



Forest Service
U.S. DEPARTMENT OF AGRICULTURE

Wood Innovations Grants and Potential New Forest Markets for Wisconsin

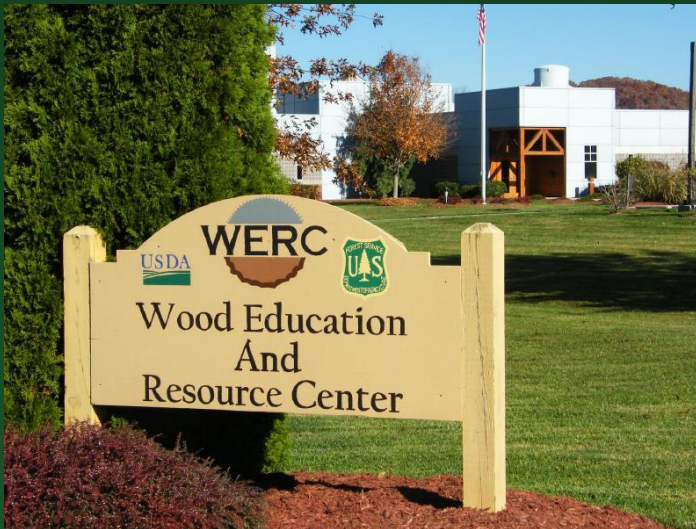
Wisconsin Council on Forestry

November 17, 2021



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Regional Wood Utilization Specialist
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A 13 – acre campus in **Princeton, WV** that includes a training center, a maintenance building, and a rough mill.

The Wood Education and Resource Center (**WERC**) Forest Markets program has grown to become a virtual hub for technical assistance to forest products manufacturing.

Objective is to contribute to a more competitive, productive, and profitable forest products industry in the U.S.

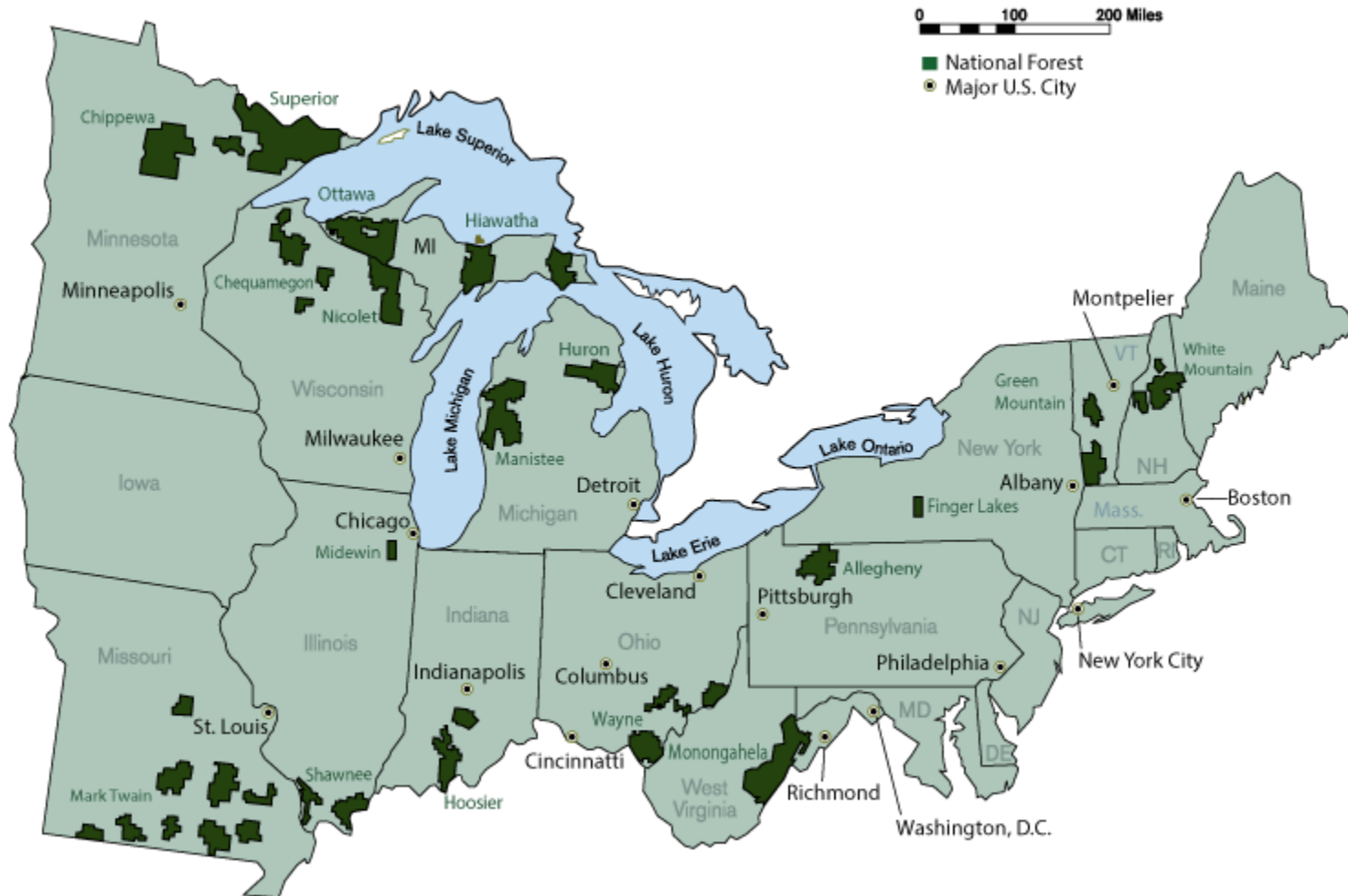
Provides technical assistance nationally and financial assistance at the regional level.

