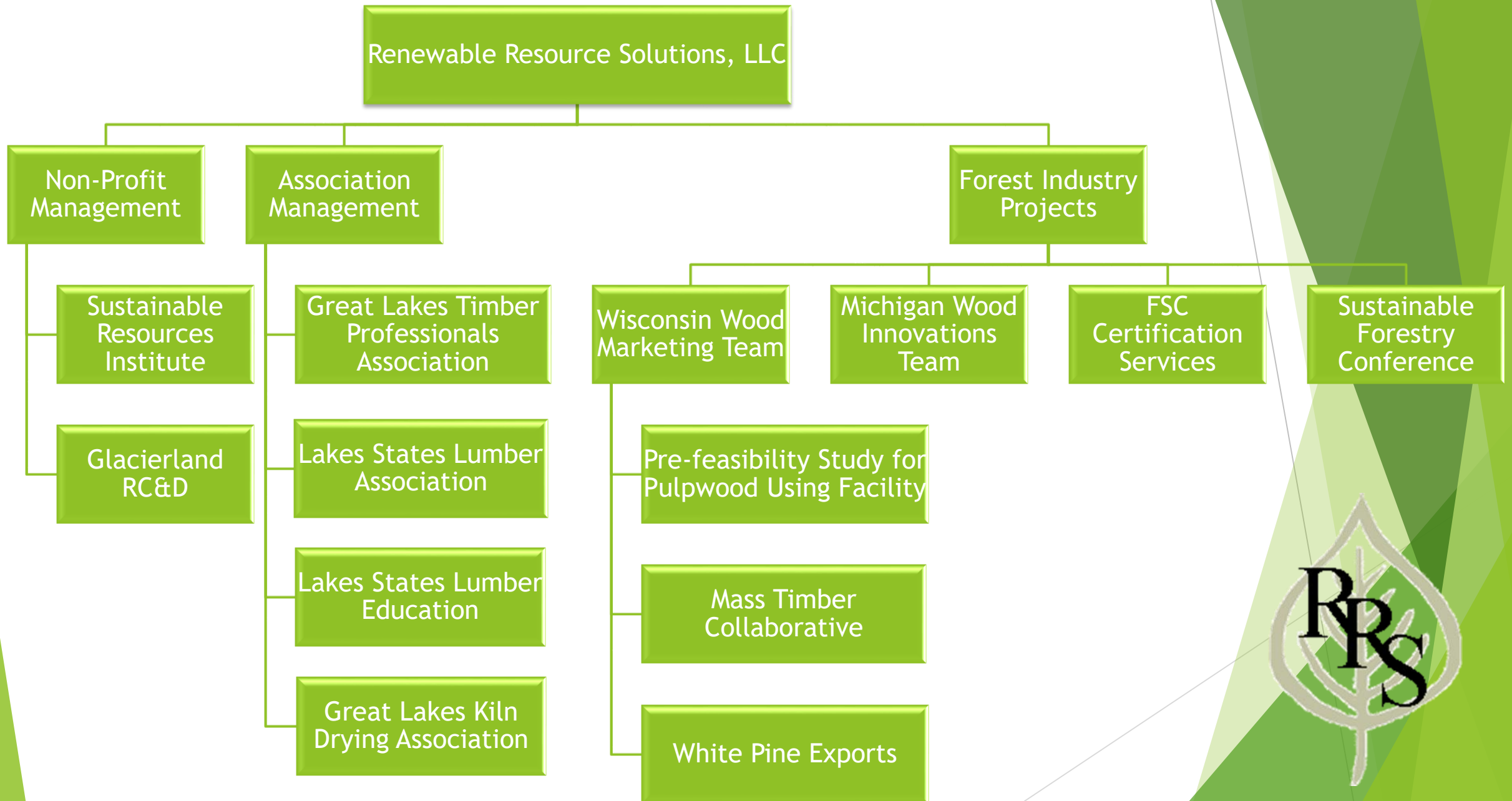


The background features abstract, overlapping green geometric shapes, primarily triangles and polygons, in various shades of green, creating a modern and dynamic feel.

