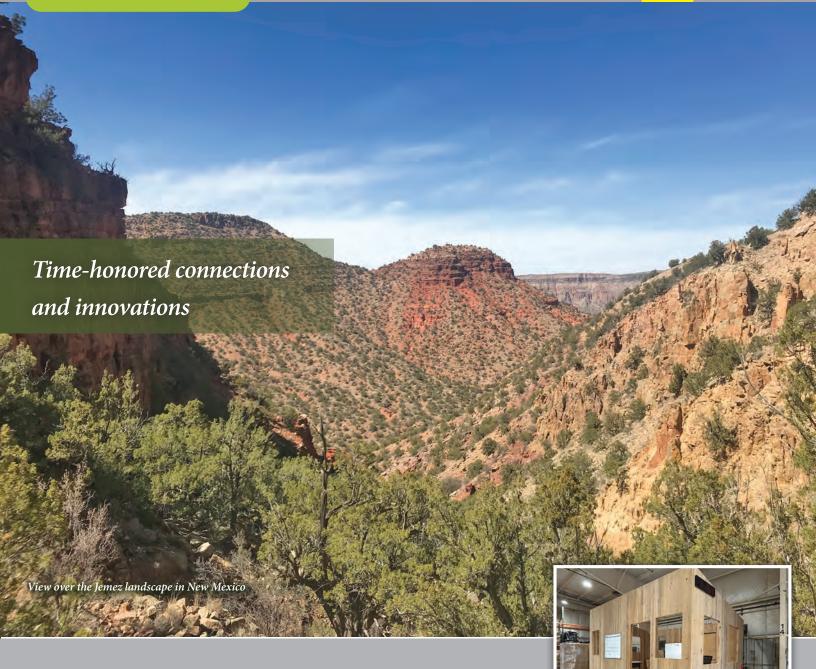


# **Forest Steward**

Autumn 2025

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A CLT house construction pilot project between Chickadee Forestry, LLC and the Composite Recycling Technology Center (read more on page 5).

## Forest Stewards Guild

By Zander Evans, Executive Director, Forest Stewards Guild

P.O. Box 6058 Santa Fe, NM 87502 505-983-8992 ForestStewardsGuild.org

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Rising to the challenges together

Guild members and guests discuss the art and science behind a holistic balance of stewardship goals, access and education, ethics, and more at Arcata Community Forest in California.

Happy fall! It's always a joy to watch the turn of the seasons unfold in the woods. As life, work, and politics get complicated, it is a relief to connect with the timeless patterns of the forest. For Guild members, often our work among trees is the easy part of our jobs. We may struggle with which tree to mark or debate how to encourage certain ecological attributes, but it is often economics, policy, and other interest holders that make stewardship complicated. This magazine has three examples of how Guild members step up to the challenges of both practicing excellent forestry and promoting the culture of stewardship more broadly.

Malloree's description of connecting careful forest stewardship with appropriately scaled utilization is a great example. Connecting to markets can be difficult but it is crucial to support good silviculture. Similarly, Nick's description of solving the seedling bottlenecks shows it is complex, but again, essential to stewardship. Jemez Pueblo's story adds more

elements to the equation, such as working with other governments and fostering the next generation of stewards.

All three stories exemplify the mission of the Guild and illustrate our superpower: members! The Guild is a national leader because of the work of members, staff, and partners across the country. Their work infuses all our efforts including training, policy, education, research, and implementation. For 30 years, we have been learning from each other and sharing successful strategies with the public and other professionals. And we are stepping up to resolve the challenges of the next 30 years, with your support. Together, we are building a culture of forest stewardship founded on values of reciprocity. Stewardship that gives back to the forest and helps forests continue to support our communities. Thank you for being on this journey with us!



