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FOREST DEVELOPMENT IN SOUTHEAST ALASKA:
ISSUES CONCERNING THE FISH AND WILDLIFE SERVICE

U.S. Fish and Wildlife Service

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CHAPTER 1: INTRODUCTION

Perhaps nowhere else in the Nation do forest development policies and practices affect a region and its' communities more than they do in southeast Alaska. Harvesting and processing timber is the second most important industry in southeast but has the highest potential for affecting fish and wildlife habitats.

Purposes of Report

The purposes of this paper about the broad issue of forest development in southeast Alaska are three-fold.

- o To provide an overview of forest development in southeast.
- o To examine the trends in Fish and Wildlife Service (FWS) opportunities for affecting forest development decisions.
- o To refine the FWS' management direction for Ecological Services in southeast Alaska.

Planning Boundary

The geographic boundary for this paper on forest development includes essentially all of southeast Alaska from Dixon Entrance on the south to Yakutat on the north. The study boundary is that region under the jurisdiction of the Service's Southeast Alaska Ecological Services (SEES) Field Station and which encompasses the Tongass National Forest (TNF).

The planning boundary is about 525 miles long and 120 miles wide and comprises about 42,000 square miles or 27 million acres. The entire region of southeast is about the size of the state of Washington with the land area representing about one-half the size of Washington. Although southeast represents seven percent of the total land area in Alaska, it has over 15 percent of the state's population.

The proportion of land administered by public agencies in southeast is high. The Tongass National Forest comprises about 17 million acres or 63 percent of the region. Glacier Bay National Park contains about 2.9 million acres or 11 percent of southeast. Native corporations control about 500,000 acres or 1.9 percent of southeast. The remaining 6.6 million acres are administered by the State of Alaska, municipalities, and private individuals.

Southeast Alaska is a distinctive natural physical unit in Alaska most characterized by its marine setting. As a result of its convoluted shoreline, the entire tidal shoreline of Alaska is about 47,000 miles with 29,000 of those miles of intricate shoreline in southeast. As such, the shoreline in southeast represents 61 percent of the total Alaska shoreline and an incredible 30 percent of the entire shoreline of the United States -- an impressive statistic by anyone's standard.

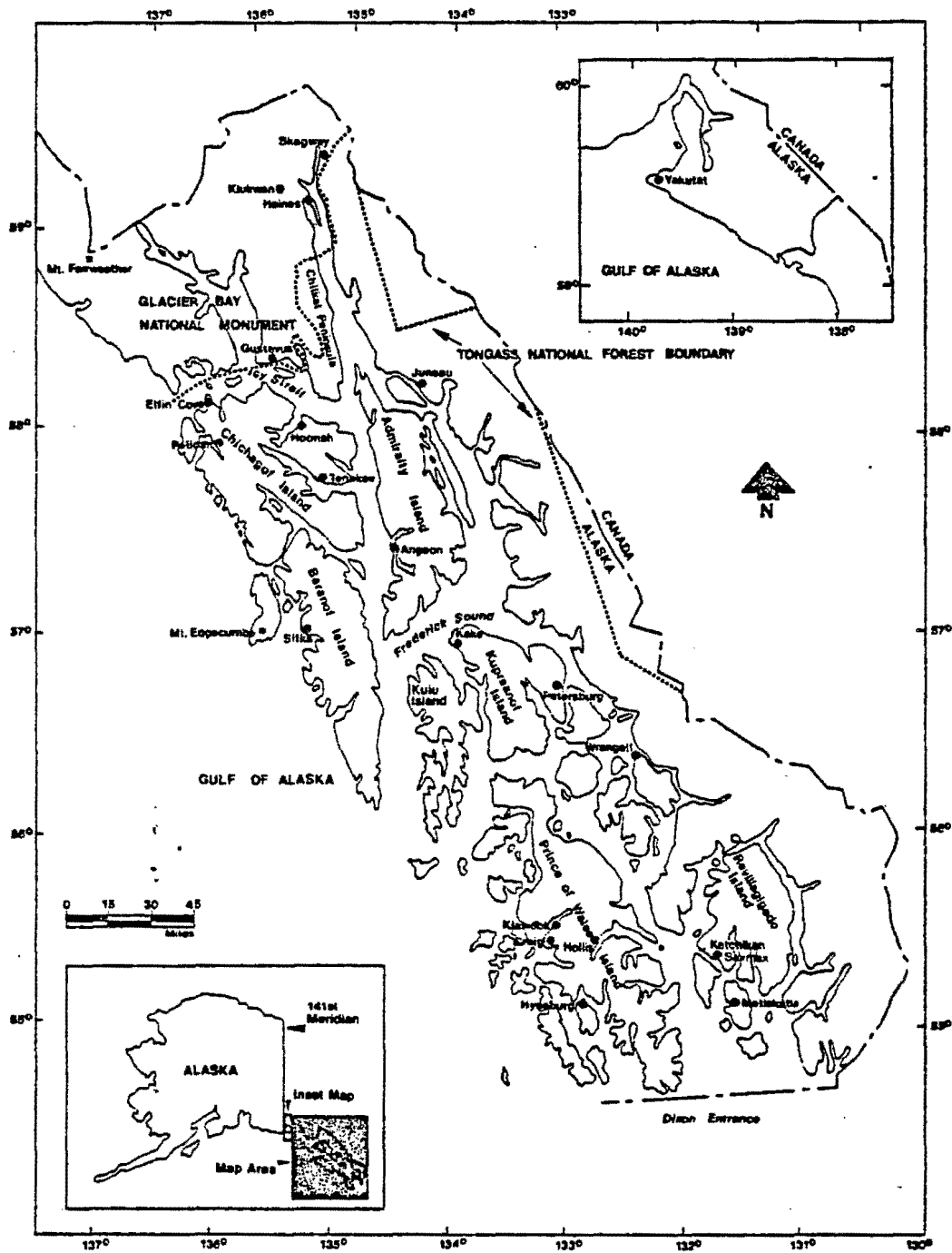


Figure 1. Southeast Alaska.

FWS Organizational Structure in Southeast Alaska

Southeast Alaska Ecological Services (SEES) presently has an approved staffing plan which encompasses 13.8 full time equivalent (FTE) positions. The staffing structure is indicated below.

SOUTHEAST ALASKA ECOLOGICAL SERVICES JUNEAU FIELD OFFICE

Field Supervisor

Secretary	F&W Biologist GS-12
F&W Biologist GS-11	Permits and Licenses Coordinator
	Fishery Biologist GS-12
F&W Biologist GS-11	Federal Projects Coordinator
	F&W Biologist GS-12
Ship Operator	Area Planning Coordinator
	Fishery Biologist GS-11
	Resource Contaminant Assessment

F&W Biologist GS-11	F&W Biologist GS-11	F&W Biologist GS-11
Sitka Substation	Petersburg Substation	Ketchikan Substation
Clerk/Typist (PT)	Clerk/Typist (PT)	Secretary (PT)

Forest Service Organization

The U.S. Forest Service (USFS) has two National Forests in Alaska - the Tongass and the Chugach. The TNF represents about 75 percent of the total National Forest lands in Alaska and 98 percent of the total timber harvested. The Tongass National Forest is administered from a Regional Office in Juneau. It is further divided into three areas - Stikine, Chatham, and Ketchikan - which function similarly to Forest Supervisor's Offices. The area offices are located at Ketchikan, Sitka, and Petersburg. The TNF is also subdivided into eight Ranger Districts and two Monuments. The District headquarters are located at Ketchikan, Craig, Thorne Bay, Wrangell, Petersburg, Sitka, Hoonah and Juneau. Yakutat is a work center administered by the Sitka District. The two monument (Admiralty Island and Misty Fiords) offices, which function like Ranger Districts, are located at Sitka and Ketchikan.

The FWS organization parallels that of the USFS by having offices in Juneau, Sitka, Ketchikan, and Petersburg. Refer to the preceding section and Chapter 5 for further discussion about FWS organizational structure and the history behind that structure.

