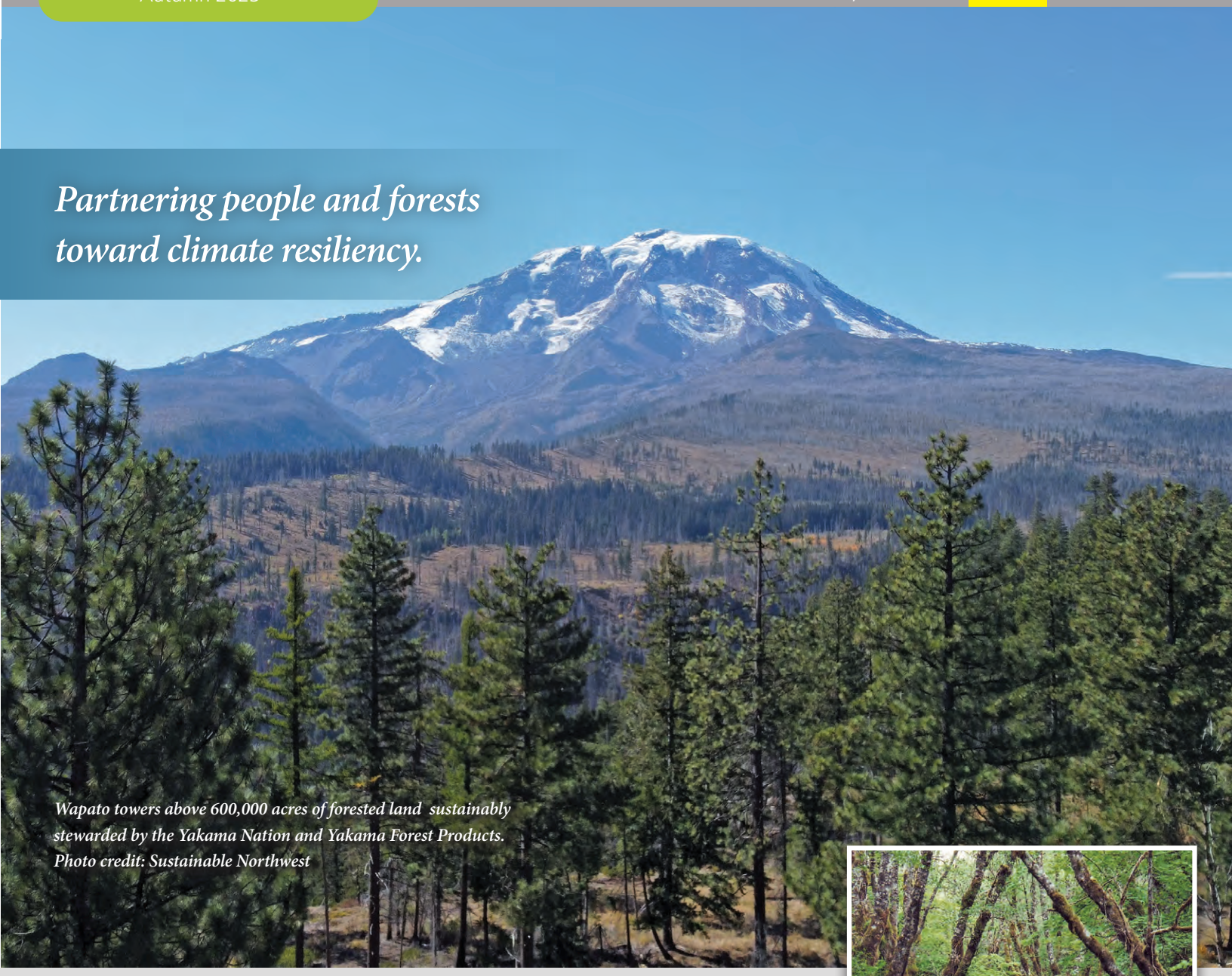
the Forest Steward

Autumn 2023

Volume 8, Number 2

Partnering people and forests toward climate resiliency.



