California’s Perspective on Mass Timber

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Disclaimer: This presentation was developed by a third party and is not funded by WoodWorks or the Softwood Lumber Board.
Mass timber should be a part of the building and climate solution.

Photo by Bernard Andre, construction images © TG Photography, www.woodworks.org
Context

- 33 million acres of forest land in CA = 1/3 of the state’s land area
  - 60% is publicly owned
    - 57% federal
    - 3% state
  - 40% is privately owned
    - 14% industrial
    - 26% non-industrial (tribes, families, & individuals)

Photo by Katie Harrell
Issues

• Fire exclusion
• Overstocked forests
• Drought
• Increased temperatures
• Size, intensity of wildfires
  - Smoke
  - Water supply
• Bark beetle infestations
  - 2010 – 2018 >129 million trees died
• CA’s climate goals

Photo by US Forest Service
Forest Carbon Plan: May 2018

Forest Goals

• Resilient
• Adaptive to climate change
• Long-term carbon sinks
• Not source of GHG and black carbon emissions from wildfire
Executive Order B-52-18: May 2018

- Doubled land managed to 500,000 acres
- Streamlined permitting for landowners
- Supported innovative forest products, established Joint Institute
- Requested $96 million for Forest Carbon Plan
- Review of International Code Council Tall Wood Ad Hoc code change proposals for adoption into intervening code cycle
Tree Mortality

- 2021
  - 9.5 million trees over 1.3 million acres died
  - Temp 3.4°F above avg
  - 2nd warmest year on record
  - 3rd driest year on record
- 2020 - No Flyover, Covid
  - Temp 2.6°F above avg
  - 6th warmest year on record
  - August, 5.2°F above avg; Sept 5.5°F above avg
- 2019
  - 15.1 million trees over 2.2 million acres died
  - Temp was 1.0°F above avg

Photo by USFS Stanislaus & Inyo NFs 2021
Innovative Wood Products – Part of the Solution

- Support Forest Restoration Projects
- Utilize salvaged wood
- Rural economic development
- Long-term carbon sequestration, reduced reliance on carbon-intense construction materials
- Encourage capacity building, bring industry to the state, further reduce CA’s carbon footprint

Photo by TallWood Design Institute
Assembly Bill 2518, Innovative Forest Products and Mass Timber

• Board of Forestry
  - Identify barriers
    • In-state production of mass timber, other innovative forest products
    • Workforce training, job creation
  - Identify solutions
    • Consistent with forest climate objectives
    • Innovative forest products
    • Mass timber workforce training, job creation
California Promotes Architectural Innovation Through Mass Timber Competition

• Winners
  - CA College of the Arts, SF - $200,000; 107,000 sq/ft; 4 stories
  - Skid Row Housing Trust, LA - $200,000; 77,190 sq/ft; 14 stories
  - OC Sanitation District - $40,000; 109,000 sq/ft
  - Sunnydale Development Company - $40,000; 31,000 sq/ft

• Honorable Mentions
  - Microsoft – 640,000 sq/ft; 2 stories
  - Tahoe Regional Arts Foundation – 75,000 sq/ft
As of March 2022, 1,384 multi-family, commercial, or institutional projects have been constructed, or are in design, using mass timber.

Source: WoodWorks, March 31, 2022

* This total includes modern mass timber and post-and-beam structures built since 2013
Joint Institute for Wood Products Innovation

- CA forest product information, research, analysis to increase economic drivers for healthy forests
- Long-term ecological and economic sustainability
- Education and outreach
- Increased forest resilience, long-term carbon storage, and local economies
- Industry retention/development in CA
Final Report

Cross-Laminated Timber Layup Tests Using Western Wood Products Association (WWPA) White fir Species Group

Submitted by TallWood Design Institute to the Joint Institute for Wood Products Innovation

June 2021

Mass Timber

Pending Contract

Mixed Species CLT Layup Tests Using Western Wood Products Association White Fir Species Group
Pending: Measuring Transport Properties for Concrete Containing CNC: Porosity, Resistivity, and Chloride Ingress
• Not including portable sawmills
• Existing mills have upgraded, resulting in increased capacity and efficiencies
• Companies are still investing in mill improvements
• 22-24 sawmills consume 0.5 to 200+ MMBF
• 2 green veneer plants
• 1 export chipping facility
• 1 whole-log shavings mill
• 1 utility pole manufacturer
• 1 particle board plant, also processes whole logs
• 13 biomass power plants that use primarily forest biomass
* At least 2 Small Industrial Sawmills (3-15 MMBF log scale) expected to be operational within 18 – 24 months
Create a Sustainable Wood Products Market in California
Climate Catalyst Fund: Goals, Partners, and Priorities

- Seeks to engage investment opportunities and provide technical assistance across all 58 counties
- Emphasizes inclusive prosperity in the climate transition

- Sustainable Agriculture and Forestry
- Transportation Emissions Reduction
- Circular Economy/Waste-to-Value
- Climate Technology Supply Chain
- Clean Power Market Stability and Expansion

$74 MILLION
First capitalization of the Catalyst Fund this year, for Sustainable Agriculture and Forestry
<table>
<thead>
<tr>
<th>Pillars of Catalyst Program</th>
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<tbody>
<tr>
<td><strong>Cultivating Private Partnerships (GO-Biz)</strong></td>
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<td>• Nurture/grow technologies and businesses with climate solutions</td>
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<td>• Help companies and investors navigate the state system</td>
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<td>• Convey market insights to policy makers</td>
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<tr>
<td><strong>Mobilizing Capital (IBank)</strong></td>
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<tr>
<td>• Catalyst Fund (IBank): Flexible, low-cost capital and credit support</td>
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<td>• Leverage $3+ private dollars per every public dollar invested</td>
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<td>• Revolving fund: re-invest proceeds to grow future sectors</td>
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<tr>
<td><strong>Optimizing Government (Statewide)</strong></td>
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<tr>
<td>• Coordinate all levels of government to deliver climate outcomes</td>
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<td>• Improve public incentives for greater impact</td>
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<td>• Streamline regulations for priority sectors</td>
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Woody Feedstock Aggregation
5 Pilot Projects

- **Budget**
  - $2.5 million
  - $500,000 per project

- **Goals**
  - Establish reliable access to woody feedstock
  - Improve feedstock supply chain logistics
  - Explore/assess market opportunities in each target region
  - Increase feedstock aggregation, especially in areas with community fire resilience benefits
Business and Workforce Development

Up to $24 Million Available to Wood Products Projects

Photo by CalFire

Photo by Board of Forestry and Fire Protection
So...Back to the Beginning...

California considers mass timber to be a part of the state’s climate and housing solution.

Thank you for your time.

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