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STATE OF ALASKA  
OFFICE OF THE GOVERNOR  
JUNEAU

April 27, 2007

Mr. Forrest Cole  
Forest Supervisor  
Tongass National Forest  
Federal Building  
648 Mission Street  
Ketchikan, AK 99901-6591

Re: State of Alaska Comments on the Tongass Land and Resource Management Plan  
Amendment and Draft Environmental Impact Statement

Dear Mr. Cole:

The State of Alaska (State) appreciates the opportunity to work with the USDA Forest Service (USFS) as a Cooperating Agency under the 2006 Memorandum of Understanding to amend the Tongass Land and Resource Management Plan (TLMP). A Management Plan that will minimize legal challenges and stabilize the supply of resources to the economic enterprises of Southeast Alaska is essential to the well-being of the entire region. Our comments describe our goals and principles for the plan amendment and Draft Environmental Impact Statement (DEIS). These comments focus on timber management in the context of wildlife conservation. Overall, we seek to balance protection of fish and wildlife resources, recreation and tourism activities, and development of timber and minerals within the Tongass National Forest (TNF). This letter summarizes our general comments, with more detailed information in the following pages and appendices.

I understand that this plan amendment is primarily in response to timber issues, and our comments are accordingly focused. However, I must emphasize that the State of Alaska acknowledges that the Tongass National Forest has many other uses and benefits to the local residents, the State of Alaska, and the Nation. However we decide to manage the timber resources of the TNF, we must always consider these non-timber uses in our decision making.

**Timber industry.** The State of Alaska supports a sustainable timber industry in Southeast Alaska as part of a diversified regional economy. A sustainable timber industry is one which operates efficiently and supports reinvestment in capital infrastructure. Sufficient timber must be available from federal land to allow the

existing industry to operate efficiently and sustainably. This will require annual timber sales of at least 167.5 million board feet of economically feasible timber (see Appendix A). Historically, the volume of economically feasible timber offered has been significantly different than the gross Allowable Sale Quantity (ASQ) figure. The focus should be on the volume of economically feasible timber offered, not the ASQ. More detailed comments on this topic follow in the section on specific issues (see page one of our detailed comments).

Transitioning to a sustainable industry supported by second-growth timber is a key objective. However, given current timber stand ages, fully transitioning to second-growth harvests will take at least 50 years. Reaching this goal will require considerable investment, and intensive management of second-growth stands. We are committed to working with the USFS, the timber industry, and the full range of interests in Southeast Alaska to develop a strategy for this transition.

In the interim, it is critical that the USFS provide a sufficient, predictable supply of old-growth timber that sustains the existing industry and has the flexibility to incrementally increase timber supply as the industry expands. This will best be achieved by concentrating timber harvest in areas that are intensively managed. This will reduce the area affected by harvesting, improve timber sale economics, and increase the undisturbed area for wildlife, recreation, subsistence, and other uses. Within intensively managed harvest areas, it is appropriate to relax some Standards & Guidelines (S&Gs), in exchange for more stringent S&Gs in other areas.

**Conservation Strategy.** The timber goals must be balanced with a sound, science-based, conservation strategy. Conservation values and economic values are not mutually exclusive – both are needed for a healthy economy and a healthy environment. Regardless of land status, the State is obligated to manage all renewable resources on a sustainable basis, including habitat for fish and wildlife, public access, and wilderness values.

These resources should be managed on the basis of the most recent, credible, scientific studies available, including information compiled by the 2006 Conservation Strategy Review. We request that the USFS complete a synthesis of key findings from the review so that the information can be used to identify and address proposed or anticipated modifications to the S&Gs. To the extent possible, implementation of conservation measures should be flexible enough to enable tailoring them to site-specific conditions and facilitate design of economically feasible timber sales. Measures may vary from area to area to reflect different species concentrations and sensitivities, and to concentrate timber harvesting in intensively managed areas rather than

dispersing harvesting throughout the forest. Intensive timber management which minimizes the areas affected by harvesting will have the least impact on conservation values and the best chance of broad public support.

The system of small, medium, and large old-growth reserves (OGRs), along with beach and riparian buffers, must remain the cornerstone of the wildlife conservation strategy. The system of buffers and reserves provides a safety net for the conservation of viable fish and wildlife populations. Combined with the other protected areas in Southeast Alaska (e.g., wilderness areas) and prudent management of the lands where timber harvest is allowed (matrix lands), the overall strategy provides habitats sufficient for providing sustainable and usable fish and wildlife populations.

**Tongass Futures Roundtable.** We strongly support the efforts of the Tongass Futures Roundtable (TFR) to find common ground among the many entities with deep interest in the Tongass National Forest. The TFR is striving to build consensus on a plan to convert to an industry based on second-growth and to identify areas where more intensive timber management can occur with minimal impacts on fish and wildlife conservation. We are committed to active participation in these efforts. We believe that building consensus offers the best chance to alter the pattern of litigation over Tongass management. The TLMP amendment must retain flexibility to implement consensus recommendations developed by the TFR, without compromising adoption of the amended plan this fall.

## IMPLEMENTATION STRATEGY

The State recommends that the USFS employ a phased strategy to implement the plan quickly, stabilize timber supply, protect fish and wildlife resources, and provide time for the TFR to develop consensus recommendations. Throughout implementation of this strategy, we also support development of other commercial and personal uses of the forest such as recreation, tourism, subsistence, commercial fishing, and mining. The following outline describes this strategy.

**Phase 1 - Short-term** - Support the existing timber industry and continue to apply the existing Conservation Strategy.

- Offer at least 167.5 million board feet of economically feasible timber annually to support the existing timber industry at an efficient level and allow for a facility that can utilize low value timber. Focus harvests on roaded areas. Limit incursions into unroaded areas to the level necessary to provide economically feasible timber during the transition to a second-growth industry. Due to the young age of most existing

stands, timber harvest would continue to be predominantly old-growth in this phase. Monitor timber demand and encourage local, value-added timber uses.

- Maintain the existing Conservation Strategy, including the old-growth reserve system, beach and riparian buffers, and Standards and Guidelines. Monitor the effectiveness of the Strategy.
- Continue TFR efforts to plan for conversion to a timber industry based on second-growth, identify areas for intensive timber management and flexible implementation of S&Gs, and assess opportunities for flexible implementation of the S&Gs that would improve operability for timber harvesting without compromising fish and wildlife conservation.
- Prepare for the conversion to second-growth harvesting by:
  - Developing a coalition to work with Congress to revise the National Forest Management Act (NFMA) requirement for use of Culmination of Mean Annual Increment to determine rotation age. The NFMA should be revised to allow shorter rotations for second-growth;
  - Considering appropriate means to reduce the rotation age for second growth stands through intensive management; and
  - Working with recreation, tourism, timber, and conservation interests to review portions of Modified Landscape and Scenic Viewshed LUDs that are outside areas protected under the Conservation Strategy, for potential inclusion in Timber Production LUDs.

Phase 2 - Mid-term - Expand timber harvest based on industry growth, demand, and demonstrated success of the Conservation Strategy with a goal of developing an integrated timber industry.

- Review results of monitoring on timber demand and conservation effectiveness.
- Update the Conservation Strategy based on consideration of research (including the 2006 Conservation Strategy Review), monitoring results, and TFR recommendations on flexible implementation of S&Gs in intensively managed areas.
- As the timber industry grows and demand increases, increase the volume of economically feasible timber offered for sale.
  - Most harvests would continue to be old-growth due to the young age of most second-growth stands; harvests would include second-growth where suitable stands exist.
  - Concentrate timber harvests in intensive management areas and incorporate TFR recommendations on the location of these areas.

Phase 3 - Long-term - Convert to a timber industry focused on second-growth harvests.

- Offer economically feasible timber sales in second-growth based on demand. Given the distribution of stand ages in the forest, full conversion to a second-growth

harvesting will not be feasible until at least 2057. Intensively manage second-growth to maximize the available timber volume and minimize the area needed to support the timber industry. If intensively managed, we expect second-growth stands to produce a greater volume of timber per acre and provide more flexibility in management.

- Review the Conservation Strategy and modify it as necessary to tailor it to conditions of second-growth harvesting, address slash management, and incorporate restoration activities. The review should include information developed in the Tongass-Wide Young Growth Study (TWYGS) and other research.

Under all three phases,

- Continue restoration management work, including commercial thinning in second-growth, stream habitat restoration, road removal and fish passage improvements.
- Support development of other economic activities that utilize the forest for recreation, tourism, mining, commercial fishing, and subsistence activities at a variety of scales and from commercial to personal in scope.

#### **ANILCA AND FEDERAL LAND MANAGEMENT ISSUES**

The proposed plan amendment is inconsistent with several provisions of the Alaska National Interest Lands Conservation Act (ANILCA) and other federal-state laws and policies. In particular, there are issues with restriction of off-highway vehicle use for subsistence activities, application of required zoning for public recreation and encounter rates to limit public uses on Forest Service lands, and allowance for fish and wildlife management activities and facilities in Wild and Scenic River Corridors, Research Natural Areas, and Experimental Forests. We request that the Final EIS and plan amendment be consistent with ANILCA and other federal-state agreements on these issues.

The State of Alaska supports completion of Alaska Natives Claims Settlement Act (ANCSA) land conveyances for Sealaska Corporation. The lands to be conveyed to Sealaska must be of a nature and character to fulfill the promise of ANCSA. This can only be achieved by the conveyance of lands suitable to meet Alaska Native cultural, traditional, and economic needs.

#### **AGENCY STATUS AND PLAN IMPLEMENTATION**

The State urges the USFS to implement the TLMP amendment in a timely fashion. While the recent legal settlement allows Tongass timber to make it into the "pipeline" and provides short-term relief to the timber industry, final plan approval

Mr. Forrest Cole  
April 27, 2007  
Page 6

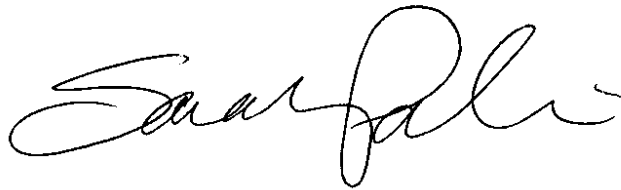
and implementation is critical to the industry and economy of Southeast Alaska. Until the timber supply is stabilized, there is no assurance that the industry can survive.

Under the 2006 MOU between the State and USFS, the State is a cooperating agency for TLMP amendments and revisions through 2013. We are committed to working with you throughout the remaining process. We strongly believe that an interagency effort that includes expertise in timber management, economics, and fish and wildlife science and management has the greatest chance of success.

