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Kosciusko EIS

Young-Growth Management Update

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Special points of interest:

- Young Growth Photos
- Removable Insert Project / Vicinity Maps
- Recent Findings
- Early Concepts
- Upcoming Features

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Beginning the Young-Growth Transition

Today, there are roughly 200,000 acres of young-growth timber stands on Prince of Wales and surrounding islands; the result of past timber harvest. Very few of these acres are ready for commercial thinning now. However, in the next 10-20 years, these stands will reach commercial thinning conditions at a rate of approximately 10,000 acres per year. Many of these acres are in a stem-exclusion condition that prevents sunlight from reaching the forest floor, which limits the growth of understory plants, critical to wildlife habitat. With these conditions increasing through time, the future of both timber management and wildlife habitat on Prince of Wales Island is in these young-growth stands.

This newsletter will try to set the stage for upcoming changes to the Kosciusko Timber Sale project, which represents a first step in the transition to a young-growth management program on the Tongass.



Kosciusko Island: Typical young-growth (not pre-commercial thinned) Only moss grows under the dense canopy.

In 2002, the Tongass published a Draft Environmental Impact Statement (DEIS) consisting of predominantly old-growth timber harvest planned for Kosciusko Island. In response to public comments on this DEIS, and as a result of increasing public interest in young-growth management, the Thorne Bay Ranger District is now proposing to amend the project with a new and/or modified alternative(s). This modified alternative, will increase the young-growth harvest component of the original project, while benefiting wildlife habitat and karst landscapes, and creating a merchantable timber by-product from young-growth. The young growth may also replace previously planned old-growth timber in the project area, to help transition the existing Tongass timber program to one that also manages the vast amount of young-growth on the Tongass National Forest, while continuing to “seek to meet demand” as required by law.



Kosciusko Island: Typical young-growth (pre-commercially thinned). Moss and ferns grow under the canopy.



Old Sitka Spruce log left over from past timber harvest, shows productive site conditions

The Big Picture

The forest management industry in Southeast Alaska provides valuable and essential contributions to local communities; it provides a resource base for year-round, full-time employment. These economic contributions in turn provide support for community infrastructure, such as schools and hospitals, vital to social well-being. In light of this, the Tongass National Forest continues to actively seek out and develop commercial timber harvest opportunities.

The Tongass also recognizes an increasing public interest to reduce or eliminate old-growth timber harvest in Southeast Alaska. Many stakeholders, aware of the tension between community economic needs and this growing public demand have asked the Tongass to explore and develop potential young-growth harvesting opportunities. The first step in determining long term viability for both the environment and for industry is to get a young-growth project on the ground. We are planning on taking this first step on Kosciusko Island.

“Some of these old spruce logs may have some valuable music-wood left in them. They present some challenge to thinning operations, but they also show just how productive these sites are.”

Mike Sheets

USFS Silviculturist

A Kosciusko Island sale presents numerous social, economic and ecosystem services and benefits;

- An existing road system from past harvest activities in the 1960's, 70's and 80's provides useful access for continued timber and subsistence management with little need for new roads
- Modifying an existing alternative (or adding a new one) to increase young growth and decrease old growth harvest, responds to comments received on a variety of recent timber sale analyses and the recent Tongass Forest Plan update
- Kosciusko Island has some of the oldest young-growth stands on the Tongass, dating back to the early 1940's
- As a thinning project, this sale will enhance wildlife habitat and provide a forest product, while supporting jobs in the forest products industry
- The project will demonstrate that the Tongass can begin the gradual transition from predominantly old-growth harvest to predominantly young growth harvest
- The sale will strictly apply standards and guidelines for karst (limestone) geology protection and restoration, in addition to measures that seek to enhance the function of karst landscapes
- Reconstruction activities on existing roads in both old-growth and young-growth stands will improve community access to forest products and subsistence resources
- Road work and harvest operations will provide increased economic stimulus to communities on Prince of Wales and surrounding islands, including small saw mill operators in Edna Bay.

