled down to what was called the Del Norte Experimental Forest, about five miles north of the town of Klamath, and the Prairie Creek Experimental Forest, located a few miles north of Orick on the lower stretches of Lost Man and Little Lost Man creeks and tributaries of Prairie Creek. The NRPU proposals, although they included "[e]xcellent virgin stands, representative of the various conditions found in the northern redwood region," Person found lacking as an experimental forest because they included very little second growth. He

consequently developed yet another proposal, outside of the approved NRPU boundary, in the cutover stands in the Humboldt Bay vicinity (USDA, FS Person 9-25-1935).

Negotiations with various redwood timber land owners by Forest Service officials for the Northern Redwood Purchase Unit reaped acquisitions in Mynot, Hunter, and Turwar creek watersheds. Meanwhile, the experiment station pushed for a redwood experimental forest, and a direct proposal was forwarded in a September, 1939 "Memorandum for Director" (Person 1940: 1). Following-up on this memo, January 15, 1940 the Regional Forester, the Director of the CF&RES and other key parties in the regional office and experiment station met in San Francisco. As a result, the part of the High Prairie Creek watershed east of Highway 101 was approved as an experimental forest, to the extent that those lands had been or might be acquired by the Forest Service (Person 1940: 2-5).

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Within a couple months after his January 15 meeting, Person reported on the "Proposed Northern Redwood Experimental Forest." By this date, 643 acres in the High Prairie Creek area had been acquired or was authorized and in the process of title transfer. There was an additional 1,552 acres of privately owned redwood land that was earmarked for the Redwood Experimental Forest and which was part of a 27,000-acre parcel under agreement to sell to the US Forest Service for an agreed upon price (Person 1940: 7). As noted above, in 1941, Congress approved the National Forest Reservation Commission's recommendation to accept title to 10,704 acres of redwood lands, and an additional 4,666 acres of redwood timberland were approved for purchase for the NRPU; from that, the Yurok Redwood Experimental Forest was formed.

Gearing Up for Intensive Timber Management

A Bare Bones Organization

On January 30, 1947, prior to the official establishment of the Six Rivers, William F. Fischer wrote a memorandum to the Regional Forester outlining the organizational scheme he envisioned for the new forest. Fischer expressed a preference for smaller districts over large ones and staffing set at low levels with the flexibility to expand with the workload. The top three jobs he saw for the Six Rivers were securing and organizing the working tools necessary for administration, learning the forest, and running the business of operating the forest. Since all of these were entirely unknown quantities and all were formidable tasks, Fischer wrote that "[t]he organization must be set up to do the three jobs and to grow into the work over a fairly short period rather than all at once. The initial organization proposed is a skeleton one for the foreseeable job ahead and may be expected to expand..." But while Fischer had some influence

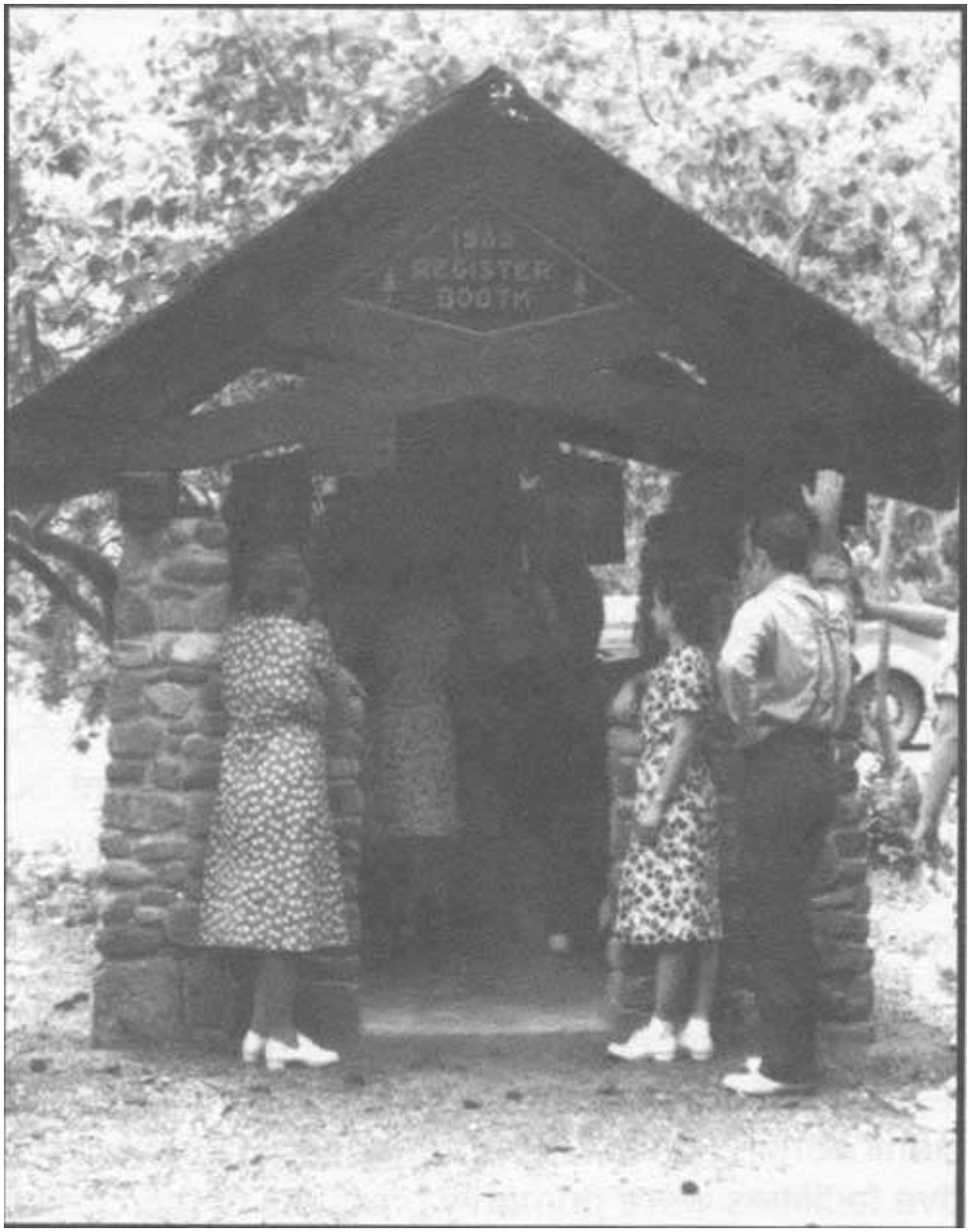
over the shape and size of his organization at the supervisor's office in Eureka, staffing and organizational structure on the four districts was inherited from the three parent forests.

The top three jobs he saw for the Six Rivers were securing and organizing the working tools necessary for administration learning the forest and running the business of operating the forest.

In the Supervisor's Office, Fischer proposed three clerks and a warehouseman in addition to his staff officers. The timber management load was characterized as moderate to light, but with "considerable more business anticipated in the near future." The range management load was seen as light. Both the wildlife and recreation management programs were characterized as "probably high," while the fire job was perceived as moderate. Land use was seen as "comparatively light but building up very rapidly," while land acquisition posed a "big job on the Redwood Purchase Unit." The anticipated work load in watershed management was viewed as being potentially high, considering power proposals, relationships with fisheries, and the lack of reliable water-related information. While the engineering job was seen as "normal," the information and education load was seen as enormous and important but "so lightly touched by the Forest Service." Major staff assignments were divided among the administrative assistant, assistant supervisor and forest engineer (Fischer 1-30-47: 1-3).

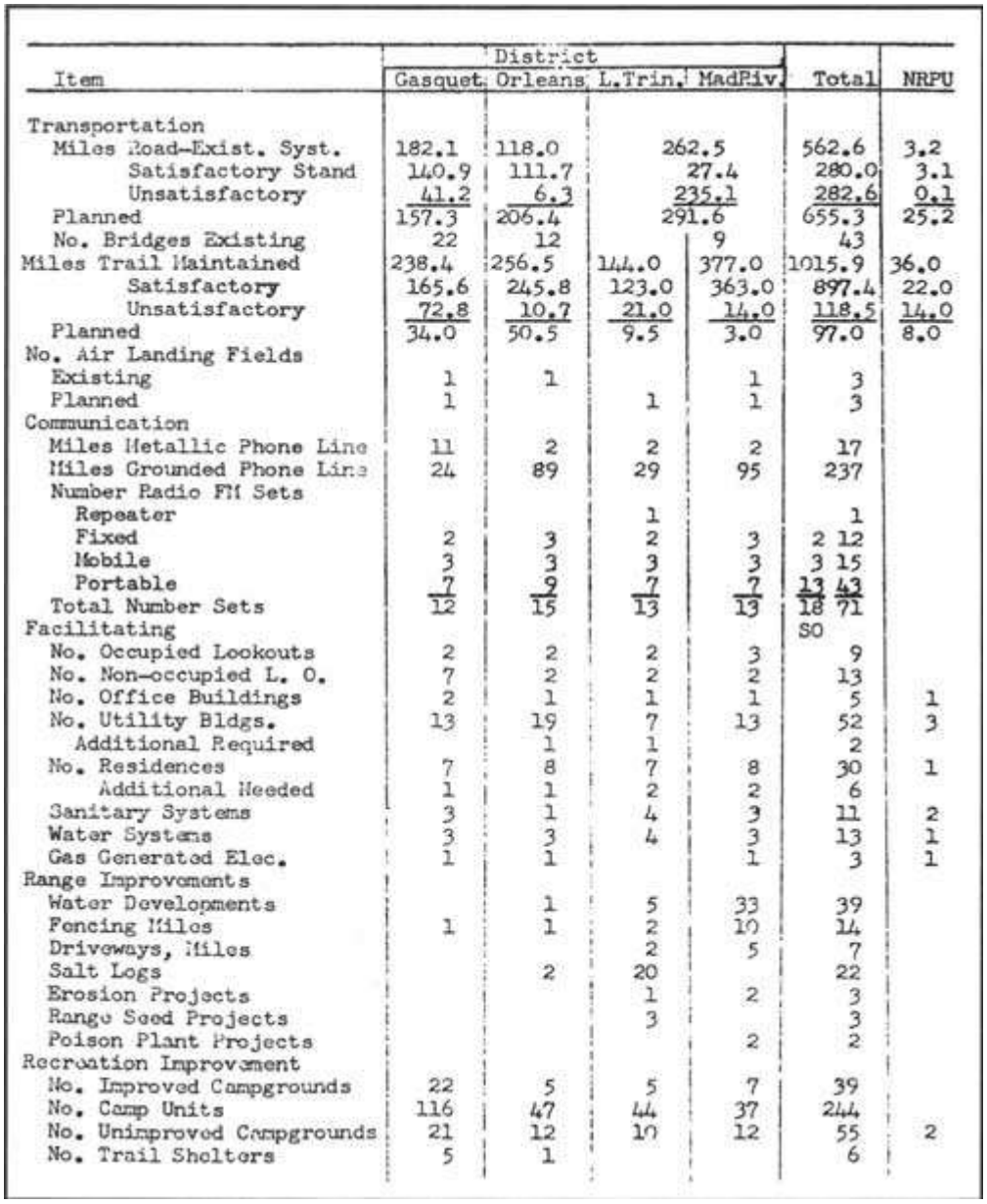
When the Six Rivers was created, it also inherited preexisting administrative sites—parts of other national forests—that needed to be remelded into an efficient working unit. Like other national forests in California, the administrative facilities were primarily products of the Civilian Conservation Corps (CCC) and other, related New Deal programs. Therefore, most were 10 to 14 years old. Programs such as the CCC were responsible for literally putting a new face on the Forest Service by replacing most of its old and highly individualistic structures, dating from the early years of the twentieth century, with a suite of buildings that used standard, regional, designs—many of which were constructed from "ready-cut" materials. As Ranger Wesley Hotelling put it: "During this period [the Great Depression, for] the next 5 or 6 years, there were young men available for all projects that we could think up" (Hotelling 1978: 91). The same held true for Region 6 to the north, from which Gasquet Ranger District was added to the Six Rivers. Like California, Region 6's building program exploded with the labor force and material support provided by the CCC and related programs. [22]

This 1937 photograph shows the Civilian Conservation Corps' construction of the Salyer Bridge. Aimed south, note the old suspension bridge still in-place and the safety net below the new bridge. Courtesy of Robert Albrecht



The CCC-built Patrick Creek Campground was an elaborate development along the Redwood Highway. In addition to this 1935 Register Booth, the campground also included a developed swimming hole with a diving board, a bridge, extensive rock walls, a rock-walled bathhouse and restrooms, Klamath stoves, and a rock-lined semi-subterranean campfire area. Though many of these features have been destroyed by periodic, severe floods, the campground remains a testimonial to the CCC's accomplishments. This booth still stands. US Forest Service photo

Though the infra-structure inherited from the depression-era construction programs was similar to that existing on other national forests in the far west, there was a crucial difference for the Six Rivers: it was not integrated on the basis of a single, national forest unit. Having come from three national forests in two regions, developments had no cohesive plan when looked at on a forest-wide basis. For example, the transportation system was not designed to cope with or promote movement toward the coast; instead, most of the forest roads were oriented to sawmills, transportation systems, and markets in Grants Pass and California's Central Valley. Similarly, there was a lack of cohesion in the trails system and in the placement of lookouts and guard stations for fire protection. Communications were similarly hampered by the nature of the Six Rivers' origin. Administratively, ways of conducting forest business were different and took time to reconcile. Fischer and officials in the Regional Office recognized most of these built-in difficulties, yet viewed them as inconsequential when compared with the greater good they envisioned. [23]



Item	District				Total	NRPU
	Gasquet	Orleans	L.Trin.	MadRiv.		
Transportation						
Miles Road-Exist. Syst.	182.1	118.0	262.5		562.6	3.2
Satisfactory Stand	140.9	111.7	27.4		280.0	3.1
Unsatisfactory	41.2	6.3	235.1		282.6	0.1
Planned	157.3	206.4	291.6		655.3	25.2
No. Bridges Existing	22	12		9	43	
Miles Trail Maintained	238.4	256.5	144.0	377.0	1015.9	36.0
Satisfactory	165.6	245.8	123.0	363.0	897.4	22.0
Unsatisfactory	72.8	10.7	21.0	14.0	118.5	14.0
Planned	34.0	50.5	9.5	3.0	97.0	8.0
No. Air Landing Fields						
Existing	1	1		1	3	
Planned	1		1	1	3	
Communication						
Miles Metallic Phone Line	11	2	2	2	17	
Miles Grounded Phone Line	24	89	29	95	237	
Number Radio FM Sets						
Repeater			1		1	
Fixed	2	3	2	3	2 12	
Mobile	3	3	3	3	3 15	
Portable	7	9	7	7	13 43	
Total Number Sets	12	15	13	13	18 71	
Facilitating					SO	
No. Occupied Lookouts	2	2	2	3	9	
No. Non-occupied L. O.	7	2	2	2	13	
No. Office Buildings	2	1	1	1	5	1
No. Utility Bldgs.	13	19	7	13	52	3
Additional Required		1	1		2	
No. Residences	7	8	7	8	30	1
Additional Needed	1	1	2	2	6	
Sanitary Systems	3	1	4	3	11	2
Water Systems	3	3	4	3	13	1
Gas Generated Elec.	1	1		1	3	1
Range Improvements						
Water Developments		1	5	33	39	
Fencing Miles	1	1	2	10	14	
Driveways, Miles			2	5	7	
Salt Logs		2	20		22	
Erosion Projects			1	2	3	
Range Seed Projects			3		3	
Poison Plant Projects				2	2	
Recreation Improvement						
No. Improved Campgrounds	22	5	5	7	39	
No. Camp Units	116	47	44	37	244	
No. Unimproved Campgrounds	21	12	10	12	55	2
No. Trail Shelters	5	1			6	

This 1949 summary of improvements, by district, was part of Supervisor's Fischer's: "A Prospectus of the Six Rivers National Forest." Born from three national forests in two regions, the Six Rivers encountered considerable difficulty integrating improvement systems, for example its road system, fire detection system, and communications system. (click on image for a PDF version)

*The new Six Rivers National Forest struggled with its marginal and eastward-oriented infrastructure for many years. This 1934 photo shows the CCC enrollees from Camp Mad River taking a break from their road-building chores in the Van Duzen River Valley.*Courtesy of John McGrath

Forest Service Missionaries... Bringing the Word of Forestry to the North Coast

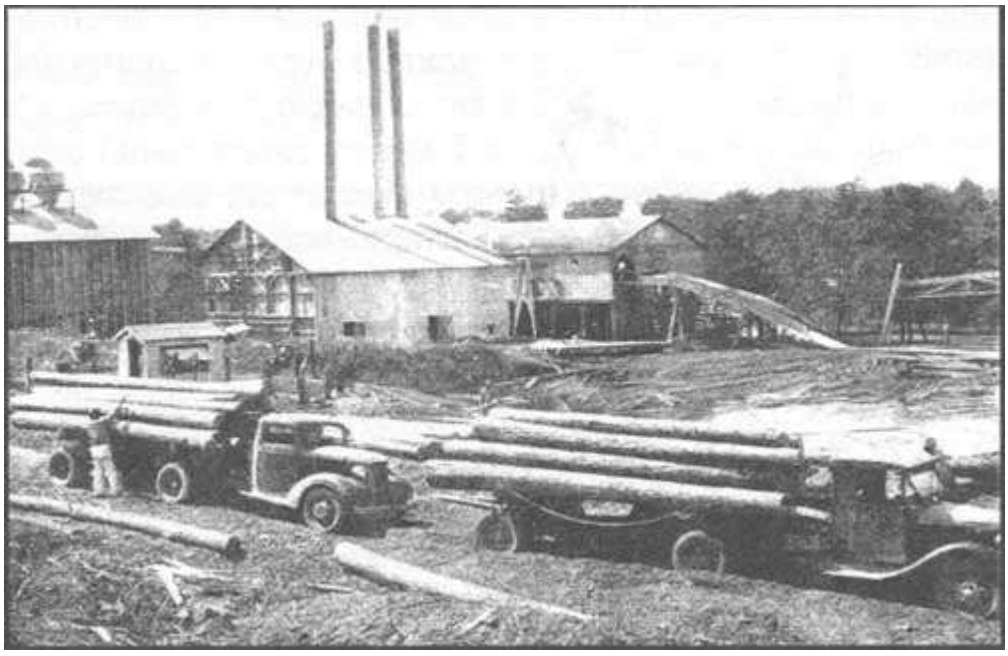
Why create a new national forest from existing ones? No land was added or subtracted from the Forest Service land base by the transaction; no administrative sites were added or deleted; with few exceptions, personnel on the existing districts stayed put and simply transferred to the new national forest; no services were consolidated.

During the idea stage for creating this new national forest and during the early years of World War II, there was a renewed conviction and urgency that forestry was a key ingredient for the prosperity and security of the nation. Scores of publications pointed to renewed concerns about timber depletion and to the practice of forestry as the antidote. While serving as Acting Chief of the Forest Service, Earle H. Clapp wrote the foreword to a 1941 agency publication titled *New Forest Frontiers for: Jobs, Permanent Communities, A Stronger Nation.* A remarkable period piece, this illustrated booklet placed forestry in the context of war and national security:

Much of our rural poverty is within forest regions with large areas of poor soils.... Wretched living conditions mean abject people. With nothing to defend and morale gone, no people could fight long against an invading enemy.

Battles on the economic front never cease; they are more devastating during war, to be sure, but relentless even during peace. So a country should never be caught without a full measure of the services and products supplied from forest lands....

Somehow, sometime, this Nation will realize fully its dependence upon forests in both peace and war. It is already moving in the direction of forest conservation, dangerously slow to be sure, and the longer the delay the greater the cost... [USDA, Forest Service 1941:1].



This page from the 1941 USDA, Forest Service publication, New Forest Frontiers for: Jobs, Permanent Communities [and] A Stronger Nation, shows how management of the nation's forests was defined as a choice between depletion or abundance. It is apparent from the caption that the memories of the Great Depression were fresh and that wartime defense was foremost.

Though written a half dozen years before the Six Rivers' proclamation, this publication reflected the tenor of the Forest Service's fight to stay in the public and political eye as an agency that was deeply concerned about forces that threatened the nation's fundamental economic and social well-being and promoted an agenda to do something about it. Regarding rural communities, Clapp's comments would have had special meaning to those living on or adjacent to lands that would be subsumed by the Six Rivers. Even as late as the mid-1990s, the population in the counties directly influenced by the Six Rivers comprised less than 20 percent of the state average; 62 percent of the people lived in rural areas or small communities of 3,000 or fewer inhabitants (USDA, FS 1995:III 6-8).

Why create a new national forest?

To the question: Why create a new national forest?, another facet of the answer—from a state-wide perspective—is reflected in a 1944 study completed by a consortium of government and educational entities, including the Forest Service, University of California, California State Farm Bureau, Soil Conservation Service, and Bureau of Agricultural Economics. The lengthy report stressed the imperative to anticipate and prepare for the post World War II demands for wood. It found that the demand for wood would be far greater, "both in scope and quantity, [than] anything that has occurred in the past." Despite the predicted application of wartime technology spin-offs to partially or wholly replace certain products traditionally made from wood—such as greater use of new plastics and synthetic replacements for wood alcohol and acetone—the researchers envisioned tremendous pressures on California's forested lands to produce wood. They worried over the figures showing that California had only 7,800,000 acres of stocked commercial timberland. Although 70 percent of this land was in government holdings, a large proportion of the timber on these lands was economically not feasible to harvest, either owing to stand composition or to lack of accessibility. The problem looked even more acute when the researchers compared the total area of cutover lands with the acres of cutover land that showed "some degree" of restocking: 11,900,000 to 5,200,000 acres. Further, 50 sawmills in California produced over 90 percent of the state's cut, but 20 of these mills, representing 25 percent of the annual cut, were forecast to either dissolve or move to less desirable locations within the coming decade due to exhaustion of their local timber supply. The researchers believed that, if immediate steps were taken toward intensive management, the state had sufficient timber lands to supply most of its local needs. Without implementing known silvicultural practices, they predicted that the remaining virgin stands would be cut over by 1979 (USDA, RICC 1944: Forest Lands Section 29-30).

This viewpoint was completely consonant with that advocated by the Chief Forester during the post-war period, Lyle Watts. An exhaustive report commissioned by him concluded that the nation had to develop productive forests...

> to meet new international obligations and to help establish the peace. . . . One fact stands out clearly: this country needs to produce and to use in full measure the products and services of its forests as a part of the larger obligation to gain a stable, prosperous economy and hence a better hope for world security.... Development and intensified management of the national forests should be vigorously pushed [USDA, FS 1948:2, 11]. [24]

Unlocking the full timber resource potential of California's Northwest and providing for productive second growth forests were viewed as key links in this plan.

From a more local perspective, Region 5 officials articulated four main reasons for creating the Six Rivers National Forest. Topping the list was: "To bring forestry to an area long neglected - and where it was badly needed." This prime motivation was followed by:

> 2. To bring a knowledge of the Federal Forest Service to a large group of people whose livelihood and interest lay mostly in forests.

3. To tie a forest resource more closely to the population which depends or will eventually depend upon it.

4. To bring more effective administration to districts far remote from existing administrative centers [Cronemiller and Kern 1949: 2].

A local newspaper article provided a retrospective on why the Six Rivers was created from its existing neighbors to the north and east:

As early as 1938 it was recognized that the growth and development of the coastal area of Humboldt and Del Norte counties would create a demand and a need from this area for the development and use of the resources of these lands. The various units were then being administered from distant inland valleys difficult to reach from the coast. In line with the National Forest policy of decentralization and management on the ground, the move was started to establish an administrative center on the coast. About the time the preliminary job to accomplish this reorganization was completed, the war intervened and the matter was tabled in the interests of the war effort. However, the war accelerated the need and as soon as was possible, at the end of the conflict, the change was made. [25]

Figure 2

LUMBER PRODUCTION AND CONSUMPTION - IMPORTS AND EXPORTS
CALIFORNIA 1941

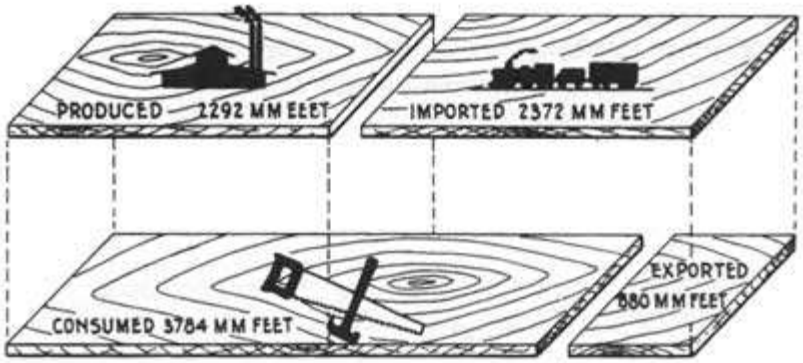
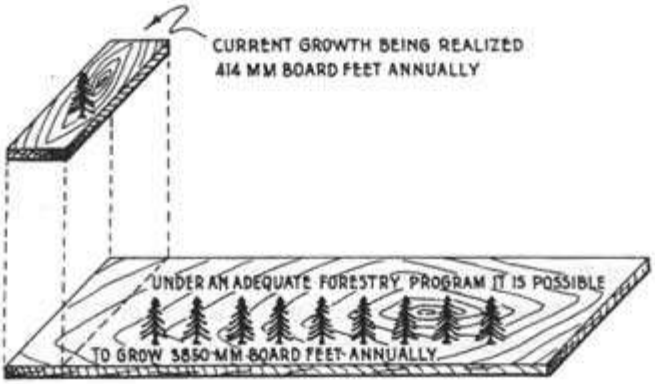


Figure 3

AVERAGE ANNUAL NET GROWTH
CURRENT AND PROSPECTIVE ON CALIFORNIA TIMBERLANDS



This graphic from the Preliminary Report, Post War Program for Agriculture, Californiawritten in 1944 depicts the imbalance between the amount of lumber produced and consumed in California (Figure 2) and the disparity between the state's timber growth potential with its actual net

growth (Figure 3). These realizations spurred the impulse to create the Six Rivers National Forest—a forest whose primary mission was to bring the practice of forestry to California's northwest.

Forging an organization to accomplish this work was a daunting job. Although the lands comprising the Six Rivers had long been under the wing of the Forest Service, they had been neglected step-children: too far from the centers of activity to capture the sustained attention of their parent forests. Formation of the Six Rivers created a new orientation; the general flow of goods and services from the forest would be to the west rather than toward the Central Valley. The lands were no longer the outskirts of three other administrative units; instead, they had a new identity and a new core.

"The Forest Situation in Humboldt and Del Norte Counties..." Timber

During this period of post-war expansion for the lumber industry and formative years for the Six Rivers, *The Humboldt Times* ran a weekly column called "Log and Saw." It highlighted new rules and technologies, introduced the industry's key players and their operations, and encouraged new product developments. The Six Rivers also appeared in the column and, most commonly, promoted new developments in logging and utilization that promoted sustained yield objectives. Fischer kept in the public eye by regular pieces in the column, addressing such subjects as the desirability and profitability of selective logging, lopping and scattering slash, and minimizing fire risk in logging operations (cf. HT 4-7-47, 10-10-47, 10-17-47). A prime subject in "Log and Saw" for two weeks running was the report: "The Forest Situation in Humboldt and Del Norte Counties, 1947." Released in late July, the report indicated that at the current rate of cutting, the old-growth would be consumed in 60 years in both counties and that the lumber industry would then shrink by as much as 50 percent. The report characterized the current logging practices as "poor to destructive," leaving 80 percent of the land in poor productive condition. A 1945 forest survey found a scant 1.5 percent of cutover land left in good condition, indicating good cutting practices; 19.6 per cent left in fair condition; 78.5 percent in poor, and 4 percent in destructive condition (HT 10-3-47, 10-10-47).

The "Forest Situation" report was a remarkable and wide-ranging work that seemed to have been influential. The report was undoubtedly written with the purpose of illuminating the potential of the north coast and promoting federal forestry as the means of unlocking the area's potential—particularly with regard to the timber industry and the social and economic windfall to be derived from a healthy, sustained enterprise. Clearly, timber was the major issue in this publication; it included sections and commentary titled: Timber Resources, Drain (on timber resources, i.e., harvest), Sawmill Situation, Commercial Timber Sales, Working Circles, Range Resources, Recreation, Wildlife, and

The Forest Situation report was undoubtedly written with the purpose of illuminating the potential of the north coast and promoting federal forestry as the means of unlocking the area's potential

Administration and Protection Improvements. Bullet statements from that report illuminate how the Six Rivers perceived the playing field in which it operated:

Highlights from the Forest Situation Report illuminate how the Six Rivers perceived the playing field in which it operated . . .

- The Six Rivers was composed of 1,147,672 acres, exclusive of the Northern Redwood Purchase Unit (NRPU). Eighty-seven percent of this was government land and 13 percent was alienated. Forty-six percent of the forest was classified as operable commercial timber land; 19 percent classified as unusable range; 32 percent as "protection forest;" and three percent as private recreational, grazing, and other agricultural lands. The NRPU comprised an additional 14,492 acres (USDA, FS 1947: B 1).
- Seventy-two percent of Humboldt and 63 percent of Del Norte County was timber land.
- Since 1920, the average annual timber harvest for Humboldt County was 366,000,000; 16 mmbf for Del Norte County. [26]
- 1945 production, primarily from old-growth, was 455 mmbf in Humboldt County; 24 mmbf in Del Norte.
- Inaccessibility was the chief factor in holding down past production.
- At the current rate of harvest, old-growth stands will last about 60 years in both counties. Afterward, income from the lumber industry is expected to drop by 50 percent.
- Referencing the 1939-'40 census, 48 percent of Humboldt County's working population was employed for, or in support of, the lumber industry; 16 percent of Del Norte's working population was timber-dependent.
- In 1947, there were 11 sawmills in Del Norte County where only three had existed before 1945. As of October 1946, Humboldt County had 103 sawmills and 23 shingle mills. Of these mills, only 58 had existed prior to 1945. Most of the lumber companies that had moved into the area were from Oregon and Washington "where accessible private merchantable timber is becoming scarce."
- If running at capacity, the largest mills could cut half of the total annual capacity. Those mills were: two Hammond Mills, Holmes, Eureka, Northern Redwood (at Korbel), two Pacific Lumber Mills, and Dolbeer-Carson (USDA, FS 1947: A 1-3).
- There were 21 mills—plus three on the Hoopa Reservation—within two miles of the national forest boundary, with 14 cutting less than five mmbf per year; in 1947, none of them were cutting national forest timber (USDA, FS 1947: B2).
- To change cutting practices in order to leave cutover lands in satisfactory productive condition and to improve utilization, the Six Rivers' general recommendations were:

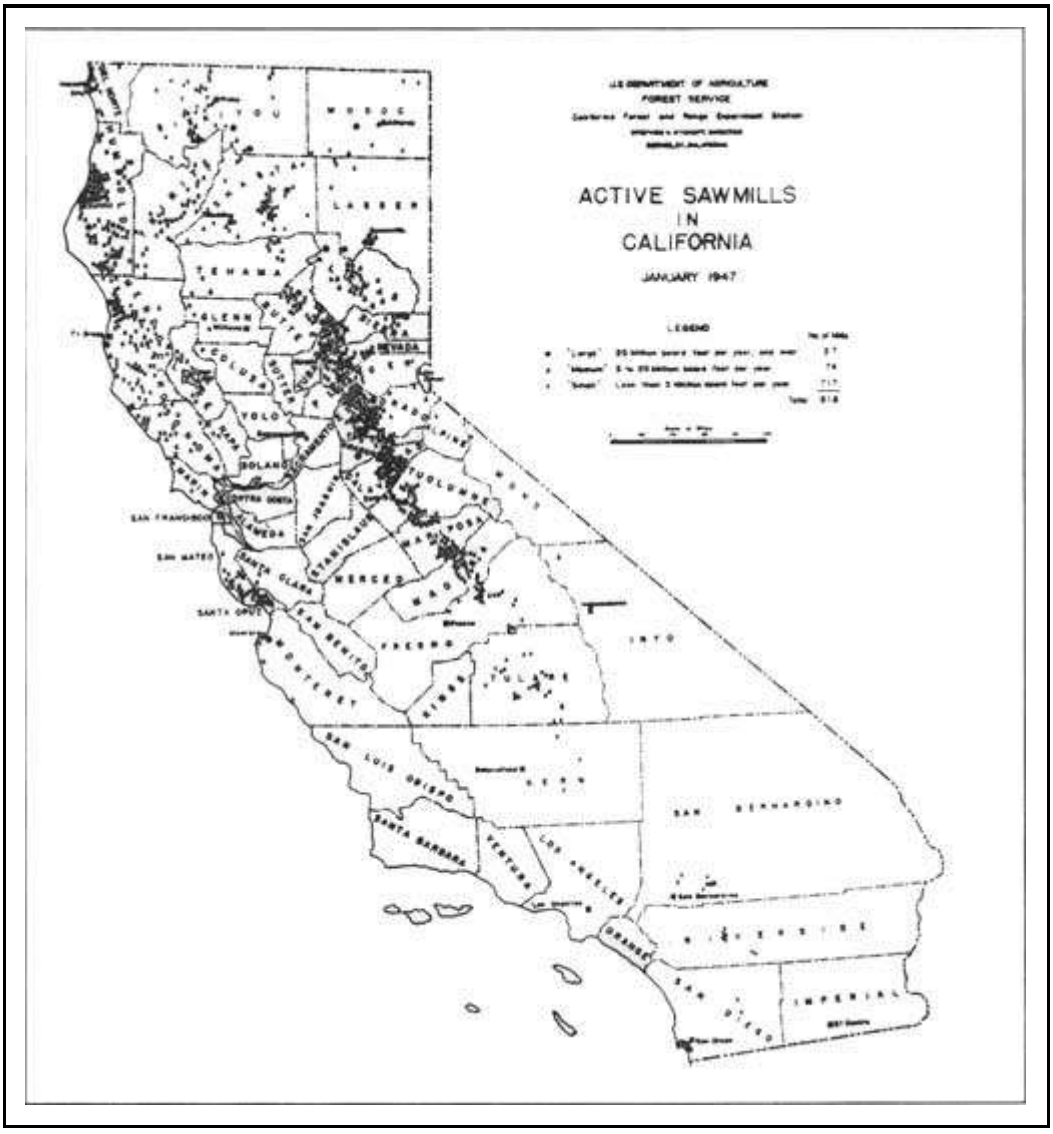
  -Major tractor and not major steam donkey use;

  -Selection cutting rather than clear cutting;

  -Partial slash disposal instead of broadcast burning, with intensified protection for the first few years after selective logging;

-Refuse to sell National Forest timber to companies that habitually use destructive logging practices on their own lands (USDA, FS 1947: A 4-5).

- Rough inventories indicated that the bulk of the timber resource was old-growth with "Douglas fir composing 80 to 85 percent of the stand." Only 16 mmbf of government timber on 1,675 acres had been cut in past commercial sales from lands composing the Six Rivers. It was estimated that 50 mmbf were being cut on private land during the 1947 season by local mills. Therefore, the timber was estimated to last about 40 years, assuming current cutting practices and accessibility to the untapped timber (USDA, FS 1947: B 1).
- The potential annual national forest timber harvest on the Six Rivers, under sustained yield, could be 1.5 percent of the gross volume for the entire area, or 125.5 mmbf per year. Overall, the prescription for the first 15 to 20 years was to selectively cut largely defective trees of high value (USDA, FS 1947: B 3).



This 1947 graphic shows the clustering of active sawmills in California. Note the high number of large mills in the Eureka area compared with the proportion of large to small sawmills in a similarly-sized area in the Sierra Nevada. (click on image for a PDF version)

This pair of photos is from a manuscript by Hubert Person and William Hallin published in 1942 and titled "Possibilities in the Regeneration of Redwood Cut-Over Lands." The photo depicts slack-line yarding, a method in which the authors noted: "It is practically impossible to practice tree selection or [to] reserve seed trees" This newly-logged area shows the virgin redwood stands in the background and to the right, beyond the steam donkey.

This photo illustrates the virtues of tractor yarding compared with lands logged using powerful and destructive high-lead and slack-line yarders. The authors blamed part of the public's indifference to sustained timber production in redwood forests on faith in the tree's exceptional sprouting ability and the favorable soil and climate of the redwood region; a faith that encouraged a belief that scientific management was unnecessary to insure a sustained redwood supply, US Forest Service photo

"The Forest Situation... Range"

The "Forest Situation Report" also addressed range management. Although grazing was a "relatively unimportant" activity on the Six Rivers, its regulation raised a disproportionate share of criticism and resistance from those who used the forest lands for range: primarily grazing cattle and sheep, but also horses and pigs. The 1947 report reflected that the new forest's usable range totaled 220,850 acres for an estimated 18,000 animal months. The majority of range land was on the Mad River Ranger District, having 155,000 acres providing a potential of 14,940 animal months. There were 28 allotments altogether on the forest, with 18 on Mad River, seven on Lower Trinity, one on Orleans, and two on Gasquet. There were 48 actual grazing permits issued for 2,791 cattle, totaling 15,280 animal months; Mad River had the lion's share, with 2,127 permits for 12,763 animal (cattle) months. Range improvements on the forest were confined to salt logs, drift fences, stock driveways, water developments, erosion control, range re-seeding, Klamath weed control, and Larkspur eradication (USDA, FS 1947: B 4).

While acknowledging that the Six Rivers' range program was small, there were some serious problems of over-grazing that needed attention. One was the allotment between Flint - Elk Valley and the Harrington Ranch on the Orleans Ranger District: "The area is in a delicate ecological balance and should not be grazed by livestock at all" (Cronemiller and Kern 1949: 22). A year after the forest's first General Integrating Inspection, Supervisor Fischer wrote that the forest's objective in range management was to "maintain range use in line with the capacity of the permanent range, and to develop and improve the permanent range to its highest potential." Characteristically using timber as the qualifying factor, the definition of "permanent range" was land that produced "grass or browse better than anything else, and would yield, if used to grow timber, only a marginal product at best." Permanent range was calculated at 108,080 acres, but about 240,486 acres were used for grazing in some form; 2,400 acres were classified as being overgrazed government range. Grazing permits were allowed on the basis of two factors: dependency of the home ranch on the forest range, and ability of the land to support livestock part of the year on owned or controlled lands.

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In 1949, 29 range allotments, 45 paid permits and 10 free grazing permits were issued on the Six Rivers. Fischer cited "abusive range use" as the cause of some of the forest's "most critical watershed problems." The characteristically more shallow soils on range land tended to be more susceptible to disturbance and slower to recover. Fischer pointed out that this fact was the root of the disproportionate time and effort expended in range administration given the relatively low number of livestock grazed on the Six Rivers and that the expenditures were justified owing to the watershed values at stake (Fischer 1950: 11-12, appendix table XI). By 1956, Six Rivers officials issued 63 grazing permits covering 2,400 cattle. The object was to regulate how much forage was used such that no more than a half to two-thirds of a year's growth was removed by grazing. If grazing exceeded those limits, the degradation to plant cover put watersheds in jeopardy (USDA, FS 1957: 3).

This photo was staged to emphasize that California's national forests were places for recreation. As roads improved, trailer camping mushroomed and precipitated changes in campground design and amenities. US Forest Service photo

"The Forest Situation... Recreation"

The "Forest Situation" report also underscored the importance of recreation on the Six Rivers—both existing and potential. Recreational use by tourists and local residents was characterized as "heavy." In 1947, there were 63 campgrounds having 405 units accommodating about 2,675 people. The writers of the situation report concluded that "demand far exceeded the existing facilities." By ranger district, the distribution of campgrounds was:

	campgrounds	units	est. daily capacity
Mad River	8	40	165
Lower Trinity	4	32	112
Orleans	2	38	113
Gasquet	49	295	2,265

The report deemed the "improvements on most campgrounds are in fair to poor condition due to inadequate maintenance funds." It estimated that 20 new campgrounds, with a capacity of an additional 500 people, were needed to meet normal demand, forest-wide.

In 1956, the Six Rivers hosted an estimated 109,000 recreational visitors. [27] By far, most were anglers, estimated at 58,000; the next highest number was an estimated 22,000 sightseers. After that came campers (7,590), hunters (6,000), picnickers (5,700), resort guests (4,500), winter sports enthusiasts (2,000), organization camp guests (2,000), and summer home users (1000) [28] Though these totals are small when compared with national forests in closer proximity to California's mega-urban areas—such as the Angeles, San Bernardino, and Eldorado (east of Sacramento)—they represented a 200 percent increase in recreational visits to the Six Rivers over the previous three years (USDA, FS 1957: 5). By 1958, a Six Rivers mimeographed handout listed only five developed campgrounds on Gasquet (Grassy Flat, Madrona, Patrick Creek, Shelly Creek, and Fish Lake), three on Lower Trinity (East Fork Willow Creek, Boise Creek, and Sawyers Bar), three on Orleans (Bluff Creek, Pearch Creek, and Happy Camp), and four on Mad River Ranger District (Mad River, Ruth, Watts Lake, and Van Duzen).

Likewise, pressure to define and lay out tracts for summer homes was on the increase since the end of World War II and "Rangers have been unable to meet this demand."[29] Alluding to the difficulties that arose from mining claims being used as the avenue to summer home ownership on national forest land, the report noted that: "Some parties have staked out mining claims primarily for the purpose of building a summer home or yearlong residence. On Orleans District alone, there are 28 mining claims, not considered bonafide, located on power withdrawals along the Klamath River and Red Cap Creek."[30] In 1947, the distribution of summer homes on a district basis was:

Summer Homes

	MR	LT	O	G
tracts laid out	0	0	0	5
lots surveyed	3	17	6	60
lots occupied	3	17	6	44

There was only one organization camp on the Six Rivers in 1947, but two new ones had recently been applied for. The Six Rivers had five recreation resorts under permit and demand for winter sports development was emerging—evidence the feasibility study for the Grouse Mountain Ski Area on Lower Trinity. Snow skiing was a burgeoning sport and national forests were experiencing phenomenal post-war growth in providing permittees with areas suitable for winter sports development; the closest to the north coast communities was at Mt. Shasta (USDA, FS 1947: B 5-6). The "Forest Situation" report provided recommendations about areas and capacities for new campground, picnic, hunter camp, and recreation residence tracts. While some of these plans materialized, others remain on the drawing boards.

Home 655 in the Gasquet summer home tract. This photo was taken in 1936, when Gasquet Ranger District was part of Region 6's Siskiyou National Forest. US Forest Service photo

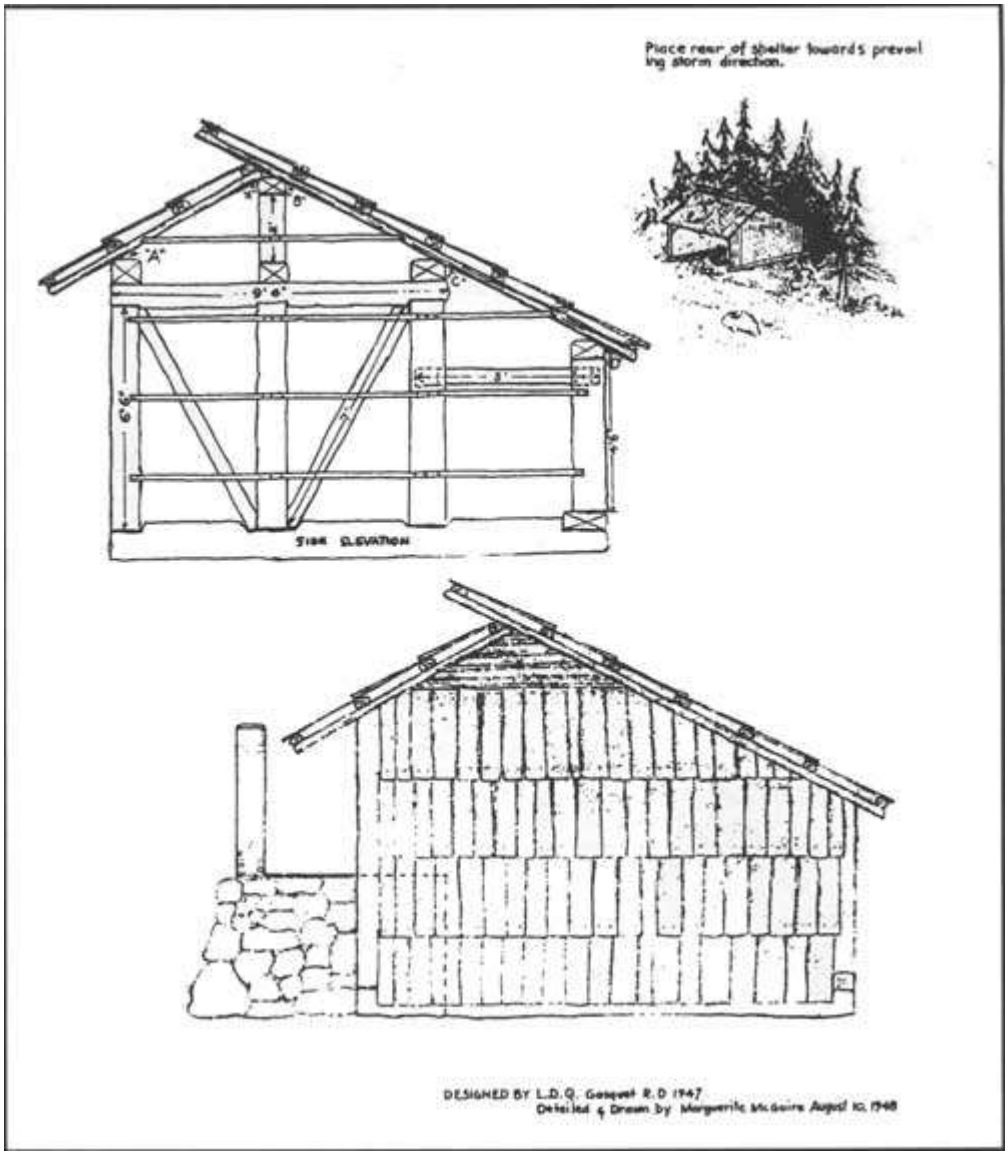
Of all the forest's districts, only Gasquet Ranger District had a recreation plan, with developments focused along the Redwood Highway. [31] Inherited from Region 6, the 1935 plan had only been deviated from when it "appeared desirable to issue a summer home permit in order to extinguish a mining claim" on land planned for a campground. Fully 75 percent of the existing campgrounds and all of the surveyed summer home lots on the Six Rivers were on Gasquet (Cronemiller and Kern 1949:15).

