

Chapter 6: Southern Tillamook County, Oregon

Photo: Julia Sizek

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Case study facts

Population (2020): 5,893

Location: Tillamook County, Oregon

Federal forest lands (35% of study area):
Hebo Ranger District, Siuslaw National Forest

Climate:

Average Annual High: 59.7 °F/Low: 42.3 °F
Annual Precipitation: 89.93 inches;
Snowfall: 0.2 inches (National Oceanic and Atmospheric Administration, 2021)

Approach

We conducted social and economic monitoring of eight rural communities (<15,000 residents) within the Northwest Forest Plan (NWFP) area. We used a case study approach involving analysis of qualitative interviews (Figure 6.1), literature review, and descriptive summaries of selected secondary data. All interviewees worked in, resided in, or had social or economic ties to the Southern Tillamook study area. Quotes in these reports are from interviews conducted in 2024. Each case study can be read as a standalone report. Chapter 1 provides a full introduction and methods including case study selection, interviewee sampling rationale, and secondary data analyses.

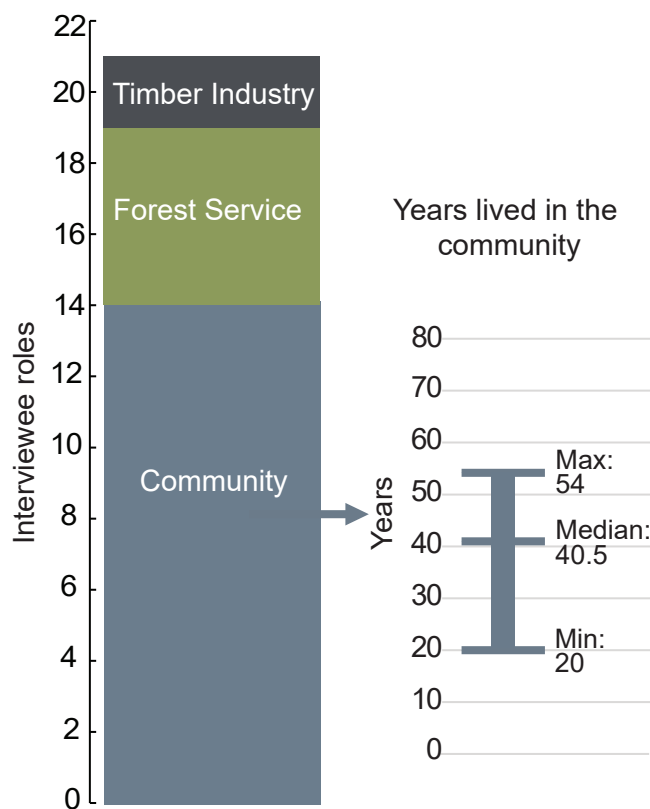


Figure 6.1. Graph of interviewees by role and number of years lived in the community. Our sample included 14 community members, five Forest Service employees, and two timber industry representatives. Community interviewees lived in the study area for a minimum of 20 years, a maximum of 54 years, and a median of 40.5 years.

Study area and geography

The Southern Tillamook County case study focused on the Hebo Ranger District of the Siuslaw National Forest. We defined the Southern Tillamook County community spatially as the Neskowin and Beaver census county divisions (CCDs). The CCDs include the southern portions of Tillamook County, which includes the census-designated places (CDP) of Beaver, Hebo, Cloverdale, Pacific City, and Neskowin (Figure 6.2). These unincorporated communities are along US 101 or short spur roads off the highway. Tillamook is the county seat, which is approximately seven miles north of the study area boundary. The Hebo Ranger Station is located in the Hebo CDP.

National forest lands comprise 36,000 acres (35 percent) of the study area, and the US Department of Interior Bureau of Land Management (BLM) manages 15,000 acres (12 percent of the study area) of federal forestlands. In addition to national forest and BLM lands, the Tillamook State Forest and private industrial forest (primarily owned by Stimpson Lumber Company) are significant to the area's timber industry comprising 6 percent and 19 percent of the study area, respectively. Forests in the study area are comprised of coastal temperate rainforests including Douglas-fir, western hemlock, Sitka spruce, and red alder.

The distribution of the population across unincorporated census-designated places within the study area was variable. For example, in the 2020 census, the population of Pacific City was 1,109, Hebo was 207, Cloverdale was 267, Beaver was 163, and Neskowin was 205 (Rynerson, 2026).

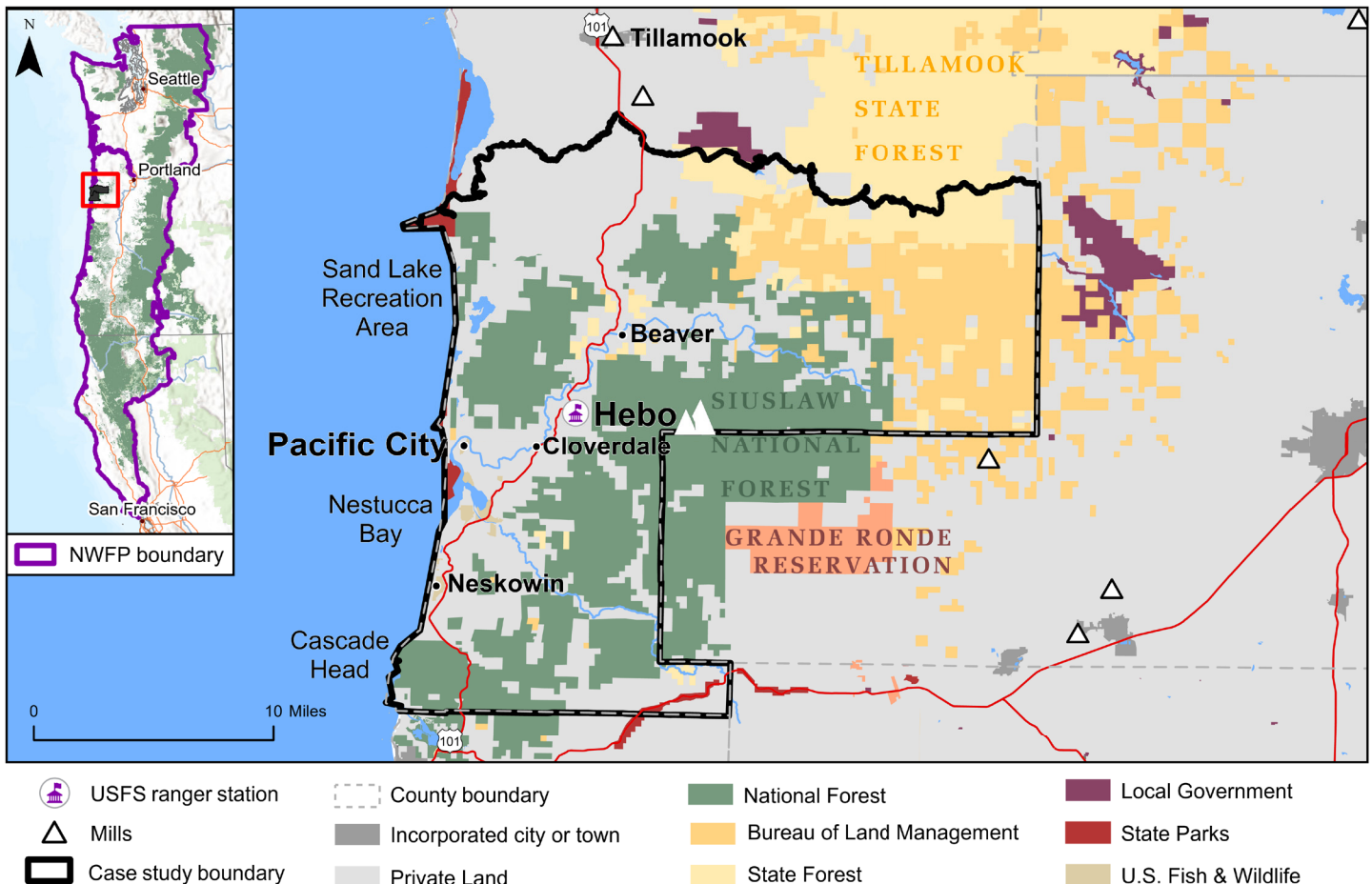


Figure 6.2. Southern Tillamook case study area

Interviewees described Neskowin and Pacific City as the “destinations” of the area, whereas other areas like *“Cloverdale, Hebo, Beaver, Blaine...are not [destinations].”* They described Pacific City as a tourist destination because of its proximity to the beach. According to interviewees, it was never a *“big timber hub.”* One interviewee noted that Pacific City was one of the most populated unincorporated communities in Oregon. Many thought that Pacific City was a second home community for people from Portland and the Willamette Valley, and that comparatively few people lived in Pacific City full-time.