The Kosciusko Project Rationale

As public concern over old growth logging increases, and timber market conditions shift, the Tongass is beginning the conversion from an old growth dependent program to one that relies increasingly on young-growth wood products.

*In the grand scheme of this conversion, **Kosciusko Island** is an important proving ground.*

With the acreage of young-growth that has reached the stem-exclusion and commercial thinning phase of growth, some form of management is needed. With ongoing young-growth research as a guide, and public input encouraging our progress, the Tongass has

an opportunity on Kosciusko Island to provide a significant testing ground for young-growth management that can accomplish both habitat improvement and commercial timber development.

Emphasizing young-growth in the Kosciusko EIS will;

- Improve efficiency in our planning process
- Increase comprehensiveness of review for cumulative effects
- Reduce taxpayer burden on repetitive analyses
- Replace a portion of planned old-growth with young growth

➤ Begin/expedite the Tongass conversion to a young-growth program.

Field reconnaissance in both the young-growth stands and planned old growth units is occurring through the 2007 field season. Early reports from the field suggest that young-growth stands on Kosciusko are growing rapidly into viable commercial thinning opportunities. Observations also indicate that many young-growth stands in the area have reached the stem exclusion phase, leaving only a sparsely vegetated understory. Treatments in these stands are highly likely to yield positive ecological, economic and social benefits.

New Methods / New Tools

Through this project and others, the Tongass National Forest is investigating and acting on pre-commercial and commercial thinning opportunities in an effort to enhance fish and wildlife habitat and respond to the many voices calling for transition to young-growth.

There is much to learn about how these young growth stands will respond to various thinning prescriptions, and there is much to learn about the economic viability of a young-growth timber industry in Southeast Alaska. Ultimately, experimenting with prescriptions, thinning techniques and other operational variables will help inform future management actions when the large blocks of young-growth stands on Prince of Wales reach stem exclusion and commercial thinning phases.

New thinning equipment, such as mechanized feller/forwarders or feller/bunchers will be an



Picture of a mechanized Harvester/Forwarder, typical of young growth thinning operations—picture obtained from http://www.nmsu.edu/~ucomm/Releases/2006/february/forest_research.htm

important component of these early young growth efforts, as we strive to meet the ecological, economic and social concerns associated with forest management.

Proceeding with a transition effort in this manner will allow industry the time, materials, and information they need to invest in these equipment upgrades.

Benefits of Commercial Young-Growth Management

Thinning within a dense young-growth forest canopy can have positive ecological, social and economic effects. Through thinning, a reduced canopy cover can enhance wildlife habitat by improving forage-plant growth as a result of increased sunlight. When focusing on areas no longer available for timber production, thinning can improve the growth rate of the remaining trees, helping the stand more rapidly develop coarse canopy conditions, like those found in old growth stands. While focused on an ecological response, these actions should also yield a merchantable timber byproduct.

Young-growth thinning in stands adjacent to road systems can also improve access for gathering subsistence resources such as deer and other forest products, critical to many small communities in southeast Alaska. This issue has been raised by the public in the Prince of Wales Young-growth Management Plan and the POW Access and Travel



100-year old young-growth from past wind event. An example of how slowly the understory develops even after natural disturbances



A Karst Feature on Kosciusko Island, located within a proposed commercial thinning unit. This feature and those it is connected with could benefit from thinning outside their required buffer.

Management Environmental Analysis, and is of ongoing concern in the management of Game Management Unit 2.

Tongass National Forest geo-scientists have also expressed an interest in young-growth thinning as a tool for enhancing karst landscapes affected by past timber harvest. These areas can be starved of ground water by reduced rainwater fall-through from dense young-growth canopies, preventing adequate flushing of underground karst systems that may have higher amounts of sediment as a result of past harvest. Opportunities to research and experiment with these concepts on the Kosciusko project area will provide valuable information for future karst and land management efforts.

Finally, commercial thinning of young growth on lands intended for long-term timber production will provide merchantable saw timber for local industry, which may begin to replace some old growth previously planned for harvest. These thinning activities will also provide a wildlife enhancement byproduct, such as increased forage resulting from a thinned canopy.

