

# **Appendix A**

**Reasons for Scheduling the  
Environmental Analysis of the  
Central Kupreanof Timber  
Harvest**

# Appendix A

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# Reasons for Scheduling the Environmental Analysis of the Central Kupreanof Timber Harvest Project Area

## Introduction

Coordinated timber sale planning is essential for meeting the goals of the Tongass Land and Resource Management Plan (Forest Plan) and to provide an orderly flow of timber to local industry. To determine the volume of timber to offer each year, the Forest Service can look to current market conditions and the level of industry operations. However, the planning process for timber harvest projects requires the Forest Service to rely on projections of future harvest levels to decide how many timber sale projects to begin each year. This document explains how the Forest Service uses information about future markets and past experience with timber sale planning to determine the volume of timber that needs to be started through this process each year. This appendix relies heavily on the current annual timber demand analysis and the most recent timber sale schedule.

The purpose of this appendix is two-fold: first, to explain why this project was selected for inclusion into the Tongass Timber Program and second, to explain the basis and components of the Tongass Timber program. To accomplish this, the following questions are answered:

- *How does the Central Kupreanof Timber Harvest project fit into the Tongass Timber Sale Program?*
- *Why is timber from the Tongass National Forest being offered for sale?*
- *How does the Forest Service develop forecasts about future timber market demand?*
- *What steps must be completed to prepare a sale for offer?*
- *How does the Forest Service maintain an orderly and predictable timber sale program?*
- *How does the Forest Service decide where timber sale projects should be located?*

### **How does the *Central Kupreanof Timber Harvest* fit into the Tongass Timber Sale Program?**

This project is currently in Gate 2, Project Analysis and Design (See Forest Service Handbook 2409.18, Chapter 30 and subsequent discussion about the Gate System) and involves environmental analysis and public disclosure as required by the National Environmental Policy Act (NEPA). The amount of volume considered for harvest under the action alternatives for the Central Kupreanof Timber Harvest ranges from 70.2 MMBF to 28.2 MMBF, with harvest potentially beginning in 2009. This volume would contribute to the Tongass timber sale program. A no-action alternative is also analyzed in this EIS. If an action alternative is selected in the decision for this project, this volume will be added to the volume available for sale. As displayed in Table A-2, the goal for volume under analysis on the Tongass National Forest is 299 MMBF. Currently, the forest-wide volume under analysis is about 300 MMBF and includes the volume for this project.

This project contributes to the timber sale program planning objective of providing an orderly flow of timber from planning through harvest to meet timber supply requirements. A position statement (Gate 1) was completed to document that this project warrants additional investment of funds and personnel. Therefore, it is reasonable to be conducting the environmental analysis for this project at this time.

This project meets all laws and regulations governing the removal of timber from National Forest System lands, including Forest Service policies as described in Forest Service manuals and handbooks, and the Forest Plan and Record of Decision. Based on current year and anticipated future timber demand, and the timber supply provisions of the Tongass Timber Reform Act, the Central Kupreanof Timber Harvest is needed at this time to meet timber sale needs identified on the approved multiple-year timber sale plan. Anticipated budget allocations and resources are sufficient to prepare and offer this project for sale as scheduled.

#### **Why is This Project Occurring in This Location?**

Areas are selected for environmental analysis for timber harvest projects for a variety of reasons. The reasons this project was considered in this area include:

- The Central Kupreanof Timber Harvest Project Area contains sufficient acres of suitable and available forest land to make this timber harvest proposal reasonable. Areas with available timber need to be considered for harvest in order to seek to provide a supply of timber

from the Tongass National Forest which (1) meets the annual market demand from such forest, and (2) meets the market demand from such forest for each planning cycle, pursuant to Section 101 of the Tongass Timber Reform Act (TTRA). The WAAs within this project area have had low levels of past harvest.

- The Central Kupreanof Timber Harvest will use many existing roads to provide access to many of the proposed timber harvest units, and to transport harvested logs.
- The Central Kupreanof Timber Harvest project will use the existing and currently permitted LTF at Little Hamilton Bay.
- There was local interest in timber sale opportunities.
- The majority of the project area and proposed harvest units are within the Timber Production land use designation.
- The Central Kupreanof project area is completely within Phase 1 lands as identified by the Timber Adaptive Management Strategy in the 2008 Forest Plan Record of Decision.
- Effects on subsistence resources from timber harvest are projected to have few differences based on the sequence in which areas are harvested. Harvesting other areas with available timber on the Tongass National Forest is expected to have similar potential effects on resources, including subsistence resources, because of widespread distribution of subsistence use and other factors. Harvest within other areas is foreseeable under the Forest Plan.

In conclusion, this project area can provide a mixture of uses in compliance with the laws that govern National Forest management and be consistent with current Forest Direction.

## Why is Timber from the Tongass National Forest Being Offered for Sale?

### National Legislation

On a national level, the legislative record is clear about the role of the timber program in the multiple-use mandate of the national forests. One of the original objectives for creation of national forests was to provide natural resources, including timber, for the American public. The Organic Administration Act of 1897 (partially repealed in 1976) directed the agency to manage the forests in order to "improve and protect the forest ... [and] for the purpose of securing favorable conditions of water flows, *and to furnish a continuous supply of timber* for the use and necessities of the citizens of the United States" (emphasis added). The Multiple-Use Sustained Yield Act of 1960 directs the Forest Service to administer federal lands for "outdoor recreation, range, timber, watershed, and wildlife and fish purposes."

