

# Tongass Advisory Committee Meeting Summary

January 20-23, 2015 Aspen Suites Hotel, Juneau, AK

The Tongass Advisory Committee (TAC) held its fifth meeting at the Aspen Suites Hotel in Juneau to continue discussions regarding a transition from primarily old growth to predominantly young growth timber harvest on the Tongass National Forest (the Forest). During the four-day meeting, from January 20-23, the group made significant progress identifying possible recommendations to amend the current Tongass Land Management Plan. Throughout their deliberations, members clarified their perspectives and interests with regards to where and how young growth should be harvested. They also identified a potential range of ecological, community, and economic trade-offs necessary in order to accelerate the shift to young growth timber.

The meeting agenda is available online, here. The following summary provides a description of each topic discussed and the resolution (where applicable). Recordings of the TAC deliberations are available by contacting Liz Duxbury at <a href="lduxbury@merid.org">lduxbury@merid.org</a>. See Appendix A for a meeting participant list (including TAC members, staff, and members of the public who attended, both in-person and virtually).

#### Welcoming Remarks and Updates

At the beginning of the meeting, Committee Designated Federal Official (DFO) Jason Anderson provided a variety of updates related to the Plan Amendment process, and allowed an opportunity for additional Committee updates, as described below.

#### **Tongass National Forest Leadership Changes**

In April 2015, Forest Supervisor Forrest Cole will be retiring. The assumption is that the Draft Environmental Impact Statement (DEIS) and Committee recommendations will be manifesting at that time, allowing for ideal timing for the new supervisor to take over. The vetting and selection process of candidates will begin in late January/early February, but the official decision for the replacement will not occur for several weeks. In addition to Forrest's retirement, Deputy Forest Supervisor Tricia O'Connor will be departing in February for a position with Bridger Teton National Forest.

### **Purpose and Need Statement**

Jason Anderson underscored the need for a formal recommendation from the Committee to

forward the Purpose and Need Statement they drafted during the November meeting. Randy Fairbanks of Tetra Tech, contractor for the Plan Amendment analysis, reminded the TAC that the Purpose and Need Statement serves as the explanation for the reason(s) for completing an Environmental Impact Statement (EIS) and a proposed action. The Statement serves as the basis for the proposed action and all alternatives. Jason Anderson clarified that the introduction will serve as the introduction to the newly amended Plan. The Purpose and Need, on the other hand, is specific to the proposed action for the Amendment.

The Committee reviewed the document and adjusted some language to address concerns about the tone, clarity, and organization of the document. The members edited and reviewed the draft as a group, approving the document through a formal vote. All members in attendance unanimously approved the document, and one member participating virtually provided the Committee with an affirmative vote via email, thereby meeting the necessary quorum for a decision. The facilitation team will send the document to Secretary Vilsack as a formal recommendation of the Committee. The Committee also noted the importance of explicitly stating that this recommendation is the first in a series of recommendations, and that there is the potential for some changes once all of the recommendations are submitted.

#### **Plan Amendment Timeline**

Jason Anderson reminded the Committee of the workload involved in the concurrent amendment process, and that the timeline is based on funding and expectations for development of the Draft and Final EIS. He suggested that the timeframe is flexible, but ideally the TAC recommendations would be submitted by no later than late February or early March in order for the contractor to analyze the effects. Forrest Cole announced that currently the FS Interdisciplinary Team (IDT) is on schedule for development of alternatives.

A subset of the Committee drafted a letter to Secretary Vilsack expressing concern about changes to the timeline. The main message of the letter is regarding the need for transparency with the TAC if/when changes to the timeline occur, and the importance of not allowing the timeframe to compromise the Committee's ability to provide recommendations. The full TAC reviewed and signed the letter to be sent to the Secretary during the following week. Absent members and alternates will also have the opportunity to sign the letter. A final, signed copy of the letter is available online, here.

#### Implications of the Sealaska Legislation

On December 12, 2014, the Senate passed the National Defense Authorization Act, which included the Sealaska Lands Bill. Official enactment of the bill occurred on December 19, 2014, and Sealaska formally accepted and adopted the legislation on January 7, 2015. The legislation affects 70,075 acres of the Tongass through reallocating these lands to Sealaska ownership. The bill also included language regarding relaxation of Culmination of Mean Annual Increment (CMAI) restrictions. This relaxation allows for flexibility in harvesting young growth on the Tongass. Jaeleen Araujo provided an overview of the legislation,

outlining the acres affected and specific locations. A copy of her PowerPoint presentation is available online, <u>here</u>.

Jaeleen reported that while management of the new lands will be subject to direction from the Board of Directors, Sealaska is committed to being part of the timber industry and the economy of Southeast Alaska. While export will likely continue, management has been directed to look at all available opportunities for business, and to manage the supply sustainably to allow for young growth on the initial conveyances to mature.

# **Young Growth Model Run Analyses**

Wade Zammit and Keith Rush reviewed a series of young growth analyses that were completed by Mark Rasmussen of Mason, Bruce & Girard. A summary of the analyses, the estimated acres and volume numbers, and graphics outlining the distribution of acres and volumes, are all available online, <a href="here">here</a>, under Model Run Analyses. These model runs are draft runs, based on inventory numbers, resulting in estimates only. The purposes of these runs were to compare the current condition, an aggressive harvest option (Model 2), and a more moderate harvest option (Model 1) to inform TAC discussions of evaluation of trade-offs for different scenarios. All volume estimates are calculated based on FS young growth inventory data, which is based on data collection at the stand level and then extrapolated to other stands with similar characteristics and species. While inventories are designed to be an efficient and accurate method for assessment, Keith reminded the TAC that these are estimates only, and natural variability will occur between stands.

Model 1 relies heavily on group selection, or patch-cutting, as a harvest approach, combined with commercial thin (CT) treatments, whereas Model 2 focuses on clear-cut and variable retention harvest. A description of these approaches is provided in the supporting documents (linked above). The models removed a number of acres without harvest, including the Sealaska land conveyance, resulting in approximately 325,000 acres of available lands, an increase of approximately 50,000 acres above the current plan. The model applies different harvest prescriptions and treatments to different areas, based on the goal of maximizing volume in the short-term, and achieving a sustainable level in the long-term. However, the specific treatments vary between models (i.e., different opening sizes, timing of harvest, etc.).

Both models apply a relaxation of CMAI, based on the "2-log tree concept." In other words, for a stand to be considered for clear-cut harvest, 50% of the volume must be provided by trees that produce two 34' logs. This approach differs from the provisions of the Sealaska legislation, but the total amounts do not exceed the legislated CMAI exemptions during the first 10 years. However, in the third period, Model 2 will likely exceed the limits.

<sup>&</sup>lt;sup>1</sup> At the time of the meeting, the baseline analysis of the current plan had not yet been completed.

Wade clarified that the model outputs have not been integrated into a GIS layer yet to display geographic distribution. If/when this occurs, there was a request to review the impacts to high value fisheries watersheds based on the Tongass 77 watersheds. There was another request to consider the areas that may impact tourism based on cruise and tour routes, and visual priority routes. Wade also clarified that none of the model outputs take into consideration any form of net-down, which historically has averaged 30-40% reductions. Therefore, these numbers illustrate the best-case scenario or absolute maximum.

When looking at the differences between the two models, the largest difference occurs in the beach buffer and old growth reserves. Within the timber management LUD, however, the volumes are very similar. The main difference would be the visual appearance, with little difference in harvest volumes. For both models, the modified landscape LUD offers significant opportunities because scenery standards affect so many acres of the Forest. In terms of timeframe, the major differences occur within the first 15-20 years. After the initial transition period, there will be considerably more volume available as the "wall of wood" hits. These outputs serve as the basis for discussions regarding treatment approaches, harvest regimes, and harvest location. The graphs also display the volume in contrast with demand scenarios, in order to discuss the implications for continued old growth harvest. For the purposes of discussion, the demand scenarios were based on current industry demand, as outlined by Nicole Grewe during a previous TAC meeting.

# Panel Discussion - Assumptions about Young Growth Availability

A four-person panel was convened to enable the TAC members to understand the assumptions and reasoning behind different conclusions about young growth availability on the Tongass. Each panelist provided a brief presentation of the context for why they completed the young growth analysis, and a summary of the conclusions and key assumptions that went into the analysis. An overview of the presentations and discussion are described below. Copies of the panelists' PowerPoint presentations are available online, <a href="here">here</a>, under Panel – Assumptions about Young Growth Availability.

#### Susan Alexander, Program Manager, USFS Pacific Northwest Research Station

For approximately 11 years, Susan Alexander served as the Regional Economist for the Alaska Region. She now works for USFS Pacific Northwest Research Station as a program manager, overseeing a group of scientists. She presented the work of Randy Coleman, retired Regional Policy Analyst for the USFS Alaska Region, that was produced by request of Secretary Vilsack. The analysis assessed the transition through creation of four scenarios:

- 1. Current land ownership;
- 2. Includes CMAI exemption, and removes Sealaska and Mental Health Trust Lands;
- 3. Current land ownership, with access to OGR and beach fringe; and

4. All lands included in scenario 3, including the CMAI exemption, but removing Sealaska and Mental Health Trust Lands.

The underlying assumption for all scenarios is that 30-40 MMBF are needed annually, and that is not achieved through the current plan. Susan clarified the amount is based on total volume on the ground in order to maintain the current industry. It is not based on demand analysis, but rather the amount that has been harvested by the current industry. Randy Coleman (participating via phone), clarified that the number is the estimated young growth that would be required, and does not included estimated old growth volumes.