Sustainable Forestry Conference

May 5, 2021

Forest Industry Assistance



RRS Staff and Subcontractors

- ▶ Don Peterson - Owner
 - ▶ Kari Divine - Owner
 - ▶ Jake Divine - Project Manager
 - ▶ Nikki Loehr - Office Manager
-
- ▶ Justin Curtis - Accountant
 - ▶ Heather Waligursky - Certification Specialist
 - ▶ Terry Mace - Forest Products Specialist

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Michigan Wood Innovation Team and MIDNR Forest Products Team

Project Partners

Partner	Sector	Organization
Don Peterson	Forest Products Services	RRS
Dave Neumann	Marketing & Utilization	MIDNR
Mark Rudnicki	Biomaterials	MTU
George Berghorn	Construction	MSU

Michigan Wood Innovation Team Goals

- ▶ Goal 1: Establish a Michigan Wood Innovation Team/Workforce Development
- ▶ Goal 2: Identify areas for new and expanded wood product markets
- ▶ Goal 3: Identify policies, programs and guidelines to promote wood market expansion
- ▶ Goal 4: Provide assistance to entities and organizations to expand wood markets

Goal 1: Workforce Development

MI Dept. of Corrections Training Programs

- Mechanics *
- Truck Drivers *
- Loader Operator
- Sawmill Worker
- Mechanized Logging Equipment Operator

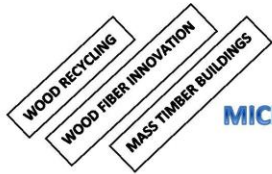
Goal 2: Identify areas for new and expanded wood product markets

Creation of a Mass Timber Building Task Force

Methods: MWIT will organize a diverse technical advisory committee to research barriers to the implementation of timber in tall buildings, and to conduct cost analysis, case studies, and make recommendations for the use of timber in tall buildings.

Deliverables: Recruitment of targeted sector members, quarterly conference calls, and two meetings annually. Case study reports, cost analysis and gap analysis reports, and a final report including recommendations for future work.

Goal 2: Identify areas for new and expanded wood product markets



REGISTER NOW

MICHIGAN FOREST BIOECONOMY CONFERENCE
"Familiar Stakeholders – New Connections"

Register and get full details HERE → → → www.mifbi.org

CRITICAL DETAILS↓

When: February 1st and 2nd, 2017

Where: Eberhard Center (GVSU), Grand Rapids, Michigan

Why: - Learn about the emerging technology, opportunities, and connections in a forest bioeconomy.
- Connect with wood processing companies, manufacturing entrepreneurs, and a variety of industry representatives.



Keynote Speakers

- Dr. Trevor Stuthridge, Executive Vice President of FP Innovations
- Dr. Jim Bowyer, Director of Responsible Materials, Dovetail Partners, Inc.

Save \$50/person w/EARLY BIRD DISCOUNT until ~~DECEMBER 1ST~~ Register when? NOW!

Early bird discount EXTENDED TO DECEMBER 15TH!

Regular pricing: December 16th until January 20th (includes lunch February 1st and 3 mid-conference breaks)

- Students \$125 (early bird \$75)
- Regular attendee \$175 (early bird \$125)
- Late registration January 21st-January 31st
 - Regular and Student: \$250 (don't be late)

Sponsored by:

HAWORTH®



JUL
25

Michigan Mass Timber Workshop

by Michigan Forest Biomaterials
Institute

\$25 - \$85

Find out more at
www.mifbi.org

Goal 2: Identify areas for new and expanded wood product markets

Technical Assessments

- Company Background
- General Observations
- Plant Operations
- Optimizing Yield
- Residuals
- Yard Practices
- Lumber Storage
- Drying Practices
- Close-out Meeting
- Recommendations







Goal 4: Provide assistance to entities and organizations to expand wood markets

- Technical assistance to value-added wood industry
 - Arauco
 - Develop FSC Supply Chain
 - Logger chain of custody



Why do we use it?

Core Arauco Value Customer Driven Responsible Use of Raw Materials

Many major companies have policies that state a preference for FSC-certified products. Green building standards, including the US Green Building Council's LEED program, provide incentives for using FSC-certified materials. Increasingly, consumers are requesting FSC-certified products in retail stores across the country. Many governments require the use of FSC-certified products. Companies that produce FSC-certified products gain access to these markets, and many others.