CHAPTER 2. FISH AND WILDLIFE RESOURCES IN SOUTHEAST ALASKA

Fish and wildlife resources in southeast Alaska are internationally renowned for their great diversity and abundance. The combined recreational, commercial, aesthetic, and subsistence values of these resources probably surpass those of any other area of similar size in the United States, including the remainder of Alaska. The richness of fish and wildlife resources in southeast Alaska derives from the close integration of highly diversified marine, freshwater, and terrestrial habitats that make up a large coastal zone area. The marine-terrestrial interface includes an intricate maze of coastal features such as islands, sounds, straits, channels, narrows, arms, bluffs, coves, beaches, flats, bays, fiords, inlets, and estuaries. Terrestrial areas, both on the coast and on the islands, are predominantly mountainous, heavily vegetated, and frequently indented with stream-or lake-bearing valleys and canyons. Inventories have shown 2,634 major streams, totaling over 6,000 miles of salmon-spawning habitat, and 600 natural lakes totalling 120,000 acres. Several major glaciers descend through the mountains to the sea, adding yet another influential variable to the overall diversity of this extremely complex ecosystem.

The dense, old-growth forests occupying coastal regions and mountain slopes are a critical component of the entire terrestrial-freshwater-marine ecosystem. They not only provide key habitat for several birds and mammals but also regulate the flow and quality of freshwater streams and lakes. These in turn control the quality of estuarine areas. Both the freshwater and estuarine habitats are extremely important to the stability of several freshwater, anadromous, and marine species of fish and invertebrates, so it is readily perceived that forest conditions are a critical factor for much of the fauna throughout the southeast Alaska ecosystem.

All five species of pacific salmon are abundant in commercial quantities here. They are important to recreational and subsistence users.

Streams and lakes contain abundant populations of rainbow, cutthroat, and Dolly Varden trout. A given drainage may contain any combination of these species, depending on the nature of the drainage system and time of year. The continuation in desirable quantities of all trout and salmon populations depends on maintaining the quantity and quality of spawning and rearing habitat in streams, lakes, and estuaries and of feeding conditions in all aquatic habitats.

Halibut, salmon, and crab are well-known inhabitants of Southeast's marine waters. Other marine fish and invertebrate fauna of intertidal and subtidal waters are generally unrecognized despite their contribution and importance to the total marine ecosystem. Aside from salmon and sea-run trout, 22 other species of fish are important commercially, recreationally, or as prey for important species. At least 14 species of crabs and 4 species of shrimp are present, several of which are important foods for human use. These fish and invertebrates are emphasized because of their vital importance in the overall food web of the system. Many of them as adults are common foods of larger fish, sea birds, and marine

mammals. All of them produce larval and juvenile stages which in vast quantities occupy necessary places in the plankton, nekton, and bottom components of marine food webs.

Southeast Alaska hosts 53 species of mammals, 269 species of birds, and 7 species of amphibians and reptiles. These species are distributed through four principal terrestrial communities: true forest, grass-sedge meadow, muskeg, alpine tundra and the various marine and coastal areas according to their ecological roles. At least 15 species of marine mammals occur throughout southeast estuaries, feeding on fish and invertebrates.

Several species of marine birds, shorebirds, and waterfowl use the grass-sedge meadows for nesting and for resting and feeding during migrations. They are especially common in the Juneau tidelands, Stikine Flats, Yakutat Forelands, Duncan Canal, Rocky Pass and other suitable salt marshes, tidal flats, and estuaries. At least nine major seabird colonies have been found in the region. Some species of seabirds are known to nest in trees and in burrows among the roots of trees. The bald eagle is more abundant in southeast Alaska than in any other part of North America. It depends heavily on shoreline trees for nesting. All of the seabirds and eagles depend on fish or other marine fauna for food.

The true forest, meadows, and muskeg are all used by black and brown bears, Sitka deer, and numerous furbearers. Mountain goats often descend to winter in the forest. Mature timber stands are critical winter habitat for deer in that understory vegetation acts as an available food source and deer movement is unhindered by the lack of deep snow. Moose inhabit meadows in several mainland areas, particularly in the Yakutat, Taku, and Stikine areas.

CHAPTER 3. FOREST RESOURCES IN SOUTHEAST

Alaskan forests occupy two general categories: interior and coastal. Coastal forests are the most valuable commercially, although much the smallest in area. In southeast Alaska, western hemlock, Sitka spruce, red cedar, and Alaska cedar predominate in the southernmost area; in the northern part hemlock, especially mountain hemlock, is more abundant and is accompanied by fir, lodgepole pine and black cottonwood. Forests of southeast Alaska are generally mature, containing trees ranging from 100 to 300 years of age. This mature stage of forest growth has highest value to wildlife and to fish inhabiting streams within the forest. Although the Tongass National Forest contains about 17 million acres, only 6.1 million acres are commercially useful and of this only 0.3 million acres are deferred from harvest. Noncommercial forest occupies 4.5 million acres and 6.4 million are unforested. By virtue of ANILCA, Natives have received or will receive ownership of 500,000 acres from federal lands in southeast. The State of Alaska has applied for 73,000 acres in various parts of the southeast region, but so far has received only 11,200 acres. The Native ownerships lie principally on Prince of Wales, Revillagigedo, Kupreanoff, Admiralty, and Chichagof islands; smaller parcels are on Douglas, Baranof, and Annette islands.

State land contains mostly low-quality timber of which harvest will be insignificant.

The Tongass National Forest was proclaimed in 1907 and in 1908 was consolidated with the Alexander Archipelago for a total of 6.7 million acres. An additional 8.7 million acres were added in 1909, then in 1980 the ANILCA added 4.5 million acres more, divided between the Tongass Forest and the two Monuments.

The number of timber sales increased in the 1920's and 1930's. Sawmills were operating at Juneau, Craig, Ketchikan, and Sitka. USFS regulations were tightened. Inspections were required; trees for cutting were marked; harvest areas were identified and mapped. Road building began in the late 1930's to expedite forest harvest.

World War II brought a boom to logging. Spruce was needed for airplane frames. In 1943 the Forest Service responded to the federal Alaska Spruce Log Program by contracting for the logging and towing of rafts for 100 million board feet of spruce annually. The rafts of spruce logs contained up to 1 mmbf and were towed to Seattle. The program ended in 1944, however, apparently due to a lack of demand. The Regional Forester then began pressing for the pulp industry to move in. The objective of forest protection changed to forest management.

The Ketchikan Pulp Company began in 1951 and by 1953 large-scale timber production boomed in southeast Alaska. New processing plants were built and old ones enlarged and modernized. Clearcutting intensified, often covering entire watersheds. Concern about the effects of pulp mill effluent and clearcutting grew rapidly, leading to the initiation of many studies to analyze their impacts. Japanese companies became interested in wood production in southeast in 1953. At first they bought the huge

amounts of waste materials that were previously discarded. Eventually they obtained holdings that enabled them to ship whole logs to Japanese processors.

From 1917 to 1952 timber harvest varied around 50 mmbf annually. In 1957 it rose sharply to 225 mmbf, then increased steadily to 575 mmbf by 1975. In the 1950's, timber sales grew in size and longevity, road building, intensified, more mills were built. Three long-term timber sales were contracted as shown in Table 3-1.

Table 3-1. Long-term timber sale contracts in southeast Alaska.

Sale Name	Contract Date	Expiration Date	Contract Timber Vol. MMBF	Timber Volume Remaining 1/1/78 MMBF
1. Ketchikan Pulp Co. (KPC) ^a	7/20/51	6/30/2004	8250	4600
2. Pacific Northern Timber Co. (PNT)	6/9/54	12/31/81	693	190
3. Alaska Lumber and Pulp Co. (ALP)	1/25/56	6/30/2011	4975	3400

^a In 1961 became Louisiana Pacific-Ketchikan Co. (LPK)

Timber harvest in these sales is based on 5-year operating plans. Current 5-year plans call for an average annual harvest of about 370 mmbf. These contracts include measures to protect other resources in their areas, including exclusion of certain areas from cutting. During the period from 1981 to 1989 the five-year plans for LPK and ALP will create the products shown in Table 3-2.

