HJR

75

Original sponsor: Resources Committee

IN THE HOUSE BY THE RESOURCES COMMITTEE

CS FOR HOUSE JOINT RESOLUTION NO. 75 (Resources)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - SECOND SESSION

Relating to the Alaska National Interest Lands Conservation Act Sections 705 and 706.

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

WHEREAS the timber industry is an important industry and a major contributor to the economy of the state; and

WHEREAS tourism, commercial fishing, and recreation industries are also vital to Southeast Alaska and are major contributors to the state's and region's economy; and

WHEREAS the passage of the Alaska National Interest Lands Conservation Act (ANILCA) recognized the importance of these industries to the state; and

WHEREAS Sections 705 and 706 of ANILCA were a compromise between those advocating wilderness additions, those supporting a viable timber industry, and those concerned about other values within the Tongass National Forest; and

WHEREAS Section 705 provided for a timber supply fund to

make timber harvest in marginally economic stands economically feasible; and

WHEREAS Section 705 authorized a timber supply harvest goal of 4.5 billion board feet per decade; and

WHEREAS Congress's objective in Sections 705 and 706 was to maintain employment in the timber industry of Southeast Alaska at pre-ANILCA levels, while ensuring that other resource values and public uses would be protected on nonwilderness land in accordance with Federal law and the Tongass Land Management Plan; and

WHEREAS Sections 705 and 706 have not been properly implemented, particularly as a result of the Forest Service's failure to allocate Section 705 funds in accordance with representations it made to Congress at the time of ANILCA's passage; and

WHEREAS Congress is about to begin oversight hearings to consider Sections 705 and 705 of ANILCA;

BE IT RESOLVED by the Alaska State Legislature that Sections 705 and 706 of ANILCA not be amended in a manner which would upset the delicate compromise crafted by Congress balancing values within the Tongass National Forest; and be it

FURTHER RESOLVED that the Forest Service manage the Tongass National Forest and the 4.5 billion board feet per decade timber harvest level in a manner consistant with Federal and State laws guiding the management of the Tongass National Forest that will

maintain the balance between jobs and development, and fish, wildlife, recreation, and wilderness in Southeast Alaska; and be it

FURTHER RESOLVED that the Tongass Timber Supply Fund be adequately funded and spent in accordance with Federal and State laws guiding management of the National Forest and for the items that the Forest Service advised Congress it would spend the funds; and be it

FURTHER RESOLVED that before Congress begins any further consideration of ANILCA that hearings be held within the State of Alaska.

COPIES of this resolution shall be sent to the Honorable Ronald Reagan, President of the United States; to the Honorable George Bush, Vice-President of the United States and president of the U.S. Senate; to the Honorable Thomas P. "Tip" O'Neill, Jr., Speaker of the U.S. House of Representatives; and to the Honorable Ted Stevens and the Honorable Frank Murkowske, U.S. Senators, and the Honorable Don Young, U.S. Representative, and members of the Alaska delegation in Congress.

Offered: 5/1/86
Referred: Rules

Original sponsor: Resources Committee

IN THE SENATE BY THE RESOURCES COMMITTEE

CS FOR SENATE JOINT RESOLUTION NO. 51 (Resources)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - SECOND SESSION

Relating to the Alaska National Interest Lands Conservation Act Sections 705 and 706.

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

WHEREAS the timber industry is an important industry and a major contributor to the economy of the state; and

WHEREAS tourism, commercial fishing, and recreation industries are also vital to Southeast Alaska and are major contributors to the state's and region's economy; and

WHEREAS the passage of the Alaska National Interest Lands Conservation Act (ANILCA) recognized the importance of these industries to the state; and

WHEREAS Section 705 of ANILCA was a compromise between those advocating wilderness additions, those supporting a viable timber industry, and those concerned about other values within the Tongass National Forest; and

WHEREAS Section 705 provided for a timber supply fund to make timber harvest in marginally economic stands economically feasible; and

WHEREAS Section 705 authorized a timber supply harvest goal of 4.5 billion board feet per decade; and

WHEREAS Congress's objective in Section 705 was to maintain employment in the dependent timber industry of Southeast Alaska at pre-ANILCA levels, while ensuring that other resource values and public uses would be protected on nonwilderness land in accordance with Federal law and the Tongass Land Management Plan; and

WHEREAS Section 705 has not been properly implemented, particularly as

a result of the forest service's failure to allocate Section 705 funds in accordance with representations it made to Congress at the time of ANILCA's passage; and

WHEREAS Congress is about to begin oversight hearings to consider Section 705 of ANILCA;

BE IT RESOLVED by the Alaska State Legislature that Section 705 of ANILCA not be amended so that the delicate compromise crafted by Congress balancing values within the Tongass National Forest be maintained; and be it

FURTHER RESOLVED that the forest service continue to manage the Tongass National Forest in a manner that will maintain the balance between jobs and development, and fish, wildlife, recreation, and wilderness in Southeast Alaska, and that the timber harvest level of 4.5 billion board feet per decade be maintained; and be it

FURTHER RESOLVED that the Tongass Timber Supply Fund be adequately funded and spent in accordance with the manner and for the items that the forest service advised Congress it would spend the funds; and be it

FURTHER RESOLVED that before Congress begins any further consideration of ANILCA that hearings be held within the State of Alaska.

COPIES of this resolution shall be sent to the Honorable Ronald Reagan, President of the United States; to the Honorable George Bush, Vice-President of the United States and President of the U.S. Senate; to the Honorable Thomas P. "Tip" O'Neill, Jr., Speaker of the U.S. House of Representatives; and to the Honorable Ted Stevens and the Honorable Frank Murkowski, U.S. Senators, and the Honorable Don Young, U.S. Representative, members of the Alaska delegation in Congress.

Bradley
5/5/86

Original sponsor: Resources Committee

IN THE HOUSE BY THE RESOURCES COMMITTEE

CS FOR HOUSE JOINT RESOLUTION NO. 75 (Resources)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - SECOND SESSION

Relating to the Alaska National Interest Lands Conservation Act Sections 705 and 706.

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

WHEREAS the timber industry is an important industry and a major contributor to the economy of the state; and

WHEREAS tourism, commercial fishing, and recreation industries are also vital to Southeast Alaska and are major contributors to the state's and region's economy; and

WHEREAS the passage of the Alaska National Interest Lands Conservation Act (ANILCA) recognized the importance of these industries to the state; and

WHEREAS Section 705 of ANILCA was a compromise between those advocating wilderness additions, those supporting a viable timber industry, and those concerned about other values within the Tongass National Forest; and

WHEREAS Section 705 provided for a timber supply fund to make timber harvest in marginally economic stands economically feasible; and

WHEREAS Section 705 authorized a timber supply harvest goal of 4.5 billion board feet per decade; and

WHEREAS Congress's objective in Section 705 was to maintain employment in the timber industry of Southeast Alaska at pre-ANILCA levels, while ensuring that other resource values and public uses would be protected on

a result of the forest service's failure to allocate Section 705 funds in accordance with representations it made to Congress at the time of ANILCA's passage; and

WHEREAS Congress is about to begin oversight hearings to consider Section 705 of ANILCA;

BE IT RESOLVED by the Alaska State Legislature that Section 705 of ANILCA not be amended in a manner that would upset the delicate compromise crafted by Congress balancing values within the Tongass National Forest; and be it

FURTHER RESOLVED that the forest service manage the Tongass National Forest and the 4.5 billion board feet per decade timber harvest supply goal in a manner consistent with federal and state laws guiding the management of the Tongass National Forest that will maintain the balance between jobs and development, and fish, wildlife, recreation, and wilderness in Southeast Alaska; and be it

FURTHER RESOLVED that the Tongass Timber Supply Fund be adequately funded and spent in accordance with the manner and for the items that the forest service advised Congress it would spend the funds; and be it

FURTHER RESOLVED that before Congress begins any further consideration of ANILCA that hearings be held within the State of Alaska.

COPIES of this resolution shall be sent to the Honorable Ronald Reagan, President of the United States; to the Honorable George Bush, Vice-President of the United States and President of the U.S. Senate; to the Honorable Thomas P. "Tip" O'Neill, Jr., Speaker of the U.S. House of Representatives; and to the Honorable Ted Stevens and the Honorable Frank Murkowski, U.S. Senators, and the Honorable Don Young, U.S. Representative,

ATA

Conservation Act and create additional wilderness areas, ~~decrease the mandated timber harvest level, or eliminate the authorized timber supply fund~~ could cause ~~substantial~~ damage to the economy of Southeastern Alaska; and

~~WHEREAS Congress is about to begin hearings to consider the revision of the Alaska National~~ Interest Lands Conservation Act and ~~special interest groups~~ are requesting ~~significant changes in the~~ Act that may cause ~~substantial damage to the existing timber industry and,~~ consequently, ~~to many communities in Southeastern Alaska~~;

BE IT RESOLVED by the Alaska State Legislature that ~~the Alaska National Interest Lands Conservation Act not be amended because this action would void the delicate compromise on legislation passed in 1980; and be it~~

~~FURTHER RESOLVED~~ that the timber harvest level of 4,500,000,000 board ~~feet per decade mandated by the Alaska National Interest Lands Conservation Act be maintained; and be it~~

~~FURTHER RESOLVED that~~ the timber supply fund as enacted in the Alaska National Interest Lands Conservation Act be maintained and adequately funded; and be ~~it~~ MADE AVAILABLE FOR ALL RESOURCE MANAGEMENT IN THE TONGASS NATIONAL FOREST.

FURTHER RESOLVED that the land base made available under the Alaska National Interest Lands Conservation Act for renewable timber harvest not be reduced and that no further additions to wilderness areas be enacted; and be it

FURTHER RESOLVED that before Congress begins further consideration of the Alaska National Interest Lands Conservation Act, it hold hearings within the State of Alaska.

COPIES of this resolution shall be sent to and to the Honorable Ted Stevens and the Honorable Frank Murkowski, U.S. Senators, and the Honorable Don Young, U.S. Representative, members of the Alaska delegation in Congress.

ATA

Conservation Act and create additional wilderness areas, ~~decrease the mandated timber harvest level, or eliminate the authorized timber supply fund~~ could cause ~~substantial~~ damage to the economy of Southeastern Alaska; and

~~WHEREAS Congress is about to begin hearings to consider the revision of the Alaska National Interest~~ Lands Conservation Act ~~and special interest groups are requesting significant changes in the Act that may cause substantial damage to the existing timber industry and, consequently, to many communities in Southeastern Alaska;~~

BE IT RESOLVED by the Alaska State Legislature that ~~the Alaska National Interest Lands Conservation Act not be amended because this action would void the delicate compromise on legislation passed in 1980; and be it~~

~~FURTHER RESOLVED that the timber harvest level of 4,500,000,000 board feet per decade mandated by the Alaska National Interest Lands Conservation Act be maintained; and be it~~

~~FURTHER RESOLVED that~~ the timber supply fund as enacted in the Alaska National Interest Lands Conservation Act be maintained and adequately funded; and be ~~it~~ MADE AVAILABLE FOR ALL RESOURCE MANAGEMENT IN THE TONGASS NATIONAL FOREST.

FURTHER RESOLVED that the land base made available under the Alaska National Interest Lands Conservation Act for renewable timber harvest not be reduced and that no further additions to wilderness areas be enacted; and be it

FURTHER RESOLVED that before Congress begins further consideration of the Alaska National Interest Lands Conservation Act, it hold hearings within the State of Alaska.

COPIES of this resolution shall be sent to and to the Honorable Ted Stevens and the Honorable Frank Murkowski, U.S. Senators, and the Honorable Don Young, U.S. Representative, members of the Alaska delegation in Congress.

Conservation Act and create additional wilderness areas, ~~decrease the mandated timber harvest level, or eliminate the authorized timber supply~~ fund could cause ~~substantial~~ damage to the economy of Southeastern Alaska; and

~~WHEREAS Congress is about to begin hearings to consider the revision of the Alaska National Interest Lands Conservation Act and special interest groups are requesting significant changes in the Act that may cause substantial damage to the existing timber industry and, consequently, to many communities in Southeastern Alaska;~~

BE IT RESOLVED by the Alaska State Legislature that ~~the Alaska National Interest Lands Conservation Act not be amended because this action would void the delicate compromise on legislation passed in 1980; and be it~~

~~FURTHER RESOLVED that the timber harvest level of 4,500,000,000 board feet per decade mandated by the Alaska National Interest Lands Conservation Act be maintained; and be it~~

~~FURTHER RESOLVED that~~ the timber supply fund as enacted in the Alaska National Interest Lands Conservation Act be maintained and adequately funded; and be ~~it~~ MADE AVAILABLE FOR ALL RESOURCE MANAGEMENT IN THE TONGASS NATIONAL FOREST.

FURTHER RESOLVED that the land base made available under the Alaska National Interest Lands Conservation Act for renewable timber harvest not be reduced and that no further additions to wilderness areas be enacted; and be it

FURTHER RESOLVED that before Congress begins further consideration of the Alaska National Interest Lands Conservation Act, it hold hearings within the State of Alaska.

COPIES of this resolution shall be sent to and to the Honorable Ted Stevens and the Honorable Frank Murkowski, U.S. Senators, and the Honorable Don Young, U.S. Representative, members of the Alaska delegation in Congress.

A Conrad, Dennis A., 10/01/80, Vol 52, pg 2981, 2983

Q - Now, with regard to your summary chart, which you placed in evidence this morning, is it true that the net income figures you have used in your chart for Wrangell Lumber Company for the years ending in March '71, '72, '73 and '74 have been challenged by the Internal Revenue Service?

A - I don't recall the specific years that are subject to audit by the Internal Revenue Service.

...

Q - Do you recall that after about a year of investigation and conferences the IRS issued its official examination report finding that Wrangell Lumber Company's net income had been understated by abut $64,000,000 for the years 1971, 2, 3 and 4?

A - I do not recall the details of the final report issued by the Internal Revenue Service. I recall that there were years subject to examination and deficiencies that had been proposed by the Internal Revenue Service.

A Conrad, Dennis A., 10/01/80, Vol 52, pg 2981, 2983

Q - Do you recall that about $16 million for that period was asserted to be an understatement of income because of artificially low prices on spruce cants sold in nonarm's length transactions?

MR. WHITE: Same objection, Your Honor.

THE COURT: I think, counsel, I'm going to sustain the objection.

A Conrad, Dennis A., 10/01/80, Vol 52, pg 2988

MR. DWYER: We offer to prove through this witness and through Exhibits 1349 and 1350, which I believe should now be lodged for the record, the following facts: That following a period of investigation the Internal Revenue Service issued an official examination report finding that Wrangell Lumber Company's net income had been understated for the years ending in March '71, '72, '73 and '74 by approximately $64 million, and that of that amount, in round figures, about $16 million represented artificially low prices on spruce cants sold in nonarmlength transactions, and that about $11 million represented disallowed interest payments or payments characterized as interest payments which the Revenue Service would disallow on the basis that APC and its owners were, in fact, investing and not lending and, therefore, the payments would not be interest but dividends.

We further offer to prove through the testimony and the documents -- the testimony of this witness and these documents that the examination report also asserts what is called by the IRS a slush fund violation, in which payments were improperly deducted as association dues which, in fact, were nondeductible political payments.

X217

TX 361
Adm 8/13

CONFIDENTIAL Jan. 14, 1974

D. L. Murdoy
D. L. Finney
At Random

W. Bogalka
G. Woodbury

The Bradfield Timber Sale being high in Spruce volume and containing 80 MMBF with the possibility of additional sales in the area would be a great foothold for KPC. However, there is still the problem of ALP having an uncompleted sale under contract and the fact that we would have to buy the camp from Sykes with no assurance of future timber sales.

When you consider the geographic location you can see the advantage to ALP and their Wrangell mills. Also, from an operational standpoint they would be better able to administer this area out of Wrangell then we could out of Ketchikan.

In exchange for us not being involved or making a deal with Sykes and then passing the camp back to ALP we would need an arrangement that would let us take over the L.O.G. and Port Alice sales. Again, geographically, it does not make sense for ALP to tow logs from the West Coast, past the Klawock mill to Wrangell nor for us to tow logs from the Bradfield past Wrangell mills to Klawock or Ketchikan. ALP would be in much better shape to sort and bundle the Bradfield production in the Wrangell area and KPC the West Coast volume on the West Coast and Ketchikan.

The same thing holds true for the rather large sales coming up on Kupreanof. The Kake area and North end goes better to ALP and the South and Petersburg area better fits KPC.

We need some sales in the Petersburg area to keep people like Nelson and Jones in wood but our best advantage are those sales that will funnel back to the Wrangell Narrows area. So, there is also room for tradeoffs in this area.

These are the sales scheduled for the Petersburg area coming up soon:

Sale	Proposed Date	Volume
Conclusion Is.	?	23
Duncan Pass	7/74	45
Tonka Mt.	7/74	60
Alvin Bay	10/74	50
Portage Bay	7/75	50
Twelve Mile	5/77	40

#217
FINNEY EXHIBIT
DEAN
6-22-77

19
30075548

These are the West Coast sales in ALP area on Kosciusko and Hecata scheduled soon.

Sale	Proposed Date	Volume
Point Hardscrabble	74	30
Sumner	75	30
Timber Knob	75	45
W. Port Alice	76	20

In addition to the other advantages, we have a fair chunk of our allotment on Kosciusko that we could develop more favorably in connection with the other timber sales sold there. I feel that all things considered it would be most beneficial to ALP and ourselves to realign the operations so that KPC had the West Coast.

There is no way of knowing exactly what the Forest Service is going to sell in the future but it is obvious that any increased program must come from other than the South Tongass. This means that future sales will geographically be better positioned for ALP than for KPC. It makes sense for us to work out this fact now, so that we control the S. Tongass and at least those sales that will logically feed into Sumner Straits, Duncan Canal and Wrangell Narrows and let ALP have those feeding into Kake, Frederick Sound and points north. This, of course, must be done in such a way that we balance the volumes by years and by timber quality and stumpage prices.

It's rather a big order, but if we can at least get agreement on some of these principals we can then work out the sale-by-sale details as we gather more information and the F.S. gets closer to selling the individual sales. The big hurdle I see, if you buy my logic for all of this, is to get ALP to consider seriously pulling out of the West Coast. I assume they would need the equipment potential elsewhere, so it would only be taking over the area, roads and dumps as their present sales terminate or as scheduled in the tradeoff.

I reviewed all this in a discussion with Walt and he is going to get as much current information as possible on timber sales that would be in question. I will also brief and discuss my thoughts with George who has done some work on the sales.

I cannot stress too hard, my feeling about the benefits of towing, administration and log transfers and sorting if we can get the best geographical division between ALP and ourselves. It would also strengthen both of us in a competitive position for any outside interest (U.S. Ply or whoever) who tries to compete for sales with us at a later date.

D. L. Finney

DLP:hr

HOUSE

COMMITTEE REPORT

5/5

(9)

Date referred: 4/22/86

FURTHER REFERRALS: Rules

DATE: MAY 6, 1986

The RESOURCES Committee has considered HJR 75

Relating to the amendment by Congress of the Alaska National Interest Lands Conservation Act as it relates to the timber industry.

and recommends:

[ ] do pass

[ ] do not pass

[ ] do pass with attached amendment(s)

[ ] no recommendation

[✓] replace with CS HJR 75 (RESOURCES) [ ] same title [✓] new title

and recommends DO PASS

[ ] further referral to the _____ Committee

and attaches:
[ ] letter of intent
[ ] first fiscal note
[ ] new fiscal note
[✓] zero fiscal note

SIGNING DO PASS: Fair

Shultz Dick Shultz

Jenkins Roger Jenkins

Miller(M) M. Miller

Pearce

SIGNING OTHER RECOMMENDATIONS:

Sund no rec.

Wallis no rec.

Co-Chairman Dick Shultz

STATE OF ALASKA 1986 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date : _____

REQUEST

Bill/Resolution No. : CSHJR 75 (Res)
Title : Relating to the Alaska National Interest Lands Concervation Act Sections 705 and 706.
Sponsor : House Resources Committee
Requestor : _____
Date of Request : _____

FISCAL DETAIL

Agency Affected : _____
BRU : _____

Components : _____

EXPENDITURES/REVENUES : (Thousands of Dollars)

OPERATING	FY 86	FY 87	FY 88	FY 89	FY 90	FY 91
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0
CAPITAL	-0-	-0-	-0-	-0-	-0-	-0-
REVENUE	-0-	-0-	-0-	-0-	-0-	-0-

FUNDING : (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS :

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : Attach a separate page if necessary

Prepared by : House Resources Committee Phone : 465-3715
Division : _____ Date : 5/6/86

Approved by Commissioner : Dick Shultz Date : 5/6/86
Agency : House of Representatives

Distribution (by Agency preparing fiscal note) :
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

10/25/85

STATEMENT OF JACK W. LENTFER ON HOUSE JOINT RESOLUTION NO. 75

My name is Jack Lentfer. I live in Juneau. I am representing myself and the Territorial Sportsmen, an organization of Juneau area residents with interests in fishing, hunting, and wise use of natural resources.

I have been a wildlife biologist in Alaska for 29 years and from 1977 through 1981 was Alaska Department of Fish and Game Southeast Alaska Game Division supervisor. The most important single issue I dealt with in that job was effects of Tongass Forest logging on wildlife. I have worked throughout much of Alaska, and I consider habitat alteration from clearcut logging one of the most serious problems now facing wildlife managers in Alaska.

The Territorial Sportsmen are a long-time Juneau area fishing and hunting organization. They support sound development which enhances the economy of southeast Alaska. Recently they produced a comprehensive report on the effects of logging on wildlife, fisheries, and economics in southeast Alaska. A copy is included in packets which went to committee members.

With regard to House Joint Resolution 75, I fully support the Alaska legislature examining the southeast Alaska logging issue and then informing the public and recommending to Congress. The legislature should consider views of all who have an interest in the Tongass Forest as well as relevant findings of the Alaska Department of Fish and Game.

I would like to highlight a few points from the Territorial Sportsmen's report.

The Tongass Forest makes up 93 percent of southeast Alaska. Four percent has commercially valuable timber (more than 30,000 board feet per acre). This 4 percent is the most valuable for logging and also has the highest fish and wildlife values. Logging is concentrated in the high volume classes; one-half of the highest volume class (50,000 board feet per acre) had been cut by 1981, and under present cutting plans, half of the remainder will be gone within the next 40 years. Because high-volume, old-growth forest is so limited, comparisons of total forest acres logged and left unlogged have little relevance.

After cutting, an area does not again attain old-growth characteristics for several hundred years. Present harvest schedules call for rotational cutting at about 100-year intervals. Thus, once an area is entered into a cutting schedule, old-growth habitat is permanently eliminated.

Sitka black-tailed deer are the most abundant and widely distributed recreational and subsistence hunting species in southeast Alaska. The main factor limiting populations is availability of food in winter. Logging, with its removal of canopy cover of old-growth trees, allows much more snow to

accumulate on the ground and make food unavailable. About 30 years after logging, densely growing second growth shades out understory with its deer forage plants. The Alaska Department of Fish and Game estimates that deer numbers in many popular hunting areas will be reduced 60-80 percent by the end of the first 100-year rotation period. Forest-wide, deer numbers will be reduced by more than 40 percent under present logging plans.

Other wildlife species affected by logging, road-building, and associated activities include brown bear, black bear, mountain goat, moose, marten, mink, river otter, bald eagle, Vancouver Canada goose, and other birds.

Fish, a highly valued commercial and recreational resouce, can be adversely affected by logging. With proper safeguards, short-term effects can be minimized. Biologists generally agree, however, that long-term effects of logging on stream habitat and fish populations are unknown.

Shellfish (crabs and clams) can be affected by log dumping and rafting in the biologically rich waters of protected bays. Bark accumulates on the bottom and smothers organisms and depletes oxygen.

Logging can affect a number of guided recreational activities, including hunting, fishing, photography, marine cruising, kayaking, and river rafting. Clearcuts are generally not esthetically compatible with these activities, many of which are contributing significantly to the economy of southeast Alaska. The guided hunting industry brings between $75,000 and $1,000,000 into southeast Alaska annually. The largest component is brown bear guiding. Logging has already disturbed enough brown bear areas that guides themselves now believe it necessary to reduce by more than one-half the number eligible to guide on Admiralty, Baranof, and Chicagof islands.

The timber market is presently depressed, and logging on the Tongass Forest is at a reduced level. It should be realized, however, that increased timber harvest on Native lands is compensating economically to some degree. Other activities that will benefit economically and could reduce Tongass timber demands include increased harvest and local processing of timber by small, independent operators, increased tourism, increased mining, maintenance of a viable fishing industry, and maintenance and expansion of various types of guiding.

In conclusion, I would urge the legislature to thoroughly review Tongass Forest management practices and then inform the public of the trade-offs associated with present logging practices and also make appropriate recommendations to Congress.

Thank you.

As of 4/25/86

14

The following Southeast Alaska communities have passed resolutions opposing the 4.5 billion board feet per decade timber supply goal of ANILCA Section 705(a):

Angoon
Craig
Edna Bay
Elfin Cove
Gustavus Community Association
Hoonah
Hydaburg
Kupreanof
Pelican
Point Baker
Port Alexander
Port Protection
Tenakee Springs
Yakutat

CITY OF HYDABURG
P.O. BOX 49
HYDABURG, ALASKA 99922
(907) 285-3761

RESOLUTION NO. 86-03

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HYDABURG, ALASKA IN SUPPORT WITH OTHER SOUTHEAST ALASKAN COMMUNITIES OPPOSING THE 4.5 BILLION BOARD FEET PER DECADE ("450") REQUIRED TIMBER CUT ON THE TONGASS NATIONAL FOREST.

WHEREAS, as a bush community, our lives are based on the surrounding fish and wildlife resources; and

WHEREAS, our fish and wildlife resources can be detrimentally effected by this amount of timber cutting; and

WHEREAS, this level of timber harvest does not allow adequate flexibility in the management of the forest for all multiple uses; and

WHEREAS, the "450" timber cut does not include ongoing timber harvesting on State and private lands and should be reduced to reflect a balance of timber cutting activities amongst the Forest Service, the State of Alaska, and private landowners.

THEREFORE BE IT RESOLVED, that the Council of the City of Hydaburg, in Hydaburg Alaska hereby stands opposed to the 4.5 billion board feet per decade ("450") required timber cut on the Tongass National Forest.

PASSED AND APPROVED THIS fourth day of March, 1986.

CITY OF HYDABURG, ALASKA

Robert Sanderson

Robert Sanderson, Mayor

ATTEST:

Margaret O'Neil

Margaret O'Neil, City Clerk

CITY OF PORT ALEXANDER

Box 725 • Port Alexander, Alaska 99836

Resolution 84-6

Whereas, as a bush community, our lives are based on the surrounding fish and wildlife resources, and

Whereas, biologists have determined that excessive timbering and/or clearcutting can be detrimental to these resources, and

Whereas, the "450 cut" is a political mandate not based on economic principles, as evidences by the millions of dollars lost annually on the Tongass National Forest, and

Whereas, this level of timber harvest does not allow flexibility in the management of the forest for all multiple uses,

BE IT RESOLVED that the community of Port Alexander stands opposed to the "450" * timber cut on the Tongass National Forest.

This resolution is hereby adopted by a unanimous vote, this 5th day of October, 1984.

~~Linda Hoven~~ Mayor
PAUL YOUNG

Amy Limber
City Clerk

* referring to ANILCA legistation that calls for 4.5 billion board feet of timber to be offered for harvest each decade on the Tongass National Forest, with an annual subsidy of 40 million dollars or as much as is necessary to accomplish this legislation.

CCR-86-01-14-01

A RESOLUTION BY THE CITY COUNCIL OF THE CITY OF HOONAH, ALASKA, IN SUPPORT WITH OTHER SOUTHEASTERN COMMUNITIES OPPOSING THE 4.5 BILLION BOARD FEET PER DECADE (450) REQUIRED TIMBER CUT, 50 YEAR APC AND LPK CONTRACTS, AND ABUSE OF THE TONGASS TIMBER FUND ON THE TONGASS NATIONAL FOREST.

WHEREAS, Hoonah is a rural community, our lives are based on the surrounding fish and wildlife resources; and

WHEREAS, our fish and wildlife resources will be detrimentally effected by this amount of timber cutting; and

WHEREAS, this level of timber harvest does not allow adequate flexibility for the long term management of the forest for all multiple uses; and

WHEREAS, the Timber Supply Fund is currently being used to access high yield stands of timber, which are also critical habitat for fish and wildlife instead of preroad marginal stands of timber to increase their economic viability; and

WHEREAS, under the current management the "450" cut and 50 year contracts are allowing the Tongass to be hygraded for it's high yield timber, this management is fueled by the wasteful use of the Timber Supply Fund. The loss of these areas of high yield will result in any long term timber industry sustaining itself with timber that is less economically viable; and

WHEREAS, the "450" cut and 50 year contracts allows for the carry over of timber from one operating period to the next, causing severe boom and bust cycles for the communities within the Tongass National Forest; and

WHEREAS, the "450" cut does not include ongoing timber harvesting on state and private lands and should be reduced to reflect a balance of timber cutting activities amongst the Forest Service, the State of Alaska, and private landowners.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Hoonah, Alaska, that it opposes the 4.5 billion board feet per decade cut, the 50 year contracts, and the abuse of the Timber Supply Fund.

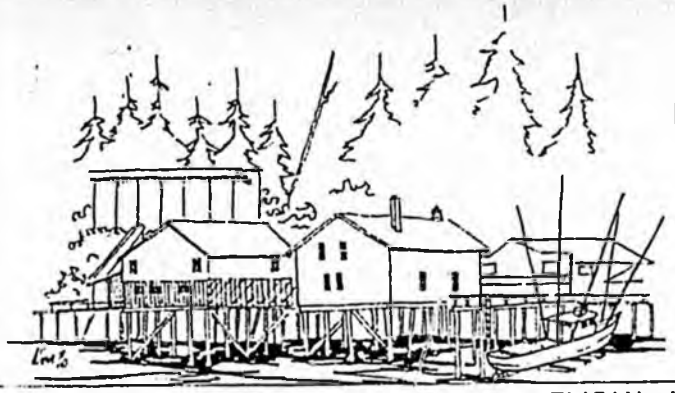
Votes _____ Yea 6 Nay 0

January 14, 1986

Miles N. Murphy, Sr. Mayor

ATTEST: Joyce Mills

Joyce Mills, City Clerk



City of Pelican

BOX 757 – PELICAN, ALASKA 99832 – PHONE 735-2202

RESOLUTION 1985-4

A RESOLUTION OPPOSING THE "450 CUT"
IN THE TONGASS NATIONAL FOREST

WHEREAS, as a bush community, our lives are based on the surrounding fish and wildlife resources; and,

WHEREAS, biologists have determined that excessive timbering and/or clearcutting can be detrimental to these resources; and,

WHEREAS, the "450 cut" is a political mandate not based on economic principles, as evidenced by the millions of dollars lost annually on the Tongass National Forest; and,

WHEREAS, this level of timber harvest does not allow flexibility in the management of the forest for all multiple uses,

THEREFORE BE IT RESOLVED THAT the Pelican City Council is opposed to the "450 cut"* timber policy on the Tongass National Forest.

PASSED, APPROVED AND ADOPTED THIS 11th DAY OF FEBRUARY 1985.

signed: Harry A. Davidson
Harry A. Davidson, Mayor

attest:

Edith M. Carlson
Edith M. Carlson, City Clerk

* referring to ANILCA legislation that calls for 4.5 billion board feet of timber to be offered for harvest each decade on the Tongass National Forest, with an annual subsidy of 40 million dollars or as much as is necessary to accomplish this legislation.

Rec'd 7/9/85

CITY OF YAKUTAT, ALASKA

RESOLUTION NO. 85-15

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF YAKUTAT, ALASKA IN SUPPORT WITH OTHER SOUTHEAST ALASKAN COMMUNITIES OPPOSING THE 4.5 BILLION BOARD FEET PER DECADE ("450") REQUIRED TIMBER CUT ON THE TONGASS NATIONAL FOREST.

WHEREAS, as a bush community, our lives are based on the surrounding fish and wildlife resources; and

WHEREAS, our fish and wildlife resources can be detrimentally effected by this amount of timber cutting; and

WHEREAS, this level of timber harvest does not allow adequate flexibility in the management of the forest for all multiple uses; and

WHEREAS, the "450" timber cut does not include ongoing timber harvesting on State and private lands and should be reduced to reflect a balance of timber cutting activities amongst the Forest Service, the State of Alaska, and private landowners.

THEREFORE BE IT RESOLVED, that the Common Council of the City of Yakutat hereby stands opposed to the 4.5 billion board feet per decade ("450") required timber cut on the Tongass National Forest.

PASSED AND APPROVED THIS 7th DAY OF ~~MAY~~ June, 1985.

CITY OF YAKUTAT, ALASKA

MAYOR

ATTEST:

CITY CLERK

Community of Elfin Cove Non-Profit Corporation
POST OFFICE BOX ONE
ELFIN COVE, ALASKA 99825
(907) 697-8131

Whereas, as a bush community, our lives are based on the surrounding fish and wildlife resources, and

Whereas, biologists have determined that excessive timbering and/or clearcutting can be detrimental to these resources, and

Whereas, the "450 cut" is a political mandate not based on economic principles, as evidenced by the millions of dollars lost annually on the Tongass National Forest, and

Whereas, this level of timber harvest does not allow flexibility in the management of the forest for all multiple uses,

BE IT RESOLVED that the Community of Elfin Cove Non-Profit Corporation stands opposed to the "450"* timber cut on the Tongass National Forest.

This resolution is hereby adopted by a unanimous vote, this 15th day of February, 1985. The Board of Directors are as follows:

Greg Howe, Chairperson

Louise Mourant, Vice-Chair

Nora Ann Johnson, Treasurer

Sandy Darnell, Secretary

Paul Johnson, Member

Joe Craig, Member

Mary Jo Lord-Wild, Member

* referring to ANILCA legislation that calls for 4.5 billion board feet of timber to be offered for harvest each decade on the Tongass National Forest, with an annual subsidy of 40 million dollars or as much as is necessary to accomplish this legislation.

COMMUNITY OF PORT PROTECTION

A RESOLUTION OF THE COMMUNITY OF PORT PROTECTION,ALASKA IN SUPPORT WITH OTHER SOUTHEAST ALASKAN COMMUNITIES OPPOSING THE 4.5 BILLION BOARD FEET PER DECADE (450) REQUIRED TIMBER CUT ON THE TONGASS NATIONAL FOREST.

WHEREAS, as a rural "Bush" community our economic and subsistance well being is dependant on surrounding fish and wildlife resources; and

WHEREAS, our collective fish and wildlife habitat will be severly impacted by this excessive harvest; and

WHEREAS, this level of timber harvest does not fairly consider or allocate for true multiple use placing timber concerns over community needs; and

WHEREAS, the 4.5 billion board feet mandate does not include ongoing harvesting on State,Native Corporation, and private holdings and should be reduced to reflect a true balance of harvest clearcutting occuring between Forest Service, The State of Alaska, Native Corporations, and private landowners.

WHEREAS, current logging practices stress "high grading" over fish and wildlife resources and habitat,

Therefore, let it be resolved that the Community Council of the Village of Port Protection hereby stands opposed to the 4.5 billion board feet per decade required timber cut on the Tongass National Forest, and that furthur cutting be brought in line with similar activities in the Lower 48 and a uniform harvestand cleanup reforestation policy apply.

PASSED AND APPROVED THIS 1ST DAY OF NOVEMBER,1985.

Community of Port Protection, Alaska

CHAIRMAN

ATTEST

Community Secretary

Community of Point BAKER, PRINCE of WALES IS.

A RESOLUTION OF THE COMMUNITY OF Point BAKER ALASKA IN SUPPORT WITH OTHER SOUTHEAST ALASKAN COMMUNITIES OPPOSING THE 4.5 BILLION BOARD FEET PER DECADE (450) REQUIRED TIMBER CUT ON THE TONGASS NATIONAL FOREST.

WHEREAS, as a rural "Bush" community our economic and subsistance well being is dependant on surrounding fish and wildlife resources; and

WHEREAS, our collective fish and wildlife habitat will be severly impacted by this excessive harvest; and

WHEREAS, this level of timber harvest does not fairly consider or allocate for true multiple use placing timber concerns over community needs; and

WHEREAS, the 4.5 billion board feet mandate does not include ongoing harvesting on State, Native Corporation, and private holdings and should be reduced to reflect a true balance of harvest clearcutting occuring between Forest Service, The State of Alaska, Native Corporations, and private landowners.

WHEREAS, current logging practices stress "high grading" over fish and wildlife resources and habitat,

Therefore, let it be resolved that the Community Council of the Village of Point Baker hereby stands opposed to the 4.5 billion board feet per decade required timber cut on the Tongass National Forest, and that furthur cutting be brought in line with similar activities in the Lower 48 and a uniform harvestand cleanup reforestation policy apply.

Community of Point BAKER, ALASKA

Mike Mortell DEC 3 1985

CHAIRMAN Mike Mortell
Box 53 Point Baker
99927

Attest

Joseph Sebastian

Community SECRETARY

Acting Joseph SEBASTIAN
129 Pt BAKER AK 99927

JAN 1 5 1986

Gustavus Community Association
Box 62
Gustavus, Alaska 99826

TO: Senator Stevens
Senator Murkowski
Representative Young
Representative Sieberling

FROM: President, Gustavus Community Association

SUBJECT: the "450 Timber Cut" on the Tongass National Forest

DATE: January 13, 1986

At the December 12, 1985 general meeting of the Gustavus Community Association, it was resolved to urge your support in removing the "450 timber cut" provision from the Alaska National Interest Land Classification Act, during the upcoming congressional review of this legislation.

Our reasoning is as follows:

Whereas, the livelihoods of Gustavus residents depend heavily on tourism, fishing and subsistence, and

whereas, biologists and others have determined that excessive timbering can be detrimental to these resources, and

whereas, the "450 timber cut" does not allow enough flexibility in the management of the National Forest for all appropriate uses, and

whereas, this level of harvest is not economically sensible, as shown by the millions of dollars spent to subsidize the forest products industry on the Tongass,

we therefore oppose the "450 timber cut" on the Tongass National forest.

(Information: ANILCA calls for 4.5 billion board feet of timber to be offered for harvest each decade on the Tongass National Forest, with an annual subsidy of up to $40 million.)

SIGNED: _____
President, Gustavus Community Association

CITY OF CRAIG ALASKA

P.O. Box 23, Craig, Alaska 99921 (907) 826-3275

RESOLUTION NO. 86-04

A RESOLUTION SUPPORTING OTHER SOUTHEASTERN COMMUNITIES OPPOSING THE 4.5 BILLION BOARD FEET PER DECADE (450) REQUIRED TIMBER CUT, 50 YEAR APC AND LPK CONTRACTS, AND ABUSE OF THE TONGASS TIMBER ON THE TONGASS NATIONAL FOREST

WHEREAS, Craig is a rural community, our lives are based on the surrounding fish and wildlife resources; and

WHEREAS, our fish and wildlife resources will be detrimentally effected by this amount of timber cutting; and

WHEREAS, this level of timber harvest does not allow adequate flexibility for the long term management of the forest for all multiple uses; and

WHEREAS, the Timber Supply fund is currently being used to access high yield stands of timber, which are also critical habitat for fish and wildlife instead of preroad marginal stands of timber to increase their economic viability; and

WHEREAS, under the current management the "450" cut and 50 year contracts are allowing the Tongass to be hygraded for it's high yield timber, this management is fueled by the wasteful use of the Timber Supply Fund. The loss of these areas of high yield will result in any long term timber industry sustaining itself with timber that is less economically viable, and

WHEREAS, the "450" cut and 50 year contracts allows for the carry over of timber from one operating period to the next, causing severe boom and bust cycles for the communities within the Tongass National Forest; and

WHEREAS, the "450" cut does not include ongoing timber harvesting on state and private lands and should be reduced to reflect a balance of timber cutting activities amongst the Forest Service, the State of Alaska, and private landowners.

APPROVED _____

Votes: Yea 4 Nay 2

_____ Attest _____
Mayor City Clerk

Resolution 86-2

A RESOLUTION BY THE CITY OF KUPREANOF, ALASKA IN SUPPORT WITH OTHER SOUTHEASTERN COMMUNITIES OPPOSING THE 4.5BILLION BOARD FEET PER DECADE (450) REQUIRED TIMBER CUT, 50 YEAR APC AND LPK CONTRACTS, AND ABUSE OF THE TONGASS TIMBER FUND ON THE TONGASS NATIONAL FOREST.

WHEREAS, Kupreanof is a rural community, our lives are based on the surrounding fish and wildlife resources; and

WHEREAS, our fish and wildlife resources will be detrimentally effected by this amount of timber cutting; and

WHEREAS, this level of timber harvest does not allow adequate flexibility for the long term management of the forest for all multiple uses; and

WHEREAS, the Timber Supply Fund is currently being used to access high yield stands of timber, which are also critical habitat for fish and wildlife instead of preroad marginal stands of timber to increase their economic viability; and

WHEREAS, under the current management the "450" cut and 50 year contracts are allowing the Tongass to be hygraded for it's high yield timber, this management is fueled by the wasteful use of the Timber Supply Fund. The loss of these areas of high yield will result in any long term timber industry sustaining itself with timber that is less economically viable; and

WHEREAS, the "450" cut and 50 year contracts allows for the carry over of timber from one operating period to the next, causing severe boom and bust cycles for the communities within the Tongass National Forest; and

WHEREAS, the "450" cut does not include ongoing timber harvesting on state and private lands and should be reduced to reflect a balance of timber cutting activities amongst the Forest Service, the State of Alaska, and private landowners.

NOW, THEREFORE, BE IT RESOLVED BY the City Council of the City of Kupreanof, Alaska, that it opposes the 4.5 Billion board feet per decade cut, the 50 year contracts, and the abuse of the Timber Supply Fund.

Date April 14, 1986

Mayor Robert T Baade City Clerk Emily V. Merriam

Edna Bay Community
Edna Bay, Alaska

Resolution 85-12:3-3

Whereas, as a bush community, our lives are based on the surrounding fish and wildlife resources, and

Whereas, biologists have determined that excessive timbering and/or clearcutting can be detrimental to these resources, and

Whereas, the '450 cut' is a political mandate not based on economic principles, as evidenced by the millions of dollars lost annually on the Tongass National Forest, and

Whereas, this level of timber harvest does not allow flexibility in the management of the forest for all multiple uses,

BE IT RESOLVED that the community of Edna Bay stands opposed to the '450' * timber cut on the Tongass National Forest.

This resolution is hereby adopted by majority vote, this 3rd day of March, 1985.

Bert Bergman
Board President

Valerie E. Brooks
Valerie Brooks
Secretary

* referring to ANILCA legislation that calls for 4.5 billion board feet of timber to be offered for harvest each decade on the Tongass National Forest, with an annual subsidy of 40 million dollars or as much is necessary to accomplish this legislation.

City of Angoon
P. O. Box 189
Angoon, Alaska 99820

Telephone
(907) 788-3653

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ANGOON IN OPPOSITION TO THE 4.5 BILLION BOARD FEET PER DECADE ("450") TIMBER CUT ON THE TONGASS NATIONAL FOREST.

RESOLUTION NO. 86-02

WHEREAS, Angoon is a traditionally subsistence-oriented community dependent upon use of area fish and wildlife resources; and

WHEREAS, 450 MMBF per year harvest level has a detrimental effect on existing fish and wildlife levels within the Tongass National Forest; and

WHEREAS, detraction of existing fish and wildlife resources throughout the Tongass National Forest places additional use pressures from other communities on resources available to Angoon; and

WHEREAS, "450" does not reflect ongoing timber harvest on State and private lands; and

WHEREAS, "450" level of harvest over-supplies the market thus producing current low prices for timber while simultaneously depleting limited Native Corporation resources; and

WHEREAS, a need for "450" level of harvest has never been demonstrated by the timber industry.

THEREFORE BE IT RESOLVED; that the City Council of the City of Angoon, Alaska hereby stands opposed to the 4.5 billion board feet per decade ("450") timber cut on the Tongass National Forest.

Passed at City Council Meeting held on January 21, 1986 by a vote of 6 yeas, 0 nays, 0 absent, 0 abstain.

For the City of Angoon

Mayor

ATTEST: Cynthia L. Ford
City Clerk

SEAL

CITY OF TENAKEE SPRINGS

Resolution 85-17

In the Council
July 9, 1985

Introduced by the
Council President

A RESOLUTION OPPOSING THE "450" CUT ON THE TONGASS NATIONAL FOREST.

WHEREAS, living in a balanced environment possessing a wealth of natural resources insures each individual the choice of how to live. Having that choice is important to the residents of Tenakee Springs; and

WHEREAS, the Tongass National Forest lands form an integral part of our lifestyle in Tenakee Springs. The forest lands and the countless resources they produce affect not only how we live, but also where and why we live in this community; and

WHEREAS, we use a number of forest resources for many purposes in our lives: timber for lumber and heat, wildlife and fish for food, sport, and recreation, furbearers for income, and plants for food; and

WHEREAS, the residents of Tenakee Springs are understandably concerned about the present and future management of Tongass National Forest lands.

1. We want a financially healthy and realistic timber industry. An industry prepared to make a meaningful contribution to the local and regional economy year after year. An industry that accepts the responsibility of sharing the natural resources of the Tongass with other industries and interests.

2. We recognized that old growth forests are a non-renewable resource and provide critical fish and wildlife habitat. We appreciate the necessity of fish and wildlife to the maintenance and enrichment of subsistence and rural lifestyles.

3. We believe it is important to protect salmon streams and crab habitat to sustain the fishing industry in Southeast Alaska.

4. We consider maintaining forest land in its natural state critical to the potential future development of a growing tourism and recreation industry.

5. We understand the significance of wilderness as a generator of clean air and water in our environment; and

WHEREAS, timber management on the Tongass National Forest is governed by a congressional and contractual mandate specifying that 450 mmbf/year be designated for harvest. This 450 cut level was arbitrarily established some years ago as a political carrot and economic enticement to encourage development of a timber industry in Southeast Alaska. At the time it was felt that the timber industry was necessary to help settle and stabilize the area. The 450 cut level is not based on an objective scientific assessment of the sustainable timber harvest level on the Tongass. The 450 cut level does not take into consideration natural fluctuation in the timber market or changes in forest management priorities; and

WHEREAS, the obligatory 450 cut level, which also guarantees a minimum of

$40 million per year in federal subsidies, insures that commercial timber harvest dominates the present list of forest management priorities. The 450 cut level was established prior to the multiple-use concept of forest management; and

WHEREAS, since the 1971 Alaska Native Claims Settlement over 500,000 acres of National Forest Lands have been removed from the base and turned over to Native Corporations. The Forest Service estimates that the Native Corporations now control 20-25% of the commercial timber volume left in the Tongass. The Tongass timber base has been substantially reduced and yet the 450 cut level has remained unchanged; and

WHEREAS, Native Corporations are now cutting more timber annually than originally predicted by the Forest Service. While Native Corporation contracts are accounting for additional jobs in the timber industry, there has been no subsequent adjustment to the 450 cut level on the part of the Forest Service. This situation equates to additional federal subsidy and interference with the timber industry; and

WHEREAS, the high levels of Forest Service subsidies for pulpwood to supply the mills in Sitka and Ketchikan inflate the pulp market to such an extent that Native timber operations cannot always recover costs on the sale of pulpwood. Many trees are left on the ground to rot; and

WHEREAS, the Alaska National Interest Lands Conservation Act (ANILCA) specifies that beginning in December 1985 and every two years thereafter the United States Congress will reveiw the status of the Tongass National Forest. This provides an important opportunity for communities such as Tenakee Springs to provide direct and meaningful input to determine the future management of Tongass National Forest Lands; and

WHEREAS, annual timber harvest levels from the Tongass have consistently run below the 450 cut level in spite of large federal subsidies to the timber industry. This fact clearly demonstrates the economic infeasibility of the 450 cut;

THEREFORE BE IT RESOLVED by the City Council of Tenakee Springs that this community stands opposed to the 450 mmbf per year mandated cut on the Tongass National Forest.

ADOPTED 6 yeas 1 Nay THIS 9th DAY OF JULY, 1985

Diane Ziel
Diane Ziel
City Council President
ex officio MAYOR

ATTEST:

Janice J. Eagle
Janice J. Eagle
City Clerk

MY TURN

Reforming Tongass management: Setting the record straight

By BART KOEHLER

The Southeast Alaska Conservation Council's (SEACC) report, "Last Stand for the Tongass National Forest," has attracted a great deal of attention these days. SEACC welcomes this attention, and with congressional oversight hearings just around the corner this is a good time to set the record straight with the most current information available concerning Tongass management:

The real cost of the current Tongass Timber Program is $50 million per year to U.S. taxpayers. Since full implementation of the Tongass Timber Supply Fund in fiscal year 1982, expenditures for the Tongass Timber Program have amounted to $234 million, with stumpage fees returned to the federal government of only $3 million. Including stumpage fees and all other money the forest service could consider as receipts to the Treasury, the return is still only $30 million. This is a gap of $200 million between expenditures and receipts – an average cost to taxpayers of $50 million a year since the passage of the Alaska Lands Act (ANILCA) to primarily benefit only two pulp mills in Southeast Alaska.

Elimination or phase-out of Section 705(a) (the Tongass Timber Supply Fund and the "450" timber supply goal) will not eliminate the Tongass Timber Program. SEACC recommends repeal of these clauses in ANILCA in order to make the timber program accountable and cost-effective. Monies will still flow for timbering operations, but they will be subject to congressional budget review, which is not presently the case. The Timber Supply Fund is a pork barrel subsidy mainly benefitting only two companies, one of which is a wholly owned Japanese corporation. Elimination of Section 705(a) will result in a more responsible timber program over the long run.

Perpetuation of the "450" timber supply goal will only serve to waste billions of taxpayer dollars in future decades. Since ANILCA, the forest service has offered almost 1 billion board feet more timber than was actually sold. The market has simply bottomed out and all the supply in the world won't help if the demand for timber is not there. Building roads for this uneconomic industry, at such a high cost to the taxpayer and fish and wildlife habitat, simply cannot be justified.

Even with the Timber Supply Fund in place, forest service figures show that direct timber related employment is 1,800; indirect and derived employment is not more than 900. Thus, the total level of employment credited to timber in Southeast is 2,700 jobs. The forest service's employment statistics do not support Sen. Ted Stevens' erroneous claim that 6,000 jobs, direct and indirect, might be lost without the supply fund.

SEACC's recommendations do not entail a loss of timber related jobs. Repeal of the Tongass Timber Supply Fund would return funding of the Tongass Timber Program to the annual appropriations process, as is the case for every other national forest. Repeal of the "450" timber supply goal would allow the forest service to set annual allowable sale levels in response to demand rather than an inflexible directive. These recommended actions would not limit any Tongass timber operator's ability to purchase ample volumes of federal timber, to operate wood processing facilities, or to employ Alaskans.

The vast majority of the best timber on the Tongass is outside designated wilderness areas. Congressman Don Young has called the Tongass Timber Supply Fund a "wilderness subsidy," claiming that the "Alaska Lands Act excluded lumbermen from working in much of the best Tongass forests." The facts do not support this claim.

The Tongass encompasses 17 million acres, of which 5.4 million acres are designated wilderness. Only 3 percent of this designated wilderness land contains commercially valuable timber (30+ thousand board feet/acre). Some 84 percent of the wilderness acres is not even considered suitable for timber harvesting, and is mostly rock, ice, muskeg, battered coast, and scrub trees. Admiralty Island is repeatedly cited as an example of "locking up" good timber. The best timber on the island was cut prior to ANILCA, and Admiralty was not in either of the two 50-year contract areas, leaving the pulp mills unscathed.

Only 29 percent of the highest value wildlife habitat is permanently protected under wilderness designation. Only 5 percent of the highest value fish habitat is so protected. This can hardly be termed a balanced approach to multiple use, especially in a region so heavily dependent upon the harvest of fish and wildlife resources. SEACC is seeking more protection for key areas in order to gain a better balance. The Society of American Foresters of Sitka charges that wilderness is "single use management" and has challenged SEACC's proposals for a more balanced multiple use management of the Tongass. Clearly, wilderness offers better protection for multiple uses such as tourism, recreation, watershed, subsistence, hunting, commercial fishing, and fish and wildlife habitat than does the dominant "single use" management for timber with clearcuts and roads.

SEACC believes that the 50-year timber contracts should be terminated because of past anti-trust violations and because they currently conflict with proper forest management. The contract holders "own" the rights to cut our forest lands, and they still monopolize timber operations. They show little or no responsibility for their impacts on other forest resources and other forest users such as the many small non-timber dependent communities throughout Southeast.

SEACC is not alone in urging major reforms of the management of the Tongass National Forest. Currently, our region's major commercial fishing organizations and the Southeast Regional Council of Fish and Game Advisory Committees are also opposed to the "450" timber supply goal. Additionally, to date 13 Southeast communities have gone on record against the "450" and other destructive timber policies on the Tongass. The people dependent upon the fish and wildlife resources of the Tongass, and the special way of life they provide, see their futures threatened by current Tongass timber policies.

This issue will continue to heat up as big timber interests fight to hold on to their monopoly and exploitation of Tongass forest resources. They will continue arguing that the choice is timber jobs or economic ruin. SEACC and its members contend that reform of present Tongass management is essential to prevent the long-term economic ruin of the Southeast Alaska region. The timber industry must be modified and room made for true multiple use of the Tongass in the future. This future includes timber, tourism, subsistence, commercial fishing, sport hunting and fishing, and the protection of important fish and wildlife habitat.

Bart Koehler is the executive director of the Southeast Alaska Conservation Council, the regional coalition of conservation groups in Southeast Alaska.

Juneau Empire 4/24/86

Views of the Southeast Fishing Industry as Represented by the Alaska Trollers Association, United Southeast Alaska Gillnetters, Southeast Seine Boat Owners & Operators Association, and Petersburg Vessel Owners Association

These comments represent the views of the Alaska Trollers Association, the United Southeast Alaska Gillnetters, the Southeast Alaska Seine Boat Owners and Operators, and the Petersburg Vessel Owners Association, the principal fishermen's organizations in Southeast Alaska. Members of these groups form a representative cross section of the salmon fishing industry in Southeast Alaska, and many are active in bottomfish and shellfish sectors of the industry as well. We trust that Congress will carefully consider our positions in its review of those portions of the Alaska National Interest Lands Conservation Act (ANILCA) pertaining to management of the Tongass National Forest.

In passing ANILCA, Congress drastically altered the lands and resources management scheme for the Tongass National Forest, and Southeast Alaska generally. Vast Wilderness areas were created to satisfy national conservation groups. Special enclaves were carved out for multinational mining interests. The huge national and international timber companies got guarantees of timber availability from National Forest lands, with vast subsidies in the form of the Tongass Timber Supply Fund. All of these things were sold as benefits to the people of Southeast Alaska, but are they?

Southeast Alaska conservationists never signed off on the deal, and the region's one long-term, sustained yield natural resource industry—fishing—was not responded to with anything near the attention that it warranted, or that other resources users received. Nonetheless, it is clear that Congress intended that water use in the Tongass be managed with protection of the salmon resource first and foremost in mind. However, this priority has not been reflected in Forest Service cutting plans developed since ANILCA. Had it been, the Forest Service's approach to timber management in areas like the Chuck and Kadashan River drainages, and to U.S. Borax's water extraction plans in the Wilson and Blossom Rivers, would have been greatly revised.

For all intents and purposes, large-scale mining is a thing of the past in Southeast Alaska. Once, the world's largest hard-rock gold mines operated here, but all that remains of them are ruins, tailings piles, and faded memories. Also, the world metal glut, predicted to last into the foreseeable future, mitigates against the ultimate development of the current "hot" mining properties which received so many concessions in ANILCA—Quartz Hill and Green's Creek.

The large-scale timber industry in Southeast is deeply depressed—hanging on only through sale of public timber at scandalously low prices. Even at that, much of the timber being sold is not being cut, but inventoried against hopes of an improved timber market in years ahead. Meanwhile, the Forest Service continues to offer a minimum of 450 million board feet per year for sale, and maintains an ambitious program of preroading and other presale preparation funded through the ANILCA-provided Tongass Timber Supply Fund. Despite this massive expenditure of public monies, which results in losses to taxpayers of as much as $175 for every 1,000 board feet of timber sold in the Tongass; the industry is virtually moribund. It should be remembered that the Tongass Timber Supply Fund was provided by Congress for the purpose of maintaining employment. In fact, it merely subsidizes the practice of private inventory of public timber. Timber employment has fallen sharply.

Many people in Southeast are very upset that our national government is willing to so lavishly support an industry which is largely Japanese owned. We are, in effect, subsidizing a foreign company to despoil our landscape and waters in the course of competing with other American timber interests. We are sure that most Americans would be amazed to hear that the U.S. Treasury is underwriting a Japanese company's efforts to gain control of huge tracts of virgin, publicly owned timber through so called "deficit" timber sales. Moreover, this same company, Alaska Lumber and Pulp, was, with Louisiana Pacific Ketchikan, found guilty of predatory business practices designed to drive small, privately owned American firms out of business in the Tongass (the Reid Brothers' lawsuit), and of bilking the Federal and State governments out of timber revenues mounting into

the tens of millions of dollars. Yet, their 50-year cutting contracts remain in effect, subsidized by American taxpayers, while many vitally needed Government programs are being cut or eliminated in the name of deficit reduction.

It might be asked what all this has to do with fishermen. Why do we object? After all, there is no doubt that Southeast Alaska needs large injections of money to broaden its economic base and provide additional employment. Our concern is simply that the Federal monies spent in management of the Tongass National Forest be spent on constructive rather than destructive activities. The 450 million board foot annual timber supply to dependent industry mandated by ANILCA is unrealistic given the available commercial timber base. In order to achieve that level of cut many areas which are clearly unsuitable for logging will have to be included.

A good example of this is the Chuck River drainage, an area of only moderate (at best) timber values, with steep slopes and unstable soils prone to massive landslides. It happens that the Chuck River is also a major salmon stream. The Chuck River was blocked by a naturally occurring slide during the early 1970's which virtually wiped out its pink salmon runs for the better part of a decade. Yet, the Forest Service proposed timber cuts immediately adjacent to that slide zone on soils of proven instability, knowing full well that removal of vegetation aggravates the risk of landslides. This particularly egregious example of Forest Service disregard for environmental concerns and potential for extremely negative effects on another industry has been blocked only through the great efforts of fishermen and other concerned citizens which resulted in the State of Alaska refusing to grant a favorable "consistency" ruling under Coastal Zone Management Act (CZMA) provisions. Failing that, the Forest Service would certainly have proceeded with the despoliation of the Chuck River, putting its important salmon runs in jeopardy.

Unfortunately, the Chuck River is the only example of an ill-conceived timber sale ever being halted in the Tongass, and it was only stopped because it was so flagrantly bad. Meanwhile, literally hundreds of other streams are in danger from timber sales which are planned or which have already happened, placing timber into cutting inventories. The Forest Service argues that fish runs have increased during the last few years, even implying that improved run strength is due to forestry practices. Such statements are worse than misleading. For the Forest Service to take credit for the State of Alaska's much improved management practices, for a succession of exceptionally good years for salmon ocean survival, for the reduction of foreign fleet salmon interceptions on the high seas, and for the catch reductions endured by Alaska fishermen in the name of conservation is an affront to the public and to the Congress. The fact is that much of the currently inventoried timber, and much of that which is scheduled for sale is in areas of both marginal timber values and marginal environmental viability. Only the extremely depressed condition of the world timber market has kept many areas of high potential for fish habitat destruction from being logged.

It should be borne in mind that the Forest Service's analysis of the Southeast Alaska economy presented in justification of the Tongass Land Use Management Plan (TLUMP) implied that timber would be the backbone of the natural resource economy in Southeast, and that fishing had little probability of regrowth to previous levels. In fact, quite the opposite has been true. The various salmon species are renewable on 2- to 7-year cycles, depending on species, and have proven very responsive to improved management and conservation practices. In contrast, there is real question as to whether logging in Southeast Alaska can truly be considered a sustained yield, renewable industry. With regeneration cycles of 125 or more years between cuts, and as much as 450 years to achieve "old-growth" volumes and quality, calling logging a renewable resource industry is questionable. Indeed, some industry observers have likened logging in Southeast to strip mining. Also, the tourist industry has grown rapidly in Southeast, as literally hundreds of thousands of people each year travel by air and by ship to see our islands, mountains, wildlife and historic towns. Make no mistake, they come to Alaska to see country undefiled by man, not to see clearcut timber tracts! Tourism is an essentially nonconsumptive use of our forests. It brings in foreign revenues rather than subsidizing foreign destruction of our environment. The same is true of fishing.

Southeast Alaska annually produces large amounts of king, coho, sockeye, chum and pink salmon for domestic and export markets. In 1984 the Southeast Alaska salmon industry produced in excess of $72.5 million dollars in ex-vessel value for fishermen. Using a multiplier of 2 to gauge the total contribution to our economy, salmon alone is seen to be worth nearly $150 million per year. Factoring in the value of other commercial fisheries such as crab, shrimp, bottomfish, and the recreational fisheries, a total economic contribution of at least $200 million per annum can be forecast. Moreover, Southeast Alaskans are personally very dependent upon the fisheries resource for home consumption. The economic values of subsistence and personal use fisheries are more difficult to quantify, but even conservative replacement values would place direct fisheries resource utilization by Southeast residents in the tens of millions of dollars.

All value comparisons, criticisms of Forest Service management, and concern over U.S. Government

subsidization of foreign industry ultimately must bring us a recognition of the need for change in the Tongass National Forest. Fortunately, there are positive steps which can be initiated by Congress to ensure that the resources of the forest are truly used for the benefit of the people. The fishermen's organizations of Southeast Alaska urge Congress to take the following actions:

- Clearly state that the Tongass National Forest shall be managed in accordance with the National Forest Management Act (NFMA) so as to ensure true multiple use, sustained yield management, with full consideration of all forest resources and values, not just timber. In particular, protection and enhancement of fish habitat should be recognized as a primary economic component of Tongass National Forest management.
- Amend ANILCA to eliminate the mandated 450 million board feet per year timber supply target which so cripples current management practices in the Tongass.
- Revise the ANILCA provisions on the Tongass Timber Supply Fund to provide that such funds be available for the enhancement of all industries dependent upon National Forest resources, including fisheries, tourism, and other nonforest products industries.
- Investigate the appropriateness of continuing the 50-year ALP and LPK timber contracts in light of the court findings in the Reid Brothers case.
- Provide direction to the Forest Service to manage the Tongass with a view to developing small-scale and specialty logging enterprises in lieu of exclusive concentration on large-scale developments.

We thank you for considering the views of Southeast Alaska fishermen, and hope that you will act to bring about a reasoned, fiscally sound, and environmentally responsible management regime for the Tongass National Forest.

