

Photo Credit: Oregon Forest Products Institute



Photo Credit: D. R. Johnson



**Steven Koehn**

**Director – Cooperative Forestry**

**USDA Forest Service State, Private, and Tribal Forestry**

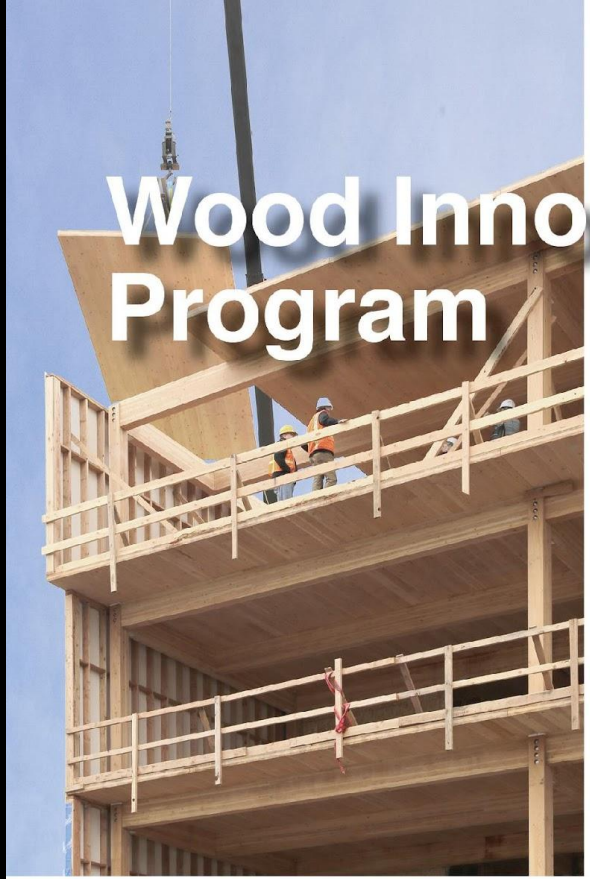
**WOOD INNOVATIONS  
JUNE 2023**



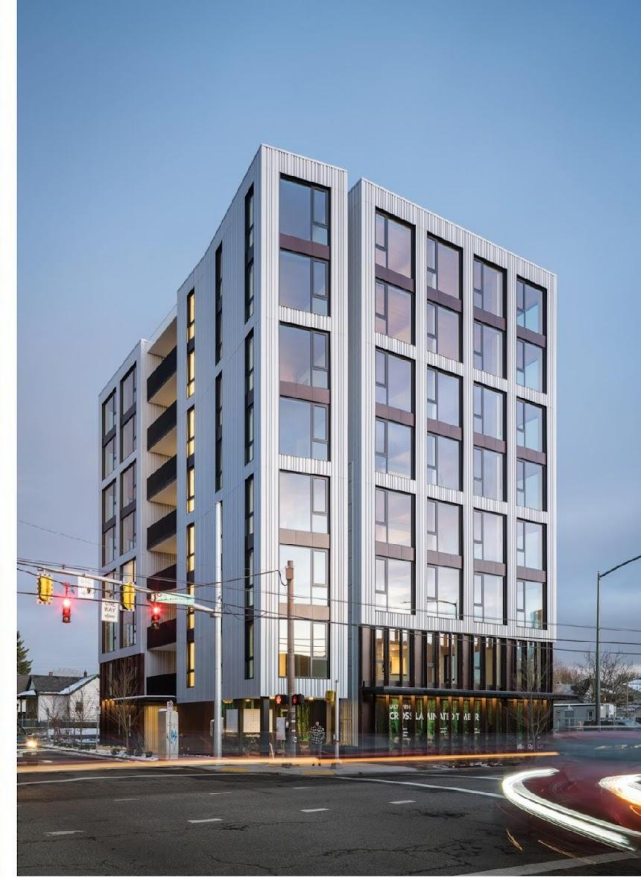


**Building the  
Connection  
between  
forests and  
forest  
products!**

**Building  
Markets and  
Expanding  
Capacity**



**Wood Innovations  
Program**







**NO MARKETS ... NO MANAGEMENT**





WILDFIRE CRISIS

Landscape  
Investments

# CONFRONTING THE WILDFIRE CRISIS

Expanding efforts to  
deliver on the  
Wildfire Crisis Strategy

<https://www.fs.usda.gov/managing-land/wildfire-crisis>





# Wood Innovations Program

- **2018 Farm Bill**

- Wood Innovations grants
- Community Wood facilities grants

- **Bipartisan Infrastructure Law (BIL)**

- Wood Products Infrastructure Assistance grants (Partnership with NFS)
- Temporary Water Crossings
- Firewood Banks