Table 3-2. Forest development projections for southeast Alaska.

Products	Companies		Totals
	LPK	ALP	
Timber Cut	960 mmbf	452 mbf	1412 mmbf
Acres Harvested	41,100	28,300	69,400
New Roads (miles)	621	280	901
New Camps	Unknown	8	8
New Terminal			
Transfer Facilities	2 to 7	9	11 to 16

Timber management and sales changed much in the 1970's. Environmental regulations intensified along with growing opposition to clear cuts, stream degradation, water pollution, and road building. Environmentalists have pursued several legal suits and opinions. The result was the amount of land available for harvest was reduced, in some areas through wilderness designation and in others through a more lenient planning process that recognized the value of setting aside special areas for wildlife or aesthetics. Small logging companies declined as bigger

companies bought them. In the 1980's the big difference in forest development will be the ANILCA which transferred forest land to the State and to Native corporations.

Because of objections to large companies holding so much of the timber, the USFS and Small Business Administration agreed in 1977 to a set-aside program of 80 mmbf annually to be available only to small companies.

Recent harvest in southeast Alaska is shown in Table 3-3.

Table 3-3. Timber harvest in southeast Alaska, 1979 to 1983.

Ownership	Millions of Board Feet				
	1979	1980	1981	1982	1983
Tongass National Forest	453.1	452.1	385.7	344.9	251.2
State of Alaska		5.1	5.4	5.7	2.5
Native corporations	18.8	70.3	122.0	209.2	232.0
Annette I. Indian Reserv. (BIA)	0.5	15.3	2.5	2.9	3.2
TOTALS	472.4	542.8	515.5	562.7	488.9

Alaska's pulp markets have shown relatively stable but declining demand since 1979. While production has declined, prices have increased, but not enough to offset market losses. Even so, Alaska's market share has increased relative to its domestic and Japanese competitors. This is in part due to a long-term Japanese supply contract with one of the major pulp suppliers in southeast Alaska. The prolonged, depressed export markets, only moderate long-term demand forecasts, higher than average operating costs, and the age of existing plants are together working as disincentives for keeping the pulp mills in operation. In addition, the Environmental Protection Agency (EPA) has recently requested that the water pollution abatement equipment of the two pulp mills be brought into full conformance with national standards.

Utilization of both high quality and low quality timber is crucial to the viability of the entire industry and the attainment of current community stability objectives. This is due to higher than average production costs in Alaska and the economics of scale required to develop areas for initial harvest. The loss of low quality markets would bring about sharp reductions in total timber utilizations and employment. The remaining market would center around high grade spruce and hemlock logs only.

An economic study prepared in 1975 for the State of Alaska estimates that by 1990 annual timber harvest will increase by 150 mmbf above the 1970 harvest of 560 mmbf and that an additional 50 to 250 mmbf annually will be harvested by the year 2,000 for a total annual increase of 200 to 400 mmbf and a total amount of annual cutting of 760 to 960 mmbf. The TNF Area Guide published in 1977 projects a different set of figures based on assumptions about timber harvest rates on Native and Forest Service land and on activities of saw mills and pulp mills. In 1977, the Forest Service indicates a total annual harvest of 650 mmbf by 1980 and 710 mmbf by 1985.

Within the harvest figures shown above are the volumes of timber offered and sold to small businesses by the TNF. These are shown in Table 3-4.

Table 3-4. Tongass National Forest independent timber sales, 1978 to 1983.

	Independent Timber Sales Volume Offered	Independent Timber Sales Volume Sold	SBS Set Aside Volume Offered	SBA Set Aside Volume Sold
1978	89.4	73.5	20.1	0
1979	108.0	108.0	23.7	23.7
1980	162.3	161.5	133.5	120.8
1981	106.7	105.9	101.8	99.8
1982	106.1	66.5	76.7	66.5
1983	179.1	69.0	108.6	36.1
TOTAL	751.6	584.4	464.4	346.9

In summary, the future of southeast Alaska's timber industry will be controlled by (1) the world market for pulp and the Japanese market for cants (squared logs) and (2) the availability of timber to supply the region's mills after State and Native land selections and wilderness designations are made. If pulp prices increase, timber value will increase, making it possible for industry to harvest marginal-value trees (poorer quality or accessibility) thus utilizing a greater proportion of the potential commercial forest area. If prices for pulp decrease, the tendency will be to either utilize only the highest-grade timber or close the mills. If Japanese demand for cants increases, it could reactivate idle mills and increase logging whole trees, assuming timber supplies are available. The demand for special timber would expand too. A declining cant market will not change the existing situation as long as timber supplies remain unchanged. If, however, industry needs to log a higher percentage of marginal and special lands to achieve the same volume of harvest and markets remained unimproved, total harvest will decline and mills will shut down.

The disposition of timber from Native lands is unclear. Higher grade portions will probably be shipped to Japan as round logs, lower grade trees will be sold to local pulp mills if a shortage of pulp timber exists. The anticipated sustained yield from Native lands is considered to be about 120 to 130 mmbf per year.

CHAPTER 4. FOREST MANAGEMENT AND DEVELOPMENT PRACTICES AND THEIR ECOLOGICAL IMPACTS

"Good timber management is good wildlife management," is an aphorism accepted at face value for many years, based on observations revealing that in some areas more animals are seen in second growth conditions than in mature forests. "Old growth forest" became synonymous with no wildlife; logging off virgin or mature timber was touted as a wildlife management tool. Current opinion no longer sees this to be as standard and widespread a condition as was stated for so many years. This is especially so in southeast where deep snow precludes deer access to clear cuts, most of the second-growth cycle lacks understory vegetation for food, and the old-growth forest that is both accessible and with available food is being cut at an accelerating rate. This mature condition requires 250 to 300 years to become reestablished after removal, during which time second-growth conditions will not support viable populations of desirable wildlife such as Sitka deer.

The Tongass Land Management Plan (TLMP) of 1979 contains Land Use Designations (LUDs) that identify four basic classes of management. LUDs I and II designate areas to be permanently protected from timber harvest. In LUDs III and IV, certain portions of timber were to be retained from cutting because of high "amenity" value. These percentages of retention were originally 40% in LUD III and 18% in LUD IV, but were reduced to 30% and 13%, respectively, by decision of the Regional Forester. Harvest is to be on 100- to 125-year cycles, which means that forests cannot return to the 250 to 300 year old maturity required by deer and other forest wildlife.

The National Forest Management Act of 1976 requires that fish and wildlife habitats be managed to maintain viable populations of all existing native vertebrate species and to maintain and improve habitat of indicator species. However, the ANILCA of 1980 mandates a harvest of 450,000 million (4.5 billion) board feet per decade from the TNF (Sec. 705a). It is also anticipated that 250 mmbf will be taken annually from state and native lands, totalling 700 mmbf annually throughout southeast Alaska. Consequently, to meet this mandated level of cut, the Forest Service is loosely interpreting their responsibilities and regulations benefitting habitat and is allowing industry to high-grade the high-volume areas which are also the principal wildlife habitat for forest-dwelling species.

The wildlife society and the Alaska Boards of Fish and Game formally protested the Forest Service's failure to tighten their interpretation of the laws, give more emphasis to retaining important wildlife habitat, and comply with the need to maintain key old-growth forests in critical habitats. They asked that the 1981 to 1986 timber harvesting plan for the Alaska Lumber and Pulp Co. be halted until an impartial panel of experts evaluates the claims and positions of both the Forest Service and the Alaska Chapter of the Wildlife Society.

In response to this situation the ADF&G developed the Forest Habitat Integrity Plan (FHIP) to integrate new information on fish and wildlife into the TLMP. Wildlife and fishery values were developed for each

drainage to identify areas that (1) may be cut now with minimum damage to wildlife, (2) should never be cut, or (3) must be evaluated further to decide whether or not they should be cut. The Forest Service is ignoring the FHIP.

