Montana’s Forest Industry & Wood Products

Todd A. Morgan, CF
Montana Forests & Timber

25.9 million acres
69% federal ownership

National Forests
61% of timberland
76% of timber volume
20-25% of annual harvest
60% of burned forest area
80% of insect impact area

<table>
<thead>
<tr>
<th>County</th>
<th>Forest acres (thousand)</th>
<th>National Forest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade</td>
<td>332</td>
<td>53%</td>
</tr>
<tr>
<td>Flathead</td>
<td>2,794</td>
<td>63%</td>
</tr>
<tr>
<td>Gallatin</td>
<td>902</td>
<td>66%</td>
</tr>
<tr>
<td>Lewis &amp; Clark</td>
<td>1,391</td>
<td>71%</td>
</tr>
<tr>
<td>Lincoln</td>
<td>2,182</td>
<td>80%</td>
</tr>
<tr>
<td>Missoula</td>
<td>1,410</td>
<td>51%</td>
</tr>
<tr>
<td>Ravalli</td>
<td>1,192</td>
<td>88%</td>
</tr>
<tr>
<td>Silver Bow &amp; Deer Lodge</td>
<td>534</td>
<td>63%</td>
</tr>
<tr>
<td>Yellowstone</td>
<td>143</td>
<td>0%</td>
</tr>
<tr>
<td>All counties</td>
<td>25,912</td>
<td>60%</td>
</tr>
</tbody>
</table>

Source: USDA Forest Service, FIA Program
## Montana Forest-Related Employment

<table>
<thead>
<tr>
<th>Private sector</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood &amp; paper products</td>
<td>3,011</td>
</tr>
<tr>
<td>Forestry support activities</td>
<td>2,690</td>
</tr>
<tr>
<td>Forestry &amp; logging</td>
<td>1,534</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7,235</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Public sector</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Forest Service</td>
<td>2,817</td>
</tr>
<tr>
<td>National Park Service</td>
<td>346</td>
</tr>
<tr>
<td>BLM &amp; BIA</td>
<td>307</td>
</tr>
<tr>
<td>DNRC &amp; FWP</td>
<td>280</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,750</strong></td>
</tr>
</tbody>
</table>

About 11,000 forest-related workers

Private sector: >$320 million in earnings

Public agencies: >$220 million in earnings
## Montana Forest Industry (Private Sector)

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2009</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers</td>
<td>9,821</td>
<td>7,620</td>
<td>7,235</td>
</tr>
<tr>
<td>Earnings (millions)</td>
<td>$396</td>
<td>$277</td>
<td>$320</td>
</tr>
<tr>
<td>Primary sales</td>
<td>$1,078</td>
<td>$592</td>
<td>$563</td>
</tr>
<tr>
<td>Lumber production</td>
<td>1,001</td>
<td>418</td>
<td>506</td>
</tr>
</tbody>
</table>

Sources: Bureau of Economic Analysis, Western Wood Products Association, BBER.
Montana Wood Products Manufacturing

Sources: Bureau of Economic Analysis, Western Wood Products Association, BBER. *2017 Estimated.
Montana’s Wood Products Industry

~140 establishments
~80 timber users
• 8 larger, 20+ small sawmills
• Plywood, MDF, particleboard
• Log homes, post & pole
• Pellets, bark, fuels-for-schools

• Mostly small, privately held
• Most don’t own forest land
• Nearly all rely on some timber from public lands
Fire, Smoke & Salvage

2017 Montana wildfires = 1,276,479 acres
• Forest Service > 600,000 acres
• Average = 175,000 acres

Suppression costs
• National cost: $2.7 Billion
• MT (total) costs = $393 million
• MT (State) costs = $74 million
24-Hour Average PM$_{2.5}$
Seeley Lake, MT
In **Western states**, **unhealthy days** are frequently the result of **wildfire smoke**, and **we have more of them**. 81% of unhealthy days occurred in AK, CA, ID, MT, NV, UT, and WA. These states average 1.6 unhealthy days per 365 monitor days; other states average 0.11 unhealthy days.

Source: Bryce Ward, BBER analysis of EPA daily PM2.5 monitor data for all days and monitors from 2007-2016.
Montana annual air pollution emissions

- VOC
- SO2
- PM2.5
- PM10
- NOX
- NH3
- CO

- Rx Fire
- Wildfire
Montana wildfire by ownership, 2003-2015

- National Parks
- US FWS
- US BLM
- Forest Service
- State
- Private

CO2 emitted
Burned area

- Forest Industry & Wood Products

BUREAU OF BUSINESS AND ECONOMIC RESEARCH
UNIVERSITY OF MONTANA
### Forest Service

#### Burned Area Response

<table>
<thead>
<tr>
<th>Sheep Gap Fire</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total burned area</td>
<td>27,182</td>
</tr>
<tr>
<td>Outside of exclusion areas</td>
<td>18,956</td>
</tr>
<tr>
<td>Accessible (roads &amp; slope)</td>
<td>11,352</td>
</tr>
<tr>
<td>Considered for timber mgmt.</td>
<td>6,719</td>
</tr>
<tr>
<td>Highest value &amp; slowest deterioration</td>
<td>6,390</td>
</tr>
</tbody>
</table>

- Strategic approach
- 25 additional staff
- Incident Command Structure
- Emergency Situation Determination requests

Source: https://usfs.maps.arcgis.com/apps/Cascade/index.html?appid=d3b3a962ed784e7096fbebfb75031a75
SmartLam & CLT

- Cross-Laminated Timber (CLT)
- First U.S. manufacturer of CLT
- Columbia Falls, MT
- Buy & use softwood lumber
Canada supplies about 1/3 of lumber in US

- 90-95% of lumber imports come from Canada
- 70-80% of Canadian lumber is exported to US
- Canadian companies now own 40+ US mills
  - Prepared for tariffs & log supply issues
  - Closer to wood supply & housing markets
  - Have funds to buy US mills
Canadian Lumber

Volume & share of US market down in 2017

- US Commerce Department’s 20% tariffs
- Bark beetles & fires impacted BC timber supply
- Chinese markets improved
Montana’s
Forest Industry & Wood Products
Outlook

High expectations not met in 2017
Expectations mostly positive for 2018

- Broader US economic conditions
- National homebuilding
- Softwood lumber & other trade
- Eyes on the Forest Service – fire salvage
- Agriculture markets & weather
Thank you!

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