ALASKA LEGISLATURE COMMITTEE FILES, 1989-1990 8672
6033 HOUSE RESOURCES
437

Bean Creek Fuel Reduction Area

Project Size: 200 acres
Current Condition: 95% dead spruce in a homogenous stand.
Special Concerns:

1. The Bean Creek recreation trail transects area.
2. Removal of spruce product on Bean Creek road will negatively impact residents. This road is not satisfactorily built for heavy truck traffic.

Project Proposal

1. Develop a new access forest road along the DOT&PF "preferred alternative" for realignment of the Sterling Highway.
   Cost: $40.0
2. Log all dead spruce 7" DBH and larger by vendor service contract. Deck product along access route. Drop all dead spruce under 7" DBH size.
   Cost: $128.0 ($160/MBF) (4 MBF/ac)
3. Mechanically scarify 50% of the fuel reduction area with dozer and brush blade by vendor service contract. This will effectively break ground fuel continuity while at the same time establishing regeneration planting sites.
   Cost: $14.0 ($70/ac)
4. Regular State crew to develop prescribed burn plan to fire berm piles resulting from the scarification phase. Vendor service contract burning of the piles.
   Cost: $5.0
5. Relocate 1 1/2 miles of the Bean Creek recreation trail and develop trailhead parking area. This will put the trail completely on State land compared to its current trespass through private property and the trial head parking on subdivision roads.
   Costs: $28.0
6. Regeneration of the fuel reduction area is planned to be in hardwoods-paperbirch. Vendor service contract to collect seed and distribute on site by a direct seeding method. Seed drying and cleaning to be completed by State nursery.
   Cost: $12.0

Project Totals:

Access Development	$ 40.0
Dozer Work	14.0
Trail Relocation	28.0
Burning	5.0
Site Regeneration	12.0
Total	$ 227.0

West Shackleford Fuel Reduction Area

Project size: 139 Acres (Snug Harbor)
+ 204 Acres (Cooper Creek)
+ 42 Acres (Shackleford Creek II)
+ 14 Acres (Bridgeview)
+ 17 Acres (Firebreak)
+ 50 Acres (Old Buffers)
Total 466 Acres

Current Conditions: 90% of the spruce stand is dead.
Special Concerns:

1. Existing timber salvage contracts on 385 acres. Snug Harbor sale totaling 139 acres will need special attention to work out a program with existing contractor.

Project Proposal:

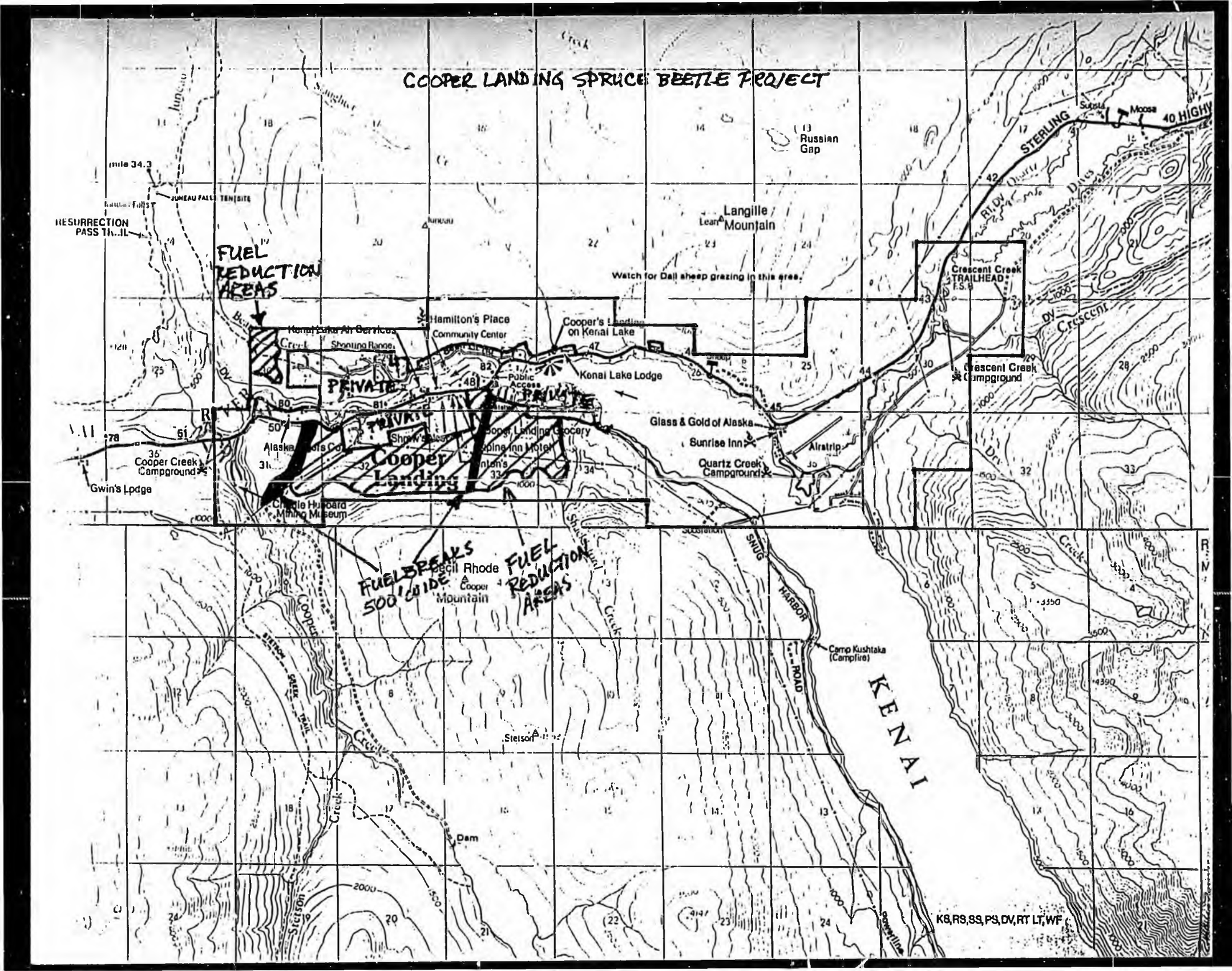
1. Remove all dead spruce 7" DBH and larger on 81 acres by vendor service contract. Drop all dead spruce under 7" DBH in size. Deck logs at designated access points. Burn slash at landings as part of ongoing process.
   Cost: $64.8 ($160/MBF @ 5MBF/ac)
2. A total of 385 acres will be harvested under salvage contracts. Approximately 343 acres will need to have all dead trees under 10" DBH removed or slashed. To be completed by vendor service contract.
   Cost: $60.0 ($175/ac)
3. Mechanically scarify 50% of 281 acres with a dozer and brush blade by vendor service contract.
   Cost: $19.7 ($70/ac)
4. Burn slash piles and berm piles from scarification by vendor service contract.
   Cost: $5.0
5. Regeneration of the fuel reduction area is planned to be primarily in hardwoods (birch and alder - alder on unstable soils). some interplanting of spruce seedlings is planned. Scarified sites will be direct seeded with hardwood seed. Vendor service contract to collect seed and distribute on site. Seed drying and cleaning will be completed by the State Nursery.
   Costs: $100.9 (collect and seed $12.0-145 acres) (Interplant of spruce-200 acres @ $220/ac-$44.0) (Hand seed and hand seed bed prep-185 acres @ $125/ac=$23.1) (Cost of seedlings 436/ac @ $.25/ea-$21.8)

Project Totals:

Removal	$	64.8
Slash		60.0
Scarify		19.7
Burning		5.0
Regeneration		100.9
Total	$	250.4

State Administration Costs

Forest Technician IV (New) This position will assist in propagation, supervise, and administer contracts, evaluate field results, and complete project reports.	$ 41.0
Travel	2.0
Contractual (Vehicle lease, advertisements, printing, professional contract preparation assistance, photoprocessing, phone charges, postage, vehicle maintenance, seedling shipping cost, etc.)	25.0
Commodities (Gas, film, paper, office supplies, paint, ribbon, tags, minor tools and equipment.)	8.0
Equipment (Communications, repeater equipment, etc.)	12.0
Total	$ 88.0


COOPER LANDING SPRUCE BEETLE PROJECT
FUEL REDUCTION AREAS
FUELBREAKS 500' WIDE
FUEL REDUCTION AREAS
Watch for Dall sheep grazing in this area.
Cooper Landing
PRIVATE
Hamilton's Place
Community Center
Cooper's Landing on Kenai Lake
Kenai Lake Lodge
Public Access
Kenai Lake Air Services
Shooting Range
Cooper Landing Grocery
Alpine Inn Motel
Glass & Gold of Alaska
Sunrise Inn
Airstrip
Quartz Creek Campground
Crescent Creek TRAILHEAD F.S.R.
Crescent Creek Campground
Cooper Creek Campground
Gwin's Lodge
Chapple Hubbard Mining Museum
Cecil Rhode
Cooper Mountain
Langille Mountain
Russian Gap
STERLING
Susitna
Moose
40 HIGHW
mile 34.3
JUNEAU FALLS TRAILHEAD
RESURRECTION PASS TRAIL
Juneau Falls
Juneau
Lean
RT DV
DV
Crescent
Quartz Creek
Dikes
Creek
SNUG HARBOR ROAD
Camp Kushtaka (Campfire)
KENAI
Stetson
Stetson Creek Trail
Dam
Powerline
K8,RS,SS,PS,DV,RT LT,WF

United States
Department of
Agriculture

Forest Service

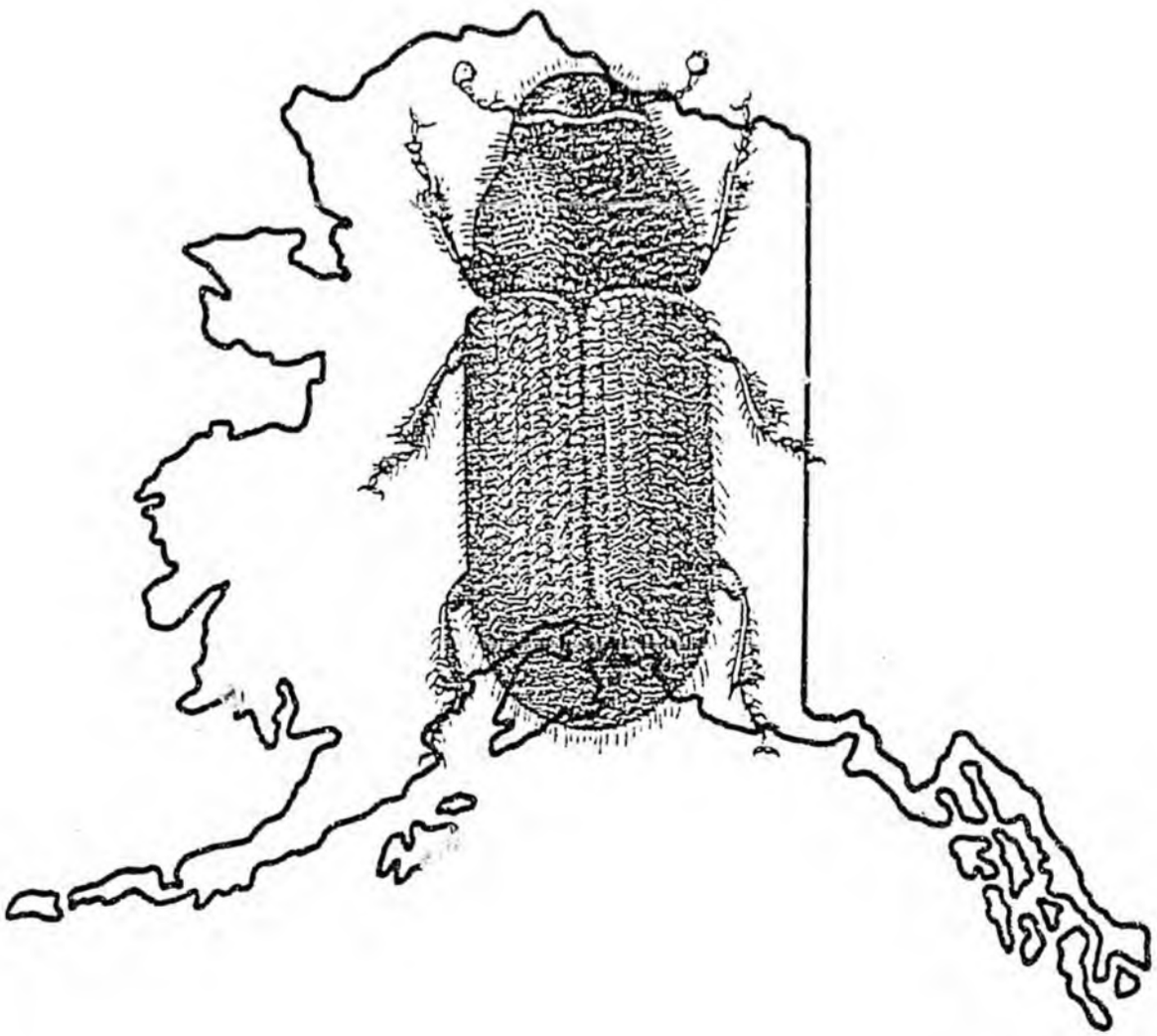
Alaska
Region

Forest Pest Management Report

Technical Report: R10-90-18

Spruce Beetle Activity in Alaska: 1920-1989

February 1990



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TECHNICAL REPORT R10-90-18
SPRUCE BEETLE ACTIVITY
IN ALASKA
1920-1989

FEBRUARY 1990

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SPRUCE BEETLE ACTIVITY IN ALASKA, 1920-1989

The most destructive forest insect in Alaska is the spruce bark beetle, *Dendroctonus rufipennis* (Kirby). This insect has killed mature spruce on hundreds of thousands of acres of Alaska's forested lands (Werner et al. 1977). All species of Alaska spruce are susceptible to beetle attack, but black spruce (*Picea mariana*) is rarely attacked.

The occurrence of spruce bark beetle outbreaks and their related impacts have been a common feature of Alaska's forested landscape for decades in south-central Alaska. Statements such as: "It is estimated that in this area at least 60 percent of the spruce is already dead or dying. In a few years green spruce will be hard to obtain, and travel will be more difficult by windfalls resulting from the rotting of the roots of the dead trees. The danger of forest fires will also be increased;" were common in Alaska decades ago (Capps and Tuck 1935).

An on-going infestation of the spruce bark beetle in the Cooper Landing area of the Kenai Peninsula has resulted in public outcry concerning the impact(s) on forest resources resulting from the death of millions of spruce trees. Newspaper articles covering the pro's and con's of spruce beetle outbreaks, impacts, proposed suppression, etc. abound. Statements such as "___an epidemic of spruce bark beetles has swept the Kenai Peninsula, outrunning government efforts to stop its spread around the headwaters of the Kenai River. Officials say the dying forests now pose a fire hazard in the populated canyon_____." (Anch. Daily News, Oct. 25. 1989) have been common in the press recently. We can expect an increase in public awareness of spruce beetle infestations as many of Alaska's spruce forests become more susceptible through the effects of aging, fire suppression, and the lack of management.

Most spruce beetle infestations have, and will continue to occur in the Lutz (*P. X lutzii*) and white spruce (*P. glauca*) stands of south-central Alaska where weather conditions appear to be more favorable for increases in populations of spruce beetles. Outbreaks have been uncommon in the Sitka spruce (*P. sitchensis*) forests of maritime Alaska (Werner et al. 1977). However, results of a recent study (Holsten and Werner 1990) have demonstrated that host suitability may be as important as host susceptibility and weather conditions in the development of spruce beetle outbreaks in Alaska. In terms of progeny production, white spruce as a host produces more beetles than Lutz spruce which is more productive than Sitka spruce. Cold winter temoeratures and thrifty fast growing stands have probably helped maintain spruce beetles at endemic levels in interior Alaska. When these factors are ameliorated however, spruce beetle populations can increase rapidly to outbreak levels: a condition which became apparent along the Yukon River in the last five years. Further massive outbreaks can be expected in interior Alaska, especially in forests bordering the major drainages such as the Yukon and the Kuskowkim. In the absence of fire and management, these forests are becoming more susceptible to spruce beetle outbreaks.

Forest pest outbreaks in the United States appear to have increased both in frequency and severity during the last twenty years and Alaska is no exception as spruce beetle outbreaks have increased in severity and occurrence. These pest outbreaks are apparently a symptom of an overall decline in the health of the Nation's forests (USDA For. Serv. 1989). This is not an irreversible trend. Action can and must be implemented on our more important forested lands. Achieving a desired level of productivity, whether productivity is timber, recreation, wildlife or some mix of these resources, generally requires that forest vegetation be alive and healthy. Silvicultural changes are the most important and long lasting, cost effective actions to reduce forest pest impact on the condition of the forest (USDA For. Serv. 1989). On those lands where economics and other societal values allow treatment, emphasis must be placed on achieving long-term improvements. We must avoid practices that promote short-term outputs but are detrimental to the forest health. Such practices can have a negative impact on long-term productivity. There is an urgent need for research studies which

delineate the effects (impacts) of bark beetle infestations on such non-timber forest resources as recreation, wildlife and fisheries, and stream flow.

An interesting finding from this review of Alaska spruce beetle infestations is that many areas have been repeatedly infested over the years: Eklutna-1950's&1980's; Tilikakila River 1950's&1980's, Resurrection Creek-1957&1977, Skwentna River-1930's&1989, Willow Creek-1930's&1980's; Tustumena Lake 1950's&1980's; and most of the northern portion of the Kenai National Wildlife Refuge, to name a few. The general result of the early infestations was a reduction in the size of the residual stems because the majority (up to 90%) of all stems greater than 6" in dbh were killed by spruce beetles. Type conversion did not occur in many areas because there were plenty of small spruce remaining (Beckwith and Curtis 1972). It appears that these stands of small spruce became over-stocked and less thrifty with age and again became susceptible to spruce beetle outbreaks. Many of the repeatedly infested areas are undergoing a type conversion as little or no natural spruce regeneration is present. In order to bring these sites back into spruce, some site preparation such as brought about by fire or logging must be undertaken followed by planting. Type conversion has also occurred in mixed hardwood/spruce stands that have been infested. For example, the severe spruce beetle infestation near Tyonek in the 1970's resulted in 65% mortality of all spruce over 5" dbh. Birch became the dominant species in the residual stand (Baker and Kemperman 1974).