# Jemez Pueblo – culture-based forest stewardship in action By Mateo Pomilia, Forest Stewards Guild Ped Reductions Peakles Rever Report

Red Rocks of Jemez Pueblo - Bryan Barnes

Since time immemorial, Indigenous peoples have stewarded the Earth's forests. Of the nearly one third of the Earth's surface covered by forests, Indigenous peoples currently safeguard about four out of every ten acres, reducing deforestation by more than 50% compared to non-Indigenous managed areas. In doing so, they carry forward the staggering biodiversity harbored within these forests while maintaining the integrity of the Earth's climate system.

Over the past centuries, Indigenous forest stewardship has been significantly impacted by European colonization, which dispossessed Native peoples from much of their ancestral lands and disrupted their time-honored forest management practices. Yet, across the landscape, Indigenous peoples are still maintaining and renewing their millennia-old connections to forested ecosystems. With the world's forests under unprecedented threats from shifting climate, invasives species, habitat loss, and other factors, Indigenous peoples and knowledge are needed to help restore balance.

Nestled among stunning red rocks at the southern terminus of the Jemez Mountains, lies Jemez Pueblo, one of twenty modern-day Pueblos in New Mexico and Arizona. Following their mythical emergence from the north and subsequent displacement by Spanish and American colonists, the Hemish people settled into their current village location along the banks of the Jemez River. Today, the Pueblo is home to around 2,000 Hemish people, or 60% of the Tribe's total members. Since the relocation of their relatives from Pecos Pueblo in 1838, Jemez Pueblo is the only place in the world where the Towa language is spoken.

The Hemish are stewards of Walatowa (the name they use to refer to their ancestral lands) - a complex, forested ecosystem studded with pinyon-juniper, ponderosa pine, mixed conifer, aspen, cottonwood, and riparian forests. Using fire as a keystone tool in combination with selective tree harvest, they have long maintained a diverse and resilient forest mosaic in the expanse of the Jemez Mountains. Daily prayer and ceremony to honor No-Wa-Mu, Mother Earth - who the Hemish believe contains all living beings including the sun, moon, and air - plays a critical role in the reciprocal relationship the Hemish people sustain with their environment.

Throughout their history, this connection to land, stories, and their unique way of being, have guided the Hemish people through such adversities as drought, raids by neighboring Tribes, Spanish colonization, military campaigns by the American government, and boarding schools. In the 1990s, the Pueblo found itself facing another crisis, this one environmental. Declining surface water and air quality, and a growing risk of catastrophic wildfire were threatening the Pueblo's people and forests. In response, Tribal leadership founded the Department of Natural Resources with the mission to "protect, preserve, and enhance the natural and cultural resources for the benefit of the environment and the people of the Pueblo of Jemez." Under the guidance of Jemez's first ever Tribal Forester and Guild Board Member John Galvan, the Department soon took on forest health projects such as thinning small diameter trees in the forests surrounding the village, work that had hitherto fallen under the purview

of the Bureau of Indian Affairs (BIA). Forest thinning reduces catastrophic fire risk, improves forest health by reducing competition for light and other resources, enhances wildlife habitat, and provides wood products to the community. For years, Galvan's Department cut its teeth implementing thinning contracts overseen by the BIA. By 2013, however, the Tribe had exercised sovereign self-governance, taking full control of its forests with the BIA playing a technical assistance role.

In addition to the ecological and social benefits, a natural byproduct of forest thinning projects was a sudden surplus of small diameter - primarily ponderosa pine - logs, which eventually led to the creation of Walatowa Timber Industries, a mostly Native-owned and operated sawmill. From initial operations as a wood yard in 1998, Walatowa has expanded to include multiple milling operations along with processing plants for rough-sawn beams, vigas, latillas, corbels, firewood, landscaping mulch, and even animal bedding. While transforming sustainably harvested timber into high quality wood products, the mill also provides critical local employment opportunities for Jemez Pueblo members.

