



Chapter 1

Serving People

Caring for the land and serving people is the motto of the Forest Service, which means we're thoughtful about balancing the short- and long-term needs of people and nature. We do this by working in collaboration with Tribes, communities, and our partners; providing access to resources and experiences that promote economic, ecological, and social vitality; and connecting people to the land.

National forests and grasslands deliver significant value for all citizens. They provide us with clean air and water, habitat for plants and animals, and natural settings and recreational opportunities. And, they deliver essential commodities for our benefit today and for the benefit of future generations.

Biological diversity is critical to sustaining healthy ecosystems and provides a variety of social and economic values to people. The plants, animals, and fungi within the BioA area support traditional and cultural uses, recreation activities, and connections to nature. Money spent by anglers, hunters, and wildlife watchers on national forests and grasslands within the BioA area contributes considerably to local and regional economies.⁷

The benefits of national forests and grasslands improve the quality of our lives. Some benefits, such as timber, have an easily identifiable monetary value. Others, such as cultural heritage, have tangible forms of value, such as artifacts, buildings, and landscapes, and also intangible forms of value that support value systems, beliefs, traditions and lifestyles. While there has been no one common community experience during the past few decades, small rural communities are generally more susceptible than urban communities to changes in how we sustain and deliver both monetary and non-monetary benefits. As such, changes in federal land management can lead to significant impacts to day-to-day life.

More than 70 federally recognized American Indian Tribes have lands or ancestral territory within the BioA area and maintain a government-to-government relationship with the Forest Service. In this document, we use the term "Tribes" to acknowledge those recognized as sovereign by the U.S. government and also the many tribes that petitioned for but were denied federal recognition when Congress ended federal acknowledgment of Tribal sovereignty in California and Oregon between 1954 and 1964.⁸ Ecosystems within the BioA area provide and support a broad range of ecocultural resources important to Tribes including foods, medicine, materials, and non material values. Tribal communities continue to foster longstanding customary relationships with natural resources and are impacted by land management of culturally significant sites and resources.

Based on existing data, in this chapter we examine key forest benefits and highlight their social and economic values. We look at what's been working well for local communities and where communities have struggled to adapt under current land management plans on the national forests and grasslands in the BioA area. We acknowledge limitations and consider what we can do to improve how we serve communities into the future. We will update information related to economic benefits to communities with detailed, site-specific local data during future land management planning. More information about the benefits that national forests and grasslands provide to local communities is in each BioA chapter.

⁷ USFWS 2011b, 2016.

⁸ Koenig and Stein, 2008.

Supporting Jobs

Jobs are one of the most critical ways that national forests and grasslands support social and economic activities in many communities throughout the Northwest. In 2016, activities on federal lands in the NWFP area supported almost 25,000 jobs, with spending by visitors supporting about 7,800 recreation-based jobs and activities associated with timber harvests supporting about 8,900 jobs, (figure 1-1).⁹

