Declining Oregon Forest Industry Infrastructure Economic & Social Effects

Prepared for:
Oregon Board of Forestry
Federal Forestlands Advisory Committee

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Economic & Development Services
Discussion Perspectives:

- Timber Community SWOT Analyses (1989-1996)
  - Forest Sector Contributions & Potential
  - Oregon Forest Cluster Analysis
  - Forest Tourism Economic Assessment
  - Forest Growth & Mortality
- Urban-rural economic development practice
Committee Questions

- **Factors** contributing to loss of infrastructure
- **Solutions** to problems identified
- **Consequences** of solutions
- **Barriers** to implementation
What is Forest Infrastructure?

**Hardware:**
- Sustainable, reliable timber supply
- Mill capacity
- In-forest contractors (logging / restoration)
- Multi-mode transport
- Local suppliers

**Software:**
- Available, skilled, motivated workers
- Entrepreneurial & investment capital
- Education / R&D
- Full-service communities
Forest Sector Contributions - With Restructuring

Sector Restructuring:

- Federal supply reduced
- Technology & global competition

The Forest Land Base:

- 28 million acres – 60%+ public
- Harvest below 4 BBF – 50% of late 1980s, with some recent rebound
- Private lands up from 46% to 85% of harvest
Forest Growth & Mortality

- Eastern OR least net growth; federal lands mortality
- Mortality affects forest health & fire risk
- Active management benefits forest health & economy

Annual Growth & Mortality of Sawtimber on Non-Reserved Timberland as % of Gross Growth (1990-1999)

- Private West
- Private East
- Nonfederal West
- Nonfederal East
- Federal West
- Federal East

- Mortality
- Removals
- Net Growth
• Counties experiencing most job loss since 1980 have been in Eastern Oregon

• 13 geographic clusters now account for 85%+ of forest sector payroll statewide

• Forest sector jobs now oriented to major transportation corridors

Oregon Forest Sector Employment Change by County (1980-2003)

Source: Oregon Employment Department, as compiled by E.D. Hovee & Company, LLC.
An Eastern Oregon Focus

Special Emphasis for Issues of:

- Declining employment
- Infrastructure – from labor skills to plant & equipment
- Fire & habitat management – environmental risks of no action
- Innovative opportunities – biomass, composite feedstocks, small log processing
What We’ve Heard ...

• “... expertise has gone away as export markets have contracted.”
• Labor issue “... finding people that fit.”
• Federal lands “... an overgrown garden.”
• “radiata pine ... a risk to NW supply.”
• “… no net return from large logs.”
• “… pursue higher value, promote biological diversity.”
• Customers now prefer “more painted surface than natural finished wood.”
Forest Cluster Analysis

**Definition:**

... beyond a traditional forest sector – to an expanded cluster of current & potentially supportive sectors statewide

**Added Hallmarks:**

- Forward-looking
- Stakeholder-driven

**Cluster Attributes**

- Geographically concentrated & interconnected
- Linked to customers & suppliers
- Limited conformance to standard economic conventions
- Offering distinct competitive advantage
A. Market Leadership

- **Sustainable yield** (to 5+ bbf/yr)
- **Value-added mass customization**
- **Cooperative legislative agenda**
- **Green agenda**
- **Key to economic development**
- **R&D leadership**
- **Marketing renewable & energy friendly**


Source: USDA Forest Products Laboratory.
B. Return on Investment (ROI)

- Timely growth & mortality data
- Ecosystem services for diverse interests
- State acquisition of over-cut lands
- Carbon marketization
- Voluntary conservation rights
- Large & small log capacity

Note: Non-industrial owners typically span a spectrum between state and industry management.
C. Biomass Conversion

- **Statewide commitment** to biomass renewable energy
- **Biomass 10-15 year supply assurances** with eastern Oregon priority
- **Bio-energy** incentives
- **Bio-fuels** support with in-state ethanol standards & potential public financing
- **Bio-products** R&D via the Wood Innovation Center

**Benefits of Wood Biomass Use**

- Forest Health
- Economy of the State
- Building Oregon’s Forest Cluster
D. Wood Innovation

- Globalized info
- Real-time buyer-seller networks
- Rapid-fire business & product research
- Business education
- Design, testing & packaging services
- R&D links to commercialization
- Cooperative marketing

Innovation Illustrated

“OSU’s New Wood Glue Inspired by Mussels”

- The Oregonian May 9, 2005

✓ Soy-based adhesive
✓ Avoid formaldehyde use
✓ OSU revenues from licensing
E. Nanotechnology

- **Partnership** exploration w/ ONAMI, higher education & industry
- **Research leadership** – OSU+
- Reach-out to *venture capital* partners
- Funding for *joint forest cluster/high-tech* nanotech research initiative

### Nanotechnology & Forest Products

**Potential Uses:**
- Nanosensors
- Products with improved performance
- Coatings
- Lighter weight, energy efficient
- From eco-varnishes to solar-collecting paint & roof shingles
F. Green by Design

- Internationally recognized criteria & indicators for forest sustainability
- **Peer-to-peer** dialogue w/forest products & A/E communities
- *Business driven* – for consensus opportunity
- *Cooperative initiatives* – for large log, non-toxic engineered, life-cycle, sustainable wood products
- Potential for *statewide* forest certification

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A New Urban/Rural Bridge?

“... an opportunistic link between Oregon’s traditional wood products initiatives and new initiatives related to the demand for certified wood products, modular construction and prefab materials.”

G. Clustering for Rural & Urban Benefit

- Active management of wood production, multi-resource, reserve lands
- Timber harvest back to Northwest Forest Plan
- Multi-season forest jobs
- Micro-business incentives
- Investment in rural places offering forest resource opportunity

Source: Oregon Employment Department, as compiled by E.D. Hovee & Company, LLC.
Possible Solutions:
1. Active management (all forest landscapes)
2. Increased, stable supply (e.g. biomass)
3. Specialty species & products (e.g. large logs)
4. Going green (design link)
5. Real time marketing, buyer-seller & research
6. Public linked to private $$

Consequences: Forest health, jobs & community vitality

Barriers to Address
- Reaching beyond today’s network
- Skilled workforce
- State & federal policy support
- Infrastructure funding
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