With forest restoration and wood utilization efforts in full swing, plus projects in watershed protection, agriculture, and other areas, the Natural Resources Department has no shortage of work within its Reservation boundaries. And yet, as Galvan states, they "Can't forget about their ancestors and their ancestral lands, and the forests in the upper lands within the Jemez landscape." Before they were displaced to the lower parts of the watershed (and their lands appropriated by the Forest Service,

Continued on page 4



the National Park Service, and private landowners), Hemish ancestors inhabited the vast forests at the headwaters of the Jemez Mountains, as well as the Santa Fe Mountains fifty miles to the east. Today, they frequently visit these mountain areas to collect medicinal plants, hunt, tell stories, and pay homage and prayers, all reflections of their deep rootedness in this place.

Gaining access to and protecting the cultural sites and special places in these mountains, including a number of large historic villages, is of utmost importance to Galvan: "These ancestral sites are alive and well, and we pray to them, and have place names for them, and it's very important to protect them, even though now they're managed by different agencies or communities." To this end, the Department has been engaged with Federal agencies in an effort to reclaim their stewardship responsibilities, a process that has required persistence and immense patience. In 2010, the Tribe signed a Memorandum of Understanding with the Forest Service to convene Tribal representatives and the agency on a quarterly basis to assess progress on joint initiatives and address concerns. A further milestone was reached in 2024 with the signing of co-stewardship agreements, which has created space for the Tribe to articulate their objectives, priorities, and interests for their ancestral lands and waters. Using cost share stewardship agreements, Good Neighbor Authority, Reserved Treaty Rights Lands, and other policy mechanisms has given the Tribe a voice to define, at least in part, the future of their ancestral forests and cultural sites for the first time in more than a century.

The Tribe is also engaged in collaboration with its neighboring Pueblos of Santo Domingo and Cochiti on the Tri-Pueblo Fencing Project along their shared Reservation boundaries, which involves youth in replacing miles of barbed

Jemez Forest Stewards Youth Corps crew doing soil and water monitoring

wire fence (some of which has been burned in wildfires) with wildlife friendly fencing. This project has renewed a long-standing connection between sister Tribes and shown that solidarity and joint protection of ancestral lands is possible through relationship building and working toward common goals. Galvan and his Department also support other Pueblos and Tribes throughout the region, some of whom do not have dedicated Natural Resources staff, because Galvan feels it is important for Native Peoples to uplift one another.

In addition, Galvan's Department enjoys fruitful collaborations with nonprofit organizations such as Trees, Water, People and the Forest Stewards Guild, whose Forest Stewards Youth Corps (FSYC) program provides training, education, and employment in natural resource management for 16–25-year-olds from forest dependent communities in New Mexico. Since 2020, the Guild has partnered with Jemez Pueblo to host an FSYC crew on the Pueblo to help protect and restore Hemish lands and waters while preparing crew members for careers in forestry and conservation. Says Galvan, "The youth are our future generations and at a critical point when they're becoming young adults, there is a need to expose them to natural resource [careers]."

So, while the Pueblo of Jemez has ample cause for hope, the road ahead is anything but certain. Turnover in federal staff, rapidly changing environmental conditions, and youth increasingly disconnected from the natural world present major challenges for future forest stewardship. And yet, the Hemish people hold, as they always have, the keys to resilience. Their intimate knowledge of place, unique relationship with each element of the natural world, and cultural use of fire are just a few aspects that reflect the deep bond between the Hemish people and their forests. Forests that are now counting on them to rekindle a reciprocal relationship much older than the trees.



Jemez Forest Stewards Youth Corps crew members after completing wildland chainsaw training

### Scaling Timber, Locally: Innovation on the Olympic Peninsula

by Malloree Weinheimer, Owner of Chickadee Forestry, LLC

#### **FORESTRY AND INNOVATION**

Forestry and wood production have been central to the Pacific Northwest's economy and culture, but changes in climate, landownership, and mill consolidation are reshaping the industry. Over the past 40 years, the number of mills in Washington State dropped from 687 in 1980 to just 88 by 2016. Most of the small and midsize mills closed in favor of more efficient consolidation and larger sawmills along the highway corridors.

