



United States Department of Agriculture
Natural Resources Conservation Service

Benefits of Conservation Planning

Landowner Profile

“Potential losses from a wildfire was once a major concern. But now that we have gotten our fuels under control, maintenance is easier and we can sleep easier at night.”

— Dennis Bebensee

Conservation Goals

- Fuels Reduction
- Brush Control
- Forest Health
- Wildlife Habitat

Conservation Practices

- Forest Stand Improvement
- Brush Management
- Tree & Shrub Pruning
- Tree Planting
- Upland Wildlife Habitat Management

Benefits

- Reduced Wildfire Threat
- Improved Forest Health
- Wildlife Habitat Enhancement
- Enhanced Water Quality
- Enhanced Carbon Sequestration
- Enhanced Aesthetics
- Enhanced Forest Visibility

Forest Maintenance is Key to Forestland Health

The Natural Resources Conservation Service (NRCS) and its partners provide assistance to forest landowners to plan and implement conservation practices to address resource concerns and help to reduce the threat of catastrophic wildfire. NRCS programs, such as EQIP, can be an important component of an overall forest management plan.

Dennis and June Bebensee and Richard and Cathleen Schoenheide became forestland owners in 1975 with the purchase of 380 acres of forestland in northern California, known as the “Plateau tract.” They have been harvesting timber from the Plateau property for over 30 years.

As Registered Professional Foresters for the California Department of Forestry (CDF), now CALFIRE, Dennis and Richard had the knowledge and passion to not only manage but also to invest in their forested property. Their goal was to grow the healthiest and most productive forest that they could to leave a legacy to their descendants, while also enhancing wildlife and maintaining water quality.

The “Plateau tract,” located east of rural Shingletown, sits between 3,300-3,600 ft. in elevation immediately above the brushy foothills at the lower edge of the timberline. It is within CALFIRE’s Very High Fire Hazard Severity Zone. When purchased, this property was in a severe fire hazard condition, and catastrophic wildfire has continued to be a major concern.

Most of the 380 acres of forestland was very dense and contained trees with heavy limbs that reached to the ground, as well as scattered brush fields. The mixed conifer stand, about 45 years of age, consisted primarily of ponderosa pine and incense cedar with Douglas-fir, sugar pine, and black oak as minor stand components.



Landowners Richard and Cathleen Schenheide and June and Dennis Bebensee

In 1994, The Bebensee-Schoenheide partners developed a Non-Industrial Timber Management Plan (NTMP) to guide sustainable forest management and harvest activities. Since then, their forest management activities, both precommercial and commercial, have created a much more fire-safe forest.

except on steep slopes. Initially, only thinning was completed to remove poor quality and overstocked trees, but pruning eventually became a follow-up practice. Now, the landowners are using a masticator for forest stand improvement practices and to chip slash from pruned limbs.



Forest conditions before thinning



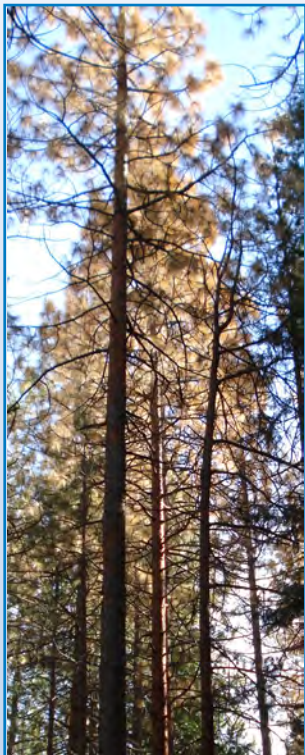
Mastication and pruning in progress



Plantation after thinning and pruning

In 2010, the landowners signed up for NRCS's Environmental Quality Incentives Program (EQIP). Through EQIP, NRCS helped the landowners develop a conservation plan and reduce fuel loads across this

property through thinning, pruning, and follow up maintenance treatment efforts on over 300 acres. This reduced fuels condition provides a fuel break not only along access roads but also between this property and the brush lands below. CALFIRES' California Forest Improvement Program has also been utilized for fuels reduction activities when available.



Tree mortality from insect infestations. Over the last 10 years, salvage operations have occurred almost annually due to recent drought conditions and subsequent bark beetle attack.

Having narrowly escaped the Ponderosa Fire in 2012 as well as three other wildfires around the Manton and Shingletown communities over the last 10 years, the landowners continue to carry out numerous fuels reduction activities to keep their forest healthy, productive, and fire safe.

Precommercial thinning has been completed three times across most of the property,

“Maintenance of fuel breaks and a fire safe forest is an ongoing job and needs to be done annually to keep ahead of the regrowth,” says Dennis Bebensee. NRCS Soil Conservationist Melinda Graves agrees, “Understanding the maintenance needs of these treatments has been what has made these landowners' efforts so successful. As a retired forester and fire prevention officer, Dennis has a good working knowledge of the realities of forest management and wildfire.”

The owners' children and grand-children have actively participated in the care of this forest. Both families are strong supporters and actively involved with the Forest Landowners of California and the American Tree Farm System, having hosted many tours to help educate other forestland owners about forest management and fuels reduction alternatives.