WERC States - Eastern Hardwoods



162 Million Acres are in the Eastern Hardwood Forest Type

USDA Forest Service - Eastern Region



USDA Forest Service Eastern Region's Forest Markets Program



Susan Ellsworth,
Director of Forest Health
and Forest Markets
Milwaukee, WI

Lew McCreery
Regional Wood
Innovations Coordinator
Morgantown, WV

Patrick Rappold
Regional Wood
Utilization Specialist
Milwaukee, WI

Eastern Region's Forest Markets Funding Priorities

1. Assist in the development of new industries that can utilize pulpwood size logs and are aligned and compatible with current forest business sectors.
2. Maintain efforts on wood energy technical assistance and support new projects that use by-products of forest management activities, wood manufacturing processes, and urban tree forestry activities for energy, heat, and renewable products.
3. Support efforts to expand the market development and product awareness of traditional and non-traditional forest products manufactured from urban forest resources.
4. Support projects that contribute to the field of knowledge pertaining to the role of forest products and forest management in carbon management and climate mitigation efforts.

Market Changes/Market Opportunities

August 2021, Roseburg permanently curtails operations of their 56-year-old particleboard plant in Dillard, OR.

- One of the largest capacity particleboard plants in the U.S.
- Market demand for particleboard quickly outpaced market supply across the U.S.
- Increased sales of RVs identified as market driver for non-structural composite wood panel market.

Roseburg Forest Products to close Dillard particleboard plant; 179 jobs affected

by News Staff | Thursday, August 26th 2021



RFP's Dillard office. (File/SBG photo)

Image Source: [KMTR - Eugene, Oregon August 26, 2021](#)

Data Sources: Random Lengths: **Particleboard plant closure forces market adjustments** (Oct 1, 2021).

Random Lengths International: **Unprecedented price run fuels surge in MDF imports** (Oct 6, 2021).

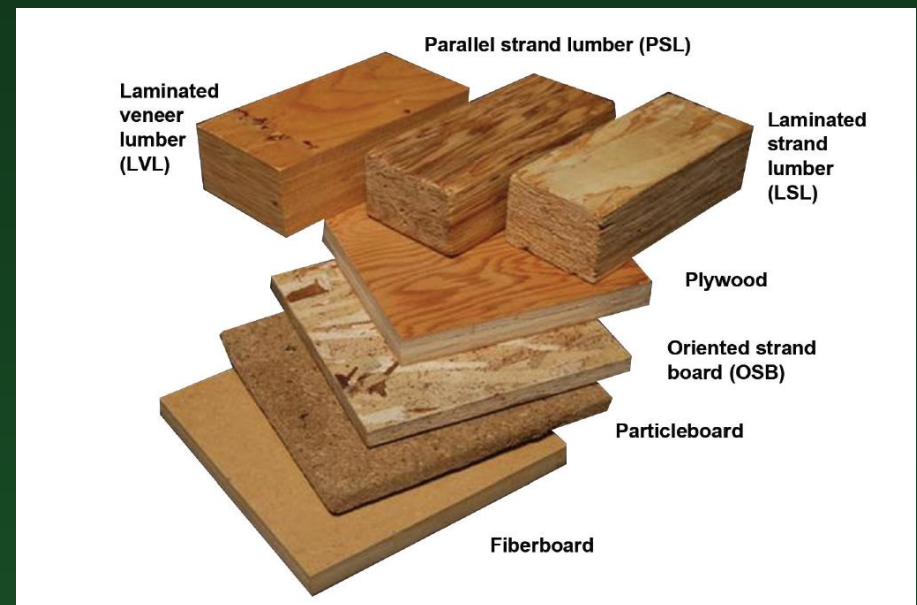
Composite Wood Panels

Structural Panels

- Load bearing panels.
- Laminated Veneer Lumber (LVL), Parallel Strand Lumber (PSL), Laminated Strand Lumber (LSL), Plywood, Oriented Strand Board (OSB).
- Pulpwood sized logs can be used in all above applications except plywood.

Non-Structural Panels

- For cabinet, millwork, and door applications.
- Particleboard, Fiberboard.
- Typically made from sawmill waste, pulpwood sized logs are an option.

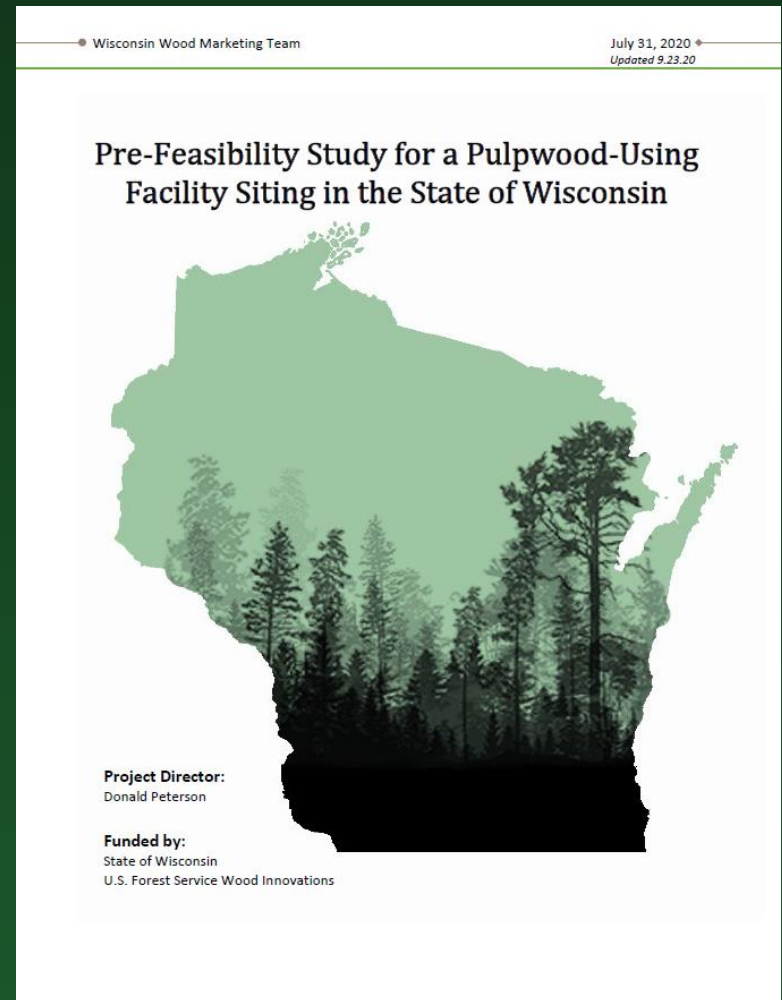


Source: USDA Forest Service Forest Products Laboratory
Wood Engineering Handbook, 2021

Market Changes/Market Opportunities

2020 Report

- There is currently not enough pulp produced in Wisconsin to meet the demand of paper mills and Wisconsin paper mills were forced to import US \$401.6 million of wood pulp.
- Wisconsin has a multitude of value-added wood manufacturing facilities that use large volumes of non-structural wood composite panels in their products, and almost all many of these panels are imported from outside of the state.



