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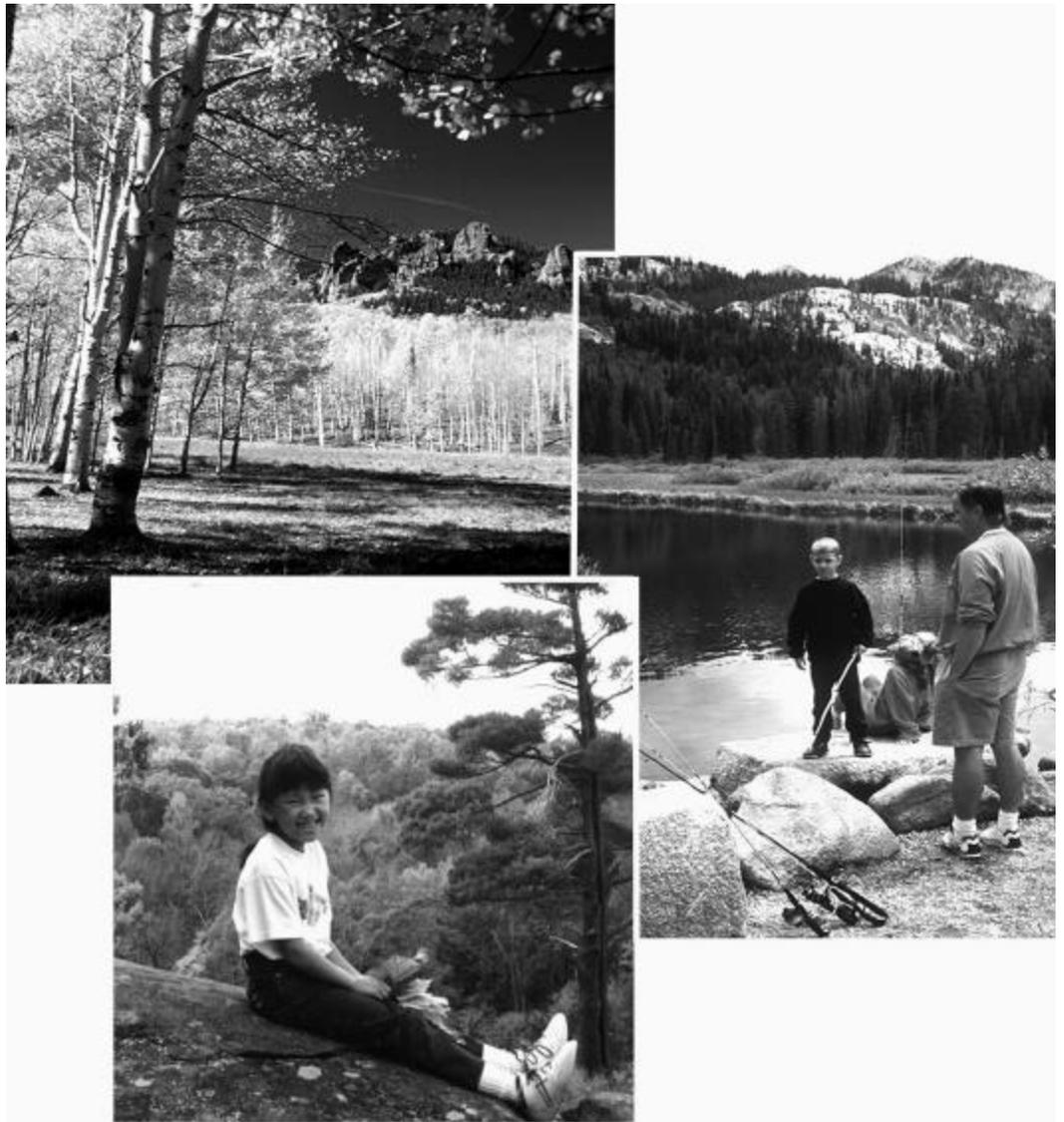
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Forest Service Roadless Area Conservation

Final Environmental Impact Statement

Tongass Economics Specialist Report



Tongass Economics Specialist Report

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Abstract

This report includes a discussion of the data, methodology and assumptions used to estimate the economic impact to Southeast Alaska of alternative proposals for managing inventoried roadless areas on the Tongass National Forest. Recent projections of Tongass timber demand are also reviewed and provide a basis for a discussion of how the alternatives for managing roadless areas may affect the Forest Service's ability to supply timber to meet market demand. The results section summarizes the economic effect of each of the Tongass alternatives.