In addition to the overview of our goals and policies above, specific comments on the DEIS and Proposed Amendment follow.

We look forward to working with you during the completion of the TLMP amendment process and implementation of the plan. I am confident that our collective efforts will result in a viable and widely supported plan amendment.

Sincerely,

A handwritten signature in black ink, appearing to read "Sarah Palin", written in a cursive style.

Sarah Palin  
Governor

Enclosure

cc: The Honorable Ted Stevens, U.S. Senator  
The Honorable Lisa Murkowski, U.S. Senator  
The Honorable Donald E. Young, U.S. Congressman  
Dennis Bschor, USDA Forest Service, Region 10  
John Katz, Office of the Governor  
Larry Hartig, Commissioner, Department of Environmental Conservation  
Tom Irwin, Commissioner, Department of Natural Resources  
Denby Lloyd, Commissioner, Department of Fish and Game  
Emil Notti, Commissioner, Department of Commerce, Community, and  
Economic Development  
Erin Dovichin, Tongass Futures Roundtable

## DETAILED COMMENTS

### Timber Issues

**Timber Sale Thresholds.** In this document, the State refers to three harvest levels that represent different thresholds for the timber industry.

- First, a volume of 83.5 million board feet (MMBF) is the bare minimum needed to keep existing Southeast Alaska mills in operation over the next one to two years while the supply of timber from the Tongass National Forest is increased. With this amount of timber, the existing mills could operate only a single shift daily and could not stay in business long-term.
- Second, 167.5 MMBF are needed to 1) allow the existing mills to operate two shifts daily, and 2) provide 30 MMBF per year for development of a new facility that utilizes low-value timber. This level of volume is necessary for efficient mill operation over the longer term, and for development of an integrated timber industry. This is the level of sales that must be achieved to support a sustainable timber industry in Southeast Alaska.
- Lastly, 231.7 MMBF would be required for the existing mills to operate at full capacity (three shifts daily) while still providing 30 MMBF for a facility to utilize low-value timber.

These volumes refer to the volume of economically feasible timber that is required annually, not the Allowable Sale Quantity (ASQ). See the section on Timber Sales and ASQ on page 8 for a more detailed discussion of this topic.

**Timber volume.** A stable, moderate-sized, integrated timber industry is an important component of a vibrant economy in Southeast Alaska, and is a feasible objective. To make this a reality, TLMP must provide a sufficient, stable supply of timber from the Tongass National Forest. Timber industry survival depends on a sufficient supply of economically feasible timber. This requires that at least 167.5 million board feet be offered annually, and that all timber sales be economically feasible for the purchasers. Economic considerations and expertise in timber harvesting must be included from the very beginning of timber sale design.

**Timber supply and demand.** The new analysis of the demand for Tongass timber prepared by Brackley et al. (2006), and released by the Pacific Northwest Research Station (PNW) is a significant improvement over the demand analysis prepared by Brooks and Haynes (1997), which was used in the 1996 Supplement to the DEIS and the 1997 Record of Decision. Specifically, Brackley et al. (2006) includes results from other analyses since 1996, describing the potential markets for Tongass timber if sufficient supply is made available (*e.g.*, McDowell 1999 and McDowell 2004). We disagree, however, with some of the assumptions that were made in the timber demand study by Brackley et al. (2006), and note that it did not consider several important factors affecting timber sale purchases.

First, the study failed to acknowledge the influence of timber supply on timber demand. Until a few years ago, the Southeast Alaska timber industry was set up to process all of the components of a timber sale, with the possible exception of some of the utility volume. Utility logs are

defined as cull logs with 50% chip volume. Low value and small diameter logs were being processed by Viking Lumber and Pacific Log and Lumber. Both mills also chipped the better quality utility logs for sale to the Pacific Northwest. They were also ready to provide the Ketchikan veneer mill with veneer quality logs. Shake and shingle mills were operating on Prince of Wales Island. The reason this partially integrated industry did not persist was the lack of a sufficient, long term supply of economic timber. Without a reasonable assurance of sufficient supply, the veneer mill could not continue to operate, forcing the existing mills to process this volume. The lack of a consistent supply also affected the existing mills' ability to fill the market requests for their products. The supply of timber was not enough to meet the market demands, and the mills lost part of their market share. At reduced production levels, the mills' costs per unit increased. Current mills are operating at just a third of their capacity or less. At this level of production, they must focus solely on high quality logs. If the existing mills (including the veneer mill) had a sufficient supply of timber to operate at full capacity, we would expect to have an integrated industry. Supply greatly affects the level of demand!

Second, high logging costs that result from poorly designed sales also affect the mills' ability to process all of the volume from the timber sales. Higher logging costs increase the delivered cost of logs to the mills, negating the mills' ability to process low quality and small diameter logs. Reducing the logging costs by providing economic sales would allow the mills to process all the volume from these sales, as they did in the past.

The quality of the timber in the timber sales is the third factor. Areas of non-merchantable timber should be excluded from timber sales. Tongass timber sales contain more and more non-merchantable timber. This strongly affects the economic viability of the sale and forces the purchaser to deal with unusable volume.

Finally, re-establishing an integrated timber industry in Southeast Alaska will require a means to fully utilize lower grades of logs. When the pulp mills ceased operation, there was no longer a market for low grade logs. This contributed substantially to the problem of uneconomic timber offerings in the Tongass. Efforts made by the USFS to address this problem in the short term have included offering some sales with the option of leaving utility volume in the woods, and granting more export permits for low grade hemlock. These measures have not been entirely satisfactory in addressing harvest economics, and the challenge of finding an economically viable means of utilizing the low grade timber remains. The timber industry should be given an opportunity to redevelop itself so that the full range of Tongass timber resources can be utilized and processed efficiently in the mid-term and long-term scenarios. The USFS should continue to support efforts to identify new products and markets for low-grade timber, and ensure that the Plan allows a harvest level that can support new operations that can use low-grade timber.

**Timber Sale Design.** As noted above, the timber sale planning process often fails to adequately incorporate timber sale economics into sale design decisions. Many proposed sales are not economically feasible, which defeats the purpose of the sale and wastes agency resources. Sales must be designed so that they still include sufficient economically feasible timber after meeting the requirements of the Conservation Strategy.

We request that the plan amendment and DEIS recognize that providing economically viable timber is the primary consideration for timber sale design within the sale boundary. Timber sales can be designed within the constraints of the existing Conservation Strategy, but only if economic feasibility is the clear goal throughout the design process. Except for site-specific concerns about endemic species of fish and wildlife<sup>1</sup>, conservation requirements beyond those required by the Conservation Strategy should not be instituted for individual sales during the sale design process. A standard requiring economic timber sale design should be included in the section on Standards and Guidelines.

We also request that the USFS include personnel with experience and expertise in timber economics in all stages of the timber sale design process. The process should include people with a thorough knowledge of timber value, road construction and harvest costs, harvest methods, and access construction in Southeast Alaska. We look forward to working with you to accomplish this through the Economic Timber MOU between the State and the Tongass National Forest.

**Timber sales and ASQ.** Timber offered for sale must be economically feasible to have any value to the timber industry. Several factors result in a significant falldown between the ASQ set for the Tongass and the amount of economically feasible timber that is purchased and processed locally. Factors contributing to falldown include:

- ▶ In the sale design process, standards and guidelines established to protect non-timber values decreases the amount of timber available for harvest in a unit. This increases the cost of road access and the cost of harvesting the timber.
  - ▶ The Interdisciplinary Team (IDT) process used to design timber sales often fails to adequately incorporate timber sale economics into design decisions for individual harvest units and for total sales. Many proposed sales are not economically feasible, and are pulled from offerings prior to sale or are not purchased when offered.
  - ▶ Timber sales that are economically feasible are commonly subject to court challenges that delay or eliminate the sale.
    - ▶ Export is allowed on up to 50% of the timber in USFS sales. This improves the sale economics but decreases the volume that goes to support local mills.

As a result, the current timber supply to support local mills is actually far smaller than the ASQ volume. Based on work prepared for the bridge timber committee of the Tongass Futures Roundtable<sup>2</sup>, 167.5 MMBF per year is required for the existing mills to operate efficiently (i.e., at two shifts per day) and allow for a facility to use low-value wood (see Appendix A). The existing mills need this volume to stay in business. Operating at full three-shift capacity would require 237.1 MMBF (see Appendix A).

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<sup>1</sup> Endemic species are those that are prevalent in or peculiar to particular isolated localities.

<sup>2</sup> It should be noted that the TFR never adopted the bridge timber committee report. This work was done at the committee level and presented at a work session in Juneau on July 12-13, 2006. Some TFR members do not agree with the report's finding concerning mill capacity, which is a controversial subject. The mention of the TFR is not meant to imply an endorsement of this statement, but rather cites the source for where the work was accomplished.

**Timber supply timing.** If the amendment and implementation of TLMP fails to promptly provide sufficient economically feasible timber, the remaining family-owned companies that depend on Tongass timber will go out of business in the next few years. Even if the plan amendment is adopted and implemented quickly, there will be a lag between the current situation and a significant increase in timber sales. The federal timber pipeline is constricted at the top and has a weak outflow that may produce less than 25 MMBF of timber for purchase in the next year. At least 83.5 MMBF is needed to run a single shift at the existing mills – this volume could keep the mills in operation temporarily while timber flow increases, but it is not sufficient to support long-term operations (see Appendix A).

The year 2010-2011 is a crux year for timber supply. The old timber pipeline is not producing sufficient economic volume, a new pipeline under the TLMP amendment will not be flowing, and state bridge timber efforts will be nearing completion. Over the past three years the state stepped up its timber sale program in Southeast Alaska to supply some critically needed volume to the industry. However, this effort can continue for only 1-2 more years before reaching the cap on what the state can offer within its sustained yield capability of 12.8 MMBF per year. Federal timber sale volume for 2009 and 2010 is primarily in roadless areas where timber sales have been subject to litigation from the environmental community. Based on the USFS sale projections for the next five years, there is only enough volume in the pipeline to supply timber for Alternatives 1, 2, and 3, and that is only possible if there are no roadless issues. If appeals and litigation over roadless areas impede the timber sale process, there will only be enough volume for Alternative 1. The roadless issue must be resolved promptly to provide enough volume to keep the mills open even to 2010.

The state requests that the USFS promptly adopt and implement the TLMP amendment, and continue efforts with the TFR to find innovative and collaborative ways to keep timber volume flowing to the mills while a long-term management solution is crafted.