North American Composite Panel Manufacturers

LEGEND

1. Arauco Industria de Mexico, S.A. de C.V.
2. Arauco North America
3. Best Board Impulsora S.A. de C.V.
4. CalPlant 1, LLC
5. Collins Products LLC
6. Dakota Panel
7. Decorative Panels International, Inc.
8. Duraplay de Parral, S.A.P.I. de C.V.
9. EGGER Wood Products LLC
10. Florida Plywoods, Inc.
11. Forestal Terranova Mexico S.A. de C.V. (MASISA)
12. GP Wood Products LLC
13. Industrias Emman, S.A. de C.V.
14. JELD-WEN, Inc.
15. Kronospan LLC
16. Langboard, Inc.
17. Maderas Conglomeradas, S.A. de C.V. (MACOSA)
18. Maibec CanExel, Inc.
19. Masonite International Corporation
20. Pan Pacific Products, Inc.
21. Panolam Industries International Inc.
22. Plummer Forest Products
23. Ponderplay, S.A. de C.V.
24. Roseburg
25. Stimson Lumber Company
26. Swiss Krono LLC
27. Tafisa Canada Inc.
28. Taosa Paneles S.A. de C.V.
29. Tecnotabla
30. Timber Products Company
31. Uniboard
32. Unilin-US Ltd.
33. West Fraser
34. Weyerhaeuser Company
35. Woodgrain Composites



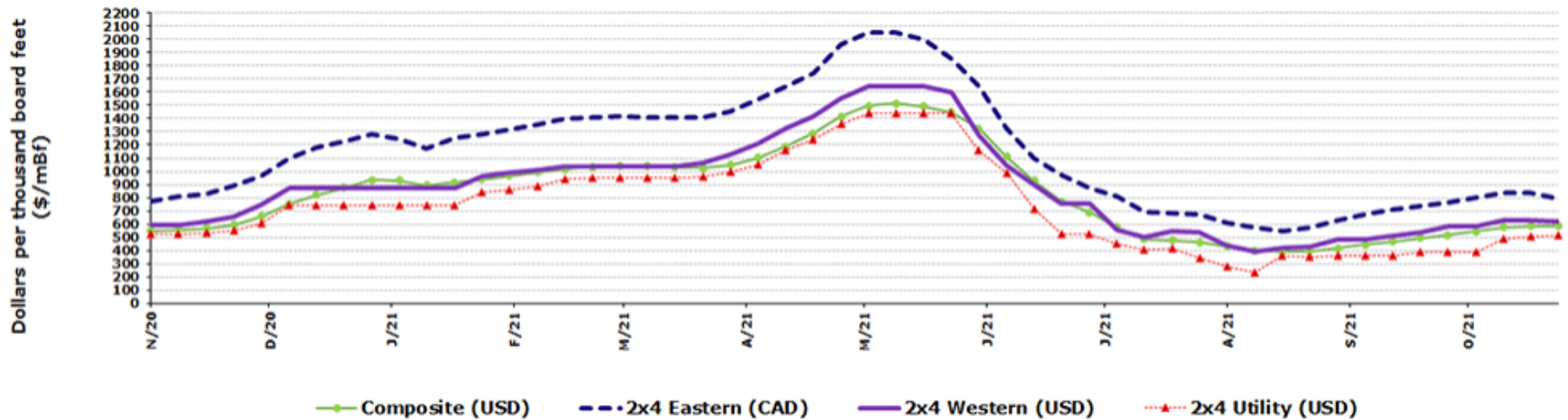
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Mass Timber Momentum

Source: Natural Resources Canada

Softwood lumber prices

Figure 1: Weekly lumber prices in North America



Note: Eastern spruce-pine-fir 2x4 #2 and better, Random Lengths composite prices and western spruce-pine-fir 2x4 #2 and better, kiln dried

Sources: 1) [Random Lengths](#), used with publisher's permission

2) [Madison's Lumber Reporter](#), used with permission granted by the publisher

- Fluctuations in softwood lumber prices may impact **cross-laminated timber** construction.
- Other technologies exist to construct mass timber applications e.g., laminated veneer lumber.

