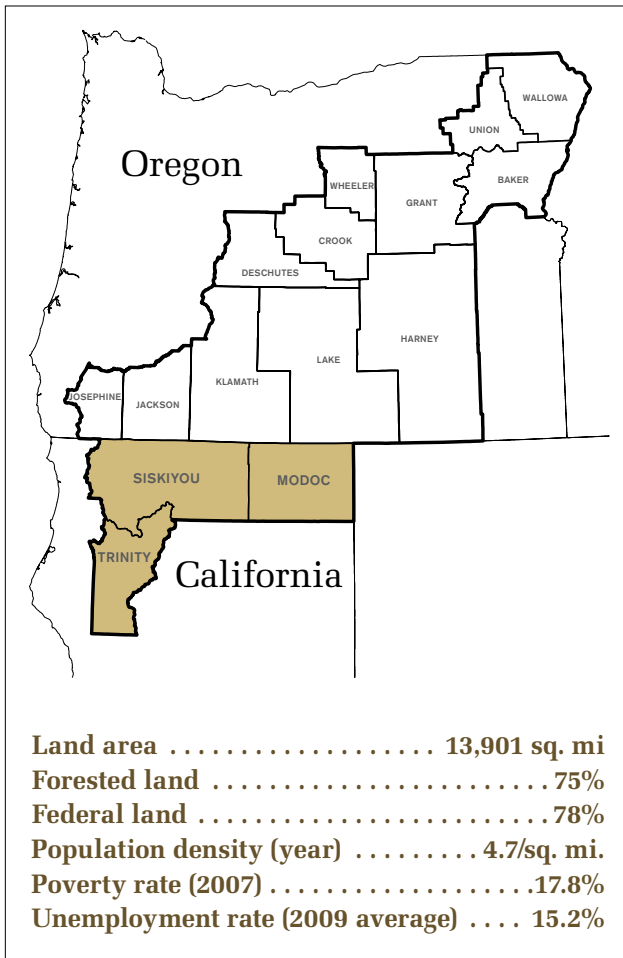


B. NORTHERN CALIFORNIA: TRINITY, SISKIYOU, AND MODOC COUNTIES



The counties of Trinity, Siskiyou and Modoc share a legacy of economies focused on the harvesting, processing, and export of timber and agricultural products. This region contains large expanses of public forest and rangelands. Each county has experienced declines in the timber industry, faltering markets for local agricultural crops, and the challenges of the recent recession. Entrepreneurial flight, lack of access to capital, and aging populations challenge economic development and stewardship across the region. Northern California’s diverse geography and ecology have helped create culturally and socioeconomically varied communities. The potential for the people, businesses, and institutions of each county to implement sustainable forest stewardship varies. While some communities are home to collaborative groups and wood products processing infrastructure, others are less actively engaged.

A large public land base and rich organizational capacity characterize Trinity County. Although the Six Rivers National Forest covers a significant area, the Shasta-Trinity National Forest dominates the physical landscape and politics of this county. Several high-capacity NGOs and government entities work in partnership in the county to implement community wildfire protection, and watershed and fisheries restoration. Despite numerous collaborations that have sought to build agreement on public forest management over the years, durable progress is only evident in treatment of the wildland-urban interface and plantations. Even though Trinity River Lumber (the county’s last remaining sawmill) imports most of its wood from outside the county, the owners have expressed interest in biomass development. Meanwhile, innovators in the Hayfork Valley continue to pursue an “integrated wood campus” that would merchandize and add value through a range of traditional and biomass products.

Siskiyou is the most geographically diverse of the three counties. It contains steep seasonally wet mixed conifer forests, sweeping valleys, and high volcanic plateaus. Interstate 5 bisects the county, offering access to markets. Several primary wood processing facilities operate in this area and rely primarily on private timber. Private timberlands have enjoyed relatively long tenure, and residents expect that trend to continue. A recent land deal in the Scott Valley has resulted in the creation of LandVest, the region’s first large REIT. To the west, isolated rural and tribal communities in the Mid-Klamath watershed are working to partner with the Six Rivers and Klamath National Forests on restoration and prescribed fire use. Water rights and the Klamath River fishery are central to county politics and livelihoods, and the ongoing Klamath Basin Restoration Agreement will inevitably drive natural resource trends in the county’s future.

