



# Advancing Biochar Production and Utilization Through USDA Forest Service Programs

---

Charlie Becker

Wood Innovation Specialist

State, Private & Tribal Forestry

# Why the Interest?

- **Part of the Forest Service's Mission**  
To sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.
- Millions of acres of forestland need management and restoration
- Limited use and markets for much of the material, especially in the west



# No Markets... No Management



# Why the Interest?

- Concerns about smoke and carbon emissions
- Soil quality and land remediation issues
- Looking for ways to improve forest management, health, sustainability, public benefits and utilization.
- Biochar offers opportunities to address these issues



# How are we Supporting?

## Technical and Financial Support

- Grants & Special Projects Funding
- Technical Assistance
- Cooperative Agreements

## Research and Outreach

- Environmental
- Economics
- Utilization





## Wood Innovations Program

**Expands and creates markets for wood products and wood energy that support long-term, sustainable management of National Forest System lands and other forest lands**

[Wood Innovations | US Forest Service \(usda.gov\)](https://www.usda.gov/wood-innovations)

# Wood Innovation Staff – Washington Office

**Brian Brashaw** (Assistant Director, Wood Innovations)  
[brian.k.brashaw@usda.gov](mailto:brian.k.brashaw@usda.gov)

**Kevin Naranjo** (National Program Manager, Mass Timber and BIL Programs)  
[kevin.naranjo@usda.gov](mailto:kevin.naranjo@usda.gov)

**Julie Tucker** (National Program Manager, Bioenergy and Biofuels)  
[Julie.Tucker@usda.gov](mailto:Julie.Tucker@usda.gov)

**Charlie Becker** (Wood Innovations Specialist; Forest Products Lab Liaison, Urban Wood, Hardwood & Biochar Utilization)  
[Charles.Becker@usda.gov](mailto:Charles.Becker@usda.gov)

**Collin Buntrock** (Wood Innovations Specialist; Wood Innovation Grant Manager, Mass Timber)  
[collin.buntrock@usda.gov](mailto:collin.buntrock@usda.gov)

**Sabina Dhungana** (Wood Innovations Specialist; Community Wood Grant Manager, Bioenergy and BioFuels)  
[sabina.dhungana@usda.gov](mailto:sabina.dhungana@usda.gov)

**Jeff High** (Wood Innovations Specialist; Temporary Bridge Program, Timber & Biomass Transportation)  
[jeffrey.c.high@usda.gov](mailto:jeffrey.c.high@usda.gov)

**Alex Kazer** (Wood Innovations Specialist; Firewood Banks)  
[robert.kazer@usda.gov](mailto:robert.kazer@usda.gov)

**Adam Smith** (Wood Innovations Specialist; Wood Products Infrastructure Assistance Grant Manager)  
[adam.smith5@usda.gov](mailto:adam.smith5@usda.gov)



