



Status of the Tongass National Forest 2009



Alaska National Interest Lands Conservation Act
Section 706(b) Report to Congress
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Preface

This report is prepared in accordance with Section 706(b) of the Alaska National Interest Lands Conservation Act (ANILCA), which directs the Secretary of Agriculture every 2 years to review and report to Congress on the status of the Tongass National Forest in southeast Alaska. This report was prepared by Dr. Susan J. Alexander, Alaska Regional Economist.

Director of Ecosystem Planning
USDA Forest Service, Alaska Regional Office
Post Office Box 21628
Juneau, Alaska 99802

Summary: Status of the Tongass National Forest, 2009

The objective of this report is to characterize the status of forest resources and resource-dependent industries since the enactment of the Alaska National Interest Lands Conservation Act (ANILCA; Public Law 96-487) in 1980. ANILCA designated over 5.4 million acres of wilderness in the Tongass National Forest in southeast Alaska. With other non-development Land Use Designations (LUDs) established in the 2008 Tongass Forest Plan Amendment, including Wilderness and LUD II, approximately 79 percent of the total acreage of the Tongass National Forest is designated “non-development” as of 2008.

Southeast Alaska’s economic well-being is closely tied to resource-dependent industries, including fishing, forestry, mining, and tourism. Over the last decade, a year of job growth in the Southeast Alaska economy has often been followed by a year of job losses. Wilkinson (2010) found that the southeast region of Alaska lost about 750 jobs in 2009, largely due to the national recession. The region is forecast to lose more jobs in 2010, due to the fragile economy and a decline in cruise ship visitation (Robinson 2010). Cruise ship visitation is by far the largest segment of visitor types in southeast Alaska. Cruise ship visitation declined slightly in 2009 and is projected to decline 15 percent in 2010, from a high of about one million visitors in 2008 (Robinson 2010). Between 2000 and 2009, about half of the active commercial sawmills in southeast Alaska have been dismantled or have become idle. The remaining active sawmills cut a fraction of the wood they are capable of manufacturing, averaging about 10 percent of capacity (Alexander and Parrent 2010). Fishing and the seafood processing industry have been a relatively bright spot in the region’s economy for the past several years (Wilkinson 2010). National Forests in Alaska provide habitat for an average annual commercial harvest of 61.5 million fish with an average dockside value of \$82.8 million.

Purpose

Section 706(b) of the Alaska National Interest Lands Conservation Act of 1980 (ANILCA), as amended, specifies the following reporting requirements:

1. The timber harvest levels in the Tongass National Forest since the enactment of this Act;
2. The impact of wilderness designation on the timber, fishing, and tourism industries in southeast Alaska;
3. Measures instituted by the Forest Service to protect the fish and wildlife in the Tongass National Forest;
4. The status of the small business set-aside program in the Tongass National Forest; and
5. The impact of timber management on subsistence resources, wildlife, and fisheries habitats.

Background

The 2008 Final Environmental Impact Statement for the 2008 Tongass Land Management Plan Amendment (USDA 2008a) is the most up-to-date source of information for most of the topics summarized in this report. The amendment summarizes information compiled for the Tongass National Forest, including comprehensive analyses of timber harvests, wilderness and recreation, fish and wildlife resources, subsistence, and fisheries. The amended plan includes an adaptive management strategy, or phased-in approach for the timber program based on actual timber harvest. It also provides opportunities for the commercial thinning of maturing young growth. Young-growth management could greatly improve habitat for fish and wildlife important to subsistence users, while providing a marketable product (USDA 2009).

The annual “Timber Supply and Demand” reports (required by 706(a) of ANILCA) also provide detailed information. Annual evaluation reports for the Tongass National Forest, such as USDA 2009, provide information about Tongass National Forest resources and management activities. The Alaska Department of Labor and Workforce Development at <http://laborstats.alaska.gov> provides information on employment, wages, and workforce and business characteristics for Alaska. Other sources that provide information helpful in assessing the timber, fishing, and tourism industries in Southeast Alaska include numerous publications by the USDA Forest Service Pacific Northwest Research Station. Recent publications focusing on timber in Alaska include a description of softwood harvest by ownership for Alaska from 1910 to 2006 by Brackley et. al (2009), and estimates of sawmill processing capacity in southeast Alaska in 2007 and 2008 by Alexander and Parrent (2010). Fay et al. (2010) examined methods used by land managers to address dispersed recreation access and other efforts to gather recreation visitor data.