The National Forest Management Act (NFMA) of 1976 states that "the Secretary of Agriculture...may sell, at not less than appraised value,

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trees, portions of trees, or forest products located on National Forest System Lands.” Although the heart of the Act is the land management planning process for national forests, the Act also sets policy direction for timber management and public participation in Forest Service decision making. Under NFMA, the Forest Service was directed to “limit the sale of timber from each national forest to a quantity equal to or less than a quantity which can be removed from such forest annually in perpetuity on a sustained-yield basis.”

The NFMA directs the Forest Service to complete land management plans for all units of the National Forest System. Forest plans are developed by an interdisciplinary team to provide for the coordination of outdoor recreation, range, timber, watershed, wildlife and fish, and wilderness. Forest plans designate areas of national forest where different management activities and uses are considered appropriate including those areas suitable for timber harvest.

### Alaska-Specific Legislation

Timber from the Tongass National Forest is being offered for sale as part of the multiple-use mission of the Forest Service identified in the public laws guiding the agency. In addition, Alaska-specific legislation and the Tongass Forest Plan direct the Forest Service to seek to provide timber to meet market demand, subject to certain limitations.

The Alaska National Interest Lands Conservation Act (ANILCA) and the Tongass Timber Reform Act (TTRA) provide direction on the issue of Tongass timber supply. Section 101 of TTRA amended the ANILCA timber supply mandate and fixed budget appropriations and replaced them with the following text in Section 705 (a):

“Sec. 705. (a) Subject to appropriations, other applicable law, and the requirements of the National Forest Management Act of 1976 (P.L. 94-588); except as provided in subsection (d) of this section, the Secretary shall, to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources, seek to provide a supply of timber from the Tongass National Forest which (1) meets the annual market demand for timber from such forest and (2) meets the annual market demand from such forest for each planning cycle.”

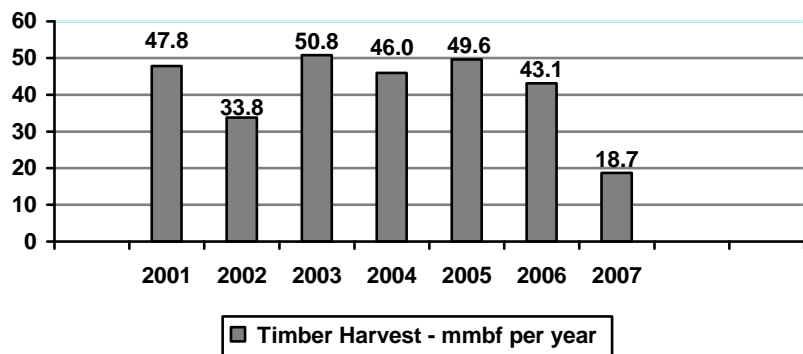
### Tongass National Forest Land and Resource Management Plan (Forest Plan, as amended)

The Tongass Land Management Plan was completed in 1979 and revised in 1997. The Record of Decision (ROD) for the 2008 Tongass Land Management Plan Amendment (Forest Plan) was signed by the Alaska Regional Forester January 23, 2008. The Forest Plan incorporates new resource information and scientific studies and reflects an extensive public involvement process. The 2008 Forest Plan defines appropriate activities within each of 19 Land Use Designations (LUDs). Approximately 79 percent of the Tongass was allocated to LUDs where scheduled commercial timber harvest is not allowed. The 2008 Forest Plan establishes the annual average Allowable Sale Quantity (ASQ, the

maximum amount of timber that may be offered for sale) at 267 million board feet (MMBF). This is the same as the ASQ established for the previous Forest Plan in 1997. While technically a limit on sale volume, in effect the ASQ also limits the amount of timber that may be harvested on the Tongass National Forest.

The environmental effects analysis in the Final EIS for the 2008 Forest Plan assumed the maximum timber harvest allowed under each alternative would occur annually over the next 100 to 150 years. In that way, the Forest Plan analysis displayed the maximum environmental effects that could be reasonably foreseen. However, substantially less timber volume and acres have actually been harvested over the last several years than the maximum level allowed under the 1997 Forest Plan (see Figure A-1). Thus, the effects on resources are expected to be less than projected in the 2008 Final EIS for the Forest Plan Amendment.

**Figure A-1  
Tongass Timber Harvest, Fiscal Years 2001-2007**



The Record of Decision for the 2008 Forest Plan Amendment includes transition language for projects that were being planned when the Forest Plan was completed. That language identifies 3 different categories of projects, depending on how far along they were in the project planning process when the Forest Plan Amendment was completed, and specifies the extent to which projects in each category must comply with the amended Forest Plan. The transition language lists this project as being in Category 2, which requires the Forest Supervisor to review the project and incorporate the new direction in the amended Forest Plan to the extent this can be done without causing major disruptions in the implementation of the project. Information on the inclusion of the 2008 direction is included as appropriate in the Central Kupreanof Draft EIS and will be included in the decision.

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### Timber Sale Program Adaptive Management Strategy

To further balance the competing demands and respond to requests for additional protection of roadless areas, the Record of Decision for the 2008 Forest Plan Amendment also approved the Timber Sale Program Adaptive Management Strategy. The Strategy is based on three critical factors:

1. The long-term demand for timber from the Tongass is inherently very uncertain, and is influenced by the ability of all interested parties to work together to stabilize the timber supply.
2. The annual average ASQ of 267 MMBF is considerably higher than the current level of timber harvest on the Tongass.
3. The land base associated with the ASQ includes roadless areas, many of which are highly valued by substantial portions of the public.

Under the Timber Sale Program Adaptive Management Strategy, actual operation of the timber sale program will be implemented in three phases, as determined by actual timber harvest levels.