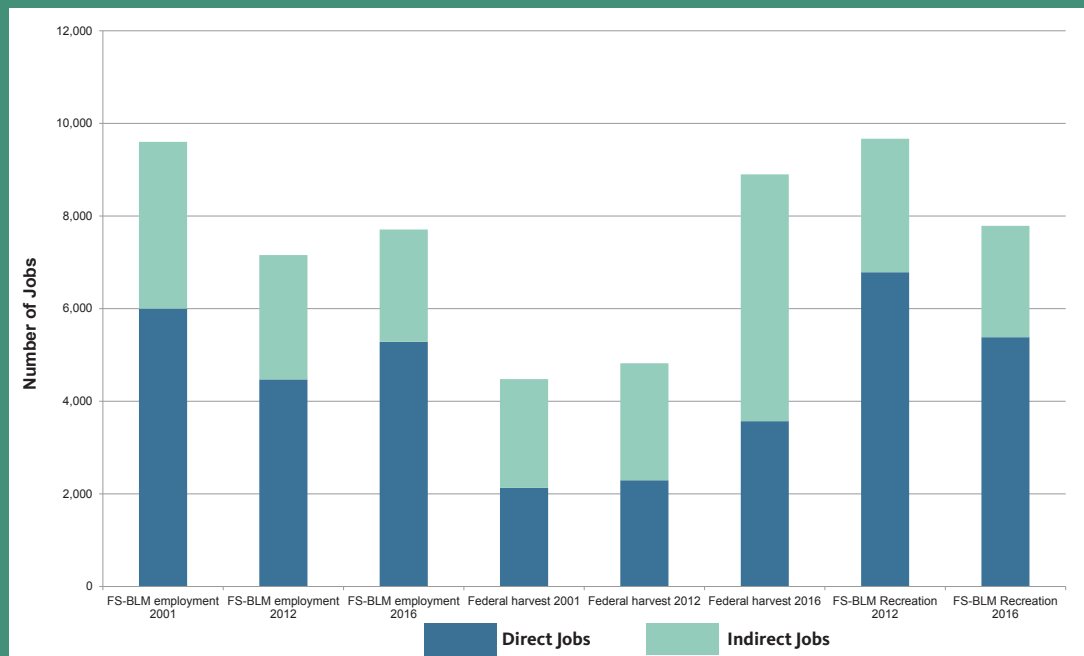


Figure 1-1—Employment supported by Forest Service and Bureau of Land Management programs in the NWFP area in 2001, 2012, and 2016. Forest activities support jobs in key sectors related to federal timber harvests, recreation, and agency employment. Direct jobs are supported by forest activities (e.g., timber harvesting) and indirect jobs are supported by subsequent business-to-business transactions that support these forest activities (e.g., spending on materials, equipment, and fuel for forest work). Source: Adapted from Grinspoon and others.

25,000 Jobs in NWFP area



8,900
Timber-related Jobs



7,800
Recreation-related Jobs

We have more information about supporting job opportunities in the NWFP area than outside the area due to decades of monitoring. However, we do know that in 2016, the Ochoco National Forest supported almost 800 jobs in local communities—mostly associated with Forest Service employment, grazing, and timber; the Modoc National Forest supported about 1,000 jobs—mainly in grazing and federal employment; and the Lassen National Forest contributed about 1,400 jobs—mostly in federal employment, timber, and recreation.

Sustainable Recreation

Recreation activities provide enjoyment for millions of national forest and grassland visitors. Recreation improves physical and mental health and helps people connect with the outdoors. In the BioA area, national forests and grasslands offer great opportunities for outdoor recreation. As such, tourist spending is a large part of the economic benefits national forests and grasslands provide to communities. On the national forests and grasslands in the BioA area, people enjoy biking, hiking, camping, horseback riding, off-road vehicles, hunting, fishing, skiing, wildlife viewing, and water sports. **In the NWFP area, recreation visitors spend about \$613 million annually** on lodging, restaurants, souvenirs, and other trip-related expenses that support businesses in local communities.¹⁰

⁹ Grinspoon and others in progress—Some data and information presented in this chapter are from the *Northwest Forest Plan—The First 25 Years (1994–2018): Socioeconomic Monitoring Results* report. The report is in development as of publication of the Bioregional Assessment.

¹⁰ Charnley and others, 2018.

Forest Products

Forest products, logging, and wood manufacturing support many different types of jobs in local communities. Total employment in forest products industries in the NWFP area has declined in the past 25 years and, even as overall harvest in the area has increased slightly since 2009, there has not been a corresponding increase in jobs (figure 1-2).¹¹ Timber job losses have more impact on small rural communities, where up to 10 percent of the community could be working in forest products manufacturing, than larger, urban communities. The Forest Service also supports jobs by hiring and training local contractors to work on forest restoration activities.



Forest products in the BioA area are a tremendous benefit for people and communities, and provides a critical resource for economic development in the United States. About 600 million board feet of timber was harvested each year from 2009 through 2018 from national forests in the BioA area—enough to build about 37,000 homes. Timber also generated average annual revenues of about 39 million dollars for forests in the BioA area. Nontimber forest products, such as moss, mushrooms, cones, grasses, and firewood, provide valuable economic and cultural benefits to rural, Tribal, and urban households through their use, harvest, and processing.¹²

Timber-related employment and timber harvest on federal, state, Tribal, and private land in the NWFP area.