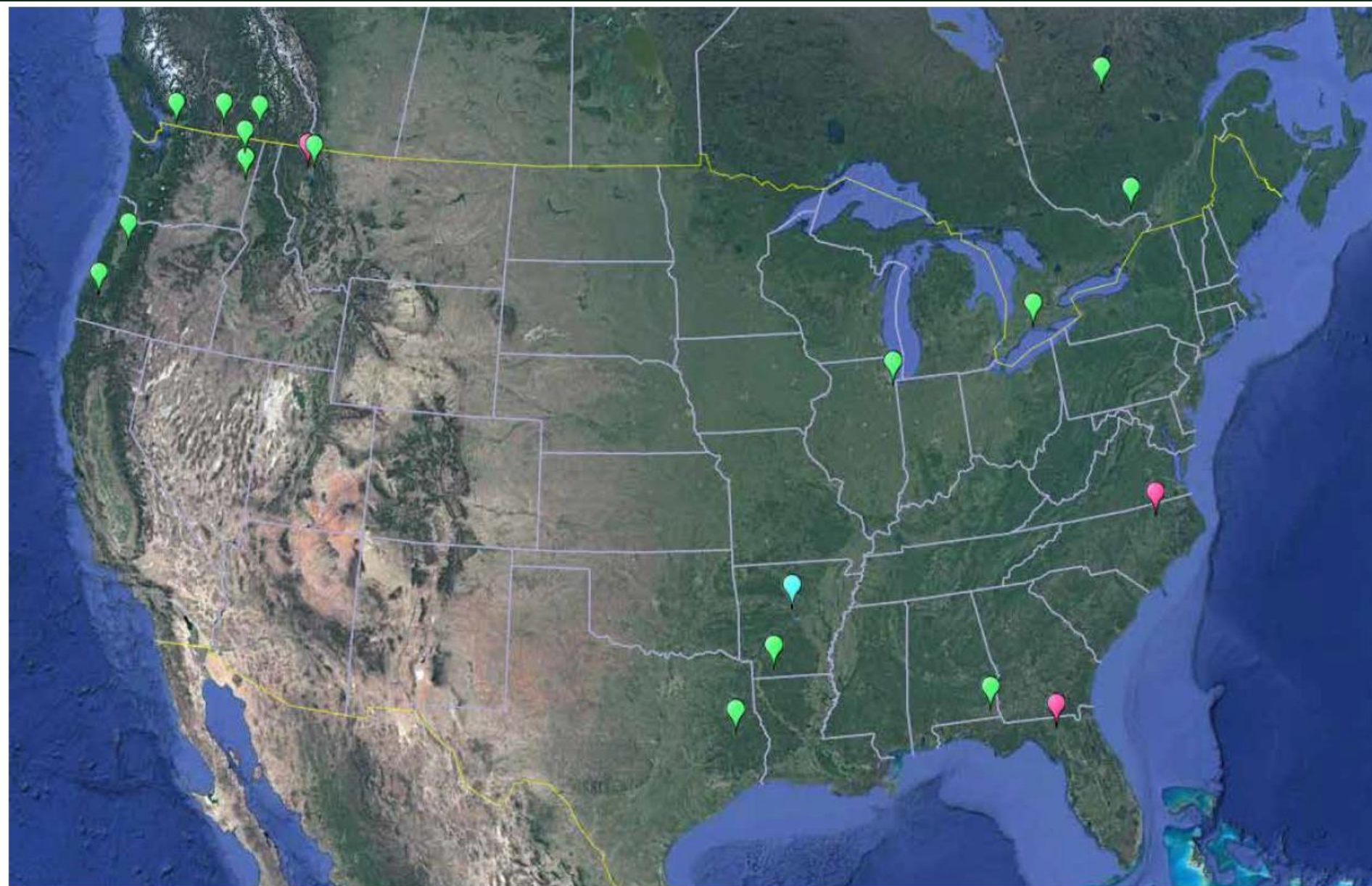


FIGURE 4.3: LOCATION OF OPERATING (GREEN), UNDER CONSTRUCTION (BLUE), AND PLANNED (PINK) MASS TIMBER PLANTS

Source: 2021 International Mass Timber Report, Forest Business Network

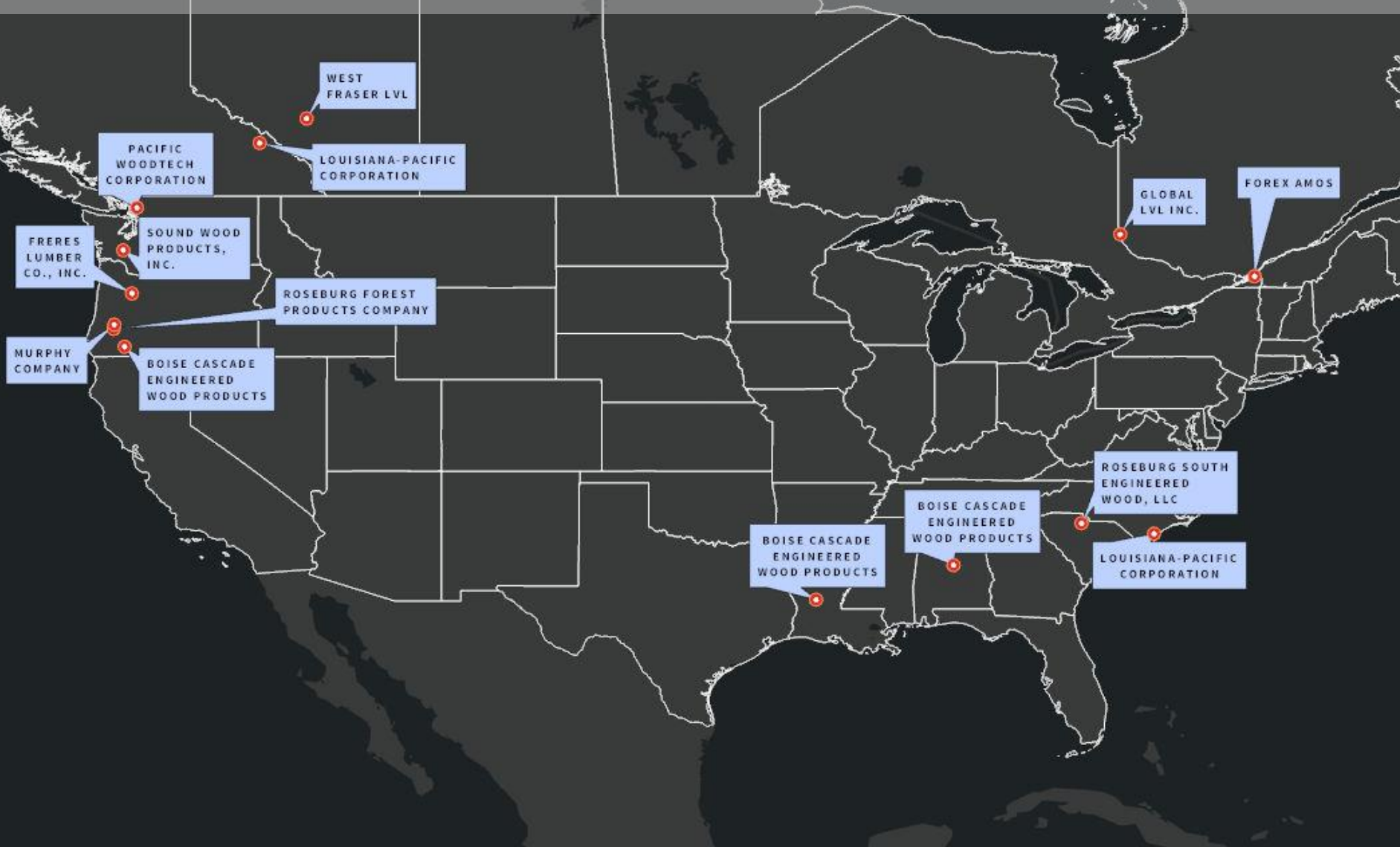
Laminated Veneer Lumber - LVL

- Two manufacturers are currently offering LVL as a mass timber material.
- Able to utilize small diameter logs of both hardwood and softwood species.
- Traditional application includes headers in residential and commercial buildings.
- Can also be incorporated into flange material for Wood I-Beams.



Source: USDA Forest Service, Forest Products Laboratory

Laminated Veneer Lumber Manufacturing Facilities



Data Source: The Engineered Wood Association, Manufacturer Directory, Accessed 11-12-2021

Laminated Veneer Lumber Project

Project Title: Assessing Laminated Veneer Lumber Properties of Four Eastern Softwood Species; Balsam Fir, White Pine, Red Pine, and Norway Spruce.

**Natural Resources
Research Institute**

UNIVERSITY OF MINNESOTA DULUTH
Driven to Discover

- Project Lead: Patrick Donahue, Research Program Manager, Building Products
- FY20 Wood Education & Resource Center Funded Project

Wood Innovations Funding Programs



Wood Innovations Funding Opportunity; Catalog of Federal Domestic Assistance 10.674

Community Wood Funding Program; Catalog of Federal Domestic Assistance 10.708

Wood Innovations Webpage <https://www.fs.usda.gov/science-technology/energy-forest-products/wood-innovation>

FY22 WOOD INNOVATIONS FUNDING PROGRAM SUMMARIES

Grant Program	Community Wood Program	Wood Innovations Funding Opportunity
Match Requirement:	No formal match required. Leveraging is required – applicant must provide remainder of funds from non-federal sources.	100% match required. For every \$1 of Forest Service funds requested, applicant must provide \$1 of non-federal match.
Intent:	Support shovel ready projects to install a thermally led community wood energy system or build a new or expand an existing innovative wood product facility.	Stimulate, expand, and support U.S. wood products and wood energy markets.
Program Goals:	<ol style="list-style-type: none"> 1. Expand thermally led community wood energy or innovative wood product opportunities 2. Improve forest health; and 3. Stimulate local economies. 	<ol style="list-style-type: none"> 1. Reduce hazardous fuels and improve forest health on National Forest System and other forest lands. 2. Reduce the costs of forest management on all land types. 3. Promote economic and environmental health of communities.
Priorities: (most competitive)	<ul style="list-style-type: none"> • Use or retrofit an existing sawmill facility where the average annual unemployment rate exceeds the national average. • Located where markets are needed for low-value wood. • Will aid forest restoration. • If installing/upgrading a wood-fired boiler, project using most stringent control technology and located where limited access to natural gas pipelines. • Purchase, acquisition, or use of goods, products, or materials produced in the US. 	