At hunter, angler, and hiker camps, Gasquet's Ranger Leo Quackenbush became well-known for his rustic trail shelters. His 1947 design reflected simplicity, utility, and ease of construction. At least four of them were built; three along the South Fork of the Smith River. [32] A less-known motivation for their construction was their service as "a barrier against mining claimants" (Cronemiller and Kern 1949:16).

Though development of campgrounds occurred on all the Six Rivers districts, they were most numerous on Gasquet and Lower Trinity, clustering along the main state highways, 199 and 299. The spurt of free campgrounds, or "public service sites," constructed by the Civilian Conservation Corps during the depression-era met with stiff local opposition, primarily from owners of private campgrounds and resorts. The Forest Service countered complaints with the belief that private owners of such facilities would actually benefit from free public campgrounds in their vicinity; that a greater volume of tourists were brought into the area and, therefore, private businesses would realize additional patronage. Forest officials maintained that, generally,

people who camped at free, public facilities were unable or unwilling to pay for camping. Moreover, the Forest Service's aim was to concentrate camping at sites where water and sanitation were provided and where the risk of forest fire could be minimized. Similar arguments against Forest Service campground construction would resurface when new developments were proposed in the 1960s.

One of Ranger Quackenbush's trail shelters—this one at Summit Valley in 1955. Courtesy of the Charlie Brown family



The 1949 General Integrating Inspection report pictured one of Ranger Quackenbush's trail shelters and offered the caption: "Algonquin shelters on the South Fork of Smith River are a welcome refuge in inclement weather which often overtakes fishermen and forest officers in this humid section. A masterpiece in native materials, woodsman's skill and elbow grease."

These 1948 renderings are from the 1947 Quackenbush design. The plans also included a ground plan; front, back and ridge section details; plate and rafter detail; a tools and materials list; and construction notes. Six Rivers National Forest

The Challenge, the Promise, and the Vexations

Effective forestry was the broad, primary goal of the neonate forest, and the Six Rivers' potential for growing and harvesting timber was the envy of every major timber-producing forest in Region 5. The Six Rivers' commercial forest land area was composed of old-growth stands, generally 250 years old or older. About 20 percent of those "overmature" stands also had an understory of poles or young sawtimber (USDA, FS 1979: 8). The estimated board feet on the Six Rivers was 16,753,000,000 with about 80 percent being Douglas fir (HT 3-13-49).

...the Six Rivers' potential for growing and harvesting timber was the envy of every major timber-producing forest in Region 5.

There were major challenges to be met, however, before even a fraction of this potential could materialize. Prime was the job of getting the new national forest on a functional administrative footing. Regional Office inspectors who visited the Six Rivers just two years after its formal creation recounted what it was like:

Placing an area under a new form of administration in the manner of the Six Rivers was an onerous task. Starting with an empty office, supervisor and staff new to the area, there was the job of assembling files, atlases, statistics and other records from three forests. The resulting aggregation of knowledge was far less satisfactory than might be expected. Fortunately the rangers have seen fairly long service in their districts and only in their minds was much of the background needed for effective administration and the loss of knowledge that remains on the forests of origin. Administration is still slowed by gaps in the records and voids in the basic facts required for decisions and plans [Cronemiller and Kern 1949:1-2].

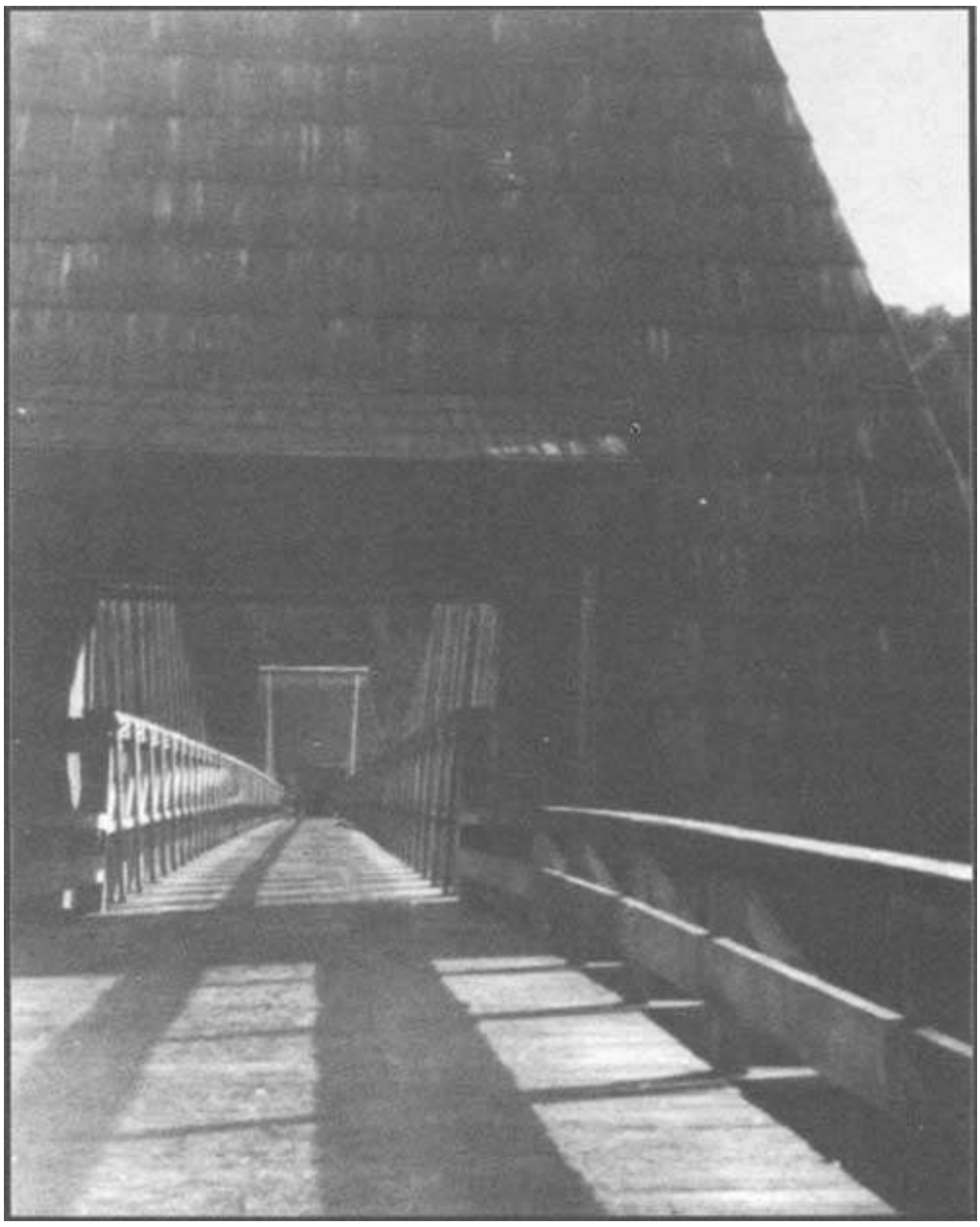
There were myriad details to attend to before the new national forest could function smoothly as a unit. For example, being composed of parts of three national forests in two regions, along with a completely new supervisor's office, the Six Rivers lacked anything resembling an integrated communication system. To begin to remedy the situation, in June 1947, the communications engineer from the Trinity National Forest was detailed to the Six Rivers to install a short wave radio network. Twenty-five watt transmitters were installed at the offices in Eureka, at Crescent City, Gasquet, Salyer, Mad River, and Orleans (WTJ 6-26-47). The Six Rivers' 1947 communication system consisted of 447 miles of ground telephone line plus 44 miles of metallic circuit pole line (USDA, FS 1947: n.p). The Six Rivers also inherited four ranger stations, eight guard stations [33], 20 lookout stations, and one work camp. In total, there were 119 administration and protection buildings to use and maintain. The Northern Redwood Purchase Unit also had its building and work camp and the California Forest and Range Experiment Station operated its sub-station at the Yurok Experimental Forest (USDA, FS 1947: n.p.).

Locations for the administrative buildings inherited by the Six Rivers National Forest often made little sense when the new forest was considered as an entity of its own.

Some of the Six Rivers most distinctive administrative buildings were constructed during the depression-era. The CCC-constructed buildings comprising Big Flat Guard Station on the Gasquet Ranger District were clad with cedar slabs that had not been debarked. These photos of the station barracks and barn were taken in 1955. Courtesy of the Charlie Brown family

In addition to communications and administrative facilities, the transportation system inherited from its parent forests made little sense for the new, westward-looking Six Rivers. The 1947 "Situation Report" listed 1,247 miles of approved roads: a total of 567 miles were built, with only 281 miles of that deemed to be in "satisfactory" condition. There were 43 bridges, few of which were capable of handling commercial log loads: 56 percent were log-constructed, 29 percent timber-constructed, and 15 percent made primarily of steel. There were 1,483 miles of approved trails, with 1,377 miles having been built by latter 1947. It was estimated that about half of the existing trails were not maintained to a satisfactory standard because of low use and inadequate funds for that purpose. [34]

The local newspaper's "Log and Saw" column reported regularly on the need for roads and bridges adequate for logging trucks. This shortcoming was a significant roadblock to full development of the area's timber resources. Certain bottlenecks were frequently mentioned, such as the Klamath Bridge at Weitchpec, then designed to carry only 12 tons; the narrowness and curveyness of US 299, especially between Willow Creek and Blue Lake; and the 23-ton limit on the Redway Bridge on US 101. All of these links in the transportation system were slated for improvements in the coming two years but, as noted by county surveyor Frank Kelly, the importance and weight requirements of logging meant that other key roads and bridges had to be rebuilt, "regardless of the frequency of use, in order that they may carry the heaviest loads safely" (HT 7-13-47).



This undated photo of the Orleans Bridge across the Klamath illustrates that, even some of the more well-built bridges on lands that served the Six Rivers National Forest, were inadequate for hauling commercial-sized loads of logs. The Klamath Highway was not completed until 1923; its dedication was a huge event, attracting a roster of dignitaries that included Congressman John E. Raker and Regional Forester Paul Redington (Bower 1978 vol. III: 53). US Forest Service photo

Another gnarly difficulty that had to be worked through was the difference between Forest Service log scaling and commercial scaling. Commercial scalers dropped all fractions of inches

in diameter measurements, while the Forest Service rounded fractions to the nearest inch. Moreover, peculiar to the north coast area, the Humboldt Log Rule was used for scaling redwood. The Humboldt Rule used Spaulding volume tables less 30 percent deduction due to the high amount of defect in redwood. The Forest Service did not use Humboldt Log Rule but, instead, used the Scribner Decimal C tag rule system and made deductions for defect based on local observation (Hallin 5-20-97: pers. comm.).

With all of the hurdles, roadblocks and frustrations, the forest supervisor and rangers were keenly mindful that, as the first administrators of a brand-new national forest, they were making history. Fire Control Assistant Lloyd Hayes suggested that the rangers take the time, at the close of their inaugural year, to narratively record events of the past 12 months. Supervisor Fischer endorsed the idea and asked them to write-up the highlights by major function: general administration, fire control, timber management, range, lands and recreation, and engineering:

> . . . record personal reactions and feelings at the news of the creation of the Forest, wonderment at how it would work, the name, first contact with individuals in locating boundaries, etc. Be sure you have the bad as well as the good things of the first year [Fischer 1-9-48].

So far, three of these histories have been located: Lower Trinity, Mad River, and Gasquet. Long-time Lower Trinity District Ranger Wesley Hotelling's retrospective of his first year as part of the Six Rivers National Forest was the most lengthy. [35] Hotelling's district history implied that the Douglas Bill influenced the decision to create the Six Rivers and, moreover, that a significant segment of the public suspected that the move to create the new forest was a harbinger of a larger and more ominous threat: establishment of Douglas' Roosevelt Memorial Redwood Forest which, detractors warned, would deprive counties of direct tax and indirect payroll revenues. Because of the many first-hand insights it provides, Hotelling's colorfully-written history of the Lower Trinity's first year as part of the Six Rivers is quoted in its entirety.

Orleans' first ranger headquarters with William Hotelling and Albert Wilder in 1910. This station was built in 1908. US Forest Service photo

The most interesting phase of 'something new' is public reaction. People must have their say and rightly so; if they do not feel qualified to publicly denounce new ideas, plans, etc. they shout their criticism to their neighbor, the public official. The query 'Why establish another National Forest? - What's wrong with the present set-up? - Where does the economy come?' Many conclude 'just more regimentation.'

"Following closely on the heels of the Helen Gahagan Douglas bill, the first wave of 'brass' made their appearance in the Coastal area."

Following closely on the heels of the Helen Gahagan Douglas bill, the first wave of 'brass' made their appearance in the Coastal area. Their contacts, their statements somewhat confidential to key men spread like wild fire. These leading citizens rebelled and branded the plan as Communistic, inspired by labor groups. Word passed to groups, Stockmen Associations, Civic Organizations and to the Press, with full determination to stop the movement as a means of protection to 'Free Enterprise' - a system enjoyed by the residents of the Coastal area since the advent of the white man. Certain influential Governmental Agencies did not make matters any easier, particularly among stockmen who by this time appealed to the people for a united front [indeed, grazing was predicted by supporters of the Douglas Bill to be adversely affected by the bill, in contrast to other forest uses]. There were nods of approval by Gov't. men when public statements such as 'it's just another means of getting their toe into the door' were made. Summed up, it was nothing more than initial ground breaking for the Roosevelt Memorial Forest that spelled doom to 'Free Enterprise' and removal of taxable lands from the assessment roll.

The second wave of brass came in at the peak of the fight and adverse publicity was running rampant in the local papers. Key men and political bosses had made up their mind and warned that the fight was just commencing. A Local Druggist decided that something had to be done besides talk. He publicly declared a desire to be of service. This offer was accepted and it was the very Druggist who was responsible for the preparation of a resolution for passage by the Humboldt County Board of Supervisors against the Douglas Bill and indirectly against establishment of a Forest Headquarters in Humboldt County. Incidentally the druggist who prepared the resolution was and still is a key man and a darn good one.

"The second wave of brass came in at the peak of the fight and adverse publicity was running rampant in the local papers."

It is true that all this took place prior to 1947. To be exact, the summer and fall of 1946. It is felt that these incidents all lead up to 1947. The Lower Trinity District played an important part even though for no other purpose than keeping finger tips on the pulse of public opinion. Many individual contacts were made and findings were extremely interesting. The layman, during the interim, analyzed the problem to his satisfaction and concluded that after all there were many advantages — more regulated use of our resources just had to come....

Beginning with 1947, January through May 1st, the Lower Trinity District tottered in the balance. The Trinity reminded us that we no longer were a part of their unit but that they would tolerate the personnel to the extent of accepting our 26's. During this period records were segregated and transferred to Big Bar District. Ties were still very close with the Trinity Headquarters, at least with the Clerical force. ...Key personnel transferred with the district and we were content to give the Trinity the New River protection force along with our pack string.

We gave up with considerable reluctance, our special use business, that had been developing in New River over the years, particularly the effort put into convincing the old miners of accepting a special use permit in lieu of a mining claim. [36] We never crowded these fellows. They took their time and in the end came to our side. Two hydroelectric power permits in that area, represented a lot of hard work and pride of the district.

In loss of the New River unit went not only a large area of the district (about 1/2 the total acreage) but also, a sizable part of the New River deer migration route, also a pride of the district and on which we had compiled a 12 year record of deer movement, deer kill and the pleasure of gathering annual data....

In grazing we lost two allotments and gained one A slight increase in animal months and receipts are up a little.

Mining was not a serious loss but we did have plans for development of the Pulp business in conjunction with by-products of Copper, a combination of great possibilities for this area. Still is.

In timber, we have gained a lot in the Grouse Creek basin - South Fork Mt. districts, even though at some disadvantage to administer with our present transportation system. First inquiries from operators on possibilities in this basis came in 1947....

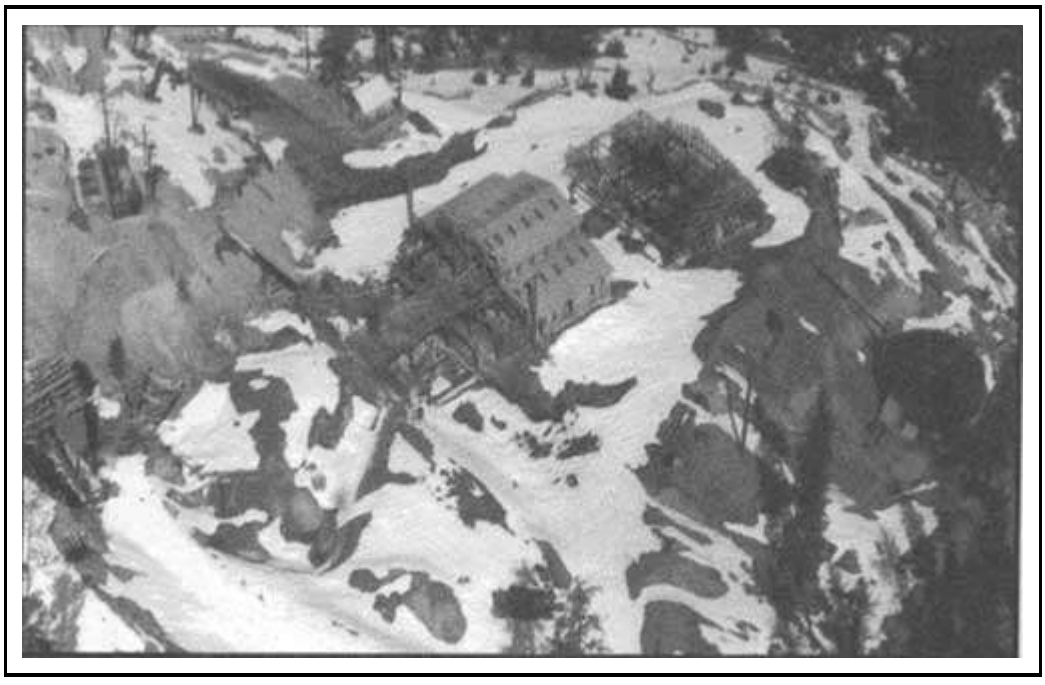
"We are strong believers in the theory that good resource management is the very best Fire Prevention."

As expected, we, like all other districts, had to undergo many adjustments, in operation and fiscal procedures. With the same manuals as used on other forests, just the same there are those minor differences which all add up to something different . . . .

Fire control suffered somewhat by the complete absence of training, at least in fundamentals. . . . We want to emphasize the need for more and more fire prevention. As we see it, the surface is barely touched. Here again, resource work absorbs all available time. We are strong believers in the theory that good resource management is the very best Fire Prevention. The point is, we have not yet reached the point in perfection of resource management that it reflects in fire prevention, at least not materially. . . .

Lumbering is developing rapidly on the district. To date it has been confined to private timber, but has now reached a point where National Forest timber is going to be in increasing demand. The district, despite the fact that lumbering interest has been crowding on all the corners, did complete Timber Management Plansinvolving two working circles. Some of the details were completed in January and February but on the whole the job was pretty much done during 1947.

With approval of plans, we will be in a position to go into timber sale, and timber management on a businesslike basis.



This 1965 aerial photograph shows the Horse Mountain copper mine as it was being dismantled. US Forest Service photo

We feel and urge that Government funds be made available for surveys and construction of major access roads on the planned system. The first leg of the system at least, should be a Government responsibility.

Playing for time in which to compile data and otherwise complete Timber Management Plans, the district adopted the practice of referring timber buyers to owners of private tracts. This resulted in the sale of timber by the small individual owners of tracts located near or adjacent to Highway #299. The destructive methods employed are, of course, very apparent. To the extent that some are holding out for better or improved forestry practice. Outstanding in this respect was Mrs. Clair Shore of Willow Creek, an ardent believer in conservation.

Present trends are unquestionably toward peeler stock at any price. Length of haul no longer a serious cost factor. Disposition locally of the lower grade logs at cost or at a figure less than cost appears well within the realm of good business. Salvage of a fairly high percentage of peeler stock is, very definitely the principal factor.

"Demand for recreation areas, facilities and special use sites are developing rapidly."

Range management plans are practically completed for the 8 range allotments. A forward step in compliance was made in 1947 with fairly good results. The principal goal for the present is proper seasonal use and check of unauthorized use, particularly on the Trinity Summit Allotment. More time for inspections and home ranch dependency surveys are necessary for more equitable distribution of grazing privileges. This is very important.

Demand for recreation areas, facilities and special use sites are developing rapidly. We were able to establish the Humboldt Country Council of Camp Fire Girls, an organizational camp, on the district this year. Preliminary work done on other sites for youth groups.

Recreation planning has been dragging as a whole this past year. Complete to date is a District wide map, constructed on a 4-inch [to the mile] scale, on which is shown all Government tracts of potential recreation value....

One U-3-b tract was submitted and approval granted. Forest Picnic Area.

The need for more camp grounds with adequate facilities are of paramount importance. Equally important are funds for proper maintenance and policing once constructed.

[Engineering] Surveys is the one outstanding problem in good land management. Present surveys (1880) are inadequate and an ever present problem. The district is sadly in need of an approved trails system (submitted 1947) as a starting point or basis of planning maintenance. The trend should be for less mileage and fairly low standards. Trails just do not serve as they

did in years gone by. Preparation of and adoption of a road plan was a stride forward and can be chalked up for a 1947 accomplishment.

Public opinion at the close of 1947 is practically reversed to that of the fall of 1946. There is in general, good feeling toward the Six Rivers National Forest, the headquarters personnel and, most outstanding is the confidence that has come about in these few months... [Hotelling 2-11-48].

In an even later retrospective, Hotelling wrote:

The 1940 era brought many changes to our administration . . . . There was on the horizon timber cutting. With World War II coming to an end there appeared to be a demand for timber. We were perplexed by many things. One was uncertain land surveys and the location of timber tracts with reference to these surveys. We foresaw many problems that we had to face and they were coming soon.... We started our lumbering in a small way, limited because we were not experienced, though we believed we should have been assigned to Region 6 to observe timber cutting in the National Forest. It would have given us some knowledge of how to establish policy and cutting patterns here on the [Lower] Trinity. Without any encouragement or help from the Forest Service it was concluded that we were on our own. During these preliminaries the timber load kept increasing and this did cause the regional office to think in terms of assistants, at least technical [Hotelling 1978: 94-95].

"We were perplexed by many things. One was uncertain land surveys and the location of timber tracts with reference to these surveys."

The problem with land lines precipitated a greater than average workload and headache factor in timber trespass, at least for Lower Trinity (Hotelling 1978: 100). Wes Hotelling was an avid local historian. After his retirement, he continued to contact old-timers in the area and ply them for information that, in most cases, was otherwise undocumented. He was a regular contributor the *The Kourier*, published in Willow Creek, and many of his stories for the paper were intertwined with early Forest Service history. He also wrote a book, published in 1978, that chronicled his boyhood years living along the Klamath River and his long and varied Forest Service career: *My Life With the Kar-ooks, Miners and Forestry.*

The Mad River District Ranger, R. Kenneth Smith's, experience contrasted with that reported by Hotelling regarding the local public reaction to the transfer of administration. Ranger Smith noted that:

Transfer of the district from Trinity to Six Rivers National Forest did not create any particular stir among locals or users from outside. It had been expected that there would be more queries than there were as to the 'why' of it. The transfer seems appropriate for the timber resource especially, as the railroad and the higher standard roads are on the coast side, and the topography drains that way too.

Written in a more matter-of-fact style than the conversational diaries of Rangers Hotelling and Quackenbush, Ranger Smith's diary showed that the district was gearing-up for the expected timber sale business. The district was divided into the Eel River and Mad River working circles and estimates of gross volumes were assigned to each. The ranger made an interesting comment regarding the new Forest Practice Act that had recently gone into effect. Noting that the new rules stipulated that care be taken to protect young growth up to 20 inches in diameter as well as slash disposal for timber harvests on private lands, his observation was that:

"It would appear that purely educational efforts are going to have to be reinforced by compulsion."

> Actual practice on private land is generally to take out what will pay its way, exercise little care with young growth, and do little slash disposal. It would appear that purely educational efforts are going to have to be reinforced by compulsion.

It appears that the Mad River ranger's forte was range management. In his recounting of his district's first year, he noted that 1,700 cattle grazed under permit on Mad River District and that live beef prices for 1947 were 20 cents per pound. Klamath weed control was considered the primary work and 2,4-D weed killers were both "sprayed and dusted in areas too remote to pack in borax.... Klamath weed eating beetles were released through the Dept. of Agric., near Blocksburg..." Regarding recreation on the district, the ranger noted that such use increased as a result of lifting wartime travel restrictions, but that use was still light. An estimated 1,000 visitors used the improved campgrounds; there were also an estimated 900 hunters, taking 300 bucks and 30 bear, and there were 800 anglers. Reporting on the first fish plantings on the district since the war, 48,000 rainbow were planted in Mad River and 23,000 in the Van Duzen; all from the Prairie Creek Hatchery. [37] The ranger reported "considerable interest" in summer home sites on the district by Humboldt County residents; "thus far private lands have partly satisfied the demand" (Smith 1947: *passim).*

From another district ranger's perspective during the time of the transfer of land to the Six Rivers, Leo Quackenbush of Gasquet Ranger District wrote the following personal observations late in 1947:

> Beginning in February of 1947, the Gasquet Ranger District of the Siskiyou N. F., slowly began to move from the ardent clutches of the Siskiyou N. F. in Region 6, into the open arms of the shiny, new, Six Rivers N. F. in Region 5. By early spring this move was complete and on June 3, 1947, President Truman signed the proclamation, officially establishing the Six Rivers N. F., which is comprised of the Gasquet District, the Orleans District of the Klamath Forest, the Lower Trinity District and the Mad River District of the Trinity Forest. For good measure the Northern Redwood Purchase Unit hung out a Six Rivers shingle also.

Immediately after the transfer the post man started groaning under the Gasquet mail load. At the Ranger Station, the letter openers were sharpened up and the new forms and instructions stocked up. Some of this stuff had a familiar look, but some of it was written in a 'foreign tongue,' with the result the light plant worked overtime while the District Ranger, Leo D. Quackenbush, better known as 'Quack,' toiled to all hours learning the meaning of the R-5 hieroglyphics. By the opening of Fire Season 'Quack' was bilingual in more ways than one.

"At the Ranger Station, the letter openers were sharpened up and the new forms and instructions stocked up. Some of this stuff had a familiar look, but some of it was written in a 'foreign tongue' . . ."

. . . Only one timber sale was in operation on the District this year.... A timber management policy statement for the Middle Fork and South Fork Working Circles was started in August. This is expected to be completed in the early part of 1948. It is running into a job due to lack of timber survey data covering this area....

In cooperation with the State Game Commission, a plan was prepared whereby a sizable herd of elk, some 40 head, were to be planted in the upper reaches of the South Fork of the Smith River. This area, in the early days, was a natural elk habitat. With this in mind it is thought that elk should thrive in that area. The elk were to be obtained at the Prairie Creek Refuge and hauled by the State. Late in October the first shipment arrived, thirteen head. Ranger Quackenbush, [Morrison] James and [Robert] Steven, accompanied the load with a stake-body truck. It was necessary to tow the elk truck through several mud holes. The elk were released at the junction of the Bear Basin L.O. and Doe Flat road. Numerous pictures were taken of the operation. One bull elk lost its footing in the truck and was badly trampled, as a result, it died. [38]

Early in November, 5 more elk were released in the same vicinity. Due to shortage of personnel on the part of the State, the 17 head was all that were brought in this year....

As the year draws to a close, the District Personnel consists of Ranger Quackenbush, Packer Steven, and FCA [Fire Control Assistant] James. [39] We look back over the past and realize that the year 1947 has been a good one. The war is almost forgotten, the expected high cost of living is self-evident, and we are all a mite concerned with making ends meet, but it is better than sweating out Military Campaigns and we are thankful....

The idea of keeping a District Diary or History is new. We think it is a good one and hope that our successors will carry on where we leave off... [Quackenbush *et al.* 1947: 1-6].

"The Region of The Last Stand..."

By the time the Six Rivers was created, the threat of "timber famine," as a motivator to put forested lands under Forest Service stewardship, took a back seat to the idea that the Forest Service could help develop and sustain forest product-dependent communities. By opening new

"logging chances" to the timber industry, roads for fire protection and recreation could be funded reaching ever-deeper logging opportunities. Logging on national forest land was to be designed for sustained yield, on the scale of working circles, thus avoiding the characteristic boom and bust of rural, timber-dependent communities under the "log it and leave it" pattern. Perhaps enough time had passed and enough scars of former logging methods had, at least superficially, healed that the cry of "timber famine" no longer had the same punch. Moreover, the industry had responded to laws and policies that curbed some of its former excesses. The call to arms that had motivated the previous generation did not exactly fall on deaf ears, but it did not have the resonance it once had.

"The devastation must be stayed if we are to survive as a nation."

As late as the 1930s—and partly responsible for the thrust to create the redwood purchase units—former and first Chief of the Forest Service, Gifford Pinchot, made a familiar pitch. In the foreword to what became Senate Document 216, Major George P. Ahern's *Deforested America, Statement of the Present Forest Situation in the United States,* Pinchot complained that deforestation had slipped from the fore of the public's consciousness, and much to its peril:

> For the last decade and more the essential fact about the forest situation in America has been winked at or overlooked in most public discussions of the subject. The fact is that our forests are disappearing at a rate that involves most serious danger to the future prosperity of our country, and that little or nothing that counts is being done about it. Of 822,000,000 acres of virgin forest only about one-eighth remains. Half of that remainder, roughly speaking, is held by the Government and is safe from devastation. The rest is being cut and burned with terrible speed....

Major Ahern, a self-taught forester for whom Pinchot had utmost professional respect, continued his introduction, saying:

> The most serious phase of this appalling situation is that no alarm is shown at the Forest Service headquarters or by lumbermen. Although the principal facts here presented are acknowledged by the foresters at headquarters... the public has been kept in ignorance of the situation.... The devastation must be stayed if we are to survive as a nation [U.S. Congress 1929: v & viii].

Ahern also quoted forestry researcher T. T. Munger regarding the status of forestry in the Pacific Northwest by the close of the 1920s—a place referred to as "the region of the last stand":

> The industry has been following the same road for generations, the road of least resistance; perhaps they are going so fast down the smooth, straight road under the pressure to liquidate bonded indebtedness that they can not make the radical turn into the new road to timber farming. The road to timber farming turns off sharply from the well-tracked conventional route. Few have traveled it in Oregon. Timber mining looks like a better-paying business than timber farming.

Ahern pointed an accusing finger toward the Forest Service for the lack of public outrage over deforestation, noting that:

Ahern pointed an accusing finger toward the Forest Service for the lack of public outrage over deforestation.

> The rapidly increasing forest devastation so disturbed the Forest Service that some four years ago it quietly banned the use of the word 'devastated' and substituted therefor the milder word 'denuded....' [T]his appalling forest situation [has] been known to the Forest Service for many years. . . so menacing to our national prosperity, even involving our national defense.... The foresters [in the field], for more than 20 years. . . have duly reported the facts to headquarters at Washington, but there they lie. The foresters at headquarters... have fallen down on the job in failing to get the real facts to the people, not through the medium of dry Government bulletins, but on the front page of metropolitan dailies.

The Hoaglin Valley Lumber Company sawmill in Kettenpom Valley was one of the many small mills that sprang-up in Humboldt and Del Norte counties during the post World War II decade. US Forest Service photo

From the outset, the Six Rivers' overall mission was clear, and its officials expended a great deal of energy in getting the word of forestry and of sustained yield management into the ears of the local publics: they were committed to making a stand. Creation of the Six Rivers National Forest played a key role in the growth and the nature of change in the California north coast area's timber industry. In 1930, the forest products industry was responsible for the livelihood of 50 percent of Humboldt County's residents. In 1941, there were only 24 sawmills in Humboldt

County, but by 1950, there were about 160 active mills representing a broad investment spectrum (Vaux 1955: 5). [40] Though there had been a steady, incremental increase in the number of sawmills during that range of years, the number leaped from 108 to 160 between 1947 and 1948, primarily representing an increase in the number of smaller mills. The county's lumber production in 1948 was 815,810,000 board feet, excluding the product of 14 shingle and shake mills. Its lumber industry directly employed 3,920 workers in 1940; a decade later, that figure was about 7,000 (USDA 1947: rev. pg. re. lumbering 1-1-50). Using a factor of one in five, about 48 percent of Humboldt County's working population was supported by the lumber industry according to the 1939-1940 census.

Below are some of the timber figures forest officials were looking at in 1947:

County	Est. Board Ft./Total	In N.F. Ownership	Yrly Avg. Lumber Production Since 1920
Humboldt	46 billion	7 billion	366 million
Del Norte	11.5 billion	3.5 billion	16 million

Officials in 1947 predicted that, for Humboldt County, the old growth stands would support a future average harvest of 500 million board feet; the upswing was already evident in the war year, 1945, when production reached 455 million. For Del Norte County, production was 24 million board feet, but officials predicted a future annual production figure of 85 million, given accessibility improvements that were on the horizon. At that rate, the old growth stands were predicted to last about 60 years in both counties and income from the industry was expected to plummet by 50 percent when the old growth was exhausted (USDA 1947: A-1, 2, 3).

The Forest Service had taken up the gauntlet of using its influence to substantially improve logging practices in old growth stands in order to leave the logged-out areas in good condition for second growth production.

The new forest's role in California's north coast involved very high stakes.

A major factor in the spectacular growth of the north coast timber industry during the 1940s was the Douglas fir market. Earlier, Douglas fir had been virtually ignored as a commercial tree even though it accounted for 66 percent of the county's 1948 timber inventory. Totaling only 11 per cent of the county's cut before 1940, it accounted for more than 60 per cent of the cut after 1948. Different manufacturing techniques spawned new competitors on a playing field that had been dominated by redwood producers, and medium to small-sized mills became more important. In contrast to redwood mill owners who owned about five times as much old-growth timberland as the average Douglas fir mill owner, fir operators had to depend on purchasing logs or stumpage from other land owners, notably the Forest Service (Vaux 1955: 9, 10). Moreover, until the 1950s, Douglas fir from everywhere on the Six Rivers—with the possible exception of Gasquet—was considered almost a weed; it was "brashy". . . hard to work and splintery, whereas the Douglas fir from Oregon and Washington were finer grained and easier to work (Hallin 5-20-97: pers. comm.).

The new forest's role in California's north coast involved very high stakes. And in order to steer a true course toward forest sustainability—a course between resource protection and development—it was clear that the Six Rivers needed a reliable policy compass, oriented with a sound philosophy.

This photograph, probably taken during the 1950s, shows a truck being loaded with old growth Douglas fir. A tractor is working, at the far left, by the log deck. US Forest Service photo

The Six Rivers' First Timber Management Policy

In January 1948, as part of the "Brain Book," Supervisor Fischer provided historical perspective and guidance about the new forest's timber management program. [41] He wrote. . .

We on the Six Rivers National Forest have as one of our major jobs and objectives the management of lands for timber production. Heretofor *[sic.]* we have been holding these lands in a more or less custodial manner waiting for the time when economics and demand would make our product marketable. That time has come. At least we are on the threshold of doing a substantial timber business each year. We will become an asset rather than a liability to the American tax payer.

Fischer was concerned about the dearth of bidders for the forest's first few timber sales. Prospective buyers had openly expressed their fears about bureaucratic red tape and what they perceived as arbitrary requirements. Fischer underscored with his rangers and staff that:

In the management of these Federal lands for crops, whether they be forage or wood or services, we have several basic responsibilities.... Basically, I believe we have at least three of equal importance:

1. To see that crops are harvested on a sustaining basis without deterioration of the capacity to yield.

2. To our employers, the people, that their interests are protected and that they receive fair and just return for the products or the services of these lands.

3. To the contractor or the permittee to see that his interests are protected, that he has a fair opportunity to gain his objectives....

"We will become an asset rather than a liability to the American tax payer."

We have, in general, done a pretty good job of the first two. We have always recognized them. Too often we lose sight of the last in our zest to accomplish the others [USDA, FS Handbook 1-28-48: Resources].

Intended to be the forest's policy compass, by June 1948, the Six Rivers had completed its "Preliminary Timber Management Policy Statement." Prepared by George Ferrare, Assistant Forest Supervisor, the document stated that the major purpose of creating the new forest was "the sustained production of forest resources for the benefit of people." This opening statement summarized that shaping a new administrative unit in the form of the Six Rivers National Forest would promote sustained production of forest resources in a more beneficial way than if the area remained under the administration of its three parent forests.

The economic situation painted by Ferrare detailed the thinking that went into the impulse to create the Six Rivers. He noted that the coastal region of northwestern California contained one of the last remaining extensive virgin timber stands in the West and that about 70 percent of the territory served by the north coast area's transportation system was forested land capable of producing commercial timber. From 1920 until 1945, the average annual production of softwood lumber from the area that became the Six Rivers was estimated at only 384,000 board feet; in 1945, that figure jumped to 480,000. Since that year, production was in an upward spiral, particularly due to high demand for veneer and lumber, and production was expected to approach one billion board feet by the end of 1948. The embryonic Douglas fir industry was developing rapidly and there was an anticipated surge in utilization of hardwoods, particularly in furniture manufacturing. [42] Additionally, the market for Douglas fir stumpage commanded less than $1.50 per thousand board feet prior to 1944 but, by 1948, averaged $3.25 per thousand. The plywood industry did not gain a toehold in Humboldt County until 1947, but by 1954, there were four plants with an annual capacity of over 240 million square feet on a 3/8-inch basis. Additionally, five veneer plants accounted for about 360 million surface feet of green veneer annually. Douglas fir was the main source wood for both plywood and veneer (Vaux 1955: 11). Up to 1947, most of the logging in the area tributary to the northwest coast of California had been on private land, with only about 16,000,000 board feet being cut on what became the Six Rivers on 1,675 acres. Ferrare stated that private logging practices in old-growth stands generally

employed relatively harsh methods followed by broadcast burning, leaving about 80 percent of the private cutover land in poor productive condition.

The objectives of Six Rivers National Forest timber management were a reflection of the Regional Timber Management Handbook which was essentially to bring existing and potential National Forest lands to their maximum timber production in as short a time as possible. By doing so, under sustained yield methods, it was believed that the national forest would contribute its fullest toward local dependent industries and communities. [43]

The primary transportation system for forest products on the Six Rivers led to the Eureka-Arcata area: the main manufacturing and shipping point by rail and sea. Lumber and logs were also trucked eastward to Redding for California markets, northeast to Grants Pass, Oregon for manufacture and rail shipment, and as improvements were made for Humboldt Bay and Crescent City harbors, westward for year-long shipment by sea.

Ferrare's timber management policy for the Six Rivers hinged on the premise that private, old-growth stands were predicted to last only between 40 and 60 years longer, that the absence of old-growth logging would precipitate a drop of about 50 percent in employment and income, and that this foreshadowed a "heavy blow to the local economy" considering that the industry supported about 48 percent of the local population. [44] The solution was instituting the practices that insured a sustained industry, including improved utilization and cutting practices. Ferrare took heart that some of the long-time lumber operators were beginning to plan production on a sustained basis, optimistically commenting that: "If this trend in private industry continues, coupled with a strengthened State Forest Practice Rules, the future of this area may be safeguarded against the serious economic and social problems associated with 'cut out and get out' exploitation....

By the end of the 1940s, the Six Rivers was experiencing strong competition for its stumpage, and available private timber within the administrative boundaries of the forest were the subject of "heavy timber speculation." Ferrare predicted hard times for smaller lumber industry concerns that were less and less able to successfully compete for more and more scarce private stumpage or for large blocks of offered government timber. Their limited capital and timberland ownership put them at a distinct disadvantage in light of the Forest Service's impetus to structure larger government timber sales. Larger sales tended to promote forest road system development and to assure adequate purchaser deposits for slash disposal and reforestation—all aimed at putting the Six Rivers on the path to sustained yield forestry. [45] Mills that had depended upon private timber were casting their gaze toward national forest timber to stabilize their futures. Importantly, however, Ferrare warned that the estimated annual harvest during the second cutting cycle would comprise only one-sixth of the total lumber production for the Six Rivers tributary area; a harvest insufficient to "materially cushion the economic effects of a heavy curtailment in lumbering on private lands at the end the 40- to 60-year period."

The policy statement included all the land on the Six Rivers, plus the portion of the Klamath National Forest that was included in the Orleans Working Circle, and minus the Northern Redwood Purchase Unit's Requa Working Circle. [46] Given these parameters, there were 994,161 acres of government and 169,296 acres of private land within the administrative

boundary. Of this, there was an estimated 850,319 acres of "productive" land with reference to timber; 712,221 acres were Forest Service lands. The estimated total acreage of merchantable old-growth timber was 515,717; 433,436 acres of it was Forest Service land. There was an estimated volume of 22,277,936 mbf, with 18,576,011 mbf of it Forest Service volume. Old-growth trees constituted 90 percent of the total volume of the old-growth stands with a cull factor ranging from 25 to 35 percent. Growth rates after logging on productive land were estimated to average 300 board feet per acre for Douglas fir and redwood types and 200 board feet for mixed conifer and fir types. Since local yield tables were not yet available, the figures were estimated on the basis of local increment borings and observations and were considered conservative.

The recommended "cutting budget" on the Six Rivers for the first cycle was 174,500 mbf with the primary objective being removal of "high risk, decadent trees" in order to improve net growth of the residual stand and realize the value of the decadent stand. The second cutting cycle budget was 182,639 mbf on national forest land; after the first cut, the problem of regeneration was to be a major consideration. Ferrare pointed out that the "[t]imber sale business, which is practically starting from scratch at the beginning of this ten year period, will gradually expand and may approach 100-125,000 MBM annual cut in ten years. Consequently the actual annual cut for the first ten years is expected to fall considerably below the budgeted annual cut for the first cutting cycle. This anticipated sales situation would act as an additional safety factor to compensate for any possible over-estimation of timber volume and growth." Given the forest's generally favorable conditions for adequate natural regeneration, Ferrare did not foresee extensive planting programs for the Six Rivers. Up to the approved annual cut, the timber sale policy for the Six Rivers pivoted upon receiving applications to harvest specific areas from "established operators who qualify with respect to financial ability, experience in logging and manufacture, and in general efficiency of past mill and wood operations." To avoid high grading—that is, harvesting only the most profitable trees—timber sale planning required that all commercial species in a specific area be included in the proposed sale. The policy also directed foresters to consider the sustained yield capacity of adjacent Indian lands in planning for sustainability of mills within affected working circles.

SIX RIVERS NATIONAL FOREST July, 1952

Industrial Activity by Years
(Within F. S. Protection Boundary)

I Logging and Mill Operations

No. of Operations	1947	1948	1949	1950	1951	1952	1952 increase over 1947 Percent
N.F. timber sales	2	1	2	3	7	10	400
Logging (private land)	12	23	29	42	62	69	475
Sawmills (private land)	5	10	14	16	20	27	440
Totals	19	34	45	61	89	106	452

II Logging Slash

	1947	1948	1949	1950	1951
Acres — accumulated					
N.F. sales	350	422	502	607	1,250
Private land	3,305	5,773	8,463	10,688	20,605
Totals	3,655	6,195	8,965	11,295	21,855

III Burned Area

	1947	1948	1949	1950	1951
Acres—all lands (Wildland fires)	6	9	329	1,114	12,423
N.F. sales slash	0	0	0	0	40
Private land slash	0	0	0	640	3,770

These three tables are taken from Jarvi's 1952 inspection report. Note the phenomenal growth in harvest activity, especially on private lands within the Six Rivers' protection boundary.