**Second-growth and old-growth.** The State strongly supports efforts to convert the current industry from old-growth timber to second-growth timber. However, it will take at least 50 years to reach the point where sufficient second-growth volume could be available to fully support the local industry. Continued harvest of old-growth timber will be necessary during the conversion period and may need to continue on a limited basis after that to provide sufficient economically feasible timber to meet demand.

Based on USFS studies on second-growth stands, the rotation age for second-growth stands should be at 90 years, not 160 years. Maintaining a 160-year rotation on second-growth stands will produce only enough volume for Alternative 1.

Converting the industry to second-growth manufacturing should result in intensive management and harvest of these second-growth stands. Changing just the rotation age will only provide enough volume for Alternatives 1, 2, and 3. Providing additional volume may require relaxation of current Standards and Guidelines (S&Gs) within second-growth areas. Some of the S&Gs established to protect wildlife in old-growth harvest areas do not reflect second-growth conditions, and may need to be applied differently in those areas. For example, we recommend allowing selective second-growth harvesting in the portion of beach and estuarine buffers that is

more than 500' from the water, as well as within the portion of second growth riparian buffers that is more than 100' from rivers or streams. We anticipate this requiring project level review to define appropriate amounts and layouts for such harvests. Other guidelines that should be reviewed for possible revision in intensively managed second-growth areas include the S&Gs for marten and goshawks.

We recommend that the USFS emphasize pre-commercial thinning in second-growth stands that are available for harvest. The goal of the pre-commercial thinning is to shorten the rotation age from 160 years to 90 years, which will greatly increase the second-growth volume that is available for harvest. Pre-commercial thinning also creates openings in dense second-growth stands which have short-term benefits for wildlife. By contrast, commercial thinning is aimed at producing large, high quality logs. Mills designed to process second-growth are not likely to be able to handle large (>32" DBH) logs.

Conversion to a second-growth industry will be expensive. Existing mills must be replaced with new mills capable of efficiently processing smaller trees, and second-growth stands must be managed more intensively than old-growth stands. A second-growth industry uses mechanized harvesting equipment and manufacturing equipment specifically designed for smaller logs. After businesses convert to the new equipment, their ability to harvest and manufacture large logs will be severely limited. Sufficient second-growth volume must be provided to justify the capital investment. Much of the initial supply of second-growth is on outer islands where handling and transportation of small timber will be costly. Log transfer facilities (LTFs) will have to be secured and roads maintained to facilitate harvesting in second-growth areas. Finally, to be profitable, second-growth mills will have to process a larger volume of timber than existing mills, to offset the increased costs of handling more, smaller pieces of wood to produce a given volume. On the positive side, intensively managed second-growth stands should produce more volume per acre than typical old-growth stands.

**Concentrated vs. dispersed timber harvest areas.** Concentrating timber harvesting may benefit both the timber industry and wildlife conservation, and is an approach suggested previously by the State. Allowing more intensive harvest of timber within certain areas -- especially in areas that are already roaded -- may reduce the need for roads into new areas. Reducing the footprint of logging on the landscape would likely reduce the cost of logging operations and decrease the area affected by new timber harvesting. Human access, ATV use, hunting, trapping, and fishing typically increase along new roads, even if they are closed to vehicular use after logging. Potential benefits could accrue to wildlife if concentrating harvest areas allows conservation of more high-value old-growth. Timber management strategies that minimize road development are generally better for certain wildlife species and should be considered whenever possible. Roads pose one of the greatest risks to fish habitat on the Tongass, and minimizing road development often benefits fish as well.

Existing S&Gs apply throughout the Tongass. S&Gs contribute to the high cost of harvesting timber in the Tongass and reduce the available timber. The plan should strive to identify areas where harvesting would have relatively low impacts on other resources and focus harvesting on these areas. Within these areas, timber should be managed intensively to improve economic feasibility and timber volume output. The goal for these areas would be continued second-

growth production and harvest rather than a return to old-growth conditions. Concentrating harvest areas to reduce impacts may require conscious tradeoffs in the application of S&Gs between intensively harvested areas and other more sensitive lands. In intensively managed areas, S&Gs might be loosened in exchange for applying more stringent requirements in other areas.

This approach assumes that more impacts occur to wildlife if logging activity is dispersed. This assumption should be tested through studies to confirm whether it is correct and assess the benefits and impacts of concentrating harvests in intensively managed areas.

## **Fish and Wildlife Issues**

**Best available data.** Use the best available information for evaluating impacts to fish and wildlife and establishing the Conservation Strategy. At a minimum, the amendment should include a synthesis of key findings from the 2006 Conservation Strategy Review workshop, incorporate the findings into the Final EIS where possible, and identify when and how other study results will be addressed subsequent to adoption of the amendment. Appendix C of our comments includes a summary of new information from the workshop that is relevant to the Conservation Strategy. This includes information presented by State staff on specific species (e.g., goshawks, forest birds, wolves, deer, marbled murrelets, and brown bears). Appendix D of our comments includes a list of associated references and cited literature.

**Sustainability.** The Plan protects habitats capable of providing for viable, well-distributed populations of fish, wildlife, and other resources, but also recognizes a need to provide for a variety of uses, including subsistence harvests, big-game guiding, fishing charters, and wildlife viewing programs. The standard for fish and wildlife population levels should be based on sustainability rather than viability. A sustainable population provides for both human use and biological survival; viability only guarantees survival in the absence of human use. A standard of sustainability is consistent with the State of Alaska's constitution.

## **Conservation Strategy**

Old-growth reserves. The system of small, medium, and large old-growth reserves (OGRs) is, and must remain, the cornerstone of the wildlife conservation strategy. The reserve system provides a safety net for the conservation of habitat for minimum viable populations. It was not designed to ensure habitats necessary to provide for the sustained yield use of key fish and wildlife populations in the locations where the public has a history of subsistence or recreational harvest. For the reserve system to ensure sustainable populations of wildlife, it must include plant communities whose structure and composition are representative of the forest types. Reserves should be established in proportion to their occurrence and abundance across the Forest before widespread logging. The reserves also need connectivity to allow for animal movements. Finally, they must be well-distributed across biogeographic provinces and larger islands, as well as across the range of elevations and aspects. Failure to adhere to these design principles will jeopardize sustained yield and increase risks of extirpation for some wildlife species on the forest. Insights on this are offered by Cushman et al. (2006; see Appendix D).

Some of the timber management options under consideration in this plan revision would require modifications or reductions to the existing OGR system. While the state recommends assessing possible flexibilities within the Conservation Strategy, any relaxation of existing requirements must not unduly compromise the conservation of fish and wildlife habitats. Changes that reduce the OGR system will increase the risks associated with maintaining viable populations of some wildlife species and eventually could lead to consideration of listing species, subspecies, stocks, or endemic populations under the Endangered Species Act. Recent wildlife surveys have shown significant levels of mammalian endemism on some islands within the forest. In these isolated areas, current reserves may not be adequate to maintain an acceptable level of risk for population viability. We encourage the USFS to work with other agencies to assess such risks and consider alternative conservation measures.

Small OGRs: Specifications and design requirements for establishing small OGRs were included in the 1997 TLMP; however, many small OGRs were never finalized, some were subsequently relocated, and several have been blamed for creating issues for timber sale reviews and analyses. As a result, the USFS, Fish and Wildlife Service (USFWS) and ADF&G reviewed all small OGRs to resolve remaining issues of size and location, and map the final small OGRs in the TLMP amendment. We supported this goal and contributed significant amounts of staff time and expertise to the process. USFS district staff reviewed the recommendations from the interagency group, and with few exceptions agreement was reached on their final configuration and placement. The Forest Supervisor subsequently reviewed all the small OGR decisions and changed roughly 40% of the agreed upon locations. The interagency group reconvened to assess and comment on these changes.

At the time of this review, the group expressed discomfort with some of the placements and agreed to place the reviewed small OGRs into one of three categories: (1) those that were considered biologically preferred (IOGR), (2) those that were not considered biologically preferred, but could be accepted (FPOGR), and (3) those that were not considered to be acceptable and should be further evaluated as part of project level reviews (PROGR).<sup>3</sup> The group also identified 13 small OGRs that raised especially high levels of concern for wildlife. These were later reviewed cooperatively by the group and Forest Supervisor, and resulted in 4 being classified as IOGR, 6 as FPOGR, and 3 as PROGR. Overall, of the 238 small OGRs identified on the Tongass, it is our understanding that 133 (56%) are now classified as IOGRs, 58 (24%) are classified as FPOGRs, and 47 (20%) are classified as PROGRs. We encourage the USFS to review future PROGRs with an eye to timber operability and economics as well as fish and wildlife conservation. Overall, we conclude that the newly proposed sizes and locations for the small OGRs are better than they were previously.

Since the adoption of the 1997 Forest Plan, small OGRs have been examined and adjusted during project level reviews. In most cases, the result has been growth in the gross acreages included in OGRs and a reduction in available timber. Appendix B shows the resulting reduction in suitable and available acres by project over the past 10 years. Of particular concern is that project-level reviews removed more than 5,100 acres of Productive Old Growth (POG) from the suitable land base during 1998 – 2005 (USDA, unpublished 2005 monitoring report found at [http://www.fs.fed.us/r10/tongass/projects/tlmp/2005\\_monitoring\\_report/#1](http://www.fs.fed.us/r10/tongass/projects/tlmp/2005_monitoring_report/#1)).

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<sup>3</sup> IOGR = Interagency OGR; FPOGR = Forest Plan OGR; PROGR = Project Review.

This steady erosion of the timber base presents a significant obstacle to maintaining a viable timber industry in Southeast Alaska. Therefore, we appreciate the joint effort under way to map final locations of small OGRs across the Tongass. We urge that this cooperation continue beyond the current planning effort and further urge that transfer of POG from the suitable land base into small OGRs be kept to the minimum necessary to achieve the stated wildlife goals and to satisfy the criteria in Appendix K of TLMP.

Medium OGRs: The interagency OGR group only reviewed small OGRs. The USFS has modified some medium OGRs, and some of the existing medium OGRs do not meet the minimum requirements specified in Appendix K of TLMP. We do not know how these changes and conditions will affect the Conservation Strategy, and we urge the USFS to undertake an interagency assessment of medium OGRs. This process should include state and federal expertise on both wildlife conservation and timber management. We further urge the USFS to do this as soon as possible in order to avoid limiting or eliminating suitable options to meet requirements for the size, placement, and composition of medium OGRs.