As a result, forestry has become costly for small forest landowners in regions like the Olympic Peninsula, where there are very few mills and trucking the wood off the peninsula can be cost prohibitive. For the past few years, the Composite Recycling Technology Center (CRTC) and Chickadee Forestry LLC have been working together on a solution to address these issues across the Olympic Peninsula, a region with high access to natural resources and temperate rainforest but suffering from the loss of small-scale forestry and mill operations.

In 2019, I heard that the CRTC was purchasing Western hemlock, a species of wood that was difficult to sell given the lack of market access, low value of the timber, and long trucking hauls. Chickadee Forestry has been focused on finding solutions to utilizing local wood within the community, and the CRTC is an engineering non-profit focused on creating jobs on the Olympic Peninsula using waste products, or low value products.

The CRTC was interested in purchasing Western hemlock because they had developed a proposal to produce crosslaminated timber panels (CLT), a form of mass timber products, using low value wood from the region. CLT is composite of several layers of kiln-dried lumber boned in alternating directions and pressed to form a solid panel. Chickadee Forestry began partnering with them and the Makah Tribe and small local mills in the region to help with sourcing wood and creating local, small scale, chains of custody to create local wood economies that matched the needs and capacity of the community. This also offers an eco-friendly solution that local communities can replicate.

#### **CREATING A LOCAL SOLUTION**

The CRTC's specialized approach, named ACLT (Accelerated Cross-Laminated

Timber), is designed for small residential or quick-erect housing, in contrast to traditional CLT used for larger commercial structures. ACLT's smaller panel size and lower structural requirements make it suitable for lower-strength species like Western hemlock.

ACLT's benefits include improved dimensional stability, environmental resistance, lighter weight, and easier handling without heavy equipment, making it ideal for difficult-access sites. CRTC has successfully applied ACLT in both military and residential settings, including disaster relief housing and a partnership with the Makah Tribe to build affordable tribal housing using locally sourced timber, completing the chain of custody on the Olympic Peninsula.



Western hemlock, harvested from Malloree's property and sold to the CRTC for their first collaborative pilot project CLT house (see cover inset photo).

How sustainable is mass timber? CRTA and Chickadee Forestry create a replicable and truly sustainable, locally based approach to mass timber. To aid in navigating the wide array of mass timber products emerging in the field, we've created a set of criteria to help understand their sustainability. Perhaps the most important underlying questions are who benefits, and how does the forest benefit? We hope to educate consumers on how to choose products wisely and advocate for better forest management practices by considering the following aspects:

**Age of timber:** Timber rotation lengths, or the age of trees when they are cut. As economic pressure increases in the forest industry, the trend is to cut trees younger

and smaller. In our work, 60 years rotation is the target for maximizing tree growth and production while also maintaining consistent forest health.

**Timber harvesting methods:** Longer harvest rotations, a mix of native species, selective harvesting, and commercial thinning are typical examples of higher environmental standards in our region.

**Timber Species:** Species will change with location. Ensuring that a mix of species that are native to the landscape are retained, regenerated, or replanted is key for ensuring the long-term resiliency of the landscape, and for mitigating risk.

Trucking and Mill Rates: Trucking and fuel rates have increased over time, and commercial log values typically have not kept up. Trucking rates can consume 30 to 40% of the revenue. Finding local buyers and re-evaluating the value of wood based on the costs for production is an important step in creating equitable forest economies.

Financial equity: Who are these wood products financially supporting? Are they creating jobs in rural areas? Working with small, locally owned mills and products that support tribes, families, and communities fosters sustainability and local economies.

## CONSIDERATIONS AND REPLICATION

Our hope is that demonstrating this model for our community helps other communities envision a new path forward for resolving similar issues.