The minimum scope and context of timber sale planning was to be the working circle and it was clear that

sustained-yield timber production was the engine that powered the structure and content of alternatives.

Though shorted by today's yardstick, there was some consideration of resources other than timber offered in this, the Six Rivers' first timber management policy. For example, in locations where recreational use was a dominant or co-dominant value, cutting, logging, slash disposal, and road location were to be modified with the object of protecting these existing or proposed values. Moreover, watershed protection was a consideration, although Ferrare inaccurately stated that the forest's soils were "generally of such texture and structure as to make it stable and not subject to serious erosion." Vegetative cover along stream sides were to "be preserved as much as possible" and stream crossings of logging roads were to be minimized. Except for large open glades, grazing ranges were viewed as "temporary in nature, due to gradual encroachment of the timber species." Therefore permitted stock on the temporary ranges was to be gradually decreased. Selective harvest methods were viewed as having a positive affect on wildlife by improving their food sources. As for fish, the only words in the plan were that impediments to free migration of fish in streams as a result of timber operations were to be removed before withdrawal of logging equipment. The forest was divided into nine working circles in addition to the Northern Redwood Purchase Unit's Requa Working Circle: Middle Fork-Smith River, South Fork-Smith River, Orleans (Klamath and Orleans blocks), Blue Creek, Bluff Creek, Horse Linto, Lower Trinity (Willow and Grouse creek blocks), Eel River (Grizzly Mountain and Hoaglin blocks), and Mad River (Ruth and Pilot Creek blocks). The minimum scope and context of timber sale planning was to be the working circle and it was clear that sustained-yield timber production was the engine that powered the structure and content of alternatives.

The young Six Rivers National Forest was a fulcrum point in California's timber industry...

Though there were a few glimmers of success, frustrations intensified among Six Rivers officials in their efforts to bring forestry to the north coast. While the impatience of Regional Office and other observers mounted, accomplishments toward the Six Rivers' primary objective were foiled by a seemingly unending procession of hurdles. Among them was the fact that there were "perhaps fewer proven principles in forestry [in California's north coast area] than for any other commercially timbered area in the United States." Using the example of fir forests that were predominantly mixed and in uneven aged stands, Region 6 to the north generally used a block clear cutting system while Region 5 preferred a selection system; private owners were "headed for a heavy selection cutting" system. On Gasquet Ranger District, it was noted there were old, even-aged stands that Region 6 would probably clear cut, but that the state of forestry in the area did not clearly "indicate the limitations" of clear cutting versus selection systems. For the redwood strip along the northwest fringe of the Six Rivers, the state of knowledge had even more gaps: "All of this indicates a more or less pioneering status in the development of silvicultural practices." The young Six Rivers National Forest was a fulcrum point in California's timber industry; having nearly half of the state's remaining virgin saw timber tributary to the Eureka railhead and given the rapid development of the area's re-manufacturing capacity, its role was pivotal (Cronemiller and Kern 1949: 1-3, 12).

By 1948, demand for timber sales on the Six Rivers was high and the forest was being criticized for being slow to make offerings available to prospective bidders. Fischer wrote in a cover letter for the forest's preliminary timber management plans and policy statements for its nine working circles, that: "The demand for timber sales continues very strong. We have been able to put off most of it under the plea of a lack of personnel. Operators are beginning to think we don't want to sell. The counties, too, are exerting pressure, and are beginning to wonder if we are just trying to hold out. You will note that we made special efforts to be conservative." The allowable annual cut estimate for 1949 was 109,600,000 board feet, including the Requa working circle (Fischer to RF 7-30-48). To the dismay and disappointment of Six Rivers Forest officials, none of the nine working circle policy statements passed muster at the Regional Office (Cronemiller and Kern 1949:19).

Huge frustrations were reported in administering timber sales on the Six Rivers during its first years of operation. Part of the problem could be traced to the marginality of the north coast lumber industry; a situation rooted in the facts that: 1. The fir and pine areas of the forest were not readily accessible and, therefore would be alternately economic and uneconomic with market fluctuations. 2. The fir was often exceedingly defective. 3. The "market is fickle," making "inferior" species, like fir, important in boom years and flatly uneconomic in off years, and 4. Redwood operations in the area were "geared to big stuff," making handling of smaller material uneconomical.

On the basis of this closer look, Six Rivers timber was, ironically, generally considered "marginal" and the resultant job of timber sale administration was, as a result, unusually vexing. For example, operators who failed to show a profit were, reportedly, "usually difficult to deal with." The high number of operators in the area, many of whom controlled little stumpage, resulted in a steady stream of requests for additional sales "requiring time-consuming preliminary appraisals." Paradoxically, responding to the inquiries and requests for additional sales seemed to have the effect of encouraging marginal operators (Cronemiller and Kern 1949:18-19).

"Any time or effort spent in harvesting young stands merely slows up progress in the more critical old growth areas."

In 1950, Supervisor Fischer stated that the forest's objective in timber management was "to convert the timber stands to a healthy growing condition as rapidly as possible and to bring all working circles to their full allowable operative capacity as rapidly as is economically wise and feasible." Fischer characterized the timber resources of the forest as "virtually untouched" with an estimated volume of old-growth commercial timber at 12,596 million board feet and an additional 750 million board feet on the Northern Redwood Purchase Unit. [47] Private lands within the forest boundary were estimated to contain 2,767 million board feet of commercial old-growth timber. The allowable annual net yield from the forest was conservatively calculated at 142 million board feet on a sustained yield basis, exclusive of yields from NRPU lands. [48] Fischer cited roads as the primary ingredient needed to develop the area's timber resource, underlining that "[t]he usefulness of the National Forest timber depends largely on the continuance of an adequate access road program. . . . Such expenditures [by the Federal government] are self-liquidating, returning the costs to the treasury through increased stumpage

prices." Fischer, noting that the forest's stands were predominantly old-growth, characterized the key silvicultural challenge of the Six Rivers as "swing[ing] the growth-loss balance from zero, or a net loss, to a net gain in volume. Obviously then, the old-growth stands, on which net growth is at a minimum, need the first attention.... It is the program of the forest, therefore, to concentrate attention in harvesting... in the older components of the old-growth stands. Any time or effort spent in harvesting young stands merely slows up progress in the more critical old growth areas" (Fischer 1950: 7-10).

Hampering the timber harvest goals, as of 1950, the Six Rivers had 562.6 miles of existing system roads, with less than half of that mileage constructed to a satisfactory standard. To integrate forest transportation developments and to reach an acceptable cost-to-benefit ratio, the Six Rivers developed an "all purpose transportation plan." Supervisor Fischer stated that no new roads or trails were to be constructed on the Six Rivers without the proposal meeting plan requirements. He further commented that the plan was designed to develop road or trail access to inaccessible quarters of the Six Rivers primarily for the purposes of protection and for timber utilization (Fischer 1950: 23).

Making strides, as of 1952, the Six Rivers had about 1,535 miles in its planned forest road system of which 696 miles had been built. J. J. Byrne had remarked in his 1952 inspection report that: "This is one Forest where a large amount of federal [road] construction is necessary in order to open up difficult chances to timber." He urged the forest engineer to work closely with county, state, and federal road entities to upgrade or create transportation linkages to areas rich in timber resources (Byrne 10-27-52: 5).

Nationally, larger Forest Service timber sales were also being promoted, with one of the effects being greater allowances for road developments connected with the sale. It was believed that larger sales would be more cost-effective and more lucrative and would chip away at the refusal of contract loggers to do more than the minimum road work necessary to fetch the logs. The Six Rivers did, however, persist in offering some smaller timber sales. Defending his forest's stance, Supervisor Fischer stated his belief that, although the small timber sale size had "affected road construction and maintenance allowances in appraisals a little," that regardless of the size of the sale, allowances for proper construction and maintenance should be "up where they belong." He commented that although larger sales will help, with large or small sales, "the biggest problem is the constant resistance of contract loggers to do any more than is absolutely necessary to do the logging." In a similar vein, Fischer also remarked on mineral access roads, that the "main problem... is to get 'shoestring' operators to build roads to satisfactory standard." He reported that the forest does not lessen its standards for mineral access roads, but it was "[s]ometimes very difficult to justify any but the lowest standards from standpoint of mineral alone."

The "main problem... is to get 'shoestring' operators to build roads to satisfactory standard."

". . . It is Timely for a Shift in Emphasis in Administration. The Organizing Stage Should be Considered as Completed."

The Regional Office looked upon the Six Rivers with great interest and was intent on keeping a close eye on its newest progeny. One of the ways it monitored progress was through frequent inspections. These were typically conducted by experienced Regional Office people or individuals the Regional Office identified for the job; people who had the requisite breadth and depth of experience with the Forest Service to assess operations, pinpoint problem areas, and recommend changes that would increase efficiency and productivity. Inspectors sent from the Regional Office reported their findings directly to the Regional Forester. The overall purpose of the inspection program was to insure that policies and procedures made at higher levels in the organization—in line with presidential and legislative actions—were being executed at lower levels. Further, that execution was having the desired effect; that trends were heading in the intended directions.

There were two, basic kinds of inspections: functional and "general integrating." Functional inspections looked at individual program areas, such as fire, administrative management, or timber while general integrating inspections—or GIIs—examined how well all the component functions worked together to accomplish the forest's program of work. [49] As a historic, archival resource, reports from functional and general integrating inspections have tended to survive better than many classes of documents related to forest level operations, perhaps owing to the sense that inspections were taken seriously by both the inspector and inspected, and that multiple copies were made and maintained at various levels in the organization's structure. Whatever the reasons for their survival, there are several inspection reports and responses related to the early years of the Six Rivers that provide official snapshots of where the forest stood in relation to Regional expectations.

The first GII of the Six Rivers was conducted in 1949 by F. P. Cronemiller and J. C. Kern. It was their job to accurately assess and report to the Regional Forester "how the Six Rivers was doing" and to provide a document that would guide the Six Rivers Forest Supervisor and staff. A great deal of stock was put into this GII; the Regional Office viewed the Six Rivers as a linchpin in the vitality of California's timber supply and forest management.

Cronemiller and Kern's summary findings to the question: "How are we doing on the Six Rivers?" pointed to a fundamental insufficiency in "the organizing and management effort put forth by each member of the Six Rivers team and the leadership and help from this office [the Regional Office]." The inspectors believed that, in order for the Six Rivers team to exert the effort required to organize and manage, they first had to have a "live interest in the subject." With that interest clearly lacking, they framed the shortcoming as, at heart, a "training problem of highest priority—that of stepping up the interest and working knowledge in the basic principles of getting things done efficiently" (Cronemiller and Kern 1949: 38). The inspectors recognized that, "with only three years under its belt," some of the difficulties they observed on the Six Rivers were undoubtedly "lingering symptoms... [of] establishment and orientation problems." But the report admonished the forest and the regional office to fully diagnose the list of weak areas identified by the inspectors. The most gaping insufficiency area was the lack of "clear-cut objectives established and known to all concerned with their achievement." The second problem area was the need for "controls" to achieve "closer adherence to standards." In this vein, Cronemiller and Kern wrote:

We feel it is timely for a shift in emphasis in administration. The organizing stage should be considered as completed, and the Forest now established as a part of the local province. The Forest is not a series of crises and projects, but a vehicle in need of ordinary and preventative maintenance, in this case applied to human and natural resources.

"The Forest is not a series of crises and projects, but a vehicle in need of ordinary and preventative maintenance. . ."

As a symptom of this ailment, they observed:

Although the CCC program has been extinct for practically 10 years there is still a marked tendency to visualize the administrative job as a series of projects.

Their recommendation? A regular program of general and functional inspections, with follow-up. The inspectors also cited the need for improved property, supplies, and equipment management and the imperative to cut the costs of automotive accidents on the Six Rivers *(op. cit.* 42). A third large problem area was in financial management and "the need for clear-cut priority selection of projects from the work project inventory." A symptom of this malady was that the forest had used $1,400 of "hard-earned" maintenance and improvement money to purchase paint that was often used unnecessarily. . . .

In all seriousness we believe the Six Rivers verges on being 'paint happy.' It is safe to assume that all the paint and brushes can soon be stowed for some time. The money and men therein saved will go a long way toward accomplishing other higher priority work. . . *[op. cit.* 43].

Regarding "morale and team spirit," Cronemiller and Kern perceived:

Basically the forest is not too closely knit. It was formed from three forests in two regions. It is strung out with no inter-district problems of major import. Radio has increased the sense of unity, yet restricting its use to pure business makes for formality rather than cohesiveness. Some effective efforts have been made to enhance esprit d' corps, [t]he manner of use of the pronouns, we, and they, indicated there was not always a good spirit of team play *[op. cit.* 47-48].

This page from the 1941 USDA, Forest Service publication, New Forest Frontiers for: Jobs, Permanent Communities [and] A Stronger Nation, idyllically illustrates the concept of multiple use. Multiple use was a cornerstone of the Forest Service from its inception, but it was not codified as legislative intent until the 1960 Multiple Use - Sustained Yield Act.

One outcome of the 1949 GII and the strong encouragement to step-up the forest's Information and Education program was that, in June 1950, Forest Supervisor Fischer released his compilation titled: "A Prospectus of the Six Rivers National Forest." In it, Supervisor Fischer outlined the purposes for which the Six Rivers was established. He traced the lineage of reasoning to the famous letter to (and ghost-written by) Gifford Pinchot, signed by Secretary of Agriculture Wilson on the occasion of the 1905 Transfer Act that moved what is now the Forest Service from the Department of Interior to the Department of Agriculture. The three guiding principles in the letter were "the greatest good for the greatest number in the long run," "multiple use management," and "decentralization." [50] Aligning with those core tenets, Fischer gave the following purposes for creating the Six Rivers:

> 1) To effectively and efficiently administer and improve the public lands on the Six Rivers National Forest within the framework of existing policies and prescribed standards.
>
> 2) To integrate the resources of the National Forest more closely with the economy and with the people which depend on these resources, or will depend on them eventually.
>
> 3) To assist in bringing forestry and consciousness of forests as a crop to an area where they are badly needed and where it is not yet too late to provide for good management on a large proportion of the productive area, and to foster in the people of this area a sense of responsibility for the future.
>
> 4) To bring knowledge of the value of the national Forest lands and the U.S. Forest Service to a large group of people whose livelihood and interests lie mostly in forests and to secure their support in the American forestry enterprise [Fischer 1950: 5-6]. [51]

Fischer cited the push to create the Six Rivers as being philosophically in-step with the Forest Service's policies of decentralization. He also more succinctly identified the fundamental reason for creation of the Six Rivers: "This move merely recognized the administrative problem of managing these lands by setting the base of operations in the area served by them." This capsule statement was tied to much larger and more complex forces that were rooted in the rich and virtually untapped resource potentials of the area encompassed by the new national forest (Fischer 1950: 1).

The Formidable I & E Job

Working both to influence private forestry practices and to gain support from the general public regarding forestry affairs were colossal preoccupations on the Six Rivers during its early years. Given the private-to-government ratio of timber land in the north coast, practicing forestry on federal lands and ignoring private lands would ultimately prove futile in fostering the long-run well-being of the area. In terms of timber volumes, there were an estimated 60 billion board feet in and adjacent to the Six Rivers, while only 13 billion were publicly owned. [52] Precutting exchange agreements, demonstration areas, Forest Service and cooperative studies, and a substantial public relations campaign to regularly and visibly point out the advantages of

forestry—particularly the federal brand of forestry—were all tools plied in the effort. The Forest Service believed that California's newly adopted Forest Practice Rules were insufficient and that "quietly, but firmly," the Six Rivers should "publicize our position that more than the Forest Practice Rules are needed for maximum timber production and sustained yield and employment." [53]

The "I & E" or "information and education" job to be done by the Six Rivers was staggering, especially in light of "the openly antagonistic attitudes of many people and groups toward the Forest organization at its inception." To give the new forest a face, a recording wire connection with radio station KIEM in Eureka was installed in the Supervisor's Office. An estimated 88,000 people were then able to tune-in for up-to-date information about the Six Rivers during its newscasts.

In contrast to the direct public involvement paradigm that developed later, in the 1960s and 1970s, Fischer metaphorically explained how the Forest Service and the early Six Rivers administration perceived its connection with the public:

The relationship of the public, the law makers in Congress, and the Forest Service may be likened to a corporation. The public at large are the stockholders in the enterprise, Congress is their board of directors whom they elect, and the Forest Service is the operating organization [that follows] the dictates of the board of directors. Therefore, [as] persons or people, the public do not have any direct authority over the forest organization any more than an ordinary stockholder does in a big corporation. They do have a direct responsibility to their board of directors, however, and should exercise that responsibility. It is felt that it is a duty of the forest organization, therefore, to inform the public so that they can exercise their responsibility. This is one of the major objectives in this field [information and education] for the Six Rivers organization [Fischer 1950: 25].

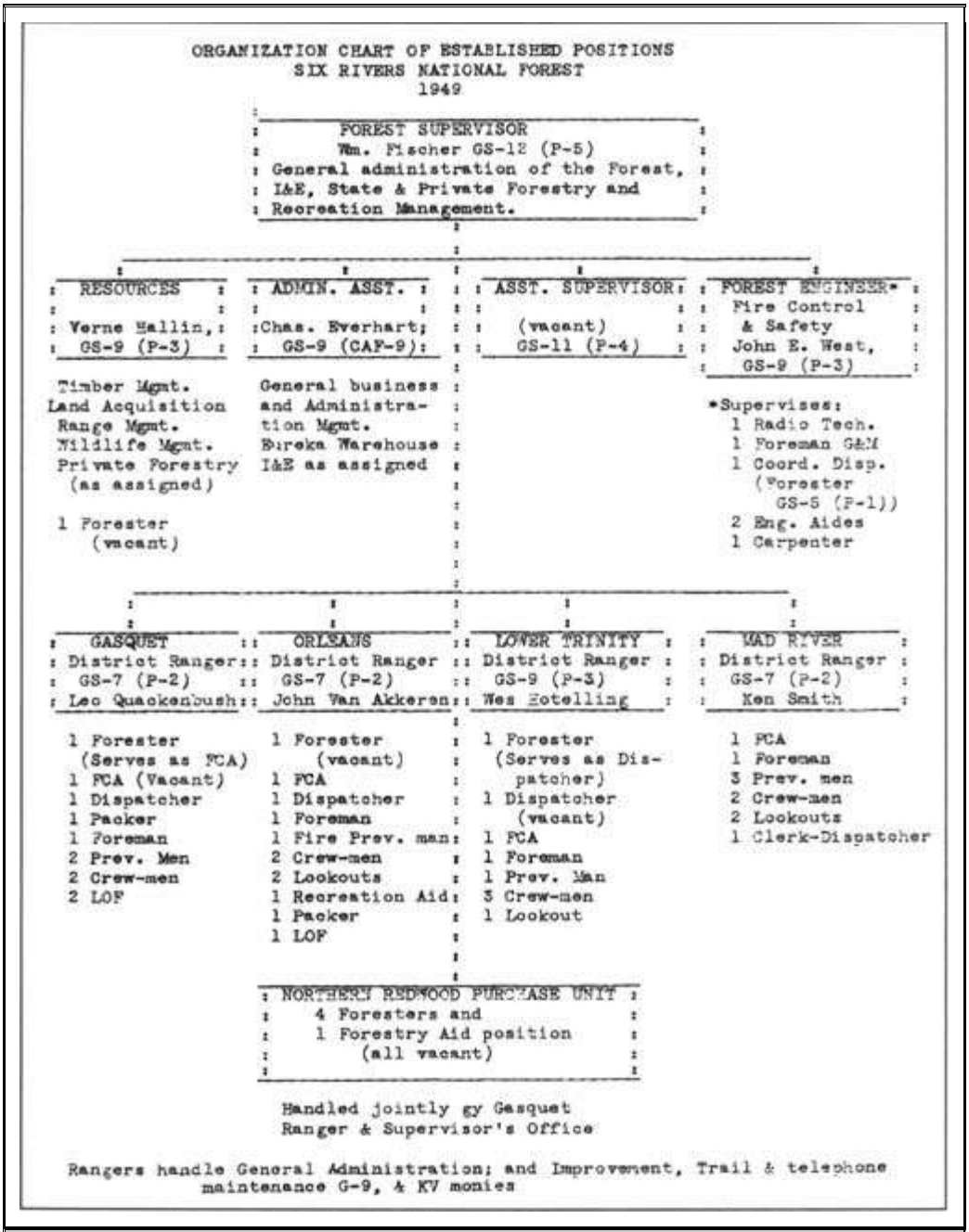
Inspectors Cronemiller and Kern had a penchant for characterature and, in their 1949 inspection report, they classified the publics served by the Six Rivers into five general groups:

> **The lumber industry group** showing signs of emerging from a liquidation status to one with a semblance of forestry, perhaps even keeping its forest land productive and violently against any interference in its business by government.
>
> **The white collar group**, the ladies and others without a direct interest, babes in the woods who are ready to be interested in keeping forest land productive, maintaining payrolls, game in the hills, fish in the streams; would hope the area would be a good place to live for their children and for grandchildren.
>
> **The agricultural group**, reactionary in leadership, anti-public ownership, anti-government controls, subventions, etc., except it be for some of their own products. Thinks in terms of tax bases.
>
> **The labor group** which is coming of age and will soon be taking a part in public affairs. Open to suggestions for programs.

> **The transient recreation group** interested in fish and scenery, intelligent, well to do, leaders in their own communities, like to learn of our job and our problems [Cronemiller and Kern 1949: 10, 18, 33-34].

A job-load analysis, completed by the Six Rivers in January 1948, indicated the need for an additional resource staff position in order to allow the forest supervisor to give more emphasis to administrative management and for the person filling that job to work on priority, forest-wide "fact-finding and planning phases of key lands and resource management problems." Of the 18 professional positions established for the forest, only 10 of them were filled (Cronemiller and Kern 1949: 43-44).

The press was invited when Regional Forester Perry Thompson came to the Six Rivers in April 1947 and held a series of conferences with officials of the new forest. [54] Thompson stressed the mutual goals of federal forestry and private lumber operators noting that, although the parties do not always agree on methods to achieve continuous yield, the basic aims were identical: "We both want to keep forests producing and lumber mills in continued operation." Thompson also talked about the Forest Service's goal of being a stabilizing force to local communities: "It's part of our philosophy to prevent the boom and bust cycle that has left lumber ghost towns in parts of the state.... Here in the Northwestern California coastal area, I believe there is time to profit by the mistakes that have been made in other areas.... Eventually, the Six Rivers forest will be a center for large scale experimentation in logging practices in cooperation with state forestry." The primary task though, noted Thompson, was to complete a timber inventory before "the vast unused timber stands are opened." Thompson used the interview to, again, state the Forest Service's neutrality regarding re-introduction of Congresswoman Helen Gahagan Douglas' Roosevelt Memorial Redwood bill (HT 4-13-47).



ORGANIZATION CHART OF ESTABLISHED POSITIONS
SIX RIVERS NATIONAL FOREST
1949

FOREST SUPERVISOR
Wm. Fischer GS-12 (P-5)
General administration of the Forest, I&E, State & Private Forestry and Recreation Management.

RESOURCES
Verne Hallin, GS-9 (P-3)

Timber Mgmt.
Land Acquisition
Range Mgmt.
Wildlife Mgmt.
Private Forestry (as assigned)

1 Forester (vacant)

ADMIN. ASST.
Chas. Everhart; GS-9 (CAF-9):

General business and Administration Mgmt.
Eureka Warehouse
I&E as assigned

ASST. SUPERVISOR
(vacant) GS-11 (P-4)

FOREST ENGINEER*
Fire Control & Safety
John E. West, GS-9 (P-3)

*Supervises:
1 Radio Tech.
1 Foreman G&M
1 Coord. Disp. (Forester GS-5 (P-1))
2 Eng. Aides
1 Carpenter

GASQUET
District Ranger GS-7 (P-2)
Leo Quackenbush

1 Forester (Serves as FCA)
1 FCA (Vacant)
1 Dispatcher
1 Packer
1 Foreman
2 Prev. Men
2 Crew-men
2 LOF

ORLEANS
District Ranger GS-7 (P-2)
John Van Akkeren

1 Forester (vacant)
1 FCA
1 Dispatcher
1 Foreman
1 Fire Prev. man
2 Crew-men
2 Lookouts
1 Recreation Aid
1 Packer
1 LOF

LOWER TRINITY
District Ranger GS-9 (P-3)
Wes Botelling

1 Forester (Serves as Dispatcher)
1 Dispatcher (vacant)
1 FCA
1 Foreman
1 Prev. Man
3 Crew-men
1 Lookout

MAD RIVER
District Ranger GS-7 (P-2)
Ken Smith

1 FCA
1 Foreman
3 Prev. men
2 Crew-men
2 Lookouts
1 Clerk-Dispatcher

NORTHERN REDWOOD PURCHASE UNIT
4 Foresters and
1 Forestry Aid position
(all vacant)

Handled jointly by Gasquet Ranger & Supervisor's Office

Rangers handle General Administration; and Improvement, Trail & telephone maintenance G-9, & KV monies

This 1949 organization chart for the Six Rivers National Forest came from the Kern and Cronemiller General Integrating Inspection report. The work force totaled 63, including the vacancies. (click on image for a PDF version)

Congresswoman Douglas and the Roosevelt Memorial Redwood National Forest

The Six Rivers' I & E job was made considerably more challenging by the confusion with and rancorous debate over the controversial Douglas Bill. Representative Douglas' bill proposed establishing a Franklin Delano Roosevelt Memorial Redwood Forest. Although there were

several iterations of the bill that differed in important ways, the stated purposes of H.R. 6201 were:

1. To provide a fitting memorial to the late President Franklin Delano Roosevelt, and

2. To establish and perpetuate upon the lands included therein the conditions of forest protection and use which will best serve the welfare of the people of the United States.

The forest was to be comprised of "lands constituting the natural habitat of California coast redwood." With the exception of four specified memorial units, the redwood memorial forest was to be managed under two modes: the Forest Service would administer most of the redwood forest's 2,385,000 acres under sustained yield management precepts while the National Park Service was to administer about 180,000 acres of land comprising the four memorial units for their "permanent preservation for scientific, educational, recreational, and inspirational purposes" (USDA, FS 1946: 6; U.S. Senate 1967: 2).

At Douglas' request, the Forest Service undertook a "brief survey to determine the economic effects of Bill H. R. 6201 on the industries within the Redwood Region should the Bill be enacted." This "brief survey" comprised about 150 pages and was, by Forest Service standards of the day, lavishly illustrated with charts and maps. [55] The report's conclusions were summarized in terms of "who would lose" and "who would gain;" the picture painted showed that the long-term gains to the region's timber and recreation resources clearly out-weighed the losses. The report predicted that the boom and bust cycle that had characterized the north coast timber industry, particularly the redwood industry, would be replaced by a far less volatile scenario under the Forest Service's sustained yield practices. In turn, that more stable economic context would provide a cornerstone of community and north coast regional stability. The study's summary stated:

. . creation of the Roosevelt Redwood Forest would cause a probable loss to certain individual interests within the Redwood region. This loss with the exception of excess profits and summer grazing of timberlands would be primarily an inconvenience based on disagreement with the philosophy of federal ownership and regulation which may change established practices and habits.

The study indicated that creation of the 'Forest' would enable the maintenance of a steady level of industrial development for present and future generations, and would prevent a slow decline of basic values and eventual collapse of the main industry of the area [USDA, FS 1946:16-20].

Interestingly, in her memoirs, Representative Helen Gahagan Douglas credited crafting of the redwood bill to Gifford Pinchot, the first Chief of the Forest Service and former Pennsylvania Governor. Noting that Pinchot drafted the bill just before his death, she also revealed that Walter Reuther's United Auto Workers Union had footed the bill's research costs (Douglas 1982: *passim).*

Even though the Forest Service study of Douglas' bill clearly supported creation of the redwood memorial forest, leadership within the Pacific Southwest Region did not wish to link its nascent national forest with contentiousness over Douglas and her bill. In fact, in any public forum, the new national forest's leadership consistently went out of its way to disassociate itself from the Douglas Bill which, in the fall of 1946, was pending in Congress. For example, as what would become the Six Rivers National Forest was being pulled together, an article in the *Humboldt Standard* noted:

Leadership consistently went out of its way to disassociate itself from the Douglas Bill.

. . In analyzing the significance of the move [to consolidate parts of three national forests into one], it is appropriate to point out that it has nothing to do with, nor any connection with, the so-called Helen Gahagan Douglas Act, now pending in Congress, which proposes the creation of a gigantic redwood national forest area.... Creation of the new national forest by merging adjacent units of three older forests and the redwood purchase unit has been under consideration for some time, in the interest of a more efficient management of national forest land on the coast range. The chief reason for the transfer of these areas to the new forest is the growing industrial development and utilization of the heavy stands of un-cut commercial timber on the west slopes of the Coast range, which will be processed and shipped from ports along the Pacific coast (HS 11-6-46). [56]

Though claiming neutral ground on the Douglas Bill, the Forest Service clearly played a significant role in providing congressional and public information on its economic and social ramifications. The proposed Roosevelt Memorial Redwood National Forest would include land in Del Norte, Humboldt, Mendocino, and Sonoma counties and would stretch for more than two hundred miles southward from the Oregon-California border. Its width would range from 6 to 30 miles, and the area was estimated to contain 52.5 billion board feet of timber, with 36 billion of it in redwood.

Writings in support of the new memorial forest were commonly zealous and tinged with Biblical allusions to destruction and redemption. One writer, for instance, noted that of all the redwood lands that have been cutover through the late 1940s, 56 percent now grow little to no timber.... "Yet for all this wasteful death, it is declared there could still be a resurrection day" (Powers 1949:145-146).

The Eureka Chamber of Commerce came down in solid opposition to the Douglas Bill. In stating its position, the chamber declared its "unqualified disapproval of, and its militant opposition to H. R. 6201 [because it would] remove from private enterprise and place under the control of the Federal Government practically the whole of the Coastal Redwood belt extending from the Oregon border to Bodega Bay [and] render impracticable the continued operation of many existing small individual mills [resulting in] immeasurable economic loss and the serious weakening of local government" (CR 11-13-46: 1).

"Yet for all this wasteful death, it is declared there could still be a resurrection day"

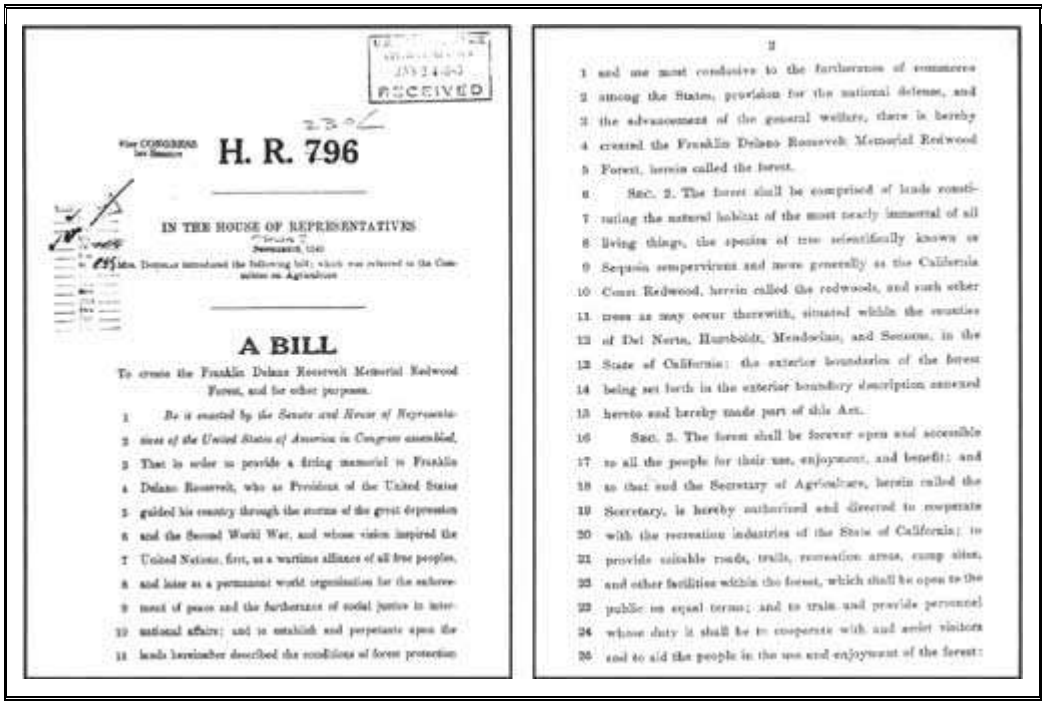
California's legislature also opposed the measure and sent its Joint Resolution to Congress, protesting creation of the Roosevelt Memorial Redwood Forest, on May 22, 1947 (CR 5-28-47). In 1949, another *Humboldt Times* article underscored the Six Rivers' stance on the Douglas Bill, then in congressional committee:

While on the subject of redwoods, it is emphasized that the Six Rivers' personnel are not propagandizing for passage of the controversial Douglas bill....

[Quoting Administrative Officer Charles Everhart:] 'The Six Rivers National Forest was started before the Douglas bill was ever thought of. Its location is apart entirely, and its timber types are basically different. Also, we are a separate organization—although if the Douglas bill should pass, that area would be under the National Forest administration the same as ourselves, with the exception of that which would come under the National Park Service' (HT 3-13-49).

In mid-1949, having reintroduced her Roosevelt Memorial Redwood Forest bill earlier in the year as H. R. 2394, Representative Douglas asked the Forest Service to incorporate recommended changes to the bill that had been made by the Public Affairs Institute (Douglas 6-7-49). Perhaps dragging their feet or perhaps due to the complexity of the job, the two-week turn-around requested by Douglas stretched out into several months. By letter of January 3, 1950, the Secretary of Agriculture transmitted the re-crafted bill and exhorted Douglas that the draft was prepared. . .

as a legislative service to you. It constitutes no commitment as to the position which this Department can take with respect to the bill. . . . In all fairness, I should say that the prescription under which the bill was drafted does introduce some features which are not in accord with policies of this Department [Brannan 1-3-50].



RECEIVED

81st CONGRESS

H. R. 796

IN THE HOUSE OF REPRESENTATIVES

January 3, 1950

Mrs. Douglas introduced the following bill; which was referred to the Committee on Agriculture

A BILL

To create the Franklin Delano Roosevelt Memorial Redwood Forest, 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 provide a fitting memorial to Franklin Delano Roosevelt, who as President of the United States guided his country through the storms of the great depression and the Second World War, and whose vision inspired the United Nations, first, as a wartime alliance of all free peoples, and later as a permanent world organization for the enforcement of peace and the furtherance of social justice in international affairs; and to establish and perpetuate upon the lands hereinafter described the conditions of forest protection and use most conducive to the furtherance of commerce among the States, provision for the national defense, and the advancement of the general welfare, there is hereby created the Franklin Delano Roosevelt Memorial Redwood Forest, herein called the forest.

SEC. 2. The forest shall be comprised of lands constituting the natural habitat of the most nearly immortal of all living things, the species of tree scientifically known as Sequoia sempervirens and more generally as the California Coast Redwood, herein called the redwoods, and such other trees as may occur therewith, situated within the counties of Del Norte, Humboldt, Mendocino, and Sonoma, in the State of California; the exterior boundaries of the forest being set forth in the exterior boundary description annexed hereto and hereby made part of this Act.

SEC. 3. The forest shall be forever open and accessible to all the people for their use, enjoyment, and benefit; and to that end the Secretary of Agriculture, herein called the Secretary, is hereby authorized and directed to cooperate with the recreation industries of the State of California; to provide suitable roads, trails, recreation areas, camp sites, and other facilities within the forest, which shall be open to the public on equal terms; and to train and provide personnel whose duty it shall be to cooperate with and assist visitors and to aid the people in the use and enjoyment of the forest:

This is the first two pages of H.R. 2394, introduced by Congresswoman Helen Gahagan Douglas. To be created as a memorial to President Franklin Delano Roosevelt, the proposed national forest was to be jointly administered by the US Forest Service, under the Department of Agriculture, and by the National Park Service, under the Department of Interior. (click on image for a PDF version)

In late 1949, inspectors Cronemiller and Kern seemed jittery about the possibility that a Douglas Bill would pass. The inspectors worried that the bill's newest incarnation could precipitate ill-effects on the fledgling Six Rivers National Forest and on the well-being of the region. They recounted that the Public Affairs Institute's report—also known as the Dewey Anderson proposal—being incorporated into Douglas' new bill, had "aroused a large section of the people . . ." [57]

> The lumber industry is somewhat angry but also feels somewhat on the defensive and believes there should be and also there will be better forest practices. The forest practice rules are a result. The industry has little fear of these specific programs but does consider them indicative of a trend in liberal government and that the thing to really fear is legislation in the nature of S. B. 1820.
>
> The white collar groups, business people and others are beginning to see forest destruction. Since the war and the invasion of many new operators they no longer look at the timber people as home people but as a 'bunch of outsiders' that are destroying 'our' forests.... [T]here is need to change the people from being log conscious into being forest conscious.
>
> Labor groups have not been reached. A few nibbles and a small group of Linemen want to do something.... C.I.O. unions include only longshoremen. Lumber and woods workers are A.F. [of] L. Only Hammond Lumber Company is a closed shop....
>
> **"[T]here is need to change the people from being log conscious into being forest conscious."**
>
> The labor group received a request to oppose the Douglas bill but it refused, feeling that something between it and forest practices might be best. It definitely believes the Forest Practice form of regulation isn't going to provide for real conservation. Their philosophy is that 'you can't trust 'em' when the land owner is writing his own prescription. It is not based on any fixed concept of forestry. The labor group has no program in forestry but believes it has now come of age and should take part in community, civic and governmental affairs. It would be timely to determine if we can help.

One major fear harbored by Six Rivers and regional forestry officials regarding passage of the Douglas Bill and the Dewey Anderson proposal was the predicted effect of accelerating liquidation of redwood stands by timber owners and operators. That is, because desirable acquisitions for the Roosevelt Memorial Redwood Forest would be from unwilling sellers, Forest Service officials worried that owners would convert their redwood assets to quick cash by heavy

logging without regard to forestry principles. At the same time, opponents of the Douglas Bill—lumber owners and operators among them—tended to be highly suspicious of the Forest Service because they associated the agency with hoarding land at the expense of private enterprise (Cronemiller and Kern 1949: 7-8, 34).

Chagrined with the Forest Service's coolness toward its own re-write of her bill, Representative Douglas made one last attempt to bring the agency and the Department of Agriculture into the fold. On February 24, 1950, she asked that the Forest Service, again, re-draft the bill in such a way that the Department could endorse it. On March 2, that task was accomplished and the revised bill sent to Douglas.

One major fear . . . was the predicted effect of accelerating liquidation of redwood stands by timber owners and operators.

But despite her persistence, the momentum of the Save-the-Redwoods League, and the backing of the prestigious and influential National Committee on Resources, the Roosevelt Memorial Redwood National Forest bill ultimately failed to pass. In 1950, its shepherd, Congresswoman Douglas, was defeated by Richard M. Nixon in her bid for a third congressional term in what many historians label the dirtiest campaign in American political history. Running that year for the Senate, Douglas' two political passions—conservation and better conditions for farm workers—suffered setbacks with her loss to Nixon and to the nation's preoccupation with Communism. In the 1950 campaign, Nixon, who had served with Douglas in the House of Representatives, successfully and erroneously associated Douglas with Communist activities and tendencies. Nixon, a member of the House Un-American Activities Committee (HUAC), rode a rising star when HUAC successfully prosecuted a bizarre and convoluted perjury case against State Department advisor, Alger Hiss. Nixon used his association with HUAC against Douglas and accused her of being "soft on Communism." When the North Korean Communist government invaded South Korea in June, 1950 and fears about the "Red Menace" were at a peak—especially on the Pacific-facing west coast—Nixon was able to ride the wave of fear all the more. There was no one else in the legislature interested in picking-up Douglas' Roosevelt Memorial Redwood Forest gauntlet.

In her autobiography, Douglas attributed defeat of her redwoods bill during her two terms primarily to the fact that it had concerned just one state—California—and that it had to do with the fading and out-of-favor notion of resource conservation. She noted that there was "furious lobby against the bill" because it would restrict, though not eliminate, harvest of redwoods and adjacent trees within the proposed national forest. Citing studies that showed that redwoods faired best when they were protected by trees around them, the bill was designed to conserve redwoods by not only limiting direct redwood harvest, but also by changing the nature of lumbering in adjacent timber stands that served to protect redwoods. Despite the redwood national forest bill's defeat, many of its original visions were revived and, at length, saw fruition in the 1968 creation of Redwood National Park (Douglas 1982: *passim).* [58]

Helen Gahagan Douglas campaigning for the California U.S. Senate seat in 1950. Richard M. Nixon ultimately won, irresponsibly painting the choice between himself and Douglas as a "choice between freedom and state socialism." With Douglas' defeat and the national preoccupation with "stopping the spread of communism," the Memorial Redwood National Forest movement came to a halt. Courtesy of Western History Collections, University of Oklahoma (Douglas 1982: 299).

The 1950s...

A Paradigm of Dedicated Uses and Gearing-Up for Maximization

In 1950, Forest Supervisor Fischer had three staff officers assigned to the forest supervisor's office (SO) in Eureka: a resource assistant, engineer-fire control officer, and an administrative assistant. Fischer stressed that the SO structure was lean and flexible so that "at any given time it reflects the work load and no unnecessary personnel... on the payroll" and that SO personnel were available for emergency work, such as fire fighting on- or off-forest. Fischer explained that most project work was decentralized, with authority on the ranger district level, but that some tasks, such as maintenance of the communication network, were better handled on a forest-wide basis (Fischer 1950: 3-4 and HT 5-23-52).

In 1950, Supervisor Fischer stated that the forest objective in administering various land uses was to put "all lands under their highest form of use, and to administer all uses equitably and with full protection to the public interest." Under this paradigm, the overall forest management job was viewed as "determining the highest form of use for each area... and dedicating it to that use. Thereafter, all secondary uses must be geared to the primary value" (Fischer 1950: 14). While noting that more refinement was necessary in classifying Six Rivers land, the forest's primary values by acreage were (Fischer 1950: 7):

. . .the overall forest management job was viewed as "determining the highest form of use for each area. . . and dedicating it to that use."

Growing timber or wood products	925,404
Production of forage for livestock	108,080
Recreation, scenery and wildlife	59,392

Through the 1950s, the Six Rivers scrambled to restructure its initial bare bones organization to enable meeting ambitious timber volume targets. A 1955 appendix to an inspection report showed that, for the build-up to 160,000,000 board feet in the 1957-'58 season from the target of 100,000,000 board feet in the 1955-'56 season, staffing was planned to jump from 9 positions to 27 and payroll was to increase from $43,625 per year to $118,660. It was planned that, for the years encompassing 1959 through 1965, a cutting level of 160,000,000 per year would be maintained and accomplished with 22 timber management employees (USDA, FS n.d.: appendix). But the actual "Record of Cut" for saw timber revealed substantially lower figures. For 1955, a total of 76,618,000 board feet were harvested on 2,280 acres, including 14,335,000 board feet off the NRPU's Requa Working Circle; most of the total came from both the Orleans and Horse Linto working circles and the predominant species cut was Douglas fir. The lower than projected harvest figures reflected a considerable increase, however, over 1954 totals that showed a cut of 48,118,000 board feet on 1,255 acres.

By 1955, decentralizing the timber management function on the Six Rivers—moving it from the Supervisor's Office to the ranger districts—was on the minds of forest officials from the ranger district to the Regional Office levels. This new forest was created largely to make timber resources on national forest lands more accessible to the coast: to rail, highway, and ocean-going shipping connections. The Six Rivers anticipated vastly increased volumes of logs coming off the forest, and officials were trying to staff-up accordingly as well as provide the administrative structure to handle the increased staffing. To cope with the anticipated harvest volumes and associated difficulties, Bureau Scaling was tested on one timber sale in 1955. It was hoped that: "By making greater use of such service in the future, we could eliminate a lot of headaches in extra housing for scalers, troubles in hiring and training them, as well as reducing the actual cost to do the work."

The Six Rivers anticipated vastly increased volumes of logs coming off the forest, and officials were trying to staff-up accordingly as well as provide the administrative structure to handle the increased staffing.