Interviewees described Neskowin as primarily a summer town that lacks a strong economic relationship to natural resources. As one interviewee put it, *“Neskowin is not a timber town...it’s pretty much residential ... a place for people to come in the summer.”*

Interviewees described the inland towns of Beaver, Hebo, and Cloverdale as lacking services. Referencing Hebo, for example, *“I think there’s a lot of potential there because of the location—that’s right on Highway 101 and a major intersection, where you have traffic coming from the valley...and there’s not a reason in the world to stop there [in Hebo]. You just keep going.”* They stated that Beaver and Cloverdale similarly lack services, *“so you have a stretch of about 15 miles [where] you can’t find a public restroom or a place to get a cup of coffee or soda.”* Interviewees thought that residents of these towns mostly worked in the woods (for example, for the Forest Service) and were less involved in the service industry. Historically, locals knew Hebo as *“a timber and military town.”* It has experienced population and business losses since the closure of the military station in 1980 and, later, following the implementation of the Northwest Forest Plan (NWFP) in 1994.

Points of interest

Sand Lake Dunes and Cascade Head

A unique aspect of the Forest Service lands in the Hebo Ranger District are the coastal sand dunes at Sand Lake, north of Pacific City. This area became popular with off-road vehicle users beginning in the 1970s, leading to the development of a management plan in 1980 (Tonsfeldt, 2010).

On the southern end of the Hebo Ranger District is Cascade Head, which was designated in 1934 as an Experimental Forest. A portion of this was designated in 1974 as a Scenic Research Area (Tonsfeldt, 2010). The area is primarily a Sitka spruce and hemlock forest, and the entire area was designated as a Biosphere Reserve in the United Nations Biosphere Reserve system in 1980 (Tonsfeldt, 2010). This area has been managed by the Northwest Forest and Range Experiment Station (USDA Forest Service, 1977).

Pacific City Beach

Pacific City Beach is located south of Cape Kiwanda headland. The beach features the scenic Haystack Rock (also known as Chief Kiwanda Rock), sandy dunes, a wide sandy beach, and is known for good surfing and fishing. Traditional dory fishing boats offer an additional cultural attraction. The beach draws in seasonal residents and tourists alike.

The litigation era and the NWFP: a summary of local impacts

In the late 1980s, conservationists began to raise public awareness of the destruction of old-growth forest habitat by logging in the Pacific Northwest. Public protests and legal actions soon focused attention on the northern spotted owl (*Strix occidentalis*), whose habitat was threatened. During the “litigation era”, beginning in 1989 with a temporary legal injunction on federal timber sales in the Pacific Northwest and culminating with the implementation of the NWFP in 1994, timber harvest decreased significantly on federal forests in Northern California, western Oregon, and western Washington. This section provides a summary of direct impacts of these events on the social and economic wellbeing of the Southern Tillamook County study area. In the sections following this summary, we situate these impacts within the study area’s pre-NWFP history (including settlement and post-World War II timber industry) and on-going changes in the community’s wellbeing following 30 years of the NWFP.

Annual timber harvest on the Siuslaw National Forest fell from 424 million board feet (mmbf) in 1988¹ to 15 mmbf in 1994 (Figure 6.3) (USDA Forest Service, 2025). This drop followed 30 years of harvest volumes consistently exceeding 300 mmbf annually (Tonsfeldt, 2010). Annual harvest on the Siuslaw National Forest reached its lowest point at just under 5 mmbf in 1997, a level similar to pre-World War II volumes (Tonsfeldt, 2010). Since 1998, harvests have averaged around 19 mmbf (USDA Forest Service, 2025). The Siuslaw National Forest budget was also halved because of the decline in timber sale receipts (Tonsfeldt, 2010).

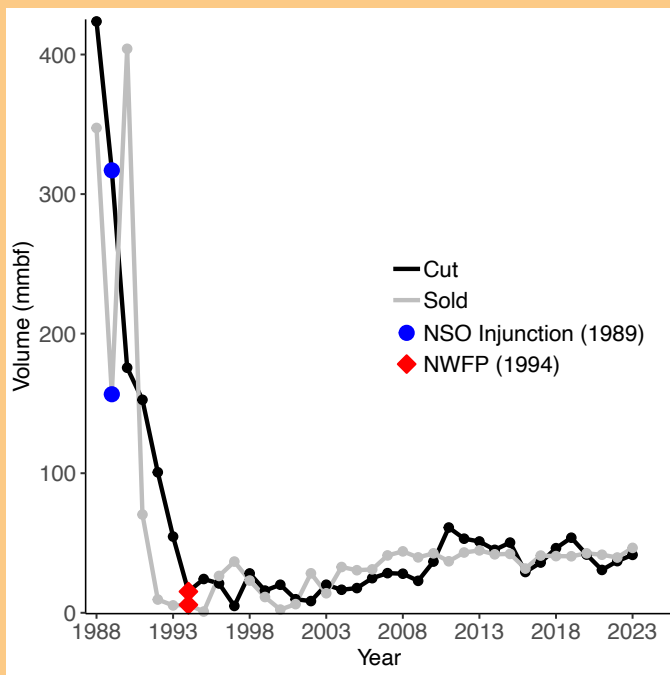


Figure 6.3. Line graph showing timber harvest and sales (“cut” and “sold” volume in million board feet) for the Siuslaw National Forest, federal fiscal years 1988-2023. Landmark 1989 temporary injunction on timber sales in NSO (northern spotted owl) habitat in federal forests in the Pacific Northwest and 1994 implementation of the NWFP indicated by blue dots and red diamonds respectively (USDA Forest Service, 2025).

Interviewees had disparate views about the NWFP’s impact on the study area. Previous monitoring suggested that in 1990, federal forest lands had high importance to the economy in Tillamook County relative to other counties in the NWFP area (Adams, 2025). However, historically, the study area lacked timber processing capacity. Logs from the Hebo Ranger District were transported to mills² in nearby Tillamook and elsewhere. While millworkers could have easily commuted to Tillamook and independent logging operators were certainly based in the study area, local economic impacts of pre-NWFP timber harvest are difficult to estimate.

However, as one interviewee explained, the NWFP came at a time that was right for transitioning timber harvest from federal lands to state lands because of the age of the forest. As one interviewee noted, “*that [State Forest] wood*

1. USDA Forest Service cut and sold data reported in federal fiscal years.

2. The term “mill(s)” is used throughout to indicate any wood processing facility, including, for example, dimensional sawmills, shake mills, plywood and particleboard facilities, and paper mills.

was just becoming merchantable at the same time that the Northwest Forest Plan was enacted. And so, the infrastructure for logging was able to somewhat transition off of a steady diet of federal timber sale programs into the state forest [timber].” Consequently, impacts from the NWFP likely buffered employment in the timber industry as local loggers and mills turned to the Tillamook State Forest for sales.

With the decline in harvest from federal forest lands in the period leading up to the NWFP, the Tillamook State Forest became increasingly important for compensating losses in county revenues from the decline in timber sale receipts (TCFC, 2003). In 2020, timber revenues from the State Forest provided over \$22 million to Tillamook County (Egener, 2021).