- **Inflation Reduction Act (IRA)**

- Wood Innovations grants
- Transportation assistance

# Priorities

- **Mass Timber and Green Building**
- **Biomass Priorities**
  - Biomass Power
  - Biofuels
  - Biochar
- Hardwood Applications
- Logging Industry
- Firewood Banks
- Feedstock Sustainability
- Urban Wood Utilization
- Communications







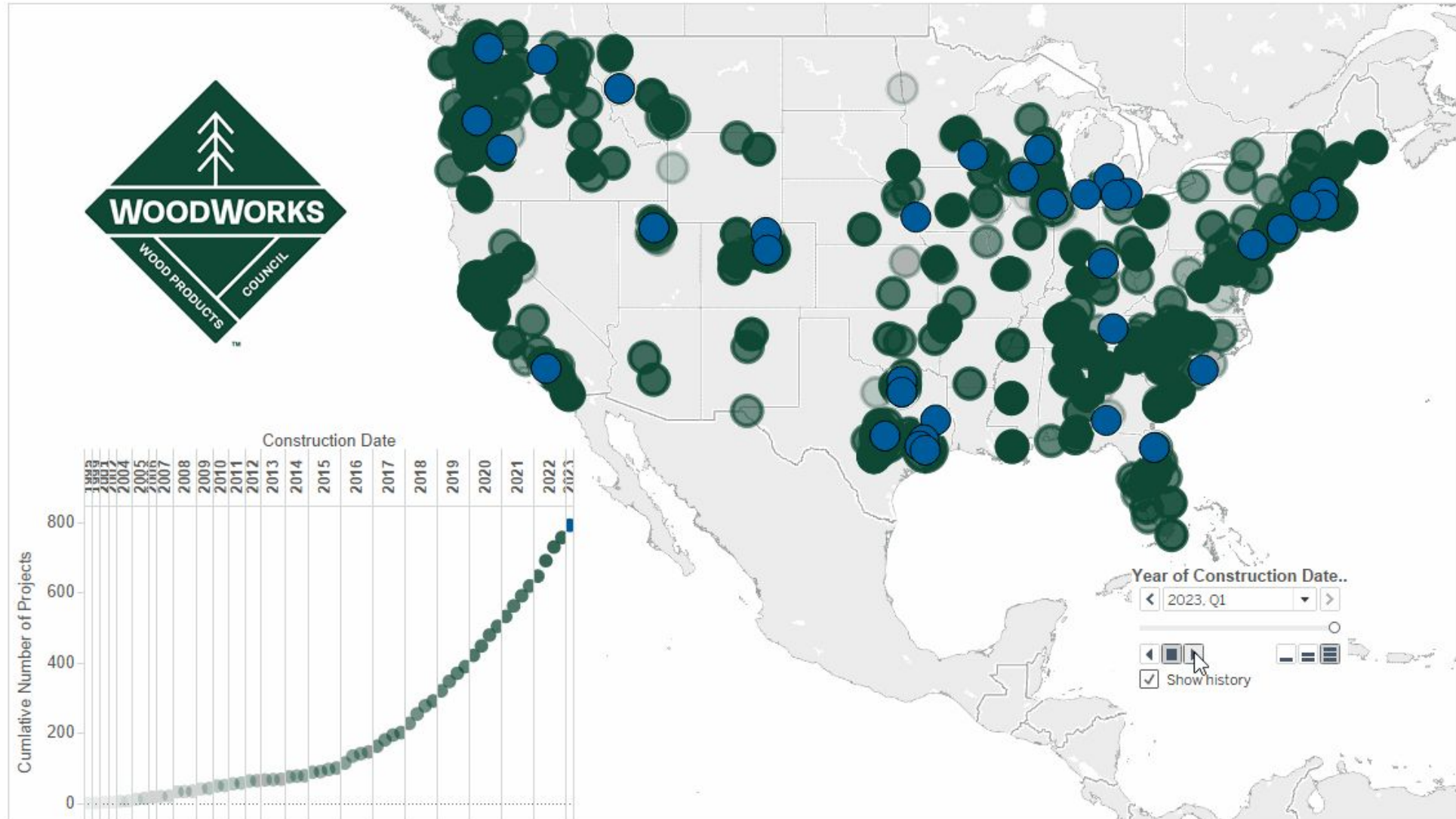
Structurlam CLT Examples  
Credit: Courtesy of Structurlam