Related to the increased harvest levels and the accessibility of logs and lumber to larger markets, the inspectors—knowing full-well that such a decision would occur at higher administrative levels—prompted Supervisor Spinney to consider adding western areas of the Shasta-Trinity National Forests to the eastern borders of the Lower Trinity and Mad River ranger districts. The inspectors commented that these "Districts are narrow, and as roads are developed which make the adjacent areas equally or more accessible to the Coast, it would appear to be good management to make additions..." (cf. graph 5-27-55 in Fisher and Lepley 5-12 & 6-26-55: 14 & 4).

W. S. Williams and J. C. Kern conducted a functional operations inspection on the Six Rivers in October 1952. In their overview, they noted that: "Progress in knitting [the] composite parts [of the Six Rivers] from 3 parent forests in 2 Regions into a compact working unit has been good . . . . This long, narrow Coast Range unit, is following the general pattern of the Northwest National Forests in the Region, i.e., shifting rapidly from almost a pure custodial basis to one of steadily intensifying resource management" (Williams & Kern 1952: 2). The inspectors also noted that the workload was increasing in both complexity and volume and that there was "a large number of new or relatively new folks" necessitating a "real need for full communications up, down and across the entire forest team." They also noted that the Forest Supervisor's staff was of relatively long tenure, commenting that, though the forest was not officially established until June of 1947, all of the staff were assigned before or during that year. [59]

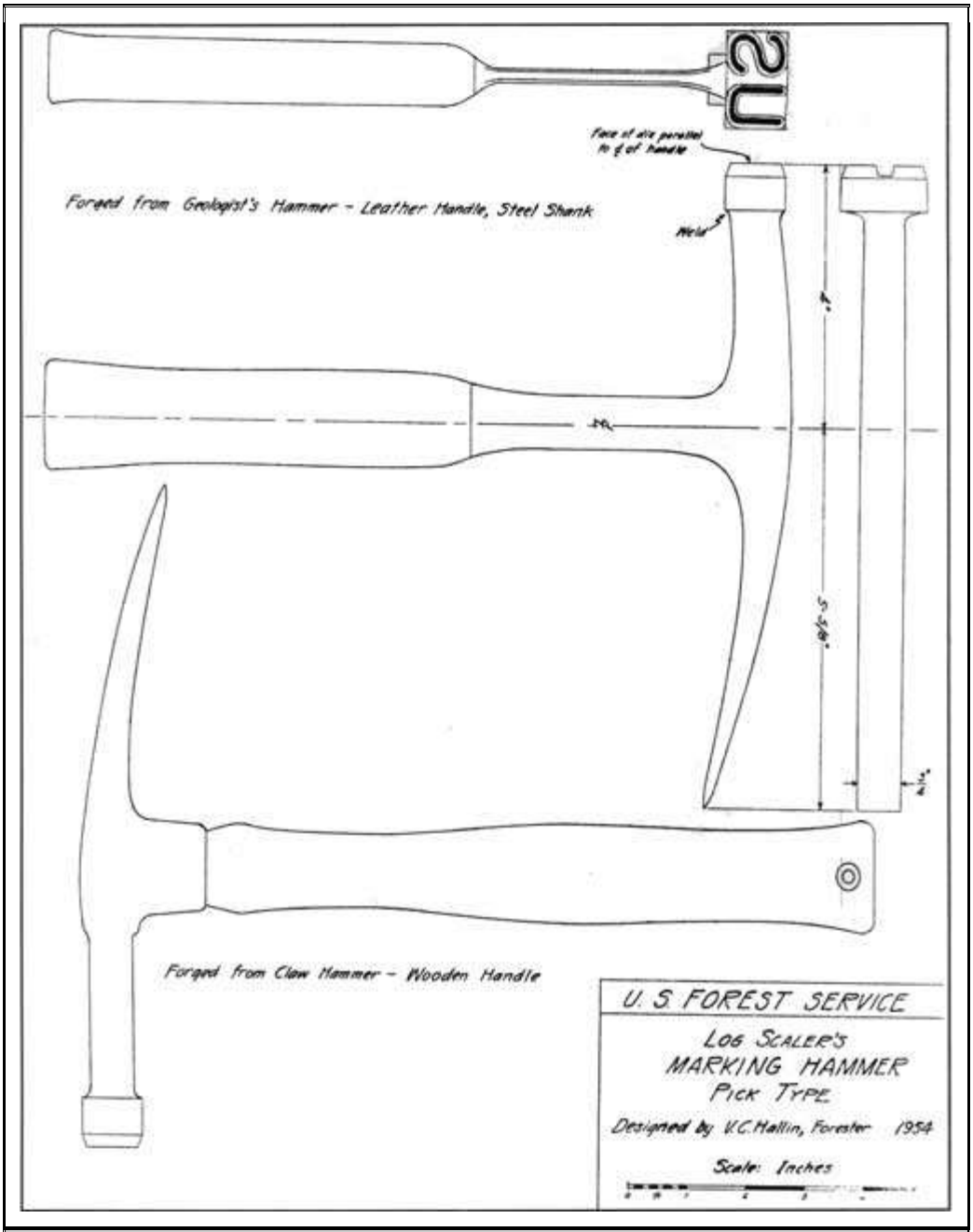
Inclusive of years 1955 through 1958, the timber management objective for the Six Rivers was "to bring National Forest lands up to maximum capacity production of quality timber and forest products and to maintain that capacity, to attain maximum utilization of wood fibre and to encourage and assist private timberland holders in the same direction." Maximizing production and utilization while maintaining the capacity of the land to produce was a common thread for all the functional objectives during this era (cf. USDA, FS 1955, 1957, 1958: *passim).*

This 1958 map shows the administrative boundary between Lower Trinity and the new Tish-Tang Ranger District, generally defined by Willow Creek and the westward-trending portion of the Trinity River. (click on image for a PDF version)

During the latter half of the 1950s, there was a considerable sense of accountability by local and Regional Forest Service officials for the proliferation of sawmills in and adjacent to the Six Rivers; there was also a correspondent sense of responsibility for the well-being of the communities that were dependent upon those mills. Surprisingly little has been located thus far in the documentary record to trace all the reasons for its creation and dissolution just ten years later, but Tish-Tang Ranger District was at least partially an outgrowth of that thinking. Forest officials noted the dearth of forest management development north of the Trinity River on the sizable Lower Trinity Ranger District. Yet Lower Trinity had a full plate; the employees' workload was enormous. For the Lower Trinity Ranger District to focus on developing more timber sales, recreation opportunities, and building more road access north of the Trinity River would mean seriously diluting work being done on the remainder of the district. For this, and

probably a host of other reasons, the decision was made to carve-out another district—Tish-Tang—from Lower Trinity to facilitate forest management in that area. As the former District Ranger of Tish-Tang, Walter Kirschman, stated: "Without going over-board," the forest officials felt a responsibility to supply an adequate stream of logs for the new mills that had sprouted-up in the area in response to creation of the Six Rivers National Forest. Co-located with Lower Trinity Ranger District at Salyer, within ten years, most of the objectives for Tish-Tang had been realized and it was reabsorbed into the Lower Trinity Ranger District (Kirschman 6-9-97: pers. comm.). [60]

If the 1950s were a time of compressed program growth on the Six Rivers, they were also a time of innovation. One example is that of the Hallin Hammer: a log scaler's marking hammer. Lacking a distinctive way of marking logs that came from Forest Service lands, Vern Hallin started with a geologist's hammer and pick, extended the hammer head to prevent the user from hitting his knuckles, and put a "US" die on the striking surface. The pick end was also widened and forged into a chisel-like appearance; called a "spud;" it was used to strike the ends and sides of logs in order to test them for defects. This simple yet splendidly useful tool was designed by Hallin in 1954; he had the prototype forged at the Eureka Machinery Company. Word of its utility spread quickly and, in 1958, a Washington Office letter stated that it was to become standard Forest Service practice to provide each scaler with a Hallin hammer and belt rack. Its use was promoted in the Forest Service Scaling Handbook, FSH 2443.71 (Hallin 5-20-97: pers. comm.). [61]



1954 blueprint of the Hallin Hammer, a tool that was born on the Six Rivers and became standard equipment for Forest Service scalers. (click on image for a PDF version) Courtesy of Verne Hallin

By 1956, the Six Rivers had 838 miles of Forest Service roads, 47 bridges, and 475 miles of trail; there were 53 miles of Forest Service telephone line, 14 lookout stations, and 22 heliports; there were 7 offices, [62] 18 dwellings, 5 barracks, 8 guard stations, and a total of 41 warehouses, barns and similar buildings; the automotive fleet numbered 54 units while the pack and saddle stock numbered 13 animals. [63] The total physical plant valuation was estimated at something over $6,000,000 (USDA, FS 1957: 7). Noticeable trends were that, since the 1947 situation

report, the miles of roads on the Six Rivers had increased by 271, the number of bridges had increased by 4, and the miles of trail had decreased by 902. It was clear road construction was out-distancing trails to keep pace with timber sale demands, and that aircraft were both eliminating the need for the part of the trail system that had been maintained for fire suppression access and diminishing the number of lookout towers needed for fire surveillance.

By 1956, there were 66 full-time and about 550 seasonal employees working for the Six Rivers National Forest. A mimeographed pamphlet titled "Facts and Information on the Resources and Management of Six Rivers National Forest" amalgamated forest facts up to 1956. Noting that the Six Rivers organization was made up of "a small, dedicated group of public employees [who] own homes, rent homes, buy cars, food and clothing, pay taxes and generally contribute to the stability of the local economy," it was clear that the forest was countering criticisms about its modest but growing employee rolls and their contributions. By far, timber-related professionals and technicians dominated the full-time employee ranks while emergency firefighters dominated the temporary employee ranks. The list of functional areas included forest supervisor and staff (five full-time employees), district rangers and assistants (eight full-time employees), researchers (four full-time employees), timber sale (11 full-time and 6 seasonal), recreation (2 seasonals), fire (5 full-time, 42 seasonal employees, and 500 emergency firefighters), communications (1 full-time employee), automotive (2 full-time employees), engineering (1 professional and 3 technician full-time employees), and construction and maintenance (15 employees), as well as business management and clerical support (11 full-time employees). Moreover, the full-time supervisor, staff, district rangers, assistant district rangers and timber sale specialists were all professional foresters. It would be another couple decades before other specialists—hydrologists, biologists, archaeologists, botanists, ecologists, and the like—would begin to appear in significant numbers on employee rolls (USDA, FS 1957: 8). [64]

In the words of the Information and Education inspection progress report written in early 1957, the Six Rivers had rapidly "exploded out of a custodial stage to one of intense demand for resource utilization, especially in the field of timber and maintaining stream habitat for migratory fish." New and improved access, a by-product of timber sales, dramatically increased use of the forest by campers and anglers. Mining was also on the upswing. In light of the use boom, Six Rivers officials were patted on the back for their work in "paving the way for public acceptance in order to minimize interruptions, criticism, and appeals in the orderly pursuit of reaching each [forest] goal" (James 1957: 1).

The Six Rivers was projected to get "an annual cutting budget" based on harvesting 163 million board feet on a sustained basis. But forest officials, fearing pressure to overcut, urged higher level managers to give them "more precise figures on [estimated] volumes"; they were particularly troubled that volume estimates for Gasquet Ranger District were "too heavy" (James 1957: 1). The period of intense development that the Six Rivers was experiencing while organizationally a neonate, caused consternation. Administrative Assistant Kellner pointed out that meeting the harvest target meant selling 300 to 400 million board feet each year.

The young Six Rivers saw its mission as bringing forestry and multiple use management to California's north coast. The cast of characters at this 1951 field trip on Orleans Ranger District shows that forest officials understood that the job entailed both technical and public relations aspects. Left to right: Alex Atran, Sacramento Valley rancher; James Byrne, Regional Engineer; Emmet Stewart, State Chamber of Commerce; Carl Wente, President, Bank of America, Clare Hendee, Region 5 Forester; V. M. Moir, Manager North Coast Council, State Chamber of Commerce; Paul Corbin, Eureka radio station KIEM; R. W. Mathews, Eureka businessman; William Fischer Six Rivers Forest Supervisor; Dr. Fred Glover, Professor of Wildlife Management at Humboldt State College; and L. N. Ericson, State Forest and Range Experiment Station. US Forest Service photo

SIX RIVERS NATIONAL FOREST RECEIPTS (Dollars)

Fiscal Year	Timber	Grazing	Land Use	Power	Total
1947	2,139.63	173.05	1,085.47	-	3,398.15
1948	8,008.28	4,602.43	2,880.83	333.75	15,825.29
1949	24,147.43	6,196.00	3,110.57	270.00	33,724.00
1950	6,398.00	5,350.00	2,937.00	375.00	15,060.00
1951	140,448.00	8,169.00	3,554.13	333.00	152,504.13
1952	271,192.20	10,329.39	4,656.60	343.00	286,521.19
1953	170,266.11	9,307.60	5,660.65	343.00	185,577.36
1954	407,250.09	6,953.60	5,821.02	393.00	420,417.71
1955	399,149.04	5,636.07	6,089.01	373.00	411,247.12
1956	1,389,667.22	5,116.34	7,192.52	613.00	1,402,589.08
					$2,926,864.03**

** - Returned to the counties (within Six Rivers National Forest) for roads and schools - 1947-1956 - - - $732,216.00

** - Returned to the U.S. Treasury - 1947-1956 - - - $2,196,648.03

25% of total receipts returned to local counties for roads and schools (offsets non-payment of taxes on federal lands).

10% of total receipts (additional) spent by Forest Service within National Forest area for roads and trails.

This table of the Six Rivers' receipts from its inception through 1956 powerfully shows the proportion of the dollars generated from the forest's timber sales relative to dollars generated by other uses; that is, by 1956, timber accounted for over 99 percent of the forest's receipts. This table appeared in the pamphlet: "Facts and Information on the Resources and Management of the Six Rivers National Forest." (click on image for a PDF version)

In 1956, the Six Rivers harvest totals increased from 22 to 55 million board feet and was projected to hit 100 million board feet in 1957. After a slight slump in 1954, "...the whole

Humboldt-Del Norte area is 'booming' with the good lumber market." Adequate staffing became a severe impediment to getting the forest's work done, especially when many of the jobs were offered on either a temporary or seasonal basis (Kellner c. 1957: 2).

Timber sale programs were being planned according to five year "cutting budgets." The plan for calendar years 1954 through 1958 for the Six Rivers and the NRPU used a sustained yield capacity of 152 million board feet per year. This entailed operator construction and major reconstruction on 205 miles of road at an estimated cost of $4,453,500 (Payne 6-10-54).

As commonly happens during economic downturns, the smaller mills had the greatest proportion of closures.

California, as a whole, claimed 20 percent fewer sawmills in 1957 than were active in 1956 which played into the business recession of 1957-'58. As commonly happens during economic downturns, the smaller mills had the greatest proportion of closures. As reported in Forest Research Notes of the California Forest and Range Experiment Station, "in spite of the shut down of some active mills and the elimination of some operable mills, 63 new mills were operated in 1957, two-thirds of them in the Redwood Region. However, the 63 fell far short of replacing the 203 mills active in 1956 which became idle or non-existent in 1957." The "regions" were defined in terms of counties such that the Redwood Region included the whole of Del Norte, Humboldt, Mendocino, Sonoma, and Marin counties. An interesting sidebar to this study was inclusion of an earlier, late 1947, listing of forestry graduates in the state's private lumber industry. Prepared by the Division of State and Private Forestry, the list of 112 foresters and the company for which they worked pointed to a leap in professional forestry within the industry within just two decades (USDA, FS 1958:1-2 and 12-47 attachment).

Six Rivers employees at Redwood Acres in 1958. Note the significantly higher number of employees than just ten years earlier. From bottom, left, zig

zagging: ? Albrecht, Joan Dean, Caroline ?, Kitty (Price) Lansdon, Eletta Kinnari, Maxine Keltner; 2nd row, r to l: ? Henry, Clarence Hill, Bruce Babbitt, Scollay Parker, Richard Kielhorn, Charley Bell, Cecil McAlister, Lyle Hill, ? Pippin; 3rd row, l to r: Lyle Davenport, Robley M. Broderick, Robert Lancaster, William Chase, George Ramstead, George Blodgett, Charley Brown; 4th row: ? Peterson, ? Burgess, Don ?, Hugo Maffey, Dave Albrecht, Wesley Spinney, Douglas Leisz; 5th row, l to r: ? Haske, Ted Hatzimanolis, ??, Jan Seils, ? Dell, ??, Ralph Accardi, Neil Magill; 6th row, r to l: Corson Williams, Charley Bennett, Murray Dulac, ? McKeown, ? Ramsey, Jack Fitch, ??, ??; 7th row, l to r: Joe Smith, ??, Angelo Lavagino, Ed Hurt, ??, ??, Edwin "Pooch" Rowley, John Van Akkeren, Morrison 'Jim' James; 8th, r to l: Ken Boe, Glenn Spencer ??, ? Kiutto, Vernon Hallin, Emmit Calvert. Employee identifications by Vern Hallin, Murray Dulac and Robley Broderick, Courtesy of Jerome Studios

The Marginality Issue

Perhaps first used in reference to the Six Rivers in Cronemiller and Kern's 1949 GII report, what was termed the "marginality" of the Six Rivers from a timber operating perspective was the theme of a general forest inspection conducted in 1953. In a January 1954 report to the Regional Forester, Assistant Regional Forester Payne reflected that although the general area had experienced "tremendous change in lumbering activities" in the past few years, the forest's actual "cut has totaled only 30,000,000 [board feet] in the past two fiscal years." Payne pointed to several Forest Service-related causes that contributed to this marginality, foremost of which were lack of both adequate timber management planning and of fiscal controls. In his judgment:

> This Timber Management planning activity is fundamentally more important than Forest personnel seems *[sic]* to realize and certainly the lack of adequate planning has been a significant factor in contributing to the difficulties that the Forest has experienced with its two or three outstandingly troublesome sales. It seems that the Forest has really fallen down hard on this phase of their job and that the Division of Timber Management [in the Regional Office] shares some of the responsibility for this failure. . . . Some of the failure is attributed to disagreement between technicians as to [the] method of determining allowable cuts, which does not to me seem to be a valid field for substantial disagreement at a time when the prospects of reaching the allowable cut are as nebulous as they have been to date.
>
> Timber Management activities on the Six Rivers have been suffering many of the growing pains associated with development of new areas. . . attributable to complications of marginality due to market, species composition, character of the stand and extremely difficult logging conditions on much of the area. They have suffered more than the usual amount of

"Timber Management activities on the Six Rivers have been suffering many of the growing pains associated with development of new areas. . ."

> grief through the activities of the promotional type of timber operator rather than the established and active mill or operation. . . . The Forest now has sufficient and adequate know-how, in respect to silvicultural treatment for its various timber stands, to facilitate orderly planning accomplishment. The experience to date with the promotional type operator, which they have been stuck with, will also prove invaluable in future dealings [Payne 1-20-54: 1-2].

Payne complained that the forest's timber management function was over-financed during fiscal year 1953, being funded on the basis of producing about 40 MMBF when the actual cut was only 13 MMBF. The situation was similar in 1952, though not as lopsided. Payne recognized that the picture was beginning to improve, especially in sale preparation. He wanted to see stringent follow-up and correction of the repeated problem of what he termed "overcuts." That is, deposits made by timber sale buyers based upon projected cut volumes were often woefully insufficient; it was not uncommon for cuts to exceed projected volumes within three weeks of commencing logging. Manual direction issued in late 1953 specified that the minimum purchaser deposit was to cover at least a 15-day harvest at the rate of harvest estimated by the Forest Service timber sale administrator (Payne 1-20-54: 3).

"Six Rivers is cursed by probably the poorest land surveys in R-5. . ."

Another aspect of the marginality problem owed to the fact that "Six Rivers is cursed by probably the poorest land surveys in R-5. These land lines. . . are becoming more important every day & the best means we have of straightening out the mess these old surveys have created is accurate location of every section corner we can possibly tie down" (Johnson 6-26-53). The land line problem—traced to faulty, fraudulent, and incomplete nineteenth century General Land Office surveys—was most severe on the Lower Trinity District (Payne and Juntunen 1954: AM 18).

Under-developed transportation systems were also part of the marginality issue. Public roads built by county, state, and federal government were relatively scant and made large areas of standing timber inaccessible, given the logging technologies of the day. Government road construction programs were seen to have a key influence on log supply to mills and the economics of that supply. To illustrate the lag of road construction in this part of California, on the road that is now largely assumed by Highway 299, the first vehicle bridge across the South Fork Trinity, connecting Humboldt and Trinity counties, was not built until the fall of 1913. The first permanent survey for the Salyer-Burnt Ranch road was not started until March 1915, and it was not until 1923 that what came to be called the Trinity River Highway went through between Arcata and Redding (Salyer n.d.: 21).

A key to the more Pacific-oriented transportation system was the shallow and tricky Humboldt Harbor. In 1953, there was considerable congressional discussion about harbor improvements to improve marketing of timber from the area tributary to the Six Rivers. At stake was congressional funding assistance to deepen the channel across Humboldt Bay bar to permit loading full cargoes for coastal or inter-coastal shipping. Representative Hubert Scudder's request for information was directed to the Chief of the Forest Service, Richard McArdle.

Undoubtedly ghostwritten by someone closer to the problem, the letter exudes the promise of the new forest:

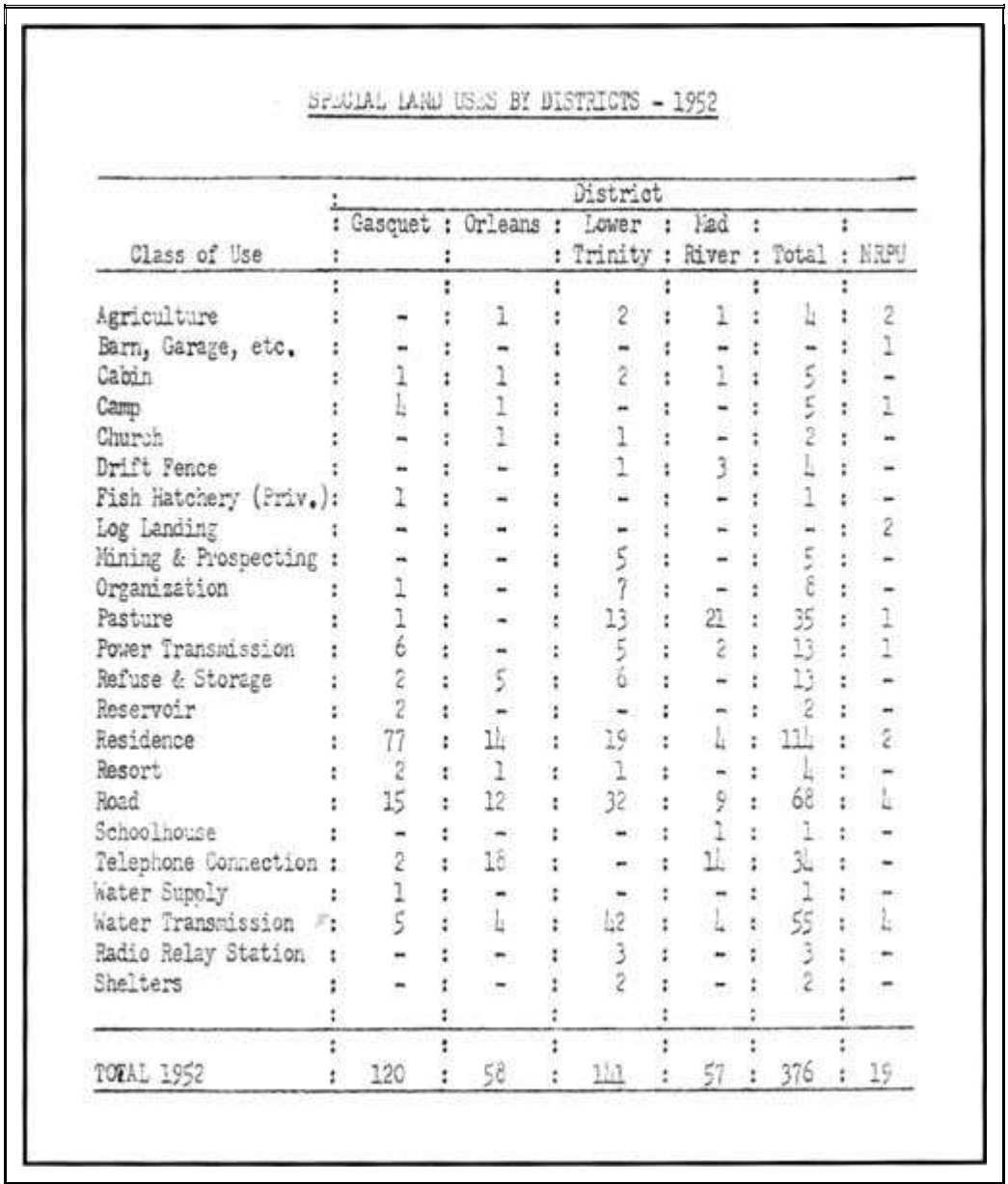
> Northwest California is just about the last timber frontier in the 48 States. The timber industry in Humboldt and Del Norte Counties has expanded sensationally since the close of the war. The depletion of old growth timber in western Washington and northwest Oregon has resulted in a migration of Forest products industries from that area into north most California. This migration is still in progress.
>
> A full-scale development of the potentialities for timber production in northwest California and southwest Oregon is impeded by lack of adequate transportation facilities. For rail shipments lumber must be brought south to Arcata or Eureka, California, or north to Coquille, Oregon. The distance between these two points is 220 miles on the coast highway. For lumber shipments by water the only available harbors for ocean vessels are in Humboldt Bay in California and Coos Bay in Oregon. The distance between these two harbors is 240 miles on the coast highway. At Crescent City, harbor improvements have been installed which permit the use of barges but not oceangoing vessels. Some lumber is now being barged from Crescent City to Humboldt Bay for transfer to coastal and inter-coastal steamers [McArdle 4-8-53].

Because Humboldt Bay could only accommodate partially loaded vessels, McArdle argued that the entire tributary area to the Six Rivers was handicapped and consequently, adversely affected stumpage values. He also noted that the Six Rivers area had "experienced phenomenal growth in the past ten years," and that Humboldt County ranked second in lumber production. He highlighted his points by stating that the current rate of cutting on the Six Rivers, tributary to Humboldt Bay, was "approximately 25 million board feet compared to a sustained yield cutting capacity of about 90 million feet." Pointing out that national forest timber was far less accessible than private timber, the discrepancy between the sustained yield capacity and the current cutting rate was seen as an "undercut" and a loss of about $650,000 of gross revenue annually to the United States. Obviously, McArdle and the Forest Service vigorously endorsed the harbor improvements.

In addition to touching on the marginality issues, the two fundamental findings of the Payne and Juntunen GII in May and June of 1953 were the need to embody a multiple use program and the need for orderly planning. The inspectors believed that the forest's information and education program emphasis on fire prevention could "over sell" its interest in that single program area to the detriment of multiple use. [65] Planning would materially aid the forest in its next developmental stage and was necessitated by the anticipated demand for forest products and services in the coming years. In the area of land exchanges, the inspectors urged forest officials to formally make the NRPU part of the Six Rivers (Payne and Juntunen 1954: LM 1, FR 1).

The 1953 GII also highlighted a significant jump in recreational use on the Six Rivers between the year of the current and the 1949 inspection. Earlier, there were plenty of unimproved, free-use areas available. Use of the forest's 36 improved campgrounds—though inadequate relative to demand for several years—had caused little harm. "However, the great increases in population. . . . make the problem of the use of unimproved areas a real one. The matter of sanitation and

maintenance of pure drinking water no longer permit unrestricted use..." Trailers were also beginning to appear in appreciable numbers in Six Rivers campgrounds. There were certain advantages noted by the inspectors from use of trailers, particularly compared with providing additional summer home lots, but it was hinted that the forest might do well to limit the length of occupancy at the most desirable units to stave off long term occupancy. The GII also noted that receipts on the Six Rivers had increased from only $14,893 in 1950 to $236,200 in 1952, owing almost entirely to the jump in timber sale receipts. Excluding capital investments, 1952 receipts exceeded operating expenses by about $6,000 (Payne and Juntunen 1954: FR 3, AM 3).



SPECIAL LAND USES BY DISTRICTS - 1952

Class of Use	District: Gasquet	Orleans	Lower Trinity	Mad River	Total	NRPU
Agriculture	-	1	2	1	4	2
Barn, Garage, etc.	-	-	-	-	-	1
Cabin	1	1	2	1	5	-
Camp	4	1	-	-	5	1
Church	-	1	1	-	2	-
Drift Fence	-	-	1	3	4	-
Fish Hatchery (Priv.)	1	-	-	-	1	-
Log Landing	-	-	-	-	-	2
Mining & Prospecting	-	-	5	-	5	-
Organization	1	-	7	-	8	-
Pasture	1	-	13	21	35	1
Power Transmission	6	-	5	2	13	1
Refuse & Storage	2	5	6	-	13	-
Reservoir	2	-	-	-	2	-
Residence	77	14	19	4	114	2
Resort	2	1	1	-	4	-
Road	15	12	32	9	68	4
Schoolhouse	-	-	-	1	1	-
Telephone Connection	2	18	-	14	34	-
Water Supply	1	-	-	-	1	-
Water Transmission	5	4	42	4	55	4
Radio Relay Station	-	-	3	-	3	-
Shelters	-	-	2	-	2	-
TOTAL 1952	120	58	111	57	376	19

This appendix from B. H. Payne's 1953 General Integrating Inspection report shows the volume of business and relative activity for various special uses during the Six Rivers' early years. (click on image for a PDF version)

Adequate employee housing continued to be a bugaboo for the Six Rivers. Though not as desperate at Gasquet and Orleans, extreme housing shortages plagued Lower Trinity and Mad River. A large part of the problem was traced to increased populations due to new sawmills and road construction work (Payne and Juntunen 1954: AM 12). [66]

Payne and Juntunen, like inspectors before them, commented on the forest's rapid conversion from a custodial status to a "managed unit." Exponentially increased demands for recreation facilities, timber sales and various special uses were expected to continue, making development of realistic, foresighted land use planning essential. Like Cronemiller and Kern, these inspectors also urged the forest to assume its proper role in water management for the north coast. With the north coast comprising only two percent of the population but yielding 41 percent of the State's run-off, demands for the water—not just local ones—were spiraling upward. The demand for water resources was expected particularly from the southwest part of the state, composing 53 percent of the population and possessing only two percent of the annual run-off. A fourth of California's total run-off flowed through the Six Rivers' watercourses (Payne and Juntunen 1954: FR 5-6). A 1957 Six Rivers fact sheet proclaimed that "water, a necessity for people, plants and animals, is the most important single natural resource of the National Forest." It was estimated that 20 million acre feet of water was produced off north coast streams (anon. 1957: 4). [67] The Six Rivers encompasses about 15 per cent of the total Klamath and Trinity river watersheds, about 10 percent of the Trinity, and about 85 percent of the Smith River watershed.

Though still primarily concerned with game species, wildlife management on the Six Rivers was closely linked in the 1953 GII with the economy and growth experienced by the area. Rather than being less important relative to the phenomenal growth of the lumber and wood remanufacturing industries, the economic benefits of hunting were increasing proportionately. With the expansion of timber cutting activities expected to hit the Six Rivers full force in the next few years, various impacts on fish and deer habitat were presaged. While deer habitat was expected to improve with creation of more cutover or thinned areas, fish habitat was expected to be even more threatened. The inspectors noted that the Six Rivers currently had sufficient knowledge to integrate stream protection into its logging plans in terms of keeping them free from debris and obstructions. But the forest lacked "information of what factors of land management are apt to adversely affect the capacity of salmon and steelhead streams as spawning grounds." Working circle management plans still lagged and, in addition to urging that their preparation be a forest priority, the inspectors suggested that the forest combine some of its small working circles in order to simplify the management planning (Payne and Juntunen 1954: FR 8, 12).

Payne and Juntunen characterized the Six Rivers' fire load as generally not as heavy as indicated by the 232 fires reported for 1947 through 1952. Mitigating the fire average of about 38 per year, the fire season was short, with just 10 to 15 critical fire days each season. The major fire problem noted was the build-up of heavy slash inside and outside the forest boundary and the occurrence of lightning fires in areas inaccessible by roads. Fifty-five percent of the forest's fires were human-caused, and over half of those were attributed primarily to "local people, smoking, incendiarism, and lumbering." And while human-caused fires accounted for 94 percent of the burned area for those years, incendiary fires on the Klamath River strip—about which more will be said in the next section—dropped significantly. Logging slash on private lands within the

forest's protection boundary totaled about 30,000 acres. The forest's six primary lookouts were staffed only for short periods, during the height of fire season (Payne and Juntunen 1954: FP 14). [68]

The steep increase in logging and milling operations on the forest, from 19 in 1947 to 106 in 1952, brought a corresponding increase in logging slash acreage: from 3,655 acres in 1947 to 21,855 in 1951, primarily on private land within the Six River's fire protection boundary. The problems on the Six Rivers were seen as particularly acute in Douglas fir stands, where the "heavy per acre cuts"—grossing an average of 60,000 board feet per acre in clear-cut units—left a slash hazard that spread rapidly, and was resistant to control (Jarvi 8-8-52: 7 & charts 1-4). From 350 acres of logging slash in 1947, that figure rose to 1,250 acres in 1951 on national forest sales. On private land for those same years, slash accumulations jumped from 3,305 acres to 20,605 acres. Creating not only exponentially increased fire hazard, slash accumulation delayed reforestation efforts and created more unsightly scenes which were increasingly in the public eye (Jarvi 8-8-52: 5). The aftermath of logging continued to plague the Six Rivers. Usually framed primarily as a fire control problem, slash and logging area clean-up was growing to monumental proportions (Branch 10-3-56: 1).

Despite special protection, lookouts sometimes fall victim to lightning. Bear Basin Butte was hit in 1942 when the strike went through and out the south side of the building to the telephone switch box on the pole outside. It was noted that, when the bolt hit, the lookout and his wife were standing opposite each other, across the fire finder; they were knocked flat and, afterward, 'felt groggy.' Some years after this incident, Bear Basin Butte Lookout was decommissioned and destroyed.

In 1997, the CCC-built Camp Six Lookout that had been on Upper Coon Mountain was refurbished and reassembled on Bear Basin Butte by the Six Rivers National Forest in partnership with Pierson Building Center. The lookout, along with a 1935-style cabin built by Pierson, are available for rent. Here, the public can get a taste of what it was like to be afire lookout, Courtesy of the Charlie Brown family

Native Americans and the Early Six Rivers

A large part of what passed as tribal relations in the early years of the Six Rivers was really the forest's relationship with the Indian Service... and most of the forest's contact with the Indian Service concerned fire protection agreements and forestry objectives. Moreover, the institutional ways of the two agencies were divergent; Six Rivers officials frequently groused about the fogginess of the Indian Service's forestry objectives and about its timber sales typically being offered on "a faller's selection basis and with no supervision." For the four mills on the Hupa Reservation, the Indian Service handled Indian and adjacent national forest timber. The Six Rivers' aim in its first few years of existence was to develop a cooperative agreement with the Indian Service for sustained yield on the timber lands serviced by these mills (Cronemiller and Kern 1949: 19-20, 29).

Today, the forest's relationship with over a dozen Native American groups that traditionally occupied what became the Six Rivers National Forest contrasts with the forest's earlier relationship with native people. [69] As of 1997, forest officials have a formal, government-to-government relationship with four, federally recognized tribes and eight rancherias: the Yurok, Karuk, Hupa, and Round Valley Indian Tribes; and the Elk Valley, Smith River, Resighini, Big Lagoon, Trinidad, Table Bluff, Rohnerville, and Blue Lake rancherias. In addition to general forest management topics, forest and tribal officials consult on an array of issues having particular resonance with Native American communities, ranging from use of herbicides, enhancement of traditional gathering areas for basketry and food stuffs, and protection of Native American cultural landscapes and spiritual locales.

Much of this change has occurred within the past two decades; it was not long ago that native people and the Six Rivers policies were fundamentally at-odds. Surprisingly, a window into the character of early Six Rivers attitudes and actions regarding native people is provided by the 1949 General Integrating Inspection report. Within the functional area of fire control, the GII contained subsections on planning, preparedness, seasonal personnel and stations, prevention, and the "Indian incendiary problem." Within each subsection, the inspectors used language that would be unlikely to appear in a contemporary account. But in addition to the more dryly reported elements—such as the need to update the forest's fire plan, a recap of the past three years of fire history, and a characterization of the forest's fire behavior—they also pejoratively referenced the "background of the local seasonal personnel" and their aptness to be "careless, daring, and less cleanly." Those remarks were, however, comparatively complimentary when measured against what the inspectors said in the subsection on incendiarism. Moreover, their

account is extraordinarily telling, not only of their personal attitudes, but also of the agency's relationship toward native people during that era.

Among Region 5 forests, the Six Rivers is legend for being comprised of lands that were the traditional homelands for a large number of Native American groups who represent an unusual diversity of cultures and language stocks. Perhaps owing to the area's relative remoteness and late economic and industrial development by immigrant groups, native people—especially the Hupa, Yurok, Tolowa, and Karuk—managed to maintain the threads of their communities that provided the basis for their strong social and political presence today. There has been a long-standing tension between native people and the Forest Service with the former having an elemental tie with the land and its resources and the latter Congressionally mandated with stewardship of those lands in order to produce goods and services. It has taken a long time to conceive that these interests are not necessarily oppositional.

Among Region 5 forests, the Six Rivers is legend for being comprised of lands that were the traditional homelands for a large number of Native American groups who represent an unusual diversity of cultures and language stocks.

The attitudes reflected and reported by Inspectors Cronemiller and Kern toward Native Americans is shocking to contemporary sensibilities.... There is an impulse to re-tell what was said using more benign words in the hope of being more respectful and less inflammatory and offensive. But when such language typified broadly held attitudes that translated into agency practices, it is important to let the historical record speak for itself. This is particularly true when today's public may regard such a re-telling with disbelief—thinking it impossible that the agency held such racist attitudes and condoned, or turned a blind eye to, certain reprehensible practices that were commonplace only a little over a generation ago.

The inspectors opened their discussion by setting the stage: 1949 had been a year beset with a high number of Indian-caused fires, especially along the Klamath River strip on Orleans Ranger District and on the Hupa Indian Reservation. Aware of this, Cronemiller and Kern lobbied for and received funding for special Indian crews—"screened as non-incendiarists by the fire prevention officer"—to cope with what the inspectors termed "organized incendiarism." Although Indian patrol crews were highly effective, the inspectors believed the Indian arson problem was "broader and deeper than often conceived." Native Americans of this area were labeled "shrewd in uncivilized ways" and...

> in reality, have simple minds. They have inferiority complexes and are more or less confirmed in their thinking that the land should be theirs and that incendiarism is one way of retaliation towards the white man for various controls, disciplines and laws....
>
> They react against anything that smacks of oppression and this may be only regulation or a process of law. . . .

> The drunken Indian has no inhibitions and will do the thing he has been thinking about. If that means retaliation towards controls or knifing an enemy, that he will do. A number of roadside fires are started willfully by drunks....
>
> The Indians are improvident but good workers. At present there is work for those who want to work yet they will take a day off when they don't feel like working and thus lose their jobs. All of them have automobiles and most are paying on them. When it appears they may lose their car through failure to make payments, 'job' fires may result. . . .
>
> The 1949 situation with a number of incendiary (Indian) fires is really a somewhat normal situation—partly retaliatory against the Indian Service and the government and perhaps partly economic. Wage rates for fire fighting are above those for common labor on the reservation and because of long hours the pay is greater per day than private industry....
>
> **"Wage rates for fire fighting are above those for common labor on the reservation . . ."**
>
> Solving the problem of the half-drunk Indian and his retaliatory actions is a long process involving possible (a) enforcement of liquor laws in respect to Indians, and (b) long time educational programs in agriculture and forestry among the high school students. Law enforcement is, of course, essential but is a much different problem than that of the white man's conception, yet no one seems able to say what is proper punishment for an Indian. One sheriff says a rubber hose filled with buckshot is perhaps the best. Fines aren't satisfactory in all cases since the culprit is usually 'broke' and will be bailed out by parents with the result the punishment is ineffective and hits the wrong party. Going to jail is termed 'going to school' by the Indians and holds little terror after the first experience. The idea of the State in this District is first get the Indian into a jam, then win his friendship by getting him out of it with probation. This is effective with some.
>
> The tendency of justices is to be lenient, assessing small fines or probation. The Indian Service administration is rated well by the local ranger, but Government officials are either accepted by the Indians or not. If not, they will make it really tough. It appears the present superintendent is accepted, as is the Lower Trinity District Ranger. [70] The Indian Service forester is disliked by the Indians and they are out to get him [Cronemiller 1950: 26-28].

Along with their disturbing, racist beliefs, one also senses Cronemiller and Kern's frustration and their recognition of some of the larger social issues that hit Native American people especially hard: fundamental differences in land ownership concepts, regulation in previously unregulated aspects of everyday life, apparent disproportionate alcoholism among Native Americans, un- and under-employment.., all of which contributed to "the Indian incendiary problem." Regarding the sheriff who commented that "a rubber hose filled with buckshot is perhaps the best" punishment for an Indian, it is impossible to discern Cronemiller and Kern's reaction. However, it is clear they recognized that law enforcement was particularly problematic when any outside agency's regulations were imposed within Indian communities. It is also clear that Cronemiller and Kern simply lacked the awareness to understand that much of what they termed as incendiary was cultural burning to enhance the foods, fibers, and traditions that were integral to the life ways of local people. [71] This gulf of misunderstanding was bolded by the inspectors' remark that the

forest was home to "a considerable number of rural people [and that] a major portion of the population in and adjoining the forest is of Indian blood.... [In their eyes, the forest] "contributes little in the way of livelihood but is increasing in importance" (Cronemiller and Kern 1949:1).

There is no doubt that deliberate fires were set and that they posed a major concern for Forest Service officials. In fact, the number of arson fires had jumped from none reported in 1948 to 17 in 1949, with scores more started immediately adjacent to the forest (Cronemiller and Kern 1950: 24). But ignorance of Native American cultural practices coupled with equating Klamath River "incendiarists" with "Indian," and the prepossession against an entire racial group had the effect of clouding problem-solving and of poisoning relations for years to come.

Hostility and friction between Native Americans and various government agencies—the Forest Service being just one—sometimes escalated into property damage and to threat of bloodshed. The State Division of Forestry experienced difficulty in enforcing fire control laws along the river strip. For example, after being threatened, Division of Forestry personnel backed-off from implementing their fire control program. One result was that Forest Service boundary lands were being "badly scorched" and when fires occurred on the strip, Forest Service firefighters were forced to "go a considerable distance outside to stop threatening fires." Cronemiller and Kern lamented that: "It looks as if we will have to live with this problem a while longer—until the area becomes more civilized." Exhibiting a thread of cultural awareness, they instructed the Six Rivers to extend a hand to the State and offer any assistance needed in developing "an attitude towards protection among the local people. Perhaps the burning of basket grass areas and doe pastures would to the job . . ." (Cronemiller and Kern 1950: 29).

. . . the prepossession against an entire racial group had the effect of clouding problem-solving and of poisoning relations for years to come.

A letter from the Forest Service's State and Private Forestry group in late 1950, commented on one of the difficulties of coordinating fire protection along the Klamath River strip, particularly on the north side, down-river from Weitchpec to Blue Creek. Labeling the area the "West of the Pecos River Strip," reference was made to the new presence of a full-time patrolman there for the full fire season in 1950, noting that: "This apparently had an effect because there has been little fire trouble this year." An initialed marinal comment to that point was that the "Warhoops kept busy in mills at Hoopa is a more fundamental reason" for the precipitous decrease in arson (Branch 12-18-50).

The Six Rivers' and Regional linkage between intentionally set fires and Native Americans was also reflected in a 1952 fire inspection report:

The incendiary problem can become explosive if the Indians exercise their past practices to the ever increasing heavy hazard slash areas. One large operator, who is operating in the area between the Klamath River and the Forest boundary north of Weitchpec, referred to as the 'river strip', has refused to employ Indians, thus far. This operator is a recent arrival from Washington. He has some 20 million feet of down timber on the area. The Orleans F.C.A. [fire control assistant] has personally contacted this operator regarding the employment of Indians as a

safeguard to 'retaliations' thru fire. This point should be followed-up aggressively by Forest and District personnel. Although this area is not within the Forest protection boundaries, it is a problem area adjoining N. F. timber.

If some local Native Americans started fires that had no cultural underpinnings, the fires did appear to have had a socio-political agenda... and it appears to have been effective in getting the attention of Forest Service officials. Though there was no reference in this 1952 report to the intense land and resource use disputes over the river strip—both between the government officials and Native Americans and among Indian groups along the Klamath River—clearly, questions of resource ownership and economic benefit swirled around the incendiarism issue.

. . . questions of resource ownership and economic benefit swirled around the incendiarism issue.