Sincerely,

Earl E. Krygier
Executive Director
Alaska Trollers Association

Geron Bruce
Executive Director
United Southeast Alaska Gillnetters

Bruce Wallace
Executive Director
Southeast Seine Boat Owners &
Operators Association

Sig Mathisen
President
Petersburg Vessel Owners Association

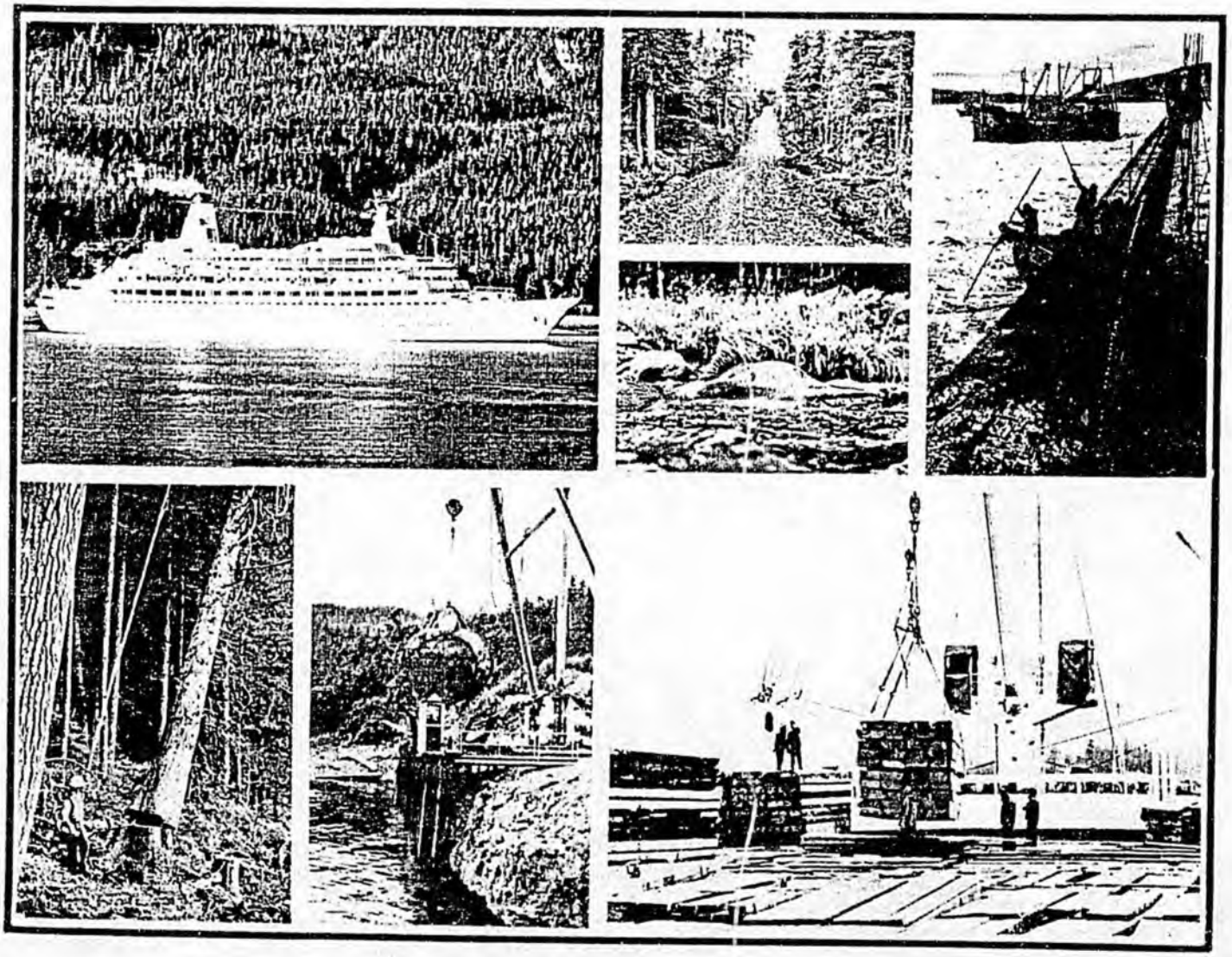
United States
Department of
Agriculture

Forest Service

Alaska Region
Admin. Doc.
Number 153

Status of the Tongass National Forest

1985 Report



SEACC

Southeast Alaska Conservation Council

Box 1692 • Juneau, Alaska • 99802 • (907-586-6942)

May 2, 1986

Representative Richard Shultz
Representative Adelheid Herrmann
Co-Chairs, House Resources Committee
Box V
Juneau, Alaska 99811

Dear Representatives Shultz and Herrmann:

The Southeast Alaska Conservation Council (SEACC) would like to take this opportunity to restate its position on HJR 75/SJR 51. SEACC did not support either of these resolutions in their original language and does not support either of them in their current language. Before your committee today SEACC stated only that the suggested amendment language was an improvement and that we would reserve further comment until SJR 51 was before the committee. References to the 4.5 billion board foot measure continues to make these resolutions totally unexceptable and unsupportable by SEACC and its members.

SEACC has long been on record in opposition to the 4.5 billion board feet timber supply from the Tongass National Forest. It is unsustainable, does not allow flexibility for multiple use, and biological research has shown that it is not compatible with maintaining important fish and wildlife habitat. The 4.5 timber supply has resulted in the waste of millions of taxpayer dollars.

Additionally, you have heard much talk about "a deal is a deal." SEACC was not party to any "deals" or "compromises" during ANILCA negotiations. Timber industry representative, Jim Clark, correctly confirmed that SEACC was not party to any agreement which provided the "450," as it is known, or the timber supply fund when he stated:

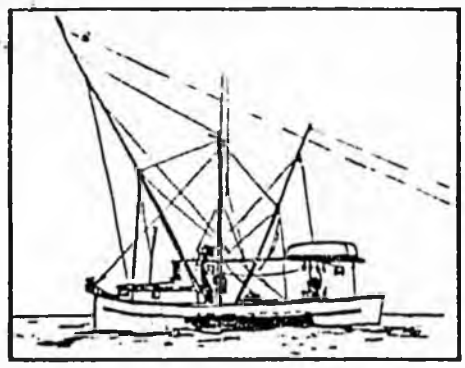
> The House was presented the bill [containing the "450" and timber supply language] on a 'take it or leave it' basis by the Senate. The Sierra Club and the Southeast Alaska Conservation Council (SEACC) argued that the Senate bill should not be adopted by the House: the rest of the Alaska Coalition approved it. Following the defeat of the Carter Administration in the November 1980 national election, Congressman Udall agreed to the Senate bill. The Alaska National Interest Lands Conservation Act (ANILCA) was signed by President Carter on December 2, 1980.

Thank you for your time and consideration on this important issue. If you have any questions on SEACC's position, please give us a call.

Sincerely,

Julie Kelly
for Bart Koehler
Executive Director

cc: All Legislators



Alaska Trollers Association

REPRESENTING ALASKA POWER TROLLERS

130 Seward St., No. 213
Juneau, Alaska 99801
(907) 586-9400

5/5/86

Representatives Adelheid Herrmann and Richard Schultz,
Co-Chairmen
House Resources

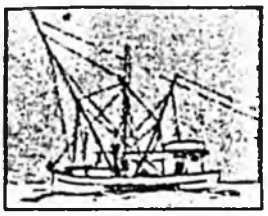
Senator Arliss Sturgulewksi, Chairman
Senate Resources

Dear Mr. Chairman:

This letter is to explain the fishery's stand on the CS Senate Joint Resolution #51, and the House CS Joint Resolution #75, the resolution relating to the Alaska National Interest Lands Conservation Act, Section 705, having to do with timber and fisheries.

You will remember from my early testimony that the original version of this Resolution was unacceptable to the fishing organizations for two reasons; (1) we could not agree with the 450 billion board feet per decade timber supply target, and (2) the fishing organizations felt that the Tongass Timber Supply Fund should have its funds made available to the other users of the resource.

It is important to understand that when the various members of the gear types in Southeast Alaska got together to produce the Fishermen's Review to Congress in the 706B Report, that it was only achieved through a long and arduous process of discussion, review, and final endorsement. Unfortunately, the present Resolutions surfaced too late in the session and moved too rapidly to inform, discuss and achieve agreement within our industry to yield a formal endorsement. This lack of concensus within the fishing organizations has been exacerbated by the fact that the leaders of the majority of the organizations were out on a fishing opening. Because of this, I have been personally working to achieve some headway with these Resolutions; trying to achieve a balance that would be palatable to the fishing industry. Though the changes which we have manufactured in these Resolutions are certainly a vast improvement from the original language, they do not meet the qualifications needed to reach consensus within our industry.



Alaska
Trollers
Association
130 Seward St., No. 213
Juneau, Alaska 99801
(907) 586-9400

Although I felt we may have been close to a final acceptable version of this Resolution last Friday, the other members of the fishing committee returned from the halibut fishery and I was able to discuss the headway made on the Resolution, but found that their full acceptance was not forthcoming.
The concensus that I could achieve was that the Representative Sund's version of CS #75 is acceptable except for one clause. The clause is in the "Further Resolved" section of Page 2, it states "4.5 billion board feet per decade timber harvest supply goal". If this clause could be deleated, we could endorse this Resolution and would encourage its passage. Such a Resolution would be beneficial to the timber industry and would allow safeguards to the fishing industry. We have members of our industry who are presently in Washington, D.C., waiting to present the fishing section's report to Congress, and are awaiting the Resolution which emerges from the Alaska House and Senate.

Thank you for the effort expended on this Resolution - it has been greatly appreciated by all parties concerned.

Sincerely,

Earl E. Krygier
Executive Director

EEK/md

Original sponsor: Resources Committee

IN THE SENATE BY THE RESOURCES COMMITTEE

CS FOR SENATE JOINT RESOLUTION NO. 51 (Resources)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - SECOND SESSION

Relating to the Alaska National Interest Lands Conservation Act Sections 705 and 706.

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

WHEREAS the timber industry is an important industry and a major contributor to the economy of the state; and

WHEREAS tourism, commercial fishing, and recreation industries are also vital to Southeast Alaska and are major contributors to the state's and region's economy; and

WHEREAS the passage of the Alaska National Interest Lands Conservation Act (ANILCA) recognized the importance of these industries to the state; and

WHEREAS Section 705 of ANILCA was a compromise between those advocating wilderness additions, those supporting a viable timber industry, and those concerned about other values within the Tongass National Forest; and

WHEREAS Section 705 provided for a timber supply fund to make timber harvest in marginally economic stands economically feasible; and

WHEREAS Section 705 authorized a timber supply harvest goal of 4.5 billion board feet per decade; and

WHEREAS Congress's objective in Section 705 was to maintain employment in the dependent timber industry of Southeast Alaska at pre-ANILCA levels, while ensuring that other resource values and public uses would be protected on nonwilderness land in accordance with Federal law and the Tongass

a result of the forest service's failure to allocate Section 705 funds in accordance with representations it made to Congress at the time of ANILCA's passage; and

WHEREAS Congress is about to begin oversight hearings to consider Section 705 of ANILCA;

BE IT RESOLVED by the Alaska State Legislature that Section 705 of ANILCA not be amended so that the delicate compromise crafted by Congress balancing values within the Tongass National Forest be maintained; and be it

FURTHER RESOLVED that the forest service continue to manage the Tongass National Forest in a manner that will maintain the balance between jobs and development, and fish, wildlife, recreation, and wilderness in Southeast Alaska, and that the timber harvest level of 4.5 billion board feet per decade be maintained; and be it

FURTHER RESOLVED that the Tongass Timber Supply Fund be adequately funded and spent in accordance with the manner and for the items that the forest service advised Congress it would spend the funds; and be it

FURTHER RESOLVED that before Congress begins any further consideration of ANILCA that hearings be held within the State of Alaska.

COPIES of this resolution shall be sent to the Honorable Ronald Reagan, President of the United States; to the Honorable George Bush, Vice-President of the United States and President of the U.S. Senate; to the Honorable Thomas P. "Tip" O'Neill, Jr., Speaker of the U.S. House of Representatives; and to the Honorable Ted Stevens and the Honorable Frank Murkowski, U.S. Senators, and the Honorable Don Young, U.S. Representative, members of the Alaska delegation in Congress.

TESTIMONY OF JAMES F. CLARK
BEFORE THE HOUSE NATURAL RESOURCES COMMITTEE
RE HOUSE JOINT RESOLUTION NO. 75
FOR THE ALASKA LOGGERS ASSOCIATION

We support this resolution because it supports retention of the timber job protection portions of the compromise worked out in the Alaska National Interest Lands Conservation Act (ANILCA). Several environmental groups have called for the repeal or substantial modification of Section 705(a) of ANILCA. These same groups have said nothing about repealing the wilderness designations in the Tongass which was the other half of the compromise.

The legislative history of Section 705(a) shows that it was one-half of a Tongass National Forest compromise between the environmental and industrial proponents. On the one hand, Congress sought to maximize the amount of the Tongass put into wilderness while on the other hand Congress sought to maintain the level of then existing timber related jobs. Senator Tsongas, who worked closely with environmental groups - especially the Alaska Coalition, during the debate on Alaska lands described the compromise as follows:

> "The compromise substitute designates approximately 5.3 million acres of wilderness and deletes the special management areas entirely. Section 705(a) of the committee substitute has been modified to assure the availability of at least $40 million annually <u>for timber management programs in the</u>

Tongass forest. These funds will be available for the regular costs of sale and road layout and restoration and will also provide moneys for stand improvement, the timber road program, and related capital investments. These funds and the increased timber "base" on the forest will insure that adequate timber supplies will be available to the dependent timber industry in southeast Alaska." (Emphasis added)

126 Cong. Rec. S11119 (daily ed. August 18, 1980).

Unfortunately, we have lost between 1,500 and 2,000 industry related jobs, because the Forest SErvice has not fully funded the timber road program referred to by Senator Tsongas. However, to the extent it has been implemented, Section 705(a) has been a big help. Accordingly, to repeal Section 705(a), which was designed to protect jobs, is no more reasonable then repealing the wilderness designations which Congress made. The focus should be, in short, in making the compromise work, not depriving one side or the other of the benefit of the bargain. If, however, one side of the bargain is to be repealed, then the areas of the Tongass which were designated wilderness should be returned to multiple use.

HJR 75 will make it clear to Congress that the Sate of Alaska supports retention of the compromise. We urge its passage.

Bradley
5/1/86

Original sponsor: Resources Committee

IN THE HOUSE BY THE RESOURCES COMMITTEE

CS FOR HOUSE JOINT RESOLUTION NO. 75 (Resources)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - SECOND SESSION

Relating to the Alaska National Interest Lands Conservation Act Sections 705 and 706.

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

WHEREAS the timber industry is an important industry and a major contributor to the economy of the state; and

WHEREAS tourism, commercial fishing, and recreation industries are also vital to Southeast Alaska and are major contributors to the state's and region's economy; and

WHEREAS the passage of the Alaska National Interest Lands Conservation Act (ANILCA) recognized the importance of these industries to the state; and

WHEREAS Section 705 of ANILCA was a compromise between those advocating wilderness additions, those supporting a viable timber industry, and those concerned about other values within the Tongass National Forest; and

WHEREAS Section 705 provided for a timber supply fund to make timber harvest in marginally economic stands economically feasible; and

WHEREAS Section 705 authorized a timber supply harvest goal of 4.5 billion board feet per decade; and

WHEREAS Congress's objective in Section 705 was to maintain employment in the dependent timber industry of Southeast Alaska at pre-ANILCA levels, while ensuring that other resource values and public uses would be protected on nonwilderness land in accordance with Federal law and the Tongass Land Management Plan; and

WHEREAS Section 705 has not been properly implemented, particularly as

a result of the forest service's failure to allocate Section 705 funds in accordance with representations it made to Congress at the time of ANILCA's passage; and

WHEREAS Congress is about to begin oversight hearings to consider Section 705 of ANILCA;

BE IT RESOLVED by the Alaska State Legislature that Section 705 of ANILCA not be amended so that the delicate compromise crafted by Congress balancing values within the Tongass National Forest be maintained; and be it

FURTHER RESOLVED that the forest service continue to manage the Tongass National Forest in a manner that will maintain the balance between jobs and development, and fish, wildlife, recreation, and wilderness in Southeast Alaska, and that the timber harvest level of 4.5 billion board feet per decade be maintained; and be it

FURTHER RESOLVED that the Tongass Timber Supply Fund be adequately funded and spent in accordance with the manner and for the items that the forest service advised Congress it would spend the funds; and be it

FURTHER RESOLVED that before Congress begins any further consideration of ANILCA that hearings be held within the State of Alaska.

COPIES of this resolution shall be sent to the Honorable Ronald Reagan, President of the United States; to the Honorable George Bush, Vice-President of the United States and President of the U.S. Senate; to the Honorable Thomas P. "Tip" O'Neill, Jr., Speaker of the U.S. House of Representatives; and to the Honorable Ted Stevens and the Honorable Frank Murkowski, U.S. Senators, and the Honorable Don Young, U.S. Representative, members of the Alaska delegation in Congress.

GREATER SITKA
Chamber of Commerce, Inc.

May 1, 1986

TO: ALL MEMBERS OF THE SENATE RESOURCES COMMITTEE
ALL MEMBERS OF THE HOUSE RESOURCES COMMITTEE

SUBJECT: SOUTHEAST ALASKA TIMBER INDUSTRY

FROM: GREATER SITKA CHAMBER OF COMMERCE
PAUL M. HARRIS, PRESIDENT

As you deliberate in regards to the Southeast Alaska Timber Industry, we encourage you to read the attached two information sheets which we have prepared. The Greater Sitka Chamber of Commerce urges your quick passage of the Alaska resolutions, which would tell Congress that any attempt to open ANILCA, create additional wilderness area, decrease the timber harvest or cut the timber supply would substantially damage the area's economy. We believe and support the timber industry to be a very important resource industry to the State of Alaska.

w/attachments (2)

cc: Senator Dick Eliason
Representative Ben Grussendorf

POST OFFICE BOX 638 • SITKA, ALASKA 99835
(907) 747-8604

(1)

EATER S...
: OF COMMERCE, INC.
Box 638
a, Alaska 99835

PLEASE TAKE A MOMENT TO READ THE FOLLOWING

THEN WRITE YOUR LETTER TO THE US FOREST SERVICE. ENCOURAGE YOUR EMPLOYEES TO DO THE SAME. DON'T DELAY -- DEADLINE IS MAY 9...

In 1979, when the Tongass Land Management Plan and ANILCA were being shaped, many Alaskans warned:

IF YOU CARVE FIVE MILLION ACRES OF WILDERNESS FROM THE TONGASS, YOU FORCE A CHOICE:

...EITHER logging must move closer to the communities, the boating routes, & local use areas,

...OR the timber industry in Southeast Alaska is dead.

Many, many Alaskans pointed out this problem. The warning was ignored. The decision to create massive remote wilderness areas was made.

AND HERE WE ARE, FACING THE CHOICE.

It's surprising that so many people seem to have forgotten the terms of the ANILCA agreement. Some of them, of course, weren't here six years ago. But others were here and were among the most enthusiastic in supporting -- demanding, in fact -- that these enormous remote wilderness areas be established.

WHEN THEY WERE FINISHED, OVER 50 PERCENT OF THE TONGASS NATIONAL FOREST WAS IN WILDERNESS OR OTHER PROTECTED STATUS.

We trust that these folks will take comfort in knowing that there are OVER FIVE MILLION ACRES OF OLD GROWTH, EAGLE NEST TREES, DEER WINTER RANGE, FISH STREAMS, AND SOLITUDE SURROUNDING SITKA. Not a single logger will step a foot on these five million acres -- ever.

And while they take comfort in that, the rest of us MUST concern ourselves with what they left for us. There are some important facts:

1. Timber activity & roading are governed by many environmental laws. Their effectiveness is shown by the abundant game, by the increasing fish harvest, and by the swelling numbers of visitors to our scenic countryside. Multiple use management is working well in those portions of the Tongass where ANILCA permits it to function.
2. Market conditions have improved for the timber industry. With reasonable logging/roading costs, our local industry can survive -- supporting local jobs, the local housing market, local school enrollment, and the local tax base.
3. Timber operations near the community have some positive advantages. Suppliers, transportation providers, & other businesses benefit -- and with that come more jobs & related economic benefits. The road systems will remain -- approximately 160 miles under this plan -- for the use & enjoyment of many sportsmen & recreational users. (And those who don't equate roads with recreation have all of Admiralty, West Chichagof, South Baranof, Endicott, Tracy Arm, Petersburg Creek, Stikine-LeConte, Tebenkof, and a host more pristine wildernesses in which to wander!)

ANILCA was created by environmental groups and congressmen from Utah and Ohio. We wish they'd done it differently. LET'S MAKE THIS DECISION OURSELVES!

IT IS VERY IMPORTANT THAT EACH OF US SPEAKS NOW. LET THE FOREST SERVICE KNOW THAT YOUR SUPPORT IS BEHIND OUR LOCAL MILL AND YOUR FRIENDS & NEIGHBORS DEPENDING UPON THESE JOBS.

YOUR LETTER IS NEEDED

YOUR HELP IS URGENTLY NEEDED BY MAY 9.

WRITE TO:

Mike Johnson
US Forest Service
204 Siginaka Way
Sitka, Ak. 99835

The 1986-90 APC environmental statement is very technical & difficult to understand. The Forest Service says they are forced to present the information this way because each & every timber plan is now being challenged in Court!

Following are some straight-forward facts to help you write your letter.

ALTERNATIVE 'H' SHOULD BE ADOPTED, WITH AMENDMENTS TO IMPROVE IT ECONOMICALLY, BECAUSE:

1. In 1984, APC directly contributed $20,415,000 to Sitka's economy. This total included a payroll of $15,896,000 & purchase of over $1.5 million in power from the City & Borough.

   ---SITKA URGENTLY NEEDS APC'S CONTRIBUTION TO OUR ECONOMY.

2. In 1984, APC contributed an additional $13,576,000 to Southeast's economy. This total includes dollars for camp construction, road construction, towing, & purchase of chips.

   ---APC CONTRIBUTES TO A DIVERSE, STRONG SOUTHEASTERN ECONOMY.

3. Profitability of timber operations began dropping with passage of the Alaska Lands Act in 1980. During 1976-80, APC operated at a Net Profit of $100.94/MBF and a Net Stumpage of +$30.33. After wilderness land selections & other prime timber removals, the economics began to drop. The Forest Service proposal for 1986-90 is at a Net LOSS of $55.06/MBF and a Net Stumpage of -$114.00.

   ---ANILCA FUNDS, APPROPRIATED BY CONGRESS, MUST BE USED DURING THIS OPERATING PERIOD FOR ROAD BUILDING, IN ORDER TO MAKE TIMBER OPERATIONS FEASIBLE. THIS WAS THE INTENT OF CONGRESS WITH ANILCA.

4. While asking both Southeast mills to operate at a deficit, the Forest Service proposes to put the Sitka mill at a significant disadvantage. Under LPK's current plan (through February 1989), there is a Net Loss of $6.46. Contrast this with the -$55.06 proposed by the agency for Alaska Pulp. The comparable stumpage rates are -$58.38 for LPK and -$114.00 for APC.

   ---THE DRASTIC DEFICIT PROPOSED BY THE FOREST SERVICE MUST BE CORRECTED. 'ALTERNATIVE H', SUPPLEMENTED BY ROAD FUNDING, IS THE FAIREST ALTERNATIVE.

5. Employment at the Sitka mill is now at 373 persons. A total of 215 jobs have been lost since the Alaska Lands bill in 1980.

   ---THESE JOBS ARE CRITICAL TO SITKA'S CURRENT ECONOMY AND TO SUSTAIN OUR CURRENT POPULATION, UPON WHICH EDUCATIONAL PROGRAMS, HEALTH SERVICES, & OTHER 'QUALITY OF LIFE' FACTORS DEPEND.

6. Both Alaska Pulp and LPK are purchasing pulp wood logs from the Native Corporations as they begin to operate on their private land holdings;

   ---THE SITKA MILL IS ONE VITAL LINK IN THE DEVELOPING PRIVATE INDUSTRIAL ECONOMY OF SOUTHEAST.

7. Over 75 percent of APC's sales are to Pacific Rim and other foreign nations.

   ---APC IS HELPING TO REVERSE THE TRADE/DOLLAR FLOW AWAY FROM THE AMERICAN ECONOMY & CONTRIBUTING TO ALASKA'S EFFORT TO DEVELOP PACIFIC RIM TRADE PARTNERSHIPS.

8. Barely 10 percent of the Tongass National Forest is available for timber harvest. Operations in that 10% are governed by a host of environmental regulations and oversight agencies.

114 Fifth St.
Douglas, AK 99824

April 30, 1986

House Resource Committee
Alaska Legislature
Pouch V
Juneau, AK 99811

Dear Representative:

As a former commercial fisherman and as a businessman who depends on tourism for his income, I'm shocked that someone would submit HJR 75 to this body for consideration. Perhaps, they hope that in the press of legislative business, and desiring to show support for a struggling Alaskan industry, legislators will not take time to examine the language.

It is one thing to assert one's position, it is another to mislead and distort. This resolution does violence to the facts. For example, the figures presented suggest that logging effects an insignificant portion of the Tongass. On the contrary, the 450 MMbf annual cut mandated by ANILCA commits more than 20 square miles of the best timberlands in Southeast Alaska to logging each year. The practice of hygrading, of taking the best stands first, means that each year more acreage must be cut to deliver an equal volume; it also means that the industry will require progressively larger subsidies in coming years. Add another 20 square miles cut on Native lands each year, consider that the best timber makes the best fish and wildlife habitat, and you begin to see the scope of the problem.

The facts are that two companies found guilty of antitrust activities, of driving small timber operators out of business, are trying to maintain their grip on Tongass National Forest. They want your vote of support for their industry. But how many industries do you know of in Alaska that can't survive without a 50 million dollar annual subsidy? One wonders how many millions of these public dollars have been spent lobbying people such as yourselves for more public money?

Logging may be an important industry in Southeast Alaska. But so are tourism and fishing, and each acre cut diminshes the resource base which supports these other industries. If this body wishes to make a show of support for the timber industry at this time, fine. However, the resolution before you is the wrong vehicle.

It misrepresents Alaskan public opinion, it insults your intelligence, and it tramples other interests, such as fishing and tourism.

Anyone familiar with the facts knows that there are significant problems with Alaska's timber industry. Indeed, since World War II it has required large subsidies in one form or another. It is more a huge Potlatch for the few at the expense of the many. The resolution before you is the work of desparate men defending an indefensible position. The timber industry's lobbyists and its champions in Congress want this resolution so they can deflect Congressional criticism and cloud the issues. I urge you to reject this resolution unanimously.

Sincerely,

Mike Macy

Mike Macy

OCTOBER 1985

VIEWS OF THE SOUTHEAST ALASKA FISHING INDUSTRY

as represented by

Alaska Trollers Association

United Southeast Alaska Gillnetters

Southeast Seine Boat Owners & Operators Association

and

Petersburg Vessel Owners Association

These comments represent the views of the Alaska Trollers Association, the United Southeast Alaska Gillnetters, the Southeast Alaska Seine Boat Owners and Operators, and the Petersburg Vessel Owners Association, the principal fishermen's organizations in Southeast Alaska. Members of these groups form a representative cross section of the salmon fishing industry in Southeast Alaska, and many are active in bottomfish and shellfish sectors of the industry as well. We trust that Congress will carefully consider our positions in its review of those portions of the Alaska National Interest Lands Conservation Act (ANILCA) pertaining to management of the Tongass National Forest.

In passing ANILCA, Congress drastically altered the lands and resources management scheme for the Tongass National Forest, and Southeast Alaska generally. Vast wilderness areas were created to satisfy national conservation groups. Special enclaves were carved out for multi-national mining interests. The huge national and international timber companies got guarantees of timber availability from national forests lands, with vast subsidies in the form of the Tongass Timber Supply Fund. All of these things were sold as benefits to the people of Southeast Alaska, but are they?

Southeast Alaska conservationists never signed off on the deal, and the region's one longterm, sustained yield natural resource industry - fishing - was not responded to with anything near the attention that it warranted, or that other resources users received. Nonetheless, it is clear that Congress intended that water use in the Tongass be managed with protection of the salmon resource first and foremost in mind. However, this priority has not been reflected in Forest Service cutting plans developed since ANILCA. Had it been, the Forest Service's approach to timber management in areas like the Chuck and Kadashan River drainages, and to U.S. Borax's water extraction plans in the Wilson and Blossom Rivers would have been greatly revised.

For all intents and purposes, large scale mining is a thing of the past in Southeast Alaska. Once, the world's largest hardrock gold mines operated here, but all that remains of them are ruins, tailings piles and faded memories. Also, the world metal glut, predicted to last into the foreseeable future, mitigates against the ultimate development of the current, "hot" mining properties which received so many concessions in ANILCA - Quartz Hill and Green's Creek.

The large scale timber industry in Southeast is deeply depressed - hanging on only through sale of public timber at scandalously low prices. Even at that, much of the timber being sold is not being cut, but inventoried against hopes of an improved timber market in years ahead. Meanwhile, the Forest Service continues to offer a minimum of 450 million board feet per year for sale, and maintains an ambitious program of pre-roading and other pre-sale preparation funded through the ANILCA provided Tongass Timber Supply Fund. Despite this massive expenditure of public monies, which results in losses to taxpayers of as much as $175 for every 1,000 board

feet of timber sold in the Tongass, the industry is virtually moribund.

Many people in Southeast are very upset that our national government is willing to so lavishly support an industry which is largely Japanese owned. We are, in effect, subsidizing a foreign company to despoil our landscape and waters in the course of competing with other American timber interests. We are sure that most Americans would be amazed to hear that the U.S. Treasury is underwriting a Japanese company's efforts to gain control of huge tracts of virgin, publicly owned timber through so called "deficit" timber sales. Moreover, this same company, Alaska Lumber and Pulp, was, with Louisiana Pacific Ketchikan, found guilty of predatory business practices designed to drive small, privately owned American firms out of business in the Tongass (the Reid brothers' lawsuit), and of bilking the Federal and State governments out of timber revenues mounting into the tens of millions of dollars. Yet, their 50 year cutting contracts remain in effect, subsidized by American taxpayers, while many vitally needed Government programs are being cut or eliminated in the name of deficit reduction.

It might be asked what all this has to do with fishermen? Why do we object? After all, there is no doubt that Southeast Alaska needs large injections of money to broaden its economic base and provide additional employment. Our concern is simply that the Federal monies spent in management of the Tongass National Forest be spent on constructive rather than destructive activities. The 450 million board foot annual timber supply to dependent industry mandated by ANILCA is unrealistic given the available commercial timber base. Inorder to achieve that level of cut many areas which are clearly unsuitable for logging will have to be included.

A good example of this is the Chuck River drainage, an area of only moderate (at best) timber values, with steep slopes and unstable soils prone to massive landslides. It happens that the Chuck River is also a major salmon stream. The Chuck River was blocked by a naturally occuring slide during the early '70's which virtually wiped out its pink salmon runs for the better part of a decade. Yet, the Forest Service proposed timber cuts immediately adjacent to that slide zone on soils of proven instability, knowing full well that removal of vegetation aggravates the risk of landslides. This particularly egregious example of Forest Service disregard for environmental concerns and potential for extremely negative effects on another industry has been blocked only through the great efforts of fishermen and other concerned citizens which resulted in the State of Alaska refusing to grant a favorable "consistency" ruling under Coastal Zone Management Act (CZMA) provisions. Failing that the Forest Service would certainly have proceeded with the despoliation of the Chuck River, putting its important salmon runs in jeopardy.

Unfortunately, The Chuck River is the only example of an ill conceived timber sale every being halted in the Tongass, and it was only stopped because it was so flagrantly bad. Meanwhile, literally hundreds of other streams are in danger from timber sales which are planned or which have already happened, placing timber into cutting inventories. The Forest Service argues that fish runs have increased during the last few years, even implying that improved run strength is due to forestry practices. Such statements are worse than misleading. For the Forest Service to take credit for the State of Alaska's much improved management practices, for a succession of exceptionally good years for salmon ocean survival, for the reduction of foreign fleet salmon interceptions on the highseas, and for the catch reductions endured by Alaska fishermen in the name of conservation is an affront to the public and to the Congress. The fact is that much of the currently inventoried timber, and much of that which is scheduled for sale is in areas of both marginal timber values and marginal environmental viability. Only the extremely depressed condition of the world timber market has kept many areas of high potential for fish habitat destruction from being logged.

It should be borne in mind that the Forest Service's analysis of the Southeast Alaska economy presented in justification of the Tongass Land Use Management Plan (TLUMP) implied that timber would be the backbone of the natural resource economy in Southeast, and that fishing had little probability of regrowth to previous levels. In fact, quite the opposite has been true. The various salmon species are renewable on two to seven year cycles, depending on species, and have proven very responsive to improved management and conservation practices. In contrast, there is real question as to whether logging in Southeast Alaska can truly be considered a sustained yield, renewable industry. With regeneration cycles of 125 or more years between cuts, and as much as 450 years to achieve "old growth" volumes and quality, calling logging a renewable resource industry is questionable. Indeed, some industry observers have likened logging in Southeast to strip mining. Also, the tourist industry has grown rapidly in Southeast, as literally hundreds of thousands of people each year travel by air and by ship to see our islands, mountains, wildlife and historic towns. Make no mistake, they come to Alaska to see country undefiled by man, not to see clearcut timber tracts! Tourism is an essentially non-consumptive use of our forests. It brings in foreign revenues rather than subsidizing foreign destruction of our environment. The same is true of fishing.

Southeast Alaska annually produces large amounts of king, coho, sockeye, chum and pink salmon for domestic and export markets. In 1984 the Southeast Alaska salmon industry produced in excess of $72.5 million dollars in ex-vessel value for fishermen. Using a multiplier of two to gauge the total contribution to our economy, salmon alone is seen to be worth nearly $150 million per year. Factoring in the value of other commercial fisheries such as crab, shrimp, bottomfish and the recreational fisheries a total economic

contribution of at least $200 million per annum can be forecast. Moreover, Southeast Alaskans are personally very dependent upon the fisheries resource for home consumption. The economic values of subsistence and personal use fisheries are more difficult to quantify, but even conservative replacement values would place direct fisheries resource utilization by Southeast residents in the tens of millions of dollars.

All value comparisons, criticisms of Forest Service management, and concern over U.S. governmental subsidization of foreign industry ultimately must bring us a recognition of the need for change in the Tongass National Forest. Fortunately, there are positive steps which can be initiated by Congress to ensure that the resources of the forest are truly used for the benefit of the people. The fishermen's organizations of Southeast Alaska urge Congress to take the following actions:

- Clearly state that the Tongass National Forest shall be managed in accordance with the National Forest Management Act (NFMA) so as to ensure true multiple use, sustained yield management, with full consideration of all forest resources and values, not just timber. In particular, protection and enhancement of fish habitat should be recognized as a primary economic component of Tongass National Forest management.

- Amend ANILCA to eliminate the mandated 450 million board feet per year timber supply target which so cripples current management practices in the Tongass.

- Revise the ANILCA provisions on the Tongass Timber Supply Fund to provide that such funds be available for the enhancement of all industries dependent upon national forest resources, including fisheries, tourism, and other non-forest products industries.

- Investigate the appropriateness of continuing the 50 year ALP and LPK timber contracts in light of the court findings in the Reid Brothers case.

- Provide direction to the Forest Service to manage the Tongass with a view to developing small scale and specialty logging enterprises in lieu of exclusive concentration on large scale developments.

We thank you for considering the views of Southeast Alaska fishermen, and hope that you will act to bring about a reasoned, fiscally sound, and environmentally responsible management regime for the Tongass National Forest.

Sincerely,

Earl E. Krygier
Executive Director
Alaska Trollers Association

Geron Bruce
Executive Director
United Southeast Alaska Gillnetters

Bruce Wallace
Executive Director
Southeast Seine Boat Owners & Operators Association

Sig Mathisen
President
Petersburg Vessel Owners Association

Introduced: 4/24/86
Referred: Resources

IN THE SENATE BY THE RESOURCES COMMITTEE

SENATE JOINT RESOLUTION NO. 51

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - SECOND SESSION

Relating to the Alaska National Interest Lands Conservation Act and endorsing support for the timber industry.

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

WHEREAS the timber industry is a vital industry in the state and a major contributor to the economy; and

WHEREAS the passage of the Alaska National Interest Lands Conservation Act (ANILCA) in 1980 recognized the importance of the timber industry to the state; and

WHEREAS ANILCA provided for a timber supply fund and also authorized a timber supply harvest level in order to ensure economic stability within the timber industry; and

WHEREAS ANILCA was a compromise reached in 1980 between those advocating wilderness additions and those supporting a viable timber industry and a renewable resource; and

WHEREAS ANILCA has already mandated and set aside over 50 percent of Southeastern Alaska land as wilderness and roadless areas; and

WHEREAS the total acreage of the Tongass National Forest is 16,706,895 acres excluding land in other ownership and, of that total, only 1,749,700 acres are scheduled for harvest over the rotation of 100 years which constitutes only one-tenth of one percent a year or 10 percent over the life of the rotation; and

WHEREAS any attempt to change ANILCA to create additional wilderness areas, and decrease the mandated timber harvest level or eliminate the authorized timber supply fund would cause severe detrimental damage to the

economy of Southeastern Alaska; and

WHEREAS the Congress is about to begin hearings to consider ANILCA and special interest groups are requesting significant changes in ANILCA that may cause severe economic damage to the existing timber industry and, consequently, many communities in Southeastern Alaska;

BE IT RESOLVED by the Alaska State Legislature that ANILCA not be reopened or amended as this action would have the effect of voiding the delicate compromise and subsequent legislation passed in 1980; and be it

FURTHER RESOLVED that the timber harvest level of 4.5 billion board feet per decade as mandated by ANILCA be maintained; and be it

FURTHER RESOLVED that the timber supply fund as enacted as part of ANILCA be maintained and adequately funded; and be it

FURTHER RESOLVED that the land base made available under ANILCA for renewable timber harvest not be reduced and no further additions to wilderness areas be enacted; and be it

FURTHER RESOLVED that before the Congress begins any further consideration of ANILCA that hearings be held within the State of Alaska.

COPIES of this resolution shall be sent to the Honorable Ronald Reagan, President of the United States; to the Honorable George Bush, Vice-President of the United States and President of the U.S. Senate; to the Honorable Thomas P. "Tip" O'Neill, Jr., Speaker of the U.S. House of Representatives; and to the Honorable Ted Stevens and the Honorable Frank Murkowski, U.S. Senators, and the Honorable Don Young, U.S. Representative, members of the Alaska delegation in Congress.

Southeast Alaska Conservation Council

Box 1692 • Juneau, Alaska • 99802 • (907-586-6942)

Statement of Bart Koehler, Executive Director
Southeast Alaska Conservation Council
Before the House Resources Committee
Concerning HJR 75
April 28, 1986

My name is Bart Koehler. I am the Executive Director for the Southeast Alaska Conservation Council (SEACC) and I am representing the Council's position today on HJR 75. SEACC is a coalition of 9 conservation groups located throughout Southeast Alaska, in addition we have 600 individual members. The groups and individuals belonging to SEACC include sport and commercial fishermen, sport hunters, subsistence resource users, small timber workers, teachers, guides & outfitters, businessmen, and others throughout Southeast.

HJR 75 is a resolution "relating to the amendment by Congress of the Alaska National Interest Lands Conservation Act as it relates to the timber industry." Before I comment on the contents of the resolution I would like to present some background information which directly relates to consideration of this resolution.

First, Section 706(b) of the Alaska Lands Act (ANILCA) requires that the U.S. Forest Service "review and report to Congress on the status of the Tongass National Forest" within 5 years from the date of enactment of ANILCA. It directs that "this report shall include, but not be limited to, (1) the timber harvest levels in the forest since the enactment of this Act; (2) the impact of wilderness designation on the timber, fishing, and tourism industry in southeast Alaska; (3) measures instituted by the Forest Service to protect fish and wildlife in the forest; and (4) the status of the small business set aside program in the Tongass Forest."

Thus, ANILCA Section 706(b) specifically recognized the importance of the fishing and tourism industries in addition to the timber industry. Nowhere does it say that one industry is more vital than another. Further, by requiring the Forest Service to report on the protection of fish and wildlife in the forest, Congress also recognized the importance of these resources to the livelihoods and lifestyles of Southeast Alaskans.

Second, ANILCA Section 706(c) further directs that "the study required by this section shall be conducted in cooperation and consultation with the State, affected Native Corporations, the southeast Alaska timber industry, the Southeast Alaska Conservation Council, and the Alaska Land Use Council." These named cooperators participated in the study process by submitting separate chapters for inclusion in the Forest Service's report to Congress. In

addition, the Forest Service invited 4 Southeast commercial fishing groups to also participate in the study report. These groups were the Alaska Trollers Association, the United Southeast Alaska Gillnetters, the Southeast Seine Boat Owners and Operators Association, and the Petersburg Vessel Owners Association.

The Section 706(b) report was due to Congress by December 2, 1985, however its release was delayed until just recently. Congressional Oversight Hearings on the report are now scheduled for May 8 & 9 before the House of Representatives Interior Subcommittee on Public Lands. As directed by Section 706(b), these hearings are only to review the management status of the Tongass as seen by the Forest Service and cooperators. Congress will not be considering any amendments to ANILCA at these hearings.

HJR 75 does not represent all of Southeast Alaska because many of the region's communities are not dependent upon the two pulp mills and the large-scale timber industry. In fact, timber harvest can negatively impact the livelihoods of many Southeast residents.

For example, HJR 75 resolves that the ANILCA timber supply goal of 4.5 billion board feet per decade be maintained. However, 14 Southeast communities have gone on record opposing the "450" (as it is called locally). I have supplied you with copies of these 14 resolutions. As you can see, the 14 communities are Angoon, Craig, Edna Bay, Elfin Cove, Gustavus, Hoonah, Hydaburg, Kupreanof, Pelican, Point Baker, Port Alexander, Port Protection, Tenakee Springs, and Yakutat. The lives of the people in these communities are based on the surrounding fish and wildlife resources. These resources can be detrimentally affected by excessive timber harvest. Without exception the communities state in their resolutions that the "450" does not allow adequate flexibility in the management of the forest for all multiple uses. HJR 75 simply rides rough-shod over these communities in our region.

Additionally, 4 commercial fishing groups have gone on record opposing the "450" as a threat to the livelihoods of their members. You have a copy of their statement in your packet. These groups are the Alaska Trollers Association, the United Southeast Alaska Gillnetters, the Southeast Seine Boat Owners & Operators Association, and the Petersburg Vessel Owners Association.

Only one community, Wrangell, has passed a resolution similar to HJR 75 supporting the "450" harvest goal. Petersburg considered the same resolution, but it was voted down.

HJR 75 claims that eliminating the Tongass Timber Supply Fund and decreasing the "450" harvest goal would cause substantial damage to the economy of Southeast Alaska. In your packets you will find 2 pages of graphs depicting employment and earnings by sector in Southeast. These graphs come from pages 21-24 of the Forest Service's 706(b) study report to Congress. What these graphs clearly show is that timber is not the only vital industry to Southeast Alaska.

As you can see from Figure 2.1, since 1981 fishing and tourism have each supplied more direct jobs than did the timber industry. Figure 2.3 shows that since 1981 the timber industry has supplied more indirect jobs than either fishing or tourism. Federal government is also an important source of jobs.

Not to be overlooked is that, on the average, state and local government supplies thousands more direct and indirect jobs than timber, fishing, and tourism combined. Figures 2.2 and 2.4 show that direct and indirect earnings from the timber industry are higher than for either fishing or tourism. Federal government workers earned about the same as fishery and tourism workers, but less than timber workers. Again, state and local government earnings were higher than timber, fishing, and tourism combined.

I have purposely left out the actual numbers of jobs and amounts of dollars earned because that is not what is important here. Rather, what is important, as I stated before, is that these graphs clearly show fishing and tourism to be just as vital to Southeast Alaska's economy as timber. They also show the overwhelming importance to the region of employment by state, local, and federal government. Keep in mind that these graphs do not consider subsistence and its importance to the livelihood of many Southeast residents.

These graphs show that since 1980, jobs and earnings have increased in the tourism sector, and all predictions are that this growth will continue. Now and in the future, tourism will continue to be important to Southeast Alaska's economy. According to the Forest Service report, "Southeast Alaska played host to 205,000 total visitors in 1983, double the number in 1975." To quote further, "The rise in environmental awareness and interest in protecting remaining wilderness coincided with the continued growth in visitation to Southeast Alaska. The single most consistent trend one can follow in the development of the visitor trade in Southeast, has been the persistent demand for the natural scenic beauty of Southeast Alaska."

Abundant wildlife and a quality environment are important to Southeast Alaskans, too. For example, according to a Forest Service survey, the number of resident sport fishermen increased 55% between 1977 and 1983, even though the region's population grew by only 27% over this same time period. A 1983 survey found that the 3 most important attributes to a quality angling experience were "(1) uncrowded environment, (2) wilderness setting, and (3) catching lots of fish." No doubt, these attributes are also important to nonfishing recreationists and hunters.

If you will look at the employment and earnings graphs once more you will note that jobs and earnings in the timber and fishing industries decreased slightly since 1980. This decrease in the timber sector occurred despite the Tongass Timber Supply Fund providing an average of roughly $46 million annually since 1980 to the timber industry. Also, during this time the Forest Service supplied an average of 490 MMBF of timber per year, 40 MMBF per year more than the Tongass timber supply goal of 450 MMBF. Despite the offering of this much timber, only an average of 243 MMBF per year was harvested.

Something is clearly wrong when an industry claims it cannot operate profitably and loses jobs even though it is so incredibly well subsidized and its product supply is twice what it can use. The fact is that the market has bottomed out since 1980 when the timber industry was at an all-time high. All the timber supply in the world won't help if the demand for timber is not there. Building roads and spending millions in federal subsidy dollars, taxpayer's money, to supply timber that is never sold or harvested simply cannot be justified. Environmentalists and Wilderness designations are not the cause of timber industry woes.

HJR 75 would jeopardize all industries vital to Southeast in an effort to save one which is ailing due to poor market conditions, not lack of federal subsidy or product supply. Advocating excessive timber harvest at the expense of the region's other industries is ridiculous. It is even more ridiculous when you consider that continuing to oversupply the market will make the timber industry even more uneconomical.

The welfare of the fishing and tourism industries, of the subsistence way of life, of sport hunting and fishing, and other forms of recreation are directly dependent upon the preservation Southeast's abundant natural beauty and fish and wildlife populations. Let us remember that timber is not the only industry. A balance in harvest levels must be struck, but this is not the forum for that issue.

HJR 75 advocates maintaining and adequately funding the Tongass Timber Supply Fund. Everyone concerned with the Fund, including the State of Alaska and the timber industry, has complained about its misapplication. While each interest group has complained for various and oftentimes conflicting reasons, no one has been happy with how the Fund has been implemented, except the Forest Service. It will be important for Congress to hear from all viewpoints about the Timber Supply Fund on May 8 & 9.

In closing, HJR 75 is a misrepresentation of the needs and desires of many Southeast Alaskans. For Alaska's Legislature to pass a resolution which represents only one economic sector, but purports to represent an entire region of the state, is grossly unfair. HJR 75 does not reflect the concerns of the 14 small communities in Southeast Alaska who have passed resolutions in opposition to the "450" and who are not ties to the 2 pulp mills.

HJR 75 is not in keeping with the directives of the review process established in ANILCA Section 706(b). The 706(b) review process allows the timber industry the same opportunity as all other interest groups to speak before Congress on the management status of the Tongass. Additionally, the specific language of HJR 75 is inaccurate and misleading. I am prepared to discuss the resolution line by line if you have any questions.

SEACC urges the Committee to kill HJR 75 now before it goes any further. Thank you for the opportunity to speak before you.

March 21, 1986

Representative Robin Taylor
Pouch V,
Juneau, Alaska 99811

Dear Robin;

Enclosed are copies of the "Last Stand of the Tongass" authored by SEACC; the State of Alaska report on ANILCA 706B; and the summary of the Forest Service report. All three documents are being submitted to congress as congress is about to conduct hearings and take possible action regarding the ANILCA act.

As you are well aware, the timber industry plays a very vital role in the economy of Southeast Alaska. It is always important that this fact is continually recognized but now with severly declining oil revenues, it is extremely important that everyone is made aware of the implications of possible alteration of the ANILCA act and the effect this would have on our already "shaky" economies.

I urge you to read the documents in some detail. I do, however, expect to see your blood pressure raise when reading "The Last Stand". It's been quite awhile since I've read a document full of so many untruths. The really tragic thing is that SEACC is right now distributing copies of this document to Representatives and Senators back in Washington, D.C. telling them that this document represents the feelings of Southeast Alaskans. I would have expected that SEACC would have submitted a document such as "The Last Stand" because you are as well aware as I as to where they are "coming from". But I was <u>extremely</u> dissappointed that the State of Alaska would submit such a document as they are about to do. To suggest that a congressional inquiry be conducted is to simply open up the entire legislative act which was a compromise reached in 1980 between those advocating wilderness and those trying to preserve a viable timber industry in the Tongass National Forest. Market conditions for the timber industry have been terrible for the past several years because of the strength of the dollar, depressed markets, etc. These are things that we really do not have control over, but we (meaning the State of Alaska) certainly should be able to represent the timber industry showing absolute support to Congress and our representatives and lobbiests.

The hearings in Congress are scheduled to begin some time in April. I think it would be extremely beneficial for a resolution to be adopted by the Senate and House indicating their support for the timber industry. I intend to try to have similar resolutions passed by local city councils and chamber of commerces. We are also starting a "grass roots" letter writing campaign and petition drive in Southeast Alaska. Please, we need your help. The timber industry is important to all of us. Having served four years on the local city council, I am all too well aware of the problems facing us for the next several years. Decreasing revenue to the communities from the state can only mean increased burden on the tax base. We just can't afford to lose a viable industry such as the timber industry and still afford to operate and maintain our schools, hospitals, etc.

Please call me if you have any questions of comments. I'll be glad to forward on to you any information I have. Thanks for your time and consideration

Sincerely,

David R. Carlson
PO Box 1232
Petersburg, AK 99833
Ph. 772-3765

BACKGROUND

The Alaska Region of the Forest Service has been preparing a Report on the Status of the Tongass National Forest called for by Congress in the Alaska National Interest Lands Conservation Act (ANILCA), Sections 706 (b) and (c). The report is due to be released in mid-April and includes information on important facets of Tongass National Forest management: Tongass timber harvest levels, impacts of Wilderness designation on timber, fishing, and tourism industries, protection measures for fish and wildlife, and the status of the small business set aside program. The Executive Summary from the report is attached.

Information for the report was drawn from many sources, including the timber industry, several Departments of the State of Alaska, and Forest Service records.

The report was prepared along with five "cooperators" named in ANILCA: the State, the affected Native Corporations, the Southeast Alaska timber industry, the Southeast Alaska Conservation Council (SEACC), and the Alaska Land Use Council (ALUC). At the urging of Senator Ted Stevens, a group of commercial fishing organizations were also invited to participate.

During preparation of the report, the Forest Service invited the cooperators to review and comment on study plans and the draft report. As a result, changes were made that strengthened the report. The cooperators were also asked to present their own views in the form of a "Cooperators' Chapter" in the final report to Congress.

The cooperators have made some key points that emphasize their desires for and concerns about the Tongass National Forest, including:

-- The Forest Service should terminate the Alaska Pulp Corporation and Lousiana Pacific-Ketchikan long-term timber sales. (SEACC)

-- The Forest Service has not used the funds provided through Section 705(a) of ANILCA properly. The road program on the Tongass National Forest has not been fully funded. (State and timber industry)

-- The Forest Service has not provided adequate protection for fisheries resources while conducting the timber program. (State, SEACC, and Commercial Fishing Groups)

-- The Forest Service has not provided adequate protection for the habitat of the Sitka Black-tailed Deer while conducting the timber program. Over time, the timber program will lead to dramatic declines in critical deer habitat and, therefore, deer populations. (State and SEACC)

-- Forest Service timber policies have had negative effects on the Native Corporations' timber programs. (State, Sealaska, and SEACC)

In addition to broader topics, the Report on the Status of the Tongass National Forest addresses the cooperators' desires and concerns:

-- The long-term sales were established with the support of local, State, and federal governments and private interests to improve community and economic stability in Southeast Alaska, and given the effects of market changes, they have done so. Grounds to terminate the contracts have never appeared, not even during recent Department of Justice evaluations of anti-trust violations.

-- Congress designated Wilderness areas in ANILCA that contained high-quality timber that had previously been potentially available to the timber industry. Congress provided funds to make the cost of harvesting sales containing poorer-quality timber outside the Wildernesses roughly equal to the cost of harvesting the average timber sale sold prior to 1979 and the Tongass Land Management Plan. The ANILCA funding was designed mainly to adjust for changes in the quality of timber available to the industry, and was not designed to insure profits in times of poor timber markets.

-- Other federal and State agencies and the Forest Service are cooperating and funding research programs to determine the best methods of protecting fisheries. As improved methods are developed and tested, they are put into practice in new timber sales. An example is the use of "large woody debris": root wads, stems and larger tree limbs. Up until recently, timber operators were required to remove such material from streams in timber sale areas. Today, researchers generally agree that some large woody debris is beneficial to the fisheries habitat and timber operators must add some to parts of streams identified by fisheries biologists.

-- Over 4.1 million acres of deer winter habitat were identified on the Tongass in 1979. If present use patterns continue over a century, almost 2.9 million acres will remain in the same condition as identified in 1979. Therefore, in 2079, over 70% of the total deer habitat would remain unchanged. This does not mean that total deer populations would necessarily decline by 30% or, accordingly, that hunter demands would not be met.

-- During the Congressional deliberations on ANILCA, the Senate reduced their proposal for timber supply from the Tongass from 5.2 billion board feet to 4.5 billion board feet per decade. In part, this reduction reflected the potential timber harvest on newly conveyed Native Corporation lands. Since then, market forces such as depressed demand, increased international competition, and currency exhange rates have had far more impact on Native Corporation log sales than the sales of processed logs cut on the National Forests.

Last week, the Executive Summary was shared with Congress and the cooperators.

EXECUTIVE SUMMARY

STATUS OF THE TONGASS NATIONAL FOREST, SOUTHEAST ALASKA

Introduction

The total land area for the Tongass National Forest is approximately 16.7 million acres. Under the current Tongass Land Management Plan, forty one percent of the total land base is available for timber management, 33 percent is designated Wilderness and the remaining 26 percent is managed in an unroaded condition. Table 1 displays the amount of forested land in each of the above categories, the amount classified as commercial forest lands, the amount suitable for timber harvest and the amount programmed for timber harvest. Eleven percent of the total land base is programmed for timber harvest during the first rotation, or 100-120 years.

Table 1 TONGASS NATIOAL FOREST LAND BASE, SOUTHEAST ALASKA

(In Millions of Acres)

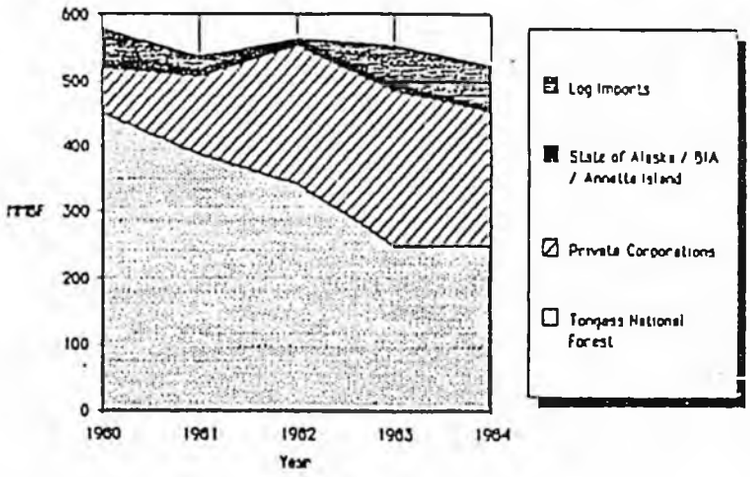
	Total Area	Forested Lands	Commercial Forest Lands	Suitable for Harvest	Programmed for Harvest	Percent of Forest
Available For Timber Management	6.9	80%	52%	29%	25%	41%
Wilderness	5.5	48%	29%	16%	0%	33%
Managed In An Unroaded condition	4.3	25%	15%	8%	0%	26%
FOREST TOTAL	16.7	57%	35%	18%	11%	100%

Timber Harvest Levels

The overall timber harvest from all ownerships in Southeast Alaska has remained relatively constant since the passage of the Alaska National Interest Lands Conservation Act (ANILCA) in 1980. However, new suppliers of timber have appeared during this period. The increase in the amount of timber supplied by private landowners has almost tripled as Southeast Alaska's Native Corporations have received title to the lands selected under the provisions of the Alaska Native Claims Settlement Act of 1971. These private landowners have been able to export unprocessed logs; in contrast to purchasers of Tongass National Forest timber who are required to complete some form of primary manufacture prior to exporting. The lack of primary manufacturing requirements, the presence of more environmental protection on National Forest timber sales, and a preference for round logs by many buyers in the Pacific Rim countries, have contributed to increased timber being purchased from private ownerships in Southeast Alaska. Figure 1 displays timber harvest levels from 1980 to 1984 on Forest Service, State of Alaska, and privately managed lands. Also displayed is the amount of log imports from British Columbia for the same period.

Figure 1

TIMBER HARVESTS IN SOUTHEAST ALASKA, 1980-84.



The amount of timber harvested on the Tongass National Forest has substantially decreased since the enactment of ANILCA. Several factors in addition to the increased private timber harvests are responsible for this decrease. These factors include a poor market for Alaska's lumber products and dissolving pulp; the substitution of low quality logs from British Columbia for Southeast Alaska pulp logs; and the value of products after primary manufacturing compared to round log exports from private lands in Alaska. The dominating factors are the lower overall demand for Alaska's manufactured wood products and the higher costs of manufactured wood products in Alaska.

The economic condition in the Pacific Rim, which some have described as the worst since the 1930's, has severly affected the profitability of National Forest timber sales. Both the timber industry and the Forest Service have instituted cost saving measures which have provided significant savings in the harvesting and manufacture of Alaska's wood product. However, the composite value of wood products made from Tongass National Forest timber in Southeast Alaska has dropped nearly $200 per thousand board feet (MBF) since 1980. The result is that the cost savings being realized are not offsetting the drop in end-product values. For this reason many sales remain unsold.

Another result of the depressed markets is the delayed realization of benefits from added investments envisioned in the Forest Plan and provided by ANILCA. Because Wilderness designations, areas identified to be managed in an unroaded state, and other resource protection measures reduced the amount of available timber, it was expected that harvesting lower volume and more expensive to harvest stands would be required to offer 4.5 billion board feet per decade. Investments in road construction prior to the sale of timber and advanced logging technology were intended to offset the increased cost of harvesting these stands. Precommercial thinning is also needed if the 4.5 billion board feet per decade timber supply is to be made available. While precommercial thinning investments have been carried out as planned, the industry has shown little interest in the marginal timber stands made available. Consequently, with some exceptions, the benefits of the investments in these areas will not be realized until these areas are needed to meet market demands.

Recognizing the impact these economic conditions have had on the programs envisioned in the Forest Plan and ANILCA, the Forest Service has attempted to be flexible in its administration of these investments. For example, the scheduling of public works construction of roads used in the timber program has been modified to decrease the time between pre-roading construction and actual timber harvest. Also the timber sales being offered are being designed to improve the economics of the sale from both the timber purchasers and the American taxpayer's perspective.

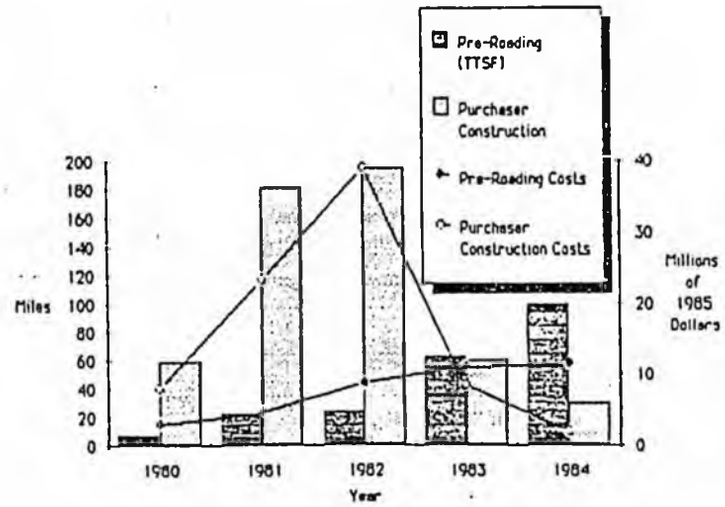
The Forest Service has begun scheduling public works road construction on selected short-term timber sales after the sales are sold rather than prior to sale offerings, in order to insure Federal expenditures are used where timber harvest will actually occur in the near future.

Further, timber purchasers are being reimbursed for part of the costs associated with the construction of certain roads on the National Forest in those stands that are of lower average quality or with more difficult access than those assumed in the Forest Plan.

Figure 2 compares the dollars spent and the miles roads built by the Forest Service (pre-roading) versus that constructed by timber purchasers through credits; that is credit against the amount owed to the federal government for the timber.

Figure 2

TIMBER ROAD FUNDS AND MILES
OF CONSTRUCTION CONTRACTS AWARDED
TONGASS NATIONAL FOREST,
FY 1980-84



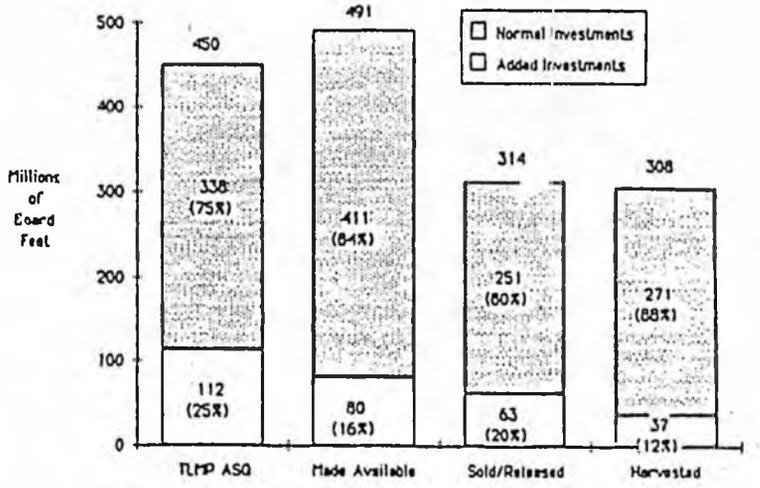
Added investments to encourage advanced logging technology have been reduced until timber demand increases to near pre-ANILCA levels. This was done because timber stands requiring this advanced logging technology are more expensive to harvest and generally have less valuable timber. Until demand for timber increases, thereby making these marginal stands more attractive, it is felt that this type of investment would serve little purpose.

Precommercial thinning investments have met the expectations envisioned in ANILCA. The precommercial thinning program has increased the efficiency of producing timber on the existing land base.

Figure 3 compares the timber volume attributed to normal and added investments in the Forest Plan (1978), with the timber volumes made available, sold and harvested since 1980.

Figure 3

AVERAGE ANNUAL TIMBER VOLUME ATTRIBUTED TO NORMAL AND ADDED INVESTMENTS IN THE FOREST PLAN VERSUS THE VOLUMES MADE AVAILABLE, SOLD AND HARVESTED, 1980-84.



Impact of Wilderness

The Southeast Alaska economy is dependent on natural resources supporting the timber, fisheries and tourism industries, as well as government expenditures. Figures 4 and 5 show the relative importance of these economic sectors in terms of employment and earnings. Note, that employment is expressed in average annual jobs, not full time equivalents (FTE's).

Figure 4

AVERAGE ANNUAL NUMBER OF JOBS, (Not Full Time Equivalents) SOUTHEAST ALASKA, 1977-84

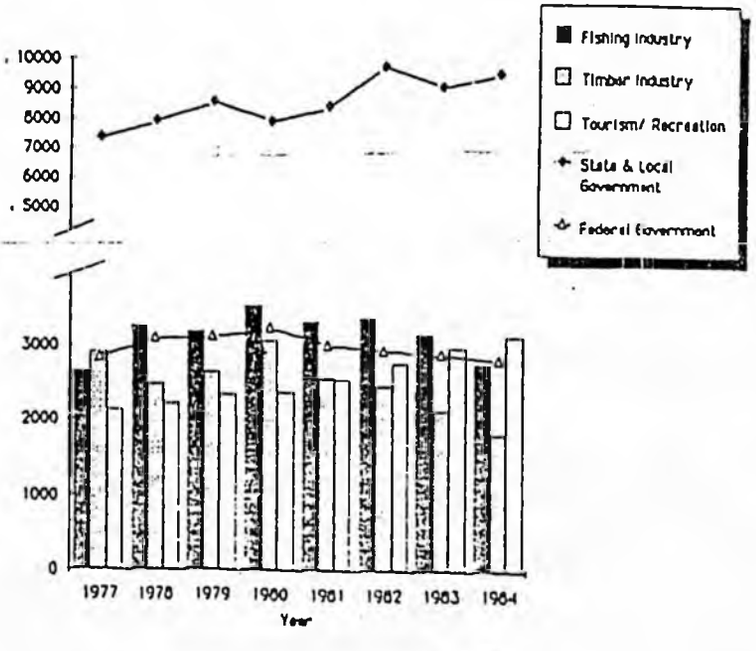
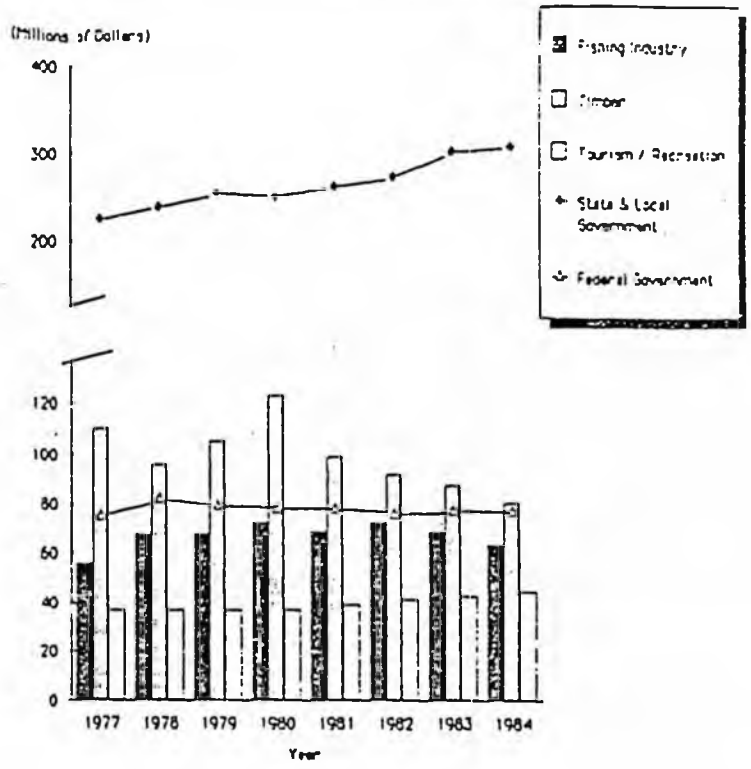


Figure 5

DIRECT EARNINGS,
SOUTHEAST ALASKA,
1977-84



Over the long term, a result of including commercial forest lands in Wilderness (hence unavailable for harvest), will increase the use of lower quality timber and the need to use areas requiring advanced harvest technology. The timber supply goal of 4.5 billion board feet per decade cannot be achieved without using this lower value, more expensive timber. If commercial forest lands were not in Wilderness, there would be less need for low volume timber stands and areas requiring advanced logging technology over the harvest rotation, 100-120 years. Because of reduced market demands since 1980, there has been little need to harvest the marginal areas identified in the Forest Plan which require higher logging and transportation costs.

