



Utilizing Wood in Construction Supports Healthy Forests and Rural Economies



WoodWorks™
WOOD PRODUCTS COUNCIL

Janelle Leafblad, PE | Regional Director, WoodWorks | November 2020

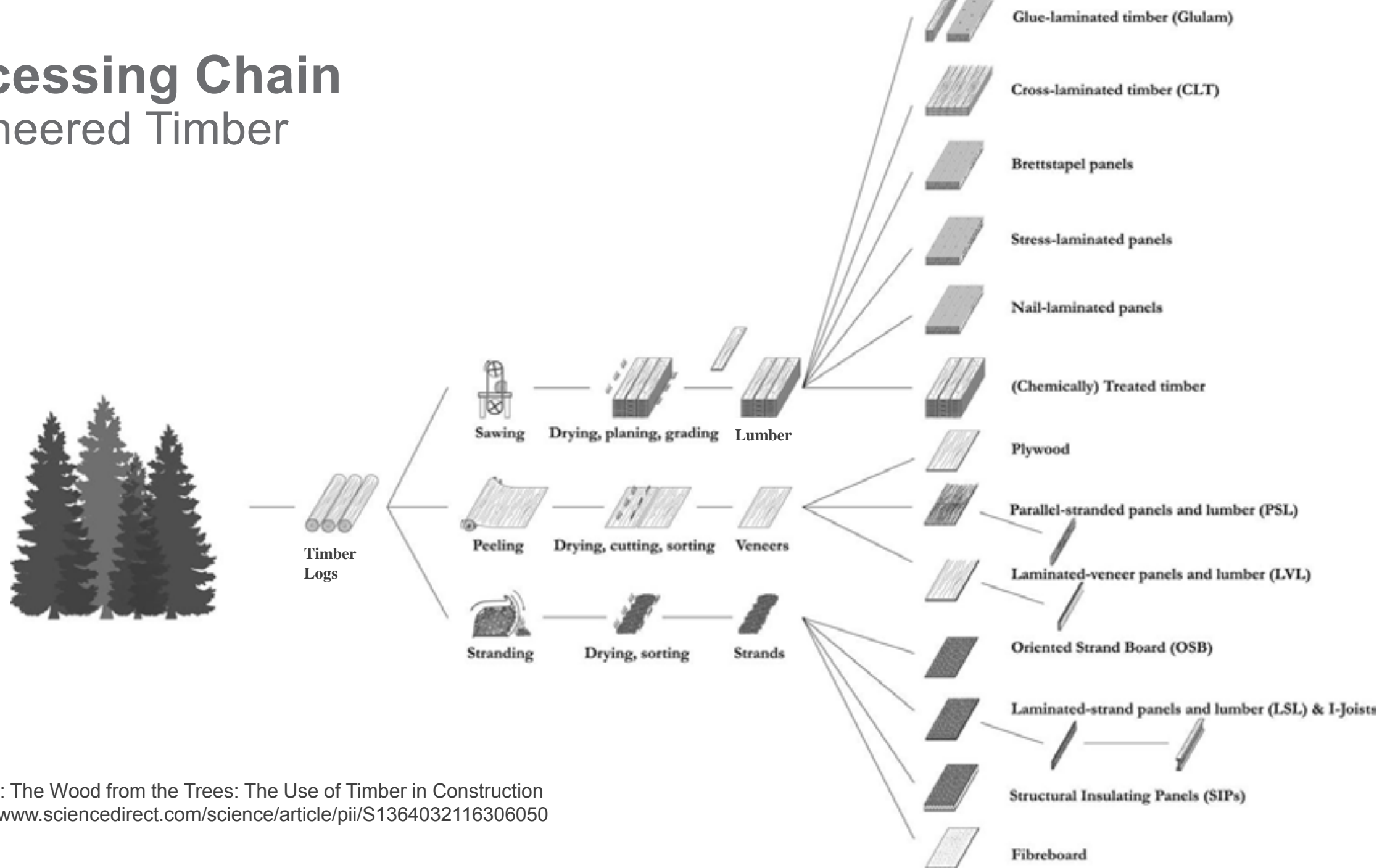
Forest



Timber



Processing Chain Engineered Timber



Source: The Wood from the Trees: The Use of Timber in Construction
<https://www.sciencedirect.com/science/article/pii/S1364032116306050>