The following summaries present a brief, but complete overview of all documented spruce bark beetle infestations in Alaska presented by year and general location. Outbreaks are grouped into three geographic areas: (1) Interior Alaska -- those forested areas north of the Alaska Range; (2) South-central Alaska which encompasses the Kenai Peninsula and other forested areas south of the Alaska Range excluding the Sitka spruce forests which are placed in the (3) Maritime Region which includes the forests of southeast Alaska, Prince William Sound, and portions of Cook Inlet. Factors contributing to the genesis of a spruce bark beetle outbreak, location of the outbreak, acreage infested, and impact(s) of the outbreak are discussed if available from the literature. A brief discussion of spruce beetle biology, tree hosts, population dynamics, and impacts, etc. is presented in Appendix A. A summary of all outbreaks by geographic location is presented in Table 1 at the end of this report. The bibliography concluding this report lists, by year, the majority of Alaska reports, publications, etc. pertaining to the spruce bark beetle.

SUMMARIES BY YEAR AND LOCATION

1920-1930

SOUTH-CENTRAL: The first recorded Alaska spruce beetle outbreak occurred in white spruce stands along the Copper River drainage between Chitina and McCarthy. The outbreak started in the early 1920's and by the mid-1920's covered more than 200,000 acres (Moffit 1922). The cause of the outbreak is not known but may have been related to drought and logging activities associated with the Kennecott Copper development (Fig. 1a).

1931-1940

SOUTH-CENTRAL: USGS geological survey parties described wide-spread white spruce mortality northwest of Anchorage (Capps 1935, Capps and Tuck 1935). Large spruce beetle outbreaks occurred in the late 1920's to the early 1930's along the Skwentna and Susitna Rivers and in the Willow Creek/Kashwitna area during the early 1930's (Fig. 1b).

MARITIME: A large spruce bark beetle outbreak infested more than 100,000 acres of Afognak Island's Sitka spruce forests in the 1930's (Williams 1933). The outbreak was over by the mid-1940's (Furniss 1948). Areas most heavily impacted included Blue Fox Bay, along Kupreanof Straight, and Whale Island. A 1933 timber inventory estimated that 23% of the spruce had been killed with mortality amounting to 149,679,000 board feet (bf) over 107,776 acres (Williams 1933). The cause of the outbreak is not known (Fig. 2a).

1941-1950

SOUTH-CENTRAL: Scattered mortality of white spruce was noted in 1950 in trees bordering the Kenai Burn of 1947 (Furniss 1950). Spruce beetles had attacked and bred in fire scorched trees then moved into nearby green trees (Fig. 1b).

Spruce beetle activity was apparent in 1947 along the lower slopes on the southeast side of Knik Arm between Anchorage and the Knik River crossing (Furniss 1950). Beetle populations apparently increased in fresh blowdown near Eagle River and Chugiak as well as in logging slash near Eagle River.

MARITIME: From 1940-1948, a spruce bark beetle outbreak occurred in the Edna Bay area of Kosciusko Island located in southeast Alaska. Considerable mortality also occurred on Bluff and Barrier Islands (Furniss 1946, Furniss and Jones 1946). The outbreak was possibly caused by a combination of factors including blowdown, overmature low-vigor spruce growing on shallow, dry soils. Approximately 50,000,000 bf of high value Sitka spruce was killed over 6,400 acres (Fig. 2b).

INTERIOR: Increasing mortality of white spruce caused by the spruce beetle was first reported in 1943 from the Haines cut-off area (Hughes 1948) during construction of the Haines Cut-off Highway. Spruce mortality averaged 50% in stands from mile 89 northward to the south end of Dezadeash Lake

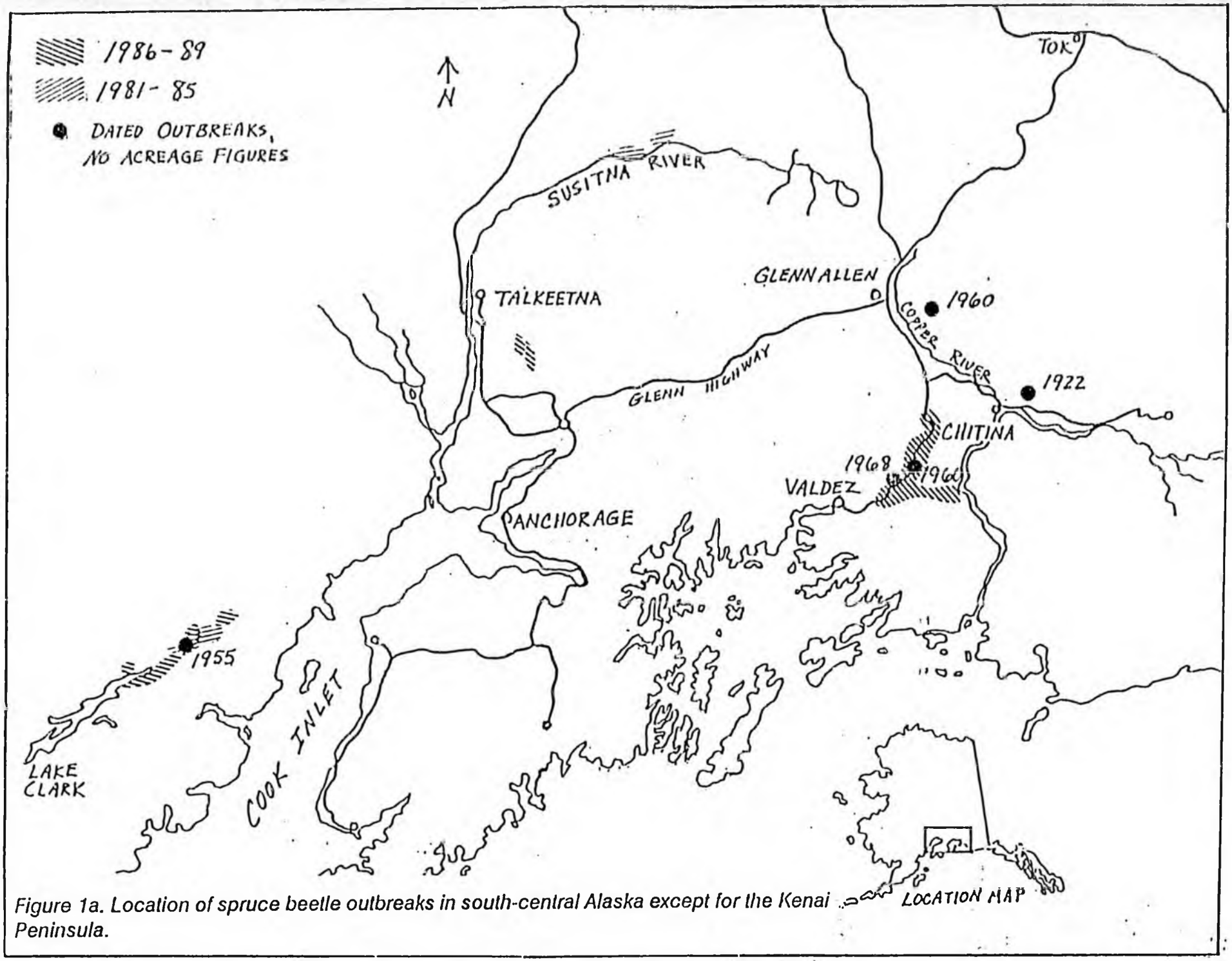

Figure 1a. Location of spruce beetle outbreaks in south-central Alaska except for the Kenai Peninsula.

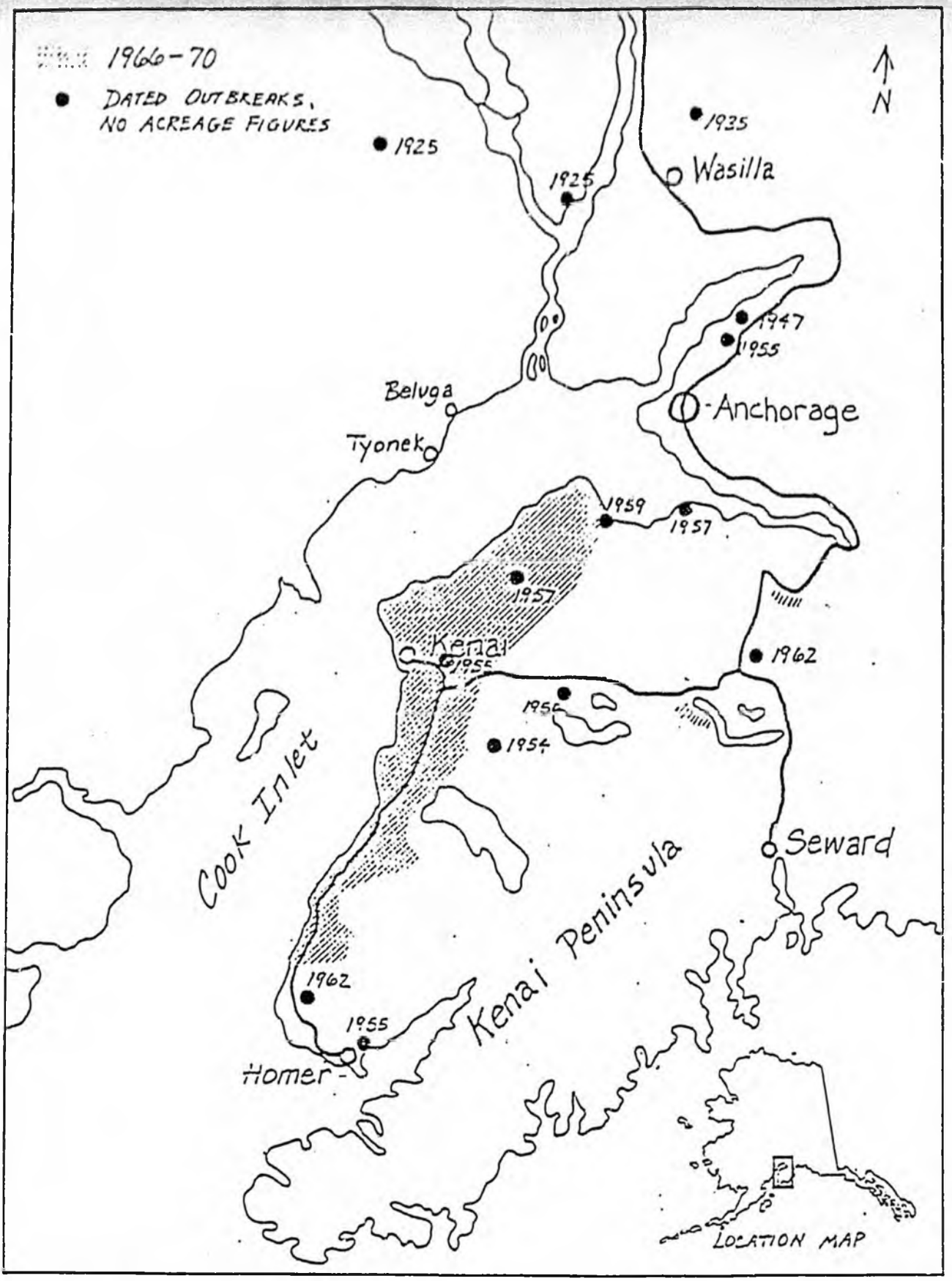

Figure 1b. Location of spruce beetle outbreaks in south-central Alaska up to 1970; specifically on the Kenai Penirsula.

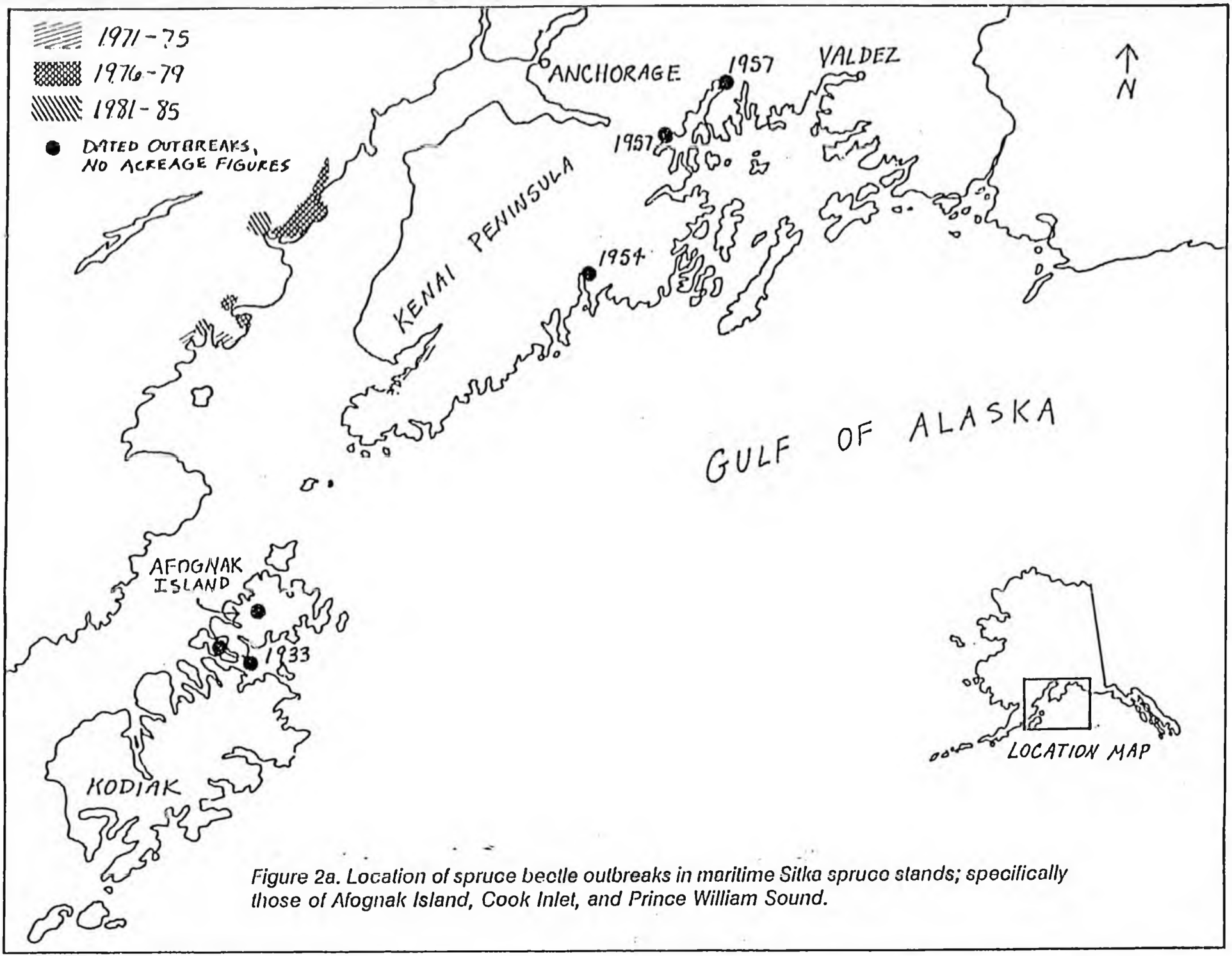

Figure 2a. Location of spruce beetle outbreaks in maritime Sitka spruce stands; specifically those of Afognak Island, Cook Inlet, and Prince William Sound.

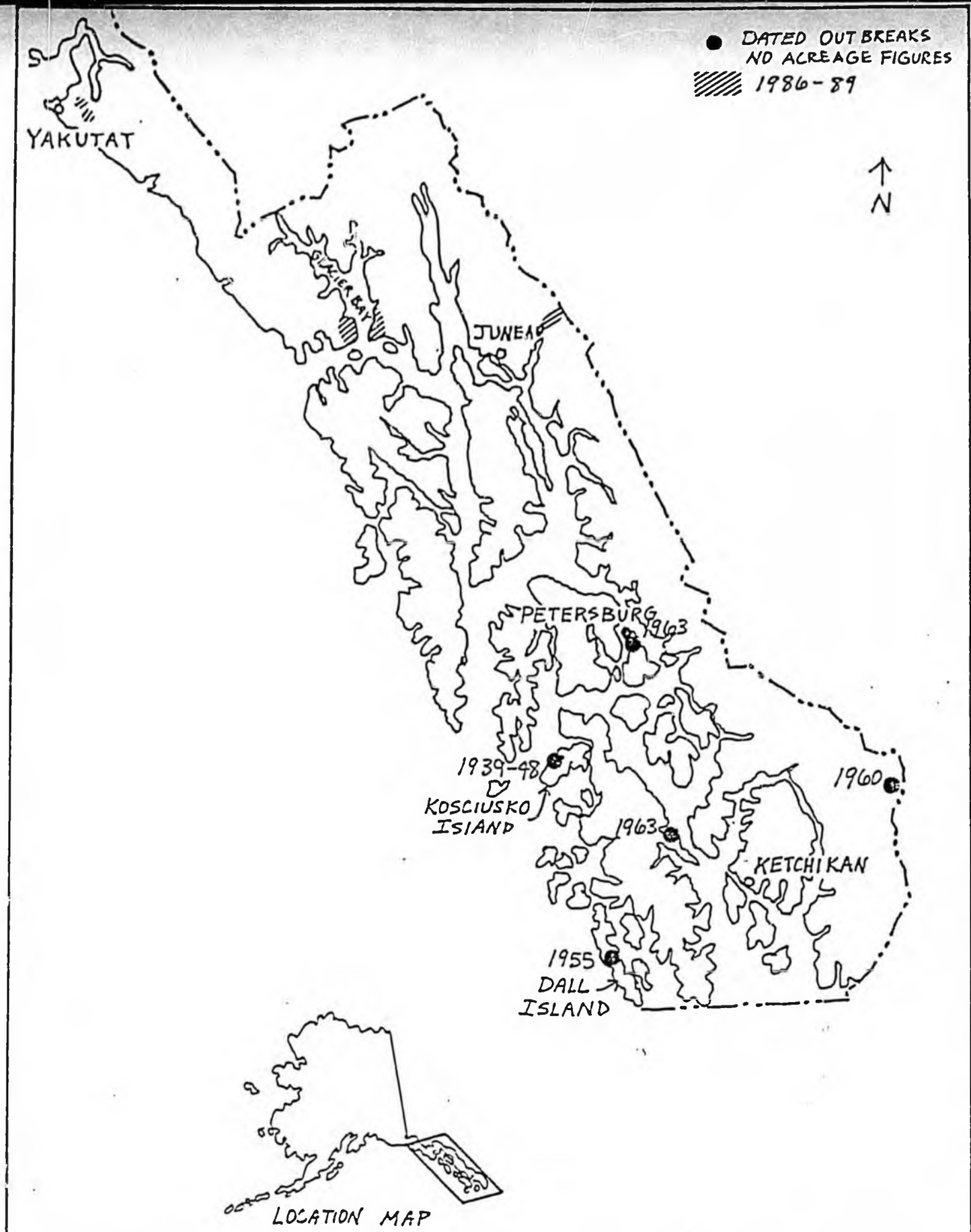

Figure 2b. Location of spruce beetle outbreaks in southeast Alaska's maritime Sitka spruce stands.