Our interviewees also conveyed broad variability in community knowledge of the NWFP in Southern Tillamook County. Only four community interviewees claimed to know about the NWFP, while six said they knew it a little, and two reported that they were unfamiliar with it. One interviewee mentioned that they thought local awareness of the NWFP was low, unless they or a family member were involved in the timber industry. *“I would bet that most people don’t even know what the Northwest Forest Plan is or does for them.”* Some interviewees thought that forest management practices changed under the NWFP, transitioning from prioritizing timber harvest to managing late successional forest and restoration. Under the NWFP, the Hebo Ranger District was designated as an Adaptive Management Reserve and Adaptive Management Area, both of which are designations that do not prioritize timber harvest. Two interviewees mentioned the scientific basis of the NWFP as being important to them, and that local ecological concerns were essential to determining what should be cut.



Old timber railroad in Tillamook

One interviewee believed that under the NWFP, the Forest Service was *“looking for different ways to improve the habitat and the forest that wasn’t being done before,”* including non-traditional harvest strategies like restoration thinning. Interviewees noticed the decline in timber harvest in the area, noting that *“three quarters of it is not being harvested these days.”* Two interviewees recalled strong local opposition to restrictions related to spotted owls, including one local group that made hats criticizing owl protections. Interviewees also noted that the loss of logging on federal lands impacted county budgets for local roads and education: *“[logs on federal lands] were a bunch of high-value logs, and the County lost out [on timber receipts].”*

Pre-NWFP history

Settlement

Indigenous Tillamook people, known as the Nestucca, lived since time immemorial along the Nestucca River, which flows through the study area (Tonsfeldt, 2010). Tillamook peoples first contacted Europeans—or at least their trade goods - through shipwrecks and coastal trading activity as early as the late 17th century (La Follette et al., 2018). By the late 18th century, European and Euro-American traders were trading with the Tillamook, bringing with them diseases that severely impacted local populations (Tonsfeldt, 2010).

To the north of the study area, Euro-Americans established a trading post at Astoria in 1810, and Tillamook was founded in 1853 (Tonsfeldt, 2010). However, settlement in the study area remained limited. As late as 1860, fewer than 100 Euro-Americans resided in Tillamook County (USDA Forest Service, 2001). In an 1855 executive order, President Franklin Pierce established the Coast Reservation consisting of an approximately one-million-acre reservation and including most, if not all, of the study area (Lewis, 2022). The U.S. government intended to confine western Oregon's Indigenous populations to this reservation and actively prohibited Euro-Americans from settling or gaining title to reservation lands. Over the next two decades, the Coast Reservation was reduced in size through various acts. By 1875, Southern Tillamook County was returned to the public domain and opened to Euro-American settlers and industrial interests (Tonsfeldt, 2010).

Filing of fraudulent homestead claims ("land fraud") was a widespread tactic used by industrial timber interests to convert forests in the study area (and in the Western U.S. broadly) from public domain to private ownership (Tonsfeldt, 2010). Partly in response to these thefts, President Theodore Roosevelt established the Tillamook Forest Reserve in 1907 on what would become the Hebo Ranger District. A year later, the Tillamook Forest Reserve was combined with the Umpqua Forest Reserve to form the Siuslaw National Forest. However, timber-related land fraud continued as the forest was alternatively opened and closed to homesteading through various acts and policies. The Forest Homestead Act of 1906, for example, caused the Forest Service to reopen the national forest to land claims in 1908. In the first two decades of the 20th century, individuals filed 1,115 homestead claims within the Siuslaw National Forest. While some of these homestead claims were legitimate, many fraudulently attempted to gain land titles that they would later sell to timber interests. Applicants who were denied their land claims sometimes set fires on forest lands. A main occupation of the Forest Service during this time concerned the investigation of land claims and protection of the new national forest from fires and unlawful entry and occupation (Tonsfeldt, 2010).

Apart from Pacific City, which initially focused on the fishing industry and tourism, most of the unincorporated settlements within the study area were established as dairy farming communities (Rissel, 2009). Oretown (between Pacific City and Neskowin) and Meda (southeast of Oretown) also had cheese processing facilities, but the last of these closed when they consolidated with the Tillamook Cheese Factory beginning in 1909 (TCFC, 2003).

Many farmers also worked in the fishing industry, providing seasonal labor in local fish canneries (Taylor, 1991; Hall and Murphy, 2012). In 1886, the Linwebber and Brown Packing Company built a salmon cannery on the east side of the Nestucca Bay, approximately three miles south of Pacific City (Rissel, 2009; Taylor, 1991). This cannery was opened partly because of the fishing industry's expansion in the Pacific Northwest following the collapse of fisheries along the Sacramento River in California (Taylor, 1991). The cannery employed Chinese workers (Rissel, 2009; Taylor, 1991). While the cannery initially opened in 1887 and closed in 1889, it reopened in 1899 as the Astor Packing Company. The cannery was purchased in 1905 by

the Elmore Packing Company and closed again in 1918-1919 following several bad fishing years. When the cannery closed, many of the Chinese workers left the area to work at canneries elsewhere (Rissel, 2009).

Coastal tourism and recreation also played a role in the study area's settlement and development. By the early 1900s, Sand Lake (north of Pacific City in the study area) was publicized as the closest beach to the Willamette Valley (Rissel, 2009; Tonsfeldt, 2010). In 1909, a banker acquired much of the beach front area of Neskowin and made plans to subdivide it (NCAC, 2025). Following the subdivision, a beach resort was opened in 1912, and summer homes were soon built on other parcels along the beach.

Starting in 1904, Pacific City's businesses included popular Brooten Baths, a health spa that promised the healing powers of kelp ore, mineralized kelp in blue-shell shale (La Follette, 2022). One historian has argued that the primary impetus for settling Pacific City was the success of the Baths (Lemery, 2023). Another competing health resort, the Kiwanda Sanatorium, was one mile up the road from Pacific City in nearby Woods (Lemery, 2023). After a tuberculosis outbreak and associated court cases, the Baths closed in the 1940s (La Follette, 2022; Rissel, 2009). During this time, spas were declining more broadly, as recreation was becoming more widely democratized across the United States (Horowitz, 1973).

Between 1910 and in the mid-1920s, Pacific City's main industry—aside from summer tourism—was fishing (Taylor, 1991). Fishermen of Southern Tillamook County developed what became known as the Cape Kiwanda dory, a specialized boat form used for ocean fishing (Taylor, 1991). However, in the 1920s, commercial salmon fishing on the Nestucca River was prohibited, causing fishermen to turn to the ocean for fishing or leave the industry (Rissel, 2009). Those who remained continued to fish illegally or turned to other local areas and sold their catch elsewhere (Taylor, 1991). Others decided to turn to commercial fishing in the summer and fall, working as river guides for recreational fishermen in the winter. By the 1930s, during the Great Depression, the population of Pacific City dwindled (Rissel, 2009).



Cape Kiwanda, 1920

In the 1940s and early 1950s, mink farming became very popular in Pacific City (Rissel, 2009). In 1940, there were 80 mink farms in Tillamook County, and the industry was described as the third largest sector of Tillamook County's economy during this time (Rissel, 2009). Because of bans on salmon fishing, ocean fishermen remaining in the area focused on bottom fish, which were used as feed at local mink farms (Taylor, 1991). However, by the 1950s, mink prices dropped, and the occupation lost favor.

In the 1950s and 1960s, the fishing industry and tourism intensified in Pacific City as road access improved, and a small plane airport was constructed (Rissel, 2009). New subdivisions in Pacific City offered vacation homes. A more-than-tenfold increase in coho catch in 1967 also spurred a rush to the fishery, and the local dory fleet grew from about 20 in 1966 to several hundred over the next decade (Taylor, 1991). At this time, Pacific City also began its now well-known "Dory Derby" (Rissel, 2009). However, in the 1970s, regional canneries and a local salt house began to close because of overfishing and lower fish quotas (Rissel, 2009). In 1976, the Forest Service estimated that the Hebo Ranger District—through its management of the watershed—contributed approximately \$4.65 million in net economic value to salmonid fisheries in the area (USDA Forest Service, 1977). Despite the economic boon of fishing, few residents relied solely on

fishing for income (Taylor, 1991).