Beach and Riparian Buffers. In 1997, forested beach buffers were extended from 500 to 1,000 feet. This extension reflected the value of this habitat to a host of wildlife species, including river otters, mink, bears, wolves, Sitka black-tailed deer, bald eagles, goshawks, and others. Beach buffers are a key component of the Conservation Strategy and must be retained. At the same time, we recognize the utility of allowing some selective timber harvesting of second-growth within beach buffers, to the extent that it accelerates a return to characteristics of the old-growth condition and is a benefit to wildlife. For this reason, we recommend allowing selective harvesting of second-growth timber in the portion of beach and estuarine buffers that is more than 500' from the water, and within the portion of riparian buffers that is more than 100' from rivers and streams. We do not support the use of beach buffer or riparian buffer areas for old-growth harvesting.

Forested buffers along all Class I and II streams are critical elements of the Conservation Strategy. Class I and II streams provide valuable spawning and rearing habitat for species of Pacific salmon, trout, and char, and forested riparian buffers along Class I, II, and III streams provide protection from erosion, sedimentation, and temperature increases.

Class III streams are also a component of the Conservation Strategy and are important sources of water, energy, nutrients and organic matter for downstream reaches. Land uses along headwater streams influence this linkage with downstream areas (Wipfli 2005). At the same time, we appreciate that implementation of Class III stream buffers can reduce the timber base and create difficulties for timber economics. This issue is further complicated by mis-classification of some Class III streams. Field verifications of Class III streams often occur during the drier summer months, when fish typically are not present. As a result, some streams classified as Class III may actually provide fish habitat and have fish present at some time during the year and should be reclassified as Class I or II streams. In other cases, some streams classified as Class III streams may be more accurately classified as Class IV.

We recommend that the USFS in consultation with the State, develop objective criteria and protocols to use for stream classifications, and train USFS staff in application of the classification criteria. We also urge the USFS to use existing flexibility in the Class III guidelines to protect water quality and downstream fish habitat in a manner that is practical for timber harvesting. Lastly, we would like to discuss with the USFS, industry, and other agencies and groups flexibilities within the existing Class III S&Gs, and would be willing to discuss possible alternatives to existing stream buffer requirements for Class III streams, provided that they assure conservation of habitats for fish and wildlife.

Riparian buffers are important to wildlife, including river otters, which are known to use cavities adjacent to inland streams as natal dens (Woolington 1984), and to brown bears, which strongly select for these areas during the salmon spawning season (Schoen and Beier 1990, Titus et al. 1999, Flynn et al. 2007). They also provide critical connectivity between old-growth reserves and are important for maintaining the ecological function of small OGRs.

Marten & Goshawk / Legacy Forest Structure Standard and Guideline. Under the amended plan, a new “Legacy Forest Structure” (legacy) S&G is proposed as a substitute for the existing “Marten and Goshawk” S&G. We understand this change is being proposed because: (1) the existing S&G is not particularly effective for conservation of marten and goshawks, and (2) the marten and goshawk S&G creates significant difficulties from a timber harvesting standpoint (feasibility, safety, and cost).

The proposed legacy S&G would apply when the harvest levels in various planning units exceed set thresholds, much as it does under the existing marten and goshawk S&G. However, unlike the requirement for trees to be individually dispersed or clumped under the marten and goshawk S&G, the legacy S&G could result in trees being retained primarily along the back edges of cutting units. Following are our observations and uncertainties associated with replacing the existing marten and goshawk S&G with the proposed legacy S&G. These are follow-ups to two letters sent by ADF&G to the USFS on this subject during September, 2006.

1. To the best of our knowledge, there is no supporting science for adopting the legacy S&G. At the same time, it is our understanding that the proposed legacy S&G does not significantly benefit the timber industry. To better understand this, we encourage the USFS to include in the FEIS a scientific assessment for the proposed legacy alternative. Without that assessment, we have no information with which to assess any benefits of the S&G to marten or other wildlife populations. At the same time, because the legacy S&G provides less habitat value for martens, it cannot be considered a replacement that would maintain the same level of risk. We also encourage the USFS to include a quantitative analysis of how the marten and goshawk S&G has been applied, and the extent to which the existing S&G has impacted timber harvesting activities. Included in the analysis should be the number of units that have been harvested in a manner that results in retention of "individual trees" versus retention of “clumps” of trees; the average size of retained trees; the amount of retained timber that has been suitable and merchantable versus non-developable or non-merchantable; and how the implementation of the S&G has affected the design of safe and economically feasible timber sales. Also, we would appreciate clarification of the proposed legacy S&G relative to the amount of timber harvesting that would be allowed. As presented, it appears that there is no

upper limit to the amount of harvesting that could occur within areas where this S&G would be applied. It seems to us that leaving 1/3 of the old-growth with each successive entry could result, in the extreme, in having only 3 trees left in a given area and still being able to harvest 2 of them. There should be a lower threshold for remaining old-growth within areas below which no more timber harvesting is allowed.

2. It is our understanding that the current marten and goshawk S&G includes flexibility to locate retention trees in ways that facilitate safe and economically feasible timber sales. For example, retention trees may be clumped to avoid conflicts with logical cable settings. We would appreciate affirmation or correction of this understanding. Additionally, we encourage the USFS to ensure that training and policy direction for unit lay-outs are clear and well understood so that available flexibilities can be used to better provide economically feasible timber sales.
3. The possibility of intensifying timber harvesting in some areas while avoiding or minimizing harvesting in other areas may require some level of flexibility within existing or newly-developed S&Gs. These flexibilities should be explored as a way to better provide economically feasible timber harvesting while also providing conservation of fish and wildlife habitats. We suggest that an interagency assessment of the implications of such action on marten, goshawk, and other wildlife be undertaken as part of this effort. This cooperative assessment should also include an effort to identify areas where concentrated timber harvesting may occur.
4. Regardless of what S&Gs are ultimately adopted, there should be an assurance that trees retained for wildlife should not be logged commercially or for personal use over the life of the rotation. With each new forest plan revision, the need for and amount of wildlife habitat retention should be re-evaluated. Moreover, efforts should be made to locate old-growth retention in places where it is not susceptible to catastrophic blow-down. Where feasible, in instances where blowdown, landslides, or disease kills >75% of retention trees, we suggest harvesting the downed trees and designating an equivalent amount of old-growth for retention elsewhere in

**Endemic Species.**<sup>4</sup> A considerable amount of new information about island endemic animal species, including new wildlife taxa and distribution information, was presented during the April 2006 CSR Workshop. This information has significant management implications for maintaining sustainable populations of wildlife and should be summarized and included in the TLMP amendment. The plan should include considerations for adjusting timber harvest on islands as more information becomes available about the habitat associations and population status of endemic species.

**Fish passage.** The DEIS states that the culvert replacement program declined in 2006 due to funding reductions and is projected to continue to decline in future years (DEIS, page 3 –55). This is a concern to us and we suggest that the culvert replacement program be given a higher priority to increase the possibility of funding. Culvert replacement and maintenance will only

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<sup>4</sup> Endemic species are those that are prevalent in or peculiar to particular isolated localities.

become a greater issue in the future as more culverts are put in place and existing culverts continue to age and deteriorate, thereby further restricting fish passage.

**Fish and Wildlife Management in Research Natural Areas and Experimental Forests.** We request that the final plan amendment clarify that Research Natural Areas and Experimental Forests will not preclude the State's management responsibilities for fish and wildlife, including use of various facilities, such as weirs or radio towers, necessary for state wildlife or fisheries management purposes. ADF&G is the primary manager of fish and resident wildlife in Alaska, regardless of land ownership. Approval from the Director of the Pacific Northwest Research Station should not be required to conduct routine management responsibilities in these areas. The USFS has recognized the State's authorities regarding fish and wildlife through the USFS-ADF&G Master Memorandum of Understanding (MOU), which was re-signed in 2004. In addition, a national-level MOU between the Association of Fish and Wildlife Agencies and the Forest Service/Bureau of Land Management spells out respective responsibilities for fish and wildlife management in designated Wilderness

**Fish management in Wild, Scenic, and Recreational Rivers.** In Alaska, USFS management of potential wild, scenic, and recreational river corridors applies only to uplands. Restrictions on public use are subject to the Alaska National Interest Lands Conservation Act (ANILCA), including Section 1110(a). However, the proposed management prescriptions for scenic and recreational rivers contain language that appears to restrict activities below the ordinary high water mark. For example, we question language in the management prescriptions discouraging weirs from potential scenic and recreational rivers. Most weirs do not impede stream flow or river traffic and are temporary structures that are removed at the end of the project or season. Nothing in ANILCA or the National Wild and Scenic Rivers Act prevents use of temporary structures in designated or potential wild and scenic river corridors. For potential wild and scenic rivers in designated Wilderness, Section 1315(b) of ANILCA allows for improvements and facilities such as fish weirs and other structures to restore or maintain fish production on national forests.

In November 1982, the Alaska Land Use Council approved "A Synopsis for Guiding Management of Wild, Scenic, and Recreational Rivers in Alaska" (Appendix 1). The Department of Agriculture, along with the State of Alaska and the Department of the Interior approved the guidelines. We suggest reviewing these guidelines and revising the "Management Prescriptions for Wild, Scenic, and Recreational Rivers" section, as appropriate, to ensure management prescriptions are consistent with these approved guidelines.

**Off-highway Vehicle Access for Subsistence.** The proposed plan amendment is not consistent with ANILCA provisions for off-highway vehicle (OHV) access. Under the plan, trails and routes for off-highway vehicle use will be "closed unless opened" through a District access and transportation plan. Additionally, in some land use areas, OHV trails may only be designated where documented local traditional use has occurred and the route is compatible with the land use designation objectives.

ANILCA provisions require that subsistence and other ANILCA protected access "shall" be allowed, subject to "reasonable regulation." This "open until closed" approach is a cornerstone

of ANILCA and the USFS cannot supersede this legislative intent by a national policy document. The Department of the Interior adopted regulations at 43 CFR Part 36 that outline a specific closure process that includes public notice and hearings. The State of Alaska advocates that the USFS adopt parallel regulations for ANILCA-protected access and address the discrepancies between the national policy and ANILCA. We remain available to assist the USFS in this effort.

Section 811 of ANILCA ensures that rural residents engaged in subsistence uses “shall” have reasonable access to subsistence resources on all federal public lands in Alaska by use of snowmobiles, motorboats, and other means of surface transportation traditionally employed for subsistence purposes. Such access includes off-highway vehicles where such methods were used generally in the area prior to ANILCA.