Small Diameter Trees



Mass Timber Products



Glue Laminated Timber (GLT)



Cross-Laminated Timber (CLT)
Solid sawn laminations



Photo:
Freres Lumber

Cross-Laminated Timber (CLT)
SCL laminations



Photo: StructureCraft



Photo: LendLease



Photo: LEVER Architecture

Dowel-Laminated Timber (DLT)



Photo: StructureCraft

Nail-Laminated Timber (NLT)



Photo: Think Wood

Decking



Photo: StructureCraft



Photo: Ema Peter



Photo: Bernard André Photography

Large Pre-fabricated Mass Timber Panels



Candlewood Suites, Redstone Arsenal, AL | Lendlease



Image: MyTiCon

Mass Timber Buildings



Tall Mass Timber Buildings



18 STORIES
BUILDING HEIGHT 270'
ALLOWABLE BUILDING AREA 972,000 SF
AVERAGE AREA PER STORY 54,000SF

TYPE IV-A



12 STORIES
BUILDING HEIGHT 180 FT
ALLOWABLE BUILDING AREA 648,000 SF
AVERAGE AREA PER STORY 54,000SF

TYPE IV-B



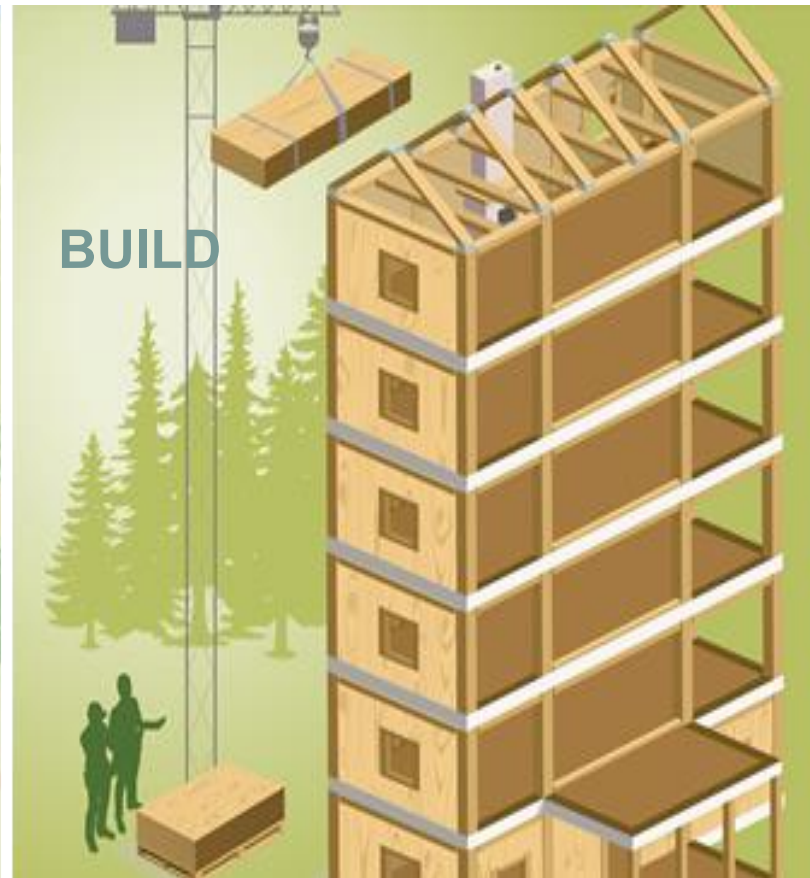
9 STORIES
BUILDING HEIGHT 85'
ALLOWABLE BUILDING AREA 405,000 SF
AVERAGE AREA PER STORY 45,000 SF