Interviewees also described the history of Pacific City as being rooted in summer tourism: *“most of the houses along the ridge here were... just small cabins and no insulation....They [residents] would come in the spring—it was Memorial Day to Labor Day...and that’s the way it was here, until probably the 1970s, [when] some people started moving here permanently.”* A socioeconomic analysis conducted in the 1970s noted that during the summer season, the population in the area more than doubled as second-home owners and vacationers came to the area (USDA Forest Service, 1977).

Early timber industry

In the first few years following the dissolution of the Coast Reservation, timber harvests in the Tillamook area primarily served local markets due to difficulties in extracting and transporting timber. For example, in 1885, investors from Forest Grove built a small mill at Hoquarten Slough (a few miles north of Tillamook) to meet local building needs. The mill was sold in 1891, and new investors incorporated as the Tillamook Lumber Company, processing 5,000 board feet daily by 1892 (Levesque et al., 1985). However, around this time, the timber industry on the Oregon coast began using steam power and constructing logging railroads and “cargo” mills to process timber for export by sea. A cargo mill operated at Netarts Bay around 1890. A larger cargo mill at Hobsonville on the Tillamook Bay exported as much as 10 million board feet a year by the early 1900s (Tonsfeldt, 2010). Almost all the timber processed by Tillamook mills at this time came from private lands. A branch of the Southern Pacific arrived in Tillamook Bay in 1911, facilitating industrial expansion.

By 1913, the A.F. Coats Lumber Company purchased the Tillamook Lumber Company mill at Hoquarten Slough. During World War I, the operation rapidly expanded production to meet the war demand. Sitka spruce, supplied from the Siuslaw National Forest and milled in Tillamook, supported the production of airplanes for the war effort (Tonsfeldt, 2010). By this time, the A.F. Coast Lumber Company mill reported a milling capacity of 100 thousand board feet per day. Nonetheless, the timber harvested and processed in the study area was still relatively small in comparison to the “milltowns and logging centers” north of Tillamook County (Erickson, 1987).

Between 1933 and 1951, a series of wildfires collectively known as the Tillamook Burn significantly impacted the timber industry in the study area and northwest Oregon broadly. The fires burned approximately 350,000 acres (primarily north of the study area) on private and county timberlands in Tillamook, Clatsop, Washington, and Yamhill Counties (Oregon Department of Forestry, 1997). After these devastating fires, the state obtained approximately 255,000 acres of burned forest lands to form the Tillamook State Forest (Decker, 2024; Wells, 2004). In return for giving lands to the State Forest, the counties were assured a portion of timber revenues from the lands (Decker, 2024). Upon taking ownership of the land, the State undertook a salvage program and a replanting and reseeding program (Wells, 2004; Erickson, 1987). The Tillamook Burn salvage program ran from 1934 to 1955, yielding almost \$100 million in revenue for approximately 7.5 billion board feet of timber (Wells, 2004).

Post-World War II timber industry

Demand for natural resources during World War II followed by the post-war housing boom ended a Depression-era slump in timber harvest in northwest Oregon and initiated the era of truck logging (Erickson, 1987, Tonsfeldt, 2010). Between 1943 and 1953, the Hebo Ranger District increased its allowable cut from approximately 5 to 52 mmbf (Tonsfeldt, 2010). After 1945, timber sale contracts required road building

and some contracts specified clear cutting. However, salvaged logs harvested from the Tillamook Burn dominated timber supply in northwest Oregon until the mid-1950s, producing approximately 55% of the region's logs (Erickson, 1987). Log production in Tillamook County, relative to the four other northwest Oregon counties, peaked around 1951. By the late 1950s, Georgia Pacific, Crown Zellerbach, and Publishers Papers mills in Tillamook were turning to "green" timber from southwest of the burn as truck and tractor logging made timber on the Siuslaw National Forest more accessible (Erickson, 1987; USDA Forest Service, 1977). By 1958, the annual harvested volume of Douglas fir, western hemlock, and Sitka spruce species exceeded 300 mmbf in the Siuslaw National Forest. The national forest maintained this volume of cut timber into the mid-1980s (Tonsfeldt, 2010).

In the 1970s, the Forest Service reported that the Hebo Ranger District sent approximately 15-20 million board feet per year to mills in Tillamook County, 90-120 million board feet to mills in the Willamette Valley, and 5-15 million board feet to mills in Lincoln County (USDA Forest Service, 1977). Approximately 59% of the timber was set aside for small mills in the Willamette Valley under the Small Business Administration set-aside program. In the mid-1970s, the wood products industry produced greater employment in Tillamook County than tourism, unlike neighboring Lincoln County (USDA Forest Service, 1977).

The 1970s was also a tumultuous time for the local timber industry in Tillamook as individual mills closed and reopened. The Northco Lumber Mill closed in 1970 and in 1973, Crown Zellerbach completed retooling and reopened its mill ("CZ Plans Mill Opening; Leon's Changes Managers," 1974). The retooled mill's annual capacity was 20 million board feet per year, but it closed indefinitely after operating for only 2 years (Knowlton, 1975).

Despite the significant harvest volume in the Hebo Ranger District, The Daily Astorian described the timber industry as "beleaguered" when a lumbermill closed in 1975. They suggested that the mill closures were responsible for a 22.8 percent county unemployment rate (Knowlton, 1975). In 1979, Louisiana-Pacific closed their plywood mill because of the high costs for materials and low demand for plywood (AP, 1979). With the recession in the early 1980s, lumber and wood manufacturing jobs in the county dramatically declined and remained approximately level between 1985 and 2000 (TCFC, 2003).



Tillamook Mill, 2024

Mount Hebo Air Force Station

The Hebo Ranger District was strategically important during World War II and the Cold War because of lookouts that were used for military surveillance of the coast (Tonsfeldt, 2010). Lookouts in the Hebo Ranger District were located at Buzzard Butte, Bell Mountain, Mt. Hebo, Little Hebo, and Cougar Mountain. In 1956, the Army opened the Mt. Hebo Radar Station, which was part of the Air Force Semi-Automatic Ground Environment (SAGE) system to warn against enemy aircraft (Adams, n.d.; Dorsey, 2019). The station had a “radome” (radar dome)—used as a weather station and for air defense—that operated from approximately 1965-1968 until it was destroyed by wind and replaced by newer technology (Weatherly, n.d.; Fowler, n.d.). The station closed in 1980 when it became technologically obsolete (Adams, n.d.; “Living Under Swords,” 1978). The Radar Station employed about 150-250 people, and approximately 150 families lived in or near Hebo to support the base (Dorsey, 2019). Interviewees suggested that the Air Force station closure significantly affected the town of Hebo, reducing local school enrollment by approximately 20 percent.

Southern Tillamook County after the NWFP

Employment and industry

Interviewees' opinions varied on whether employment opportunities have changed over the last 30 years. Two interviewees thought employment opportunities increased, four thought they decreased, four thought they both increased and decreased, and two thought there was no change. Interviewees characterized the traditional, “*bread and butter*,” industries in the study area as dairy, timber, and fishing.

Some interviewees, however, suggested that the economy transitioned in recent decades from “*farming, timber, fishing, to more of a service industry and recreation destination*.” One interviewee explained, “*When I first moved here, I would say that a lot of the industries around here were...what you would call resource extraction [forestry, fishing, farming]...[but] It's just not economically feasible to be a small fisherman or a small farmer, really, anymore*.” Interviewees further suggested that newer employment opportunities in the study area were mostly low-wage: “*In South County [Southern Tillamook County], there's not much you know, you have your dairy farms, you have your small businesses, you have your hotels and that require service workers. There is not much in the way of employment opportunities ... but because of tourism, [the study area] has the opportunities for lower income wages*.” Another interviewee suggested that locals had to find “*niches of employment for themselves*” and be entrepreneurial because of the lack of job opportunities in the area.