Changes between Draft and Final

This resource report is a supplement to the work completed for the DEIS. In addition to the economic consequences of changes in the timber industry reported in the DEIS, this report includes an analysis of the effects of the roadless area conservation alternatives on Forest Service employment and program expenditures in Southeast Alaska. This report also summarizes recent finding with respect to timber demand in Southeast Alaska and provides a basis for discussion of the way in which the roadless area conservation alternatives may affect the Forest Service's ability to meet the projected market demand for timber from the Tongass.

Affected Environment

Economic Conditions and Trends in Southeast Alaska

The Alaska Department of Labor is projecting a one percent growth rate in employment in the Southeast Alaska region for the next few years. Employment in the forest products industry and federal and local government is expected to decline. At the same time, the service sector is expected to pick up an additional 650 jobs in social services, hotels and lodging places, and amusement and recreation services. Tourism will continue to be an expanding industry in Southeast and the demand for sightseeing tours and other services is expected to grow in pace with the number of visitors. The following discussion of individual sectors within the Alaskan economy borrows heavily from Alaska Department of Labor trade publications (Alaska Department Of Labor, 2000).

Service Sector Outlook

Hotel employment is projected to increase in Juneau in conjunction with new room capacity and a good visitor season. In 2000, a 40-room expansion and two new hotels will open for business. A new home for disabled adults will also open in Juneau, increasing employment in the social services sector. Employment in health services may also see some increases from the move to privatize health and social services by the City and Borough of Juneau. Further growth in Juneau will spring from a new elder care facility expected to open in the spring of 2001. Ketchikan will see some increase in this sector as a new wing is scheduled to open at the Ketchikan General Hospital toward the end of the year.

Construction Outlook

General construction employment will get a boost from ongoing hotel expansion and construction activity in Juneau. Work also began recently on a Burger King in Ketchikan and construction activity is expected this summer at the former pulp mill site in Sitka in preparation for the opening of a water bottling plant. Construction on the Wal-Mart Ketchikan is expected to begin toward the end of 2001.

Publicly funded projects will be the driving force in construction employment growth for the Southeast Region. Infrastructure improvements are planned in most communities using various combinations of federal, state, and local funds. Projects will include harbor construction and improvements, road building and maintenance, water and sewer upgrades, and airport work. School construction and renovations are underway or planned in Craig, Sitka, Juneau, and Wrangell. The Alaska Marine Highway System also plans to build a new administrative building in Juneau. Construction of a youth detention facility in Ketchikan and the new National Marine Fisheries (NOAA) facility in Juneau will further increase construction employment in 2001.

Implementation of the Southeast Transportation Plan will be underway in 2000. The first stage of the plan involves an alternative ferry route from Ketchikan to Hollis, on central Prince of Wales. The Inter-Island Ferry Authority (IFA), with board members from Wrangell, Petersburg, and four POW Island communities will operate the year-round ferry service. The Alaska Marine Highway System will terminate its Ketchikan to Hollis route once the IFA begins service, currently scheduled for spring 2001.

While the IFA's first ferry is being built in Washington, construction of a transfer facility in Ketchikan and terminal improvements in Hollis will boost Southeast construction employment in 2000. The IFA has plans for a second ferry that will run from Coffman Cove on northern Prince of Wales Island to southern Mitkof Island, which will allow access to Petersburg. The ferry might also stop in Wrangell. Work could begin on the Coffman Cove ferry and terminal in 2001. Future Southeast Transportation work will involve more terminal construction and improvements in roadwork on Prince of Wales, Mitkof Island, and Wrangell.