Goal 4: Provide assistance to entities and organizations to expand wood markets

- Railroad Tie Workshop - August 2019
- Forestry Business Workshop - August 2019
- Hardwood lumber grading short course - May 2019
- Sawing, Edging, and Trimming class - May 2019



The background features abstract, overlapping green geometric shapes, primarily triangles and polygons, in various shades of green, creating a modern and dynamic visual effect.

Wisconsin Wood Marketing Team and WDNR Forest Products Services Team

Project Goals

- Goal 1: Establish a Wisconsin Wood Marketing Team
- Goal 2: Identify areas for new and expanded wood product markets
- Goal 3: Identify policies, programs and guidelines that can be utilized to promote wood market expansion
- Goal 4: Provide assistance to entities and organizations to expand wood markets for them or their members

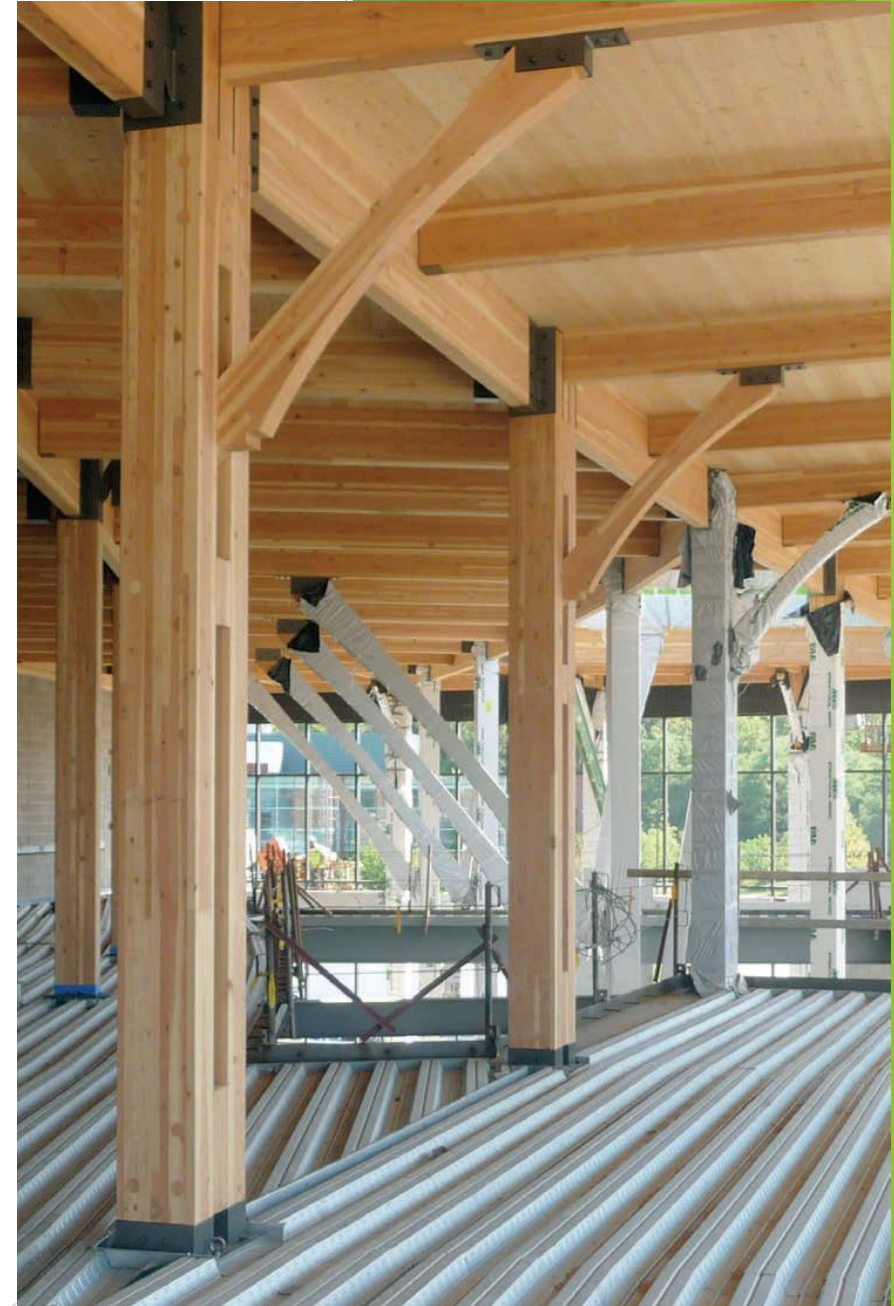
Wisconsin Mass Timber Collaborative

- Establish a mission and framework
- Have mass timber buildings constructed throughout Wisconsin
- With building components produced from Wisconsin grown timber products