The impact of Wilderness on the fisheries industry are neutral to positive. ANILCA provided for the management and enhancement of fisheries habitat in Wilderness Areas, including aquaculture projects. This provision is unique to Alaska and provides the opportunity to manage the fisheries resource in both the Wilderness and non-wilderness areas of the Forest. Comprehensive fisheries management in Wilderness Areas will continue under the joint direction of State and Federal agencies. Wilderness will continue to provide opportunities for research and management of existing stocks of fish under natural conditions.

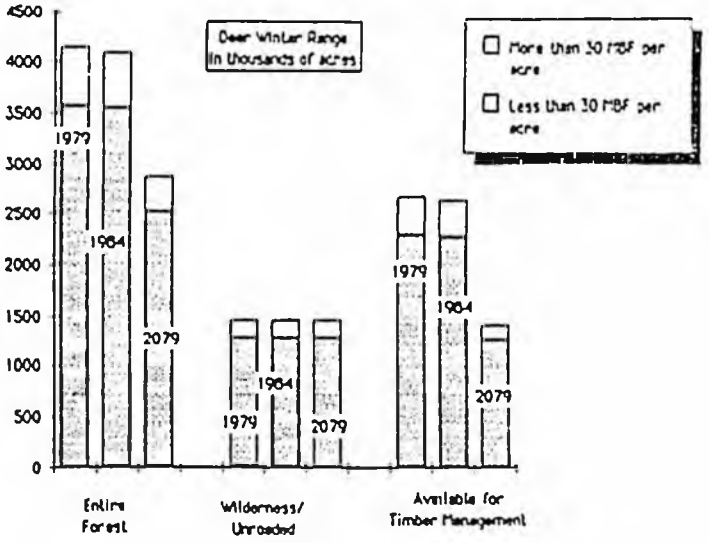
The impact of Wilderness on the tourism industry is mixed, but generally favorable. The non-resident tourism industry is primarily based on Alaska's undeveloped scenic character both within designated Wilderness and in other areas with relatively undeveloped characteristics. The State of Alaska and the tourism industry have used these characteristics successfully in advertising campaigns to bring out-of-state tourists to Alaska. Tourism operators generally feel Wilderness is a positive attribute, but also recognize the restricted land uses required by Wilderness designation for such facilities as lodges and resorts.

Measures Instituted to Protect Fish and Wildlife

Protecting and managing fish and wildlife habitats on the Tongass National Forest remains a high priority and a public issue. Forty percent of the areas having high wildlife value and 50 percent of the areas having high commercial and recreational fish values have been placed in Wilderness. In addition 273,000 acres of commercial forest lands in areas available for timber harvest have been set-aside for wildlife and fisheries purposes. While originally intended to maintain the visual quality of an area, extended timber harvest rotations (120 to 200 years versus 100 years) on an additional 244,000 acres of commercial forest lands, will also benefit fish and wildlife habitat. With these measures, the Forest Service estimates that 69 percent of 4,146,000 acres of deer winter habitat identified in the Forest Plan on the Tongass will remain at the end of the timber harvest rotation. Figure 6 displays the distribution of old-growth, deer winter range on the Tongass now and at the end of the first planned timber harvest rotation, the year 2079.

Figure 6

DISTRIBUTION OF OLD GROWTH
DEER WINTER RANGE,
TONGASS NATIONAL FOREST,
1979, 1984, AND PROJECTED TO 2079

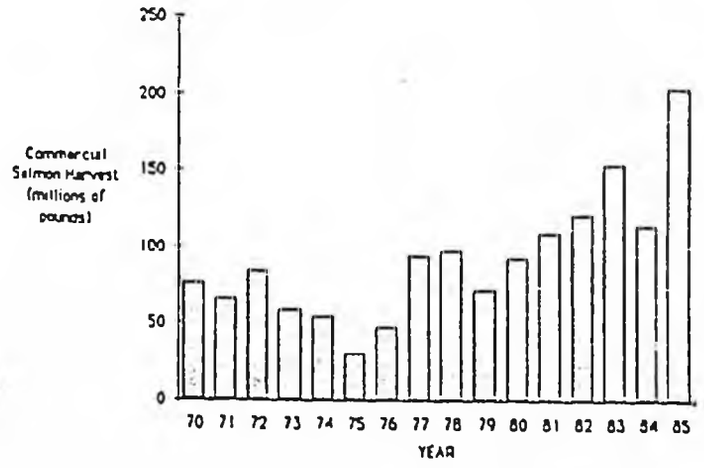


Studies to improve habitat in second growth areas, which have the potential of reducing the impacts of old-growth habitat loss while at the same time increasing wood production, continue. Measurement of public demand for fish and wildlife use, including subsistence, will also be continued.

Fisheries management and enhancement projects on the Forest have contributed to increases in salmon stocks since the late 1970's. Cooperative fisheries management with other Federal and State agencies will continue until the optimum sustained yield for fisheries is reached. Habitat management and enhancement projects will continue to include projects in Wilderness Areas as provided in ANILCA. Figure 7 shows the trend in commercial salmon harvests from 1970 to 1985.

Figure 7

COMMERCIAL SALMON HARVESTS,
SOUTHEAST ALASKA,
1970-85



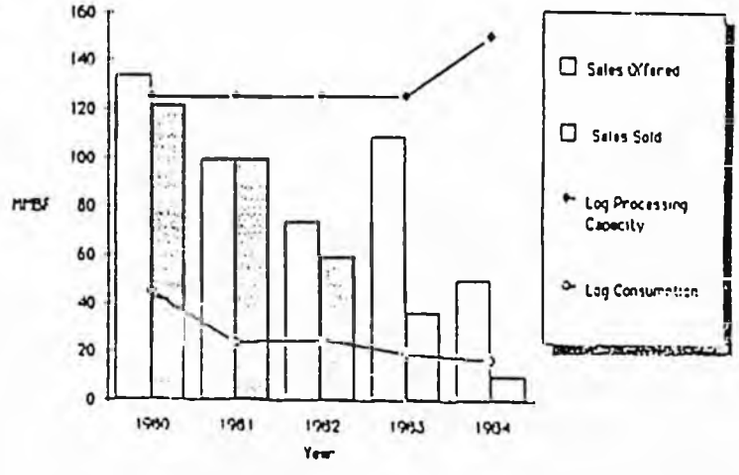
Status of the SBA Timber Program

The SBA Set-Aside timber sale program was started in 1977 and has increased the amount of National Forest timber sold to qualifying small businesses. However, the poor timber markets since 1980 which have resulted in an increased number of timber sale offerings having reduced opportunities for profit; and, the greater competition (specifically from Alaska's private log exporters and lumber suppliers in British Columbia), have all combined to severely depress the harvesting and sawmill operations of small businesses. Two of six small business mills are currently in bankruptcy and the remaining four are operating on an intermittent basis.

The SBA Set-Aside program is important to small businesses in their bid to secure National Forest timber. The Federal Timber Contract Payment Modification Act of 1984 will help small businesses remain competitive with the two pulp companies holding long-term National Forest timber sales. However, improvement of existing markets or development of new markets is important to the maintenance of existing industry. Figure 8 shows the amount of Tongass National Forest timber made available and sold in the SBA program from 1980 to 1984.

Figure 8

SBA TIMBER MADE AVIALABLE AND
SOLD TO SMALL SAWMILL OWNERS,
TONGASS NATIONAL FOREST,
1980-84.



Primary processing of National Forest timber and the establishment of long-term timber sale contracts were two methods used to stabilize the timber industry and diversify the economy of Southeast Alaska. To a large extent, these efforts have been successful. Between 1954 and 1974, timber industry employment grew from 29 to 54 percent of the total employment in natural resource industries in Southeast Alaska (fisheries, timber, minerals). Since 1980, however, depressed timber markets for National Forest timber have altered this trend, and timber now accounts for approximately 40 percent of the region's employment in natural resource industries. Figure 9 shows the significance of the timber industry in the natural resource economic sectors of Southeast Alaska, during the periods 1949-53 and 1979-83. The heavy reliance on export markets for Alaskan wood products means that the industry is heavily influenced by timber market trends within Pacific Rim countries. Figure 10 shows the estimated cumulative costs and returns of the Tongass National Forest timber program over the next 50 years under two market demands, weak (current) and strong. Each of the schedules displayed in Figure 10 achieves a 4.5 billion board foot timber supply per decade and is consistent with the multiple resource direction in the Forest Plan. The calculated returns do not include dollar benefits or costs for non-timber resources such as wildlife, fisheries, and recreation, nor other indirect benefits associated with transportation systems and other infrastructure.

Ways to improve the economics of timber production in Alaska include different product mixes, instituting cost reduction methods and assessing the long term means of providing the most cost effective access to timber stands. For example, a alternative product mix favoring the production of more dimension lumber could increase the net benefits by 11 percent.

The timber industry in Southeast Alaska needs to be aware of the changing demands in the world market and make any needed adjustments in the products delivered to those markets. The type of pulp products that have been the mainstay of the industry, are no longer in demand at the levels of the late 1970's. Large stands of high quality timber for use as dimensional lumber, are becoming more expensive to access. Increased dependence upon lower quality wood can be expected. Higher production costs and lower quality timber work against the industry in remaining cost competitive with other North American timber suppliers. The industry needs to continue to seek out better means of meeting world demands.

Figure 9

VALUE OF TIMBER, FISHERIES AND MINERALS, 1949-53 AND 1979-83

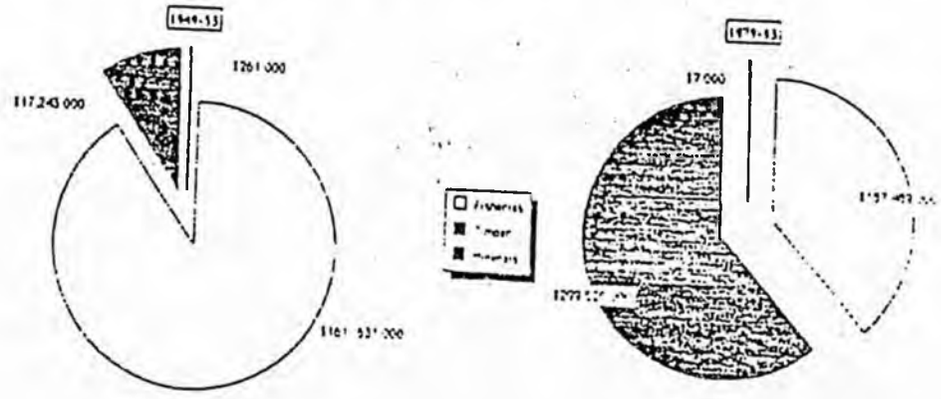
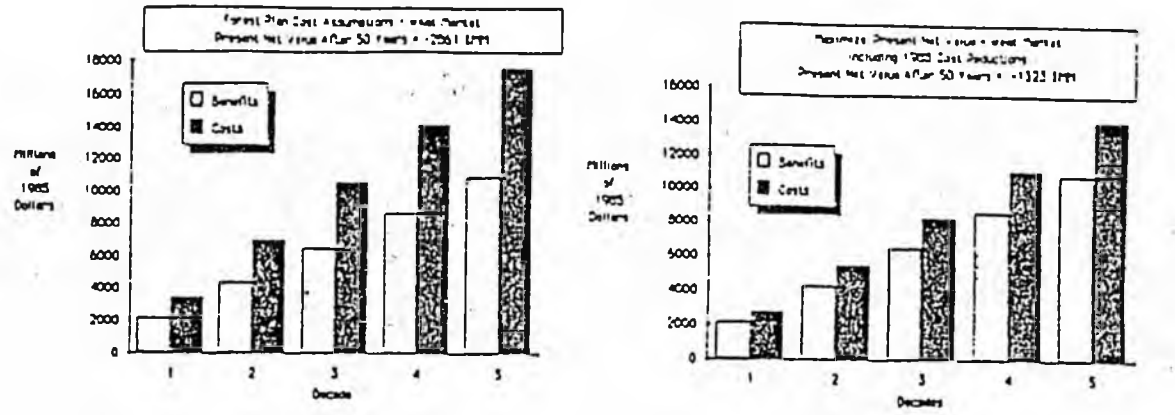


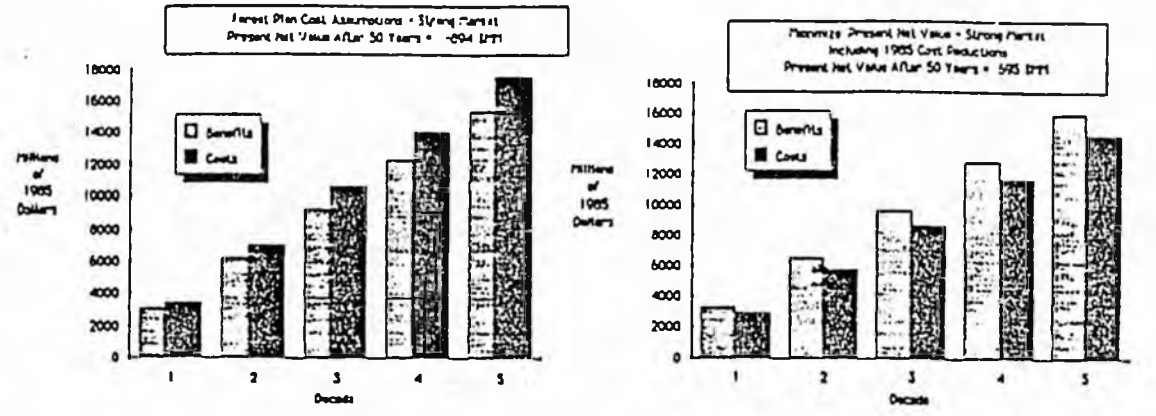
Figure 10

CUMULATIVE COST AND RETURNS OF TWO HARVEST SCHEDULES UNDER WEAK AND STRONG MARKETS

"Weak" or Current Market



"Strong" Market



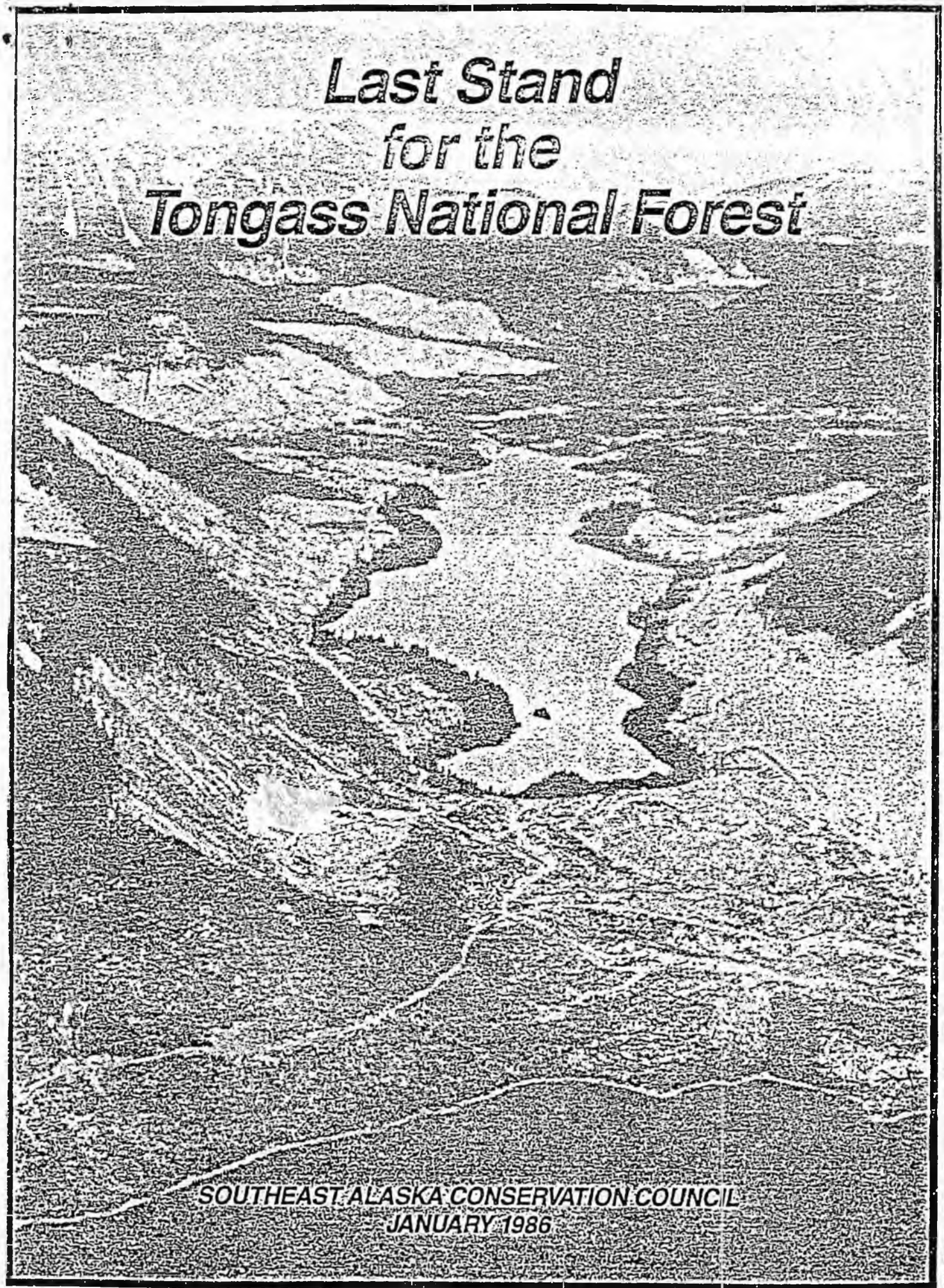
Subsistence Management and Use

Subsistence, as defined by ANILCA, provides a priority status for customary and traditional consumptive uses of fish, wildlife and other renewable resources by rural Alaska residents on Federal public lands. Subsistence management does not preclude the use of other resources but requires the Forest Service to consider subsistence uses in making resources decisions. There have been no findings of significant restrictions on subsistence use from the Section 810 evaluations prepared on Forest Service projects.

Cooperators Views

Section 706(c) of ANILCA calls for the Forest Service to work in cooperation and consultation with groups named in the Section. This chapter provides the unaltered views of the cooperators. The Forest Service received comments on the draft report from the cooperators listed in Section 706(c), as well as other interested groups and individuals, and has responded to or made changes in this final report.

Last Stand for the Tongass National Forest



SOUTHEAST ALASKA CONSERVATION COUNCIL

JANUARY 1986

GLOSSARY OF TERMS

ANILCA: Alaska National Interest Lands Conservation Act of 1980.

APC: Alaska Pulp Company. Located in Sitka, Alaska, APC holds one of the two 50-year timber contracts on the tongass. This corporation, owned by a Japanese conglomerate, was formerly called Alaska Lumber and Pulp.

BBF: One billion board feet. 4.5 billion board feet of timber could be used to build a five foot wide walkway that would extend around the Earth seven times at the equator!

Board Foot: A piece of wood measuring 12" x 12" x 1".

CFL: Commercial Forest Land. Land which contains at least 8000 board feet of timber per acre and is capable of regeneration.

LPK: Louisiana-Pacific/Ketchikan. Owner of the Ketchikan pulp mill and holder of one of the two 50-year timber contracts on the Tongass. A multi-national corporation which purchases more national forest timber than any other company.

MBF: One thousand board feet.

MMBF: One million board feet.

NEPA: The National Environmental Policy Act of 1970. This requires, among other things, that all major federal actions significantly affecting the environment must be assessed by an environmental impact statement before work begins.

NFMA: The National Forest Management Act of 1976. This broad reform measure was designed to re-write the Forest Service's original legal mandate and to reform management of Forest Service lands.

Pre-roading: Construction by the Forest Service of logging roads prior to actual timber sale offering.

Rotation (timber): Length of time Forest Service plans to let timber stands grow between logging stands. In Alaska, this period is normally only 100 years.

TLMP: Tongass Land Management Plan. Released in 1979, it guides Tongass management until 1989.

TTSF: Tongass Timber Supply Fund, created by Section 705(a) of ANILCA. A special subsidy for Tongass logging operations which is not subject to Congressional appropriations review. In 1985 the TTSF was $53 million.

VCU's: Value Comparison Units. The Tongass contains 867 of these planning units. Each VCU generally encompasses one watershed.

Special Edition
January/February 1986
Vol. 9
No. 4

the RAVENCALL

Southeast Alaska Conservation Council
Box 1692 Juneau, Alaska 99802

Dear Friend:

We are happy to send you this special edition of the RAVENCALL entitled Last Stand for the Tongass National Forest. It was originally prepared as a chapter within the Forest Service's report to Congress on the "Status of Management on the Tongass" in fulfillment of Section 706(b) of the Alaska National Interest Lands Conservation Act (ANILCA). Because of the magnitude of the problems facing the Tongass, we are publishing this report for distribution to all our members and other concerned citizens. We all need to be aware of the challenges before us. We urge you to read this report carefully and then speak out in defense of this great public forest.

So important is this review of Tongass management that SEACC will be going to Washington, D.C. in mid-February. We will be establishing a temporary office there to state our case on the Tongass and to educate Congress and the American people. Many Southeast Alaskans whose livelihoods and way of life are threatened by rampant logging and roading of the Tongass will also be travelling to Washington to personally address members of Congress. However, individuals from all over Southeast Alaska and the U.S. who are unable to travel to Washington should let their views be known by writing Congress. Your letter is essential to the fate of this forest.

We are expecting the Forest Service's report to reach Congress in mid-March or early April. (Originally scheduled for Congressional review in December 1985, it is long overdue.) It will take informed citizen action NOW to force the Forest Service to get its report to Congress by April. We urge you to write to the Congressional Committee leaders listed at the end of this letter, to Alaska's Congressional delegation, and if you don't live in Alaska, to write to your own state's Congressional delegation. Urge them to:

1) conduct Oversight Hearings on the "Status of Management on the Tongass National Forest" report to Congress;
2) adopt SEACC's recommendations (see page 62 of the enclosed report).

Other valuable ACTION that you can take to make this abuse and waste of our tax dollars and resources known is to write a letter to the editor of your local newspaper, to influential national newspapers, and to leaders of national conservation groups. Double and triple the effect of your and our efforts by asking friends to do the same.

In 1985, Southeast Alaskans held their own in their fight to protect the Tongass. SEACC and the City of Tenakee Springs closed 1985 with a big legal

victory against the Forest Service. The case, City of Tenakee Springs and SEACC v. Block, or simply "Kadashan," closed a big loophole in the public participation and environmental analysis process, a loophole the Forest Service had been using to cover up the magnitude of destruction resulting from their massive logging and roading plans. The U.S. Ninth Circuit Court of Appeals also called into question a basic Forest Service assumption that areas already allocated to logging must be logged and laced with roads. Beyond halting road construction and logging in Kadashan until further court order, the decision may eventually improve Forest Service planning and public involvement across the entire nation. But no matter what legal fallout Kadashan brings, SEACC and Tenakee have demonstrated to the Forest Service in powerful terms that they can and will do whatever it takes to protect the last stands of the Tongass from bulldozers and chainsaws.

The City of Tenakee Springs is not alone in its opposition to the Forest Service's current management direction of the Tongass. At the time of writing our report, 8 Southeast Alaska communities had passed resolutions opposing this direction. Since going to press, 3 more communities have passed similar resolutions - a total of 11 communities, to date, expressing their opposition.

We are beginning to turn the tide on the Tongass. Together we are making gains toward reforming Forest Service management. We need your letters NOW to help carry on the fight to protect this magnificent old-growth forest. With your help we CAN do it! NOW is the time to urge Congress to act on SEACC's recommendations.

This is the first chance for complete review of Tongass management before the Congress. Let's make the most of it the first time around! Thanks!

Sincerely,

Bart Koehler
Executive Director

Steve Kallick
Associate Director/
Staff Attorney

Julie Kelly
Administration/
Publications

P.S. Please write by March 15 to help get the ball rolling! Many Thanks!

Important Congressional Committee Leaders:

Rep. Morris Udall
Rep. John Seiberling
Rep. Sidney Yates
Rep. Bruce Vento
Rep. Jim Weaver

U.S. House of Representatives
Washington, D.C. 20515
(this address for all U.S. Representatives)

Alaska Congressional Delegation:

Sen. Ted Stevens
Sen. Frank Murkowski
Rep. Don Young

U.S. Senate
Washington, D.C. 20510
(this address for all U.S. Senators)

Last Stand for the Tongass National Forest

Prepared by
SOUTHEAST ALASKA CONSERVATION COUNCIL
January 1986

In Fulfillment of Section 706(b)
Alaska National Interest Lands Conservation Act
Report to Congress on the
STATUS OF MANAGEMENT ON THE TONGASS NATIONAL FOREST

ACKNOWLEDGEMENTS

SEACC would like to thank the ALASKA CONSERVATION FOUNDATION for its generous support which made production of this report possible.

We also wish to thank the many citizens of Southeast Alaska who gave their advice and support to this effort, especially Dixie Baade, Larry Edwards, Mary Ellen Cuthbertson, and K.J. Metcalf. Our work is dependent on the support given us by the people who live and work in this region, and on the support from people throughout the U.S. who care about the Tongass and just want to know that it is there.

Steve Kallick, Bart Koehler, John Sisk, and Ted Whitesell
Authors

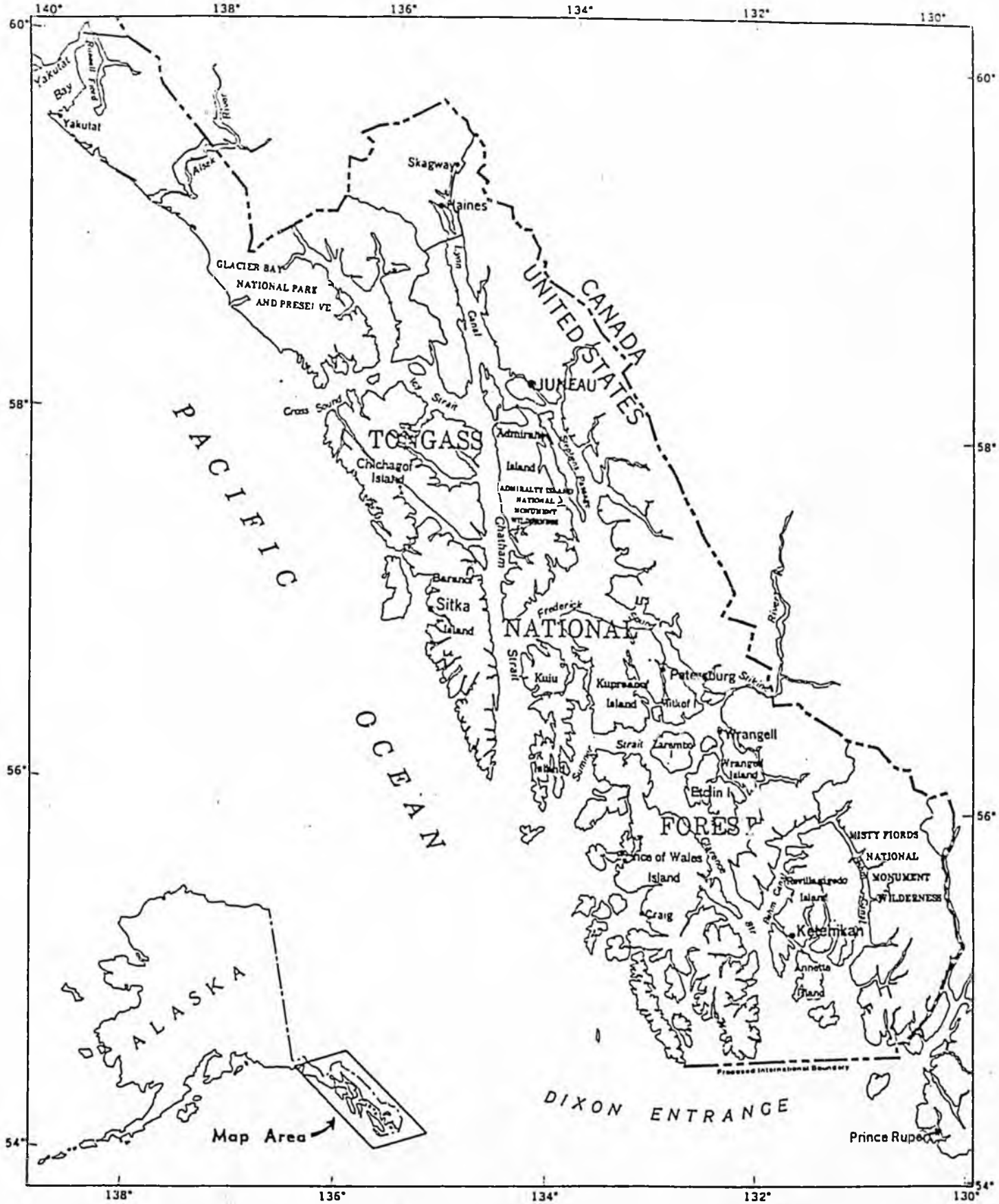
Julie Kelly and Bart Koehler
Editors

Julie Kelly
Design and Layout

Other SEACC publications are available upon request: A Southeast Alaska Regional Economic Overview 1985 by Ted Whitesell, The Tongass Timber Problem, and The Citizens' Guide to the Tongass National Forest. Copies of any of these publications may be obtained by writing to SEACC at P.O. Box 1692, Juneau, Alaska 99802.

Cover Photo: SITKOH LAKE clearcut on Chichagof Island, Tongass National Forest.

MAP OF SOUTHEAST ALASKA



(This map and all other graphics courtesy of the U.S. Forest Service.)

PREFACE

In 1980, the Ninety-Sixth Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). As part of that settlement of the status of Alaska's federal lands, Congress determined that the Forest Service should implement its newly created Tongass Land Management Plan (TLMP). However, because TLMP was only an interim plan, based on many unproven assumptions, Congress also reserved ultimate review over implementation of this plan. The Status of Management on the Tongass National Forest report to Congress is a part of the review process established by Section 706(b) of ANILCA.

The Southeast Alaska Conservation Council (SEACC) is a region-wide coalition of local organizations and individuals dedicated to the wise use and conservation of Southeast Alaska's precious natural resources. SEACC was recognized in ANILCA as the representative for conservation interests for the ANILCA Section 706(b) review process. To that end, SEACC originally completed this paper as a chapter for the 706(b) "Status" report to Congress which included three recommendations for bringing Tongass management back into a reasonable balance of multiple use.

At this time, we would like to point out that the "status of management on the Tongass National Forest" is a sweeping topic. Because of space constraints, SEACC has deliberately omitted discussion of current problems with mining, Stikine River region transportation access, and wilderness management on the Tongass. Instead, we have kept our focus on timber related issues.

Table of Contents

Introduction

Previous Page: OLD GROWTH understory, Tongass National Forest.

C A L L T O A C T I O N !!!

TONGASS LAND MANAGEMENT PLAN AMENDMENT:

The Forest Service Is Proposing To Change The Tongass Land Management Plan

YOU CAN HELP DETERMINE THE FUTURE OF THE TONGASS:

Your Comments On The Amendment Are Important and Needed

The Tongass Land Management Plan guides management of the forest for the years 1979-1989. In 1985, the Forest Service evaluated its performance in the task of carrying out the Tongass Plan. The Forest Service admitted in its 1985 evaluation what most of us already know, namely that there are serious problems in Tongass management. But the agency has since backed down from requiring correction of most of these problems before revision of the entire Tongass Plan in 1989, if ever.

Instead of dealing with current serious Tongass problems, the Forest Service has proposed an amended schedule of management activities, many of which are new. The amendment would call for the logging and roading of 302 value comparison units (watersheds), the building of at least 1680 miles of roads, and the establishment of an untold number of log dumps. All of this would be undertaken from 1985-1989, and beyond.

The time to oppose these new threats to key fish, wildlife, recreation, and subsistence resources is NOW. The time to force the Forest Service to come to terms with bigger Tongass troubles is NOW. THE TIME TO WRITE YOUR LETTER IS NOW.

WHAT'S AT STAKE:

Some critical areas slated for logging or roading by the proposed new schedule are:

* Yakutat
* Kadashan
* Berners Bay
* Chuck River
* Lisianski River
* Upper Hoonah Sound
* Mt. Edgecumbe
* Duncan Canal
* Cleveland Peninsula
* Revilla Island
* Port Protection
* Castle River
* Etolin Island
* Woewodski Island
* Kuiu Island
* Crittenden (Wrangell Backchannel)
* Kosciusko Island
* Honker Divide
* Salmon Bay (Salmon Lake)
* Calder Mountain
* Mansfield Peninsula (Admiralty Island)
* And Others

KEY POINTS OF SEACC'S POSITION ON THE TONGASS LAND MANAGEMENT PLAN AMENDMENT:

* Amendment must be preceded by a full environmental impact statement because activities in the proposed new schedule will have major impacts on the Tongass. The Forest Service maintains that the impacts from new logging and roading described in the plan will be "insignificant."

* Amendment must consider deferral of logging, roads, and log dumps in more of the Interim Protection Areas requested by SEACC, the Alaska Department of Fish and Game, or the public at large. The Forest Service claims it is protecting 85% of SEACC's deferral requests and 70% of Fish and Game's deferral requests, but both of these figures include many areas never scheduled for development. In truth, the Forest Service is protecting only about half of the Interim Protection Areas that are actually threatened.

* Amendment must take into account the changing management situation since 1979. New studies show the devasting impacts of logging, roads, and log dumps on fish and wildlife habitat. New studies also show that timber demand is half of what the Forest Service predicted, that tourism and recreation are growing rapidly, and that the public wants more areas left in a primitive roadless state. But the Forest Service ignores these new studies in the proposed amendment.

* Amendment must incorporate changes required by the 1982 National Forest Management Act regulations. The Forest Service promised to bring the Tongass Plan up to legal standards by 1983, but now refuses to uphold that promise.

* Amendment must disclose the Forest Service's overall Forest Transportation Plan. The Forest Service has steadfastly refused to unveil its massive road plans to the public.

CALL TO ACTION -- YOUR LETTER NEEDED -- WISE MANAGEMENT OF THE TONGASS AT STAKE

Southeast Alaska Conservation Council
Box 1692
Juneau, Alaska • 99802

TELL THE FOREST SERVICE HOW YOU WANT THE TONGASS MANAGED!

WHAT YOU CAN DO ABOUT TONGASS MANAGEMENT PROBLEMS:

Write a Letter to the Forest Service:

1) Supporting the key points of SEACC's position on the proposed amendment of the Tongass Land Management Plan; and

2) Opposing logging, construction of logging roads or log dumps, or other destructive actions in key fish, wildlife, recreation, or subsistence areas, including the areas listed here and any other areas you care about.

Send your letter by FEBRUARY 24 to:

Mr. David A. Heerwagen, Director
Planning Programming and Budget
U.S. Forest Service
P.O. Box 1628
Juneau, AK 99802

HOW TO FIND OUT MORE ABOUT FOREST SERVICE PLANS:

Ask for a copy of the Tongass Land Management Plan Amendment by writing to the U.S. Forest Service address above or calling (907) 586-8884.

As always, please feel free to call or write SEACC if you need help in writing your comments or need more information:

Southeast Alaska Conservation Council
P.O. Box 1692
Juneau, AK 99802
(907) 586-6942

HURRY! COMMENT DEADLINE IS FEBRUARY 24th!!

INTRODUCTION

As the raven flies, the Tongass National Forest measures some 500 miles, stretching across the mountainous islands of the Southeast Alaska archipelago. Encompassing nearly 17 million acres, the Tongass is our nation's largest public forest reserve, three times larger than any other national forest.

The Tongass is a magnificent coastal rain forest, comprised primarily of huge Sitka spruce and western hemlock which have taken hundreds of years to attain their maturity. Younger trees flourish under the sheltering canopy of the giants, forming a steady-state mosaic of old-growth forest, unchanged since the retreat of the Ice Age. Ancient and dynamic, the Tongass represents a last refuge of old-growth forest, a living museum of the "forest primeval" that once extended from northern California to Alaska.

Over one hundred years ago, John Muir explored Southeast Alaska in a Tlingit Indian canoe and described the grandeur of the Tongass as an "endless rhythm and beauty." Today that endless rhythm and beauty is threatened with destruction. The Tongass is not only our largest, but also our most mismanaged and most abused national forest. This abuse has reached crisis proportions in the last six years.

The source of this abuse is a U.S. Forest Service timber management program intended to liquidate virtually all the unprotected old-growth forest on the Tongass within the next century. Like the world's other great rain forests, the Tongass is rapidly being consumed by clearcut logging and by construction of logging road networks through one undisturbed valley after another. The agency plans to cut the heart out of this forest. Once it has been logged, old growth is lost forever. It is not a renewable resource.

Furthermore, the economics of the Forest Service's Tongass timber program make no sense. Logging has always been a losing proposition in the Tongass, but with implementation of TLMP and ANILCA Section 705 the situation has attained ludicrous proportions. The Tongass timber program now costs the government well over $60 million per year. The Forest Service is wasting additional millions per year offering unwanted timber sales and building unneeded logging roads. Altogether, the Tongass is the National Forest System's worst timber management investment.

The prime beneficiaries of the massive Tongass logging subsidy are not local loggers, but two multi-national logging companies -- Alaska Pulp Company (APC), a Japanese consortium, and Louisiana-Pacific Ketchikan (LPK), the largest purchaser of federal timber. As holders of unprecedented long-term, 50-year logging contracts, these two companies control virtually all logging on the Tongass, to the exclusion of smaller, independent timber operators. In 1981, after passage of ANILCA, these two companies were found guilty of anti-trust violations that forced local, small logging companies out of business. Now APC and LPK are asking for even more money, for even bigger subsidies.

Current large-scale logging of the Tongass severely threatens the incredible wildlife, fish, and wilderness resources that set the Tongass apart as a special national forest. Brown (grizzly) bears, bald eagles, Sitka black-tailed deer, mountain goat, moose, and other animals depend on undisturbed old-growth forests for their habitat. The countless rivers, lakes, and

estuaries of the Tongass rain forest harbor an abundance of salmon, trout, and char which require clear-flowing, sheltered waters in which to spawn. Finally, the cathedral-like stands of old-growth trees found in the Tongass, nestled in river valleys between mountain peaks on remote islands, represent a unique attraction to people from all walks of life from all over the world. Unless destruction of these areas in the Tongass is halted, all this will be lost.

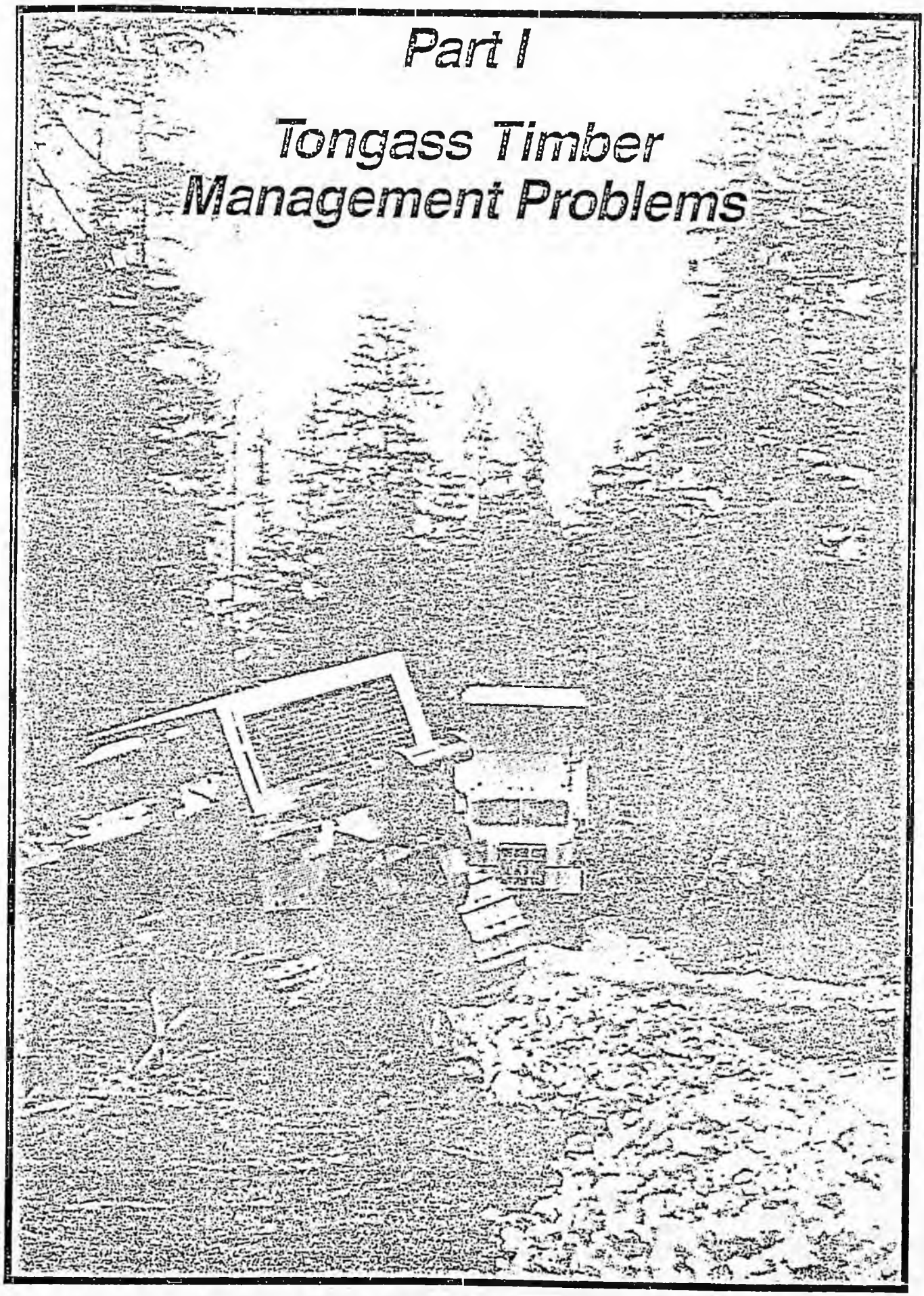
Forest Service plans are to clearcut an average of 20,000 acres and build 300 miles of road annually, for year after year. With the current 100 year rotation plan, this means a clearcut total of 2 million acres of Tongass forest. The Forest Service likes to point out that this is a small percentage of the Tongass, but on a national perspective this equates to an area roughly the size of one Yellowstone National Park, or three Yosemite National Parks, or four Great Smoky Mountain National Parks.

Since ANILCA, there have been great changes in Southeast Alaska. The market for Tongass timber has declined from all time highs reached in the late 1970's, and is now much closer to its long-term average level, which the Forest Service characterizes as depressed. Native corporation logging has become a major element of the region's timber industry. Biological research has confirmed that logging harms the wildlife and fish resources of the Tongass. Native Tlingits and Haidas and other rural Alaskans have been confronted with a rapidly changing way of life as new roads and logging encroach on their traditional hunting and fishing grounds. In addition, the fish and tourism segments of Southeast Alaska's employment base have continued to grow and diversify, adding a new dimension of stability to a frontier economy.

While it would seem natural for the Forest Service to respond to the changing situation in Southeast Alaska, this has not happened. Instead, the agency has continued on its destructive, logging-oriented course, blaming Congress and ANILCA for this policy of senseless inflexibility. The Forest Service is burdened with unprecedented 50-year timber sale contracts, by an outdated and incomplete land management plan, and saddled with the Section 705 Tongass Timber Supply Fund subsidy and timber supply goal. The agency is further hampered by its own misinterpretation of ANILCA, and has shown itself to be incapable of reform on the Tongass. As Southeast citizen, Sylvia Geraghty, has pointed out, "...they [the Forest Service] also have a contract with the American public, and I think they've failed to honor that contract." Now is the time for Congress to take action and change the course of the Tongass.

Part I

Tongass Timber Management Problems



Previous Page: KADASHAN ROAD in Tenakee Inlet, Chichagof Island. Despite overwhelming public opposition to the roading and logging of this prime fish and wildlife habitat area, the Forest Service proceeded with its unpopular "timber management" plans. (Photo by Bart Koehler)

I. *TONGASS TIMBER MANAGEMENT PROBLEMS*

The bulk of the problems which plague the Tongass National Forest can be traced back to three distinct roots, all of which represent different aspects of the forest's timber management program. First among the sources of Tongass timber management problems is the Tongass Timber Supply Fund (TTSF) and the supply goal of 4.5 billion board feet of timber per decade, a product of ANILCA's Section 705. The second underlying cause of the timber management problems is the existence of two, long-term (50-year duration) timber sale contracts which commit vast areas of the Tongass to clearcut logging. The final cause of these timber related troubles is the utter deficiency of the Tongass Land Management Plan (TLMP), which is intended to govern management of the resources of the Tongass until 1989. Combined, these problems fuel the rampant abuse and mismanagement of the Tongass, which has reached crisis proportions today. The TTSF, the 50-year contracts, and TLMP are examined in detail in this section.

A. ANILCA SECTION 705: TONGASS TIMBER SUPPLY FUND

1. Purpose and Intent of ANILCA Section 705

When Congress debated the disposition and management of federal lands in Alaska, one of the most difficult tasks was determining a proper direction for Alaska's national forest lands. For Alaska's Chugach National Forest, Congress essentially declined to make any decision, instead deferring to the forest land management planning process. For the Tongass, however, with its already completed land management plan, Congress adopted Title VII of ANILCA which included the Tongass Timber Supply Fund provision. Because of the uncertainty attached to TLMP's assumptions, Congress also directed the Section 706(b) review process, of which this paper is a part. The inherent wisdom of taking a second look at the Tongass is readily apparent today.

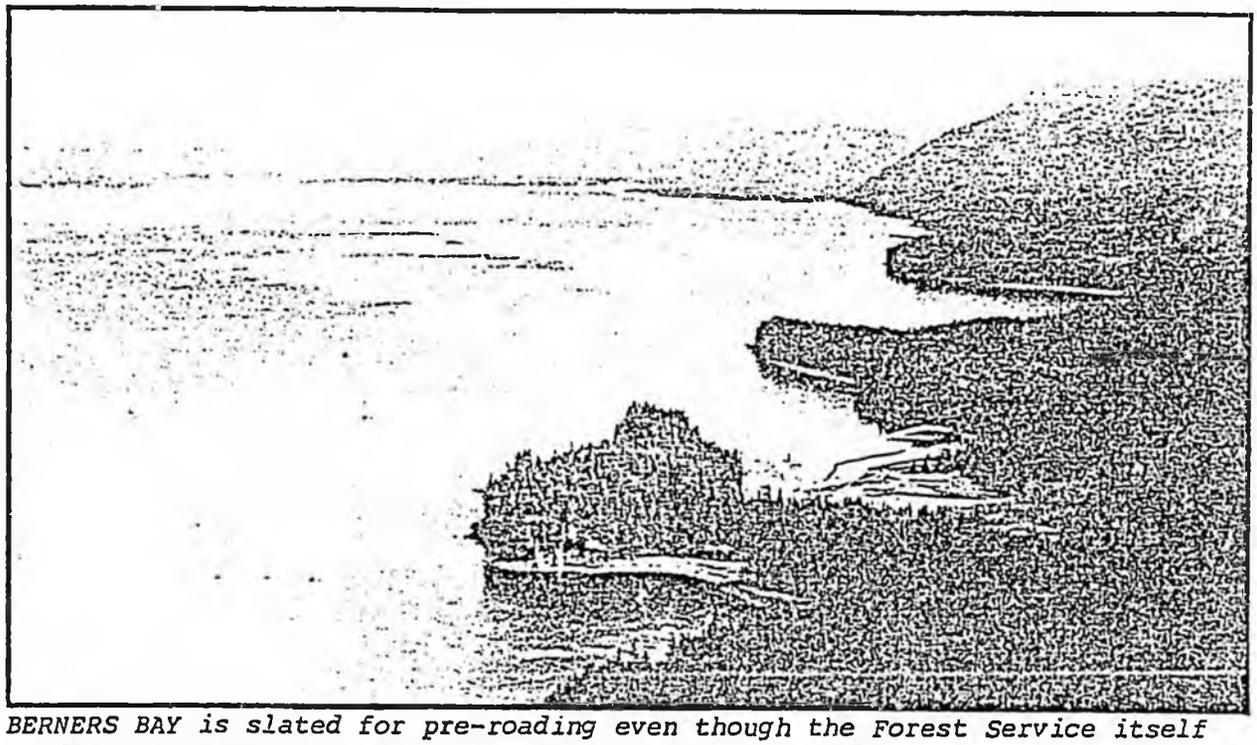
Section 705(a) of ANILCA directs:

> *that the Secretary of the Treasury shall make available to the Secretary of Agriculture the sum of at least $40,000,000 annually or as much as the Secretary of Agriculture finds is necessary to maintain the timber supply from the Tongass National Forest to dependent industry at a rate of 4.5 billion foot board measure per decade....*

This is the Tongass Timber Supply Fund which made available $53 million in 1985. The TTSF is exempt from normal appropriation scrutiny and annual budget cuts. No other national forest budget for road building and timbering is so untouchable.

The TTSF is often touted by the Forest Service and timber industry as part of a "carefully crafted" compromise with conservation advocates. This is not true. In reality, SEACC and Southeast conservationists had little or no input in the TTSF provision. SEACC didn't agree to the provision then, and we don't agree with it now. Because of the last minute nature of the development of Section 705, its true nature and intent has proved in application to be elusive, resulting in serious management conflicts.

The closed door dealing that created the TTSF left few clues as to what Congress had hoped to accomplish with this provision. However, one clear and



BERNERS BAY is slated for pre-roading even though the Forest Service itself predicts there will be no buyers for this timber offering.
(Photo by Skip Gray)

cogent explanation of the provision was provided by Congressman Morris Udall on the floor of the House prior to passage of ANILCA in 1980. Congressman Udall explained that the TTSF was intended merely to fund the intensive forestry provisions described in TLMP -- money that would be invested to end high-grading, to access marginal timber, and to provide extra environmental protection for other more valuable Tongass lands. Congressman Udall specifically pointed out that the Forest Service should use the TTSF "to encourage retention of old-growth forests for multiple use considerations, rather than reduce old-growth retention in order to lower costs....It is our intent to maximize protection of environmentally sensitive areas...."

Congressman Udall also explained the meaning of the 4.5 billion board foot timber harvest figure in the TTSF provision. According to Udall, this figure represented the harvest goal included in TLMP and that the section was "not a mandate to produce a specific cut level." In this statutory scheme envisioned by Congress, he said, "No more timber should be offered for sale than the Forest Service can reasonably expect to sell," and, "No more national forest timber should be supplied than can be sold at fair market value...."

From these statements it can safely be said that Congress set up the TTSF to fund a program of intensive forestry, concentrating on less valuable timber stands of lower timber volume per acre, in order to protect critical old-growth timber for wildlife habitat. Further, the TTSF provision was intended merely to fund the TLMP program, not to bind the Forest Service to a reckless pursuit of an inflexible mandate no matter what market conditions prevailed during subsequent years. Unfortunately the Forest Service has strayed far from the intent of Section 705 of ANILCA. The agency has found this a convenient shield to hide behind to avoid confronting industry on high-grading.

2. Misapplication and Misinterpretation of Section 705

The Forest Service's current management of the Tongass does not represent intensive forestry. Instead, it is an example of extensive forestry which is wasteful and destructive, and based on a biased reading of ANILCA Section 705. The Forest Service's annual plans for Tongass logging since passage of ANILCA have included clearcutting almost 20,000 acres per year (or 200,000 acres over TLMP's life) and building approximately 300 miles of permanent and temporary transporation network roads annually in unprotected forest lands, most of which are prime river bottoms.

Worse yet, the Forest Service has interpreted ANILCA Section 705 as a mandate to cut 4.5 billion board feet per decade, or 450 million board feet every year in perpetuity. Despite Congressman Udall's explicit direction, the Forest Service has continued since ANILCA to inflexibly offer this level of timber, much more timber than it can reasonably expect to sell, and for prices well below fair market value.

3. Tongass Timber Supply Fund: An Economic Disaster

Figure A shows the incredible magnitude of this oversupply of timber by Tongass planners. Since ANILCA the Forest Service has offered twice as much timber than has been harvested.

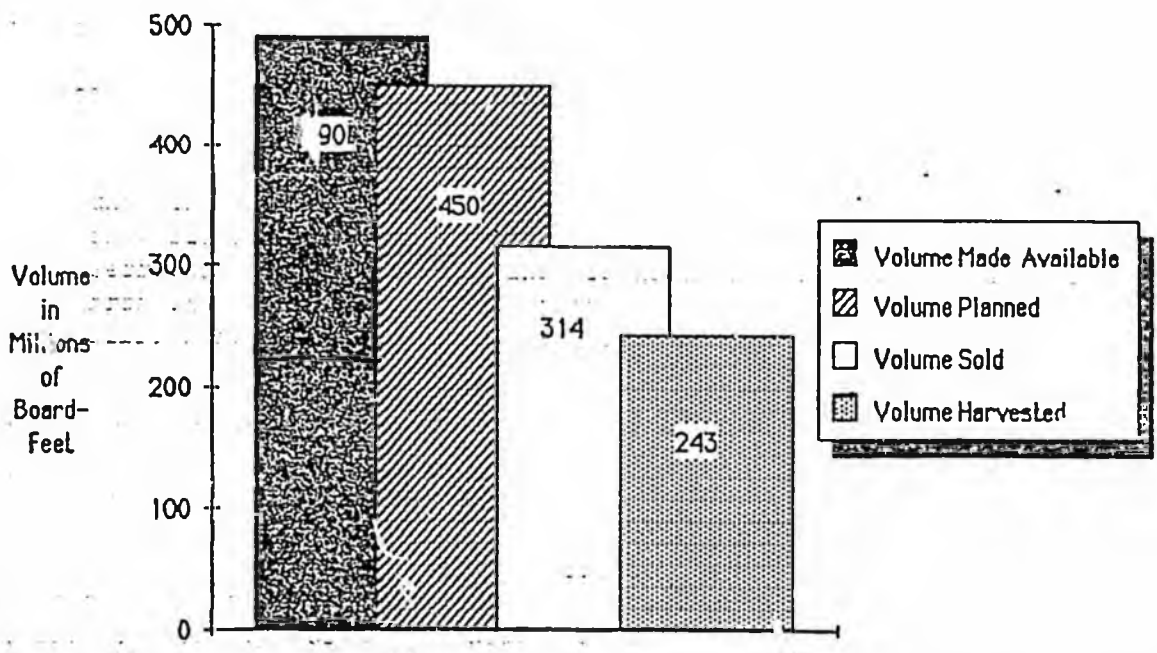


Figure A. Since 1980 the Forest Service offered, on the average, twice as much timber as was harvested.

This trend, far from being a temporary or passing artifact of statistics, grows more outlandish year after year. Figure B shows the annual harvest breakdowns displayed in the Forest Service's Tongass Timber Supply and Demand Report for 1984. It shows the widening gap between Forest Service timber sale offering levels and the reality of actual timber harvest levels. Since Fiscal Year 1980 the Forest Service has offered 1.2 billion more board feet of timber than has been harvested. The cost of preparing these excess timber sales that cannot be sold has averaged over $8 million per year, or $40 million thrown away in the past five years on this wasteful management practice alone.

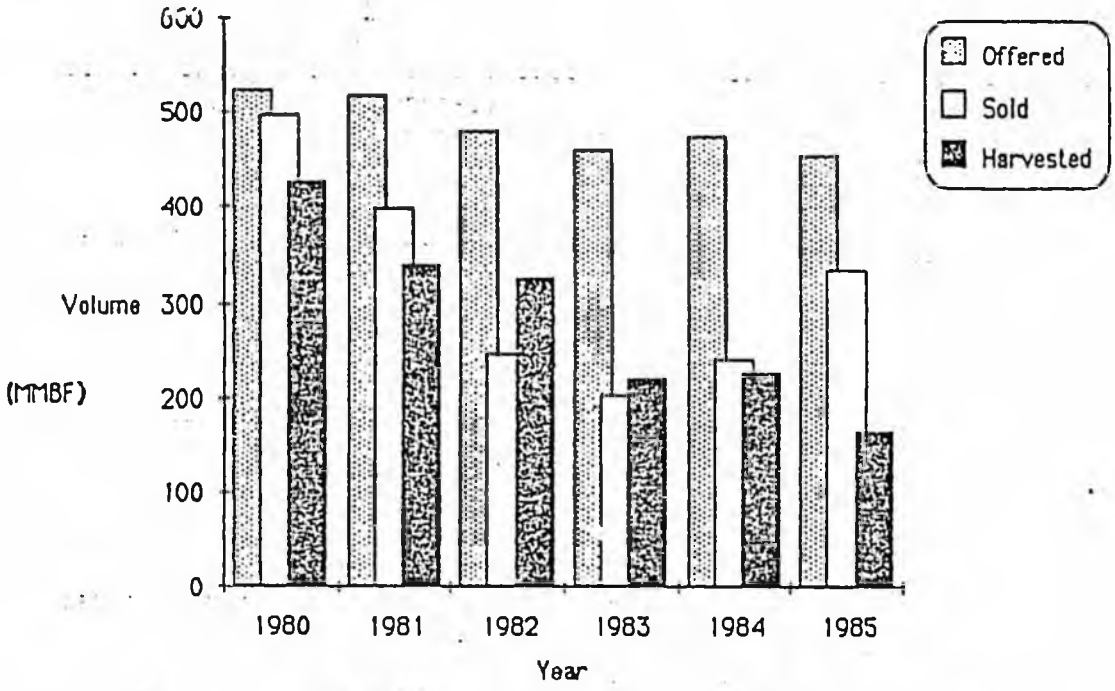


Figure B. Timber offered, sold, and harvested in the Tongass, fiscal years 1980-1985. $40 million was wasted in the preparation of excess timber.

In the last few years, the Forest Service offered more than 450 MMBF/year, sold at least 150 MMBF less per year than planned, and at least 200 MMBF less per year was harvested than planned. In contrast, road building has proceeded at a much higher rate than planned. We have been supporting a road construction industry, not a timber cutting industry. The Forest Service is wasting money building roads to nowhere and offering timber far in excess of the market.

In 1984, the two largest purchasers of Tongass timber paid only an average of $2.50 per thousand board feet of Sitka spruce, a species worth a hundred times more on the open market. For that same thousand board feet of spruce, the federal government spent at least $172 to "manage" that timber. In fact, the Tongass affords one of the most striking examples of sales-below-cost (where the Forest Service spends more on the timber sale than it receives from it in revenues) in the entire National Forest System. The TTSF only compounds this unprecedented subsidy to dependent timber companies.

The Tongass timber program has always been a big loser. While high value spruce and cedar trees can be found in scattered stands, most of the Tongass timber is comprised of low value hemlock. Steep, rugged terrain and other geographical conditions make access to Tongass timber particularly expensive and unrewarding.

According to the Congressional Research Service, between 1970-1984 the Forest Service spent $375 million on Tongass timber sales and has only received $62.6 million in timber sale revenues -- a staggering $312 million loss in just fifteen years. The Alaska Department of Revenue has noted that "there is no firm within the forest products industry that would subsidize the extraction of forest products to the degree that is the current practice of the federal government in Alaska today."

The magnitude of economic loss on Tongass timber programs has been much worse since ANILCA was passed in 1980. For example, between 1982 - 1985 the Forest Service spent $253 million on the Tongass timber program, yet only recovered $2.9 million in receipts. The TTSF, now $53 million in 1985, is a major culprit in this accelerated rate of loss. Figure C depicts how this Congressional funding was spent and what that funding returned in receipts to the Treasury. Funds above and beyond the TTSF, such as purchaser credits, were also expended during this period.

These losses are not a temporary abberation. Remote from markets, high cost, low value Alaska timber is the last to be sold in a good market, and the first not to sell in a bad one. Thus, the future looks dim for a reversal of Tongass losses. Even the Forest Service estimates that its Tongass timber management program will lose over $5 billion over the next five decades.

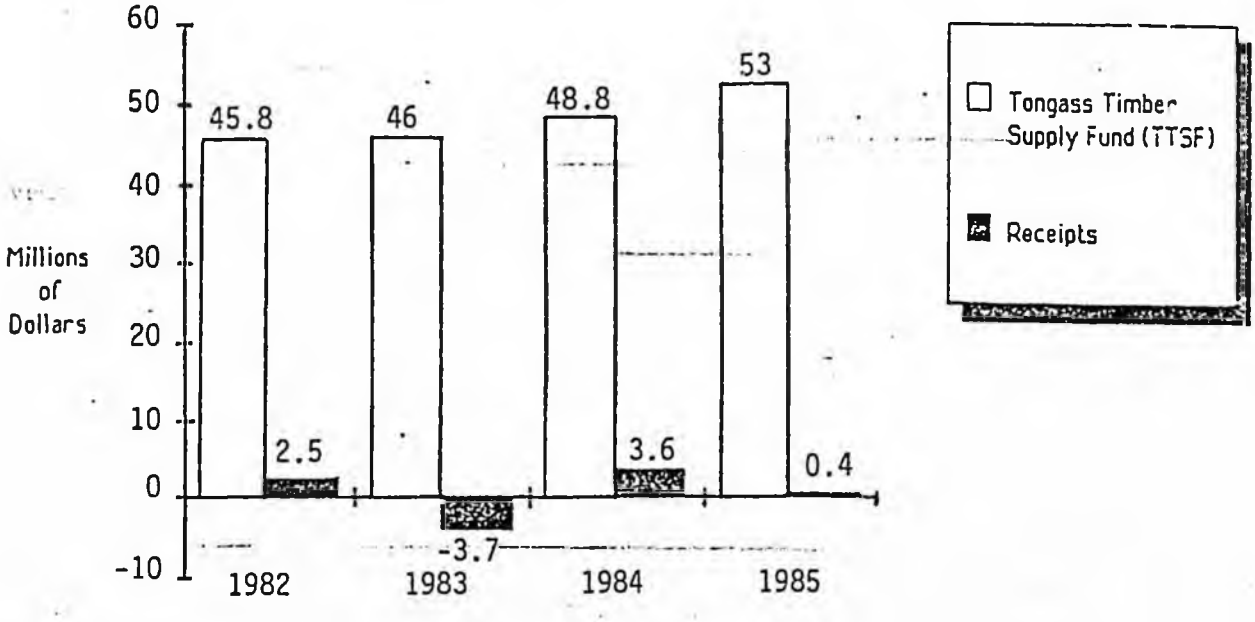


Figure C. Receipts versus TTSF Expenditures, fiscal years 1982-1985. Not shown are millions of other dollars spent on the Tongass timber program above and beyond the TTSF, such as purchaser credits.