Cracks in the Maximization Perspective

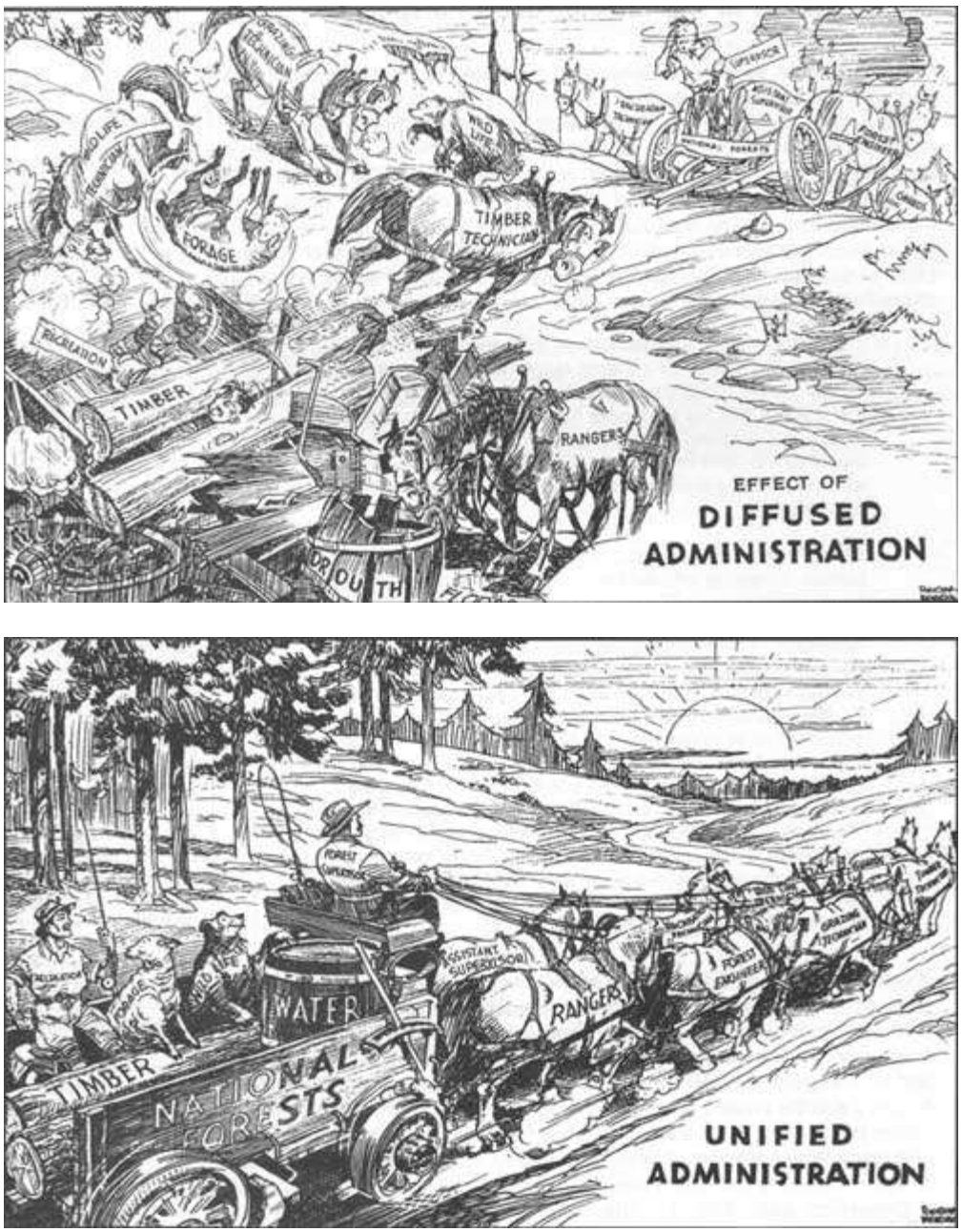
Organizationally, the Forest Service was showing signs of moving into a period of fundamental transition between its second and third eras as an agency—between intensive management for commodities toward a more holistic, forest health perspective. However, the Six Rivers had inherited a structure, an institutional culture, and personnel roster that largely mirrored the principles characteristic of the first, custodial, era of Forest Service administrative history. The *National Forest Manual* guidance from which most of the forest's leadership had been schooled stated that the first building block of the Forest Service was the ranger district, and that the person in charge of the ranger district was the district ranger.

The district ranger was primarily a field man rather than an office worker. Since the district ranger is in charge of from 50,000 to over 300,000 acres and his job is primarily a field job, it is evident that his work calls for much travel, and that he must expect to spend much time away from home.... He should be content to raise his family in the village or isolated locality where the headquarters of district rangers are often necessarily located.

As a rule the district ranger's prestige, and therefore his usefulness, increases with the length of stay in, and consequent firmer establishment of himself as part of the community....

Men selected for district ranger positions should be young, of rugged physique, and in good mental and physical health. A high school education, or an equivalent amount of schooling, is needed. Other things being equal, the man with technical training in forestry and range management will be most successful in dealing with the varied technical problems which confront a district ranger.... It is policy to recognize that the principal line of advancement to higher positions lies through service as district ranger.... Improvement work, fire fighting, and the like often require crews with foremen in charge, but it will be the rule that such crews will be under the supervision of the district ranger and that he is ordinarily personally responsible to the supervisor for everything in his district except work requiring the qualifications of the specialists who are attached to the offices of the supervisor or the district [regional] forester [USDA, FS Manual c. 1927: 4A, 5A].

The work at the ranger district level had traditionally been unspecialized and required a ranger with considerable woodsman skills and diplomacy. But, by the end of the second world war, it was evident that demands on national forest system lands were increasing exponentially; a ranger, an assistant, and a small seasonal crew could no longer effectively shoulder the workload. Not only was the volume of work changing but, more importantly, so was the nature of the work. As the agency shifted from a custodial toward an intensive managerial paradigm of forest stewardship, specialists increasingly had a role. [72] When the Six Rivers was created, the district rangers still reflected a generalist approach, but the ranks were becoming increasingly professionalized. Foresters comprised the bulk of the ranger and assistant jobs, but the classification of "forester" was developing subspecialties such as silviculture, fire, recreation, and administration. Specialists, such as civil engineers, were gradually becoming more numerous at the supervisor's and regional offices.



This character of the virtues of a diffused versus a unified administrative structure hints at the dramatic change in the volume and nature of Forest Service work and at the growing pains it spawned.

Rapid developments in the north coast timber industry, spurred by creation of the Six Rivers National Forest, had ramifications for the new forest's land exchange, special use, and recreation programs as well as the more direct effects in the timber and roads functions. R. W. Beeson, reporting to the Assistant Regional Forester for Recreation and Lands remarked:

". . . local people have the prospector's optimism and at least get some satisfaction in having a claim since one doesn't cost anything to keep"

> Until recently, there were no particularly difficult problems of land management along the Trinity and Klamath Rivers. Now, almost overnight many large sawmills have been established in an area where formerly there were mining claims and a few widely scattered homesteads. Land needed for home sites, industrial and business sites has become an acute problem. Unless the Forest Service wishes to be forced into a special use business involving all the difficulties of unincorporated towns, an exchange of lands in the near future is imperative. The objective should be to exchange land near the mills and villages for areas needed for public use, including access to the river for recreationists and fishermen. It is apparent that most of the bench land between Hawkins Bar and Willow Creek will be in demand for private uses. If we should delay action until a townsite bill passes Congress, we will be forced to sell this land and have no opportunity to make advantageous exchanges [Beeson 10-5-55: 3-4].

Forest surveys identified the "highest use" for special areas in order to provide for a specific, dedicated use. For example, many of the river areas near small communities were labeled for recreation development: campgrounds, boat launch areas, day use areas, picnic areas, and the like. But despite this identification process, often other, incompatible uses prevailed. Indeed, the first general inspection of the Six Rivers had recognized that the forest had substantial untapped recreational opportunities, and that their development was hampered by "a considerable alienation of land, particularly along the major watercourses" which were also often townsite areas or adjacent to them. Public use of these riverine areas was also suppressed by the mining claim situation on the Six Rivers, where mineral values were "low but widespread." [73] In the broader view, placer claims on the Smith, Klamath, and Trinity rivers were, from the outset of the Six Rivers, "a serious barrier in developing proper land use. Values are known to be low yet the local people have the prospector's optimism and at least get some satisfaction in having a claim since one doesn't cost anything to keep" (Cronemiller and Kern 1949: 1, 21).

Indeed, fishing was the greatest recreation use on Gasquet, Orleans, and Lower Trinity districts. Especially on the Klamath River, the mid-August to mid-September steelhead runs attracted huge numbers of people, packing campgrounds and private river resorts. Inspectors Cronemiller and Kern believed that the new Weitchpec Bridge, possibilities of Klamath River Highway improvements, and P.G. & E.'s bringing in power were indications of new growth potential in the Orleans area, and that the Forest Service had an important role to play in "pulling the Orleans community out of its present doldrums as a one phase economy-fisherman's resort and plan for a greater stability and higher standard of living" (Cronemiller and Kern 1949: 21).

The Six Rivers' Information and Education Work Plan for 1955 is a telling vantage point of the forest's emphasis areas during that period of its history. Timber was, without a doubt, the fulcrum of the Six Rivers' work program; the I & E Plan's 1955-1956 objective was simply:

> To promote better public understanding and support of the Six Rivers National Forest Timber Management and development program.

Six Rivers officials saw themselves as previously having over-emphasized the forest's fire job. Now that other agencies were taking more responsibility for fire prevention and control, the Six Rivers was advised to shift its attention to helping people "appreciate the magnitude of the job of making this resource [timber] available. . . [and] the complexities of 'managing' for the long time future." Because the inland timber resource had been virtually ignored, they saw "an opportunity to get in on the 'ground floor'." To every forest officer, the I & E Plan implored:

Timber was, without a doubt, the fulcrum of the Six Rivers' work program

> Emphasis will be given timber management as it is our newest and heaviest activity. We want to get off on the right foot. Other activities, however, should not be put aside completely. Opportunities to discuss and explain objectives and correlation of other activities with timber management should not be overlooked.

Each forest officer was expected to take an active part in the I & E Program, "[i]n spite of seemingly impossible work load." The I & E Plan was partly comprised of a list of governmental officials, conservation groups, industry groups, media, and other special interest groups coupled with the name of the key contact, the officer responsible for the contact, the minimum frequency of contact, the general purpose of the contact, and the special interests of the target groups (USDA, FS, 1955: *passim).*

Though much of the 1961 I & E Plan parroted the 1955 version, the 1961 "Five-Year I & E Analysis and Plan" took a different approach, reflecting a new emphasis on multiple use. Its 1961 to 1963 objective was stated as:

> To promote better public understanding support of the Six Rivers National Forest management and Multiple Use Program.

Further, instead of isolating a single information and education problem to be addressed, the plan listed a range of problems, a short analysis of them, and the action to be taken and the media tool to be used. The 1961 plan listed deer management, rights-of-way, and timber as the focus issues, though all were connected with the Six Rivers' development of its timber resource. Deer were believed to be causing serious impacts on the "survival and growth of fir seedlings and plantations"; lack of rights-of-way was becoming a serious impediment to keeping the timber sale and road programs going; and pressure on the Six Rivers to provide the full allowable annual cut to the timber industry was unreasonable—it was neither "physically nor financially feasible." The I & E Plan explained that the Six Rivers had been in the "timber sale business only during the past 8 years to any great extent," and that "consolidation of private timber and land holdings by a few large timber companies" had netted severe criticism of the forest. Seen as part of a state and national issue, the plan directed that contacts stress such things as the need for soil and stream protection, planning and supervision of timber sales, benefits of "orderly and sustained yield harvest vs. 'operator choice' of timber," and conduct of "show me trips" for key leaders in addition to annual timber sale operator meetings. The plan also identified that forest officers needed to publicize progress and problems with the timber sale program—such as rights-of-way—and to meet regularly with key individuals and groups to "seek their understanding and cooperation" (USDA, FS 1961: *passim).*

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This photo, taken in 1960, shows a D-8 tractor building terraces as a hedge against erosion prior to restocking with trees. This was on the Leary Creek Sale, Orleans Ranger District. US Forest Service photo

From Creel and Bag Limits to Restoring Habitat... An Example of a Changing Paradigm

Fundamental reorientations within the Forest Service seem to be the cumulative product of a critical mass of more modest changes in perspective that take place over time. One of the areas in which elemental shifts in perspective were taking root was in post–World War II fish and wildlife management. At least as early as 1944, the Forest Service in California perceived that it needed to change the way it viewed this program. Forest Service analysts on the "Interbureau Coordinating Committee on [the] Post War Program for Agriculture in California" reported in 1944 that "[P]erhaps the most serious failure in wildlife conservation has been in misdirection of effort toward regulation of the sportsmen rather than toward restoration of the environment." Attempts at wildlife management through setting hunting and fishing seasons and limits was followed by establishment of refuges and elimination of certain species from the list of take-able game. When those efforts still failed to produce the desired results, interest peaked in transplanting native species, introducing exotics, and artificially propagating game birds and fish.

While it still operated entirely within the paradigm of providing desired sport hunting and fishing experiences, this study candidly summarized various negative influences upon natural wildlife ranges, including the ill-effects of single-use management, "such as timber production, where the elimination of the oaks and other broad-leaved species within a particular area materially reduced the feed to sustain wildlife. Outstanding as an example of the failure to recognize wildlife values has been the destruction of fish life in the management of water" (USDA, RICC 1944: Forest Lands Section 41-43).

The 1946 animal census for the Six Rivers highlighted the game and fur bearer species, with particular attention to deer and bear, counting 8,300 blacktail deer and 1,055 black bears (USDA, FS 1947: B-7). Population estimates for these species classifications were made for each ranger district in 1946 (USDA, FS 1947: C 4, 14, 24, 34): [74]

	Gasquet	Orleans	Lower Trinity	Mad River
Blacktail deer	500	1,500	1,880	5,000
Black bear	480	250	120	200
Bobcat	330	800	225	450
Mountain lion	30	15	3	20
Coyote	10	200	75	500
Fox	180	75	115	250
Marten	40	100	19	-
Mink	240	250	180	-
Otter	75	50	10	-
Raccoon	50	550	250	-
Ringtail cat	80	375	125	75
Skunk	150	250	275	2,500

From its inception, the Six Rivers was prized as a less-developed and less-frequented place...

Weasel	450	75	60	-
Badger	-	-	60	20
Fisher	-	25	2	-
Muskrat	-	-	85	-

From its inception, the Six Rivers was prized as a less-developed and less-frequented place when compared with many other California national forests. As such, its attraction for anglers and hunters was significant and, as basic access improved, their numbers increased accordingly. In 1949, the total number of fishing use days for the Six Rivers was 24,780; hunter use days numbered 7,555. The Six Rivers boasted an estimated 785 miles of fishing streams and, after a lull during World War II, the State began an aggressive fish planting program on the forest. In 1946, 100,000 rainbow and speckled trout were planted in Six Rivers streams with fish from the Prairie Creek and Mount Shasta hatcheries.

By 1949, there were glimmers of a focus on habitat, particularly in relation to fisheries management. Cronemiller and Kern belied their frustration with State programs that responded to pressure from angler groups by building fish hatcheries instead of improving spawning habitat. They urged that Six Rivers officials work "for honest biology in fish and game with competent technicians working on the problem of this tremendously important resource. . . ." The inspectors also seemed nonplused by sportsman groups that belittled the job to be done. They entreated forest officials to work closely with sportsmen to help them understand "that wildlife management is a professional job and they should do more listening and less advising" (Cronemiller and Kern 1949: 23; Fischer 1950: appendix tables XI and XII).

In 1950, Supervisor Fischer stated that the forest's objective in recreation management was, foremost, to preserve and enhance the recreational values of national forest land and, secondarily, to develop recreation improvements with county and state programs. Fischer identified a close relationship between fish and wildlife on the Six Rivers and recreation, since hunting and fishing formed the area's major recreation attraction. Where the shortage of recreation facilities had earlier not caused huge harm to the forest because of the abundance of available, free, unimproved areas, the growing population and resultant increase in demand for recreation facilities were causing critical problems; especially in sanitation and water purity. Fischer also cited the increasing pressure on the Six Rivers to designate summer home tracts and organizational camps (Fischer 1950: 13-14).

Clear cuts during the Six Rivers' timber boom years were promoted as beneficial for deer. Believed to be similar to the effects of fire, the openings created by clear cuts started succession over. As these areas initially revegetated with grasses and forbs and then with shrubs, deer were provided with a transitory food source until the site gradually reforested with hardwoods and conifers. In the late 1960s and 1970s, wildlife biologists encouraged such harvest prescriptions that produced more "edge"—transition zones between vegetation types. However, when over-used over time, the practice led to the formation of large, contiguous blocks that, while they provided edge, overly fragmented the habitat. US Forest Service photo

Adopting the language of farming and maximization, in 1950 Supervisor Fischer stated that the Six Rivers' objective in wildlife management was "to obtain the maximum fish and wildlife production from the National Forest, consistent with other uses; to accomplish this through maintenance and development of the habitat; and to promote the most efficient sustained harvest of the crop by sportsmen." As he saw it, the primary fish and wildlife management problem for the Six Rivers was to furnish the "room and board," or habitat, for fish and wildlife and for the State Division of Fish and Game to manage "harvesting of the crop." He noted the need for heightened cooperation between the State and the Six Rivers, especially as the State moved into an era of "real game management as compared to mere enforcement of seasons and bag limits." Fischer saw it as incumbent on the Six Rivers to place a higher value on wildlife and "preservation of migratory fish" recognizing the ever-increasing reliance on National Forest land to satisfy the demand for hunting and fishing opportunities (Fischer 1950: 12-13).

When wildlife management emerged as a profession within the Forest Service, the emphasis was still on consumptive benefits to humans.

When wildlife management emerged as a profession within the Forest Service, the emphasis was still on consumptive benefits to humans. [75] But, by the latter 1960s, there was a shift in applying wildlife management to provide non-consumptive human benefits as well. Hunting had also "changed from an important food-producing and sporting activity of a predominantly rural population, to an important sporting and sometimes food-supplementing activity for nearly 25 million" people in a predominantly urban nation by the early 1970s. This called for a shift to also occur in wildlife management strategies with "more explicit management objectives" and measurement of objectives rather than "number of game bagged" (Hendee 1973: 175). There were even whispers of wildlife management for maintenance and promotion of endemic, non-game species diversity.

From Summer Homes to Recreation Residences...Another Changing Paradigm

Unlike national forests adjacent to populous urban areas, the Six Rivers did not become deeply involved in creating recreation residence tracts. Designation of such tracts got their start with the Term Occupancy Act of 1915. Forest Service officials were encouraged to identify places having high recreational values and to lay out what were called "summer home" tracts. They were intended to promote recreational enjoyment of and appreciation for the outdoors. The homes were to be modest structures, usually cabins, for summer use. Though the summer home owner owned the improvements, the federal government—through the Forest Service—owned the land on which the improvements were built. The Forest Service maintained control of what was constructed on the land by having summer homes authorized by special use permits. Where summer home tracts were not laid out but where individuals sought ways of occupying recreationally attractive lands, it was not

. . . it was not uncommon for people to secure what, in actuality, were summer home sites through the use of mining laws that allowed for occupancy and use of public land if it was necessary for mineral development.

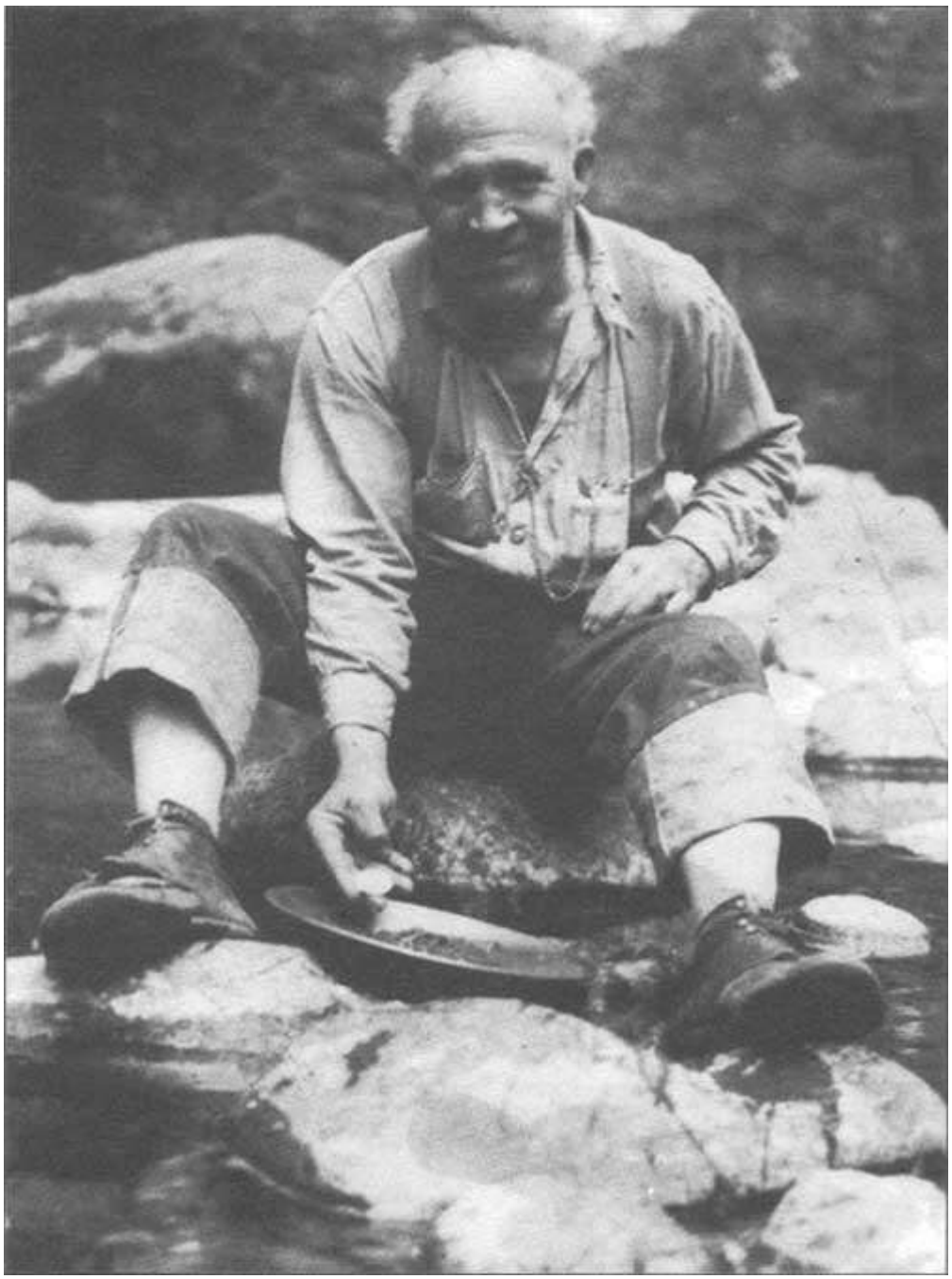
uncommon for people to secure what, in actuality, were summer home sites through the use of mining laws that allowed for occupancy and use of public land if it was necessary for mineral development. Some of the first major problems of this nature came during the depths of the Great Depression. On the Six Rivers, for example, it was reported that, along the Smith River, locators regularly attempted to file mineral claims on areas that forest officials identified as public campground and day use areas (Cooper 1939 part III: 66).

The Forest Service Manual provided guidance to forest officers regarding the relative preference for recreation uses on national forest lands. Though ranked ninth out of the nine highest public recreation uses, the manual hastened to explain that the "low preferential rating given summer home occupancy is merely relative." Summer homes were not to compete with "higher forms" of land use. Summer home tracts were seen as desirable in locations where the land had "little or no value for general public use" (USDA, FS Manual c. 1927: 98-99-L).

One of the primary justifications supporting summer homes on national forest lands was that their occupancy reduced the risk of conflagration:

> The use of national forests as places of residence should be especially encouraged if not in conflict with other more important uses or with good administration. A residence occupied under the restrictions imposed by a permit not only reduces the fire risk as compared to transient camping, but makes of the permittee a volunteer fire fighter whose interest in forest problems is increased by reason of close contact with them and financial investment in a forest (USDA, FS Manual c. 1927: 25-L).

The earliest summer home tract designated on what would become the Six Rivers was probably the Ranger Lewis Tract on the Gasquet Ranger District in 1917 (Cooper 1939: part III, 18). Mining was the means to most of the relatively few recreational residences on the forest—originally built on mining claims, these homes often served as year-round residences and were shoe-horned into special use provisions for recreation residences. A push in the mid-1930s to contest fraudulent mining claims—inpropitiously timed with the Great Depression—created a high degree of animus against the Forest Service. The Six Rivers, in contrast to many other national forests in California, had only five summer home tracts officially laid out by 1947, and all of those were on Gasquet Ranger District (USDA, FS 1947: B-5).



Mining sometimes led to alleged or actual resource conflicts. Especially during the Great Depression, before the Six Rivers was established, many mining claims appeared to be used as a means of securing summer home sites—particularly on the Siskiyou National Forest's Gasquet Ranger District. Heated debates erupted during this era between miners and the Forest Service. This undated photo shows a miner panning for gold on the Smith River. US Forest Service photo

Depression-era correspondence between Siskiyou Forest Supervisor G. E. Mitchell and various Del Norte County residents illustrates some of the pushes and pulls between Forest Service recreation use and mining policies within a context of economic hard times. Following Forest Service actions to invalidate the mineral claim of Harvey Morrell, an angrily-worded petition was circulated in Del Norte County to remove Forest Supervisor Mitchell from his position. Chagrined, Mitchell wrote letters to petitioners with whom he was acquainted, seeking to clearly state the Forest Service position. One such letter was to County Treasurer, Leo Dressier. Mitchell wrote that, by policy and for the greater public benefit, miners could not occupy public land unless their claim contained sufficient minerals for an individual to make a living....

. . . an angrily-worded petition was circulated in Del Norte County to remove Forest Supervisor Mitchell from his position.

> I believe you also know that the miners on Smith River, very few of them, if any, are making a living off of their claims. The relief records in Crescent City show that most of them are accepting county relief. Those that are not are keeping off of that roll almost entirely through the employment with the State highway department or the Forest Service. I believe you will find that if any lands are capable of supporting families from the lands themselves, the forest service will interpose no objection to their using the land for that purpose. We do, however, try to protect the interests of the people by preventing the desecration of these lands....
>
> The tourist business means as much to Crescent City and Del Norte county as any other industry there, and in all probability it will mean considerable more in years to come. Our thought in developing public campgrounds and preserving the scenic beauty along the highway is to encourage more tourists to come. If every available camping spot is taken up by a miner with an old tumble-down shack and a hungry looking dog, its attraction to people who are seeking scenic beauty will be little indeed [Mitchell 1-17-35].

In a like letter to a petitioner, Mitchell assured that the

> Forest Service is not in any way bothering the miners in Del Norte county... where they are bona fide prospectors attempting to develop the land from a mining standpoint, rather than from a summer home site or a speculative standpoint, with the idea of selling it for such. We have not molested any of the miners along Smith River except those who have filed mining claims on our camp grounds, or who have started an investigation through their criticism of the action that we have taken in the administering of these lands [Mitchell 1-17-35].

"If every available camping spot is taken up by a miner with an old tumble-down shack and a hungry looking dog, its attraction to people who are seeking scenic beauty will be little indeed."

Mitchell answered the Regional Forester in a similar vein and added that:

> . . . Del Norte county is a small unit unto itself, which is ruled almost entirely by political influence, and whenever anyone has any particular grievance, it is taken to the rest of the people in the community for their assistance [Mitchell 1-7-35].

Supportive of Supervisor Mitchell, Regional Forester C. J. Buck wrote to the Forester in washington, D.C. to explain the actions taken on the Smith River claims—actions that were getting Congressional notice because of complaints from constituents:

> We have realized from the start that this situation is full of dynamite, but failure to enforce the usual requirements with relation to mining claims which are obviously held in bad faith will accomplish nothing as I see it, unless to increase the trouble. The supposition that the 'depression' mining locators will gradually abandon the land as its lack of mineral value becomes evident can not hold good for those who put considerable improvements on the claims for living purposes; in fact, the land is so attractive and valuable for recreation homes that the situation which seems gradually to be developing is that even the bona fide 'depression' miner will not abandon the claim until he finds a purchaser for it. The purchaser usually puts his money in the site in the belief that if mining is unprofitable, he will still be able to hold it. . . so that, sooner or later, the claim loses all resemblance to a valid one, and becomes a 'homesite' claim pure and simple [Buck 12-18-34].

Buck also cited his efforts to administratively hold these extraordinarily scenic lands for public benefit and lamented that there was no legal instrument for withdrawing roadside strips and approved recreational areas from mineral location with surface rights. Buck was weary of making recreation plans and administratively removing the land from timber sale or other uses detrimental to those scenic values "only to have alleged miners appropriate the land and turn it to uses incompatible with approved plans." He was sympathetic to poor people's plight brought on by the severe economic downturn, stating his personal opinion that he could not see putting them "out of the national forests as long as the forest is affording them some assistance in the way of a livelihood." But Buck vehemently objected to the speculator who hid his motives behind the mining law, noting that:

> Often under such conditions as exist on the Siskiyou, there is little that can be done to combat his claim, and he throws a veil of doubt over the whole scheme of the present mining laws [Buck 12-13-34].

Virtually ignored over the intervening years, by the 1950s, there was renewed concern within the Forest Service that these summer home tracts were "either located in an area of critical fire hazard, in heavy cover at the base of a mountain slope, or are in an area better suited to campground use... on benchlands between the Highway and the river." Moreover, some of the bench land summer homes were in tracts poorly located by the Forest Service. Gasquet was offered as a case in point to illustrate the issues raised. Being located "too close to a center of population," only one of the homes was being used as a bonafide summer home. "The others are used by county officials or businessmen from Crescent City who use them as permanent residences and drive back and forth daily. There is private land available and a townsite is certain to develop" (Beeson 10-5-55: 1-2). More and more, summer homes were becoming primary

residences or year-round recreation residences; a situation not envisioned by the early Forest Service. [76]

From Fire Exclusion to Controlled Burns... Yet Another Changing Paradigm

Fire prevention, fire detection, and fire fighting were among the cornerstones of Forest Service responsibilities during the early custodial management days. Though there were occasional heated controversies over the use of fire as a tool, usually referred to as "light burning," few argued with the compelling need to protect timber, watershed, and forage resources from the effects of uncontrolled fire.

Early forest officials had struggled with forest residents and users who were accustomed to manipulating their environment with fire.

Early forest officials had struggled with forest residents and users who were accustomed to manipulating their environment with fire. Grazers periodically touched-off fires to promote new, more nutritious vegetation growth and to clear pathways through brushy areas for their stock; miners fired areas they wanted to prospect in order to make the ground and formations more visible and the area more traversable; Native Americans burned areas to encourage growth of preferred foods and fibers and to clear brush from travelways; hardscrabble farmers torched land they wanted to plant. Not surprisingly and with a frequency that disturbed many, these fires far-exceeded their intent. Even when fires performed as desired, as the forests began to be more densely settled and utilized by a greater variety of users, friction increased and the cry for someone to do something about it became louder and more insistent.

The first chief of the Forest Service, Gifford Pinchot was happy to have his new agency oblige. Even before the Forest Service was created, Pinchot had been involved in national studies to calculate what uncontrolled forest fires were costing the nation. A few years later, that foundation gave Pinchot the commitment to make fire a keystone of the Forest Service and a rallying point for its support. Principally written by Pinchot, the original Use Book stated simply:

> Probably the greatest single benefit derived by the community and the nation from forest reserves is insurance against the destruction of property, timber resources, and water supply by fire. The direct annual loss reaches many millions of dollars; the indirect loss is beyond all estimate.
>
> Through its watchful fire patrol the Forest Service guards the property of the resident settler and miner, and preserves the timber and water supply upon which the prosperity of all industries depends....
>
> The utmost tact and vigilance should be exercised where settlers are accustomed to use fire in clearing land.... But while the aim ought always to be toward co-operation and good will, it is equally important to have it well understood that [forest] reserve interests will be protected by every legal means [Pinchot 1947:144, 276-279].

National fire figures for the 1920s underlined some of the pressure to maintain or increase Forest Service funding and, moreover, to put more forested land under Forest Service administration. For five years up to 1920, statistics showed that at least 7,500,000 acres of forest burned annually. Not heeding pleas for better slash disposal methods or for fire prevention and control, the total forest acreage burned for 1923 through 1926 was over 23,250,000 acres. By 1927, over 30,625,460 acres had burned. Some advocates of government forestry leveled the blame at what was being called "industrial forestry."

Dependent on a bright sun, low in the sky, heliographs relayed fire information from more remote look-out points to those connected with telephones.

Primitive communication, transportation, and equipment—as well as manpower shortcomings—made forest wildfire protection a daunting deed. Telephone systems were one of the first modern technologies embraced by the new agency and, by the late 1920s, most forests in California had their prime fire lookout points connected to their ranger district headquarters. This was true on the land that became the Six Rivers. Lookout points that were less active or which were simply too challenging to reach with wire used other forms of communication, such as a heliograph. Dependent on a bright sun, low in the sky, heliographs relayed fire information from more remote lookout points to those connected with telephones. For example, heliographs signaled from Lower Trinity back country stations to Brannan Mountain; from there, communications were relayed to the district office over a telephone. Trinity Summit was the main link in the Lower Trinity communications chain, relaying messages to the Lower Trinity Ranger Station—before 1935, near the southern approach to the old South Fork Trinity bridge—via Brannan Mountain (Hotelling 1978: 92).

In 1925, S. B. Show teamed-up with his brother-in-law, National Forest Inspector Edward I. Kotok, to pen a Department of Agriculture Circular that decried fire in the California pine region. [77] In an attempt to de-horse proponents of light burning, Show and Kotok argued that even light fires caused severe damage and loss of valuable trees. They concluded that such fires resulted in decreased growth of residual trees and destruction of seedlings and saplings. Moreover, they believed that fire scars on residual trees were ideal sites for fungus and insect attack as well as making them more vulnerable to complete destruction with subsequent fires. They cited history, saying:

> the pioneers, like the Indian, found the forest an obstacle, or at best a source of wood to be used without thought of replacement. To the prospector, the hunter, the stockman of the early days, the best forest was an open one, and fire was the easy means to make it open. So until the creation of the national forests, fires spread year after year largely unchecked. Indeed, the remarkable persistence of forests, in spite of repeated burning, led the early settlers to accept readily the belief that fire not only did not injure the forests, but was a positive benefit.
>
> The mere existence of a timber stand to-day seems proof that fire is no serious enemy; but study of that very stand may show unmistakably the cumulative effect of repeated burns. The presence of fire-scarred trees, an under-stocked stand with less wood than younger but fully protected forests, a lack of seedlings under the mature forest, the encroachment of brush—these are all convincing evidence of the wearing down of the stand by fire.

Show and Kotok cited fire's ill-effects on watersheds and the consequent increases in run-off and erosion. They acknowledged that light burning could, under extremely controlled conditions, reduce the risk of catastrophic crown fires. But they maintained that, in practice, indirect costs and damage caused by light burning sacrificed part of the values it attempted to preserve and, at best, resulted in only a temporary reduction in fire risk. Show and Kotok charged that the "promiscuous burning" done by ranchers and prospectors "masqueraded under the euphemism of light burning." Instead of its intention being the preservation of forest values, its intention was to eliminate the forest or to replace trees with other forms of vegetation. Kotok and Show concluded that: "Existing difficulties in protecting and managing the forest area—difficulties due to past fires—will increase unless virtual fire exclusion can be put into effect. To build up these run-down properties [subjected to centuries of repeated fires] to their tremendously high potential productivity is the real goal of forestry" (Show and Kotok 1925: 3-5, 11, 15, 18-19). As late as the 1930s, light burning on the national forests was still being advocated, primarily by ranchers. Also, the Great Depression spurred a heightened interest in amateur mineral prospecting and the burning practices that went along with it (Cooper 1939: part III, 60, 61).

"Where there was but little disturbance other than grazing activities to the total watershed, now there is much in the way of lumbering, road building, etc. As a result, free burning fires tend to become uneconomical because of the risks. . ."

Early Six Rivers forest administrators fundamentally lined up with Show and Kotok's point of view. Supervisor Fischer referred to the pioneer history of the area embraced by the Six Rivers as a place were settlement and use was relatively light and, given the area's remoteness, the ratio of the land's timber product values was low in relation to its forage values. Impacts on the watersheds from clearing land by light burning was, likewise, perceived as relatively innocuous, though Fischer noted that their "long range effects are being felt now."

> Today, the picture is substantially different. Timber. . . now has real value. . . wildlife and recreation have significant values. Where there were but a few people scattered through the hill lands, owning large tracts, now there are many owning small tracts. Where there was but little disturbance other than grazing activities to the total watershed, now there is much in the way of lumbering, road building, etc. As a result, free burning fires tend to become uneconomical because of the risks to other people, other people's property, and to all the other values [Fischer 1950: 19-20].

By the late 1920s, the Forest Service classified fires into eight causal categories: railroad, lumbering, brush burning, miscellaneous, lightning, camper, incendiary, and unknown. Further, fires from lumbering, railroads, brush burning, and miscellaneous were lumped as "special-risk" fires, being primarily dependent on the presence of "specific fire-using agencies" within a "known restricted area." Believing that industrial users were "devising new methods of prevention and control" for special risk fires, Forest Service researchers in California began focusing on a means of properly budgeting for and allocating fire moneys. They zeroed-in on determining the length of fire season correlated to vegetation type. Moreover, they worked on calculating a reliable average number of lag days between the fire seasons associated with major vegetation cover types. Some research results were that the differences in the length and timing

of the fire seasons by vegetation type had implications for designing fire prevention and law enforcement strategies, as well as in locating fire guard stations. The researchers also argued for "far greater development of the present protection organizations" in order to keep fires to acceptable levels of 0.2 per cent of the area burned per year. They argued that the most valuable timber type, the western yellow pine, had a fire occurrence factor five times the acceptable maximum. At that rate, they lamented—using questionable logic—it would only take about 90 years to "burn over the entire area of the type." They urged restocking brush fields with trees where, if protected, they would develop into profitable timber stands. Finally, the researchers emphasized the need to gain quick control of fires by extension of the trail- and road-building programs where fire danger was greatest in order to replace foot travel by horse and horse travel by motor vehicle (Show and Kotok 1929: 13-16, 34-35).

One intent of creating the Six Rivers National Forest was to minimize fire hazards and to decrease the number of larger fires. From 1940 through 1946, the percent of fires that became Class C, D, and E fires for the area that would become the Six Rivers was 9.2; between 1947 and 1949, the percentage dropped to 3.8 (Fischer 1950: appendix table XVIII). From 1950 through 1967, the Six Rivers had 16 fires that were Class E or larger totaling 24,781 acres. The largest was the 1951 Lems Summit fire that burned 7,935 acres. Inclusive of the years 1947 through 1955, 1951 was the worst fire year with a total of 11,529 acres burned; lumbering and lightning fires accounted for the most burned acres (Barnum 9-4-56: 4).

In 1948, a number of fixed point fire detection lookout stations were abandoned on the Six Rivers. The decision to decommission a lookout was based upon whether lightning had constituted the fire history of the land served by the lookout and whether other fire causal risks were low. To shore-up the fire detection gap, these areas were patrolled by contract or Forest Service airplanes after each lightning storm (Fischer 1950: 21). From this time on—with public reporting, aircraft, and satellite detection largely assuming the role formerly played by lookouts—these structures and the men and women who staffed them became an increasingly rare part of the Six Rivers administrative landscape. [78]

Blue Creek Mountain crow's nest and cabin, Orleans Ranger District. Crow's nests preceded more formal lookout structures. This photo was taken during World War II when Blue Creek Mountain was being used as an Air Warning Service lookout. This lookout no longer exists. US Forest Service photo

Coinciding with earlier policy, in the 1950s, wildfire prevention and control were viewed as "essential to the successful management of lands of the resources they produce." Objectives for prevention and control were primarily posed in terms of their potential effects on timber values. Fischer defined the Six Rivers' fire control objectives as:

1) To reduce the number of man-caused fires to a practical minimum.

2) To control all fires within the first burning period.

"To control all fires within the first burning period."

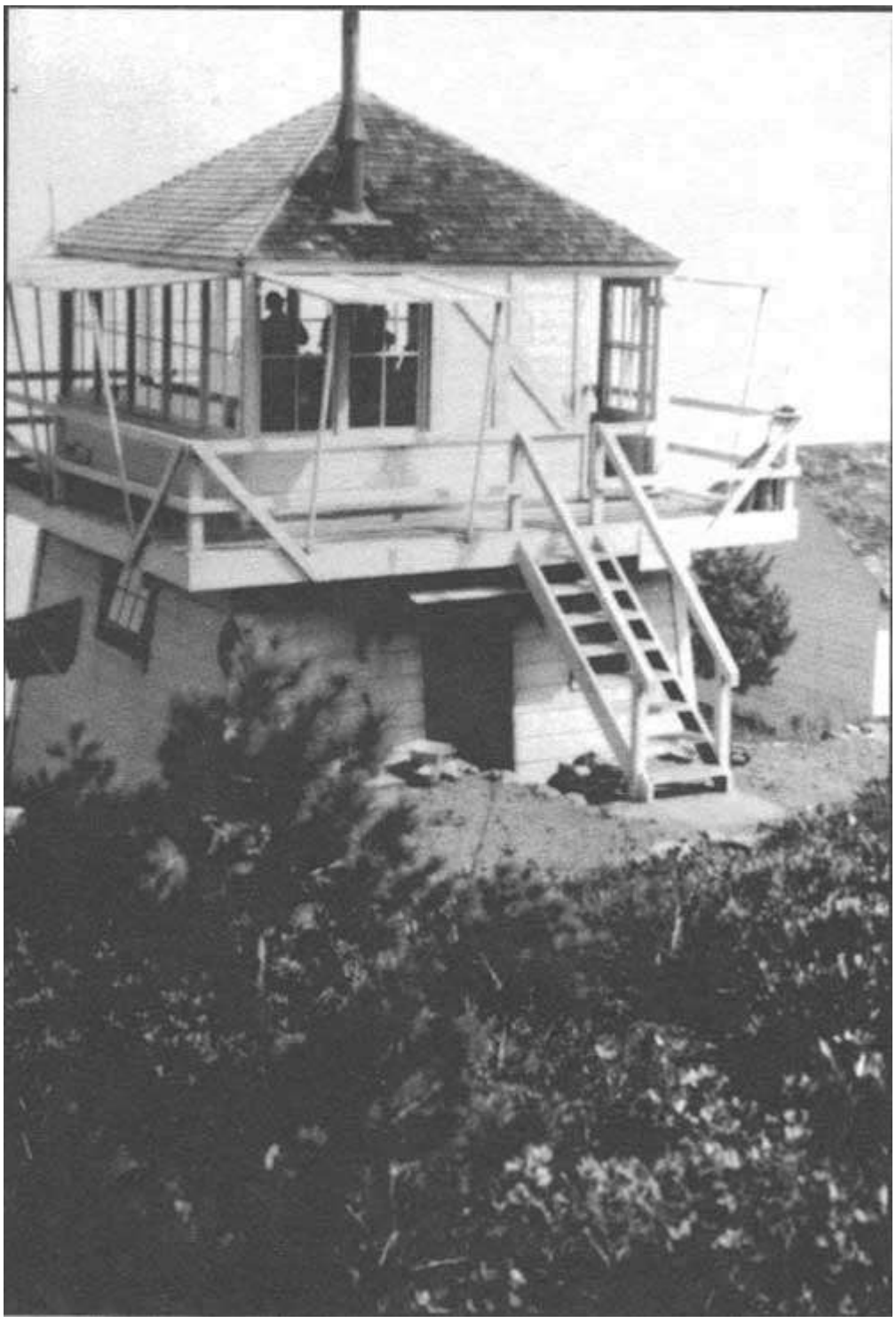
3) To prevent, so far as humanly possible, any fire from reaching Class E size (300 acres or larger).

4) To assure that fires within areas producing or capable of producing commercial timber will not burn more than 0.1 of 1 percent of the area in any one year, or 10 percent in 100 years, the approximate time necessary to grow timber of profitable sawlog size.

5) On watershed areas incapable of producing commercial timber crops, to keep the burned area down to 0.25 of 1 percent per year, or 10 percent in 40 years, the approximate time necessary to produce a fully protective watershed cover.

6) On areas of low erodibility and low value such as the serpentine formation in the northwest portion of the Gasquet District, to control fires therein before they spread to high value areas with due regard to values and costs.

7) To stimulate a similar level of protection on private lands by private owners and/or operators.