(Canada) at mile 127 then northeasterly towards Champagne, Y.T., Canada. The infestation barely made it into Alaska and caused little mortality.

1951-1955

SOUTH-CENTRAL: Spruce bark beetle activity was reported (McCambridge 1954) from the vicinity of Skilak and Tustumena Lakes; no acreage figures were given. A 1954 ground check indicated that wood pecker and parasite activity were quite high and spruce beetle populations were declining. Powerline and road construction were undertaken near Soldotna and Homer and large quantities of slash were left on the ground. Spruce beetle populations apparently increased in this material and began attacking and killing standing live spruce at a light, but steady rate (McCambridge 1955) (Fig. 1b).

Infested spruce were once again apparent northeast of Anchorage in 1955. The scattered outbreak (single trees or small groups) encompassed several thousand acres in the vicinity of Eklutna (McCambridge 1955) (Fig. 1b).

An on-going spruce beetle outbreak was detected in white spruce stands near Lake Clark (McCambridge 1955). Extensive areas of previous beetle activity as well as current tree mortality were observed along the Tlikakila River, NE of Lake Clark. The infestation was scattered over 100,000 acres in 1955 and declining (Fig. 1a).

MARITIME: A small number of standing infested Sitka spruce were observed in 1954 near the Bear Lake logging operation near Seward (McCambridge 1955). This spruce beetle activity declined in the following years (Fig. 2a).

1955 aerial detection surveys noted pockets of recent spruce beetle activity on the south side of Port Bazan on Dall Island (McCambridge 1955). This outbreak lasted from 1952-1957 and impacted 200 acres of Sitka spruce resulting in a volume loss of 1.5 million bf (500 trees killed each averaging 3,000 bf)(Downing 1956 a,b). Salvage logging was promptly undertaken (Fig. 2b).

1956-1960

SOUTH-CENTRAL: Spruce bark beetle activity increased on portions of the Kenai Peninsula in the late 1950's. Several small outbreaks were detected in 1957 on the Chugach National Forest (CNF) near the east fork of Sixmile Creek and mid-way up the Resurrection Creek (Downing 1957). Elsewhere on the Kenai, bark beetle activity was noted along the shore on the east side of Chickaloon Bay and mid-way up the Swanson River on the Kenai National Moose Range (KNMR). Losses within the KNMR were in close proximity to a large burned-over area (Fig. 1b).

Bark beetle activity on the CNF increased in 1958 with infestations noted along Resurrection Creek, Palmer Creek, Granite Creek, Quartz Creek. Losses were expected to be high in 1959 (USDA For. Serv. 1958). As expected, spruce beetles caused heavy losses of white and Lutz spruce on portions of the Kenai Peninsula (Downing 1959). Specifically, infestations covered approximately 16,000 acres of the CNF in the following areas: Quartz Creek-Summit Lake, Granite Creek, Resurrection and Palmer Creek. Control of the outbreaks through salvage logging and chemical measures was considered. A larger, scattered infestation covering tens of thousands of acres was located on the northern portion of the KNMR extending from Chickaloon River on the east to Moose Pt. on the west and north to Pt. Possession (Downing 1959). Infestations did not increase in size in 1960 on the Kenai but intensified

(Downing 1960). Two new spruce beetle outbreaks however, were detected near Copper Center; one along the Little Tonsina River and the other on the east side of the Copper River. Several thousand trees were killed and the outbreak was expected to continue (Downing 1960) (Fig. 1b).

North of Anchorage, losses due to bark beetles declined in 1957 along the Matanuska River and the southeast side of Knik Arm.

MARITIME: A spruce beetle infestation in Sitka spruce stands bordering Blackstone Bay near Whittier was detected in 1957. This two thousand acre outbreak had been on-going since 1952 (Downing 1957). Another smaller (500 acre) outbreak was detected along Pt Pakenham in the College Fjiord area of Prince William Sound. Both outbreaks declined in 1958 (USDA For. Serv. 1958) (Fig. 2a).

1961-1965

SOUTH-CENTRAL: Bark beetle activity was static In 1961 (Crosby 1961) but increased in 1962 on the Kenai Peninsula (Crosby 1962). Two new hot spots were detected: one near Anchor Point and the other about 40 miles north of Seward. It was estimated that there would be a 2- to 3-fold increase in numbers of newly attacked trees in 1963. Also, recent (1962) beetle infested spruce were detected in the Copper River area near Chitinia. The increases in spruce beetle populations expected in 1963 failed to materialize and by 1965, spruce beetle populations were at low, endemic levels throughout the State (Crosby 1963, 1964, 1965). No active beetle infestations were noted from either aerial survey or highway reconnaissances (Fig. 1a,b).

MARITIME: Spruce beetle activity was reported in 1963 from central Prince of Wales Island and from a point near Petersburg (Crosby 1963). Only a few trees were attacked in each area. Several areas of recent Sitka spruce blowdown in southeast Alaska failed to produce the expected build-up of spruce beetle populations (Fig. 2b).

1966-1970

SOUTH-CENTRAL: The late 1960's was a period of rapid expansion of spruce bark beetle outbreaks on the Kenai Peninsula. Patches of tree mortality occurred in a variety of areas of the CNF in 1966: west shore of Kenai Lake, junction of the Russian and Kenai Rivers, and near Jerome Lake. The use of trap trees as a control measure for the suppression of spruce beetle populations was contemplated for a section of Snug Harbor Road where infestations were increasing due to large amounts of breeding material (scorched spruce) from the 1959 Kenai Lake Burn (Crosby 1966, Galea 1968). Elsewhere on the Kenai spruce beetle populations increased. Considerable tree mortality was observed in 1966 on 100 acres near the mouth of Chickaloon River and further south on the Kenai Peninsula near Anchor Point. The Chickaloon River infestation within the Moose Range extended its borders noticeably during 1967 and by 1969 bark beetle populations covered 40,000 acres from Pt. Possession to Homer. A continuation of drought conditions had provided the catalyst for numerous minor outbreaks created by a succession of land clearing, petroleum exploration and various right-of-way activities to erupt into the present major epidemic (Crosby and Curtis 1969). By 1970 two hundred thousand acres were infested on the KNMR with and additional 60,000 infested acres on State and private lands accounting for more than a billion bf of spruce mortality. The spruce beetle infestation extended almost unbroken from Pt. Possession to Clam Gulch with two smaller outbreaks occurring in the Deep Creek drainage near Ninilchik. This major outbreak expanded from a minor outbreak of less than 100 acres in 1966

into a major epidemic covering more than four townships (USDA For. Serv. 1970, Curtis 1970) (Fig. 1b).

Bark beetle activity likewise increased in the late 1960's on portions of the CNF: a high incidence of bark beetle activity was observed in 1967 in the Granite Creek area. Scattered spruce mortality had been noted in this area since 1957. Approximately 1,300 acres of infested spruce occurred between East Fork River and the Granite Creek Guard Station (Crosby 1967). An eight acre stand of spruce was infested around a proposed Forest Service Campground near Juneau Falls. A 400 acre hot spot within the 1,300 acre Granite Creek/East Fork infestation was treated with a combination of trap trees and chemicals (Crosby and Curtis 1968). By 1969, spruce beetle populations were subsiding on the CNF. Another 300 acres of the Granite Creek infestation were treated (Crosby and Curtis 1969). Spruce beetle population build-up was detected in 1970 in the 1969 blowdown which occurred in the Six Mile area, Resurrection Creek drainages and in the Summit Lake area. Likewise, spruce beetle populations were increasing around the edges of the 1969 Russian River Burn (USDA For. Serv. 1970, Curtis 1970) (Fig. 1b).

Spruce mortality was observed in 1968 on 200 acres along Caribou Creek near mile 108 of the Glenn Highway. Likewise, increased tree killing was observed on scattered over-mature spruce along the east side of the Tonsina River in the vicinity of Stuart Creek (Crosby and Curtis 1968); beetle populations declined in both areas by 1970 (Fig. 1a).

The 1969 drought conditions as well as land clearing practices resulted in increased spruce beetle population build-up causing heavy tree killing of white spruce in suburban Anchorage areas. Similar conditions occurred in the white spruce stands between Palmer and Eureka (Crosby and Curtis 1969).

MARITIME: The only documented spruce beetle activity occurred in 1968 along a five mile stretch of the Salmon River at the head of Portland Canal in southeast Alaska. Two hundred acres of river bottom Sitka spruce were killed by spruce beetles. The infested timber was probably pre-disposed to beetle attack by prior flooding and subsequent damage to tree roots. Salvage logging was employed (Crosby and Curtis 1968) (Fig. 2b).

1971-1975

SOUTH-CENTRAL: The early 1970's saw an overall decline of spruce beetle activity on the Kenai Peninsula and a dramatic increase in infestations on the west side of Cook Inlet. Increased activity however, was noted on the eastern edge of the Moose Refuge where 400 acres along Mystery Creek were infested. The anticipated build-up of spruce beetle populations in portions of the CNF did not materialize. The 700 acre treatment area in the Granite Creek area was effective as no new infestations were detected in 1971 (Curtis and Swanson 1972) (Fig. 1c).

Spruce beetle populations in 1972 started to decrease on the northern half of the Kenai Peninsula following six years of outbreaks. These outbreaks followed several years of drought. Rainfall within the infested area was below the long-term average for six of the ten years from 1961-1970. The general result of this infestation was a reduction in size of the residual stand. Type conversion had not occurred as there were plenty of small size spruce (Beckwith and Curtis 1972). The most serious outbreak in progress on the Kenai Peninsula was occurring south and west of Tustumena Lake from Clam Gulch to the Anchor River. Tree killing was reported scattered over 60,000 acres (Baker and Curtis 1972) (Fig. 1c).

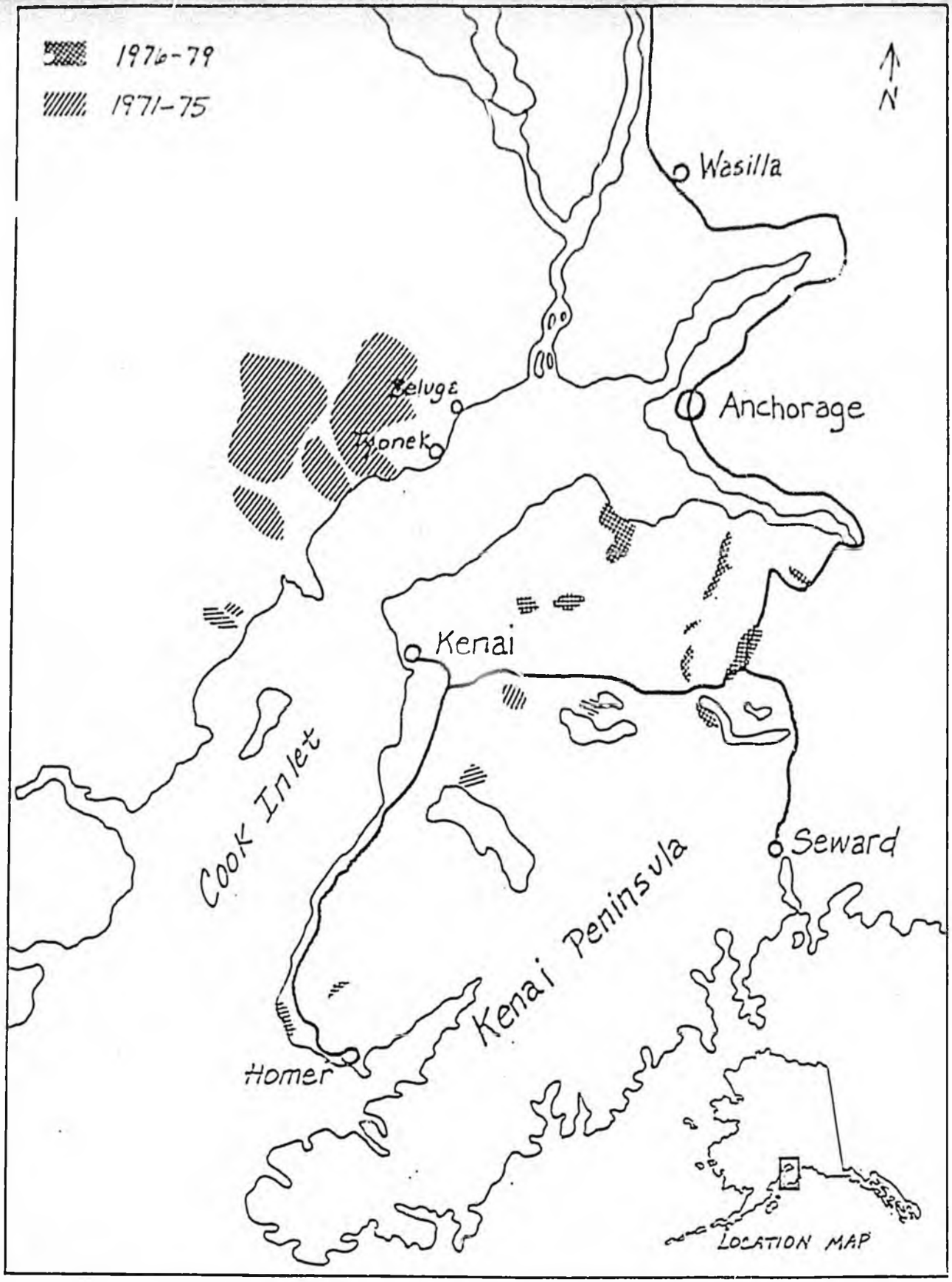

Figure 1c. Location of spruce beetle outbreaks from 1971-1979 in south-central Alaska; specifically on the Kenai Peninsula and the west side of Cook Inlet.

Spruce beetle populations were generally at low levels on the CNF with localized patches of spruce mortality occurring near Canyon and Granite Creek drainages (Baker and Curtis 1972). Spruce beetles continued to breed in patches of blowdown along Resurrection Creek (Fig. 1c).

A "new" large outbreak was detected in 1972 on the west-side of Cook Inlet where more than 70,000 acres of spruce mortality occurred near Trading Bay and Tyonek. This outbreak appeared to be in progress for 3-4 years. The cause of the outbreak was not definitely known but was believed to be associated with seismic line clearing debris from 1965-68 and the severe drought of 1968-69.

The Tyonek infestation impacted 103,000 acres in 1973. The Alaska State Division of Lands initiated a salvage sale near Tyonek that covered 223,000 acres with a total of 425 mm bf of mixed species (spruce 285 mm bf). Bark beetle populations continued to decline on the Kenai Peninsula where only 53,000 acres of active infestations were noted (Baker and Laurent 1974).

Spruce beetle caused tree mortality was concentrated in 1974 near Beluga Lake on the west-side of Cook Inlet and impacted an additional 140,000 acres. Tree killing was expected to intensify along the Beluga River in 1975. The Kenai Peninsula outbreaks declined further in 1974-no significant infestations were observed (Baker et al. 1975). The following table summarizes recent Cook Inlet spruce beetle outbreaks (in acres) (Baker et al. 1975):

	KENAI PENIN.	W. COOK INLET	TOTAL
Late 60's thru 1973	253,700	120,600	374,300
1974	300	143,400	143,700
TOTAL	254,000	264,000	518,000

Assuming an average gross volume of 4,500 bf per acre, spruce beetles caused more than two billion board feet of spruce mortality.

The spruce beetle remained in outbreak status on the west-side of Cook Inlet in 1975 with infestations totalling 167,000 acres. Population levels were expected to decline in 1976 (Hostetler et al. 1976). Of the estimated 425 mm bf of timber in the Tyonek Sale; 88 mm of spruce was cut and decked by Dec. 1975. An estimated additional 25 mm bf of spruce and 20 mm of hardwoods had been cut. Spruce beetle populations on the Kenai Peninsula remained at low levels in 1975 with a few small scattered populations (Fig. 1c).

MARITIME: Five to six thousand acres of infested Sitka spruce were detected in 1972 on BLM lands along the southwest shore of Cook Inlet near Mt. Iliamna (Baker and Curtis 1972). Infested areas were adjacent to several patches of blowdown which occurred in 1967-68. This infestation subsided by 1974. In southeast Alaska, forty Sitka spruce were killed by spruce beetles in Saw Mill Creek Campground near Sitka. These trees were previously defoliated by the spruce aphid possibly predisposing them to spruce beetle attacks (Baker and Curtis 1972) (Fig. 2a).