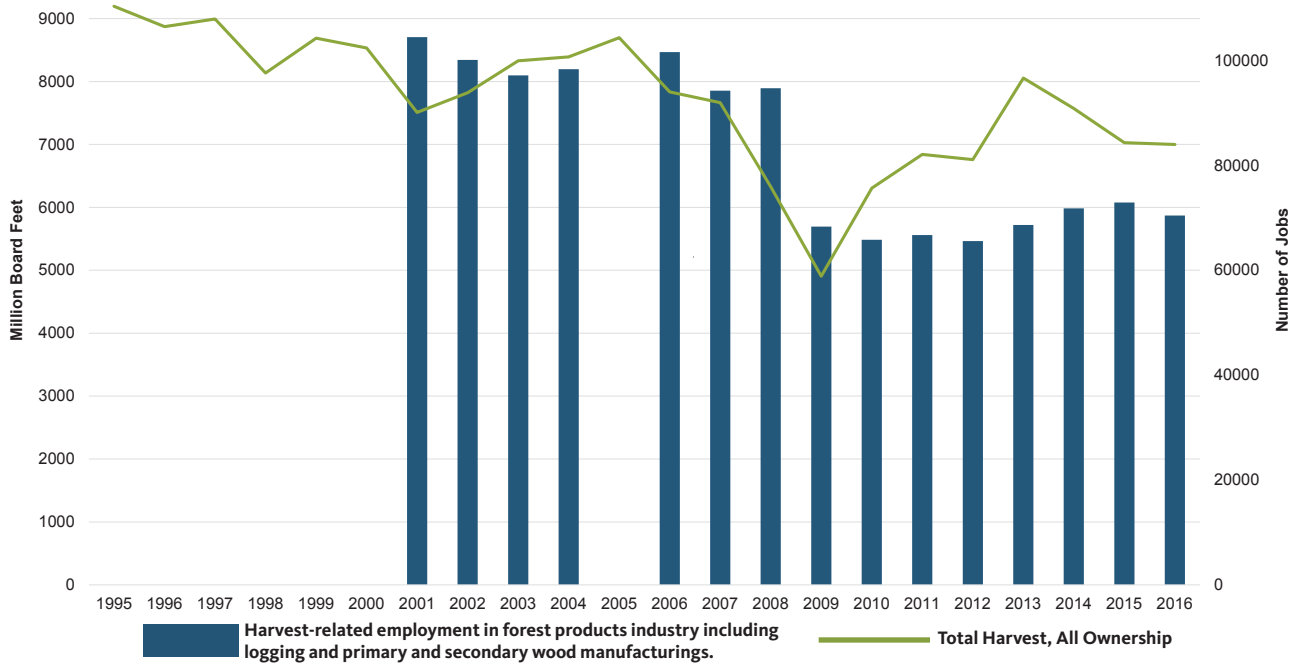


Figure 1-2—Harvest-related employment and timber harvest on all ownerships—federal, state, Tribal, and private—in the NWFP area. The decline in employment from 2006 to 2009 has not improved despite recent increases in harvest, which might be due to changes in industry structure and improvements in mill efficiencies. Employment data was not available pre-2001 or in 2005. Source: Adapted from Grinspoon and others in progress.

Average annual forest products on national forests within the BioA area (2009 - 2018)

600 MMBF Timber Harvested



Enough to build 37,000 Homes



\$39M Revenue Generated



¹¹ Grinspoon and others in progress.

¹² Grinspoon and others in progress.

Water

Water, one of the most important natural resources we receive from our national forests and grasslands, provides valuable ecological benefits, supports terrestrial and aquatic species, and enables us to enjoy many types of recreation activities. Local communities depend on water from national forests for their economic growth as well as to meet their municipal, industrial, and agricultural needs. In fact, **about 49 percent of the water in the western United States comes from national forests and grasslands** (figure 1-3).¹³ Water has an annual monetary value of more than \$3.7 billion nationally with the highest values in Oregon, Washington, and California.¹⁴

Bull Run Watershed

Located 26 miles from downtown Portland in the Sandy River basin on the Mt. Hood National Forest, the 102-square-mile Bull Run watershed collects rainwater and snowmelt that flows to the Bull Run River and its tributaries. As the primary drinking water supply for Portland, water from the watershed drains into two reservoirs that store more than 17 billion gallons of water. This water serves nearly a million residents in the Portland metropolitan region, a quarter of Oregon's population.