Retail Trade Outlook

Retail trade employment should continue to grow through 2001. A new Burger King could provide up to 40 additional jobs in Ketchikan. Other retail growth will come from additional workers at eating and drinking establishments and incremental growth at gift shops and other retail stores that serve the tourism industry. In 2001, job growth is expected to continue in these sectors. The Ketchikan Wal-Mart is expected to add a significant number of employees sometime after 2001.

On the downside, cutbacks in the air transportation sector will dampen growth. Some employment losses are expected in 2000 due to reduced activity at Taquan Air earlier this year. Although the company is expected to find a buyer by mid-year, staff reductions during the first half of the year will effect overall employment numbers. Prior to reductions, Taquan employed a staff of 80 persons.

Government Sector Outlook

Government employment is expected to increase in 2000 due to U.S. Bureau of Census employment and increased employment at local school districts. The increase in local government will be offset by the loss of 40 jobs in Juneau when the city privatizes some health and social services programs. In 2001, the census will be complete and the effects of reduced municipal assistance plus flat or declining school enrollments will likely trigger cuts in school district employment.

State government employment is projected to be flat in the Southeast region through 2001. Although spending for some state-sponsored programs is steadily decreasing, implementation of the Southeast Transportation Plan, continued growth in health and social services, and a youth detention facility in Ketchikan will offset potential declines from reduced spending in other areas.

Manufacturing Outlook

The manufacturing sector will continue to lose jobs in 2000 and 2001, primarily due to the forest products industry. The late 1999 closure of the sawmill in Metlakatla and layoffs at the Craig native corporation's timber offices are key factors in the decline. In addition, stiff competition in the export market for Southeast timber has steadily decreased the amount of timber harvested on private lands. Competition plus supply restrictions have scaled back logging on the Tongass National Forest, as well. For the next two years, logging activity should be consistent with 1999 harvest levels, but reduced supply could force more job losses at sawmills in Southeast. Plans for veneer plants in Ketchikan and Klawock are being explored.

Seafood processing employment should remain fairly stable for the next two years. The 2000 Southeast salmon forecast predicts a harvest smaller than the near-record breaking 1999 catch. The reduced harvest will likely reduce processing employment this year, but last year's employment levels were already held down by labor shortages. These labor shortages will likely continue to be a factor as long as the national economy remains healthy. Some employment gains could come later in 2001 from a planned chum processing plant in Sitka. Ward Cove Packing plans to operate the processing plant at the former pulp mill site.

Mining Outlook

Mining employment is expected to be stable in the Southeast region for the next two years. Although exploration activity at the Greens Creek mine near Juneau uncovered substantial deposits that could increase the life of the mine, employment levels are expected to be fairly flat. In 1999, the mining sector lost jobs in Southeast, primarily from small gold mines that scaled back or shut down in response to low gold prices. Gold prices are expected to remain low, but if the price does rise significantly, these mines could staff up to pre-1999 levels.

Employment in the finance, insurance, and real estate sector is expected to remain fairly stable for 2000 and 2001.

Summary Outlook

Slow but stable employment growth of about one percent will characterize the Southeast economy over the next two years. Strong performances will likely come from services and publicly funded construction while the wood products industry will slow overall job growth in the region.

Ten-Year Forecast

Overall, total employment in Alaska is expected to increase at an annual average rate of 1.6% from 1998 through 2008. This rate of growth is well below the average annual Alaska employment growth rate of 2.5% experienced from 1988 to 1998, but greater than the 0.9% annual growth rate estimated for 1999.

Employment growth will be focused primarily in the services, trade and transportation industry sectors. The movement from resource extracting to service, trade and transportation jobs will tend to favor large, urban communities during the coming decade. The new jobs will be likely to pay less than many of the jobs that have been lost in declining resource extraction industries. Employment growth will be driven by steady but slow net economic growth, increased population, industries new to Alaska, increased tourism, and the expanding capacity of local industry to meet resident demand for goods and services.