Timber program losses in the national forest have become a widespread concern, as evidenced by recent Congressional hearings on the subject. Other national forests have recently been ordered by the Secretary of Agriculture to justify timber program subsidies, but the Forest Service's interpretation of ANILCA prevents similar reform on the Tongass. TTSF funds are beyond Congressional appropriation processes or other basic fiscal controls. This results in no incentive for the Forest Service to save money -- funding of unneeded Tongass timber sales is assured no matter what the supply or market conditions might be. The Tongass' bureaucracy is not accountable.

4. Wasting the Tongass Timber Supply Fund: Building Roads, Building Empires

Besides spending over $8 million a year planning, designing, and offering timber sales that are not purchased, the Forest Service has continued to use the TTSF to support an unprecedentedly large road building effort. While most road building programs in national forests are built in conjunction with timber sales, this is not the case on the TTSF glutted Tongass.

"Pre-roading" is the construction of road systems in advance of timber sales, with the Forest Service paying entirely for the project out of its timber management budget. Instead of requiring timber purchasers to pay for roads to access timber sales, or awarding timber purchasers credit for building such roads, TLMP authorized (but did not require) pre-roading of certain drainages to access marginal timber or to offset the cost of small timber sales in sensitive areas.

Unfortunately, with the TTSF available the Forest Service has undertaken a far greater roading program than TLMP planned. The Forest Service clearly regards the TTSF as a blank check to build roads and develop an extensive land transportation network on the islands and mainland of Southeast Alaska. Roads are built for timber harvesting, not for "multiple use." The following excerpt from an editorial in the "Prince of Wales' ISLAND NEWS illustrates the point: "Often we hear that the money the Forest Service spends on roads isn't to subsidize the timber industry, but to provide roads for multiple use. That sounds like a bunch of bull when you try to drive the roads and find that nothing has been done to maintain them since the last logger hauled out the last load of logs." Many Southeast communities and citizens oppose this road building, but as one Forest Service official admitted, "There's an unwritten Forest Service directive to put roads...in every available [i.e., non-wilderness] roadless drainage" by the time TLMP is to be revised in 1989, eliminating the possi bility of any other new Wilderness designations.

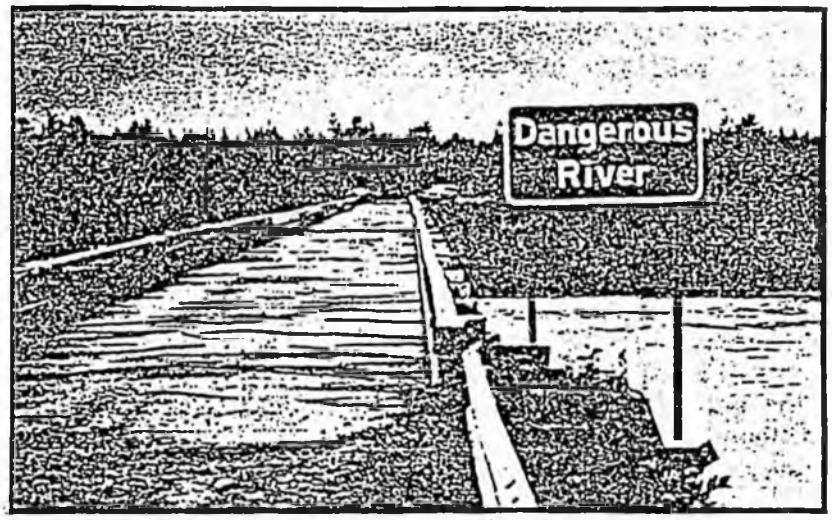
The result of such overblown plans is, of course, more waste. Roads to nowhere are increasingly common on the Tongass, since many timber access road networks are built for unmarketable timber sales. In places like Kadashan, Port Houghton, and Couverdon, miles of unneeded timber roads sit as examples of this waste. Key habitat areas in the Yakutat Forelands, Kuiu Island, and Kupreanof Island are threatened with pre-roading plans.

The TTSF is supporting a road construction program more reminiscent of the New Deal than modern forest management. One Forest Service official recently told the Juneau Chamber of Commerce that the Forest Service would be employing about twenty road workers for three summers to construct a logging road network in Berners Bay. This official neglected to mention the cost of this

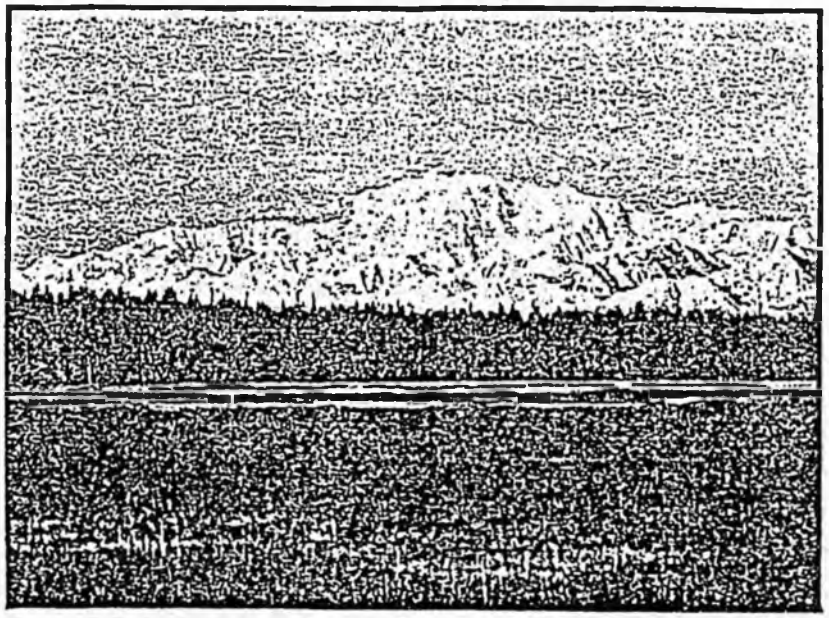
subsidy -- $5 million or about $240,000 per job. Almost incidentally, this official did admit there was no apparent buyer for the Berners Bay timber sale, but he said the road project would provide more firewood and berry picking opportunities for Juneau residents, even if it was never used for timber hauling.

Another Forest Service timber road abusing the intent of the TTSF and TLMP is the Kadashan project. The Kadashan road was begun in 1983, ostensibly to access stands of very high volume, old-growth timber critical for subsistence, commercial fishing and wildlife. Despite Congressman Udall's direction, in Kadashan the Forest Service used TTSF money to gain access to this obviously non-marginal and environmentally critical timber. The Forest Service has followed this pattern in many other key areas.

SEACC has sued and stopped construction of the Kadashan and Berners Bay road projects, but many other similar projects are still underway or planned. The TTSF is funding make-work, de facto welfare programs, not intensive forest management.



Left: The Dangerous River ROAD-TO-NOWHERE, Yakutat Forelands. One example of pre-roading. (Photo by Bart Koehler)



Right: Key habitat areas of the YAKUTAT FORELANDS are targeted for roading and clearcutting.

The Forest Service is obsessed with the language of ANILCA Section 705, language it consistently misinterprets as a mandate to offer 450 mmbf of timber per year, for all time. "Getting out the cut" or "meeting your timber targets" are the goals of many Tongass employees in all three administrative areas of the forest (Chatham Area, Stikine Area, and Ketchikan Area). For example, these quotes from timber planning documents illustrate the inflexibility of current Forest Service interpretations of ANILCA (emphasis supplied):

* *The need for action is the obligation to meet the Forest Service commitment, under Congressional direction...regarding the Act's mandated 450 MMBF annual timber harvest from the Tongass National Forest.*

* *This timber sale is offered by the U.S. Forest Service and contributes to the volume legislatively mandated by the Alaska National Interest Lands Conservation Act (ANILCA).*

* *Congress mandated that 450 million board feet (MMBF) of timber be sold annually from the Tongass National Forest.*

* *The Alaska National Interest Lands Conservation Act (ANILCA) and TLMP direct the Forest Service to sell 450 MMBF of timber per year. This proposal responds to that direction.*

* *The Congressional mandate included in the Alaska Lands Bill of 1980 to cut some 450 million board feet of timber annually....*

The TTSF, obviously intended to provide money to fund TLMP timber programs, is an outgrowth of one of the goals of ANILCA. In the words of Senator Ted Stevens the TTSF was to "preserve the existing timber industry." Other senators echoed the same intent: Senator Paul Tsongas said ANILCA Section 705 assured the timber industry "of a timber supply adequate to protect jobs in Southeast Alaska" and Senator Henry Jackson said that "these funds will insure that adequate timber supplies will be available to dependent industry...."

Today, timber supplies from the Tongass National Forest are far more than adequate. The Forest Service has reported this fact every year since ANILCA. Cutting levels overall are comparable to pre-ANILCA levels, as are employment figures. During the five years before ANILCA the regional timber industry employed an average of 2700 people per year in harvesting and processing, and harvested an average of 440 MMBF. During the post ANILCA period of 1980-1984, employment for the same sector averaged 2400 jobs, yet the average timber harvest for the region increased to 514 MMBF. However, the timber supply sources have changed significantly since the adoption of ANILCA in 1980. From 1959 to 1975 the Tongass National Forest was virtually the sole source of timber in Southeast Alaska. During those years the region's "timber industry" was nearly synonymous with APC and LPK who were the purchasers of 90% of the timber cut in Southeast and the producers of at least 90% of the manufactured products. In contrast today, Native corporations are annually cutting much more timber on private Southeast lands than was predicted in 1980. As a result, APC and LPK now only claim about half of the market for the region's timber. Therefore less timber is needed from the Tongass to sustain timber sector employment. Regardless of this picture, the Forest Service continues to try to sell 450 MMBF of Tongass timber a year.

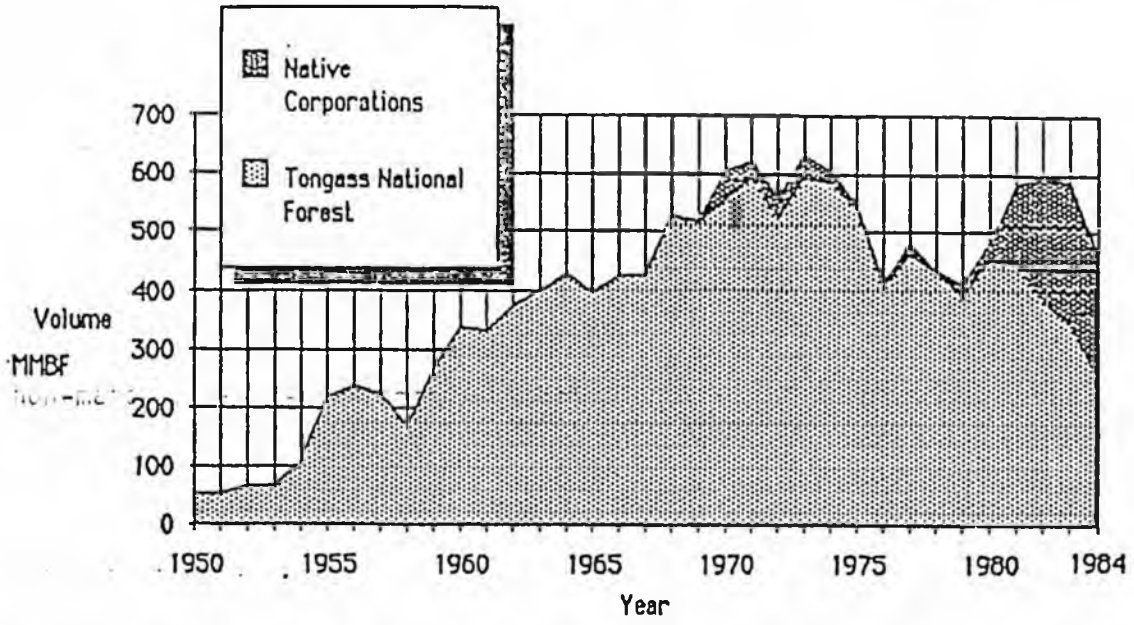


Figure D. Comparison of timber volumes harvested from Native corporation lands and from the Tongass. Timber supply sources have changed since ANILCA.

Use of TTSF funds for unmarketable timber sales and unneeded timber roads does not benefit the dependent timber industry. Except for the road contractors, beneficiaries of the Tongass timber program are difficult to pinpoint. Why then, do Forest Service officials persist in a misinterpretation of ANILCA Section 705?

A Forest Service memo provides a good clue as to why the Forest Service staunchly defends its interpretation of Section 705 and its use of TTSF funds for unneeded timber sales and roads. The memo states simply: "When Congress passed ANILCA they set up [the TTSF]. These dollars are not subject to normal appropriation rules. Most of our salaries come out of this $40 million...." If the Forest Service only received the amount of money it needed to meet actual current timber demand on the Tongass, half of those salaries could conceivably be eliminated. Preservation of Forest Service jobs may be strong enough incentive to find a mandated harvest level in ANILCA Section 705 even where plain language, legislative history and common sense indicate otherwise.

B. FIFTY-YEAR TIMBER SALE CONTRACTS

1. Background

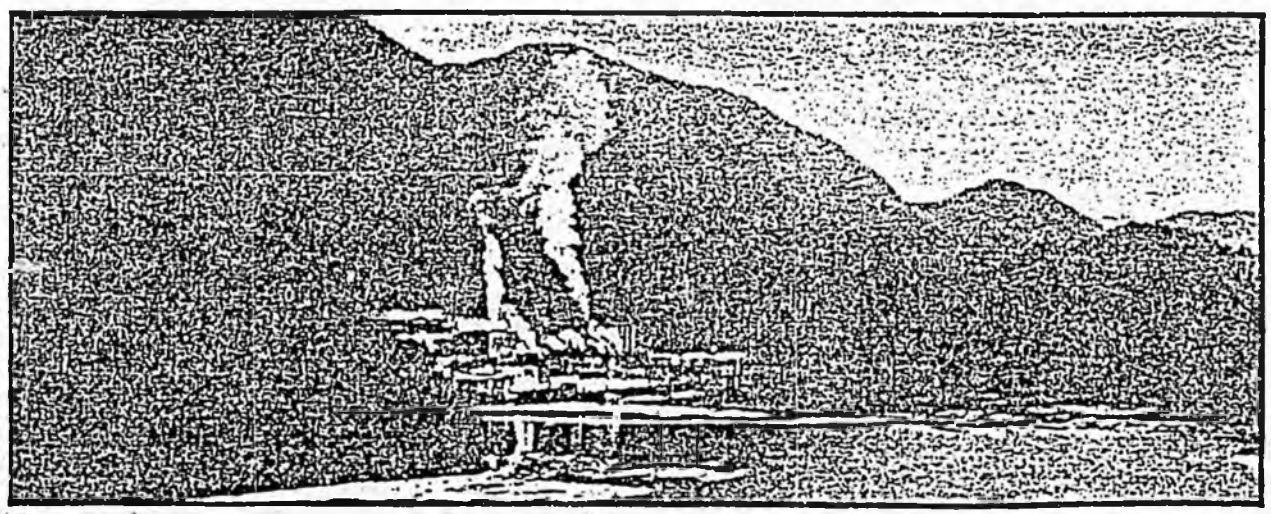
Native Tlingit and Haida people were famous for their skills in woodcraft. With the influx of settlers from Europe, Russia, and the U.S., very small sawmills provided dimension lumber for cannery construction, townsites, and homes. Even today, all Alaskans are allowed a small annual allotment of personal-use timber for firewood, construction, trolling poles, or similar uses. But this type of small scale, selective cutting has been supplanted by two Forest Service subsidized pulp mills who hold contracts for massive clear-cutting operations lasting into the Twenty-First Century. These inappropriate and destructive 50-year contracts are the second source of Tongass timber problems.

A result of aggressive promotion by General Douglas MacArthur, the U.S. State Department, and some elements of the Alaska Region of the Forest Service, the 50-year contracts were designed to promote settlement of Alaska Territory and provide year-round, stable employment. More importantly, the contracts were to promote export of wood and wood pulp to Japan to help rebuild its ravaged, post-war economy. In fact, one of the 50-year contract holders, Alaska Pulp Company, is owned by a Japanese multi-national consortium of businesses. It would seem that the purposes for which the contracts were designed have been achieved, but despite this they continue in effect.

This promotion of Alaska timbering was opposed by the West Coast pulp industry and by prominent politicians such as Washington's Senator Warren G. Magnuson. In 1960, Juneau economist George Rogers viewed the situation this way:

> *If we take the "nation as a whole" as our unit of primary concern and deal only in economic terms, then the [Forest Service's] policy clearly is the most shortsighted kind of silly rot. Forcing construction of new physical plants at a great cost in one part of the nation when existing plants in other areas accessible to the Region's forest resources are operating below capacity, fostering location of the processing of the raw material in a high-cost area remote from the markets, these and a whole list of other consequences could be brought forth to prove the policy guilty of creating a gross misallocation of capital and labor resources with corresponding costs to the economy of the nation as a whole.*

No pulp mills existed in Southeast Alaska in the 1950's. Since such a pioneering operation is inherently risky, the Forest Service wrote the most favorable contracts a timber purchaser could possibly imagine. The terms included such incredible provisions as: total purchaser control over selection of timber in the contract area; guaranteed annual and total volumes; carryover of unharvested timber; and modification of terms only after full agreement by the purchaser. As if this deal was not sweet enough, the Forest Service and the purchasers have agreed that inherent in the contract is a guarantee of profitable logging for the purchaser, even if the government must pay for such profits. Additionally, the contracts were designed for an unprecedented roughly 50-year duration. No other national forest in the nation is burdened with contracts of this duration (the limit elsewhere is ten years).



A 50 YEAR CONTRACT HOLDER is Louisiana Pacific's Ketchikan pulp mill.

In the 1950's, four long-term logging contracts were planned for the Tongass. In those days the Forest Service policy was to liquidate all the old-growth timber as quickly as possible. Today, in part because insufficient timber volume existed to support four contracts and in part because of diligent efforts by Southeastern Alaska conservationists, only the two 50-year contracts remain: one with the Alaska Pulp Company (APC) and the other with Louisiana-Pacific Ketchikan (LPK). Still, these two contracts commit more than one-third of the Tongass (and two-thirds of the commercial forest land) to producing a total of 13.25 billion board feet of timber as far into the future as the year 2011.

2. Failed Attempts at Reform

Despite changing national forest management goals and directions since the 1950's, the anachronistic 50-year contracts have continued to lumber along like dinosaurs. In 1970, the National Environmental Policy Act (NEPA) was passed by Congress in an effort to fully disclose the environmental impacts of government sanctioned projects. The Forest Service took years to apply NEPA to these contracts and then only to 5-year increments. To this date, little or no analysis has ever been undertaken of the entire fifty years of clearcut logging sanctioned by these contracts. Moreover, the attempted Forest Service NEPA analysis of the 5-year incremental logging plans has been poor at best. The cumulative impacts of these 5-year incremental plans must not be overlooked. For example, SEACC estimates that in the case of the APC contract the cumulative effects over the next 25 years will result in the clearcutting of 100,000 new acres and the construction of 1000 miles of new roads.

In 1976, amid mounting criticism of the Forest Service, Congress took a close look at national forest management and the need for reform. The resulting National Forest Management Act (NFMA) outlawed timber sale contracts of more than a few years duration, but it did grandfather the Tongass contracts. To ensure application of NFMA to these contracts, Congress added a special provision to NFMA, Section 15(b), which ordered the Forest Service to bring these contracts into full compliance with NFMA. However, the Forest Service has never accomplished this goal. Even more incredibly, almost ten years after NFMA, the Forest Service has proposed to allow APC to continue to violate many of the terms of NFMA in its 1986-1990 logging operations.

3. Fifty-Year Contracts Dominate the Tongass

Because of these outdated one-sided contracts, bad planning, and failed attempts at reform, the enormous Tongass National Forest is dominated by only two logging companies, APC and LPK. These companies hold unprecedented control over the Forest Service and over Tongass resources. The Forest Service even admits that the existence of certain contract provisions 'severely restricts the Forest Service from properly managing" the Tongass.

The 50-year contracts result in more than just economic waste and resource mismanagement. They give the two companies monopolistic power over timber operations on public land in Southeast Alaska. With this power, they have colluded to drive smaller, less powerful logging operations out of business and to wreak economic havoc on the few survivors. In 1981, the Reid Brothers Logging Company sued APC and LPK for conspiracy in restraint of trade and commerce and for actual monopolization of trade. The federal District Court

for the Western District of Washington found APC and LPK guilty. The Ninth Circuit Court of Appeals and the U.S. Supreme Court refused to exonerate the two companies of guilt. But the damage had already been done and few small loggers survived to see the big companies' guilt confirmed. The Forest Service's own lawyers have concluded that the evidence did show that material breaches of contract had occurred.

Even more appalling in its arrogance, given the generous terms of the 50-year contracts, is the possibility that LPK and APC have cheated the Forest Service out of between $60-82 million by price-fixing, double-invoicing, and other illegal and deceptive practices. Though the Forest Service itself estimated this magnitude of loss, it has only claimed $9.4 million in legal proceedings thus far. Furthermore, of the $60-82 million, one-quarter of these revenues were earmarked for the State of Alaska. This money has never been recovered. As statutes of limitations run out, these badly needed revenues are lost forever.

APC and LPK have been given additional special treatment despite such underhanded activities. In 1981 and 1982 they were granted "emergency rate redeterminations" reducing the stumpage (how much the companies pay for the timber). For LPK, all timber stumpage (except hemlock which sells for an average of $1.50 per thousand board feet) was reduced by 96%, bringing the price down to 1951 base rates. APC's stumpages for spruce and cedar were reduced by 99% to bring them down to 1956 base rates. For instance, APC's spruce sawlogs were appraised at $215 per thousand board feet, but they now pay only $2.26 for that timber! Cedar appraised at over $1000 per thousand board feet is bought by APC for $1.22! The Forest Service is literally giving these trees away.

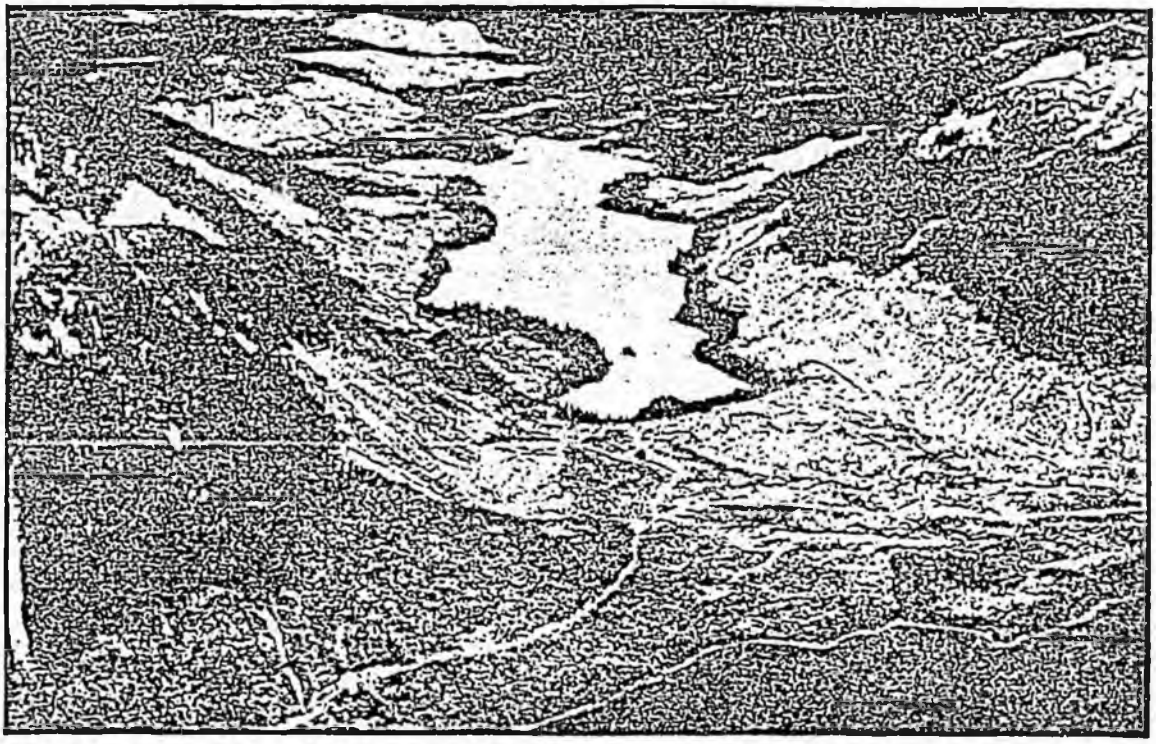
In addition to the emergency rate redeterminations, in 1984 and 1985 the Forest Service revised utilization restrictions and permitted more merchantable wood than normal to be left behind during logging operations, so that the timber brought to the mills is only the most profitable, high-quality wood. The low-value trees are left to rot on the ground. SEACC's appeal of this "bail-out" program was denied by the Chief of the Forest Service. Also in 1984 and 1985, the Forest Service waived its primary processing requirement (i.e., permitted round log export) for timber from some salvage sales.

APC's contract allows the company to selectively harvest only the high-grade stands, leaving the stands of less valuable lower-grade timber. This results in the company having a stockpile of unharvested "carryover" timber amounting to nearly 400 million board feet. The end result is the cutting of only the best and most profitable big trees, which are also the best wildlife habitat.

Some critics believe that it would be more cost effective in the long run to buy out the remaining value of the 50-year contracts and return to short-term sales, than to continue subsidizing the contracts. This would also promote a more balanced management of the forest.

As long as these 50-year contracts remain, there will be continuing waste, fraud, and abuse. The terms of the contracts themselves are the codification of unfair advantage, of monopoly. For the term of the contracts, until 2011, true multiple-use will be impossible and small logging operations will continue to suffer. Though there is ample evidence on the basis of which to

cancel the contracts, and though the government always retains authority to modify or eliminate any agreement, the Forest Service simply refuses to act to protect the resources of the Tongass. The agency is treating the Tongass like a private reserve for the benefit of these two timber companies. This is a second underlying cause of the unfortunate Tongass timber situation that exists today.



Clearcutting within APC's 50 YEAR CONTRACT AREA on Chichagof Island.

Located within APC's 50 year contract area, Chichagof Island's UPPER HOONAH SOUND is slated for roading and logging. (Photo by Larry Edwards)

C. TONGASS LAND MANAGEMENT PLAN

1. Background

Since the 1950's Forest Service has had ambitious plans for turning Southeast Alaska's forest lands into a huge tree farm. Even into the late 1970's, Forest Service timber plans included virtually all of the commercially valuable timber lands on the Tongass. Extensive plans were even designed for clearcutting and roading such critical areas as Admiralty Island, which is now a national monument wilderness. None of these plans gave consideration to the need to manage national forests for a mix of resources and uses, including recreation, fishing, hunting, subsistence, and wilderness, as well as timber production.

As previously mentioned, Congress scrutinized the timber-biased management of public forest resources in 1976 and forged a comprehensive solution, the National Forest Management Act (NFMA). NFMA specifically required balanced management of national forests and also set forth a process by which detailed forest plans would be prepared in order to guarantee implementation of that mandate. Existing forest plans were allowed to continue in effect until expiration, but all forest plans were intended to incorporate provisions of the new NFMA within 10 years. NFMA set a specific deadline of 1985 for complete implementation of its provisions.

After passage of NFMA, the Forest Service began preparing regulations to implement the new law. At the same time, Congress continued the long process to resolve uncertain land holding situations in Alaska that culminated with the Alaska National Interest Lands Conservation Act (ANILCA). Disposition of national forest lands was a central issue in the ANILCA debate, and the Forest Service set out at an accelerated pace to prepare the Tongass Land Management Plan (TLMP) in an effort to guide and inform Congressional debate.

In March of 1979, TLMP was completed and circulated for public review, despite the fact that NFMA regulations were still unfinished and much of the basic information needed in order to fully understand the Tongass had not yet been researched and compiled. Though TLMP was heavily relied upon by Congress, it was based in extraordinary part on extrapolation and assumption. Given the haste with which the plan was prepared, this is unsurprising. Most other NFMA forest plans are only now being completed. Unfortunately, the Tongass is still saddled with an incomplete, inaccurate and outdated forest plan whose failings are increasingly apparent to all observers, even the Forest Service itself.

2. Tongass Plan Favors Logging

When TLMP was formulated, it was promoted by some as a fair compromise at land allocation and supported vigorously as such by the Forest Service. Indeed, land allocations by acreage were roughly equivalent between land to be logged and lands to remain roadless and undeveloped. Now, six years later, the land allocations can be clearly seen as a ruse.

The Forest Service claims that the "forest plan management direction includes provisions for the protection, maintenance, and enhancement of wildlife and fisheries....The designated Wilderness included 85 of 298 high value wildlife habitats and 26 of 490 high value fisheries habitats identified in the forest plan. In addition, 35 high value wildlife habitat areas and 220 high value

fish habitat areas are included in areas designated in the forest plan for roadless area management."

There are 867 watersheds in the vast Tongass National Forest. A responsible fish and wildlife management program would protect all the high value fish and wildlife habitat areas. TLMP did not do this. Instead the resultant designations for the Tongass show an appalling lack of concern for fish and wildlife protection. Of the only 298 high value wildlife areas on the forest, a mere 29% have been designated as Wilderness. Of the 490 high value fishery habitats, only 5% of these watersheds have been designated as Wilderness. The remaining areas are all open to destructive logging and roading over the long term.

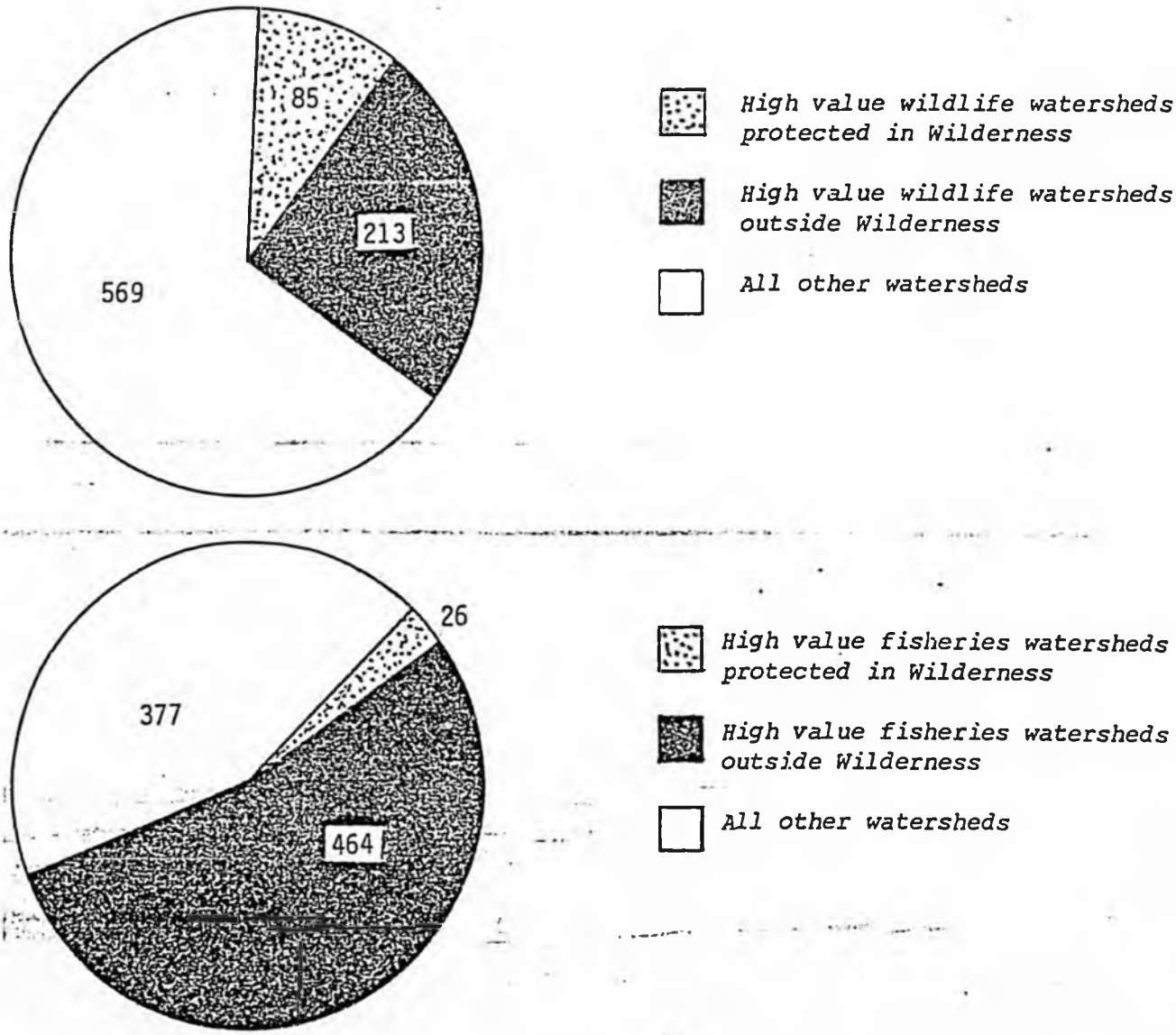
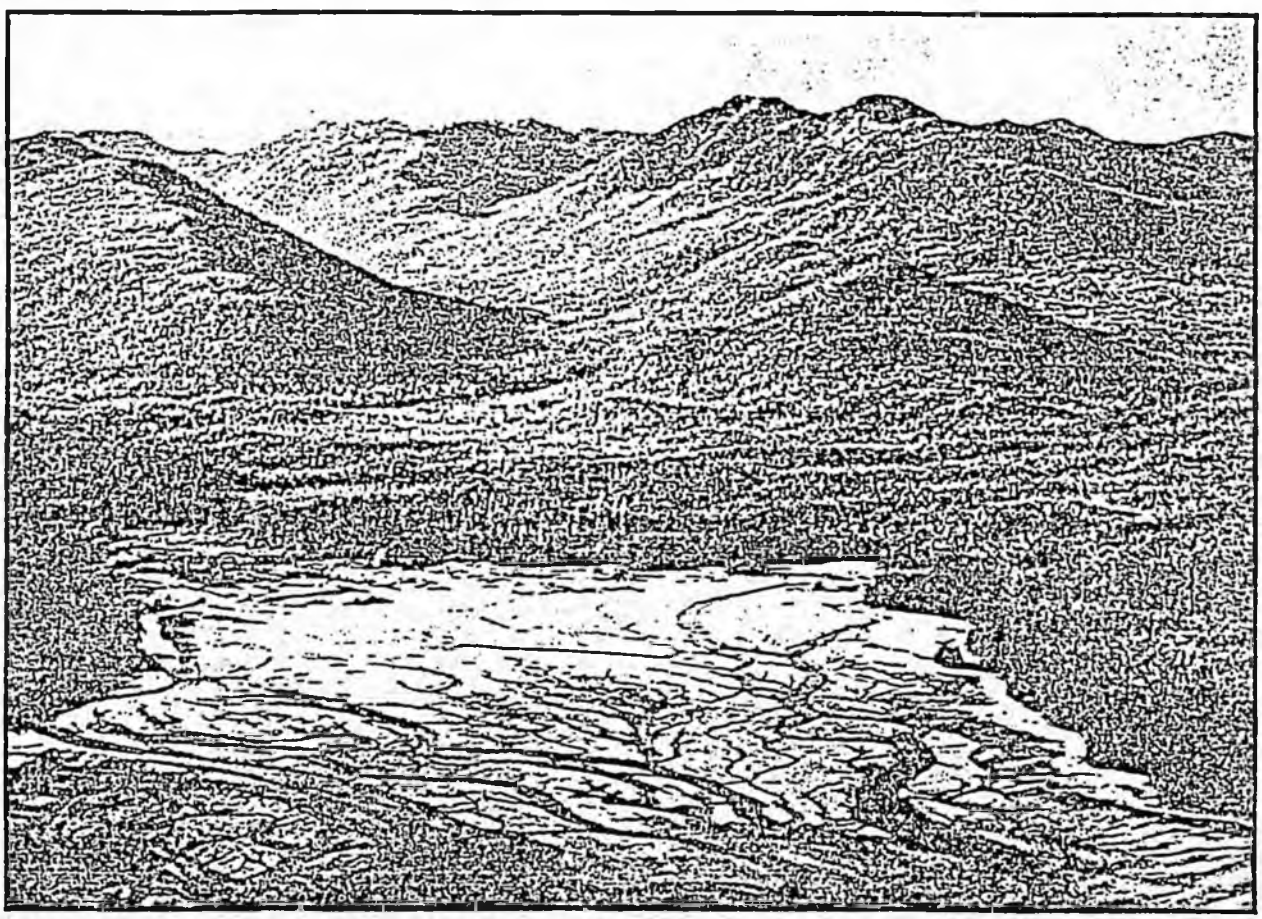


Figure E. High value fish and wildlife watersheds on the Tongass National Forest.

In reality, while National Forest acres in the Tongass are roughly even in their division, the majority of valuable wildlife habitat is included in areas under a land use designation allowing logging. The Tongass lands holding the highest volume of valuable, old growth spruce and hemlock are also the most important lands for fish and wildlife habitat, yet TLMP concentrates logging in high-volume timber stands, rather than harvesting timber stands in proportion to their volume class occurrence across the Forest. This "high-grading" is built into TLMP. Former Chief of the Forest Service, John McGuire, stated that cutting more of the marginal component is consistent with the NFMA, but that the alternative, continued high-grading of the forest, is in conflict with that Act: "An over-harvest of the standard component now would eventually result in only special and marginal stands left in the forest. This type of management would not be compatible with Forest Service policy or the National Forest Management Act."

High volume timber stands, exceedingly rare in the Tongass, are scheduled by TLMP for harvest in a higher proportion than they occur in the forest. But they are being harvested at an even higher rate than scheduled. Fifty percent of the highest volume timber has already been cut and at least 75% will be cut by the year 2000 at present rates. This unsanctioned high-grading compounds the inherent weakness of TLMP.



The KADASHAN WATERSHED, a prime old growth and fish and wildlife habitat area. Already a victim of Forest Service road building, it is one example of high volume timber targeted for clearcutting by the agency's extensive forestry management program.

3. Fish and Wildlife Protection: An Empty Promise

The Forest Service has made a practice of answering fish and wildlife concerns by referring to TLMP's Land Use Designation (LUD) III, a category of Tongass management which allows logging, but theoretically protects other forest resources, including fish and wildlife habitat needs. The TLMP management scheme included other LUDs -- LUD I (wilderness), LUD II (roadless recreation), and LUD IV (intensive logging).

TLMP also set out a harvest layout scheme by which critical wildlife areas would be retained during logging in order to mitigate the impacts on fish and wildlife. This is referred to as "retention". As part of the task of defining retention areas, Tongass planning required identification and protection of Fish or Wildlife Habitat Management Units wherever logging or roading was planned.

Six years later these protective provisions have proven to be empty promises. In reality, there is little management difference between LUD III and the less restrictive LUD IV, which allows intensive logging. Retention has never been fully implemented and often only occurs by accident, when strips of timber are left standing between clearcuts. Rather than true retention areas, preserved because of habitat needs, these strips can be more accurately referred to as "leftovers". In practice, even the leftovers are often logged in subsequent timber operations. Fish and Wildlife Habitat Management Units, which would have accurately defined retention needs, are almost never developed. When they are, they always follow timber sale layouts rather than preceeding placement of roads and clearcut locations. Such units are reduced, at best, to mere attempts to salve a wound already inflicted. None of TLMP's major fish and wildife protection provisions have been implemented and damage from roads and clearcuts continues to mount.

4. Tongass Plan Violates Federal Laws

The authors of TLMP were well aware that draft NFMA regulations were being prepared by the Forest Service, even as they rushed TLMP into print in March of 1979. To allow them to finish TLMP, the Tongass planners promised that new NFMA regulations would be incorporated into TLMP by a major forest plan revision in 1983. Incredibly, now in 1986, ten years after passage of NFMA, seven years after TLMP was finished and after NFMA regulations were implemented, no such TLMP revision has been attempted or completed. TLMP does not comply with NFMA regulations and Congressional forest planning reforms remain unaccomplished on the Tongass.

TLMP was rushed into print before an adequate job could be done. Under the National Environmental Policy Act (NEPA) the environmental impacts of a major federal proposal must be clearly and comprehensively displayed in an EIS. TLMP lacked both the baseline information on what Tongass resources were threatened by the logging it proposed and the information on how such logging would impact other forest resources. NEPA analysis is incomplete in TLMP.

In a recent order, the federal District Court for Alaska concluded that TLMP's environmental analysis was inadequate with regard to the impacts of a road and logging project in Berners Bay, north of Juneau. The Court's order stated that an entirely new site-specific EIS was needed for the project. Despite the

proven inadequacy of TLMP, no attempt has been made by the Forest Service to improve on TLMP's cursory NEPA analysis. Nor has the Forest Service attempted to incorporate into TLMP the wealth of new information on the environmental impacts of logging and roading which has become available since 1979. This new information makes it crystal clear that Tongass timber management programs present serious threats to fish and wildlife.

5. Tongass Plan Direction ignored by Forest Service

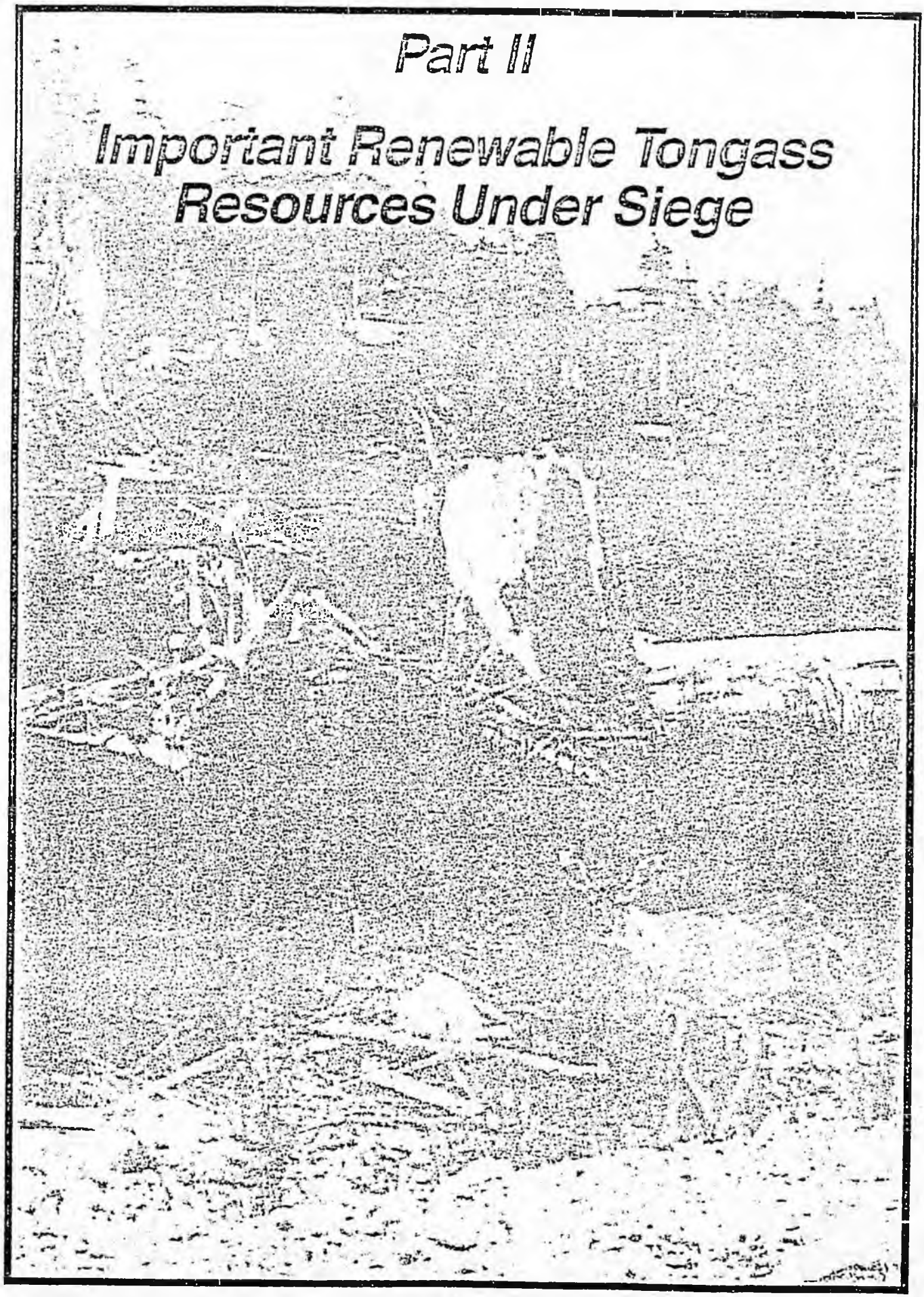
Detailed schedules for development in various management areas of the Tongass, were published in TLMP, Part II. However, road building and timber sales have failed to follow those schedules. Instead, individual forest supervisors have departed repeatedly from TLMP's program. Realizing that such departures were highly improper, Tongass planners decided last year to amend TLMP's schedules to reflect the actual development schedule, rather than bringing Forest Service activities back into harmony with TLMP. This backward approach to planning serves to underscore TLMP's failure to guide development.

Because it was a stop-gap effort at planning, TLMP deferred many integral forest plan steps to subsequent lower levels of the planning process. For example, individual Tongass management areas were supposed to be analyzed after development of TLMP, and specific resource protection standards and guidelines were to be developed concommitant with specific location of timber sales, roads, log dumps, and other such activities. This interim step in planning was also subject to full NEPA analysis, but no such analysis was ever completed for over two-thirds of the Tongass. Further, project level NEPA analysis, also envisioned by TLMP, has never resulted in site-specific environmental impact statements, even for massive projects. In the wake of the Berners Bay court order, the legality of these failures are in great doubt. It is certain, however, that the failures of these subsequent planning steps have frustrated and prevented full implementation of TLMP's intent, as well as public participation in major Tongass decisions.

TLMP is totally inadequate as a forest plan, and NFMA's reform measures have yet to improve Tongass management. Because of Section 705 of ANILCA, the TTSF, the 50-year contracts, and an ineffective and incomplete TLMP, Tongass management is heavily biased in favor of large-scale clearcut logging, to the detriment of wildlife, fishermen, small loggers, tourism industries, and subsistence users of the forest's resources. These are the roots of the tangled, growing thicket of Tongass timber problems.

Part II

Important Renewable Tongass Resources Under Siege

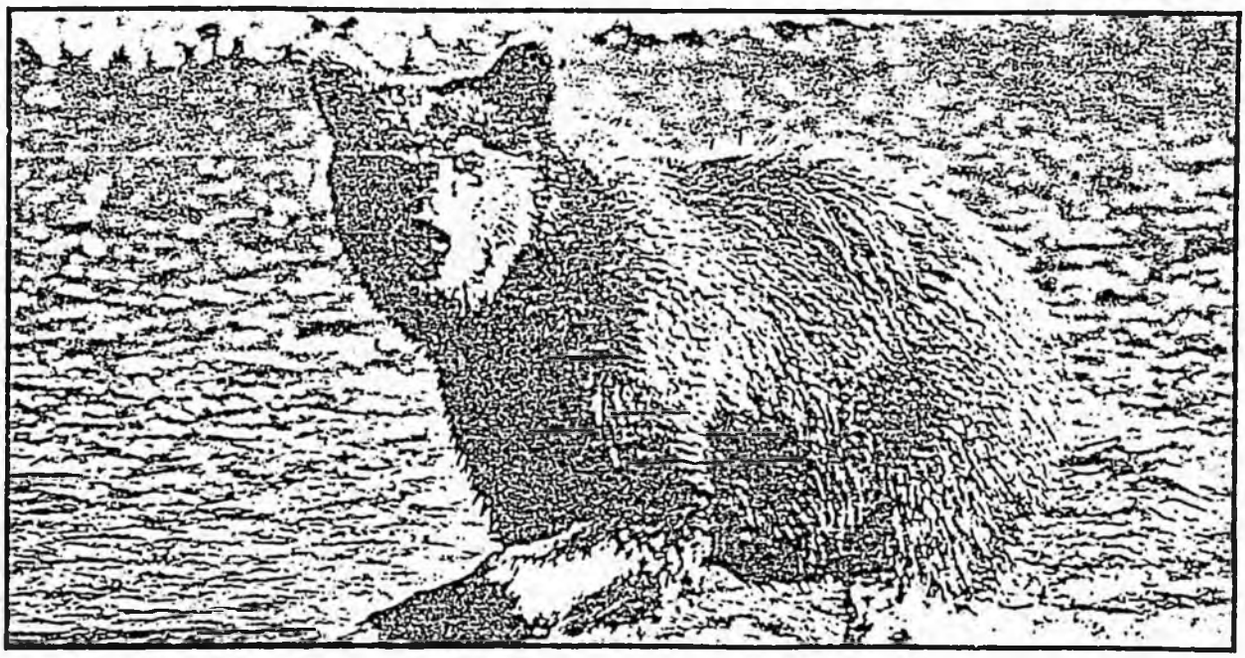


II. *IMPORTANT RENEWABLE TONGASS RESOURCES UNDER SIEGE*

Though the Tongass is a huge forest rich in fish, wildlife, wilderness, timber, and other resources, it is also a unique, complex, and fragile ecosystem. The extensive, large-scale logging programs implemented by the Forest Service on the Tongass are decimating vast areas of this grand old-growth rain forest. Critical fish and wildlife habitat areas that have already been lost include Blind Slough, Kadake Creek, Rodman Creek, Staney Creek, Thorne River, and Sweetwater Lake, to mention only a few.

A. WILDLIFE HABITAT AND POPULATIONS THREATENED

1. Brown (Grizzly) Bear



(Photo by Joel Bennett)

Alaska has the last major population of brown (grizzly) bear left in the entire United States, with the greatest concentration of bears occurring in Southeast. While these magnificent animals once ranged all over North America, they have now been beaten back from their original range to isolated pockets in Alaska, Canada, and a few national parks in the lower 48 states.

Tongass brown bears, larger than the brown bears found in Canada, are well distributed on Admiralty, Chichagof, and Baranof Islands, as well as the coastal mainland of Southeast Alaska. Although Theodore Roosevelt proposed a national bear reserve for Admiralty, Chichagof, and Baranof Islands, the places have been largely left in control of the Forest Service. Today, with the exception of Admiralty National Monument, clearcut logging threatens these bears through habitat destruction. Road building is the major problem causing increased human/bear conflicts and illegal hunting. These activities will continue to reduce or destroy bear populations as long as the Forest Service proceeds to penetrate unroaded, wild country with new logging.

2. Sitka Black-tailed Deer

The same high-volume, old-growth timber stands that attract the two major Tongass logging companies, APC and LPK, are also essential to the survival of the Sitka black-tailed deer. This is the only deer found in the Tongass, and while good populations exist today, they can fluctuate wildly depending on the severity of winter weather. The thick stands of old-growth timber shelter the deer during deep snows, allowing them to continue browsing under the canopy of giant spruce and hemlocks. Without this protective old-growth timber, deep winter snows lead to starvation and drastic deer population losses.

Further, second-growth timber is worthless as deer habitat. The Forest Service itself has stated that once an area has been clearcut, it will not produce significant deer forage, except for the first few years after cutting. In winter, however, when habitat and forage availability are critical, these clearcuts fill up with snow and are impassable and browse is buried. In 15-20 years, an extremely dense stand of small trees grows up to block light from reaching the forest floor and results in virtually no browse growing under these tight thickets for the next hundred years.

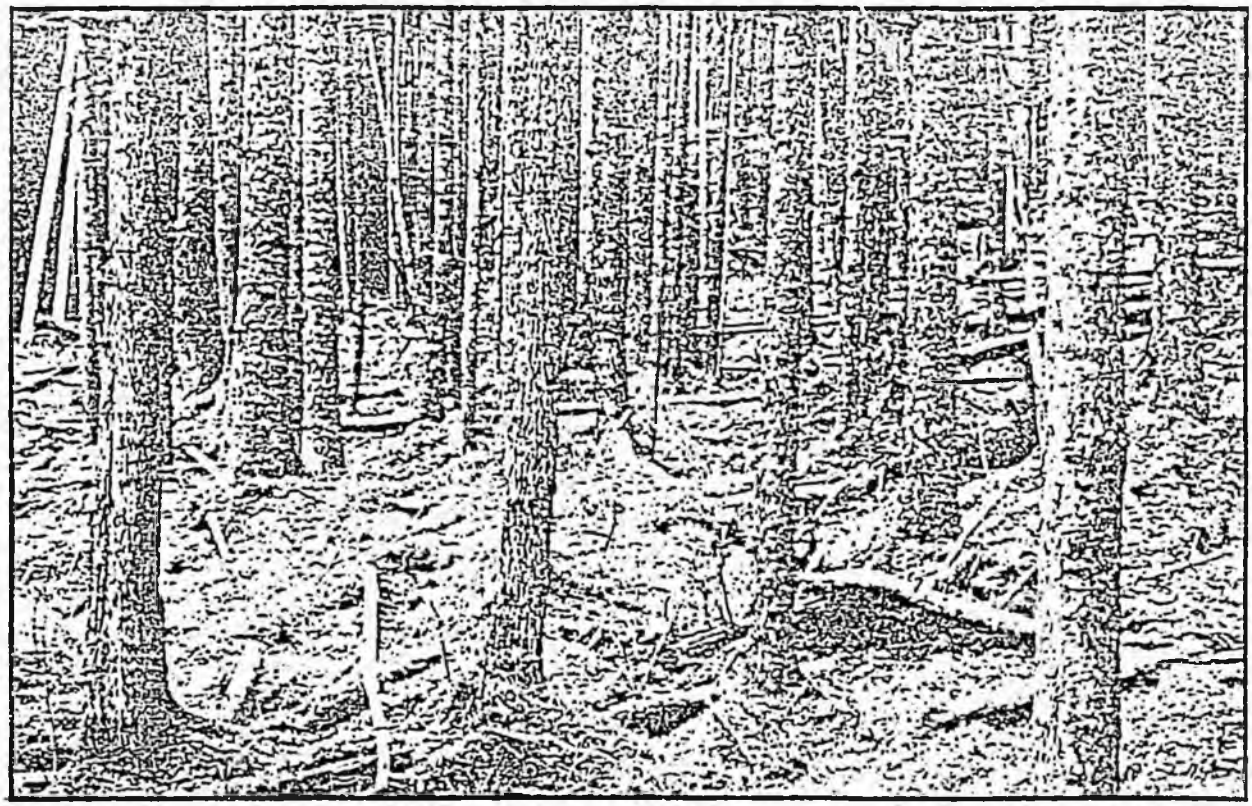
Since present Forest Service management calls for these forests to be harvested at 100 year rotations, the result is permanent loss of deer habitat. Second-growth forests will account for 75-80% of the managed forest land in the Tongass at the end of the first 100 year rotation. By then half of the now important available deer winter habitat will be lost forever, and deer populations will be severely reduced and even eliminated from certain places. Subsistence users and sport hunters will lose their most important game animal on the Tongass. Table 1 details some key areas where deer populations and subsistence and sport deer hunting will suffer the greatest losses.

Sitka black-tailed deer.
(Photo by Scott Foster)

Habitat & Deer Loss Table

Name	% Commercial Forest Land Harvested	% Deer Loss After 100 Years
Hawk Inlet	78%	88%
Eagle Peak (Youngs Lake)	60%	77%
Tenakee Springs	67%	83%
Kadashan	64%	77%
Lisianski River	63%	66%
Uhsk Bay	60%	64%
Kelp Bay	75%	86%
Kadake Creek	68%	74%
Castle River	65%	72%
Woewodski	66%	70%
Point Baker (Alder)	79%	92%
Myers Chuck (Cannery Creek)	65%	88%

Table 1. Old growth harvest equals critical deer habitat loss.



Above: 150 year old stand of SECOND GROWTH. Note density of trees and lack of browse.

Below: OLD GROWTH FORESTS provide shelter from deep winter snows and plenty of browse for food.

3. Other Wildlife

Many other mammals and birds are also dependent on old-growth timber or unroaded wild country. Clearcut logging will harm their populations by destroying essential habitat areas, by increased conflict with humans, and by increased hunting pressure for some species.

Moose, for example, while dependent on early successional stages of browse (like that found in river courses or clearcuts), also depend on old-growth timber for shelter and winter cover. Road access increases hunting pressure, often beyond sustainable levels. Forest Service activities in Berners Bay, Thomas Bay, and the Yakutat Forelands threaten moose populations.

Mountain goats are extremely sensitive to human disturbance and also depend to an extent on old-growth forests for winter habitat. Populations are expected to suffer as road access or clearcutting approach their limited home ranges.

Finally, many small mammals integral to the forest ecosystem depend solely on old-growth forest for habitat. These include marten, mink, and land otters. Research has conclusively shown how clearcut logging and roading displaces or destroys populations of these small furbearers.

In Southeast Alaska bald eagles are found in denser concentrations and higher numbers than in all the rest of North America. It is well documented that these raptors need old-growth Sitka spruce trees along beaches for nesting habitat. Existing eagle nest trees are not normally clearcut, but exceptions are sometimes made. The 1986-1990 APC operating plan proposes to cut or impact 37 of these important trees. This type of incremental destruction, combined with serious high-grading of high volume timber stands could pose a problem for eagle populations. In addition, ravens, owls, Canada geese, great blue herons, and many song bird species are also threatened since they nest primarily in old-growth timber.

BLUE GROUSE occur in high densities in old-growth forests throughout much of Southeast Alaska.

BALD EAGLES depend on old growth trees for nesting habitat.

B. FISH HABITAT AND POPULATIONS THREATENED

Southeast Alaska is blessed with an abundance of anadromous fish resources, including salmon, char, and trout. These anadromous fish, so called because they live in the ocean, but spawn in freshwater rivers, lakes, and streams, depend on clean, cool, highly oxygenated fresh water for reproduction. Logging and roading threaten these vital habitat needs.

Alaska's king, coho, pink, sockeye, and chum salmon make up the backbone of America's largest commercial fishing industry. These commercial species plus steelhead, cutthroat, and dolly varden char also constitute a huge subsistence and sport fishery.

Although research is still underway, many of the impacts of logging on fish habitat are well understood. Clearcut logging right up to the banks of salmon streams reduces the temperature buffering effect of streamside vegetation. This results in excessively high or low water temperatures which can be lethal to fish. Despite this well documented impact, Tongass planners still refuse to require buffer or leave strips on such streams, thus ignoring a basic requirement of NFMA and of common sense. Siltation from landslides or erosion associated with logging or logging roads can clog salmon streams and smother salmon eggs.

Tongass logging operations can result not only in the cost of subsidies, but also in the cost of lost fishery resources. The cost of these losses can be measured in both millions of dollars lost as well as the loss of a way of life by subsistence and commercial fishery users.

For example, the Chuck River on the mainland north of Petersburg supports a salmon fishing industry worth $1 million per year to commercial fishermen. But the Forest Service has targeted the Chuck River drainage for logging and roading. The Chuck River area is known for its unstable soils, and timber operations could well trigger a major landslide, destroying this valuable fishery. The Forest Service estimates its cost for preparing the Chuck River sale and road access at $7-10 million and this does not even include the dollars that would be lost from the fishery. Total receipts expected by the Forest Service from the Chuck River sale amount to less than $50,000 -- a pittance of the present value of the Chuck River.

Cutting to the edge of streams disrupts the natural balance of root wads, snags, and other woody debris essential to maintaining cover and habitat for juvenile salmonids. Clearcut areas on Prince of Wales Island have been sampled since timber operations were completed decades ago. These sampled areas show a lack of fish habitat and a resultant lack of fish due to the absence of small stream debris. Clearcutting to stream edges can also disrupt salmon migration and spawning when logs falling into streams create log jams, damage salmon spawning beds, or cause siltation which smothers eggs.

In June 1985, at a Congressional hearing dealing with below-cost timber sales the American Fisheries Society, a professional society of fishery biologists, addressed the problems of timber harvest and fishery damage. Two major points that stood our were:

1. *Virtually every timber sale and subsequent harvest has adverse impact on fisheries resources.*
2. *The value of the public land fisheries resources impacted by timber sales is very great and indeed can be far greater than the value of the timber.*

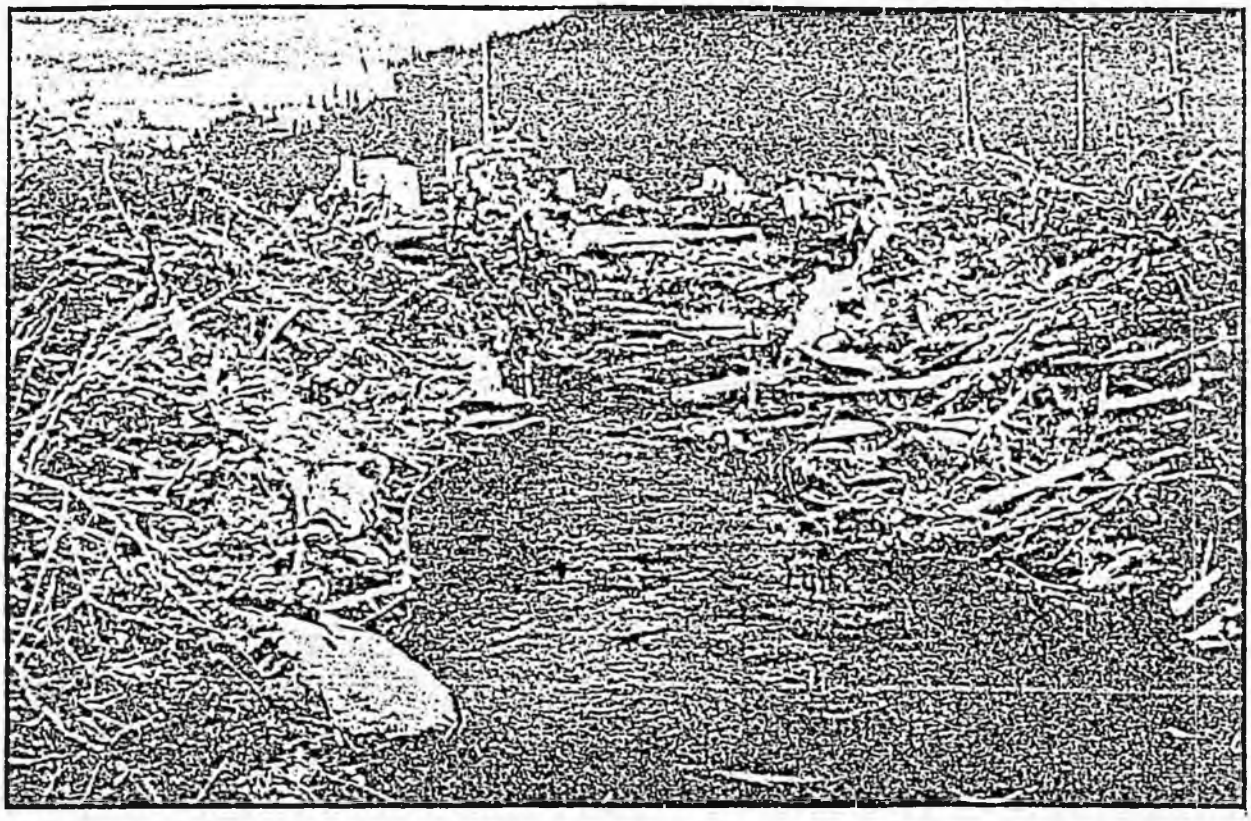
Unfortunately, plans that will damage important fish habitat areas in the Tongass are widespread. In addition to the Chuck River, other threatened systems include the Naha, Karta, Thorne, Castle, and Lisianski Rivers; the Outside Islands; and the many rivers within the Yakutat Forelands.

The State of Alaska has recognized the value of streams and has opted for 300 foot buffers on streams on the Haines State Forest. The Forest Service's own cooperative research shows that clearcuts with buffers may be adequate and/or beneficial to salmon production. Yet, the agency refuses to adopt a standard buffer policy or even implement its own Area Guide faithfully. The Forest Service is out of step with its own research and 300' buffers should be the rule.