# Wood Innovations Regional Coordinators

## Regions

Region 1 - Julie Kies

Region 2 - Todd Gardiner

Region 3 - Grace Sorenson

Region 4 - Chris Clark

Region 5 - Helena Murray, Jim Dipasquale, Scott Burdette

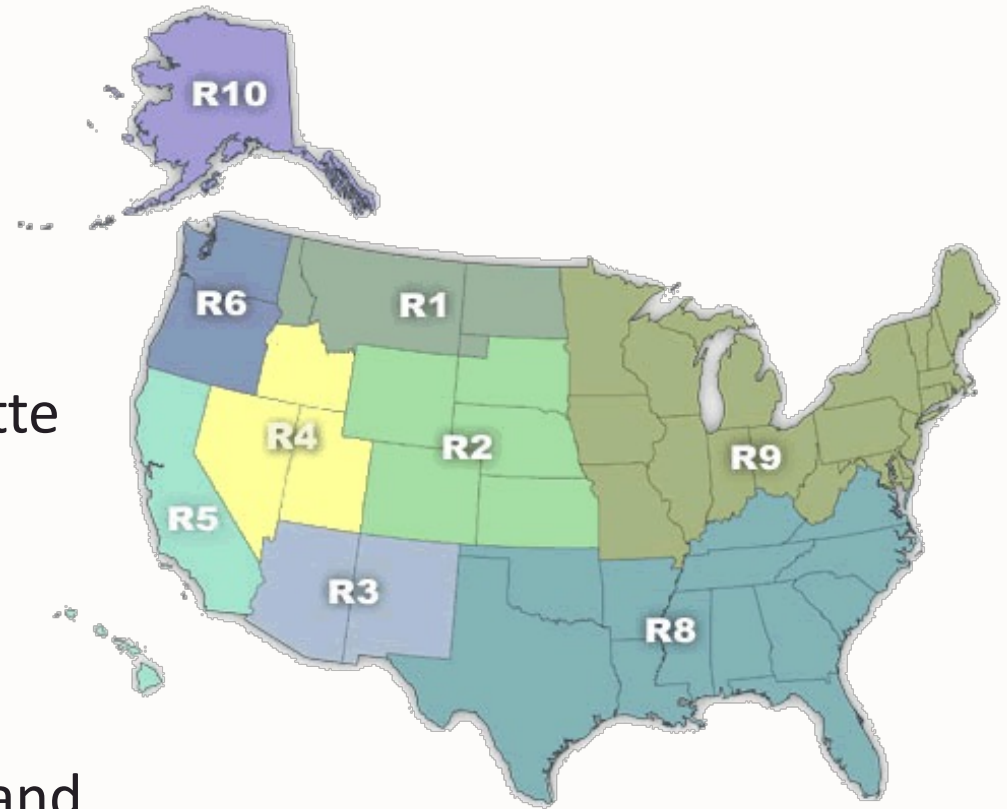
Region 6 - Adrian Kiser, Terrie Jerrell

Region 8 - Marcus Taylor, Jaime Hernandez

Region 9 - Lew McCreery, Patrick Rappold, Maura Ross

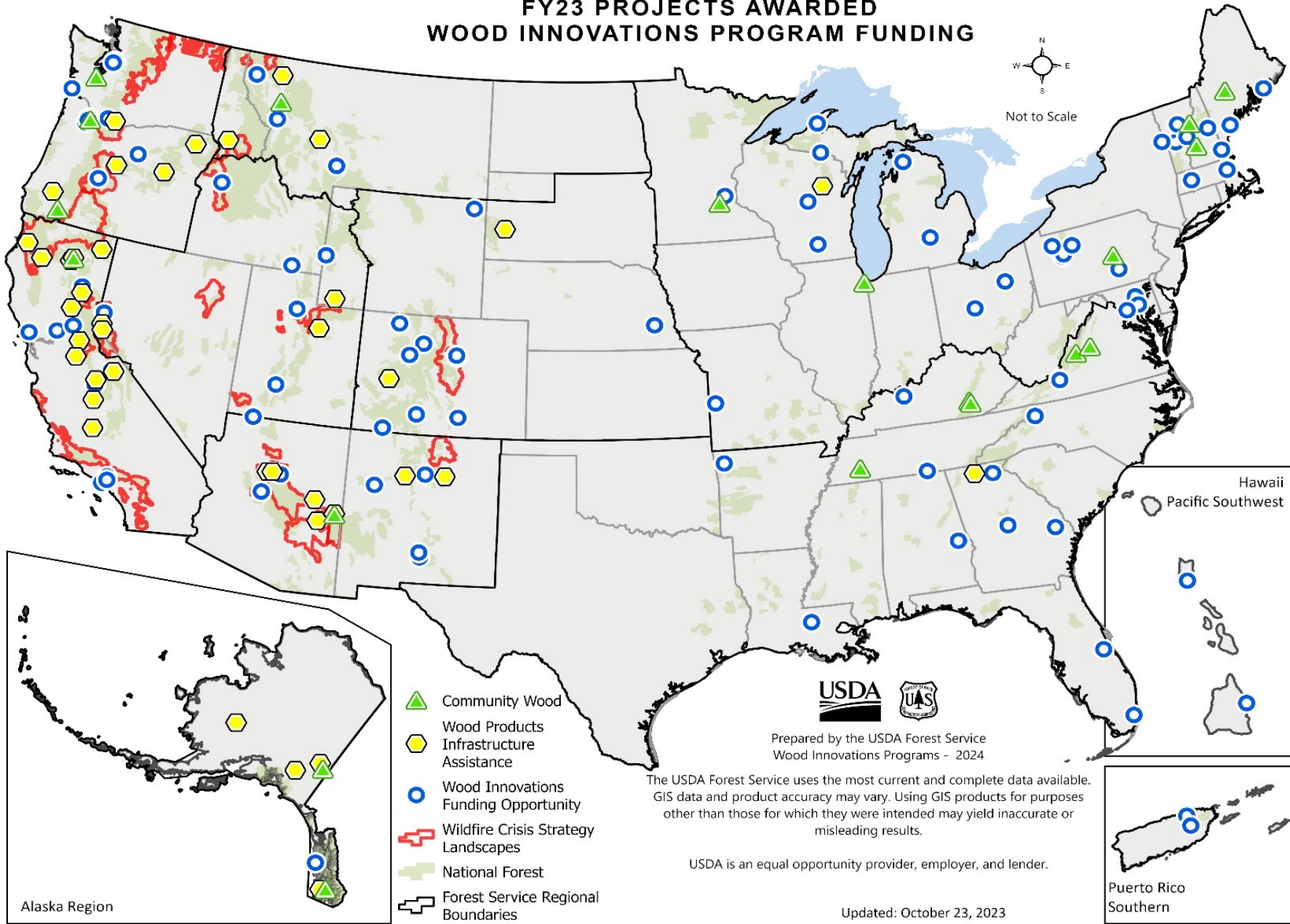
Region 10 - Priscilla Morris

WO National Forest System (Biomass) - Kristen Bergstrand





## FY23 PROJECTS AWARDED WOOD INNOVATIONS PROGRAM FUNDING



**Community Wood**

- 19 Recipients
- \$18 million

**Wood innovations Grants**

- 104 Recipients
- \$25 million

**Wood Products Infrastructure Assistance**

- 41 Recipients
- \$29 million



# Biochar Related Projects Supported

**Wood Products Infrastructure Assistance (WPIA): 2023, 1 Project, \$450,000**

Biochar byproduct production from biomass power plant

**Wood Innovation Grant (WIG): 2020-2023, 18 projects, \$3.7 million**

Market development, Carbon valuation, biochar production (primary & byproduct), innovative products (biochar in concrete, natural fiber insulation, etc.) engineering and logistic projects

**Community Wood Grant (CW): 2022-2023, 5 Projects, \$4.8 million**

Biochar production (primary and byproduct of energy production), briquetting



# Wood Innovation Programs - 2024

- Approximately \$50 million available depending on Federal Budget
- Three Grant programs (WPIA, WIG, CW) received over 300 proposals
- Over \$100 million in requests