The resilience of the Alaska economy has been surprising. Despite oil prices reaching historically low levels, oil industry layoffs, state and local budget cutbacks, closure of pulp mills and sawmills in Southeast Alaska, declines in fishing harvest, and reduced median household income, total employment has increased each and every year in the 1990's.

Industries leading the expansion include Alaska's air cargo and visitor industry sectors, telecommunications, health services and the retail sector. Also, the number of nonresident workers in Alaska has declined, thereby reducing the leakage of income out of Alaska. The ever-increasing Permanent Fund Dividend check has provided a huge boost in consumer spending, equivalent to a thirteenth monthly paycheck for most families.

Moreover, Alaska's population has reached the critical mass where retail and service needs can be met locally, rather than from outside Alaska. Retail trade employment growth of nearly two percent and services employment growth of more than three percent during the coming decade are indicative of retailers' and service providers' success capturing an ever greater share of Alaskans' income.

The Timber Industry and Market Demand

In 1999, the timber industry in Southeast Alaska employed roughly 1,190 persons. A series of mills closures and declining harvest have reduced the footprint of the industry today relative to the recent past. Today, timber processing activity centers around four larger sawmills (25-60 MMBF annual log consumption), two located in Ketchikan, one in Wrangell, and one in Klawock, on Prince of Wales Island. Other small mills (approx. 5 MMBF annual log consumption) are located in Ketchikan, Metlakatla, Kasaan, Petersburg, Juneau and Hoonah. Several smaller, one or two-man operations are scattered throughout the region. These include shake and shingle mills on Prince of Wales Island and mobile dimension sawmills located in virtually every community. The latter are used primarily for sawing lumber for personal use and some individuals make a living providing this service to their neighbors.

In the late 1980's and early 1990's the timber industry played a much larger role in the regional economy. Total employment peaked at 3,543 jobs in 1990, including the 900 employees that worked in the region's two large pulp mills. Since that time, Tongass timber harvest has dropped from 471 MMBF to a 1999 level of 146 MMBF. Timber harvest on private lands has declined as well, falling from an estimated 506 MMBF in 1990 to around 250 MMBF in recent years. The job impacts associated with the decline in private timber harvest are generally limited to the logging industry as most of this material moved directly into export markets in round log form. From 1990 to 1999, an estimated 2,353 jobs were lost in Southeast Alaska's timber industry. It is estimated that the decline in private timber harvest accounted for approximately 20 percent of the employment losses (USDA Forest Service 2000a).

The size and reliability of the Tongass timber supply has been the subject of congressional scrutiny for many years. Section 705(a) of the Alaska National Interest Lands Conservation Act (ANILCA; P.L. 96-487) directed the Forest Service to maintain the timber supply from the Tongass National Forest to dependent industry at a rate of four billion five hundred million board feet measure per decade. The legislation also provided at least \$40 million annually to the Secretary of Agriculture to accomplish this objective.

A decade later, Congress passed the Tongass Timber Reform Act "to make management of the Tongass consistent with the management of the other 155 forests in the National Forest System (U.S. House of Representatives, 1988)." In doing so, the unique timber supply provisions and fixed appropriations included in Section 705(a) of ANILCA were repealed and replaced with the following more general direction in Section 101:

Subject to appropriations, other applicable law, and the requirements of the National Forest Management Act (P.L. 94-588); except as provided in subsection 9d) of this section, the Secretary shall, 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 market demand from such forest for each planning cycle.

As the Tongass Land Management Plan was being revised in 1997, research economists at the Pacific Northwest Research Station (PNW) were asked to update their earlier projections of Alaska timber products output and timber harvest by ownership (Brooks and Haynes, 1997). The most recent projections of timber harvest over the planning cycle account for several dramatic changes in the region's manufacturing capabilities, increased competition from a number of sources, and the steady erosion of North America's share of Japanese timber markets.