Overall, our young growth management efforts will assist in the conversion from an old growth wood products program on the Tongass, to one that more readily uses young growth; builds fewer roads, and still provides for local economic stimulus in rural, resource-dependent communities like those on Prince of Wales Island.

Recent and Ongoing Young-Growth Studies

Study	Description/Status
Tongass Wide Young-growth Management Strategy	A forest-wide effort that outlines steps to manage young-growth on the Tongass as we transition from an old growth timber program to a young-growth based timber and restoration program. Includes data collection, road storage actions, prescriptions, desired future conditions, monitoring and deriving outyear plans for both restoration and timber production.
POW Young-growth Management Strategy	An internally produced draft that proposed a series of near, mid and long term young-growth management projects on Prince of Wales and outer islands, which include existing stewardship contracts at Winter Harbor, planned research projects at Heceta Island, Harris River, Naukati, and the Maybeso Experimental Forest, and larger young-growth management projects such as the Kosciusko EIS.
POW Young-growth Management Plan	A Game Management Unit 2 Report that advised methods for managing young growth on POW to best maintain or improve habitat needed for subsistence use of deer. Includes prioritization processes, desired future conditions, prescriptions, monitoring and schedules, identifying 13 priority Wildlife Analysis Areas.
The Nature Conservancy POW	The Nature Conservancy in conjunction with the Tongass National Forest is forming a Prince of Wales Island Restoration Partnership, which has begun by identifying priority watersheds in which to focus restoration efforts, including young-growth management for habitat enhancement.
Tongass Futures Roundtable	Develop the timeframe for transitioning the Tongass from an Old-Growth Forest Management Industry to a Young-Growth Forest Management Industry. Key Questions - When will/can the transition start and how long will it take to complete?
Ketchikan Wood Technology Center	Wood quality study on young-growth trees harvested from Prince of Wales Island. Test results indicate grade and strength qualities superior to southern species in similar industry categories. Additional tests being performed now to determine ambient-condition drying qualities of covered young-growth trees intended for use as house logs.
House Log Test Markets	Entrepreneurs from the lower 48 log home industry have been increasingly interested in young growth spruce logs from the Tongass and have begun testing these products in the log home market. Operators have requested additional offers in young growth and have recently purchased the Drumlin Sale (which is characterizes by 200 year-old young growth—the tops of which are being marketed towards the log home niche product).
DNR Coordination Position (The MOU Forester)	State position funded to coordinate offerings with USFS. Specific young-growth offerings are likely to occur on Kosciusko and Heceta Islands, in order to provide optimum efficiency for industry operators working on young-growth transition.
Tongass Wide Young Growth Study (TWYGS)	A research study lead by the USDA, Pacific Northwest Research Station focusing on understory and tree response to thinning and pruning of young growth stands at variable prescriptions, to learn more about the affects of thinning.

Stakeholder Involvement

Recently, an ad hoc group of diverse interests has converged under the name of the Tongass Futures Roundtable. The roundtable aims to work on Tongass management issues in a collaborative forum, providing a balanced approach to management of the nation's largest forest and all of the services it provides. Several recent discussions among this group reflect a growing desire to see an increase in young-growth timber to offset the amount of old

growth required to feed Alaska's timber industry.

For several years, Southeast Alaska's wood products industry has asked Forest officials to begin testing Tongass young-growth, leading to several important research efforts targeting both wood quality characteristics and understory response for habitat management (see page 5). These efforts have yielded some valuable information about young-growth management, providing a high

level of confidence about positive habitat response and merchantable wood quality from thinning operations.

Public and stakeholder comments in response to the Tongass Land Management Plan, and several recent Tongass Timber Sale Analyses also suggests a growing interest in Young Growth Management Alternatives, further supporting this approach to the existing Kosciusko EIS.

www.tongassfutures.net

“People are talking about young-growth. Kosciusko offers us a chance to start testing the social and environmental response to young-growth management and could provide industry with a young-growth supply needed for market development.”