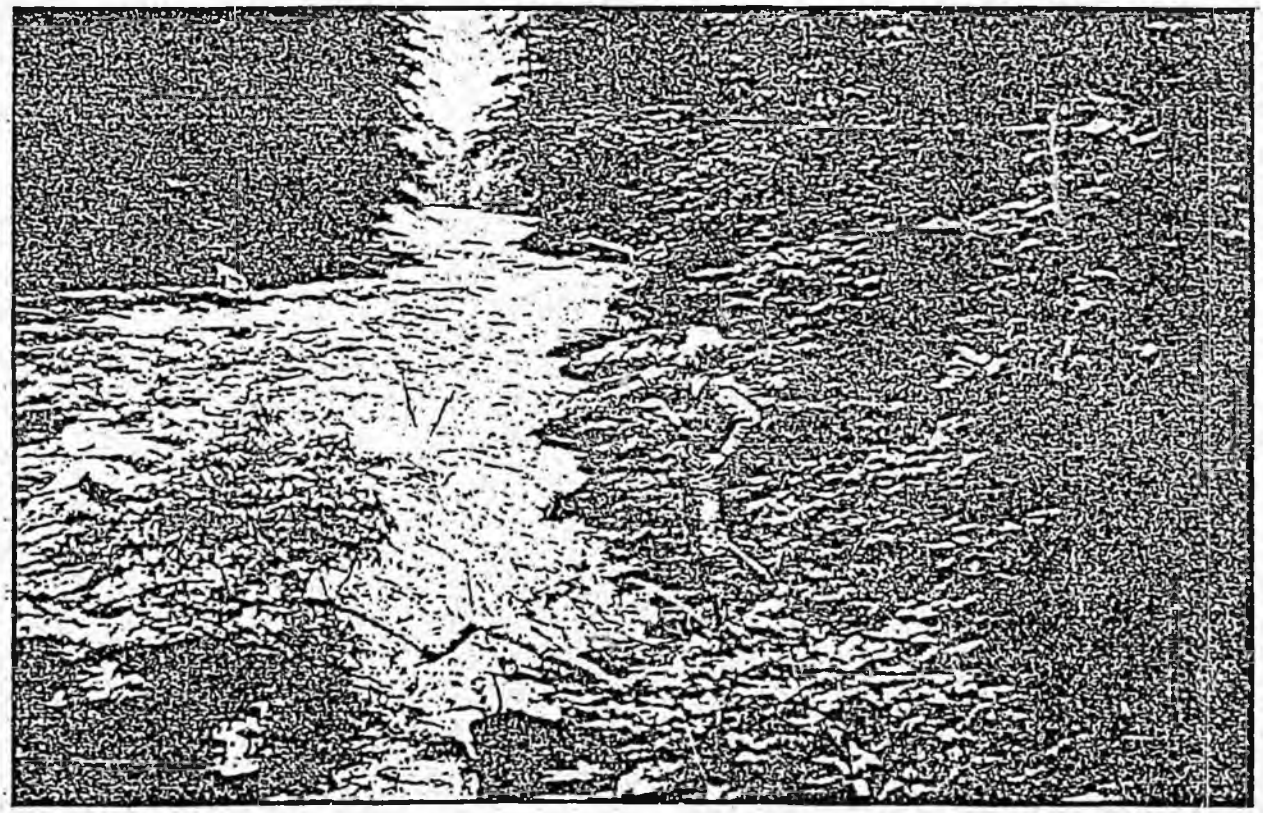
Naturally functioning river systems, undisturbed by roads or logging, remain the most reliable producers of salmon and other fish. Unimpaired streams, lakes, and estuaries must be left this way if the full potential of Alaska's rebuilding fisheries is ever to be reached and maintained. For such fish as the pink and coho salmon, a myriad of small streams cumulatively produce the bulk of the fishery. Each and every one of these small streams is important, with coho rearing streams being especially vulnerable. Further, every king and sockeye system is also at a premium, since these systems are relatively less common in southeast Alaska. Logging threatens these systems, large and small.

Log dumps and storage facilities have an adverse impact on the ocean or estuarine ecosystems they utilize. Crab, shellfish, herring, and other important fish resources are poisoned by toxic acids leached from accumulations of old barks, smothered by logging debris, or barred from spawning habitat by rock fill for log landings. The Environmental Protection Agency is currently studying this resource damage in an effort to formulate permits to help mitigate the impact of log dumps.

LOG STORAGE FACILITIES can adversely impact marine life such as crabs and shellfish utilizing the same area.

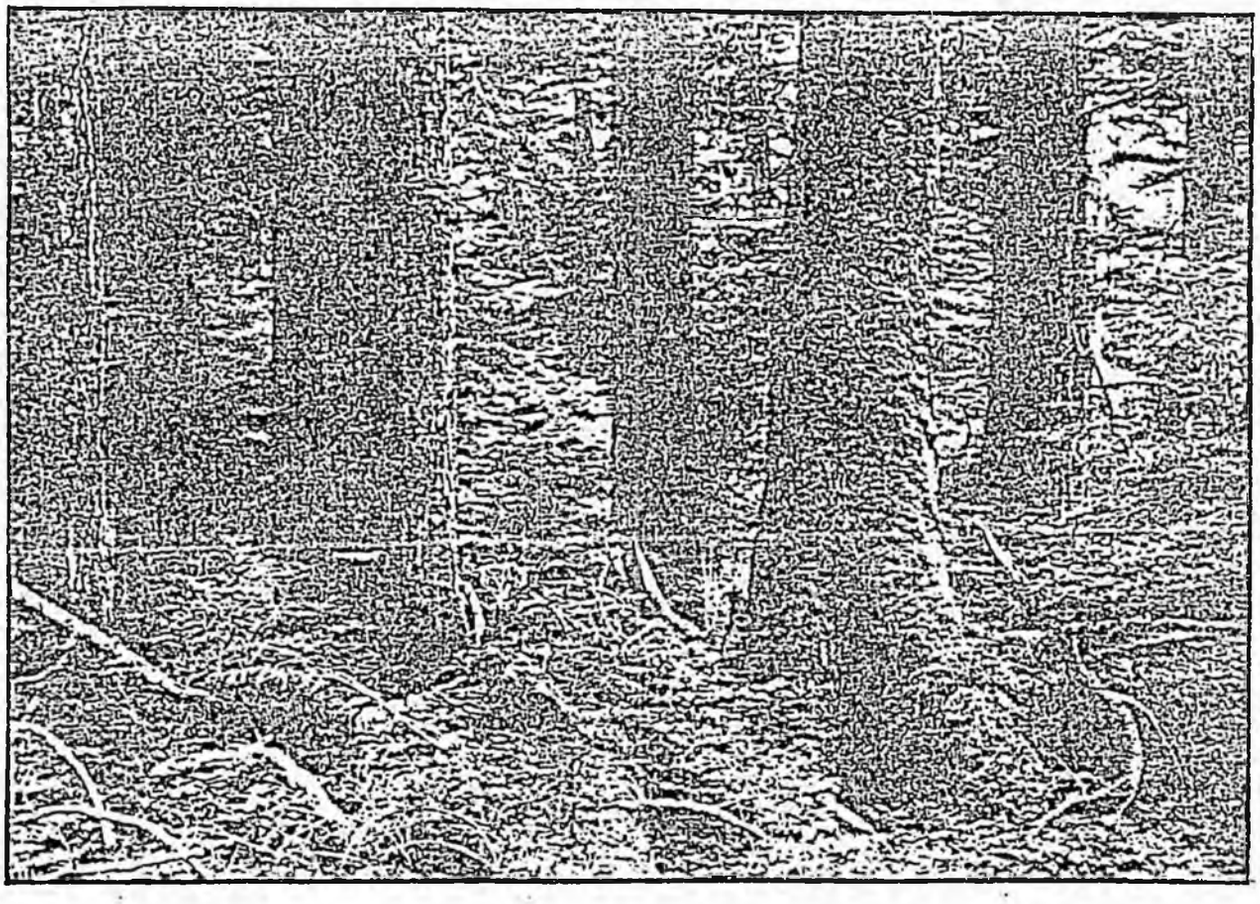


STREAM BUFFERS of at least 300 feet protect fish from lethal temperature extremes, siltation which smothers eggs, and debris which prevents salmon migration upstream.



C. OLD GROWTH AND WILDLANDS

1. Not Enough Old Growth Protected



Opponents to conservation in southeast Alaska, primarily the Forest Service and timber industry, often claim that over one-third of the Tongass National Forest was "locked up" in ANILCA, leaving the impression that vast commercial timber resources were lost forever from development. The facts do not bear this out. The Forest Service has stated that: 1) Wilderness and roadless area management designations provide direct benefit to wildlife, and 2) that Wilderness and roadless area designations will maintain a variety of natural habitat conditions for wildlife and fisheries over approximately 48% (8.2 million acres) of the Tongass. The first statement is accurate, but the second statement is misleading.

There is approximately 5.7 million acres of commercial forest land in the Tongass, and of that, only 1.6 million acres (28%) is in designated Wilderness. Of the 28% of Wilderness acreage that is considered capable commercial forest land, one-half is not considered suitable for timber harvest. Less than 10,000 acres of this Wilderness is prime value, high-volume old-growth timber which is also important wildlife habitat. Only 160,000 acres is over 30,000 board feet per acre and considered commercially valuable. These acres are also critical habitat. Fully three-quarters of the 5.4 million acres of officially designated Tongass Wilderness is non-forest land -- mostly rocky peaks, ice fields, muskeg, and battered coastline.

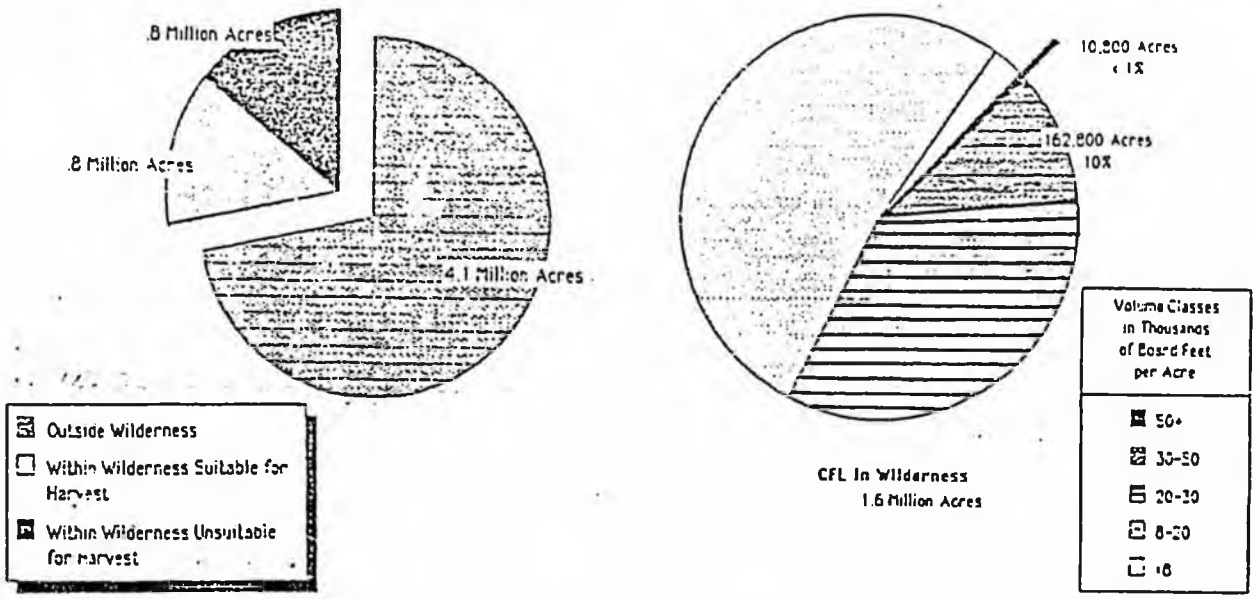


Figure F. Of the 5.7 million acres of Commercial Forest Land (CFL) on the Tongass National Forest, only 1.6 million acres are in Wilderness. CFL must contain at least 30,000 board feet/acre to be commercially important.

Clearly, most all the Wilderness designated in Southeast Alaska (with the exception of Admiralty Island and a few small watersheds) was land that developers did not want. It had little value in forest resources and is largely inaccessible. Even so, Admiralty Island is repeatedly cited as the example of locking up good timber. The best timber areas on Admiralty Island were cut prior to ANILCA and the island was not in either 50-year contract area for the two big mills, so its designation did not affect either mill. In fact, the Wilderness selections left the 2 mills virtually unscathed. In the few instances when they were affected, the acreage was later replaced via contract area acreage replacements and also with subsidies in the form of the TTSF.

The Forest Service, timber industry, and some others like to call the Tongass Timber Supply Fund a "wilderness subsidy." SEACC views the TTSF as a major federal payment to underwrite timber harvest activities on the Tongass, not as a subsidy to support the wilderness system. The 1985 TTSF allocation is for $53 million. There are nine line items for the fund that include timber sales preparation, timber stand improvement, road construction, engineering support, etc. There is no item listed as "payment for wilderness."

The lack of protection for old-growth forests was a major oversight in ANILCA. The Society of American Foresters stated that "the best way to manage for old growth is to conserve an adequate supply of present stands and leave them alone." The Alaska Chapter of the Wildlife Society stated that "old-growth forests are a rare and rapidly diminishing resource...The coastal forests of Alaska represent the last major expanse of old growth remaining in the U.S.... adequate old-growth habitat must be maintained for the present and future...." It is estimated that perhaps 100,000 acres of highest-volume old-growth stands remain in the Tongass, but these stands are being harvested at the highest rate of any volume class on the forest. They will not last long.

Old-growth timber, in high-volume stands, is best protected as wilderness. In this way, such stands are shielded from the pressure of high-grade logging and can continue to produce fish, wildlife, and other renewable resources. Rock and ice cannot serve this function. John Matthews, of the Alaska Department of Fish and Game, summed up the problem with Tongass wilderness areas saying, "If you can't grow timber there, you can't grow wildlife there either."

As described before, Tongass planners continue to road and log every available unprotected roadless drainage at a rate far beyond demand, far beyond economic justification, even far beyond TLMP's original goals. The 20,000 acres of timber offered annually, 300 miles of road built per year, and construction of interlocking segments of an overall transportation network threaten those few remaining roadless Tongass drainages -- most of which continue to provide all wilderness related values despite their lack of formal protection. As one Tongass Forest official freely admitted, "As far as we're concerned, if an area doesn't have a road in it or a [wilderness boundary] drawn around it, it's up for grabs" until TLMP is revised in 1989. Since 1979, 25% of the roadless lands in LUD IIIs and 30% in LUD IVs have been developed. If this rate continues, all the unprotected roadless land will be developed in just 20 years (by 1999). It would be far wiser, and certainly more cost-effective, to halt this onslaught now and preserve the option of adding more wilderness to the Tongass if it is needed in the future.

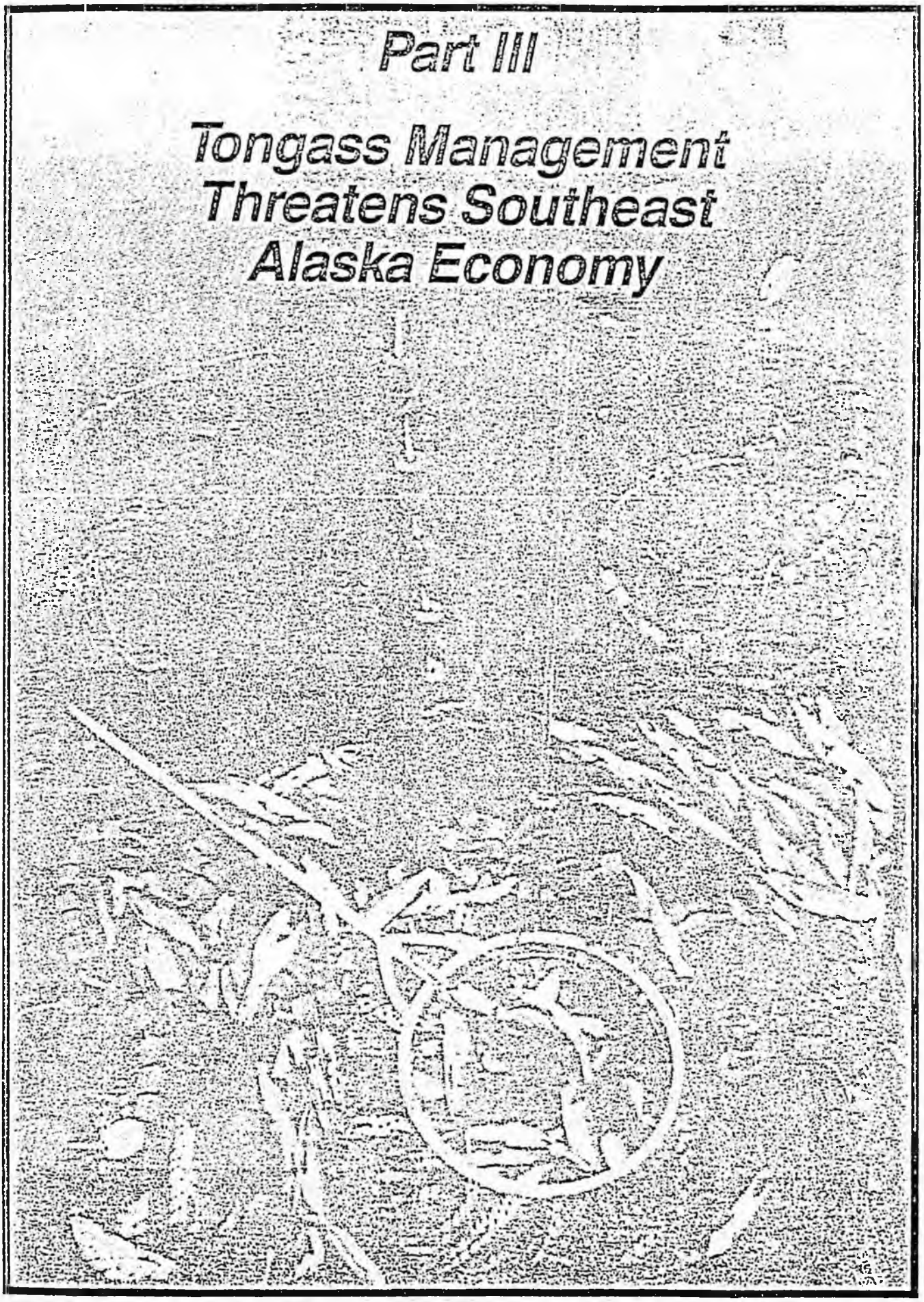
2. Protecting Old Growth and Wildlands Makes Economic Sense

Beyond its value as vitally important fish and wildlife habitat, Tongass Wilderness is also an invaluable asset in other ways to Southeast Alaska and the nation. It is ideal habitat for a variety of thriving populations of fish and game species. It makes possible the subsistence uses of these areas, and allows sport hunting and fishing. Wilderness with its undisturbed watersheds provides the critical spawning and rearing areas for fisheries which maintain the commercial fishing industry year after year. Wilderness provides the resources that support a growing tourism and recreation industry. It preserves clean air and clean water. When you leave the land as it is, in a natural state, the benefits are numerous and perpetual. Management of national forest lands in Wilderness is also extremely cost effective, particularly in Alaska. It should be noted that Alaska Wilderness Areas are managed as directed by the 1964 Wilderness Act, as amended by ANILCA, which specifically authorizes certain activities. This includes provisions for subsistence use; for public recreaton cabins; for certain fish habitat enhancement activities; and for use of airplanes, motorboats, and snow machines.

In development of Alaska's Chugach National Forest Land Management Plan in 1984, Chugach planners discovered that by following NFMA procedures and using Forest Service value comparison figures, their computer programs showed the highest value for the Chugach Forest would be produced by managing every presently roadless area as wilderness. This was no mistake, for Alaska forest lands have negative values for timber production and other intensive developments. In contrast, wilderness management enhances the highest revenue producing aspects of Alaska's forest resources -- fish, wildlife, recreation, and tourism. Of course, Chugach planners rejected their own figures on the basis of pre-conceived notions about the proper role of timber management in Alaska's forests. Not suprisingly, Tongass planners have steadfastly refused to perform similar NFMA required economic analyses.

Part III

Tongass Management Threatens Southeast Alaska Economy



Previous page: 80-85% of the salmon harvested in Southeast Alaska are SPAWNED AND REARED IN TONGASS NATIONAL FOREST WATERSHEDS. The future of Southeast's commercial and subsistence fishing is directly dependent on the wise management of Tongass forest resources.

III. *TONGASS MANAGEMENT THREATENS SOUTHEAST ALASKA ECONOMY*

A. SEARCH FOR LONG-TERM ECONOMIC STABILITY

The economy of Southeast Alaska, like any frontier area, has always suffered from spectacular booms and busts, wild fluctuations in economic activity. Each boom has been a result of discovery and short exploitation of valuable resources with a concurrent lack of incentive for slower, long-term development. First came Russian fur traders, who overharvested this resource and sent the profits back to Russia. Next came gold miners, who made and lost fortunes over periods as short as a few months, then returned to where they had travelled from. Fish canneries from Oregon and Washington over-exploited and nearly destroyed Alaska's salmon stocks in the 1950s.

Alaska's first territorial governor, Alfred P. Swineford, warned in 1888 that if resource exploitation was allowed "Alaska would be...nothing more than a national fat goose left unprotected and to be annually plucked of its valuable plumage by non-resident corporations." Nearly one hundred years later, Swineford's words still ring hauntingly true. Today it is the large-scale logging companies' turn to cut and run, plucking the wealth from Alaska's Tongass National Forest.

This exploitation is especially sad, since this latest round of exploitation and short-term planning endangers other healthy, stable, and growing sectors of the Southeast Alaska economy which have become new economic mainstays. When you exploit a resource, you exploit the people, as well.

Most Southeast Alaska towns and villages are directly dependent upon the Tongass National Forest for community stability. Maintaining this stability is extremely important. Rather than being dependent upon the commercial timber resource, many of these communities are instead directly dependent upon the renewable fish and wildlife and other subsistence resources for the maintenance of community stability. The long-term stability for these many communities is thus undermined by the exploitation of the Tongass' timber resources.

Southeast's sustainable industries must survive and grow if Alaska's economy is ever going to break the boom and bust cycle and move into a post-frontier economic realm. These threatened industries include commercial fishing, hunting and guiding, tourism, wilderness outfitting, and subsistence. While not technically an industry, subsistence use of fish and wildlife resources is a primary economic element in the lives of many Southeast Alaskans and supports people outside of the cash-based economy. In addition, Native timber harvest is being stifled by current Tongass management policies.

B. TIMBER MINING THE TONGASS

1. Timber Mining: A Short Term Industry

The Tongass timber resource is being managed as a non-renewable resource. This is timber mining -- the permanent removal of old-growth trees. Only 4% of the Tongass (635,000 acres) contains high-volume, commercially valuable timber. All of this is old growth. The present Tongass timber program of cutting the highest value timber stands first (high-grading), threatens these commercial timber lands with virtual exhaustion in just a few decades. The present rate of clearcutting is 200,000 acres per decade. At this harvest rate, and with the continuance of high-grading, all that will remain will be low-volume, scattered timber stands known in logger's parlance as "junk." The situation is very critical for highest grade spruce and cedar logs.

When the high-volume, economically valuable timber is gone and only the junk timber is left, no timber harvest will be worthwhile. Even now, with mostly valuable high-volume timber being sold, timber operators continually lose money. Since ANILCA, APC has claimed over $150 million in losses despite the massive federal subsidies it has received as a result of the Act. The Forest Service has already slashed virtually all timber purchaser costs it can legally eliminate, but nothing helps. Even the Chief of the Forest Service pointed out last year that the Forest Service could cut Tongass timber itself, haul the timber out of the woods, barge it to the timber mills for free, and the companies would still lose money. Clearly, something basic is wrong with such a market.

A large part of the problem is that world markets for pulp are slowly shrinking and new mills are able to out-compete Alaska's mills. Long-term economic prospects for Alaskan timber markets are bad. The Forest Service predicts that "unless a major new market can be found for Southeast Alaska's pulp and/or its pulp grade logs, a long-term decline in Alaska's timber industry is anticipated, even with a short-term improvement in its pulp markets."

Another part of the economic problem is a timber management program inappropriate for Southeast Alaska. Small-scale logging occurred on the Tongass for many years before the introduction of the large pulp mills. These small-scale loggers cut selectively, taking only a few large, old-growth spruce trees at a time, basically leaving the lower value hemlock trees in place. There were some scattered small clearcuts around the forest during the 1920's and 1940's.

With the advent of the large pulp mills and large-scale logging, however, extensive clearcutting became the standard Tongass timber harvest technique. Although it is the cheapest way to take large amounts of logs from the woods, clearcutting harvests both the low-value and high-value species of trees. Tongass hemlock, being worth far less than logging costs, lowers the overall value of the clearcut, resulting in increased pressures to harvest the most valuable timber stands now and not later. This is why the Tongass is currently being high-graded.

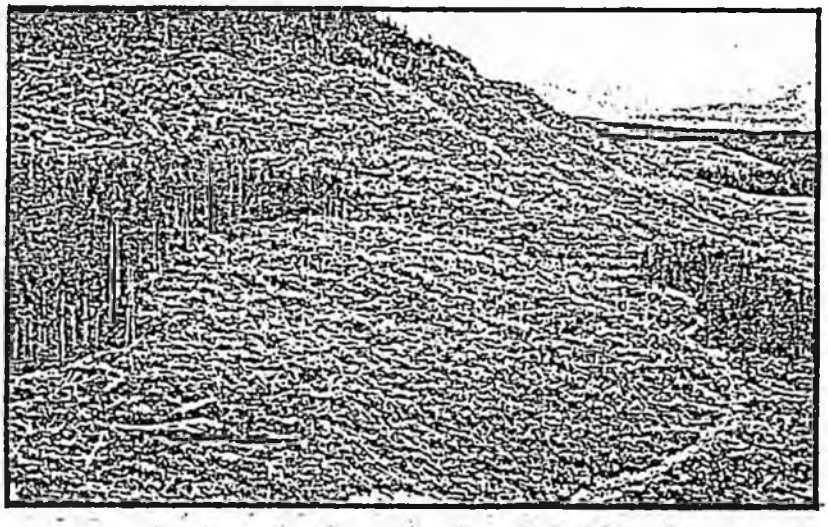
2. Second Growth: An Economic Fallacy

In Alaska, with high harvest costs and slow growing timber, only large, very old trees are worth cutting at all. Within the next hundred years over two million acres of the Tongass will be clearcut, and the smaller, shorter, "second growth" timber growing in these clearcuts will not be commercially valuable. The practice of 100-year timber "rotations" needs a closer look in Alaska since there is no forseeable market for the next generation of 90-110 year old trees.

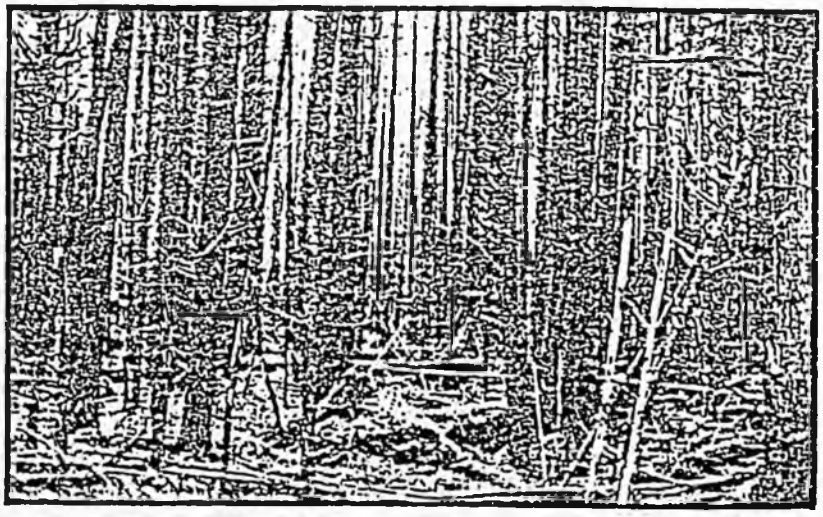
While nobody can say for sure, the future of Alaska logging looks grim if present clearcutting and high-grading continues. The Alaska Department of Revenue studied this problem and stated that:

> *The logging of old growth is a mining operation. Timber in Alaska means coastal old growth. And old growth is not a renewable resource. There is no reasonable possibility of a second growth industry in Alaska.*

Time is quickly running out for creation of any reasonable, stable, sustained yield timber industry in Southeast Alaska. The Forest Service is doing nothing to solve this problem, or hasten the creation of such an industry.



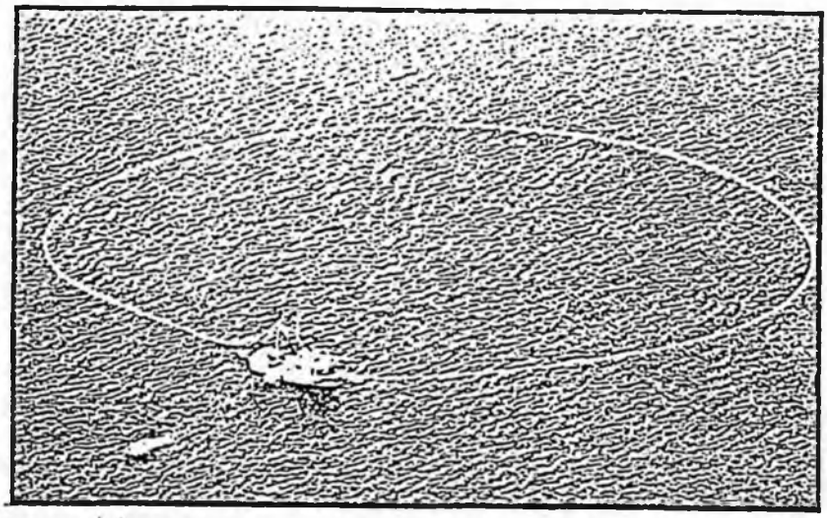
Left: FOREST SERVICE POLICY -- take the best first, when that's gone log the best of the rest.

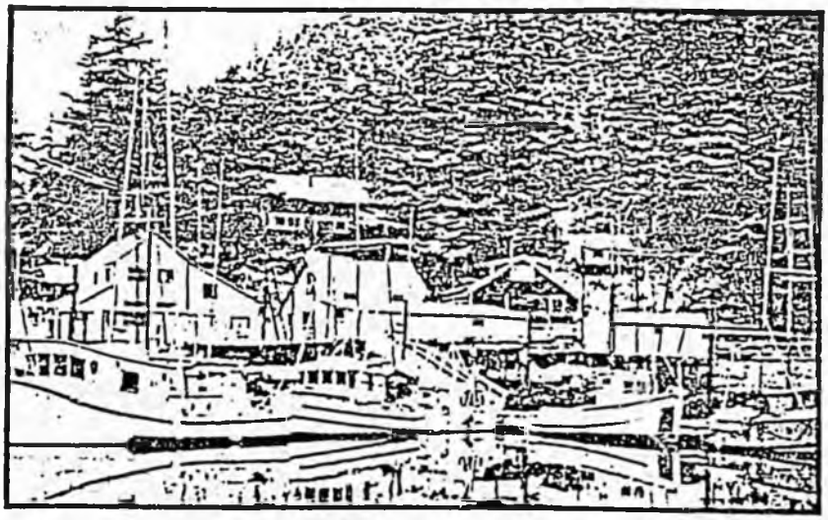


Right: 75 YEAR OLD SECOND GROWTH. The Forest Service claims these small trees will be commercially valuable in 25 more years.

Left: Hauling in nets. A $160 million per year industry, COMMERCIAL FISHING PROVIDES JOBS for thousands of Alaskans.

Right: Purse Seining. COMMERCIAL FISHING has proven to be a truly RENEWABLE and SUSTAINABLE INDUSTRY.





Left: FISHING is the ECONOMIC MAINSTAY for the residents of the community of Elfin Cove. (Photo by Margaret Piggot)

C. COMMERCIAL FISHING INDUSTRY THREATENED

Alaska's commercial fishing industry is on a strong rebound from the 1950's. The incredible wealth of the Alaskan salmon fisheries is not that well-known. A commonly overlooked fact is that the riches derived from Southeast's gold mines, riches that have become part of Alaska's folklore, were dwarfed by the value of salmon catches during that same period -- catches which brought ten times more revenue than gold.

Salmon catches peaked around 1940, with the all-time high catch for any single year of 67.8 million fish in 1941. Catches then began falling steadily to a low of just 7 million fish in 1967. Like so many assumptions on which TLMP was based, the Forest Service wrongly believed in 1979 that salmon stocks would not recover to previous levels. Through diligent fish management and careful control of harvest, the Alaska Department of Fish and Game has quickly proven this assumption to be wrong. In 1983, 40.4 million salmon were caught in Southeast Alaska. In 1985, 44 million pink salmon alone were caught, the fourth best pink salmon year on record and best year since 1949. Experts now agree that a sustainable average annual catch of 46.0 million salmon can serve as a reasonable goal for the rest of this century.

In terms of jobs, this fish harvest directly employed an average of 3,225 people a year between 1979-1983. This is more jobs than provided by the timber industry. Recent fishing employment figures are also undoubtedly higher. Since passage of ANILCA, commercial fishing has proven itself to be an industry that is renewable and sustainable not only in theory, but in practice. The commercial fishing industry in Southeast Alaska is now a $160 million per year industry, with very little investment by the federal government.

The timber industry likes to claim that logging has had no negative effect on fisheries since record catches have occured during recent periods of heavy logging activity. This claim is very misleading. The fact is that the recent upswings in salmon production are the result of years of improved and more precise management practices of fish stocks and the regulation of the fishing fleet by the State of Alaska. Warm winters for the last several years and reductions in high seas interceptions also contributed greatly to increasing salmon production. The State's improved management strategies, initiated at a time of low salmon population, have been effective enough to counteract the negative effects of logging that cause loss of production as a result of stream habitat degradation. Salmon catches would be even higher if key fisheries on Prince of Wales Island, off Peril Strait, and in other areas had not been damaged by logging.

As explained, logging threatens fish habitat, which in turn threatens the commercial fishing industry. The Forest Service itself states that 80-85% of the salmon harvested in Southeast Alaska are spawned and reared in watersheds within the Tongass National Forest. There is no way that the agency's promise of full protection of the biological potential of fisheries habitats in the non-wilderness areas can be fulfilled where clearcut logging occurs. The two are mutually exclusive. The most recent example is the Lisianski River, one of the top five salmon producers in Southeast Alaska. The Forest Service plans to allow APC to devastate this fishery with clearcuts and roads right along the river's banks.

Southeast Economy Threatened

Current logging plans target important fisheries like the Chuck, Lisianski, and Kadashan Rivers; the river systems of the Yakutat Forelands; and others. Many fishermen see the demise of their livelihood at the hands of the Forest Service's nonrenewable and destructive timber program. Timber in a particular area is harvested just once. The value of the fish produced by a particular drainage, probably in all cases, vastly exceeds the value of the timber, especially when considered over a 100 year rotation. We cannot risk the loss of Southeast's valuable fisheries for a questionable short-term timber harvest gain. Given the success story commercial fishing presents in the Southeast Alaska economy, such a loss would be tragic.

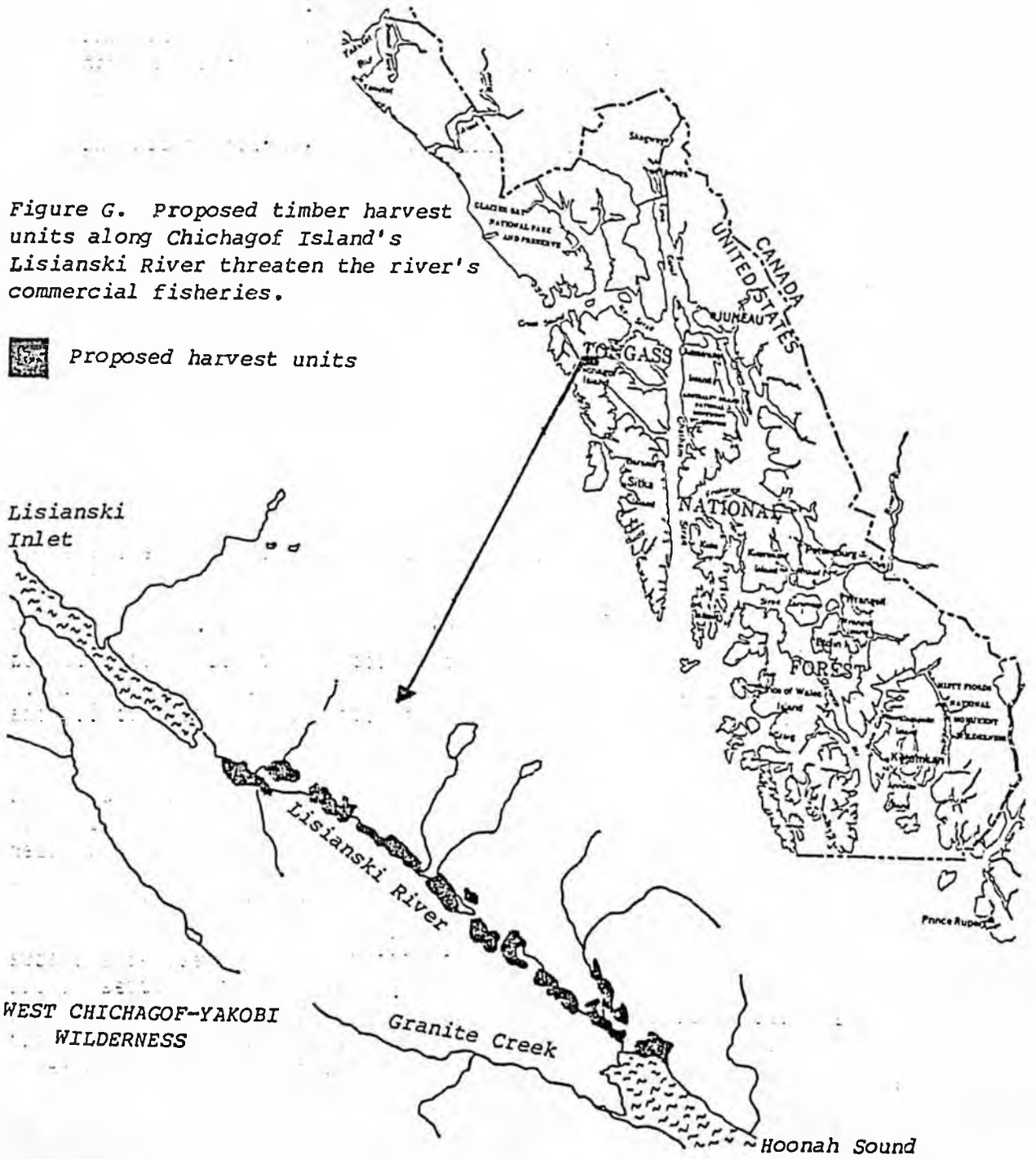
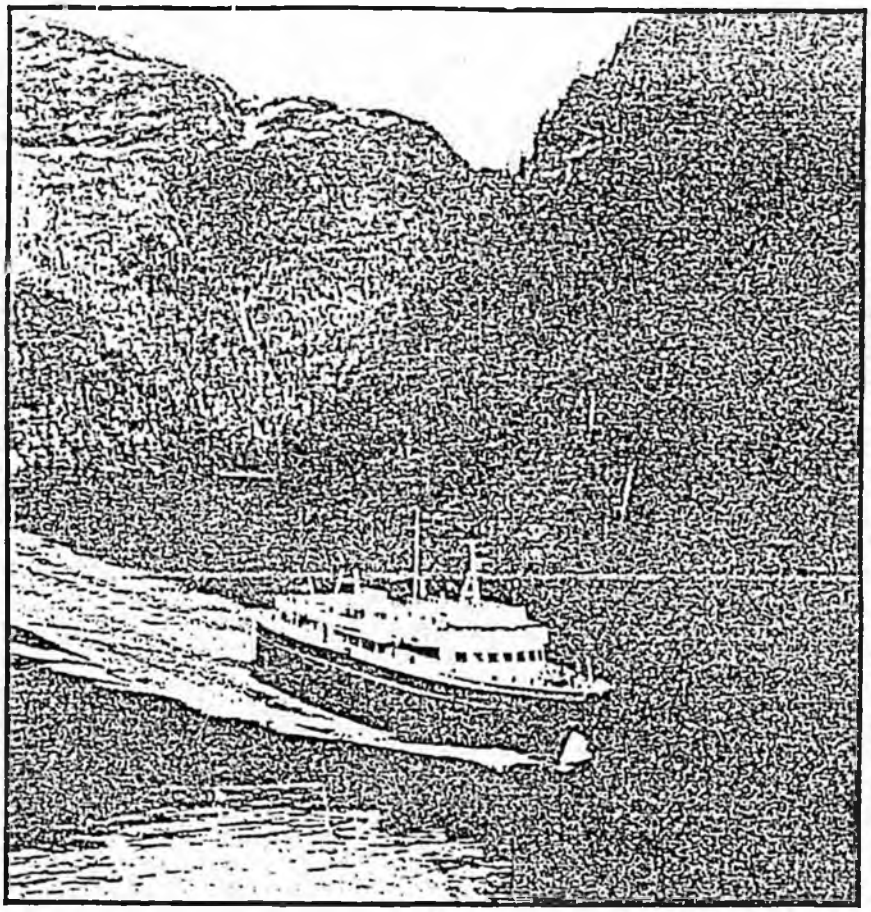


Figure G. Proposed timber harvest units along Chichagof Island's Lisianski River threaten the river's commercial fisheries.

Proposed harvest units

D. TOURISM INDUSTRY THREATENED



(Photo by AK Division of Tourism)

According to economic planners, tourism is the only primary industry in Alaska expected to show major growth in the 1980's. As with commercial fishing, general recognition of the importance of tourism has increased markedly since passage of ANILCA. In 1984, Alaska Governor Bill Sheffield declared that "Alaska's natural beauty is one of our great treasures and tourism is Alaska's most renewable resource." TLMP virtually ignored this aspect of the Southeast Alaska economy.

Since 1959, tourism has averaged an annual growth rate of between 7-10%. This incredible growth rate has carried tourism right to the forefront of Alaska's industries. Southeast Alaska is the beneficiary of much of this tourism. From 1975 to 1983, there was a 47% increase in cruise ships visiting Southeast Alaska and a 61% increase in the visitor capacity of those ships. The number of sightseeing flights over Misty Fjords National Monument was practically insignificant before 1979, but 7000 of these flights were made in 1984.

Employment created by the 185,000 tourists visiting Southeast Alaska in 1983 exceeded 2,600 full-time jobs. Again, this is more jobs than provided by the timber industry. The figures for tourism employment grow significantly each year.

The Forest Service itself has recognized that recreational use of the Tongass increased by 85% between 1980 and 1985, and that "opportunities of the kind Southeast Alaska offers are not available anywhere else in the United States." But the agency is doing little or nothing to protect the unique wilderness landscapes of the Tongass which attract tourists and provide such outstanding recreational opportunities. Tongass logging poses the biggest potential threat to tourism in Southeast Alaska.

Henry Gannett, a director of the U.S. Geological Survey and a member of the Harriman Alaska Expedition in 1899, truly understood the lasting importance of scenery to Alaska's economic future. In 1901, National Geographic magazine printed his essay which said in part:

> *The Alaska coast is to become the show place of the earth and pilgrims, not only form the U.S., but from beyond the seas, will throng in endless procession to see it....The econommic value of Alaska's grandeur... measured by direct returns in money received from tourists, will be enormous....Scenery is more valuable than the gold or the fish or the timber, for it will never be exhausted.*

Tourism is a sustainable, growing major industry and it is non-consumptive. Unless violation and destruction of natural landscapes is controlled, tourism cannot be assured of a resource base on which to depend. As the world becomes more developed, altered and urbanized, pristine places like Tongass roadless and wilderness lands become more exceptional and continue to appreciate in value.

E. SUBSISTENCE ECONOMY THREATENED

What Congress gave Alaska with one hand in the subsistence provision of Title VIII of ANILCA, it may be taking away with the other in Title VII. Title VIII provided for protection of the Native and rural subsistence economy. It was a pioneering provision which recognized the unique relationship between Alaskans and the land and it attempted to ensure the continuation of that relationship. Through Title VIII rural residents were also to have a meaningful role in the management of fish and wildlife and of subsistence uses on the public lands. But the Tongass logging program, fueled in great part by Title VII's TTSF provision, now threatens destruction of the subsistence economy, and has consistently thwarted participation of rural Southeast residents in land use decisions.

Since human beings first came to Alaska, they lived in small, dispersed communities and depended on hunting, fishing, and gathering not only for their needs and materials, but also for their social identity and well-being. Today, hunting, fishing, and gathering are still a major focus of the rural way of life in Alaska. This applies to Native Alaskans as well as non-Native rural residents. Providing for personal survival and the survival of others enables subsistence users to incorporate cash-based transactions into a traditional social setting, and to thereby slowly integrate modern ways into older cultural values. The sharing of subsistence foods still plays a major role in rural cultural life, as it has always done. Furthermore, subsistence provides a measure of independence and freedom to some users that is uniquely Alaskan.

Primary subsistence foods in rural Southeast Alaska are deer and salmon, which comprise nearly 60% of the local food consumed in the region, according to the U.S. Fish and Wildlife Service. Other important subsistence foods include halibut, shellfish, and other marine life. As explained previously, deer and salmon are directly threatened by the adverse impacts of logging. Further, extensive road building in traditional hunting and fishing areas increases pressure on fish and wildlife resources, often resulting in restriction on seasons or limits. Finally, shellfish and other marine life are adversely impacted by log transfer facilities, which often poison the water of the coves and bays in which they are located.

The Forest Service has blinded itself to the impacts of its logging activities on subsistence, especially the cumulative impacts over the entire Southeast Alaska region. Over and over again, without the benefit of detailed study or even rudimentary research efforts, the agency has maintained that logging does not have significant impact on subsistence. SEACC has appealed the LPK 5-year plan because of impacts on subsistence. Regional subsistence impacts are a major concern with the current APC 5-year plan, as well.

The Forest Service also continually attempts to avoid its duties as manager and responsible agency for subsistence use on Forest Service lands, abdicating this role instead to the Alaska Department of Fish and Game, which manages the fish and game resources, but not the vital fish and game habitat. The Southeast Alaska Regional Council of Fish and Game Advisory Committees has addressed this issue and has found that all of it's 19 Advisory Committees from communities throughout the region unanimously agree that "the 4.5 billion board feet per decade taken through clearcut logging practices...will have devastating results on the fish and game resources that Alaskans depend upon." Protection of Southeast's subsistence dependent rural communities must be undertaken before it is too late. If subsistence is lost, Alaska will be changed forever.

Dip net fishing. SUBSISTENCE HARVEST of fish and wildlife resources is a way of life for many Southeast Alaskans.

F. NATIVE TIMBER INDUSTRY STIFLED

When ANILCA was being finalized in 1980, conveyances of Tongass National Forest lands to Native corporations amounted to less than 4,000 acres of the 572,520 acres to which they were entitled under the terms of the Alaska Native Claims Settlement Act (ANCSA). By 1984, a total of 465,152 acres had been conveyed.

Since 1980 the production of timber from Native corporation lands has grown from non-existence to a full 47% of the total regional harvest. Native timber enterprises in Southeast Alaska produced an average annual harvest of 214 MMBF during the years 1982 through 1984. The Forest Service currently estimates that future private harvests will range from 225 MMBF to 350 MMBF.

The highest quality Native cut logs are exported to Japan. The primary market for Native pulp quality wood is the two local pulp mills. That market has been hindered by a pulp oversupply from federal, state, and private lands, and from British Columbia.

Native corporations claim they could provide a steady supply of pulp logs to the local mills. Native corporations have exported a small amount of pulp logs and have left in the woods as much as 20% of the timber volume in their harvest areas. Native land timber operators cannot recover operating costs on the sale of smaller pulp quality logs, so they often leave this timber. This unmarketable wood is not only a deteriorating or wasted asset, but the overall cost of production is significantly increased when the highest quality timber alone has to pay for an entire logging operation.

While felled Native pulp logs rot on the ground for want of a market, the Forest Service subsidizes high levels of Tongass clearcutting to supply pulp wood for the mills in Sitka and Ketchikan. The Forest Service subsidy is one big reason the Native corporations have trouble selling pulp quality logs.

In today's view, the TTSF definitely favors the APC and LPK mills over Native Corporations. To make matters worse, the 50-year contracts add the burden of unfair competition and limit the Native corporations' options. The biggest losers, though, are fish and wildlife habitat, and all who depend upon it.

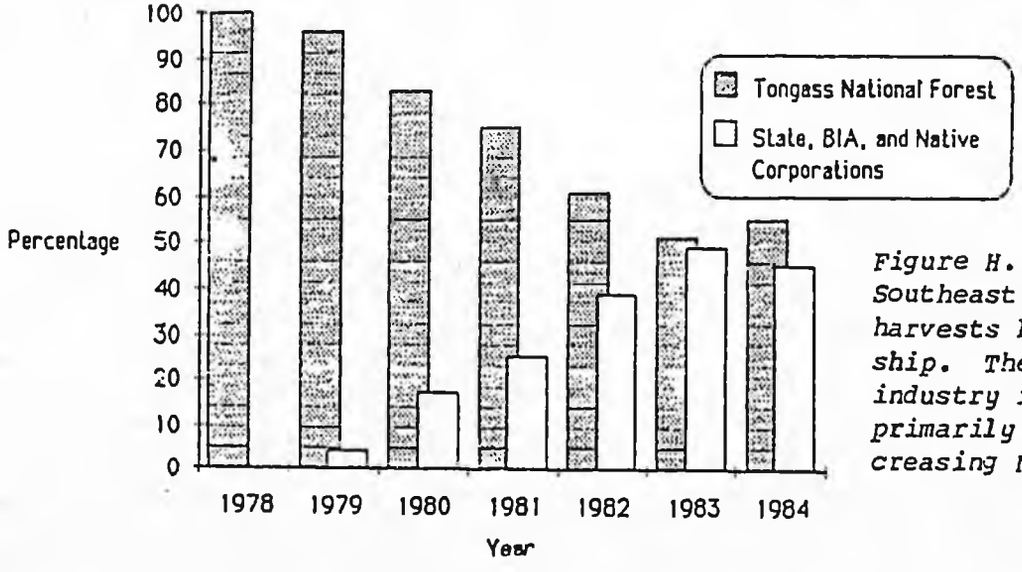


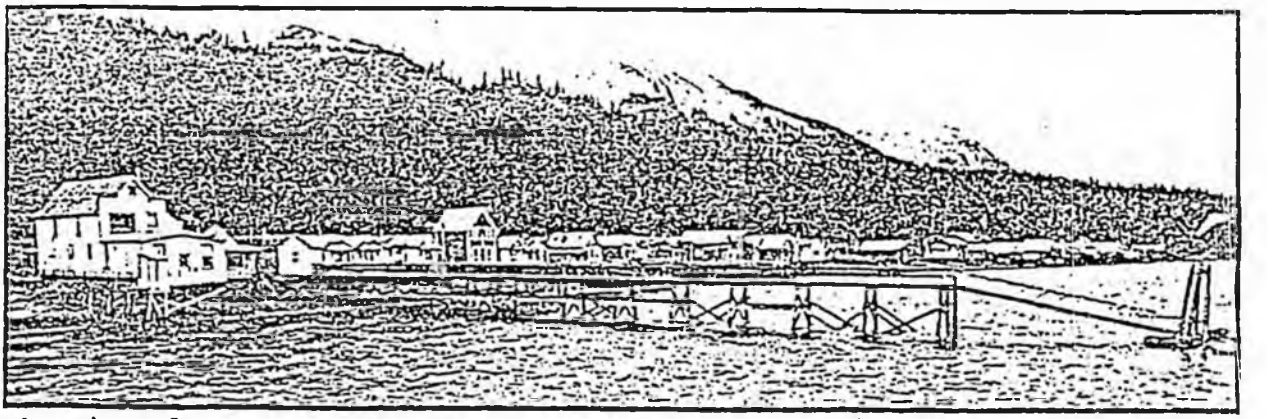
Figure H. Percent of Southeast Alaska timber harvests by land ownership. The timber industry is changing, primarily due to increasing Native harvest.

Part IV

Southeast Alaskans Oppose Tongass Timber Management

Previous Page: Current Tongass timber management impacts the livelihood of ALL Southeast residents.

IV. *SOUTHEAST ALASKANS OPPOSE TONGASS TIMBER MANAGEMENT*



The city of TENAKEE SPRINGS OPPOSES current Tongass timber management program.

The Forest Service is running into increasing opposition to its logging programs. While the debate over logging truly split Southeast Alaska during Congressional consideration of ANILCA, times have dramatically changed. Now, it is increasingly difficult to find a segment of the public, other than the two pulp mills (APC and LPK) and their subsidiaries, willing to defend the Tongass timber program.

For example, in response to Forest Service solicitation of public comments on alternatives for APC's 1986-1990 logging operations, the overwhelming majority of public comments supported either the alternative of no further logging or the alternative proposed by SEACC which protected many important areas.

Individual communities have also begun to take matters into their own hands. The towns of Yakutat, Elfin Cove, Pelican, Port Alexander, Tenakee Springs, Point Baker, Port Protection, and Edna Bay have passed resolutions opposing the current Tongass logging program, especially the 4.5 billion board feet per decade language of Section 705. The town of Hoonah has formulated its own, scaled-down plans for nearby APC logging operations. Hoonah's plans are aimed at protecting subsistence and providing a more even flow of timber than either of APC's or the Forest Service's cut and run alternatives. Public meetings in Juneau and Petersburg have presented the Forest Service with very strong public opposition to timber sales in Berners Bay and the Chuck River.

Finally, SEACC has travelled to towns all over Southeast Alaska collecting a list of critical areas which citizens would like to see deferred from logging. Over 100 areas can be found on this list, which was submitted to the Forest Service for the TLMP amendment process. To date, it is unknown if the Forest Service will protect these critical areas.

The State of Alaska has also requested measures to protect critical wildlife habitat in the national forests. In 1983, the Alaska Department of Fish and Game submitted to the Forest Service a list of critical areas integral to the maintenance of fish and wildlife populations on the Tongass. This Forest Habitat Integrity Program proposed to defer from harvest a mere 8% of Tongass lands now open to logging. It is also unknown at this time when, if ever, the Forest Service will address this proposal, but many areas in the State's deferral program have already been slated for logging or roading. Of 68 high value fish and wildlife habitat areas, at least 20 of these key habitats have

been or are planned to be developed by Forest Service plans, including Berners Bay, the Yakutat Forelands, and Kadashan.

Even some Forest Service officials are voicing concern from within the agency. These dedicated professionals have taken a risky stance, since criticism of policy is not rewarded in the Forest Service bureaucracy. But they have come forward in the hope that "maybe this will do some good." One such Forest Service official stated, "The only thing I can say about the 450 million board foot cut is that the timber is not there [to sustain that level of harvest]. Everybody knows it, but the Forest Service won't admit it publicly." Another official explaining the pressure applied to meet this unreasonable harvest schedule said, "We're cutting the best timber and having a harder and harder time meeting the cut....[our district ranger] gets his marching orders to cut trees, and if he doesn't he'll be walking down the road kicking a can." A third official expressed "severe reservations that we can sustain 450 MMBF a year. The trade-offs between timber management and wildlife will be very tough...." But even these officials are just voices in the wilderness, as the Forest Service hierarchy is not listening to its own people, either.

The Forest Service has become so entrenched in its logging mandate mentality that public pleas have fallen on deaf ears. The agency is ignoring dynamically changing times and changing situations. Despite the fact that TLMP's assumptions about the health of APC and LPK, about the magnitude of Native logging operations, and about the environmental impacts of logging have all turned out to be very wrong, the agency steadfastly refuses to re-assess its logging program. The mandate imagined in ANILCA Section 705 is serving as an excuse for this behavior, the TTSF funds this behavior, the big pulp mills encourage this behavior, and TLMP does nothing to correct this behavior.

Recently, concerned citizens have had no choice but to resort to the courts for help. The City of Tenakee Springs, a small community on Chichagof Island, and SEACC sued the Forest Service in 1983 over construction of a logging road through the Kadashan River valley. On December 20, 1985, the Ninth Circuit Court of Appeals enjoined construction of the Kadashan road, finding the Forest Service's assessment of the project's environmental impacts to be "inadequate." For now, the important Kadashan watershed is protected.

In the summer of 1985, the Friends of Berners Bay (a Juneau ad hoc citizens organization), the Sierra Club, a local tour guiding company, and SEACC sued the Forest Service over plans to log and road Berners Bay, an outstanding recreation and wildlife area. The United States District Court for Alaska enjoined the Berners Bay project on August 26, 1985, again because of inadequate environmental analaysis. Together, the Kadashan and Berners Bay cases represent clear disapproval by the Courts of the Forest Service's inadequate environmental analysis process and a warning to the agency that it must reform its procedures. The impact of these rulings on the Forest Service is not yet known, but it appears to date that the agency is still refusing to change.

Given the intransigence of the Forest Service regarding its logging program, many more lawsuits can be expected in the future. Litigation, however, is expensive, time consuming, and ultimately a poor substitute for responsible resource management by the Forest Service. It is clearly time for Congress to step in and correct this rapidly degenerating situation.

Part V

Solving Tongass Timber Problems

Previous page: Winter snow blankets TONGASS OLD GROWTH.

V. SOLVING TONGASS TIMBER PROBLEMS

The Tongass today is in grave trouble. The Forest Service's chapters in the report will not tell you that. Nor will the timber industry chapter. But you have read our view of the situation. Look also at the State of Alaska's view, the fishing industry's view, and at the Native corporations' views. We believe it is time that something be done to correct the course Congress set for Southeast Alaska in 1980 through ANILCA. Today, this course is set for long-term disaster.

Much of the ANILCA debate over land allocation in Southeast Alaska revolved around maintaining employment levels at the 1970-76 historic average. During the formulation of TLMP in 1978-79, SEACC offered a balanced alternative management program that proposed protection of more lands than are currently included in formal Wilderness, yet still maintained timber employment levels at very close to historic levels. This was based upon a 375 MMBF cut by the Forest Service and a 150 MMBF cut on Native lands, for a total annual cut of 525 MMBF. As has been shown, the average Tongass harvest level has been far less, while Native cut has greatly increased and averaged 214 MMBF per year since 1982. The commercial fishing industry has increased steadily and tourism has grown dramatically. The protection of wildlands is proving to be of direct benefit to the region.

Today, the Forest Service's management of the Tongass shows us that more conservative timbering goals are essential to ensuring a positive future for Southeast Alaska. We believe Southeast needs a scaled down timber industry and a long-term management program to protect key fish and wildlife habitat and subsistence resources. This will provide for timber employment on a sustainable basis, but not harm more important industries.

SEACC recognizes that long-term employment in the timber industry should continue. However, far flung road building efforts and extensive cutting in scattered drainages must cease. We cannot support the funding for pre-roading and below-cost sales. These practices must be replaced by the thinning and harvesting of second-growth forests in areas that have already been logged, and by greatly lowering the harvest level of nonrenewable old-growth forests. The timber industry should be allowed to restructure itself in a free market, unfettered by distorting government subsidies.

As forest expert, Tom Barlow, pointed out:

> *Most of the virgin forest, especially high-volume areas, should remain unlogged for wildlife and fisheries protection. For Southeast, these untouched forest zones on federal lands will be even more important for habitat as timber harvesting proceeds on private Native holdings. This better future will not come without firm resolve and much hard work. On the course now so firmly set by Congress, the volume of timber cut in the ancient coastal rain forests will mount steadily and the number of acres being clearcut in Southeast will increase year by year. In a few short years most of the best of the world's rarest rain forest will be gone. And the American taxpayers will have paid handsomely to assure its passage to oblivion.*

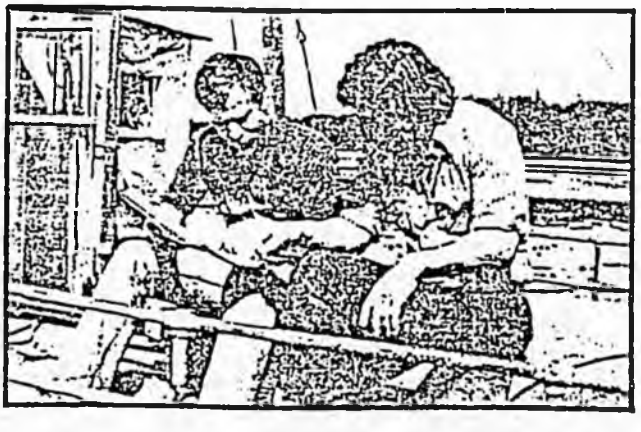
The ANILCA language that allows Forest Service mismanagement of the Tongass National Forest can be rewritten by wise Congressional decisions today. The timber industry that utilizes the public's Tongass trees does not need the present level of timber supply. In fact, the two big mills controlling the Tongass timber industry are the ones who also want to continue control of the supply since they benefit directly from timber subsidies.

We urge the Forest Service to look back at its long and proud heritage as a conservation agency. The legacy of the Tongass is certainly not a credit to the Forest Service. Even if the agency persists in interpreting ANILCA Section 705 as a mandate, the Chief has the opportunity and ability to petition Congress to grant the Forest Service relief by repealing the Section 705 Tongass Timber Supply Fund language.

It is also time to break the domination of the two large, controlling mills and their outdated 50-year contracts. First Chief Forester Giffort Pinchot's policy for dealing with corporations should be enacted upon. His words ring especially true in the case of these contracts, "In the administration of the forest reserves it must be clearly borne in mind that all land is to be devoted to its most productive use for the permanent good of the whole people and not for the temporary benefit of individuals or companies." The Forest Service has the authority to cancel these contracts, and if the agency will not act, Congress should void the contracts in the public interest.

Finally, we hope that Congress will ensure, to mandate if need be, immediate and full compliance by the Forest Service with NFMA and NEPA in the Tongass Land Management Plan. Only through implementation of planning reforms can the Tongass successfully guide its own path.

Left: STRIVING FOR SOLUTIONS to Tongass timber management problems, Southeast citizens review maps. (Photo by Skip Gray)



Right: STRIVING FOR SOLUTIONS, SEACC's executive director, Bart Koehler (right), meets with Angoon fisherman, Gordy Williams. (Photo by Julie Kelly)


Conclusion

Previous page: The late DR. OLOF C. WALLMO, a Forest Service research scientist, studied Sitka black-tailed deer in the old-growth forests of Southeast Alaska.

CONCLUSION

The Tongass is our last great rain forest. It is our nation's largest, most magnificent public forest reserve. It is also the most threatened. Nothing can ever re-create this old growth forest as we know it today. The sooner resource managers face up to that fact and start looking at the long term impacts on the forest, the better off the public forest resources and the public will be.

In 1982 at a conference in Oregon, biologist Dr. O.C. Wallmo addressed the ecological aspects of managing old growth forests throughout the Pacific Northwest:

> *Over large areas, thousands of acres, the old-growth forest offers a multifarious mosaic of plant and animal habitats. Centuries are required for the fullest expression of that complexity...The forests that were logged when Weyerhaeuser moved in will be entering the old-growth stage when your great-great-great-great-great-grandchildren are looking for a place to hike and camp and listen to bird songs...As a member of society who ponders the question of who and how many benefit from the decimation of natural resources, I think it is in the general interest to preserve the remaining old-growth forests.*

Incredibly, the Forest Service contends that Southeast Alaska has not changed dramatically from the days when John Muir first explored this region in 1879. But, the facts and the record do show dramatic impacts. The Tongass National Forest has experienced profound changes since Muir wrote this passage about a special Tongass island: "Wrangell Island...like all its neighbors, is densely forested down to the water's edge with trees that never seem to have suffered from thirst or fire or the axe of the lumberman in all their long century lives. Beneath soft, shady clouds, with abundance of rain, they flourish in wonderful strength and beauty to a good old age...." This is hardly the Wrangell Island we see today.

Look far across the Tongass. Look from the Alaska mainland to the distant Forelands of Yakutat and to the islands of Zarembo, Kuiu, Baranof, Chichagof, and Prince of Wales that lie in between. As you look across this forest, you will see that the Tongass is in trouble, threatened by a logging industry that does not fit in with the delicate balance and harmony of life in this region.

The forces of the earth that created this great forest are timeless. But it is not too late to stop the destruction of this land. Congress has the power to turn this troubled national forest around; to help build a lasting stable economy for all the people of Southeast Alaska; to end waste, fraud and abuse of public money and resources; to bring balanced multiple-use management to the Tongass; and to ensure maintenance of those uniquely Alaskan qualities that make up life on the last frontier. Now is the time for Congress to act to change the course of the Tongass National Forest for the long-term benefit of the American people.