When looking at the differences in volume between the scenarios, Susan clarified that the largest change between scenario 3 and 4 occurs due to relaxation of CMAI. Because of the adoption of the Sealaska legislation, scenarios 1 and 3 are no longer relevant (due to the changes to CMAI). Scenario 4 includes every acre of young growth on the Tongass that is not currently restricted by law or regulation (including the Roadless Rule).

### Brian Kleinhenz, Natural Resources Forester, Sealaska Corporation

Brian Kleinhenz has been living in Southeast Alaska since 2001, and has a lot of experience working with young growth forests, particularly through his role of managing and implementing the transition to young growth timber on Sealaska Corporation lands. Over the last 5-6 years, Sealaska began to incorporate young growth volume, and will continue to maintain a blend of young growth and old growth, until ultimately shifting to young growth timber.

He presented work produced by the Timber Industry Cluster Working Group with funding by the Forest Service under contract with the Juneau Economic Development Council (JEDC) that reviewed limiting factors on young growth availability. The goal of the research was to assess maximum sustained harvest levels, how acreage may impact availability, and the potential impacts of CMAI. He reviewed the current land allocations and acreage restrictions, demonstrating that the amount of available young growth for harvest is a small percentage of the land in Southeast Alaska.

The research reviewed 6 scenarios of harvest restrictions, beginning with the baseline acres, and then subtracting Tongass Timber Reform Act (TTRA) buffers, non-development LUDs, Riparian Management Areas (RMAs) outside of TTRA buffers, beach and karst, and Roadless Areas. The analysis was very spatially explicit, displaying maps of management options by location, showing that many harvest restrictions overlap, with up to four restrictions affecting a single area. This means that by removing a single restriction, it does not necessarily free as many acres as anticipated. Following the spatial analysis, the model ran scenarios using the same acreages outlined above, with CMAI restrictions and with an economic alternative to CMAI – the "12/25 rule" – an approach that allowed harvest when trees are 12" in diameter and a stand yields 25 MBF/acre.

The main outcomes displayed that currently, and in the next 10-20 years, there is not a lot of older young growth available. Overall, the harvest level resulted in approximately 96 MMBF for long-term sustained yield, but in the short-term was limited to around 20 MMBF. Operational feasibility also represented a challenge because many of the stands are scattered smaller units.

# Catherine Mater, President, Mater Ltd.

Catherine Mater has been involved in the forest products industry for over 40 years. The goal of this research was to determine the elements necessary to achieve a "zone of operable consensus" that results in a transition to second growth at the full operational level. The research specifically looked at areas that were considered non-controversial (i.e., those with less habitat and conservation values), easily accessible (i.e., within 800' of a FS road), age class 55 years, and the ability to value-add. The analysis only included young growth acres in the suitable land base that have been pre-commercially thinned (PCT) and located near roads, resulting in a total of 35,800 acres or 8% of the total young growth acres.

The analysis was organized spatially by 43 "cluster areas" or "analysis zones," displaying spatial distribution for each area.<sup>2</sup> Based on the assumptions used in the analysis (including an average of 32.5 MBF productivity per acre), the results showed that after year 6, there is quite a bit of volume becoming available, resulting in 23.5 MMBF annually, and the majority of this is located in the Petersburg and Thorne Bay districts. When looking at potential netdowns, only 2% of the acres were affected by access issues, 5% by elevation, and 5% by Sealaska land entitlement.

To assess the feasibility of this approach, Catherine and her team are proposing a pilot project partnering with Viking Lumber, Icy Straits, and Vaagen Brothers, that focuses on onthe-ground PCT verification, and value-added lumber grade verification on six different harvest areas. The assumption is to use hew saw technology and establish markets for smaller diameter timber. Some TAC members clarified that the hew saw technology can only use a specific diameter of tree, and cannot take an oversize log.

#### Don Reimer, President and Founder, D.R. Systems Northwest, Inc.

Don Reimer has been working with Southeast Conference for the last couple years, including development of an alternative strategy for managing the Tongass for a variety of different objectives. This research provided a scenario on second growth, using updated second growth data from the Forest Service. The projections include young growth and transitional old growth acres, using even-aged management with some thinning. All restrictions are based on the current plan, so there is no harvest in the beach or riparian areas; there were also areas that were in old growth recruitment that were not included. All

<sup>&</sup>lt;sup>2</sup> All of the GIS raw data is available at www.databasin.org.

young growth harvest is based on what was previously harvested on the existing land base. The projections showed a sustainable level of young growth harvest at approximately 122 MMBF; with old growth harvest included, the level would increase to around 150 MMBF total. Between years 20-26, the annual amounts would reach 40 MMBF.

### **Q&A** and Discussion with the Panelists

Following the panel presentations, the Committee had an opportunity to ask further questions of clarification, and try to understand why the differences exist between each of the outputs. This discussion resulted in the following questions and answers:

**Q:** There is an underlying assumption that there is value in a continued timber industry; however, it is not clear what that industry may consist of. Have you thought about product development and market response?

**Reimer:** In the alternative that we developed for Southeast Conference, we included potential future technologies. The main product that emerged was cross laminated timber (CLT), which consists of a mix of different sizes of lumber, pressed together to create larger, stronger structures, for example for use in high-rise buildings.

Alexander: The Forest Service examines markets available each time a Plan is updated. This analysis included biomass, such as the facility in Ketchikan, as well as laminated products, such as plywood facilities. In Southeast, there are typically issues with economies of scale associated with high volume-low value markets; therefore, value-added markets are important to consider.

*Kleinhenz:* The focus was strictly on volume, because supply is always the first barrier. Once supply is secured, business investment can occur.

*Mater:* In addition to traditional loans and investing, there is also mission-driven investment, where multiple philanthropic organizations invest significantly in opportunities for change across the nation. Southeast Alaska has been identified as an area of interest for some mission-related portfolio options.

**Q:** When comparing to other markets and private investment options, how do the weighted costs of capital and internal rate of return (IRR) targets compare?

*Mater:* The traditional capital market is not the only option; the philanthropic options offer real financial wherewithal. Regardless of the investor, the IRR will be project-specific. Value-adding will change the price structure in the second-growth market.

**Reimer:** My analysis did not include cost or revenue value; however, the average cost of capital for small companies is 10%, and the expected rate of return is 15% and up.

**Q:** [Directed to Mater] It looks like you are advocating for use of only 35,000 acres of the 16 million acres in the Tongass for limited future harvest. Do you believe that we will eliminate litigation and have certainty on supply? Your assumptions on timber do not correspond with what is typically seen on-the-ground for volume per acre, species composition, and

what happens over elevation. My experience on the ground shows that only approximately 15-18MBF/acre is possible. Are you planning to verify the stands to test your assumptions?

*Mater:* I looked at defining a "zone of potential consensus" where you could move at a faster ratio toward full operation of a second growth market. In the historical record, PCT stands in the Pacific Northwest have not been litigated, because the risk factor is much lower, and I believe that is applicable in Southeast Alaska as well. Relative to cover type and species utilization, I assumed 70% hemlock and 30% spruce, but in PCT stands only, it is actually heavily influenced toward spruce. For volume per acre, we used research that looked at high site productivity acres, and ranged from 27MBF – 45MBF/acre at age 55, so we assumed 32.5MBF. The pilot project is aimed at gaining a better understanding of the variability on-the-ground.

*Q:* [Directed to Mater] Your work is making the statement that the transition is possible within 5-10 years. That contrasts with all other analyses, and is really hard to extrapolate due to limitations of ground-proofed data. When you look at the finished product, globally the market does not allow for differentiation between spruce and hemlock in second growth, because there is a narrowing of product differentiation. Explain the premise and assumptions that led you to believe the transition is possible in 5-10 years.

*Mater:* The work we have done thus far does not categorically say it is possible in a specific timeframe. It looks specifically at 8% of the total land base to determine what potential volume is available. With the next step of the pilot project, we will look at raw log to merchant log recovery, log to lumber recovery, and value-added grade verification that will determine whether the opportunity exists and information the future direction. The next phase of the pilot project will include extensive ground-truthing. In a dimension market, the price structure does not deviate significantly between hemlock and spruce, but when selling on a custom market, it is possible.

**Q:** Why is there such a significant variance in outcomes between all of the analyses? **Alexander:** Economic analysis, based on the statute of appraisal, results in significantly decreased volume. There is data on age-class and thinning, but it is not consistent for all stands/acres.

*Mater:* Across all analysis, there was agreement that the total suitable young growth is approximately 230-270,000 acres. Our analysis further refined the options based on that number. There is an update being prepared on PCT stands that should shed additional light on what the options can offer.

*Kleinhenz:* My analysis did not choose a specific age class for harvest, but rather focused on log size, either based on CMAI or a specific dimension. With that focus, many of the stands mature further out in time than the age classes that other models focused on.

*Reimer:* CMAI is a major difference. There is not a lot of young growth volume for the first 20 years, and therefore it will need to be substituted by old growth. Around years 20-26, the available young growth will increase substantially.

**Q:** All of the reports reference supply, as opposed to demand, as evidence for the ability to transition. What are the transition technologies that have facilitated an economic transition for the industry? What can we learn from them?

*Alexander:* The FS is required by statute to seek to meet end-use demand, and is currently reviewing long-term demand (as a decadal estimate). There are market and non-market solutions – market-driven solutions focus on large investment and large mills, whereas non-market solutions will consider subsidized social markets and investment in communities.