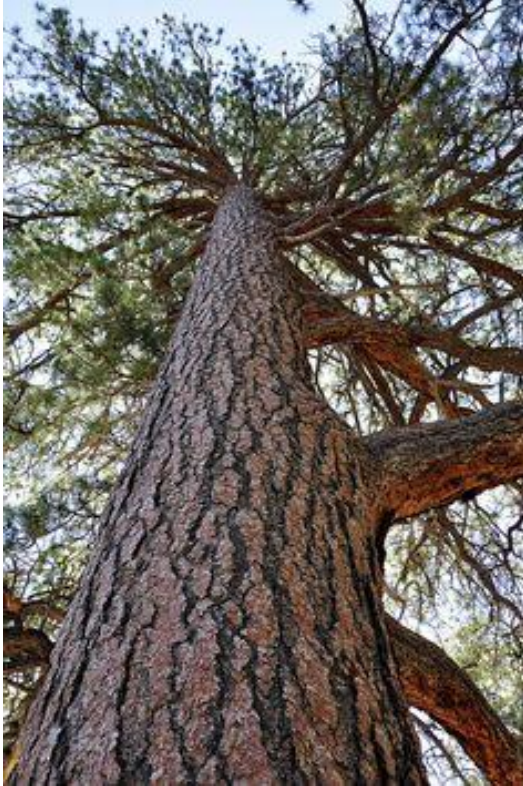


Development of Long Term Plan

- Identification of Building Codes that may need to be updated/modified
- Curriculum guide for architects/engineers for credits
- Identification of research needed to include hardwoods
- Development of scenarios for cooperative ownership of a facility
- Description and quantification of the lumber specifications needed
- Identification of potential markets for mass timber buildings



White Pine Lumber Cooperative



- Cooperative effort to identify white pine lumber markets
- Membership in the Softwood Export Council
- Makes \$10,000 of SEC funds available to do a trade mission to Wisconsin



Mill Siting Preliminary Analysis - Confidential

- **General Characteristics – All Sites**
- Labor Rates Analysis:
- Site Work Force Analysis:
- Permitting
- Forest Resource Summary

On site assessment of a Small mill and Vacuum Kiln Operation



Tools to Retain and Grow Your Forest Industry Companies

January 9, 2017

Room WT108B, Northcentral Technical College
Antigo, Wisconsin

Forest Products Laboratory Tour

Thursday, August 17th, 2017

Madison, WI 53726

Agenda

10:00AM - Welcome to the Lab/Introduction ~

10:30AM - Lab Tour

11:45AM - Lunch

12:15PM - Examples of Successful Collaborative Projects

12:45PM - Opportunities Now and in the Future

1:15PM - Roundtable Discussion with State Agencies (possibly
DATCP, DNR, WEDC, DWD, DPI)