ANILCA Section 806 specifies that regional councils will be appointed to advise the Secretary of the Interior on matters concerning subsistence. The Southeast Alaska Council has reported to the Secretary the intensifying concern among southeast subsistence users that present timber harvest methods and schedules are threatening the existence of important subsistence species such as deer and salmon. Degradation of subsistence populations or habitats would violate Sec. 802 of ANILCA.

Forest development in southeast Alaska encompasses the following activities. Management involves planning and scheduling the activities listed above, public relations, and political action to secure advantages for timber owners and processors.

- o Constructing logging camps, roads, and bridges
- o Harvesting timber
- o Transferring logs to storage sites, which may be on land or in large rafts on salt water
- o Transporting logs from storage sites to sawmills and pulp mills
- o Processing logs at the mills
- o Disposing of logging debris and mill wastes, and regenerating new forest growth on harvested sites.

The majority of commercially valuable timber in southeast Alaska is adjacent to or closely associated with estuaries and exists in high-volume stands containing 20 to 30 million board feet (mmbf) or more per acre. Estuaries are usually in bays or fjords that provide protected areas for logging facilities and storage sites. It is common practice to set up a logging operation so that camps and staging areas are near a drainage mouth and estuary, logging roads criss-cross the drainage, logs are trucked to the staging area to be dumped into the nearshore estuarine water and formed into large rafts.

The most serious problems for fish and wildlife in this system are that the high-volume timber is also the critical winter range for Sitka deer; logging road construction and clear cutting destroy spawning streams; and rafting logs in estuaries destroys living conditions necessary for valuable marine organisms. Road construction and logging activities fill the streams with silt and debris. Removing streamside tree cover raises stream water temperatures in summer and decreases them in winter to the detriment of salmon eggs and juveniles and prey organisms. Rafting logs in estuaries results in bark and other debris deposition that cover the seabed and eliminate food and reproductive habitat. These log dumps or "terminal transfer facility sites (TTFS)" can be considered waste discharge areas similar to canneries or pulp mills and have destroyed several thousand acres of estuarine habitat in southeast. Pulp mill effluents have destroyed additional marine habitat. In southeast Alaska, these forest practices have individually and cumulatively contributed to the decline of salmon, herring, bottomfish, crabs, clams, deer, eagles, and other valuable species wherever massive clearcut and log rafting practices and pulp mills have persisted for some time.

Logging Camps, Roads, and Bridges

Timber harvests in the two areas under 50-year contracts (ALP and LPK) will require constructing about 901 miles of road from 1980 through 1989. Other Tongass Forest harvest sites and logging areas on Native land will need about an additional 200 miles of new roads. These roads will need a bridge approximately every 2.8 miles (393 bridges) and countless numbers of culverts. At least eight and possibly 20 new logging camps will be constructed in this period. These construction activities will have a high potential for destroying fish spawning and rearing stream habitats and the habitats and populations of food organisms used by trout and salmon. The destruction will result from siltation, removal of stream gravel for construction, abnormal water temperatures, decreased winter stream flows, and blockage of fish passage.

Timber Harvest

Two basic timber management strategies have been employed in forest logging: even-age and uneven-age stands. Uneven-age stands are usually maintained through selective removal of trees as they mature. Even-age stands are created by removing all trees and undergrowth from a given area and then either planting seedlings of a desired tree species or allowing natural revegetation to occur. The clearcut areas may be in any shape; the shape is usually determined by characteristics of the terrain and the cost of access and log-handling facilities.

Forest Service regulations place a maximum size of 100 acres on a clearcut area although opening of 150 to 200 acres are permitted under special physical and biological conditions. Openings are supposed to conform to the natural terrain to retain esthetic qualities and wildlife habitat values and other multiple-use objectives. These stipulations have not been consistently enforced on the Tongass National Forest.

An estimated 69,400 acres of forest will be harvested between 1981 and 1989 from the two long-term contract areas. An additional 92,000 acres are estimated to be cut on Native-owned land outside the 50-year sale areas in this period. State lands will likely add several thousand acres to the figure cited above. Converting 162,000 acres of old-growth stands to clearcut second growth over the entire 50-year life of the ALP and LPK contract is the most critical wildlife issue in southeast Alaska. There will be a serious loss of winter range for deer and loss of habitat for other species of birds and mammals dependent on old-growth forest. Depending on harvest plans, between 35 and 42 percent of wildlife habitat classified as being important will be impacted.

Although high-quality eagle nesting habitat is not expected to be impacted, about 54 to 60 percent of moderate- to low-quality eagle habitat will be destroyed. Between 29 and 50 percent of old-growth black bear habitat will be lost.

Logging may impact more than 100 spawning and rearing streams for salmon and trout and over 50 temperature-sensitive streams. These streams contain approximately 200 to 300 linear miles and two to three acres of important fish habitat.

Terminal Transfer Facility Sites (TTFS)

Rugged topography and lack of roads between timber harvest areas and processing centers require dumping of logs into protected estuaries for storage before being rafted to the mills. About 93 percent of the TTFS's in southeast Alaska use one or another of four methods below.

1. Logs are bundled on land then lifted and "eased" into the water (26 percent)
2. Logs are bundled on land then skidded into the water (24 percent)
3. Logs are lifted, slid or skidded into the water then banded into bundles (19 percent)
4. Logs are dumped on the beach at low tide, banded into bundles, then floated away at high tide to deeper water (24 percent)

Virtually every log that has been harvested in southeast Alaska has been placed in an estuary at a log transfer site and stored before and after being towed to processing centers. Although estimates are that at least 900 log transfer facilities have been constructed since the early 1950's when large-scale logging began, the Forest Service has documented only 177 active, inactive, or proposed sites. About 148 log-dumping facilities were constructed in southeast Alaska between 1960 and 1977. Generally, about 40 dumps are operating in any given year.

Table 4-1. Terminal Transfer Facilities in southeast Alaska Documented by U.S. Forest Service

Status	Ketchikan Area	Stikine Area	Chatham Area	Total
Active	11	14	18	43
Inactive	38	9	16	63
Proposed	33	7	10	50
Unknown	10	9	2	21
Total	92	39	46	177

Each log dump site is between about 5 and 20 acres in size, which means that 885 to 3440 acres of estuarine habitat has or will be adversely impacted depending on the actual number of sites. It is anticipated that the number of transfer facilities will increase by as many as 16 by the year 1989.

Log dumping, handling, rafting and storing are responsible for several types of damage to estuarine organisms and habitats. Major impacts occur when bark and debris drops from the logs, accumulates on the bottom, and smothers epifauna, infauna, and benthic habitats. The bark residue degrades water quality, producing toxic organic leachates and increasing biological and chemical oxygen demand. Decreased light penetration under log rafts also impacts bottom fauna. Improperly placed log storage areas have blocked or destroyed spawning and rearing habitat for salmon, herring and other fish and shellfish.

Transportation of Logs

Coastal waters in southeast are used as a means of low-cost transportation for logs. As such, logs are rafted and towed from harvest areas to processing and milling sites. Logs are either towed as "flat rafts" or as "Davis rafts." Flat rafts are a collection of single-layered logs surrounded by a string of logs held together by chains. Several flat rafts may be hooked together and towed in tandem. Davis rafts are large bundles of logs fastened together by chains or cables. Rafts measure 70 feet by 550 feet and contain 300,000 to 600,000 bf of timber.

Log pollution occurs in southeast because logs often escape when rafts encounter storms or when cables and chains break. Escaped or "maverick" logs also occur because of poor handling and storage practices. Maverick logs become free-floating hazards to navigation and ecological hazards to estuarine habitats.

There are few if any stretches of the 27,000 miles of shoreline in southeast Alaska that maverick logs have not impacted. It is estimated that log pollution creates \$1 million in vessel damages annually (1978 dollars). It has also been estimated that 880,000 cubic feet of sawlogs were reclaimed in British Columbia waterways in 1977. Ecological damages occur to intertidal organisms and habitats when maverick logs ground and collect on beaches and pound the shoreline as a result of wave action.