Photo: Vaagen Timbers



# Current State of Mass Timber Projects

As of March 2023, in the US, **1,753** multi-family, commercial, or institutional projects have been constructed with, or are in design with, mass timber.





# Lumber and Veneer-based Cross-laminated Timber (CLT) plants

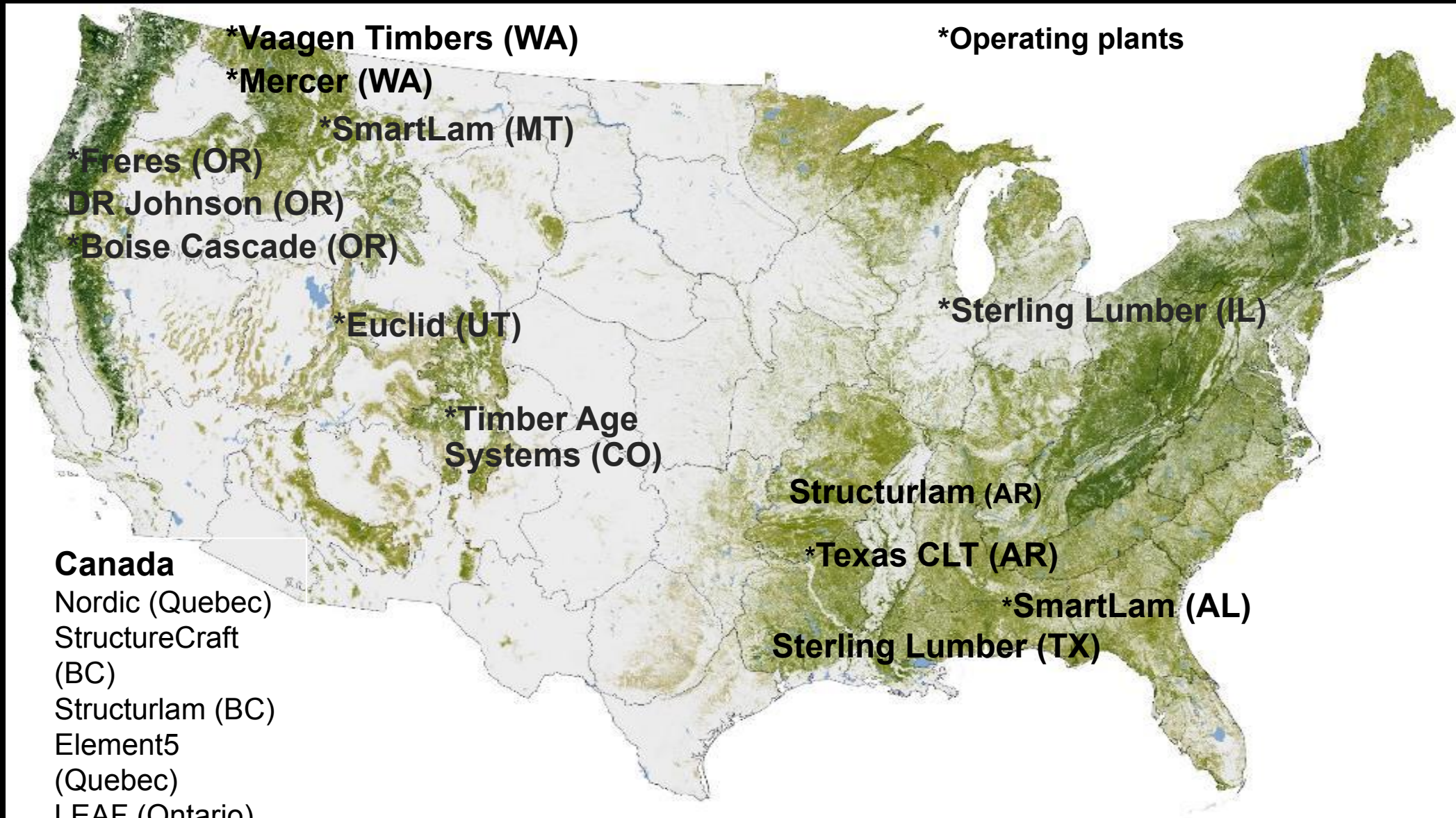






Photo courtesy of Marcus Kauffman, Oregon Forestry