We urge the USFS to work with the State of Alaska and affected subsistence users in all districts on the Tongass National Forest to identify trails, routes, and areas where subsistence off-highway vehicle access occurs to ensure subsistence access is not inappropriately closed. Any closure or restriction of OHV use for subsistence purposes must use a regulatory process as addressed in Section 811(b). Please note that our comments should not be construed as categorical opposition to all OHV closures. We know there are several compelling reasons to seek OHV closures, such as public safety or to protect resources. This does not absolve the USFS from adhering to the required processes under ANILCA.

**Status of Appendices.** Our understanding is that sections of the 1997 TLMP that are not specifically revised by this amendment remain in effect, including Appendix K (Old-growth Habitat Reserve Criteria) and Appendix N (Additional Evaluation of Wildlife Habitat Conservation Measures). These appendices contain procedures that are integral to implementation of the Conservation Strategy. We request that they be retained in the FEIS and plan amendment except where explicitly changed during the amendment process. Please clarify the status of these appendices.

Information needs for the Conservation Strategy were addressed in Appendix B of the 1997 TLMP. The limitation of this appendix is that it was created as a static list of studies that were priorities at the time the Plan was developed. Funding for research and monitoring is limited and we need a dynamic, well-defined process to identify and prioritize information needs, and compare results against original hypotheses. ADF&G is working with the USFS and USFWS to develop such a process. When complete, this process should be included in Appendix B of the Plan amendment and FEIS. The new process will be more practical and achievable than the past focus on just Management Indicator Species (MIS), although future monitoring will continue to address at least some of the existing MIS. With new DNA (Taberlet and Luikart 1999; Mills et al. 2000; Lukacs and Burnham 2005) and modeling (MacKenzie et al. 2006) techniques and capabilities, wildlife monitoring can now more efficiently and cost-effectively provide useful information about population sizes and trends. We recommend these alternative approaches to monitoring be incorporated into future interagency discussions and funding allocations.

## Scenery and recreation guidelines

**Scenic Designations.** Restrictions on harvest (such as requiring helicopter yarding, tree selection harvests and other partial cutting prescriptions) in the Scenic Viewshed and Modified Landscape LUDs greatly reduce the volume of economic timber that can be produced from areas so designated. In fact, it is often questionable whether a timber sale in these LUDs will be capable of meeting a reasonable economic test. Therefore, the State is concerned about how much economic timber these areas can actually contribute to a sustainable timber industry. The State therefore urges the USFS to immediately convene a joint federal-state process to identify areas that can be re-designated from Scenic Viewshed and Modified Landscape to Timber Production. This process should incorporate information from affected parties, such as the cruise industry and other recreation businesses. The State's expectation would be that underlying requirements of the Conservation Strategy, that restrict or prevent timber harvesting (such as OGRs) would remain intact in these areas.

**Karst and Cave resources.** The proposed plan allows "limited recreation development" on sites that have been identified as "highly-vulnerable karst lands." Recreation development should not be allowed on highly-vulnerable karst land.

Funds for pre-commercial thinning are limited. The USFS should prioritize thinning on second-growth areas that will be available for future harvesting and can benefit wildlife, rather than on karst areas where timber harvest is not allowed.

**Recreation and Tourism.** The most significant growth in tourism and recreation activities within the Tongass National Forest over the past decade has been in the volume of cruise passengers. Shore-side tours and recreation activities have grown in abundance and focus in several communities, most notably Hoonah. Commercial sport fishing ventures continue to be a substantial part of the local economy in many Southeast Alaska communities.

None of the proposed alternatives is likely to have a significant impact on tourism and recreation activities over the life of the Plan. The niche market for eco-tourism is likely to remain unaffected, since Wilderness and LUD II designations remain unchanged and the Plan, in all its alternatives, would continue to set aside vast acreages for remote and semi-remote recreation.

Only road-based recreation opportunities are constrained by the proposed amendment of the Forest Plan in any of its iterations. These opportunities could be expanded under Alternatives 4, 5, 6, and 7. Contrarily, Alternatives 1, 2 and 3 would likely not provide for significantly expanded road-based recreation opportunities.

**Recreation Opportunity Spectrum and Encounter Rates.** It is unclear whether encounter rates set out under the proposed forest plan are a hard-line indicator of public use, where management action would be taken to reduce use if rates are exceeded, or if they are meant as guidelines for visitor expectations within a given land designation. We encourage the USFS to use encounters as guidelines for public expectations and not as firm indicators for measuring the satisfaction of recreation experiences.

Land management agencies often use encounter rates to measure solitude and visitor satisfaction. However, in many cases, solitude is not an important factor in determining satisfaction. Instead, surveyed users often cite other factors such as the weather or mosquitoes as more important factors in visitor studies. In addition, blanket encounter rates often do not take into account variability of terrain and vegetation. In areas of dense undergrowth, an encounter rate of three groups per day may cause a greater negative reaction from some users than in open terrain areas.

## **Economic diversity**

**Mining.** Some alternatives would have a direct negative effect on future mineral development opportunities within Southeast Alaska. We note the following specifics gleaned from the DEIS pages 3-269 – 280.

1. Fifty-two areas totaling 589,000 acres within the Tongass contain identified mineral resources. Of these, 25% are in areas withdrawn from entry. Under the current Plan, 29% of the open areas are in Land Use Designations (LUDs) that result in higher cost of entry if these resources were to be developed. Under Alternatives 1-3 this percentage increases, with Alternative 1 being the highest at 41%; under Alternative 6 it would remain the same; and under Alternatives 4 and 7 it would decrease to 23% and 22%, respectively.

2. Of the identified mineral tracts, 377,000 acres are considered Rank 1, having a “high potential” for being developed. Fifteen percent of the area in Rank 1 tracts is withdrawn from entry. Of the acres open to mineral entry, the current Plan places 30% in LUDs that result in higher cost of entry. Under Alternatives 1-3 and 6, this percentage would increase. Under Alternative 4, it would decrease to 24%, and under Alternative 7 it would decrease to 22%.

3. There are 6.6 million acres of potential, but undiscovered mineral resources within the Tongass. Of these, 989,000 acres are estimated to have a high or moderate likelihood of yielding a mineral resource that could be developed. Thirty-eight percent of this acreage is withdrawn from entry. Of the lands that are open to entry, the current Plan allocates 39% to LUDs that result in higher cost of entry. Only Alternatives 4 and 7 would reduce the percentage significantly (to 28% and 26%, respectively), while Alternative 6 would reduce it slightly (to 38%). Under Alternative 3 it would remain unchanged from the current Plan, under Alternative 1 it would increase to 51%, and under Alternative 2 it would increase to 46%.

Some of these changes are likely to prove to be a disincentive for companies considering new mineral exploration and development investments in Alaska and are therefore of concern to the State of Alaska. Mineral exploration, development, and production can be a critical component of a vibrant economy in Southeast Alaska, as it is in other parts of the State. Mineral activity can also be done in an environmentally sound manner, as is the case at Greens Creek and in other parts of the State. The TLMP should encourage responsible mineral investment in Southeast, and the final alternative should minimize the amount of land with a higher cost of entry.

**Community impacts.** The DEIS section in Chapter 3 that covers effects on each community fails to mention the Icy Straits Lumber Company sawmill and its role in the economy of Hoonah (pp. 3-520 to 3-524). Please add this to the FEIS.

## **Impacts to state land**

The State believes that the impacts to State lands under all of the alternatives have been adequately addressed in the DEIS. In addition, the State believes that the potential cumulative impacts to State lands have been adequately identified and discussed in the draft DEIS.

## **Sealaska Entitlement**

The DEIS, particularly in Appendix C but reflected in several other sections, misrepresents Sealaska's ANCSA land entitlement and out of withdrawal selection proposal by exaggerating potential negative effects of the proposal and largely ignoring the benefits. The State believes that fulfilling the entitlement will yield overall net benefits for the Southeast economy, environment, and culture, and the potential adverse effects are not significant.

The State believes that Appendix C should recognize that completing conveyances of land to Sealaska in a sustainable configuration is an entitlement under ANCSA and a priority for stabilizing Tongass National Forest management as well as the broader Southeast Alaska economy. The Appendix should not treat Sealaska's land entitlement and adjustment proposal as a negative encumbrance on the USFS or the public interest.

## **APPENDICES**

Appendix A - Industry needs for bridge timber

Appendix B - Changes in the Tongass National Forest Suitable Land Base through Project-level Changes since 1997

Appendix C - Species-specific comments on wildlife

Appendix D -- Citations

## Appendix A -- Industry Needs for Bridge Timber

This table was prepared by the Bridge Timber Committee of the Tongass Futures Roundtable. The TFR never adopted the Bridge Timber Committee report. This work was done at the committee level and presented at a work session in Juneau on July 12-13, 2006. Some Roundtable members do not agree with the report's finding concerning mill capacity, which is a controversial subject. The mention of the TFR is not meant to imply an endorsement of this statement, but rather cites the source that accomplished the work.

	Total Volume Needs (MMBF) for bridge timber at 66% of mill capacity 1/	Total Volume Needs (MMBF) for bridge timber at full mill capacity 1/	Survival Volume Needs 3/ (MMBF)
<b>Sawmills</b>			
Viking Lumber Company	53.0	80.0	25.0
Pacific Log and Lumber	22.0	33.6	22.0
Silver Bay Logging Company	43.0	65.0	25.0
Icy Strait Lumber Company	13.0	20.0	5.0
Small Sales	5.0	7.0	5.0
Micro Sales	1.5	1.5	1.5
<b>Veneer Mill</b>			
Ketchikan Veneer Mill 2/	30.0	30.0	25.0
Total	167.5	237.1	108.5

1/ Mill capacity needs from Juneau Economic Development Council (Dan Parrent).  
See chart on following page.