CHAPTER 5: HISTORY OF FWS INVOLVEMENT IN FOREST DEVELOPMENT IN SOUTHEAST ALASKA.

A major involvement of FWS in forest development in southeast began about 1970 with the USFS' implementation of the National Environmental Policy Act (NEPA) and the improved implementation of the 404 permit program and the Fish and Wildlife Coordination Act. Several other modern laws also require the Forest Service to involve federal, state and local governments and other publics in the development of National Forest management planning and in their decision-making process.

As a result of NEPA, the USFS began to utilize the Interdisciplinary Team (IDT) method in their forest planning process. Although the FWS has never been invited to participate on formal NEPA IDT's (cooperating agency status), the FWS has been invited to participate on informal task forces in each of the three TNF areas (Ketchikan, Stikine and Chatham). Due to our participation on USFS task forces and the need for close and frequent coordination with the area offices, the FWS established substations at Ketchikan, Petersburg and Sitka in 1977. One biologist and a part-time clerk typist were assigned to each substation. Although this participation with the area offices in the development of timber harvest plans is a continuing process, the level of FWS involvement has fluctuated since 1977 due to the USFS' planning schedules.

SEES investigations on proposed terminal transfer facility sites (TTFS), formerly called "log dumps," has occurred since about the 1960's because they required Section 10, and after 1972, 404 permits from the Corps of Engineers. Our authority for this involvement was the Fish and Wildlife Coordination Act. Because of the Memorandum of Agreement between the Secretary of the Interior and the Secretary of the Army, we have more leverage with respect to the permitting (location and design) of TTFS's than we have for any other forest practices.

Two large pulp mills have operated in Southeast Alaska since the early 1960's - the Louisiana Pacific (LPK) mill in Ketchikan and the Alaska Lumber and Pulp Company (ALP) mill in Sitka. In the early 1970's a third large pulp mill was proposed for Berner's Bay, about 40 miles north of Juneau. SEES biologists collected basic data on the fish and wildlife resources of Berner's Bay in 1972; however, the mill was never constructed.

The need for the collection of field data concerning proposed TTFS's became apparent in 1972 because of the large number of proposed sites and the critical nature of the estuarine habitat potentially impacted. Along with that recognition came the need for a reasonably large vessel to serve as a base camp and safe means of transportation for FWS biologists and their equipment. In late 1972, our present vessel, the 65-foot M/V CURLEW was acquired from the National Marine Fisheries Service. After minor modifications the vessel was ready for the 1973 field season. An Operation Plan was prepared which contained the introductory justification below.

"The emphasis on the Coastal Program in Southeast Alaska will be aimed at assessment of fish and wildlife resources in those bays to be affected by logging, log dumping and rafting. Other developments requiring federal permits will also be assessed. The ongoing logging for pulp mills in Ketchikan and Sitka ... will have long term effects on the coastal environment. In order to fulfill our responsibilities under the Fish and Wildlife Coordination Act and the Estuary Protection Act, studies will be conducted to give information on the fish and wildlife species to be affected and an indication of their relative abundance. There are thousands of bays and estuaries ... therefore, it must be determined which bays are most important as fish and wildlife producers and those bays must be scheduled for study according to the timetable in which they will be developed. The U.S. Forest Service 5-year Action Plan dated November 14, 1972, is the basis for our present timetable."

The objectives of the first Operation Plan utilizing the M/V CURLEW were as below.

"To inventory selected fish and wildlife resources and certain associated environmental factors in the bays of Southeast Alaska for the following purposes:

1. Provide factual data for recommending that certain bays or portions thereof with high fish and wildlife, and recreational value be preserved in their natural state.
2. Provide a data bank designated for quick retrieval of information needed to evaluate Corps of Engineers permit applications for any proposed coastal and intertidal projects.
3. Provide baseline preconstruction data on selected bays for later comparison with post construction data to determine effects of intertidal development.
4. Provide data for use in implementing the Estuary Protection Act. Such data could be used in developing State-Federal management plans for selected high-value estuaries."

Twenty-two individual bays and TTF sites were studied in 1973 and the data collected were presented in an annual summary report. Since 1973, over 100 TTFs have been surveyed by SEES. Except for minor modifications, the above pattern of using the current TNF 5-year timber harvest plan, developing an Operational Plan, conducting TTF field investigations from the M/V CURLEW, and preparing an annual summary report has been repeated each year since 1973. The modifications included a greater degree of logistical support from the CURLEW for other problems such as hydroelectric projects, small boat harbors, mining proposals, underwater transmission lines, and a variety of other projects requiring federal permits.

In 1977, SEES conducted a special study of buffer strip reservation requirements for streams near logging activities. Results of the study are contained in a report dated January 1978.

In 1983, the FWS and the USFS signed an interagency agreement to fund two studies concerning bark deposition and removal at TTF sites. One study will result in determining if there are better log entry techniques that may reduce bark deposition and the second study will determine the effects of TTF restoration and its effectiveness as a mitigating measure. The results of the studies will be of great interest to public agencies and the timber industry involved with Section 10, Section 404 and NPDES permits. The two TTFS studies encompass the major portion of SEES field program for FY 1984. A final report on both studies is scheduled for FY 1985.

In addition to FWS participation in Forest Service's TNF planning efforts, SEES has served on several interagency task forces and working groups over the years. Presently, SEES participates on the Alaska Working Group on Cooperative Forestry-Fisheries Research (CFFR), USFS Interagency Wildlife/Habitat Technical Committee (WHTC), and the USFS Stikine River Access Study Group (SRASG).

The purpose of the CFFR Alaska Working Group is to facilitate interagency coordination among researchers and timber and fishery managers of a study program for forest/fish research issues. A SEES biologist is serving on the TTFS Subgroup of the CFFR Working Group. The TTFS Subgroup met nine times during 1983. The main accomplishments of the subgroup have involved evaluating TTFS issues and initiating research, consolidating siting criteria for TTFS's, and funding and initiating the two bark studies mentioned above.

The WHTC was formed in 1984 and presently enjoys membership from the Alaska Department of Fish and Game, FWS, and the USFS. Some of the responsibilities outlined in their charter are listed below.

1. "Review wildlife/habitat program proposals and recommend priorities for products (documentation) and field programs.
2. Identify opportunities for cooperating with other committees, councils, agencies, universities, industry, municipalities, and private landowners in efforts to obtain wildlife/habitat products and carry out programs.
3. Identify opportunities for cooperation in sharing of planning, funding, manpower, facilities, transportation, and equipment necessary for conducting wildlife/habitat programs.
4. Review and report to Management on developments concerning products, programs, and cooperative efforts."

The SRASG was formed as a result of the designation in ANILCA of the Stikine-LeConte Wilderness Area, and the potential conflict between such designation and pre-existing United States treaty obligations with Canada relating to Canadian access through Alaska to the Pacific Ocean. A report is to be completed by December 2, 1985, and is to include, among other things, an analysis of the need for access and the social, environmental, and economic impacts which may result from various forms of access including, but not limited to, a road along the Stikine and

Iskut rivers or other alternative routes. Lead responsibility was assigned to the Forest Service but SEES is a participating member of the Group.

In summary, the FWS has been active with forest development since about 1970. SEES' primary involvement has been with the USFS and has consisted of participating on their informal task groups created in response to Tongass land management planning efforts, and conducting TTFS surveys and studies. More recently, SEES has also participated in three USFS working groups responsible for coordinating studies and information management.

CHAPTER 6: DEVELOPMENT PLANNING PROCESSES AND FUTURE OPPORTUNITIES FOR FWS

The Forest Service (USFS) planning process is similar to the U.S. Fish & Wildlife Service's (FWS's) process in that it consists of a continuous iterative, hierarchical process that is completed in three tiers as indicated below.