**Reimer:** Companies tend to focus on efficiency for producing second growth products, particularly through investment in new machinery. They also look at new kinds of products, such as new engineered products including CLT. There is an opportunity in this type of engineered wood. However, it is also important to look at supply beyond Forest Service lands only. Others that have been successful have had other suppliers.

*Kleinhenz:* Globally, the focus has been on efficiency and large-scale operations, which results in the loss of smaller niche producers. Integrated companies tend to divest from one side of business, focusing solely on either timber harvest or manufacturing, but not both.

*Mater:* In our pilot project, we are working closely with Vaagen Brothers, because of their experience with second growth. In Southeast, second growth timber has higher density than timber from the lower 48, which will result in higher strength for CLT products. While value-adding has not always been popular, it was the answer for the Pacific Northwest.

**Q:** Based on your analyses, when does young growth supply fulfill the Forest Service "seek-to-meet" requirements?

*Alexander:* It will depend completely on constraints to supply availability. If you harvest at an earlier age (i.e., 50 years), you are trading off volume later.

*Mater:* Recognizing that our analysis was limited to suitable roaded PCT acres, the highest amount was 45 MMBF/year. This is based on only 8% of the landscape, so there are many more opportunities when you expand.

*Kleinhenz:* It occurs in 20 years, or possibly 15.

Reimer: I believe it occurs around 2035 or 2040.

**Q:** Based on my experience working with markets nationwide, the main feedback has been regarding the amount and consistency of volume. As you move forward and think about current or future markets, how do you create markets with a limited amount of volume? Even with strength characteristics of Southeast Alaska lumber, there will still be competition in the lower 48, particularly with Douglass Fir plantations.

*Reimer:* That is why I focus on the opportunities for CLT, because you can use different species of wood and layer them to produce the strength, thereby taking advantage of all niche woods.

**Q:** When assessing the harvest trigger (i.e., the two-log tree), is it more beneficial to focus on accelerating the transition, or waiting for a more economical tree, even if it means a delay of 10-15 years?

*Mater:* Rather than focusing on waiting for the second segment to be economically viable, the question should be focused on how to make that segment viable through alternative uses. For example, with the hew saw technology, you can capture all of a log, which will make a difference in the cost of manufacturing. Ultimately there should be a mix of accelerating the transition, and allowing some stands to mature further. My analysis was based on only 8% of the land base, so the focus on that area could be more aggressive.

# Take-Aways and Key Themes from the Panel

Based on the panel discussion, the Committee reviewed the major take-aways from the information provided. The following themes emerged:

- The message across all panelists was consistent available volume is limited in the near-term, but there will be considerably more available in the future. Regardless of the assumptions involved, the current available resource is scarce. Therefore the focus of the discussion should be on the first 10-15 years.
- There is an inherent dilemma in when to harvest young growth if you harvest aggressively in the near-term, you lose value, but if you wait for the stands to mature, you lose old growth through bridge timber.
- It is essential to look at where the higher value stands are, and what is feasible based on operability. This includes focusing or the reality on the ground, which includes scattered parcels, particularly in the first 5 years.
- It is necessary to maximize flexibility for the Forest Service to manage uncertainty and risk for businesses and communities.
- The panel provided new insights into what the future products and industry might include, including options for mission-related investment and value-adding.
- There are a variety of constraints that prevent progress, such as the appraisal process, business climate, investment, competition in a global economy, etc.
- It is important to keep the approach simple, rather than focusing on logistics. The focus of the discussion moving forward should be less about numbers and global markets, and more about social acceptability for young growth harvest, particularly with relation to the Plan Amendment.
- The transition to second growth will result in the need to transition to low value, high volume fiber. There is a lot of risk associated with that shift, but the risks can be buffered through increased certainty, and innovative value-adding to increase the rate of return.

• Some of the estimates may be beyond the scope of reality as far as volume yields.<sup>3</sup>

# Harvesting Young Growth on the Tongass - Where and How

#### **Committee Member Interests**

As a reminder of what each member represents and is trying to advance or protect, the TAC reviewed their main interests, which included the following:

- Triple-bottom-line (environmental, social, and economic);
- Economically viable timber industry as the focus of management rather than the byproduct or remaining piece;
- Supply of fish as the stabilizing economic driver of Alaska;
- Resilient communities and the range of benefits that the Forest can provide for those rural communities and Native populations, including jobs and wild places for current and future generations to enjoy;
- Forest management for co-existing multiple uses and objectives;
- Renewable energy for stable energy prices; and
- Opportunities based on a positive focus on what is possible.

#### **TAC Solution Matrix**

In order guide the discussion about which areas the TAC recommendations will consider for harvest, the TAC walked through a matrix or framework that is being used to guide the modeling runs for each of the alternatives. For the analyses, the framework will be used to define precisely which management activities will be allowed in which land units. The TAC used the framework more broadly to structure their discussion about which areas would be considered for harvest or not. See Appendix B for a copy of the matrix, as completed by the TAC during the meeting. The responses on the matrix are not recommendations, but serve as an outline of areas that the TAC wishes to discuss versus areas that are off-limits for harvest. In addition, the TAC recognized the need to delineate between considerations that are specifically for the transition period, and those that will be long-term changes. The transition period will also need to be explicitly defined (i.e., 15-20 years), to be determined based on modeling outcomes.

The Committee ranked the areas based on what they consider to be the "biggest bang for the buck" in terms of young growth harvest, in the following order:

Timber management LUD;

<sup>&</sup>lt;sup>3</sup> TAC member Eric Nichols provided copies of second growth yield tables to demonstrate this point. These tables are available online, <u>here</u>.

- Modified landscape;
- Scenic viewshed;
- Beach buffer;
- OGRs;
- RMA outside of TTRA buffer;
- Karst moderate; and
- Karst low.

The TAC acknowledged that it is not necessary to re-write all of the current rules, although there are some that need to be adjusted or made more flexible. In some cases this results in a loosening of standards and guidelines, and in others the adjustments allow for activities above and beyond the current plan. For many of these suggestions, this is illustrated in the matrix by a denotation of CP or CP+, referring to current plan or current plan plus adjustments.

The Committee recognized that this is an iterative process, and other considerations would likely arise during the discussions that do not fit neatly into the framework categories. For example, specific watersheds and/or riparian buffers may need to be considered beyond a general prescription. They also recognized that there are certain areas that are still under legal review. As they worked through the matrix, they acknowledged that no decisions would become final until a full package of recommendations could be agreed upon. In the meantime, the ideas put forward are flexible and subject to change.

#### **Draft Framework for TAC Recommendations**

While working through the TAC Solution Matrix described above, the Committee recognized the need for a narrative accompanying each category to provide more specificity. During their discussion, they provided specific comments regarding the goals and necessary changes for different LUDs and other attributes. These suggestions were captured in a draft recommendations framework, which was further drafted by small groups of TAC members. The full TAC then reviewed the draft language, editing as a group. See Appendix C for the initial draft framework of recommendations as drafted by small subgroups of the Committee.<sup>4</sup> See Appendix D for the framework draft as completed by the TAC during the meeting.<sup>5</sup>

<sup>&</sup>lt;sup>4</sup> This document was provided for discussion purposes only, and changed considerably during the course of the meeting.

<sup>&</sup>lt;sup>5</sup> This draft includes track changes that display the real-time edits from the meeting. It will be used as the basis for the next iteration to be brought forward by the technical writing team during the February meeting.

The draft document is organized by the ranking described above, as well as those areas that currently allow timber management as a main objective, followed by those areas that are "no go" or unsuitable areas in the current plan (i.e., harvest cannot contribute to the allowable sale quantity). In the currently unsuitable areas, the TAC recognized a need for very explicit direction to the Forest regarding the proposed changes. One major change that the Committee discussed was the need for coordination between biologists and silviculturalists so that timber harvest and wildlife habitat are not mutually exclusive, but instead are viewed as dual management goals. Similarly, if trees are felled for management reasons other than timber harvest, harvest should be allowed via salvage.

#### A Hybrid Approach to Management

As the TAC discussed their views on management options within each management area (LUD or other attribute), they identified the potential for developing a hybrid approach that blends the two models that Wade and Keith presented. In other words, there are some areas that warrant a more aggressive approach, whereas other, more sensitive areas should be managed with a lighter touch. For example, some members proposed that the more aggressive management approach be applied to timber management LUDS, modified landscapes and scenic viewsheds, and a more moderate approach be taken in OGRs and RMAs. Beach buffers would then fall somewhere in the middle between the two approaches. They also discussed postponing young growth harvest for the first 5 years in order to allow for increased volume and improved economics for future young growth harvest. Wade and Keith agreed to work with Tetra Tech and Mark Rasmussen to complete model runs of this hybrid approach, with and without the 5 year delay, prior to the next meeting.

#### Implementation and Monitoring

In addition to the recommendations regarding the Plan Amendment, the TAC also discussed issues surrounding implementation and monitoring of the Plan components. These include such items as: expansion of the small and micro-sale program (for old and young growth), investment opportunities (for communities and the industry), coordination among Forest Service staff, stewardship contracting, and incentives for industry retooling, among others. A small subgroup of the TAC agreed to develop a list of implementation and monitoring considerations, based on previous discussions and documents.

An important component of implementation will also include public messaging and communication. For example, some members stressed the need to educate visitors about the concept of a "working forest" so they have a better understanding of the visual impacts. A different potential message is "salmon-friendly timber" or the idea that if salmon remains healthy, the forest is healthy in all other aspects. The group agreed to talk further about delivery and messaging at a future meeting, once the recommendations have been finalized. However, in the meantime, it is essential that all members reach out to their constituencies to discuss ideas and concerns related to the current dialogue.