Modoc County is the most remote and dry landscape in the region. Much of the county sits on the Modoc Plateau, a high Great Basin landscape dominated by sage-steppe habitat. Public range allotments and private ranches are at the heart of the county’s economy. The Warner Mountains contain much of the

county's historic timber-base. Juniper removal has become a central focus in that area for restoration of both sage grouse habitat and rangeland values. Both the BLM and Forest Service manage large portions of the landscape and will be central to growing efforts at sustainable resource management. Modoc County lacks local NGOs that drive resource-based economic development, but county government and local leaders are working through ad hoc committees to find solutions.

Land management and alternative value streams

Public land management is central to the communities and businesses of all three counties. Each county is making strides toward forging durable agreements on public lands management, but each also faces daunting challenges. While private lands make up a smaller portion of the landscape, they remain central to the region's economy and serve as the foundation of the remaining forestry sector.

In Trinity County, Sierra Pacific Industries, and to a lesser extent Green Diamond, continue to practice sustained yield harvesting on their county holdings. Small private landowners intermittently manage lands for sustainable timber harvest, but harvest volumes are low, especially given current market conditions. The Resource Advisory Committee, the Trinity County Fire Safe Council, the Post Mountain Stewardship Contract, and the Weaverville Community Forest have demonstrated the potential for using collaborative processes to reach agreement and implement public land management. The Shasta-Trinity National Forest is also working within the relatively narrow "zone of agreement" to complete "programmatic" NEPA documents for thinning nearly 50,000 acres of plantations across the forest. However, these activities are limited in scale and do not grapple with the larger challenges of balancing sustainable forestry, restoration, and preservation on the landscape. The traditional environmental community and forest industry remain entrenched in debates about diameter limits, appropriate canopy closure, and temporary road construction to access thinning units. Partners such as the Trinity County Resource Conservation District, the Research and Training Center, The Wilderness Society, The Nature Conservancy, and Trinity County are attempting to work through the California Klamath-Siskiyou Fire Learning Network in a Conservation Action Plan-

ning process that may help move these stakeholders toward broader agreement.

Siskiyou County contains portions of the Six Rivers and Shasta-Trinity National Forests and the entirety of the Klamath National Forest. Administrative complexity, geographic diversity, and social divides have contributed to a lack of collaboration or stewardship initiatives at the county level, although smaller partnerships abound. Dozens of community-level Fire-Safe councils work at local levels to advance community wildfire protection. In the Scott Valley and Mid-Klamath region, higher-capacity NGO partners such as the Northern California Resource Center and the Mid-Klamath Watershed Council work to forge agreements around more comprehensive public land management and economic development. Forest industry participates in these collaborations and partnerships. However, progress toward viable agreement with the local environmental community has been challenging. The Siskiyou Biomass Utilization Group (SBUG) is a newly convened collaboration that holds promise for building this agreement.

Sierra Pacific Industries, Fruit Growers Supply Company, Timber Products Company, and Roseburg Forest Products all own significant portions of private industrial lands in Siskiyou County. These four companies continue to manage for sustained timber yield and produce the majority of the timber volume harvested in the county annually. This industrial activity creates a solid foundation for a relatively healthy contracting workforce that also implements projects on federal lands. Fruit Growers recently sold several thousand acres in the Scott Valley to Land-Vest, a southwestern U.S. REIT. They are working in partnership with the Northern California Resource Center (NCRC) and attempting to ensure some local benefit from their lands in Scott Valley. The Natural Resource Conservation Service and Siskiyou Resource Conservation District are important partners to private landowners through their many technical assistance efforts, cost-share programs and special initiatives.