1976-1980

SOUTH-CENTRAL: Spruce beetle activity decreased in 1976 on the west side of Cook Inlet; of the 167,000 acres of active infestations reported in 1975, only scattered spots remained in 1976. Most of the activity was confined to an area east of Lone Ridge, nw of Tyonek. Spruce beetle activity remained

at low levels on most of the Kenai Peninsula. Increased spruce mortality however, was detected in 1976 on almost 8,000 acres along the Resurrection Creek drainage of the CNF. This increased mortality is a result of beetle populations breeding in the extensive windthrow of 1974 and 1975 (Rush et al. 1977). The Resurrection Creek outbreak increased in 1977 by 5,000 acres and encompassed 12,830 acres (USDA For. Serv. 1978). Spruce beetle caused tree mortality on the CNF increased by 18% over 1977 levels. Much of this increase occurred in the Summit Lake area where more than 3,000 acres of spruce were infested. Close to 1,000 acres of spruce forests were impacted near Upper Russian Lake (USDA For. Serv. 1979) (Fig. 1c).

Elsewhere on the Kenai Peninsula spruce beetle populations increased: 47,000 acres were infested throughout the Moose Range in 1978. The heaviest impacted area was near Barabara Lake (7,620 acres).

Spruce beetle activity on the west side of Cook Inlet increased in 1978; 64,000 acres of very light (less than 0.25 trees/acre) spruce mortality was detected near Lower Beluga Lake. As of October 1978, a total of 58.9 mm bf of spruce had been harvested on the Westside Salvage Sale (USDA For. Serv. 1979).

Spruce beetle populations exploded and by 1979/80 infestations covered approximately 380,000 acres throughout the State. This was an increase of 250,000 acres over 1978 levels (USDA For. Serv. 1980, 1981). Mortality was apparent on the CNF where 33,098 acres were infested. The Summit Lake infestation increased by 50% and covered 13,924 acres; the Resurrection Creek infestation had increased to 15,240 acres. Elsewhere on the Kenai, spruce beetle populations increased: Barabara Lake area-12,162 acres; west of Tustumena Lake-19,698 acres. Infestations on west side of Cook Inlet covered approximately 374,452 acres north of Beluga Lake (Fig. 1c).

MARITIME: For the first time in many years, Sitka spruce mortality was detected in 1980 on 1,000 acres in southeast Alaska; areas most heavily impacted were along the Taku River near Juneau. The infestation appeared to be about three years old; probably originating near Klackman Mountain (USDA For. Serv. 1981). Scattered groups of spruce beetle infested spruce were detected along the south-west shore of Kachemak Bay across from Homer on the Kenai Peninsula (Fig. 2a,b).

INTERIOR: The only spruce beetle impacted areas occurred in the white spruce stands along the Kuskokwim River. Light spruce beetle activity was detected on 2,600 acres 15 miles south of Devil's Elbow in 1978 (USDA For. Serv. 1979). The Devil's Elbow outbreak declined in 1979. Infestations (4,000 acres) then increased five miles northeast of Little Russian Mission (USDA For. Serv. 1980). Spruce beetle activity decreased by 50% in 1980; only 2,481 acres of scattered infested spruce were aerially detected along the Kuskokwim River (Fig. 3).

1981-1985

The early 1980's experienced increased spruce beetle activity in southeast and south-central Alaska. Little activity was detected in the interior.

SOUTH-CENTRAL: Spruce beetle populations infested 490,220 acres in 1982 vs. 240,000 acres in 1981. The increase was most apparent in the Beluga Lake area on the west side of Cook Inlet. New infestations were detected in 1982 on 49,291 acres of white spruce along both sides of the Susitna River from Devil's Canyon to Gold Creek (USDA For. Serv. 1983).

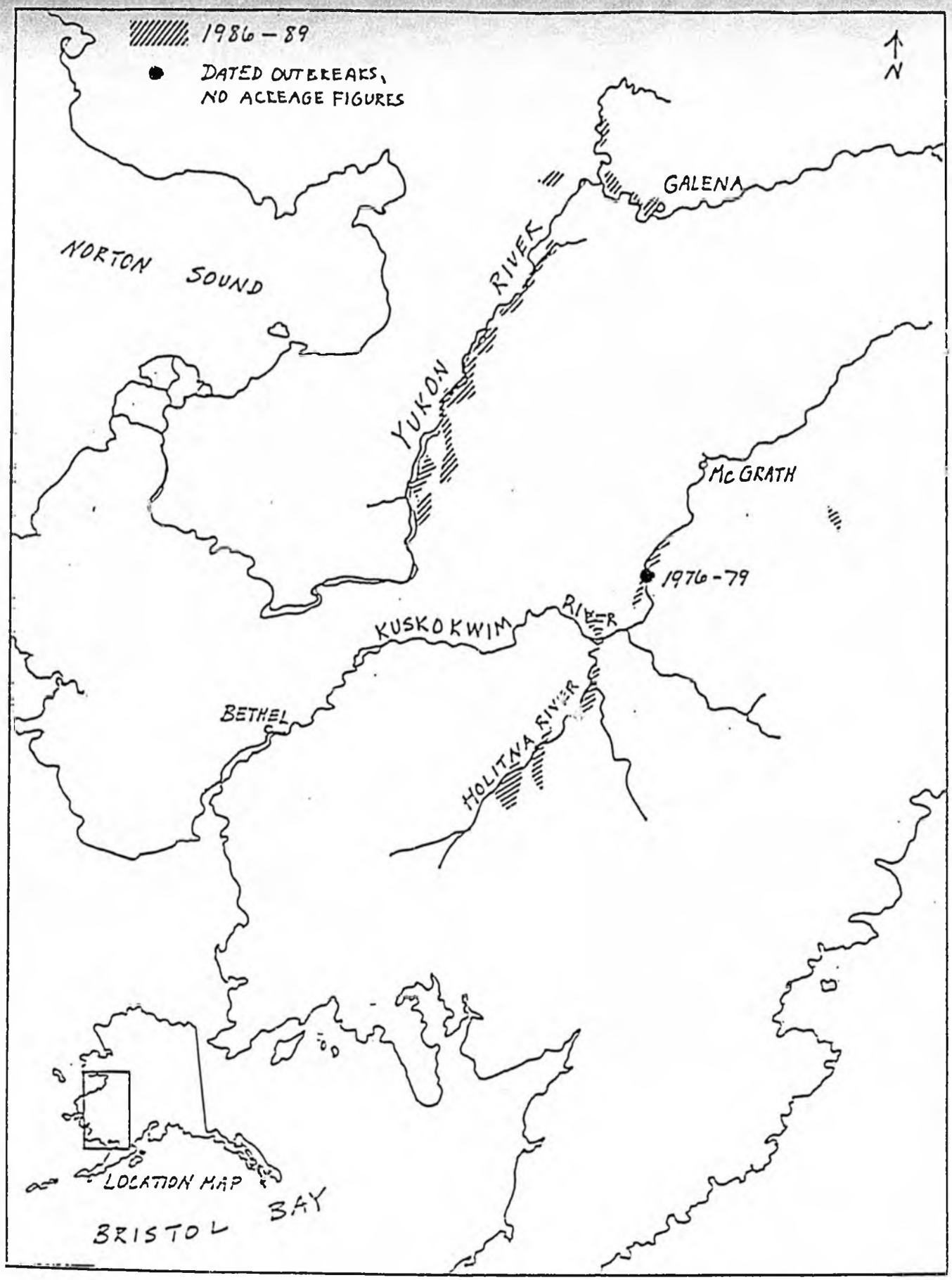

Figure 3. Location of spruce beetle outbreaks in interior Alaska's white spruce stands.

Infestations on the CNF decreased from 41,051 acres in 1981 to 37,929 acres in 1982. After three years of increase, the Summit Lake infestation declined, and by 1982,extended over 9,924 acres. The Resurrection Creek infestation had not expanded and still affected 15,240 acres. Beetle activity increased in 1981 near Cooper Lake, Mystery Hills, Round Mountain, and other areas near Cooper Landing. Elsewhere on the Kenai, infestations increased: 41,369 vs. 27,303 acres in 1981. The largest increase was detected northeast of Mystery Hills on the Kenai National Wildlife Refuge (KNWR) where 29,688 acres were infested in 1982; a 40% increase over 1981 levels. On the southern end of the Kenai, bark beetle populations were 50% less in 1982 than the 1981 level of 2,560 acres (USDA For. Serv. 1983). Scattered spruce beetle activity was still observed on the southeast side of Kachemak Bay. Heavy spruce beetle activity was noted in 1982 on Kalgin Island; on-going for at least two years (Fig. 1d).

Spruce beetle populations decreased slightly in 1983 but increased by 22% in 1984 and covered 432,603 acres state-wide (USDA For. Serv. 1983, 1984). Bark beetle activity was static on the CNF with the exception of the Resurrection Creek outbreak which expanded in 1983 and encompassed 20,320 acres. 44,745 acres of the KNWR were impacted in 1983; the majority occurring in the Mystery Hills area. Infestations also increased further south on the Kenai Peninsula where 8,344 acres of scattered infestations were aerially detected. Of interest in 1983, 1,524 acres of spruce beetle activity was detected north of Valdez along the Richardson Highway near the confluence of the Tiekel and Tsina Rivers (USDA For. Serv. 1983) (Fig. 1a,d).

By 1984 bark beetle activity increased on the CNF where 56,342 acres were impacted. Intense spruce beetle activity continued on 12,484 acres in the Cooper Landing/Russian River areas-most notably west of Juneau Creek. Other areas on the Chugach appeared to be static or declining. The Mystery Hills outbreak increased dramatically; 53,713 acres of Wildlife Refuge lands were infested north of the Sterling Hignway and following Mystery Hills up to and including the Big and Little Indian drainages. Infestations on the southern end of the Kenai Peninsula more than doubled and covered 22,177 acres; the majority (15,690 acres) occurred along the Fox River drainage. The spruce beetle activity detected along the Richardson Highway in 1983 increased to 5,293 acres in 1984. Scattered spruce beetle activity also increased in the Anchorage bowl and Chugiak/Eagle River areas: Ship Creek-3,523 acres; Eklutna Lake-3,597 acres. Beetle activity was aerially detected on 31,509 acres along the Tikakila River near Lake Clark; the same area infested almost 30 years ago. This scattered beetle activity declined by 1985 (Fig. 1a,d).

Spruce bark beetle infestations decreased statewide in 1985 by 40% over 1984 levels; infestations covered covered 255,270 acres. Decreases were most apparent on the CNF and the west side of Cook Inlet. Increased activity however, was still apparent in the Cooper Landing/Russian River areas (USDA For. Serv. 1985). Infestations decreased by 28% on the KNWR but were still evident on 43,326 acres in the Mystery Hills/Skilak Lake areas.

Infestations decreased (63%) on the west side of Cook Inlet where spruce beetle activity was detected on 64,234 acres north of Beluga Lake (USDA For. Serv. 1985). The Richardson Highway outbreak increased; more than 5,000 acres were infested.

MARITIME: The largest increase in spruce beetle activity in Sitka spruce occurred in southeast Alaska in Glacier Bay National Park. This infestation was first detected in 1982 and was apparent on 5,000 acres. It was thought to have been active for four years. The outbreak expanded in 1983 and impacted 6,350 acres (USDA For. Serv. 1983) and by 1985, the outbreak had expanded to the east and north and covered 12,200 acres in the Park (USDA For. Serv. 1985). Other outbreaks in southeast such as the Taku River infestation of 2,000 acres and the Whiting River 900 acre infestation died out (Fig. 2b).

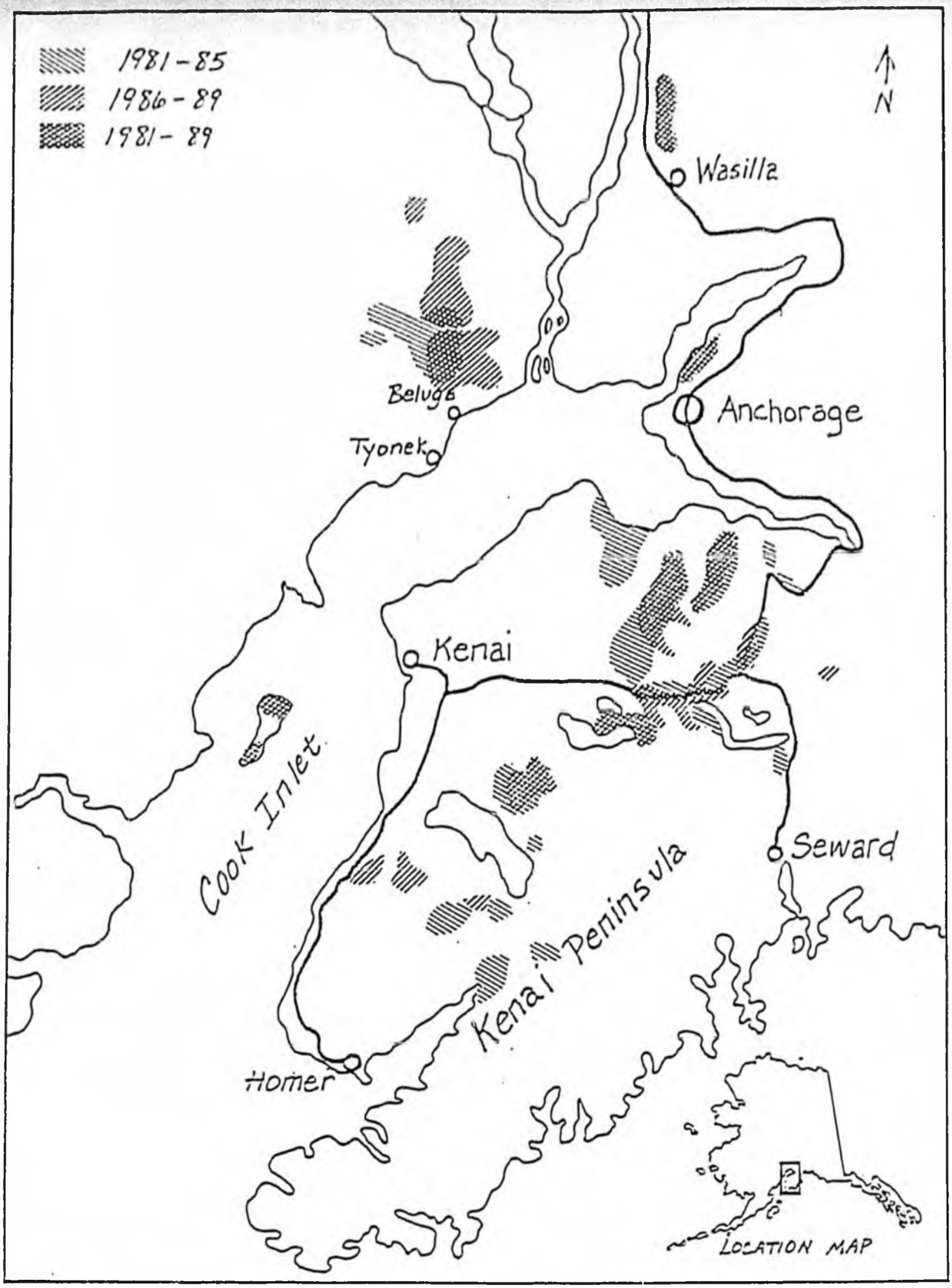

Figure 1d. Location of spruce beetle outbreaks from 1981-1989 in south-central Alaska; specifically on the Kenai Peninsula and the west side of Cook Inlet.

Of interest though, was the detection of 200 acres of Sitka spruce mortality within Kachemak Bay State Park across from Homer on the Kenai Peninsula. This beetle activity was located near Mallard Bay and was associated with nearby spruce windthrow (USDA For. Serv. 1985) (Fig. 2a).

1986-1989

Spruce beetle activity in the late 1980's was most apparent for the first time in interior Alaska's white spruce stands. Populations decreased in south-central and southeast Alaska.

SOUTH-CENTRAL: Spruce mortality continued on 40,423 acres of the CNF in 1986 (USDA For. Serv. 1986). A slight increase in activity was noted in the Cooper Landing/Russian River area. The majority of the KNWR infestations were still occurring north of Mystery Hills. Approximately 10,000 acres of light scattered beetle activity was detected in the Ninilchik River and Crooked Creek areas.

Spruce beetle infestations continued in 1986 on the west side of Cook Inlet where 100,000 acres were impacted nw of Little Mt. Susitna and west of Beluga Mountain. Spruce beetle activity in the Anchorage and Eagle River/Chugiak areas was apparent although decreasing; Fort Richardson lands had 5-10,000 acres of infested spruce. The Tiekel River outbreak along the Richardson Highway covered close to 20,000 acres. Spruce beetle infestations decreased in 1987; decreases most apparent on west side of Cook Inlet and on the CNF (USDA For. Serv. 1987). Activity was still apparent in the Summit Lake, Cooper Landing, and Russian River Campground areas. Spruce beetle activity increased in 1987 by 9,000 acres on KNWR where 63,099 acres were infested; mostly in the Mystery Hills/Skilak Lake area. Infestations declined further south on the Kenai along the Fox River drainage. Spruce beetle activity further declined in the Anchorage/Eagle River areas. The Tiekel River outbreak however, intensified by 3,500 acres and encompassed 23,586 acres (Fig. 1a).

Spruce beetle populations remained static in 1988 although heavy localized infestations were apparent along the road cooridor in the Cooper Landing area and near Upper Trail Lake (USDA For. Serv. 1986). Scattered spruce beetle activity has been apparent for 2-3 years on 41,000 acres southwest of Tustumena Lake. Spruce beetle populations declined further in the Anchorage/Eagle River areas. However, further north of Anchorage spruce beetle activity increased: 14,000 acres were detected south of of the Matanuska River near Kings Mountain; 19,000 acres were detected for the third year between Willow and Little Willow Creek. The Tiekel River outbreak decreased in size (Fig. 1a,d).

Most spruce beetle infestations in south-central Alaska's spruce forests declined in 1989 (USDA For. Serv. 1989). Only 7,000 and 10,000 acres of active infestations were detected on KNWR and the CNF, respectively. Likewise, spruce beetle activity decreased on the west side of Cook Inlet with the exception of recent activity (2,600 acres) detected along the Skwentna River north of Beluga.