	<u>Completion</u>
<u>National: Tier 1</u>	
Resources Planning Act Program (NRPAP)	1984
<u>Regional: Tier 2</u>	
Alaska Regional Guide (ARG)	1983
<u>Local: Tier 3</u>	
o Tongass Land Management Plan (TLMP)	1979 (TLMP I) 1989 (TLMP II)
o TNF Five-Year Timber Sale Operating Plans	1980 (ALP) 1983 (LPK)
o ANILA 706 (b) Status Report or Tongass National Forest (TNF)	1985
o TNF Evaluation Report (TLMPI)	1984
o Independent Sale Plans	Variable
o Special Area Management Plans	Variable

The NRPAP is a National assessment of all renewable resources for forest and rangelands in the U.S. The plan is used to determine desired levels of future outputs and objectives from Forest Service programs and their geographic distribution. The Regional Guide links the NRPAP with local planning efforts by communicating National and Regional (Alaska-wide) policy (standards and guidelines) guidance for individual National Forest level planning. Local plans (in this case the TLMP) address resource opportunities, management issues and concerns, and resource output levels. Although local plans receive policy guidance from the Regional Guides and NRPAP Plan, the local plan, in turn, provides the foundation for the broader-scoped National plan.

The Southeast Area Guide (SEAG) was completed in 1977 and was replaced in 1983 by the completion of the Alaska Regional Guide (ARG). The TLMP was completed in 1979, under the guidance of SEAG. The Forest Service is currently (1984) working on the TNF Evaluation Report and the ANILCA 706 (b) TNF Status Report. The revision of TLMP will be completed by 1989 to reflect the new requirements of ANILCA and the National Forest Management Act of 1976 and their implementing regulations, the 1984 TNF Evaluation Report, and the 1985 TNF Status Report.

SEES is primarily involved in local USFS planning efforts. For example, the general TLMP planning process is indicated below.

- o Phase I: Pre-planning
- o Phase II: Resource & Economic Assessment
- o Phase III: Alternative Formulation
- o Phase IV: Plan Formulation EIS/EA

For plans that come under the purview of NEPA and require an Environmental Impact Statement (EIS) or Environmental Assessment (EA), the USFS completes their planning process by creating a formal NEPA group called an IDT Core Team. Often task forces (Wildlife and Fisheries Task Forces) are informally created to handle specific resource assessments or issues during phases II and III. The USFS currently has four formal IDT Core Teams: (1) TLMP II (also Sitka, Stikine, and Chatham Area IDT's); (2) TLMP I Evaluation; (3) ANILCA 706 (b) TNF Status Report; and (4) 5-year Plans (ALP and LPK). To date, all IDT Core Teams are composed only of USFS personnel, because, to be a formal member requires the agency to be a "cooperative agency" in the context of NEPA. Therein lies the reason why FWS participation to date has been limited to informal planning task forces.

Discussion with the USFS has indicated that FWS' planning task force participation has provided convenient and effective avenues for communication and coordination of sensitive issues in a technical/professional and non-bureaucratic environment. The USFS has enjoyed that type of access and working relationship with FWS and has indicated a need to continue at least that level of involvement with FWS. However, that level of involvement is far removed from the real IDT Core Team decisionmaking activities.

Future FWS Opportunities:

The following items are considered to be opportunities not now being implemented by the FWS. The advantages and disadvantages are briefly discussed for each opportunity.

1. Request formal membership - NEPA cooperating agency status - on selected IDT Core Teams.

Advantages

- o More direct access to and involvement in decisionmaking and plan formulation would be provided by Core Team membership.
- o More direct decisionmaking input and increased political and negotiating leverage would be provided to FWS as a cooperating agency. FWS biological opinions would be heard by and considered by a more powerful group in the USFS.

Disadvantages

- o Additional time required of FWS personnel to participate on the Core Team.
- o FWS still has no approval authority and would still have to depend on good-faith bargaining by USFS on the CEQ referral process.

2. Raise logging by Native corporations as a resource issue for study by the Alaska Land Use Council.

Native corporations have selected some of the best timber areas in southeast for the primary purpose of logging. ANILCA, however, specified that such logging must be done in concert with USFS regulations and guidelines. The USFS may not be monitoring the situation as closely as may be required to protect fish and wildlife habitats from abuse.

Advantages

- o Would give a potentially serious issue more public visibility and scrutiny.
- o May force USFS to examine a problem it has not chosen to address yet, and may never address until the issue is given more emphasis.

Disadvantages

- o May result in political resolution before professional resource staffs have exhausted negotiations with Native corporations.

3. Enhance relations dialogue and coordination with the forest industry.

This opportunity involves conducting a series of briefings on resource issues and state-of-the art technique seminars of mutual concern. Direct communication with industry has lagged behind the needs of both groups.

Advantages

- o Would act as a forum for enhancing communication and understanding of sensitive issues.
- o Would improve the process of identifying solutions to issues of mutual concerns.

Disadvantages

- o May be seen as another series of meetings and commitment of time that show no tangible results and improved policies for protection of fish and wildlife habitat.

4. Create a more unified approach with ADF&G and NMFS concerning guidelines and protection strategies for forest development.

Advantages

- o A unified voice may be a politically-stronger approach than individual agency opinions which are, at many times, opposing opinions.

Disadvantages

- o FWS may have to lower its protection policy guidelines to be less restrictive to accommodate other agency policies.
 - o Agencies may lose their individual identities.
5. Verify the Sitka Black-tailed Deer -- Old Growth Forest Population Model.

This opportunity involves seeking a recommendation from the WHTC Task Force to fund a study to verify ADF&G's population model. ADF&G has apparently produced a predictive model showing the relationship between old-growth timber harvest and the decline in deer and wolf populations in southeast. The USFS does not accept the model.

Advantages

- o Would enhance the credibility of the model through field verification.
- o Would create visibility for the model and improve the acceptability of its results.

Disadvantages

- o May irk the political arena (both National and state) to press for conclusive results that may change the way logging is performed in southeast and the manner in which USFS selects areas for harvest.
6. Comment on USFS Draft TLMP Evaluation Report and Draft Outline of TLMP Status Report (ANILCA 706 (b) Study)

This task concerns creating more visibility for fish and wildlife issues (old-growth harvest and subsistence) in the above reports. There appears to be a tendency on the part of the USFS to down play these issues. The FWS has usually chosen to take a low profile on fish and wildlife issues in favor of a strong showing concerning TTFS's and estuarine habitat impacts. However, about 162,000 acres of forest habitat and several hundred miles of streams will be impacted by logging. The terrestrial and freshwater issues deserve more attention especially since their chief advocate, the State, is easily restrained.

Advantages

- o Would assist ADF&G and other publics to raise the visibility of other fish and wildlife issues and gain some credibility for FWS at the same time.

Disadvantages

- o May slightly dilute SEES' efforts in TTFS investigations.
 - o May be seen by ADF&G as encroaching on their turf.
7. Redirect the field intensive TTFS Investigation Program to a more "analysis-of existing-data" project.

The FWS has been investigating TTFS's in an organized effort since at least 1973. In 1983 and 1984, the Service began conducting bark deposition and site restoration studies. This item suggests spending more time in analyzing the past 11 years' worth of data to create standard mitigating guidelines for siting, restoring, and reducing bark deposition at TTFS's.

Advantages

- o Would create an opportunity to review our past program and produce guideline-oriented products, (i.e., emphasis on product production rather than new data).

Disadvantages

- o Effort devoted to analysis of past data, assessment of the TTFS program, and production of products may reduce efforts on field surveys. TTFS's proposed by the USFS during FY 1985 may not get surveyed, at least in 1985.

CHAPTER 7. FWS ISSUES, GOALS, OBJECTIVES, PROBLEMS, AND STRATEGIES FOR FOREST DEVELOPMENT IN SOUTHEAST ALASKA

Due to past CARP and COOT planning efforts in 1982 and subsequent machinations of the results in 1983, HR identified a sizeable array of forest development issues, goals, problems, strategies, and tasks. At this time we recommend that HR carefully review the list to revise the statements as needed, assign priorities to them, and develop highest-priority issues or problems into strategy papers. The strategies can subsequently be discussed within the FWS and with cooperating agencies for funding opportunities in future years.