Southeast Wood Products Industry Since Passage of ANILCA

Tongass National Forest timber offered, sold (or “released” on long-term contract), and harvested on an annual basis since 1981 is shown in Figure 1. Sale amounts can exceed offer amounts in a given year; this occurs when an offer is finalized near the end of a fiscal year, but not actually sold (or released) until the following fiscal year.

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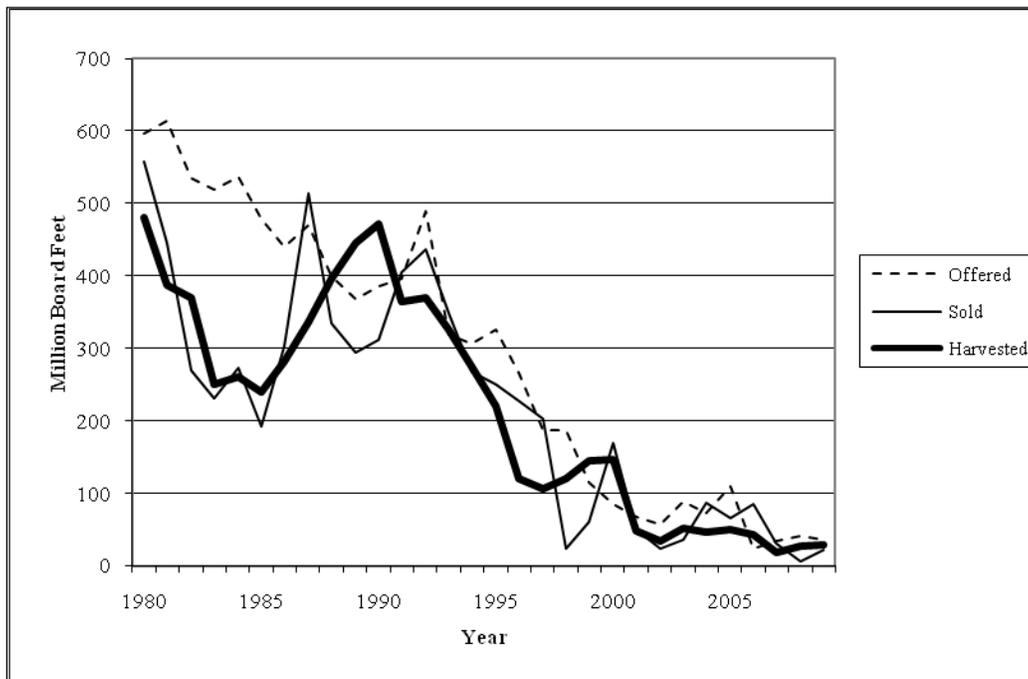


Figure 1. Timber offered, sold, and harvested on the Tongass National Forest, 1981 to 2009.

From 1980 through 2008, approximately 6.4 billion board feet of timber (sawlogs plus utility) have been harvested from the Tongass National Forest. Timber harvests from private lands in southeast Alaska in the same time period are approximately 7 billion board feet of sawtimber and utility. This figure might be high because data from 1983-86 may include south-central private timber harvests. Timber harvests from state lands in southeast Alaska from 1980 to 2008 were about 0.5 billion board feet, and imports amounted to about 0.6 billion board feet over the same time period. As can be seen in Figure 2, Tongass and private timber harvests peaked in the early 1990s and rose again during a market upturn in the late 1990s, but have been in decline in the past decade. Harvests from state lands were stepped up from 2000 to 2007 in an effort to support local employment, but the relatively small land base cannot support the increase. State harvests dropped to about 12 million board feet in 2008, closer to average historic levels.