In Modoc County, ranching and agriculture are dominant in the natural resource economy and culture. Most ranchers depend on grazing allotments on public lands for a portion of their annual income. Juniper encroachment has reduced suitable grazing

lands by approximately 3 million acres over the last century. The BLM, the Forest Service, Modoc County, the Cattleman's Association and others collaborated for nearly eight years to complete a 4-million-acre environmental impact statement targeting sage-steppe habitat restoration. Implementation of this plan will improve grazing and restore habitat for the endangered sage grouse. This plan presents both opportunities and challenges to Modoc County. Markets for juniper primarily are for nonlocal biomass plants, and juniper removal impairs grazing quality for at least two years after implementation. Additionally, the contracting workforce has withered with the lack of consistent timber harvest, which will create challenges for responding to new management opportunities on public lands. Thus, the plan is not fully supported or economically optimal. However, the potential for overcoming these challenges exists and environmental opposition is unlikely.

Capture of alternative value streams such as payment for ecosystem services is in its infancy in this region. Sierra Pacific Industries has completed an initial carbon credit sale outside of the zone, this approach may be possible for other private industrial timber lands in the future. Industrial timberland owners are also engaged in certification through Sustainable Forestry Initiative (SFI) and Forest Stewardship Council (FSC) systems. Modoc and Siskiyou counties may have opportunities for grass banking as well. The role of the region's vast public lands in capturing alternative value streams for local communities remains unclear at this time.

Integrated woody biomass utilization

A number of opportunities for integrated woody biomass utilization exist across the region. These range from public facility heating retrofits and small-scale pellet production to large-scale combined heat and power (CHP) projects. Past activity in the region led to harvest of the rich natural resources and labor, export of benefits, and a backlog of restoration, brownfields and poverty in its most rural areas. As biomass development moves forward, it will be critical to explore both tested and novel approaches to wealth capture for rural counties and communities.

In Trinity County, Trinity River Lumber Company is working in partnership with the Redding Utility District to investigate the feasibility of building a

10- to 20-megawatt CHP plant at their sawmill that would use their mill residues to generate electricity for the utility and heat to run the company's dry kilns. This would both add value to their lumber products and produce renewable energy. However, Trinity River Lumber faces significant challenges with water availability and air quality permitting. This project is in the early stages, and has been set back by a recent fire that destroyed much of the sawmill during the winter of 2009. They have also expressed interest in pellet manufacturing. In Hayfork, the Watershed Research and Training Center has been developing an integrated wood campus for a number of years. They already possess a small-log sawmill, a post-and-pole peeler, and a larger radial sawmill designed for hardwoods. Also located in Hayfork, Jefferson State Forest Products and their parent company, Upstream 21, use local woods for tertiary manufacturing and currently hold a Woody Biomass Utilization Grant to install merchandizing capacity. Together, they form a foundation for an integrated biomass facility. WRTC has been working in partnership with a number of firms, including United Kingdom-based Biojoule, to investigate bringing in a readily deployable pellet mill that could use both residuals and in-woods biomass to manufacture wood pellets. This project is mature and holds great potential for near-term success, but success will hinge on consistent supply from public lands.

In Siskiyou County, there are a number of prospects for biomass utilization. A Coordinated Resource Offering Protocol (CROP) assessment has been completed for the central Siskiyou County area and the Klamath National Forest has submitted a proposal to build a CHP plant in the area that would be owned by the federal government. The most mature project is the pending construction of a CHP facility at Roseburg Forest Products veneer mill in Weed. Environmental appeals surrounding their air quality permit are the only impediment at this stage. Timber Products Company has also expressed interest in adding biomass utilization capacity, be it densified fuels manufacturing or CHP, and increased partnerships and public participation may help contribute to success. However, neither of these projects is depending on supply from public lands. Likewise, NCRC is exploring the potential for creating a biomass concentration and sort yard in the Scott Valley that could also utilize firewood, pellets, posts and

poles, and offer other manufacturing. Although in its early stages, this project could yield significant local economic development opportunities and add value to both public and private lands biomass. NCRC has convened a diverse suite of partners around the Siskiyou Biomass Utilization Group (SBUG) in an effort to coordinate and build agreement around future biomass utilization in the county. Thus far, they have strong participation and they hope to use the group as a forum for scaling up integrated biomass utilization.