- Approximately 5 to 10% biochar related
- Announcements in Spring 2024



# Wood Energy Technical Assistance Team

## Taking Wood Energy Projects From Concept to Reality

Lew McCreery, Team Leader,  
USDA Forest Service  
lew.mccreery@usda.gov  
304-285-1538



# Forest Service Research

**Forest Products Lab, Madison, WI**

[Forest Products Laboratory | US Forest Service Research and Development \(usda.gov\)](#)

**Forest Service Research Stations** (Northern, Pacific Northwest and Southwest, Rocky Mountain, Southern)

[Research Stations | US Forest Service Research and Development \(usda.gov\)](#)



# Forest Service Outreach

US Biochar Initiative <https://biochar-us.org/>



Cooperative Research and Development Agreement (CRADA)

- AirBurners, Inc – CharBoss <https://airburners.com/products/boss-series/charboss/>

US Endowment for Forestry and Communities

[www.usendowment.org](http://www.usendowment.org)

- Restoration Fuels <http://restorationfuels.com>



# Other USDA Program Opportunities

## Rural Development

- [Rural Development \(usda.gov\)](https://www.usda.gov/rural-development)
- Business Programs

## Value-Added Producer Grants

- [Value-Added Producer Grants | Rural Development \(usda.gov\)](https://www.usda.gov/producer-grants)

## Farm Bill

- <https://www.usda.gov/farmbill>



# Contact Information

**Charlie Becker, CF**  
**Wood Innovations Specialist**  
**Forest Service**  
**State, Private & Tribal Forestry**  
**Wood Innovations**  
**p: 608-231-9326**  
**[charles.becker@usda.gov](mailto:charles.becker@usda.gov)**