In Phase 1, the timber program will be restricted to a portion of the suitable land base focusing on the roaded portion and some lower value roadless areas and excludes moderate and higher value roadless areas.

The Phase 1 portion includes approximately 537,000 suitable acres, or 69 percent of the total suitable land base. Should the actual level of timber harvest reach 100 MMBF for two consecutive fiscal years, the Tongass could then plan for timber projects in the Phase 2 portion of the approved suitable land base, resulting in a program that operates on 680,000 acres of suitable lands, including some moderate value roadless areas. Not all of these suitable acres are scheduled for timber harvest during the life of this Forest Plan. If timber harvest reaches 150 MMBF for two consecutive fiscal years, the Tongass could then plan for timber projects in Phase 3, which includes the entire suitable land base. The Central Kupreanof Timber Harvest is located in the Phase 1 portion of the suitable land base; accordingly, planning and implementation of it may proceed under the Timber Sale Program Adaptive Management Strategy.

### Roadless Area Conservation Rule

The January 2001 Roadless Area Conservation Rule prohibited most timber harvest and road construction in inventoried roadless areas on National Forest System lands. The Roadless Rule has been the subject of several lawsuits. In the most recent court ruling (9/20/06), the court



re-instituted the 2004 version of the Roadless Rule, including 36 CFR Part 294.14(d): "this subpart does not apply to road construction, road reconstruction, or the cutting, sale or removal of timber in inventoried roadless areas on the Tongass National Forest". Accordingly, the Tongass National Forest is exempt from the Roadless Rule's prohibitions against timber harvest, road construction, and reconstruction in inventoried roadless areas. Such activities may occur on the Tongass where allowed by the 2008 Forest Plan.

An analysis of the effects to roadless areas within the project area has been included as part of the analysis for this project. This project is consistent with agency policy and procedures and has been designed to meet the management direction, goals and objectives, and standards and guidelines in the Forest Plan.

## **How Does the Forest Service Develop Forecasts about Future Timber Market Demand?**

Consistent with the provisions of the Tongass Timber Reform Act, the Forest Service makes two types of forecasts of market demand for timber from the Tongass National Forest. The first, "planning cycle market demand," forecasts the long-term demand for timber from the Tongass over the life of the Forest Plan, derived from trends in international demand for end products manufactured from such timber. Based on these long-term projections, the Forest Service also estimates annual market demand in order to determine how much timber to plan to offer for sale.

### **Market Demand for the Planning Cycle**

Research economists with the Forest Service's Pacific Northwest (PNW) Research Station have prepared several studies of "planning cycle market demand" for Tongass timber, including three General Technical Reports by Brooks and Haynes (1990, 1994, and 1997). In 2006, the PNW Research Station published new harvest projections (Brackley et al. 2006). This report and an addendum to it (Brackley and Haynes, in press) provided key information for the 2008 Forest Plan Amendment.

The Brackley et al. 2006 projections include four scenarios: 1) limited lumber production, which represents the situation the timber industry in Southeast Alaska has faced over the last several years; 2) expanded lumber production, which assumes some form of demand stimulus occurs; 3) medium integrated industry, which assumes sufficient demand stimulus occurs to cause an expansion of the current industry capacity and better utilization of forest products removed from public timber sales; and 4) high integrated industry, assumes some kind of additional demand stimulation to result in full utilization of all types of forest products available from the Tongass. More detailed information

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about these scenarios and their assumptions is in the Forest Plan Amendment Final EIS and ROD (January 2008), and in Brackley and Haynes (in press).

The Brackley et al. 2006 study displays alternative projections of derived demand for timber from the Tongass National Forest. For the first two scenarios, which assume no market for low grade sawlogs and utility volume, the figures in that table includes sawtimber only. For the two integrated industry scenarios, the projections include total volume, including both sawlogs and utility. Utility volume must be cut down along with higher-quality timber even if there is no demand for it. It is the total volume of timber cut on the Tongass that is of most interest, in part because environmental effects result from total volume cut. In addition, any comparison of scenarios must be based on comparable figures. Accordingly, the table below shows Brackley et al 2006 projections for all four scenarios in terms of total volume:

**Table A-1. Tongass National Forest Timber Sale Volume Necessary to Supply Derived Demand for Decked Log Volume and Chips— in Million Board Feet (MMBF); (Alexander, 2008<sup>1</sup>)**

Year	Scenario 1 Limited lumber	Scenario 2 Expanded lumber	Scenario 3 Medium integrated	Scenario 4 High integrated
2007	49.8	61.9	67	67
2008	49.8	66.4	139	139
2009	51.3	72.4	151	151
2010	52.8	78.5	166	166
2011	52.8	84.5	184	184
2012	54.3	90.5	204	286
2013	55.8	98.1	204	291
2014	57.3	105.6	204	295
2015	58.9	113.2	204	299
2016	58.9	122.2	204	303
2017	60.4	131.3	204	308
2018	61.9	140.3	204	312
2019	63.4	150.1	204	317
2020	64.9	163.0	204	325
2021	66.4	175.0	204	333
2022	67.9	187.1	204	342
2023	69.4	200.7	204	351
2024	70.9	215.8	204	360
2025	72.4	230.9	204	370

<sup>1</sup> Annualized calculation to fulfill derived demand scenarios from Brackley et al. (2006). This table was created using annualized values provided by Dr. Allen Brackley (personal communication, Nov 29 2006) from the model used to develop derived demand estimates in Brackley et al. (2006). The values for Limited Lumber Scenario and Expanded Lumber scenarios reported in this table have been adjusted to include low quality material not included in the demand projections and include saw logs, cedar export, and utility (chip) volumes available from sawmill production. The Medium and High Integrated Scenarios are not adjusted and include saw logs, cedar exports, chip volumes, low-grade material, and utility in Brackley et al. (2006).