Rattlesnake Lookout, shown in this 1944 photograph, was destroyed by the Forest Service in 1963. It was part of the fixed point fire detection system on the Gasquet Ranger District. US Forest Service photo

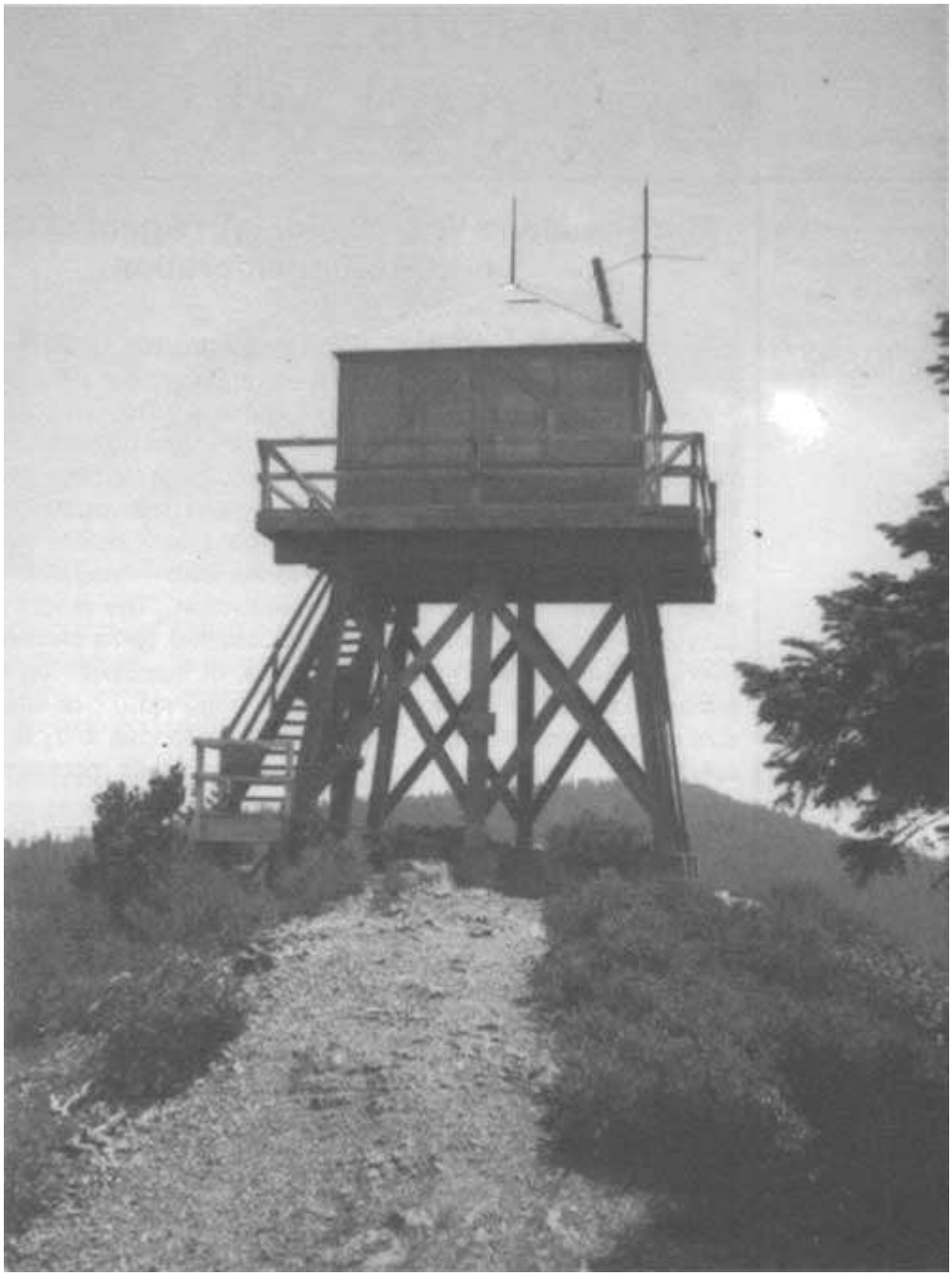
Fischer reflected that the Six Rivers lands had long been considered a low fire hazard because the values were largely not quantified and, compared with other parts of the state, the fire season was short and the fire incidence less frequent. However, the dense vegetative cover, the monumental slash build-up, the challenging topography, and the less-developed transportation system added-up to making fires on the Six Rivers highly resistant to control. Fischer illustrated the normal Six Rivers fire behavior as being comparatively slow in rate of spread, "followed by an accelerating buildup to a point where a conflagration" ensued. With 47 percent of the forest's fires being human-caused and accounting for 95 percent of the burned area, Fischer viewed prevention as a key objective in fire control (Fischer 1950: 17-19). [79]

In 1951, the Six River's protection boundary encompassed 1,129,588 acres, with 199,236 of those acres privately owned. Most of the national forest land was accessible only by trail, and forest records showed that those lands could support "a sustained annual cut in excess of 150 million board feet" (Jarvi 8-852:1-2). The implications were obvious. By 1956, the forest's fire protection boundary encompassed 1,180,877 acres of which 215,007 acres were state and private land. Lumbering and lightening continued to be the cause of most of the acres burned each year, and the accumulated slash and increased use of the forest caused the fire risk to soar. An inspector from the Regional Office declared that the forest's 1956 protection force was "totally inadequate to handle the prevention load or for strong initial attack. Its transportation system, too, was criticized in certain key locales, particularly in the Redcap and Blue Creek areas. Only "luck and some good work in the past has helped hold the average annual fire losses to a reasonable figure." Inspector Baxter sharply reproved the forest's training of its lookouts, complaining: "Most of the lookout maps were incorrectly oriented. Very few lookouts knew how to orient the fire finder" despite their being "interested in their job [and] willing to learn basic fundamentals." Baxter was also bothered by the example he saw being set by the Forest Service, illustrating his point by observations of improperly installed wood stoves at guard stations, fuel break eyesores around Forest Service lookout towers, slash and debris left along the new road construction projects, and apparent laxity in enforcing minimum Forest Practice Act Rules on private land logging operations that were "left as jungles with little if any clean up" (Baxter 8-28-56: 2, 4-6 and Cronemiller and Kern 1949: 24-25).

A harbinger of a different era in fire detection, a board of review's look at the Six Rivers' 1956 fire season noted that, from 1951 through 1955, people other than Forest Service personnel reported 77 percent of the human-caused fires; in 1956, that figure climbed to 80 percent. While reviewers were quick to note that "this does not mean that the lookouts are not doing their job,"—that it was primarily a function of more people being in the forest and reporting fires while they were very small—these observations obviously had implications for reliance on a system of lookout towers as the first line of detection. [80] In the 1950s, the Six Rivers averaged nearly 30 lightning-caused fires each year and experienced a number of blind areas in its detection system. The most pressing problem was that the Six Rivers did not have enough highly trained fire people in overhead jobs to meet off- and on-forest demands (Scherer 1956: 10, 18, 21). The threat of forest fires on the Six Rivers was expressed as a "threat to the North Coast economy." However, the average annual acreage burned over a five year period ending in 1956 was a minuscule 450. During that same period, there had been an average of 29 lightning-caused fires and 19 human-caused fires. The Six Rivers' fire prevention, detection, and suppression force in 1956 numbered 32 permanent employees and 527 seasonal employees, which included

six lookouts, 10 patrollers, and five organized fire crews. There were six aircraft under contract for fire purposes and one helicopter. Twenty smoke jumpers and seven air tankers were on-call. The forest had 15 tanker trucks and another seven under contract; it also had 25 bulldozers under contract. From 1951 through 1956, the Six Rivers annually averaged spending $211,000 for fire protection and control (USDA, FS 1957: 6). [81]

By the late 1960s, Forest Service and fire professionals in other land management agencies were implementing programs to restore fire-controlled fires—to the forests to promote a suite of land management objectives. New research showed that the past "Smokey T. Bear policy of stomping out all fires" was having negative effects, and that periodic light fires played an important and positive role in forest ecosystem health. The Forest Service's over half-century old policy of suppressing fires wherever and whenever they occurred was producing a cascading series of detrimental effects ranging from fuels build-ups—that potentiated catastrophic fires—to seriously limiting forage sources and nutritional values for wildlife. Although there were notable breaks with this general fire suppression policy—particularly during the 'teens when some foresters and land managers sought to reduce wildfire hazards by preserving the fire process—"light burning" proponents were drowned-out until the mid-1950s (Kilgore 1970). The 1990s witnessed a full embracement of fire as a land and resource management tool.



Mad River Ranger District's Cold Springs Lookout was one of several that was, by the early 1950s, used only during periods of high fire danger. Cold Springs also had a hut used as living quarters for an Air Warning Service (AWS) observer, stationed there to spot potential enemy aircraft or incendiary balloons during World War II. Boarded-up when Payne took this photograph for his 1953 GII, the AWS building was slated for removal. US Forest Service photo

The 1960s... Paradigm Lost

The Thousand Year Flood... An Agent of Change and Re-Consideration

Called "The Thousand Year Flood," the catastrophic deluge that occurred on the Six Rivers and surrounding areas in December 1964 caused hundreds of millions of dollars' worth of damage. The Six Rivers, by this time, had been established for 17 years and had powered an intensive land use program, relative to what the land base had sustained while it was on the fringes of the Klamath, Trinity, and Siskiyou national forests. Coupled with an awakening of environmentalism, before the floods receded, accusations abounded that forest land management practices were prime culprits in downstream destruction. The weight of the devastation—images of homes and dead, bloated cattle carried down the rivers, of families stranded on roof-tops, of mammoth log and debris jams dynamited to salvage remaining bridge spans, of landslides the size of small towns—triggered the human response to try to find a reason for the devastation in order to guard against its recurrence.

. . . before the floods receded, accusations abounded that forest land management practices were prime culprits in downstream destruction.

The direct cause was relentless, warm rain that started on December 18 and continued through Christmas. The higher elevations already had a snow pack which, in most areas, was melted by the rain. The foot of "Founders Tree" in the Southern Humboldt County redwoods is 50 feet above the Eel River's normal high water mark. The 1955 flood left a high water mark on the tree 16 feet above the base; the 1964 flood left its mark 31 feet above the base of the tree (USDA 1965: i).

The dashed line penned on this photo of the engineering office at Orleans Ranger Station shows the water level at the height of the 1955 flood. Taken on December 22, three hours after the flood waters started to recede, the event prompted moving the offices to higher ground. US Forest Service photo

With the swollen Klamath River on the right, its flood waters severely damaged State Highway 96 during the December 1955 flood. This section of the highway is between Bluff Creek and Orleans, near Slate Creek. US Forest Service photo

Orleans District Ranger, Joseph Church, recounted the scene that left the small community of Orleans with one death, the Orleans Klamath River Bridge destroyed, the elementary school burned down, State Highway 96 and other roads washed out in many places, and many homes and other improvements destroyed or damaged:

> . . . it was obvious that a tremendous flood was occurring and that it was going to be worse before it got better. The rain was still falling very hard, it was still warm, and a powerful wind was blowing which blew spray off the waves the river was making. The noise of the river was overpowering and frightening, and its surface was a mass of racing debris, foam, great waves and noise. The water surface had erased all marks of the 1955 flood except for the number '1955', the sight of which came and went as the waves rose and fell.

At about 4:00 p.m. the same day, December 22, Church went to a safe vantage point to check on the condition of the Orleans bridge over the roiling Klamath River. From behind the ranger district's fire warehouse he saw a...

"The noise of the river was overpowering and frightening, and its surface was a mass of racing debris, foam, great waves and noise."

> line of heavy debris [that] rode down the river in what seemed like a continuous tumbling flexible raft. The crest of the waves seemed to move in cycles so that for awhile the trough would be at the bridge resulting in the free passage of water and debris under the bridge. But then the cycle would slowly change until finally a grim sight of leaping waves and crashing debris, all accompanied by the thunderous boom of the impact, would appear.... As I stood there and watched, the portion of a gold dredge, now a floating steel ram, rolled down against the bridge. The wave trough was under the bridge. The portion of it was gone and the unremitting mass of logs, trees, house parts, barrels, etc., supported by a river rolling about 25 - 30 MPH continued the battering. Now the booms were more regular, a grim sound (Church 1965).

About an hour after Ranger Church viewed this scene, the bridge collapsed, further cutting-off the community from outside help. Though the storm continued through Christmas, by the night of the twenty-third, it was subsiding and the rivers were slowly receding. At the Orleans Ranger Station, rainfall had been measured for the duration of the storm (Church 1965):

Saturday	19 December	0.73 inches
Sunday	20	0.90
Monday	21	2.24
Tuesday	22	5.10
Wednesday	23	5.52
Thursday	24	2.07
Friday	25	0.92

"Now the booms were more regular, a grim sound"

All Six Rivers National Forest ranger districts had similar experiences. Rivers swelled and undercut mountainsides, bridges were knocked-out, roads fell away, all manner of improvements were severely damaged or destroyed, and slides took a heavy toll on both natural and human-made resources. Forest Supervisor Wes Spinney surveyed the Six Rivers by Army helicopter and employees began tallying the damage. Preliminary estimates, published in a special flood edition of a Eureka newspaper, reported that the Six Rivers lost at least 50 miles of Forest Service roads which would require complete relocation and construction; 45 major stream crossings had to be rebuilt or significantly repaired; 65 million board feet of timber—45 mmbf of which were unsalvagable—were lost in landslides; most recreation improvements suffered severe damage or were destroyed; 1,400 miles of fishing streams suffered significant scouring, siltation, and debris jams. The question of whether streams could naturally regain their fish spawning capacity was up in the air.

The 1964 flood reconfigured Bluff Creek, destroying the bridge near the creek's confluence with the Klamath River. This March 1966 photo shows the Bailey bridge across the Highway 96 crossing of Bluff Creek, looking upstream at the newly-cut channel. US Forest Service photo

This aerial view of Patrick Creek Lodge shows the aftermath of the 1964 flood. Note the log debris piled-up where the Highway 199 bridge crossed Patrick Creek. US Forest Service photo

In its information to the press, it appeared that the Six Rivers was touchy about public criticism and was making an effort to address accusations that its forest management practices had significantly contributed to the flood's devastation. Images of damage supplied by the Six Rivers focused on and underscored the ruin and loss from huge landslides on virgin forest land: one example being a 45-acre slide at the forks of Harrington Creek and the South Fork of the Smith and another near Bear Basin Butte where seven million board feet of timber were destroyed by a slide two miles long and up to 700 feet wide (ENI 1965: n.p.). [82]

Closed for the winter, indeed! Willow Creek Campground was inundated with eight to 12-feet of silt as a result of the 1964 flood. US Forest Service photo

A Changing Context, and New Problem Definitions

Nationally, the 1960s were a decade of stepped-up construction on the forests, and the Six Rivers reflected that trend. The Forest Service outlined this initiative in its *Development Program for the National Forests,* published in 1960. With the emphasis on intensive management of water, timber, range, recreation, and wildlife habitat, hard targets were set for commodity production and developments. [83] For timber harvest, the program set the long-range goal for the national forest system at an annual harvest of 21.1 billion board feet of saw timber by the year 2000, on a sustained-yield basis. That number reflected the portion of the national need for saw timber

which the national forests "could reasonably be expected to produce under intensified management." Similar increases in the amplitude of management were evident in other resource areas as well.

To support this program, a beefed-up construction and maintenance schedule was set in-motion. In addition to completing work on a backlog of housing needs for field officers and fire-related improvements, there was also a short-term program for new construction of dwellings and related improvements, service buildings, and lookout structures. The communication system, including radios and telephones was to be modernized; and aircraft landing fields, heliports, and helispots were to be constructed or refurbished (USDA, FS 1960: 7-10, 21).

One of the significant additions to the Six Rivers National Forest during the decade of the 1960s was the Humboldt Forest Tree Nursery, established in 1962. Being the "primary commercial species with which the National Forest lands are reforested," during its first decade, the nursery raised, from seed, mainly Douglas fir, ponderosa pine, and redwood. Other species were reared for testing and special plantings in campgrounds, Forest Service administrative sites, and other special areas. By 1965, between five and six million trees were grown annually, and it was estimated that production could be expanded to 30 million trees. Seed was collected from target areas on the forest with the source location and elevation recorded to insure returning the seedlings to comparable areas. At the end of the growing season, the six to eight inch seedlings were lifted, ready for planting or cold storage. Because good seed years were erratic, the nursery built up a large seed bank during those years to keep production stable.

Interestingly, a 1966 pamphlet about the nursery stipulated that: "Male machine operators do the heavy work in preparing the beds, seeding and lifting of the seedlings. Women do the job of weeding, sorting, culling, grading and packing of the seedlings in crates" [84] (Six Rivers National Forest Humboldt Nursery 1966). By 1976, Humboldt Nursery included 180 acres and had supplied 88 million seedlings to the Six Rivers, Klamath, Mendocino, Shasta-Trinity, Siskiyou, Siuslaw, Umpqua, and Willamette national forests as well as to the Bureau of Land Management in both Oregon and California.

[...text missing...] history during which fundamental institutions and beliefs were called into question. The 1960s read as a litany of protest; a sense of anarchy was in the air. The Civil Rights Movement that was beginning to bubble into the American consciousness in the mid- and latter-1950s burst into our living rooms in 1963 with the televised brutality of Birmingham, Alabama's public safety officer, Bull Connor, unleashing dogs and using electric cattle prods and high pressure hoses to break-up a non-violent, protest demonstration by African Americans. In June, National Association for the Advancement of Colored People activist, Medgar Evers, was murdered in Jackson, Mississippi; in September, a bomb was detonated in a Birmingham church, killing four black children; and still, Congress failed to pass the Civil Rights Bill. In August that year, the massive March on Washington was also televised; it was at this event that Reverend Martin Luther King, Jr. delivered his compelling "I have a dream..." speech. In November, President Kennedy was assassinated, rocking the nation at its foundation. "Freedom Summer," in 1964, intensified voting registration drives in the American South, touching-off another wave of murder and brutality: 15 civil rights workers were murdered in the South during that single year.

Trees being planted after a harvest on Lower Trinity Ranger District. Seedlings were grown at the Humboldt Nursery from locally-produced seed. US Forest Service photo

Though President Johnson, as a memorial to former President Kennedy, was able to shepherd passage of the Civil Rights Act in June 1964, violence and protest continued to tear at the fabric of American life. To add to the turmoil, although American "military advisors" and other aid had been going to South Vietnam for a decade, in 1965 the first US combat troops were shipped there. Amid protests over the US involvement in Southeast Asia, racial violence burned on. In 1965, Black Muslim leader, Malcolm X, was assassinated. The Watts riot in Los Angeles was just one of over 30 major, urban, race riots that erupted during 1967 and 1968—hitting such cities as Portland and San Francisco in the West, Jackson and Tampa in the South, Detroit and Chicago in the Mid-West, and Newark and New Haven in the East. As the arrival of body bags escalated from the Tet Offensive in Vietnam, 1968 marked a year of numbing shock: Reverend Martin Luther King, Jr. was murdered... and just two months later, Robert F. Kennedy was murdered while campaigning for the presidency. Later in the year, as Democratic candidates met at their national convention in Chicago, anti-war activists demonstrated outside; the ensuing, televised "police riot" had the effect of bolstering the growing "law and order" backlash and propelling the election of Republican, Richard M. Nixon, in November 1968.

This ground-floor re-examination of assumptions and core values stirred by events of the 1960s was reflected in the federal legislation of the 1960s and '70s: the Multiple Use-Sustained Yield Act, the Wilderness Act, the National Forest Roads and Trails Act, the National Historic Preservation Act, the Architectural Barriers Act, the Wild and Scenic Rivers Act, the National Environmental Policy Act (NEPA), the Environmental Quality Act, the Youth Conservation Crops Act, the Endangered Species Act, the Forest and Rangeland Renewable Resources Planning Act, the National Forest Management Act, the American Indian Religious Freedom

Act, and the Archaeological Resources Protection Act were all products of those turbulent times: reflecting reshaped values and an effort to foster a new order. All of these laws—and scores more—fundamentally engendered change in how the Forest Service perceived its basic mission and institutional values, what kinds of skills were required to fulfill its recast mission, and what its relationship would be with the public and with forest-reliant industries. These perceptions have been slow to take hold but, nonetheless, reflect immense change in how the National Forest System Lands are managed. This period also provides clues in answering the question of why today's Forest Service is perceived as being on the other side of the fence as "environmentalists" when the agency's institutional roots are as leaders in resource conservation.

Specialized tractor in-use at the Humboldt Nursery in McKinleyville, 1964. US Forest Service photo

The Northern Redwood Purchase Unit... Case Study of A Paradigm Lost

An illustration of the Six Rivers' difficulty in transitioning from the model of maximization to a model more reflective of contemporary values is within the story behind dissolution of the Northern Redwood Purchase Unit. First administered as part of the Trinity National Forest, when it became part of the Six Rivers, the Northern Redwood Purchase Unit was loosely administered through the Gasquet Ranger District. In January, 1958, a separate Redwood Ranger Station was formally established to manage the NRPU lands—lands from which the Yurok Redwood Experimental Forest (YREF) had been sequestered. (See earlier chapter.)

Within that mindset was the assumption that old-growth redwood was inevitably—except for a few, small "museum" stands— a thing of the past.

To get a redwood research program underway at the YREF, in 1956, Russell LeBarron, Chief for Research in the California Forest and Range Experiment Station's Forest Management Division, negotiated an agreement with the redwood division of Simpson Lumber Company for experimental redwood logging. The operative research paradigm was timber harvest—to unlock the secrets of redwood in order to discover how best to manage stands for sustainable yield. Within that mindset was the assumption that old-growth redwood was inevitably—except for a few, small "museum" stands—a thing of the past. The focus, then, was how to most effectively convert old-growth to healthy, productive second-growth stands that would continue to contribute to a robust north coast economy.

Simpson was chosen as the partner in these experiments largely because the company owned 1,170 acres on the upper High Prairie Creek watershed, contiguous with the YREF's 935 acres on the lower reaches of that watershed. Simpson agreed to contribute $62,000 to a cooperative work fund and to log according to experimental plans in return for the YREF making 25 million board feet of merchantable redwood available exclusively to Simpson at Forest Service appraised stumpage values over the seven-year life of the agreement (Boe 1983: 2, 6 and USDA, FS 1970: appendix). LeBarron recruited Kenneth Boe from the Northern Rocky Mountain Forest and Range Experiment Station at Missoula, Montana to develop the study plan and to perform the on-the-ground administration for the Simpson agreement (Boe 1983: 1).

Boe moved himself and his family into the Yurok Redwood Experimental Forest headquarters in late 1956. In his struggle to come to grips with his new assignment—a forest where some of the tree limbs outsized the girth of an average tree in the managed lodgepole pine stands in which he'd most recently worked—Boe developed the YREF's first study plan. Boe's plan viewed the research and management problem much as it had been framed two decades earlier by Hubert Person: foresters needed sound information to "effectively convert unmanaged old-growth redwood forests to younger managed stands." Boe's plan was designed to test three reproduction methods within a harvest framework: selection, shelterwood, and patch clearcuts (Boe 1983: 9). In 1958, the first redwood harvest was initiated under Boe's study plan, designated Yurok-1958. It consisted of 62 acres of shelterwood cut, 52 acres of selection, and 60 acres in clear cut blocks; it was located in the southeast portion of the YREF (Boe 1983: 10). [85]

Simultaneously, the Six Rivers National Forest had established the Redwood Ranger District in January, 1958 to manage the NRPU lands out side of the experimental forest. The new ranger district personnel were co-located with the Yurok Redwood Experimental Forest personnel. To meet critical housing needs for Redwood Ranger Station employees, two residences were built at the administrative site in 1958 and 1959. They were identical, wood-framed, three-bedroom, one-bath homes.

Activity at the Yurok/Redwood administrative site skyrocketed and the demand for reliable scientific data on redwood forests and utilization mounted. The new district ranger at Redwood, Ted Hatzimanolis, initiated creation of a redwood library in the headquarters building and enlisted the Experiment Station's help in acquiring up-to-date literature to answer questions or help solve problems of forest managers, researchers and the public (USDA, FS Hatzimanolis 1959). In 1960, the second redwood block was harvested on the YREF by Simpson in accord with Boe's plan. Imaginatively dubbed "Yurok-1960," it consisted of 49 acres of shelterwood, 57 of selection and 56 in clearcuts of 8 to 16 acres located on the northwest side of High Prairie Creek. In addition, there were 43 acres placed in a reserve (Boe 1983:10). On the other side of the fence, at Redwood Ranger Station, timber harvests crescendoed in the first half of the 1960s yet, by the close of the 1963 logging season, activity at the experiment substation was in a decline. The seven-year agreement between the Division of Forest Management Research and Simpson Lumber Company was winding down, with the cumulative harvest totaling 413 acres with 47,004 mbf redwood, 5,544 mbf of white-wood and 29,134 mbf left in reserve. At this juncture, Boe set-up a project office on the Humboldt State University campus in Arcata (Boe 1983: 11). Significant windfall damage in 1964 within the Yurok-1958 block prompted a salvage harvest and a second cutting, notwithstanding that the 10-year entry schedule had not elapsed since the first harvest. A cooperative agreement was struck with Twin Parks Lumber Company of Arcata to carry out the harvest and conduct the additional harvest studies (Boe 1983: 12). Meanwhile, in May 1965, the cooperative agreement with Simpson lapsed. Harvest by patch clear cuts, averaging 14 acres and aggregating about 240 acres a year, became the norm for the old-growth redwood in the Northern Redwood Purchase Unit (USDA, FS Connaughton 1966).

Activity at the Yurok/Redwood administrative site skyrocketed and the demand for reliable scientific data on redwood forests and utilization mounted.

But as logging activity settled-in with a sustained yield annual harvest target of 18 million board feet on the NRPU lands, other forces were in the wind. Through the early 1960s, pressure had been building behind the notion of a redwood national park. Scrambling for an alternative, the Forest Service sought to consolidate the lands in the NRPU—reducing the land base to 32,409 acres north of the Klamath River—and, at long last, to create the Redwood National Forest. But without the requisite acreage thought necessary to establish "an economic forest unit representative of the redwood forest type," Redwood National Forest never materialized (US Congress 1967: 20). In February 1966, President Lyndon B. Johnson formally proposed creation of a redwood national park in northern California; the Department of Interior submitted legislation and introduced it to Congress. Senate hearings were held, but no further action was taken on the measure this time around. . . but it was clear that momentum for a new paradigm was building: a mindset that viewed the remaining old-growth redwood stands as something other than a timber and fiber commodity.

An essentially identical bill was submitted in March, 1967 to the 90th Congress as S.B. 2515. In the Senate Report titled "Authorizing The Establishment of the Redwood National Park in the State of California, and For Other Purposes," the writers stingingly criticized the research paradigm that had guided Boe's and the Forest and Range Experimental Station's work at the Yurok Redwood Experimental Forest. The framers of the park strategy did not accept the necessity of the demise of old-growth redwood, and they believed the National Park Service and not the US Forest Service was the better bet in preserving the remaining old-growth stands under federal ownership. The report stated: "The research on the 935-acre Yurok experimental forest has been chiefly on the technology of logging old growth redwood. Obviously such findings are of limited utility as the last of the old growth nears" (US Congress 1967: 20).

However, sustaining redwood lumber production was not foremost in the equation for the national park supporters.

Multiple use, with timber management holding the trump card, had been Boe's and the Forest Service's over-arching paradigm: to sustain the productivity and yield of redwood for the public through providing lumber, jobs, grazing, recreation, fisheries, and watershed benefits. This view is reflected in Boe's 1964 "Silvicultural Research Plans for Redwood and Douglas-fir Forests in California." In this nine-page publication, he noted the substantial dependence on wood products in the Pacific Northwest region of the state. He also noted that changes in demographics might "force some of these uses [i.e. grazing or recreation] to predominate over timber production in certain areas," but that the result is, again, a pressing need "for information basic to efficient timber production" (Boe 1964:1).

This 1958 map shows the administrative boundary for Gasquet and Redwood ranger districts. Redwood District was composed of lands acquired for the Northern Redwood Purchase Unit. (click on image for a PDF version)

However, sustaining redwood lumber production was not foremost in the equation for the national park supporters. The framers of the park bill believed "that any initial adverse impact precipitated by creation of the park on the local economy will be temporary." Supporters argued that park creation would result in "substantial longrun benefits" through park development expenditures, new jobs, and addition of 950,000 visitors each year. Even though some redwood logging companies would be forced out of business and some workers dislocated, park supporters predicted that the conversion from "primarily a single industry economy based on timber" to a more diversified timber and tourism-based economy would have long run benefits for the north coast redwood region (US Congress 1967: 5, 7,10).

The bill to create the redwood park did not include subsuming the 935-acre YREF, but it did encompass nearly all the Northern Redwood Purchase Unit lands managed by the Redwood

Ranger Station. This was a major bone of contention between the Forest Service and the State of California: Governor Reagan was convinced that NRPU lands should be exchanged in fee title for lands acquired for the park. To offset losses anticipated from buying-out substantial tracts of the land base of the major employer in Del Norte County, Rellim Redwood Company, the Forest Service agreed to accelerate timber harvests on the Six Rivers National Forest. But Governor Reagan argued that this increase should occur regardless of the formation of a redwood national park (US Congress 1967: 15). Ultimately, the idea of using NRPU lands as trading chips to exchange with redwood landowners within the boundaries of the new national park prevailed. The Committee on Interior and Insular Affairs concluded:

Exchange of the purchase unit holdings amounts to no more than shifting the Federal redwood holdings (which are now being cut by private operators) to a different location (containing magnificent stands now in danger of being cut) and changing management from cutting to preservation in a park. The grand plan [of the Forest Service] for an 860,000-acre Redwood National Forest was never realized. The small fragment which was acquired cannot bring sound management to the region, and research findings on old growth harvesting methods come too late in the history of redwood exploitation to be significant [US Congress 1967: 21].

This early 1970s photo of a redwood log deck conveys the divergence of interest between environmental groups and the timber industry in California's northwest—often brokered by the Six Rivers National Forest. US Forest Service photo

With signing of the Redwood National Park Act by President Johnson on October 2, 1968, the nearly 65,000 acres within the NRPU acquisition boundary shrank to 540 acres, as those lands

were exchanged to private timber land owners for more desirable lands to form Redwood National Park (USDA, FS 1994: n.p.). Subsequently and ironically, the handsome Yurok Redwood Experimental Forest headquarters building was turned over to the National Park Service, though the experiment station retained work space there for some years under a cooperative agreement. The Forest Service no longer needed a ranger station there (Boe 1983:16). In 1976, a 150-acre Yurok Research Natural Area (RNA) was retained by the Forest Service from the remainder of the NRPU land to preserve old-growth redwood for observation and study. One-hundred twenty of these acres are mantled with "superlative old growth redwood;" volumes are well over 300,000 board feet per acre, and 30 percent of the stand is redwood. The remaining 30 acres is on alluvial flats. The RNA is administered by scientists at the Redwood Sciences Laboratory in Arcata (Boe 1983: 1 & 10). After the virtual abandonment of the Yurok/Redwood Station by the Forest Service, it was occupied partially and sporadically by a number of entities in addition to the National Park Service (USDA, FS 1995: 1). [86]

When Redwood National Park was established and the lands of the Northern Redwood Purchase Unit were used as trading stock, the allowable annual cut for the Six Rivers was reduced by 18 million board feet to compensate for the loss of timber land. But during Congressional hearings on the park bill, the Chief of the Forest Service offered to increase the annual allowable cut by 37 million board feet contingent on funding major access roads in Del Norte County. In 1969, the Six Rivers was, again, the subject of a General Integrating Inspection. In that GII, the inspectors expressed doubt that the funds for an accelerated road development program would be forthcoming from Congress and indicated that any increases in the allowable cut would probably come from the southern quadrant of the forest, not bringing many benefits to the economically hard-hit Del Norte County. The inspectors predicted that Del Norte County would more likely benefit from a predicted increased flow of timber over the Gasquet-Orleans Road, once that controversial road was completed (USDA, FS, RO 1969:16). The Gasquet-Orleans, or G-O Road is yet another story, best told in a history that focuses on the Six Rivers' second 25 years. [87]

Construction work on the Gasquet to Orleans Road. US Forest Service photo

Post Script

One example of the changed context that influenced the course of Six Rivers' history is the transformation of Gasquet Ranger District from a ranger district to a National Recreation Area. It is a story deserving of a book, but an outline of events will show that, by the 1960s, the Forest Service and the Six Rivers operated in a socio-political milieu that was deeply divergent from the one to which it had finally adjusted. That is, although the Six Rivers was conceived and matured after the custodial phase of Forest Service land management history, most of its key personnel had deep roots in that era and were steeped in its assumptions. The shift to a paradigm of maximization and intensive use was, therefore, a difficult one that took time to develop its form and substance, despite the rhetoric and hopes of the region's and forest's leadership. The Six Rivers, it seems, had no sooner come fully to grips with maximization and intensive use when the presumptions on which that paradigm was anchored were fundamentally called into question.

As the dialectic between new perspectives and new assumptions played on, a new paradigm ripened and advanced significant changes in the American social and political fabric; many of which had profound implications for the Forest Service and the Six Rivers. The environmental movement was one of the many progenies of this dialectic, and scores of legislative acts were spawned by it. A set of this legislation addressed the nation's rivers, and these had significant implications for a forest renowned for its watersheds. Born from the realization that few of California's major waterways were free of dams, hydroelectric developments, pollution, or diversions, the California Wild and Scenic Rivers Act was passed in 1972. Specifically included for conservation measures were eight rivers and their tributaries... five of them on the Six Rivers. Leading the list was the Smith, the only major watershed in California not yet dammed. Pressure was intense to protect not only the Smith River, but to include it and the surrounding area as an addition to the Redwood National Park or to created a distinct park unit with the river as it's organizing theme. In 1980, Governor Jerry Brown, well-known for his environmentalist leanings, requested the Secretary of Interior to incorporate all eight rivers in the State's wild and scenic rivers system into the national system. Just six months later, 314 miles of the Smith and its tributaries, excluding Hardscrabble Creek, were added to the national Wild and Scenic Rivers system. Efforts to make the Smith River area a national park gained steam and, in 1987, Congressman Lantos introduced a bill to study that proposal.

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Six Rivers officials—perhaps with the recent taste in their mouths of having lost the Northern Redwood Purchase Unit lands to the National Park Service—recognized the changed socio-political context. Instead of digging-in its heels and insisting on managing its Smith River area under the rubric of maximization and the primacy of timber management, the Six Rivers—largely under the leadership of Supervisor Jim Davis, made a counter-proposal. This alternative took form in a bill introduced in 1990 that proposed formation of a Smith River National Recreation Area (NRA)... to be managed by the US Forest Service, not the National Park Service. Eight months after its introduction, the Smith River NRA Act passed with the charter to

manage it for preservation, protection, and enhancement of the river area's recreation values. In an unusual stroke and perhaps to assuage the fears of those who thought the Forest Service would revert to its previous management practices in the Smith River watershed, a written management plan for the NRA was incorporated into the provisions of the bill. The new, 305,337-acre Smith River National Recreation Area comprised virtually all of the former Gasquet Ranger District.

The 1970s to the present were filled with conflicts and resolutions over issues that would not have been conceived of when the Six Rivers was established in 1947. For example, the concept of the preeminence of timber harvest taking a back seat to that of "forest health;" Native American religious values taking precedence over construction of a key transportation link, the Gasquet to Orleans (or G-O) Road; the expanded public role in forest decision-making; the protection of threatened or endangered non-game wildlife as a potent force in forest management; the professionalization of the Forest Service at every organizational level; the vastly expanded range of special forest uses and practices; and, perhaps most significantly, the numbers and variety of people who visit and somehow use the forest—all of these realities would have been virtually inconceivable to the Six Rivers' first Forest Supervisor, William F. Fischer.

The 1970s to the present were filled with conflicts and resolutions over issues that would not have been conceived of when the Six Rivers was established in 1947.

After years in the making, the Six Rivers unveiled its *Land and Resource Management Plan* in 1995. One of the primary shifts apparent in the document's reflection of Forest Service policy was that of ecosystem management. Although the concept of ecosystem management had been standard since the early 1960s, its introduction into the Forest Service as a central policy and organizing principle—as a new paradigm—flowered in the early 1990s. The Six Rivers, historically a prime timber producing forest, refocused from optimizing tree growth for timber production to maintaining healthy ecosystems: "Tree growth will continue to be optimized when it does not conflict with ecosystem health." Land was reclassified for its capability, availability, and tentative suitability for timber production, and only those lands meeting specified thresholds were identified to be managed for timber outputs and to be included in the calculation of allowable sale quantity. Given these sideboards, about 9 percent of the Forest's 988,470 acres were capable, available and tentatively suitable for timber production. The primary harvest methods, too, had shifted toward greater use of aerial yarding and an expanded role for helicopters in removing logs; use of cable yarding and ground skidding declined.

After years in the making, the Six Rivers unveiled its *Land and Resource Management Plan* in 1995.

Down precipitously from the boom days of the 1960s, the target long term sustained annual yield was projected at just under 15,500,000 board feet for the coming decade. Under the ecosystem umbrella, the Six Rivers' forest management goals also mirrored fundamental changes in perspectives and priorities, with biodiversity and ecosystem health, customer service, and

participative management being the foundational underpinnings (USDA, FS 1995: III 14-15, IV 1-2, 6).

As "working circles" were the planning units when the Six Rivers was created, the 1990s developed "management areas." Divided into 17 management areas, the Six Rivers developed unique prescriptions to be applied to reach a desired future condition. The list of management areas reflects the fundamental changes from the timber-oriented working circles concept: wilderness, wild river, experimental forest, Humboldt Nursery, Research Natural Area, Native American Contemporary Use Area, Smith River National Recreation Area, special habitat area, and general forest—to name just 9. Thus, the areas are defined by the primary use and, therefore, the management practices they have in common rather than by the assumption that the primary emphasis is on timber production with other uses being expressed as constraints or opportunities within the framework of timber production.

Historical moments, such as fiftieth anniversaries or an imminent millennium tend to provoke thinking about our past, its meaning, and its ramifications for our future. By the time of the Six Rivers' hundredth anniversary, historical perspective will have allowed not only for a better account of the first 25 years, but also for a sharpened focus on the transition into the third era of the Six Rivers' past and a clearer perception of the shape which that transition ultimately takes. Fundamental organizational questions being asked today of both the agency and of the Six Rivers National Forest will have receded or been resolved and new issues defined—questions such as: Will the Forest Service still exist as an entity, or will it become part of a mega, resource management agency? Will the Six Rivers persist as an entity, or will its work be contracted to various, specialized, private firms? Will the national forest system persist, or will it be broken-up and managed by private business? All of these possibilities have been seriously considered by Congress over the past two years, and more propositions are sure to form in the future.

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A 1977 field trip to the Siskiyou Mountains with Senator Hayakawa and various environmental groups. The Forest Service, by the 1960s, managed the land in a social and political climate that was vastly different from the postwar climate into which it was born. US Forest Service photo

Six Rivers National Forest Staff 1997

Six Rivers National Forest employees pose at the kick-off festivities celebrating the forest's fiftieth anniversary. Compare this December 1996 photo with the 1958 employee photo: not only has there been radical change in the number of employees, but also in the diversity of the jobs and the gender balance. Only about half the total number of people employed on the

Six Rivers are shown in this photo; at the end of calendar year 1996, the Six Rivers roster totaled 207 full-time equivalent employees. Courtesy of Susan Palma

<u>Row 1</u> (sitting on ground), left to right: Jerry Koval (SO, Automotive Equipment Repair Inspector), Sue Ray (SO, Procurement Assistant), Ellen Gaethle (SO, Computer Operator), Liz McGee (SO, Ecologist), Vicki Walker (SO, Resource Technician), Harold Slate (SO, Forest Engineer), Kristen Lark with baby Stephen (LT, Forestry Technician), Karen Kenfield with baby Mara (SO, Fisheries Biologist), Bruce Cross (SO, Electronics Technician), Allen Setzer (MR, Supervisory Forestry Technician-Fire), Mark Sieben (LT, Forestry Technician), Bernadette Madonia (MR, Business Management Assistant), Marvin Curry (MR, Forestry Technician-Fire).

<u>Row 2</u>: Lance Rieland (SO, Civil Engineering Technician), Cliff Johnson (SO, Supervisory Forestry Technician), Eileen Sullivan (Klamath Province, Forestry Technician), Steve Clemens (SO, Property and Travel Assistant), Heather Busam (SO, Archaeologist), Dominick Tarantino with baby Olivia McGee-Houghten (SO, Computer Assistant), Al Mendes, (SO, Civil Engineering Technician), Donna Snyder (MR, Supervisory Forestry Technician-Fire), Beverly Taplin (SO, Computer Assistant), Martha Ketelle (Forest Supervisor—in dress uniform), Mike Furniss (SO, Supervisory Physical Scientist/Forest Hydrologist), Julie Ranieri (SO, Forester/Environmental Coordinator), Mike Martischang (SO, Geographic Information Systems Specialist), Ken Wilson (SO, Forest Archaeologist), Ken Wright (SO, Hydrologist/Computer Analyst), Dorothy Powell (SRNRA, Senior Community Service Project Program Enrollee), Brad Day (SO, Mail and File Clerk), Lynn Johnson (SO, Information Assistant), Ernestine Reiman (SO, Accounting Technician), Fran Nielsen (SO, Information Assistant—holding 50th sign), Juan Palma (Deputy Forest Supervisor—holding 50th sign).

<u>Row 3</u>: Ron Storrs (MR, Forestry Technician), Dave Webb (SRNRA, Supervisory Forestry Technician), Jerry Barnes (SO, Fishery Biologist), Rob McClelland (LT, Supervisory Forestry Technician), Judy Ziemer (SO, Budget Analyst), Janis Stevenson (MR, Supervisory Forester), Mark Lane (MR, Range Conservationist), Pam Lewiston (MR, Archaeologist), Gary Meyer (MR, Forestry Technician), Steve Pollard (MR, Information Assistant), Tom Keter (SO, Assistant Forest Archaeologist), Kathy Heffner McClellan (SO, Anthropologist), Karen Jontes (MR, Forester), Roger Moore (MR, Supervisory Forester), George Albert (SO, Cartographer) Linda Black (SO, Supervisory Computer Specialist), Holly Williams (SO, Equal Employment Specialist), Joe Reyes (LT, Forestry Technician), Kathryn Krupnick (SO, Budget Analyst).

<u>Row 4</u>: Chuck Riley (retired SO Forester—arm hooked around bleacher rail), Pat Serna (Klamath Province, Forestry Technician), Debra Whitman (SO, Forester), Ed Hotalen (LT, Forestry Technician), Pam Conners (SO, Historian, shared services), Sue Sniado (O, Student Trainee/Wildlife), Noelyn Habana (Americorps/Geographic Information Systems Trainee—with blue cap), Dennis McKinnon (SO, Supervisory Civil Engineering Technician), Laura Chapman (SO, Civil Engineer/Forest Planner), Dawn Pedersen (MR, Forestry Technician—almost hidden), Lisa Mizuno (MR, Student Trainee/Fisheries), Susan Watkins (SO, Purchasing Agent), Jennifer Chapman (SO, Computer Operator), Lynn Stover (SO, Personnel Assistant), Shirley Rech (MR, Forester), Jesse Plumage (MR, Wildlife Biologist), Angie Young (SO, Contract

Specialist), Lucy Salazar (SO, Forester/Fuels Manuagenuenut Specialist), Adele Henderson (LT, Forestry Technician), Virginia Young (LT, Supervisory District Clerk), Richard Kersh (LT, Supervisory Forestry Technician—standing, with mustache and stunt glasses).

Row 5: George Lottritz (SO, Supervisory General Biologist/Natural Resources Staff Officer), John Larson (LT, District Ranger), Kathy Mace (SO, Personnel Assistant), Debbie Mace (O, Administrative Officer), Kathy Sharpe (MR, Administrative Officer), Diane Kunes (SO, Civil Engineering Technician), Leslie Wolff (MR, Hydrologist), Don Kudrna (SO, Wildlife Biologist), Mary McManus (SO, Personnel Management Specialist), Brenda Devlin-Craig (SRNRA, Wildlife Biologist), Corrine Black (SRNRA, Hydrologist), Bill Bishell (SO, Civil Engineer), Baker Holden (SRNRA, Fisheries Biologist), Ray McCray (MR, Forester), Jane Stuessy (SO, Civil Engineer), Kelly Cahill (SO, Civil Engineer), Janet Boomgarden (SO, Supervisory General Business Specialist—standing out bleachers), Jean Hawthorne (SO, Forester/Public Services Staff Officer—standing), John Wendt (SO, Supervisory Forestry Technician-Fire), Jerry Boberg (SO, Fisheries Biologist).