Available Services & Technical Assistance

Mill Efficiency/Productivity Study

Export Assistance

Market Assessment

Wood Energy Residue Assessment



Log Yield Study





Pulpwood Using Facility Pre-feasibility Study Siting

State of Wisconsin's
Forest Practices Study
through GLTPA & WCFA



WI's Pulp and Paper Industry

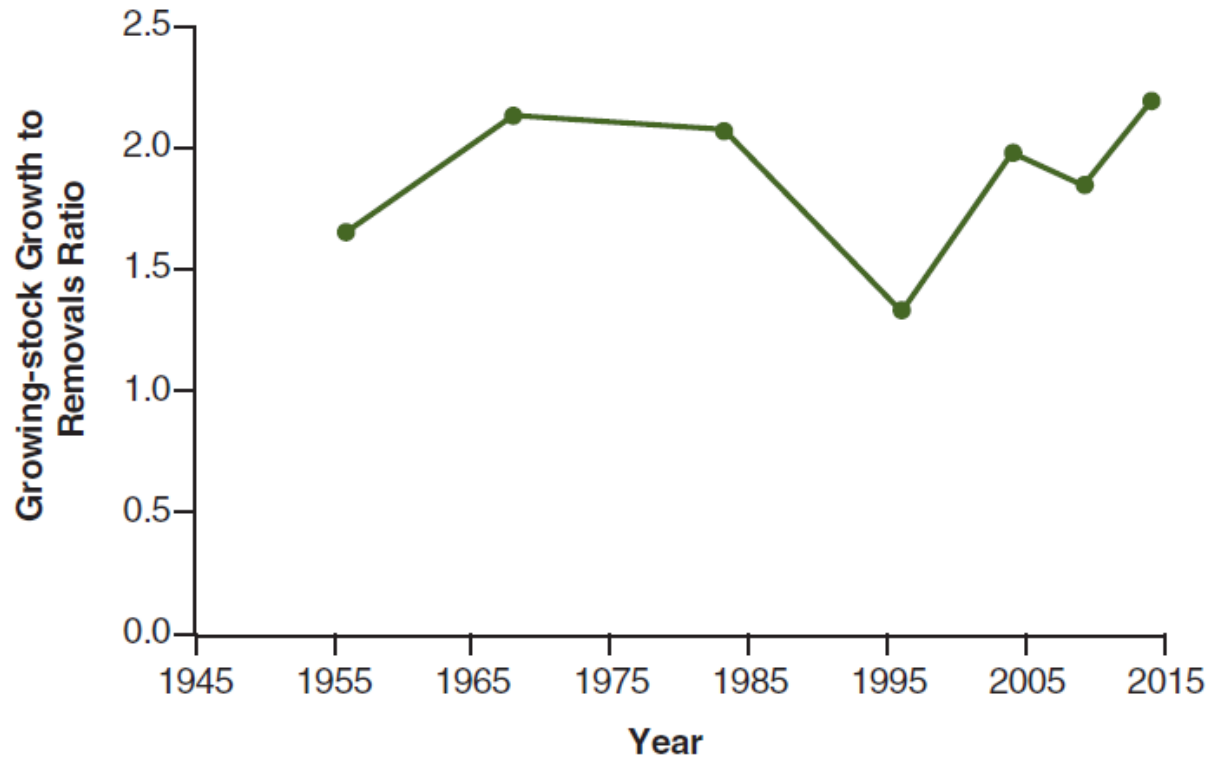
- In 2018 Wisconsin paper mills imported \$401,575,729 of pulp and related processing residues
 - 96% is chemical woodpulp (69% conifer & 27% hardwood)
- 34 paper mills
- 8 pulp mills