After the Brackley et al 2006 study was published, the Regional Forester approved a policy under which timber purchasers may ship to the lower 48 states unprocessed certain small-diameter and low-quality logs harvested from the Tongass, up to 50 percent of the volume harvested on each sale. This policy creates a market opportunity for low-quality material that the Brackley et al 2006 study assumed would not be utilized under scenarios 1 and 2. In response to the new interstate shipment policy and other recent events, the Brackley and Haynes

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addendum to the 2006 study concludes that “[D]emand for national forest timber in Alaska is on a trajectory more similar to the scenario 2 (expanded lumber production).”

### Annual Market Demand

The annual market demand forecast is a methodology used to set the short-term goals for the Tongass timber sale program –the volume the Forest plans to offer for sale in the current year pending sufficient funding.

The formulas and procedures used in forecasting annual market demand are described in a Forest Service report titled Responding to the Market Demand for Tongass Timber (Morse, 2000). These procedures, which have become known as the “Morse methodology,” are based on the premise that:

Forest product markets are volatile, especially in the short run.

Timber purchasers in Southeast Alaska have few alternative suppliers of timber if they cannot obtain it from the Tongass National Forest. Oversupplying this market has relatively few adverse economic effects; undersupplying it can have much greater negative economic consequences.

- It takes years to prepare National Forest timber for sale, including completion of environmental impact statements.
- It is difficult to estimate demand for timber from the Tongass, even a year or two in advance.
- Industry must be able to respond to rapidly changing market conditions in order to remain competitive.

Accordingly, the Morse methodology establishes a system that considers factors such as mill capacity and utilization of that capacity, and seeks to build and maintain sufficient volume of timber under contract (i.e., timber purchased but not yet harvested) to allow the industry to react promptly to market fluctuations. Industry actions such as annual harvest levels are monitored and timber program targets are developed by estimating the amount of timber needed to replace volume harvested from year to year. The methodology is adaptive, because if harvest level drop below expectations and other factors remain constant, future timber sale offerings would also be reduced to levels needed to maintain the target level of volume under contract. Conversely, if harvest levels rise unexpectedly, future timber sale targets would also increase sufficiently to ensure that the inventory of volume under contract is not exhausted. By dealing with uncertainty in a flexible, science-based fashion, the Morse methodology is an example of adaptive management.

The Morse methodology originally used the projected harvest from the final 1997 Brooks and Haynes report. These procedures were recently updated (Alexander, 2008) to use the annual projected harvest figures

from Brackley et al 2006 in calculations of annual timber offer targets. No further changes to the Morse methodology were required as a result of the updated long-term demand projections contained in the Brackley et al study.

Using the updated annual market demand procedures, the Forest Service has set a goal for volume to be offered in FY 2008 of 124 MMBF. This figure was calculated using the Brackley et al. 2006 “expanded lumber scenario.” The actual volume of timber offered for sale reflects a combination of factors, such as final budget appropriations, completing the NEPA process; the practice of offering smaller sales for smaller operators rather than all the volume from a NEPA decision; the statutory requirement that timber sales offered in the Alaska Region appraise positive; and volume enjoined from being offered because of litigation. The spreadsheet displaying the annual demand calculation and a summary of the factors used in these calculations are in the project record.

The planned annual timber volume offer could include a combination of new, previously offered, and reconfigured timber sales. Both green timber and salvage will be components of the program. Offerings will consist of those targeted for Small Business qualified firms, as well as a portion of the volume being made available for the open market.

For planning and scheduling purposes, the Tongass uses a 5-year timber sale plan, which is consistent with Forest Service Manual 2430. This 5-year plan is based on completed and ongoing environmental analyses and contains information to purchasers and other interested parties, and provides a plan that can be adjusted in response to changing market conditions.

Both the “annual market demand” and the “planning cycle market demand” projections are important for timber sale program planning purposes. They provide guidance to the Forest Service to request budgets, to make decisions about workforce and facilities, and to indicate the need to begin new environmental analysis for future program offerings. They also provide a basis for expectations regarding future harvest, and thus provide an important source of information for establishing the schedule of probable future sale offerings. The weight given to the projections will vary depending on a number of factors, such as how recently they were done and how well they appear to have accounted for recent, site-specific events in the timber market.

## What Steps Must Be Completed to Prepare a Sale for Offer?

The Tongass National Forest's timber sale program is complex. A number of projects are underway at any given point in time, each of which may be in a different stage of planning and preparation. A system of checkpoints, or "gates", helps the Forest Service track the accomplishments of each stage of a project from inception to contract termination.

### **Gate 1 – Initial Planning of Timber Sale Project**

A Timber Sale Project Plan, often referred to as a Position Statement, is a brief analysis of the project area with the intent of determining the feasibility of a potential timber sale. After the Position Statement is developed, the Forest Service decides whether the project area merits continued investment of time and funds in sale planning.

### **Gate 2 – Project Analysis, Sale Area Design, and Decision**

This step is commonly referred to as the "NEPA" phase and includes field work, public scoping, analysis, draft disclosure of the effects of the project on the environment, public comment, final analysis and disclosure, decision, and potentially administrative appeals and litigation. Gate 2 activities must be completed before a sale is awarded. Legislation, policy changes, and appeals and litigation have recently extended completion of some projects for a much longer timeframe, often doubling the desired time frame.