***-Jason Anderson,
District Ranger***

Project Timing

Issued in 2002, public comment on the Kosciusko Timber Sale Draft EIS identified a series of issues including cumulative effects; percent of harvest in key watersheds; road densities; and affects to karst systems. In subsequent years, agency specialists

were sent in to validate past field efforts on Kosciusko and to begin applying necessary changes to the project in response to public comment.

The Draft analysis and associated field work was completed by contractors who also reviewed 1500 acres of young-growth stands for commercial thinning potential, per agency direction. Contractor findings for these 1500 acres suggested at the time, that 129-163 acres of Kosciusko young-growth were ready for commercial thinning, with the remaining acreage ready by 2010.

Subsequent field visits by agency personnel since 2002 have suggested that these early estimates were conservative and that approximately 2200 acres of young-growth stands are in need of commercial thinning now, with another 200-300 acres that have not been reviewed. Additionally, there are state lands on Kosciusko which are also ripe for commercial thinning.

In a continuing effort to seek to meet demand for timber products from the Tongass National Forest, the Thorne Bay Ranger District intends to complete the Kosciusko EIS in 2008, providing the public with a modified alternative (or alternatives) that displays the affects of increased young-growth harvest and provides an opportunity for additional comment.



Young-Growth Sitka Spruce reaching 28" DBH as a result of previous pre-commercial thinning

Recent Findings and Early Concepts

In response to public comments on the original Kosciusko Draft EIS, and a variety of other proposed actions, including the recent Tongass Land Management Plan update, the Forest Service has taken the following steps to update the Kosciusko project;

- Re-inventoried karst features
- Reduced old growth harvest acres on sensitive Karst units (increasing retention acres)
- Identified old growth units now considered economically unfeasible under current market conditions
- Revalidated old growth stand conditions / timber values for future economic analysis
- Redesignated some proposed old growth units to improve economics
- Identified and reconnoitered approximately 2200 acres of Young-growth on Kosciusko currently in need of commercial thinning
- Determined that the existing road systems in young-growth stands are relatively intact, requiring little reconstruction
- Found that the average growth increment in Kosciusko young growth stands is exceptional, and that most stands have stocking rates of 90% Sitka Spruce
- Documented that older young-growth stands are providing good movement, but poor forage for deer populations on Kosciusko Island
- Located karst features in proposed young growth stands that will be buffered from any planned thinning, and monitored for hydrologic response to thinning.



Kosciusko provides opportunity to test a new Tongass wood product, while helping southeast Alaska sustain a diverse economy

The expanse of young-growth on Kosciusko Island has very similar conditions throughout, providing the team with an opportunity to focus our analysis on a smaller subset of the total young growth acreage. This subset of roughly 600 acres will include representative habitat treatments, stand prescriptions and logging systems to allow for a meaningful analysis of direct, indirect and cumulative affects under the modified / new alternative(s). These effects will then be extrapolated to the remaining young growth area as a means of providing comprehensive effects analysis of the entire young growth acreage in the project area.

However, we hope to display the affects in both a comprehensive way (that looks at the entire project area, as required by law) and in a more focused way that will allow stakeholders to assess just the new young growth management information, separate from the proposed old growth harvest units.

Finally, it is important for stakeholders to consider proposed road management actions and their weight on the subsistence-reliant community of Edna Bay. While many groups view fewer roads as more desirable, the reconditioning of existing roads on Kosciusko as related to previously planned old growth harvest, and newly conceptualized young growth management, will provide important access and travel management needs for Edna Bay residents, and will be consistent with the Prince of Wales Access and Travel Management Plan and Environmental Analysis, to be released later this year.

Upcoming Features

In your next project update, you can expect the following info / features:

- Unit level details from current field inventory efforts
- Visual simulations of proposed young-growth stand treatments in two of the planned young growth units
- Greater explanation and photos of Karst conditions and potential treatments
- Increased information on road conditions and proposed / modified road actions
- Additional thoughts on the new or modified Alternative(s) as developed by the Interdisciplinary Team

Note to the Reader: We hope these project updates will encourage you to think about the future of timber and habitat management on the Tongass National Forest, and that you will take them as an invitation to ask questions, request information or otherwise support these .