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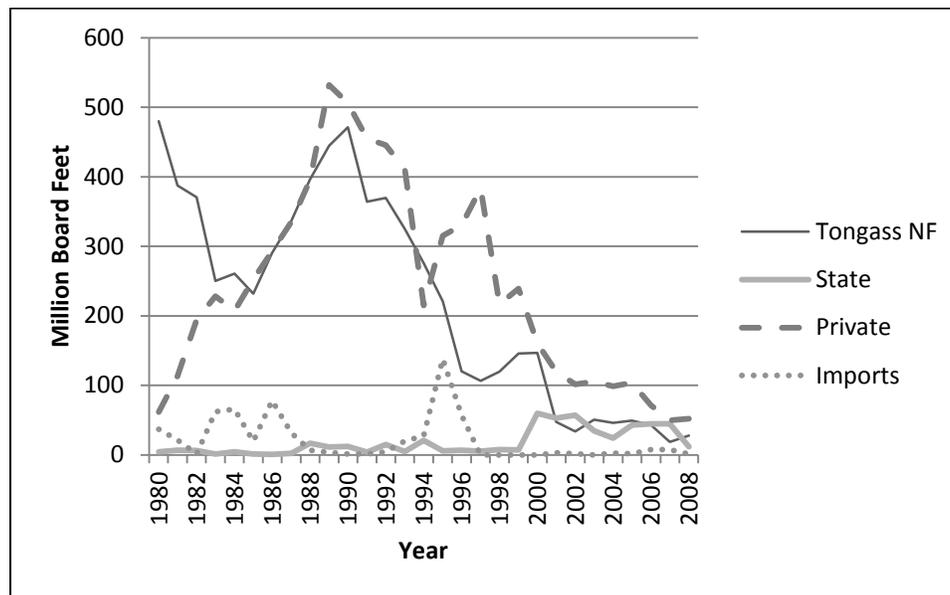


Figure 2. Southeast Alaska Timber Harvest by Ownership, 1980 to 2008.

There have been a number of events since the passage of ANILCA in 1980 that have impacted timber harvest from southeast Alaska and the Tongass National Forest. In 1995, the long-term contract with Alaska Pulp Company was terminated, and they closed their Wrangell sawmill 1 year later. As a result of the termination agreement with Ketchikan Pulp Company of their long-term timber contract, the last sale occurred in 1997, but they continued to harvest timber until 2000. Environmental measures applied during project planning, such as the stream buffer requirements of the Tongass Timber Reform Act (P.L. 101-626, Nov. 28 1990), tend to reduce the amount of available timber. Since 1992, a decline in profitability has continued to the present, driving down offers, sales, and harvests. In 2002, an injunction was placed on permitting timber harvest and road building in inventoried roadless areas, which included the signing of decision documents for timber sales in inventoried roadless areas (*Sierra Club v. Rey*, J00-0009CV(JKS)). Although the injunction ended in spring 2003, the effects lasted throughout the rest of the year. Volume under contract dropped in 2004 and 2005 due to cancelled timber sales. More recently, a severe national economic downturn has affected housing starts, and thereby, the timber market, beginning in 2007.

The volume of timber sold from the Tongass National Forest in the past 5 years ranged from a low of 5.4 million board feet (MMBF) in 2008 to a high of 85 MMBF in 2006. In the same time period, the timber offered for sale ranged from 24 MMBF in 2006 to 110 MMBF in 2005. Harvested volumes ranged from 18.7 MMBF in 2007 to 50 MMBF in 2005. Timber flow volumes are far below allowable harvest rates outlined in the 2008 Tongass Land Management Plan (TLMP). The allowable sale quantity (ASQ) is partitioned into two non-interchangeable components (NICs). About 238 MMBF would be available for harvest under most market conditions (NIC I), as this volume is located on the most operable, accessible ground. The maximum ASQ is 267 MMBF, of which about 29 MMBF is in areas that are difficult to harvest or are isolated (NIC II) (USDA 2008b). Harvested volume in 2007, 19 MMBF, reflects poor

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wood products markets in 2007 due to national home mortgage problems and their impacts on housing markets. Although harvested volumes in 2008 and 2009 picked back up to 28 MMBF in each year, the small sold volume of 5.4 MMBF in 2008 reflected the continued global economic uncertainty and worsening wood products markets. Sold volume in 2009 rose to 28 MMBF, but includes “opted” and “contract” volume. “Opted” is optional volume the purchaser can choose to harvest and pay for if market conditions are suitable. Local purchasers appear unwilling to risk taking on more inventory in the very uncertain markets facing all wood products industries in western North America. Sale design, purchaser preferences, uncertain global wood products markets, and a tight credit market in 2008 and 2009 all influenced the willingness and ability of Southeast Alaska wood purchasers to buy Forest Service timber sales.