Wapato towers above 600,000 acres of forested land sustainably stewarded by the Yakama Nation and Yakama Forest Products. Photo credit: Sustainable Northwest

Forest Stewards Guild

INSIDE

Pacific Northwest stream in Hyla Woods. This forest is stewarded by Guild members and is involved in Sustainable Northwest's climate-smart forestry project. Credit: Sustainable Northwest

Forest Stewards Guild

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Climate at the Guild

Zander Evans, Executive Director, Forest Stewards Guild

Maple trees in full fall color in the University of Wisconsin's Arboretum. Photo by Colleen Robinson.

The idea of adapting forest management to the changing climate is not new for Guild members.

Fifteen years ago, the Guild's Policy Statement acknowledged the scientific evidence that humans were driving climate change and that work in the woods must adapt. The Guild was already focused on management to enhance forests' ability to adapt to climate change and mitigate its effects through increased carbon sequestration and storage. In 2023, the evidence of climate disruption is all around us and 'climate smart forestry' has become a buzzword. It is heartening to see more and more landowners, managers, planners, and researchers tackling our century's big challenge. Guild members are still at the forefront of innovation. They are testing out what is climate smart in the woods and translating good ideas on paper into practices that can be implemented in the mud, meadows, ridges, riverbanks, old growth, burned areas, mountains, and valleys. Importantly, Guild members are building climate adaptation and mitigation into stewardship that continues to recognize our wider social, economic, and ecological responsibilities. The altered climate is an existential threat, and, at the same time, our solutions must continue to preserve all the rest that we value from forests. Just as forests have always been more than boards and cords to Guild members, they are more than a place to store carbon. I look forward to engaging with the Membership and Policy Council and all Guild members in the discussion of exactly what climate smart forestry is, as well as how our stewardship can incorporate adaptation to the new reality.

The Many Degrees of Collaboration in Climate Resiliency

Amanda Mahaffey, Deputy Director, Forest Stewards Guild

The Guild has been deeply engaged in what climate adaptation looks like in the woods for more than a decade.

The Guild's work in forest climate adaptation in the Northeast leapt to the foreground with our 2014 national meeting in Burlington, Vermont. Guild member Maria Janowiak from the Northern Institute of Applied Climate Science (NIACS) helped plan that meeting, and she and her team have grown to be a driving force in advancing climate-adaptive science and practice in the region, and nationally in concert with the Forest Stewards Guild.

Exciting learning opportunities continue to abound for foresters who are hard at work adapting forests to the changing climate. This autumn, another Guild Gathering in Vermont highlights Guild members' work in adaptive silviculture in partnership with the Vermont Land Trust, University of Vermont, and U.S. Fish and Wildlife Service. Guild members share questions, stories, and forest wisdom in the field and around the campfire at the NorthWoods Stewardship Center. Together, scientists and stewardship practitioners are taking measurable action to address the complex stressors on our forest ecosystems that are driven by the changing climate.

A Guild forester once said that change happens in resonances: a webinar here, a publication there, a workshop that ties these resonances together ultimately shifts perspectives and changes behavior. Our work on forest climate adaptation has been a multi-year accumulation of just such resonances. The Guild brings together agencies, organizations, and academic institutions who have little bandwidth to address adaptation on their own and facilitates learning that lifts us all up in a community of practice.

Our work on oak resiliency in southern New England created dialogue across the borders between Connecticut, Massachusetts, and Rhode Island about management options amid spongy moth, herbivory, and drought. We also developed an online oak resiliency assessment tool with NIACS and the Forest Ecosystem Monitoring Cooperative. Guild members help share the oak resiliency tool across New England at events such as the Connecticut Mast Woodland Manager Program and workshop at the Norcross Wildlife Sanctuary. The project built momentum for the concept of slash walls as a management tool and continues to help managers steward oak.