<ul style="list-style-type: none"> • Create or expand markets for wood and biomass generated by forest health and hazardous fuels projects in U.S. • Involve wood products or wood industry partners. • Support commercial building markets or other markets that use innovative wood products. • Bundle or address multiple wood energy or wood products projects. • Commit to utilizing domestically sourced timber for mass timber construction projects. • Support development of domestically sourced timber and U.S. manufacturing of mass timber and other wood products. • Purchase, acquisition, or use of goods, products, or materials produced in the US.

Wood Innovations Webpage

<https://www.fs.usda.gov/science-technology/energy-forest-products/wood-innovation>

FY22 WOOD INNOVATIONS FUNDING PROGRAM SUMMARIES

Grant Program	Community Wood Program	Wood Innovations Funding Opportunity
Request for Proposal Open Date:	October 19, 2021	
Submission Deadline:	January 19, 2022 at 5pm local Regional time	
Awards Announced:	May 2022	
Approximate Date of Award:	August 2022	
Project Length:	2 – 3 years, not to exceed 5 years	
Project Narrative Page Limitations:	6 pages	
Eligible Applicants:	Eligible applicants are non-profits; local, state, and tribal governments; businesses, companies, corporations (for profit); institutions of higher education; and special purpose districts (public utility districts, fire districts, conservation districts, school districts, and ports.)	Eligible applicants are for-profit entities; state, local, and tribal governments; school districts; community, not-for-profit organizations; institutions of higher education; and special purpose districts (e.g., public utilities districts, fire districts, conservation districts, and ports).
Individual Award Ceiling:	\$1-1.5 million <ul style="list-style-type: none"> • Federal funds pay for up to 35% of total capital costs needed to bring project to operable status. • Will consider up to 50% of total capital costs for proposals that warrant special consideration (e.g., high unemployment or other priorities). Applicant must obtain approval for special consideration from a Forest Service Coordinator before proposal submission. 	\$250,000

Wood Innovations Webpage

<https://www.fs.usda.gov/science-technology/energy-forest-products/wood-innovation>

FY22 Timeline

October 19, 2021	Request for proposals announced
January 19, 2022	Proposal submission deadline
May 2022	Approximate date to announce awardees
August 2022	Approximate date of award

Forest Service Regional Coordinators

- Receive **all** application submittals by e-mail
- Advise interested applicants and answer questions
- Manage grants and participate with cooperative agreements

Wood Innovations Webpage

<https://www.fs.usda.gov/science-technology/energy-forest-products/wood-innovation>

Regional Wood Innovations Coordinators

Region 1 (Northern Region) (MT, ND, Northern ID, & Northwestern SD) Julie Kies julie.kies@usda.gov

Region 2 (Rocky Mountain Region) (CO, KS, NE, SD, & WY) Laura Wolf laura.wolf@usda.gov