The few remaining sawmills and logging businesses in southeast Alaska are struggling to stay in business. In 2000, 20 active and operating southeast Alaska sawmills were assessed for capacity and annual activity (Kilborne et al. 2004). By 2008, these original 20 sawmills had become 23 (due to breakups and reorganizations), of which 12 were active, 4 were idle, and 7 were no longer operable (Alexander and Parrent 2010). The number of active sawmills is expected to continue to decline in 2009 and 2010. The largest active sawmill in 2008 had a capacity of 80 million board feet and cut 17 million board feet, 21 percent of capacity. The rest of the sawmills active in 2008 had capacities ranging from one to 39.6 million board feet and cut an average of about 5 to 8 percent of capacity.

Timber sector employment reflects the ebb and flow of regional timber harvests illustrated in Figure 2. From the peak in 1990 of 3,543 employees in pulp and paper, logging, and sawmilling, in 2008 employment fell to 265 people directly employed in logging and sawmilling (Figure 3). Through 2002, it was assumed all sawmill employment resulted from National Forest timber harvests, since the majority of private and state harvests were exported out of state. However, since 2000, the Tongass has provided from 53 to 75 percent of all wood sawn in southeast Alaska. The remainder came primarily from state timber sales.

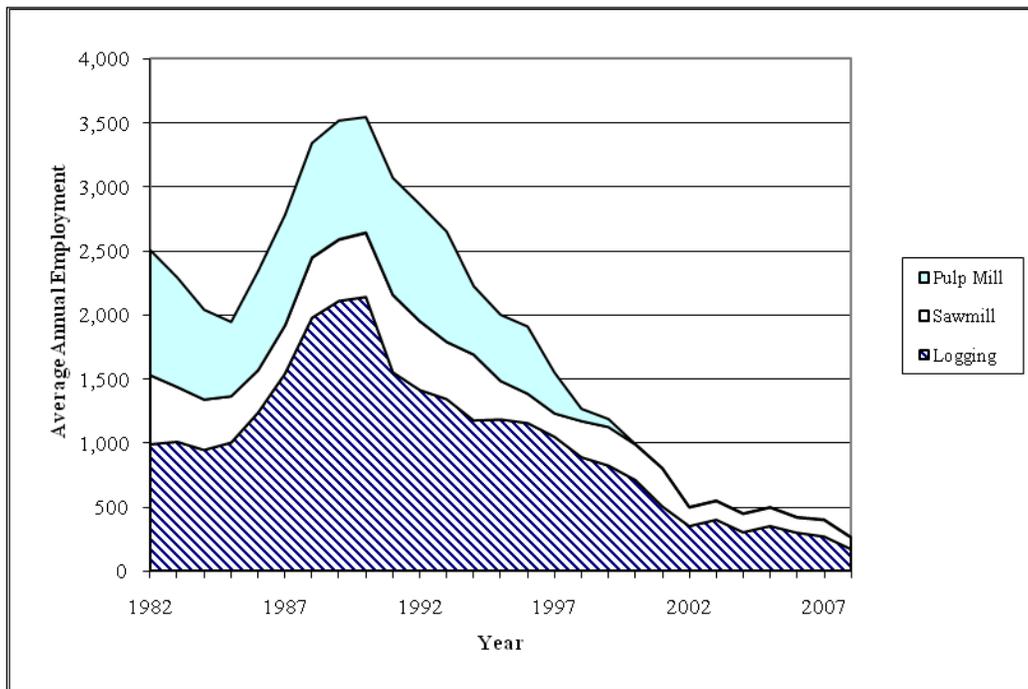


Figure 3. Southeast Alaska Wood Products Employment, 1982 to 2008.

The Impact of ANILCA Wilderness Designation

Under ANILCA, Congress designated 5.5 million acres of the Tongass National Forest as wilderness. In 1990, the Tongass Timber Reform Act added additional wilderness, bringing the total to about 5.8 million acres. In passing ANILCA, Congress was concerned about potential impacts of the wilderness designations on the timber, fishing, and tourism industries in Southeast Alaska.

In general, for all three industries, it is not possible to fully or clearly distinguish the possible effects of wilderness designations from the many other forces affecting timber, fishing, and tourism. Changes in levels of production and employment appear to be primarily linked to changes in market demand for industry products and services, to institutional factors (such as laws and regulations), and, in some cases, to short-term resource availability. Some possible effects of wilderness can be discussed, however.