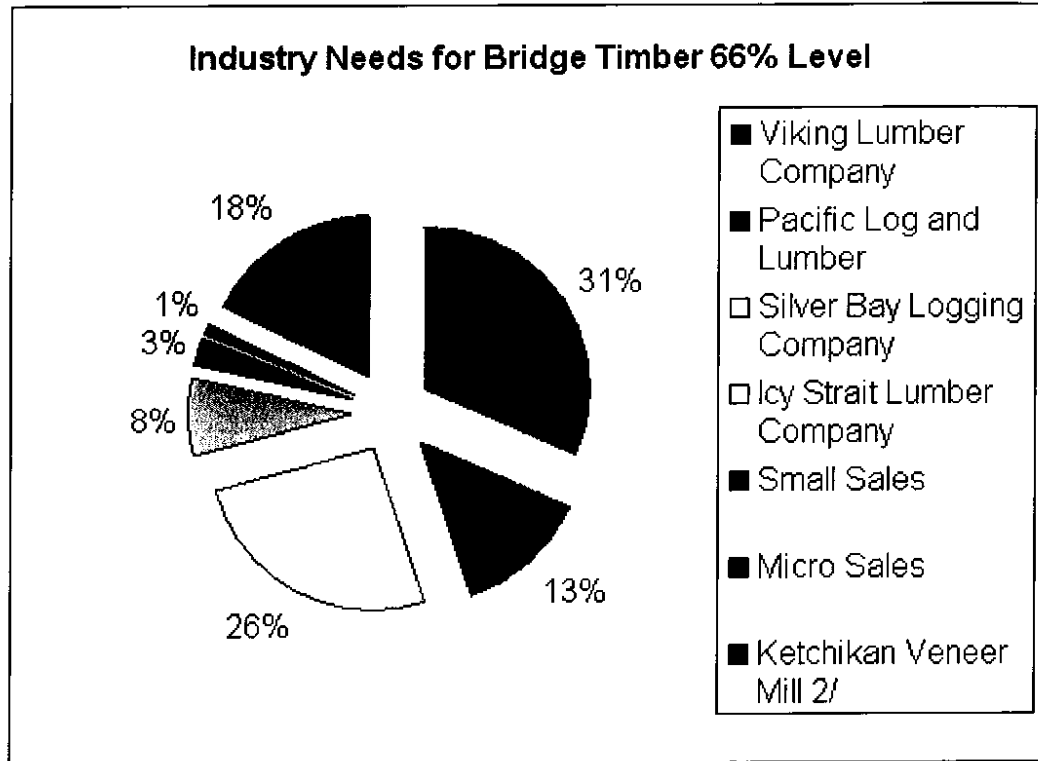
2/ Estimate of need. Gateway Forest Products did not operate sufficiently to establish capacity.

3/ Mill survival capacity needs from phone conversations with mill owners 8/06 (C. Maisch)

Existing mills in operation can operate on a yearly flow of volume noted. Mills like Silver Bay (currently being considered for sale with no USFS timber under contract) and the Ketchikan Veneer Mill will need to acquire volume under contract prior to start-up operations. This volume is critical in order to obtain operating capital from lending institutions. Without volume under contract, mills will not be sold and can be expected to be dismantled to recoup some of current mill owner investment.

8/06 Notes: Volume for mills must be economical volume and is not considered the most efficient operating level by mill owners. For example, Viking Lumber would operate at a two shift level if volume was available and the veneer mill would run two shifts. Veneer mill would add a second shift approximately 3 months after resuming operations. The most efficient operating level for all mills is a 2 shift or higher basis.

**Appendix A, cont.**



**Appendix B -- Changes in the Tongass Suitable Land Base through Project-Level Modifications of Old Growth Reserves since 1997<sup>5,6</sup>**

<b>Project Name</b>	<b>Non-developable area changed to suitable (acres)</b>	<b>Suitable area changed to non-developable (acres)</b>	<b>Net change in suitable area (acres, decreases in &lt;brackets&gt;)</b>
Crystal Creek EIS 1998	481	1,152	<671>
Todahl Backline EA 1998	2	363	<361>
Nemo Loop EA 1998	177	932	<755>
Control Lake EIS 1998	446	142	304
Chasina EIS 1998	0	78	<78>
Canal Hoya EIS 1998	0	151	<151>
Sea Level EIS 1999	185	500	<315>
Kuakan EIS 2000	416	542	<126>
Doughnut EIS 2000	0	19	<19>
Luck Lake EIS 2000	257	794	<537>
Salty EA 2000	99	126	<27>
Polk Small Sales EA 2000	0	153	<153>
Fire Cove Salvage EA 2002	186	633	<447>
Woodpecker EIS 2003	180	130	50
Cholmondeley EIS 2003	894	6,873	<5,979>
Finger Mountain EIS 2003	0	593	<593>
Madan EIS 2003	377	1,501	<1,124>
Threemile EIS 2004	458	826	<368>
Kensington Gold EIS 2004	0	1,615	<1,615>
Couverden EIS 2005	0	790	<790>
Scott Peak EIS 2006	1,089	1,962	<873>
Overlook EA 2006	354	578	<224>
Tuxekan EIS 2006	431	1,614	<1,183>
Scratchings EIS 2007	460	1,519	<1,059>
<b>Totals</b>	<b>6,492</b>	<b>23,586</b>	<b>&lt;17,094&gt;</b>

<sup>5</sup> Prepared by Dept. of Commerce, Community, and Economic Development based on information provided by the USFS, including published accounts in project-level decision documents.

<sup>6</sup> The Cholmondeley project modified both a small and a medium OGR. All other changes affected small OGRs only.

## Appendix C – Species-Specific Comments on Wildlife

### Queen Charlotte Goshawk

Environment & Effect: We suggest that the USFS revise some of the background information, as portions of the species summary are inaccurate (DEIS, page 3-161). As currently portrayed in the proposed Plan, the understanding of the relationship between goshawk habitat and forest management is less now than when the 1997 plan was developed. However, the opposite is true. Both in Southeast Alaska and across their range, knowledge of goshawks and forest management has increased. The use of available literature in the DEIS, both unpublished and in journals, is poor or missing. None of the annual or final Southeast Alaska specific reports produced by ADF&G are referenced (e.g., Flatten et al. 2001) and none of the diet studies published by Lewis and colleagues (2006) are referenced. It is also unfortunate that none of the numerous and relevant goshawk studies published over the past decade were used in the plan amendment, particularly those from the Pacific Northwest.

Examples of mis-portrayed information include statements such as: “The northern goshawk inhabits forested lands throughout North America . . .” This statement is not accurate as many eastern forested lands do not have goshawks. In the next sentence, the background information notes that the Queen Charlotte goshawk is a distinct subspecies and cites Iverson et al. (1996) as the reference. Rather than citing Iverson et al. (1996), the document should list the primary references where the subspecies is described or its taxonomy is accepted (e.g., Taverner 1940, AOU 1957, Whaley and White 1994).

The USFS should consider the habitat associations of key goshawk prey as a tool for sustaining goshawks (Reynolds et al. 1992, Reynolds et al. 2006). The first step in this process should be to use diet data from Lewis et al. (2006) and determine the habitat associations of key prey (for examples, see Reynolds et al. 1992, and Drennan 2006).

While some available information suggests that important goshawk prey species (e.g., grouse, red squirrels) can be negatively impacted by even-aged silvicultural practices (Doerr et al. 1984, Carey 1995, Russell 1999), there is a lack of information on how these practices specifically affect sooty (formerly known as blue) and spruce grouse, red squirrels, medium to large forest passerines (e.g., varied thrushes, Steller’s jays), and woodpeckers. We recommend that studies of these prey species in Southeast Alaska focus on how alteration of forest structure and landscape patterns specifically affect their abundance and availability to goshawks. For goshawks, management should focus on their habitat needs and accompanying prey base for long-term viability and sustainability on the Tongass.

The paragraph starting on page 3-161 and ending on page 3-162 of the DEIS implies that findings from the analysis of goshawk telemetry data in Southeast Alaska produced similar results to those observed in the southwestern United States (Boyce et al. 2006, Reynolds et al. 2006). It is specifically stated that when mature forest habitats are not available, goshawks will nest in younger forests or in smaller patches of trees and forage in young forests as well as along edges and in openings (Boyce et al. 2006, Reynolds et al. 2006). However, this has not been observed with great frequency in Southeast Alaska. A few nests have been found in older

second-growth (~80-100 year old stands) and use of this type of habitat is known to have occurred in other areas (Squires and Kennedy 2006). Telemetry data from radio-tagged birds has been analyzed a number of times and consistently suggests strong selection for old-growth forest habitat. Past interagency attempts to evaluate habitat selection relative to edge have resulted in no detectable patterns, noting that the Tongass GIS layers are probably not well suited for such an analysis for goshawks.

Based on research conducted on the Tongass and multiple peer reviews related to the 1997 forest plan, we believe that conversion of mature forests to even-aged second-growth will negatively affect goshawks. Not only do dense second-growth habitats keep goshawks from entering them to hunt (affecting availability of prey to goshawks), but they likely affect the abundance of goshawk prey as well. For example, there is no information about goshawk numbers on Prince of Wales Island prior to the large-scale logging that took place in the last half of the 20<sup>th</sup> century; however, very few goshawks are now found on that island and nest failure has been documented there. This is likely due to an inability of goshawk pairs to capture and deliver sufficient food to their young (Lewis et al. 2006).

The USFWS is soon to rule on the remand of their decision not to list the Queen Charlotte Goshawk, and will be issuing a new 12-month finding. The goshawk is also listed as a threatened species in British Columbia. Given these conditions, the USFS should consider retaining all conservation guidelines for goshawks in the final TLMP amendment. The initial decision to not list the Queen Charlotte Goshawk was based on the conservation measures included for goshawks in the existing TLMP. ADF&G has consistently noted over the past decade that the science does not support listing the goshawk in Southeast Alaska. If the conservation measures are changed, it leaves open the possibility that any decision by the USFWS could again be remanded. Reference could be made to the results of the genetic study of goshawk relatedness in the west-coastal region of North America (Talbot 2006).

Standards and Guidelines: Most of our comments below suffer from not having a draft appendix to evaluate the context of the proposed S&G changes. We request that the USFS complete such a science-based management document for the proposed goshawk changes. All proposed S&G changes for goshawks have been discussed in an interagency context for at least the past three to four years.

K. 1. b. page 4-98 It is unclear why “alternate” is added and “inactive” is deleted. By definition, a nest that is an alternate in any given year, is an inactive nest. We have information from the Tongass and elsewhere indicating that some alternate nests are used in subsequent years.

K. Deletion of monitoring requirement. We support removal of the need to “monitor” known goshawk nests because of the extensive time and money needed to do so. However, the effect of this is confusing because of the word change from “alternate” to “inactive” as described above. We suggest the continuation of USFS inventories to determine the presence of nesting goshawks in proposed project areas unless and until an alternative approach is developed and described. We further suggest using the most current inventory protocols developed in cooperation with the appropriate State and Federal agencies (Woodbridge and Hargis 2006). We encourage the USFS to describe their approach for monitoring goshawks in the FEIS.