Region 3 (Southwestern Region) (AZ & NM)
Marc Estrada marc.estrada@usda.gov

Region 4 (Intermountain Region)
(Southern ID, NV, UT, & Western WY)
Julie Kies julie.kies@usda.gov

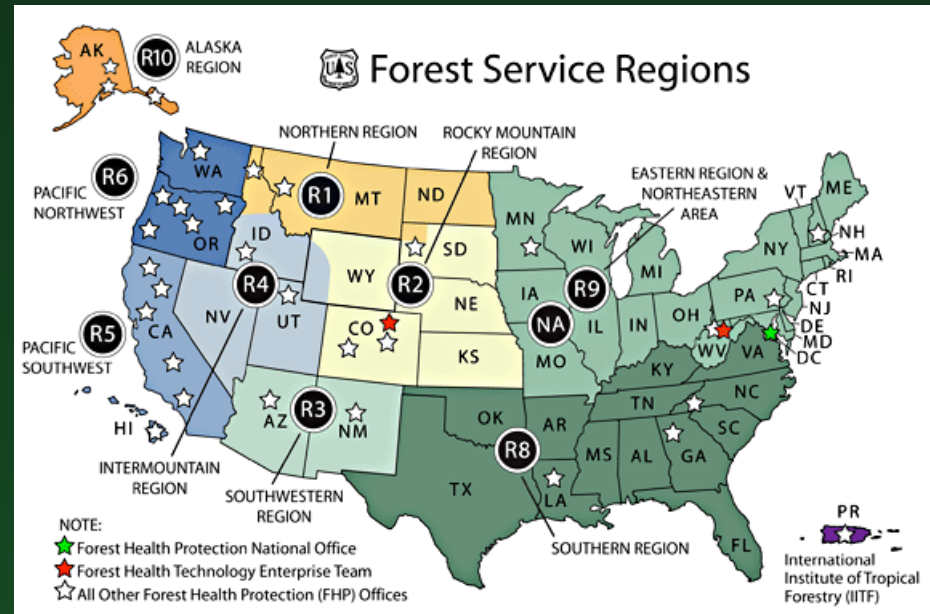
Region 5 (Pacific Southwest Region)
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Larry Swan Laurence.Swan@usda.gov

Region 6 (Pacific Northwest Region) (OR & WA)
Jim Archuleta SM.FS.spfr6-wig@usda.gov

Region 8 (Southern Region)
(AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, Virgin Islands, & Puerto Rico)
Marcus Taylor marcus.taylor@usda.gov

Region 9 (Eastern Region)
(CT, DE, DC, IL, IN, IA, ME, MD, MA, MI, MN, MO, NH, NJ, NY, OH, PA, RI, VT, WV, WI)
Lew McCreery lew.mccreery@usda.gov

Region 10 (Alaska Region) (AK) Priscilla Morris priscilla.morris@usda.gov



FY22 Wood Innovations Webcast Recording; **November 9, 2021**

<https://usfs.adobeconnect.com/pvs7p70t1cp4/>



Patrick Rappold



Kevin Naranjo
USDA Forest Service
Wood Innovations Lead
National Headquarters – Washington, DC



Julie Tucker
USDA Forest Service
National Lead for Renewable Wood Energy
National Headquarters – Washington, DC



2022 Wood Innovations Funding Programs

Pre-Application Webcast



To dial in by phone: 888-844-9904

Access Code 9780832

November 9, 2021
2:00pm Eastern Standard Time

Wood Innovations Homepage www.fs.usda.gov/science-technology/energy-forest-products/wood-innovation

FY21 Application Information Nationally Competitive Grant Programs

Table 1. Proposals Received (Wood Innovations Funding Opportunity)			Total: 106
Northern Region: 3	Intermountain Region: 1	Southern Region: 22	
Rocky Mountain Region: 3	Pacific Southwest Region: 16	Eastern Region: 33	
Southwestern Region: 3	Pacific Northwest Region: 20	Alaska Region: 5	

Table 2. Proposals Received (Community Wood)			Total: 24
Northern Region: 1	Intermountain Region: 0	Southern Region: 4	
Rocky Mountain Region: 1	Pacific Southwest Region: 4	Eastern Region: 8	
Southwestern Region: 1	Pacific Northwest Region: 4	Alaska Region: 1	

FY21 Application Information Nationally Competitive Grant Programs

Table 3. Funded Projects (Wood Innovations Funding Opportunity)			Total: 44
Northern Region: 2	Intermountain Region: 0	Southern Region: 10	
Rocky Mountain Region:1	Pacific Southwest Region: 8	Eastern Region: 8	
Southwestern Region:1	Pacific Northwest Region: 12	Alaska Region: 2	

Table 4. Funded Projects (Community Wood)			Total: 6
Northern Region: 0	Intermountain Region: 0	Southern Region: 1	
Rocky Mountain Region:1	Pacific Southwest Region: 1	Eastern Region: 1	
Southwestern Region:1	Pacific Northwest Region: 0	Alaska Region: 1	