WI Value-added Forest Industry Companies

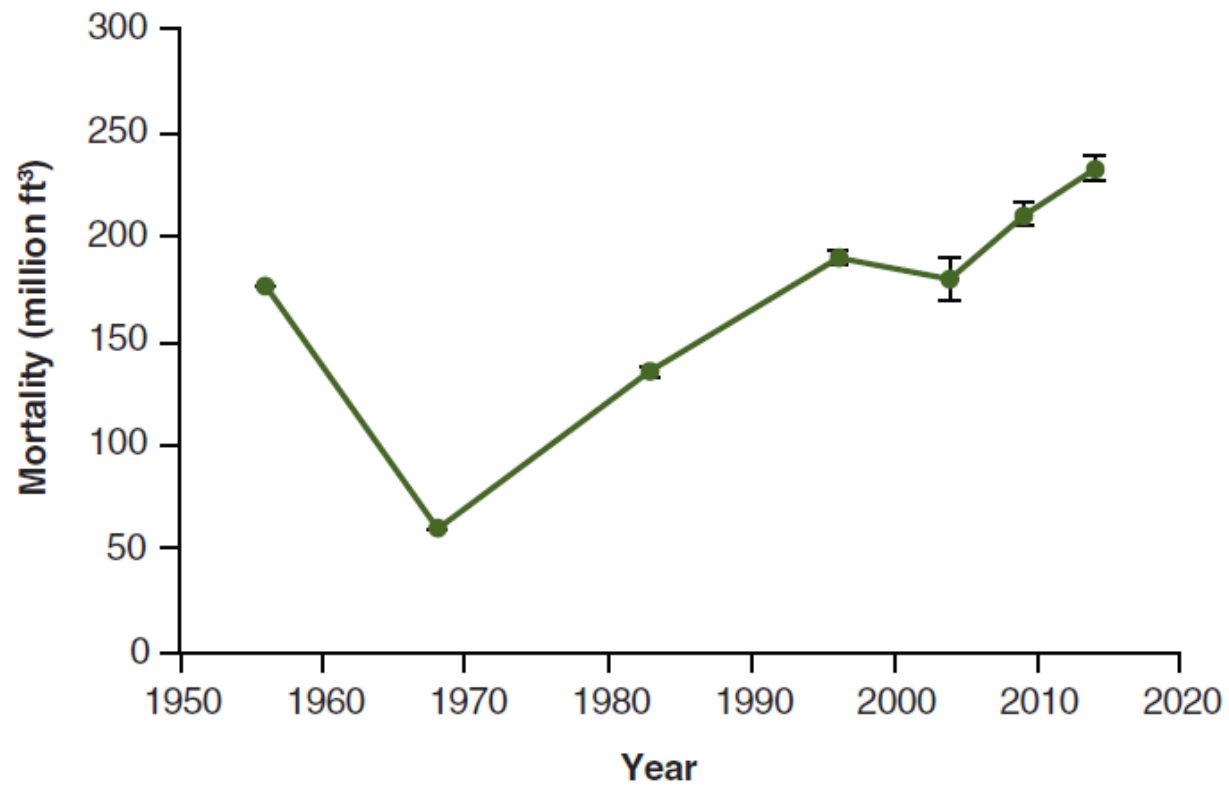
- 800 companies
- % of companies that use wood composite panels
 - 32% use MDF
 - 25% use Particleboard
 - 13% use Hardboard
- Only 1 non-structural Wood Composite Panel plant