# The Role of Old Growth Timber on the Tongass

Since the majority of discussion to date has focused on young growth, without explicitly discussing old growth, the TAC began the discussion about what the transition will mean for old growth harvest. They recognized that many of the public comments have requested an immediate end to old growth harvest, but it is not possible. The transition will occur, and the Committee is charged with finding the fastest approach, but old growth harvest must continue to some extent as bridge timber to fill the supply-demand gap. The TAC also recognized the public comments that centered on the importance of this supply for the industry to continue during the transition, particularly on Prince of Wales Island. In addition, there are budget concerns for the state of Alaska, which means that jobs are even more important to small rural communities.

The members acknowledged the importance of the young growth modeling work to identify the young growth trajectory. The next stage is to determine where young growth has increased to a level in which old growth harvest can diminish significantly. Members stressed the importance of increasing certainty and decreasing risk for their constituents – including the conservation community, timber industry, and local communities. However, there was not agreement on whether a specific target number is necessary or achievable. One major goal of providing certainty and specificity is to avoid future litigation. Part of that certainty is in the increase of young growth, but others stressed that it also needs to be displayed in a concrete number for an old growth target.

The TAC discussed the rate of transition as a 1:1 ratio – as young growth volumes harvested increase, , old growth harvest will decrease by the same amount. With that in mind, the main message to constituents is that as more young growth is harvested, less old growth needs to be harvested. In the first 10 years, this will mean more old growth because of the limited supply of young growth during that period, but in the future, old growth will be decreased as young growth becomes available. They noted, however, that in order to meet the 1:1 ratio during the transition, it will be necessary to accept the trade-offs involved, including harvesting young growth outside of the timber management LUDs.

Randy Fairbanks of Tetra Tech clarified that in order to complete the analysis, the TAC alternative will need to include an old growth volume or trajectory. All other alternatives will include this information, so it will be necessary for comparison. There was a request for the conservation community to bring forward a suggested old growth target number for future discussion.

# **Public Comment**

The Committee encourages members of the public to provide input through oral and/or written comment. Every TAC meeting includes a public comment period. Prior to the meeting, several written comments were received. All written comments are available online, here.

Travis Mason-Bushman, Partnership Coordinator for the Tongass National Forest, provided an overview of a qualitative analysis of the written public comments submitted to the TAC to date (prior to the meeting). His analysis used grounded theory, which looks for repetitive themes and central points. He stressed that this was not a quantitative analysis, but rather focused on the most common statements and ideas. He also recognized that there are conflicting viewpoints in the comments and resulting themes. The executive summary of this analysis is available online, <a href="here">here</a>. The main themes of the analysis included advice for the Committee to consider the following:

- Quickly end large-scale old growth harvesting, while supporting small-scale local mills using primarily second growth;
- Support fish habitat and abundant fisheries;
- Role of the Tongass in mitigating climate change; and
- Renewable energy development on the Tongass.

TAC members questioned the difference between qualitative and quantitative analysis, recognizing that there were a lot of commonalities that suggested a form letter. Because the analysis was qualitative, it did not attempt to determine the number of times a topic was mentioned, but instead tried to capture the variety of topics that were addressed. Some of the members raised concern with the form letter approach, while others recognized the importance of giving voice to members of the public that may not have strong written or verbal skills. The Committee also discussed how to address the silent majority, as well as how to weigh the level of emotion of individual testimony. Jason Anderson clarified that during analysis of the Plan Amendment, it is the responsibility of the Forest to respond to the substantive comments (regardless of the number of times that a topic is mentioned). The Forest cannot, however, respond to "silent" interests. In doing so, the Forest could be accused of making an arbitrary and capricious decision that is uninformed.

Jason also reminded the Committee that they were given a narrow task, as defined by the Department, which may not be capable of addressing all the concerns raised in public comments. It is the responsibility of the Committee to determine how to interpret the comments. The ones that are most germane to the task at hand, are the most important to consider; however, the members do have the responsibility to consider all viewpoints. The TAC also recognized their own unique role in representing the public through their various interest sectors, and having the ability to not only comment, but discuss and provide recommendations based on their diverse viewpoints.

The following comments were offered in-person during the meeting:

Paul Slenkamp has been involved with the Tongass since 1973 and has worked as a professional forester for decades, which has included the task of determining the value, quantity, and quality of logs, as well as working as a logging engineer. His comments focused on the economics of the young growth transition. Young growth logs are commodity products which have very limited usage in terms of types of products (e.g., typical building products). Mills in Southeast Alaska will have to compete with outside mills, yet transportation costs are high and product values are low. In order to have the quantity and economy of scale required for a mill facility, commodities will need to be collected throughout Southeast to a single point. Because Southeast Alaska does not have a large marketplace, operators will have to look at outside markets, and will then be faced with high costs of transportation to the marketplace. The communities in Southeast are struggling, with schools closing, and lack of jobs and career options in the region. Paul emphasized the importance of the Tongass for multiple resource values, including fishing and tourism, along with other resource industries, all of which have the ability to coexist.

Norman Cohen, through his work with The Nature Conservancy (TNC), has been very involved in the Tongass transition. He referenced the modeling work that TAC member Keith Rush presented, as well as multiple other TNC investments in young growth, including product development on Prince of Wales Island, Honanie's Community Development Financial Institution (CDFI) capital loans for retooling, stream restoration projects, and the Collaborative Stewardship Group, among others. Based on the modeling outputs reported during the meeting, Norman believes there is a path forward for young growth on the Tongass. There is a need for restoration on non-development LUDs, which could support habitat improvements, particularly to address stem exclusion. TNC supports the old growth bridge timber proposed in the current Tongass Integrated Plan (TIP), but does not see a need for additional old growth harvest beyond the life of the TIP.

Larry Edwards, representing Greenpeace, encouraged the TAC and the Forest Service to look ahead 2-3 centuries as the foreseeable future for the outcome of the transition. He said too much old growth has already been lost; there is a need for more old growth, not less; and therefore old growth logging needs to end immediately. The young growth in the OGRs, beach buffers, and in much of the scenic viewsheds was intended as part of the conservation strategy to revert to old growth. But the conservation strategy is inadequate, so even within the timber base there is a need to set much of the second growth aside. As contemplated by the TAC, the first 10-20 years of the transition would liquidate nearly all the presently 40-years or older second growth. Because these stands are predominantly on the high-productivity forestlands that were targeted early-on, they are the fastest growing second growth and are a substantial increment of the way back to becoming old growth again. For much of this second growth, that incremental regrowth toward an old-growth state should not be sacrificed for the transition. Rather than focusing on how to transition the industry, the focus should be on how much of the industry can be transitioned. In other words, there are other

options for the transition. The focus of the TAC should be on 'what other kinds of transitions' could be made instead of the current focus. In the 20-30 years before a reasonable second growth industry can begin, there are many other ways to create jobs and community stability for the few number of jobs and communities that the transition affects. Larry also submitted more detailed written comments.<sup>6</sup>

Dominick Della Sala, Chief Scientist with the Geos Institute, provided the TAC with a packet of letters from multiple distinguished scientists who recognize the global importance of the Tongass, and support immediate transition out of old growth logging. Dominick gave a brief overview of the main points of the letters: 1. The Tongass is one of only six regions in the world with temperate rainforest ecosystems that can serve as climate refugia. This includes the importance of intact Roadless Areas and old growth habitats as strongholds for salmon and subsistence wildlife. 2. The Tongass serves as a significant carbon store. When compared to other national forests, the Tongass far exceeds other forests' abilities to store carbon (for example, the Tongass stores ten times as much carbon as the Willamette National Forest, the next highest in terms of carbon storage). There are many initiatives for climate change remediation, such as the 2012 Planning Rule language on carbon, the President's Executive Order, and a United Nations pledge signed by 158 entities to slow deforestation, among others. Dominick stressed the importance of linking actions on the Tongass to these initiatives. 3. The TAC has a unique opportunity to set the stage for the modern timber industry by ramping down old growth and ramping up young growth by 2020. Dominick expressed support for Mater's analysis, and interest in cross-walking her analysis against current management and net-downs. Geos Institute is publicly supportive of young growth logging, but only if old growth logging ceases. He left the TAC with questions to consider for young growth harvest: What can the ecosystem sustain based on its globally significant values? What is the lowest controversy method for harvest? How can timber reach mills the fastest?

Jim Furnish, a retired Forest Service employee, who as part of his career was the Forest Supervisor for the Siuslaw National Forest on Oregon's central coast, expressed his views regarding the issues faced by the Tongass, and the similarities to what was faced in Oregon. He views Secretary Vilsack's mandate as an effort to resolve the long-standing crisis on the Tongass, and stressed the importance of both the Forest Service and the timber industry being able to emerge as stronger organizations following the transition. In Oregon, when the transition occurred, it was due to a court-imposed mandate and political solution through the Pacific Northwest Forest Plan, in order to address concerns with the spotted owl and salmon habitat. During his time as Forest Supervisor, Jim chose to pursue second growth as opposed to continuing old growth harvest. While he recognized the fear involved in this transition, he urged the TAC to consider this as an opportunity. Based on Catherine Mater's

<sup>&</sup>lt;sup>6</sup> These comments are available on the TAC website, with the January 21-31 public comments.

<sup>&</sup>lt;sup>7</sup> These letters are available with the <u>January 21-31 public comments</u> on the TAC website.

presentation, he agreed that the young growth supply is available now and there is no need to wait to provide certainty to the timber industry.