# Biomass Power

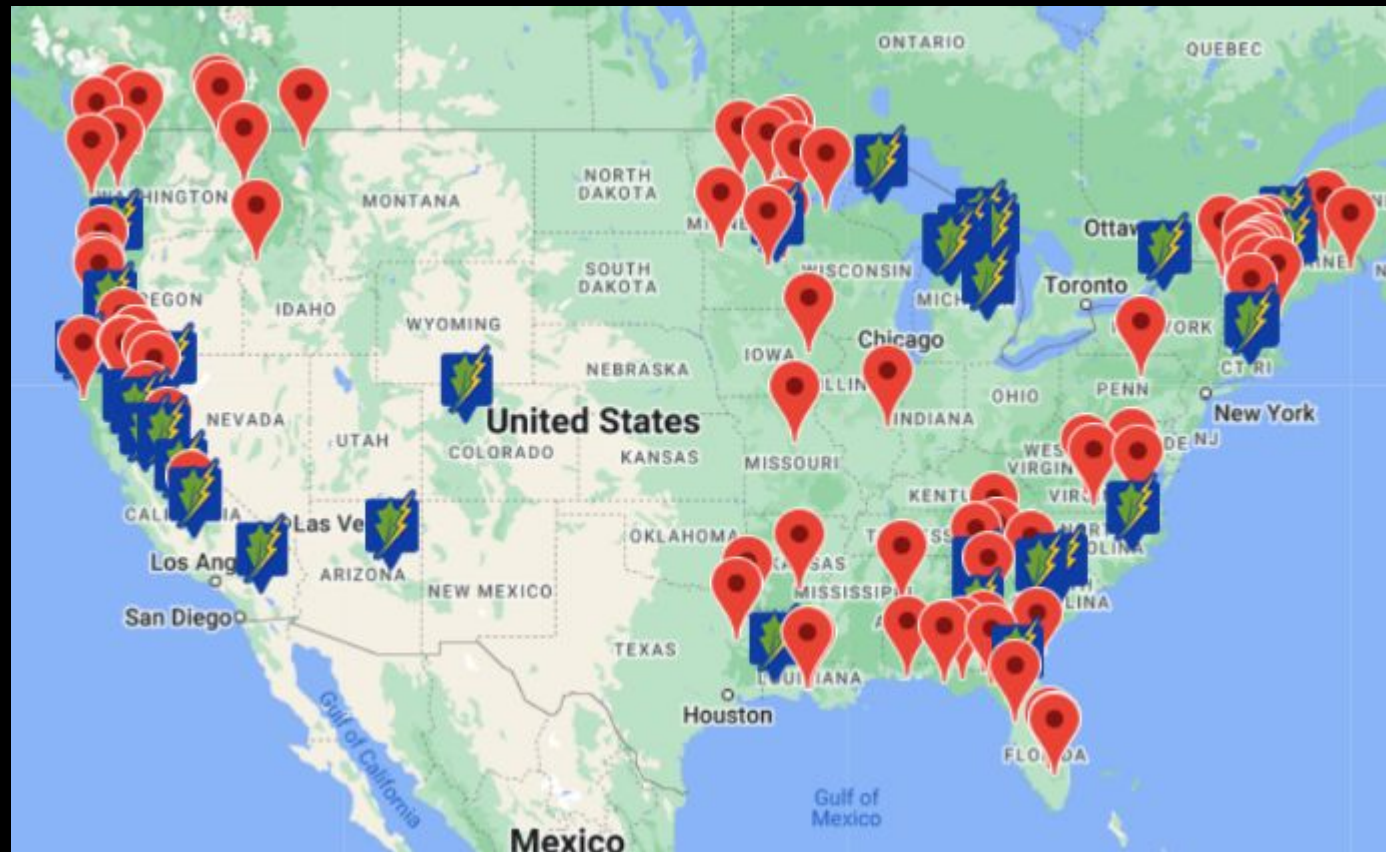
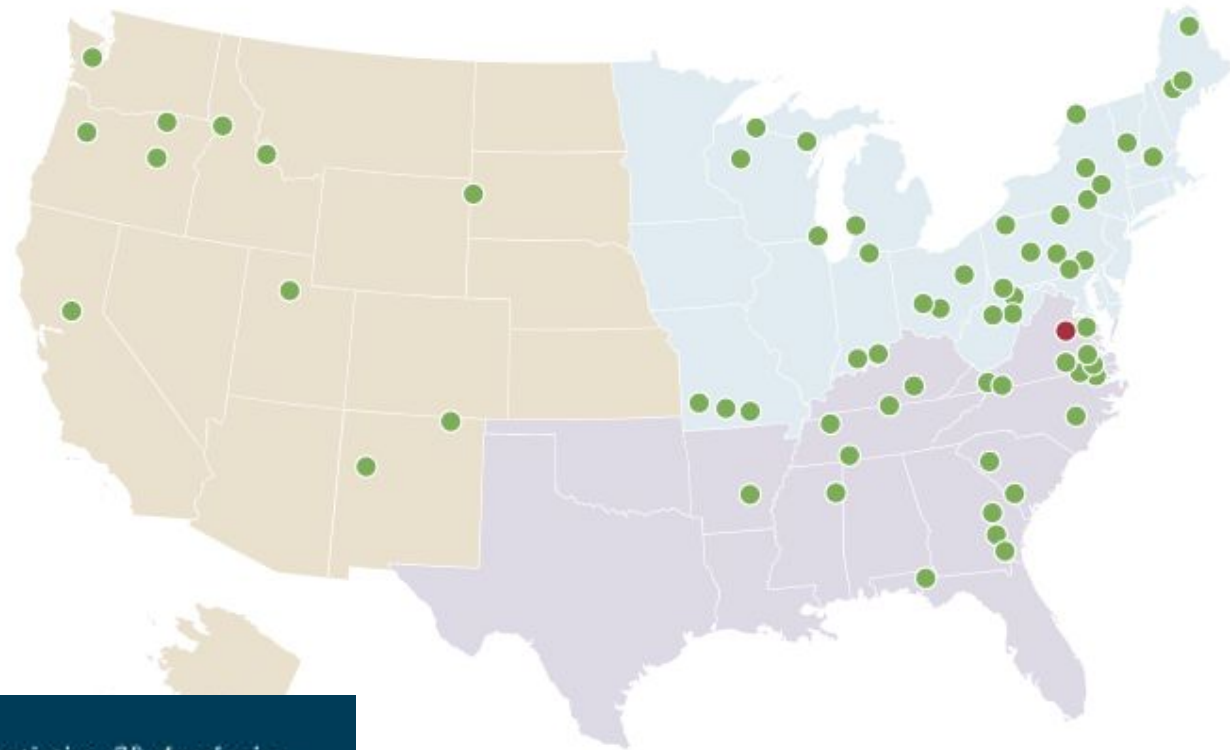


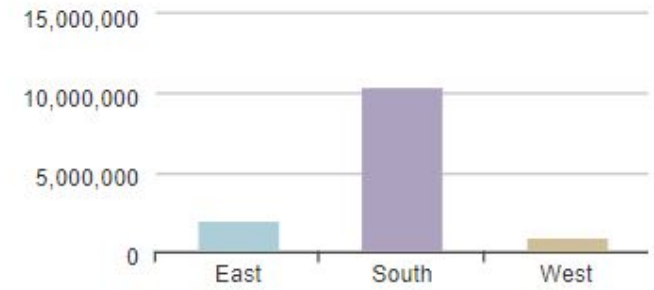
Photo courtesy of Biomass Power Association