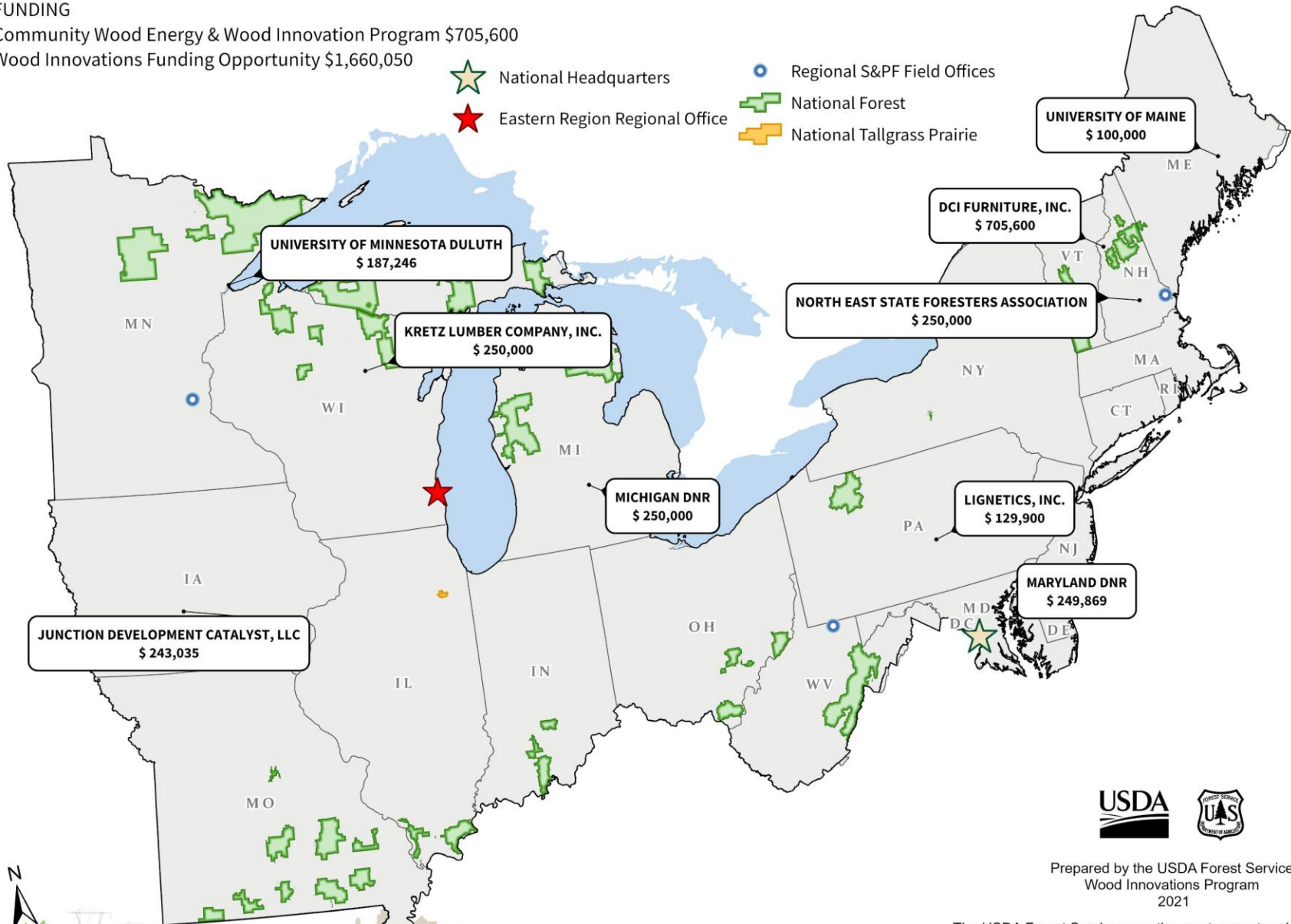
FY21 Wood Innovations - Eastern Region Projects

FUNDING

Community Wood Energy & Wood Innovation Program \$705,600

Wood Innovations Funding Opportunity \$1,660,050

-  National Headquarters
-  Eastern Region Regional Office
-  Regional S&PF Field Offices
-  National Forest
-  National Tallgrass Prairie



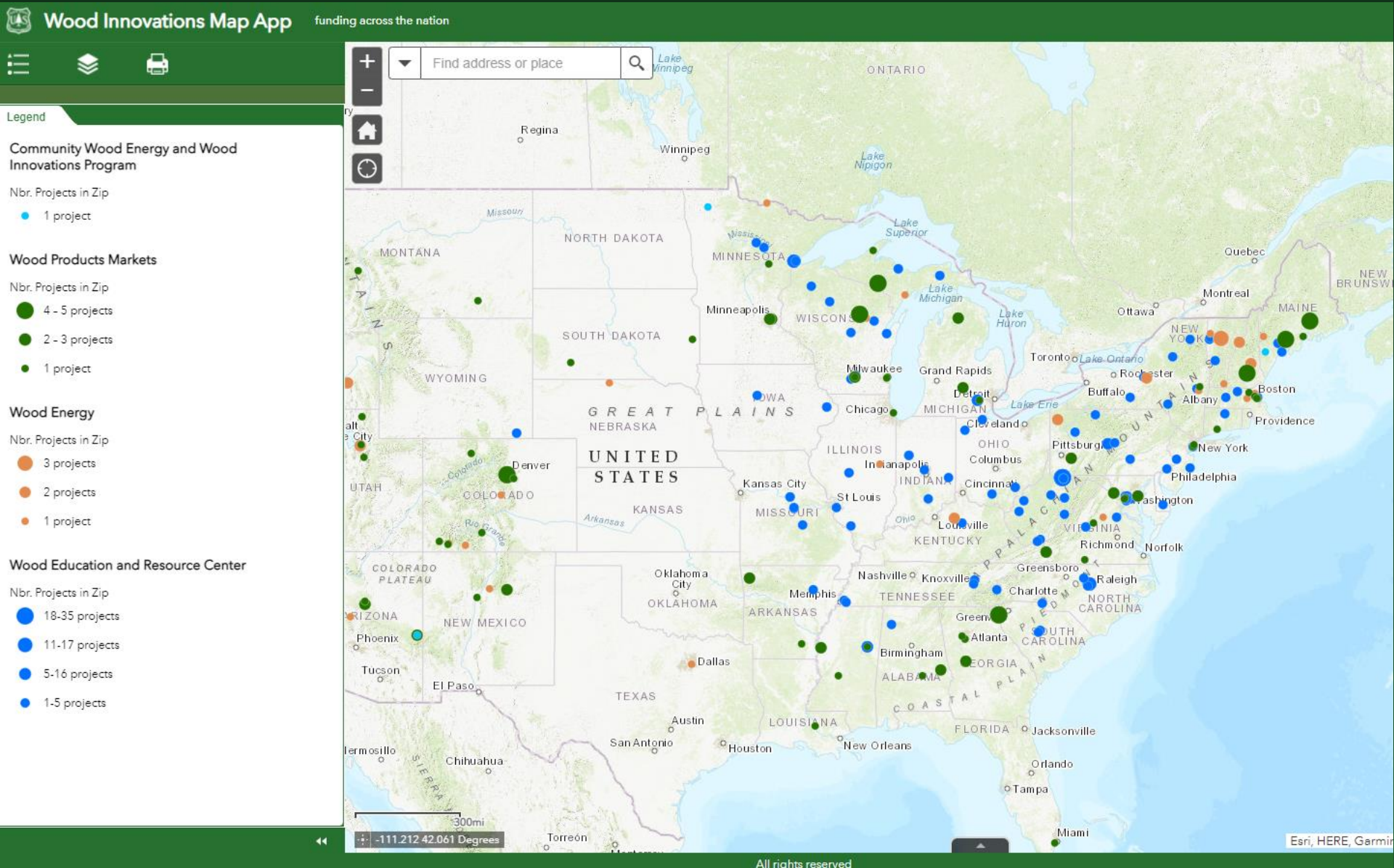
Prepared by the USDA Forest Service
Wood Innovations Program
2021