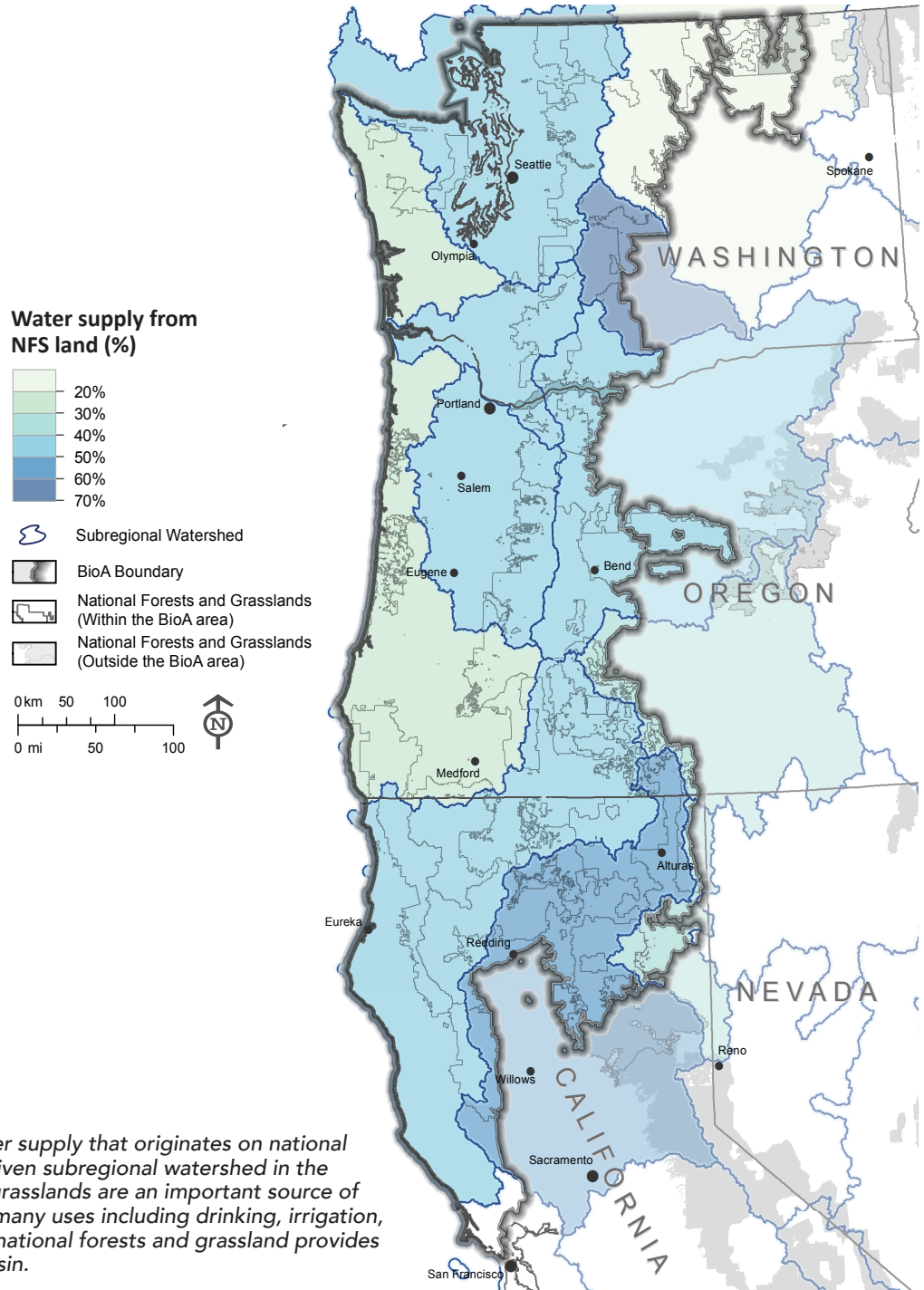


Figure 1-3—Percent of total water supply that originates on national forests and grasslands within a given subregional watershed in the BioA area. National forests and grasslands are an important source of abundant high-quality water for many uses including drinking, irrigation, and aquatic habitat. Water from national forests and grassland provides much of the water for a given basin.

¹³ Brown and others, 2016.

¹⁴ Sedell and others, 2000.

Air quality

Forests contribute to improved air quality, making it safer to breathe and easier to see as a result of reduced ozone and less particulate matter. Clean air and good visibility contribute to a sense of wellbeing, enhancing people's desire to recreate on national forests and grasslands and engage in spiritual and cultural activities, which results in positive impacts to area visitation and jobs in local communities. In contrast, smoke from wildfires and some prescribed fires adversely affects air quality and can negatively impact the health and quality of life for visitors and residents. There is an economic effect to the communities that are dependent on recreation when visitors choose to avoid smoke-filled areas.

Economic Impacts of Smoke From Fire

The effects of smoke from fires can be wide reaching. In the summer of 2018, many communities in the BioA area experienced long periods of heavy smoke from wildfires. The Oregon Shakespeare Festival in Ashland canceled or moved more than 26 outdoor performances, resulting in an estimated loss of \$2 million to the local community. This loss does not include any additional trickle-down impacts for businesses. Visits to nearby Crater Lake National Park dropped by 22 percent and uses of other area outdoor recreation businesses declined as much as 45 percent. The Ashland Chamber of Commerce noted some members' sales dropped 20 to 60 percent that summer.