The harvest projections are based on the expected outcome of three market scenarios developed by PNW's economists to portray alternative futures for Alaska's forest sector. Several key information sources indicate that the current state of Southeast Alaska timber markets most closely resembles that of the "Low" market scenario. Relative to the recent past, timber inventory is substantial, industry capacity utilization rates are low, and there is no evidence of industry-wide changes in processing efficiency. Under these conditions, average annual harvest is projected at 124 MMBF for the remainder of the forecast period (2000-2010).

The Forest Service Presence in Southeast Alaska

Direct Employment and Payroll

There are three Forest Supervisor's Offices affiliated with the management of the Tongass National Forest in Southeast Alaska. They are located in Sitka, Petersburg and Ketchikan. Ranger District Offices are located in Yakutat, Hoonah, Juneau, Sitka, Petersburg, Wrangell, Ketchikan, Craig, and Thorne Bay. A total of 473 permanent employees were employed by the Forest Service and stationed in offices across the Tongass in FY 2000. Table 1 shows the distribution of employees and estimated payroll by community. The numbers below are intended to portray the existing workforce and do not include vacant positions.

Table 1. Tongass permanent workforce by community.

	Forest Service Employees ¹	Forest Service Payroll (\$mm) 1997	Total Wage and 1998 Salary Employment (in thousands of dollars) ²	Total Population 1998	Total Payroll (\$mm 1997)
Yakutat	6	0.3	422	775	12.2
Hoonah	10	0.5	not available	892	not available
Juneau	39	1.8	16,461	30,021	525.5
Sitka	91	4.8	3,875	8,722	106.4
Petersburg ³	104	5.3	1,696	4,650	45.3
Wrangell	38	1.8	848	2,560	24.5
Ketchikan	114	5.9	7,025	14,143	222.4
POW Island ⁴	71	3.4	2,201	6,830	61.6
Craig	29	1.4	not available	2,144	not available
Thorne Bay	42	2.0	not available	588	not available
Total	473	\$ 23.8		\$71.3	

¹ Source: Employment numbers are taken from the Tongass budget staff estimates of FY 2001 employee cost to government, adjusted to account for double-counting across staffs, resignations and new-hires. Payroll estimates are from the same source adjusted downward by 15% to account for included costs paid by government.

² Source: Alaska Dept. of Labor and "Economic Impacts of Declining Timber Harvests", The McDowell Group, February 2000.

³ Includes all communities except Wrangell that are reported as part of the Wrangell-Petersburg Census Area (i.e. Kake and smaller settlements).

⁴ Includes communities of Metlakatla, Hyder, Coffman Cove, Hollis, Edna Bay, Hydaburg, Klawock, Naukatli and other small settlements located on Prince of Wales Island. Craig is the largest community included in this census area.

Assumptions

Self-Employed and Sole Proprietorship

The Alaska Department of Labor regularly reports employment and earnings across the State. An important caveat is that this data pertains to employees that are covered by employment security. Information about self-employed persons is neither collected nor reported. However, in Southeast Alaska, self-employed workers comprise a disproportionate share of the labor force in certain resource-based industries. The data gaps are especially problematic in commercial fishing and tourism-related services. Because of the limitations of the data used, this analysis may tend to overestimate the percentage impacts to employment and earnings in communities where commercial fishing or guides and outfitters make up a significant component of the economic base (e.g. Petersburg).

Methodology and Information Used

Estimating Indirect Effects of Changes in Forest Service Payroll Expenditures

Just like any other economic sector, changes in Forest Service employment will lead to other changes in the local economy. Employee expenditures on groceries, rent, services etc. are called "personal consumption expenditures" (PCE) and can be traced through the economy to estimate the impact of changes in wages and salaries. While the specific

items purchased may differ in some respects, nationwide, people tend to spend their salaries in the same broad categories of goods and services. Expenditure profiles have been developed and included in the IMPLAN economic model. Using this model for the Southeast Alaska region, \$1 million in PCE is estimated to support 10.5 jobs and \$252 thousand in personal income (in 1997 income). Using this relationship, the secondary impacts arising from reductions in Forest Service payroll can be estimated at a regional level. Secondary effects are most appropriately reported at the regional scale because an extensive trade network has developed among the larger trading hubs of Ketchikan and Juneau and the outlying communities.