Shelly Wright, Executive Director for Southeast Conference, a regional planning and economic development organization for the region, urged the TAC to remember the people that live in the Tongass. There are many individuals that are not aware of what is happening with the TAC, but they are greatly affected by it, through the impacts on their schools, their clinics, and their livelihoods. In many of these communities, schools are on the verge of closing, groceries cost three times the amount of other areas, energy costs are rising, and seasonal tourism jobs are not enough to cover these high costs of living. She urged the TAC that while these people may not comment directly, that they are the reason that the transition is occurring, and they are more important than all other aspects of the Forest.

*Joel Hanson*, of The Boat Company, an operation that runs small cruise vessels and shore excursions in the region, focused on the importance of the beach fringe and shorelines for tourism, fishing, and unspoiled scenery. He offered an alternative suggestion to what was proposed by Wade Zammit's modeling work: as opposed to a 200' buffer that allows district ranger discretion for creating more restrictive guidelines, he suggested the alternative of keeping the current 1000' buffer and allowing ranger discretion for opening the shoreline up to the 200' buffer. This approach seeks to ensure that all other users and values are acknowledged and not compromised.

Michael Kampnich, a current resident of Craig, and a resident of Southeast Alaska for 35 years, has experience working in the timber industry, as well as commercial fishing and as harbor master. He offered his perspectives on the One Voice proposal and potential alternatives. He suggested that conservation can be the key to open resources, and can be done in a way that does not cause divisiveness. While many have stated that the timber industry only represents 1% of the economy, he argued that on Prince of Wales (POW) that is a large and important percentage. Without old growth, the industry on POW will disappear completely. Based on the model runs presented by Wade Zammit and Keith Rush, there is not enough young growth currently to support an industry. An approach that ramps in young growth while supporting sound conservation, with a sustainable timber base to sustain an industry, can result in economic significance for the region. Compared to the resource, the industry needs are fairly small. He agreed with Larry Edwards' comment to look forward 100-200 years, but also suggested that in that amount of time there will be enough young growth to support a significant industry while maintaining other user needs.

*Daniel Kirkwood*, of Alaska Wilderness League, reminded the Committee of their charter direction to make recommendations for economic, social, and ecological sustainability. To achieve this mandate, he urged the TAC to discuss old growth harvest and how to ramp down. Many of the public comments to date have emphasized the importance of this topic. He also reminded the TAC of the importance of integrating the diverse needs of all Americans for the Forest.

*Niel Lawrence*, of Natural Resources Defense Council (NRDC), spoke on behalf of 5000 members in Alaska and many more around the country. Niel has worked on Tongass management issues for more than 20 years, and from that experience understands the importance of transitioning faster than is currently happening. He expressed concern regarding subsistence uses for deer, as well as the potential that the Fish and Wildlife Service is considering the first listing of a terrestrial species as Threatened and Endangered. Within the current timber LUDs and current standards and guidelines, there is enough young growth available to replace old growth through harvest in non-controversial areas. He urged the TAC to listen closely to the panel discussion, particularly Catherine Mater's presentation, in order to think about the economic viability of young growth harvest. Following the transition, Niel is optimistic that the region can move beyond conflict and uncertainty to a more robust future.

James Mackovjak, a resident of Southeast Alaska for over 40 years, presented the TAC with a letter from the city council of Gustavus.<sup>8</sup> The city applauds the effort of the TAC, provided it is based on economics and a full representation of all user groups, including recognition of the importance of tourism and scenery to the local economy. He stressed that localized small-scale logging is needed in the region. If substantial changes are being proposed for areas such as OGRs and beach fringe, he suggested that a full plan revision is needed to allow for full public participation. On a personal level, James acknowledged that his home is made of Tongass wood from seven local mills. Export, he argues, does not represent the transition, but rather is a taxpayer subsidized "dead-end."

Susan Tyler, co-owner of Icy Straits Lumber and Milling, has been in Southeast Alaska since 1970, and is very familiar with the issues as well as what is needed to be economically viable. Susan and her husband raised their family in Hoonah, and place high importance on the environment for the variety of uses it provides (i.e., hunting, hiking, swimming, etc.). About 12-15 years ago, their business transitioned to smaller volumes with added value for products such as homes, siding, and tongue-and-groove, but it was not easy. Her concern about the transition to young growth is that mills are struggling as is in the current market. It is difficult, if not impossible, to get a bank loan for financing, so their family has invested \$2 million of their own funds, having to sell their home in the lower 48. In order to start another mill, it could cost \$15-20 million, and there are no options for financing. She expressed great concern about being financially stable in the current market before considering transitioning to a new industry and market. Susan encourages anyone to bring questions and/or ideas to her or her husband.

*David Beebe* referenced his oral testimony from the November TAC meeting that he gave on behalf of the city of Kupreanof. He expressed concern that none of the comments from that meeting were covered by the media, especially since Under Secretary Bonnie attended the public comment period for that meeting. He expressed concern with the way his testimony

<sup>&</sup>lt;sup>8</sup> This letter is available on the TAC website with the <u>January 11-20 public comments</u>.

was described, stressing that his findings are based on facts. In 1961, the Alaska Department of Fish and Game (ADF&G) reported deer harvest levels for the season at 1029 deer for 549 hunters in Petersburg alone. After a 17-year closure, in 2012, only 22 deer were harvested. Many scientists share the belief that this is evidence of irretrievable and irreversible changes. In 1985, ADF&G concluded that logging, as currently practiced in Southeast Alaska, has the potential to significantly and permanently alter wildlife habitat, thereby resulting in a substantial reduction in associated uses.

Members of the public were also given the opportunity to participate virtually via conference line. The following comments were offered via phone participation:

*Erin McLarnon*, Executive Director of the Working Forest Group in Anchorage, announced the release of a report developed by the Working Forest Group under a cost-share agreement with the USFS, "Strategies to Maintain a Viable Timber Industry in Southeast Alaska." Erin encourages TAC members and members of the public to contact her with any questions.

Rebecca Knight referenced her oral and written comments from November 2014, and elaborated on some key points. 10 She recognized strong public support for the immediate end of old growth logging, the end of export, and avoiding beach fringe and OGRs for harvest. She also urged the Committee to consider the role of the Tongass for carbon sequestration. She believes the TAC does not represent the full range of interests, and is particularly concerned that biologists are not being included as experts. The current timber sales, which consist mainly of old growth for the upcoming year, show that the transition is not happening, which only adds to the cumulative impact of the past six decades of logging. Rebecca also referenced Alaska's One Voice policy, and requested the TAC pay close attention to the issues with this policy which overrides biologist expertise, and therefore should be renounced. The TAC often uses the phrase, "social license," but instead should consider "scientific license." If the TAC does not consider these issues, they risk losing credibility; for example, by considering harvest in beach buffers and OGRs, the TAC is ignoring public input. She hopes that the shifts in leadership on the Tongass will represent a "new era" of management. Rebecca also expressed concern regarding public accessibility to meeting materials and audio, stating that the audio quality of the conference line was poor, and was unable to access the second growth spreadsheets that were referenced during the meeting.

*Matthew Kirchhoff* submitted his comments in writing,<sup>11</sup> which consisted of three main questions/topics: 1) Given the importance of the wildlife conservation strategy in guiding

<sup>&</sup>lt;sup>9</sup> The report is available online, through this link, and on www.akworkingforest.org.

<sup>&</sup>lt;sup>10</sup> These written comments are available on the TAC website with the <u>November 19-30 public</u> comments.

<sup>&</sup>lt;sup>11</sup> These comments are available on the TAC website, with the January 21-31 public comments.

past Forest Plans, is the TAC considering how changes to the Forest Plan might mesh with the conservation strategy? Matt suggested convening an independent review panel of scientists to give advice on whether the recommendations are consistent with the strategy. 2) It is necessary to determine what the future timber industry will consist of, rather than focusing on a specific young growth volume to sustain the existing industry. For example, will the future industry include export, manufacturing, local markets, domestic markets in the lower 48, other wood products, etc.? 3) If after the transition period (i.e., 10-15 years) the second growth industry does not make economic sense, what will happen? Will old growth logging continue beyond bridge timber? Or will the Forest transition out of timber altogether?

Allen Stein, a resident of Southeast Alaska for 25 years, commented on the changes to CMAI that occurred as a result of the Sealaska legislation. These changes were based on lobbying by Sealaska to the USDA, and not necessarily based on science or data. As a result, 22,000 acres of Sealaska lands are available for second growth harvest, and there are many more on Prince of Wales that were harvested from 1954-1999. Allen suggested a shift of all second growth lands to private ownership, thereby allowing the free market to determine the age at which trees are harvested. Therefore, based free market theory, trees will not be cut if there is no market. This is in contrast with the standard of setting arbitrary numbers in an age of corporate dominance. In this scenario, if wildlife is affected, the political process can determine the consequences as opposed to agency decisions.

# **Next Steps**

#### **Upcoming Meeting Schedule**

The next TAC meeting will take place February 17-19, 2015 at the Extended Stay Hotel in Juneau (1800 Shell Simmons Drive), beginning at 8:30am on Tuesday, February 17, and concluding at 4:00pm Thursday, February 19. The meeting was originally slated for Petersburg, but was moved to Juneau in order to provide more meeting time and allow participation by a full quorum of TAC members. The purposes of the meeting will be to continue discussions regarding draft recommendations for the Plan Amendment specific to young growth, old growth, and possible implementation strategies.