Carbon Storage

Most forests and grasslands in the BioA area, especially those in the western part, have much higher carbon densities than the rest of the country (figure 1-4).¹⁵ Carbon storage, or sequestration, is a global benefit that is hard to quantify or put a dollar value on, but it supports ecosystems and local and worldwide communities by addressing one of the main causes of climate change.

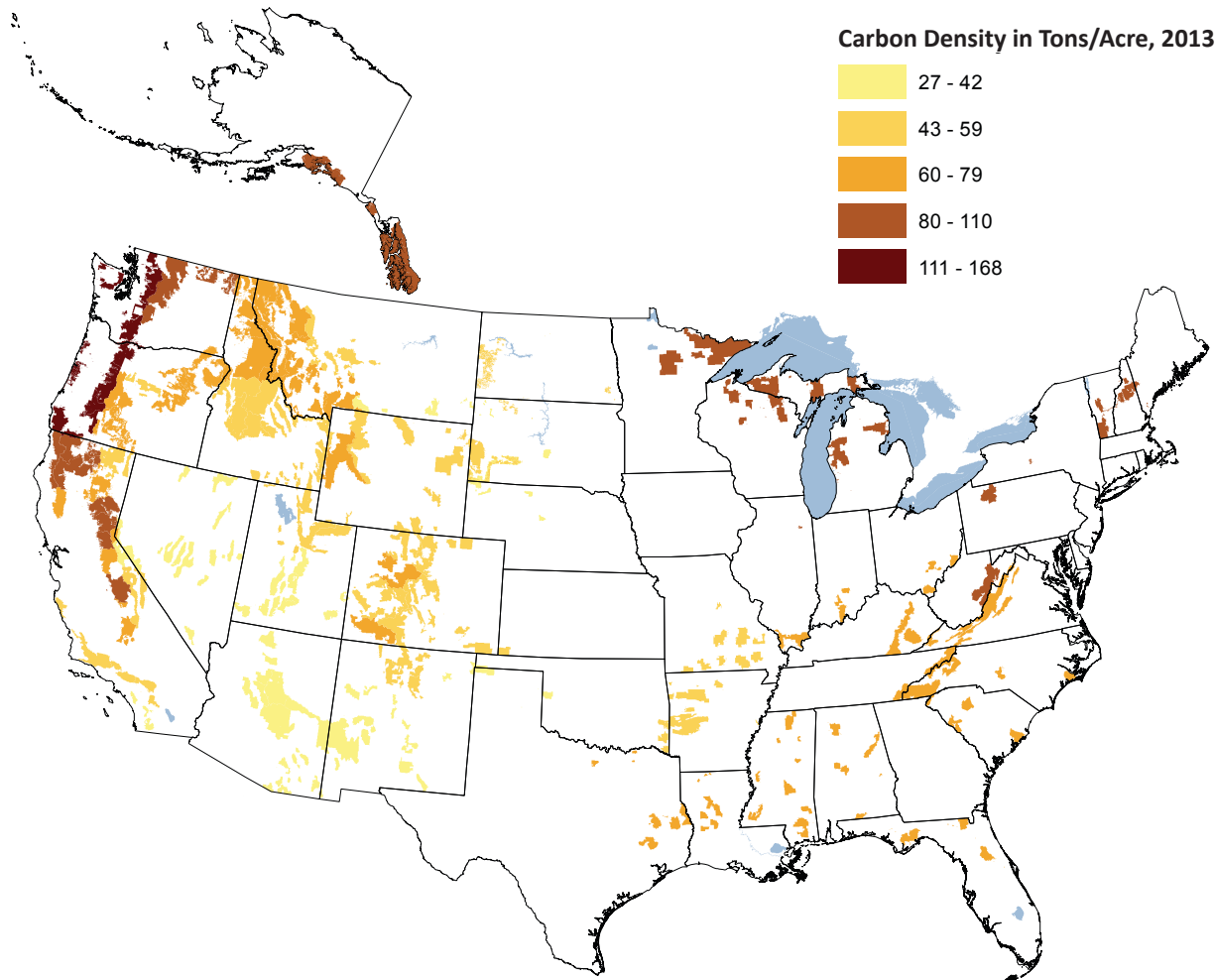


Figure 1-4—Carbon density on national forests and grasslands, as of 2013. Most forests and grasslands within the BioA area, especially those in western part of the BioA, have much higher carbon densities than the rest of the country. Source: USDA Forest Service 2015.

¹⁵USDA Forest Service, 2015.