MARITIME: Sitka spruce mortality increased in 1986 in the Kachemak Bay area of the Kenai Peninsula. Scattered infestations covered 3,600 acres: 1,168 acres in Mallard Bay; 1,300 acres near Bear Cove. Most of this mortality was associated with numerous pockets of blowdown. Likewise there were 500 acres of scattered spruce mortality north of Seldovia associated with logging debris left during road construction. By 1988, spruce beetle infestations increased to 10,000 acres in the Kachemak Bay area. The spruce beetle outbreak in Glacier Bay National Park in southeast Alaska increased from 12,000 to 18,000 acres (USDA For. Serv. 1986) (Fig. 2a,b).

Nearly 2,000 acres of scattered spruce have been infested during the past three years in the Yakutat Forelands. These infestations are believed to have originated in blowdown and salvage sale units. The

level of mortality in this infestation however is quite low (3-5% of the stand infested) (USDA for. Serv. 1988) (Fig. 2b).

Bark beetle populations continued to spread in the Kachemak Bay area in 1989 but declined in Glacier Bay National Park and the Yakutat Forelands (USDA For. Serv. 1989).

INTERIOR: One of the largest spruce beetle infestations to occur in interior Alaska was detected in 1986 along the Yukon River. Spruce mortality was spread along 50 miles of river and impacted 63,000 acres. This outbreak had been on-going for at least two years and more than likely originated in windthrown spruce as well as flood damaged spruce (USDA For. Serv. 1986). This outbreak impacted an additional 15,000 acres in 1987 and spread up the south fork of the Nulato River (USDA For. Serv. 1987). By 1989 this outbreak encompassed 140,000 acres with increased activity detected along the Nulato River and near the mouth of the Koyukuk River (Fig. 3).

Scattered spruce beetle infestations detected in 1988 along the Kuskokwim River continued on 10,000 acres between Sleetmute, Devil's Elbow and McGrath. Recent spruce beetle infestations were detected in 1989 southeast of McGrath along the Windy Fork and south fork of the Kuskokwim Rivers: 2,257 and 3,738 acres, respectively. The 14,000 acres of scattered spruce beetle infestations detected in 1988 approximately 30 miles southwest of the Taylor Mountains declined to low levels in 1989 (USDA For. Serv. 1989) (Fig. 3).

TABLE 1. AREAS OF SPRUCE BEETLE OUTBREAKS (IN ACRES) IN ALASKA BY GEOGRAPHIC LOCATION.

	SOUTH-CENTRAL	MARITIME	INTERIOR
1920-1940	200,000 (Copper River)	--	--
1930-1940	*1/ (Swentna R.) (Willow Crk.)	100,000 (Afognak Is.)	--
1940-1950	* (Kenai Lk.) (Knik Arm)	6,400 (Kosciusko Is.)	* (Haines Cut-off)
1950-1955	2,000 (Eklutna) 100,000 (Tlikakila R.)	200 (Dall Is.)	--
1956-1960	16,000 (CNF) 20,000 (KNMR)	2,000 (Blackstone Bay) 500 (College Fjord)	--
1961-1965	* (Anchor Pt.) (Chitina)	* (Pr. of Wales Is.)	--
1966-1970	100 (Chickaloon R.) 39,900 (Pt.Possession) 220,000 (KNMR) 1,300 (CNF) 200 (Caribou Crk.)	200 (Salmon R.)	--
1971-1975	400 (KNMR) 60,000 (Clam Gulch) 223,000 (Tyonek) 140,000 (Beluga R.)	6,000 (Trading Bay)	--

1976-1980	16,240 (CNF-Res.Crk.) 13,000 (CNF-Summit L.) 1,000 (CNF-Up.Russ.) 47,000 (KNMR) 364,000 (Beluga Lk.)	2,000 (Taku R.) 900 (Whiting R.)	2,600 (Kusko.R.) 4,000 (Kusko.-Russ.Miss.)
1981-1985	49,291 (Susitna R.) 55,000 (KNWR) 2,560 (Anchor Pt.) 5,000 (CNF-Res.Crk.) 15,344 (Fox R.) 5,524 (Rich.Hiway) 12,484 (CNF-Cooper Ldg.) 3,523 (Ship Crk.) 3,597 (Eklutna Lk.) 31,509 (Tlikakila R.)	12,200 (Glacier Bay) 200 (Kachemak Bay)	--
1986-1989	10,000 (Ninilchik R.) 7,000 (Fort.Rich.) 18,586 (Rich.Hiway) 50,000 (KNWR) 14,000 (Kings Mtn.) 19,000 (Willow Crk.) 2,600 (Skwentna R.)	9,800 (Kachemak Bay) 5,800 (Glacier Bay) 2,000 (Yakutat)	140,000 (Yukon R.) 10,000 (Kusko.R.) 6,000 (s.f.Kusko.R.) 14,000 (Taylor Mtn.)
TOTAL	1,769,158	148,200	176,600

1/ *-infestations reported but no acreage estimates given.

APPENDIX A

SPRUCE BEETLE

Dendroctonus rufipennis (Kirby)

HOSTS: White, Sitka, Lutz, and black spruce.

DISTRIBUTION: Wherever spruce is found; a serious forest pest in south-central Alaska throughout Cook Inlet and Kenai Peninsula.

DAMAGE: Larvae feed beneath bark, usually killing affected trees.

DESRCIPTION: Adult spruce beetles are maroon to black, cylindrical in shape, approximately 5 mm long and 3mm wide. Larvae are stout, white, legless grubs, 6 mm long when full-grown. The pupae are soft-bodied, white, and have some adult features.

BIOLOGY: The life cycle of the spruce beetle may vary from one to three years, with a two-year cycle being the most common. Temperature plays an important part in determining the length of time required for beetle development.

Adult beetles become active in the spring (late May--early June) when air temperatures reach a threshold of 16o C (61o F). At this time, beetles emerge from trees in which they overwintered and fly in search of a new host material. These dispersal flights may be short-range even though beetles are capable of flying for several miles without stopping.

Spruce beetles prefer to attack the sides and bottom surfaces of windthrown or other downed materials which have been on the ground less than one year. In the absence of such host material, large-diameter live trees may be attacked instead, and if beetle populations are high, these trees may be killed.

Beetle attacks, whether on windthrown or on standing timber, are mediated by pheromones which insure that individual trees will be attacked "en masse", and fully colonized by subsequent broods. Trees that are mass-attacked form attractive centers which result in groups of trees being killed by spillover attacks.

Female beetles initiate attacks and begin constructing an egg gallery in the cambium parallel to the grain of the tree. They are joined by males and after mating, lay eggs in small niches along the sides of the egg gallery. Most eggs will hatch by August.

As they feed in the cambium, larvae construct their own galleries perpendicular to the egg gallery. Normally, spruce beetles pass the first winter in the larval stage, resume feeding the next spring, and pupate by summer. About two weeks later, pupae transform into adults which pass the second winter, either in the old pupation site, or more commonly, in the bases of infested trees. The following spring, two years after initial attack, the new adults emerge and attack new host material. In some years when temperatures are abnormally high, or on certain warmer microsites, spruce beetles may complete their development within one season and new adults will emerge one year after attack.

Most major outbreaks of spruce beetle have originated from stand disturbances -- blowdown, logging, or right-of-way clearance. Stand susceptibility to beetle attack is influenced by stocking, with slow growth and moisture stress playing an important part in predisposing trees to attack.

ALASKA SPRUCE BEETLE BIBLIOGRAPHY

1922. **Moffit, F.H.** Copper River Outbreak: A letter to Dr. A.D. Hopkins. 1 pp.

1933. **Williams, J.P.** Report of timber reconnaissance; Afognak Island, Chugach National Forest, 10 pp. mimeo. with Tables.

1935. **Capps, S.R.** The southern Alaska Range. USDI Geol. Surv. Bull. 862. 101 p.

1935. **Capps, S.R. and R. Tuck.** The Willow Creek-Kashwitna District, Alaska. USDI Geol. Surv. Bull. 864-B. 19 pp.

1946. **Furniss, R.L.** Memo. regarding an outbreak of *Dendroctonus* on Kosciusko Island. 7 pp. mimeo. with map.

1946. **Furniss, R.L. and I.H. Jones.** A second report concerning the bark beetle outbreak on Kosciusko Island. 7 pp. mimeo. with Tal

1948. **Furniss, R.L.** Afognak Island Outbreak: Summary. Letter to Regional Forester, Alaska Region. 1 pp.

1948. **Hughes, M.T.** Insect killed timber along the Haines Cut-off Highway. Dom. Entomol. Lab. Victoria, B.C. Letter. 2 pp.

1950. **Furniss, R.L.** Forest insect situation in Alaska. Unpub. Report. 8 pp.

1954. **McCambridge, W.F.** Entomological activities in Alaska. Progress report. July-August-1954. R-A1 Rept. Gen. 3 pp. mimeo.

1955. **McCambridge, W.F.** A summary statement of forest insect conditions in Alaska. 14 pp. mimeo.

1956. **Downing, G.L.** Forest insect surveys. USDA For. Serv. Quart. Prog. Rpt. 2 pp. mimeo.

1956. **Downing, G.L.** Sitka spruce beetle: South Tongass National Forest: Appraisal survey. 1 pp. mimeo.

1957. **Downing. D.L.** Biological evaluation of an Alaska spruce beetle infestation in spruce stands on the Kenai Ranger District. USDA For. Serv. For. Insect Surv. Report, No. 4, 6pp.

1957. **Downing, G.L.** Forest insect aerial survey: July-Sept. 1957. USDA For. Serv. 5 pp. mimeo.

1957. **USDA For. Serv.** Forest insect conditions in Alaska in 1957. USDA For. Serv. 3 pp. mimeo.

1958. **USDA For. Serv.** Summary of forest insect conditions in Alaska. 2 pp. mimeo.

1959. **Downing, G.L.** Forest insect surveys. Quart. prog. report. July-Sept. 1959. 3 pp. mimeo.

1959. **Downing, G.L.** Biological evaluation of Alaskan spruce beetle infestation in spruce stands on the Kenai Ranger District, For. Ins. Surv. Rpt. No. 4, Juneau, AK. 6 pp.

1960. Downing, G.L. Summary of forest insect conditions in Alaska-1960. 2pp. mimeo.

1961. Crosby, D. Forest insect conditions in Alaska-1961. USDA For. Serv. 2 pp. mimeo.

1962. Crosby, D. Insect and disease conditions in Alaska-1962. USDA For. Serv. 2 pp. mimeo.

1963. Crosby, D. Condition of forest insects in Alaska-1963. USDA For. Serv. 3 pp. mimeo.

1964. Crosby, D. Alaska forest insect conditions in 1964. USDA For. Serv. 2 pp. mimeo.

1965. Crosby, D. Conditions of forest insects in Alaska: 1965. USDA For. Serv. 2 pp. mimeo.

1966. Crosby, D. Forest insect and disease conditions in Alaska during 1966. USDA For. Serv. 11 pp.

1967. Crosby, D. Alaska forest insects: interim status report. USDA For. Serv.,Alaska Region. 6 pp.

1967. Hard, J.S. Identification of destructive Alaska forest insects. USDA For.Serv. INF, Juneau, AK. 19 pp.

1968. Crosby, D. and D. Curtis. 1968. Forest insect and disease conditions in Alaska during 1968. USDA For. Serv., Alaska Region. 7 pp.

1968. Galea, J. Completion report: Kenai Lake trap tree study. 8 pp, mimeo.

1969. Crosby, D. and D. Curtis. Forest insect and disease conditions in Alaska during 1969. USDA For. Serv. Alaska Region. 15 pp.

1970. Anon. Forest insect conditions in the United States: 1970. USDA For. Serv. 10 pp.

1970. Curtis, D. Spruce beetle detection: July 20, 1970. Forest Service Letter; 3 pp.

1972. Beckwith, R.C. Scolytid flight in white spruce in Alaska. Can. Entomol. 104:1977-1983.

1972. Baker, B. and D. Curtis. Forest insect and disease conditions in Alaska--1972. USDA Forest Service. 9 pp.

1972. Curtis, D. and C. Swanson. Forest insect and disease conditions: Alaska Region: 1971. USDA For. Serv. 18 pp.

1972. Beckwith, C.R., Scolytid flight in white spruce stands in Alaska. The Canadian Entomologist 104: 1977-1983.

1972. Beckwith, R.C. Key to adult bark beetles commonly associated with white spruce stands in interior Alaska. USDA For. Serv. Res. Note PNW-189. 6 pp.

1974. Baker, B.H., Did Beetles Do That? Alaska Magazine. p46-47.

1974. Baker, B. and T. Laurent. Forest insect and disease conditions in Alaska: 1973. USDA For. Serv., Alaska Region, Div. of Timber Mgt., 10pp.

1974. Hard, J.S. The forest ecosystem of Southeast Alaska. 2. Forest Insects. USDA For. Serv. Gen. Tech. Rpt. PNW-13. 32 pp.

1974. Baker, B.H. and J.A. Kemperman. Spruce beetle effects on a white spruce stand in Alaska. Journ. of Forestry. 72:423-425.

1975. Rush, Peter A. and B.H. Baker. An evaluation of spruce beetle infestations in the Cook Inlet Basin, USDA For. Serv. Alaska Reg., State and Private Forestry, Bio. Eval. R10. 5pp.

1975. Holsten, E.H. and R.I. Gara. Preliminary studies on arctic bark beetles(Coleoptera: Scolytidae) of the Noatak River drainage. Z. ang. Ent. 78, 248-254.

1975. Baker, B., Hostetler, B., and T. Laurent. Forest insect and disease conditions in Alaska, 1974. USDA For. Serv., Alaska Reg., Div. of Timber Management. 13 pp.

1975. Schmid, J.M. and R.C. Beckwith. The spruce beetle. Forest Pest Leaflet 127. Portland, OR., USDA For. Serv., PNW. 7pp.

1976. Furniss, M.M., Baker, B.H., and B.B. Hostetler. Aggregation of spruce beetles (Coleoptera) to seudenol and repression of attraction by methyl-cyclohexenone in Alaska. Can. Entomol. 108(12):1297-1302.

1976. Hostetler, B., Rush, P., and T. Laurent. Forest insect and disease conditions in Alaska:1975. USDA For. Serv., Alaska Region, Div. of S&PF. 11 pp.

1977. Werner, R.A., Baker, B.H., and Rush, P.A. The spruce beetle in white spruce forests of Alaska. USDA For. Serv. PNW-GTR-61, Pac Northwest For. and Range Exp. Stn., Portland, OR. 13 pp.

1977. Rush, R., Laurent, T., Yarger, L., and R. Lawrence. Forest insect and disease conditions in Alaska: 1976. USDA For. Serv., Alaska Region, Div. of S&PF. 7pp.

1977. Beckwith, R.C., Wolff, J.O., and Zasada. J.C., Bark beetle response to clearcut and shelterwood systems in interior Alaska after whole tree logging. USDA For. Serv. Res. Note PNW-287, 6p., illus. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

1977. Rush, P.A., Lawrence, R.K., and Baker, B.H., Preliminary Evaluation of color aerial photography to assess beetle-killed spruce in Alaska. USDA For. Serv., Alaska Reg., Bio. Eval. R10-77-2. 12pp.

1978. Werner, R.A. The spruce beetle in Alaska Forests. PNW For. and Range Exp. Stat. Leaflet. 6pp.

1978. Averill, R.D. Spruce beetle Summit Lake. USDA For. Serv. Alaska Reg., State and Private Forestry, Bio. Eval. R10-78-3. 8pp.

1979. Furniss, M.M., Baker, B.H., Werner, R.A., and Yarger, L.C., Characteristics of spruce beetle (Coleoptera) infestation in felled white spruce in Alaska. The Canadian Entomologist 111: 1355-1360.

1979. Holsten, E.H., and R.L. Wolfe. Spruce beetle risk rating system for white spruce on the Kenai Peninsula. USDA For. Serv., Alaska Reg., State and Private Forestry, Bio. Eval. R10-1. 21pp.

1979. Holsten, E.H. Supplement: Spruce beetle risk rating system for white spruce on the Kenai Peninsula. USDA For. Serv. Alaska Reg., State and Private Forestry, Bio. Eval. R10-3. 10pp.

1979. Holsten, E.H., and K.P. Zogas. Spruce beetle Summit Lake, Dry Gulch, Cooper Landing. USDA For. Ser. Alaska Reg., State and Private Forestry, Bio. Eval. R10-79-4. 18pp.

1979. Holsten, E.H., Zogas, K.P., and R.L. Wolfe. Resurrection Creek spruce beetle infestation. USDA For. Serv. Alaska Reg., State and Private Forestry, A three year interim report. 19pp.

1979. **Anon.** Forest insect and disease conditions in Alaska in 1979. USDA For. Serv., Alaska Region Report No. 115. 17pp.

1980. **Holsten, E.H.** Spruce beetle Copper Valley Electric, USDA For. Serv., Alaska Reg., State and Private Forestry, Bio. Eval. R10-80-4. 10pp.

1980. **Anon.** Forest insect and disease conditions in Alaska in 1979. USDA For. Serv., Alaska Region Report No. 146. 16pp.

1981. **Eglitis, A.** Spruce beetle-Taku River-Tongas National Forest. USDA For. Serv., State and Private Forestry, Bio. Eval. R10-81-2, 14pp.

1981. **Holsten, E.H.** Spruce beetle: Chugach National Forest and adjacent Lands. USDA For. Serv., State and Private Forestry, Bio. Eval. R10-81-1. 18pp.

1981. **Holsten, E.H.** Spruce beetle: Copper Valley Electric Association, USDA For. Serv. Alaska Reg., State and Private Forestry, Biological Evaluation R10-81-3. 13pp.

1981. **Holsten, E.H.** Spruce beetle:Chugach National Forest, Anch. Ranger Dist. USDA For. Serv. Alaska Reg., State and Private Forestry, Bio. Eval. R10-81-4. 20pp.

1981-1982. **Anon.** Forest insect and disease conditions in Alaska (R-10). USDA For. Serv., Alaska Region Report No. 173. 20pp.

1982. **Whitmore, M.C.** Final report on co-op aid study of the predators and parasites affecting scolytid populations from white spruce in Alaska. Univ. of Wash. Seattle, WA. 95 pp. mimeo.