In Modoc County, there is currently less woody biomass utilization. While leaders in the county recognize the opportunities associated with juniper and pine utilization from the Warner Mountains, they were recently let down by a cadre of biomass developers whom they paid to conduct a feasibility study for siting a CHP facility. With over 10,000 acres of juniper harvest potential per year at approximately 10 dry tons of biomass per acre, supply volumes could be adequate to support a CHP project. It is unclear whether haul distances are suitable, and whether and how transmission to distant markets would be achieved. There is also the challenge of displacing cattle after juniper harvesting, which is limiting support from the Cattlemen's Association and local ranchers. Alternative grazing arrangements on productive private lands could offset impacts and free up more public lands to juniper management. Along with this prospect, the owner of Surprise Valley Lumber's shuttered mill in the Surprise Valley has expressed interest in renewing operations given improved market conditions and consistent supply from national forest lands. He could operate at a minimum of 4 mmbf per year. Without a clear lead business or NGO driving biomass development, the county has taken a lead through an ad hoc committee known as Modoc Vitality. They are open to bringing in external resources to help them move forward in developing biomass utilization capacity to support economic development and land stewardship in the county.

All three counties may benefit from increased public facilities and commercial facilities heating with woody biomass. Both the Alturas (Modoc) and Etna (Siskiyou) school districts have conducted feasibility studies for heating with biomass, but lack the financing to advance their projects. One potential strat-

egy that holds promise for the entire region would be assessing the potential for all of the public and commercial facilities in the region for biomass retrofits. Project managers and developers could then aggregate those that show the greatest preliminary feasibility into a package that could more readily attract financing.

Organizational and community capacity

All three counties are home to a host of organizations, committees, planning groups and collaborations dedicated to advancing community development through sustainable forest and natural resource stewardship. In addition to this homegrown capacity, all three counties benefit from active resource conservation districts and resource conservation and development councils.

Major players in Trinity County include the Watershed Research and Training Center, the Trinity County Resource Conservation District, the Trinity County Resource Advisory Committee, and the Trinity County Fire Safe Council. Both the Watershed Research and Training Center and the Trinity County Resource Conservation District are mature and high-capacity organizations. Each works in partnership with multiple state and federal agencies, the county, local business, and the communities to plan and implement stewardship-focused projects, conduct outreach and education, and build social agreement around natural resource management. The Trinity County Resource Advisory Committee, which was chartered to direct federal funding appropriated through Title III of the Secure Rural Schools and Community Self-determination Act, is comprised of representatives from forest industry, the environmental community, recreationists, the county, and the community at-large. This diverse group has worked to build a zone of agreement around community wildfire protection and hazardous fuel reduction, and has prioritized funding for important projects around the county for almost eight years. With their federal charter, existing structure, and diverse representation, the Resource Advisory Committee may be able to broaden their scope to help overcome other natural resource-based impasses in the county going forward. The Trinity County Resource Conservation District is a partnership managed by the Trinity County Resource Conservation District in cooperation with the Watershed Research



and Training Center. As one of the nation's first Fire Safety Councils, the Forest Service, BLM, Calfire, and other related state, federal, and county agencies work to develop and update the county's CWPP, coordinate planning and projects, and educate the public about wildfire safety.