TYPE IV-C

IBC 2021

Forest-to-Cities Climate Challenge

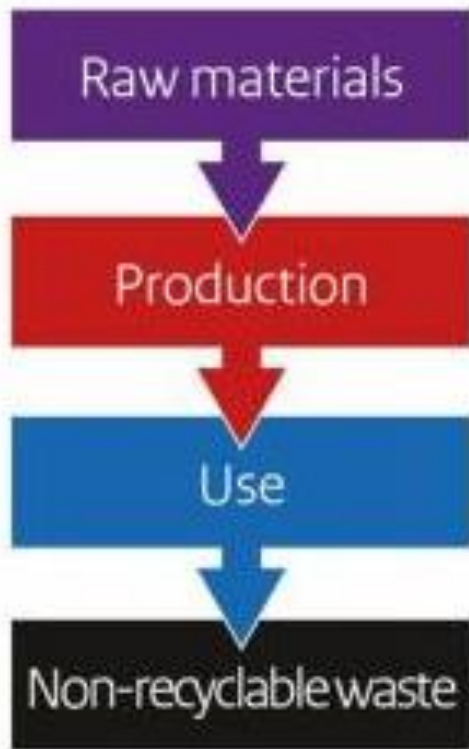
A Systemic Solution in Action



Circular Economy

Renewable Resource

Linear economy



Reuse economy

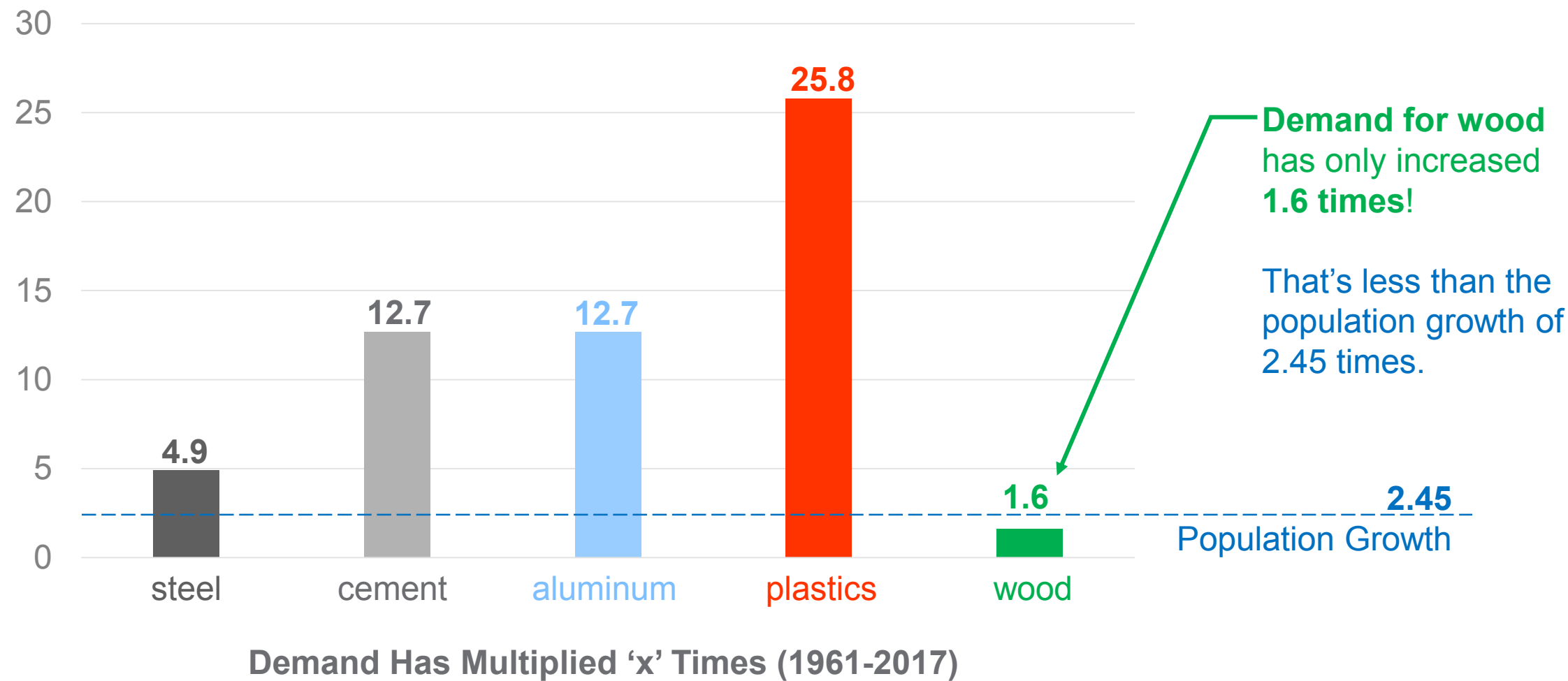