### **Gate 3 – Preparation of a Timber Sale**

During this step, the information and direction included in the decision document from Gate 2 is used to layout units and design roads on the ground. Additional site-specific information is collected at this time. In order to maintain an orderly flow of sales, Gate 3 activities need to be complete before a sale is advertised.

### **Gate 4 – Advertise a Timber Sale**

The costs and value associated with the timber sale designed in Gate 3 are appraised and packaged in a timber sale contract. The contract is a legally binding document that tells a prospective timber sale purchaser how the sale must be harvested to conform to the project decision document. This step occurs during the final year of the project development and culminates with the advertisement of the project for sale.

### **Gate 5 – Bid Opening**

Gate 5 is completed with the opening of bids for the project. If a bid is submitted, contractual provisions govern when the award of the sale takes place, when the sale will be completed (contract length and operation season), and how timber removal is to occur.

### **Gate 6 – Award a Timber Sale Contract**

Gate 6 is the formal designation of a contract between a bidder and the Forest Service.

## **How Does the Forest Service Maintain an Orderly and Predictable Timber Sale Program?**

### **Pools of Timber (Pipeline Volume)**

As discussed earlier, the Forest Service tracks the accomplishment of the different steps of development of each timber sale with the Gate System (Forest Service Handbook 2409.18). From a timber sale program standpoint, it is also necessary to track and manage multiple projects as they move through the Gate System. Because of the timeframes needed to accomplish a given timber sale and the complexities inherent in timber sale project and program development, it is necessary to track various timber sale program volumes from Gate 1 through Gate 6.

The goal of the Tongass National Forest is to provide an even flow of timber sale offerings on a sustained-yield basis to meet market demand. In recent years, this has been difficult to accomplish due to a combination of uncertainties such as delays related to appeals and litigation; changing economic factors, such as rapid market fluctuations; and industry-related factors, such as changes in timber industry processing capabilities. To achieve an even flow of timber sale offerings, ‘pools’ of volume in various stages of the Gate System are maintained so volume offered can be balanced against current year demand and market cycle projections.

Today, upward trends in demand are resolved by moving out-year timber projects forward, which may leave later years not capable of meeting the needs of the industry. In other instances, a number of new projects are started based on today’s market but will not be available for a number of years. By the time the added projects are ready for offer, the market and demand for this volume may have changed. Three pools of timber volume are tracked to achieve an even flow of timber sale offerings.

The objective of the timber pools concept is to maintain sufficient volume in preparation and under contract to be able to respond to yearly fluctuations in a timely manner. Refer to Table A-2, which displays the current estimated volume in each pool, as well as the goal for volume to be maintained in each pool, based on historic patterns. Based on historic patterns, the Tongass has established a goal for the volume to be maintained in each of the timber pools. Appeals and litigation can cause timber sale projects to be reevaluated to ensure they meet current standards and direction, which can cause delays in making projects

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available to move through the pools, thereby not fully meeting the goals for volumes in each pool.

### **Pool 1 - Timber Volume Under Analysis (Gate 1 and Gate 2)**

Volume in Gate 1, the initial planning step, represents a large amount of volume, but represents a relatively low investment in each project. This relatively low investment level offers the timber program manager a higher degree of flexibility and thus, does not greatly influence the flow of volume through the pipeline. A signed Project Plan (FSH 2409.18, Chapter 20) is the completion of this gate.

Gate 2, timber volume under environmental analysis, includes sales being analyzed and undergoing public comment through the NEPA process. This pool includes any project that has started the scoping process through those projects ready to have a decision issued. In addition, tracking how much volume is involved in appeals or litigation may be necessary to determine possible effects on the flow of potential timber sales. A signed NEPA decision (FSH 2409.18, Chapter 30) is the completion of this gate. Volume affected by appeals and litigation is tracked as a subset of this pool (Table A-3).

Based on historic patterns, the Tongass has established a goal for the pipeline volume to be maintained in each of the timber pools. The goal for Pool 1 is to be maintained at approximately 4.5 times the amount of the projected harvest to account for projects at various stages of analysis. That goal reflects a number of factors which can lead to a decrease in volume available, such as a decision in Gate 1 to drop further analysis in a particular planning area (called the “no go” decision), a fall down in estimated volume between Gate 1 and Gate 2, and volume not available for harvest due to appeals or litigation.

### **Pool 2 - Timber Volume Available for Sale (Gates 3, 4 and 5)**

Timber volume available for sale includes sales for which environmental analysis has been completed, and have had any administrative appeals and litigation resolved. Enough volume in this pool is needed to be maintained to be able to schedule future sale offerings of the size and configuration that best meets market needs in an orderly manner.

As a matter of policy and sound business practice, the Forest Service announces probable future sale offerings through the Periodic Timber Sale Announcement. Delays at Gate 2 have affected sale preparation (Gate 3) and have made scheduling of sales uncertain. At Gate 4, sales have been fully prepared and appraised, and are available to managers to advertise for sale. This allows potential purchasers an opportunity to do their own evaluations of these offerings to determine whether to bid, and if so, at what level.

Timber in this pool can include a combination of new sales, previously offered unsold sales, and remaining volume from cancelled sales. The



goal is to maintain Pool 2 at approximately 1.3 times the amount of the projected harvest to allow flexibility in offering sales.

### **Pool 3 - Timber Volume under Contract (Gate 6)**

Timber volume under contract contains sales that have been sold and a contract awarded to a purchaser, but which have not yet been fully harvested. Contract length is based on the amount of timber in the sale, the current timber demand, and the accessibility of the area for mobilization. The longer the contract period, the more flexibility the operator has to remove the timber based on market fluctuations. Timber contracts typically initially give the purchaser 3 years to harvest and remove the timber purchased; however, they can be extended under certain circumstances, such as inoperable periods of weather, injunctions, and other contractual delays.

