



JDSF Newsletter

Jackson Demonstration State Forest

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RAILROAD GULCH SILVICULTURAL DEMONSTRATION

Dana Cole^{1/}

Operations recently began on the Railroad Gulch Silvicultural Demonstration. Designed by Dr. John Helms, U. C. Berkeley silviculturist, this research project covers 240 acres and will be the first forest management "field laboratory" of its kind. The goals of the study are to quantify the long term relationship between levels of stocking and stand growth, and to evaluate the financial aspects of alternative silvicultural strategies.

STUDY DESIGN

Dr. Helms' design is to demonstrate and test three strategies of uneven-aged silviculture - group and single tree selection, and a combination of the two - and five levels of residual growing stock, ranging from a very light cut to a heavy cut. Overall, about a third of the existing stand, or 16,500 board feet per acre, will be harvested.

The study consists of 14 twenty-acre units, including two control units on which no harvesting will take place. In each unit there are 20 permanent tenth-acre plots in which all trees - hardwoods as well as conifers - are tagged. Through periodic measurement of the growth and mortality of these thousands of trees in the years ahead, the study will greatly expand the knowledge base for young growth redwood management.

HISTORICAL SETTING

In 1853 the California Lumber Company built the largest sawmill on the West Coast at the mouth of Big River and the town of Mendocino quickly grew on the coastal bluffs above the mill. The company soon came to be known as Mendocino Lumber Company (MLCo.), and for a time the mill sawed more lumber than any other in the world. San Francisco was the most rapidly growing city in the world, and never before had the wood for so many buildings passed through one place in such a short period of time.

In these earliest days of California logging, rivers were the vital link between woods and mill, and the only route from the mill to San Francisco was down the Pacific Coast aboard wind-powered lumber schooners. Using bull teams and jackscrews, the loggers' job was to get the giant logs into the streams and rivers so they could be floated down to Mendocino Bay during times of sufficient water. But the riverflows of California's Redwood Coast fluctuate greatly throughout the seasons, so Yankee ingenuity

1/Demonstration & Experiment Forester I, Jackson Demonstration State Forest.

was called upon to provide a solution that was to have lasting consequences on Big River. A series of log dams was built throughout the watershed to assure water levels sufficient to float the old growth logs downstream. Come winter, these dams were tripped sequentially, starting at the headwaters, until a rushing flood tore through the main river canyon, flushing millions of board feet of timber into the Mendocino Bay and sometimes out to sea.

By the late Nineteenth Century this system of transporting logs to the mill was being phased out for several reasons. First, in dry years inadequate river flows spelled economic disaster to the mill and town. Second, as cutting progressed upriver the floating distance increased while the water necessary to do the job decreased. And finally, the erosion caused by this type of logging resulted in major alterations to the riverbed. Many dams were silted-in and rendered useless after a few years. As a result, today there are several lily-clogged, mosquito-infested swamps along Big River where once there were deep V-shaped river canyons.

By 1883, railroads began to replace river logging. A boom and log dump for the flatcars were built five miles upriver from the mill and logs were floated down on the ebbing tides. As the years went by, the railroad was extended farther and farther upriver. By 1912, a spur line had been built off the Big River mainline. The stream along which this spur was built came to be known as "Railroad Gulch." Where the two lines forked, MCo's largest logging camp took root. Known as Boyle's Camp, all buildings and residents arrived by rail. The largest structure - the cookhouse - had to be cut in two and placed on flatcars before being hauled to its new location, followed by several trainloads of cabins.

The hills above Boyle's Camp were the first to be logged. They were clearcut, burned, skidded, then burned again, repeatedly, for the next dozen years as the area was turned into cattle grazing land to provide meat for the Camp's hundreds of hungry loggers and their families.

By 1925 the old growth was gone. Once again the Camp's buildings were loaded on flatcars and moved upriver, ranching in the area was abandoned, and the ground began reverting to forestland. The resulting wild, unmanaged and understocked young growth forest has been selected for this major silvicultural demonstration because it is typical of so many small nonindustrial ownerships in the Redwood Region. To regain their productive potential, these lands need to be managed; it is the goal of the Railroad Gulch Silvicultural Demonstration to provide guidelines for this management.

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In our next issue, we will profile some of the issues in the implementation phase of this demonstration.

REFERENCES

- Burleson, D. 1976. Mendocino Lumber Company: Railroading on Big River. The Western Railroader No. 436. 16 p.
- Jackson, F. 1975. Big River Was Dammed. Miller Print Co. 138 p.

