BUILDING FOR A SUSTAINABLE FUTURE

February 26, 2020
University of Washington Tacoma

FORTERRA
SOURCING & FOREST
HEALTH ON PUBLIC LANDS

BUILDING FOR A
SUSTAINABLE FUTURE

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Forest Health on Public Lands in Washington State

Derek Churchill
Forest Health & Resiliency Division
WA Department of Natural Resources
Forest Health and Resiliency Division

What is Forest Health?

The condition of a forest ecosystem reflecting its ability to sustain characteristic structure, function, and processes; resilience to fire, insects and other disturbance mechanisms; adaptability to changing climate and increased drought stress; and capacity to provide ecosystem services to meet landowner objectives and human needs.
Fire Regimes

1. Low severity: <20% killed
   High Frequency: 5-35 yrs

2. Mixed severity 20-70% killed
   35 ~ 120 years

3. High severity >70% killed
   ~120+ years
East vs. West Historical Fire Regimes

Fire Regime Groups:
1. Fire Regime I (1 to 35 year frequency, low to mixed severity)
2. Fire Regime II (1 to 35 year frequency, replacement severity)
3. Fire Regime III (35 to 200 year frequency, low to mixed severity)
4. Fire Regime IV (35 to 200 year frequency, replacement severity)
5. Fire Regime V (200 to 1200 year frequency, any severity)
Fire Dependent Forests

Illustrations courtesy Robert Van Pelt.
Changes to Fire Dependent Forests
Changes to Fire Dependent Forests

Build up of Biomass!
Changes to Fire Dependent Forests

Bethel Ridge 1936

Bethel Ridge 2012

Photo: John Marshall
Increase in Fire

Dry Forest Acres Burned in Eastern Washington

- Low
- Mixed
- High

5 Year Period

- 1984-1988
- 1989-1993
- 1994-1998
- 1999-2003
- 2004-2008
- 2009-2013
- 2014-2018

Acres
Fires Restoring Landscape Mosaic?
Climate Change Projections: More Fire!
Climate Change Projections: Drought & Insects
DNR Eastside Plans

Science Based
Broad public engagement
Social License

20-YEAR FOREST HEALTH STRATEGIC PLAN
EASTERN WASHINGTON

WASHINGTON STATE WILDLAND FIRE PROTECTION 10-YEAR STRATEGIC PLAN
SOLUTIONS FOR A PREPARED, SAFE, RESILIENT WASHINGTON
Plan Implementation

33 Planning Areas

2.8 million Acres of Forest
Landscape Evaluation Results

Treat ~25 – 45% of 2.8 million acres (33 planning areas):
~ 700k – 1.25 million acres

More Planning Areas to Come

<table>
<thead>
<tr>
<th>Planning Area</th>
<th>Forest Structure Class (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small Dense</td>
</tr>
<tr>
<td>Chewelah A-Z</td>
<td>2,000 - 3,500</td>
</tr>
<tr>
<td>Mill Creek A-Z</td>
<td>1,000 - 2,000</td>
</tr>
<tr>
<td>Mt Spokane</td>
<td>500 - 1,000</td>
</tr>
<tr>
<td>Upper Wenatchee</td>
<td>-</td>
</tr>
<tr>
<td>Stemilt</td>
<td>-</td>
</tr>
<tr>
<td>Manastash-Taneum</td>
<td>3,500 - 6,500</td>
</tr>
<tr>
<td>Cle Elum</td>
<td>1,500 - 3,000</td>
</tr>
<tr>
<td>Ahtanum</td>
<td>2,000 - 2,500</td>
</tr>
<tr>
<td>Trout Lake</td>
<td>-</td>
</tr>
<tr>
<td>White Salmon</td>
<td>500 - 1,000</td>
</tr>
<tr>
<td>Total</td>
<td>11,000 - 19,500</td>
</tr>
</tbody>
</table>

1. Small Dense
2. Medium-Large Dense
3. Large-Medium Dense Open
Work with Fire?
Long Term Treatment Need?

First 20 years:
• Restore landscapes
• Reduce biomass

Future:
• Maintain forest with fire & mechanical treatments
• Reduction in forested area
• Sustainable wood supply will decline
Fire not as big a risk to Forest Health
Western Washington Public Lands

Over abundance of dense, mid-aged forest

Low on old growth & complex early seral

Need for thinning:
• Accelerate old forest conditions
• Increase resilience to drought.
Create complex early seral forests where lacking
Forest Action Plan

• 2020 Update

• Comprehensive review

• Forests across all lands: public, private, rural and urban

• Find proactive solutions to conserve, protect and enhance the forests that people and wildlife depend on.
Conclusions

**Eastern Washington:**
- Big need for treatments over the next ~20 years: work with fire
- New processing capacity is needed, especially in the East Cascades
- Sustainable supply will eventually decline after 20-30 years

**Western Washington:**
- Over abundance of mid-aged, dense forests on public lands
- Increased supply from Forest Service possible
- More complex social and economic environment than E WA.

➡️ Maintain social license for forestry: middle ground!
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HEALTHY FORESTS FIRST

FOREST BYPRODUCTS

Russ Vaagen
Vaagen Timbers
www.vaagentimbers.com
rvaagen@vaagentimbers.com
509.684.3678
ERA OF MEGAFIRES
Courtesy of HewSaw North America
Russ Vaagen
Vaagen Timbers
www.vaagentimbers.com
rvaagen@vaagentimbers.com
509.684.3678