In northern New England, we partnered with the Forest Climate Change Initiative at the University of Maine to hold a series of webinars and field tours that share science and practice in forest types across the state. Numerous events brought Guild members together to share ideas and on-the-ground experiences. For example, the Guild co-hosted a webinar and field tour at the Appalachian Mountain Club's Pleasant River Headwaters Forestlands to discuss and explore "Climate & Carbon Friendly Forest Management." These partnerships have led to new work in helping to sustain ash on the landscape, supporting mountaintop monitoring networks, offering workshops for land trusts, and implementing climate-adaptive treatments on National Park lands. These webinar and field tour series are now in their fourth year, with brand new events happening this fall.

Guild members, staff, and partners at the 2014 National Meeting, focused on climate.

I reflect often on the difference the Guild has made through these collaborations around forest climate adaptation. I think about all the workshops I've facilitated and the "aha" moments shared by participants during the wrap-up. The webinars we've facilitated have helped share learning across geographic and organizational boundaries. We've helped spark connections between scientists and forest managers and overcome the barrier of the overwhelmingness of climate change. Perhaps most importantly, we've engaged young professionals in being part of the solution. Because of the work of the entire Guild community, I feel hope for our forests, and for forest stewards, as we face the challenges ahead.

Climate-Smart Forestry is Having a Moment

Jennifer Shakun, Bioeconomy Initiative Director
New England Forestry Foundation

Technical assistance to forest landowners is a key element of climate-resilient forestry Photo credit: Jaal Mann, Northwest Natural Resource Group

NEFF's Holmes Stream Community Forest in Washington County, Maine. Photo credit: Michael Perlman, New England Forestry Foundation

We are on the eve of an exciting era in forestry, when forests are taking center stage as part of a globally relevant solution to climate change. I have worked in the arena of climate and forestry for nearly a decade now, and as I approach that personal milestone, I find myself reflecting on how much the conversation around this topic has changed over those years. I also feel a deep appreciation for the groundwork laid by scientists, practitioners, and partners, including some current and former colleagues, which allows us to take advantage of the attention and resources that are now being focused on forests. To paraphrase an old adage—luck favors the prepared.

An illustrative example of this momentum is the USDA Partnerships for Climate-Smart Commodities (CSC) opportunity announced in early 2022—in which my organization, New England Forestry Foundation (NEFF), is a participant and funding recipient. The CSC program is an investment of $3.1 billion to pilot scalable ways to implement more climate-friendly production practices for agricultural and forest products. As described by USDA, these projects will:

- "Provide technical and financial assistance to producers to implement climate-smart production practices on a voluntary basis on working lands;
- Pilot innovative and cost-effective methods for quantification, monitoring, reporting, and verification of greenhouse gas benefits; and
- Develop markets and promote the resulting climate-smart commodities."

This combination of program elements, particularly the inclusion of market development, reflects the reality that we not only need to reduce emissions from these sectors, but we need to find approaches that facilitate a lower-carbon economy overall—all the way down to how we produce the raw materials that fuel it. It reflects a pragmatic recognition of the scale of what is needed to address climate change.

When I was studying forestry in graduate school in the late 2000s, climate change was in the curriculum, but early in my career I mostly encountered climate as a series of debates—about the carbon merits of wood energy, about whether (and how) to include climate considerations in forest management plans, about whether we would see any notable impacts in the composition of our forests on timescales less than centuries. These days, fewer people bristle at the phrase "climate crisis" because that descriptor no longer feels like an alarmist exaggeration. We still have plenty of debates, but every sector is grappling with the changing climate, including the forest sector.

This consideration of climate is shifting the conversation around sustainability in conventional forestry and continuing an evolution that has been going on for 130 years or so in the U.S. In the early 20th century, sustainability meant sustained production of wood. Over time, other values, such as protection of biodiversity, were incorporated into the conventional definition. Now, we have entered a new frontier: considering how forests store and sequester carbon. As at least one recent paper (Cooper & MacFarlane 2023) and others have noted, we don't have universal consensus on the details of what constitutes climate-smart forestry, and there is uncertainty given the complexity of predicting ecosystem impacts over long timescales. Nevertheless, there is a good foundation of Traditional Ecological Knowledge, science,

and practice to stand on, including analysis conducted by NEFF showing how we can maintain or store more carbon in the forest, while still producing wood products and enhancing wildlife habitat. The current literature reveals three consistent themes: carbon sequestration, carbon storage, and forest resilience. At its heart, climate-smart forestry is about enhancing or promoting those elements.