SEACC's Recommendations

To bring balanced multiple use to the Tongass, SEACC respectfully urges Congress to adopt the following measures:

A. Repeal ANILCA Section 705, thus eliminating the Tongass Timber Supply Fund and references to a 4.5 billion board foot per decade supply goal.

This will force the Forest Service to be cost-effective and accountable. It will allow free markets and other important resource needs to set the harvest level. This will, in turn, stop needless construction of roads and other facilities in roadless areas and stop the subsidy of timber mining. A more responsible timber management program will result.

B. Cancel the 50-year contracts and replace them by competitive bidding and short-term sales, and repeal Sec. 1315(e) of ANILCA.

APC and LPK could still buy timber, but would no longer dominate other timber operators or other resources or the Forest Service. APC and LPK would only buy what they could utilize instead of banking timber. This measure would allow greater flexibility for land allocations, competitive bidding, and the protection of key habitat areas and subsistence resources. It would also ensure the survival and future of independent timber operations. Many independent timber operators believe that abolishing ANILCA Section 705 without cancelling the contracts will not help because the two big mills would then just take the entire allotment.

C. Order immediate full revision of TLMP to comply with NEPA and NFMA and re-establish the applicability of Section 6(K) of NFMA to the Tongass.

This would bring Tongass planning into the 1980's. It would give the public its rightful say over public lands, and it would force the Forest Service to be accountable, justify plans, and explain assumptions. This measure would also require the Forest Service to consider economic feasibility when planning timber sales, thereby reducing Tongass timber program losses.

STATE OF ALASKA

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OFFICE OF MANAGEMENT AND BUDGET
DIVISION OF GOVERNMENTAL COORDINATION

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October 3, 1985

Mr. Michael A. Barton
Regional Forester, Alaska Region
U.S. Department of Agriculture
Forest Service
P.O. Box 1628
Juneau, AK 99802

Dear Mr. Barton:

Enclosed for insertion in the 1985 report to Congress on the status of the Tongass National Forest are the VIEWS OF THE STATE OF ALASKA: THE EFFECTS OF THE ALASKA NATIONAL INTEREST LANDS CONSERVATION ACT AND ITS IMPLEMENTATION ON SOUTHEAST ALASKA. You have already received the State's page-specific comments resulting from its review of your July 19, 1985 draft report.

We appreciate the opportunity which Congress has given the State of Alaska and the others identified in ANILCA Section 706 (c) to participate in this important report. We also appreciate the efforts which you and your staff have made to keep us informed and involved in the process of report preparation. We look forward to reviewing the completed report which will contain the views of the other Section 706 (c) participants, and your summary findings and conclusions. Thank you for giving us this opportunity to review the implementation of ANILCA.

Sincerely,

Robert L. Grogan
Director

Enclosure

cc: Governor Bill Sheffield, Juneau
Senator Ted Stevens, Washington, DC
Senator Frank Murkowski, Washington, DC
Representative Don Young, Washington, DC
Commissioner Wunnicke, DNR, Juneau
Commissioner Collinsworth, DFG, Juneau
Commissioner Ross, DEC, Juneau

01-A35LII

cc continued: Commissioner Lounsbury, DCED, Juneau
Commissioner Nordale, Reveneu, Juneau
Commissioner Notti, DCRA, Juneau
Commissioner Robison, Labor, Juneau
Commissioner Knapp, DOTPF, Juneau
Attorney General Brown, Law, Juneau
John Katz, Special Counsel, Washington DC
Vernon R. Wiggins, Federal Co-Chairman, ALUC, Anchorage
Robert Loescher, Sealaska Corporation, Juneau
James F. Clark, Robertson, Monagle, Eastaugh, and Bradley, Juneau
Bart Koehler, SEAAC, Juneau
Cass Elliott, United Fishermen of Alaska, Juneau
Gordon Williams, Southeast Alaska Regional Fish and Game Council, Angoon

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VIEWS OF THE STATE OF ALASKA:

THE EFFECTS OF THE ALASKA NATIONAL INTEREST LANDS CONSERVATION ACT AND ITS IMPLEMENTATION ON SOUTHEAST ALASKA

Prepared in accordance with Section 706(b)
Alaska National Interest Lands Conservation Act of 1980,
P.L. 96-487

State of Alaska
October 1985

Juneau, Alaska

October 1985

VIEWS OF THE STATE OF ALASKA:

THE EFFECTS OF ANILCA AND ITS IMPLEMENTATION ON SOUTHEAST ALASKA

As a participant named in Section 706(c) of the Alaska National Interest Lands Conservation Act of 1980 (Public Law 96-487), the State of Alaska has cooperated and consulted with the U.S. Forest Service in its preparation of a report to Congress on the status of the Tongass National Forest. In addition to reviewing and commenting on the Forest Service draft report dated July 19, 1985, the State has prepared this document which represents its views. After describing the State's interest in federal management of the Tongass National Forest, and the evolution of a timber industry which arose from early federal decisions, the purpose of the report required by Section 706(b) of the Act is described. A section which summarizes the State's views and recommends certain actions by Congress and the U.S. Forest Service precedes discussions of the four topics specifically identified for study by Congress: timber harvest levels, small businesses in the dependent industry, impacts of wilderness designation, and fish and wildlife protective measures.

1. INTRODUCTION

The State of Alaska was an active participant during the legislative process which culminated in the 1980 enactment of the Alaska National Interest Lands Conservation Act (ANILCA). The State of Alaska remains interested in federal implementation of this landmark legislation in the Tongass National Forest. This interest arises from the fact that the Forest Service, despite Congressionally authorized land grants to Alaska Natives and the State, is still the dominant land manager in southeast Alaska.

Alaskans residing in many communities of southeast Alaska are, to a high degree, directly or indirectly dependent on the natural resources which are managed by the Forest Service or may be affected by management of the Tongass Forest. These include people employed in the timber industry as loggers, road builders, and mill workers, commercial fishermen and fish processors in the major regional fisheries, people engaged in the tourism industry, those who use fish, game, and plant resources for subsistence purposes, and many others who are sport hunters and fishermen. Because of this dependency, the State of Alaska will continue to have a high degree of interest in Forest Service implementation of ANILCA, and the management decisions affecting the resources and residents of this coastal region.

In the Tongass National Forest, Congress had to deal with an extremely complex situation. Despite many years of effort by various national and local conservation and environmental interests no Congressional protection had been given to wilderness values in the Nation's largest national forest by the mid-1970's. Although the Forest Service had administratively set aside some land in its natural state for recreation and other non-consumptive uses, these actions were considered inadequate by many.

Very early in the history of the Tongass Forest, Forest Service officials attempted to create a timber industry in the region which would enhance community stability and provide more year round employment for Alaska residents. Congress has acted several times to affirm this social objective. More than 30 years ago, as a result of Forest Service efforts, long-term timber sale contracts were awarded with a requirement that trees harvested from the Tongass receive primary processing before leaving Alaska. Pulp mills were located in Ketchikan and Sitka, and sawmills were subsequently constructed in several communities to convert higher quality logs into squared cants (which could be further manufactured in Japan). In many of these communities, the arrival of the forest products industry meant the addition of a major new contributor to the local economy.

Thus, faced with an existing mature timber industry established through the early efforts of the federal government, Congress sought to craft a unique compromise solution which would maintain employment in that industry while responding to a national desire for wilderness, and assuring that other resource values, and other public uses, would be protected on nonwilderness land.

In designating over five million acres of the Tongass as Wilderness, Congress also implicitly recognized and confirmed the long-standing social objective of the Forest Service's Tongass timber program by providing for the maintenance of employment in the timber industry which was dependent on national forest timber supplies. This employment objective was to be achieved by ensuring a timber supply of 4.5 billion board feet per decade. Recognizing that some of this timber would need to be harvested from economically and technologically marginal lands, Congress exempted the Tongass Forest from the provisions of Section 6(k), National Forest Management Act (which generally precludes National Forest land not suitable, by reason of physical, economic and other pertinent factors, from timber harvesting and production), and provided an unprecedented funding mechanism (a continuing appropriation of $40 million

or more per year as needed which was not subject to rescission or deferral) to ensure the necessary timber supply.

An expression of Congress' finding at the conclusion of ANILCA deliberations is contained in Section 101(d):

> This Act provides sufficient protection for the national interest in the scenic, natural, cultural and environmental values on the public lands in Alaska, and at th same time provides adequate opportunity for satisfaction of the economic and social needs of the State of Alaska and its people; accordingly, the designation and disposition of the public lands in Alaska pursuant to this Act are found to represent a proper balance between the reservation of national conservation system units and those public lands necessary and appropriate for more intensive use and disposition, and thus Congress believes that the need for future legislation designating new conservation system units, new national conservation areas, or new national recreation areas, has been obviated thereby.

2. PURPOSE OF THE REPORT REQUIRED BY ANILCA SECTION 706(b)

The State described its understanding of the purpose of the report to Congress in a letter to the Forest Service dated August 31, 1984 as follows:

> The 1985 report (and subsequent reports) should inform Congress and the public about the status of the Tongass following passage of ANILCA and its implementation. In considering the establishment of wilderness areas in the Tongass National Forest, Congress gave unprecedented recognition to the other competing demands on the forest. Chief among these was its concern for the maintenance of employment in the timber industry dependent on national forest timber. This concern was expressed by ensuring adequate federal funding to provide a specified timber supply to the dependent industry while providing for other public uses of the Tongass and protection of other resource values consistent with federal law.
>
> We think that the report should describe how well the balance which Congress sought is working. If achievement of that balance

requires further legislative action, the mandated reports to Congress should provide a factual basis for such action. If the balance can be accomplished without Congressional intervention, the public and Congress should be informed of Forest Service measures to attain that balance.

The legislative history of ANILCA is clear in its recognition that some information provided to it by the Forest Service, and several assumptions used in crafting the compromise solution, might be subject to correction or revision as time passed, or as a better understanding was gained of economic, social and biological relationships. As a result of potentially incorrect assumptions, or poorly understood relationships, full implementation might be difficult or produce undesirable consequences. This recognition of uncertainty is part of the basis for the reporting requirement of Section 705(b).

3. SUMMARY AND RECOMMENDATIONS

A complete evaluation of Congress' legislative solution to accommodate competing demands for the Tongass National Forest is not possible at this time because the provisions of Section 705 have not been fully implemented by the U. S. Forest Service. Congress fixed the amount of Tongass Forest which would be preserved for future generations in Wilderness, and by providing a unique funding provision to assure a timber supply, intended to maintain employment in the existing timber industry. Congress' employment objective has not been met.

The timber supply was to come from lands not set aside as Wilderness, and included land which was not suitable for timber harvest for economic and technological reasons. To assure that sufficient timber was provided which would maintain timber industry employment, a continuing appropriation of $40 million (or as much as was necessary to achieve the employment objective) was made available to the Secretary of Agriculture. It is the State's position that the executive branch of the federal government has failed to properly implement this funding provision over most of the past five years since ANILCA's enactment, both in terms of amounts of money, and in the manner utilized. The State also believes that the Forest Service, by its failure to properly implement ANILCA Section 705, and by its failure to fully implement the Tongass National Forest Management Plan adopted in 1979, has jeopardized the economics of future timber harvesting and State wildlife and fisheries resources. The State urges Congress to conduct its own

investigation of the Forest Service's implementation of ANILCA, and the validity of Tongass Land Management Plan assumptions and information which were utilized by Congress during ANILCA deliberations. To assist Congress in its consideration of the status of the Tongass National Forest following enactment of ANILCA, and the U. S. Forest Service in fulfilling its obligations and commitments, the State of Alaska recommends the following:

Recommendations to Congress

1. Congress should conduct its own inquiry into the implementation of ANILCA Section 705 and the issues raised by the State relative to Section 706.

2. A Congressional inquiry into ANILCA implementation should include consideration of the assumptions and information of TLMP which were utilized during its deliberations. These would include the following:

   a. the extent to which employment losses in the timber industry, which is dependent on national forest timber supplies, are caused by Forest Service funding shortfalls, improper utilization of available ANILCA funds, and uneconomic timber supplies;

   b. the extent to which the export of round logs from Native-owned land in Alaska is displacing the export of cants manufactured from national forest timber;

   c. the extent to which Forest Service implementation of ANILCA and TLMP is causing, or is likely to cause, unacceptable adverse impacts to the State's fish and wildlife resources and public uses of the Tongass National Forest.

Recommendations to the Forest Service

1. The Forest Service should provide funds as intended by Congress for the construction of roads for access to economically and technologically marginal stands, advanced logging technology, and precommercial thinning sufficient to maintain employment in the dependent timber industry.

2. The Forest Service should immediately implement the loan program intended by ANILCA Section 705(b).

3. The Forest Service should apply funds for preroading purposes to roads which will most efficiently access economic timber, in areas where timber harvest is imminent, and in a manner which will protect other resource values as provided by law and adopted management plans.

4. The Forest Service should, in reporting to Congress on timber supply from the Tongass Forest, describe what portion of the supply considered to be "made available" is actually economic to harvest.

5. One use of Tongass Timber Supply funding should be to protect high-value fish and wildlife areas by improving the economics of sales in areas of low habitat value.

6. The Forest Service should foster increased employee understanding of the Tongass Land Management Plan to ensure full and consistent implementation.

7. The Forest Service should continue working with the timber industry to reduce logging costs where appropriate, while assuring that cost reductions will not impair, or adversely impact, other resource values and public uses in the Tongass National Forest.

8. The Forest Service should ensure that adequate funding is provided to permit an increased level of implementation and monitoring of measures to protect fish and wildlife resources.

9. The Forest Service should conduct, on a routine basis, the standardized project-level monitoring and reporting on measures implemented to protect water quality, with special emphasis on watersheds which are sources of public drinking water.

10. The Forest Service should report to Congress the effectiveness of its measures to protect fish and wildlife in the Tongass Forest.

11. The Forest Service should identify and schedule additional permanent retention acreage for fish and wildlife habitat to compensate for the acreage of unregulated timber that has been harvested and the acreage that has not been placed under extended rotation scheduling to meet visual quality objectives.

12. The Forest Service should conduct life-of-the-sale and life-of-the-rotation planning to identify retention acreage for fish and wildlife and to analyze the

cumulative effects of options for multiple entries and/or sale lay-outs.

13. Management Area Analysis which is the intermediate level of planning between TLMP and project plans should be fully implemented as a second tier of NEPA review.

14. The Forest Service should analyze the effects of timber harvest deferral beyond 1989 of those areas that DFG has identified as being of high value for fish and wildlife.

15. Mitigating measures which are of a short-term effectiveness or the effectiveness of which has not been demonstrated should be described and treated as such during analyses of impacts.

    Specifically, pre-commercial thinning, commercial thinning, prescribed burning, slash treatment, and management of large woody debris in or adjacent to streams should be considered experimental measures until their effectiveness is demonstrated.

    The usefulness and limitations of various models being used, or proposed for use, in forest planning should be described.

16. Logging system and transportation analyses should be conducted prior to pre-roading and options should be considered to reduce impacts on fish and wildlife and to maintain the types of hunting and fishing opportunities desired by the public.

17. Planning for snag management and retention of residual groups of trees should occur.

18. The Forest Service should carefully evaluate its practice regarding harvesting of unregulated, oversteepened slopes to see if these practices are in conformance with TLMP and the NFMA.

19. The Forest Service should give full consideration to all feasible mitigation measures to protect the esthetic importance of high value sport fishing areas.

20. The Forest Service should ensure complete protection of the biological productivity of all fish streams in conformance with NFMA.

21. The Forest Service should, in delineating areas for retention, consider maintaining undisturbed buffers

around the nest areas of certain other raptor species such as osprey and peregrine falcon, in addition to eagles.

22. The Forest Service should monitor and keep records of:

    a. Retention acreage - to be mapped and permanently removed from the timber base per the TLMP assumption.

    b. Wildlife Habitat Management Units and Fisheries Habitat Management Units and their prescriptive management.

    c. Management of habitat for Management Indicator Species (assuming that selection occurs per NFMA requirements).

    d. Decisions to harvest leave strips retained for fish and wildlife.

    e. Decisions to permit harvesting adjacent to clearcuts in which regrowth has only reached five feet in height.

    f. The status of regrowth habitat on the TNF; the distribution, juxtaposition, and ages of stands.

    g. Fish and wildlife habitat management results in the context of acres harvested, acres to which effective mitigation treatments have been applied, acres to which experimental mitigation treatments have been applied, and expected duration of mitigation.

23. The Forest Service should include Alaska in its Old-Growth Forest Wildlife Habitat Research and Development Program and initiate cooperative research to further describe vertebrate community ecology, species-specific habitat requirements, and the island ecology of the region's old-growth forests.

24. Standardized, comprehensive project-level monitoring and reporting on measures implemented to protect fish and wildlife resources should be conducted.

25. The monitoring requirements in NEPA documentation for individual plans and projects should be fulfilled.

26. The Forest Service should develop a consistent approach to conducting subsistence evaluations of its planned timber harvesting and associated activities as required by Section 810, ANILCA, and should utilize guidance of

the Alaska Land Use Council, and the DFG Subsistence Division.

4. TIMBER HARVEST LEVELS

> This report shall include...the timber harvest levels in the forest since the enactment of this Act... (ANILCA Section 706(b))

The declining harvest of national forest timber in the five years following enactment of ANILCA has been well documented. This dramatic decline has been attributed by the Forest Service to reduced market demand and displacement of cant sales by round log exports from private lands. The Secretary of Agriculture, in each of the annual reports required by Section 706 (a) on timber supply and demand, has reported to Congress that "the available land base in the Tongass National Forest...is adequate to maintain the timber supply...to the dependent industry at a rate of 4.5 billion board feet per decade."

The State of Alaska emphatically does not agree with that conclusion, and urges the Congress to conduct its own investigation of Forest Service performance in maintaining employment in the dependent industry. Although the State agrees that the available land base appears to have the silvicultural potential to sustain a timber harvest of 4.5 billion board feet per decade, the State does not agree that this land base is adequate to provide an economic timber supply, in the absence of adequate ANILCA funding, without severely impacting fish and wildlife habitat. At the level of funding which the Forest Service has obtained in recent years (pursuant to ANILCA Section 705 (a)) public investments in the Tongass Forest have fallen far short of Tongass Land Management Plan (TLMP) assumptions and the intent of Congress. A significant share of the land base identified in TLMP for timber production is not currently available to the dependent industry in an economic sense.

Several consequences arise from this investment shortfall, including a dependent timber industry forced to pay for public roads (to access deficit sales) which rightfully should be funded by the Forest Service, a disproportionate harvest of high volume stands (with implications for the future economic viability of timber harvest and impacts on important wildlife habitat), and attempts by the Forest Service to aid a distressed industry by emphasizing logging cost reductions, rather than offsetting with public investments the increased logging costs associated with marginal operations.

By providing an assured timber supply and funds to offset economic and technological marginality, Congress intended to maintain employment at historic pre-ANILCA levels in the timber industry which is dependent on the Tongass National Forest. Clearly, the Congressional objective has not been achieved. Southeast Alaska's timber industry, which is largely the result of early efforts by the federal government, has been in a severely depressed condition for the past several years.

Congress established the Section 705 funding provision based, in part, upon certain assumptions contained in the Forest Service's 1979 Tongass Land Management Plan. The ANILCA funding provided thus far has neither kept pace with inflation, nor TLMP objectives. If the full ANILCA funding were obtained and utilized as intended by Congress, and historic pre-ANILCA employment levels are still not achieved, then the solution which Congress devised in ANILCA would be demonstrably unworkable. As it stands now, we can only surmise the employment effects which full funding would achieve.

5. SMALL BUSINESSES IN THE DEPENDENT TIMBER INDUSTRY

> This report shall include...the status of the small business set aside program in the Tongass Forest. (ANILCA Section 706(b))

The Forest Service, in cooperation with the Small Business Administration (U. S. Department of Commerce), established a timber sale program well before the passage of ANILCA which was intended to give special recognition to small businesses. Qualifying small businesses were able to bid on national forest timber sales without competition from larger companies. They only had to bid against each other. The Forest Service's assessment of the status of the small business set-aside program occupies five and one-half pages of its draft report, and in the State's view, does not adequately describe this important program which was designed to help maintain the viability of small firms dependent on national forest timber.

As the SBA set-aside program is wholly administered by the federal government, it has the capability and the data to provide a much more informative status report. The State of Alaska believes that such a report should contain a detailed presentation of qualifying firms which existed prior to the passage of ANILCA, and the entry and departure of qualified firms subsequent to ANILCA (including a description of the factors which account for each change). The status of dependent small businesses, and their role in overall

employment in the dependent timber industry, should include a listing of the number of people which each qualifying firm has employed annually each year since 1979, the volumes purchased and actually harvested, and the mileage and value of contract-specified roads built by each firm with effective purchaser credits, and where purchaser credits were not effective.

6. IMPACTS OF WILDERNESS DESIGNATION

> This report shall include...the impact of wilderness designation on the timber, fishing, and tourism industry in southeast Alaska... (ANILCA Section 706(b))

A key component of Congress' interest in receiving Tongass status reports was the effect of its wilderness designations on timber, fishing, and tourism industries.

A. Timber Industry

The principal effect of wilderness designation on the timber industry was an acknowledged necessity to harvest timber on marginal land. The increased cost of providing access to, and operating in, such marginal lands was to be absorbed by the federal government. Expenditures were contemplated in road construction, advanced logging technology, and thinning of young timber stands to increase their future yield.

Harvesting of marginal stands has, however, fallen far short of TLMP objectives in terms of proportional amounts. While depressed market conditions and displacement of national forest products may account for a significant share of this shortfall, the failure of the Forest Service to provide sufficient ANILCA funding is also a significant factor. The Forest Service, in other words, is not willing to pay the price of Wilderness. This unwillingness has contributed to significant employment losses in the dependent timber industry, and an emphasis on logging cost reductions to relieve this economic distress. The State encourages consideration of additional cost cutting measures, but not at the expense of other resource values and public uses in the Tongass Forest.

B. Fisheries Industry

Wilderness designation, with the ANILCA provision which authorizes aquaculture facilities, has given assurance of long-term protection from management-induced hazards

to water quality and anadromous fish streams, as well as permitting enhancement potential.

Timber harvesting and associated activities outside of wilderness areas constitutes the greatest potential for management-induced risks to commercial fisheries. Neither short-term nor long-term cumulative effects of timber harvesting activities on water quality are clearly understood, since water quality monitoring is not carried out on a routine project-specific basis in the TNF. The Forest Service has stated its commitment to fully protect the biological potential of fisheries habitat in non-wilderness areas of the Tongass Forest. Measures instituted by the Forest Service to reduce logging costs have not, thus far, been demonstrated to be detrimental to the fisheries resource. There have, however, been measures proposed recently which concern the State. Enhancement of timber harvesting economics should come primarily from public investments as intended by Congress. The Forest Service noted that most problem areas which were identified in its 1984 evaluation of TLMP could have been resolved had "the full implementation of TLMP been more of an on-going Regional priority." As indicated below, the State believes that such implementation could have ensured a higher degree of fish habitat protection.

c. Tourism Industry

The Forest Service has concluded that Wilderness areas in the Tongass Forest have not yet evidenced any large scale increase in use and identifies several ingredients which are essential to facilitating increased recreation use. Many Alaskans and non-resident tourists utilize non-wilderness portions of the Tongass Forest for recreational purposes. This is, to some extent, a consequence of proximity and accessibility from existing communities, and the nature of the recreational activities. If timber harvesting and associated activities outside of designated wilderness areas proceeds according to TLMP assumptions, certain kinds of public recreational activities, including sport hunting, may be altered. To the extent that timber harvesting and road construction will occur in the Tongass Forest on land not considered prior to ANILCA to be part of the commercial forest base, recreational and tourism activities in these areas will be indirectly impacted by the passage of ANILCA.

7. FISH AND WILDLIFE PROTECTIVE MEASURES

> This report shall include...measures instituted by the Forest Service to protect fish and wildlife in the forest... (ANILCA Section 706(b))

The fish and most wildlife species which inhabit the Tongass National Forest, or utilize waters within or flowing from the forest, belong to the citizens of Alaska, and are managed for them by the Alaska Department of Fish and Game (DFG) in accordance with the State Constitution and statutes. Nonresidents also utilize these species as provided by State law. As a consequence, federal management of the Tongass National Forest as it affects the habitats of these State-managed resources is a matter of direct concern to the State and its residents. The potential for adverse impacts from timber harvesting and associated activities is usually greatest on those portions of the Tongass Forest which possess commercial timber values outside of designated Wilderness areas. The users of State fish and wildlife resources are negatively impacted to the extent that the habitats of these fish and wildlife are adversely affected.

The State considers the report which the Secretary of Agriculture will submit to Congress this December, and every two years thereafter (in accordance with Section 706(b) of ANILCA), as an important opportunity for the Forest Service to clearly indicate to Congress not only what has occurred on the Tongass Forest with regard to fish and game resources since passage of ANILCA, but to make recommendations for the future. Most importantly, the 1985 report should provide a clear and concise evaluation of the effectiveness of current Forest Service programs, and measures taken, to protect fish and wildlife. We find, however, that the Forest Service document which the State has reviewed does not fulfill these objectives.

The State has identified the following fish and wildlife issues as ones which should be considered by Congress: (1) the impacts of logging related alteration of old-growth habitats on wildlife, (2) the degree to which fish habitat protection measures have been implemented, (3) the degree to which those measures which have been implemented have been effective, and (4) the resulting effects of timber harvesting on commercial, sport, and subsistence users of the fish and wildlife resources of the Tongass National Forest (TNF).

Based on a detailed DFG analysis[1] of Forest Service management of the Tongass, the State concludes that the planned timber harvest will have adverse impacts on wildlife habitat in areas designated by TLMP for commercial forest management and will reduce yields from these areas to users in the course of the 100 year harvest rotation. Forest Service efforts to reduce costs and improve the economics of the currently depressed timber industry include measures that may accelerate adverse impacts on wildlife, and may not conform to habitat protection requirements provided for in TLMP and other Forest Service authorities. Reduction of standards designed to protect salmon habitat has been suggested as a means to reduce the costs of logging as well. While the State does support cost reductions, it does not support cost reductions that lead to increased adverse impacts on fish, wildlife, or water quality. Any additional enhancement of timber harvest economics should come from ANILCA funds as intended by Congress.

The potential long-term adverse impacts of clearcut logging on the fish and wildlife species in the region have been particularly well documented for the Sitka black-tailed deer and rearing salmon and trout. Simply stated, old growth stands of timber consist of trees of all ages and contain openings where large trees have fallen and browse plants have temporarily taken advantage of available sunlight. The close juxtaposition of large trees that can intercept snowfall and browse plants that provide food can sustain deer through harsh winter months. This old growth forest condition can, in southeast Alaska's damp maritime climate (where forest fires are neither common nor widespread), perpetuate itself for indefinite periods. Moreover, these two important characteristics of snowfall interception and browse availability have not yet been demonstrated to result from even the most intensively managed second growth timber stands.

Research also indicates that adverse impacts can be exp cted for moose, black bear, brown bear, mountain goat, marten, wolf, land otter, cavity-nesting birds, and other bird and small mammal species requiring aspects of old-growth forest.

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[1]Status of measures to protect fish and wildlife in the Tongass National Forest: A Report on Section 706(b) of the Alaska National Interest Lands Conservation Act. Preliminary copy prepared by the Alaska Department of Fish and Game, August 30, 1985.

With some limited exceptions, no timber harvest related measures have been developed or implemented, since enactment of ANILCA or adoption of TLMP, that have the demonstrated ability to mitigate long-term wildlife habitat losses. Although measures to protect fish habitat have been more successfully implemented, many are currently proposed for revision to reduce logging costs and may result in reduction of fish habitat protection. Identification of high-value fish and wildlife areas has often occurred during timber sale planning, but protection of the areas through retention[2] as undisturbed habitat has not occurred on the majority of the TNF where timber harvesting is being scheduled. Despite TLMP commitments to long-term retention for fish and wildlife habitat, project planning has usually failed to provide consideration of long-term retention when making available a specific volume of timber for harvest.

Outside of Congressionally designated Wilderness areas, the key decisions that have the most far reaching implications on the extent and rate of adverse impacts are: (1) the annual harvest target, (2) the emphasis on harvest of high-volume timber stands out of proportion to their occurrence on the TNF (both in TLMP and in a recent decision

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[2]The concept of wildlife habitat retention on the Tongass National Forest was first discussed in the 1977 Southeast Alaska Area Guide which required Wildlife Habitat Management units (WHMU) to be developed by an interdisciplinary team (IDT) for all land use proposals. These WHMU would include the identification of "areas retained in natural conditions" (Forest Service. 1977. Southeast Alaska Area Guide. Alaska Region, Juneau. 280 pp.)

Permanent retention of old-growth habitat was the major wildlife habitat mitigation measure discussed in TLMP and incorporated into the TLMP harvest schedule (Forest Service. 1979. Tongass Land Management Plan Final Environmental Impact Statement, Part 1. Alaska Region, Series No. R10-57, Juneau.) About 273,000 acres of operable commercial forest land (CFL) in LUD III and IV areas were excluded from timber harvest scheduling in the development of TLMP harvest calculations in order to protect visual quality and fish and wildlife habitat (Forest Service, 1979, Forest Service. 1984. Tongass Land Managmenet Plan Evaluation Report. Alaska Region, Admin. Doc. No. 139, Juneau. 166 pp.) The amount equals about 30 percent of the operable CFL in LUDs III and 13 percent in LUDs IV (Forest Service 1979). Specific retention percentiles were developed for bear, eagle, moose, goat, upland bird, furbearer, wolf, and waterbird habitat (Forest Service 1979, 1984).

to exceed the ratios specified in TLMP for the first decade), and (3) accelerated rates of pre-roading of permanent roads in areas where timber harvest is not imminent. TLMP assumptions concerning portions of the commercial forest land base available or reserved from harvest and the implementation of extended rotations usually have not been considered in project or Management Area Analysis (MAA) planning which may alter the ability of the TNF to sustain the TLMP timber harvest without significantly greater logging of high-value fish and wildlife areas. The most significant procedural failings are the (1) lack of long-term (life-of-the-rotation) planning, and (2) lack of cumulative impact analysis on both the long-term and management area basis.

The fish and wildlife resources of both wilderness and nonwilderness portions of the Tongass are vital to commercial fishing and guiding industries and contribute to support industries and the suitability of the region for a growing tourist industry. Many residents of the region depend heavily on the resources for food and recreation, with dependence on fish and deer that is particularly high in the many small communities. Long-term reductions in opportunities to harvest or enjoy fish and wildlife will occur in areas subject to timber harvesting as a result of that timber harvest and associated development. Where habitat losses are significant, yields may likely be reduced in some areas of the Tongass to levels below which harvest of certain species can be sustained. The State is very concerned that it will not be able to manage fish and wildlife on a sustained yield basis, and that these resources may not be available for maximum use consistent with the public interest. Moreover the State is concerned that it will not be able to "manage, protect, maintain, improve, and extend the fish, game, and aquatic resources of the state" as required by statute.

The State of Alaska depends upon the expertise of DFG regarding the relationships between timber harvest and habitat management and believes that the conclusions drawn in the DFG report (see footnote on page 15) must be adequately considered and dealt with as the report becomes finalized.

nb85092702cle

BILL SHEFFIELD
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

April 18, 1986

The Honorable Richard E. Lyng
Secretary
Department of Agriculture
Room 200-A
Fourteenth Street and
Independence Avenue, SW
Washington, DC 20250

Dear Mr. Secretary:

Congratulations on your recent appointment as Secretary of Agriculture. I am sure that the current farm crisis is demanding much of your attention, as is responding to the new constraints of deficit reduction legislation. In Alaska, we, too, are coping with fiscal constraints which are imposed by a major drop in the state's oil revenues.

I would like to acquaint you with some issues which concern many Alaskans. As you know, your Department recently submitted a report to Congress on the status of the Tongass National Forest in southeast Alaska. The report, which is required by Section 706(b) of the Alaska National Interest Lands Conservation Act (ANILCA), includes a section contributed by the State of Alaska that disagrees substantially with some of the conclusions reached by your agency. Unfortunately, the report's executive summary, which was submitted to Congress in advance of the full report, does not acknowledge the disagreement. A copy of the state's contribution is enclosed for your information. It contains more than two dozen recommendations to Congress and the Forest Service, many of which deal with the use of ANILCA Section 705 funding or inadequate implementation of existing Forest Service directives to protect fish and wildlife habitat. I encourage you to examine these recommendations. Efforts in Alaska to resolve the disagreement have been largely unsuccessful. I am writing to express my interest in making another attempt at resolving these issues administratively before Congress completes its review of your report. Below, I briefly describe the background of this problem and identify the issues upon which I believe we should focus.

BACKGROUND

In the southeast region of our state, the timber industry is in a depressed and weakened condition. Many Alaskans who have been employed for years in harvesting and processing trees from the Tongass National Forest are out of work, and mills have been shut down or are operating at reduced capacity.

Southeast Alaska's timber industry became established largely as a result of Federal government efforts beginning more than 40 years ago. With the passage of ANILCA in 1980, Congress set aside nearly 5.4 million acres of the Tongass Forest as national monuments and wilderness areas. In recognition of the preexisting public uses of the Tongass and the dependency of southeast Alaska residents on many resources of the forest, Congress also authorized a unique funding provision in Section 705 of ANILCA.

The Secretary of the Treasury is authorized and directed by Congress to make available to the Secretary of Agriculture at least $40 million annually, or as much as the Secretary of Agriculture finds is necessary, to maintain the Tongass Forest timber supply at a prescribed rate for the dependent industry. Congress's objectives in Section 705 were to maintain employment in the dependent timber industry of southeast Alaska at pre-ANILCA levels, while ensuring that other resource values and public uses would be protected on nonwilderness land in accordance with Federal law and the Tongass Land Management Plan (TLMP).

CONGRESSIONAL OBJECTIVES UNMET

Timber Industry Employment - It is the State of Alaska's view that the congressionally sanctioned employment objective has not been achieved, even though the Forest Service seems to believe that it has met its obligations under Section 705 by making available an average of 450 million board feet of timber per year. If the employment objective is to be achieved, the timber which the Forest Service supplies to the dependent industry must be economically feasible for the purchaser to harvest. It does little good to make timber available which no one can afford to purchase. Such timber is not available in an economic sense and does not contribute to maintaining employment in the timber industry as Congress intended. Unquestionably, adverse market conditions have had a depressing effect upon the industry which depends on Tongass National Forest timber. However, the framers of ANILCA understood, based in part on the Forest Service's TLMP, that such market fluctuations could be expected and that offsetting public investments in the Tongass Forest would be necessary to counter these cyclic events.

One of the most effective and appropriate means of countering current market conditions would be to use ANILCA funding to pay for necessary timber access roads. When constructed, these roads become the property of the Federal government and are available for future uses. Under prevailing depressed markets, purchasers are not being compensated for their construction of access roads required by the timber sale contracts. The State of Alaska believes that ANILCA funds should pay for needed timber access roads through Forest Service contracted construction or through equitable compensation to timber purchasers for construction costs which they reasonably incur. This will bring much relief to the timber industry.

By not adequately funding those measures which would achieve congressional objectives, the Forest Service and the Department of Agriculture are contributing to the demise of the timber industry as it existed prior to ANILCA and to the detriment of other values and uses of the Tongass Forest.

Protection of Other Resource Values and Public Uses - The fish and wildlife species which inhabit the Tongass National Forest, or utilize waters within or flowing from the forest, are managed by the State of Alaska. As a consequence, federal management of the Tongass National Forest, as it affects the habitats of these state-managed resources, is a matter of direct concern to the state and its residents. The potential for adverse impacts from timber harvesting and associated activities is usually greatest on those portions of the Tongass Forest outside of designated wilderness areas which possess commercial timber values. It is from these areas, by reason of proximity to communities, that the majority of fish and wildlife harvesting occurs. While some habitat impact is unavoidable in pursuing timber harvest objectives, this impact must be consistent with the habitat protection provided for by TLMP, applicable law, and, where appropriate, relevant standards of the Alaska Coastal Management Program. The state believes that the Forest Service, by not properly implementing Section 705 and TLMP, may be jeopardizing the wildlife and fisheries resources in the Tongass Forest which the state manages.

The state's major concerns for the fish and wildlife resources of the Tongass Forest include: (1) the impacts of logging-related alteration of old-growth forest habitats on wildlife, (2) the degree to which habitat protection measures have been implemented by the Forest Service, (3) the effectiveness of those measures which have been implemented, and (4) the resulting effects of timber harvesting on commercial, sport, and subsistence users of the fish and wildlife resources of the forest. The recommendations presented in the enclosure are intended to ensure that these concerns are adequately addressed.

We support Forest Service measures to reduce logging costs as a means of improving the economics of timber harvesting. Cost-saving measures implemented thus far have not accelerated adverse impacts on fish and wildlife, but some recent Forest Service proposals may increase these impacts to an unacceptable level. The economics of timber harvesting should not be further enhanced by risking such adverse impacts but rather should be accomplished through the use of ANILCA funds as intended by Congress.

THE NEED TO FULLY IMPLEMENT SECTION 705 OF ANILCA

If the solution which Congress devised to accommodate competing demands in the Tongass Forest has shortcomings, we can never know the full nature or extent of such shortcomings until you fully utilize the funding provisions of Section 705. Congress enacted these provisions to achieve its multiple objectives in the Tongass National Forest.

The primary national interest in the timber program of the Forest Service in southeast Alaska was, and remains, the establishment and maintenance of year-round employment and community stability. This was to be accomplished within the context of the Forest Service's multiple-use mandate and the continued use and protection of other resource values of the Tongass Forest in accordance with applicable laws and TLMP. Congressional objectives for the Tongass were so important that an unprecedented method was created to ensure their achievement. If it is necessary to reallocate Federal funds to accomplish these objectives, we believe that you have both the authority and the obligation to do so.

I would appreciate your views on these important matters prior to the commencement of congressional oversight hearings which may be scheduled next month. Thank you for your consideration of the state's position.

Sincerely,

Bill Sheffield

Bill Sheffield
Governor

Enclosure

cc: Senator Ted Stevens
Senator Frank Murkowski
Senator James McClure
Congressman Don Young
Congressman Morris Udall
Assistant Secretary Peter Myers
Department of Agriculture
Deputy Assistant Secretary Douglas MacCleery
Department of Agriculture
Associate Director Randall Davis
Office of Management and Budget
Regional Forester Michael Barton
Department of Agriculture
Attorney General Hal Brown
Department of Law
Commissioner Don Collinsworth
Department of Fish and Game
Commissioner Richard Knapp
Department of Transportation
and Public Facilities
Commissioner Loren Lounsbury
Department of Commerce and
Economic Development
Commissioner Bill Ross
Department of Environmental
Conservation
Commissioner Esther Wunnicke
Department of Natural Resources
Mr. John Katz
Office of the Governor
Mr. James Clark
Robertson, Monagle and Eastaugh
Mr. Bart Koehler
Southeast Alaska Conservation Council
Mr. Robert Loescher
Sealaska Corporation
Mr. Jack Cadigan
United Fishermen of Alaska
Mr. Gordon Williams
Southeast Alaska Regional Fish
and Game Council

State of Alaska
Cochairmen, Resource Committee
Representatives:
Richard Shultz,
Aldelheid Herrmann
Juneau, AK 99802

April 25, 1986

Re: HRJ 75

Honorable Representatives:

I submit this letter in reference to HRJ 75 which is soon to be considered by the House Resource Committee. I represent myself and fellow residents of Southeast Alaska.

Line 14: I believe the word "mandated" is incorrect and misleading. The chief of the US Forest Service has testified in Congressional Hearings that Section 705 of ANILCA "certainly does not mandate a harvest." US Congressman James Weaver has testified that ANILCA does not say that the Forest Service must provide 450 billion board feet per decade, only that the money will be made available when the the harvest is up to that level on the Tongass. Therefore the word "suggested" would be better suited than "mandated."

Line 16: As an Alaskan resident and US taxpayer, I do not support the expenditure of $40 million (or more) of tax dollars for subsidizing an industry which is controlled by foreign interest and is driving out smaller local competition. This is especially true in times of extreme Federal deficit, supposedly austere government budgets at all levels, and non-interference by the government with the workings of the free enterprise market. I strongly urge our Representatves not to support the Tongass Timber Supply.

Lines 23-25: I support the resolution for hearings on the subject to be held within the State of Alaska but suggest additional language to encourage a hearing to be held in Southeast Alaska which will be most affected.

Thank you for your consideration in this matter.

Respectively yours,

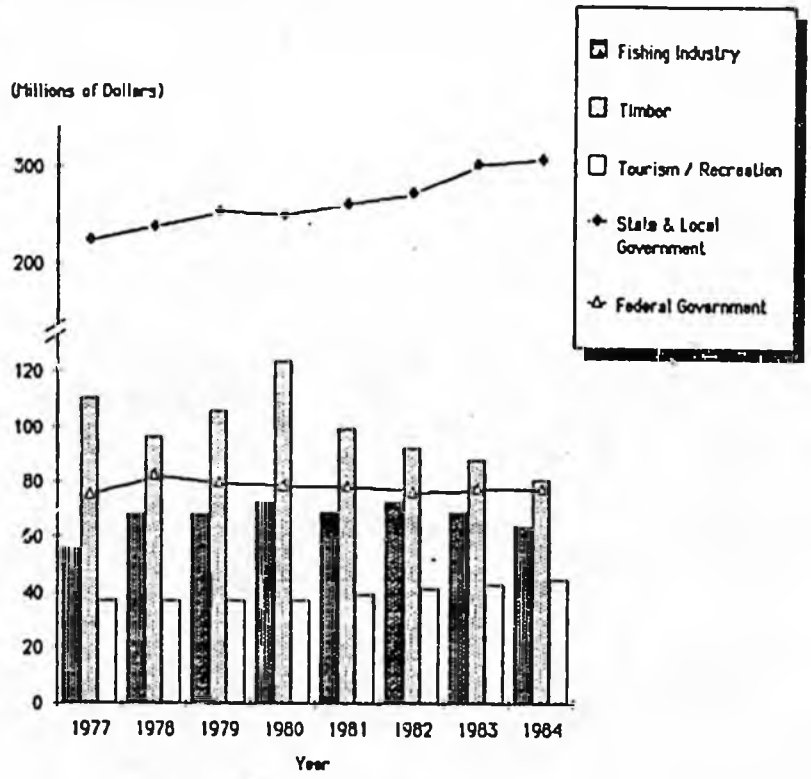
Don Williamson

Don Williamson
PO Box 211328
Auke Bay, AK 99821

cc: House Resource Committee Members

Figure 2.2

Direct Earnings[a] by Sector[b] in Southeast Alaska, 1977–84



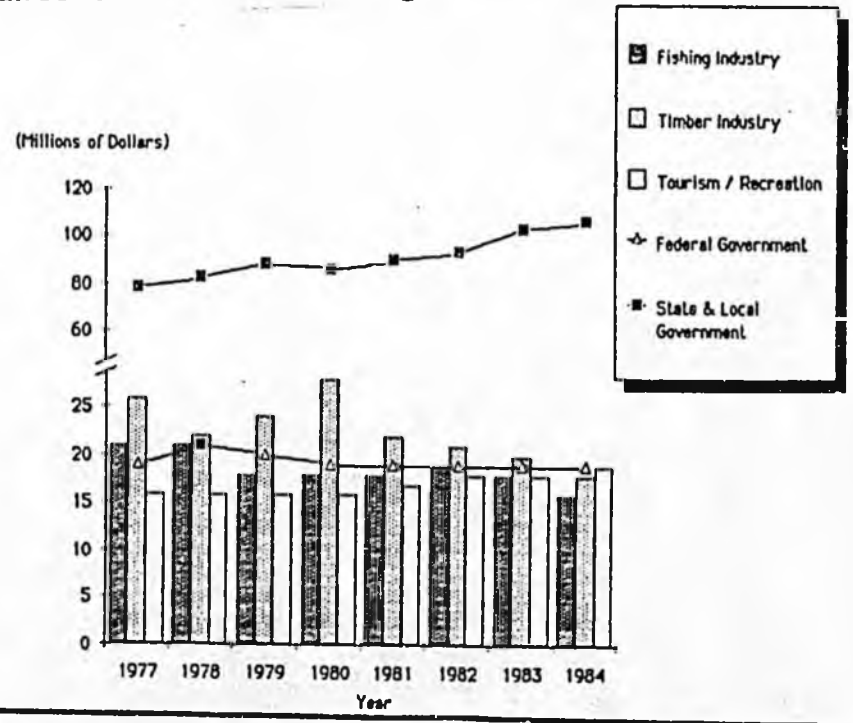
[a]All earnings have been converted to 1985 dollars using the GNP Implicit Price Deflator for first quarter, 1985.

[b]Timber industry includes forestry consulting, logging, sawmills and pulpmills. Fishing industry includes commercial harvesting and seafood processing. Tourism/Recreation includes a composite of visitor-related industries. Government includes State/local and Federal administration and enterprises. Earnings from fish harvesting are estimated at between 40 and 57 percent of the annual gross receipts to fishermen. See: *The Alaska Fishing Industry: An Overview of State Expenditures and Economic Benefits,* Alaska State Legislature: House Research Agency Report No. 81-4, January, 1982, for a discussion of the problems of estimating harvest earnings.

Source: Direct levels are from historical data from the Alaska Department of Labor and simulations using a Forest Service input-output model, IPASS.

Figure 2.4

Associated Indirect and Induced Earnings[a] in Southeast Alaska, 1977–84

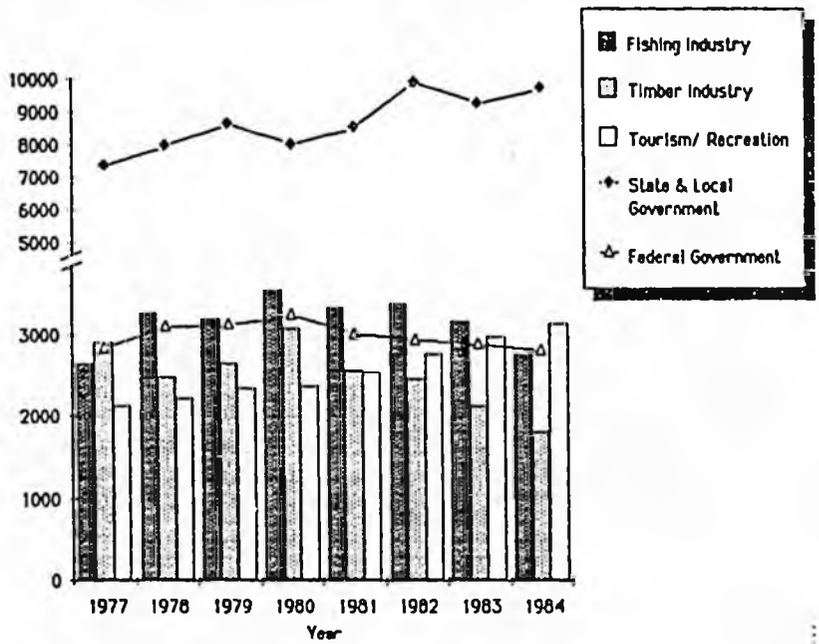


[a]All earnings have been converted to 1985 dollars using the GNP Implicit Price Deflator for first quarter, 1985.

Source: Associated indirect and induced earnings are estimated from IPASS.

Figure 2.1

Direct Job Numbers[a] by Sector[b] in Southeast Alaska, 1977–84



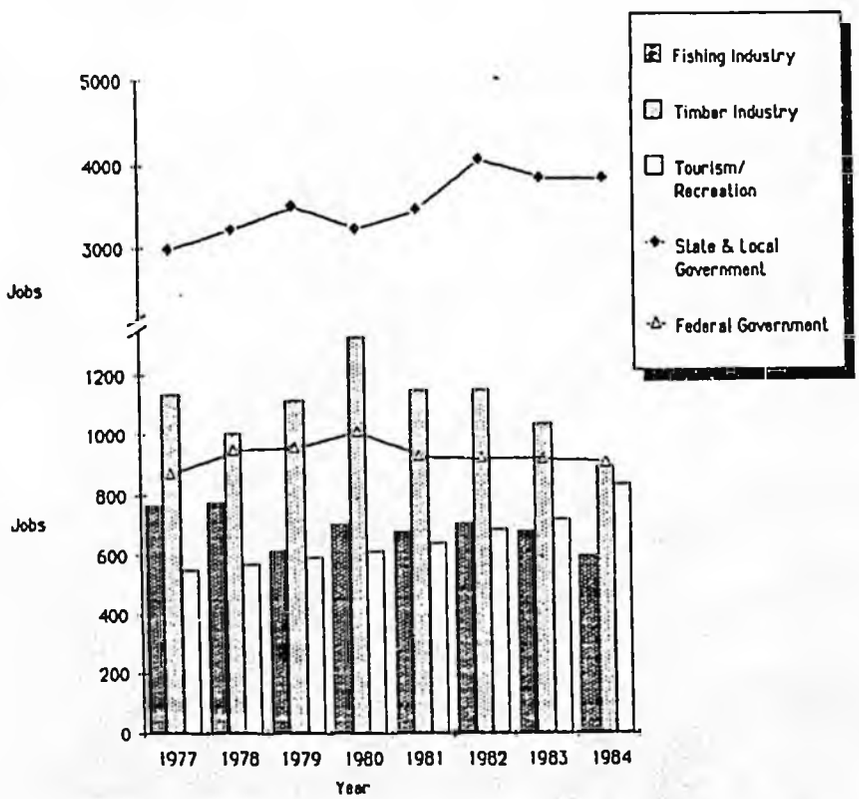
[a]Since job numbers do not reflect differences in full-time and part-time employment, it is important to supplement this information with the earnings data in Figure 2.2 before making sector comparisons.

[b]Timber industry includes forestry consulting, logging, sawmills, and pulpmills. Fishing industry includes commercial harvesting and seafood processing, but not recreational fishing due to lack of information. Tourism/Recreation includes a composite of visitor-related industries. Government includes State/local and Federal administration and enterprises.

Source: Direct levels are from historical data from the Alaska Department of Labor and simulations using a Forest Service input-output model, IPASS.

Figure 2.3

Associated Indirect and Induced Employment[a] in Southeast Alaska, 1977–84



[a]Job number information should be supplemented with the earnings data in Figure 2.4 before making sector comparisons.

Source: All associated indirect and induced job numbers are estimated from IPASS.

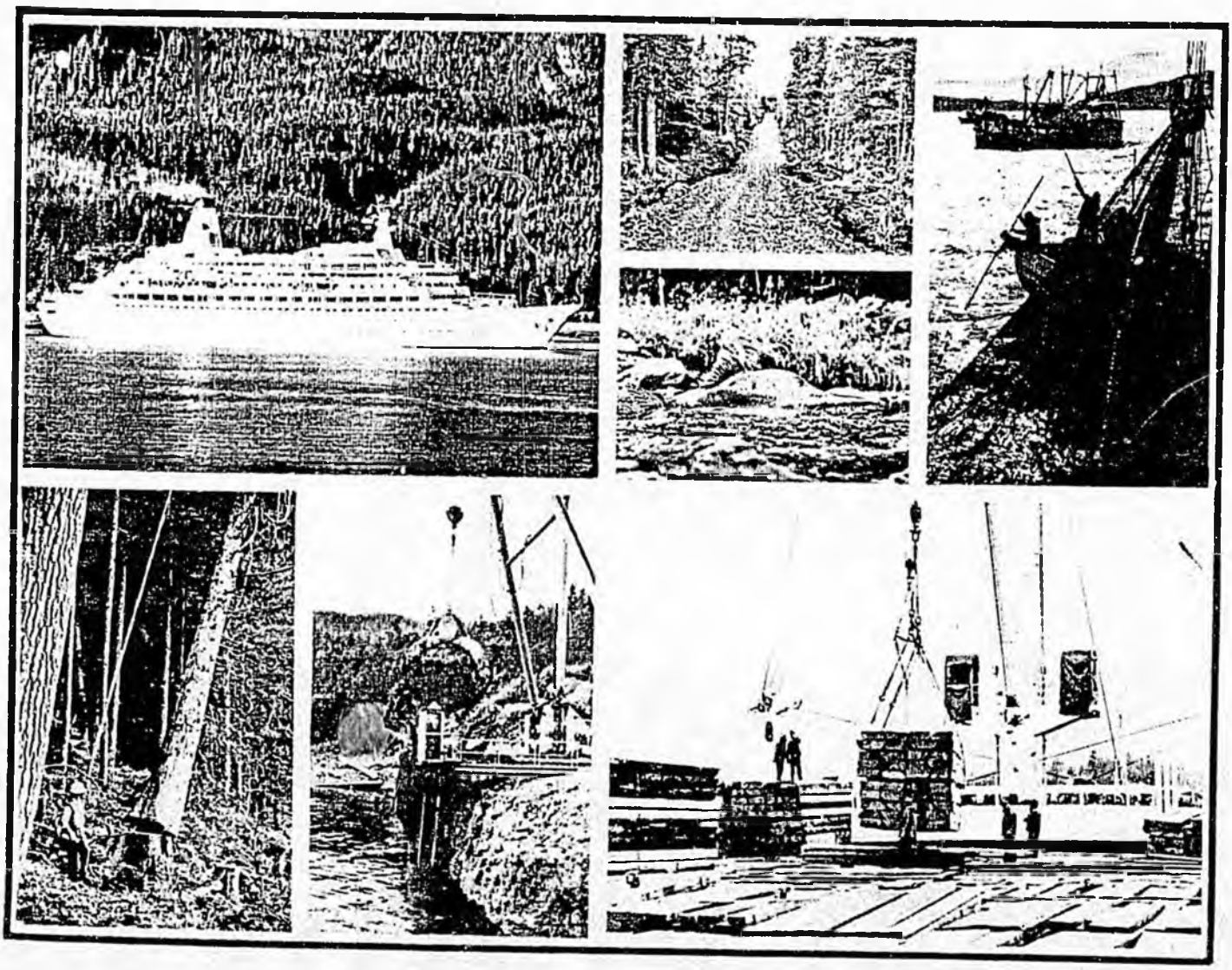
United States
Department of
Agriculture

Forest Service

Alaska Region
Admin. Doc.
Number 153

Status of the Tongass National Forest

1985 Report



LOGGING IN SOUTHEAST ALASKA AND ITS RELATIONSHIP TO WILDLIFE, FISHERIES, AND ECONOMICS

Territorial Sportsmen, Inc.
P. O. Box 761
Juneau, Alaska 99802
February 1985

Prepared by

The Wildlife and Fisheries/Logging Committee
of the Territorial Sportsmen with
contributions from outside specialists

Wildlife and Fisheries/Logging Committee

Jack Lentfer, Chairman
Greg Cook
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Territorial Sportsmen, Inc.

P. O. Box 761

Juneau, Alaska 99801

February 12, 1985

To Whom It May Concern:

This report, Logging in Southeast Alaska and its Relationship to Wildlife, Fisheries, and Economics, by the Territorial Sportsmen, Inc. is the culmination of many man-hours and man-months of intense efforts by members of our organization and cooperating agencies and individuals. The report presents some of the most pertinent information related to the existing controversial fish and wildlife/logging issue in Alaska.

The Territorial Sportsmen, Inc. is one of the oldest, if not the oldest, conservation and sportsmen organization in Alaska. The Territorial Sportsmen is a Juneau based organization which is dedicated to the conservation and wise use of Alaska's resources. Because of its constitutional structure and its purpose, it is primarily concerned with the proper management of Alaska's renewable resources--particularly its fish and wildlife resources. In this arena we feel we have a responsibility to assure our membership and the general public that these resources and the public users are properly represented as public policies and decisions affecting their welfare are developed.

The purpose of this report is to present current information to interested policy makers and the general public. The Territorial Sportsmen have essentially synthesized and summarized pertinent information available from all the agencies and other private sources. We have not provided any new information gathered exclusively by our organization. On the other hand, we have provided independent and collaborated interpretations of the data. Hopefully, this type of presentation can be used to provide a forum for developing positive solutions, for providing support for necessary research, for prompting the resource managing agencies and corporations into affirmative actions, and for assisting the general public in assessing resource trade-off values.

The Board of Directors of the Territorial Sportsmen realize clearly the perceptions that can be associated with the release of a report of this type. This is especially true in light of the growing frictions between the polarized groups forming around the Southeastern logging/environmental issues. Because of these perceptions, we feel it is necessary to clearly state the position of the Territorial Sportsmen. By this

process we hope to keep open channels of positive dialogue with all interested parties and nopefully participate in developing positive solutions. For the record, the Board of Directors wish to emphasize that the Territorial Sportsmen:

1. Support logging in Southeast Alaska which is compatible with the maintenance of fish and wildlife values. The intent of this report is not to shut down the logging industry in Southeast Alaska. The intent is to blend fish and wildlife values with the economic values of the industry. It is fair to expect that there will be differences on exactly when, where and how logging will occur. Most importantly, it is our intent to make sure the other resource values are also adequately considered and the public is fully aware of the value trade-offs.

2. Support fish, wildlife and silvicultural research programs. Most task force reports and other related studies point out the need for more information about certain fish and wildlife and their habitat and about silvicultural practices in the southeastern rain forest.

3. Support research to develop enhancement and mitigation measures for fish and wildlife affected by timber harvesting. With improved technology and an expanded data base it is possible that aggressive enhancement or mitigation programs may significantly alleviate some of the value losses associated with the present logging program. Enhancement and mitigation programs that have been demonstrated to be effective should be implemented.

4. Support continued efforts toward population modeling effects of timber harvesting on fish and wildlife populations. At present, it is extremely difficult for the general public to relate to the value trade-offs associated with specific logging proposals, especially when relating these with past activities. Population modeling can be a valuable tool to aid both managers and the general public in understanding the effects, both positive and negative, of different management practices, and relate them to the economics of logging.

5. Support the U.S. Forest Service planning processes. We recognize and support the planning process being implemented by the U.S. Forest Service. Continued emphasis by the Service on public participation has provided a mechanism for input. Since planning is most effective if the public is fully informed and involved, it is our intent to participate positively in that process.

6. Support general recommendations provided in the Technical Committee Report. In July 1982 a multi-organizational Technical Committee was appointed to review the issues relating to wildlife and timber management in Southeast Alaska. A report from this committee was released in 1983. The conclusions and recommendations, although general in nature, are sound and are supported by the Territorial Sportsmen.

7. Support development of fish and wildlife population goals and objectives. The state of the arts associated with conducting some fish and wildlife population censuses within the forested areas of Southeast Alaska is rudimentary at best. Improved fish and wildlife assessment procedures must be developed and tied to habitat requirements for each species. We recognize that until these procedures are fully developed, other less precise modeling and assessment techniques will have to be utilized to establish and evaluate species population goals. Eventually, these goals and objectives must come from an informed general public.

Since it is the goal of the Territorial Sportsmen to provide the most accurate information possible, it is anticipated that this report will be up-dated. Certainly, any errors will be corrected and new information included when appropriate.

The Territorial Sportsmen are committed to continue working closely with the various task forces, committees and resource managing agencies concerned with the fish-wildlife/logging issues. It is anticipated that specific recommendations will be developed to accompany this report. Others will be prepared and submitted through each stage of the planning and review process now in place for management of the Tongass Forest.

For more information please contact:

Mr. Jack Lentfer, Chairman
Fish-Wildlife/Logging Committee
Territorial Sportsmen, Inc.
P. O. Box 761
Juneau, Alaska 99802

or

Mr. Ron Somerville
President
Territorial Sportsmen, Inc.
P. O. Box 761
Juneau, Alaska 99802

Approved by the Territorial Sportsmen, Inc. Board of Directors on December 11, 1984.

Sincerely,

Ronald Somerville R.S.

Ronald Somerville, President
Territorial Sportsmen, Inc.

LOGGING IN SOUTHEAST ALASKA AND ITS RELATIONSHIP TO WILDLIFE, FISHERIES, AND ECONOMICS

SUMMARY

The present forest management practice throughout Southeast Alaska of clearcut logging on a rotational basis of generally 100-115 years is permanently converting old-growth, uneven-aged forests with high wildlife values to second-growth, even-aged stands of much less value to those wildlife species dependent on old-growth habitat. Logging may also adversely affect fish spawning and rearing habitat and shell fish esturine habitat, although measures can be taken to minimize impacts. More research is needed to determine long-term effects of timber harvest on fisheries.

Despite the large size of Southeast Alaska's Tongass National Forest (16.9 million acres), only a small portion (4 percent) is considered to have commercially important timber (more than 30,000 board feet per acre). Such commercial timber areas, often near tidewater at low elevations, or along valley bottoms of major river drainages, provide critical habitat for fish and wildlife. It is on this small, but important, component of the Tongass Forest that the wildlife and fisheries/logging debate centers.

As of 1978 an estimated 317,000 acres of Tongass Forest timberland had been logged. Between 1956 and 1981, areas which were logged averaged slightly less than 50,000 board feet per acre (net inventory volume). This logging is believed to have reduced the extent of the highest-volume class (more than 50,000 board feet per acre) on the forest by half. Current plans call for logging half of what is left of this highest-volume class forestwide within the next 40 years.

Clearcutting is the method of logging in Southeast Alaska because it is the most cost efficient and for silvicultural reasons. The planned rotation period for most areas is 100-115 years, i.e., areas will be cut again after 100-115 years. The common pattern is three entries into a drainage system, with second and third entries at about one-third and two-thirds of the 100 to 115-year rotation period. The highest-volume timber is normally cut on the first entry. Revegetation after cutting is natural growth unaided by replanting. After cutting, approximately 300 years are required for forestland to regain old-growth characteristics. Cutting on a rotational basis of approximately 100 years therefore permanently eliminates old-growth forest.

Clearcutting old-growth forest in Southeast Alaska will reduce the carrying capacity of winter range for Sitka blacktailed deer. High-volume, old-growth hemlock-spruce stands are preferred deer habitat during winters of heavy snowfall. Past timber harvest

has concentrated in high-volume stands and future harvest is scheduled to do the same, thereby affecting deer more than acreage figures alone would suggest. Present knowledge suggests that deer numbers in many popular hunting areas will be reduced 60-80 percent by the end of the first rotation period. Deer are hunted more than any other animal in Southeast Alaska, and reduction of carrying capacity will have major impacts on recreational and subsistence hunting. Other wildlife species that could be adversely affected by logging, road-building, and associated activities are brown bear, black bear, mountain goat, moose, marten, mink, river otter, bald eagle, Vancouver Canada goose, and a number of other bird species that overwinter or nest primarily in old-growth forest.

Commercial and recreational fishing are extremely important activities in Southeast Alaska that can be affected by logging. All five species of Pacific salmon, rainbow and cutthroat trout, and Dolly Varden char use freshwater streams for spawning and rearing. Logging can affect spawning and rearing by introducing debris, suspended sediment, and deposited sediment and by changing water temperature, amount of dissolved oxygen, and streamflow. It is especially important that uncut buffer strips be left along streams and that roads be laid out and constructed so as to have minimum impact on streams.

In addition to the impact of clearcutting itself, log dumping and rafting can affect shellfish, i.e., crabs and clams. Bark accumulating on the ocean bottom reduces populations of marine benthic organisms. Water storage of logs results in release of leachates which increases oxygen demand and thereby affects marine organisms. Actual and potential dumping and rafting sites comprise a small portion of the waters of Southeast Alaska, but sites generally are important because of high biological productivity.

Guiding, an important commercial activity in Southeast Alaska, occurs for a number of recreational activities including hunting, fishing, marine cruising, kayaking, rafting, photography, aerial sight-seeing, and ice field traveling. Clearcut areas are not esthetically pleasing for such activities. As more areas are cut, guiding will be concentrated in uncut areas, with the potential to create overcrowding and more human interaction, both undesirable from a guiding and recreational standpoint. Brown bear hunting is one of the most important forms of guiding. Logging has already disturbed enough brown bear areas that guides themselves now believe it necessary to reduce by more than one half the number of persons eligible to guide on Admiralty, Baranof, and Chichagof Islands.

The Alaska Department of Fish and Game has identified 70 drainages in the Tongass Forest with high fish and wildlife values and

recommended deferral of logging and road building until the Tongass Land Management Plan is revised in 1989. In spite of this recommendation, road building has been carried out in some of these critical habitat drainages. Forest Service representatives state that the Forest Service will analyze these recommended deferrals during preparation of the Tongass Land Management Plan Update to be completed by April 1, 1985.