Roads and Access

Roads in the National Forest Road System provide essential access to our national forests and grasslands and are built and maintained primarily from timber-sale revenue. We use roads for recreation, specially authorized activities, Forest Service administrative activities, and for traditional and Tribal harvesting of forest products. Local communities depend on maintained forest roads for many of their daily activities. Roads and trails also provide key access for fire suppression and search-and-rescue operations. After 30 years of declining timber sale volumes and revenue, our ability to maintain the road system and its benefits to communities is challenged.

Special Use Services & Energy Infrastructure

The Forest Service receives numerous individual and business applications to use national forests and grasslands. These special uses provide many essential benefits to our nation, including water delivery, agriculture, outfitting and guiding, recreation, telecommunications, research, photography and video productions, and road and utility rights of way. The special use activities that generate the most revenue on national forests and grasslands in the BioA area are recreational residences, winter recreation resorts, powerlines, telecommunications, outfitting and guide services, and marinas. Energy infrastructure, such as transmission and powerlines on national forests and grasslands, contributes to national energy security, improves quality of life, and feeds power to communities. National forests and grasslands in the BioA area support more than 1,700 miles of energy transmission lines that contribute to local communities and regional needs. Hydropower provides important electricity generation capability to meet the needs of people across the region. In 2018, special uses in the BioA area generated about \$19 million, and this annual amount has been growing for the past decade.



Livestock Grazing

Grazing provides important benefits and supports both employment and the ranching culture in local communities, particularly on the eastern forests and grasslands of the BioA area (Modoc, Ochoco and Fremont-Winema National Forests and Crooked River National Grassland). Ranchers seasonally graze on national forests and grasslands because the land usually provides high-quality forage, good access, and cooler summer temperatures at higher elevations. However, land managers are required and challenged to provide long-term sustainable grazing, while maintaining habitat for wildlife and healthy streams in the face of changing climatic conditions and the related increase in the frequency, intensity, and scale of wildfires.



Unique Forest Communities

Every forest community is different. Social and economic conditions in some communities are more connected to forest activities than in others. For example, Tribes maintain an interdependent relationship with the national forests whereby Tribal practices nurture ecological systems, and those systems nurture and sustain cultural identity and social continuity. Tribes hold deep connections to ancestral lands managed by the Forest Service and rely on effective forest management of Tribal resources to maintain those connections. The Forest Service has unique legal responsibilities to each American Indian Tribal government through treaties, where Tribes have reserved rights for their Tribal members both on and off reservation lands. The ability of all Tribes to obtain ecocultural resources from public lands in the desired quality and quantity can be reduced by both social and biophysical factors. While some Tribes have treaties, other Tribes have different rights and cultural differences, making each Tribe and its relationship with Forest Service land management unique.

Of those non-Tribal communities with close ties to national forests and grasslands, some have been able to adapt to land management changes. For example, some are “amenity communities” that have taken advantage of natural forest settings to benefit from an increase in the number of residents and visitors. In addition, some communities have been able to successfully develop economic opportunities outside of the timber sector by pursuing energy, agricultural, and tourism possibilities. In contrast, other communities have faced significant challenges as a result of land management changes. The communities that relied on a federal supply of timber to support their workforce and infrastructure (figure 1-5) are more likely to have been directly affected by reductions in federal harvests. These communities might also be aging and young people are moving away. When part of the workforce retires without being replaced by younger people, jobs remain unfilled and businesses leave the community, which leads to more people leaving and perpetuates a cycle of social and economic loss. Rural communities that depend on federal timber face these types of challenges throughout the BioA area.