The meeting dates and location for the March TAC meeting are yet to be determined. The decision will be based on the ability to accommodate the highest number of members, representing a full quorum of interest groups. Jason Anderson will reach out to the native interest sector to ensure representation at future meetings, since that has been a concern.

# **Homework Assignments**

Prior to the next meeting the following subsets of the Committee will continue work on draft documents:

- Technical Writing Team, comprised of Chris Rose, Kate Troll, Les Cronk, and Andrew Thoms, will continue work on the draft recommendations framework that was introduced during the meeting;
- Monitoring and Implementation Team, comprised of Erin Steinkruger, Lynn
  Jungwirth, and Andrew Thoms, and assisted by Karen Hardigg, will compile and
  draft initial suggestions regarding monitoring and implementation of the Forest
  Plan.
- Modeling Team, comprised of Wade Zammit and Keith Rush, will work with Tetra
  Tech and Mark Rasmussen to run analyses on four different approaches that capture
  the hybrid scenarios discussed at the meeting. They will also update/develop graphs
  and tables outlining the outcomes of these model runs.

In addition, the conservation and timber interest sectors will work with their constituencies to determine a "number" around old growth to bring as a starting point for discussion at the next meeting.

# Reflections on the Meeting

#### **Key Messages**

The TAC identified the following key messages that will serve as talking points for media, as well as the basis of a press release to be finalized by the co-chairs in cooperation with the staff. The press release with the finalized key messages is available online, <a href="here">here</a>.

- The Tongass Advisory Committee held its fifth meeting in Juneau January 20-23.
- In order to meet the goal of accelerating the transition from an old growth timber program to one based on young growth, the group made significant progress identifying potential recommendations to amend the current Tongass Land Management Plan.
- The Committee agreed in concept on strategies to offer increasing amounts of young growth timber by providing flexibility on forest plan standards, guidelines and land use designations. These concepts were deeply informed by critical forest modeling work over the past two months.
- Prior to the committee's next meeting, members will populate the draft framework for an alternative.
- During their deliberations, members identified the potential range of ecological, community, and economic trade-offs necessary in order to accelerate the shift to young growth timber.
- The group struggled with the challenge of providing certainty and predictability with timber supply while recognizing the political and social pressure to end old

growth logging, objectives that may not necessarily be achieved through the Plan Amendment.

- During the meeting, the Committee heard the most robust public opinion comment to date, and expresses their appreciation to those who either attended the meeting or shared their perception on the young growth challenge.
- Members also heard a written summary of the written comments submitted to the committee to date, and intends to be responsive as appropriate within their charter.
- In order to maximize participation and provide recommendations to the Forest Service in a timely manner, the committee made a difficult decision to shift the next meeting date to Juneau February 17-19.
- The group has listened carefully to public comment, incorporating them, recognizes the need to be responsive to those that fit the TAC charter.

#### **Member Reflections**

At the close of the meeting, TAC members and alternates shared individual reflections about the meeting. Their comments reflected the following themes:

- Highly encouraged, optimistic, and positive about the prospect of bringing forward recommendations, even with the challenges that still lie ahead;
- Impressed with the progress made at the meeting and the productivity of the group;
- Appreciation for the model runs, and looking forward to seeing how a hybrid approach will further forward the discussion;
- Sense of pressure for attendance to ensure a quorum for decision-making;
- Appreciation for time, effort, positive contributions, honesty, active listening, focus, keeping each other accountable, and willingness to not only bring own interests forward, but to try to also represent and accommodate each other's interests;
- Reminder that the area for timber development is only a small portion of the region, when compared to all the areas that are protected;
- Thankful that able to have a productive discussion about old growth and that positive options are emerging;
- Recognition of the passion and emotion involved in the issues at stake;
- Reminder that there are more opportunities to listen to public input;
- Acknowledgment of the reservations and uncertainty felt going into the meeting, but alleviated by the productive discussions and progress; and
- Recognition of simultaneously the huge responsibility and huge opportunity that is emerging with the changes in Forest leadership and the emerging recommendations.

# **Appendix A - Participant List**

# Committee Members in Attendance

Jaeleen Araujo
Les Cronk
Kirk Hardcastle
Chris Maisch
Brian McNitt
Eric Nichols
Keith Rush
Carol Rushmore
Andrew Thoms
Woody Widmark
Wade Zammit

# Committee Members in Virtual Attendance (Phone)

Lynn Jungwirth (*Partial attendance*) Erin Steinkruger (*Partial attendance*)

#### **Absent Members**

Wayne Benner Richard Peterson

#### Alternates in Attendance

Jason Custer Chris Rose Kate Troll

# **Absent Alternate**

Robert Mills

# Committee Staff (USFS/Facilitators)

Jason Anderson Karen Hardigg Connie Lewis Diana Portner

# **USDA/USFS** Employees

Forrest Cole Sue Detwiler Mike Goldstein Brian Logan George Schaaf

# **USDA/USFS Contractors**

(Tetra Tech)
David Cox
Randy Fairbanks

#### **Panelists**

Susan Alexander Brian Kleinhenz Catherine Mater Don Reimer

# Members of the Public in Attendance<sup>12</sup>

Thoms Anton
David Beebe
Anissa Berry
Lynn Campbell
Sarah Cannard
Norman Cohen
Laurie Cooper
Dominick Della Sala
Larry Edwards
Andy Erickson
Clay Frick
Jim Furnish
Joel Hanson
Rick Harris

Daven Have

Dan Kirkwood
Sylvia Kreel
Niel Lawrence
Buck Lindekugel
Jim Mackovjak
Mark Rorick
Ed Schoenfeld
Colin Shanley

Michael Kampnich

Susan Tyler Austin Williams Shelly Wright

Paul Slenkamp

# Members of the Public in Virtual Attendance (Phone)<sup>13</sup>

David Beebe Jean Daniels Jonathan Dent Rebecca Knight Matthew Kirchhoff Erin McLarnon Ed Schoenfeld Al Stein

<sup>&</sup>lt;sup>12</sup> This list is based on members of the public that signed in at the beginning of each meeting day.

<sup>&</sup>lt;sup>13</sup> This list is based on members of the public that registered for the conference line.

# **Appendix B - TAC Solution Matrix**

#### **TAC Solution Matrix**

QUESTION: What areas are in solution for transition volume discussion to preserve a reasonable opportunity for industry?

		YG					OG		
Rank		No Harvest	Transition Timber	Long-term Timber	Wildlife	Restoration	No harvest	Transition Timber	Long-term Timber
	Congressionally or adminstratively								
	withdrawn	X					x		
	Karst - High	X					x		
	Roadless*								
	Roaded Roadless								
4	Beach Buffer		CT, PC		CT, PC		x		
7	Karst - Moderate		CP	CP	CP	CP			
8	Karst - Low		CP	CP	CP	CP			
	Steep Slopes		CP	CP	CP	CP		CP	CP
6	RMA outside TTRA Buffer		CP+	CP	CP+	CP+	х		
1	LUD - Timber Management		CP	CP, S/MS	CP	CP			S/MS
	Phase I, II and III								
2	LUD - Modified Landscape (ML)		CP+	CP+	CP+	CP+			
3	LUD - Scenic Viewshed (SV)		CP+	CP+	CP+	CP+			
_	LUD - OGRs		CP with CT	CP	CP	CP	х		
	LUD - All Others		CP+	CP+	CP+	CP+			·

X = No harvest

CC = Clearcut

CT = Commercial Thin

PCT = Pre-Commercial Thin

PC = Patch Cut

S/MS = Small & Microsale

VR = Variable Retention

CT CC = Commercial Thin followed by Clearut

PCT CT CC = Pre-commercial thin followed by CT then clearcut

PCT CC = Pre-commercial thin then clearcut

CP = Current Plan



Move Timber LUD up, YG within Timber LUDs will be managed as 08

# **Appendix C – Draft Recommendations Framework**

#### **VISION**

Southeast Alaska is comprised of prosperous, resilient communities that have the opportunity to predictably use and benefit from the diversity of forest resources to achieve the social, economic, and ecological health of the region for current and future generations.

#### **RATIONALE**

This Forest Plan amendment was undertaken to respond to the Secretary's memorandum directing the Forest Service to transition the Tongass Timber Management Plan away from old growth timber harvest to one based predominantly on young growth. The unique natural resources of the Forest provide a diverse set of values. The TAC realized that protecting *every* value in *every* area would risk missing the goal of speeding the transition within 15 years.

The TAC understands that there is not a meaningful volume of young growth today, but depending on various scenarios we can accelerate the volume available to industry. In order to reach the ultimate goal to reduce old growth harvest and accelerate the transition and maintain a financially viable timber industry, the TAC recognized that trade-offs will be necessary. Therefore, the TAC focused on providing flexibility and increased opportunities beyond the current Plan in at least two ways. First, the TAC recommends the Forest Service provide more flexibility and opportunities in the existing timber management areas. Second, the TAC recommends that the Forest Service use specific treatments in areas that are not currently designated as "suitable" for harvest, provided the original intent of the LUD is maintained. The TAC also recommends that the Forest Service minimize waste and increase timber volumes by ensuring that all valuable fiber that is the byproduct of land management treatments is made commercially available, contrary to any current regulatory limitations.

The purpose of having the recommended flexibilities is to replace old growth harvest with young growth harvest on a one-to-one volumetric basis. The TAC believes that the recommended flexibilities can be reconsidered when the young growth transition is determined to be complete.