1982. **Holsten, E.H.** Spruce beetle: Anchor Point, Alaska. USDA For. Serv., Alaska Reg., State and Private Forestry, Bio. Eval. R10-82-2. 15pp.

1982. **Holsten, E.H.** Spruce beetle: Cooper Valley Electric Association. USDA For. Serv., Alaska Reg., State and Private Forestry, Bio. Eval. R10-82-3. 12pp.

1982. **Eglitis, A.** Incidence of bark and ambrosia beetles in blowdown-Yakutat, Alaska. USDA For. Serv. Alaska Reg., State and Private Forestry, Bio. Eval. R10-81-5. 14pp.

1982. **Eglitis, A.** Spruce Beetle Glacier Bay National Park. USDA For. Serv. Alaska Reg., State and Private Forestry, Bio. Eval. R10-82-1, 22pp.

1983. **Eglitis, A.** Followup survey of ambrosia beetles and deterioration in blowdown,Yakutat, Alaska. USDA For. Serv. Alaska Reg., State and Private Forestry, Bio. Eval. R-10-83-1. 15pp.

1983. **Werner, R.A., Elert, E.E., and E.H. Holsten.** Evaluation of beetle-killed white spruce for pulp and paper. Canadian Jour. of For. Res. Vol. 13 (2):246-250.

1983. **Hard[illegible]. W[illegible]r, R.A., and E.H. Holsten.** Susceptibility of white spruce to attack by spruce beetles during the [illegible]f an outbreak in Alaska. Canadian Jour. of For. Res. Vol. 13 (4):678-684.

1983. **Werner, R.A., Hastings, F.L., and R. Averill.** Laboratory and field evaluation of insecticides against the spruce beetle (Coleoptera: Scolytidae) and parasites and predators in Alaska. Jour. of Economic Entomology, Vol. 76 (5):1144-1147.

1983. **Werner, R.A., and E.H. Holsten.** Mortality of white spruce during a spruce beetle outbreak on the Kenai Peninsula in Alaska. Canadian Jour. of For. Res. Vol. 13 (1):96-101.

1983. **Anon.** Forest insect and disease conditions in Alaska. USDA For. Serv., Alaska Region., State and Private Forestry. 25pp.

1983. **Egiitis, A.** Permanent plots for monitoring population trends of the spruce beetle in the Taku River drainage. USDA For. Serv. Alaska Reg., State and Private Forestry, Bio. Eval. R10-84-1, 16pp.

1984. **Egiitis, A.** Survey of ambrosia beetles in blowdown: Final report; Yakutat, Alaska. USDA For. Serv. Alaska Reg., State and Private Forestry, Bio. Eval. R-1-84-2, 11pp.

1984. **Werner, R.A., Holsten, E.H.,** Scolytidae associated with felled white spruce in Alaska. The Canadian Entomologist 116: 465-471.

1984. **Werner, R.A., Averill, R.D., Hastings, F.L., Hilgert, J.W., and U.E. Brady.** Field evaluation of fenitrothion, permethrin, and chlorpyrifos for protecting white spruce trees from spruce beetle (Coleoptera: Scolytidae) attack in Alaska. Jour. of Econ. Ent. Vol. 77 (4):995-998.

1984. **Holsten, E.H.** Factors of susceptibility in spruce beetle attack on white spruce in Alaska. J. Entomol., Soc. Brit. Columbia Vol. 81:39-45.

1984. **Werner, R.A., and E.H. Holsten.** Effect of phloem temperature on development of spruce beetles in Alaska. Proc. of the IUFRO conference on: The role of the host in the population dynamics of forest insects. L. Safranyik (ed):155-163.

1984. **Werner, R.A. and E.H. Holsten.** Factors influencing generation times of spruce beetles in Alaska. Canadian Jour. of For. Res. Vol. 15: 438-443.

1984. **Holsten, E.H., and R.A. Werner.** Evaluation of Methylcylohexenone (MCH) in preventing or suppressing spruce beetle attacks in Alaska. USDA For. Serv., Alaska Reg., State and Private Forestry, Bio. Eval. R-10-6. 15pp.

1984. **Anon.** Forest insect and disease conditions in Alaska (R-10). USDA For. Serv., Alaska Region Report No. 149. 26pp.

1985. **Hard, J.S.** Spruce beetles attack slowly growing spruce. Forest Sci., Vol. 32, No. 4:839-850.

1985. **Hard, J.S., and E.H. Holsten.** Managing white and Lutz spruce stands in South-central Alaska for increased resistance to spruce beetle. USDA For. Serv. General Technical Report PNW-188. 21pp.

1985. **Holsten, E.H.** Evaluation of monosodium methane arsenate (MSMA) for lethal trap trees in Alaska. USDA For Serv. Alaska Reg., State and Private Forestry, Bio. Eval. R10-7. 20pp.

1985. **Holsten, E.H.** Evaluation of a Controlled Release Formulation of Methylcyclohexenone (MCH) in preventing spruce beetle attacks in Alaska. USDA For. Serv., Alaska Reg., State and Private Forestry, Bio. Eval. R10-9. 9pp.

1985. **Holsten, E.H.** Evaluation of monosodium methane arsenate (MSMA) for lethal trap trees in Alaska. USDA For. Serv., Alaska Reg., State and Private Forestry, Bio. Eval. R10-11. 12pp.

1985. Holsten, E.H., and R.A. Werner. Evaluation of a controlled release formulation of methylcyclohexenone (MCH) in preventing spruce beetle attacks in Alaska. USDA For. Serv., Alaska Reg., State and Private Forestry, Bio. Eval. R10-12. 9pp.

1985. Holsten, E.H., Hennon, P.H., and R.A. Werner. Insects and diseases of Alaskan forests. USDA For. Serv. Alaska Reg., State and Private Forestry, Report No. 181. 217pp.

1985. Eglitis, A. Permanent Plots for monitoring population trends of the spruce beetle in Glacier Bay National Park. USDA For. Serv. Alaska Reg., State and Private Forestry, Technical Report R10-85-1, 18pp.

1985. Anon. Forest insect and disease conditions in Alaska. USDA For. Serv., Alaska Reg., State and Private Forestry, Condition Rep. R-10. 28pp.

1986. Eglitis, A. Spruce beetle in Glacier Bay National Park 1985 update. USDA For. Serv., Alaska Reg., State and Private Forestry, Bio. Eval. R10-86-1, 16pp.

1986. Werner, R.A., Felton, L.H., Holsten, E.H., and A.S. Jones. Carbaryl and lindane protect white spruce from attack by spruce beetles (Coleoptera: Scolytidae) for three growing seasons. Jour. of Econ. Ent. 79: 1121-1124.

1986. Anon. Forest insect and disease conditions in Alaska in 1986. USDA For. Serv., Alaska Region. 22pp.

1986. Werner, R.A., Holsten, E.H., and F.L. Hastings. Evaluation of pine oil for protecting white spruce from spruce beetle (Coleoptera:Scolytidae) attack. Jour. Entomol. Soc. Brit. Columbia 83:3-6.

1986. Ford, L.B. Attack dynamics of the spruce bark beetle, *Dendroctonus rufipennis* (Kirby) in south-central Alaska. Univ. of Washington. PhD Dissertation. 216 pp.

1987. Eglitis, A. Spruce beetle in Glacier Bay National Park: 1986 update. USDA For. Serv. Alaska Reg., State and Private Forestry, Bio. Eval. R-10-87-4. 13pp.

1987. Hard, J.S. Vulnerability of white spruce with slowly expanding lower boles on dry, cold sites to early seasonal attack by spruce beetles in south-central Alaska. Can. Jour. For. Res. Vol. 17:428-435.

1987. Holsten, E.H. Spruce beetle:Chugach National Forest and adjacent lands. USDA For. Serv., Alaska Reg., State and Private Forestry, Bio. Eval. R10-87-2. 17pp.

1987. Holsten E.H. Spruce beetle: Yukon River. USDA For. Serv. State and Private Forestry, Alaska Reg. FPM Bio. Eval. R10-87-5. 11pp.

1987. Holsten, E.H. Evaluation of Daconate 6 for lethal trap trees in Alaska For. Serv., Alaska Reg., State and Private Forestry, Technical Report R10-13. 14pp.

1987. Holsten, E.H., and R.A. Werner. Use of MCH bubble caps in preventing spruce beetle attacks in Alaska. USDA For. Serv., Alaska Reg., State and Private Forestry, Technical Rep. R10-14. 12pp.

1987. Miller, K.L. and R.A. Werner. Cold-hardiness of adult and larval spruce beetles *Dendroctonus rufipennis* (Kirby) in interior Alaska. Can. J. Zool. 65: 2927-2930.

1987. Zogas, K.P. Re-Evaluation of Daconate 6 for lethal trap trees in Alaska.USDA For. Serv., Alaska Reg., State and Private Forestry, Technical Report R10-87-15. 9pp.

1987. Anon. Forest Insect and disease conditions in Alaska. USDA For. Serv., Alaska Reg., State and Private Forestry, Technical Report R10-87-C-1. 22pp.

1987. Zogas, K.P. Spruce beetle - Mallard Bay, Kachemak Bay State Park. USDA For. Serv., Alaska Reg., State and Private Forestry, Bio. Eval. R10-87-6. 9pp.

1988. Eglitis, A. Spruce mortality in Yakutat Forelands-1987. USDA For. Serv. Alaska Reg., State and Private Forestry, Bio. Eval. R10-88-2, 8pp.

1988. Eglitis, A. Spruce beetle in Glacier Bay National Park: 1987 Update. USDA For. Serv. Alaska Reg., State and Private Forestry, Bio. Eval. R10-89-1, 13pp.

1988. Holsten, E.H. North Shore Kenai Lake:1988 conventional trap tree project. USDA For. Serv., Alaska Reg., State and Private Forestry, Bio. Eval. R10-88-2. 10pp.

1988. Werner, R.A., Hard, J., and E.H. Holsten. The development of management strategies to reduce the impact of the spruce beetle in South-Central Alaska. The NW Envir. Jour. 4:319-358

1988. Anon. Forest insect and disease conditions in Alaska. USDA For. Serv., Alaska Reg., State and Private Forestry, Condition Rep. R10-88-C-1. 16pp.

1989. Eglitis, A. Permanent Plots for monitoring spruce mortality in the Yakutat Forelands-May 1989. USDA For. Serv. Alaska Reg., State and Private Forestry, Bio. Eval. 16pp.

1989. USDA For. Serv. Forest health through silviculture and integrated pest management: A strategic plan. USDA For. Serv. 26 pp.

1989. Hard, J.S. Sequence of trees attacked by spruce beetles in a mature even-aged spruce stand in south-central Alaska. Northwest Science, Vol. 63 (1):5-12.

1989. Holsten, E.H. North Shore Kenai Lake: Efficacy of a fuel oil remedial treatment against spruce beetle. USDA For. Serv., Alaska Reg., State and Private Forestry, Technical Rep. R10-89-17. 5pp.

1989. USDA For. Serv. Forest insect and disease conditions in Alaska. USDA For. Serv., Alaska Region, FPM. R10-89-C1. 20pp.

1989. Zogas, K.P. Re-evaluation of Daconate and Silvisar for lethal trap trees in Alaska. USDA For. Serv., Alaska Reg., State and Private Forestry, Technical Report R10-89-17. 9pp.

1989. Holsten, E.H., Thier, R.W., and J.M. Schmid. The Spruce Beetle. F.I.&D.L. #127. USDA For. Serv. 12pp.

1990. Holsten, E.H., Hard, J., and P. Shea. Summit Lake Pilot Study: Standing lethal trap tree. USDA For. Serv., Alaska Region, State and Private Forestry, Tech. Rpt. R10-90-19. 7[illegible] p.

1990. Holsten, E.H. and R.A. Werner. Comparison of white, Sitka, and Lutz spruce as hosts of the spruce beetle in Alaska. Can. J. For. Res. (In press)

1990. Gray, D., Holsten, E.H., and M. Pascuzzo. Effects of semiochemical baiting on the attractiveness of felled and unfelled lethal trap trees for spruce beetle (Coleoptera:Scolytidae) management in areas of high and low beetle populations. Can. Ent. Vol. 122: (In press).

HB

575

HOUSE COMMITTEE REPORT

(9)
Date Referred: February 28, 1990 FURTHER REFERRALS:

FINANCE

Date of Committee Action: 3/12/90

The RESOURCES Committee considered: HB 575

HOUSE BILL NO. 575 PROCUREMENT CODE EXEMPTION/FIRE HAZARDS

"An Act exempting from the procurement code certain expenditures for the handling of fire hazards created by bark beetles; and providing for an effective date."

RECOMMENDATIONS:

[ ] be replaced with _____ [ ] the same title
[ ] a new title

[ ] have attached amendment(s)

[X] do pass

[ ] do not pass

[ ] no recommendation

[ ] individual recommendations

[ ] additional referral to the _____ Committee

ADOPTS: _____ letter of intent

ATTACHES NEW FISCAL NOTE(s): (Dept)

[ ] fiscal impact_____
[ ] zero fiscal note_____
[ ] zero with analysis_____

APPROVES PREVIOUS: (Date/Dept)

[ ] fiscal note(s) _____
[ ] zero fiscal note(s)_____
[ ] zero fn/analysis _____

SIGNING DO PASS:

SIGNING: (Check approp. column)

	Do Not Pass	No Rec	Amend
		✓	
		✓	

Chairman's Signature

STATE OF ALASKA
1990 LEGISLATIVE SESSION

BILL VERSION: HB 575
PUBLISH DATE: _____

FISCAL NOTE

REQUEST:

Revision Date: _____
Title: Procurement Code Exemption/ Fire Hazards
Sponsor: Resources Committee
Requestor: House Resources Committee

Agency Affected: All Agencies
BRU: _____
Components: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 91	FY 92	FY 93	FY 94	FY 95	FY 96
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL	0	0	0	0	0	0
CONTRACTUAL	0	0	0	0	0	0
SUPPLIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
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	0	0	0	0	0	0
FEDERAL FUNDS	0	0	0	0	0	0
OTHER	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

ANALYSIS: (Attach a separate page if necessary)

Prepared by: House Resources Committee
Division: Rep. Curt Menard
Phone: 465-4944
Date: 3/12/90

Approved by Commissioner: _____ Date: _____
Agency: _____

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

H B

577

HOUSE COMMITTEE REPORT

(5)
Date Referred: March 12, 1990 FURTHER REFERRALS:
RESOURCES, FINANCE

Date of Committee Action: 4/24/90

The COMMUNITY & REGIONAL AFFAIRS Committee considered: HB 577

HOUSE BILL NO. 577 OIL & HAZARDOUS SUB. IMPACT ASSISTANCE
"An Act concerning the exercise of authority and recovery of damages by the state and its municipalities and villages in matters relating to environmental conservation; relating to state assistance to municipalities and villages for expenses for prevention and abatement of environmental degradation; establishing an oil and hazardous substance municipal impact fund in the Department of Community and Regional Affairs; ...

[X] be replaced with CSHB 577 (C&RA) (See attached)
[X] the same title
[ ] a new title

[ ] have attached amendment(s)

[X] do pass
[ ] do not pass
[ ] no recommendation
[ ] individual recommendations
[ ] additional referral to the _____ Committee

ADOPTS: _____ letter of intent

ATTACHES NEW FISCAL NOTE(s):
[X] fiscal impact C&RA, DEC
[ ] zero fiscal note
[ ] zero with analysis

APPROVES PREVIOUS:
[ ] fiscal note(s) published:
_____
[ ] zero fiscal notes(s) published:
_____

SIGNING DO PASS:
Eileen P. Mackeen
Eugene G. Kakeina

SIGNING OTHER THAN DO PASS:
(Do Not Pass, No Recommendation, Amend)
Cheri Davis - No Rec.

Eileen P. Mackeen
Chairman's signature

The COMMUNITY & REGIONAL AFFAIRS Committee considered: HB 577

HOUSE BILL NO. 577 OIL & HAZARDOUS SUB. IMPACT ASSISTANCE
"An Act concerning the exercise of authority and recovery of damages by the state and its municipalities and villages in matters relating to environmental conservation; relating to state assistance to municipalities and villages for expenses for prevention and abatement of environmental degradation; establishing an oil and hazardous substance municipal impact fund in the Department of Community and Regional Affairs; and amending provisions applicable to the suspension and reimposition of the oil and gas production tax oil surcharge to provide money to that fund; and providing for an effective date."

STATE OF ALASKA
1990 LEGISLATIVE SESSION

BILL VERSION: HB 577
PUBLISH DATE: _____

FISCAL NOTE

REQUEST: _____

Revision Date: _____
Title: An Act relating to municipal assistance
Sponsor: House Resources Committee
Requestor: _____

Agency Affected: Community & Regional Affairs
BRU: _____
Components: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 91	FY 92	FY 93	FY 94	FY 95	FY 96
PERSONAL SERVICES	144.5	149.4	154.0	159.1	164.0	169.4
TRAVEL	10.0	10.0	10.0	10.0	10.0	10.0
CONTRACTUAL	3.0	3.0	3.0	3.0	3.0	3.0
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	157.5	162.4	167.0	172.1	177.0	182.4
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER	157.5	162.4	167.0	172.1	177.0	182.4
TOTAL	157.5	162.4	167.0	172.1	177.0	182.4

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY	3.0	3.0	3.0	3.0	3.0	3.0

ANALYSIS: (Attach a separate page if necessary)

There is no fiscal impact anticipated in FY 90.

Please see attached.