Strength of County Tie to Federal Forest Activities in 1990

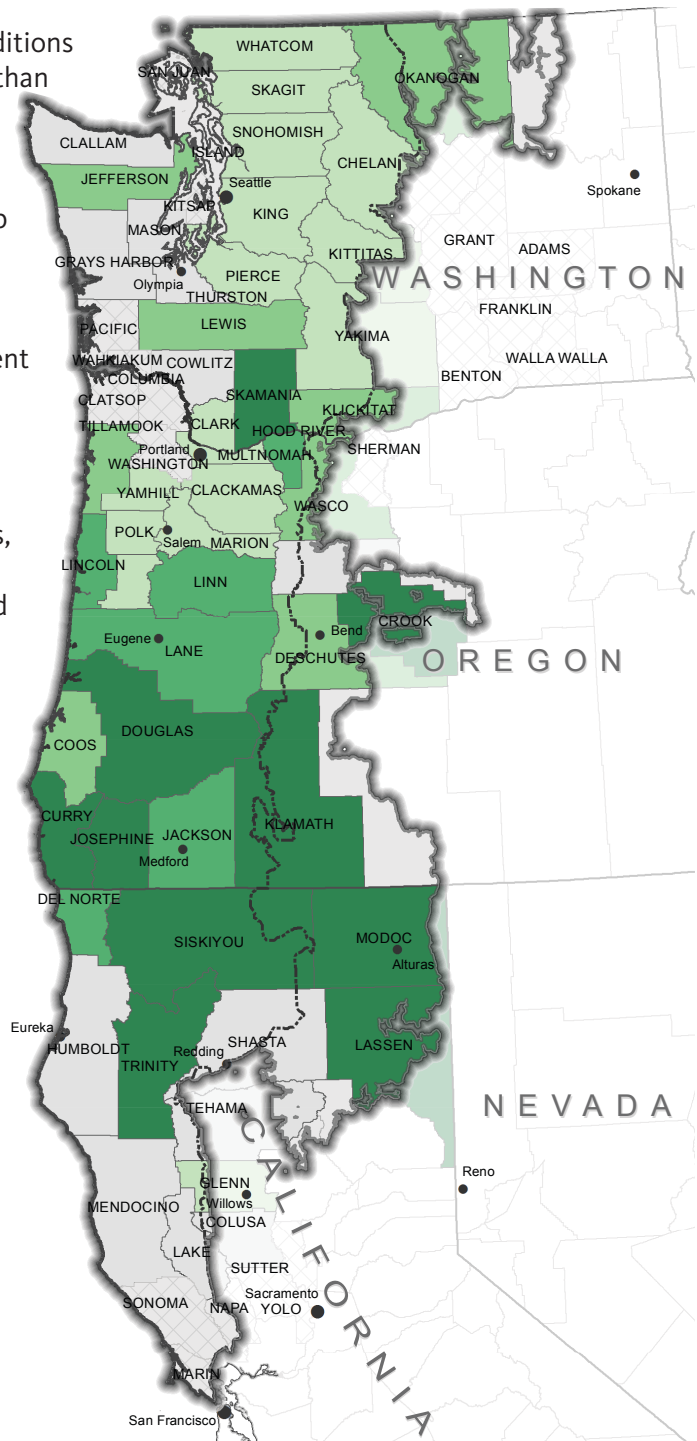
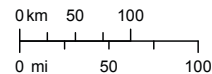
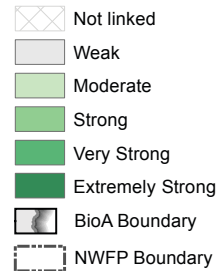


Figure 1-5—Strength of county economic and social ties to federal forest activities in 1990. 1990 is a mid-point between a period of very high harvest activity, as measured by total volume on federal forests in the 1980s, and the adoption of the NWFP in 1994. Counties with stronger links just before the NWFP era might have had a greater likelihood of experiencing challenging economic conditions related to management changes, such as reduced staffing and timber harvest levels, introduced by the plan. Counties in southern Oregon and northern California were more likely to be strongly linked to federal forest land management during this time than counties in other areas of the NWFP region. Individual communities might not have had the same strength of links to federal forest lands management in 1990 as did the county in which they are located, though the proportion of communities within a county that were strongly linked to federal forest lands management is probably higher in strongly linked counties. Some counties to the east and south edges of the BioA area are not represented as they were not part of the NWFP socioeconomic monitoring. Source: Adapted from Adams in progress.

Communities across the BioA area also experienced shifts in demography. Some communities saw an increase in minority populations, while others saw an increase in low-income residents. Demographic shifts bring new social challenges that interact with land management decisions. The [Executive Order on Environmental Justice](#) and the Forest Service’s 2012 planning rule direct land managers to pay attention to how policy changes or program implementation affect vulnerable populations, such as minority, low income, elderly, and disabled populations, and to consider the unique outreach and communication needs of these populations.

The following community stories are descriptive and show differing experiences in national forest communities in the BioA area. These communities were all historically linked to federal forests and had to adapt to changes introduced by the NWFP. The stories have been adapted from the comprehensive formal analysis of communities that will be presented in the forthcoming 25-year monitoring report.¹⁶

Happy Camp, California

Happy Camp is a small mountain community surrounded by northern California’s Klamath National Forest. The town’s timber economy, based almost exclusively on national forest harvests, boomed between the 1950s and 1980s, after which national forest harvests were sharply curtailed. The last sawmill in the area shut down in 1994. Happy Camp and the surrounding area lost 22 percent of their population during the 1990s. This dramatic change created a void in the community as younger working-class families left to pursue other opportunities. A way of life—working in the woods—that had defined the community was lost and has not returned. Today, the town is home to the Klamath-Siskiyou Art Center; Karuk Tribe administrative offices, which provide important services to the community; and the USDA Forest Service’s Happy Camp/Oak Knoll Ranger District offices, which have remained open but at lower staffing levels. The community has worked with the Forest Service to expand recreation visitation in the two wilderness areas adjacent to the community and on the Klamath River, which offers excellent opportunities for rafting and fishing. The community persists, but its population, economy, and social structure have changed dramatically during the past 30 years.



