

The Southeast Alaska Timber Resource and Industry: What Might the Future Hold?

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Introduction

On August 24 and 25, 1999, in Juneau, Alaska, over 30 representatives of the forest products industry, Alaska Native corporations, environmental groups, the State of Alaska, local governments, and the USDA Forest Service (Alaska Region, Pacific Northwest Research Station, and the Forest Products Laboratory), met to discuss current and future changes occurring with forest management, industry, products, markets, and policy in Southeast Alaska. The purpose of this workshop was to identify alternate futures for the Southeast Alaska timber industry, management and policy changes necessary to achieve desired conditions, and related information needs. On September 28, 1999, in Sitka, Alaska, a second similar group met to review, expand, and refine the findings of the first group. The following is a summary of the findings from those two workshops.

Workshop Summary

Four major issues were identified and discussed during the workshop. These were:

1. Over the next 50 years, timber volume will be harvested almost exclusively from old-growth stands. Extensive timber harvest did not begin until the late 1960s. Stands managed on a 70 to 100 year rotation will not be ready for another regeneration harvest for 40 to 50 years. Small areas of land managed on extended rotations (200 years) will become available for commercial thinning in approximately 20 years, but it will be about 50 years before significant areas become available for commercial thinning.
2. Silvicultural decisions made today regarding young-stand management will have a profound effect on the types of material that will be available in the future from Southeast Alaskan forests. Characteristics such as log diameter, annual ring-width, knot size, and wood strength and stiffness, may all be influenced by intermediate treatments applied to stands.
3. Owing to high operational costs and environmental concerns in Southeast Alaska, some type of selection harvest system is almost certain to be implemented on at least a limited basis. One challenge will be to prevent this system from becoming "high-grading" (removing the highest value material and leaving the rest), which would be economically attractive in the short-term. There are, however, unanswered questions as to how to implement a selection harvest system that provides a sustainable source of high-value material while maintaining biological diversity and addressing other citizen concerns about forestry.

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4. The cost of doing business in Southeast Alaska is very high. Controlling operational costs and reducing the cost of delivering products to markets are the biggest challenges that must be dealt with in order to have a viable timber industry in Southeast Alaska.

In addition to the four major issues outlined above, a recurring unresolved question was: "Should silvicultural regimes be designed to grow large volumes of fiber or lower volumes of high quality (clear, strong, large diameter) wood?" This is a key question for forest management in Southeast Alaska because the choice of answers may put forests on a developmental trajectory that will make it difficult to change objectives in mid-rotation. This question leads directly to two important silvicultural information gaps that must be addressed as we establish management plans. First, given the lack of knowledge on how old-growth stands respond to partial cutting, what is the best way to manage these stands? Second, how can we establish and tend young stands to ensure the widest possible range of future options? Keeping all options open may yield mediocre returns, while selecting options that best fit a desired future condition may be risky but potentially more rewarding.

These questions are fundamental to the problems associated with active management of forests in Southeast Alaska because many aspects of the future industry are determined by how they are answered. The characteristics of the resource available for processing are dictated by decisions on how to tend existing stands. The nature of the transition from an old-growth to a young-growth based industry depends on how the proportion of old-growth in the harvest mix changes over the next 50 years and the characteristics, volume, and location of stands suitable for commercial thinning during that period. Finally, the harvesting, processing, and product options available to the industry after the transition to young-growth depend on the cumulative management decisions made over the next 50 years.

Topic Areas Discussed at the Workshop

Workshop participants were divided into five major topic area groups. Each group was asked to identify three to four key issues or questions that need to be addressed to have a viable timber industry in Southeast Alaska. The five topic areas and summary of their discussions follow.

I. Resources and Management

This group discussed the timber resource available now and in the future, its characteristics, and how treatments can affect the quantity and quality of timber available in the future. The following information needs were identified:

What is the relationship between silviculture and wood quality?

Very little is known on the effects of silvicultural treatments on wood physical properties, such as strength, stiffness, and density, or on wood visual properties, such as knot size or annual ring distribution for Sitka spruce and western hemlock. Depending on the intended product, these wood quality factors can have a profound effect on value. This information is needed soon, because silvicultural treatments applied today will have a great effect on the material available in the future.

How to best transition from old-growth to a young-growth wood supply?

Over the next 50 years, timber harvest volumes will come almost exclusively from old-growth stands, after which time sufficient areas of commercial thinning and young-growth regeneration harvest will become available. How can silvicultural treatments and harvesting plans be used to ease the transition from old-growth sized material to young-growth sized material? How you package sales may be as important as what you grow.

What are the implications of managing young-growth stands with extended rotations?