Federal legislation generally provides for adequate protection for fish and wildlife on national forests. However, the managing agency, the U.S. Forest Service, has much discretion in determining management emphasis and how different values of the forest will be utilized. In Southeast Alaska the emphasis is on timber management. The Alaska Lands Act makes 4.5 billion board feet of Tongass Forest timber available to industry per decade. Recent findings suggest this level of timber harvest, if sustained, will have severe long-term impacts on wildlife and thereby on recreational and subsistence use. The Alaska Lands Act also states that utilization of public lands is to cause the least adverse impact possible on subsistence users.

Native corporations and the State of Alaska each manage approximately 3 percent of the land in Southeast Alaska. Fish and wildlife managers would like State laws and regulations strengthened to better protect fish and wildlife on these private and state lands.

The timber industry in Southeast Alaska has been dominated since the 1950s by two major companies which have long-term contracts for timber from the Tongass Forest. The timber industry is highly subsidized by the Federal government. Most forest products from the Tongass are sold overseas. The National Forest Management Act calls for revision of long-term contracts to make them consistent with guidelines and standards of the Act. Violations of the Sherman Antitrust Act, providing false information to the government in violation of contracts, and defrauding the government of more than 75 million dollars by the two long-term contract holders are other reasons for considering contract revisions.

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LOGGING IN SOUTHEAST ALASKA AND ITS RELATIONSHIP TO WILDLIFE, FISHERIES, AND ECONOMICS

INTRODUCTION

The Territorial Sportsmen of Juneau, Alaska, wish to become involved in programs and decisions affecting management of lands in Southeast Alaska. Of particular interest is the relationship of logging to fish and wildlife populations and habitat. This report has been prepared so that the members of the Territorial Sportsmen can be better informed. The report will also be used to inform others and to provide information and guidelines for the Territorial Sportsmen to evaluate and make recommendations on timber management plans and activities.

A committee composed of Greg Cook, Ed Gustafson, Christian Knoeller, Jack Lentfer, Max Lewis, Sid Morgan, and Don Schmiege was named to prepare the report. The committee asked certain outside specialists to assist with report preparation. Committee members and others and the portions of the report they have been involved with include: Tongass Forest land types--Matt Kirchhoff; Tongass Forest logging--Matt Kirchoff; Tongass Forest management guidelines--Greg Cook and Jack Lentfer; State of Alaska forest-land--Jack Lentfer and Greg Cook; wildlife--John Schoen and Matt Kirchhoff; fisheries--Greg Thomason and Steve Elliott; guiding--Vern Beier; economics of Tongass Forest logging--Jack Lentfer, Mark Kirchhoff, and Christian Knoeller. Jack Lentfer was responsible for the final synthesis and Christian Knoeller for technical editing.

Draft copies of this report with requests for comments were sent to the U.S. Forest Service, the Alaska Department of Fish and Game, the Alaska Department of Natural Resources, and Sealaska Native Regional Corporation. Draft copies were also sent to representatives of the two major Southeast Alaska timber companies, Louisiana Pacific-Ketchikan and Alaska Lumber and Pulp, along with invitations to comment at a meeting of the Board of Directors of the Territorial Sportsmen. Responses were received from the Forest Service and Alaska Departments of Natural Resources and Fish and Game, and the report was modified to reflect comments which would improve accuracy and comprehensiveness.

The Board of Directors of the Territorial Sportsmen adopted the report in December 1984.

Major land managers in Southeast Alaska are the U.S. Forest Service, the National Park Service, Native corporations, and the State of Alaska. National Park Service lands cannot be logged,

and discussion of their management will not be included in this report. The U.S. Forest Service, with 94 percent of the land in Southeast Alaska exclusive of Park Service land, is by far the largest land manager (Table 1).

Table 1. Land management in Southeast Alaska, exclusive of Glacier Bay National Park and Preserve.

	Acres	Percent
U.S. Forest Service	16,900,000	93.8
State of Alaska	482,000	2.7
Native Corporations	630,000[1/]	3.5

[1/] Native corporations are still selecting land, and this figure is the amount which will be owned after final selection.

TONGASS NATIONAL FOREST

Land Types

A diverse array of land forms and forest types comprise the 16.9 million acre Tongass National Forest. The following information is from the Tongass land type inventory in the Tongass Land Management Plan (U.S. Forest Service 1979). Nearly 40 percent of the Tongass Forest is not forested, but is composed of treeless alpine meadows, muskegs, rock, and glacial ice. An additional 29 percent of the Tongass Forest is classified as "noncommercial forestland," defined as forestland having less than 8,000 board feet of lumber per acre (Harris and Farr 1974:14). Noncommercial forestland is also defined as land not capable of producing 20 cubic feet of growth per acre per year (M.A. Barton, Regional Forester, Tongass National Forest, pers. comm. 8/20/84).

Included in noncommercial forestland are poorly drained sites, borders of muskegs, and subalpine areas where tree growth is sparse or stunted. Western and mountain hemlock, red and yellow cedar, and lodgepole pine dominate these relatively unproductive sites. The remainder of the Tongass, roughly one-third, is considered as "commercial quality forestland," capable of producing from 8,000 to over 100,000 board feet of lumber per acre.

As this volume-per-acre range suggests, a great variety of forest types occur within commercial forestland and represent ecologically distinct habitats having different values to different wildlife species at different times of the year. For inventory purposes, commercial forestland is classified into four categories based on the stand timber volume. The first category includes stands having 8,000-20,000 board feet per acre. These "low-volume" areas are relatively open, sometimes brushy, and often found on wet, poorly drained sites. Low-volume stands are common on the Tongass, accounting for half of all commercial forestland.

Medium-volume stands (20,000-30,000 board feet per acre) are characterized by larger, more densely stocked trees, and comprise about 36 percent of the total commercial forestland on the Tongass.

Higher-volume stands, by comparison, are rare. The 30,000-50,000 board-foot-per-acre category accounts for 12 percent of the commercial forestland, and the highest-volume stands, those with more than 50,000 board feet per acre, account for 2 percent of the commercial forestland on the Tongass (Figure 1). These higher-volume stands, referred to as "commercially important forestland" in a report co-authored by the Forest Service (Smith et al. 1983), contain the most valuable trees in the forest.

Such stands are typically found along toe slopes of hillsides, bordering major stream or river systems, or on flat benches along the beach; they are normally associated with deep, well drained, mineral soils. Like all old growth, these stands include trees of all ages and sizes; however, dominant trees may exceed 200 feet in height, 8 feet in diameter, and 800 years in age. A single tree that size yields more board feet than an entire acre of low-volume forestland.

Despite the seemingly boundless expanse of land on the Tongass, most is either non-forested, noncommercial forest, or low-volume forest. Only a little more than 4 percent of the total land base is high-volume important forestland (more than 30,000 board feet per acre), and less than 1 percent of the total land base is in the highest volume class containing more than 50,000 board feet per acre (U.S. Forest Service 1979).

Logging

The Tongass National Forest has a long history of industrial logging, dating back to 1833 when the first Alaskan sawmill was built at Redoubt Bay near Sitka (Harris et al. 1974). Most early logging was selective, with cutting concentrated on large, high quality, individual trees. Use of local timber gradually increased during the early 1900s as canneries and towns were built. Altogether during the decade 1910 to 1920, 420 million board feet of saw timber and piling were cut on national forest lands in Alaska. By 1923, six sawmills were cutting lumber in large quantities for local use and export. Logs for these mills came from trees up to 225 feet tall and 8 feet in diameter, growing in stands of pure spruce (Heintzlman 1923). By 1930, most of the premium stands of timber easily reached from protected shores had been logged, and increasing emphasis was being placed on developing a pulpwood industry to utilize the smaller timber.

With the award of an 8.25 billion board foot timber sale in 1951 to Ketchikan Pulp Company of Ketchikan, a 693 million board foot sale to Alaska Wood Products Company in Wrangell (affiliated with Alaska Pulp Company in Tokyo), and a 5.25 billion board foot sale in 1957 to Alaska Lumber and Pulp Company in Sitka, large scale industrial logging had finally arrived in Southeast Alaska (Harris et al. 1974). In an effort to encourage establishment of a stable, regional economy, the Forest Service granted these companies 50-year cutting rights. (Board feet are commonly used as the measure of timber to be cut under terms of the long-term contracts. Deputy Regional Forester M.A. Barton in a letter dated July 20, 1984, states that cubic feet, not board feet, were used in these contracts.)

For 25 years, prior to final approval of the Tongass Land Management Plan in 1979, loggers operated in a much less regulated

environment than they find themselves in today. Forestland offering the greatest return on investment, usually the lower elevation, high-volume sites, were logged first. Clearcuts were large and wood utilization standards lax. High-volume stands of timber located near protected coastlines or along broad valley bottoms were highly prized and actively sought by the timber industry. From 1956 through 1972 the average volume removed from inventory by cutting was in excess of 50,000 board feet per acre (Scribner inventory volume, Hutchison and LaBau 1975). From 1972 through 1981 the inventory volume removed by cutting averaged over 48,000 board feet per acre (J. Standerwick, Timber Staff Officer, Tongass National Forest, pers. comm. 4/15/83). These statistics take on even greater significance when the rarity of high volume stands is considered (Figure 1).

The Tongass Land Management Plan (TLMP), finalized in 1979, allocated individual drainages of the Tongass Forest to one of four land use designations, or LUDs. LUDs I and II are wilderness and roadless areas where commercial logging may not occur. LUD III lands are for multiple use including logging. LUD IV lands are for intensive resource use and development with emphasis on commodity or market resources; logging is the most concentrated here. Table 2 summarizes the TLMP allocation of commercial forestland among LUDs and by volume classes. It is evident that the drainages with the highest volume classes were generally allocated for commodity resource development. LUDs III and IV, where logging may occur, contain more than twice as many acres of the two highest volume classes (more than 30,000 board feet per acre) as LUDs I and II where logging does not occur. LUDs III and IV contain about six times more of the highest volume class (more than 50,000 board feet per acre) than LUDs I and II.

Today, over 317,000 acres (6.3 percent of commercial forestland) in the Tongass have been cut and are in a regenerative status. (Unpublished data on file, U.S.F.S., Regional Office, Timber Management, Juneau.) From 1980 to 1989, U.S. Forest Service plans call for an average of 17,100 acres to be cut annually on the Tongass (Smith et al. 1983). The number of acres cut will increase to approximately 22,000 acres per year late in the 100-115 year rotation period as increasing emphasis is placed on harvesting in low-volume stands. Although the rotation period for most cutting areas is 100-115 years, 244,000 acres are scheduled for cutting over a 120-200 year extended rotation for visual management and other resource needs.

The Forest Service has no record of the number of acres of high-volume timber logged to date. A conservative estimate that one-third of the acres cut to date were in the highest volume class leads to the conclusion that we are left today with less than half of the original high-volume forestland (50,000 board feet per acre and above) that existed prior to the start of large scale industrial logging in Southeast Alaska.

TONGASS NATIONAL FOREST
LAND TYPES

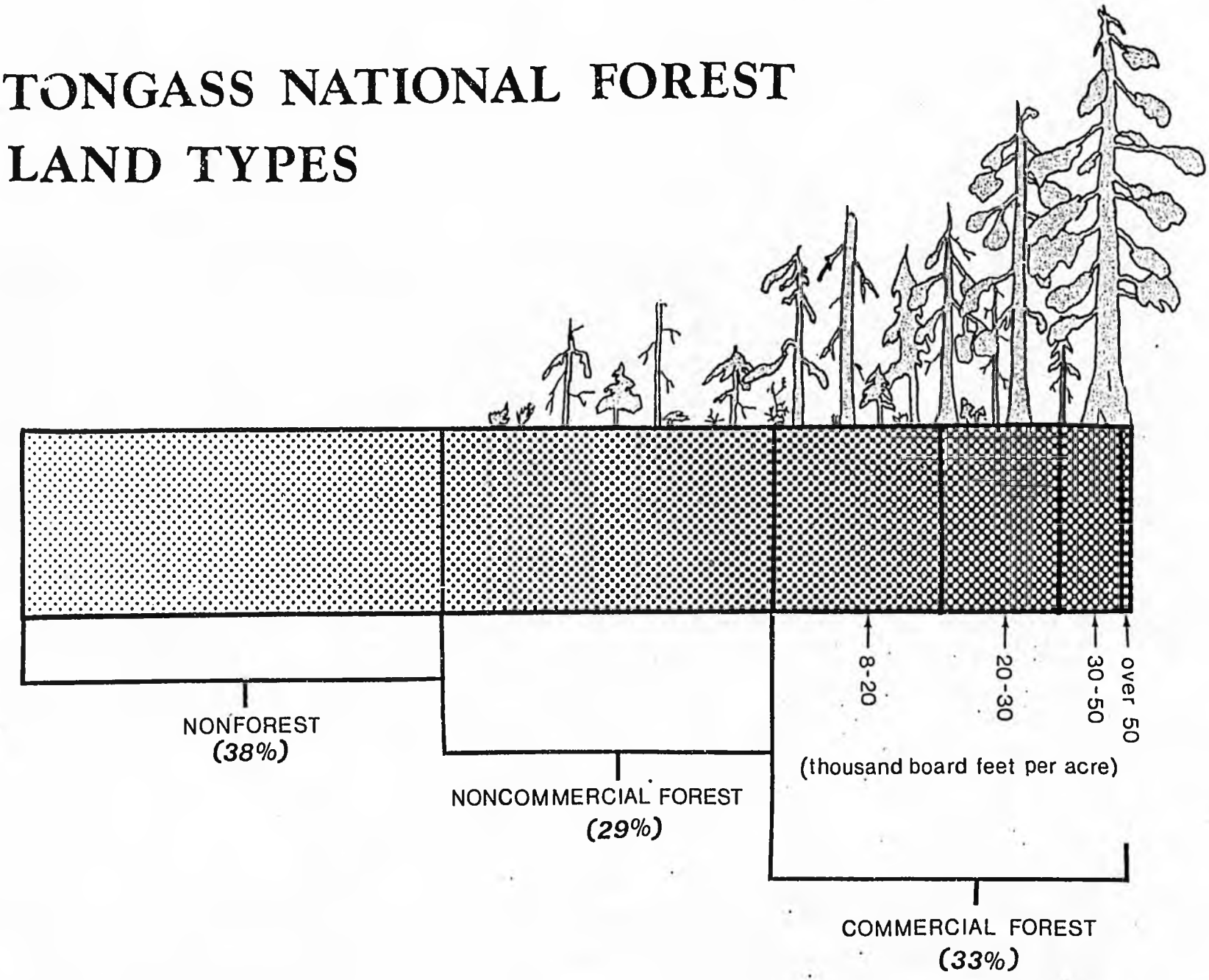

Figure 1.

Table 2. Tongass National Forest commercial forestland acreage by land use designation and volume class.[1]

Volume Class (thousand bd.ft./A)	I		II		III		IV	
	Acres	%	Acres	%	Acres	%	Acres	%
Already logged	37,981	2.6	31,187	7.9	82,253	7.4	166,769	8.4
8-20	719,442	49.3	248,496	52.6	529,124	47.3	862,197	45.2
20-30	528,403	36.2	151,577	32.1	365,375	32.7	673,675	33.7
30-50	162,765	11.2	30,736	6.5	119,902	10.7	233,249	11.7
More than 50	10,842	0.7	3,552	0.8	21,697	1.9	61,836	3.1

[1]From data on file, U.S. Forest Service, Regional Office, Juneau, 1980.

The Tongass Land Management Plan will cause the timber industry to operate increasingly in lower-volume stands. This reflects increased emphasis on resource protection (e.g., retention of valuable high-volume wildlife habitat and wilderness areas) and the present rarity of remaining high-volume stands. In the short term, however, economic realities dictate that high-volume stands will continue to be heavily harvested. Within the next 40 years, less than half of the total high-volume forest (50,000 board feet per acre) standing today in the Tongass will remain. (Unpublished data on file, U.S.F.S. Regional Office, Timber Management, Juneau, and Figure 2.)

In order to plan on sources of timber for cutting throughout the first rotation period, generally 100-115 years, the Forest Service has scheduled the amount of cutting within management units (value comparison units or VCUs) throughout the forest. A number of VCUs on the mainland in the vicinity of Juneau, on northern Admiralty Island, and on western Chichagof Island are listed to give examples of what has been cut and is scheduled for cutting during the first rotation period (Table 3). Deer habitat will be altered significantly, and an estimate of the percentage of deer remaining in each VCU after the first rotation period is also included in Table 3.

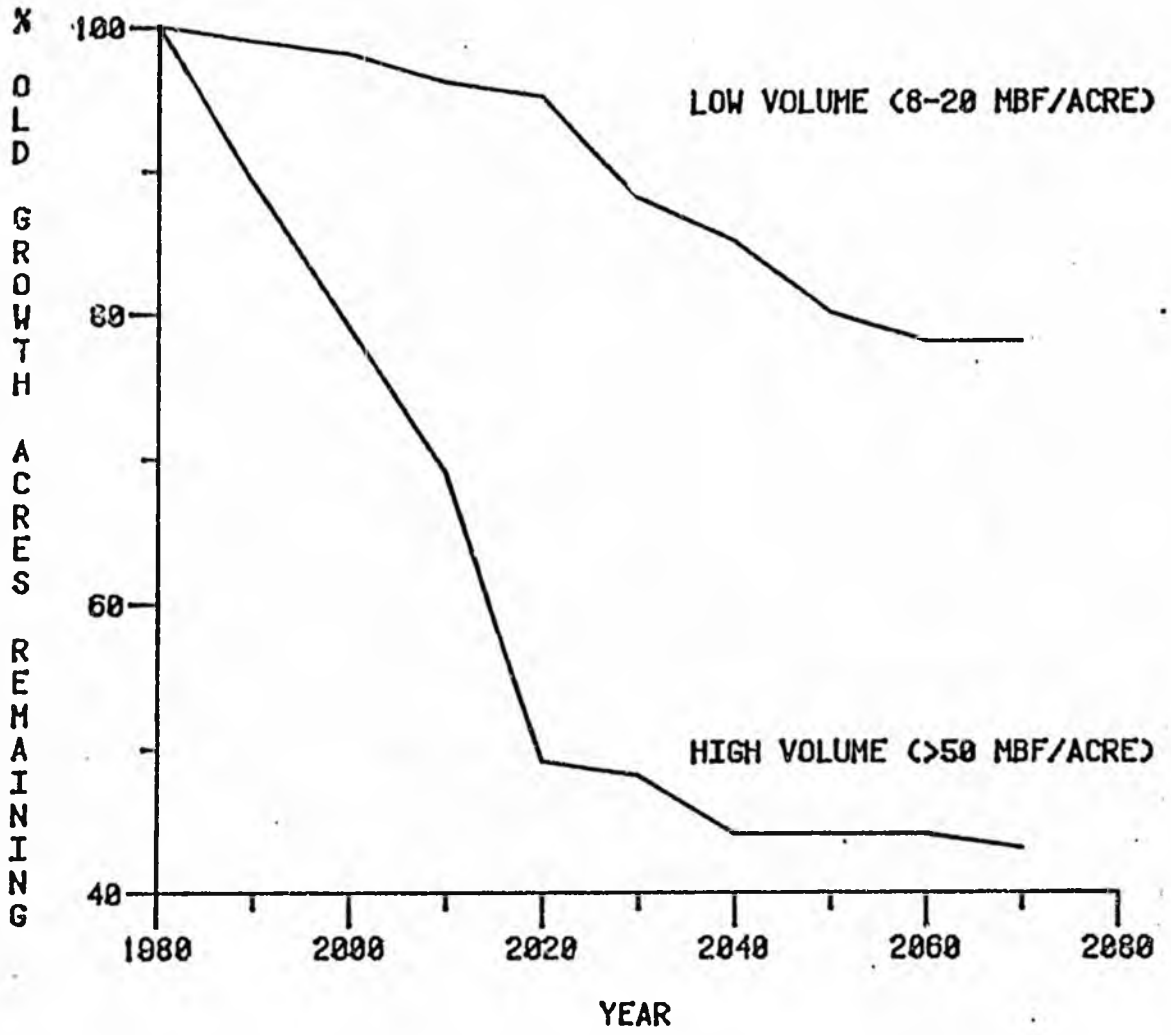

Figure 2. OLD GROWTH DEPLETION SCHEDULED 1980-2080

Table 3. Percentages of total commercial forestland (more than 8,000 board feet per acre) which have been cut and are scheduled for cutting during the first rotation period (generally 100-115 years) and percent deer remaining after first rotation period on selected VCUs in Southeast Alaska.[1]

VCU	Percent CFL Already Harvested	Percent CFL Scheduled For Harvest	Percent Deer Remaining After 100-115 Years
Echo Cove	0.0	43.5	30.7
Taku Harbor	1.1	50.1	35.3
Gilbert Bay	0.0	56.7	41.4
Windham Bay	0.0	68.6	41.9
Hobart Bay	0.0	75.8	28.3
Port Houghton	0.0	93.7	25.6
William Henry Bay	0.0	49.6	77.2
Barlow Cove	2.0	48.3	59.7
Funter Bay	0.0	50.2	38.2
Hawk Inlet	5.1	78.6	12.4
Lone Mountain	0.0	61.9	26.1
Fowler Creek	1.7	76.0	11.9
Young Bay	0.0	48.4	37.3
Eagle Peak	0.0	60.5	23.1
False Bay	0.0	83.3	15.9
Kennel Creek	4.7	63.6	16.1
Pavlof River	4.4	73.4	21.9
Tenakee Springs	2.4	66.7	17.5
Crab Bay	5.9	67.0	31.7
Kadashan	1.1	64.1	23.8
Corner Bay	21.9	66.7	22.0
Sitkoh Bay	11.3	70.0	24.2

[1]From Rideout, et al. 1984 and Schoen et al. 1985.

Aside from the demonstrated value of high-volume timber stands for deer in winter (see discussion elsewhere in this report and literature cited), these rare stands have value as ecological communities in their own right. The esthetic value of a grove of 200-foot spruce trees, centuries in the making, cannot be easily weighed against the value of the trees as lumber or pulp. While a relatively small percentage of the Tongass Forest overall will be changed by logging, under present plans, an already relatively rare forest type, high-volume old growth, will be reduced even further.

Management Guidelines

A number of laws pertain to resource management for federal and state public lands. Those most important for Southeast Alaska are summarized here. Cook (1984) provides a more detailed description of laws and their interpretation.

The Multiple Use-Sustained Yield Act of 1960 requires that National Forests be administered on a sustained-yield basis for outdoor recreation, range, timber, watershed, and wildlife and fish purposes. Several court decisions relating to the Multiple-Use Sustained Yield Act have resulted in the interpretation that the Forest Service has almost unlimited discretion in determining how much emphasis each of these multiple use values will receive (Cook 1984). In actual practice, the emphasis in Southeast Alaska has always been on timber.

The Alaska Native Claims Settlement Act of 1971 authorizes Southeast Alaska Native corporations to select land in the Tongass National Forest for private ownership. When selection is complete the regional corporation, Sealaska, and 12 village corporations will own an estimated 630,000 acres.

The Coastal Zone Management Act of 1972 requires that private landowners as well as state and federal agencies undertaking development projects in the coastal zone of a state ensure that they meet applicable provisions of the state's approved coastal management program.

The National Forest Management Act of 1976 (NFMA) comes closer than any other federal law to providing explicit and enforceable standards relating to fish and wildlife habitat protection on National Forest lands. The Act requires that management activities be done in a manner that provides for diversity of plant and animal communities. NFMA requires that if clearcutting occurs, it must be carried out in a manner consistent with the protection of soil, watershed, fish, wildlife, recreation, and esthetic resources, and the regeneration of the timber resource. NFMA directs the Secretary of Agriculture to revise the 50-year timber sales contracts in Alaska to make them consistent with the guidelines and standards provided by the Act.

Legislative history of the NFMA provides more insight on the intent of Congress. The Senate Report states that timber production and sale are important, but not the sole objective of management planning, and that the other resources of the forests, including wildlife and fish habitat, water, air, esthetics, and wilderness, must be improved and protected. The Senate Committee also believed widespread cutting of mature trees to be incompatible with management of the national forests, where decisions must be based on the numerous public values of the forest, in

addition to economic returns. The Committee was concerned that significant damage was still occurring to fish and wildlife habitat, particularly in Alaska. They thought the Forest Service should make greater use of the expertise of state fish and wildlife agencies, the Fish and Wildlife Service, and the National Marine Fisheries Service.

The committee report on NFMA stated that clearcutting and other harvest systems resulting in even-aged stands had greater adverse ecological impact than uneven-aged management. The decision to use even-aged management systems should not be based solely on economic benefits, i.e., dollar return. Rather, the committee wrote that the full scope of environmental effects (natural, economic, and social) should be evaluated and even-aged systems used only when they best meet forest management objectives for the individual management plan.

Regulations implementing the NFMA were adopted by the U.S. Forest Service in 1979 and significantly amended in 1982. One summary commented that the regulations abound with phrases and adverbs designed to provide escape hatches from otherwise strict requirements (Coggins and Ward 1981). The definition of multiple use does call for harmonious and coordinated management of the various resources without impairment of the productivity of the land. Sustained yield is defined in the regulations as "the achievement and maintenance in perpetuity of a high level annual or regular periodic output of the various renewable resources of the National Forest System without impairing land productivity."

The NFMA regulations require a detailed approach to resource management planning. A key aspect is the interdisciplinary team (IDT), which integrates biological, physical, economic, and social science disciplines. After public participation in the process, the IDT drafts management plans which identify and recommend alternatives for achieving management objectives. The Regional Forester has final authority for selection of a management plan.

NFMA regulations state that fish and wildlife shall be managed to maintain viable populations of existing native vertebrate species. For planning purposes, a viable population is defined as one which has the estimated numbers and distribution of reproductive individuals to ensure that it will continue to exist and be well distributed in the planning area. In order to ensure that viable populations will be maintained, habitat must be provided to support at least a minimum number of reproductive individuals, and that habitat must be well distributed so that those individuals can interact with others in the planning area.

Regulations also require selection of management indicator species chosen so that population changes of indicator species will indicate effects of management activities. The management indicator

species categories should contain animals that are commonly hunted, fished, and trapped. The IDT is directed to estimate the effects of changes in vegetation type, timber age classes, community composition, rotation age, and year-long suitability of habitat related to mobility of management indicator species. Where appropriate, the IDT recommends measures to mitigate adverse effects. Population trends of the management indicator species are monitored and relationships to habitat changes determined by the IDT. This monitoring is done to whatever extent possible in cooperation with state fish and wildlife agencies.

Another NFMA regulation requires that planning alternatives be stated and evaluated in terms of the amount and quality of habitat as well as animal population trends of the management indicator species.

NFMA also requires forestland management plans. This resulted in the Tongass Land Management Plan (TLMP) for Southeast Alaska. TLMP is a 10-year allocation plan whereby various portions of the forest are to be managed to achieve a set of goals and objectives. The forest was divided by drainages into value comparison units (VCUs) which were allocated to four major land use designations (LUDs). LUDs I and II, where timber harvesting is not permitted, contain approximately 8.1 million acres, of which 2.1 million acres are classified as commercial forestland. LUDs III and IV, where cutting will occur, contain about 6.9 million acres, of which 3.1 million acres are commercial forestland. In general, except for portions of Admiralty Island, areas with the highest value timber lands are classified as LUDs III and IV. Many of the high value LUD III and IV timber areas also have high wildlife values.

In the preparation of TLMP, fisheries and wildlife task forces were established to rate VCUs for fisheries and wildlife values. A shortcoming of the wildlife rating system recognized by some task force members was that one criterion, the number of species in an area, was weighted too heavily and that importance of individual species was not given enough consideration (Bob Wood, ADF&G, pers. comm.). The Wildlife Task Force also recommended retention figures, or the amount of timber that it considered an absolute minimum to be left uncut for wildlife. As an example, for deer the Wildlife Task Force recommended that 50 percent of existing old-growth commercial forestland be retained as intermediate range and that 90 percent of beach fringe commercial forestland be retained as critical range (U.S. Forest Service 1978). The Wildlife Task Force also stated, ". . .that, if the Task Force's retention factors are reasonably valid, there will be a continuing trend toward lowering wildlife habitat quality in areas where logging and other similar developments take place."

Task force recommendations went to an interdisciplinary team (IDT) which then drafted TLMP. The Alaska Department of Fish and Game wildlife specialist on the IDT was not in agreement with the IDT recommended alternative because too much timber would be removed, thereby impacting wildlife habitat too severely. Even so, the IDT recommended alternative did contain retention factors, or areas to be left uncut for wildlife and related values. These were reduced by the Alaska Regional Forester in the version of TLMP that was finally adopted. TLMP provides for an average annual allowable harvest of not less than 450 million board feet of timber or 17,000-18,000 acres a year. This is based on the industry's scaled volume and is equivalent to approximately 550 million board feet inventory volume.

The Alaska Department of Fish and Game commented on TLMP when it was in draft form (R. O. Skoog, Commissioner, ADF&G, Memorandum, 8/4/78). One concern of the Department was that wildlife habitat ratings on which TLMP is based often did not reflect true values. Ratings were based primarily on the number of species present rather than the importance of individual species or the value of areas to users. This resulted in some islands with relatively few species but with high wildlife values receiving lower wildlife ratings than mainland areas of less wildlife value that were rated high because they had more species.

Another Department of Fish and Game comment on TLMP (R. O. Skoog, Commissioner, ADF&G, Memorandum 8/4/78) was that the economics of timber harvest as it affects guiding, trapping, and viewing of wildlife should be analyzed along with the economics related to timber industry jobs. To attain a balanced resource allocation, the Department of Fish and Game recommended that a certain alternative (D) or another modified alternative (C) be adopted for the final version of TLMP. Alternative (C) was similar to the alternative recommended by the IDT that prepared TLMP. Both alternatives were rejected for the final TLMP, and a more intensive timber harvest plan was adopted.

Since TLMP was adopted, the Alaska Department of Fish and Game has identified 70 Class 1 VCUs, mainly in LUDs III and IV, that have high fish and wildlife values, and requested that road building and cutting be deferred until TLMP is revised in 1989 (Matthews and McKnight 1982). This is based not only on the yet unanswered questions concerning the effects of logging on fish populations and all old-growth-dependent wildlife but also on the already well documented effects of timber harvest on certain old-growth-dependent wildlife species (D. Kelso, Deputy Commissioner, ADF&G, pers. comm. 7/19/84). This State recommendation has not been accepted by the U.S. Forest Service, and roads have been built in Blind Slough and Kadashan, both Class 1 VCUs. A Forest Service representative states that Department of Fish and Game recommendations will be considered for the Tongass Land Management Plan Update scheduled for completion by April 1, 1985.

TLMP was adopted in March 1979 for a 10-year period. After 5 years, the Forest Service has prepared an Evaluation Report (U.S. Forest Service 1984) to provide a basis for updating and improving TLMP, aid in preparing a Tongass Forest status report for Congress as required by the Alaska National Interest Lands Conservation Act, and document how original TLMP management direction has been implemented to date. The report may also provide insight about what should be addressed when TLMP is revised in 1989.

The Alaska Chapter of the Wildlife Society requested revisions in the 1981-86 Timber Sale Operating Plan prepared under TLMP guidelines (Mickelson 1980). One of the reasons for requesting a revision was that the timber sale was not in compliance with plant and animal diversity requirements of NFMA. The Forest Service rejected the Wildlife Society's appeal even though the Forest Service did agree that diversity is not reviewed in TLMP with the specificity required by the NFMA current regulations and requires improvement (Peterson 1980, p. 9).

NFMA regulations were adopted in March 1979, 6 months after TLMP was adopted. Lack of NFMA regulations may be considered by some as justification for TLMP not being consistent with NFMA. Nonetheless, the intent of the NFMA statute is clear, and it would seem reasonable that TLMP conform to this intent. Also, it would seem that NFMA draft regulations could have served as guidelines for TLMP. The TLMP revision scheduled for 1989 is intended to remedy discrepancies between TLMP and NFMA (M.A. Barton, Tongass National Forest Regional Forester, pers. comm. 8/20/84).

The Alaska Regional Guide is a policy document also required by NFMA, and was adopted in December 1983. It encompasses the guidelines previously in the Southeast Area Guide. One of the guidelines addresses desirable levels of wildlife. The Regional Guide states "Desirable levels of wildlife will be determined primarily by the Alaska Department of Fish And Game, and wildlife habitat will be determined primarily by the Forest Service . . ." Hoopes (1982) states that "The Alaska Department of Fish and Game policy on 'desired' levels is clear: maintenance of maximum numbers of fish and wildlife that can be supported by the existing habitat in an ecologically sound manner." Hoopes (1982) further discusses desired levels and states, "Selected levels will reflect public demand for the resource, but which segment of the public is to be considered? As a National resource, levels should reflect the demands of people nationwide, not just local or regional users. Public demand for wildlife is not static and will quite probably increase in the future. Public demand includes both consumptive and nonconsumptive uses of wildlife. While consumptive use can be quantified, how will nonconsumptive uses be evaluated? Wildlife use is not readily translated into demand or desired levels. What levels are desirable to ensure a reasonable opportunity exists to view or harvest wildlife? To most users, not enough wildlife exists even now."

Another statute that affects forest management in Southeast Alaska is the Alaska National Interest Lands Conservation Act of 1980 (ANILCA). This Act makes $40 million available to the Secretary of Agriculture annually, or as much as the Secretary finds is necessary, to maintain the timber supply from the Tongass National Forest to dependent industry at a rate of 4.5 billion board feet per decade. It is important to note that ANILCA does not mandate an actual harvest of this amount of timber, but that the Forest Service must make the timber available to industry. If stands are not economically attractive, and industry chooses not to harvest them, that situation would not violate the law so long as the Forest Service had made reasonable efforts to make the timber available.

Statements of Congressional intent amplify on these points. Representative Udall (Congressional Record 11/12/80, p. 10542) made the following statements. "In keeping with existing National Forest Act provisions, this [Section 705] is not a mandate to produce a specific cut level regardless of the findings of future land use plans, demand for National Forest timber, or the cost to the taxpayer. . . No more national forest timber should be supplied than can be sold at fair market value."

Representative Udall also addressed the purpose of the $40 million appropriation. He stated it is the intent of Congress "to maximize protection to environmentally sensitive areas, particularly those with high fish and wildlife values." He also stated "Our intent is to encourage retention of old-growth forests for multiple use considerations rather than reduce old-growth retention in order to lower costs. The funding provided by Section 705 is to enable the Forest Service to adhere to the land use allocations of the [Tongass Land Management] plan and in the process, to protect the non-economic values embodied in the plan."

Another provision of ANILCA requires that the Secretary of Agriculture report to Congress every 2 years, beginning in 1985, on a variety of issues, including measures instituted by the Forest Service to protect fish and wildlife.

The subsistence provisions of ANILCA also affect management of the Tongass Forest. ANILCA states that utilization of public lands in Alaska is to cause the least adverse impact possible on rural residents who depend on subsistence uses of such lands. Before making resource use decisions, the head of the responsible federal agency must evaluate the effect of the decision on subsistence uses and needs, and consider using other lands and alternatives. He must also determine that reasonable steps will be taken to minimize adverse impacts on subsistence resources and uses caused by such resource use decisions. Judicial enforcement of the subsistence priority is provided for in ANILCA, with an expedited hearing in federal District Court as the forum.

The $40 million annual appropriation authorized by ANILCA may not necessarily have to be spent directly on timber production and possibly could be spent on wildlife and fisheries projects. The Office of General Counsel, Department of Agriculture (C. W. Brizee, 1/30/81), states that a request for such funds for a program not related to timber production is defensible if the Secretary can justify the program to sustain the desired timber harvest level.

The Forest Service's own administrative manual also influences Tongass Forest management. Many day-to-day policies, including those affecting fish and wildlife, are found in the U.S. Forest Service Manual. The manual states that where other resource activities or uses are proposed that affect fish or wildlife habitat objectives, habitat shall be examined, multi-resource prescriptions prepared, and the consequences of alternatives evaluated and displayed. Where opportunity exists to improve the capability for fish and wildlife, it should be included in the multi-resource prescription.

The Forest Service has recently initiated a second-growth management program and states, "Although this program is just being implemented and it will be many years before the effectiveness of some of the wildlife treatments can be completely evaluated, this program constitutes a significant effort by the Forest Service to address concerns associated with second-growth. . ." (M.A. Barton, Regional Forester, Tongass National Forest, pers. comm. 8/20/84).

The major treatment for wildlife in the second-growth management program is thinning of second-growth stands. Alaback and Tappeiner (1984) studied response of understory vegetation to thinning in Southeast Alaska. Looking at a range of stand ages, site classes, and thinning regimes, they found that "(after thinning) herbs and mosses decreased their relative contribution to understory biomass, and in many cases actually decreased productivity. . . Understory shrubs and herbs on precommercially thinned stands (20-30 years old) were the least responsive to thinning. On most plots, tree seedlings increased productivity at the expense of herbs and shrubs . . . Although the understory biomass accumulation of some stands following thinning was highly significant, it was less than that measured in several old-growth stands . . . Several measurements at 5-10 year intervals will be necessary to assess how understory vegetation will change in response to thinning over the course of a complete timber rotation . . . The short-term results of thinning experiments suggests that thinning may have some potential for increasing the overall productivity of understory vegetation in second-growth stands in Southeast Alaska. How significant thinning may be to improving deer winter range will depend on how quickly forest overstory canopies close after thinning, what influence a secondary Tsuga canopy created by heavy thinning will have on the understory, and the nutritional requirements of deer and other wildlife."

STATE OF ALASKA FORESTLAND

The State of Alaska owns approximately 482,000 acres in Southeast Alaska, of which about 400,000 acres are in the Haines-Skagway area. Nearly all state forestlands are in the Haines area and comprise 229,000 acres, of which 94,000 are timbered. Inoperable logging conditions and land classifications which preclude logging reduce the amount of operable forest land to 59,000 acres.

An estimated 12,000 acres have been logged to date in the Haines area, and the current cutting rate is 200-500 acres per year. The total uncut commercial old-growth forest in the Haines area is estimated to be over 67,000 acres; the estimate of old-growth forest remaining at the end of 100 years is 32,000 acres.

The following discussion on management guidelines for state lands is from Cook (1984). Natural resource management, including forest management, has a basis in the Alaska constitution, which states that forests and other replenishable resources shall be utilized, developed, and maintained on the sustained-yield basis, subject to preference among beneficial uses.

Alaska's constitution also states that wherever occurring in the natural state, fish and wildlife and waters are reserved to the people for common use. This and various court decisions argue for a public trust doctrine applying to fisheries and wildlife. On this basis, the State would be obligated to provide protection to fisheries and wildlife relative to logging and other activities with the potential for harming them.

Two statutes can also be interpreted to impose trust responsibilities on the State. The Land Policy Act mandates that resource requirements of future generations shall be considered and requires the Commissioner of the Department of Natural Resources to consider present and potential resource users.

The Alaska Forest Resources and Practices Act requires that renewable forest resources be administered to best provide for present needs and preserve future options of the people of Alaska. Renewable forest resources include, of course, fish and wildlife. The Forest Practices Act gives guidelines for managing forest resources on state lands. These include multiple-use and sustained-yield principles. Activities causing prolonged or substantial damage to renewable resources or the capability of the land or water to produce renewable resources are prohibited. The Act is administered by the Department of Natural Resources. A 14-member Board of Forestry appointed by the governor reviews regulations before they are adopted by the Commissioner of the Department of Natural Resources.

The adequacy of protection of non-timber resources provided by the Forest Practices Act was addressed in a recent survey by the State Division of Forestry (Table 4). This would indicate that the Act is not as protective of fish and wildlife as desirable.

PRIVATE FORESTLAND

Nearly all privately-owned forestland in Southeast Alaska has or will be selected by Native corporations from the Tongass National Forest under provisions of the Alaska Native Claims Settlement Act of 1971 (ANCSA). The Native regional corporation, Sealaska, and the 12 village corporations have thus far selected about 575,000 acres. When selection is complete, they will own an estimated 630,000 acres (330,000 acres by Sealaska and 300,000 acres by village corporations). A primary use of the lands will be timber harvest from an estimated base of 11-14 billion board feet of timber. Through July 1, 1981, Sealaska had selected approximately 195,000 acres, of which 74 percent is commercial forestland, 11 percent is noncommercial forest, and 14 percent is non-forestland (Sealaska 1982). Native corporations have logged about 61,000 acres to date, and intend to log 13,300 acres in 1984 (J. Sturgeon, State Forester, pers. comm. 3/22/84).

While provisions had originally been made legislatively to regulate management of private timberlands, those mandates have not been carried out and have since expired. Section 22-k of ANCSA states that lands selected by Native Corporations from the Tongass Forest shall be managed for 12 years on a sustained-yield and environmentally sound basis no less stringent than similar management provisions for adjacent National Forest lands. This provision, highly desirable from a wildlife and fisheries habitat protection standpoint, was not enforced by the U.S. Bureau of Land Management, the agency that eventually acquired responsibility for enforcement. The end of the 12-year period since passage of ANCSA was reached in December 1983, and landowners and overseeing agencies interpreted this as the end of regulation under Section 22-k. A lawsuit (Angoon v. Marsh), claiming that the date of conveyance of lands rather than enactment date of ANCSA should be the start of the 12-year 22-k regulatory period, is still pending, however.

Table 4. Responses (%) to questionnaire on State Forest Practices Act regarding amount of non-timber resource protection provided and overall effect.[1/]

Amount of Protection to Non-Timber Resources	Respondents		
	Industry	ADF&G[2/] ADEC	DNR[2/] Foresters
Too Much	40	0	22
Right Amount	60	0	55
Not Enough	0	100	23
Overall Effect			
Positive	68	60	75
Negative	0	0	0
Both	24	0	25
Neutral	8	40	0

[1/] Survey by Division of Forestry, Alaska Department of Natural Resources (J. Sturgeon, State Forester, Pers. Comm., 3/22/84).

[2/] ADF&G - Alaska Department of Fish and Game
ADEC - Alaska Department of Environmental Conservation
DNR - Alaska Department of Natural Resources

When regulation of Native lands under Section 22-k expired, regulation of forest practices came under state statute, the Alaska Forest Resources and Practices Act of 1979. This Act regulates forest practices on both state and private lands, but with different criteria. Provisions applying to state and municipal forest lands, but from which private forestlands are exempt are: management based on multiple use and sustained yield (other than for timber) principles which best provide for present needs and preserve future options; any system of allocating predominant uses or values to a unit of land to reflect the resources and values of that unit; timber harvesting limited to areas where natural or artificial reforestation will provide a sustained yield of merchantable timber; productivity of land and water with respect to natural resources not to be impaired; and, where economically practicable, allowance may be made for scenic quality in or adjacent to areas important for tourism and recreation. Regulations to implement the State Forest Practices Act do protect streams and provide for soil stabilization on private as well as on state lands. Nevertheless, the Act and regulations provide much less fish and wildlife habitat protection on private lands than on state and municipal lands (Table 4).

WILDLIFE

Relatively little research has occurred on wildlife-forest relationships in southeast Alaska and for many species, habitat relationships are still largely unknown. Accounts which follow summarize current knowledge for those species which have been studied.

Deer

For more than a decade, research on Sitka black-tailed deer in Southeast Alaska has shown that clearcutting old-growth forest will reduce the carrying capacity of deer winter range (Leopold and Barrett 1972, Bloom 1978, Barrett 1979, Schoen and Wallmo 1979, Wallmo and Schoen 1980, Schoen et al. 1981, 1984, Alaback 1982, Rose 1982, Kessler 1982, Kirchhoff et al. 1983, Hanley et al. 1983). These and other studies document the value of old growth as important winter deer habitat. Although climatic conditions vary in Southeast Alaska, findings of a number of workers (referenced above) in northern Southeast Alaska are corroborated by Rose (1982) who worked in the more moderate climate of southern Southeast Alaska. Still further to the south, other investigators have described the importance of old growth to deer on Vancouver Island, British Columbia (Gates 1968, Jones 1975, Weger 1977, Bunnell 1979, Hebert 1979, Harestad 1979), the Olympic National Forest in coastal Washington (Taber and Raedeke 1980), and northwestern Montana (Mundinger 1984).

In Southeast Alaska, deer populations are generally limited by winter weather and the quality and quantity of the winter range. (An exception may be a few small islands where summer range is limiting.) Old growth provides deer with abundant food and shelter from deep snow. Second-growth forests are poor deer habitat in Alaska throughout the year because of the lack of forage plants. These forests will make up approximately 75 to 80 percent of the managed forests under a 100-year rotation. Clearcuts provide abundant forage for only the first 15 to 20 years of the rotation period. A further complication is that during periods with snow accumulation greater than a few inches, the most valuable forage for deer (herbaceous species such as bunchberry, trailing raspberry, and gold thread) are inaccessible in open clearcuts. Additionally, recent evidence suggests that the quality of the forage plants found in clearcuts is lower than quality of the same plants in old-growth forest (Billings and Wheeler 1979, Schoen and Kirchhoff 1984).

All old growth is not the same, however. High-volume hemlock-spruce stands are preferred by deer during winters with heavy snowfall, while low-volume and noncommercial stands are avoided, as are high-volume spruce riparian stands (Schoen and Kirchhoff 1983). The high-volume stands with larger trees and canopies

intercept more snow than do lower-volume and noncommercial stands, resulting in lower snow depths and more available deer forage. In addition, bunchberry (a highly preferred forage plant) is significantly higher in nutritional quality in high-volume stands compared to low-volume stands (Schoen and Kirchhoff 1984, Flynn ADF&G unpublished data). Past timber harvesting has concentrated in the highest-volume stands, and future plans also project a disproportionate harvest in the higher-volume stands. The result will be a greater impact on deer than acreage figures alone may suggest.

There is an immediate management need for information relating old-growth harvest to deer populations in Southeast Alaska. The Alaska Department of Fish and Game has addressed this need by developing a model which predicts population changes in Sitka black-tailed deer as a result of logging in Southeast Alaska (Schoen et al. 1985). The model is based on habitat preference of radio-collared deer at Hawk Inlet, Admiralty Island, measured under low and high snowfall conditions. The model offers managers a systematic technique for evaluating timber management alternatives and their potential long term effects on deer populations. Alaska Department of Fish and Game and U.S. Forest Service biologists have also been developing a Southeast Alaska Multi Resource Model (SAMM, Fight et al. in prep.) which describes the interactions between timber management, hydrology, fisheries, and deer in selected watersheds on the Tongass. Developed primarily as an aid to research, this conceptual model may be adapted for management application in the future.

Wolves are a predator on deer in some areas and may keep populations depressed in years following severe winters and population die-offs (Olsen 1979). The Alaska Department of Fish and Game started a long-term study of wolf/deer-habitat relationships in southern Southeast Alaska in 1984.

Brown Bear

Historically the brown/grizzly bear was widely distributed in North America from central Mexico to northern Canada and Alaska, and from the Mississippi River to the Pacific Coast (Hall and Kelson 1959). Its distribution today is greatly reduced, with populations restricted to northwestern Canada, Alaska, and a few scattered wilderness enclaves in Montana, Idaho, and Wyoming. Alaska has the last major population of brown/grizzly bears in the United States.

Brown bears are indigenous to Southeast Alaska where they occur on the islands north of Frederick Sound and the mainland. Management concerns include hunting, effects of disturbance from increased human activities associated with development and recreation, and habitat alteration resulting from clearcut logging and

mining activities. An effect of habitat alteration of special concern is the greatly reduced vegetative understory in regrowth stands; brown bears are omniverous, and understory vegetation forms a significant part of their diet. Anadromous fish are another important food, and any reduction in fish runs that might result from mining or logging is also of concern.

The effects of removing old-growth forest on brown bear populations in Southeast Alaska are unknown. Johnson (1980) stated, "Development of an extensive logging industry has perhaps the greatest impact on bear management in Southeast Alaska . . . one known impact which is primarily a management problem but at the same time contributes significantly to the kill, is the rather large number of bears destroyed in logging and support camps. This kill may approach 10 percent of the reported legal kill."

In Montana, Mace (1983) reported grizzly bears avoided or moved out of recently logged areas. Craighead (1977) and Jonkel (1977) suggested that human induced mortality associated with logging may be the major contribution to grizzly bear declines. In British Columbia, Russell (1974) indicated that coastal brown bear populations were incompatible with intensive forestry. Smith (1978) suggested that other factors, in addition to habitat alteration, may be contributing to declines in brown bear populations in this area. Archibald (1981), also in British Columbia, suggested that development in coastal mainland forests appears to result in declining brown bear populations.

Although much research has been conducted on northern and interior brown/grizzly bear populations, comparatively less work has been done in forested, coastal brown bear habitat. As development, including forestry and mining, increases in the coastal forests of British Columbia and Alaska, more information will be necessary to maintain current brown bear population levels.

The Alaska Department of Fish and Game began brown bear research in Southeast Alaska in the fall of 1981. Major objectives are to determine seasonal distribution and habitat preference, home range, den site characteristics, and reproductive rates. Current research is being conducted in Tenakee Inlet on Chichagof Island and Hawk Inlet on Admiralty Island (Schoen 1982, Schoen and Beier 1983). There is an historically demonstrated incompatibility between brown/grizzly bears and man. As Craighead et al. (1982) stated, "Space and solitude are essential for maintaining grizzly bears in perpetuity . . . Research and management efforts throughout North America should focus on the largest wilderness areas of prime bear habitat." Construction of roads with their inevitable increase in human activity and development will substantially increase the number of bear-human conflicts.

Three types of human-related bear mortality occur: legal harvest, illegal take, and take in defense of life and property. Legal harvest can be managed, but as major road systems proliferate in Southeast Alaska as a result of logging, the Alaska Board of Game will need to consider more restrictive harvest regimes. One possibility is a permit system with numbers of permits allocated by drainage. Illegal take and defense of life and property incidents cannot be effectively controlled and will increase as logging brings about development of formerly unroaded wild country.

Black Bear

Black bears occur on the mainland of Southeast Alaska and on the islands south of Frederick Sound. Black bears have generally not been studied or managed intensively in Southeast Alaska. The only major study was by Erickson (1982) who investigated the denning characteristics of black bears on Mitkof Island. He found that bears utilize clearcuts in summer, but den in large trees or hollow logs--available only in old-growth stands. Black bears do occur in high densities in some areas of Southeast Alaska where logging has occurred. Studies are needed to relate bear populations to successional stages following logging. More specifically, are these high bear populations associated with the dense understory and abundant plant food species immediately following clearcutting, and how are populations affected during the next successional stage when the understory is shaded out by even-aged, densely spaced second growth?

Lindzey and Meslow's (1977a) study on the Washington coast found that, "physical disturbance and loss of habitat due to timber harvest between 1952 and 1968 may have caused bears to leave the island or increased mortality and perhaps reduced productivity of those that remained." Additionally, Lindzey and Meslow (1977b) reported that plant species preferred as forage by black bears declined by 85 percent as cuts progressed from 6-11 to 40+ years of age. Bears used 40+ year-old regrowth significantly less than expected, given its availability. In western Washington, Poelker and Hartwell (1973) surmised that black bear damage to conifer regeneration at 20-40 years of age was related to food shortage in those stands.

The potential adverse impacts of logging are not restricted to forage requirements. Johnson and Pelton (1981) analyzed the selection and availability of den sites in the Great Smokey Mountains and concluded that remnant old-growth stands were important denning habitat, particularly for females and young bears. Use of tree cavities for denning was also reported by Polker and Hartwell (1973) and Lindzey and Meslow (1976) in Washington and by Erickson et al. (1982) and Miller and McAllister (1982) in south coastal Alaska.

Although li ·le research has been done on black bear/forest relationships i Southeast Alaska, it is important to look at long term (over _ 100-year rotation) effects of habitat changes for black bears. It seems logical to predict that large scale conversion of productive old-growth forests to relatively sterile second growth over most of the rotational period will result in declines in black bear populations.

Mountain Goat

Mountain goats are indigenous to the Southeast Alaska mainland, have been successfully introduced to Baranof Island, and were introduced to Revillagigedo Island in 1983. Although mountain goats are not considered animals of the forest, in Southeast Alaska, many goats winter in old-growth forest habitat (Schoen and Kirchhoff 1982, Smith 1983, Fox 1983). In some areas goats occur in commercial forestland that may be clearcut. In other areas, it is unlikely that clearcut logging will pose a direct threat to forested goat habitat because such steep areas are currently classified as unharvestable and the timber is of marginal economic value. However, as harvest methods change (e.g., helicopter logging) conflicts in these areas may develop. There is evidence of substantial goat use in small "islands" of steep old-growth forests. Extensive logging between "islands" of preferred goat habitat could create barriers to dispersal. Smith and Raedeke (1982) discuss the problems of timber development in forested goat habitat on the Cleveland Peninsula and the possibility of increased mortality and eventual elimination of the population, as a result of logging and road-building.

Although logging may not result in widespread habitat degredation as is the case for deer, the indirect impacts on goat populations during and following logging may be substantial. Improved access into many drainages has the potential for concentrating legal hunting, poaching, and disturbance. These problems are not restricted to timber activities but could also result from mining, hydroelectric projects, and other development.

Moose

Moose are found in scattered populations in Southeast Alaska primarily in the major mainland river drainages. Moose are considered a successional species which generally benefits from fire and logging. The major moose research in Southeast Alaska has been conducted in Thomas Bay (Doerr 1983), the Chilkat River (Hundertmark et al. 1983), and the Stikine River (Craighead et al. 1984). These studies revealed that moose use old-growth forests extensively during periods of deep snow. During snow-free and mild snow periods, clearcuts were also utilized. Moose are probably less impacted by clearcutting than are deer because they can utlize woody browse and travel through deeper snow better

than deer. However, the closed canopy stands of second growth which replace clearcuts 20-30 years following logging are very poor moose habitat, and populations could be expected to decline if second-growth forests become abundant.

Wolf

Wolves are distributed throughout the mainland and southern islands of Southeast Alaska. They do not occur on Admiralty, Baranof, or Chichagof Islands. Little information is available on wolf biology or their habitat relationships. The Alaska Department of Fish and Game started a long term study of wolf/deer-habitat relationships in southern Southeast Alaska in 1984.

Deer are a major prey species of wolves in the southern archipelago. Following the severe winters of 1968-69 and 1970-71, deer numbers declined sharply. Wolf predation appears to have kept deer at low levels during the succeeding mild years (Olsen 1979). It is suspected that during heavy snow winters, when deer are forced to old-growth timber surrounded by clearcuts, wolf predation may be focused on old-growth retention areas. If deer do prove to be the primary prey, timber cutting which reduces deer populations can be expected to also adversely affect wolves.

Furbearers

The principle furbearers associated with old-growth forest habitats are beaver, marten, mink, and river otter.

Marten, of all furbearers, are probably most closely associated with, and dependent on old-growth forest (Marshall 1951, DeVos 1952). Marten are found naturally in Southeast Alaska along the mainland and on Admiralty, Kuiu, Kupreanof, and Revillagigedo Islands, and were stocked in 1934 on Prince of Wales, Baranof, and Chichagof Islands (Meehan 1974). Small mammals, especially voles, are a mainstay of the marten's diet (Koehler and Hornocker 1977), although they feed opportunistically on other available food (Lensink et al. 1955). In Southeast Alaska, red squirrels may be a particularly important food item. Other foods include grouse, other birds and their eggs, frogs, fish, insects, carrion, and berries (Seton 1929). Although local knowledge of habitat requirements is somewhat lacking, studies in Canada (referenced by Meehan 1974) and in Maine (Soutiere 1979) suggest that clearcut logging will reduce marten numbers.

Beaver are normally associated with "hardwoods" (e.g., alder, aspen, birch, willow, cottonwood) which they feed on, and accordingly are more common on the mainland than on the islands of Southeast Alaska. The animals are usually found in the valleys of slow-moving streams where there is little timber (Meehan 1974).

Since alder is a common component of early successionial vegetation development, beaver forage should be increased temporarily following logging (Meehan 1974).

Mink are perhaps Southeast Alaska's most abundant and commonly seen furbearer, spending summer along streams and in upland muskegs, and wintering in a narrow beach fringe zone. For den sites, mink prefer rocky, fairly steep beaches (but not bluffs), and are scarce along slightly sloping beaches where there is little cover at low tide (Harbo 1958). According to Harbo (1958) invertebrates, including blue mussels, clams, sea urchins, and dungeness crabs, make up the bulk of the mink's diet. Log storage and pulpmill effluents may be potential threats to these foods (Meehan 1974). Habitat loss of beach fringe timber due to clearcutting and associated blowdown is also a potential threat.

River otter are believed to be primarily inhabitants of beach and streamside habitats, although reports are common of otter 1/4 mile or more inland, especially in winter. Otter feed primarily on fish and shellfish, and may occasionally take swimming birds. Log storage and pulpmill effluents may affect these food sources (Meehan 1974). Decreased denning activity in beach fringe areas associated with clearcuts (Larson 1983) suggests logging may have a deleterious local impact on otter populations.

Bald Eagle

The bald eagle, once widely distributed throughout North America, is today considered common only in Alaska. The greatest concentrations of these birds are found in the coastal forests of Southeast Alaska. Aerial surveys indicate a stable population of between 7,000 and 7,500 birds in Southeast Alaska (Hodges et al. 1979). Eagles nest in the most mature trees, usually within several hundred feet of the open shoreline; on Admiralty Island, 85-90 percent of the nests were in old-growth Sitka spruce (Robards and King 1966, unpublished report). Second growth is not used for nesting if there are any remains of virgin stands in the vicinity (Meehan 1974).

Timber harvesting has been identified as a major factor in the elimination of suitable nesting habitat (Braun et al. 1975) and winter perching sites (Stalmaster and Newman 1978) in the Pacific Northwest. Management policies recently set forth (TLMP 1979) in Southeast Alaska call for retention of buffer areas around known nest trees and retention of beach fringe timber to protect nesting habitats.

Canada Goose

The Vancouver Canada goose nests in a generally solitary fashion throughout its range, which extends from Cross Sound and Lynn

Canal south to Dixon Entrance, on both the mainland and the islands of the Alexander Archipelago (Hansen 1962). This subspecies of Canada goose also winters mainly in Southeast Alaska, with estimates of the total population approaching 50,000 birds (Meehan 1974). Intertidal and estuarine areas throughout Southeast Alaska are a very important part of the year-round habitat, with sedge meadows, grass flats, muskegs, beaver ponds, and shallow lakes providing important feeding and brood rearing areas at certain times of the year (Meehan 1974). More recently, Lebeda and Ratti (1983) reported the importance of old-growth timber as vital nesting, feeding, molting, and brood rearing habitat. Lebeda and Ratti (1983) speculate that predation pressure by crows, ravens, bald eagles, mink, and otter has selected against individuals using traditional open habitats and favored birds using dense forest zones away from the beach fringe. Potential threats to Canada geese are log storage sites in estuarine areas and clearcut logging of certain old-growth stands, particularly lower-volume classes in proximity to extensive muskegs or estuarine habitats.

Marbled Murrelet

The marbled murrelet is the most abundant small seabird in many coastal localities, with numbers in Southeast Alaska estimated at 250,000. Its nesting requirements, however, are largely unknown with only nine nests recorded until recently throughout its range (northern California to Prince William Sound). These limited nesting records, along with its general distribution which coincides with remaining old growth, suggests this species may be adversely affected by logging. The Pacific Seabird Group passed a resolution in December 1982 citing the potential conflict between logging and murrelet habitat and urging additional research. The Alaska Department of Fish and Game studied murrelet nesting on Baranof Island in 1983-84.

Other Birds

Birds which commonly overwinter in old-growth forest include the hairy woodpecker, chestnut-backed chickadee, golden crowned kinglet, winter wren, brown creeper, pine siskin, and red crossbill. These, and other less common winter residents use old growth both for feeding and roosting in winter. Roosting birds require cavities, usually in dead, decaying snags, which are relatively abundant in old-growth forest. Some birds are seed eaters and others are insectivores, gleaning their food from the bark of trees. Old-growth forests produce both an abundance of seeds and well developed bark substrates for these foraging activities. Ongoing research on the habitat requirements of wintering birds in Southeast Alaska (Hughes, ADF&G, pers. comm.) suggest that high-volume stands of old growth are ecologically distinct from

other stands, and support a characteristic avifauna. Loss of snags, and disproportionate harvesting on rare high-volume stands are the greatest threats posed to some species of birds wintering in Southeast Alaska.

FISHERIES

Much of what follows has been taken directly from "The Forest Ecosystem of Southeast Alaska - 3. Fish Habitats" (Meehan 1974).

Finfish (salmon, trout, etc.)

Fish and timber are the two most important natural resources in Southeast Alaska at the present time. Salmonids (Pacific salmon, trout, and char) often spend most of their freshwater life in streams that flow through forested watersheds. In the glacier-formed, U-shaped valleys common in Southeast Alaska, much of the best timber is found in the valley bottoms in close association with salmon and trout streams. This makes timber harvesting a more difficult problem, because timber harvesting can affect streams.

Two major freshwater habitat types are important to salmonids, i.e., spawning areas and nursery or rearing areas. In some cases a reach of stream may serve as both spawning and rearing habitat, but more often rearing areas are located some distance away from the major spawning riffles. Pink and chum salmon utilize spawning habitat; but after fry emerge from the gravel beds, they migrate to sea almost immediately, so that freshwater rearing areas are not significant factors in their life cycle. On the other hand, the remaining salmon species (coho, chinook, and sockeye), the trouts (rainbow and cutthroat), and the char (Dolly Varden) spend from a few months to 3 or 4 years in fresh water before migrating to sea; in some cases they spend their entire life in fresh water. To these species the rearing areas are often more important than spawning habitat (although both can be critical), since the amount and quality of "living room" is generally the factor which limits their production.

The primary function of spawning gravels is to provide an environment suitable for the development of the eggs and alevins up to the time of hatching and emergence. The rearing areas must provide conditions suitable for the growth and survival of the young fish. Because of these different requirements, the two habitat types may be quite dissimilar. The spawning environment must (1) contain sufficient quantities of suitable gravel, (2) provide sufficient surface and intragravel water flow to assure adequate flow of oxygen to, and removal, of metabolic wastes from the developing embryos, (3) maintain temperatures which assure proper

rate of development and time of emergence of the eggs and fry, and (4) be free of sediment in quantities which would inhibit development of embryos due to oxygen depletion and would physically inhibit or prevent emergence of fry.

The rearing environment must provide the food, living space, cover, and water quality necessary for good growth and survival of fish populations. The spawning reaches are generally characterized by series of riffles and pools, where the flowing surface water can be oxygenated, and where bottom contours favor the interchange of surface and intragravel waters. The rearing habitat, on the other hand, is often slow-moving water, rich in plant and invertebrate animal life, and ranges from small streams and tributaries, through sloughs, side channels, and shore areas of major streams and rivers, to ponds and lakes of varying size.

Consideration for fish habitat in Southeast Alaska during timber harvesting was, in the past, often directed only toward the larger spawning streams. Today, the great importance of the smaller rearing areas is being more fully recognized, and these areas are now beginning to receive the attention which they warrant. Small streams are generally more dramatically affected by changes than are larger streams and rivers.

Sediment (both suspended and deposited), water temperature, dissolved oxygen, streamflow, and debris are the factors associated with logging practices which can affect the habitat of anadromous and resident fish populations. These factors often are interrelated, and the total cumulative effects may be greater than the sum of their individual effects.

Sedimentation--Sedimentation caused by destruction of streambanks, slope erosion, erosion of roads, or debris avalanches can alter the gravel composition of streams. Road construction is generally recognized as a major cause of logging related sedimentation (Burns 1972, Gibbons and Salo 1973). Increases in sand and silt in spawning gravels can reduce oxygen delivery and metabolic waste removal needed by developing salmon embryos and cause decreased survival, premature emergence, or smaller size of emergent fry (Cooper 1965, Reiser and Bjornn 1979). Sediment in spawning gravels also inhibits emergence by entombing alevins (Koski 1966) and may reduce the average size of emergent fry because only smaller individuals can emerge from sediment impacted gravels (Tappel and Bjornn 1983). Gravel permeability is the best when gravel contains less than 5 percent sand and silt by volume (McNeil and Ahnell 1964).

Sedimentation can also affect rearing species by reducing the stream's capacity to produce food organisms (Phillips 1971) and by reducing habitat for juvenile fish (Bjornn et al. 1977). Sigler et al. (1983) reported that juvenile salmonids grew slower

and had greater rates of emigration from experimental streams when subjected to turbid water conditions and Crouse (1981) demonstrated that coho production declined when large cobble substrates which they used for shelter were covered by sediment.