The USDA Forest Service uses the most current and complete data available. GIS data and product accuracy may vary. Using GIS products for purposes other than those for which they were intended may yield inaccurate or misleading results.

Updated:
May 14, 2021

Wood Innovations Project Search Tool

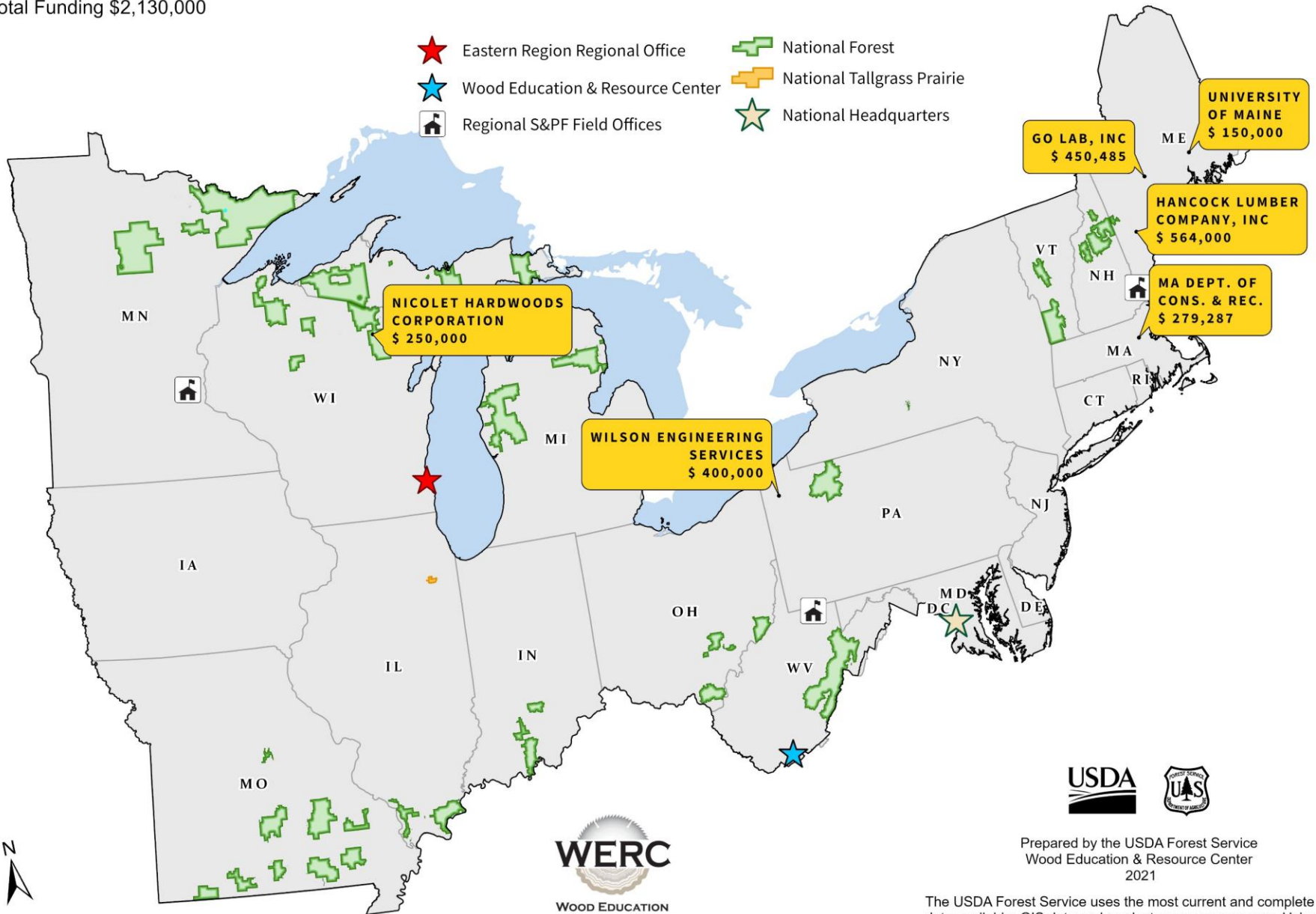
<https://www.fs.usda.gov/science-technology/energy-forest-products/wood-innovations-data>



FY21 Wood Education & Resource Center Funded Projects

Total Funding \$2,130,000

- ★ Eastern Region Regional Office
- ★ Wood Education & Resource Center
-  Regional S&PF Field Offices
-  National Forest
-  National Tallgrass Prairie
-  National Headquarters



Updated:
August 25, 2021



Prepared by the USDA Forest Service
Wood Education & Resource Center
2021

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Common Factors Among Highly Scored Applications

- ✓ Wood-to-Energy projects that had a pre-feasibility study from the National Wood Energy Technical Assistance Team.
- ✓ Worked closely with Lew McCreery on identifying objectives and project activities.
- ✓ Proposed activities that offered solutions to forest health issues.
- ✓ Worked closely with Forest Supervisors or District Rangers on a National Forest to align proposed activities with forest objectives.

Regional Wood Innovations Contact Information

Primary Contact

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