Timber Markets Update and Analysis of an Integrated SE Alaska Forest Products Industry

Prepared for:
Southeast Conference
by:
McDowell Group, Inc.

September 21, 2004
Purpose of Study

• Update earlier McDowell Group timber demand and supply research
• Examine the rationale for integrated forest products manufacturing in SE
• Estimate the likely scale of operations and potential economic impacts of an integrated industry
Project Team

• McDowell Group
  – Juneau, Anchorage

• Walt Sheridan Associates
  – Juneau

• Leonard Guss Associates
  – Woodinville, Washington
An “Integrated Industry”

- Multiple types of manufacturing facilities that evolve, or are designed, to make the most of the available raw materials.
- At minimum:
  1. Sawmills
  2. Something to replace the pulp mills as a processor of low-grade wood
Demand Update

• Intense global competition
• Growing use of engineered and kiln dried products in key markets
• Strong US demand for Tongass products
  – Active housing market
  – Stronger Canadian dollar
  – BC forest fires
• Log export remains attractive for timber that is not restricted.
# Recent Prices for Typical Tongass Forest Products

<table>
<thead>
<tr>
<th></th>
<th>Hem-Fir 2X6 Random Kiln-dried #2 &amp; Better</th>
<th>Spruce-Pine-Fir 2X6 Random Kiln-dried #2 &amp; Better</th>
<th>Western Red Cedar, Green 2X8 #2 &amp; Better</th>
<th>Shop/Mldg &amp; Better Composite Price</th>
<th>Medium Density Fiberboard 3/4” West</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1999</strong></td>
<td>362</td>
<td>365</td>
<td>593</td>
<td>788</td>
<td>344</td>
</tr>
<tr>
<td><strong>2000</strong></td>
<td>283</td>
<td>287</td>
<td>573</td>
<td>674</td>
<td>358</td>
</tr>
<tr>
<td><strong>2001</strong></td>
<td>258</td>
<td>260</td>
<td>599</td>
<td>678</td>
<td>369</td>
</tr>
<tr>
<td><strong>2002</strong></td>
<td>263</td>
<td>265</td>
<td>744</td>
<td>702</td>
<td>366</td>
</tr>
<tr>
<td><strong>2003</strong></td>
<td>255</td>
<td>259</td>
<td>817</td>
<td>590</td>
<td>337</td>
</tr>
<tr>
<td><strong>Aug 2004</strong></td>
<td>480</td>
<td>503</td>
<td>920</td>
<td>897</td>
<td>450</td>
</tr>
</tbody>
</table>

Source: Random Lengths Publications
Supply Update

• Tongass National Forest
  – Since 1997 less than half the ASQ has been offered and less than half of that has been sold.
  – Approximately 100 MMBF of past years’ sales cancelled because not profitable to harvest.
  – Volume under contract was 70 MMBF in July. FS target is 3-year supply. This would be about 300 MMBF of sawlogs, according to industry representatives
  – About 40 percent of Tongass sale quantities are not sawlog quality.
## Recent Tongass Sales

<table>
<thead>
<tr>
<th>Year</th>
<th>Allowable Sale Quantity (MMBF)</th>
<th>Quantity Offered (MMBF)</th>
<th>Quantity Sold (MMBF)</th>
<th>Quantity Harvested (MMBF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>267</td>
<td>115.3</td>
<td>36.5</td>
<td>51.3</td>
</tr>
<tr>
<td>2002</td>
<td>267</td>
<td>56.9</td>
<td>24.2</td>
<td>33.8</td>
</tr>
<tr>
<td>2001</td>
<td>267</td>
<td>67.9</td>
<td>49.6</td>
<td>47.8</td>
</tr>
<tr>
<td>2000</td>
<td>187</td>
<td>85.3</td>
<td>170.3</td>
<td>146.9</td>
</tr>
<tr>
<td>1999</td>
<td>187</td>
<td>115.3</td>
<td>61.4</td>
<td>145.8</td>
</tr>
<tr>
<td>1998</td>
<td>267</td>
<td>187.1</td>
<td>24.1</td>
<td>119.5</td>
</tr>
</tbody>
</table>
Other Sources

• State of Alaska
  – Perhaps 15-18 MMBF annually, mainly lower-quality timber

• Mental Health Trust
  – 120 MMBF in sales expected over next 3 years
  – Little sustainable harvest after that

• ANCSA Corporations (mainly Sealaska)
  – Prefer to export higher grades
  – 20 MMBF of lower grade logs on a sustained basis.

• Canadian Imports
  – Have been restricted. Not significant in near-term
Southeast Products

• **Key products**
  – Green shop lumber for additional manufacturing in the PNW
  – Spruce cants, mainly for export
  – Cedar log exports

• **Other products (mainly for local use)**
  – Log building kits
  – Siding
  – Dimension lumber
New Developments

• Dry kilns and planers to supply finished construction lumber locally
• New species designations
  – Alaska Spruce
  – Alaska Yellow Cedar
• Machine stress-rating/yellow cedar glulams
• Other projects of the Sitka Wood Utilization Center, the Ketchikan Wood Technology Center, University of AK, etc.
Rationale for an Integrated Industry

• Current industry consists only of sawmills. Sawlogs, esp. high-value spruce and cedar, must carry harvest and production costs.

• Approx. 40 percent of harvest less than sawlog quality, not profitable.

• Little economic use for mill residuals.

• Result: many sales cannot attract bidders; industry is becoming more economically precarious.
Uses for Low-grade Material

• Requires roundwood
  – Veneer/LVL
  – OSB

• Requires only chips, fiber, or utility
  – Chips
  – Ethanol
  – MDF
  – Power production
  – Compost
MDF Plant

• Brackley/Davis model
  – 140 million square feet production capacity
  – 80 MMBF of raw materials (chips, sawdust, lower-grade logs)
  – Careful cost control. Eg. a dedicated buyer to minimize marketing costs

• Minimum harvest including sawlogs for existing mills - 200 MMBF

• Financial feasibility now under study
### Potential Harvest with Current ASQ and Strong Sawn-Wood Markets

<table>
<thead>
<tr>
<th>Source</th>
<th>Volume</th>
<th>Sawlogs Domestic Processing</th>
<th>Sawlogs Export</th>
<th>Cedar</th>
<th>Utility/Lower Grade Logs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tongass National Forest</td>
<td>237.0</td>
<td>173.0</td>
<td>0</td>
<td>16.6</td>
<td>47.4</td>
</tr>
<tr>
<td>Alaska Native Corps</td>
<td>100.0</td>
<td>73.0</td>
<td>7.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td>State of Alaska</td>
<td>18.0</td>
<td>13.1</td>
<td>0</td>
<td>1.3</td>
<td>3.6</td>
</tr>
<tr>
<td>Mental Health Trust</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Canadian Imports</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>355</td>
<td>186.1</td>
<td>73.0</td>
<td>24.9</td>
<td>71.0</td>
</tr>
</tbody>
</table>
Potential Economic Impacts

- Current industry employment: 200
- Potential ‘integrated’ employment with a 200 to 250 MMBF harvest: 1,200 - 1,750 direct and 900 to 1,400 induced jobs
- Potential direct payroll: $55 to $80 MM
- Potential total impact: $90 to $130 MM
Industry Scale

Moving beyond current harvest limitations could make an integrated industry more resilient.

- Multiple buyers for low-grade wood
- Better economies of scale, e.g., for shipping
- More opportunities to tailor manufacturing to particular raw materials and markets

350 mmbf harvest ideal
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