Leavenworth, Washington

Leavenworth is a small mountain town surrounded by the Okanogan-Wenatchee National Forest in central Washington. Nearly 6,000 people lived in Leavenworth by 1920, and the town supported a large sawmill. But the timber boom ended when the railroad was rerouted in 1926, and soon afterward the mill closed. Although many locals continued in the timber industry at nearby mills or at the Leavenworth Ranger District, the town population steadily declined until the 1960s. In 1963, community leaders decided to create a Bavarian-themed tourist town to boost the economy. Leavenworth’s economy steadily improved during the latter 20th century. Tourism continued to grow as mountain biking, rock climbing, and rafting on the Okanogan-Wenatchee National Forest became popular. In addition, the forest’s beautiful scenery and amenities attracted new permanent and part-time residents that spurred burgeoning real estate and vacation rental markets. Although Leavenworth is now prosperous, neither this community nor nearby communities in the Wenatchee Valley are associated with timber-sector work anymore, a fact that some residents lament. The lack of infrastructure in the area makes needed restoration work on the national forest challenging.



¹⁶ Coughlan and others in progress.

Mill City, Oregon

Mill City is at the mouth of the North Santiam Canyon 30 miles east of the city of Salem. Between the late 1950s and the late 1980s, Mill City thrived. High-wage jobs with the town's lumber mills and the Forest Service sustained a variety of local businesses, a community theatre, and a bowling alley. Unlike Happy Camp and Leavenworth, the timber industry did not disappear from Mill City. At least one wood products mill has operated in the North Santiam Canyon area throughout the NWFP era. A few small outdoor recreation businesses are in operation, and the area has attracted some retirees. Yet the town still experienced significant social and economic change starting in the 1990s. Forest Service positions funded by timber were eliminated, many employees and their families left town, and many local logging contractors either folded or moved away.

Houses were left vacant and the number of absentee landlords grew. School enrollment declined substantially, reflecting far fewer families with children in the community. Mill City's population did not decline sharply, unlike many other rural forest towns in the Northwest. In 2017, it had roughly the same number of residents as in 1990, but it is a much different community with fewer services and jobs.



Land Management Plans Help Sustain Community Benefits

Updates to land management plan direction, while unable to resolve all issues, can help to improve social and economic sustainability and better reflect the needs of local communities throughout the BioA area, especially those in hard-hit rural communities across southern Oregon and northern California. While the Forest Service strives to balance the social, economic, and ecological needs of communities and landscapes, there are instances where one resource objective might require more emphasis than others. When updating land management plans, the Forest Service collaborates with Tribes, states, counties, and communities to develop goals and discover potential management approaches that seek the right emphasis on community and ecosystem objectives. For example, plan direction can help increase forest products generated from national forests, which can increase timber available and increase the workforce needed to maintain a stable pace and scale of restoration. In this way, land management direction can, to the extent possible, emphasize the value of social and economic benefits of national forests and grasslands to local communities.

We can help ensure effective stewardship of sustainable, healthy, and fire resilient national forest and grassland landscapes as well as recreation opportunities by developing direction that is compatible with Tribal, state, and local land and action management plans. Additionally, **the Forest Service is committed to sharing the stewardship of federal lands with Tribal, state, and local partners.** By setting priorities together, we can better focus our land management efforts across boundaries.

Local Businesses and the Forest Service Work Together

Businesses and partners in the communities around our national forests and those across the region help us do important work on our forests and grasslands. Local businesses often purchase timber sales and accomplish restoration work. And, businesses and partners located within the region might have needed unique skills and capacities. Ultimately, the amount of local economic activity that results from land management activity on our national forests and grasslands is strongly influenced by who is doing the work and if harvested wood is locally processed. Developing a shared understanding and common expectations with our partners and stakeholders about the link between land management and economic well-being is vital. It's also important to recognize the limits that land management activities have on local communities.

Conclusion

In this chapter, we recognized the significant values that national forests and grasslands deliver to all people, especially to those in communities that directly depend on economic benefits from these lands. Moving forward, we know that balancing complex ecological needs with the growing social and economic needs of communities within the BioA area will take a commitment to ongoing communication, collaboration, and coordination to develop solutions that address these challenges.