The good news is that a national-level program like the USDA CSC opportunity has the potential to bring more specificity and greater consensus on this topic. Of the 141 projects that were funded, most are focused on farming and ranching practices and products, only a half dozen or so are related to wood products and forests, including the project NEFF is leading.* These forestry-related projects are distributed around the country, grounded in many different forest types, land ownership patterns, and market conditions. But a genuine spirit of collaboration has emerged among this special subset, even at this early stage of project rollout, as we are all grappling with the unique complexities and timescales of managing carbon in forest ecosystems and products. While we are piloting different strategies in our respective geographies, opportunities for collaboration will help us step out of our regional and cultural silos to define an approach to climate-smart wood production that is relevant for a national and global market.

It is interesting to look at two of the CSC forestry-focused projects as bicoastal examples—namely, NEFF's New England Climate-Smart Forests Partnership project in the Northeast and Sustainable Northwest's Building the Climate-Smart Wood Economy project in Oregon and Washington. Both projects have a five-year timeline, a large constellation of partners, and similar levels of funding – $30 Million and $25 Million to the NEFF and Sustainable Northwest (SNW) projects, respectively. In each case, a significant portion of the total funding will go to producers (i.e. landowners, foresters, or loggers) in the form of incentive payments to support climate-smart practices on the ground. In NEFF's case, we are aiming to pilot practices on 80,000 acres among large commercial forests, smaller family forestlands, and tribal forestlands. The SNW project has a goal of implementing restoration and climate-smart forestry on 65,000 acres owned by small private landowners and tribal nations. Fundamentally, both projects are centered on the idea that management matters—the producers implementing climate-smart management are accruing additional greenhouse gas benefits as a result of those practices and generating commodity wood products that are truly "value-added" from a climate perspective – as well as for clean water, wildlife habitat, and local economies.

The monitoring, verification and reporting elements of each project will document that added value in a credible way so we can market climate-smart wood to consumers, particularly in the building sector. The building and construction industries are responsible for a significant portion of annual carbon emissions (13% globally), but there is also growing interest in reducing that footprint. A key part of doing that is substituting wood and other bio-based products in place of more energy-intensive materials. The most high-profile and potentially impactful example being the rising use of mass timber in place of concrete and steel for building construction, which is one focus of both NEFF and SNW's market development work.

The work we are undertaking collectively to crack the nut of climate-smart commodity production is both important and timely. A sustainable model for the future means moving toward a bioeconomy that runs on renewable, regenerative materials like wood, but the success of that model hinges on our ability to grow, harvest, and use those materials in a climate-aligned way. The more credible and compelling we can make that sustainability case, the better for our forests, our climate, and our communities.

* Details on the CSC projects highlighted here, as well as the full list of funded projects, are available through the USDA Partnerships for Climate-Smart Commodities webpage: https://www.usda.gov/climate-solutions/climate-smart-commodities.

An active harvest at NEFF's Townes Memorial Forest in New Boston, New Hampshire. Photo credit: Kari Post, New England Forestry Foundation

The new roof for the Portland International Airport, built using mass timber from Tribal and family-owned Pacific Northwest forests managing their lands to restore forest health. Photo credit: Stephen A. Miller, Courtesy of ZGF

Selective harvest at the Nisqually Community Forest near Ashford, WA, where community ownership has shifted management away from short-rotation industrial forestry. Photo credit: Jaal Mann, Northwest Natural Resource Group

The Yakama Nation manages more than 600,000 acres of forest land on their reservation in Washington State and operates a mill to process the logs. For time immemorial, the Yakama people have harvested timber sustainably in ways that maintain or improve forest health. Yakama Forest Products provided a significant portion of the wood used in the Portland International Airport's new main terminal, which boasts what is currently the world's largest mass timber roof, to be unveiled in 2024. Photo credit: Sustainable Northwest

The Guild at Work

The Guild, our partners, and Guild members work diligently on the many facets of forest stewardship amid climate challenges. This includes empowering all who steward their own woods. Thank you for your support!