The CRTC team and Chickadee
Forestry have had the benefit of an extensive research team and collaborators to help make this process a reality, and part of our work is dedicated to helping share this knowledge with other communities. This project was always intended to be replicable and adaptable based on the needs of the community. If you have interest in learning more or partnering with us to see how your community can build something similar, please reach out.

Composite Recycling Technology Center: info@crtc-wa.org

Chickadee Forestry LLC: mal@chickadeeforestry.com



# Restoring large forest landscapes for resiliency By Nick Biemiller, American Forests



Sunrise in a well-managed longleaf pine forest at the Blackwater River State Forest in Florida. American Forests has been partnering with the Florida Forest Service on reforestation projects for the past 10 years.

Ensuring that our nation's forests are healthy and resilient is vital to sustain the diverse values that forests provide such as wildlife habitat, good paying jobs, and clean water. However, forests are threatened by a broad suite of stressors, including catastrophic wildfire, drought, pests, and pathogens, all of which are exacerbated by a warming climate and shifting precipitation patterns.

To address these threats, American Forests' Resilient Forests program restores large forest landscapes in partnership with state and federal agencies, local communities, and landowners through sustainable forest management, cutting edge science, and policy solutions. Reforestation has been our most important and enduring program area for the last several decades and is a cornerstone of our collaborative work with the USDA Forest Service.

In the Southeast region, American Forests' goals are to: 1) support the reforestation supply chain, 2) implement reforestation and forest resilience treatments on public and private lands, 3) develop decision-support tools to inform our programs and partnerships, and 4) engage in landscape-level initiatives to address broad systemic change. Our goals are contextualized within a focal tree species approach that focuses on foundation tree species that have been extirpated or have declined from significant portions of their

historic range and are indicators for broader ecosystems that require restoration. Our focal tree species in the Southeast include white oak, shortleaf pine, red spruce, and longleaf pine.

American Forests' 2021 Ramping up Reforestation in the United States report identified that the total reforestation opportunity for the Southeast region was 63 million acres across public and private lands, largely consisting of marginal agricultural lands and pasturelands that were once forested. Scaling reforestation across the Southeast with artificial regeneration methods will require a substantial increase in the reforestation supply chain. American Forests' 2021 report established a goal to reforest 31.6 million acres in the Southeast by 2040, which will require state, federal, and private tree nurseries to increase their seedling production from 1,090 million seedlings per year to 1,179 million seedlings per year. Increasing seedling production will require addressing barriers related to workforce, markets, land access, finance, and infrastructure.

Longleaf pine ecosystems have declined 97% across their historic range in the Southeast due to conversion to nonforest or uncharacteristic forest types (e.g., loblolly pine) and fire suppression. To restore longleaf pine ecosystems, America's Longleaf Restoration Initiative established an ambitious goal in their 2025 conservation plan to reforest an additional 2.8 million acres by 2040. Achieving this goal will require addressing the lack of quantity and quality of tree seedlings to meet planting goals and bottlenecks around seed collection, seed processing, and seedling production.