Interviewees also noted variability across the towns' economies. The tourism industry in Pacific City and Neskowin was more developed, while Cloverdale, Hebo, and Beaver did not have tourism. As one interviewee explained, “*Neskowin and Pacific City, right, those are the destinations. And then you have all these outlying other little unincorporated towns like Cloverdale, Hebo, Beaver, Blaine, you know, that are not... [in those communities]. People ... are driving places to work, and it might be to the woods to work, or they might work for the Forest Service, or the Bureau of Land Management, and it's not service industry*.”

Dairy

Between 1987 and 1997, Tillamook County lost or converted 4,300 acres of farmland to other uses,

representing a decline of 10% of its farmland (TCFC, 2003). However, the dairy industry remains very important to the study area, with the Tillamook Creamery—a nationally significant brand—still operating in the area. Interviewees noted that the nature of dairying changed, as farms now depended on labor outside of the family. In 2024, interviewees thought that the dairies were supported largely through the work of Mexican American families who have moved to the area and found opportunity working in the industry. Mexican Americans have also started local businesses (e.g. Mexican grocery store, taquerías) and work in the service industry.

Timber

In 1990, in the face of economic losses felt across the Pacific Northwest, WTD Industries built a \$7 million “modern, high-efficiency” sawmill on the Trask River (the “Trask River Lumber Stud Mill”) approximately one mile north of the study area (“WTD Industries”, n.d.). Despite its large private forestland holdings in the area, the Trask River mill competed for timber supply with the neighboring Tillamook Lumber company due to market constraints arising from injunctions against federal timber sales in the early 1990s. WTD filed for bankruptcy in 1991. However, the mill stayed in operation over the next decade as WTD liquidated other assets. In 2002, Stimson Lumber purchased the Trask River mill from TreeSource Industries (a subsidiary of WTD). As of 2024, the mill employed over 100 people and produced studs and hardboard from Douglas-fir (45%), hemlock (45%), and spruce (10%) logs primarily sourced from nearby private lands (Oregon Department of Environmental Quality, n.d.). According to one interviewee, the mill’s processing capacity was limited by workforce availability and by log supply and product demand.

Since the NWFP, the Tillamook State Forest and private industrial forestlands have continued providing timber sales for the local industry, filling the gap created by the decline in Forest Service and BLM sales. However, interviewees stated that *“a lot of people switched—went into other fields,”* described the current state of the local mills as *“a shadow of what they used to be,”* and that opportunities for *“men without college degrees”* dramatically decreased over the last few decades. Additionally, interviewees voiced concern that fewer young people were going into logging careers, and that the industry was experiencing dwindling numbers as loggers retired.



Tillamook Log Yard, 2024

Fishing

Between 1992 and 1998, wild coho salmon populations experienced a dramatic decline in Oregon; but since 1998, populations have improved (TCFC, 2003). A fishing profile of Pacific City in 2012 (Hall and Murphy, 2012) found that most fishing was recreational, with some limited commercial fishing. Fishermen were mostly middle-aged and older, reflecting the popularity of the area for recreational fishing, particularly among retirees. The 2012 study found that there was one small commercial processor and one person who did minor boat repairs who resided and worked in Pacific City, though other services like major boat repair and fishing gear were lacking. However, the area did retain a strong Dorymen's Association, which organizes events and is a social group for fishermen (Hall and Murphy, 2012).

Interviewees thought that local fishing remained mostly recreational, and that it was more competitive than it was in the past. One fisherman noted that there were over 100 boats on the river, and that competition increased as fish populations declined. Because of the growth in recreational fishing, several businesses now offer chartered fishing trips for salmon and bottom fish. As one interviewee stated, *"the fishing is not commercial [now], it's charter boats for people to take a recreational trip."* Some interviewees noted that recreational fishing (including crabbing) was a strong draw for new residents, stating that it was, *"why [new residents] moved here."*

Tourism

Interviewees characterized coastal Southern Tillamook County as the *"Willamette Valley's backyard"* and noted that both the state and national forests attracted off-road vehicle and horseback use. Pacific City and Neskowin have long been summer resort communities (Rissel, 2009). At the same time, interviewees noted that tourism in Pacific City began to pick up in the 1990s or early 2000s, when a brewery was established there. Because of this dramatic increase in tourism, there have been changes in the community. Some interviewees complained that the beaches were no longer quiet. Interviewees also noted that there was conflict within communities like Neskowin and Pacific City between *"people who are either dependent or want to make money off of tourism versus retirees...who moved here and are really invested in community as a permanent thing."*

In comparison to the coastal areas, interviewees perceived more inland areas like Hebo and Cloverdale as not benefiting from tourism. Accordingly, residents in these towns were noted to be *"angry about an increase in [tourism-related] traffic,"* and interviewees thought that they would prefer to *"keep tourism out."* Another interviewee described: *"Tourism,"* the community members *"Hate. It. Capital H."*

Demographic and community changes

U.S. Census data shows that between 2000 and 2010, the population of Southern Tillamook County decreased slightly, but then increased by 24 percent between 2010 and 2020 (Table 6.1). Low-income populations increased by five percent during this time. While the population aged 25 to 44 remained relatively stable, the percentage of the population aged 65 and older increased by five percent.

Table 6.1. US Census and American Community Survey demographic estimates for 2000, 2010, and 2020. See Appendix D for complete citations.

	2000	2010	2020	Trend
Total population	4,831	4,769	5,893	Increased overall, but variable
Low-income population*	1,412	1,883	1,986	Increased overall, but variable
% Low-income population	29%	39%	34%	
Population aged 25-44	991	890	1,101	Increased overall, but decreased as a percentage
% Population aged 25-44	21%	19%	19%	
Population aged 65 or older	978	1099	1,565	Increased
% Population aged 65 or older	20%	23%	27%	
*For low-income population, 2010 is an ACS 5-year estimate for 2008-2012 and 2020 is an ACS 5-year estimate for 2018-2022.				

Interviewees' opinions varied on whether local demographics changed. Four interviewees mentioned that families with children decreased, two mentioned that they increased, one mentioned both an increase and a decrease, three mentioned that there was no change, and the remainder were unsure or did not respond. One interviewee who tracked the change over time noted that the school district shrunk in population after the Air Force base closed in Hebo. This decline continued following changes in the timber industry. However, over the last decade, there has been an increase in enrollment, which the interviewee linked to new residents and an increased interest in attending small schools. Interviewees also described how schools were highly dependent on timber revenues because of the Tillamook State Forest revenues to the county.

Interviewees mentioned that new people were moving to Southern Tillamook County, referencing “retirees” (n=6), “wealthy people” (n=3), “teleworkers” (n=3), and “immigrants” (n=2). Interviewees noted that immigrants moving to the area supported the dairy industry. Additionally, interviewees tended to think that the opportunities for high-income jobs were limited, and that many young people only stayed in the area for family reasons. As one interviewee mentioned, *“the people that tend to stay are the ones that ...[are] doing the service jobs or are doing the logging and the fishing.”*

Housing

Interviewees almost uniformly thought that the availability and affordability of housing in the area decreased, with only one stating that housing availability and affordability increased. Interviewees thought that the quality of housing varied dramatically between communities in the case study area. Hebo was described as having *“a lot of low-quality housing”* that was more affordable for people with lower incomes, while housing in Pacific City was too expensive for new working residents. As one interviewee put it, *“there’s no housing that even they [teachers or doctors] can afford.... service workers, they’re, most of them now are*

Hispanic, and we know that they live together in, you know, like three or four families in a rental because there's nothing available. It's a real crime, you know." Forest Service interviewees also noted that a large percentage of their employees *"have quite long commutes"* and frequently come from areas like Sheridan and Willamina because they cannot find local housing.

The coastal towns of Pacific City and Neskowin have long been summer vacation communities, and many residences have been handed down over multiple generations. Interviewees in Pacific City noted that 60 percent of homes in the area were second homes rather than full-time residences, and that short-term rentals have become increasingly popular and more common. An online search revealed 357 short-term rental homes in the study area as of October, 2024.