K. 1. d. page 4-98 The Goshawk S&G regarding nesting sites appears to be based on the USFS's need to incorporate flexibility into the S&Gs for goshawk nest sites. We agree that flexibility is useful for land managers; however, moving the decisions to a landscape assessment or some other mid-scale analysis process is vague. As mentioned above, the operating rules for this flexibility and the science behind the decisions and alternatives need to be defined in an appendix to the FEIS, rather than as part of a future planning effort. This appendix should include the variety of conditions that would bring about the "alternate management" of goshawk nest sites.

K. 1. e. As mentioned above, we request the inclusion of an appendix where these science-based management details are described. We recognize that flexibility regarding goshawk nests located in contracted timber sale areas is warranted. The loss of such nest areas is probably not critical to goshawk viability, depending on how many times this situation occurs. Unfortunately, the plan does not mention the fact that as monitoring declines, there is an ever increasing probability that active and inactive goshawk nest trees will be harvested. Even when pre-timber sale monitoring occurs, there is a high likelihood that active goshawks nesting areas will be missed. Therefore, finding goshawk nests in areas already under sale or contract, or proposed for sale, will decrease as monitoring decreases.

### **Forest Birds**

The S&G entitled "Endemic Terrestrial Mammals" (TLMP, page 4-129) should be expanded and re-titled "Endemic Terrestrial Wildlife." It should include surveys for rare and endemic birds, as well as amphibians and insects that may represent unique populations with restricted ranges.

Surveys for other nesting raptors in proposed management areas should include forest owls, specifically western screech-owls, barred owls, and northern saw-whet owls.

### **Deer and Wolves (General Comments)**

The TLMP amendment DEIS does not take into account scientific findings available after 1997. We request that it be revised to incorporate recent research based on a thorough literature review.

The deer Habitat Suitability Index (HSI) model presented on page 3-165 purports to estimate carrying capacity for deer during an average snow winter. However, this does not provide protection in the event of severe snow conditions. Severe winters may drive deer and predator-prey dynamics long after an event has occurred. For example, in Game Management Unit (Unit) 3 (i.e., Mitkof, Kupreanof, Etolin and Zarembo islands), the severe winters of 1969 and 1971 resulted in a major crash in the deer population. It has taken over 30 years for that population to recover, largely because predation retarded recovery long after the severe winters. Planning for severe winter events is the best policy when considering protection of winter habitat for deer. The deer HSI model fails to do this. Further, climate change predictions for Southeast Alaska indicate the likelihood of extremes of warm and cold during future winters, along with much greater precipitation. That may mean occasional extreme snowfalls, not unlike what was experienced during the 2006-2007 winter. It would be wise, therefore, to emphasize the need to

retain winter habitat for deer and calculate HSI under the assumption that all areas are at risk of deep snow. This would result in more scientifically credible evaluations.

### **Wolves (specific comments)**

Page 3-169, first paragraph: The discussion of habitat use by wolves needs to refer to and summarize Person (2001), otherwise it is out of date.

Page 3-169, second paragraph: This information is incorrect and needs to be updated. Wolf numbers are limited by prey availability, not social interactions. This section should refer to and summarize the appropriate sections in Mech et al. (1998) and Fuller et al. (2003). The density limit of 10 wolves/ mi<sup>2</sup> is incorrect. For example, Isle Royale has had densities of wolves that substantially exceeded that limit.

Page 3-169, fourth paragraph: Units 2 and 3 support modest wolf densities compared to other areas where wolves prey on deer rather than moose, caribou, bison, and other larger prey. While wolf densities are high in Units 2 and 3 compared to the rest of Alaska (where deer are absent), they are not high when compared to other areas where deer are the principle prey (i.e., northern Minnesota, southeastern Ontario, and coastal British Columbia). More information on this is available in Person et al. (1996, 2001). The wolf population in Unit 2 is currently healthy but that does not imply it will be in the future when more of the landscape is in stem-exclusion forest. Current populations are not indicators of the future. Reference should be made to the concept of “succession debt,” described by Person (2001).

The statement referring to a harvest objective of 39 wolves in Unit 2 is incorrect, and should actually be about 90 wolves, depending on available population estimates.

Page 3-170, first paragraph: The road density guideline in the TLMP amendment was purported to be based on analyses described in Person et al. (1996); however, the guideline has never been implemented in a manner consistent with Person et al. (1996). The 0.7 mi/mi<sup>2</sup> is to account for all open, closed, or overgrown roads in areas below 370 meters elevation, not simply open roads. This approach has been used because we have found it impossible to distinguish between open and closed roads, and further, the definition of what constitutes “open” versus “closed” roads is vague (i.e., some roads may be passable with snowmachines or ORVs). Even roads that are overgrown are used as hiking trails, providing easier access for wolf trapping and snaring. Additionally, the denominator should be land area below 370 meters because the vast majority of wolf activity occurs in this area (Person et al. 1996, Person 2001). The road density guideline should be applied at a scale equal to an average wolf pack home range (300 km<sup>2</sup>) (Person et al. 1996). The incorrect use of the guideline has been brought up in numerous interagency meetings since 1997, but has never been corrected. We again recommend using the guideline described by Person et al. (1996).

The den buffer guideline has not been supported by scientific data. Information presented during the CSR Workshop indicated that the guideline needs revision. The guideline for roads is the most important because roads facilitate chronic disturbances long after timber harvesting activities are completed. Suitable areas for dens would only have a 45% probability of selection by wolves if a road was within 600 feet of the den (Person in prep, Conservation Strategy

Review Workshop). Moreover, as presented during the CSR Workshop, dens may be unused for up to 5 years before being used again.

Page 3-170, second paragraph: This paragraph implies that there is no established link between habitat changes and wolf populations. This is incorrect based on research findings (Person and Bowyer 1997, Person 2001, Mech et al. 1998, Fuller et al. 2003, and Fuller 1989). Wolf populations will increase and decline in response to changes in prey populations, and any habitat changes that affect prey will affect wolves. This has been modeled and presented in Person (2001) and Person and Bowyer (1997), along with projected effects of habitat change on wolves and deer in Unit 2. Additionally, Farmer et al. (2006) provide information on habitat features that influence predation. We recommend revising this paragraph to include information from the published literature identified in our list of references (see Appendix D).

Page 3-207, first paragraph under Alexander Archipelago wolf: Deer are not required for wolf persistence if other ungulate prey are present (i.e., moose, goats, or sheep). However, their densities will be much lower and home ranges much larger. Details on this are presented in Person et al. (2001) and other works such as Mech et al. (1998), Fuller et al. (2003), and Fuller (1989). Gaps in wolf distribution may occur, particularly on islands where deer numbers decline substantially, but the likelihood is that home ranges will get larger and wolf densities lower rather than experiencing local extirpations. That said, as deer numbers decline, there will likely be increased pressure from subsistence users to reduce wolves in an effort to protect deer. Under that circumstance, poorly managed hunting and trapping seasons and illegal killing could result in local extirpations. The implications of this are compounded because wolves in Southeast Alaska have low genetic diversity (e.g., the population in Unit 2 shares 1 mtDNA haplotype (Weckworth et al. 2005)). Lowering densities may therefore result in further reductions to genetic diversity. This would be especially true in small populations that are isolated on islands.

Page 3-207, second paragraph under Alexander Archipelago wolves: This section should be revised after referring to Person (2001). Specifically, reference should be made to the consequences of the non-linear density-dependent shape of change in deer populations in relation to carrying capacity (K) and how predation will affect deer numbers as K is reduced due to timber harvesting. This will lead to a better understanding and appreciation for how habitat changes will likely affect predator-prey dynamics. This is published in Bowyer et al. (2005), Person (2001), and Person et al. (1997), and much of it was presented during the CSR Workshop.

Pages 3-207 and 3-208: No mention is made of results from Person (2001) or Person and Bowyer (1997) concerning population viability and TLMP alternatives. That work provides insight concerning how the new alternatives might affect wolf-deer predator-prey dynamics. Results from wolf Population Viability Analysis (PVA) for Prince of Wales (POW) Island indicated that a substantial reduction of wolves and deer is likely under the current forest plan (Person 2001, Person et al. 1997). Any alternative that increases road development or logging from the current plan is likely to reduce the wolf population to very low levels. Add to that the higher risk of hunting and trapping mortality (legal and illegal) due to the perception that wolves are competing with hunters for deer, and the viability of wolf populations on POW could be compromised. Further, there is no mention of information provided at the CSR Workshop showing the relationship of undeveloped land with the ratio of recruitment to mortality of

wolves. Information presented during the workshop indicated that the ratio of recruitment to mortality approaches 1 for wolf packs occupying home ranges with < 44,000 undeveloped acres. That finding should be compared with existing OGRs to see how many may actually have a high probability of supporting source populations of wolves.

Page 4-127, TLMP: The new information provided at the CSR Workshop, along with findings published since 1997 have not been included in the S&Gs. The road guideline is still implemented incorrectly and the denning guideline is not consistent with available information. Given the noted disparity between the existing S&Gs and existing supporting scientific materials, we encourage the USFS, in consultation with the State, to consider revising the S&Gs in the Plan amendment or future Plan revisions.

### **Deer (specific comments)**

Page 3-164, second paragraph under deer, fourth sentence: This sentence should read “The quantity, quality, distribution, and arrangement of winter habitat are considered the most important limiting factors for deer.”

Page 3-165, first paragraph: It is unclear whether the USFS is using the deer HSI model correctly. The 1997 description of the model and its application was incorrect with respect to the deer multiplier. The highest HSI value (whether it is scaled to 1.0 or 1.3) should correspond to a density of 100 deer/mi<sup>2</sup>.

Page 3-165, second paragraph: The first sentence states that the deer HSI model provides a tool for risk assessment. This is not true. There are no probabilities associated with the HSI index so it cannot be used to assess relative risk, only relative HSI values. For example, we do not know how much risk is associated with a difference in an HSI of 0.1. Further, as Bowyer et al. (2005), Person (2001), and Person et al. (1997) showed, an increment change in deer carrying capacity (which is what HSI supposedly represents) could lead to a much larger increment change in deer numbers due to the non-linear dynamics associated with predation. Therefore, there is no quantifiable risk associated with HSI values.

The paragraph describes the “FRESH” deer model but fails to include any mention of the other deer models presented at the CSR Workshop. The FRESH model cannot be extended from a stand level analysis to a landscape scale. It does not predict availability to deer due to patch size, location on the landscape, risk of predation, fragmentation, or connectivity. All of those features have a significant, if not primary, role in predicting habitat quality for deer (see Farmer et al. 2006, Kie et al. 2002). By itself, the FRESH model will be of very limited value as a replacement for the current deer HSI model.