Prepared by: Jim Plasman, Deputy Director — Phone: 465-4750
Division: Municipal & Regional Assistance — Date: _____

Approved by Commissioner: Ward G. Hoffman — Date: 4-6-90
Agency: Community & Regional Affairs

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

Position Title	No. of Positions	Range/Step	Barg. Unit
Local Government Specialist IV	1	19A	GGU

Time Status	Staff Months	Location	Election District
Permanent	12	Anchorage/Juneau	

Type of Expenditure		Amount
1	2	3
Salary	40.0	
Benefits	13.4	
Premium Pay		
Other		
Total Personal Services		53.4
Travel		10.0
Contractual		3.0
Commodities		
Equipment		
Other		
Total Cost		66.4

Funding Source for Total Cost		
Federal Receipts	1002	
G. F. Match	1003	
General Fund	1004	
I-A Receipts	1006	
CIP Receipts	1061	
Other		66.4

Justification

This position will be needed to provide technical assistance to local government administrators in determining the extent of local impacts, developing and implementing strategies for community recovery, and applying for the grant monies to carry out these strategies. The funding source would be a percent of the total funds available.

Request For New Position

Agency: Community & Regional Affairs

BRU: Local Government Assistance

Component: Training & Development

Revised Date

FY 91

Position Title	No. of Positions	Range/Step	Barg. Unit
Grants Administrator II	1	17A	GGU

Time Status	Staff Months	Location	Election District
Permanent	12	Anchorage/Juneau	

Type of Expenditure		Amount
1	2	3
Salary	34.8	
Benefits	12.2	
Premium Pay		
Other		
Total Personal Services		47.0
Travel		
Contractual		
Commodities		
Equipment		
Other		
Total Cost		47.0

Funding Source for Total Cost		
Federal Receipts	1002	
G. F. Match	1003	
General Fund	1004	
I-A Receipts	1006	
CIP Receipts	1061	
Other		47.0

Justification

During the recent oil spill, DCRA administered an oil spill grant program of $1,160,000. Based on experience with this program, one position to prepare grant/contractual documents will be needed during program activity. This position would be responsible for developing the agreement, reviewing payment requests, monitoring the project until completion, then finally closing out the grant. This position is budgeted here at salary for 12 months funded from the amount designated in the bill.

Request For New Position

Agency: Community & Regional Affairs

BRU: Administration & Support

Component: Administrative Services

Revised Date

FY 91

Position Title	No. of Positions	Range/Step	Barg. Unit
Accountant II	1	16A	GGU

Time Status	Staff Months	Location	Election District
Permanent	12	Juneau	

Type of Expenditure		Amount
1	2	3
Salary	32.4	
Benefits	11.7	
Premium Pay		
Other		
Total Personal Services		44.1
Travel		
Contractual		
Commodities		
Equipment		
Other		
Total Cost		44.1

Funding Source for Total Cost		
Federal Receipts	1002	
G. F. Match	1003	
General Fund	1004	
I-A Receipts	1006	
CIP Receipts	1061	
Other		44.1

Justification

An Accountant II will be needed to respond to the increased activity that would be generated by a program of this size. Staff in the fiscal section of DCRA are presently working to capacity due to addition of new and expanded programs in recent years.

This position would have fiscal oversight of all billings, entries on the state accounting systems and report preparation for management.

Funding source would be part of a percent of total funds available.

Request For New Position

Agency: Community & Regional Affairs

BRU: Administration & Support

Component: Administrative Services

Revised Date

FY 91

STATE OF ALASKA
1990 LEGISLATIVE SESSION

BILL VERSION: CSHB 577 (C&RA)
PUBLISH DATE: 4/24/90

FISCAL NOTE

REQUEST:
Revision Date:
Agency Affected: Environ. Conservation
Title: An act concerning municipal assistance/oil spill fund
BRU: Environmental Quality
Sponsor: Resources Committee
Components: Environmental Quality
Requestor: House C&RA

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 91	FY 92	FY 93	FY 94	FY 95	FY 96
PERSONAL SERVICES	115.1	144.0	144.0	144.0	144.0	144.0
TRAVEL	7.5	10.0	10.0	10.0	10.0	10.0
CONTRACTUAL	20.0	24.0	24.0	24.0	24.0	24.0
SUPPLIES	2.5	3.0	3.0	3.0	3.0	3.0
EQUIPMENT	12.5	15.0	15.0	15.0	15.0	15.0
LAND&STRUCTURES	0.0	0.0	0.0	0.0	0.0	9.0
GRANTS,CLAIMS	0.0	0.0	0.0	0.0	0.0	0.0
MISCELLANEOUS	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL OPERATING	157.6	196.0	196.0	196.0	196.0	205.0
CAPITAL	0.0	0.0	0.0	0.0	0.0	0.0
REVENUE	0.0	0.0	0.0	0.0	0.0	0.0

FUNDING: (Thousands of Dollars)

GENERAL FUND	157.6	196.0	196.0	196.0	196.0	196.0
FEDERAL FUNDS	0.0	0.0	0.0	0.0	0.0	0.0
OTHER	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	157.6	196.0	196.0	196.0	196.0	196.0

POSITIONS:

FULL-TIME	2.0	3.0	3.0	3.0	3.0	3.0
PART-TIME	1.0	0.0	0.0	0.0	0.0	0.0
TEMPORARY	0.0	0.0	0.0	0.0	0.0	0.0

ANALYSIS: (Attach a separate page if necessary)

See attached

Prepared by: Lynn Kent
Phone: 465-2630
Division: Environmental Quality
Date: 4/24/90

Approved by Commissioner: A D Kyle
Date: 4/24/90
Agency: Environmental Conservation

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

Original sponsor(s): Resources Committee

IN THE HOUSE BY THE C&RA COMMITTEE

CS FOR HOUSE BILL NO. 577 (C&RA)

IN THE LEGISLATURE OF THE STATE OF ALASKA

SIXTEENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act concerning the exercise of authority and recovery of damages by the state and its municipalities and villages in matters relating to environmental conservation; relating to state assistance to municipalities and villages for expenses for prevention and abatement of environmental degradation; establishing an oil and hazardous substance municipal impact fund in the Department of Community and Regional Affairs; and amending provisions applicable to the suspension and reimposition of the oil and gas production tax oil surcharge to provide money to that fund; and providing for an effective date."

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

* Section 1. AS 29.35.020(b) is amended to read:

(b) A municipality may adopt an ordinance to <u>exercise a power authorized by this subsection</u> [PROTECT ITS WATER SUPPLY AND WATERSHED,] and may enforce the ordinance outside its boundaries. Before <u>a</u> [THIS] power <u>authorized by this subsection</u> may be exercised inside the boundaries of another municipality, the approval of the other municipality must be given by ordinance. <u>A municipality intending to exercise its authority under this subsection shall act by ordinance, and may adopt an ordinance under this subsection to</u>

<u>(1) protect its water supply and watershed; or</u>

<u>(2) contain, clean up, or prevent the release or threatened</u>

release of oil or a hazardous substance that may pose an imminent or substantial threat to persons, property, or natural resources within the municipality's boundaries; however, this paragraph does not authorize a municipality to enforce an ordinance outside its boundaries to regulate exploration, development, or production of oil, gas, or minerals in a manner inconsistent with the state's management of those resources when the state is the owner of the land, tideland, or submerged land; the ordinance adopted must be consistent with a regional master plan for the region in which the municipality is located if a plan has been prepared by the Department of Environmental Conservation under AS 46.04.210; in this paragraph, "natural resources" has the meaning given in AS 46.03.825.

* Sec. 2. AS 29.35.200 is amended by adding a new subsection to read:

(d) A first class borough that exercises power necessary to contain, clean up, or prevent a release or threatened release of oil or a hazardous substance, and exercise a power granted to a municipality under AS 46.04, AS 46.08, or AS 46.09 shall exercise its authority in a manner that is consistent with a regional master plan for the region in which the borough is located if a plan has been prepared by the Department of Environmental Conservation under AS 46.04.210.

* Sec. 3. AS 29.35.210(a) is amended by adding a new paragraph to read:

(13) contain, clean up, or prevent a release or threatened release of oil or a hazardous substance, and exercise a power granted to a municipality under AS 46.04, AS 46.08, or AS 46.09; the borough shall exercise its authority under this paragraph in a manner that is consistent with a regional master plan for the region in which the borough is located if a plan has been prepared by the Department of Environmental Conservation under AS 46.04.210.

* Sec. 4. AS 29.35.220 is amended by adding a new subsection to read:

(e) A third class borough may by ordinance exercise power necessary to contain, clean up, or prevent a release or threatened release of oil or a hazardous substance, and exercise a power granted to a municipality under AS 46.04, AS 46.08, or AS 46.09, but the power authorized by this subsection may be exercised only on a nonareawide basis. The borough shall exercise its authority under this subsection in a manner that is consistent with a regional master plan for the region in which the borough is located if a plan has been prepared by the Department of Environmental Conservation under AS 46.04.210.

* Sec. 5. AS 29.60 is amended by adding new sections to read:

ARTICLE 6. OIL AND HAZARDOUS SUBSTANCE MUNICIPAL IMPACT ASSISTANCE.

Sec. 29.60.500. PURPOSE AND POLICY. (a) The legislature finds and declares that the release of oil or hazardous substances into the environment presents a real and substantial threat to the economy and public welfare of the municipalities and villages that are affected by the release.

(b) The legislature concludes that it is in the best interest of the state and its citizens to provide a readily available fund for the payment of the expenses incurred by municipalities and villages to mitigate the additional costs of reasonable and appropriate functions and services that arise out of the release of oil or hazardous substances.

(c) It is the intent of the legislature and declared to be the public policy of the state that money to defray the additional costs of reasonable and appropriate functions and services by municipalities and villages arising from a release of oil or a hazardous substance and to pay for efforts to abate that release will always be available.

Sec. 29.60.510. FUND ESTABLISHED. (a) There is established in

the state general fund the oil and hazardous substance municipal impact fund. The fund shall be administered by the commissioner.

(b) Money from an appropriation made to the fund remaining in the fund at the end of a fiscal year remains available for expenditure by the department in successive fiscal years.

(c) The fund shall be used to make grants under AS 29.60.530 for actual expenses incurred by municipalities and villages.

Sec. 29.60.520. FINANCING OF THE FUND. The legislature may appropriate from the account established in AS 43.55.210 to the fund.

Sec. 29.60.530. ADMINISTRATION OF THE FUND. (a) The commissioner may use money from the fund to make grants to a municipality or village affected by a release of oil or a hazardous substance and demonstrating extraordinary expenditures that are beyond the reasonable capability of the municipality or village to meet from the municipality's or village's current revenue sources.

(b) A grant made under this section may be made

(1) only for

(A) provision of subsistence resources on which the residents of the municipality or village rely for subsistence needs;

(B) the additional costs of a reasonable and appropriate function or service, including administrative expenses for the incremental costs of providing the function or service, limited to

(i) public health and welfare functions and services, including hospital, clinic, and emergency medical services; alcohol, drug abuse, and mental health services; family support services; and the operation of waste disposal systems and water quality improvement systems;

(ii) public safety functions and services, including police protection, search and rescue, and fire protection;

(iii) public utility functions and services, including the operation of electric generating plants and distribution systems, water supply systems, telephone systems, and fuel distribution systems;

(iv) housing functions and services, limited to leasing or making other arrangements for temporary housing to be occupied by persons associated with containment or clean up of the release;

(C) costs associated with leasing transportation facilities for use in activities associated with the containment or clean up;

(D) costs of repair or replacement of equipment or a capital asset associated with a function or service set out in (B) of this paragraph the useful life of which has been substantially reduced by use associated with the containment or clean up; and

(2) to compensate the municipality or village for

(A) the reduction of revenue attributable to the discharge of the oil or hazardous substance; and

(B) the costs of projects or activities that are delayed or lost because of the efforts of the municipality or village associated with the containment or clean up.

(c) In determining whether an expenditure by a municipality or village is eligible for a grant from the fund, the department shall consider

(1) the availability of money to the recipient from other

sources that can be used to support the request;

(2) the degree to which the proposed expenditure in the grant application alleviates or addresses an effect reasonably attributable to the oil or hazardous substance discharge;

(3) the ability of the municipality or village to accommodate or absorb the effect through existing programs; and

(4) other criteria the department considers appropriate.

(d) The department may reject an application for a grant under this section or approve an application for a grant in an amount that is less than the amount requested by a municipality or village if the department determines that payment of the amount requested is not warranted under this section.

(e) If the total amount of money requested by eligible municipalities and villages for projects exceeds the amount available in the fund, the department shall rank all or a portion of the applications for the purpose of establishing the priority order of awarding grants. In ranking an application under this subsection, the department shall consider

(1) the severity of the effect addressed in the application;

(2) the degree to which the effect on the municipality or village is directly caused by the oil or hazardous substance discharge; and

(3) whether the proposed project is part of a coordinated program with other affected municipalities and villages.

(f) The provisions of (e) of this section do not prevent the department from making a grant payment in an amount that is less than an amount requested by a municipality or village if the department determines that payment of the amount requested is not warranted under this

section.

(g) A grant made under (a) of this section may not be used directly or indirectly to reduce current municipal tax rates or to retire existing bonded indebtedness of a municipality.

Sec. 29.60.540. RECORDS OF THE FUND. (a) The department shall maintain accounting records showing the income and expenses of the fund.

(b) The department shall develop procadures governing the expenditure of, and accounting for, money expended from the fund.

Sec. 29.60.550. REPORT TO THE LEGISLATURE. The commissioner shall submit a report to the legislature not later than the 10th day following the convening of each regular session of the legislature. The report may include information considered significant by the commissioner but must include:

(1) the amount of money expended under AS 29.60.530 during the preceding fiscal year; and

(2) a detailed summary of department activities in administering the fund during the preceding fiscal year.

Sec. 29.60.560. REGULATIONS. The commissioner may adopt regulations that are necessary to implement the purposes of AS 29.60.500 - 29.60.590.

Sec. 29.60.570. IMPACT ASSESSMENT. (a) If, in response to a release of oil or a hazardous substance, municipalities or villages apply for grants under AS 29.60.530, the commissioner shall, after consulting with and securing the written approval of the attorney general, make an assessment of the social and economic effects of the release of the oil or hazardous substance on the municipalities, the villages, and the region in which the discharge occurs. The commissioner may make the assessment by

(1) using staff of the department;

(2) contracting with a municipality or other entity for the assessment; or

(3) authorizing a municipality or other entity to make the assessment and supporting that effort by a grant.

(b) Only one assessment may be completed under this section for each release of oil or a hazardous substance.

(c) The commissioner may pay the costs of the assessment from money available in the fund.

Sec. 29.60.590. DEFINITIONS. In AS 29.60.500 - 29.60.590

(1) "containment and clean up" has the meaning given in AS 46.08.900;

(2) "fund" means the oil and hazardous substance municipal impact fund;

(3) "hazardous substance," "oil," and "release" have the meanings given in AS 46.08.900;

(4) "village"

(A) means a place in which 25 or more persons reside as a social unit that is not incorporated as a municipality under state law;

(B) does not include a place within a borough if the power, function, or service for which the grant application is submitted is exercised or provided by the borough on an areawide or nonareawide basis at the time the grant application is submitted.

* Sec. 6. AS 43.55.220 is amended to read:

Sec. 43.55.220. USE OF REVENUE DERIVED FROM SURCHARGE. The legislature may appropriate the annual estimated balance of the account established under AS 43.55.210 to

(1) the oil and hazardous substance release response fund established by AS 46.08.010; and

(2) the oil and hazardous substance municipal impact fund established by AS 29.60.510.

* Sec. 7. AS 43.55.230(a) is amended to read:

(a) Not later than 30 days after the end of each calendar quarter, the commissioner of administration shall determine the cumulative total of money

(1) that has been deposited through that calendar quarter into the general fund under AS 43.55.210;

(2) expended through that calendar quarter from

(A) the oil and hazardous substance release response fund established in AS 46.08.010; and

(B) the oil and hazardous substance municipal impact fund established in AS 29.60.510.

* Sec. 8. AS 43.55.230(c) is amended to read:

(c) If the commissioner of administration reports that the difference determined under (b) of this section equals or exceeds $60,000,000 [$50,000,000], the commissioner of revenue shall suspend imposition and collection of the surcharge levied and collected under AS 43.55.200. Suspension of the imposition and collection of the surcharge begins on the first day of the calendar quarter next following the commissioner's receipt of the commissioner of administration's report under (b) of this section. Before the first day of a suspension authorized by this subsection, the commissioner shall make a reasonable effort to notify all persons who are known to the department to be paying the surcharge under AS 43.55.200 that the surcharge will be suspended.

* Sec. 9. AS 43.55.230(d) is amended to read:

(d) Except as provided in AS 43.55.240, if the commissioner of administration reports that the difference determined under (b) of this section is less than $60,000,000 [$50,000,000], the commissioner of revenue shall require imposition and collection of the surcharge authorized under AS 43.55.200. Reimposition of the surcharge begins on the first day of the calendar quarter next following the commissioner's receipt of the commissioner of administration's report under (b) of this section. Before the first day of reimposition of the surcharge authorized by this subsection, the commissioner shall make a reasonable effort to notify all persons who are known to the department to be required to pay the surcharge under AS 43.55.200 that the surcharge will be reimposed.

* Sec. 10. AS 43.55.240 is amended to read:

Sec. 43.55.240. SURCHARGE NOT IMPOSED. The surcharge authorized by AS 43.55.200 is not levied during any fiscal year for which the estimated revenue from the surcharge would be sufficient to restore the combined balances [BALANCE] of the oil and hazardous substance release response fund and the oil and hazardous substance municipal impact fund on the first day of the fiscal year to at least $60,000,000 [$50,000,000], and

(1) the legislature does not, during the regular legislative session preceding the first day of the fiscal year, appropriate money from the general fund

(A) to the oil and hazardous substance release response fund sufficient to restore the balance of that fund on the first day of the fiscal year to at least $50,000,000; and

(B) to the oil and hazardous substance municipal impact fund sufficient to restore the balance of that fund on the first day of the fiscal year to at least $10,000,000; or

(2) the legislature, during the regular legislative session preceding the first day of the fiscal year, appropriates money from the general fund

(A) to the oil and hazardous substance release response fund sufficient to restore the balance of that fund on the first day of the fiscal year to at least $50,000,000 and, because of gubernatorial veto or reduction in the amount of the appropriation, restoration of the balance of the fund to at least $50,000,000 does not become law; or

(B) to the oil and hazardous substance municipal impact fund sufficient to restore the balance of that fund on the first day of the fiscal year to at least $10,000,000 and, because of gubernatorial veto or reduction in the amount of the appropriation, restoration of the balance of the fund to at least $10,000,000 does not become law.