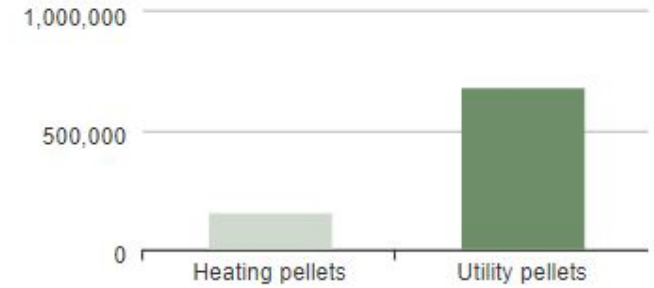
# Manufacturing facilities with capacity and status, February 2023



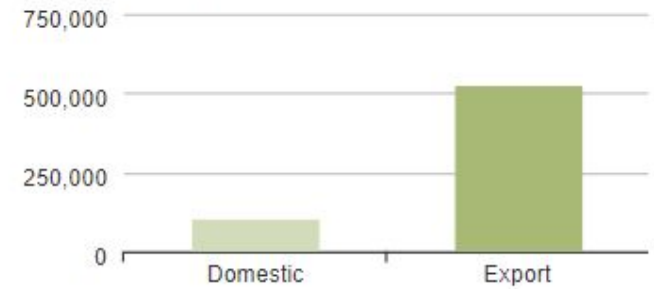
Capacity by region (tons per year)



Production (tons)



Sales (tons)



Status indicator:

- currently operating
- under construction/planned
- temporarily not in operation
- ceased operations





# Heating, Cooling and Combined Heat and Power Systems



**325 Facilities Supported**

➔

**83 Operating/In Development**

**Wood Energy  
Technical  
Assistance Team**

Supporting clean and efficient use of wood for energy

- Feasibility Studies
- Energy Efficiency
- System Metering
- Technical Assistance
- Emissions Reduction

**325 Projects in 31 States (63% Public / Non-Profit including 14 Tribal Projects)**

**Potential Benefits Identified**

- Gas, Oil Offset (~4 Billion gal Oil)
- \$1.5 Billion Energy Savings
- 4.0 Billion kWh Renewable Electric (~15,250 Homes)
- 110 Million Tonnes CO2e Offset
- Use 61 Million Tons Wood Residue
- \$2.5 Billion Spent Locally on Forest Residues
- 19,700 Forestry Jobs Sustained
- \$784 Million Project Costs Leveraged

**Over 25-yr Project Life**

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal or because all or part of an individual's income is derived from any public assistance program. USDA is an equal opportunity provider and employer.





YOSEMITE  
CLEAN ENERGY



ALDERFUELS



ENSYN



EcoTech BioFuels, LLC



## Transportation fuels:

Liquid aviation drop-in fuel, hydrogen, biodiesel, etc.

## Heating fuel:

“generate heat to warm buildings or other facilities where people live, work, recreate, or conduct other activities.”

## Electric power:

Charging electric vehicles



## Cross Agency Team

- State, Private, and Tribal Forestry
- Research and Development
- National Forest System

## Key Partners

- U.S. Biochar Initiative
- U.S. Endowment for Forestry & Communities
- Air Burners, Inc.

**Help NOT Hype!**

# FORESTS & BIOCHAR

**Excess forest fuels and salvage wood create energy and help build healthy soils**





# Restoration Fuels, John Day, Oregon





# Biochar Field Trials, 2020-2023







We are working with the logging industry to support markets for wood and to support workforce development.