The Tongass attempts to maintain roughly 3 years of unharvested volume under contract to the industry as a whole. This volume of timber is the industry's dependable timber supply, which allows adaptability for business decisions. This practice is not limited to the Alaska Region, but is particularly pertinent to Alaska because of the nature of the land base. The relative absence of roads, the island geography, the steep terrain, and the consequent isolation of much of the timber land means that timber purchasers need longer-than-average lead times to plan operations, stage equipment, set up camps, and construct roads prior to beginning harvest.

A combination of projected harvest and projected demand is used to estimate the volume needed to maintain an even-flow timber sale program. As purchasers harvest timber, they deplete the volume under contract. Timber harvest is then planned and offered by the agency as sales that give the industry the opportunity to replace this volume and build or maintain their working inventory. Although there will be variation for practical reasons from year to year, in the long-run over both the high points and low points of the market cycle, the volume harvested will equal the timber volume sold, excluding cancelled sales.

The goal for Pool 3, volume under contract, is to maintain timber volume at approximately three times the amount of annual projected harvest. This allows the purchasers to have a continuous supply of timber volume available for harvest so they can plan their operations and be flexible to allow for weather conditions and market fluctuations.

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**Table A-2  
Accomplishments in Gate System and Timber Pools (MMBF)**

<b>Pipeline Pool Volume</b>	<b>2008 Goal</b>	<b>FY 08 (as of 1/23/08)</b>
<b>Pool 1</b>		
Volume Under Analysis (Gates 1 and 2)	299 <sup>1</sup>	300
<b>Pool 2</b>		
Volume Available for Sale (Gates 3, Gate 4 and Gate 5)	86 <sup>2</sup>	142 <sup>3</sup>
<b>Pool 3</b>		
Volume Under Contract (Gate 6)	199 <sup>4</sup>	108 <sup>5</sup>

<sup>1</sup> The goal for volume under analysis is approximately 4.5 times the projected harvest for the current year (66.4 MMBF for 2008 based on expanded lumber scenario). Volume under analysis includes all volume in projects from the Notice of Intent through completion of the environmental analysis for sales planned.

<sup>2</sup> The goal for volume available for sale is to have at least 1.3 times the projected harvest for the current year (66.4 MMBF) in sales that have approved NEPA and completion of timber sale preparation.

<sup>3</sup> As of the date in the table, it is estimated about half of this volume can not be offered since it currently appraises deficit (2008 Appropriations Bill P.L. 110-161, H. Rept. 110-497, Sec. 411). Also, about a quarter of the projects are designed to provide volume for small sales over a period of time and would affect the volume available for offer. About 14 percent of the volume is in settlement agreements. As a result, less than half of the Pool 2 volume is readily available for sale. This figure also does not include volume under litigation – see Table A-3.

<sup>4</sup> The goal for volume under contract is for purchasers to have 3 times the volume under contract as projected for harvest for the current year (66.4 MMBF).

<sup>5</sup> Estimated volume under contract available for harvest (not including timber enjoined from harvest or sales that have had mutual cancellation requests granted).

### **How Appeals and Litigation Affect the Timber Sale Program**

Timber harvest projects require site-specific environmental analysis that usually is documented in an environmental assessment (EA) or an environmental impact statement (EIS). The public is notified of the analysis and is provided the opportunity to comment on proposals and file an appeal on decisions. The administrative appeal process for most timber harvest projects takes up to 105 days before implementation to occur.

When decisions are appealed and affirmed through the administrative appeal process, the project can still be litigated. Litigation can be a lengthy process. Although litigation does not preclude offering timber

for sale, the Forest Service and potential purchasers are often reluctant to enter into a contract where the outcome is uncertain. Recently, sales were enjoined from harvest after the contracts were awarded. The outcome of litigation affects the Forest’s ability to provide a reliable timber supply.

**Table A-3**

**Timber Volume Involved in Appeals and/or Litigation<sup>1</sup>**

Timber volume with decision reversed on appeals <sup>2</sup>	0 MMBF
Timber volume involved with litigation	33.4 MMBF

<sup>1</sup> As of January 23, 2008.

<sup>2</sup> Decision overturned during internal review. Does not include volume in decisions currently in the appeal period or undergoing an appeal review.

## How Does the Forest Service Decide Where Timber Harvest Projects should be Located?

The location of timber sale projects is based first on the land allocation decisions in the Forest Plan. Under the 1997 Forest Plan, lands designated for possible timber harvest are in the development Land Use Designations (LUDs), primarily the Timber Production, Modified Landscape, and Scenic Viewshed LUDs.