#### YOUNG GROWTH

#### LAND USE DESIGNATION

# Timber Management (Suitable) (186,000 acres of YG)

#### Goals

- Utilize the current land base
- Emphasize additional opportunities for the small and micro-sale programs
- Consider flexibility in allowing longer sale terms to reduce risk and encourage investment
- Consider method to maximize timber growth

# Modified Landscape (Suitable) (60,000 acres of YG)

## Goals

- Utilize the 2008 Plan. [Agreement]
- Provide for additional flexibility to pull more volume forward by [Proposal]
  - o 50, 66, or 75% variable retention
  - Leave islands might be option for re-entry (KR will come back with more thoughts)
  - o Encourage leaving lower value timber to improve scenic and wildlife values
  - Design cutting units with irregular boundaries / feathering
  - Consider re-planting to speed rotation (seedlings from Thorne Bay)
- Emphasize additional opportunities for the small and micro-sale programs
   Note
- Primary difference between Model Run 1 and 2 is 10 years of green up

# Scenic Viewshed (Suitable) (12,000 Acres of YG)

#### Goals

- Utilize the 2008 Plan. [Agreement]
- Provide for additional flexibility to pull more volume forward by [Proposal]
  - o 50, 66, or 75% variable retention
  - Leave islands might be option for re-entry
- Emphasize additional opportunities for the small and microsale programs
- Consultation with other users to mitigate impacts in higher value scenic watersheds/routes

#### Note

• Primary difference between Model Run 1 and 2 is 10 years of green up Notes to add to larger recommendations:

1. Improve stand level Y-G inventories (during first 5 years)

#### **Old Growth Reserves**

<u>Background</u>: The committee looked at the old growth reserves that are composed of previously harvested young growth. The committee recommends that these stands can provide timber for the transition and Forest Service land managers should look at these areas. Management activities that the committee recommends are treatments in these stands that advance the seral stages to old growth conditions while creating commercial timber by-products. Alternatively, old growth reserves could be modified according to the process outlined in the current plan's appendix K to capture young growth volume available for commercial use where a net gain of old growth habitat in old growth reserves occurs while also maintaining the necessary landscape connectivity.

#### Goals

- Prioritize utilizing OGR modification processes to capture YG Volume (particular emphasis on places where there are adjacent YG acres)
  - Where you can meet criteria, do it. YG acres would go into long-term rotation
  - If you can't, consider approach to treat acres that provide YG volume (treatment that can meet wildlife habitat and advance YG transition goals) such as patch cuts through group selection, variability

#### Notes

- Significant overlap in acreage in the model runs between OGRs and Beach Buffer
- 2008 Plan goals reflect returning to OG characteristics (if byproduct/fiber then you can sell but doesn't count toward ASQ)
- Messaging: There is YG in OG reserves! (spatially important for wildlife connectivity corridors and refugia)
- How do you meet intent of need for interest in og characteristics while capturing some yg volume
- Concern: Not every piece of ground is the same

#### **OTHER ATTRIBUTE**

# **Beach Buffer (Currently Unsuitable in 2008 Plan)**

<u>Background</u>: The Beach Buffer represents an area of high ecological value and for this reason a buffer of 1000 feet preserves this area across the Tongass. The ecological values are especially high in the areas surrounding estuaries. Beach buffers also have a high level of use for subsistence, tourism, recreation, and guided hunting. The beach buffers are areas where the first harvests of Timber on the Tongass and thus has some of the oldest stands of young growth on the Tongass and that the timber volume from these areas can be some of

the first timber volume produced in the transition. The current state of many of these stands are in stem exclusion stages and are not the most ideal habitat or fulfill their full potential of ecological values. As a way to improve ecological values and to provide young growth timber, the TAC has had extensive discussions on management activities within the beach buffers. The committee has concluded that the Forest Service should look at the beach buffer as an area where management prescriptions could occur where commercial timber is extracted from habitat improvement treatments Prescriptions that meet the criteria of habitat improvement and results in commercial timber products should be developed by multi-disciplinary teams along with consultation and participation by timber operators and other stakeholders. Management tools such as stewardship contracting should be utilized in these areas to find opportunities for multi-output projects. In addition to habitat improvement, these projects could also provide outputs such as recreation infrastructure and access.

#### Goals

- The desired future conditions of the Beach Buffers are that they are a core area of ecological diversity and provide habitat connectivity.
- Develop management prescriptions that improve habitat and provide timber that can be used commercially
- The committee believes that we could speed the transition to young growth timber by bringing volume forward while improving habitat without affecting long-term ecological function (improve condition, don't make it worse)
- Preserve opportunities for enhancing economic activities in these landscapes following harvest (e.g trails after harvesting, education)
- Provide discretion and flexibility to land managers in order to meet goal of speeding shift to young growth
- Maintain integrity of current values in 08 plan

#### Notes

- The TAC wants to use the current goals and desired future conditions of the beach buffer as per the 2008 plan but be more intentional in finding prescriptions that improve habitat and create a commercial byproduct. The current plan allows for this. The committee would like more investment from Forest Service staff and planners to develop projects in this area specifically by designated an ID team that plans and develops these projects in an IRMP framework.
- Provide specificity on upper limits by adding targets for timber, salmon, tourism production?
- How do you incentivize offering more YG sales in beach buffers

- Screen/criteria: Many areas of beach buffers across the Tongass have specific user groups including operators who hold tourism and guiding permits. The Forest Service should evaluate permits and current usages of beach buffers to determine management activities. Permit holders should be consulted and integrated in planning in the development of any management activity planning.
- The committee especially wants to see the Forest Service build flexibility and innovation into their actions during transition period and prioritize finding ways that management actions can improve habitat while creating commercial by-product in beach buffers
- The specific reason that the committee is looking at beach buffers and is having this
  conversation is to reduce old growth harvest and replace that volume of wood with
  young growth
- Stewardship contracting authorities should be used so that the sale of timber can pay for the cost of habitat improvement treatments

#### **RMA Outside TTRA Buffer**

<u>Background</u>: The committee discussed RMAs and recognized the high importance of these areas for watershed habitat and especially in the production of salmon. The committee recognized that these areas may also be able to supply timber volume while maintaining overall watershed function. The committee recommends that the Forest Service looks site specifically at RMAs for opportunities to provide young growth timber from RMAs when these lands are in close proximity or adjacent to young growth acres and where treatments can restore or enhance habitat quality. The reason that the committee looked at these areas is to provide more young growth volume and reduce OG timber harvest.

#### Goal

 Where appropriate, particularly when lands are in close proximity or adjacent to other young growth acres, implement treatments that benefit habitat and utilize byproducts for commercial use (include strong language on importance of habitat values for salmon in these RMAs)

#### **Notes**

Congressionally mandated 100ft buffer would stay

# Appendix D – Draft Recommendations Framework with TAC Edits

#### **VISION**

Southeast Alaska is comprised of prosperous, resilient communities that have the opportunity to predictably use and benefit from the diversity of forest resources to achieve the cultural, social, economic, and ecological health of the region for current and future generations.

#### **CONTEXT**

(include something about the juxtaposition, acknowledge the other interests and importance of focusing on this deliverable- acknowledge tradeoff is ending predominantly OG for xx reasons/values i.e. increase supply without compromising other values. Use language from charter and memo. Include short-term for industry (can't short-term help them all) and long-term gains for communities).

#### RATIONALE

This Forest Plan amendment was undertaken to respond to the Secretary's memorandum directing the Forest Service to transition the Tongass Timber Management Plan-program away from old growth timber harvest to one based predominantly on young growth. The unique natural resources of the Forest provide a diverse set of values. The TAC realized that upholding every standard and guide in every area protecting every value in every area would risk missing the goal of speeding the transition within 15 years.

The TAC understands that there is not a meaningful volume of young growth today, but and depending on various scenarios we can accelerate the volume available to industry. In order to reach the ultimate goal to reduce old growth harvest and accelerate the transition and maintain a financially while sustaining an economically (incorporate charter language here re: economic) viable timber industry, the TAC recognized that trade-offs will be necessary. Therefore, the TAC focused on providing flexibility and increased opportunities beyond the current Plan in at least two ways. First, the TAC recommends the Forest Service provide more flexibility and opportunities in the existing timber management areas. Second, the TAC recommends that the Forest Service use specific treatments in areas that are not currently designated as "suitable" for harvest, provided the original intent of the LUD is maintained. The TAC also recommends that the Forest Service minimize waste and increase timber volumes by ensuring that all valuable fiber that is the byproduct of land management treatments is be made commercially available, contrary to any current regulatory limitations (note Chris' point re: volumes ).

The purpose of having the recommended flexibilities is to replace old growth harvest with young growth harvest on a one-to-one volumetric basis. The TAC believes that the recommended flexibilities recommended below shouldcan be reconsidered when the timber supply is predominantly based on young growth, or within 5 years of the date of this Record of Decision. Adaptive management and multi-party monitoring (process, effectiveness, social, economic, ecological) in the interim will be essential.