Row 6: Tom Leskiw (LT, Forestry Technician), Debbie Hom (LT, Wildlife Biologist—in parka), Lee Morgan (LT, Fisheries Biologist), Jim Crossland, (LT, Forestry Technician), Kurt Werner (SO, Civil Engineering Technician), Don Pass (SRNRA, Forester), Scott Webb (SO, Civil Engineering Technician), Peggi Lawrence (SO, Business Management Assistant), Carolyn McCall (SRNRA, Public Affairs Specialist), Patricia Visser (SO, Forester/Rural Assistance Coordinator), Ken Wells (SRNRA, Forestry Technician), Sam Morrison (SO, Hydrologist), Jan Werren (SO, Forestry Technician), Reginia Moon (LT, Forestry Technician), Sherece Hanger (LT, Forestry Technician), Marcia Andre (MR, District Ranger—in jacket and sunglasses), Brian Morris (SRNRA, District Ranger).

Row 7 (top row): Lee Whitman (SO, Automotive Equipment Repair Inspector—in jacket with arm over bleacher rail), Mark Smith (SO, Geologist), Kemset Moore (SO, Americorps), Gene Graber (O, Forester), Jerry Shipman (LT, Supervisory Forester/Resource Officer), Jim Burns (Klamath Province, Forestry Technician), George Frey (SO, Forester/Realty), Clarence Hostler (LT, Forester), Janice Theuerkauf (SRNRA, Volunteer), John Theuerkauf (SRNRA, Forestry Technician), Phil Bono (SRNRA, Forestry Technician), Bob Kramer (SRNRA, Forestry Technician-Fire), Dave Hubbard (SRNRA, Forestry Technician—crossed arms), Jeff Jones (SO, Biological Sciences Technician/Plants), Carolyn Stimson (SO, Biological Sciences Technician/Plants), Stan Thiesen (SO, Geologist), Bruce Bryan (SO, Biological Sciences Technician), Greg Schmidt (Ecologist).

SIX RIVERS

NATIONAL FOREST

NOTES

[1]In order for forest reserves to be created in the East, they had to be purchased rather than carved out of the public domain. The Weeks Act authorized such purchases through the National Forest Reservation Commission, acting as Congress' broker.

[2]The Trinity National Forest, from which the Six Rivers' Mad River and Lower Trinity districts came, had been established since April 26, 1905. The Klamath National Forest was established shortly thereafter, on May 6, 1905. The Siskiyou National Forest was created October 5, 1906; in 1911, the Klamath's Gasquet/Smith Fork Ranger District was transferred to the Siskiyou.

[3]At times, the NRPU was under the administrative wing of Gasquet Ranger Station. When the Six Rivers was first organized, this arrangement apparently started with "a cryptic note" in the mail, assigning the fire control responsibilities for the NRPU to the Gasquet District. Ranger Quackenbush joked that it was done because the NRPU was usually shorthanded and because the...

> fire load down there is rather light. Anyway it is light until one gets started.... That N.R.P.U. brush is so big, the timber mgt. crew very often takes increment borings on huckleberry and only discovers their error when the 'cones' are found to be edible [Quackenbush *et al.* 1947: 2].

[4]The earlier line separating the Siskiyou's Gasquet District from the Klamath's Orleans district was different than it is currently. A 1936 map showed the district boundary traversing Red Mountain from the west, heading southeast along the current 14N01 road and, again, following the current 14N01 road, northeast, to Cedar Camp Spring. At the junction of the Summit Valley Trail with current road 15N01, the boundary appears to have followed today's 15N01, southeastward, to the current district boundary. Gasquet District had been organized as the Smith Fork Ranger Station in 1909 (Cooper 1939: Del Norte County section and part III 3a, 4).

In addition to this net national forest land acreage, there were 46,942 acres of alienated land within the outside boundary of Six Rivers land formerly part of the Siskiyou National Forest; 7,555 acres of alienated land formerly part of the Klamath National Forest; and 113,333 alienated acres within lands formerly part of the Trinity National Forest (Fischer 1950: Appendix, Table II).

[5]Regional Forester Show had long demonstrated a keen interest in the north coast region. His 1932 technical bulletin on timber growing and logging practices on the redwood coast promoted the idea that it made better long-term economic sense to modify logging methods and post-logging burning practices in order to use redwood growing lands for intensive timber management than to convert them to farming or grazing lands. Writing the bulletin during the depression, he remarked that even though the hard times had been unfortunate for timber operators in the redwood region, on the bright side, it had stimulated a "search for means of weathering the crisis" and "opened new possibilities for increasing both immediate profits and the long-term return from manufacture, and.., for decreasing the cost of reforestation." Show was

confident that in-depth investigation and research would prove that "[p]rofitable perpetuation of a going concern by deliberate timber growing" was more prudent "than the alternative of dismantling the business as soon as the virgin forest is cut" (Show 1932: 20-21).

[6]Lyle F. Watts tenure as Chief of the Forest Service was characterized by his conviction that the agency was at a turning point following World War II. He viewed the nation's saw timber supply as declining in quantity and quality; its losses from harvest and from natural causes exceeded annual growth by 50 percent. At the same time, he viewed the nation's need for saw timber as greater than the post-war harvest levels. He warned in his forward to *Forests and National Prosperity:* "Whether we are in for a permanent timber shortage or whether we shall have plenty of timber depends largely on what we do now. We have enough forest land. The challenge is to grow the timber." His was a call for intensive timber management and for sustained yield on both national forest land and on private timber land (USDA, FS 1948: iv).

[7]In 1935, through its National Forest Reservation Commission, Congress authorized the Forest Service to acquire land within a Northern Redwood Purchase Unit (NRPU) in Northwestern California. The purpose was to create a 130,000-acre national forest within the growth zone of coastal redwoods in order to assure productive second growth of that species. Between 1939 and 1945, the federal government acquired 14,567 acres of redwood land within the NRPU boundary. Before the Six Rivers National Forest was established, the NRPU was administered through the Trinity National Forest's satellite office at Crescent City.

[8]Unfortunately, this "work load and boundaries report from Region 5" has, thus far, not been located. Its title was apparently: "Recommended Reorganization of National Forest & Ranger District Boundaries and Calculated Load." Refer to the 1946 Brandeberry report.

[9]At the same time that the Gasquet Ranger District was transferred to become part of Six Rivers National Forest, the lands which officials had agreed would go from the Rogue River National Forest in Region 6 to the Klamath in Region 5 were also transferred. It included those lands within the exterior boundaries of the Rogue River National Forest in Townships 40 and 41 South, and Ranges 1 East and 1 West. W.M., south of the divide between the Rogue and the Klamath rivers.

[10]Gifford Pinchot died of leukemia October 4, 1946 at age 81.

[11]The Memorial Redwood Forest would have encompassed the lands within the Redwood Purchase Unit boundaries. Therefore, once the Six Rivers was organized and had assumed temporary administration of the lands acquired for the Northern Redwood Purchase Unit, the intent of creating what became the Six Rivers and the imbroglio over the Memorial Redwood Forest were entwined in the public mind.

[12]In 1934, the Del Norte County Board of Supervisors passed a resolution asking Congress to attach the portion of the Siskiyou National Forest within California to the Klamath National Forest. Secretary of Agriculture, Henry A. Wallace, rejected the idea, primarily citing the natural watershed boundary that supported the Gasquet District remaining part of the Siskiyou. Winter access was also a consideration; the Siskiyou Mountains blocked transportation to the Klamath's

headquarters in Yreka via the Happy Camp Road, making it necessary to travel to Gasquet via Grants Pass (USDA Wallace 12-26-34).

[13]George Ferrare had briefly, just prior to his assignment to what would become the Six Rivers, been assigned to the Regional Office's Recreation and Lands division.

[14]Cornelia Bryce Pinchot, 1881 to 1960, was an activist in the suffrage movement and, throughout her life, took a keen interest in liberal politics. She met Gifford Pinchot while campaigning for Theodore Roosevelt in 1912. It was largely due to Cornelia's influence that Gifford's definition of conservation broadened in the 1920s and 1930s—beyond scientific management—to embrace the human dimension: the condition of workers, education for betterment of society, and securing resources for international peace (Severance 1990: *passim).* One can see how the Pinchots' conservation philosophies aligned with those of Representative Douglas. (See chapter: Congresswoman Douglas and the Roosevelt Memorial Redwood National Forest.)

[15]Josiah Gregg—along with L. K. Wood and six other men traveling from the Weaverville area—was credited with "discovering" Humboldt Bay December 22, 1949, having heard about the bay from Indians. Gregg died of starvation not long after the party headed for the Sacramento Valley; the others survived. Gregg was responsible for naming the Elk, Mad, Van Duzen, and Eel rivers (Gudde 11-19-46).

[16]Hermann Ehrenberg, after serving in the "Texas war for independence," came to Oregon and, in 1848, to California. He explored the general region of the new national forest and was reputedly the first non-Indian to "discover" the mouth of the Klamath River and Gold Bluffs; he was also the first to formally map the area.

[17]R. S. Monahan of the Regional Office wrote a memo to the files that further clarified the naming process. He noted that he had been the one to contact Kyne and that Kyne had initially offered the name "Cincos Rios" because he had counted five major rivers within the new forest. The regional Forest Names Committee liked the name, though counted six major rivers and also thought the Spanish name should not be used, since the north coast had not been under Spanish influence; further, they argued that the Spanish rendition would be "difficult to spell and pronounce" (Monahan 12-12-46).

[18]Save the Redwoods League was formally organized in 1919. By 1949, it had 15,000 members and was responsible for purchasing large tracts of redwoods for preservation. Its purposes were four-fold: to purchase, by private subscription and state and county bond issues, redwood groves, concentrating on the most awe-inspiring ones along the highways; to establish a national redwood park; to encourage the state to purchase cutover redwood areas for reforestation; and to promote study of second growth redwood for timber (Powers 1949: 150-151).

[19]The investigative and reporting party consisted of R. F. Hammatt, Assistant District Forester (Chief of Party); M. B. Pratt, Deputy State Forester for California; and Donald Bruce, Associate Professor of Forestry, University of California. Paul Redington, who had succeeded Coert DuBois as Regional Forester, was also on the trip for "the greater part of the time."

[20]Filling-in behind "Bung" Bower, Hallin's headquarters at Crescent City consisted of an office and garage. These buildings were later donated to the Del Norte County Fair grounds.

[21]As Resources Management Specialist, Hatzimanolis vigorously attempted to apply findings and implications from research on the adjacent Yurok Redwood Experimental Forest to the challenge of meeting harvest targets on the NRPU. Hatzimanolis had to blaze trail with many of his decisions and worked hard to look at proposed harvests from a scientific and broad resource perspective.

[22]For example. the Federal Emergency Relief Administration (ERA) and the later CCC programs provided the manpower at Gasquet to build a new ranger station; beginning in 1933, they replaced the old Smith Fork Ranger Station on the north side of the Middle Fork by building Gasquet Ranger Station. Also completed during the CCC era on Gasquet Ranger District were the Patrick Creek Guard Station and campground, Big Flat Guard Station, and camp facilities at Grassy Flat, Madrona, Sawyers Bar and Cedar Camp. Lookouts were built at Stone Corral (High Divide), Camp Six, Baldy Peak, Summit Valley, Red Mountain, High Plateau, Rattlesnake, and Monkey Creek Ridge. The Bear Basin and South Fork of the Smith roads were also constructed as were a number of trails and trail and road improvements (Quackenbush *et al.* 1947: 1). Among the many CCC projects at Lower Trinity was a new ranger station relocated to a former public campground at Salyer. Other CCC projects included telephone lines from Salyer to Boards Camp, construction of a 20-foot steel tower lookout at Boards Camp at the head of Grouse Creek, a 75-mile branch telephone line at New River, construction of a 30-foot steel lookout at Brush Mountain along with a complete guard station, another guard station at Ammon Ridge, a 30-foot steel tower lookout at Grouse Mountain, and lookouts at Virgin Buttes and Cabin Peak (Hotelling 1978: 92; Cooper 1939: part III 65). Similar depression-era construction projects occurred on Orleans and Mad River ranger districts, including new ranger station compounds, guard stations, lookouts, roads, and trails.

[23]The Six Rivers was haunted by its long, narrow shape, with its consequent challenges to administrative cohesion. In 1955, inspectors Lepley and Fisher reviewed the monthly diaries that had been summarized from July. "The ratio of time spent behind steering wheels as compared to effective time on jobs for both ranger district and Staff personnel..." left a wide margin for improvement: "The long distances from Eureka to each ranger districts *[sic]* make one and two-day trips run high to travel and low to productive work on-the-ground. Where there is so much rushing 'hither and yon', one gets the impression that 'the job is running the man' rather than the reverse, as it should be" (Fisher and Lepley 5-12 & 6-26-55: 1 & 3).

[24]A quarter century later, in 1971, Six Rivers officials calculated that, given the envisioned intensive program of timber management—including precommercial thinning and intermediate cuts at 10-year intervals at about age 50—stand development would be accelerated by about 10 years, yielding a final harvest rotation period of 140 years instead of 150 years. As stated in the Six Rivers' Timber Management Plan for 1971 through 1980, the ultimate goal of the forest's timber management program was a "regulated forest: ...The classic regulated forest is one of equal age class distribution where each acre is producing wood at its maximum potential for the management intensity and rotation selected." Though recognized that a completely regulated

forest was an unachievable goal, the forest's efforts were aimed at that target (USDA, FS 1979: 11, 24).

[25]This article was essentially a verbatim series of quotes from Fischer's 1950 work, "A Prospectus Of the Six Rivers National Forest." From its taproot of Progressivism, the Forest Service had a strong tradition of decentralization as a means of cutting red tape and increasing accountability to its publics.

[26]A board foot (bf) is the volume of wood in a board that measures one inch thick and is one foot square. "M" signifies 1,000 and "MM" signifies 1,000,000. Therefore 16 mmbf is shorthand for 16 million board feet. Sometimes the same quantity would be expressed as: 16 MMBM, the trailing "M" standing for "measure."

[27]The Six Rivers' "recreation reserve" was about two percent of the commercial forest area, or 15,000 acres (Hallin 4-29-54).

[28]Estimating visitor use on a national forest is inexact. Compare these figures with Gasquet's Ranger Quackenbush who, in 1947, reported having counted 158,224 out-of-state (south-bound traffic) visitors passing the Gasquet Ranger Station. He also reported that many of them stayed in the district's campgrounds along the Redwood Highway and that "scads of fish were taken in the Smith River and its tributaries" (Quackenbush *et al.* 1947: 4). Compare the 1956 figures, too, with those from just four years earlier: 1,004,578 visitors, comprised of 7,624 anglers, 2,183 hunters, 7,369 campers, 15,121 picnickers, resort guests, etc. and 947,500 recreation visitors labeled as "passing through" (Payne and Juntunen 1954: appendix A-2).

[29]Early in the Six Rivers' history, the Policy and Procedures Handbook said that permits for isolated summer homes would not be issued; only for summer home lots located within approved summer home tracts. Approval by the Chief of the Forest Service was required for designating new summer home tracts. Supervisor Fischer underscored the importance of recommending summer home tracts only on lands not necessary or suitable for general public use (USDA, FS, SRNF Handbook, Recreation 10-30-47).

[30]In 1949, there was a total of 237 unpatented mineral claims on the Six Rivers; 206 of those were believed to be fraudulent, encumbering 5,580 acres. Forest-wide, there were 335 abandoned mineral claims totaling 8,290 acres. No claims existed on the Northern Redwood Purchase Unit since that land, purchased under the Weeks Act, is not subject to mineral entry (Fischer 1950: appendix table XV).

[31]The Highway 199 portion of the Redwood Highway was opened for traffic in 1926. A significant portion of Highway 199 parallels the Smith River.

[32]In 1996, there were three, standing trail shelters using the Quackenbush design: one each at Upper Coon Mountain, Summit Valley, and Buck Creek. Only Buck Creek is along the South Fork of the Smith. Gasquet Ranger Quackenbush, Packer Robert Steven, and Big Flat Patrolman Floyd Lyne built a trail shelter at Elkhorn Bar, on the South Fork of the Smith River, in September. Gasquet was enthusiastic about its trail shelters, noting in the 1947 district diary that

"'Quack' and his trail shelters are rapidly becoming famous on the Six Rivers. Big plans are in preparation to extend this practice to other districts" (Quackenbush, *et al.* 1947: 5). Though the 1949 summary of improvements in Fischer's "Prospectus of the Six Rivers National Forest" lists a total of six trail shelters—five on Gasquet and one on Orleans—to date, only three have been recorded on Gasquet Ranger District/Smith River National Recreation Area. Reportedly, there was also a Quackenbush-type, Adirondack-style shelter built at Sky High Valley on the Klamath National Forest (Bower 1978 Vol V: 92).

[33]The guard stations for Mad River were Hoaglin, Zenia, and Ruth; for Lower Trinity, they were Campbell Creek, and Trinity Summit; Bluff Creek for Orleans; and Patrick Creek and Big Flat for Gasquet.

[34]Perhaps more than for most other national forests in California, trails on the Six Rivers continued to be important transportation byways into more recent time. The relatively late arrival of other transportation systems—for example high standard roads and railroads—due to relative demand, remoteness, low population density, and topographical challenges, contributed to this phenomenon. For example, the Northwestern Pacific Railroad was one of the last US rail lines to be built; its northbound tracks finally reached Eureka in 1914. Some historic trails such as the Eel River-Weaverville Trail, a long section of which is on the Mad River District, are still maintained as the County Line Trail. The Humboldt Hyampom Trail from Trinity Bay (Trinidad) to Coxs Bar (Big Bar) was also a primary artery with vestiges on Lower Trinity Ranger District. Important pack trails, such as the Kelsey Trail between Crescent City and Fort Jones, partly on the Smith River National Recreation Area, also lace the Six Rivers.

[35]Hotelling's father, William, had been a miner in the Orleans Bar area who, in 1906, was appointed as a Forest Guard and, later, as Assistant Forest Ranger at Orleans. In 1908, he built the first ranger station in Orleans, about three miles north of the present station location. It was a log structure with wide chinking; it had a full front porch, was side-gabled and had a shake roof. In 1911, William quit the Forest Service and became manager of the A. Brizard branch store in Somes Bar. Ellen, his wife, managed a hotel in that community; Ellen's mother was Indian Mary from Eye-ee-s Bar, who had married Alvirus Ferris, an Orleans area miner.

Wes Hotelling's first Forest Service job was in 1917, hanging telephone wire from Orleans toward Somes Bar. After serving in France during World War I, Wesley returned to his Orleans home and got a job as the lookout on Orleans Mountain and, later, as a Forest Service crew member. In 1920, he became the acting District Ranger at Orleans, still a unit of the Klamath National Forest. After gaining experience on the Sequoia and the Inyo national forests, he was assigned, in 1927, to replace Ranger Frank Graham at Lower Trinity Ranger District on the Trinity National Forest. Briefly serving at the Upper Trinity District headquartered at Weaverville, he returned to Lower Trinity at Salyer, remaining as ranger of that district until he retired in 1955. Upon retirement from the Forest Service, he took a position with the Brizard Matthews firm and continued with them until 1970. An interesting sidebar is that while Hotelling was the Mt. Whitney District Ranger at Lone Pine, he had a supplementary night job working in Carl Bruno's Square Deal Garage; Bruno later established the Trees of Mystery near the town of Klamath (Hotelling 1978: 18, 19, 26, 27, 32, 51, 69, 76, 87, 103).

[36]In general and at least by the mid-1930s, the Forest Service discouraged converting mining claims to residential special use permits when it was known or suspected that the claim was held in bad faith—that is, a claim filed, title to the land received, and improvements built where no appreciable mineral deposit actually existed. Forest officers were encouraged to contest fraudulent mineral entry claims but to avoid even an appearance of harassing bonafide miners. Along Highway 199 and the Smith River, it was noted that there was "considerable abuse along this particular highway of people locating mining claims for the purpose of selling them to people who have principally in mind the idea of building summer homes. A number of areas possible for this kind of use have been posted and are being developed as public recreational grounds..." (Mitchell 7-20-34).

[37]We think of fish hatcheries as being a relatively recent manipulation, but one existed at Hoopa before 1891. Historian Andrew Genzoli reported seeing an item published in 1891 that read: "Captain Brice representative on this coast of the National Fish Commission made a call to The Humboldt Times Tuesday. The captain has been at Hoopa for several weeks overhauling and adding to the hatchery there. About 90,000 salmon were turned into the river last winter, and arrangements have been made for increasing that number greatly. Trout will be propagated at Hoopa, for which purpose a breeding pond has been built which now contains about 200 trout. An auxiliary salmon hatchery will be established at Bair's place on Redwood [Creek], and another on Mad River, but just at what point has not been determined. Captain Brice expects to be able to turn out about half a million salmon yearly after this year" (TS 9-8-75: 16).

[38]Over the years of 1947, 1951, 1964, and 1965, a total of 51 elk were "planted" in the Bear Basin area. The 20 elk planted in 1964 and 1965 were tagged and sightings of them were recorded. Of the 51 elk 16 were bulls and 35 were cows.

[39]Fire control assistants were later called Assistant District Rangers. In the earlier years, FCAs handled fire control and maintenance of the improvements under the district ranger in order to free up the ranger for management of the district's other resources.

[40]Vaux' figures for 1950 were that the forest industry directly provided jobs for 8,726—or one of every three—"occupied persons" in Humboldt County. For the same year, he also noted that timber industries accounted for one of every three dollars of civilian income. Though one can quibble with the exact figures, the trends and implications for the area's economy are more firm: that the area depended heavily on the forest products industry and that declines in the industry rippled through the region with sharp economic effects. By 1953, lumber production in Humboldt County was four and one-half times larger than it had been in 1940 and the number of sawmills had multiplied eight fold (Vaux 1955: 5, 9).

[41]Part of the Brain Book, or the "Policy and Procedure Handbook," was composed of five-year goals. Annual plans of work were tied to the goals and, in turn, to annual financial plans. The "Forest Board of Directors"—composed of the four district rangers, S.O. staff, and the forest supervisor—determined the distribution of funding accordingly.

[42]Prior to 1944, Douglas fir was not assessed for taxes because it was not considered to have any taxable value. After that time, all private commercial timber stands were assessed, resulting in additional county revenue.

[43]The reference to "potential" national forest lands had to do with the use of pre-cutting agreements with timberland owners. Often this involved the private timberland owner agreeing, before harvest commenced, to exchange for government timber, a given piece of cutover land from the private owner. The deal was made on the condition that the private operator harvest in accord with sustained yield practices, generally involving selection cutting and leaving an adequate residual stand as well as not broadcast burning after the harvest.

[44]Old-growth was defined as stands where over 50 percent of the coniferous canopy was composed of mature trees and fewer than 20 percent of the young trees were over 12 inches diameter base height.

[45]Prior to 1952, the Six Rivers did not collect deposits for extra fire protection from its timber sales. In 1952, 30 cents per thousand board feet was collected. with 25 cents going for extra protection and the remainder for burning, accomplished by Forest Service personnel. Though Jarvi, in his 1952 inspection, judged this figure to be inadequate, he urged forest officials to keep close account of actual costs in order that a more appropriate figure could be used in future timber sale appraisals.

[46]To aid in resource surveys and planning, one of the first tasks on the new national forest had been to delimit "working circles." These were management areas that shared enough common characteristics and were generally definable on the ground, often by watershed. Resource inventories were generally done on the basis of working circles, with an emphasis on timber. The working circle, then, formed the scope for management plans and for the projects to carry out the plans. Working circle management plans typically described the acres and timber volumes by ownership classes, the existing transportation system, the silvicultural objectives and practices to be used—including preferred logging methods, annual sustainable cut, and timber sale objectives and policy within the working circle.

[47]Table VI of Fischer's 1950 prospectus listed a total of eight saw timber sales within the Six Rivers National Forest in 1949.

[48]Until the plan for FY 1971 through 1980 was completed, timber management plans focused on achieving their objectives primarily through regeneration cuts. Under the newer plan, objectives were to be met applying intensive timber management practices to convert the forest to a more regulated condition of equal age-class distribution; forestry practices related to this included regeneration, release, intermediate cuts, precommercial thinning, and planting. With that paradigm, the harvest potential for the standard component of commercial forest land on the Six Rivers was set at 2059.3 million board feet for the first decade, or about 206 million board feet annually. exclusive of the Northern Redwood Purchase Unit. Previous plans had set the annual harvest at 160.4 million board feet; revised for intensive management, the annual cut was increased to 197.7 million board feet, with 18.1 million board feet deducted when the NRPU became trading pieces for the Redwood National Park (USDA, FS 1979: v).

[49]The 1951 Regional supplement to the General Administration Manual defined the GII as an examination of how the forest performed in "achieving depth and breadth of administrative vision and action - weaving all Forest plans and activities into a unified pattern of land management, where the Forests' resources and their products can make the highest sustained contributions to the people."

[50]The *National Forest Manual Regulations and Instructions* stated that the "[n]ational forests have for their objects to insure a perpetual supply of timber, to preserve the forest cover which regulates the flow of streams, and to provide for the use of all resources which the forests contain in the ways which will make them of largest service. Largest service means greatest good to the greatest number in the long run. It means conservation through use, with full recognition of all existing individual rights and with recognition also that beneficial use must be use by individuals; but without the sacrifice of a greater total of public benefit to a less. In other words, the forests are to be regarded as public resources to be held, protected, and developed by the Government for the benefit of the people" (chapter on *administration and protection*, 3-A).

[51]The source of this list of purposes is probably a pre-1947 document not yet found. Note its similarity with the list in Cronemiller and Kern's 1949 general integrating inspection report.

[52]Other sources put the total timber resources of the Six Rivers at 18 billion board feet on about 779,000 acres of commercial forest lands. The predominant species were Douglas-fir (about 85 per cent), sugar pine, Jeffrey, and ponderosa pine, white and red fir, Port Orford-cedar, and incense cedar.

[53]February 1947, the State Board of Forestry adopted forest practice rules for the Redwood Forest District (HT 3-23-47). Forest practice rules for the Coast Range pine and the fir forest district became effective April 10. The Regional Office's position on the efficacy and usefulness of these rules were that "they must be considered as in their initial stage." They were initiated from within the industry and "merely provide for the leaving of seed trees, specified retention and pre-suppression effort and certain care in logging." RO officials felt this type of control would only have the effect of keeping timber land productive; not of effecting maximum or sustained yield.

There was a level of professional friction between the Forest Service and State Forestry because state officials "stand steadfast behind the philosophy of the Forest Practice Act as the final answer" without evidence of their having done the inspection and enforcement necessary to confirm that conclusion. Somewhat snidely, inspectors Cronemiller and Kern reported that: "White collared people often had their fingers crossed because they thought they were seeing the rules in action and couldn't accept the result as good forestry. Labor just knew that industry-made rules couldn't be good and was open for suggestions." The inspectors folded all of these issues into a proposed research program for the forest but admonished: "In spite of a lot of pioneering work by federal foresters, care should be taken that no attempt be made, consciously or unconsciously, to take the leadership away from the employees in private industry, but give it full support" (Cronemiller and Kern 1949: 3-7).

[54]P. A. Thompson succeeded S. B. Show in late 1946 as Regional Forester for California. Thompson had been Forest Supervisor of the Willamette National Forest in Oregon for three years, beginning in 1935. Before being appointed by Chief Watts as Regional Forester for California, Thompson had been chief of the Regional Office's Fire Control Division (CR 11-13-46:1).

Show left the Forest Service after serving 20 years as Regional Forester for California. Not yet ready to retire, he became Deputy Director and Chief Silviculturist in the Forestry and Forest Products Division of the United Nations Food and Agriculture Organization (CR 8-28-46: 1).

[55]"An Appraisal of the Economic and Social Effect of the Proposed Roosevelt Redwood Forest" provides a wonderful, panoramic snapshot of the commodity and recreational values of the study area as seen through the eyes of the Forest Service in the immediate post World War II years. It contained chapters on resource inventories (timber, agriculture, recreation, and other), the extent and character of present use (local government, fire situation, land ownership, importance of resource to county, timber, agriculture, recreation, other), a comparison of present use with use under National Forest administration, and recommended boundary revisions.

Regional Forester Show had appointed Hamilton K. Pyles to be in-charge of completing this momentous report. He also named Jack C. Kern, Assistant Forest Supervisor on the Angeles and who would later serve with F. P. Cronemiller in completing the first General Integrating Inspection of the Six Rivers National Forest; Roy G. Wagner, Assistant Forest Supervisor on the Shasta; Jack L. Reveal, Farm Forester for Napa and Sonoma counties, and who would later become District Ranger of the Summit District on the Stanislaus National Forest; Dana W. Cox, a District Ranger on the Mendocino; Vernon C. Hallin, Ranger for the Northern Redwood Purchase Unit administered by the Trinity National Forest, who would later be assigned to key positions on the Six Rivers; and Leland E. Berriman, a District Ranger on the Sierra (USDA, FS 8-7-46: 1).

[56]Parts of this article are nearly verbatim of the October 29, 1946 Regional Office press release regarding establishment of the Six Rivers (USDA, FS 10-29-46).

[57]Senator Dewey Anderson sponsored S. B. 1820, linked with Douglas' H. R. 2394. He sponsored "An Action Program for the Redwood Forest," published as Report No. 5 of the Public Affairs Institute.

[58]Douglas was also routinely criticized by her detractors for her previous careers as a Broadway actress, opera star, and Hollywood screen actress. She was married to the actor Melvyn Douglas.

The Redwood National Park Act was signed by President Johnson on October 2, 1968. One result was that the sizable Northern Redwood Purchase Unit shrank to 540 acres; the lion's share of the NRPU was used as exchange parcels for more desirable lands held by private timber land owners and desired for the Redwood National Park.

[59]The inspectors reported that "[t]wo of the Rangers, Wes Hotelling, (Lower Trinity District) 32 years of service, and Leo Quackenbush, (Gasquet District), 25 years of service were also as

signed the Forest at its establishment. Both of these 'old timers' plan to retire within the next 2 years. The two remaining Rangers, Charles Yates, (Orleans District) and Robert Janes, (Mad River District) have 2-1/2 years and 1-1/2 years of experience, respectively, on the Six Rivers" (Williams & Kern 1952: 2).

[60]Otto Brichacek was selected as Tish-Tang District Ranger in 1958. In 1959, Walter Kirschman replaced him and remained at Tish-Tang until the district was dissolved in 1968. Kirschman then was assigned to the Six Rivers Supervisor's Office where he headed writing the forest's new, ten-year sustainable yield timber management plan. That plan withstood two Sierra Club appeals as well as a Federal judge review (Kirschman 6-9-97: pers. comm.).

[61]Vern Hallin also developed a special ax sheath that became widely used within the Forest Service (Hallin 5-20-97: pers. comm.).

[62]Six Rivers facilities were known, regionally, for their remoteness. For example. Gasquet Ranger Station did not have commercial electrical power until December 8, 1947 when the California-Oregon Power Company completed its power line to the station (Quackenbush, *et al.* 1947: 5).

By 1971, the Six Rivers estimated that its ultimate road system would be 5,888 miles; to that date 1,154 miles had been constructed (USDA, FS, SRNF 1971: 24).

[63]The Six Rivers had 22 pack and saddle horses and mules in 1955 but, like other forests in the region, was seeing that new or more readily available technologies—such as helicopters—were curtailing the need to maintain pack strings. Forest officials were also responding to the increased availability of stock for rent as more people and services moved into many areas. Use for fighting remote fires was coming to be seen as the major justification for maintaining pack stock. The inspectors noted that it cost about $140 per animal for maintenance and replacement, and that those expenditures were justified as long as each animal worked at least 25 days. Five animals were cut from the Six Rivers employment roster by early 1956 and still further cuts were being contemplated (Fisher and Lepley 5-12 & 6-26-55: 6 and Spinney 11-8-56: 3).

[64]At least as late as 1955, Six Rivers district rangers were graded as GS-9s. Because this was out-of-step with the region and did not reflect the complexity of the work, Regional Office inspectors Fisher and Lepley encouraged Supervisor Wes Spinney to upgrade the District Rangers to GS-11s: the "journeyman" professional level. Soon after the 1955 inspection, Spinney reported that he had upgraded one ranger and that another was in the works for 1956. In the same report, inspectors congratulated Spinney for "de-professionalizing" the dispatcher positions on the ranger districts, shifting that workload from Junior Foresters and adding it to the workload of district clerks (Fisher and Lepley 5-12 & 6-28-55: *passim* and Spinney 1-18-56: *passim).*

[65]For a 1952 inspection, a summary analysis was completed of the 1951 diaries of three forest staff officers, an assistant staff officer, four rangers, three fire control assistants, and a district timber management assistant. The analysis found that 29 percent of their time was reported in resources management tasks, seven percent in lands and uses, 45 percent in fire control duties, 10 percent in improvements work, and nine percent in leave. Of the time spent in resources

management. 85 percent was spent in timber management. 7 percent in range, 5 percent in recreation. 2 percent in water management, and one percent in wildlife management. The relative time spent in fire control reflected a heavy fire year (Williams & Kern 1952: 10-11).

[66]In a 1952 report, Supervisor Fischer noted one of the toughest administrative snags for the Six Rivers: inadequate housing. Fischer characterized it as a problem that "seriously affects recruiting the right people for jobs." Just to take care of the increased timber business, Fischer projected that, in addition to a laundry list of needed offices, barracks, and room additions at existing administrative sites, "at least one, and perhaps two, complete new station developments" were necessary in the next 10 years. As an illustration, by 1955, out of Salyer/Lower Trinity Ranger Station alone, there were 30 logging operations going at one time as well as seven sawmills within the district.

[67]As the name implies, one acre foot is equal to the volume of water that covers an acre to a depth of one foot; equivalent to 43,560 cubic feet of water.

In their 1949 general integrating inspection report, Cronemiller and Kern summarized the Six Rivers' watershed situation:

> As a watershed it produces as great a volume of water as any forest, yet without the elevation that produces snow packs. Firm summer flows are at a minimum with the result that water shortages are prevalent and the feasibility of power production questionable. Watershed management must provide situations that will keep peak discharges at a minimum and summer flows at a maximum. Water management must contemplate service to an increasing agricultural economy and also to what will become a great industrial center for the manufacture of the whole array of wood products from lumber through cellulose to chemistry. These inspectors also envisioned one of the major wildlife problems to be fisheries, and connected to fisheries, new and added pressures wrought by future water developments (Crone miller and Kern 1949: 1).

[68]From 1940 to 1949, 3,440 acres were burned on the Six Rivers that were attributed to incendiary causes; the year 1944 accounted for 2,608 of those acres. Interestingly, figures maintained for the same years regarding the "class" of people responsible for human-caused fires on the Six Rivers did not list Indians for 1944. Instead, ranchers, miners, stockmen, timbermen, fishermen, hunters, and "unknown" comprised the total of 17 human-caused fires for that year (Fischer 1950: appendix table XX).

[69]Lands that became the Six Rivers National Forest had been traditionally occupied by the Tolowa, Yurok, Karuk, Hupa, Tsungwe, Chimariko, Wyot, Whilkut, Nongatl, Chilula, Wintu, Lassik, Wailaki, and Pitch Wailaki.

[70]This was, of course, Ranger Wesley Hotelling. Hotelling reportedly dealt even-handedly with all within and outside the Native American communities. Hotelling's grandmother was Karuk; he was proud of his ancestry and had an exceptionally high cultural awareness of native people, especially those along the Klamath River.

[71]One Native American practitioner of Forest Service and Indian relationships remarked that there was a "vast cavern of ignorance that existed for many years as to the types of land management activities that annually were carried on by the Indians—un-noticed until the Forest Service began to manage more and more of the land.... My later research indicated that much of the fire [ignitions were] cultural burning" (Heffner 5-13-97: pers. comm.).

[72]The role of specialists in the organization continued to grow with the surge of environmental legislation that started in the 1960s, such as the Multiple Use-Sustained Yield Act of 1960, the 1964 Wilderness Act, the 1968 Wild and Scenic Rivers Act, the 1970 National Environmental Policy Act, the 1974 Forest and Rangeland Renewable Resources Planning Act, and the 1973 Endangered Species Act. As stated in a Forest Service miscellaneous publication from 1960: "No longer are the National Forests the inaccessible and distant hinterlands they were when the system was first established. No longer can the Forest Service be primarily a custodian whose principal function is protection of National Forests from fire. Barriers of time, distance, and inaccessibility have been fast fading, especially in the last two decades. The people have found the National Forests, and the Forests' vast resources are in great demand" (USDA. FS 1960: 4).

[73]Minerals known to occur on the Six Rivers in commercially viable quantities include gold, chrome, copper. nickel and silver.

[74]Compare the 1946 figures with this 1949 table (Fischer 1950: appendix table XI):

	Gasquet	Orleans	Lower Trinity	Mad River
Blacktail deer	500	1,500	1,750	6,000
Black bear	400	250	120	170
Elk (Roosevelt)	15			
Bobcat	330	800	225	450
Mountain lion	30	15	3	20
Coyote	10	200	75	800
Fox (red)	180	75	115	200
Marten	40	100	19	5
Mink	240	250	180	100

Otter			
75	50	10	10
Raccoon			
50	550	250	1,000
Ringtail cat			
80	375	125	75
Skunk			
150	250	275	2,500
Weasel			
450	75	60	1,000
Badger			
		60	20
Fisher			
25	25		2
Muskrat			
		85	

Wildlife listed as decreasing were: lynx, coyote, wolf, badger, marten, fisher, weasel, porcupine, jackrabbit, and valley quail (Fischer 1950: appendix table XIa).

[75]Trapping had historically been an important activity on the lands that became the Six Rivers National Forest. The practice seems to occur more regularly during times of economic depression, when it appears that more people trap to supplement diet and/or income. In 1929 at the Gasquet district, for example, it was noted that "trapping was quite profitable for several parties . . . and quite a number of cougar were killed" (Cooper 1939: part III, 54).

[76]Today, the Six Rivers has no summer home tracts. The three developed tracts it once had—the Ranger Lewis Tract, North Gasquet and Lower Gasquet were all on the Gasquet Ranger District. Forest managers, seeing that the district was burdened by an ever-increasing workload in permit administration that netted no real benefit to public lands, decided to trade out of these summer home tracts. After formally determining that these lands would never again be valuable for general forest use, the Six Rivers challenged tract owners—in an "all or nothing deal"—to organize, locate land that would be equally valuable and desirable as an acquisition for the Six Rivers, purchase it, and exchange it for the recreation residence tract land. One-by-one, these permittees met the challenge and became owners of the land under their recreation residences while the Six Rivers acquired other valuable real estate (Frey 6-6-97: pers. comm.).

[77]Kotok married Stuart Show's sister, Ruth. S.B. Show was a prolific writer; among his works is the unpublished and undated manuscript, "The History of the Development of U.S. Forest Service Fire Control." A rare copy of it is in the Pacific Southwest Regional Office, Heritage Resource files.

[78]Ranger Cooper noted in his administrative history of the Siskiyou National Forest that, in 1917, "[a] lady lookout was employed this season on Bald Knob, the first on record." She must have been a success since for the 1920 season, Cooper reported that "[t]hree women lookouts were employed on the Forest" (Cooper 1939: part III, 18, 27). Perhaps Region 6 took its lead from Region 5 where, in 1913, Hallie Daggett was appointed as lookout at Eddy's Gulch on the Klamath National Forest.

Principally, lookout personnel were men, but many had wives and it was expected that they would fill-in when their husbands had to leave the lookout to fight a fire or perform other duties. At least one woman who worked with her husband at Bear Basin Butte in 1934 protested, remarking that she was not willing to fill-in unless the ranger paid her for the work. Thereafter, she was paid. In later life she observed that, in those days, "women weren't very important until they were needed." Considered to be a 24-hour a day and seven day a week job, the pay for a Forest Service lookout in 1934 was $84 a month.

The earliest lookout towers being platforms mounted to treetops, they evolved through lumber, and then to steel materials. Nationwide, their use steadily increased until they reached a peak of 5,060 towers used by state forestry and Forest Service. Since that time, the increase in aerial detection and increased access resulting in citizen-reported fires has translated to a plummeting number of lookouts. The Forest Service and the Six Rivers National Forest experience were reflected in this national trend (cf. USDA, FS 1969: 8-13).

[79]The 1953 GII used 14 groupings of forest users to compare which ones were most needful of fire prevention education. The inspectors found that, of the total of 206 reported fires on the Six Rivers between 1943 and 1952, most were started by timbermen (17 percent) and fishermen (12.6 percent) Payne and Juntunen 1954: appendix A-7).

[80]A kind of lore has developed around the lives of fire lookouts, and for good reason. Unlike most jobs, it is not uncommon for ranger districts to maintain rosters of those who served in each lookout, even though in many cases, these fixed-point detection sites are no longer used or even physically exist. To illustrate something of the life of a fire lookout in the mid-1950s, following is a brief memorandum from Ranger Scollay Parker about an inspection of the Doctor Rock lookout. C. F. Brock in October 1955:

> [Brock's] lookout point is Peak #8 on which there is an Osborne fire finder. No cover is provided for the observer. Living quarters are at Doctor Rock, approx thirty minutes travel time away. Brock has completed new quarters. working at the job when fire weather permitted. He has also done considerable brushing and spraying work along the Elk Valley trail—fire weather permitting.
>
> The cabin is in need of new tables and chairs to replace those made of split cedar. This should he arranged for the 1956 season.

[81]The area encompassed by the Six Rivers National Forest acquired the moniker: "the asbestos forest." The relatively low burned acreage and comparatively low levels of industrial and recreational activity in the area served to sustain this perception until very recently. Though there

were more exceptions than acknowledged (for example, Ranger Cooper noted in his 1939 history of the Siskiyou National Forest that Gasquet Ranger District suffered large fires in 1915, 1917, 1918, and 1932, higher moisture content in the atmosphere and vegetation served to slow and sometimes snuff fires before they consumed large areas. Historically, fire danger and incidence, even on the most northerly quadrant of the Six Rivers National Forest, was of great enough concern that inventive patrols were initiated. In 1915, a motorcycle-based fire patrol rode the Grants Pass to Crescent City Wagon Road, from Monumental to Berteleda/Hiouchi (Cooper 1939: part III, 11, 17, 21, 63). Later, exponential increases in logging and associated road-building on the Six Rivers provoked a different situation on the ground. A Regional Office inspection of the forest's fire program isolated two main culprits to effective fire control: dealing with logging slash hazards and with the high incidence of lightning fires in difficult to access areas. With increased logging slash and timber values, some of the most costly fires in the entire Region occurred on the Six Rivers in 1951. And although additional fire positions were created in the aftermath with increased State Cooperative and Forest Service funding, the Regional inspector believed these positions were "merely 'plugs' for the obvious gaps" in the forest's protection system (Jarvi 8-8-52: 1).

[82]Effects of the 1964 flood on redwoods were also a focus for study. Investigations funded by a National Science Foundation grant yielded the preliminary result that repeated flooding and siltation on the alluvial flood plains in the redwood growing region had the effect of maintaining the homogeneity of the redwood groves and their "open, park-like, and cathedral appearance;" indeed, that redwoods had adapted to periodic flooding (Becking 1967: 14-15 and Black 1967: 7).

Clear/patch cuts, road construction, and type conversions were among the forest management practices critics believed constituted the primary smoking guns held in the hands of the Six Rivers when trying to answer the question of why the 1964 flood devastation was so severe. Type conversions, though extensive on some other national forests in California, were not undertaken on any significant scale on the Six Rivers. It was judged that the Six Rivers supported few locations favorable to the practice because of watershed considerations. Most benches and flats where type conversions could be undertaken did not have good enough soil to justify clearing "and holding the cleared area, against natures [sic] efforts to recover the land." Mad River District Ranger, Kenneth Smith, went on to say that "increasing forage production for domestic stock [through type conversion techniques] would have to be justified from a dollars and cents stand???point. . . . I see no justification for clearing land which can't naturally hold its own as a forage type, and which at best would be marginal for forage crops if it was cleared" (Smith 1949). The role of clearcuts and road construction, however, was not as easily dismissed.

[83]Seeds for intensive management of forest lands were germinating during World War II. A fascinating document that defined a post war agricultural program for California stated the position that, heretofore, efforts to manage timber lands, watersheds, and range lands had almost entirely depended on the two-pronged approach of "curbing destructive forces such as fire, erosion, and over-use" so that nature's regenerative powers could take hold. Acknowledging that that pattern of management had accomplished much, the writers judged it to be "at best but a fractional return from the true productive capacity of mountain lands. There has not been the appreciation of the need for intensive management through positive cultural practices on these

lands as now exists through soil conservation programs on deteriorating croplands" (USDA, RICC 1944: Forest Land Section 9). Chief of the Forest Service, Lyle Watts, could not have agreed more.