HR, REGION 7, AWPA & RRP FOR FORESTRY DEV. IN ALASKA 5/83

SETNAME: C

A4223 ISSUE

OLD GROWTH FORESTS ARE NONRENEWABLE UNDER CURRENT USFS MGMT PRACTICES, FOREST MGMT ACT, RESOURCE PLANNING ACT, AND USFS ORIENTATION FOR TIMBER PRODUCTION.

A4650 ISSUE

USFS DISCRETION FOR REDUCING TIMBER HARVESTS HAS BECOME MORE RESTRICTED WITH THE PASSAGE OF ANILCA ESTABLISHED HARVEST QUOTAS WHICH DID NOT TAKE INTO ACCOUNT REDUCTIONS IN USFS TIMBER HOLDINGS. CONSEQUENTLY, ECONOMIC, SOCIAL, AND POLITICAL FORCES ARE DEMANDING INCREASES IN TIMBER HARVEST QUOTAS ON USFS LAND WHICH MAY FORCE USFS TO CUT MARGINAL TIMBER LANDS.

A4652 ISSUE

HARVEST MANAGEMENT POLICIES OF USFS IN S.E. AK REGARDING MATURE STANDS DO NOT ADEQUATELY PROTECT F/W VALUES WITHOUT CREATING ECONOMIC HARDSHIPS ON THE TIMBER INDUSTRY.

A4654 ISSUE

THE TIMBER INDUSTRY IS SO TIGHTLY TIED TO ECONOMICS AND SOCIAL WELL BEING OF S.E. AK COMMUNITIES THAT "COMPANY TOWN" ATMOSPHERES EXIST. THESE TIES CREATE VERY STRONG POLITICAL FORCES.

A6112 ISSUE

TIMBER HARVESTS ARE REMOVING OLD GROWTH TIMBER AND ARE INFLUENCING PRODUCTIVITY OF FISH STREAMS AND COASTAL WATERS.

SETNAME: A

A4650 ISSUE

USFS DISCRETION FOR REDUCING TIMBER HARVESTS HAS BECOME MORE RESTRICTED WITH THE PASSAGE OF ANILCA ESTABLISHED HARVEST QUOTAS WHICH DID NOT TAKE INTO ACCOUNT REDUCTIONS IN USFS TIMBER HOLDINGS. CONSEQUENTLY, ECONOMIC, SOCIAL, AND POLITICAL FORCES ARE DEMANDING INCREASES IN TIMBER HARVEST QUOTAS ON USFS LAND WHICH MAY FORCE USFS TO CUT MARGINAL TIMBER LANDS.

A14163 GOAL

TO REPLACE THE CUTS OF MARGINAL OLD GROWTH TIMBER LANDS WITH LESS ENVIRONMENTALLY DAMAGING CUTS OF YOUNGER AGE TIMBER.

A14173 OBJ

NO TEXT WAS PROVIDED..

A6113 PROB

ANILCA ESTABLISHED TIMBER HARVEST QUOTA. USFS OPTIONS TO REDUCE QUOTA IS NOW MORE RESTRICTED.

A4221 STRAT

AMEND ANILCA TO REDUCE HARVEST QUOTAS ON USFS LANDS IN ALASKA.

SETNAME: B

A4652 ISSUE

HARVEST MANAGEMENT POLICIES OF USFS IN S.E. AK REGARDING MATURE STANDS DO NOT ADEQUATELY PROTECT F/W VALUES WITHOUT CREATING ECONOMIC HARDSHIPS ON THE TIMBER INDUSTRY.

A14161 GOAL

IMPROVE/ESTABLISH RAPPORT WITH USFS AND STATE FORESTRY (DNR) AND NATIVE GROUPS WITH TIMBER HOLDINGS; AND CORPS OF ENGINEERS.

A4458 GOAL

THE FWS GOAL FOR FOREST DEVELOPMENT IS TO PROTECT, ENHANCE, AND MITIGATE F/W VALUES (PARTICULARLY ESTUARINE AND NEARSHORE/INTERTIDAL AREAS, AND INSTREAM, WETLANDS, RIPARIAN, AND LAKESIDE HABITATS, BALD EAGLE NESTING/PERCHING TREES, WATERFOWL HAVITATS, AND UPLAND BEAR AND DEER HABITATS) WHILE FACILITATING FOREST DEVELOPMENT.

A4459 OBJ

COMPLETE FWCA REPORTS ON TIMBER MANAGEMENT PLANS OF THE USFS AS SCHEDULED.

A14168 OBJ

COMPLETE LETTERS OF COMMENT ON 404 PERMITS FOR FOREST DEVELOPMENT ACTIVITIES USING APPROVED GUIDANCE.

A4451 PROB

FWS ROLE IN USFS AND OTHER AGENCY RESOURCE MANAGEMENT PROCESSES ARE UNCLEAR; THEREFORE, FWS NOT AS EFFECTIVE IN ITS PARTICIPATION/COORDINATION EFFORTS.

A4484 PROB

FWS ROLE IS ONLY ADVISORY TO USFS DURING PLANNING PHASE OF FOREST DEVELOPMENT AND THEREFORE HAS LITTLE CONTROL OVER DECISIONMAKING.

A4466 PROB

THERE IS A LACK OF INFORMATION ON BIOLOGICAL RESOURCES AND BIOLOGICAL, ECONOMIC AND SOCIAL IMPACTS OF FOREST MANAGEMENT PRACTICES IN ALASKA.

A4417 PROB

ECONOMIC BENEFITS FROM TIMBER SALES DURING TIMES OF BIG NATIONAL DEFICITS MAY INCREASE THE RATE OF SALES AND HARVESTS AND INCREASE PRESSURE ON FWS TO RESPOND TO A HIGH LEVEL OF HARVEST ACTIVITY.

A4453 PROB

MANY TERRESTRIAL WILDLIFE SPECIES IN S.E. AK ARE ADAPTED TO MATURE OLD GROWTH FOREST STANDS AND THE STANDS ARE ALSO THE COMMERCIALY VALUABLE TIMBER AREAS.

A14176 PROB

FWS PERSONNEL ARE NOT TRAINED IN STATE-OF-THE-ART ASSESSMENT, PLANNING, AND EVALUATION TECHNIQUES REGARDING FOREST DEVELOPMENT.

A14167 PROB

FWS RECOMMENDATIONS AND PARTICIPATION IN FOREST DEVELOPMENT ACTIVITIES ARE HAMPERED BY A LACK OF FWS POLICY GUIDELINES FOR FOREST DEVELOPMENT ACTIVITIES.

A4456 PROB

USFS HAS TRADITIONALLY BEEN HARVEST-ORIENTED, WITH ENVIRONMENTAL VALUES BEING SACRIFICIAL.

A14166 PROB

CORPS OF ENGINEERS ARE NOT ADEQUATELY BALANCING F/W VALUES WITH OTHER ECONOMIC, SOCIAL, AND POLITICAL VALUES.

A14165 PROB

FWS LACKS INFORMATION ON POST-DEVELOPMENT EVALUATION OF F/W IMPACTS AND EFFECTIVENESS OF RECOMMENDATIONS AND STIPULATIONS.

A14169 PROB

FWS IS ONLY AN ADVISOR TO COE DURING POST-SALE PERMIT DECISIONMAKING

PROCESS.

A14329 STRAT

DEVELOP MORE EFFECTIVE MEANS FOR PARTICIPATING IN AND IMPROVING THE FWS' INFLUENCE ON FOREST DEVELOPMENT DECISIONMAKING.

A4660 STRAT

ANALYZE ROLES OF AGENCIES INVOLVED IN FOREST DEVELOPMENTS, CLARIFY FWS ROLE REGARDING EACH AGENCY AND SEEK TO BROADEN FWS RESPONSIBILITIES DURING THE FOREST MANAGEMENT PLANNING PROCESSES.

A4648 STRAT

PARTICIPATE ON FOREST SERVICE INTER-DISCIPLINARY TEAMS ESTABLISHED IN THE KETCHIKAN, STIKINE AND CHATHAM AREAS OF THE TONGAS N.F. AN CHUGACH N.F.