What management strategies will ensure the health and productive capacity of such stands? Our ability to predict forest stand development and condition beyond 100 years is limited. A key research need is how even-aged stands develop between ages 100 and 200, with and without

intermediate treatments. This information is vital to be able to predict effects on non-timber resources as well as the quality and quantity of wood that will be available in the future.

II. Industry and Infrastructure

This group discussed the status of the current timber industry and what is needed to maintain a viable industry in Southeast Alaska. Key issues and information needs identified were:

A dependable and predictable wood supply is needed.

This is very important to secure financing, to attract new industry, when making investment decisions such as upgrading or improving existing mills and facilities.

The cost of delivering raw materials to manufacturing sites needs to be reduced.

Costs in Southeast Alaska are higher than in other timber producing regions of the world and need to be reduced to make Southeast Alaska more competitive.

What wood characteristics produce the best products at lowest costs?

Knowing this can help guide industry in making investment decisions.

III. Products

This group discussed possible forest product niches for Southeast Alaska and some forest product research needs. Key issues identified were:

Clear, strong, large diameter wood will provide the widest range of future options.

This group felt that management practices designed to produce this type of material would provide managers with the widest range of future options along with providing for other resource needs.

What can Southeast Alaska do with the low-grade/low-value material?

Over one-half of the old-growth volume harvested is low-grade/low-value. Some use needs to be found for this material to make harvest operations economical.

Implications of various stand management approaches need to be presented.

In other words, what are some alternate management regimes that will provide wood but also meet other resource needs (sustainability for all resources). These alternate management scenarios need to be developed and made available for land managers and decision makers to help guide their decisions.

An evaluation and sharing of technology to produce products at the lowest cost is needed.

There is probably a lot of information available that addresses the economics of producing various products. This information needs to be gathered, compiled, and shared. Information gaps could be identified as research needs and dealt with accordingly.

IV. Markets

This group discussed what is needed to make Southeast Alaska more competitive in regional, national, and worldwide markets. The following issues and information needs were identified:

Transportation, power, and labor.

Reducing these costs is a continuing challenge in Southeast yet there does not appear to be any Southeast-wide effort to do this. This is needed if advances are to be made in this area.

Integration of niche businesses with capital-intensive businesses is needed.

Mechanisms such as business complexes should be investigated and developed to provide for the efficient delivery of raw material to processors. For example, there appears to be a number of

small operators in need of small amounts of wood but there is no mechanism in place to get it to them.

Smaller businesses require assistance in market analysis and strategy development.

Most small businesses lack the expertise and resources to conduct or commission market analyses and the development of marketing strategies.

What products can be produced with the available resource?

There is a need to make available wood technology information that links products to the characteristics of the old-growth resource currently available.

Quantify risks associated with future markets.

There is considerable uncertainty about what markets will be accessible to Alaskan producers several decades (or even two centuries) in the future. An assessment of the marketing strategies that are most likely to be successful is needed to help direct resource management and infrastructure investment decisions.

V. Policy

This group discussed the effects policy can have on the timber supply and issues policy makers need to address to have a viable timber industry.

What are the implications of shifting from production of pulp fiber to manufacture of composite and solid wood products?

Management strategies and the amount of timber volume available from a limited land base are different depending upon whether you are managing for fiber or high quality (clear, strong, large diameter) wood. All implications of this shift should be carefully considered before decisions are made.

Incentives are needed to encourage forest management for long-term objectives and sales to in-state processors.

There is a perception that current policies and regulations do not encourage private landowners to manage for long-term objectives or to sell to in-state processors. If this perception is true, policy makers should consider incentives to encourage private landowners to manage for long-term objectives and to sell to in-state processors. If this perception is not true, landowners need to be made aware of the benefits of managing for long-term objectives and selling to in-state processors.

How do we deal with the “roading dilemma?”

There is interest in reducing road construction to reduce adverse impacts to the environment. Yet roads are needed to provide access for uneven-aged management, to conduct intermediate treatments that benefit all resources, and to allow the use of cable yarding systems, which are more economical than helicopter yarding. A balance between these conflicting goals needs to be found.

What Comes Next?

Further analysis of the comments from the Juneau workshop is needed and will include new issues raised during the Sitka session. Once this is done, a list of information needs and action items will be developed to guide future research, management activities, and policy reviews. In addition, a synthesis of the comments will be prepared that can be used by land managers and decision makers to help guide management of forestlands in Southeast Alaska.



United States
Department of
Agriculture

Forest Service

Pacific Northwest
Research Station

General Technical
Report PNW-GTR-500

July 2000



Proceedings: Linking Healthy Forests and Communities Through Alaska Value-Added Forest Products