JACKSON'S 200 "RESIDENTS"

Within JDSF's 50,000 acres are two State-run "villages." Formally known as Conservation Camps, these facilities each house 100 inmates. Although the primary mission of the camps is to provide 24-hour manpower for combatting wildfires, JDSF manages to benefit from their presence in many ways.

Located near the center of JDSF, Parlin Fork Camp is the second oldest active Conservation Camp in California. Built on the site of old logging Camp No. 5 of the Caspar Lumber Company, Parlin Fork Camp has housed inmates for the past thirty-three years.

Chamberlain Creek Conservation Camp is located about six miles east of Parlin Fork. Built at the terminus of the old Caspar, South Fork & Eastern Railroad, Chamberlain Creek has been a Conservation Camp for twenty-four years.

These two Camps are invaluable resources to JDSF, especially during the winter months. With their help with such on-going jobs as road and campground maintenance, storm damage salvage, stream protection, and miscellaneous construction and reconstruction projects, the Camps add an extra dimension to JDSF's overall program.

For example, last winter crews from Parlin Fork worked for three months - 560 man-days - on site preparation and planting for a long-term study of black stain root disease (see Newsletters 5 and 6). Inmates cleared seventy 400 square-foot plots and planted over thirty thousand seedlings in a study of the incidence and spread of the disease.

Parlin Fork crews recently finished an eight-month project of manual right-of-way clearance for three miles of new road that will be built this summer as part of the Railroad Gulch Silvicultural Demonstration. And as if that wasn't enough, two crews subsequently spent two weeks building a new mile-long hiking trail in the same area, to be used primarily for environmental education.

Chamberlain Creek crews have also contributed immeasurably to JDSF's programs. Recently, one crew spent six months building a major public campground next to Highway 20. This Camp has also conducted tree plantings, such as the establishment of an experimental pine plantation on a harsh, burned-over site.

A Chamberlain specialty is creek rehabilitation. Countless salmonids are alive and healthy today as a direct result of habitat improvement work performed by Chamberlain crews on James, Chamberlain and Hare Creeks. Many crew-months over the past several winters have been devoted to removing impassable, and sometimes dangerous, log jams on these and other stream courses within and around JDSF.

Especially deserving of recognition for their hard work are the CDF Fire Crew Supervisors who are responsible for implementing these and other projects that benefit the public. Not only must they daily supervise more than a dozen inmates, often under adverse weather conditions, but they also must impart to them the various technical skills, knowledge and enthusiasm necessary to get the job done safely and professionally. Our hats are off to them!

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THE BOSS

This, the fourth in our series of JDSF staff profiles, features none other than The Boss himself: Forest Manager Forest B. Tilley.

True to his name, Forest brings a family tradition of forest management nearly as old as California Forestry itself. On his father's side, the family has been involved in the timber industry for four generations; on his mother's side, for five generations.

Forest has lived in Northern California all his life, except for two brief interruptions. When he was four, his family went to Oregon for three years where his father, Walker Tilley, started Willamette Valley Tree Farms. From Oregon, his family moved to India for two years where his father administered that country's first mechanized logging operation. Later, after graduating from Humboldt State University in 1965 with a B. S. in Forestry, he worked briefly in the Sierra foothills where he started his CDF career.

In 1968, Forest and his wife, Pat, moved back to Redwood Country where Forest worked as Office Manager and Chief Dispatcher for CDF's Sonoma Ranger Unit, followed by two years in the Orick Ranger District.

Since 1973, Forest has worked at JDSF first as Assistant Manager (1973-77); the past seven years he has held his current position. Despite his many duties administering the experimental and demonstrational program, timber sale program, personnel and other State Forest business, Forest finds time to be active in many professional and social organizations. These include SAF (he's a former Redwood Chapter Chairman), California Licensed Foresters Association, Forest Landowners of California, and the American Forestry Association. He is also on the Board of Directors of the local Rotary and on the College of the Redwoods Advisory Committee.

Not to be outdone, Pat Tilley is as socially active as her husband. She works with the local PTA, is a member of the Fort Bragg Recreation Board and the Mendocino Coast Botanical Gardens Board of Directors. They have two children - Brett 17 and Lynn 12.

Forest is also a corporate power. As President of Karamu Corporation, a family concern that owns forested property in Humboldt County's Redwood Creek drainage, he is a landowner concerned with forest harvest and reforestation and understands the long term commitment to resource management that is so vital to nonindustrial forest ownerships.

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