A4657 STRAT

FORM COALITIONS WITH OTHER POWER CLUSTERS WITH SIMILAR INTERESTS/OBJECTIVES FOR FOREST DEVELOPMENT AND MAKE BETTER USE OF THE ENVIRONMENTAL COALITION TO FURTHER THE GOALS OF THE FWS.

A4662 STRAT

SYNTHESIZE EXISTING INFORMATION OR STUDIES/RESEARCH OF BIOLOGICAL, SOCIAL, ECONOMIC, LEGAL, AND POLITICAL IMPACTS OF FOREST MANAGEMENT AND HARVEST PRACTICES.

A4667 STRAT

DEVELOP A FWS POLICY ON THE CONFLICT BETWEEN OLD-GROWTH FOREST HARVESTING AND F/W RESOURCES AND VALUES.

A14174 STRAT

DEVELOP AND MAINTAIN PERSONAL SKILLS NECESSARY TO EVALUATE IMPACTS AND PARTICIPATE IN PLANNING AND PERMITTING PROCESSES OF FOREST DEVELOPMENT.

A4648 STRAT

DEVELOP FWS POLICY GUIDELINES RELATIVE TO FOREST DEVELOPMENT PRACTICES IN ALASKA.

A4217 STRAT

AGGRESSIVELY PURSUE AND ENCOURAGE USFS TO IMPLEMENT A POLICY OF REHABILITATION OF DAMAGED STREAMS.

A14177 STRAT

ENCOURAGE THE USE OF HEP AS A METHOD TO BOOST THE IMPORTANCE OF F/W VALUES.

A575 STRAT

MONITOR IMPACTS TO FISH AND WILDLIFE RESOURCES WHICH ARISE FROM POST-SALE FOREST DEVELOPMENT PRACTICES.

A14170 STRAT

PARTICIPATE IN THE POST-TIMBER SALE PERMITTING PROCESS.

A14330 TASK

DETERMINE WHO THE FORESTRY RESOURCE RELATED PLAYERS ARE AND CATEGORIZE EACH PLAYER'S INSTITUTIONAL DECISIONMAKING BEHAVIOR.

A14331 TASK

DETERMINE HOW EACH FORESTRY RESOURCE PLAYER HAS PLAYED THE GAME AND HOW DECISIONS WERE MADE IN THE PAST.

A14332 TASK

DETERMINE EACH FORESTRY RESOURCE PLAYERS' INFORMATION NEEDS.

A14333 TASK

DETERMINE STRATEGIES FOR PRESENTING INFORMATION TO THE LEAD FORESTRY RESOURCE AGENCY AND OTHER KEY PLAYERS SO IT WILL BE MOST USEFUL IN MEETING THEIR NEEDS AND MOST EFFECTIVE IN PROMOTING FWS POSITION.

A14334 TASK

DETERMINE EACH FORESTRY RESOURCE PLAYERS' INSTITUTIONAL NEEDS.

A14335 TASK

DETERMINE DECISIONMAKING ENVIRONMENT AND HOW DECISIONS ARE MADE WITHIN THE FORESTRY RESOURCE ARENA.

A4661 TASK

COMPLETE AND NEGOTIATE AN MOU BETWEEN THE USFS AND FWS THAT CLARIFIES EACH AGENCY'S ROLE AND BROADENS FWS ROLE IN USFS RESOURCE MANAGEMENT PLANNING PROCESS.

A14162 TASK

COMPLETE A REPORT ON THE ROLE OF THE FWS AND ITS RESPONSIBILITIES IN FOREST DEVELOPMENTS.

A4676 TASK

ASSEMBLE/DEVELOP ALL FWS/ PLANNING/MANAGEMENT STATEMENTS (ISSUES, POLICIES, GOALS, OBJECTIVES, PROBLEMS, STRATEGIES, TASKS, TACTICS, AND MEASURES) AND STORE THEM IN ARID.

A4691 TASK

DETER

A13979 TASK

COMPLETE PHOTOINTERPRETATION, FIELD VERIFICATION, CARTOGRAPHIC PRODUCTION, AND USER REPORT FOR 10 NWI MAPS AND COMPLETE PHOTOINTERPRETATION OF 10 OTHERS IN AREAS OF FOREST DEVELOPMENT IN SOUTHEAST ALASKA.

A14160 TASK

COMPLETE A FWS POLICY REPORT ON CONFLICT BETWEEN OLD GROWTH TIMBER AND F/W HABITATS.

A4671 TASK

CONDUCT TRAINING IN NEGOTIATION AND CONFLICT RESOLUTION DURING FOREST DEVELOPMENT DECISIONMAKING.

A13976 TASK

CONDUCT DATA LOG TOWARD TERMINAL T TRAINING IN OR APPLICATIONS OF ISF TECHNOLOGY

A14172 TASK

COMPLETE A REPORT ON FWS POLICY GUIDELINES FOR FOREST DEVELOPMENTS IN ALASKA.

A578 TASK

MONITOR CONTAMINANTS AT PULP MILLS AND LOG DUMPS

A13745 TASK

SELECTIVELY EVALUATE SPECIFIC PERMIT SITES TO DETERMINE COMPLIANCE TO AND EFFECTIVENESS OF FWS STIPULATIONS.

A675 TASK

COMPLETE REVIEWS OF 404 PERMITS FOR FOREST DEVELOPMENT ACTIVITIES AND MAKE RECOMMENDATIONS THAT WILL MITIGATE POTENTIAL IMPACTS ON F/W HABITATS.

A574 TASK

COORDINATE FWS RESPONSE WITH OTHER AGENCIES WITH SIMILAR GOALS.

A14336 RESP
BSP WITH ES

A14339 RESP
BSP WITH ES

A14342 RESP
BSP WITH ES

A14345 RESP
BSP WITH ES

A14348 RESP
BSP WITH ES

A14351 RESP
BSP WITH ES

A4678 RESP
ROES WITH SEES AND WAES
EOI ENCOUNTERED.

CHAPTER 8. FWS OPERATIONS PLAN FOR FOREST DEVELOPMENT IN SOUTHEAST ALASKA

Table 8-1 contains suggested FY 1985 tasks for SEES and space for entering requisite information; e.g., responsibilities, budget, FTE's, schedules and priorities. We recommend that the tasks be reviewed jointly by the SEES Field Station Supervisor and AHR to accept, reject, modify, or add others deemed more important for FY 1985. The combination of Chapter 7 (issues, goals, problems, and strategies) and Chapter 8 (tasks, responsibilities, budget, and schedule) will represent a plan for FWS' approach to forest development in southeast Alaska.

Table 8-1. SEES Operations Plan for Forest Development - FY 1985

Task	Responsibility		Budget	FTE	Schedule	Priority
	Lead	Support				
1. Complete bark deposition report						
2. Complete TTFS restoration report						
3. Complete an annual report of ____ surveys of proposed TTFS's						
4. Complete surveys of ____ proposed TTFS's						
5. Complete review and comments on the ANILCA 706(b) study and EIS's/EA's, and other forest plans						
6. Complete letters of comment on 404, 10 and NPDES permits for TTFS's						
7. Complete a compliance investigation of TTFS						
8. Participate on interagency task forces						

Table 8-2. Potential Transportation Support - SEES

Equipment	Location	Date Acquired	Current Status	Total Days Operated ^{a/}	Annual Operating Expenses
<u>Boats</u>					
Curlew - 65'	Juneau	12/72	In Service	161	\$78,217 ^{b/}
Uniflite - 28'	Sitka	2/78	In Service		
Glas-Ply - 21'	Petersburg	8/77	In Service		
Glas-Ply - 25'	Ketchikan	8/78	Disabled 1981 ^{c/}		
<u>Aircraft</u>					
Beaver on Floats	Juneau	1973	Transferred to WR-1982	125 hrs	\$25,000

^{a/} Average operating time during 1981, 1982, 1983

^{b/} Includes skipper's salary, fuel, equipment, maintenance; averaged over 1981-1983

^{c/} Engine needs replaced; cost would be \$7,000