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Opportunities for Expansion of Alaska's Market Pulp Exports

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Executive Summary

The purpose of this study was to examine the prospects and opportunities for expansion of market pulp exports from Alaska. The focus was on opportunities for the addition of new capacity and expansion of exports in grades not now produced. We provide a brief overview of the existing industry in Alaska, its historical development, the characteristics of its facilities, sources of raw materials, and its financial problems. And we provide a view of the potential markets for expanded pulp exports by grade, the likely competition to be faced by Alaskan producers, and the comparative cost position of Alaskan mills vis a vis other regions. Certain conclusions emerge.

It seems likely that expanded market pulp exports from Alaska will find their principal markets around the Pacific Rim and particularly in the developed or emerging countries of Asia. There is potential for continued growth in pulp demand in the region. Given constraints on domestic fiber supplies, environmental and cost considerations in domestic pulp production, and continued strong growth in domestic paper and board consumption, Asian demands for pulp imports will likely continue to grow similarly to recent historical trends. Japan will be the source of most of this growth. Both FAO and IIASA projections suggest for Asia as a whole that this increase by 2000 could be as much as twice the current pulp imports. For Asia this would amount to imports totaling some 2.0 million metric tons.

A new Alaska mill will produce long-fiber pulp in direct competition with existing major producers in British Columbia and the U.S. Pacific Northwest. Current trends in capacity expansion and the projections of both FAO and IIASA indicate that these regions will continue to figure prominently in Pacific Rim and specifically Asian pulp markets. If the IIASA projections are correct, however, rising wood costs could push the U.S. Pacific Coast into the role of marginal producer, with the bulk of export growth going to British Columbia. It is also clear that Chile and, to a lesser extent, New Zealand are likely to capture growing shares of this trade. And Brazil will be mounting a major effort to substitute its short-fiber pulps for traditional coniferous grades. Both the IIASA and FAO projections suggest that Brazil will have some success in this venture. Cost competition will be keen in this market, particularly within light of the prospect of constant or only limited growth in real pulp prices.

Given the substantial cost advantages of South American producers, a minimum condition for a successful Alaska expansion will be the ability to deliver its product in Asian markets at costs at least as low as those in the Pacific Northwest and British Columbia. We are unable, however, to identify any particular cost advantage for an Alaska mill relative to its closest potential competitors in western North America. Our analysis examined both a traditional bleached kraft mill and a smaller, high yield, thermo-mechanical pulp (TMP) mill. In either case, an Alaska mill seems to face cost problems across the full range of inputs, with major disadvantages in wood, labor, energy, and construction costs. The cost disadvantage is even greater when compared to the U.S. South or major Latin American producers. Thus, although a market may exist, it is not immediately obvious that Alaska is in a position to pursue some share of it.

These results should be viewed only as broad indicators. Given the time and resource constraints of the present study, we have relied exclusively on secondary and published data to support our analysis. A far more detailed and specific study of both the market and cost sides is needed to reach a definitive conclusion on any particular project. Three items merit specific mention for further study:

1. There is a strong need for close attention to resource and capacity developments in the southern hemisphere. The rapid growth of plantation-based mills in South Africa, New Zealand, and South America has dramatically changed the nature of competition in the global market for pulp in the past two decades.

In sharp contrast to the dependence in western North America on natural forests, this resource base was designed and grown to meet mill requirements. The mills operate with considerable advantages in wood costs relative to mills in the northern hemisphere using fiber from natural stands.

2. Previous studies note the potential attractiveness of a TMP mill on the basis of lower capital costs, lower environmental impacts, higher pulp yield, ability to tailor pulp characteristics to specific customer needs, and so forth. High-yield pulping technology has been developing rapidly and is characterized by considerable flexibility in its adaptation to specific resource and market conditions. Detailed analysis may reveal opportunities for targeting particularly high-valued markets, reducing energy and wood costs through technical adaptations, or lowering transport costs through pooled shipping arrangements with existing pulp facilities. As a consequence, this option would seem to warrant close and continuing evaluation.
3. A final key item relates to the cost and availability of wood fiber. In our analysis, we have identified Alaska as a region of pulp production that is relatively high in wood cost, owing in part to high costs of logging and transport of logs and chips. Though our estimates are admittedly crude, this is a crucial concern, because wood is the main variable input cost in production (outside Latin America). At the same time, it is evident that the bulk of wood supplies to a new mill in Alaska must come from the National Forest and that the Forest Service is under intense pressure to limit both current and future harvest levels. These circumstances seem to warrant a thorough analysis of prospective future wood supplies and costs under several assumptions about prospective Agency policies and levels of operation of existing log, lumber, and pulping facilities.

This study was undertaken through a grant from the USDA, Forest Service, Pacific Northwest Research Station and the Center for International Trade in Forest Products at the University of Washington. The report, part of a larger study of Alaska forest resource opportunities, was completed in 1989. The trends noted in the study have continued and the conclusions, based on data available at the time, remain valid.

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