Page 3-165, third paragraph: The statement on sources of predation should be clarified. Neonate fawns were not captured on Mitkof Island and bears were therefore not identified as a significant source of mortality to study animals. If neonates had been collared, the results would likely have shown substantial predation by black bears. Given their paucity on Heceta Island, black bears are not a major predator on fawns. However, on POW Island, where black bears are abundant, we observed significant black bear predation on neonate study animals (ADF&G, unpub. data).

We suggest deleting the last sentence in the paragraph because of its inaccurate context. That is, citing statistics for the Tongass as a whole (a forest of islands) is misleading given local differences in impacts. The amount of old-growth habitat remaining on POW Island, for example, will be substantially less than elsewhere on the forest and will thereby have more severe localized implications for wildlife and associated users.

Page 3-192, first paragraph under Sitka Black-Tailed Deer: It is inaccurate to say that the difference in magnitude of the HSI values when using the size-density forest classification versus the original classification is unimportant because only relative values are compared between alternatives. That is true only when the model is used to compare changes in HSI between alternatives. It is not true when applying the deer guidelines for wolves and subsistence. In those applications the magnitude of deer habitat capability is very important.

Page 3-194, third paragraph: This paragraph should discuss the effect of lowering K on deer populations exposed to wolf predation. Deer numbers likely will be reduced much more than predicted by changes in HSI because of the non-linear relation between K, deer recruitment, and predation. Please refer to Bowyer et al. (2005), Person (2001), and Person et al. (1997).

Page 3-194, last paragraph: The first sentence in this paragraph should note that there is great uncertainty about the effects of second-growth management on the availability of forage to deer. The value of treatments, the scale of treatment effects, and the potential of treatments to be implemented at scales meaningful to deer populations is unknown at this time. This paragraph makes no mention of Farmer et al. (2006). In that study, a positive relation was observed between risk of death of fawns and pre-commercial thinning. Also, Farmer et al. (2006) demonstrated that landscape level features play a large role in determining risks of death for deer. TWYGS and other studies do not address the scale, distribution, and arrangement of treatments on the landscape. Those factors will be as or more important than the amount of forage produced.

## **Elk**

Page 3-179, fourth paragraph: Although a radio collared cow elk was located on Farm Island, at the mouth of the Stikine River, there is no evidence of any collared elk migrating up the Stikine River drainage (ADF&G, unpub. data).

## **Marbled Murrelets**

The marbled murrelet should be identified as a Sensitive Species on the Tongass. We believe that the USFS would be remiss in not listing this species as part of the TLMP amendment given that they are known to be old-growth dependent for their nesting. Sensitive Species are defined as “those plant and animal species for which population viability is a concern on National Forest System (NFS) lands within the region. Either a significant current or predicted downward trend in population numbers or density, or a significant current or predicted downward trend in habitat capability that would reduce a species’ existing distribution indicates a viability concern.” The best available information suggests that marbled murrelets have declined by nearly 80% in Southeast Alaska since the early 1990s (Piatt et al. 2007).

The referenced literature on marbled murrelet ecology in Southeast Alaska should be updated. Cotter and Kirchhoff (2007) and Piatt et al. (2007) summarize existing data on marbled murrelets in Southeast Alaska, including new information on population status and trends, distribution, and habitat relationships.

The TLMP amendment should display the effects logging will have on marbled murrelet habitat under each of the alternatives. Preferred nesting habitat for marbled murrelets includes older trees, larger trees, and trees on steeper slopes (Schoen and Dovichin 2007, Appendix B). Habitat capability for marbled murrelets has declined significantly from past logging (Piatt et al. 2007), and will decrease further under the new Plan. These effects should be displayed in the FEIS.

Page 3-174: The Plan should show how much marbled murrelet habitat is protected by the OGR system. The Plan references the forest-wide system of OGRs as helping meet the conservation needs for marbled murrelets. Although any retention of old-age trees helps, a quantitative assessment of how effective these old-growth reserves might be is needed.

Page 3-174: “Uneven-aged management” should be specifically defined. Uneven-aged management “in many areas” is cited as mitigation for loss of marbled murrelet nesting habitat, yet the term is not specifically defined. To judge the effectiveness of this prescription for marbled murrelets, information on gap sizes and interspersions of individual trees or patches in the cutting units should be provided.

Page 4-128: Providing 600’ buffer zones around discovered marbled murrelet nests (XVI. B.) provides no effective benefit. Marbled murrelet nests are extremely difficult to find because most are high up in old-growth trees, the birds are quiet on the nest, and they travel to and from nests in the dark. The fact that it was the last species in North America to have its nest discovered underscores the futility of an S&G that requires finding nests. We suggest dropping this S&G and re-establishing past murrelet surveys.

It is unclear what USFS supported marbled murrelet research and monitoring is ongoing. Appendix B (page B-11) lists a number of information needs for marbled murrelets (items 8, 13, and 15), and indicates the USFS is currently funding marbled murrelet studies. ADF&G has signed a cooperative agreement with the Juneau Ranger District to work together as opportunities present themselves. Beyond this, however, we are unaware of any USFS related marbled murrelet studies on the Tongass.

The USFS commitment to doing marbled murrelet surveys is unclear. In the early 1990s, the Ranger Districts across the Tongass embarked on rigorous training for doing at-sea surveys, and established numerous transect routes across the region (Piatt et al. 2007, Appendix M). Unfortunately, the surveys were not continued. This represents a big loss because it now appears from limited data that marbled murrelets are in serious decline. It is not clear whether identifying this as an “information need” in Appendix B constitutes a commitment to resume the surveys or not. We request that surveys be reinstated.

## **Martens**

New information presented at the CSR Workshop indicated that two genetic lineages of martens occur on the Tongass NF (Cook et al. 2006). Based on genetic research, these authors suspect that the two lineages of marten found in Southeast Alaska actually represent two distinct species; *Martes americana* and *M. caurina*. If so, *M. caurina* has an extremely limited distribution in Southeast Alaska (Kuiu and Admiralty islands only) and globally (from northern California to Admiralty Island). Because of the limited distribution of *M. caurina*, these populations should be given special management consideration. Furthermore, given Flynn et al.'s (2004) finding of low marten populations on Kuiu Island, we encourage further research of marten on that island to better assess implications of forest practices and possible management measures (i.e., state and federal trapping seasons, federal habitat management).

Page 3-167. We suggest adding text (underlined) to the statement about marten habitat: The larger-sized, old-growth forest habitats have the highest value for marten.

In order to clarify the marten harvest for Kuiu Island, that island's harvest should be separated from harvests for the rest of Unit 3.

Page 3-168, last sentence. This statement needs clarification. We contend that the lack of any "clear correlation" between marten population trends and habitat changes reflects a lack of effort to study this dynamic rather than indicating no relationship. Determinations of population trends require long-term data sets, and these have not been collected. Consequently, modeling habitat changes is the best that can be done at this time.

## **Brown Bears**

Substantial new information is available on the importance of riparian habitats for maintaining sustainable and high brown bear populations (Flynn et al. 2007). This new information is consistent with and further supports maintaining no-cut buffers along salmon spawning streams. The implementation of the current brown bear buffer was left to field reviews without easily measurable criteria. Recent research results indicate that field evaluations for identifying important brown bear feeding areas may be difficult to complete and will yield ambiguous results. Given the lack of mapping for lands buffered for brown bear foraging, it is difficult to evaluate the effects of implementing the current S&G.

Based on current information, the following recommendations are made regarding no-cut, riparian buffers for brown bears:

Page 4-124, TLMP, IX Bear Habitat Management: We suggest modifying the brown bear S&G to provide for no-cut buffers along all salmon spawning streams based on work conducted by Flynn et al. (2007) and presented at the CSR Workshop. This could be incorporated into section IX. B., as follows (replacement text is underlined):

B. Provide for additional protection of important brown bear foraging sites in addition to the buffers already provided by the Riparian and Beach & Estuary Fringe Forest-wide Standards and Guidelines, and the old-growth Habitat and other natural setting Land Use Designations. Establish no-cut forested buffers, where available, of at least 500 feet from

the stream at sites where additional protective measures are needed to provide cover among brown bears while feeding, or between brown bears and humans. This no-cut buffer should be applied more broadly than the current S&G which is unclear in application. In high density brown bear areas (e.g., ABC islands), all segments that support spawning salmon are important for foraging during the late summer and these need careful evaluation for protection. On the mainland, where brown bear numbers are lower and patchy in distribution, the no-cut buffers may be particularly important.

Page 3-168. We suggest revising this section to more accurately describe the distribution of brown bears north of Frederick Sound. For example, while it is true that brown bears occur on islands north of Frederick Sound, this is not all-inclusive (i.e., Douglas, Lincoln, Shelter islands do not currently support brown bears).

Reference is made to brown bear hunting being allowed in Unit 4. However, this statement needs to be expanded to reflect the fact that brown bear hunting is allowed throughout other parts of Southeast Alaska. Additionally, we suggest adding a statement or two about guide/outfitter uses of brown bears on the Tongass as well as available viewing opportunities (i.e., Pack Creek, Anan Creek).

The section suggests that the late summer season is the most critical time period for brown bears. No references are provided despite many available publications by ADF&G (i.e., Titus, Flynn, others), USFS researchers (i.e., Gende) and others (i.e., Ben-David). Some of these publications along with recent ADF&G experience suggest that spring is also a critical time for brown bears across Southeast Alaska. The estuarine beach and certain riparian habitats are key for providing certain sedges and grasses as the first food of the season for bears. Therefore, conservation of the beach buffer remains an important attribute of the forest plan for this species.

Preliminary results from an interagency, cooperative mainland brown bear study suggest differences between brown bear ecology on the mainland (e.g., Misty Fjords, Bradfield Canal) versus the very high density populations that have been well-studied in Admiralty and Chichagof islands. We suggest that the less abundant and patchy distribution of estuarine and salmon spawning habitat in the mainland may be very important for maintaining sustainable brown bear populations in these areas. ADF&G staff will work with USFS staff to help interpret results from this ongoing work for better, long-term management of mainland brown bears.

## **Fish**

Page 3-56: The information used to characterize sport fisheries and the data used to describe fishing effort and demand appears to be rather dated. We recommend that the most recent information available from the ADF&G Statewide Harvest Survey (SWHS) be used.

Page 3-52: The table of fish species important for sport, subsistence, and commercial fisheries does not include Dolly Varden char and cutthroat trout as being important for subsistence (Table 3.6-1). These should be included here.

## Appendix D – Citations

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