The Timber Industry

Wilderness designation affects the available timber land base, and, from a long-term perspective, this reduces the acreage on which timber management can be practiced. The 5.9 million acres of Tongass wilderness, including wilderness, wilderness national monument, and nonwilderness national monument land use designations, contain about 1.7 million acres of timber lands (or “productive” old-growth forest). On the entire Tongass, there are approximately 4.2 million acres of “other forest land” and 5.8 million acres of productive forest land. Productive forest land is defined as being capable of producing at least 20 cubic feet of wood fiber per acre per year, or having greater than 8,000 board feet per acre. About 0.5 million acres of the productive

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forest lands on the Tongass have been harvested to date, or have converted to young growth due to fire or wind. This is about 3 percent of the land base, or 9 percent of the productive forest lands (USDA 2008a). Approximately 2.4 million acres are designated for timber production in the 2008 Forest Plan Amendment. The allowable sale quantity is 267 million board feet per year (USDA 2008b), and harvest has been set by the 2008 Record of Decision to take place in stages. The phase one portion includes approximately 537,000 suitable acres, or 69 percent of the total suitable land base. If timber harvest reaches 100 MMBF for 2 years, sales will be planned in the phase two land area. If timber harvest subsequently reaches 150 MMBF for 2 years, the Tongass will plan timber sales in the phase three land base. Timber harvests on the Tongass have been less than 100 MMBF per year since 2001. The Forest Service has a statutory obligation to seek to meet market demand for timber from the Tongass National Forest, both the annual demand and demand for each planning cycle of 10 to 15 years, subject to other applicable law and to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources (TTRA 1990). The wilderness designations have not in themselves constrained the supply of timber from the Tongass to the timber industry to meet demand.

The Fishing Industry

Fish and the aquatic resources on the Tongass provide major subsistence, commercial, and sport fisheries. Wilderness areas are generally protective of fish habitat, and in Alaska, usually allow fish habitat enhancement projects. Over 70 percent of the total fish harvested in southeast Alaska began their life in streams and lakes within the Tongass National Forest boundaries (USDA 2008b). National Forests in Alaska provide habitat for an average (2000-2009) annual commercial harvest of 61.5 million fish, with an average (2000-2009) dockside value of \$82.8 million (values adjusted to 2009 dollars). Fish harvest reporting areas adjacent to National Forest system lands were used to calculate fish production from the Alaska Region of the Forest Service, taking into account proportion of the land base in an area where salmon spawn and rear, and where there is hatchery production. Land management activities that can degrade fish habitat are not allowed in wilderness, and to the extent that wilderness designation has resulted in greater stream protection, wilderness designation may have helped fish production. Bryant and Wright (in press, cited in USDA 2008a) suggested there were some negative effects on some fish populations from older harvest practices (prior to 1980). They state that more recent forest management practices on the Tongass National Forest are intended to prevent the habitat degradation in riparian areas and headwater streams that contributed to adverse effects in the past.

The Tourism Industry

By maintaining the pristine scenery of several million acres of the Tongass, wilderness designations have likely contributed to the growth of tourism since the passage of ANILCA, but it is difficult to separate out these effects from other factors that have contributed to the rise of tourism demand and use in southeast Alaska. One way to look at wilderness versus other land use designation is to examine where “recreation places” are. Recreation places are areas used for recreation activities and are easy to access. Recreation places are identified based on patterns of use associated with protected boat anchorages and landings, aircraft landing sites, and roads. About 1,436 recreation places have been identified on the Tongass, totaling about 3.6 million acres (22 percent of the national forest). About 311 recreation places are located in designated

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wildernesses. Although this is only 22 percent of the Forest-wide number of recreation places, they account for 36 percent of total recreation place acres (USDA 2008a). Designated wilderness areas contribute to maintaining forest scenery for visitors traveling on cruise ships and ferries and prove to be outstanding opportunities for primitive recreation activities. On the other hand, some tourism activities may be limited or excluded from designated wilderness, such as some helicopter uses, and development.

Trends in total visitor arrivals into Alaska have steadily increased since 1993, but are flattening out, and are projected to decline over the next 2 years. Two cruise ship companies recently announced they are adding ships to routes in southeast Alaska in 2011 and 2012. Cruise ship visitation is by far the largest segment of visitor types in southeast Alaska. Cruise ship visitation in southeast Alaska declined slightly in 2009 and is projected to decline another 15 percent in 2010. Independent visitation is also declining (Robinson 2010).