Sediment can affect adults also. Migrating king salmon will choose clear water tributaries in preference to streams that are turbid (Smith 1940), and adults will often refuse to move when suspended sediment exceeds 4,000 milligrams/liter. Adult trout will cease feeding and move closer to cover when turbidity exceeds 35 milligrams per liter (Bachman 1959). Bachman (1984) showed that adult brown trout decrease rates of feeding during turbid conditions.

Temperature--Removal of the forest canopy increases sunlight penetration and can increase water temperature (Brown 1970) and thereby increase mortality of spawning fish (Reiser and Bjornn 1979). In Alaska, Meehan (1970) found increases in stream temperature resulting from clearcutting but noted that increases did not reach levels lethal to salmonids. However, temperatures greater than about 13-15° C., although not lethal, can cause decreased growth rates and lower rearing densities (Rieser and Bjornn 1979). In British Columbia, Hartman et al. (1982) found that winter water temperatures increased after clearcutting, accelerating the rate of development of incubating alevins and causing fry to emerge from the gravel earlier in the year. Early emergence often occurs at a time of spring floods, and many fry are swept out to sea. Fry that escape floods enjoy a longer growing season and may attain a greater size by the end of their first year (Scrivner and Anderson 1984). Tyler and Gibbons (1973) and Sheridan and Bloom (1975) also reported on effects of forest canopy removal on stream temperature. Within limits, temperature increases in small streams as a result of removing streamside vegetation can be predicted. In some situations a slight warming of stream water might initially enhance fish production, but the cumulative downstream effects of temperature increases in upstream tributaries must be considered.

Logging related increases in temperature have popularly been criticized as a source of mortality in spawning pink salmon. However, Murphy (1983 unpublished) reported that summer die-offs of pink salmon in clearcuts is more related to low stream flows and low tides which trap and concentrate spawners, thereby creating anoxic conditions and rapid mortality.

Streamflow--Streamflow usually increases following logging due to decreased evapotranspiration and interception of water. Chamberlin (1982) lists examples showing annual increases in runoff 20-40 percent greater than pre-logging levels. Additionally, increased peak flows may occur and appear to be related to the amount of roads in the harvested watershed (Moring 1975)

It is not known if timber harvest alone (through evapotranspiration decrease) can increase peak flows significantly (Chamberlin 1982). However, much greater flow increases may be caused by rain-on-snow events or when heavy rainfall coincides with rapid snowmelt. Although Harr (1980) found no direct data linking these events with destructive peak flows, considerable circumstantial evidence suggests that harvesting in coastal British Columbia may have contributed to deteriorating aquatic habitat in a region where rain-on-snow events are common (Chamberlin 1982).

Evidence now shows that flooding, even within normal limits, has a dramatic impact on rearing salmonids and may be the single most important factor in determining annual abundance. Mason (1976) found that winter floods can rapidly reduce summer populations and Tschaplinski and Hartman (1983) found that numbers of juvenile coho salmon were depleted after floods. Also since fish choose foraging sites based upon their size and local velocity conditions (Bachman 1984), both higher minimum flows and higher peak flows may limit the number of usable foraging sites and thus reduce the population density.

Long term changes in streamflow may have greater impact on fisheries by limiting annual recruitment. Murphy (1983) concluded the following about streamflow following logging after studying a 1981 fish kill of pink and chum salmon spawning in Porcupine Creek on Etolin Island, Southeast Alaska: "In the short term, less than 20 years, streams in clearcuts may have increased minimum water flow because water that would have been transpired by the forest becomes runoff. For example, in western Oregon, cutting 80 percent of the trees in one watershed increased minimum streamflow by 85 percent (Rothacher 1970). Thus, fish kills may occur less frequently in recently logged watersheds than in similar forested watersheds if temperatures do not increase too much. However, in rapidly growing, second-growth stands (stands more than 20 years old), transpiration may be greater and streamflow less than in old-growth stands (Berndt and Swank 1970, Myren and Ellis in press). In the long term, logging could reduce minimum summer streamflow and exacerbate salmon kills." In summary, peak water flows in logged drainages may be increased, decreased, or remain unchanged after logging.

Water Quality: Nutrients--When watersheds are clearcut, nutrient cycling is interrupted. Trees are a major source of uptake of minerals, and their harvest can increase the nutrient input into streams, but only for short periods. Streams that are limited in a particular nutrient may experience major increases in algal production if temperature, flow and light conditions permit (Chamberlin 1982).

Large Organic Debris--Excessive log jams and large debris may limit fish production in some streams by blocking spawning fish passage. Moderate amounts of logs and large debris provide rearing and resting pools for juvenile salmon, trout, and char.

Franklin et al. (1981) reported the following about in-stream logs: "Logs are critical to maintenance of physical and biological stability in headwater streams. Debris dams create stepped stream profiles that dissipate energy otherwise used for transporting sediment and lateral-cutting and downcutting of stream channels. Such dams, with their associated plunge pools and beds of trapped gravels and fine sediments, provide a range of habitats needed to maintain a full array of stream and stream margin organisms. Logs are an important source of energy in streams, and the bulk of the nitrogen supply of a stream comes from woody debris."

Stream Habitat--Clearcutting affects stream habitat and limits the abundance of rearing salmonids. Clearcut reaches of stream have fewer undercut banks, fewer pools, more riffle area, and less organic debris than undistrubed sections of stream (Murphy and Koski 1984 unpublished). Habitat reduction is presumably caused by crossstream yarding of logs which can destabilize or remove instream debris, and collapse undercut areas. Overzealous stream cleaning of logging residue after harvest also appears to be a major factor in reducing instream wood debris.

Large organic debris (LOD) such as root boles, logs, and accumulated or matted branches are important components of juvenile salmonid habitat in coastal streams and may regulate annual production and smolt yield. Fallen or windthrown trees are incorporated into stream channels where the hydralic action of water plunging over or moving around LOD scours out pools. Fish use these quiet areas to conserve energy and venture out to capture passing food items. The number of these foraging sites or refuge sites determines the density of juveniles (Bachman 1984).

LOD may be more important during winter. With decreasing water temperature, swimming performance declines, and fish seek shelter from floods by moving to deeper water and to recesses provided by LOD (Bustard 1975). Studies of winter habitat by Heifetz et al. (in press) found that fish used only that habitat during the winter that had LOD. Mason (1976) demonstrated that regardless of the size of the summer population of fish, the annual production in the form of smolt was directly related to the amount of winter habitat available.

Of great concern to fishery managers are the long-term (more than 40 years) effects on habitat. Swanson et al. (1974) suggested that large organic debris gradually disappears when the source of recruitment is removed and does not return to former levels until

100 years after cutting. Sedell and Triska (1976) indicate that 300 or more years may be required for levels of large oraganic debris to recover. Based on work by Murphy and Koski (1984 unpublished) and Elliott (unpublished), long-term loss of LOD could result in a 30-50 percent decrease in the abundance of rearing coho.

The Stream-Forest Interface: Managing the Riparian Zone--The riparian zone and stream ecosystem are closely linked: events that occur in the riparian zone can directly affect the status of the stream. The riparian zone provides nutrients and organic material that is utilized by a wide diversity of stream invertebrates. Large organic debris stabilizes stream channels, forms pools, undercuts banks, and provides concealment for juvenile salmonids. Tree canopies provide shade during the summer that limits high stream temperatures. There is also evidence that the timber canopy provides an insulative layer and can help moderate the effects of low winter temperatures. Riparian zones act as buffer or "filter" against sediment and debris.

Clearcutting to stream banks disturbs the relationship between riparian and stream ecosystems, and changes could be expressed in terms of salmonid production. Tschaplinski and Hartman (1983) found that logging to the streambank and leaving no buffer zone was detrimental to juvenile coho salmon. Culp and Davis (1983) concluded that buffer strips at least 10 meters wide are necessary to maintain normal levels of organic input and benthic detritus in coastal streams. They stated that all logging, including selective logging, must be prohibited in this zone.

In Southeast Alaska, Murphy and Koski (unpublished) reported that streams in clearcuts had more fry than streams in old growth, but streams with buffer strips, where trees were not removed, had more fry than either streams in clearcuts or in old growth. Murphy and Koski (unpublished) stated that clearcuts had the highest levels of algae and invertebrate biomass and greatest density of fry indicating that logging had caused increased productivity. Streams with buffer strips provide optimum habitat for fry and may benefit from increased productivity resulting from clearcutting upstream.

But within clearcut streams increased production of fry is nullified by established levels of winter habitat (Mason 1976), and since clearcuts have less LOD than undisturbed streams, the winter mortality would be expected to be greater. Buffer zones, on the other hand, optimize and in some cases can maximize the winter carrying capacity by providing more LOD and should capitalize on increased production in clearcuts. However, more research is needed on the links between clearcut production and smolt production before sound guidelines for LOD management can be developed.

In the interim, buffer zones are considered to be the most effective and reliable solution to the LOD problem and meet all criteria for maintaining the habitat requirements of salmonids.

Many of the factors which have been discussed in this report are difficult to measure because natural variation can often be greater than the variation caused by man. For example, if severe storms occur during the measurement period, small changes in suspended sediment concentration or streamflow as a result of roadbuilding or logging might go undetected. Natural variations in stream temperature are also a potential problem in identifying temperature changes resulting from man's activities.

In summary, man's activities in a watershed can adversely affect fish habitat. These activities (logging, road construction, etc.) can be compatible with the production of salmonid fishes only if adequate consideration is given to the aquatic environment during both planning and operational stages. Protection of fish-producing waters in conjunction with land use treatments is a responsibility which land managers must never overlook. Fishery biologists must help determine the type of protection necessary for each stream system, and foresters must plan timber harvest in that system to assure that the necessary protection is afforded.

Research Needs--Much is known in a general way about the effects of man's activities on fish habitat in Southeast Alaska. There is still need, however, to more precisely define cause and effect relationships between logging and fish habitat and populations. Continuing research is needed on relationships between logging activities and stream sedimentation, water temperature, and large organic debris in streams. Changes in these aspects of habitat must then be related to survival of eggs and the various age classes of young salmonids, growth rates of salmonids, invertebrate production, and time of smolt migration to sea. Research must also focus on long-term effects. It is the concensus of investigators that increases in stream productivity associated with logging will not be permanent and that a long-term loss of debris-formed habitat will cause a decline in coho abundance. Data are not yet available however. Until these aspects are more thoroughly investigated, the Alaska Department of Fish and Game and others are requesting that logging and road construction in the most productive fish-producing watersheds such as Kadashan in Tenakee Inlet be deferred.

Shellfish (crabs, clams, etc.)

During log dumping and rafting processes, bark is knocked from logs and sinks to the bottom, often in large quantities. This accumulation can greatly increase oxygen demand, resulting in

reduced populations of marine benthic organisms, (such as crabs, and other shellfish), and can also smother the bottom so thoroughly that repopulation by benthic forms is prevented.

Observations at several dump sites in Southeast Alaska showed that significant accumulations of organic debris may persist for long periods of time (Ellis 1970). Marine animals, including crabs and clams, were very scarce in some areas compared with nearby areas without log dump sites. In general, the impact of these log facilities depends on several conditions including the type and age of the facility and the characteristics of the water (depth, influence of tidal currents, etc.).

Water storage of logs also results in a release of soluble organic compounds (leachates) which further increases the oxygen demand in the storage area. Length of storage, species of logs stored, and various estuarine conditions all influence the effects on marine communities. Much remains to be learned about the effects of water-based log handling in Southeast Alaska. The economic as well as biological considerations involved in rafting and towing versus barging, for example, need to be determined. In general, any method which reduces the amount of bark and other log debris accumulating on the bottom is preferred.

Economic Contribution

Fisheries resources contribute substantially to the economic welfare of Southeast Alaska. Data from 1980 for finfish and shellfish show their ex-vessel value to the fishermen to be $66.5 million and their primary wholesale value to be $196.9 million (Table 4). The estimated value for sport fish angling in 1979 utilizing fish produced on the Tongass Forest was $3.7 million (Sullivan and Sheridan undated).

GUIDING

Guiding is a multi-faceted industry directly affected by forest management in Southeast Alaska. Guiding occurs for a number of activities, including hunting, fishing, marine cruising, kayaking, rafting, photography, aerial sight-seeing, and ice field travel. All are enhanced by an esthetically pleasing environment and without crowding and interaction with other people. Forest management affects guiding in that clearcut areas are generally considered to detract esthetically. Consequently, as more areas are clearcut, guiding tends to concentrate in undisturbed areas, with the potential to create overcrowding and increased human interaction.

Since big game guiding has a longer history and is more closely regulated than other types of guiding and since more information is available, it will be considered in more detail in this report. Big game guiding has been conducted in Southeast Alaska since the 1890's. It has continued as a viable industry since then, and guides today believe their long existence in Southeast Alaska entitles them to recognition when land management plans are considered.

Brown bears are the major species guided for in Southeast Alaska. Black bears and mountain goats are also guided for, and a very limited amount of guiding occurs for deer. Twenty-two Master and Registered Guides are licensed and actively guide in Southeast Alaska (Game Management Units 1-5). Most hire two or more Assistant Guides and other seasonal help.

State regulations require that hunters who are not residents of Alaska contract with a licensed guide for brown bear hunting. This, and the fact that many non-residents do not have the knowledge and equipment to hunt alone, results in most guided hunters being non-residents. The income brought into the state by non-residents is "outside" money and may add more to the overall state economy than money that is merely recirculated by resident hunters.

A recent survey (Beier 1984) estimates the revenue generated in the state annually by guided hunters. An average brown bear hunt lasts about 12 days and costs about $600 per day for guide fees. The total number of nonresident guided brown bear hunters averages about 70 per year (56 successful and an additional 20 percent unsuccessful). This totals $504,000 in guiding fees, $6,300 in hunting and sport fishing licenses, and $17,500 in brown bear tag fees for a total annual direct expenditure for guided brown bear hunting of $527,800. Air travel costs, taxidermy fees, and incidental expenditures are in addition. When expenditures for guided black bear and goat hunts are added to brown bear hunt expenditures, it is estimated that the Southeast Alaska guiding industry brings between $750,000 and $1,000,000 into the state each year.

Income from non-resident hunting licenses and big game tag sales is especially important as a source of revenue for the State Division of Game. For 1983, statewide non-resident hunting license and big game tag sales totalled nearly $2 million, in contrast to resident hunting license and big game tag fees which totalled $850,000. Hunting license and big game tag fees directly support Game Division programs and are especially important because they are the main source of matching funds for revenue from the Federal Aid in Wildlife Restoration Program ($1 from license sales can be matched with $3 from the Federal Aid Program).

Guides have consistently been on record that clearcutting is not compatible with guided hunting, especially for brown bears. A survey of guides conducted by Beier (1984), an experienced Assistant Guide for Southeast Alaska, spelled out the impact of logging on the guiding profession. Twenty Master and Registered Guides were sent questionnaires, and ten responded. All but one listed hunt esthetics as an extremely desirable aspect of guiding and said that clearcutting greatly decreased the esthetic appeal of an area. All respondants stated that they did not hunt in areas that had been or were being logged. Reasons given were esthetics and reduced bear populations in logged areas. Most guides listed a number of bays where they no longer guided because the bays had been logged.

At present, 13 guides have joint exclusive guiding use of Game Management Unit 4, Admiralty, Baranof, and Chichagof Islands. This unit follows the Alaska Peninsula and Kodiak Island game management units in number of brown bears produced. Because of logging and roading in Unit 4 and resulting reduction in hunting areas and numbers of bears, guides believe that the 13 guides licensed for Unit 4 should be reduced to six or less. The state Guide Board is presently working on a plan for such a reduction and criteria for new guide eligibility under a six guide limit. In effect, timber cutting activity to date, which is only a fraction of what is planned, has already threatened to severely reduce guiding in Southeast Alaska.

ECONOMICS OF TONGASS FOREST LOGGING

The history and economics of timber industry operations in Southeast Alaska are particularly significant for upcoming policy decisions. The 50-year contracts governing current logging in the Tongass have been questioned, and the prudence and legality of re-negotiating these agreements may, to a large extent, be determined by the history of resource and fiscal management by the timber companies concerned. The economic procedures for timber sale and harvest--vital to understanding the viability of the industry in Southeast Alaska--constitutes the remainder of the report. Timber sales in the Tongass, as in national forests throughout the nation, are conducted by the Federal Department of Agriculture through the auspices of the Forest Service. A complex system of setting timber prices, deducting harvest costs including roadbuilding, and lowering sale prices retroactively through rate "redeterminations," go to preserve industry profits while in effect providing a government subsidy. Forest Service figures for Alaska for 1983 show each dollar spent by the government for timber sales returned 2 cents in timber sales receipts (Emerson et al. 1984). Examining below-cost timber sales and the portion of industry expenses underwritten in this fashion by

public monies aids in interpreting the actual, long-term contribution by the timber industry to the area economy, especially given any uncertainty of continued funding support from the federal government.

The Economic Beneficiaries of Logging in Southeast Alaska

Two pulp producers, Alaska Lumber and Pulp (ALP) and Louisiana Pacific-Ketchikan (LPK), exercise predominant control over logging operations in Southeast Alaska, and presently employ approximately 2,000 workers (Alaska Department of Labor, pers. comm. 1984). Some work is seasonal and results in payment of unemployment benefits by the State of Alaska. In 1983, the State paid unemployment benefits of $4,004,594 to lumber, wood product, and pulp workers. A significant portion of timber industry workers are not Alaska residents; of the $4 million in unemployment benefits paid by the State to forest products workers in 1983, more than one-third was paid out-of-state (Alaska Department of Labor, pers. comm. 1983).

Among the other direct beneficiaries of logging in the Tongass--namely the primary consumers of sawtimber and pulp produced--are the Japanese. Virtually all the sawtimber taken from the Tongass Forest is currently being marketed overseas, while only a scant amount is being used locally. In addition to the sawtimber, Japan purchases ALP's entire production of pulp. Pulp produced by LPK is also marketed internationally through the "spot market," whereby nearly 50 percent is shipped to the Middle East (J. Mehrkens, U.S.F.S. economist, Juneau, pers. comm. 2/1/84).

Timber Sales and Pricing

The regional office of the U.S. Forest Service is charged with conducting Tongass timber sales. An admittedly complex system of setting timber prices, deducting harvest costs including road-building, and lowering sale prices retroactively through rate "redeterminations," ensure industry profits while in effect providing a large government subsidy. Details of the workings and abuses of the pricing system follow.

The purchase price paid by the timber industry for timber harvested from national forest land is calculated as a "stumpage fee." Stumpage fees paid to the U.S. government for Tongass timber are determined by subtracting industry production costs, including an allowance for profit and risk, from anticipated final product prices. Production costs deducted from the purchase price include numerous expenses, including a substantial sum for the construction of roads for transporting timber from cutting sites to the mill.

When production costs are high, as is the case of virtually all Tongass sales, the U.S. Forest Service absorbs a loss so as to ensure the profit of the timber corporations. A 1983 study reported that the Forest Service spent more than $375 million from 1970 to 1982 to make Tongass Forest timber available, while charging loggers less than $63 million (Wolf cited in Barlow 1983). Emerson et al. (1984) reported that for timber sales in Alaska in 1983, the Forest Service received only 2 cents back for every dollar it spent to make timber available for harvest.

Although such "below-cost sales," as they are termed, are currently legal under federal regulations, debate has begun in congressional committee (U.S. Congress 1983) as well as in several national publications as to the economic prudence of the practice. Since loss to the Forest Service on timber sales in Alaska is especially high as compared to other states (Emerson et al. 1984), the timber industry in this state is vulnerable to any redefinition of the Forest Service pricing system which would eliminate currently allowable losses.

Roadbuilding costs, as previously mentioned, are currently deducted by timber corporations from the price paid for the trees purchased in national forests. Yet this deduction alone is not enough to make logging economically feasible in the Tongass. The Alaska Lands Act guaranteed an additional $40 million annually--or as much as needed--to keep the timber industry "stable" in Southeast Alaska. This money can be used for "pre-roading," that is constructing access roads before sales to technologically marginal and low-volume timber stands and to LUD III drainages managed for biological and esthetic considerations as well as timber yield. Pre-road money can be used in both independent or short-term sale areas and in long-term sale areas.

Further Reductions of Timber Prices

Stumpage rates, the price paid to the government for timber cut from public lands, are redetermined for the two 50-year contracts every 5 years. In addition, these long-term contracts qualify for special "emergency rate redetermination" by which the selling price can be dropped retroactively for a period of up to 5 years so as to ensure industry profitability in the face of declining or unfavorable markets for the finished lumber and pulp products.

While rate redeterminations for industry benefit are awarded during a falling market, there is no reciprocal arrangement for rising market conditions. If the selling price of finished lumber and pulp products rise during the period of a contract sale, no adjustment is made. Consequently, only industry benefits from rising market conditions, while the federal treasury loses revenue retroactive from past timber sales when markets decline.

Emergency rate redeterminations, by reducing stumpage fees, substantially reduce receipts by the government for timber sales in the Tongass. Recent redeterminations were granted to the two 50-year contract holders, ALP and LPK, due to depressed market conditions for pulp and timber products. As an example, retroactive to July 1, 1982, ALP had the 1981-86 appraisal rate per thousand board feet reduced for spruce sawlogs from $215.98 to $2.26, and for Alaska cedar sawlogs from $1,058.27 to $1.22. For LPK the 1979-84 appraisal rate for spruce sawlogs was reduced from $114.96 to $2.87 per thousand board feet, retroactive to December 1, 1981.

Economic Disadvantages Placed on Small Timber Operations.

Under existing regulations small, independent logging operators are put at a substantial disadvantage by the system of awarding rate redeterminations. Sales of less than 7 year's duration are not eligible for emergency rate redeterminations, and only the long-term contract holders, LPK and ALP, can receive the retroactive discounts.

Small logging operators are further disadvantaged because they must pay cash stumpage deposits much sooner than ALP. This is because the sale area boundary in the ALP contract encompasses inlets and bays where logs can be stored, and small sale contract areas are restricted to land. Small sale operators must pay cash stumpage deposits after logs have been in the water for 30 days, and ALP can leave logs in the water indefinitely without paying stumpage deposits.

Weaknesses of the Current Pricing System

A major weakness of the current pricing system for timber sales on public lands is that it invites timber companies to devise schemes to show minimal final product returns so that the stumpage fees they pay for cutting will be calculated at the lowest possible value. The system also invites companies to inflate logging and mill costs to force final stumpage prices even lower. Court records in which ALP and LPK were convicted of antitrust violations show that both 50-year contract holders have committed these practices in the Tongass (Reid Brothers Logging Co. vs. Ketchikan Pulp Co. and Alaska Lumber and Pulp Co., 1981).

Since roadbuilding is a leading deduction from the sale price of timber on public lands, it is desirable to minimize roadbuilding. One option available to reduce the number of miles of road being built in the Tongass is simply to better utilize existing roads. There are several important advantages of this approach to management. First, the high cost of roadbuilding would be reduced, an expense which is passed on to the taxpayer when the timber industry deducts it from stumpage fees paid to the Forest Service for trees

cut. The Forest Service estimates that in LUD III areas an additional 60 percent of roads is necessary on the first entry to harvest the same volume of timber as could be harvested in the first entry on an area managed more intensively for timber. Government pre-road funds pay directly for this additional 60 percent of road contruction (USFS, TLMP, p. H-2 1979).

Another advantage of using existing roads rather than constructing new ones is that additional impacts to habitat can be confined to drainages that have already been disturbed, and road construction and logging can be deferred in undisturbed drainages with high fish and wildlife values.

In addition to direct funding for roadbuilding in LUD III and marginal stands, credits are awarded to timber companies for additional roads which they build for cutting and transport. These credits are reductions made in the price paid to the Forest Service for timber. These roadbuilding credits are awarded in lieu of actual receipts to the National Forest and listed as part of a system of collector and arterial roads. Such credits deducted from the purchase price of timber can be quite substantial. In Fiscal Year 1982, for example, the Forest Service reported that roadbuilding credits accounted for 67 percent of Tongass Forest receipts.

Actual payments for the purchase of timber by corporations in the form of stumpage fees proved, by contrast, rather inconsequential. For Tongass Forest timber cut in 1982 and valued at $21.5 million, only $2.5 million or 11.5 percent of the appraised market value was actually paid to the National Forest fund after reductions including deductions for roadbuilding expenses. Roads built by timber companies for which they have received purchaser credits revert to the Forest Service after timber harvest is complete. The Forest Service either maintains them or "puts them to bed" so they cannot be used, but could be put back into use at a future date.

In summary, the current method of calculating stumpage rates by deduction of expenses, as well as the additional federal funds supporting pre-roading, result in high government expense and consistently below-cost timber sales in the Tongass.

Antitrust Violations

In 1981, ALP and KPC (Ketchikan Pulp Company, now LPK) were found guilty in United States District Court of conspiracy in restraint of trade and attempt to monopolize in violation of the Sherman Antitrust Law (Reid Brothers vs. Ketchikan Pulp Co. and Alaska Lumber and Pulp Co. 1981). The Ninth Circuit Court of Appeals upheld this ruling, and the Supreme Court let lower court decisions stand. Evidence presented during the Reid Brothers lawsuit showed

that the two large companies deliberately forced small, independent operators out of business and kept other large companies from competing.

These antitrust violations in the Tongass have been further scrutinized during recent congressional oversight hearings headed by Representative James Weaver examining Tongass Forest timber industry practices (U.S Congress 1983). The hearing record includes testimony by Forest Service, Justice Department, and industry representatives. In addition, documents were introduced which summarized illegal and potentially illegal activities in the Tongass. What follows is a summary of the most telling testimony.

First, the Weaver hearings cited a report by a three-man Forest Service team to the Alaska Regional Forester reviewing the evidence presented during the Reid Brothers lawsuit.

Collusive bidding practices by ALP and KPC in effect eliminated competition between these two major companies. These companies also bid preclusively against other, often smaller companies to prevent them from operating profitably in Southeast Alaska, and thereby retained control of Tongass timber themselves. The review team acknowledged that the Forest Service had been aware of the preclusive bidding practices occurring from 1966-1975, but apparently had done little to discourage this collusion.

Beginning in 1975-78 another form of collusion became apparent, according to the Forest Service review team: ALP and KPC allegedly boycotted Tongass timber sales. This boycotting of sales resulted in lower stumpage prices to be paid by the corporations. The practice stands as evidence that widespread collusion in bidding practices have continued beyond the original citations.

ALP and KPC sold pulp and lumber to parent companies at less than fair market value, while parent companies sold supplies to mills at inflated prices. These practices resulted in the deliberate reporting of false profit figures. By reporting falsely lowered profits, the two corporations were awarded reduced stumpage fees--in effect paying less for the timber they had cut. In this way the federal government lost revenues through the fraudulent accounting of the long-term contract holders. In turn, the State of Alaska lost its 25 percent share of these federal receipts from Tongass timber sales.

Additionally, KPC sold cedar logs to ALP and presented fraudulent invoices to the Forest Service to further depress the price to be paid to the government. The logs were then sold in Japan and the true profits divided between the two companies. The basic appraisal process for determining stumpage rates was also abused when KPC used subterfuge in making payments to loggers, thereby lowering the price to be paid the Forest Service.

Forest Service Review Team Recommendations

Overall, the Forest Service review team has recommended sweeping reforms of timber management practices in the Tongass National Forest.

To remedy the losses incurred by state and federal treasuries as a result of illegal activities by the long-term contract holders, the Forest Service report recommended that the State of Alaska and the Internal Revenue Service should be informed of revenues due to them which were fraudulently withheld by the long-term contract holders in the Tongass. The review team further recommended that the Justice Department of the United States be informed of the extent of revenues fraudulently withheld from the government so that appropriate actions can be taken against the corporations.

The Forest Service review team also recommended that 5-year rate redeterminations be frozen until end product values and charges from parent to subsidiary were verified as acceptable.

The review team further stated that LPK and KPC gained monopoly power and thereby destroyed competition, resulting in damages to the U.S. treasury in the millions of dollars.

Most significantly, the Forest Service team recommended that ALP and KPC and their affiliates and co-conspirators be debarred and suspended from future timber sales on the Tongass Forest to allow re-establishment of competition. Debarment should coincide with remaining contract time on long-term sales, with provision to reevaluate debarment after 3 years and periodically thereafter.

The report goes on to analyze a series of problems with current timber management practices which adversely affect the Tongass. First, cutting is concentrated in high-volume stands, and those most easily accessible. Prices paid by the corporations are not determined on the basis of what is actually cut, however, but instead rely on appraised values for timber based on average figures for vast acreages. These averages assume balanced cutting between low-volume and high-volume timber classes within the sales area.

The practice of cutting disproportionately large amounts of prime timber while passing over lower-volume stands has several adverse consequences for the Tongass National Forest. First, the stumpage fees are actually less than should be paid for the timber cut due to the averaging involved in appraising market value. More importantly, the practice of cutting the prime timber first has an unnecessarily intense impact on that part of the forest most valuable as habitat.

A second timber management practice addressed in the Forest Service review team report is the role the 50-year contract holders are given to "pick and choose" the timber stands to be appraised for harvest in each 5-year period. Apparent abuses of this system include the refusal of low-volume stands as well as valuable salvage timber which has been simply left to rot while logging continues in high-volume stands. The report concluded that the practice of industry selection of sites unduly restricts the Forest Service and hinders proper management of the Tongass.

Finally, practices concerning how environmental consequences of a given timber sale are reported was called into question by the Forest Service review team. Under current management practices, a single Environmental Impact Statement can be filed covering hundreds of thousands of acres to be cut during a 5-year period. The review team concluded that such blanket Environmental Impact Statements and Environmental Assessment Reports do not allow truly sensitive areas the appropriate level of intensive resource management expertise.

Another finding of the Forest Service review team was that the volume of utility logs cut during the 1960-75 period was never properly charged to the ALP contract. Contract provisions required the Forest Service to charge this volume against the guaranteed sale volume but it was never done.

Forest Service Chief R. Max Peterson submitted for the Weaver oversight hearing record a listing of actions the Forest Service had taken on the recommendations of the Reid Brothers lawsuit review team. Some of the more significant actions are summarized in the following paragraphs. Some recommendations, notably those on long-term contract modifications, were not addressed, and it is assumed they have not been acted on.

With regard to the recommendation by the Reid Brothers lawsuit review team to freeze unresolved 5-year stumpage rate redeterminations, the Forest Service eventually decided that ALP and KPC qualified for emergency rate redeterminations, and rates were reduced substantially, as has been discussed elsewhere.

The recommendation that damages due the government be determined resulted in a draft plan to recover damages that was submitted to the Justice Department in late 1982. Potential damages due the government were $33.3 million inflicted before 1975 and $43.2-$48.2 million after 1975, for a total ranging from $76.5 million to $81.5 million.

In response to other recommendations, the Forest Service has taken some actions to tighten timber sale bid procedures.

Debarment action has not been taken against KPC and APC as recommended. The Justice Department's continuing investigation was given as the reason.

Justice Department Actions

A Justice Department representative, H.F. Furth, also testified at the Weaver oversight hearing. The Justice Department, after reviewing the Reid Brothers case, decided not to try to obtain antitrust injunctive relief or recover damages on behalf of the United States. The Department concluded that the economic power of the two companies derives principally from their operation of the only two pulp mills in Southeast Alaska and from their 50-year contracts with the Forest Service. Any antitrust remedy involving cancellation of long-term contracts would require evidence of more substantial, and more recent antitrust violations than Justice Department investigation uncovered. The Department also considered that a court would be reluctant to order any relief that might result in suspending the operations of either company's pulp mill, because that would result in unemployment. The Department concluded that there was no basis for criminal proceedings because the 5-year statute of limitations period had passed. With regard to recovering damages under antitrust laws, the Department concluded there was no basis because the 4-year statute of limitations period had passed.

Mr. Furth noted that the Civil Division of the Justice Department is still reviewing claims of the Forest Service against the companies based on fraud and breach of contract. The time period for filing a fraud lawsuit is longer than for an antitrust suit. Since stating that it had concluded antitrust investigations, the Justice Department in June 1983 said it had reconsidered and was once again investigating the activities of the two major companies and their subsidiaries. In May 1984, the press reported that the Justice Department had decided against filing antitrust lawsuits against ALP and LPK, even though the Department found aspects of the companies' operations "troubling" and was concerned that ALP documents had been destroyed days before investigators sought to review them.

Timber Supply and Demand Report

Section 706(a) of ANILCA states that the Secretary of Agriculture will monitor timber supply and demand in Southeast Alaska and report annually on the ability of the Tongass National Forest to meet the mandate of 4.5 billion board feet per decade being made available to industry. The executive summary of the 1983 timber supply and demand report (Mehrkens 1984) is as follows.

"Based on the findings of this report, the Secretary of Agriculture concludes the available land base on the Tongass National Forest will be sufficient to maintain the 4.5 billion board-foot timber supply per decade specified in Section 705(a) of ANILCA. Market demand continues as the predominant factor governing the timber use levels on the Tongass NF. On the supply side, measures to reduce timber production costs are being implemented. A sufficient backlog of sold and unharvested timber exists to operate mills at capacity. Market conditions and labor strikes, however, have substantially lowered operating rates. The short-term economic wellbeing of the timber industry depends on improved markets in Japan, and markets now opened in South Korea and the Peoples Republic of China. Greater international competition and cost cutting strategies will continue to characterize the timber industry.

The industry structure, existing capacity, and operating rates are nearly the same as last year--well below capacity. The timber market structure in Southeast Alaska largely reflects the timber management policies of the USDA Forest Service and its objectives to maintain community economic stability. It is primarily governed, however, by export market conditions and the degree of competition from other suppliers. Forest Service management alone has virtually no effect on market demands but must be responsive to export market prices because the value of the timber is based on derived demand.

In comparison to the Pacific Northwest and British Columbia, Alaska generally serves as a residual or last-in, first-out, supplier to Japan's construction timber market. Large adjustments in the supply of hemlock cants occurs as international prices rise and fall. Moreover, the degree of this adjustment is affected by the level of log exports from the Pacific Northwest.

Unlike the hemlock trade in construction grade timber, Alaska is an important supplier of Sitka spruce to the Japanese market, accounting for up to 68 percent of the total spruce trade from North America. Alaska spruce logs and cants are of higher quality and command premium prices.

The demand for forest products remains low; Japan continues to be the principal market for all Alaska wood products. China is the other major market, representing 6 percent of Alaska's log exports and 9 percent of the lumber exports in 1983. In 1983, Alaska's wood products

export trade declined 12 percent in value from 1982. This trend is similiar to what occurred in 1982 when lumber exports fell in both volume and value, yet coincided with an increase in volume and total value for log exports.

National Forest timber harvests have declined consistently since 1981. In FY 1983, 250.5 MMBF was harvested (including utiltity volume) down 33 percent from 1982 when 370.7 MMBF of timber was harvested. In 1983, the amount of timber offered for sale fell slightly, 3 percent, to 453.6/MMBF of which 343.5 MMBF was sold or released for harvest. For FY 1984, an estimated 475 MMBF will be offered to industry. An analysis of timber accomplishments shows a slightly higher proportion of high quality, old-growth stands (30-50 MBF/AC.) has been offered and sold than what was scheduled in TLMP. This better timber helped offset lower end-product values caused by market conditions.

In contrast, Southeast Alaska Native corporations and the Bureau of Indian Affairs have steadily increased their harvests from 13 percent of the total Southeast timber harvest in 1980 to 41 percent in 1983. Over the past 3 years (CY 1980-82), the Native timber harvest in Southeast Alaska has risen from an estimated 70.3 MMBF to 216.5 MMBF.

Southeast Alaska has imported logs from British Columbia which were surplus to their domestic manufacturing needs. The future of this trade is uncertain, but imports in 1984 are expected to continue at about the same level as 1983. Because of reduced demand, log imports from British Columbia and National Forest timber supplies, Native corporations have a non-marketable supply of pulp-grade timber. Consequently, the corporations exported as many of their pulp grade logs as possible during 1981 to 1983 or left this lower grade timber in the woods.

In addition to the trade displacement from British Columbia and a severe drop in the market, timber purchasers have bid on National Forest timber sales during favorable markets at rates substantially above appraisal prices. These factors have forced some companies in Alaska to stop operating, triggering contract defaults and potential bankruptcies. The Forest Service has implemented policies to help alleviate this problem, but not all operators have been able to take advantage of contract extensions or stumpage rate redeterminations.

Logging and roading costs have increased steadily over the last decade. The causes have been inflation, stricter environmental controls, a greater proportion of permanant or specified roads (designed and constructed to engineering specifications), and a management objective of dispersed harvests. This rise in costs has led the Forest Service to analyze cost saving measures based on harvest unit size, utilization requirements and road standards. The development of transportation system and timber transfer sites are major costs associated with harvesting Alaska's old growth forests. However, greater average costs are associated with harvesting and yarding systems. The declining costs in 1982 and 1983 reflect the effort to lay out sales along established road systems and reduced road standards.

Nearly half the timber available for harvest from the Tongass National Forest has been used to produce dissolving pulp. If Alaska's traditional world market for dissolving pulp continues to shrink, while remaining uncompetitive in domestic paper pulp markets, there will be additional upward costs pressures on all Southeast Alaska timber based industries. Unless a major new market can be found for Southeast Alaska's pulp grade logs and, to a lesser extent, western hemlock sawtimber, growth prospects for all of Alaska's timber based industries are dampened."

CONCLUSION

Despite the large size of Southeast Alaska's Tongass National Forest (16.9 million acres), only a small portion (4 percent) is considered to have commercially important timber. These timber areas, often near tidewater at low elevations, or along valley bottoms of major river drainages, provide critical habitat for fish and wildlife. It is on this small, but important, component of the Tongass Forest that the wildlife and fisheries/logging debate centers. Clearcutting, the method of timber harvest in Southeast Alaska, is permanently converting high-volume, old-growth forest with high wildlife values to second-growth forest of much less value to wildlife species dependent on old growth. Of special concern are long-term effects of scheduled cutting on Sitka black-tailed deer; present knowledge suggests that deer numbers in many popular hunting areas will be reduced 60-80 percent during the first rotational cutting period of approximately 100 years. Additional research is necessary to determine long-term effects on fish.

A major question to be addressed is whether a highly subsidized timber industry should be maintained in its present form on public lands in Southeast Alaska to provide jobs and support an export trade, considering the adverse impacts to wildlife and other values. It seems especially important to address this now when timber prices are depressed, timber harvest is at a low level, and communities have adjusted to some degree to these conditions. Employment alternatives to consider include increased timber harvest on Native lands, increased timber harvest and processing for use in Alaska by small, independent operators (perhaps subsidized to some degree), increased tourism, increased mining, and maintenance and perhaps expansion of various types of guiding.

LITERATURE CITED

Alaback, P. B. 1982. Dynamics of understory biomass in Sitka spruce-western hemlock forest of Southeast Alaska. Ecology 63:1932-1948.

Alaback, P. B., and J. C. Tappeiner II. 1984. Response of understory vegetation to thinning in the Sitka spruce-western hemlock forests of southeastern Alaska. Cooperative Study, Forestry Sciences Laboratory, Juneau, Alaska and Oregon State University, Corvallis.

Archibald, W. R. 1981. Grizzly bears and coastal development, with particular reference to intensive forestry. Unpublished Problem Analysis. B.C. Fish and Wildlife Branch, Victoria, British Columbia.

Bachman, R. W. 1956. The ecology of four North Idaho trout streams with references to the influence of forest road construction. M.S. thesis, Univ. Idaho, Moscow, Idaho.

Bachman, R. A. 1984. Foraging behavior of free-ranging wild and hatchery brown trout in a stream. Transactions of the American Fisheries Society. 113:1-32.

Barlow, T. J. 1984. Mandate for oblivion. Wilderness. Spring 1984.

Barrett, R. H. 1979. Admiralty Island deer study and the Juneau unit timber sale. Pages 114-132 in O. C. Wallmo and J. W. Schoen, eds. Sitka Black-tailed Deer: Proceedings of a Conference in Juneau, Alaska. U.S.D.A. Forest Service, Alaska Region, Juneau.

Beier, L. 1984. A history of guiding and survey of guides in Southeast Alaska. Unpublished report. 24 pp.

Berndt, H. W., and G. W. Swank. 1970. Forest land use and streamflow in central Oregon. U.S.D.A. Forest Service, Pac. Northwest Forest and Range Exper. Sta. Res. Paper PNW-93. Portland, Oregon.

Bjornn, T. C., M. A. Brusven, M. P. Molnan, J. H. Milligan, R. A. Klamt, E. Chacho, and C. Schaye. 1977. Transport of granitic sediment in streams and its effects on insects and fish. Completion Report Project B-036-IDA, Bulletin 17, Idaho Cooperative Fishery Research Unit, University of Idaho, Moscow, Idaho.

Bloom, A. M. 1978. Sitka black-tailed deer winter range in the Kadashan Bay area, Southeast Alaska. J. Wildl. Manage. 42:108-112.

Bormann, F. H., and G. E. Likens. 1979. Pattern and process in a forested ecosystem. Springer-Verlag, New York. 253 pp.

Braun, C. E., F. Hamerstron, T. Ray, and C. M. White. 1975. Conservation committee report on status of eagles. Wilson Bull. 87: 140-143.

Brown, G. W. 1970. Predicting the effects of clearcutting on stream temperatures. J. Soil and Water Conserv. 25:11-13.

Brown, G. W. 1971. Water temperature in small streams as influenced by environmental factors and logging. Pages 175-181 in Proceedings of a symposium on forest land uses and stream environments. Oregon State University, Corvallis, Oregon.

Bunnell, F. L. 1979. Deer-forest relationships on northern Vancouver Island. Pages 86-101 in O. C. Wallmo and J. W. Schoen, eds. Sitka Black-tailed deer: Proceedings of a conference in Juneau, Alaska. U.S.D.A. Forest Service, Alaska Region, Juneau.

Burns, J. W. 1972. Some effects of logging-associated road construction on northern California streams. Trans. Am. Fish. Soc. 101:1-17.

Chamberlin, T. W. 1982. Influence of forest and rangeland management on anadromous fish habitat in western North America. U.S.D.A. Forest Service Gen. Tech. Rep., PNW-136, Pac. N.W. For. Ran. Exp. Stn., Portland, Oregon.

Christner, Jere. 1981. Changes in peak streamflows from managed areas of the Willamette National Forest. U.S.D.A. Forest Service, Willamette National Forest, Watershed Staff. January 1981. 28 pp.

Coggins, G. C., and M. E. Ward. 1981. The law of wildlife management on the federal public lands. Oregon Law Review

Cook, G. 1984. The legal framework of forest management in Southeast Alaska. Unpublished report. 47 pp.

Cooper, A. C. 1965. The effects of transported stream sediments on the survival of sockeye and pink salmon eggs and alevins. Int. Pac. Salmon Fish. Comm. Bull. 18.

Craighead, F. L., E. L. Young, and R. D. Boertje. 1984. Stikine River moose study, wildlife evaluation of Stikine Iskut Dams. Final Rep. Alaskan Dep. Fish and Game. Juneau. 72 pp.

Craighead, J. J. 1977. A proposed delineation of critical grizzly bear habitat in the Yellowstone region. Bear Biology Association Monograph Series No.1. 20 pp.

Craighead, J. J., J. S. Sumner and G. B. Scaggs. 1982. A definitive system for analysis of grizzly bear habitat and other wilderness resources. Wildlife - Wildlands Institute monograph No.1. University of Montana. 277 pp.

Crouse, M. R., C. A. Callahan, K. W. Malueg, S. E. Dominguez. 1981. Effects of fine sediments on growth of juvenile coho salmon in laboratory streams. Trans. Amer. Fish. Soc. 110: 281-286.

Culp, J. M., and R. W. Davies. 1983. An assessment of the effects of streambank clear-cutting on macroinvertebrate communities in a managed watershed. Can. Tech. Rep. Fish. Aquat. Sci. 1208:xv + 115 p.

DeVos, A. 1952. The ecology and management of fishes and marten in Ontario. Ontario Department Lands Forest Tech. Bull. 90 pp.

Doerr, J. G. 1983. Home range size, movements and habitat use in two moose, Alces alces, populations in Southeastern Alaska. Can. Field Nat. 97(1):79-88.

Elliott, Steven T. 1983. The summer standing crop of juvenile coho salmon in Southeastern Alaska streams logged during the 1960's. The Alaskan Working Group on Cooperative Forestry - Fisheries Research. Sportsfish Division, Alaska Department of Fish and Game, November 1983. 7 pp.

Elliott, S. T. Unpublished. Effects of clearcutting on juvenile coho salmon and Dolly Varden in coastal streams of Southeast Alaska. Alaska Department of Fish and Game, Juneau, Alaska.

Ellis, R. J. 1970. Report on a study of effects of log rafting and dumping on marine fauna in Southeast Alaska, June 6-9, 1970. National Marine Fishery Service Auke Bay Laboratory, Auke Bay, Alaska.

Emerson, P., A. T. Stout, and D. Kloepfer. 1984. The feds can't see their losses in the trees. The Wall Street Journal, Nov. 14, 1984.

Erickson, A. W., B. M. Hansen, and J. J. Brueggiman. 1982. Black bear denning study, Mitkof Island, Alaska. Unpublished final rept. School of Fisheries, University of Washington, Seattle. 86 pp.

Fight, R., P. I. McNamee, L. D. Garrett, and N. C. Sonntagg. SAMM: Southeast Alaska multi-resource model--a conceptional simulation model for estimating impacts of forest management action in Southeast Alaska. U.S.D.A. Forest Service General Technical Report. PNW--in prep. Portland, Oregon.

Fox, J. L. 1983. Constraints on winter habitat selection by the mountain goat (Oreamnos americanus) in Alaska. Ph.D. Dissertation, College of Forest Resources, University of Washington, Seattle. 147 pp.

Franklin, J. F., K. Cromack, Jr., W. Denison, A. McKee, C. Maser, J. Sedall, F. Swanson, and G. Juday. 1981. Ecological characteristics of old-growth Douglas-fir forests. U.S.D.A. Forest Service Gen. Tech. Rep. PNW-118, 48 p. Pac. Northwest Forest and Range Exp. Stn., Portland, Oregon.

Gates, B. 1968. Deer food production in certain seral stages of the coast forest. M. Sc. Thesis, University of British Columbia, Vancouver. 105 pp.

Gibbons, D. R., and E. O. Salo. 1973. An annotated bibliography of the effects of logging on fish of the western United States and Canada. U.S.D.A. Forest Service General Technical Report PNW-10, Portland, Oregon.

Hall, E. R., and K. R. Kelson. 1959. The mammals of North America. Vol. II. Ronald Press Co. New York. 1083 pp.

Hanley, T. A., O. C. Wallmo, J. W. Schoen and M. D. Kirchhoff. 1983. Habitat relationships of Sitka black-tailed deer. Submitted as a chapter for the Wildlife Habitat Relationships Program, Region 10. Forest Service, Juneau.

Hansen, H. A. 1962. Canada geese of coastal Alaska. North American Wildlife Natural Resources Conf. Trans. 27:301-320.

Harbo, S. J. 1958. An investigation of mink in interior and Southeastern Alaska. M.S. Thesis. University of Alaska. 93 pp.

Harestad, A. S. 1979. Influences of forestry practices on dispersal of black-tailed deer. Ph.D. Thesis, University British Columbia, Vancouver. 179 pp.

Harris, A. H., O. K. Hutchison, W. R. Meehan, D. N. Swanston, A. F. Helmers, J. C. Hendee, T. M. Collins. 1974. The forest ecosystem of Southeast Alaska, 1. The setting. U.S.D.A. Forest Service General Technical Report PNW-12. Portland, Oregon. 40 pp.

Hartman, G. F., L.B. Holtby, and J. C. Scrivner. 1984. Seaward movement of coho salmon (Oncorhynchus kisutch) in Carnation Creek, an unstable coastal stream in British Columbia. Can. J. Fish. and Aquat. Sci. 39:588-597.

Hau, R. D. 1980. Effects of timber harvest in streamflow in the rain-dominated portion of the Pacific Northwest. In: Proceedings, workshop on scheduling timber harvest for hydrologic concerns; 1979 November 27-29; Portland, OR. Portland, OR: U.S. Dept. of Agriculture, Forest Service, Pacific Northwest Region; 1980. 45 p.

Hebert, D. M. 1979. Wildlife-forestry planning in the coastal forests of Vancouver Island. Pages 133-158 in O. C. Wallmo and J. W. Schoen, eds. Sitka Black-tailed Deer: Proceedings of a Conference in Juneau, Alaska. U.S.D.A. Forest Service, Alaska Region, Juneau.

Heintzleman, B. F. 1923. The standby timber resources of Alaska. West Coast Lumberman 44 (518): 102-103, 108.

Hodges, J. E., J. G. King, and F. C. Robards. 1979. Resurvey of the Bald eagle breeding population in Southeast Alaska. J. Wildl. Manage. 43 (1): 219-221.

Hoopes, D. T. 1982. Old-growth timber and wildlife management in Southeast Alaska: a question of balance. Trans. North American Wildlife and Natural Resources Conference 47:588-604.

Hundertmark, K. J., W. L. Eberhardt, and R. E. Ball. 1983. Winter habitat utilization by moose and mountain goats in the Chilkat Valley. Final Rep. Alaska Department Fish and Game. Juneau. 44 pp.

Hutchison, O. K., and V. J. LaBau. 1975. The forest ecosystem of Southeast Alaska, 9. Timber inventory, harvesting, marketing, and trends. U.S.D.A. Forest Service General Technical Report PNW-34. Portland, Oregon. 57 pp.

Jones, G. 1975. Aspects of the winter ecology of black-tailed deer (Odocoileus hemionus columbianus Richardson) on northern Vancouver Island. M. Sc. Thesis, University of British Columbia, Vancouver. 79 pp.

Johnson, L. 1980. Brown bear management in Southeastern Alaska. Pages 263-270 in C. J. Martinka and K. L. McArthur, eds. Bears - Their Biology and Management. Bear Biology Association Conference Series No.3.

Jonkel, C. 1977. Clearcut logging, Cabin Creek and the grizzly bear in Southeastern British Columbia, University of Montana BCP Spec. Rep. No. 11. 11 pp.

Kessler, W. B. 1982. Wildlife and second-growth forests of Southeast Alaska: problems and potential for management. U. S. Forest Service, Alaska Region Admin. Doc. No. 110.

Kirchhoff, M. D., J. W. Schoen, and O. C. Wallmo. 1983. Deer use in relation to forest clear-cut edges in Southeastern Alaska. J. Wildl. Manage. 47:497-501.

Koehler, G. M., and M. G. Hornocker. 1977. Fire effects on marten habitat in the Selway-Bitteroot Wilderness. J. Wildl. Manage. 41:500-505.

Koski, K. V. 1966. The survival of coho salmon (Oncorhynchus kisutch) from egg deposition to emergence in three Oregon coastal streams. M.S. thesis, Oregon State Univ., Corvallis, Oregon.

Koski, K. V., T. R. Merrell, and G. R. Snyder. 1983. Effectiveness of buffer strips in protecting fish habitat in small streams during clearcut logging in Southeast Alaska. NOAA, NMFS, Executive Summary. 13 pp.

Lebeda, C. S., and J. T. Ratti. 1983. Reproductive biology of Vancouver Canada geese on Admiralty Island, Alaska. J. Wildl. Manage. 47(2):297-305 pp.

Lensink, C., R. Skoog, and J. Buckley. 1955. Food habits of marten in interior Alaska and their significance. J. Wildl. Manage. 19(3):364-368.

Leopold, A. S., and R. H. Barrett. 1972. Implications for wildlife of the 1968 Juneau unit timber sale. A report to U.S. Plywood-Champion Papers, Inc.

Lindzey, F. G., and E. C. Meslow. 1977a. Population characteristics of black bears on an island in Washington. J. Wildl. Manage. 41(3):404-412.

Lindzey, F. G., and E. C. Meslow. 1977b. Home range and habitat use by black bears in Southwestern Washington. J. Wildl. Manage. 41(3):413-425.

Mace, R. D. 1983. The effects of a logging activity on grizzly bear movements. In E. C. Meslow, ed. Proc. Fifth International Conference on Bear Research and Management.

Marshall, W. H. 1951. Pine marten as a forest product. J. For. 49.

Mason, J. C. 1976. Response of underyearling coho salmon to supplemental feeding in a natural stream. J. Wildlife Management 40:775-788.

Matthews, J. W., and D. E. McKnight. 1982. Renewable resource commitments and conflicts in Southeast Alaska. Trans North American Wildlife and Natural Resources Conference 47:573-582.

McNeil, W. J., and W. H. Ahnell. 1964. Success of pink salmon relative to size of spawning gravel bed materials. U.S. Fish and Wildlife Service Spec. Sci. Rep. No. 469.

Meehan, W. R. 1970. Some effects of shade cover on stream temperature in Southeast Alaska. U.S.D.A. Forest Service Res. Note PNW-113, 9 p., illus. Pac. Northwest For. and Range Exp. Stn., Portland, Oregon.

Meehan, W. R. 1974. The forest ecosystem of Southeast Alaska. Vol. 3. Fish habitats. U.S.D.A. Forest Service Gen. Tech. Rep. PNW-15, 41 p., illus.

Meehan, W. R. 1974. The forest ecosystem of Southeast Alaska. Vol. 4. Wildlife habitats. U.S.D.A. For. Serv. Gen. Tech. Rep. PNN-16. 32 pp.

Mehrkens, J. R. 1983. Timber supply and demand 1982, U.S.D.A. Forest Service report, Alaska Region.

Mehrkens, J. R. 1984. Timber supply and demand 1983, U.S.D.A. Forest Service report, Alaska Region.

Mickelson, P. G. 1980. Statement of reasons for appeal of 1981-1986 Alaska Lumber and Pulp Timber Sale Operating Plan. Alaska Chapter of the Wildlife Society. 13 pp.

Miller, S., and D. McAllister. 1982. Den site characteristics of Prince William Sound black bears. Alaska Dept. Fish and Game. Anchorage. 11 pp. (mimeo).

Moring, J. R. 1975. The Alsea watershed study: Effects of logging in the aquatic resources of three headwater streams of the Alsea River, Oregon. Part II - Changes in environmental conditions. Fishery Research Report No. 9, Oregon Dept. Fish and Wildlife, Corvallis, OR. Dec. 1975. 39 pp.

Mundinger, J. G. 1984. Biology of the white-tailed deer in the coniferous forests of northwestern Montana. In Proceedings of a Symposium on Fish and Wildlife Relationships in Old-growth Forests.

Murphy, M. L. 1983. Fish kills of adult pink salmon and chum salmon in Southeastern Alaska. Unpubl. manuscript, Northwest and Alaska Fisheries Center, Auke Bay Laboratory, National Marine Fisheries Service, NOAA, Auke Bay, Alaska.

Murphy, M. L., and K. V. Koski. 1984. (Submitted to Canadian Journal of Fisheries and Aquatic Sciences.) Links between habitat, juvenile salmonids and effects of logging in Southeast Alaska.

Myren, R. T., and R. J. Ellis. In press. Evapotranspiration in forest succession and long-term effects upon fishery resources: a consideration for management of our old-growth forests. In Proceedings of a symposium an old-growth forest relationships, Juneau, Alaska.

Olson, S. T. 1979. The life and times of the black-tailed deer in Southeast Alaska. Pages 160-168 in O. C. Wallmo and J. W. Schoen, eds. Sitka black-tailed deer: Proceedings of a conference in Juneau, Alaska. USDA Forest Service, Alaska Region, Juneau.

Peterson, R. M. 1980. Responsive statement to statements of reason in support of appeal from approval of Alaska Lumber and Pulp Companies 1981-86 Timber Sale Operating Plan. U.S. Forest Service. 12 pp.

Phillips, R. W. 1971. Effects of sediments on the gravel environment and fish production. Pages 64-74 in Krygier, J. T. and J. D. Hall, editors. Forest land uses and stream environments. Continuing Educ. Publ., Oregon State University, Corvallis, Oregon.

Poelker, R. J., and H. D. Hartwell. 1973. Black bears of Washington. Washington State Game Department Bull. 14. 180 pp.

Reiser, D. W., and T. C. Bjornn. 1979. Habitat requirements of anadromous salmonids. USDA Forest Service Pacific Northwest Forest and Range Exp. Sta. Gen. Tech. Rpt. PNW-96. Portland, Oregon.

Rideout, D., E. S. Miyata, and E. Olson. 1984. A statistical profile of the timber supply base of the Tongass area in Southeast Alaska. Colorado State University, Fort Colins. 131 pp.

Rose, C. L. 1982. Deer response to forest succession on Annette Island, Southeast Alaska. M.S. Thesis University of Alaska.

Rothacher, J. 1970. Increases in water yield following clear-cut logging in the Pacific Northwest. Water Resource Research 6:653-658.

Rothacher, J. 1971. Regimes of streamflow and their modification by logging. In Proc. Symp. Forest Land Uses and Stream Environment. pp. 40-54. Oregon State University, Corvallis.

Russell, D. 1974. Grizzly bear-mountain goat investigations in Knight Inlet, B.C. Project report B.C. Fish and Wildlife Branch, Victoria. 72 pp.

Schoen, J. W., and O. C. Wallmo. 1979. Timber management and deer in Southeast Alaska: current problems and research direction. Pages 69-85 in O. C. Wallmo and J. W. Schoen, eds. Sitka black-tailed deer: Proceedings of a conference in Juneau, Alaska. U.S.D.A. Forest Service, Alaska Region.

Schoen, J. W., and O. C. Wallmo and M. D. Kirchhoff. 1981. Wildlife-forest relationships: is a reevaluation of old-growth necessary? Trans. N. Amer. Wildl. and Nat. Resources Conf. 46:531-545.

Schoen, J. W. 1982. Brown bear habitat preference and brown bear logging and mining relationships in Southeast Alaska. Alaska Department Fish and Game, Federal Aid in Wildlife Rest. Vol. I. Prog. Rep. Proj. W-22-1 Juneau. 44 pp.

Schoen, J. W., and M. D. Kirchhoff. 1982. Habitat use by mountain goats in Southeast Alaska. Alaska Department Fish and Game, Federal Aid in Wildlife Rest. Final Rep. Proj. W-17-10, W-17-11, W-21-1 and W-21-2. Juneau. 67 pp.

Schoen, J. W., and L. R. Beier. 1983. Brown bear habitat preference and brown bear logging and mining relationships in Southeast Alaska. Alaska Department Fish and Game, Federal Aid in Wildlife Rest. Vol. II. Prog. Rep. Proj. W-22-2, Juneau. 37 pp.

Schoen, J. W., and M. D. Kirchhoff. 1983. Seasonal distribution and habitat use by Sitka black-tailed deer in southeastern Alaska. Alaska Department of Fish and Game, Federal Aid in Wildlife Rest. Vol. IV. Prog. Rep. Proj. W-211, Juneau. 50 pp.

Schoen, J. W., M. D. Kirchhoff, and O. C. Wallmo. 1984. Sitka black-tailed deer, old-growth forest relationships in Southeast Alaska: Implications for management. In Proceedings of a symposium on fish and wildlife relationships in old-growth forests.

Schoen, J. W., and M. D. Kirchhoff. 1984. Seasonal distributional habitat use by Sitka black-tailed deer in Southeast Alaska. Alaska Department of Fish and Game, Federal Aid in Wildlife Rest. Vol. V. Prog. Rep. Proj. W-22-2. Juneau. 25 pp.

Schoen, J. W., M. D. Kirchhoff, and M. H. Thomas. 1985. Seasonal distribution and habitat use by Sitka black-tailed deer in Southeastern Alaska. Alaska Federal Aid in Wildlife Restoration Final Report.

Scrivner, J. C., and B. C. Andersen. 1984. Logging impacts and some mechanisms that determine the size and summer population of coho salmon fry (Oncorhynchus kisutch) in Carnation Creek, British Columbia. Can. J. Fish. Aquat. Sci. 41:1097-1105.

Sealaska, 1982. Sealaska Corporation resource atlas, Vols. I and II. Sealaska Natural Resources Department, Juneau.

Sedell, J. R., and F. J. Triska. 1977. Biological consequences of large organic debris in northwest streams. In: Logging debris II, Applications of stream cleanup. Oregon State Univ., Corvallis, Oregon.

Seton, 1929. Lives of game animals. Vol. II, part I. New York: Doubleday Doran and Co. 367 pp.

Sheridan, W. L., and A. M. Bloom. 1975. Effects of canopy removal on temperatures of some small streams in Southeast Alaska. U.S.D.A. Forest Service Adm. Report. R-10.

Sigler, J. W., T. C. Bjornn, and F. H. Everest. 1984. Effects of chronic turbidity on density and growth of steelhead trout and coho salmon. Trans. Amer. Fish. Soc. 113:142-150.

Smith, B. 1978. Investigations into black and grizzly bear responses to coastal logging. Undergraduate thesis. Simon Fraser University. 85 pp.

Smith, C., K. Kohrt, B. Baker, J. Sturgeon, M. Barton, R. Harris. 1983. Deer and timber management in Southeast Alaska-issues and recommendations. Technical Committee Report. Wildlife Society, Society of American Foresters, State of Alaska, U.S.D.A. Forest Service, Sealaska Corporation. 44 pp.

Smith, C. A., and K. J. Raedeke. 1982. Group size and movements of a dispersed, low density goat population with comments on inbreeding and human impacts. Proc. North. Wild Sheep and Goat Counc., Ft. Collins, Colorado.

Smith, C. A. 1983. Habitat use by mountain goats in southeastern Alaska. Alaska Dep. Fish and Game, Fed. Aid in Wildlife Rest. Proj. W-22-1. Juneau. 88 pp.

Smith, O. R. 1940. Placer silt and its relation to salmon and trout on the Pacific coast. Trans. Amer. Fish. Soc. 69: 225-230.

Soutiere, E. C. 1979. Effects of timber harvesting on marten in Maine. J. Wildl. Manage. 43 (4):850-860.

Stalmaster, M. V., and J. R. Newman. 1979. Perch site preferences of wintering bald eagles in Northwest Washington. J. Wildl. Manage. 43(1):221-224.

Sullivan, E., and W. L. Sheridan. Undated. Sport fisheries of the Tongass and Chugach National Forests--An evaluation. U.S.D.A. Forest Service Alaska Region Report No. 128.

Swanson, F. J., G. W. Lienkaemper, and J. R. Sedell. 1976. History, physical effects, and management implications of large organic debris in western Oregon streams. U.S.D.A. for. Serv. Gen. Tech. Rep. PNW-56, Pac. NW. For. Ran. Exp. Stn., Portland, Oregon.

Tappel, P. D. and T. C. Bjornn. 1983. A new method of relating size of spawning gravel to salmonid embryo survival. North American Journal of Fisheries Management. 3:123-135.

Tschaplinski, P. J., and G. F. Hartman. 1983. Winter distribution of juvenile coho salmon (Oncorhynchus kisutch) before and after logging in Carnation Creek, British Columbia, and some implications for overwinter survival. Can. J. Fish. Aquat. Sci. 40:452-461.

Tuber, R., and K. Raedeke. 1980b. Black-tailed deer of the Olympic National Forest. Final Rept. to U.S.D.A. Forest Service, Olympic National Forest. Wildlife Science Group, college of Forest Resources, University Washington Seattle. 90 pp.

Tyler, R. W., and D. R. Gibbons. 1973. Observations of the effects of logging on salmon-producing tributaries of the Staney Creek watershed and the Thorne River watershed and of logging in the Sitka District. Final report, Part I, July 1, 1972-June 30, 1973. Alaska Loggers Association. 58 pp.

U.S. Congress. 1983. Timber industry practices in the Tongass National Forest, Alaska. Oversight Hearing before the Sub-committee on Mining, Forest Management, and Bonneville Power Administration of the Committee on Interior and Insular Affairs, House of Representatives, 98th Congress. Serial No. 98-19, U.S. Government Printing Office. 410 pp.

U.S. Forest Service. 1978. Tongass land management plan: wildlife task force working report. U.S.D.A. Forest Service Alaska Region.

U.S. Forest Service. 1979. Tongass land management plan. Final Environmental Impact Statement. U.S.D.A. Forest Service Alaska Region.

U.S. Forest Service. 1983. Alaska regional guide and final environmental impact statement. U.S.D.A. Forest Service Alaska Region Reports 126(a) and 126(b).

U.S. Forest Service. 1984. Tongass land management plan evaluation report. U.S.D.A. Forest Service Alaska Region Admin. Doc. 139.

Wallmo, O. C., and J. W. Schoen. 1980. Response of deer to secondary forest succession in Southeast Alaska. For. Sci. 26:448-462.

Weger, E. 1977. Evaluation of winter use of second-growth stands. B.S. Thesis, University British Columbia, Vancouver. 42 pp.