Interviewees thought that short-term rentals caused additional problems for new renters, including working professionals. To address these concerns, the county has limited the number of short-term rentals in the area to prevent additional conversion of long-term rentals into short-term ones. Although these regulations were controversial, they withstood scrutiny in the courts. Additionally, interviewees noted that although new housing was being constructed in Pacific City, it was high-end housing *"built as rentals for tourism"* rather than for full-time residents.

Community services

Interviewees were divided as to how services (including restaurants, health care, gas stations, grocery stores, pharmacies, and other small businesses) changed in the area, likely because of the large differences between each of the unincorporated communities. Four interviewees said that services in the area decreased, two said that it increased, four said that it did not change, and two said that it both increased and decreased.

Interviewees in Pacific City thought that services increased due to its growth in popularity for its natural amenities, as a retirement and resort community. Some interviewees thought that amenities increased regionally first, and that retirees, vacation homeowners, and tourists came to Pacific City after they were priced out from Lincoln City, Seaside, and Cannon Beach. As one interviewee noted, *"That's when the new restaurants came in, and that's when the new hotels came in, as the tourism picked up."* However, some interviewees pointed out that new services were tourist-oriented and less valuable to residents. As one interviewee put it, *"the businesses [that] have come...might not have value for me living here, but, if I'm somebody visiting here, they might be something I might be interested in purchasing."* Interviewees also noted that the seasonality of tourism made it more difficult for businesses to stay open in the slow season between October to March, when it is *"almost impossible to maintain a small business down here."*



Photo: Julia Sizak
Pelican Brewery, Cape Kiwanda, Pacific City, 2024

One interviewee discussed the closure of a restaurant and gas station as a negative change in Cloverdale. Some service closures related to retiring businesses that were not replaced with new small businesses. In Hebo and Beaver, interviewees noted declines in quality or closure of markets, restaurants, and gas stations. Interviewees shared that this is *“rural towns everywhere: that local market goes away, people move on to the regional area for variety of services.”*

In Neskowin, the services have not changed dramatically. As one interviewee put it, *“We have one restaurant. We have one store. It’s been that way for almost 100 years.”* Because of the original town platting, ownership, and zoning, the town has limited family-oriented services. Many of these services remain unchanged, except for the post office which closed in the early 2020s (Neskowin Citizen Advisory Committee, 2025). Community amenities in the Southern Tillamook County case study are summarized in Figure 6.4 below.



Figure 6.4. Community amenities in the Southern Tillamook County study area. Includes one full-service supermarket (other locations that accept SNAP benefits such as gas stations or convenience stores, not included), one Forest Service ranger station, zero timber processing facilities, zero community health clinics, three post offices, and one library.

Community capacity

In Pacific City, community members spoke to the exceptional support of the community, referencing events and programs like the Christmas basket program and the Dory Fleet Trick or Treat. Interviewees also described a broad set of programs run by different groups, including CARE, Food Roots, and the Dorymen’s Association. Interviewees also mentioned natural resource-oriented organizations like the Nestucca Watershed Council and the Tillamook Estuaries Partnership. Interviewees described the benefits of Pacific City being a retirement destination, with one stating, *“the money is here.”*

In Neskowin, interviewees described a strong sense of community among full-time residents. One interviewee mentioned how town residents joined together to volunteer and raise money to complete pavement projects in the town. The Neskowin Community Association was also mentioned as a *“community-*

oriented fundraising social group that raises money for local nonprofits.” Another group, the Citizen Advisory Committee, took up other community issues and was completing a plan as of 2025 for its unincorporated area.

Hebo was described as an area that “*lacks a critical mass to do much of anything, just not enough people to make things happen.*” Communities like Cloverdale were described as close communities where many families lived in the area for generations.



Cloverdale, 2024

Community relationship with Forest Service

Six interviewees described the relationship between the community and the Forest Service as positive, one described it as negative, three described the community as split in its relationship, and two described the relationship as non-existent. Five interviewees also suggested that the relationship worsened over the years with the revolving door of Forest Service employees in the community. Three interviewees noted that a decline in the number of staff at Hebo and staffing hours had negatively impacted the community relationship, and that this has been particularly pronounced since the Covid-19 Pandemic when the office shifted to having fewer open hours. One interviewee suggested that the Forest Service did not communicate well with the community and that there were frequent miscommunications, stating, “*The Forest Service is very knowledgeable, but not asked to communicate as much as they might like to.*” Two other interviewees thought that the Forest Service could do a better job reaching out to community organizations.

We asked community interviewees about their views on Forest Service management priorities (Figure 6.5). Half of interviewees thought that the socioeconomic well-being of local communities was a high priority for the Forest Service, with only 17 percent indicating that it was a low priority. Similarly, half of interviewees thought that incorporating public opinions into the planning process was also a high priority for the Forest Service. The other half was evenly split over whether the Forest Service was neutral or placed a low priority on considering public opinions in its planning. Interviewees mostly agreed (over 80 percent) that the agency was incorporating science into its planning process. Seventy percent thought that the Forest Service was prioritizing wildfire resilience, but only 50 percent thought that the agency was prioritizing management for climate change.

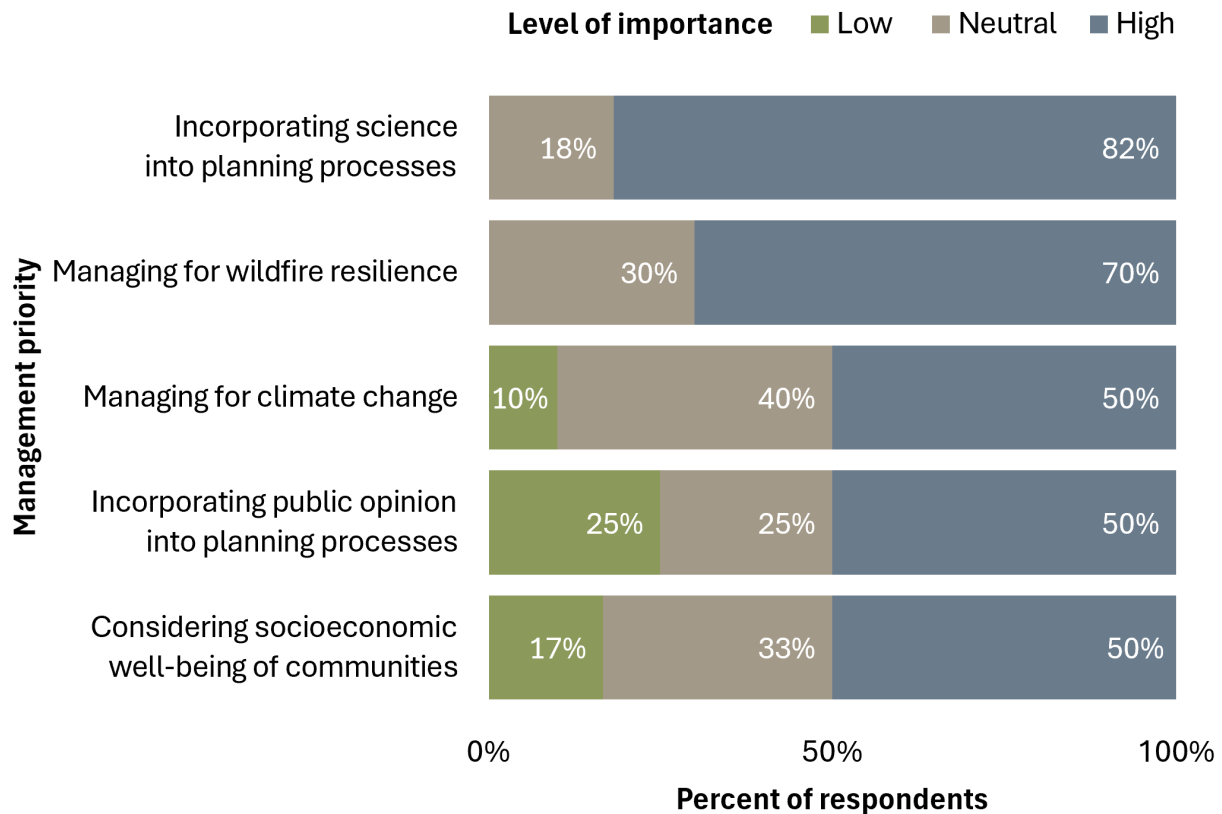


Figure 6.5. Community perception of Forest Service management priorities (n=12). Bar graph segments represent the percentage of interviewees indicating level of importance (Low, Medium, High) of each management priority.

