

**TIMBER DEMAND SCENARIOS
FOR TONGASS NATIONAL FOREST
1991-2010**

Report to

Alaska Region USDA Forest Service

by

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1 HIGHLIGHTS

1. The Pacific Rim market for wood products is huge and will grow in size through the year 2011.
2. Markets are so large that Alaska's industry will not be constrained by market size or long-term growth trends.
3. Because Alaska is a high cost producer using a resource of low average quality, its industry will continue to be highly cyclical.
4. Alternative sources of wood in Southeast Alaska (SEA) will decline significantly, increasing the relative role of the TNF as a wood source for the region's mills. There is no such thing as "the demand for Alaska wood".
5. We identify 2 scenarios for the SEA industry's total spruce and hemlock consumption, leading to volumes used by 2011 of:

Low	461 MMBf (net sawlog)
High	623 MMBf

These are the 1990 base estimates. They increase at 1% per year to allow for normal incremental capacity expansion.

6. Corresponding requirements for the 2011 TNF ASQ (net sawlog) are:

Low	522
High	707

7. There is no chance that any of the ASQ alternatives considered in the 1991 RSDEIS will exceed market demand on average over this period.
8. A TNF ASQ based on an assumed low level of demand will become a self-fulfilling prophecy.
9. Establishing a basis for price forecasting is extremely difficult with the numerous changes now underway. On the basis of other research, we expect pond log values in SEA to average 20 to 40% above recent levels over the period to 2010.

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2 THE CONCEPT OF MEETING MARKET DEMAND

2.1 ALASKA'S INDUSTRY

At the cyclical peak in 1990, the SEA wood product sector was producing at peak rates for the decade of the 1980's. At that time, exports of logs, lumber, and pulp were at or near highs for the decade. Total exports, which account for an estimated 90% of the production, were valued at more than half a billion dollars, and employment in the industry was at a peak. Production volumes included:

Softwood log exports	607 MMbf
Lumber and cants	226 MMbf
Chips	18,000 Metric Tons
Pulp	289,000 Metric Tons

Source: Rounded from Alaska Dept. Commerce & Econ Dev. Forest Products Div. Summary.

2.2 TONGASS TIMBER REFORM ACT MANDATE

In the Tongass Timber Reform Act (TTRA), the Congress repealed the legislated 450 MMbf ASQ for the Tongass. It mandated instead that the Forest, subject to multiple use requirements:

seek to provide a supply of timber from the TNF which (1) meets the annual market demand for timber from such forest and (2) meets the market demand from such forest for each planning cycle" (Sec. 101).

The Conference Report does not provide any expanded explanation of this concept.

Efforts to meet market demand by setting annual offer levels in an anticipatory way are doomed to failure. Both the optimistic forecasts of the late 70's and the gloomy ones of the mid 80's illustrate this. There has been little movement toward agreement on what market demand might be, despite all of the timber demand studies. Forecasting market cycles in lumber and pulp is

not likely to be successful. And there is no purpose in allowing debates over demand to become proxies for more basic issues as they did in the 80's.

A definition of "meeting market demand" that is meaningful in a business sense must go well beyond setting a level of offer or harvest. The concept involves much more than that. It must consider needs for supply security, for suitable grades and species, for realistic costs, and for other concerns.

First, it involves establishing a level of security about future supply that does not now exist on the Tongass. The first step, as suggested above, is to attain an offer level that will result, net of enjoined volume, in a more reasonable level of uncut volume under contract. Certainly market demand for Alaska timber does not mean anything if it is taken to mean merely a wildly fluctuating spot market in logs. It has to mean providing for long-term security of supply for the mills. An adequate uncut volume under contract is the single most important factor. A greater level of confidence in the future ASQ is another. It was this level of confidence that Congress intended to provide with the 450 MMbf ASQ level specified in ANILCA. TTRA repealed a level of industry confidence in supply as well as a mere number.

Second, meeting market demand means providing a mix of timber that is responsive to needs of processing facilities for timber size, grade, and quality. Volume alone is not enough. The two cedars are not usable in the pulpmills. The markets for these species fluctuate from time to time, and export markets only take the very highest log or lumber grades. Proportional harvesting will increase the cut of these species and thereby move the mix of wood cut away from the needs of the region's users.

Third, meeting market demand has to include making available timber at delivered costs that allow for profitable processing over the market cycle.

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This means that volume must be available to meet peak demands. It also means that stumpage prices and other cost factors must recognize the need for profitable operation of the mills. If profits are not in prospect, then financing for modernization cannot be obtained, even normal operation is threatened, and the survival of mills is in doubt.

The concern for grade mix and for delivered wood cost ties directly to the need to provide for commercially feasible operation of the mills. The long-term economic development needs of the region cannot be met unless mills can operate at a profit over the economic cycles. For this reason, commercial feasibility of timber offerings is a public as well as a private concern. The pulp companies have repeatedly stated (most recently regarding the Kelp Bay DEIS) that over time, sale offerings under the contracts have failed to meet reasonable economic criteria.

Fourth, other considerations complicate the definition of market demand. Pulpmills and sawmills tend to gain capacity incrementally each year. This is because of ongoing replacement of equipment, improvements in controls, or other steps that help capacity inch upward each year. In the pulp industry this phenomenon is often known as "capacity creep". Allowing for a slow, steady increase in requirements from this source would appear to be prudent and well within common sense understanding of the meaning of market demand. On the other hand, pulpmills and sawmills often increase their yields in conversion efficiency over time in a similar incremental manner. Over time this leads to more output being produced from the same measured volume of raw material. Increases in conversion efficiency would tend to offset the effects of capacity creep on raw material demands. These two forces can account for significant changes in raw material requirements over a decade or decade and a

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