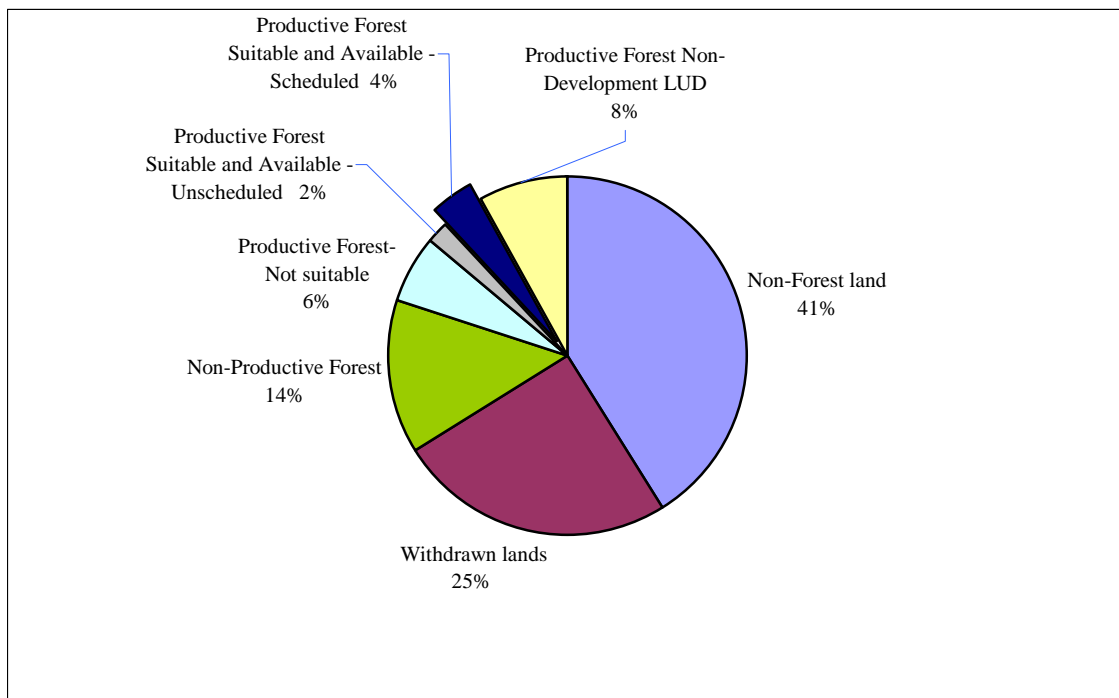
### Timber Resource Land Suitability

The second consideration is the suitability of the land for timber production. Many acres within the development LUDs are not suitable for timber production due to poor soils or steep slopes. The process for determining the suitability of the land is found in the 2008 Forest Plan Amendment, Appendix A. Figure A-2 depicts the classification of all the lands within the Tongass National Forest. Four percent of the Tongass land base, the suitable, available and scheduled forest land, provides the land base for the Allowable Sale Quantity of 267 MMBF per year. Under the 2008 Forest Plan, the remainder of the land, approximately 96 percent or 663,000 acres, is not physically suitable, does not allow timber harvest, or is not scheduled.

## Appendix A

Figure A-2

### 2008 Forest Plan Timber Resource Suitability Analysis



Non-Forest land – Land that has never supported forests, e.g. muskeg, rock, ice, etc.

Withdrawn Lands – Lands designated by Congress, the Secretary of Agriculture, or Chief for purposes that preclude timber harvest, e.g. Wilderness Areas

Non-productive Forest – Forest land not capable of producing commercial wood on a sustained yield basis.

Productive Forest, Not suitable, Physical Attributes – Forest land unsuitable for timber due to physical attributes (steep slopes, soils, etc.) and/or inadequate information to ensure restocking of trees within five years of final harvest.

Productive Forest, Not Suitable, Non-development LUD – Productive forest lands where timber production is not allowed due to Forest Plan land use designation, e.g. Semi-Remote Recreation, Old-growth Habitat, etc.

Productive Forest, Suitable and Available, Scheduled – Forest land that meets all the criteria for timber production suitability and is available and is scheduled by the Forest Plan over the planning horizon

Productive Forest Suitable and Available Unscheduled – Forest land that meets all the criteria for timber production suitability, is available for harvest, however was not scheduled in the Forest Plan model for harvest includes the model implementation reduction factor (MIRF) acreage of 226, 000 acres.

### District-Level Planning

The Tongass National Forest is divided into ten ranger districts. As described in the 2008 Forest Plan Amendment ROD, under the Timber Sale Program Adaptive Management Strategy, the timber sale program will be implemented in three phases as determined by actual timber harvest levels. For current planning and scheduling purposes, the Forest will operate on the Phase 1 portion of the suitable land base, capable of supporting a sustained harvest of 150 MMBF annually. Personal use of timber, micro sales, salvage sales, small commercial timber sales

generally less than one MMBF, young-growth management projects, and the roads associated with these activities, would be allowed in development LUDs outside of the Phase 1 portion of the ASQ land base.

The Forest Supervisor for the Tongass National Forest is responsible for the overall management of the Forest's timber sale program. Included within these responsibilities is making the determination on the amount of timber volume to be made available to industry. Whether or not sufficient funding is appropriated to attain the program is the responsibility of the Congress and the President.

District Rangers develop a timber sale plan of potential timber harvest projects. The goal of the plan is to attain the targeted offer level for the current year, based on the estimated annual market demand, and to develop a timber program for several years of the planning cycle. The offer level for the current year is based, to the extent possible, on the forecasted annual market demand. Actual demand may fluctuate from year to year due to short-term market fluctuations. Actual offer levels vary year to year depending on several factors, including volume in Gates 3 through 5, and current market conditions.

The District Ranger is responsible for identifying and recommending the project areas for the 5-Year Timber Sale Plan. The Ranger's role is to develop and recommend to the Forest Supervisor timber harvest projects that meet Forest Plan goals and objectives. Districts work on various timber sale projects simultaneously, resulting in continual movement of projects through the stages of the timber program pipeline. This schedule allows the necessary time to complete preliminary analysis, resource inventories, environmental documentation, field layout preparations and permit acquisition, appraisal of timber resource values, advertisement of sale characteristics for potential bidders, bid opening, and physical award of the timber sale. Project delays through the completion of Gate 2 attributable to legal injunctions and litigation have affected the offer level in recent years. Once all of the Rangers' recommendations are made and compiled into a consolidated schedule, the Forest Supervisor is responsible for the review and approval of the final timber sale plan and prioritization of projects as necessary.