Circular economy

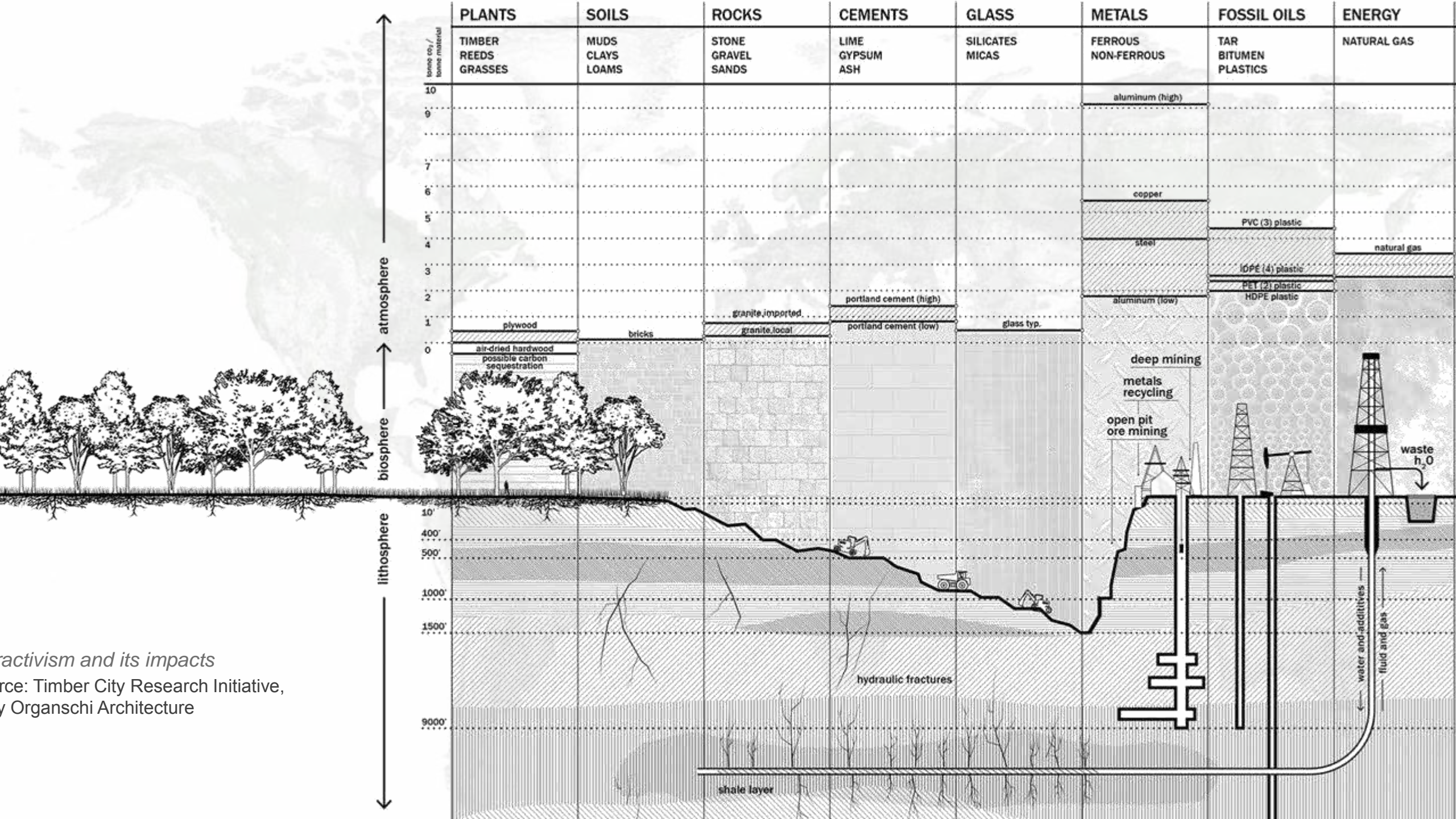


World Growth in Consumption of Raw Materials

1961-2017



Source: An Introduction To The Circular Economy, Dovetail Partners, Inc.
<https://dovetailinc.org/portfoliodetail.php?id=5e6f6fff64cb3>