Estimating Indirect Effects of Changes in Forest Service Budget Expenditures (excluding permanent workforce)

The Forest Service program and presence in Southeast Alaska goes beyond the wages and salaries of the permanent workforce. In FY 2000, the budget for the Tongass National Forest was approximately \$61 million (USDA Forest Service 2000b). Of this, some \$28 million was paid out in employee salaries and benefits, discussed above. The remaining \$33 million represents program expenditures in areas such as travel and transportation, building leases and rent, utilities and phone service, supplies and materials, temporary employees and per diem, and contracted services. Some of these expenditures were made to entities and individuals outside the region and the State. Other, such as air transportation, rent, and utilities, can be traced directly to local suppliers.

The information to complete a detailed analysis of budget expenditures is not readily available. In the absence of better information, the effect of changes in Forest Service budget expenditures has been modeled using the household PCE vector. Given the pass-through nature of the Southeast economy, however, it is likely that the portion of the total expenditures that remains in the region is limited to retail margins and services. The intent is to assess the effect of a change in expenditures primarily focused in the retail trade and service sectors of the economy. This is accomplished using the PCE as a proxy for government spending patterns. The estimated effects of budget reductions are also analyzed and reported at a regional scale.

Results

Tongass Not Exempt Alternative

Prohibition alternatives selected for the rest of National Forest lands would apply to the Tongass National Forest

Alternative 2 – Prohibit Road Construction and Reconstruction Within Inventoried Roadless Areas

Alternative 3 – Prohibit Road Construction, Reconstruction, and Timber Harvest Except for Stewardship Purposes Within Inventoried Roadless Areas

Alternative 4 – Prohibit Road Construction, Reconstruction, and All Timber Cutting Within Inventoried Roadless Areas

Tongass Exempt Alternative

Alternatives selected for the rest of National Forest System lands would not apply to the Tongass

Tongass Deferred Alternative

No prohibitions at this time; determine whether road construction should be prohibited in inventoried roadless areas on the Tongass as part of the 5-year Plan Review

Tongass Selected Areas Alternative

Prohibit road construction and reconstruction in Old-growth Habitat, Semi-Remote Recreation, Remote Recreation land use designations, and LUD IIs within inventoried roadless areas on the Tongass

Effects of the Tongass Not Exempt Alternative (Alternative 2,3 or 4 applied to Tongass)

With regard to their impact to the Tongass timber program and to the economy of Southeast Alaska, there is little difference among these three action alternatives. Alternative 2 prohibits road construction and reconstruction in IRAs while Alternative 4 prohibits road construction, reconstruction and timber harvest. Alternative 3 prohibits road construction and reconstruction in IRA's and would allow timber harvest for stewardship purposes only. Because the Tongass has no stewardship component in its timber sale program, Alternative 3 and 4 would have the same effects. Both would prohibit timber harvest on the Tongass.

Alternative 2 allows harvest in areas where it is not necessary to build roads. However, most of the timber harvest planned for the Tongass will require roads to be built. It is estimated that roughly 5 MMBF may be made available each year along the existing road system. As opposed to Alternatives 3 and 4, Alternative 2 would allow this increment of

harvest to continue. As shown below, the consequence is a slightly lesser impact to timber-related employment relative to the more restrictive alternatives.

Alternatives 2 through 4, if applied to the Tongass, can be expected to have a substantial effect on the forest's timber program. Nearly two-thirds of the Forest's timber sale volume is scheduled to come from inventoried roadless areas. Under the prohibition alternatives, annual timber offerings from the Tongass will be reduced from 176 MMBF to 73 MMBF under Alternatives 2 and 3 and to 68 MMBF under Alternative 4. As a result, timber harvest activity, currently projected at 124 MMBF annually, will likely be reduced to around 50 MMBF. Because the industry currently has a two- to three-year supply of volume under contract, the prohibitions are unlikely to have an immediate effect on harvest activity but will lead to gradual reductions over the next few years.