[84]Volumes could be written about the history of women in the Forest Service workforce and the awkward relationship between gender and the organization. Opportunities for women in the Forest Service have been circumscribed by the role expectations of the larger society and by a strong culture of masculinity within the agency. Throughout its history, the presence of women in the Forest Service has been recognized, albeit in support positions. Even Gifford Pinchot—perhaps owing to the influence of his wife, Cornelia—often included references to women. For example, in talking about advancement policies in the Forest Service, he wrote that one could be promoted "just as far as each man or woman showed the character, ability, and good???will to go." About pay and hard work of Forest Service employees, he said: "The men and women of the Service earned good pay by their good work, and good pay, by the standards of the time, I was determined they should get." However, these words were hemmed-in by the acceptable sphere of women in the workplace; generally as receptionists, clerks, or secretaries. When the male labor pool was pinched, due to war or other factors, women tended to get "non-traditional" jobs in the Forest Service that had not been generally available to them before. However, when the labor shortage dissipated, the numbers of women correspondingly declined. This can readily be seen during World War II when many women were hired in the Forest Service as lookouts and Air Warning System observers.

As late as 1964, a federal pamphlet titled "Careers in Forestry" read:

> The majority of office workers (typers, stenographers, clerks) are women. Women also fill other responsible support positions such as accountants, statisticians, writers, personnel specialists, and research technicians. Women are occasionally employed as forest fire lookouts, but they are usually recruited from local residents who are acquainted with the country under observation. Since most lookouts are required to locate and sometimes help [fight] fires, men fill most of these positions [quoted in Kelly 1992: 5].

Forest Service Manual references exclusively used male pronouns for everything but support work until the latter 1970s when an Executive Order required that gender-neutral language be used in Federal publications. While some, such as Department of Defense, replaced masculine pronouns with he/she, the Forest Service interpretation was to avoid gender-specific personal pronouns entirely, at least in its directives (personal communication with Elizabeth Hecker, R-5 RO). In 1973, Gene Bernardi, a sociologist in the Forest Service's Pacific Southwest Research Station in Berkeley, sued the Forest Service after repeatedly being passed-over for promotion. Bernardi ultimately charged sexual discrimination against all women in the Forest Service's hiring and promotional practices. After seven years, the suit resulted in a consent decree which required that Region 5 attain at least 43 percent female representation in each grade and series. By the end of the court-designated time period for compliance, the Forest Service had not reached its goals, and a three year extension was ordered, beginning in May, 1988. The upheaval manifested in such actions as a countersuit by the "white male class" and letters to the court from a group of female employees known as CECO, the Committee to End Court Oversight. Judge Samuel Conti, although accusing the Forest Service of "foot dragging" in meeting the letter and

intent of the decree, lifted the decree in May 1992. Though this was a Region 5 phenomenon, the entire Forest Service closely watched California and sought to implement changes that would avoid their being embroiled in similar charges of sexual discrimination (Kelly 1992: 6-8).

[85]The aim of shelterwood cuts was to produce an even-aged stand of new trees in series of two or three cuttings. The aim of selection cuts was to produce uneven-aged stands with a constant supply of both young and old trees. Patch clear cuts were to produce even-aged stands.

[86]In 1988, the Hoopa-Yurok Settlement Act (FL 100-580) precipitated yet another change for the old Yurok Redwood Experimental Forest/Redwood Ranger Station administrative site. Congress directed that—contingent upon the Yurok Tribe meeting conditions of the Act—the administrative site, as well as other specified lands, would be transferred in trust to the tribe for incorporation into the Yurok Reservation. These lands comprised the 354 remaining acres of the NRPU adjacent to the Klamath River along with the 14-acre YREF/RRS administrative site. For five years, Forest Service officials misconstrued the Act and believed these lands were under the Bureau of Indian Affairs' jurisdiction while the Act's provisions were being met by the Yurok. Accordingly, the RRS was occupied by the Yurok Tribal government's transition team in 1988. Following a protest and a subsequent legal opinion, the Forest Service found that the administrative site should remain under its jurisdiction until the Yurok Tribe met provisions of the 1988 Act. Thus currently the Yurok Tribe occupies the place under a Forest Service Special Use Permit (USDA, FS 1995: 2).

[87]Probably reflecting the program areas in which the Regional Office wanted to see big results, the September 1969 GII was conducted by Paul Neff, Regional Office Deputy for Timber Management, and Jon Kennedy, Regional Office Highway Engineer. On the operations side, the inspectors generally commended the Six Rivers for its rehabilitation work in the wake of the disasterous 1964 flood and for coping with the resulting Douglas-fir beetle epidemic. But on the human resource side, their primary finding was that too many Six Rivers employees were entrenched and, that "both for their own career development and the needs of the Service," they should transfer to other forests and the Six Rivers should actively seek new blood (USDA, FS 1969: 2-3).

Appendix 1
Time Markers

1905 Transfer Act moves what would soon be named the US Forest Service from the Department of Interior to the Department of Agriculture.

1906 June 11. Forest Homestead Act (34 Stat. 233) authorizes the Secretary of Agriculture to list with the Secretary of Interior, for homestead entry, lands within national forests chiefly valuable for agriculture and not needed for public purposes and which would not injure the national forests. (See 1912.)

1908 US Forest Service is authorized to return 25 percent of all national forest receipts to the counties in which the forests are located and from which the receipts emanated. This money is to be used exclusively for schools and roads.

1910 June 25. Allotment Act (36 Stat. 863) provides for Indian allotments of lands within the national forests.

1911 March 1. Weeks Act (amended in 1924) authorizes purchase of lands for protection of watersheds of navigable streams and for timber production. It became the instrument through which most of the National Forest land in the East would be purchased.

1912 August 10. Congress directs (37 Stat. 269) the Secretary of Agriculture to select, classify and segregate all lands within the boundaries of national forests that should be open to settlement and entry under the homestead laws applicable to national forests. Agricultural lands opened under this law were not to exceed 160 acres. Lists of agricultural lands open to entry under this law were to be posted in the local land offices and published in a local newspaper. National Forest lands purchased under provision of the Weeks Act were not subject to entry under the homestead laws, nor were they open to settlement under the homestead law unless they had been formally listed and declared open to entry (USDA, FS Manual c. 1927: 42-L).

1924 John P. Harrington, linguist and ethnologist, visits the New River area to work with Sally Noble, self-identified as a New River person and identified by others as speaking a Chimariko dialect. Harrington, however, traced the origin of her language to those spoken in Alaska; others have believed the Lower New River Indians to be Chimalakwe *(The Union* 7-7-77: 17).

1926 US 199 opened.

1933 December 9. After 13 years in the Ferry Building, Region 5's headquarters moves to 85 Second Street at Second and Mission in San Francisco. Need for the larger space was precipitated by the additional workloads from administering CCC, NIRA, and

CWA (Civil Works Administration) projects. Engineering took-up about 52 percent of the increased space (CR 12-1-33).

December 11. "Uncle Sam's Forest Rangers," a radio program on the Western Farm and Home Hour, was discontinued. The story centered around Ranger Jim Robbins, his assistant Jerry Quick, Mrs. Bess Robbins, and Jerry's sweetheart, Mary, who all worked at the Pine Cone Ranger Station. The portrayal was based on actual incidents in Forest Service life and did much to popularize the agency and its work. The broadcast was from Chicago and San Francisco and hit a weekly audience of seven million people. California stations that aired the program were KGO, KFI, and KSFD. It returned to the airwaves in April 1934.

California's mountain lion population is decreasing; State Fish & Game Commission pays bounties on only 269 lions this year, contrasted with 325 in 1932. Since 1930, 54 percent of the lion scalps turned in were from female lions. ". . . [T]he mountain lion is the most powerful enemy of the deer. The Chief of the Bureau of Game Refuge estimated that 269 lions would kill almost 15,000 deer in a year, besides sheep, cattle, and other domestic animals" (CR 2-2-34).

1934 April 1. Delivery begins of 175 ready-cut buildings prepared by the Tilden Lumber Company of Oakland and the American Builders Inc. of Seattle. These Forest Service administrative buildings are to be constructed primarily by the Civilian Conservation Corps. The contractors furnish everything except plumbing supplies, cement, and electrical fixtures (CR 1-19-34).

Paul G. Redington becomes Director of the US Biological Survey. Nicknamed "The Tall Pine of the Siskiyou," he had been Region 5's District (Regional) Forester in 1919. He held positions in the Forest Service in California from 1911 through 1926, except for three years in Region 3 (CR 2-16-34).

The pay scale for Junior Forester now ranges from $2,000 to $2,600 per year.

1935 Congress authorizes the Forest Service to acquire land within a Northern Redwood Purchase Unit (NRPU) in Northwestern California in order to create a national forest that would assure productive second growth of redwood. Between 1939 and 1945, the federal government would acquire 14,567 acres of redwood land within the NRPU boundary.

1936 Humboldt State College Ski Club forms and pushes to develop skiing at Grouse Mountain. Between 1938 and 1941, the club would build a ski lodge on Grouse Mountain on land donated by Humboldt County Sheriff Art Ross.

1937 May 28. (See photo on following page.) CCC enrollees from Camp Gasquet complete the portal to the west boundary of what was then the Siskiyou National

Forest, on Highway 199. Forty-four years later, a note stuffed in a Listerine bottle was found in the top cap of the portal monument; it read:

> To whom - it - may concern-
>
> That this Portal-to-the West Boundary of-the-Siskiyou FOREST-was-built-by-the following crew of Gasquet C.C.C. men.
>
> [/signed]
> 1. Leroy P. Colbert
> 2. Noble B. Harris
> 3. K. Neathberry
> 4. Winston Scott
> 5. Edmund Gleeson
> 6. Walter W. Mallett - USFS. . . . Foreman
> 7. "Slim" Murdock

1938 Red Cap Fire on the Orleans District (Klamath NF) burns over 16,000 acres (Jarvi 8-8-52: 2).

1939 September 1. Germany invades Poland precipitating the second World War.

1940 Part of the High Prairie Creek watershed is approved as an experimental forest under administration of the California Forest and Range Experiment Station. Subsequently named the Yurok Redwood Experimental Forest.

1941 CCC begins construction of the first 0.5 mile of the High Prairie Creek utilization road, beginning at the Yurok Redwood Experimental Forest headquarters. Survey is underway for the next 1.5 mile of the road.

US enters World War II. Nation-wide, logging is stepped-up to meet war demands.

The CCC built this sign pedestal at the south boundary to the Siskiyou National Forest on Highway 199, Gasquet Ranger District. This photo was taken in about 1935, facing east. US Forest Service photo

1942 November. Regional Foresters from regions 5 (primarily California) and 6 (primarily Washington and Oregon) discuss transferring Region 6's Gasquet Ranger District (part of the Siskiyou National Forest) to Region 5.

1944 Red Rock Fire on the Mad River District (Trinity National Forest) burns over 10,000 acres (Jarvi 8-8-52: 2).

California reaches a peak output of all types of lumber, cutting 2,468,943,000 board feet processed by 413 sawmills (DNT 1-25-46).

1945 August 14. Japan surrenders; World War II ends.

1946 January 1. Under provisions of California's Forest Practice Act, timber operators are now required to register with the State Forester. The Act divides California into four forest districts: Redwood, North Sierra Pine, South Sierra Pine, and Coast Range Pine and Fir. Registration is required for all operators cutting and removing forest products for commercial purposes; registration cost is $1.00 per year, and "[a]ny

operator who fails to register shall be prohibited from cutting or removing forest products for commercial purposes from the forest lands" (DNT 1-25-46).

U.S. Senator Sheridan Downey urges legislature to increase its $1,500,000 appropriation for construction of timber access roads in California national forests, and to include forest road appropriations specifically for Trinity County. Senator Downey notes that wartime timber harvesting had depleted accessible timber in Washington and Oregon and that California should look to Trinity County and other state areas to supply lumber (WTJ 1-17-46: 1).

Arcata Chamber of Commerce forms a coalition committee of representatives from Arcata, Eureka, Blue Lake and Willow Creek to work on improving the western end of US 299 to prevent continued diversion of Humboldt County timber from the county to mills and plants in the Sacramento Valley and elsewhere. Between Willow Creek and US 101, Highway 299 is narrow, crooked, and has light surfacing (HT 3-21-46).

Trinity and Shasta county representatives appear before the Collier Committee—the Senate committee studying the state highways, county roads and bridges of California. They plead for immediate allocation of funds for substantial improvements to US 299 from Redding to Arcata. Representatives cite the tremendous increase in heavy logging and lumber traffic that was rapidly making it a "menace to all other traffic on the road" (HT 6-13-46).

Substantial improvements to the Hyampom to Hayfork Road are promoted. A petition to supervisors and planning commissioners for Trinity County note that improvements are crucial because of the "pressing need for a sufficiently improved highway capable of permitting logs and lumber to be hauled from this area." In June, Regional Forester S. B. Show met with local Forest Service officials to decide on roads necessary for future timber development in Trinity County. The Forest Service is looking at the possibility of improving the Hayfork Hyampom Road or a road from Grouse Creek to the coast (WTJ 6-6-46).

February. Chief of the Forest Service, Lyle F. Watts, approves transfer of Gasquet Ranger District to Region 5.

U.S. Representative Helen Gahagan Douglas introduces H.R. 6201, proposing creation of the Roosevelt Memorial Redwood National Forest.

Confusion develops between the Douglas Bill, the NRPU, and the proposed national forest to be created from existing pieces of the Siskiyou, Klamath, and Trinity national forests.

Transfer of Gasquet Ranger District made contingent upon creation of what would later be called the Six Rivers National Forest, rather than temporarily attaching it to the Klamath National Forest.

September. Region 5's Brandeberry Report recommends final boundaries for the new national forest in Northwest California.

October. Office space is leased for the new national forest in Northwest California. The office is on the third and fourth floors of the Bank of America Building at 350 E Street, on the corner of 4th and E streets in downtown Eureka. Region 5's Regional Forester, S. B. Show, issues a press release announcing establishment of this new, still unnamed, national forest to be headquartered in Eureka.

November. "Six Rivers," as suggested by author Peter Kyne, is (finally!) chosen as the name for the new national forest.

December. William F. Fischer is assigned to the Six Rivers as its first forest supervisor. He arrives on the job the 15th.

1947 February. State Board of Forestry adopts forest practice rules for the Redwood Forest District (HT 3-23-47). Forest practice rules for the Coast Range Pine and Fir district become effective April 10.

The California Wool Growers' Association, an organization which strongly opposes creation of additional national forest system lands, accuses the Forest Service of sponsoring the Douglas Bill. Supervisor Fischer told the organization that the agency was neutral on the bill (CR 5-7-47; HT 4-20-47).

May 8. Senator Quinn of Eureka introduces a resolution in the State Senate memorializing Congress to defeat the Douglas Bill on the grounds it would decrease, by over half, the taxable areas within Del Norte, Humboldt, and Mendocino counties, plus eliminate about 85,000 acres from the taxable land base in Sonoma County (CR 5-14-47).

May 22. State Legislature sends its Joint Resolution to Congress protesting the Roosevelt Memorial Redwood Forest bill (CR 5-28-47).

June 3. President Harry S. Truman signs Proclamation 2733, establishing the Six Rivers National Forest, consolidating "certain portions of the Siskiyou, Klamath, and Trinity National Forests...."

July. Six Rivers releases its report: "Forest Situation in Humboldt and Del Norte Counties, 1947." This report set the context for policies and practices for the forest's inaugural years.

P.G. & E. begins its project to provide electricity to the Trinity River Valley—from Del Loma to Orleans—including Burnt Ranch, Willow Creek, Salyer, Hoopa, and Weitchpec.

Klamath River Conservation Club circulates a petition to put an initiative on the ballot to regulate the dumping of mining debris in the Trinity and Klamath rivers. In 1924, Californians had passed an initiative creating the Klamath Recreational area, barring electric power dams and other obstructions. The impetus was to protect the tourism and fishing trade. (In Redwood Empire Labor Journal: the official publication for all American Federation of Labor Unions in Northwest California. *Cf.* 7-3-47, Vol. VII, No. 17, p. 1.)

A survey by "Log and Saw" finds that, for 1947, employment in the lumber industry is at an all-time high in Humboldt County. However, they also note that some of the smaller operations were having difficulty paying their employees on-time. Demand for skilled workers in the industry is high, but there are fears that at least 40 percent of the 161 existing mills in the county will be defunct within three years and that jobs will be increasingly scarce. Wages have dropped about 10 percent from the all-time high in 1946. Lack of housing for new workers is a severe problem. Labor strikes are ongoing at many mills, though most of them are "humming" at or near capacity because of scab crews (HT 10-17-47).

1948 Six Rivers' Supervisor's Office moves from the Bank of America Building to Third Street, between B and C streets, on the floor above what is Lenzi's Restaurant. The SO will remain at this location for about one year.

1949 Some blister rust is detected on the Six Rivers, but no control work is planned because sugar pine is not sufficiently important to this forest (Cronemiller and Kern 1949: 20).

1949 Allowable annual cut for 1949, including 11,000,000 board feet from the NRPU, is 150,000,000 (Fischer 6-16-49).

Range values compose less than 20 percent of the Six Rivers' land area. There are 28 grazing allotments on the forest capable of 18,000 animal months; there are 48 permits in effect. Rates for grazing are figured in relation to meat prices and are currently running from 50 to 60 cents per animal per month (HT 3-13-49; Cronemiller & Kern 1949: 1, 30; Fischer 1950: 23).

1950 Eighteen sawmills are operating within the Six Rivers administrative boundary with an annual capacity of 71,000,000 board feet (HT 3-13-49; Cronemiller & Kern 1949:1, 30; Fischer 1950: 23).

The Six Rivers' SO moves to 23 Fifth St. It is located in a converted residence that looks very much like the neighboring building that will later become Kwan's Cafe.

Spring. A joint Klamath-Six Rivers analysis looks into whether the huge, 585,000-acre Happy Camp Ranger District should be divided and another district added and headquartered at Somes Bar, or whether part of the Happy Camp District should go to the Orleans District. Given the first scenario, Somes Bar was seen as the only possible location on the Klamath, but it was nearly on the Six Rivers boundary line and only eight miles from Orleans (Cronemiller and Kern 1949: 32).

1951 Six Rivers' receipts for the fiscal year are $152,471 from timber sales, $14,448 in grazing permits, $8,189 in other land use permits, and $335 in power permits.

1952 Supervisor's Office moves to Fourth and J streets; this office is the first built especially for the Six Rivers.

Six Rivers' allowable annual cut, including 12,000,000 from the NRPU's Requa working circle, is 138,604,000 board feet.

Six Rivers' policy for Douglas fir in small, even-aged groups is to selectively harvest "with a view toward converting to the practice of clear cutting in blocks... in the minimum number of cutting cycles.... Stands with the highest proportion of over-mature and decadent volume normally will be scheduled for cutting first. Good risk mature and immature elements will be withheld from cutting whenever practicable, economic, and silviculturally desirable. Sales during the first cutting cycle will be directed toward the most rapid development of the primary transportation system, consistent with the allowable annual rate of cutting.... Short term sales (under three years) will be preferred. Sales will be programmed to dispose of the full allowable cut annually with 25 percent excess permissible in any one year provided the total of five-year periods does not exceed five times the annual allowable cut" (Bluff Creek Working Circle 1-31-52: 7,11). The basis for computing the annual allowable cut is a rotation of 150 years.

Congress looks favorably upon construction of forest access roads during the 1950s. Working in cooperation with the California State Division of Highways and the Public Road Administration, the Forest Service takes a lead role in developing forest road projects. The Six Rivers, viewed as a virtually untapped timber resource due to a dearth of roads, becomes the recipient of Congress largess; with the implied message to produce timber sales accordingly. For example, a seven-mile stretch of two-lane road near Weitchpec, where the Trinity flows into the Klamath River, is earmarked by Congress to receive $1,000,000 for realignment and widening. Congress also designates $3,000,000 to partially realign and re-construct twelve miles of Highway 299 between Berry Summit and Willow Creek. Another forest road between Korbel and Hyampom is slated for construction in order to

substantially reduce the 200 circuitous miles that separate Hyampom from Eureka (HT 3-5-52 and 3-5-52).

Six Rivers receipts for the fiscal year total $236,268, "an all-time high." Fifty-five percent above the previous year's receipts, it marks the first time since its creation that the Six Rivers was financially "self-sustaining." Additionally, receipts from the Northern Redwood Purchase Unit total $50,252, also a record-breaker. The increase is directly traced to substantial increases in the cost of timber. The Six Rivers has collected $221,255 from its timber sales, $10,329 from grazing permits, $4,340 in other land use permits, and $343 in power permits. Twenty-five percent of these receipts are apportioned to the counties (HT 7-10-52: 1).

Patrols by contract aircraft are used over the forest's Blue Creek area in cooperation with state forestry and the timber industry. Six Rivers personnel question its value, compared with fire lookouts, "because of the short period of actual detection obtained per day." Reconnaissance planes are used routinely after lightning storms (Jarvi 8-8-52: 16).

The abandoned Bluff Creek Guard Station on Orleans Ranger District, consisting of an old two room cabin and a one car garage/storeroom, is no longer used. Regional Office inspectors recommend that the structures be "high graded for any salvageable material and the remains demolished and burned to make room for additional campground development. Any future needs for quarters in this vicinity should be made available at the Adorni Place." The Adorni Place was described as a tract of land recently acquired by the Forest Service, on the highway, about one mile below Bluff Creek. It had three or four acres of flat open land with a small orchard and meadow, and plenty of water. The improvements were described as "a good summer home type of dwelling and a 2 or 3 car garage" (Williams 1952: 3).

RO inspector notes that, at Salyer Bar Ranger Station: "The conversion of the old school house building into a two room cabin is progressing OK... [and the] old shed and outside toilet on the schoolhouse site should be done away with." The inspector also notes that the residence on the station site and used by the dispatcher was "not owned by the Forest Service... it was constructed at the time and expense of the dispatcher." Also noted was that the old ranger station building at the mouth of Southfork, "although old and not well located, is in fair condition and is badly needed to help out the present acute housing situation. It is now being used by Timber sale men, but water must be hauled in [because the spring on the hill above the house had dried up]" (Williams 1952: 3-5).

Mad River Rock Lookout—a standard 14' x 14' building on a large high rock, accessible only by a 120-step wooden stairway—is used infrequently. Because of limited local visibility from the lookout, it is recommended that the site be evaluated for elimination if the "new Trinity [National Forest] lookout tower for Pickett Peak

can be placed on the point to the northwest of its present location" (Williams 1952: 3-5).

1953 A diary analysis for the Orleans District Ranger, Yates, and his Assistant Ranger and Fire Control Assistant, indicate that the district's most serious problems are: 1. Keeping-up with boundary survey checks for trespass when private operators cut next to National Forest boundaries. 2. Failure of timber operators to complete contracts under specified time constraints. 3. Fraudulent mining claims. 4. Securing Forest Service rights-of-way. 5. Establishing special use residence tracts. 6. Inadequate campgrounds along the Klamath. 7. Lack of stream measuring devices. 8. Inadequate trail betterment. 9. Lack of progress with actualizing the station development plan. 10. Lack of a fireman station for the Doctor Rock lookout. 11. Lack of adherence to fire prevention. 12. Inadequate initial attack force at Orleans drawn from the local population; a request had yielded only 10 men under the age of 60 (Yates 3-19-53).

The Six Rivers' actual cut for the fiscal year is only 30,000,000 board feet (Payne 1-20-54: 1).

August. Lightning touches-off over 70 fires on the Six Rivers; 11 of them large enough or in places that are problematic. Lower Trinity and Mad River districts are hardest hit; the temperature hit 110-degrees on 12 August, making nerves even more jittery (HT 8-14-53: 1)

1954 California's Governor Knight urges the Forest Service to step-up its road construction in the "Trinity timber area," which included some of the eastern fringe of the Six Rivers National Forest. Pointing to "over-ripe" timber that is "infested with forest parasites," he advocated pushing roads to access the timber heretofore economically unreachable. He supported harvest of decadent timber, believing it would promote growth of new trees and meaningfully contribute to the well-being of the region (HT 1954: unk.).

1955 "The transportation bite out of the total forest budget is still running at about 20 percent" (West 1-12-56: 2).

Arcata Redwood Company ceases clear cutting practices on its property (ARC 1973: 8).

1956 Richmond-San Rafael Bridge completed. East Bay afforded much more convenient accessibility to the North Coast area.

1957 A business recession begins and persists through 1958. It "affected not only the production of lumber, as shown by trade association figures, but also the number of sawmills operating in California. Twenty percent fewer mills were active in 1957 than in 1956—572 mills against 695, according to figures just compiled by the Experiment Station.... Comparison of the two sets of figures [1956 and 1957] shows

that the smaller the size-class of mill in 1956, the lower the proportion of mills operating during 1957...

Production size-class:	Operating 1957	Operating spring 1958
25 mmbf & over	98	92
10 - 24.9 mmbf	94	77
1 - 9.9 mmbf	77	44
under 1.0 mmbf	52	22

In spite of the shut-down of some active mills and the elimination of some operable mills, 63 new mills were operated in 1957, two-thirds of them in the Redwood Region. However, the 63 fell far short of replacing the 203 active in 1956 which became idle or non-existent in 1957 [at least in terms of numbers of mills]."

Of the 669 mills existing at the end of 1957, the Pine Region claimed 290, and 379 were in the Redwood Region (USDA, FS, CF&RES 1957).

1959 Newton Drury retires as Chief of the State Division of Parks and Beaches. At least since the 1920s, he had been very active in the Save-the-Redwoods League and had held office in that organization for many years.

1960 June 12. Congress passes the Multiple Use-Sustained Yield Act. It declares: "The National Forests are established and shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes." MUSY directs the Secretary of Agriculture "to develop and administer the renewable surface resources of the national Forests for multiple use and sustained yield of the several products and services obtained therefrom."

1960 After experimenting with the clear-cutting practices applied to company property prior to 1955, Arcata Redwood Company deems that clear cutting "best fits the tree species, terrain, soil, weather and other conditions existing on the property the company owns and manages." Further, company officials conclude that the best practice is to immediately follow clear cutting with spot burning to substantially reduce the fire threat, and that "exposure of mineral soil during logging and spot burning has developed highly effective seedbeds for new crops." They also report that helicopter reseeding after logging "has produced the desired species mix on company property" and that "streams and water quality can be effectively protected under clear cutting as well as under any other logging method" (ARC 1973: 8-9).

Nationally, Forest Service timber sales reach an all-time high of 12.2 billion board feet. From 1950 to 1960, National Forest timber harvest increases 2.7 times and cash receipts 4.8 times. In the same period, National Forest recreation more than triples to a record number of 92.5 million visits (USDA, FS 1960: 5-6).

1962 May 1. Harvest on the NRPU lands of the Turwar Ridge Sale commences; it is completed June 21 and burned October 1. The sale was on nine acres with a 65 percent average slope; 800 mbf were harvested with a 20 percent cull.

1963 May 10. Harvest begins on the Mypaw Sale, on NRPU lands. Cutting is completed August 15 and burned October 7. Sale area average slope was 60 to 70 percent; 1.246 mbf were harvested.

1964 September 3. The Wilderness Act becomes law. Under provisions of the Act, about 10,000,000 acres in 60 areas managed by the Forest Service were set aside as wilderness. The Act also directs the agency to study 35 additional Primitive Areas and to make recommendations as to each area's suitability for inclusion in the national Wilderness Preservation System. The Salmon Trinity Alps Primitive Area with parts of it on the Shasta-Trinity, Klamath, and Six Rivers national forests was one of the study areas. It had been established as a Primitive Area in 1932. *(Cf.* "A Wilderness Reclassification Study, Salmon Trinity Alps," California Region pamphlet, n.d.)

1966 In about this year, the Supervisor's Office is moved to 710 E Street at the corner of 7th and E streets in Eureka. This building is built expressly for occupation by the Six Rivers National Forest.

Congress passes the National Historic Preservation Act.

1969 Congress passes the National Environmental Policy Act.

1971 April 5, CBS reporter Richard Threlkeld broadcasts a story on Walter Cronkite's *Evening News,* one of the most watched news programs on television. Threlkeld strongly criticizes Forest Service management, particularly on the Six Rivers National Forest. Among other statements in the story, he comments: "On the backroads of the Six Rivers Forest whole mountain sides of virgin timber have been cut away leaving nothing but rocks and dirt." Regional Forester Douglas Leisz hotly argues the story with CBS President Richard S. Salant, contending that Threlkeld had chosen an area predominantly on private land and that, moreover, the statement was false. Salant countered that Threlkeld and his crew had not filmed "a single scene from any area which was privately owned or logged during private ownership." Further Salant said that Threlkeld had sought unsuccessfully on the Six Rivers to "find a single young growing tree even of pencil size" on clear-cut areas. Salant closed by saying that "Mr. Threlkeld has traveled through dozens of national forests and he informs me that he has never seen one that suffered from the neglect and the evidence of man's encroachment that is represented by the Six Rivers area" (Salant 5-5-71).

Further incensed, Leisz—who had earlier in his career served as Ranger on the Lower Trinity District—persuaded Threlkeld to revisit the Six Rivers and other

northern national forests. Accepting the invitation, the four day trip started September 27. While on the Six Rivers, they visited the unit on the Little Jones Sale that had prompted the reported lack of restocking after clear-cut. *The California Log* reported that the group "found that the block previously chosen by Threlkeld... had a stocking level of 1,000 trees per acre." Threlkeld, after noting the land lines in the field trip, also said that, indeed, private land had been included in the film. The group discussed soil stabilization problems associated with clear cutting on steep areas (CL 10-25-71). Though the written communication from Threlkeld following the trip was not in file, an October 22, 1971 letter from Doug Leisz to Mr. Salant praised Threlkeld for his objectivity on the second trip, noting that the group and seen some of the bad as well as the good. He lamented that the broadcast on the Cronkite show had misinformed the public but was heartened by the latter "open exchange of views and searching out of facts" (Leisz 10-22-71).

1973 California's Z'berg-Nejedly Forest Practices Act becomes law, increasing public regulation of private logging.

1974 Six Rivers ranks fifth in Region 5, both in total collections and in timber receipts out of the total of 17 national forests, behind: 1. Lassen, 2. Shasta-Trinity, 3. Plumas, and 4. Klamath.

Sierra Club appeals the Six Rivers' contract to construct the Dillon-Flint Section of the Gasquet-Orleans Road. Sierra Club contends that the 6 to 8-mile road extension intrudes into roadless land, is a major Federal action under the National Environmental Policy Act, and therefore, should have been covered by an Environmental Statement rather than the analysis that was done; also contends that the Six Rivers' analysis documentation did not meet requirements of the Multiple Use Sustained - Yield Act.

1975 Wintu and Wailacki descendants living in Hettenshaw Valley area oppose Forest Service proposed road construction in the vicinity, contending that the timber road would violate an Indian burial ground, squander fishing resources, and open the area to further vandalism and depredations (Wassaja 10-75).

The Six Rivers attempts to address Native American opposition to construction of the Gasquet-Orleans Road by proposing designation of the entire area as a National Historic District, with preservation of the major ceremonial sites protected by a half-mile radius buffer.

November. Sierra Club and Forest Service settle a suit regarding the adequacy of the Final Environmental Impact Statement for the Fox Planning Unit on Jones and Hurdygurdy creeks near the South Fork Smith River. The FS agreed to undertake various detailed studies and long-term monitoring programs to determine the environmental effects of the proposed timber harvest units. There was a resulting five-volume report. Forest Service engineers, Farrington and Savina comment that: "Landslides associated with clear cutting alone can also produce downslope effects,

but our observations suggest that individual slide volumes from vegetation removal are one to two orders of magnitude less than slides associated with roads."

1976 National Forest Management Act directs forests to develop plans that guide all management for 10 to 15 year periods.

1979 The Six Rivers commissions an ethnographic, historical, and archaeological study of the Gasquet-Orleans Road area; the results lead to a recommendation that road construction and log hauling in the area be ceased. The Forest Service, however, argues that national economic interests should take precedence over Indian cultural interests and continued to pursue the G-O Road completion.

1980 Six Rivers Forest Supervisor Joe Harn appeals to the County Board of Supervisors to do what it can to help protect Forest Service employees in the Orleans area. He notes that employees' lives are filled with intimidation and harassment. He says two federal special agents have been assigned to the area because of the growing friction in the community. Harn believes part of the blame resides with the local marijuana industry. One Supervisor believes part of the problem has to do with people who are against the Forest Service's use of herbicides. Harn notes that about 40 percent of the forestry positions in Orleans have gone unfilled "because of the reputation the area has as a bad place to work" (TS 9-3-80).

An arsonist starts several fires on Gasquet RD, including a 109-acre fire behind the Patrick Creek Lodge.

Sierra Club proposes designating a 171,500 acre area in the Siskiyou Mountains for wilderness, including portions of the Siskiyou National Forest in Region 6, and the Klamath and Six Rivers national forests in Region 5. Within what is termed the Siskiyou Study Area, inventories will be made of the area's wilderness, recreation, wildlife, water, forage, timber, minerals, and soils resources as well as inventories of existing land uses and the anticipated social effects of various alternatives (USDA, FS 1968).

Department of Interior's Heritage Conservation and Recreation Service makes available for public review its *Draft Environmental Impact Statement* for including the Klamath, Trinity, Smith, Eel, and lower American rivers into the National Wild and Scenic Rivers system. Totaling 4,000 miles, these rivers are already included in the California Wild and Scenic Rivers system.

1982 A coalition of environmentalists, most notably the Sierra Club, joins with Indian individuals and organizations to bring suit against the Forest Service for its planned construction of the Gasquet-Orleans Road on the grounds of religious freedom as well as on the grounds of environmental issues.

1983 May. Judge Stanley Weigel of the Federal District Court of Northern California rules on the *Northwest Indian Cemetery Protective Association v. Peterson.* His decision

said that construction of the Gasquet-Orleans Road through public land held sacred by the Yurok, Karuk, and Tolowa would seriously undermine the Indians' right to free exercise of religion. It is a groundbreaking decision that affirms protection of Indian sacred sites on public land under the First Amendment. The G-O Road runs about 50 miles over the Siskiyou Mountains; on completion of a seven mile connection near the center of the route, it was to provide a key transportation link for that quadrant of northwestern California. Though early on, some Native Americans objected to completion of the G-O Road, administrative appeals and legal suits against the project were initially filed by environmentalists on the basis of environmental issues. The religious use is largely meditational and hinges on the near-natural condition of the surrounding environment. When the case reached District Court, Judge Weigel linked environmental issues with Indian religious freedom... ruling that essential environmental components were key elements in Indian religious freedom. He also found no national interests sufficient to override the plaintiffs' First Amendment rights (Buckley 1983: n.p).

1984 About 128,000 acres is designated as wilderness on the Six Rivers National Forest under provisions of the Wilderness Act.

1987 Six Rivers National Forest releases its *Draft Land and Resource Management Plan* in accord with the National Forest Management Act.

1990 Smith River National Recreation Area Act passes to preserve, protect, and enhance recreation values of the Smith River area.

The northern spotted owl is listed as a threatened species. In a resultant law suit related to Forest Service management of the owl, the Forest Service is enjoined from logging any suitable northern spotted owl habitat in the Pacific Northwest until an environmental assessment is completed under the National Environmental Policy Act. This injunction immediately drops logging levels to record lows throughout the Pacific Northwest, including the Six Rivers National Forest.

Six Rivers withdraws its *Draft Land and Resource Management Plan* as a result of establishment of the Smith River National Recreation Area and listing of the northern spotted owl as a threatened species.

1992 Long term price trend per thousand board feet of lumber for the Six Rivers spirals from below $50 in the early 1970s to over $350 in FY 1992.

American Fisheries Society identifies 214 stocks of anadromous salmonids in need of special consideration because of low or declining numbers. Twelve of these stocks are found in habitat managed by the Six Rivers National Forest. This leads to the eventual listing of steelhead and coho salmon as threatened species in 1997.

Marbled murrelet, whose habitat includes portions of the Six Rivers, is listed as a threatened species.

1993 April 2. President Clinton convenes the Forest Conference in Portland, Oregon, to "stop the train wreck" and address the "human and environmental needs served by the federal forests of the Pacific Northwest and Northern California." Clinton directs his Cabinet to develop a long-term policy for federal forest lands in this region.

1994 *The Northwest Forest Plan* is released in response to direction provided by President Clinton in the 1993 Forest Conference. The plan also resolves the 1990 lawsuit regarding management of the northern spotted owl. The plan is the first large scale, inter-agency effort in ecosystem management; it addresses the needs of a wide range of species dependent on late-successional and old-growth habitat, including the northern spotted owl and the marbled murrelet. The plan includes social and economic strategies in its ecosystem approach in order to provide for human communities hardest hit by plummeting timber harvest levels.

1995 Six Rivers releases its *Land and Resource Management Plan.* The plan incorporates direction from *The Northwest Forest Plan* and reflects the shift in Forest Service policy away from maximization of timber yields and toward ecosystem management.

Appendix 2
Six Rivers Forest Supervisors, Rangers, and Nursery Managers

Forest Supervisors[1]

1947-1954	William F. Fischer	Forester
1954-1966	Wesley W. Spinney	Forester
1966-1972	Robert B. Allison	Forester
1972-1976	George R. Roether	Forester
1976-1978	Richard L. Burke	Forester
1978-1983	Joseph Ham	Wildlife Biologist
1983-1993	James L. Davis, Jr.	Forester
1994-1997	Martha J. Ketelle	Geologist

[1]For most of the districts, there was surprising difficulty in tracing the rangers through time. This listing is derived from various sources and may contain minor errors.

Gasquet Ranger District/Smith River National Recreation Area

1908-1918	A. W. Lewis	Ranger at Happy Camp in 1908, Klamath Reserve. Ranger of Gasquet/Smith Fork, when it was part of the Klamath Reserve and, still, when it became part of the Siskiyou NF. Lewis resigned in April 1918. Assistant Ranger Cannon was in-charge of the Smith River area during part of this time (Bower 1978 vol. l: 121)
1918-1928	George S. Case	From the Oregon (Mt. Hood) National Forest. Resigned in 1928 to go into private employment (Cooper 1939 part III: 49).
1928-1931	C. D. Cameron	Formerly from the Page Creek RD. In 1931, Cameron was transferred to the Umatilla (Cooper 1939: part III, 58).
1931-1933	Leo D. Quackenbush	April 1933, Quackenbush was transferred to the Fremont.
1933-1937	Adolph Nilsson	Transferred from the RO Lands Division, R-5. Early in 1937, Nilsson transferred to timber sale work on various forests. (Cooper 1939: part III, 65).
1937-1939	Merle Lowden	Formerly of Siuslaw; spring 1939, Lowden transferred to the SO on the Deschutes.
1939-	Gail Baker	Formerly on the Malheur. Before that, he had been on the Siskiyou, working on recreation improvements under the CCC (Cooper 1939: part III, 85).
1941-1953	Leo Quackenbush	District Ranger when Six Rivers was created. He was first at Gasquet/Smith Fork Ranger Station in 1931 before being transferred to the Fremont Forest in Paisley, Oregon. In 1941, he was transferred back to Gasquet.

1955	Ed C. Carpenter	
1960s	Ellis F. Smart	
1969-1980	Harry R. Miller	
1980-1981	Jan Seils	Started March. He became Deputy Forest Supervisor.
1982-1990	C. Eugene Brock	
1990-1992	Karen J. Caldwell	Acting Ranger when Gasquet Ranger District became the Smith River National Recreation Area.
1992-present	Brian Morris	

Northern Redwood Purchase Unit/Redwood Ranger District

1939-1944	Russell W Bower	
1944-1948	Vein Hallin	
1952-1968	Ted F. Hatzimanolis	Resource Manager of the NRPU. When Redwood Ranger District was formally established in 1958, he became its District Ranger through 1968 with two breaks: first (1954-1956) as Timber Management Assistant for Orleans Ranger District and then (1957-1958) as Assistant District Ranger at Mad River. In 1969, after the NRPU lands were dismantled, he served as forester and engineer for Redwood National Park for 11 years.

Tish Tang Ranger District

1958-1959	Otto Brichacek
1959-1968	Walter C. Kirschman Jr.

Orleans Ranger District

1908	Junius L. Ammon	Junius Ammon was the nephew of Charles Ammon who homesteaded the Ammon Ranch at Oak Knob in about 1868. Junius had training in land surveying and came west with the encouragement of his uncle (KK 8-31-77).
1908-1911	William "Billy" Hotelling	Appointed guard at Orleans in 1906; passed ranger exam and was promoted to assistant ranger later in 1906. When June Ammon transferred to Scott Bar in March 1908, Hotelling was in charge until Frank Harley was transferred to the District in October of the same year. Harley set up HQ at a homestead he'd purchased on Irving Creek; Hotelling stayed at Orleans which he operated practically as an independent sub-unit. Hotelling resigned June 1, 1911 to manage the Brizard Store at Somes Bar (Bower 1978 vol. l: 80, 96).
1908	Frank Harley	

19??-1921	E. M. Sutcliffe
1921-1927	Edward P. Hickey
1929	Everett Schellenbarger
1930-1936	Sam Wallace
1936-1939	Russ W. Bower
1939-1944	Frank Embree
1945-	C. Kenny St. John
1948-?	John Van Akkeren?
1949-1955	Charles A. Yates
1957	Scollay C. Parker
1964	Joseph B. Church
1968-1971	Lee Bunnell
	Jim Carrier
	Paul Schuler
1978-1981	John Larson
1981-1983	Raymond Churchill
1983-1986	Joe Stuttler
1986-1996	John Larson
1996-present	Jon Martin

Mad River Ranger District

1908-1919	John T. Gray	
1919-1926	Iles McNeil	
1928-1931	Ray L. Beals	
1933-1938	Frank Delaney	
1939-1941	Neal Rahm	
1942-?	R. Kenneth Smith	
1952-1955	Robert James	
1955-1960	Emmett R. Calvert	
1962-1965	Joseph Harn	
1965-1968?	Ed Tonneson	
1968-1978	John Warnock	
1978-1983?	Jim Marsh	Forester/Hydrologist
1983-1986	Hal Ward	
1986-1987	Raymond LaBoa	
1988-1990	Patricia Visser	
1992-present	Marcia Andre	

Humboldt Nursery Manager

1962-1970	Hank Doll
1971-1980	Don Perry
1981-1985	Tim Capistrant
1985-1988	Cynthia Henschel
1989-1993	Tony Ramirez
1993-present	Bill Jones

Six Rivers Supervisor's Office Staff

1949 dispursing and clerical staff at supervisor's office (HT 3-13-39).

F. S. Dawson	Dispursing and purchasing
C. Constance Keller	Timber and leases clerk
Leitha Lahren	Personnel clerk
Andy Anderson	Purchasing and warehousing clerk
Glenn R. Campbell	Forester, fire dispatch and technical work
Clyde Langdon	Road construction and maintenance foreman
Charlie Bell	Radio and telephone communication engineer
Ambrose Desmond	Surveyor
Clifford Filbert	Maintenance carpenter

Forest Engineers

1948-1955	John West (combined duties of forest engineer and fire control officer)
1955-1960	George E. Blodgett
1961-1976	Austin Thompson
1977-1989	Robert Black
1990-present	Harold Slate

Appendix 3
Six Rivers Supervisors Offices

1946 350 E Street. Corner of 4th and E streets in the Bank of America building. Six Rivers first occupied rooms on the 3rd and 4th floors. In 1947, the forest was able to lease two additional rooms on the fourth floor (see also TS 4-16-97).[2]

[2]All SOs were in Eureka, California. Most of the information on the locations of Six Rivers National Forest Supervisor's Offices was obtained from Vern Hallin (Hallin 5-20-97: pers. comm.).

US Forest Service photo, 1997

1948 Third Street, between B and C streets, on the floor above Lenzi's Restaurant. The SO was at this location for about one year. The building has since been demolished and the lot rebuilt upon. Vern Hallin recalled that a band composed of African American

musicians played at Lenzi's and often practiced during the days. . . serenading the Six Rivers workers.

1950 23 Fifth St. The SO (left) was located in a converted residence that looked very much like the neighboring building that is today's Kwan's Cafe (right). The building at 23 Fifth Street now has an extension to the sidewalk with a full front. A vault, built for the Six Rivers, is still in place inside the building. Hallin remembers standing behind his desk in this building, having a discussion with Orleans Ranger Charley Yates, when a major earthquake hit and the pavement outside could be seen through the front window, rolling in waves.

US Forest Service photo

1952 Fourth and J streets. This SO was the first built especially for the Six Rivers. In 1998, Humboldt County Probabtion Department, a credit union, and a small market occupy the building. Engineering was on the second floor, in the northerly end of the building, by the stairway.

US Forest Service photo

1966 710 E Street at the corner of 7th and E streets. This building was also expressly made for occupation by the Six Rivers National Forest. The original building did not have the current mansard roof; its entrance was adjacent to the parking lot east of the building.

Before moving from 710 E Street, engineering was located at 605 G Street, on the second floor of today's Wells Fargo Bank.

US Forest Service photos, 1997

1978 507 F Street: the Professional Building at 5th and F streets. This move took place in January.

1992 1330 Bayshore Way (south of downtown, near the Bayshore Mall).

US Forest Service photo, 1997

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