activism and its impacts

Source: Timber City Research Initiative,
by Organschi Architecture

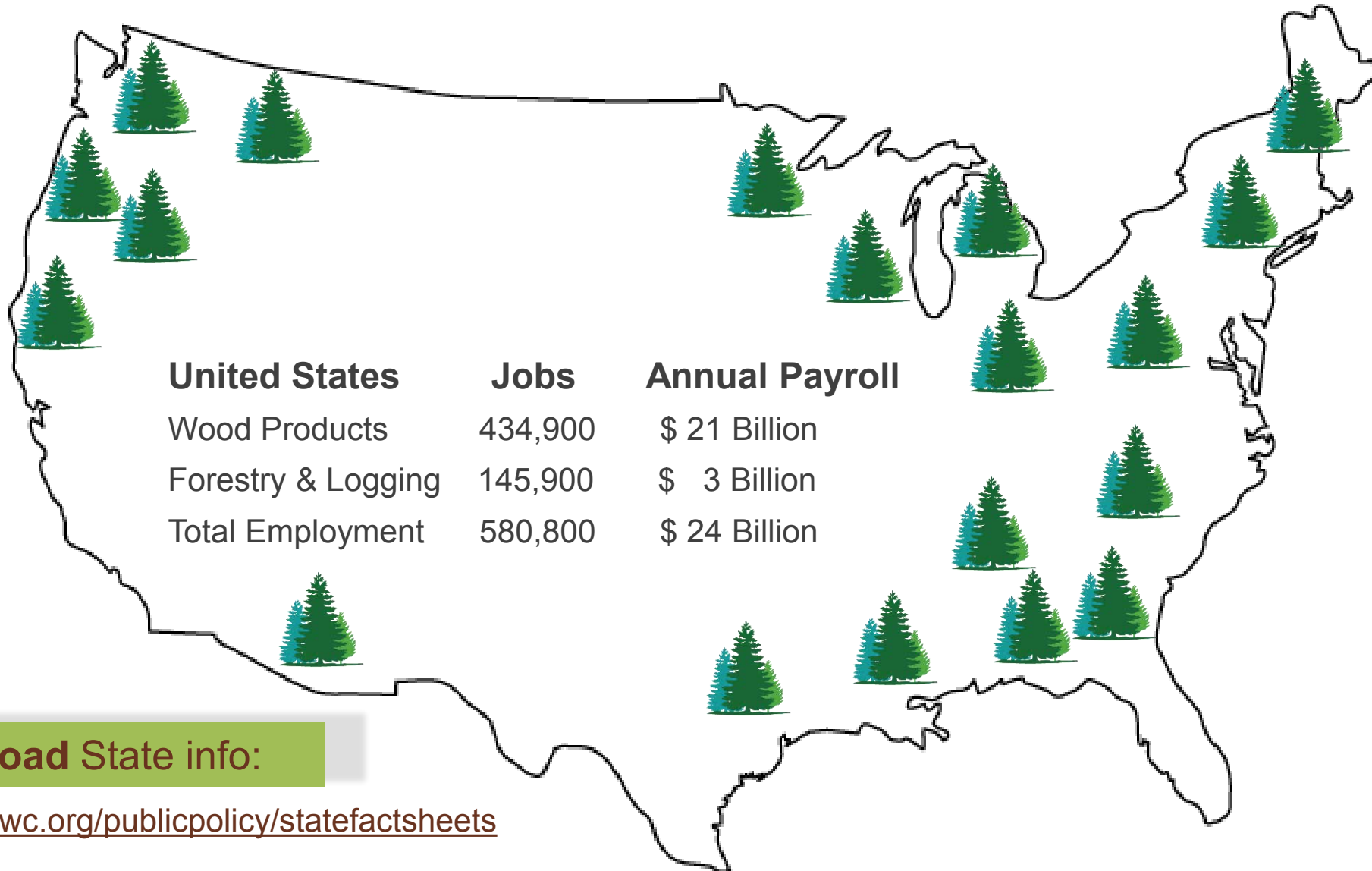
Forest Supply: Growth vs. Removals