Ratio of Growth-to-Removals of Growing Stock on Wisconsin Timberland by Year

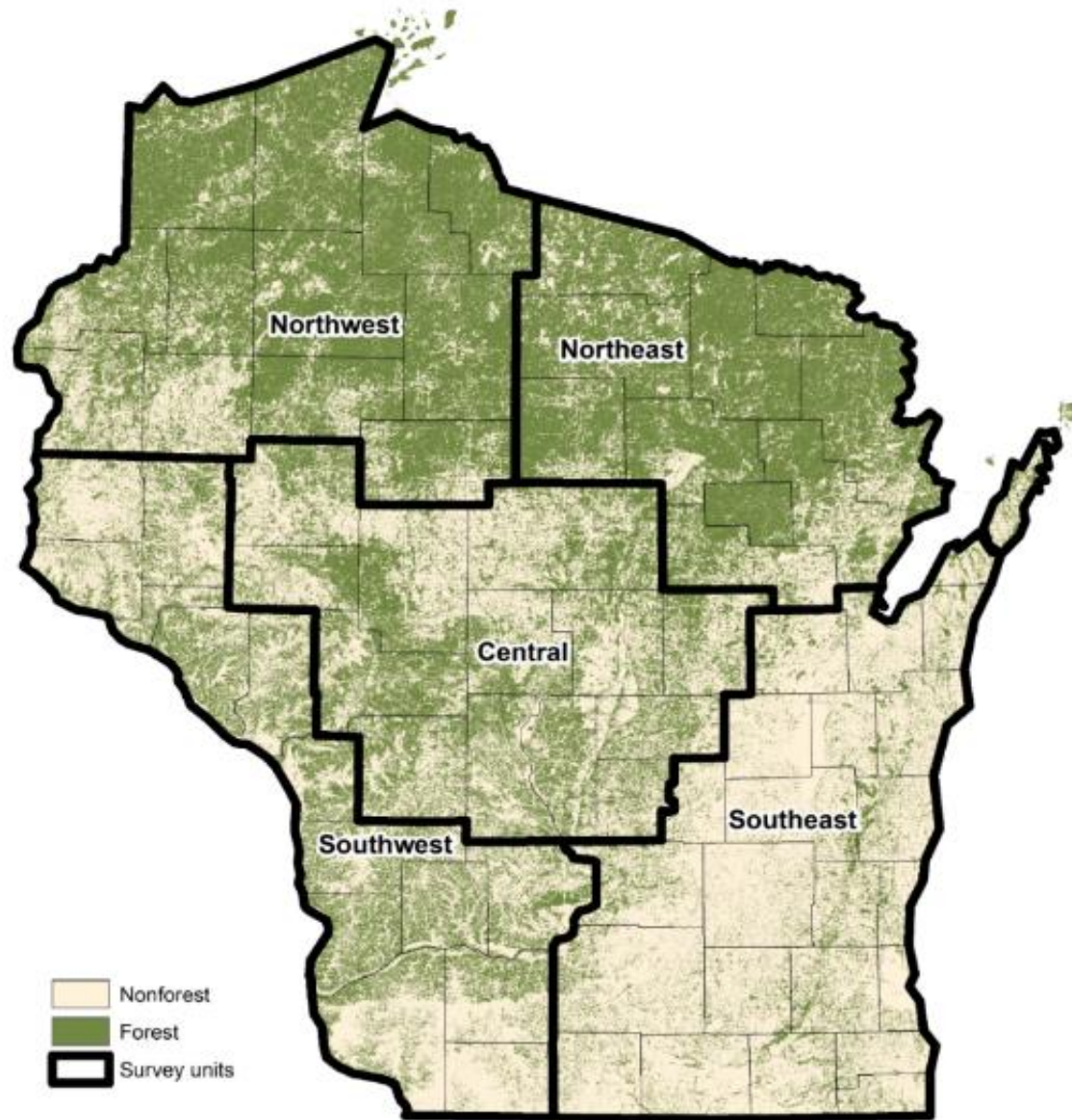


USDA, Wisconsin's Forests 2014

Average Annual Mortality of Growing Stock Trees on Timberland by Year



USDA Wisconsin's Forests, 2014



Annual Net Growth in Excess of Removals (Surplus) on Timberland by Species Group & Survey Unit, 2018. (MM CF)

	Pine	Spruce/Fir	Other Softwood	Oak	Aspen	Other Hardwood	Total
Northeast	25.6	5.7	10.9	8.3	0.5	33.0	83.9
Northwest	19.6	1.2	5.2	11.6	8.6	19.2	65.4
Central	28.2	0.5	1.8	9.7	3.5	22.5	66.3
Wisconsin	86.4	8.8	21.2	46.2	13.8	112.7	289.1

Annual Removals from Growing Stock on Timberland by Species Group & Survey Unit, 2018. (MM CF)

Survey Unit	Pine	Spruce/Fir	Other Softwoods	Oak	Aspen	Other Hardwoods	Total
Northeast	15.3	5.9	3.2	5.0	25.5	28.5	83.4
Northwest	16.5	3.8	1.1	8.9	28.0	39.5	97.8
Central	20.9	0.1	0.7	16.0	7.3	18.6	63.5
Wisconsin	56.3	10.0	5.0	39.5	64.5	107.1	282.3

Siting Considerations

Define resource needs based on mill technology and consider:

- Timber resource
- Environmental standards
- Transportation
- Utilities



TPC Mission

“To provide the same sustainable management philosophy to Wisconsin and Michigan’s forest industry that we do to Wisconsin and Michigan’s forests, realizing that one cannot be sustainable if the other one is not.”

Town Saves Itself

Boisaco, Inc. - mill town in remote Quebec

- 3rd bankruptcy in 10 years, mill closed 2.5 years
- 1985 liquidation, bought by 2 co-ops + investors
 - Worker co-op of 60 loggers
 - Worker co-op of 142 millworkers
 - 432 small community investors
- Thriving
 - Created a development fund (55% net proceeds)
 - Bought related companies
 - Surviving “boom or bust” cycles



Multi- stakeholder cooperative to own the mill



Patron Members –
Loggers & Millworkers



Nonpatron Members –
Industry Allies (truckers,
landowners, suppliers, etc)



Not members (but valued!) –
Investors

Multi-Stakeholder Cooperatives

Consolidated Cooperative - Formed 3/15/21

Park Falls Mill Cooperative - Formed 3/15/21

Questions?