Alternatives 2 through 4 will restrict the timber supply available to the industry and bring about a fundamental shift in the region's timber market. Relative to current industry operations and projected timber demand, the prohibition alternatives may result in a harvest shortfall of approximately 73-77 MMBF of timber annually. In the short run, the immediate effect of supply shortages is likely to be intense competition and bidding activity for the timber sales that are made available. As time goes by, competition will drive out the least efficient operations, thereby reducing mill capacity and the associated long-run demand for Tongass timber.

Mill closures, and reduced logging activity can be expected to trigger direct job losses of 364 to 383 employees in the private sector. The direct income loss is estimated at \$16.7 to \$17.6 million. These job losses will occur in communities where mills and logging companies are located. These include: Ketchikan, Coffman Cove, Craig, Thorne Bay, Klawock, Metlakatla, Wrangell, Petersburg, and Hoonah. Over time, as the effect of the direct job losses and business closures work their way through the economy, another 218-230 jobs may eventually be lost along with \$10.1 to \$10.6 million in income. The so-called "indirect" effect will be more widely spread throughout the region, impacting retail and service providers in urban as well as rural communities. As noted above, the immediate impact to mill operations will be buffered to some extent, as short-term operations will be maintained by a supply of volume under contract.

Because non-residents comprise a relatively high percentage (29.6%) of the workforce in the Southeast Alaska timber industry, the actual economic effects of Alternatives 2 through 4 within the State of Alaska may be smaller than estimated here. Non-residents are more likely to spend their earnings at home rather in Alaska. Therefore, job losses affecting this segment of the workforce would result in a slight reduction of economic activity in other States.

Alternatives 2 through 4 will have a direct effect on Forest Service operations in Alaska. Timber and road construction dollars accounted for more than 40 percent of the budget allocation for the Tongass National Forest in FY 2000. For some Districts, these programs accounted for 60% to 70% of program dollars. Timber and road dollars also contribute to "indirect project costs" thereby supporting the administrative workforce, office operations and associated infrastructure on the Forest. Unless budget allocations

reflect a significant change in programs and priorities, Alternatives 2 through 4 are likely to reduce Forest Service employment in the region.

The relationship between Forest Service employment and timber output is complex and difficult to quantify. For purposes of this analysis, it is assumed that there is a direct relationship between the workforce and the budget. In other words, if the timber program accounts for 40% of the budget, and if the program is reduced by 60%, there is assumed to be a 24% reduction in the permanent workforce. The actual percentages used vary by location and by program area. Given these assumptions, the Forest Service employment impact for Alternative 4 is estimated at a loss of 141 jobs, or 30% of the current Tongass workforce. Over time, cutbacks in Forest Service payroll and program expenditures are likely to trigger additional job and income losses in other sectors of the economy. These indirect consequences may eventually lead to a loss of another 141 jobs and \$3.4 million in personal income, with impacts occurring throughout the economic region. The number of Forest Service jobs lost will be greatest in those communities with both a Supervisor's Office and a District Office presence. These include Sitka, Petersburg, and Ketchikan.

The total effect of applying Alternatives 2, 3 or 4 to the Tongass National Forest is estimated to be a loss of 864 to 895 jobs and \$37.3 to \$38.7 million in personal income in Southeast Alaska. Job losses in the timber industry will likely occur over a two- to three year period as mills deplete their stockpiles of volume under contract and face increasing competition for a smaller timber supply. A similar time frame can be expected for Forest Service employment reductions, as difficult choices are made about office closures and personnel actions. Indirect effects from lost wages and cutbacks in program expenditures will play out over a number of years and may be offset by growth in other economic sectors.