Source: The Forest History Society

Wood Products

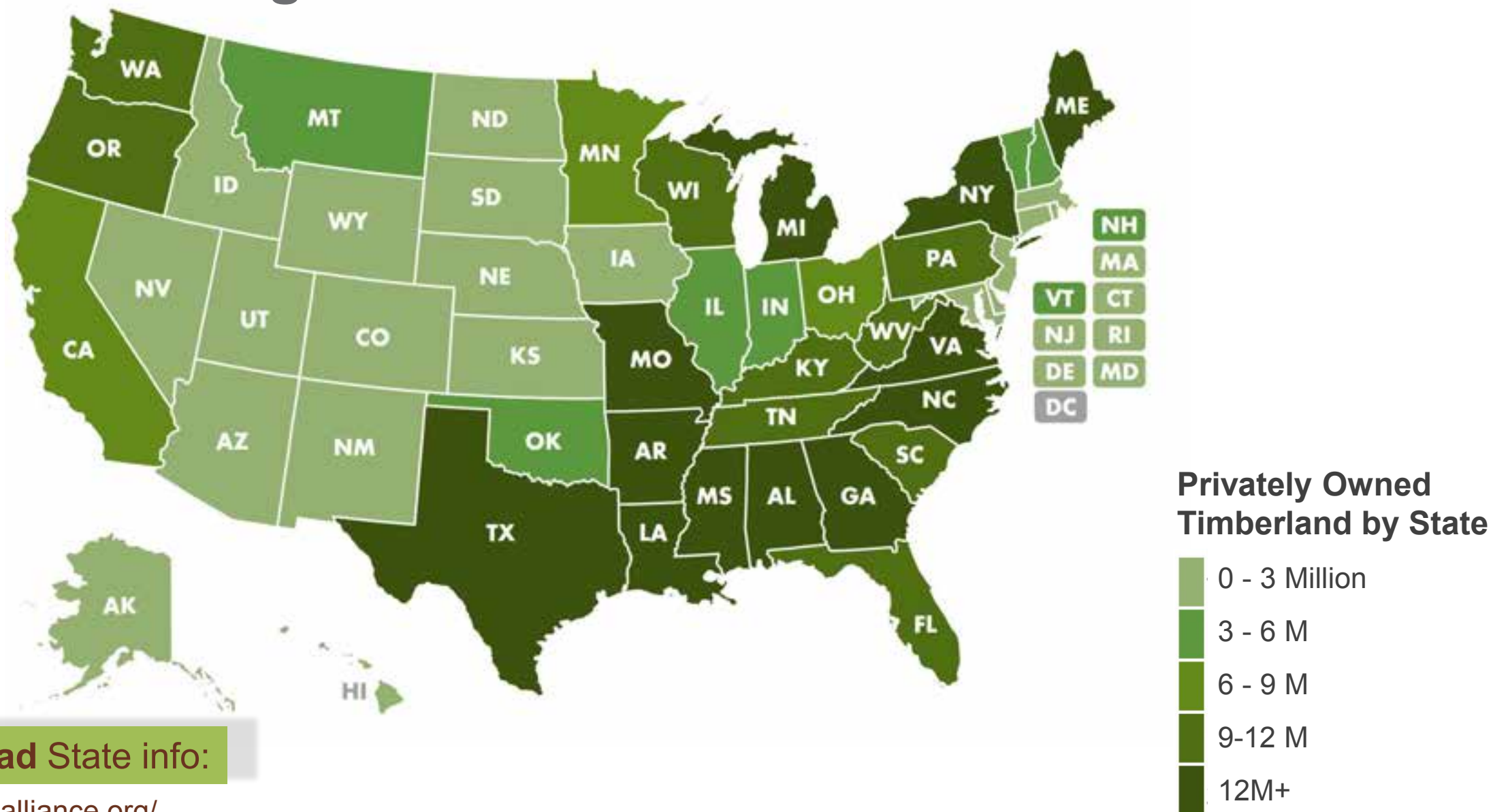
Increase Forest Value & Support Rural Economies



Download State info:

<https://www.awc.org/publicpolicy/statefactsheets>

Private Working Forests



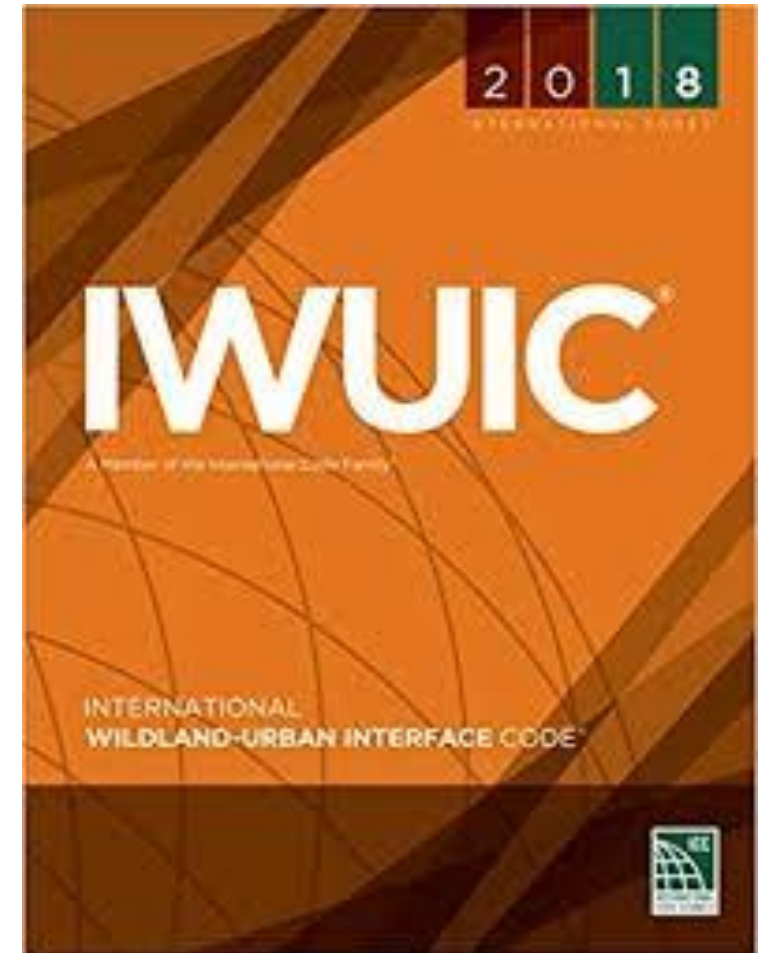
Download State info:

<https://nafoalliance.org/>

Wildland Urban Interface (WUI)

International WUI Code

- Check w/ local AHJ for adoptions and modifications of WUI codes
- Defensible space
- Exterior Building Envelope
- Exterior Walls



Fire Performance



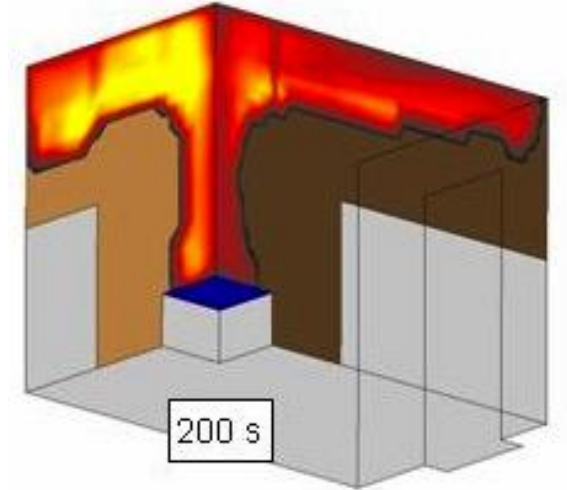
Combustibility



Fire Protection
Systems



Fire Resistance



Flame Spread
Classification

Office



First Tech Credit Union, Hillsboro, OR | Hacker | Photo: Bernard Andre

University



Adohi Hall, Univ. of Arkansas | Leers Weinzapfel Associates | Photo: Timothy Hursley



T3 Atlanta | Hines | Photo: StructureCraft



University of Arkansas Library Storage | Perry Dean Rogers Architects



Multi-family



INTRO, Cleveland | Harbor Bay Real Estate | Image Fiction

Hospitality



55 Southbank, Australia | Hume Partners | Bates Smart



Carbon 12, Portland | Path Architecture | Photo: Andrew Pogue



Penticton Lakeside Resort, British Columbia | HDR | Photos: © 2017 Jon Adrian



Questions?

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