Bureau of Labor Statistics' American Time Use Survey



**The Happiest & Most Meaningful Jobs on Earth**

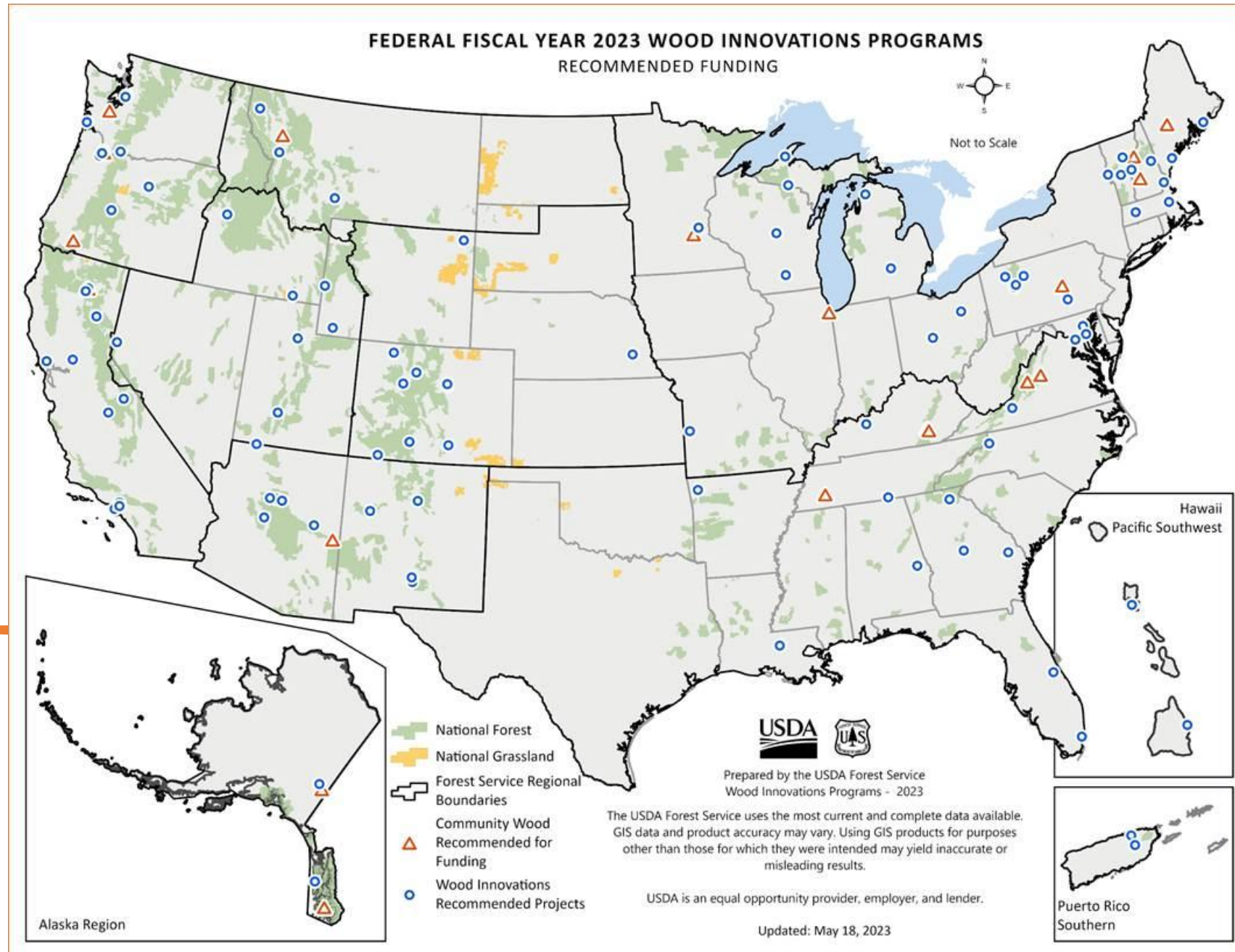
The Washington Post

[www.washingtonpost.com/business/2023/01/06/happiest-jobs-on-earth](https://www.washingtonpost.com/business/2023/01/06/happiest-jobs-on-earth)