{Opportunities for review include..., metrics, performance, impact on other resources, how did the industry respond, were the treatments effective and economic, community health and resilience, jobs, workforce, etc young growth transition is determined to be complete. Indicators for progress, some agreeable mechanism, include creativity, innovation, risk, flexibility, transparency]

Perhaps capture 5-year review recommendation <u>in implementation</u> (to monitor <u>performance</u>)

#### **APPROACH**

- Hierarchy of priority/sequence of those in the suitable plan
- Then the Non-Suitable lands which ties it together
- Purpose was to maintain intent/integrity of original LUD while meeting YG Goals
- 1) TM LUD
- 2) ML/SV
- 3) Beach Buffer
- 4) OGR
- 5) RMA
- Primary objective was to reduce amount of OG, speed acceleration to young growth,
   therefore during this time period commercial product and habitat values must be
   considered in conjunction with each other. Co-intent with purpose of transition in mind,
- If successful in meeting YG metrics then you will reduce your OG volume in the long run
- Flexibility, creativity, innovation, risk, transparency

#### **YOUNG GROWTH**

LAND USE DESIGNATION

<u>Timber Management (Suitable) (186,000 acres of YG)</u>

#### Goals

- Utilize the current land base
- Emphasize additional opportunities for the small and micro-sale programs, including encouraging longer-term sales (also important for OG sales)
- Consider flexibility in allowing longer sale terms (5-10 years) to reduce risk and encourage investment in infrastructure
- Consider method to maximize timber growth (planting, thinning, fertilizing to increase volume, species manipulation, product value – in coordination with PNW)
- Consider a measured pace, scale, and variety of projects to match workforce, capacity...
- (NOTE: flexibility, risk, how to ensure implementation at project level?)

# Modified Landscape (Suitable) (60,000 acres of YG) (WILL COMBINE WITH SCENIC)

#### <u>Goals</u>

- Utilize the 2008 Plan. [Agreement]
- Provide for additional flexibility to pull more volume forward by [Proposal]
  - o 50, 66, or 75% variable retention
  - Leave islands might be option for re-entry (KR will come back with more thoughts)
  - Encourage leaving lower value timber to improve scenic and wildlife values
  - Design cutting units with irregular boundaries / feathering
  - Consider re-planting to speed rotation <u>and species diversity</u> (seedlings from Thorne Bay)
- Emphasize additional opportunities for the small and micro-sale programs (also in OG)

#### Note

Primary difference between Model Run 1 and 2 is 10 years of green up

# Scenic Viewshed (Suitable) (12,000 Acres of YG)

#### <u>Goals</u>

- Utilize the 2008 Plan. [Agreement]
- Provide for additional flexibility to pull more volume forward by [Proposal]
  - o 50, 66, or 75% variable retention
  - Leave islands might be option for re-entry
- Emphasize additional opportunities for the small and microsale programs
- Consultation with other users to mitigate impacts in higher value scenic watersheds/routes (early and throughout – transparency. Part of agency transition)

#### Note

- Primary difference between Model Run 1 and 2 is 10 years of green up Notes to add to larger recommendations:
  - 2. Improve stand level Y-G inventories (during first 5 years)

# **Old Growth Reserves**

<u>Background</u>: The committee looked at the old growth reserves that are composed of include previously harvested areas that could provide young growth volume during the transition. The committee recommends that these stands can provide timber for the transition and Forest Service land managers should examine those old growth reserves that are previously harvested areas now in young growth (early seral) state.

(THESE are GOALS) Management activities that the committee recommends in these areas are treatments that advance the seral stages to old growth conditions while creating commercial timber by-products (KEY point). Alternatively, old growth reserves could be modified according to the process outlined in the current plan's appendix K (comparable achievement) to capture young growth volume available for commercial use where a net gain of productive old growth habitat in old growth reserves occurs while also maintaining the necessary landscape connectivity.

#### Goals

- Evaluate old growth reserves that are previously harvested and in early seral stage and could provide young growth timber volume in the transition. Direct Forest Service interdisciplinary team to develop management prescriptions that can advance seral stage conditions, improve old growth habitat quality to increase species diversity, and provide commercial timber volume.
- Consider using progressive treatments in these stands that provide improved habitat and economic benefit (concern: spaced commercial thinning might not cut it, agency stuck in one model of uneven aged management) while speeding old growth characteristics
- Prioritize utilizing OGR modification processes to capture YG Volume (particular emphasis on places where there are adjacent YG acres)
  - Put the Appendix Where you can meet criteria, do it. YG acres would go into long-term rotation
  - If you can't, consider approach to treat acres that provide YG volume (treatment that can meet wildlife habitat and advance YG transition goals) such as patch cuts through group selection, variability

#### **Notes**

- Intent of original LUD was supposed to be intact for each, and TAC interpreted intent as
   ...
- Significant overlap in acreage in the model runs between OGRs and Beach Buffer
- 2008 Plan goals reflect returning to OG characteristics (if byproduct/fiber then you can sell but doesn't count toward ASQ)
- Messaging: There is YG in OG reserves! (spatially important for wildlife connectivity corridors and refugia)
- How do you meet intent of need for interest in og characteristics while capturing some yg volume
- Concern: Not every piece of ground is the same

#### **OTHER ATTRIBUTE**

# **Beach Buffer** (Currently Unsuitable in 2008 Plan)

Background: The Beach Buffer represents an area of high ecological value and for this reason a buffer of 1000 feet preserves this area across the Tongass. The ecological values are especially high in the areas surrounding estuaries. Beach buffers also have a high level of use for subsistence, tourism, recreation, and guided hunting. The beach buffers are areas where the first harvests of Timber on the Tongass and thus has some of the oldest stands of young growth on the Tongass and that the timber volume from these areas can be some of the first timber volume produced in the transition. The current state of many of these stands are in stem exclusion stages and are not the most ideal habitat or fulfill their full potential of ecological values. As a way to improve ecological values and to provide young growth timber, the TAC has had extensive discussions on management activities within the beach buffers. The committee has concluded that the Forest Service should look at the beach buffer as an area where management prescriptions could occur where commercial timber is extracted from habitat improvement treatments. Prescriptions that meet the criteria of habitat improvement and results in commercial timber products should be developed by multi-disciplinary teams along with consultation and participation by timber operators and other stakeholders. Management tools such as stewardship contracting should be utilized in these areas to find opportunities for multi-output projects. In addition to habitat improvement, these projects could also provide outputs such as recreation infrastructure and access.

# <u>Goals</u>

• The desired future conditions of the Beach Buffers are that they are a core area of ecological diversity and provide habitat connectivity.

- Develop management prescriptions that improve habitat and provide timber that can be used commercially
- The committee believes that we could speed the transition to young growth timber by bringing volume forward while improving habitat without affecting long-term ecological function (improve condition, don't make it worse)
- Preserve opportunities for enhancing economic activities in these landscapes following harvest (e.g trails after harvesting, education)
- Provide discretion and flexibility to land managers in order to meet goal of speeding shift to young growth
- Maintain integrity of current values in 08 plan (is in Rationale and Approach)
- Encourage (co-intent) with flexible areas and prescriptions based on model runs and consistent with intent (to improve function of beach fringe). Do so in a way that improves condition and provides commercial young growth supply. (lead with the intent)
  - Criteria to consider: presence of roads, steepness of ground, visuals, proximity to major tour routes, cultural interests
- Go out there to find volume not to find excuses not to do it (but not at expense of long range goals)
- Projects that provide improve beach fringe function and provide volume in support of young growth transition goals
- Metric: acres treated to improve condition and volume provided through treatments

#### Notes

- The TAC wants to use the current goals and desired future conditions of the beach buffer as per the 2008 plan but be more intentional in finding prescriptions that improve habitat and create a commercial byproduct. The current plan allows for this. The committee would like more investment from Forest Service staff and planners to develop projects in this area specifically by designated an ID team that plans and develops these projects in an IRMP framework.
- Provide specificity on upper limits by adding targets for timber, salmon, tourism production?
- How do you incentivize offering more YG sales in beach buffers
- Screen/criteria: Many areas of beach buffers across the Tongass have specific user groups including operators who hold tourism and guiding permits. The Forest Service should evaluate permits and current usages of beach buffers to determine management activities. Permit holders should be consulted and integrated in planning in the development of any management activity planning.

- The committee especially wants to see the Forest Service build flexibility and innovation into their actions during transition period and prioritize finding ways that management actions can improve habitat while creating commercial by-product in beach buffers
- The specific reason that the committee is looking at beach buffers and is having this
  conversation is to reduce old growth harvest and replace that volume of wood with
  young growth
- Stewardship contracting authorities should be used so that the sale of timber can pay for the cost of habitat improvement treatments
- Add language re: 200ft buffers in model runs
- Concern: not by-products, but co-products (compel agency to seek volume in these currently non-suitable lands)

# **RMA Outside TTRA Buffer**

<u>Background</u>: The committee discussed RMAs and recognized the importance of these areas for overall watershed function and the key role they play in the production of salmon. The committee recognized that these areas may also be able to supply <u>young growth</u> timber volume while maintaining overall watershed function with specific management prescriptions. The committee recommends that the Forest Service <u>looks has</u> site <u>specifically atspecific flexibility in RMAs for opportunities</u> to provide young growth <u>timber volume</u>, <u>particularly from RMAs</u> when these lands are in close proximity or adjacent to young growth acres and where treatments can restore or enhance habitat quality. The reason that the committee looked at these areas is to provide more young growth volume in the transition period and reduce OG timber harvest.

#### <u>Goal</u>

- Where appropriate, particularly when lands are in close proximity or adjacent to other young growth acres, implement treatments that benefit habitat and utilize byproducts for commercial use (include strong language on importance of habitat values for salmon in these RMAs) (note adjacent volume might make it work)
- Flexibility with treatments (commercial thin, gaps, group selection) and utilization of wood coming
- Timber is a byproduct in this category not co-product

#### **Notes**

Congressionally mandated 100ft buffer would stay

# **OUTLINE**

**Executive Summary** 

Charter

Vision

Purpose and Need/Intro

# **Action Plan**

- Rationale
- Approach
- Recommendations

**Forest Service Transformation** 

- Implementing the Transition/Transformation
- Monitoring