In Siskiyou County, leading organizations include the Northern California Resource Center, the Siskiyou Biomass Utilization Group, the Mid-Klamath Watershed Council, and the county's many Fire Safe Councils. The Karuk Tribe also plays an important role in western Siskiyou County, carrying out a range of natural resource management projects. The Northern California Resource Center, which has been active since the early 1990s, works primarily in the vicinity of the Scott and Shasta valleys in partnership with private landowners and public land management agencies to plan and implement a wide range of projects and initiatives similar to those in Trinity County. They have recently convened the Siskiyou Biomass Utilization Group as an ad hoc committee of the county's major stakeholders to coordinate on strategies for increasing the harvest and utilization of woody biomass in the county. The Northern California Resource Center also serves as fiscal sponsor for a number of the county's small community-based Fire Safe councils. The Mid-Klamath Watershed Council operates out of the town of Orleans in western Siskiyou County. This group implements watershed and fishery restoration projects and runs the Orleans-Sommes Bar Fire Safe Council. They effectively lead collaborations with the Forest Service and community around forest restoration and community wildfire protection.

Representatives from both Siskiyou and Trinity counties are currently engaging in a bioregional collaboration that holds promise for building social agreement and increasing synergies around sustainable forest stewardship. The California Klamath-Siskiyou Fire Learning Network is a regional network managed by the Watershed Research and Training Center in partnership with The Nature Conservancy. Landscape partners across the region hope to use the Fire Learning Network as a forum for sharing ideas and expertise, overcoming collective challenges, scaling up forest restoration, and working toward Forest Landscape Restoration Act funding in the near future.

Much of the organizational capacity in Modoc County is housed in state, federal, and county agencies. The county does have a functioning Resource Advisory Committee, which allocates funding to fuel reduction projects. Collaboration and coordination is largely accomplished through ad hoc committees such as Modoc Vitality. This diverse group works to plan and implement economic development strategies. Although they do not focus exclusively on natural resource-based development, many of their strategies are inevitably based upon land stewardship and adding value to forestry and agricultural products. The Modoc Cattleman's Association is another important organization. Their focus on supporting healthy rangelands will drive juniper management in the county. The Fort Bidwell Indian Tribe works in and around the Surprise Valley and Warner Mountains, taking the lead in implementing fuel reduction and restoration projects on the Modoc National Forest in that area.

Across this region, a rich mosaic of organizations, institutions, and partnerships are actively working to advance the goals and objectives at the heart of the Dry Forest Zone project. It is clear that the capacity to overcome pressing challenges to forest stewardship and economic development varies widely, and that these groups have a range of needs.

Policy

The most pressing policy challenges for this region are in land management, energy, and rural development policy. County leaders, businesses, and NGOs are actively growing their engagement in policy advocacy and development through engagement in coalitions like RVCC, the Regional Coalition of Rural Counties (RCRC), and the Secure Rural Schools Coalition. Administrative and legislative policy for public lands must elevate the roles of counties and local communities. Collaboration, cooperation, and coordination need to be institutionalized, stewardship authorities must be used to their full potential, and the need for consistent wood supply must be balanced with meaningful ecosystem restoration. Energy policy needs to value the contributions of small community-scaled projects that contribute more to local economies rather than simply sending megawatts to the grid. They must value all biomass equally and recognize the importance of thermal energy generation (heat). Rural development policies and programs

must be reformed to be integrated, accessible, and delivered with adequate support to ensure that counties, businesses, and partners can be successful.

Conclusion

Overall, county, agency, business, and community leaders in this region share a vision for sustainable forest stewardship that includes sustainable harvests, ecosystem restoration, and economic development around integrated biomass utilization. Each county faces a suite of social, economic, environmental, and capacity-related challenges. Each county also has its own array of assets. Increasing collaboration around public land management, commitments by the federal agencies to meaningful ecosystem restoration at larger scales, a desire to explore and capitalize on new business opportunities associ-

ated with woody biomass utilization, and a drive to ensure that federal policies work for counties and communities alike are all positive trends.

In Trinity County, private contractors and local wood products businesses have shown strong interest in partnering around new biomass development. In Siskiyou County, the SBUG and NCRC have indicated their need for facilitation and technical assistance. In Modoc County, agency and county leaders have been welcoming fresh perspectives on how they might overcome their land management impasses to eventually develop biomass energy infrastructure. Collaborations in all three counties focusing on landscape-scale forest restoration and management hold the potential to yield increasing benefits to both local economies and ecosystems.