The Hebo Ranger District actively works with the Hebo Stewardship Group which was established in 2011 as a part of the Siuslaw Collaborative Watershed Restoration Program (USDA Forest Service, 2017). The group is now part of the Oregon Central Coast Forest Collaborative (OCCFC) which is administered and supported by the Cascade Pacific Resource Conservation and Development (Cascade Pacific RC&D, n.d.).

Community relationship with National Forest lands

Community interviewees ranked tourism followed by nature/aesthetics as the highest valued aspects of the use of national forest (Figure 6.6). However, water, hunting and fishing, recreation, and timber were also highly valued. The community valued non-timber forest products the least.

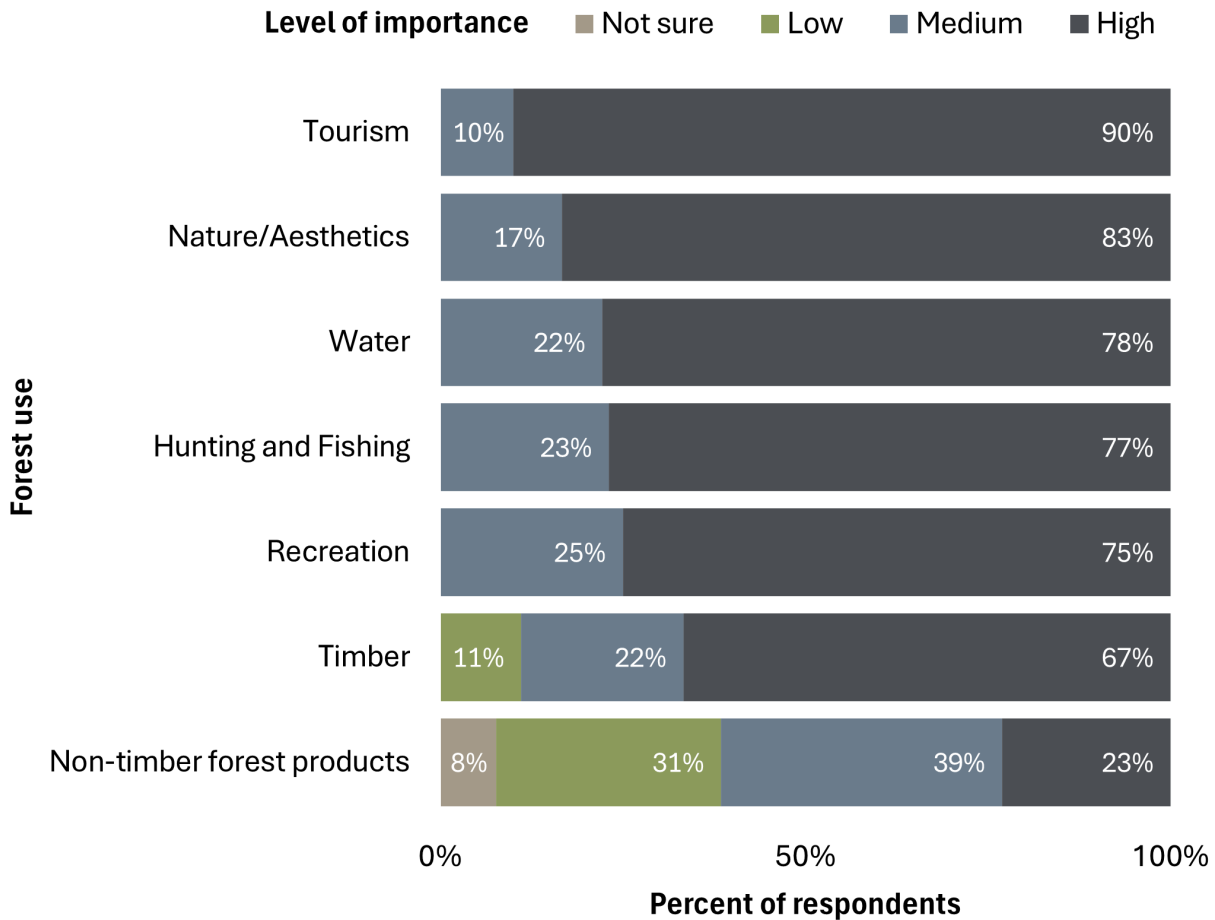


Figure 6.6. Importance of national forest uses to the community (n=13). Bar graph segments represent the percentage of interviewees indicating level of importance (Not sure, Low, Medium, High) of each forest use to the community.

Recreation

Interviewees noted that the most popular outdoor recreation activities in the study area included: hiking (n=8), off-road vehicle use (n=6), mountain biking (n=4), water recreation (n=4), camping (n=3), fishing (n=3), and hunting (n=2).

Road access to the national forest was a significant concern for some interviewees. One interview shared, “When [the Forest Service] wants to decommission a road...people want to be able to Jeep back to places to then hunt...so they want to have access to getting places in a vehicle.” Another interviewee explained the challenges to road access as both an issue of funding and staff perception, stating, “The Forest Service...

can't get money for the roads and then [they] assume that there is no reason why locals would want to go there."

Timber

Between 2013 and 2023, individual timber sales on the Hebo Ranger District averaged 4.3 thousand board feet with bid values averaging approximately \$740 thousand (USDA Forest Service, 2023). Of the 31 sales during this ten-year period, most (n=18) went to a logging operator based in Philomath approximately 75 miles from the study area. Two sales were sold to Stimson Lumber Company based in Tillamook and one was sold to the Confederated Tribes of Grand Ronde based in nearby Grand Ronde, Oregon. Other sales went to more distant, larger timber processing companies such as Georgia Pacific West LLC in Toledo, Oregon, Boise Cascade Wood Products LLC in Monmouth, Oregon, and Seneca Sawmill Company in Eugene, Oregon.

Interviewees communicated that since the implementation of the NWFP, the Tillamook State Forest became the primary producer of timber in the region. Timber planted after salvage on the Tillamook Burn in the 1930s to 1950s reached maturity for commercial harvest by the mid to late 1990s. Sixty-seven percent of interviewees valued timber as a highly important use of the national forest.

Community interviewees familiar with the timber industry were generally more familiar with the Tillamook State Forest than the national forest. Of the 13 community interviewees, eight mentioned the important role of the state forest in the area's economy. As one interviewee stated, *"The timber receipts that are from the county are only from the Tillamook State Forest, not the Forest Service."*

Some interviewees mentioned that while timber sales from state forest lands were more expensive, they moved faster through the bidding process. As one interviewee explained, *"Timber purchasers will put up with the feds because their timber is so underpriced...The [Forest Service] prices are really low, and they will always get bids."* This interviewee also suggested that the quality of timber on the national forest was better than the Tillamook State Forest, in part because of the erosion that occurred after the series of fires comprising the Tillamook Burn. The timber types between the two forests were also perceived as different. Tillamook State Forest engaged in even-age management, while the Forest Service focused on stewardship-style projects.