1. *Guild member Kyle Burdick describes the site and management at the Baskahegan Guild Gathering in May of 2023. This came after a visit to an 1100+ acre interior forest on Baskahegan Company lands, designated as an ecological reserve in the Company Forest Management Plan. The event hosts reminded us that their tenure here is merely a blip in the full historical context of stewardship and relationship to land. John Manganello, Baskahegan's President, described ways they are working with Wabanaki peoples to provide land access, co-create policies, and be good neighbors moving forward. Read more in our e-newsletter Across the Landscape, May 2023 edition.*

2. *Learn & Burn event participants learn about using prescribed fire for maintaining early successional habitat. The burn was conducted on land owned by Foothills Conservancy and firing operations were conducted by The Nature Conservancy. Burn mentors included Guild staff and partners from Carolina Land and Lakes RC&D. With a better understanding of prescribed fire, these events often inspire landowners to seek ways to support good fire on their own land. The Guild partners on these events across the country.*

3. *Summer crews in the Forest Stewards Youth Corps worked to build trash racks in New Mexico for erosion control. Over the summer of 2023, they built a total of 15 trash racks, 7 wicker weirs, and 15 one-rock dams. They also did an impressive diversity of monitoring work, maintenance, seeding, marking, and more! The Guild's Youth Corps Program develops the next generation of skilled workers, educated and active citizens, and future community leaders by providing training, education, and employment in natural resource management fields for 16-25 year olds from forest dependent communities in New Mexico.*

4. *Landowners gather with Guild staff and partners to learn about stewarding their forests for the benefit of birds in Western Oregon. A new Forestry for the Birds Western Oregon Field Guide supports foresters, landowners, and loggers to enhance management plans with birds in mind. Forestry for the Birds can also help landowners see how birds use their land today and through a natural cycle of disturbance and renewal.*

5. *Prescribed fire practitioners at Minnesota's Camp Ripley Training Center meet with landowners from the surrounding landscape to discuss why, where, and how they use prescribed fire as a management tool at an event in September 2023.*

6. *Several participants at a recent Women's Chainsaw Safety Class in Wisconsin said they feel more comfortable learning alongside women peers and appreciated the opportunity to gain confidence with chainsaws in this setting. The event was hosted by Nature's Good Company, LLC and instructed by Guild member Luke Saunders from Blue Heron Stewardship, LLC. The Guild partners on many similar programs across the country, with an intention to empower women landowners and stewards.*


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Forest Stewards Guild

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Guild and partner events

Join or lead events with the Guild and enrich this community with your presence and expertise. Updated details at: http://www.foreststewardsguild.org/events.

- **Climate Adaptation Webinar and Field Tour Series - year four**
  Nov 1 & 3 and Dec 6 & 8, 2023, March 6 & 8 and May 8 & 10, 2024
  Join the Forest Climate Change Initiative as we dig into forest health concerns due to climate impacts at new sites around the state of Maine. Our panelists will address management & restoration efforts, relevance of long-term research, fire as a tool, biohabitat concerns, forest health threats, and unique adaptation strategies at each site.

- **Communicating Forestry Webinar Series**
  January 9 and February 27, 2024 at 7 - 8:30 p.m. ET
  Join Guild members as they share knowledge and resources about effectively communicating about our work. Topics range from tips and tools, to peer-to-peer learning, to photography and storytelling, and the spiritual and cultural histories of our view of "forests." Prior sessions are available in the webinar library from our events page online.

- **Women's Chainsaw Safety Classes**
  October 28 in Wisconsin and November 2 in North Carolina
  This course is designed to provide a safe, welcoming. and empowering learning environment for women who are new to chainsaw use. Gain initial chainsaw safety and operation skills, or learn to improve upon how you've been using your chainsaw.

Check our event webpage often for new opportunities. We welcome your offers to host a Guild Gathering, highlighting good work and important topics in this community. Please email membership@forestguild.org with your ideas.

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