Increased tourism in the past decade led to construction of new facilities to support visitation, including lodges, full-service campgrounds, and marine and gas stations. These are examples of what is referred to as major development. Minor development includes facilities or site modifications such as cabins, small docks, temporary camps, and simple rustic campgrounds. Both major and minor developments are prohibited in wilderness, National Monument wilderness, and research natural areas, which altogether account for about 35 percent of the Tongass. Major development is discouraged in municipal watersheds, remote recreation, and experimental forest land use designations, which account for an additional 17 to 19 percent of the Tongass (USDA 2008a).

Fish and Wildlife Resource Protection

The Tongass National Forest Plan (USDA 1997; USDA 2008c) includes a comprehensive conservation strategy to provide the necessary landscape and habitat characteristics for biological communities and target species. Planners used the best available scientific information to develop this strategy, which revolved around habitat protection through a reserve system (mostly old-growth forest) and other considerations for specific species found in the Forest. Maintenance of large continuous tracts of old-growth forest sought to maintain the abundance and diversity of habitat types in the Tongass National Forest necessary to sustain viable populations of fish and wildlife for continued subsistence, sport, and commercial use.

Monitoring has indicated no unexpected downward trends in species populations since implementation of the 1997 Forest Plan. The most current issue for managers is Sitka black-tailed deer. As harvested stands regenerated, wildlife managers expected a reduction in suitable winter habitat for deer to result in decreased population size. A series of mild winters over the last decade, combined with Forest Service efforts to thin dense thickets of regenerated trees, may reduce the possibility that deer populations will decline significantly.

Competition for available deer between urban hunters from Ketchikan and federally-qualified rural subsistence hunters has been of high interest on Prince of Wales Island in the southern Tongass National Forest. Subsistence hunters have testified that they have had difficulty

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meeting their need for deer. Prince of Wales Island has received relatively high levels of timber harvest in the past, has a developed road system, and is easily reached by ferry on a daily basis from Ketchikan. The Forest Service has supported the Southeast Regional Advisory Council's effort to engage stakeholders in development of a deer management plan for Prince of Wales and adjacent islands.

Small Business Timber Set-aside Program

Prior to ANILCA, the Forest Service and the Small Business Administration carried on a small business "set-aside" program to provide Tongass National Forest timber to small businesses in the region. These small firms (with less than 500 employees) were given a preferential right to bid on short-term offerings (which require harvest within 10 years); the original goal was to offer 80-100 MMBF annually to small business. Further measures in TTRA (Public Law 101-626, Sec. 105) and inter-agency agreements eventually raised the goal for "set-aside" to half of the total timber offered per year. Currently, sales to small businesses dramatically exceed that target amount (in proportion of total offers), although the absolute amount of timber harvested in the last 3 years has been well below the Tongass National Forest ASQ. While there are currently no large business purchasers in Southeast Alaska, the set-aside program remains at half of the timber offered per year in order to leave the opportunity open for large business purchasers to enter the market.

Impact of timber management on subsistence resources, wildlife, and fisheries habitats.

Subsistence hunting, fishing, trapping, and gathering activities are very important to many southeast Alaska residents. The recent Tongass Forest Plan amendment environmental impact statement (USDA 2008a) contains extensive analyses of the impact on land management activities on subsistence, wildlife, and fisheries. The analysis found that none of the alternatives in the forest plan amendment would directly limit the use of public lands for subsistence activities. Historical access (by foot, boat, and floatplane) would remain available under all alternatives. Subsistence hunters have varying opinions on the effects of clearcut harvest on hunting success. Some say that timber harvest clearcuts are good places to hunt for several years after harvest, while others prefer not to use clearcuts. Hunters interviewed on Prince of Wales Island said the hunting was best in clearcuts from 2 years through about 9 years after harvest (Brinkman 2006). Galginaitus (2004) reported that hunters were concerned about regrowth becoming too dense to hunt several years after clearcutting. Road building as a result of timber management increases access, which can increase competition for subsistence resources. Subsistence use is addressed specifically in a Forest-wide standard and guideline, and subsistence resources are covered by the Forest-wide standards and guidelines for wildlife, fish, riparian areas, and biological diversity, among others. Standards currently in effect are far more protective than those of 20 or 40 years ago. The scientific understanding of how to minimize adverse environmental effects of human activities continues to improve. Fish and wildlife habitat productivity will be maintained at the highest level possible under the selected alternative. According to the 2008 Forest Plan Record of Decision, the amended Forest Plan has a high likelihood of sustaining populations Forest-wide for the continued subsistence, recreational, and commercial uses of fish and wildlife (USDA 2008b).

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