Interviewees thought that there would be considerable community disagreement if logging on the national forest were increased in the future. Some interviewees thought that increased logging on the national forest would not necessarily bring economic benefits to the study area because it might not be purchased by local processing facilities. One interviewee thought that increased logging would be seen positively, while three explicitly stated it would be negatively perceived by the community. Two interviewees mentioned that community perceptions would depend on the type of logging activity. Another interviewee mentioned that there were still some residents who believed in unrestricted logging of public lands, stating, *"We should be able to cut down any tree we want to cut down whenever we want to cut it down."*

Non-timber forest products

Interviewees described a variety of non-timber forest products including: mushrooms (n=10), firewood (n=2), woodland mosses (n=2), salal (n=1), and berries (n=1). Although interviewees did not rank non-timber forest products of high importance to the community, they do have an important history on the Siuslaw National Forest. In Neskowin, for example, some local farmers historically supplemented their income

by selling forest products, including berries, ferns, mushrooms, and cascara bark (NCAC, 2025). Farmers harvested cascara bark for sale to the pharmaceutical industry which marketed it as a laxative as early as the late 1800s (Buttolph and Jones, 2012). During this period, many households in the study area relied on cascara bark for cash income until the market collapsed in the 1920s (Tonsfeldt, 2010). Nevertheless, cascara continues to be permitted and harvested in the Siuslaw National Forest. Between 2013 and 2023, the forest sold an average of 2,800 pounds of cascara bark annually (USDA Forest Service, 2025).

Interviewees mentioned that mushrooming has recently become more popular. Mushroom-related programs through “Explore Nature” fill up within minutes of opening quite regularly. It is hard to know how many people engage in mushrooming for personal use, as harvesting mushrooms on national forest land for personal use (less than one gallon) does not require a permit. Commercial mushroom permits (for harvests over one gallon) on the Siuslaw National Forest have been declining over the past 10 years. Although variable from year to year, the value of permits sold for mushroom harvesting decreased from \$58,776 in 2013 to \$38,530 in 2023 (USDA Forest Service, 2025).

Commercial moss harvest has also been popular in the Siuslaw National Forest (Muir et al., 2006). Although moss was not specifically reported from 2019 onward, annual harvest ranged from 252,000 pounds in 2013 to 94,000 pounds in 2018 (USDA Forest Service, 2025). In 2006, the Hebo Ranger District accounted for most of the moss harvest in the Pacific Northwest (Muir et al., 2006). The ranger district regularly sold out of permits each year, and there were widespread reports of moss poaching (Peck and Christy, 2006). Beginning in 1996, the district started administering commercial moss harvest through stewardship contracts under the NWFP’s Adaptive Management Areas. Stewardship contracts for moss harvest within designated areas are awarded to the highest bidder (Peck and Christy, 2006).

Commercial foliage harvest (i.e. salal, ferns, and other greenery) was the most lucrative special forest products permitting program on the Siuslaw National Forest. Non-moss, miscellaneous foliage permits on the Siuslaw National Forest netted over \$1.4 million between 2013 and 2023 with an annual average of \$130,000.



Photo: US Forest Service

Siuslaw National Forest, 1993

Wildfire and other forest disturbances

Interviewees who knew about disturbances in the local forest mentioned wildfire (n=10), landslides (n=8), ice and windstorms (n=4), and insect-induced tree mortality (n=3).

There is a significant history of large fires in the Siuslaw coast region, with most fires occurring in the hot summer months (Tonsfeldt, 2010). In 1853, there was a 320,000-acre fire in the Nestucca area (Tonsfeldt, 2010); and in 1849, a large fire occurred in the forests that would become the Hebo Ranger District (USDA Forest Service, 1977). In 1910, there were several significant fires on the Hebo Ranger District, which destroyed trees and resulted in the growth of alder and brush in the area around Mt. Hebo (USDA Forest Service, 1977). While the Tillamook burns mostly impacted private forestlands, one of the “re-burns” in 1939 impacted 1,700 acres on the Hebo Ranger District. The Forest Service noted that, in the 1930s and 1940s, they often tried to convince locals to not burn their own property or adjacent lands in the summer and fall to clear out fern and salal patches (Tonsfeldt, 2010).

In 2024, interviewees noted increased fire activity in the area, including a devastating Echo Mountain Fire in nearby Lincoln County. Fanned by strong east winds, the fire burned about half of the structures in the town of Otis, including 288 homes (Denis, 2020). Interviewees mentioned that the fire was a wake-up call for residents stating, *“People just did not think that this rain forest that we live in could burn.”* Some Neskowin residents evacuated during the fire. There were also local air quality impacts along the coast. Despite the negative impacts of the fire, interviewees thought that firefighting in the area was as good as it could have been given the windy conditions, which one interviewee described as a *“100-year wind event”*.

Forest Service staff viewed themselves as *“underserved in the positions [they] have”* because of a lack of fire-related staff. One interviewee mentioned that this understaffing was exacerbated by the lack of a district ranger, which made it more challenging to fill lower-level positions.

Storms and slides

Significant wind and rainstorms are also relatively common in the Siuslaw because of its location along the Pacific Ocean (Tonsfeldt, 2010). For example, the Columbus Day storm of 1962, with wind gusts up to 170 mph, downed approximately 740 million board feet of timber and damaged over 1,000 miles of forest roads. Much of the downed timber was salvage logged.

Along the waterways, these storms exacerbate erosion and impact water quality. As one interviewee said: *“[After a storm], you definitely see a lot more debris in your watersheds and in your estuaries and a lot of that is trees.”* These storms also have significant impacts on the area’s infrastructure, including washed out roads and downed power lines.

Community futures

Interviewees anticipated the following changes in the future of their communities: climate change impacts (including wildfire) (n=5), increased tourism and recreation (n=4), and increased housing issues (n=1). Results from interviews in 2024 contrasted with results from research conducted in 2012 about residents' perspectives on the future of Pacific City with an emphasis on fishing (Hall and Murphy, 2012). Residents expressed that *“Pacific City has already hit rock bottom, and change is inevitable,”* and that commercial fishing would likely not return. However, many thought that the city would grow and hoped there would be better services along the beach, and that recreational anglers would potentially increase.

In 2024, interviewees viewed Pacific City as a rising vacation destination and thought that tourism would continue to drive the local economy. One interviewee thought tourism would become an increasingly important driver of the local economy, and that the community would become *“more and more dependent”* on it. Interviewees also thought that the type of people recreating in the area may change as activities like mountain biking and other active pursuits have become more popular. Interviewees anticipated that, with climate change, more visitors would come during the hottest part of summer and expressed concern that more visitors could become a problem with the city's currently limited infrastructure, including housing. One interviewee commented that they would like to see more housing development locally, specifically for “middle” housing. One interviewee commented that housing and infrastructure needs might lead to incorporation of one or more communities in the county.

Five interviewees commented on climate change and wildfire as being increasingly important in this area moving forward. Some thought that change was already coming more quickly to the area than anticipated, particularly when looking at forest health and wildfire. Some voiced concern that the combination of climate change and wildfires might lead to vegetation type conversion of the forest where a significant fire might lead to different vegetation types. One interviewee also commented on the role that coastal hazards could have in the area, including sea level rise and increased storms.



Beach at Pacific City, Cape Kiwanda, 2024

Conclusions and case study highlights

Despite dramatic declines in timber harvests on the Siuslaw National Forest, impacts of the NWFP on the Southern Tillamook County study area appear to have been relatively mild. Harvest cycles, the historical contingency of the Tillamook Burn, the Tillamook State Forest and its salvage and replanting program, the historical placement of the timber industry in Tillamook proper rather than in Pacific City or Nestucca, and a diversified economy all contributed to buffering the study area from the most significant impacts of the NWFP. Further, the study area experienced negative impacts to its well-being from other social and economic changes that pre-date the NWFP. For example, the decline of fisheries in Pacific City in the 1970s and the closure of the U.S. Air Force Station in the 1980s forced demographic and economic realignments within the study area.

Southern Tillamook County key forest management takeaways

- Tourism followed by nature and aesthetics were important forest uses to the community.
- Despite mixed opinions on the social effects of tourism, tourism will be an economically important industry moving forward.
- Housing stock in Hebo was aging and low quality while vacation homes and short-term rentals exacerbated existing tight housing stock issues in Neskowin and Pacific City.. These factors present challenges for housing Forest Service staff and season workers in forestry and tourism industries.
- Community members were concerned about increasing wildfire risk and other impacts of climate change.
- The community perceived negative impacts from Forest Service staffing policies, including those that encourage staff turnover.

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Beach at Pacific City, Cape Kiwanda, 2024

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