# 2023 Wood Innovations Grants, Community Wood Energy Grants (EMBARGOED)

120 projects/\$43 million



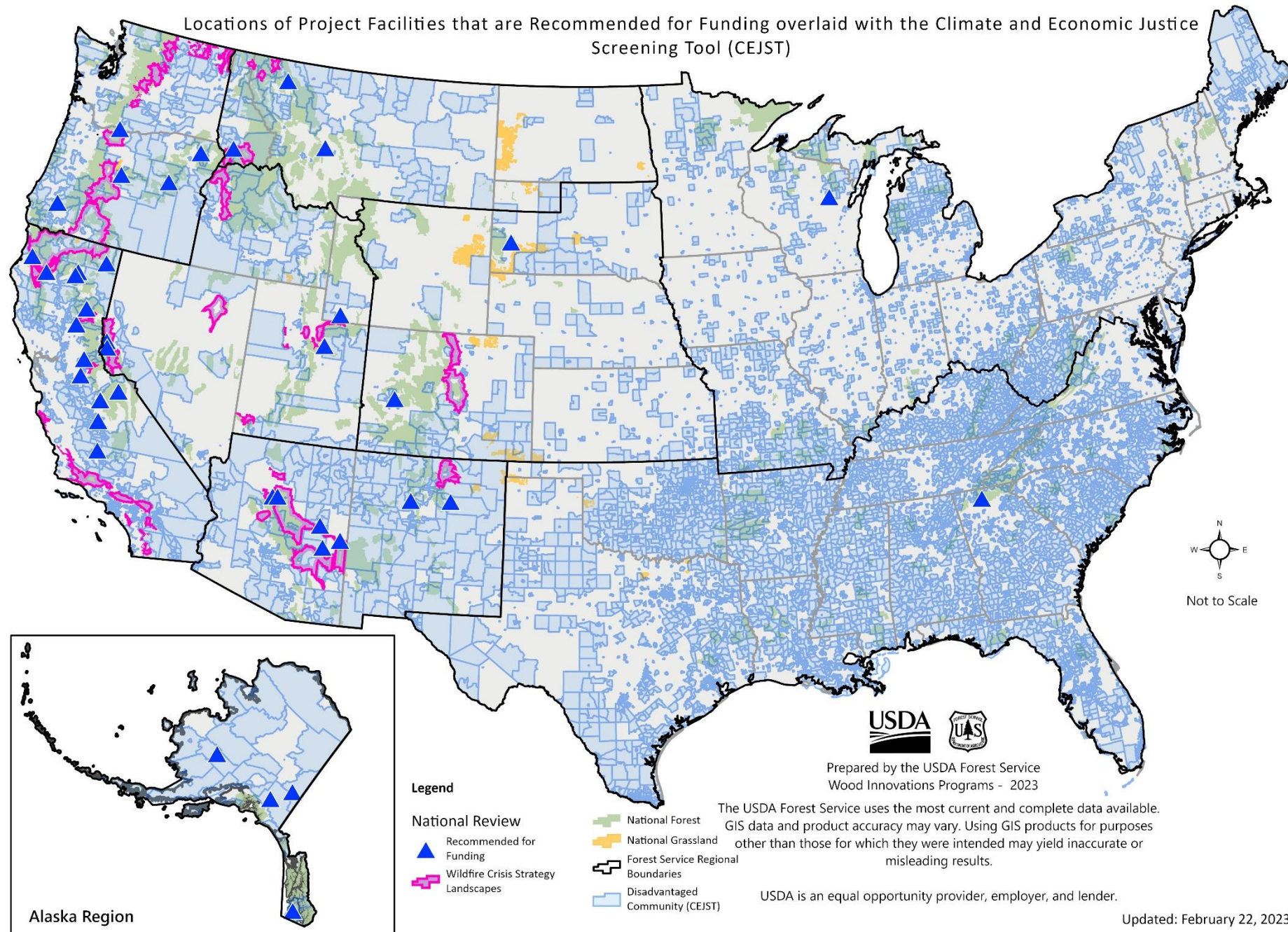


**We are investing Bipartisan Infrastructure Law funds to support Facilities that Use Byproducts from Federal and Tribal lands. 65% of the projects will support facilities in disadvantaged communities.**

**41 projects / \$29 million**

## FY 2022 WOOD PRODUCTS INFRASTRUCTURE ASSISTANCE

Locations of Project Facilities that are Recommended for Funding overlaid with the Climate and Economic Justice Screening Tool (CEJST)







**MOTTO**  
— Caring for  
the Land and  
**-serving**  
people



**Steven Koehn**  
Director, Cooperative Forestry  
[Steven.Koehn@usda.gov](mailto:Steven.Koehn@usda.gov)  
202-205-1602