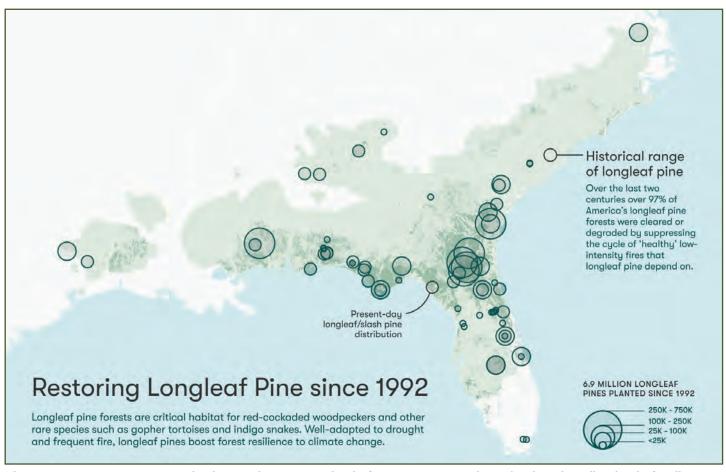
To address these needs, American Forests is launching a new 4-year project with funding from the National Fish and Wildlife Foundation's Longleaf Landscape Stewardship Fund to expand longleaf pine seed availability across Mississippi, Florida, South Carolina, and Georgia. In partnership with the USDA Forest Service, American Forests will hire an orchard manager to help maintain and improve seed orchards and seed production areas at the De Soto National Forest in Mississippi. In 2026, American Forests will be launching the Gulf Coast Longleaf Pine Cone Corps. This innovative workforce development module will seasonally employ early career natural resource professionals and provide training and experience in reforestation activities for on-the-ground capacity and workforce development. In partnership with the USDA Forest Service, Florida Forest Service, The Longleaf Alliance, The Nature Conservancy, and USDA Natural Resources Conservation Service, our project will improve 825 acres of existing longleaf seed orchards, create 18 acres of new longleaf seed orchards, and

improve 12 acres of wild longleaf seed production areas at the De Soto National Forest in Mississippi and Blackwater River State Forest in Florida. This will result in at least 2,544 pounds of longleaf seeds collected and 8.6 million seedlings propagated during the project's four-year duration, which is enough to reforest 5,706 acres.

As foresters, we often think more about what happens in the woods and less about the enabling conditions required for our work in the woods to occur. Having a functional reforestation supply chain is essential to ensure that we have the supply of longleaf seed and seedlings required to ramp up longleaf reforestation in the

Southeast. Our project will help scale longleaf pine reforestation and lay the foundation for a sustainable longleaf pine restoration sector for decades to come.

Being a forester is a humble experience, as trees grow slowly, and the impacts of your actions are often not realized for decades. I'm motivated to tackle the bottlenecks of longleaf restoration so foresters can continue to practice good silviculture, and everyone can enjoy and benefit from forests in the long run.



Above: Since 1992, American Forests has been working to restore longleaf pine ecosystems. To date we've planted 7 million longleaf seedlings through place-based partnerships across the Southeast. Below right: Today's view of a longleaf pine stand we planted in 1992.







Left: Red-cockaded woodpecker is closely tied to longleaf pine ecosystems and is listed as threatened under the federal Endangered Species Act. Center: Longleaf pine trees exist in a "grass stage" for their first 2-7 years after planting as a survival strategy.





#### **Forest Stewards Guild**

P.O. Box 6058 Santa Fe, NM 87502 ForestStewardsGuild.org NON PROFIT U.S. POSTAGE PAID MADISON, WI PERMIT NO. 406

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## Together we are making a lasting difference

This year has been full of celebration and challenges! The Guild community is experiencing it all *together*, which is one of our greatest strengths.

Check out the videos and articles from member-hosted Guild Gatherings to celebrate our 30th year on the Guild's YouTube channel and in the August 2025 e-newsletter! When we gather to share successes and ideas, we foster hope, even more dedication, and forge a healthy future together.

It's no different for the next 30 years. We will rely on and support each other, and forests and communities will thrive better because we do! We hope you stay engaged with the Guild to be a voice and partner for forests. You can ask for and offer help in this community. Join us when we gather, especially in the woods, but online too. Your membership, support, and participation move us forward.

Thank you for all you do! Please put our 2026 National Guild Gathering on your calendar! We're planning for three days of inspiration, new research, good food, field trips, and friends old and new!

The Forest Stewards Guild National Guild Gathering - celebrating 30 years

September 15 - 17 Freeport Maine Save the date and stay tuned!

Visit often: ForestStewardsGuild.org/events

All photos submitted by article authors or the Forest Stewards Guild unless otherwise noted