Considerations the District Ranger takes into account for each project include:

- If the project area contains a sufficient number of suitable timber production acres allocated to development Land Use Designations. Consideration includes if the timber volume being considered for harvest can be achieved while meeting Forest Plan goals, objectives, and standards and guidelines.
- Other resource uses and potential future uses of the area and of adjacent areas and of non-National Forest System lands.

## Appendix A

- Areas where the investment necessary for project infrastructure (roads, bridges, etc) is achievable with the estimated value of timber volume in the project area. Where infrastructure already exists, the project would allow any maintenance and upgrade of the facilities necessary for removal of timber volume.
- Areas where investments for the project coincide with long-term management based on Forest Plan direction.

The implementation of the sales on the timber sale plan depends in part on the final budget appropriation to the agency. In the event insufficient budget is allocated, or resolution of pending litigation or other factors delay planned sales, timber sale projects are selected and implemented on a priority basis. Generally, the higher-priority projects include sales where investments such as road networks, camps or log transfer facilities have already been established or where land management status is not under dispute. The distribution of sales across the Tongass is also taken into account to distribute the effects of sales and to provide sales in proximity to timber processing facilities. Timber sale projects scheduled for the current year that are not implemented, or the remaining volume of projects that are only partially implemented, are shifted to future years in the plan. The sale plan becomes very dynamic in nature due to the number of influences on each district.

## Conclusion

There is a long legislative recognition that timber harvest is one of the appropriate activities on national forests, starting with the founding legislation for national forests in 1897. The Organic Administration Act provides that national forests may be established “*to improve and protect the forest within the boundaries, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of the citizens of the United States.*”

Congress’s policy for national forests, as stated in the Multiple-Use Sustained Yield Act of 1960, is “the national forests are established and shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes.” Accordingly, Congress has authorized the Secretary of Agriculture to sell trees and forest products from the national forests “at no less than appraised value.” The National Forest Management Act directs that forest plans shall “provide for multiple use and sustained yield, and in particular, include coordination of outdoor recreation, range, timber, watershed, wildlife, fish and wilderness.” ANLICA provided for timber harvest from the Tongass as well as other uses such as subsistence. Effects on subsistence resources from timber harvest Tongass-wide are projected to have few differences based on the sequence in which areas are harvested. Because of the multiple use

mandate and other requirements of the laws, these effects to subsistence are necessary, consistent with sound management of public lands.

In addition to nationwide statutes, Section 101 of the Tongass Timber Reform Act directs the Forest Service to seek to meet market demand for timber from the Tongass, subject to certain qualifications. It is the goal of the Tongass National Forest to provide an even-flow of timber on a sustained-yield basis and in an economically efficient manner. The amount of timber offered for sale each year is based on the objective of offering enough volume for sale to meet the projected annual demand. That annual demand projection starts with installed mill capacity, and then looks to industry rate of capacity utilization under different market scenarios, the volume under contract, and a number of other factors, including anticipated harvest and the range of expected timber purchases.

As described by Morse (April 2000), in terms of short-term economic consequences, oversupplying the market is less damaging than undersupplying it. If more timber is offered than purchased in a given year, the unsold volume is still available for re-offer in future years. The unsold volume would have no environmental effects because it would not be harvested. Conversely, a short fall in the supply of timber can be financially devastating to the industry.

### References

Alexander, S. 2008. Tongass National Forest Timber Sale Procedures: Using Updated Information about Market Demand to Schedule FY 2006 Timber Offerings (). USDA Forest Service Region 10, Juneau AK. 10 p. On file with: Regional Economist, Alaska Region, PO Box 21628, Juneau AK 99802.

Brackley, A.M.; Rojas, T.D.; Haynes, R.W. 2006. Timber products output and timber harvests in Alaska: projections for 2005-25. Gen. Tech. Rep. PNW-GTR-677. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 33 p.

Brackley, A.M. and Haynes, R.W. . Timber Products Output and Timber Harvests in Alaska: An Addendum. Res. Note PNW-RN-XXX. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. In Press p.

Brooks, D.J.; Haynes, R.W. 1997. Timber products output and timber harvests in Alaska: projections for 1997-2010. Gen. Tech. Rep. PNW-GTR-409. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 17 p.

Morse, K.S. 2000a. Responding to the Market Demand for Tongass Timber: Using Adaptive Management to Implement Sec. 101 of the 1990 Tongass Timber Reform Act. April 2000. Manag. Bull. R10-MB-413. Juneau, AK: U.S. Department of Agriculture, Forest Service, Alaska Region. 43 p.

Morse, K.S. 2000b. Tongass National Forest timber sale procedures: Using Information About Market Demand to Schedule FY2001 Timber Sale Offerings. October 2000. On file with: Regional Economist, Ecosystem Planning. Juneau, AK: U.S. Department of Agriculture, Forest Service, Alaska Region. 17 p.

USDA Forest Service, 2008a, Forest Plan Amendment Record of Decision, January 2008.

USDA Forest Service, 2008b, Forest Plan, January 2008.

USDA Forest Service, 2008, Forest Plan Amendment Final Environmental Impact Statement, January 2008.

USDA Forest Service. 2003. Supplemental Environmental Impact Statement. Juneau, Alaska: U.S. Department of Agriculture, Forest Service, Alaska Region, Tongass National Forest. R10-MB-481a.