The Bebensee and Schoenheide families



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“Between the work that I’ve done with NRCS through EQIP and the work that’s ongoing with the carbon sequestration project, I’ve got it all reforested”

— Robert Lammers
Shasta County Rancher

Conservation Goals:

- Reforestation of burned Areas
- Brush Removal
- Brush Control
- Habitat for Wildlife

Conservation Programs:

- Environmental Quality Incentives Program (EQIP)
- Conservation Technical Assistance (CTA)
- Western Shasta RCD’s Climate Stewardship Program

Conservation Practices Used:

- Brush Management
- Brush Management (mastication)
- Tree/shrub Establishment
- Forest Stand Improvement
- Terrestrial Carbon Sequestration

Conservation Programs Aid Rancher’s Forest Recovery

Robert Lammers owns and operates a 280 acre ranch near Round Mountain in Shasta County, a ranch that has been in his family since the 1930’s.

Until about 20 years ago the ranch consisted of about 100 acres of meadow surrounded by 180 acres of forest.

But in 1992, one of the worst fires in California history devastated central Shasta County. The eight-day Fountain Fire, burned 300 homes and about 64,000 acres of dense forest and brush, including the trees on Lammers Ranch. Today, the region is still recovering from the fire’s devastation.

“Before the fire, most of this ranch was forest with big trees,” said Lammers. The forested land was too high to grow grass because there wasn’t enough water, but there was enough water to grow trees. There wasn’t anything green left there after the fire.”

Timber companies affected by the fire replanted within five years and now have healthy 10- to 20-foot conifers and some re-sprouted oaks. Most non-industrial landowners did not replant and now have mostly brush and re-sprouted oaks.

Lammers’ ranch is adjacent to forestland owned and operated by Roseburg Forest Products Co., a large timber operation. After the fire, the Roseburg company replanted its trees right away. Lammers wanted his forest to return too, but it was expensive to replant. He thought that the trees would come back naturally. And in certain areas they did because the seeds were in the ground where the fire was not hot enough to kill all of them. But in most areas hardly any trees grew back.



Robert Lammers viewing his most recent plantings with NRCS Soil Conservationist Melinda Graves, from the Redding Field Office.



Fence-line contrast showing the Roseburg Forest Products planting, where brush was controlled (on left), and Lammer’s planting where brush encroachment significantly reduced tree growth (on right).

Photo from Winrock International.

“I thought the trees would come back by natural means,” said Lammers. But the brush came first. Then we started thinking of planting trees, after the brush had come in.”

Lammers eventually did replant trees, the first about three years after Roseburg had replanted. But by then, brush competition was hindering growth, and he had limited success. A comparison of the replanted trees on the adjacent Roseburg property with these stunted trees on Lammers’ property provides a dramatic contrast.

Lammers’ first plantings were done in a limited area, about 50 acres, through the Forestry Incentives Program (FIP) in 1996. Under that plan, rows of brush were left between the trees. Lammers soon found that the brush came back and affected tree growth.

“Roseburg did the right thing,” said Lammers. “We didn’t control the brush, didn’t spray, and now when compared with the Roseburg trees, side by side on similar soil, their trees are much taller than ours.”

After the disappointing outcome from the first replanting effort, Lammers worked with NRCS to develop a comprehensive plan to accomplish his goals and replanted again with cost-share assistance through the Environmental Quality Incentives Program (EQIP). The plan included brush clearing, tree planting, and forest stand improvement on 46 acres and brush management on 30 acres. This work was done in phases from 2005 to 2009.

“I would not have done this work without help from EQIP,” Lammers said. “I could have done it right after the fire if I had known that nature wouldn’t bring back the trees. But now it would not be affordable.”

Lammers is also participating in a carbon sequestration project with Western Shasta Resource Conservation District (WSRCD). Through the district’s Climate Stewardship Program he was able to get an additional 53 acres replanted with native conifer and oak woodland species.

As part of the West Coast Regional Carbon Partnership (WESTCARB) WSRCD is working in partnership with Winrock International in a study involving carbon sequestration. Shasta County has been identified as an area capable of cost-effective carbon sequestration, and WSRCD is actively involved in validating the science behind the idea. The district was looking for landowners within areas determined as having the best opportunity for afforestation based on topography, soils and land type.

“Typical project sites under the program include areas that have been previously burned by catastrophic fire, and have not been reforested naturally or otherwise due to brush competition,” said NRCS District Conservationist Bob Bailey.



Brush removal completed in 2009 helped to reduce the fire hazard and increase tree growth in replanted areas.

“So we informed the district that Lammers would be a good candidate,” Bailey added.

“Between the work that I’ve done with NRCS through EQIP and the work that’s ongoing with the carbon sequestration project, I’ve got it all reforested,” said Lammers.

Lammers acknowledged that he will have to leave about 40 acres on the hills in their current condition because they are too rocky. “The only time I could have done those areas is right after the fire, in a few places that were clear, where the planters could have gotten the trees in the ground. Now there is too much brush. But those areas have brush and oak mixed together, and it will be good habitat for wildlife,”



Trees established on 23 acres through EQIP in 2006.



Soil Conservationist Melinda Graves examining new trees planted through EQIP on 23 acres in 2009.