As mentioned above, impacts to sub-regions of the Southeast economy are likely to be more significant than impacts to the region as a whole. Communities or sub-regions where the timber industry continues to be a cornerstone of the economy and where the Forest Service has a strong presence will especially be at risk of economic decline. Under this assumption, the social and economic consequences of Alternatives 2 through 4 are likely to be concentrated in the Prince of Wales Island sub-region, Wrangell, Petersburg, Hoonah, and Ketchikan.

Effects of the Tongass Exempt Alternative

Under the current TLMP, the total projected timber offer in inventoried roadless areas on the Tongass from fiscal year 2000 through fiscal year 2004 is 539 MMBF, requiring 291 miles of road construction and reconstruction. This represents nearly half the timber volume projected to be offered from inventoried roadless areas nationwide for this 5-year period. Given the projected offer level, it is estimated that 76.6 MMBF of timber would likely be harvested annually from inventoried roadless areas on the Tongass. This level of harvest is estimated to support 383 direct timber industry jobs and accounts for \$17.6 million in direct income. The projected timber sale offer level under the Tongass Exempt Alternative would provide for a harvest level that is consistent with current projections of market demand. No change in Forest Service employment or budget expenditures is anticipated.

Effects of the Tongass Deferred Alternative

As described under the Tongass Exempt Alternative, a substantial amount of timber harvest and roading is projected to occur in the inventoried roadless areas of the Tongass in fiscal years 2000 through 2004. These activities and the associated economic effects are not likely to be affected under this Alternative. Predictions about the outcome of the analysis and decision to be made during this review are highly speculative. At best, it is reasonable to project that after further review of all inventoried roadless areas on the Tongass, prohibitions may be applied in some of the areas considered. When the Plan review is initiated, the economic effects can be predicted with greater certainty and will be part of the information considered in determining whether and how additional protections should apply to inventoried roadless areas.

Effects of the Tongass Selected Areas Alternative

This Alternative would have a significant effect on the short-term timber supply (i.e. the scheduled timber offer in the first 5 years of the 10-year sale schedule). Over this time, the Forest would be prohibited from offering an estimated average of 48 MMBF of timber per year. This equates to roughly one-third of the scheduled timber supply. The associated reduction in harvest may trigger the loss of up to 170 direct jobs and \$7.8 million in direct income. The job losses may come in the form of temporary layoffs or permanent mill closures as the industry adjusts to a short-term supply disruption. Companies with an ample supply of volume under contract are better prepared for a timber sale shortage and are not likely to be heavily impacted.

The reduced timber supply would cause a short-term disruption in the region's timber market. Relative to current industry operations and projected demand, the Tongass Selected Areas Alternative would lead to a shortfall in annual harvest of approximately 34 MMBF for the first 5 years in the 10-year sale schedule. Because of the long lead time involved in timber sale planning on the Tongass, it is unlikely that substitute volume could be made available to take the place of the sales dropped from the sale schedule. After the initial 5-year period, future timber offerings are planned for areas of the forest that are largely outside the focus of this alternative, which may allow the industry some chance of recovery.

Because this Alternative represents a short-term fluctuation in an otherwise stable and ongoing program, no significant effects to Forest Service employment are anticipated. In the short term, the timber program emphasis may move away from sale implementation and toward out-year sale planning.

Potential Mitigations for the Tongass

The Roadless Area Conservation FEIS identifies social and economic mitigation measures where roading or timber harvest in inventoried roadless areas may be authorized. A complete description of these exceptions is included in Chapter 2 of the Roadless FEIS. One of the mitigations that could be included under the Tongass Not Exempt Alternative would delay implementation of prohibitions on the Tongass until the 5-year Plan Review in 2004. The delay would allow roading and timber harvest in inventoried roadless areas to occur as currently projected under the 1999 Record of Decision through 2004 (USDA Forest Service, 1999a). Harvest would drop to approximately 50 MMBF total annual forest harvest when the prohibitions are applied in 2004. The delay would benefit local communities by providing them an opportunity to adjust to the 1999 TLMP Record of Decision and prepare for changes in 2004.

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