* Sec. 11. Section 3, ch. 112, SLA 1989 is amended to read:

Sec. 3. APPLICATION OF AS 43.55.240. (a) AS 43.55.240, added by sec. 2 of this Act, does not apply to prevent the levy and collection of the surcharge imposed by AS 43.55.200 until the first day of the fiscal year next following the day on which the combined balances [BALANCE] of the oil and hazardous substance release response fund and the oil and hazardous substance municipal impact fund first exceed $60,000,000 [EXCEEDS $50,000,000].

(b) The commissioner of administration shall certify to the commissioner of environmental conservation, the commissioner of revenue, the commissioner of community and regional affairs, and the division of legislative finance the date on which the combined balances [BALANCE] of the oil and hazardous substance release response fund and the oil and hazardous substance municipal impact fund first

exceed $60,000,000 [EXCEEDS $50,000,000].

* Sec. 12. AS 46.03.822(a) is amended to read:

(a) Notwithstanding any other provision or rule of law and subject only to the defenses set out in (b) of this section and the exception set out in (i) of this section, the following persons are strictly liable, jointly and severally, for damages to persons or property, whether public or private, including damage to the natural resources of the state or a municipality, or to the natural resources that are owned by a village, [AND] for the costs of response, containment, removal, or remedial action incurred by the state, [OR] a municipality, or a village, and for the additional costs of a function or service, including administrative expenses for the incremental costs of providing the function or service, that are incurred by the state, a municipality, or a village, resulting from an unpermitted release of a hazardous substance or, with respect to response costs, the substantial threat of an unpermitted release of a hazardous substance:

(1) the owner of, and the person having control over, the hazardous substance at the time of the release or threatened release; this paragraph does not apply to a consumer product in consumer use;

(2) the owner and the operator of a vessel or facility, from which there is a release, or a threatened release that causes the incurrence of response costs, of a hazardous substance;

(3) any person who at the time of disposal of any hazardous substance owned or operated any facility or vessel at which the hazardous substances were disposed of, from which there is a release, or a threatened release that causes the incurrence of response costs, of a hazardous substance;

(4) any person who by contract, agreement, or otherwise

arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by the person, other than domestic sewage, or by any other party or entity, at any facility or vessel owned or operated by another party or entity and containing hazardous substances, from which there is a release, or a threatened release that causes the incurrence of response costs, of a hazardous substance;

(5) any person who accepts or accepted any hazardous substances, other than refined oil, for transport to disposal or treatment facilities, vessels or sites selected by the person, from which there is a release, or a threatened release that causes the incurrence of response costs, of a hazardous substance.

* Sec. 13. AS 46.03.900 is amended by adding new paragraphs to read:

(35) "service" means a function performed or service provided by the state or by a municipality under a duty or power authorized by AS 29 or other provision of law authorizing a municipality to perform functions or provide services, or a comparable function performed or service provided by a village; "service" includes functions not previously performed and services not previously provided by the state, by the municipality, or by the village;

(36) "village" means a place in which 25 or more persons reside as a social unit that is not incorporated as a municipality under state law.

* Sec. 14. AS 46.04.020(e) is amended to read:

(e) The department shall enter into negotiations for memoranda of understanding or cooperative agreements with the United States Coast Guard, the United States Environmental Protection Agency, <u>municipalities, villages,</u> and other persons in order to

(1) facilitate coordinated and effective oil discharge

response in the state;

(2) provide for cooperative review of oil discharge contingency plans submitted to the department under AS 46.04.030;

(3) provide for cooperative inspections of oil terminal facilities by the department and the United States Coast Guard or United States Environmental Protection Agency; and

(4) provide for cooperative oil discharge notification procedures.

* Sec. 15. AS 46.04.030 is amended by adding a new subsection to read:

(h) Before approving an oil discharge contingency plan under this section, the commissioner shall

(1) consult with municipal officials and with representatives of affected regions and community organizations; and

(2) disseminate the draft plan to the public for review and comment.

* Sec. 16. AS 46.04.900(5) is amended to read:

(5) "containment and cleanup" includes all direct and indirect efforts associated with the prevention, abatement, containment, or removal of discharged oil or a pollutant, and the restoration of the environment to its former state; when applied to expenses, the term includes the additional costs of providing a reasonable and appropriate function or service incurred in response to the discharge of a pollutant, including [, AND ALL INCIDENTAL] administrative expenses for the incremental costs of providing the function or service;

* Sec. 17. AS 46.04.900 is amended by adding new paragraphs to read:

(18) "service" means a function performed or service provided by the state, a municipality, or a village, including functions not previously performed and services not previously provided by the state, the municipality, or the village;

(19) "village" means a place in which 25 or more persons reside as a social unit that is not incorporated as a municipality under state law.

* Sec. 18. AS 46.08.040 is amended to read:

Sec. 46.08.040. PURPOSES OF THE FUND. The commissioner may use money from the fund to

(1) investigate and evaluate the release or threatened release of oil or a hazardous substance, and contain, clean up, and take other necessary action, such as monitoring and assessing, to address a release or threatened release of oil or a hazardous substance that poses an imminent and substantial threat to the public health or welfare, or to the environment; an assessment made under this paragraph may include an assessment of the social and economic effects of the release or threatened release;

(2) pay all costs incurred to establish and maintain the oil and hazardous substance response office and for the expenses of the oil and hazardous substance response corps and the oil and hazardous substance response depots established by that office;

(3) provide matching funds for participation in federal oil discharge cleanup activities and under 42 U.S.C. 9601 - 9657 (Comprehensive Environmental Response, Compensation, and Liability Act of 1980); [AND]

(4) recover the costs to the state, [OR TO] a municipality, or a village of a containment and cleanup resulting from the release or the threatened release of oil or a hazardous substance; [.]

(5) prepare, review, and revise

(A) the state's master oil and hazardous substance discharge and prevention contingency plan required by AS 46.04.-200; and

(B) a regional master oil and hazardous substance discharge and prevention contingency plan required by AS 46.04.-210; [AND]

(6) restore the environment by addressing the effects of an oil or hazardous substance release; and

(7) make grants under AS 46.08.072.

* Sec. 19. AS 46.08.070(c) is amended to read:

(c) The department shall [MAY] reimburse a municipality or village for actual expenses [, OTHER THAN NORMAL OPERATING EXPENSES,] incurred in the abatement of a release or threatened release of oil or a hazardous substance if

(1) the municipality or village has entered into an agreement with the commissioner under AS 46.04.020(e) or AS 46.09.020(e); and

(2) the commissioner determines that the expenses were an appropriate [FOR A NECESSARY EMERGENCY FIRST] response to a release or threatened release that, at the time of the release or threatened release, posed an imminent and substantial threat to the public health or welfare, or to the environment.

* Sec. 20. AS 46.08 is amended by adding a new section to read:

Sec. 46.08.072. GRANTS. (a) The department may make grants to a municipality or a village to enable the municipality or village to carry out an emergency first response to a release or threatened release of oil or a hazardous substance that poses an imminent and substantial threat to the public health or welfare or to the environment. A grant may be used by the grant recipient to pay costs incurred by the recipient for the direct efforts associated with the containment and clean up of oil or a hazardous substance and related incidental administrative costs.

(b) When an applicant submits an application for a grant under this section, the department shall review and accept or reject the grant application as promptly as possible to permit the municipality or village to execute a proper response.

(c) After consultation with the Department of Community and Regional Affairs, the department shall adopt regulations to carry out this section. The regulations must establish

(1) eligibility requirements of applicants;

(2) procedures for review of applications submitted under (a) of this section so that the department may make the decisions under (b) of this section;

(3) standards for the evaluation of applications; and

(4) other conditions for the receipt of a grant.

(d) Regulations adopted under (c) of this section must include as a factor the applicant's ability to provide an emergency first response if the grant application is not approved.

(e) In reviewing and making a determination about the application submitted under this section, the department may not consider whether the amount to be expended as a grant is an expense recoverable under AS 46.08.070.

* Sec. 21. AS 46.08.900(3) is amended to read:

(3) "containment and cleanup" includes the direct and indirect efforts associated with the prevention, abatement, containment, or removal of oil or a hazardous substance, and the restoration of the environment; when applied to expenses, the term includes the additional costs of providing a reasonable and appropriate function or service incurred in response to the discharge of the oil or hazardous substance, including [, AND INCIDENTAL] administrative expenses for the incremental costs of providing the function or service;

* Sec. 22. AS 46.08.900 is amended by adding new paragraphs to read:

(11) "service" means a function performed or service provided by the state, a municipality, or a village, including functions not previously performed and services not previously provided by the state, the municipality, or the village;

(12) "village"

(A) means a place in which 25 or more persons reside as a social unit that is not incorporated as a municipality under state law;

(B) does not include a place within a borough if the relevant power, function, or service is exercised or provided by the borough on an areawide or nonareawide basis at the time the grant application or request for reimbursement is submitted.

* Sec. 23. AS 46.09.060(b) is amended to read:

(b) Authority to contain, clean up, or prevent a release or threatened release of oil or of a hazardous substance, and to exercise other powers necessary to implement this chapter, AS 46.04, and AS 46.08, are granted to municipalities that do not otherwise have that authority. Except as provided in (a) of this section, a municipality may exercise its police power within the area of the municipality.

* Sec. 24. AS 46.09.900(2) is amended to read:

(2) "containment and cleanup" includes the direct and indirect efforts associated with the prevention, abatement, containment or removal of a hazardous substance, and the restoration of the environment; when applied to expenses, the term includes the additional costs of providing a reasonable and appropriate function or service incurred in response to the discharge of the hazardous substance, including [, AND INCIDENTAL] administrative expenses for the

incremental costs of providing the function or service;

* Sec. 25. AS 46.09.900 is amended by adding a new paragraph to read:

(8) "service" means a function performed or service provided by the state, including functions not previously performed and services not previously provided by the state.

* Sec. 26. Sections 12 and 13 of this Act are retroactive to March 24, 1989.

* Sec. 27. This Act takes effect immediately under AS 01.10.070(c).

A M E N D M E N T

OFFERED IN THE HOUSE

TO: HB 577

Page 2, line 3, after "boundaries;":

Insert "however, this paragraph does not authorize a municipality to enforce an ordinance outside its boundaries to regulate exploration, development, or production of oil, gas, or minerals in a manner inconsistent with the state's management of those resources when the state is the owner of the land, tideland, or submerged land; the ordinance adopted must be consistent with a regional master plan for the region in which the municipality is located if a plan has been prepared by the Department of Environmental Conservation under AS 46.04.210;"

Page 2, following line 4:

Insert a new bill section to read:

"* Sec. 2. AS 29.35.200 is amended by adding a new subsection to read:

(d) A first class borough that exercises power necessary to contain, clean up, or prevent a release or threatened release of oil or a hazardous substance, and exercise a power granted to a municipality under AS 46.04, AS 46.08, or AS 46.09 shall exercise its authority in a manner that is consistent with a regional master plan for the region in which the borough is located if a plan has been prepared by the Department of Environmental Conservation under AS 46.04.210."

Renumber the following bill sections accordingly.

Page 2, line 8, after "AS 46.09":

Insert "; the borough shall exercise its authority under this paragraph in a manner that is consistent with a regional master plan for the region in which the borough is located if a plan has been prepared by the Department of Environmental Conservation under AS 46.04.210."

Page 2, line 15, after "basis.":

Insert "The borough shall exercise its authority under this subsection in a manner that is consistent with a regional master plan for the region in which the borough is located if a plan has been prepared by the Department of Environmental Conservation under AS 46.04.210."

2 6-2318Ab
Chenoweth

AMENDMENT

OFFERED IN THE HOUSE

TO: HB 577

Page 2, line 27:

Delete "the social and economic effects arising from"

Insert "the additional costs of reasonable and appropriate functions and services that arise out of"

Page 3, lines 1 - 2:

Delete "cost of social and economic effects on"

Insert "additional costs of reasonable and appropriate functions and services by"

Page 3, line 26:

Delete "necessary"

Insert "reasonable"

Page 13, line 28:

Delete "incremental"

Insert "additional"

Delete "public services"

Insert "a reasonable and appropriate function or service"

Page 13, line 29:

Delete "an actual discharge of oil or"

Insert "the discharge of"

Page 13, line 29, through page 14, line 3:

Delete "and the costs of providing additional services incurred in response to the actual discharge of the oil or pollutant [, AND ALL INCIDENTAL ADMINISTRATIVE COSTS]"

Insert ", including [AND ALL INCIDENTAL] administrative expenses for the incremental costs of providing the function or service"

Page 17, line 18:

Delete "incremental"

Insert "additional"

Page 17, lines 18 - 19:

Delete "services and the costs of providing additional services"

Insert "a reasonable and appropriate function or service"

Page 17, line 20:

Delete "[, AND INCIDENTAL ADMINISTRATIVE COSTS]"

Insert ", including [AND INCIDENTAL] administrative expenses for the incremental costs of providing the function or service"

Page 19, lines 1 - 2:

Delete "incremental"

Insert "additional"

Page 19, lines 2 - 3:

Delete "services and the costs of providing additional services"

Insert "a reasonable and appropriate function or service"

Page 19, line 4:

Delete "[, AND INCIDENTAL ADMINISTRATIVE COSTS]"

Insert ", including [AND INCIDENTAL] administrative expenses for the incremental costs of providing the function or service"

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6-2318Ac
Chenoweth

A M E N D M E N T

OFFERED IN THE HOUSE

TO: HB 577

Page 11, line 7:

Delete "the state, [OR] a municipality, or a village"

Insert "the state or a municipality, or to the natural resources that are owned by a village"

Page 11, line 8:

Delete "incremental"

Insert "additional"

Page 11, lines 8 - 9:

Delete "providing services and the costs of providing additional services"

Insert "a function or service, including administrative expenses for the incremental costs of providing the function or service,"

Page 19, line 9:

Delete "This Act is"

Insert "Sections 11 and 12 of this Act are"

4 6-2318Ad
Chenoweth

A M E N D M E N T

OFFERED IN THE HOUSE

TO: HB 577

Page 6, following line 26:

Insert a new section to read:

"Sec. 29.60.570. IMPACT ASSESSMENT. (a) If, in response to a release of oil or a hazardous substance, municipalities or villages apply for grants under AS 29.60.530, the commissioner shall, after consulting with and securing the written approval of the attorney general, make an assessment of the social and economic effects of the release of the oil or hazardous substance on the municipalities, the villages, and the region in which the discharge occurs. The commissioner may make the assessment by

(1) using staff of the department;

(2) contracting with a municipality or other entity for the assessment; or

(3) authorizing a municipality or other entity to make the assessment and supporting that effort by a grant.

(b) Only one assessment may be completed under this section for each declaration of a disaster emergency.

(c) The commissioner may pay the costs of the assessment from money available in the fund."

6-2318Af
Chenoweth

5

A M E N D M E N T

OFFERED IN THE HOUSE

TO: HB 577

Page 7, lines 5 - 22:

Delete all material and insert:

"(4) "village"

(A) means a place in which 25 or more persons reside as a social unit that is not incorporated as a municipality under state law;

(B) does not include a place within a borough if the power, function, or service for which the grant application is submitted is exercised or provided by the borough on an areawide or nonareawide basis at the time the grant application is submitted."

Page 12, line 16, through page 13, line 1:

Delete all material and insert:

"(36) "village" means a place in which 25 or more persons reside as a social unit that is not incorporated as a municipality under state law."

Page 14, lines 9 - 24:

Delete all material and insert:

"(19) "village" means a place in which 25 or more persons

reside as a social unit that is not incorporated as a municipality under state law."

Page 17, line 26, through page 18, line 17:

Delete all material and insert:

"(12) "village"

(A) means a place in which 25 or more persons reside as a social unit that is not incorporated as a municipality under state law;

(B) does not include a place within a borough if the relevant power, function, or service is exercised or provided by the borough on an areawide or nonareawide basis at the time the grant application or request for reimbursement is submitted."

Oil Reform Alliance

HB577
House Committee on Community and Regional Affairs

4/6/90

The Oil Reform Alliance (ORA) is a grassroots coalition among commercial fishermen, environmentalists, and others within and outside of Alaska who are dedicated to reforming oil industry practises that adversely affect communities on social, economic and environmental levels.

We are in favor of the creation of a separate fund from which the Department of Community and Regional Affairs can make grants to municipalities and village councils to deal with long-term social impacts from catastrophic oil and hazardous substances spills. In order to do this, the cap on the 470 fund must be raised to $60 million, providing for a $10 million Oil and Hazardous Substances Municipal Impact Assistance Fund.

The Oil Reform Alliance strongly supports HB577.

700 H Street, #4 Anchorage, Alaska 99501 • (907) 274-3621

STATE OF ALASKA

DEPARTMENT OF LAW

OFFICE OF THE ATTORNEY GENERAL

STEVE COWPER, GOVERNOR

REPLY TO:

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April 20, 1990

Hon. Eileen MacLean, Chair
House Community & Regional Affairs Committee
Alaska State Legislature
P.O. Box V
Juneau, AK 99811

Re: HB 577 -- Municipal Assistance/Oil Spill Fund

Dear Representative MacLean:

The Department of Law has two concerns with respect to HB 577, currently in the House Community & Regional Affairs Committee.

First, we are concerned with the way the term "villages" is defined and used in the bill. With respect to villages, the bill is basically divided into two parts. The first part would create a grant program for villages to pay for certain expenses incurred as the result of a release of oil or hazardous substance. (Sections 1-4.) Funding would be provided from the $.05 per barrel conservation surcharge on oil (AS 43.55.210), through a new fund called the oil and hazardous substance municipal impact fund. (Section 4.) In addition, the commissioner of DEC would be authorized to use money from the oil and hazardous release response fund to pay for other impacts to a village because of a release of oil or hazardous substance. (Sections 17-19.) Our concerns about the treatment of villages do not involve these sections.

However, in another part of the bill, villages are included, along with the state and municipalities, as entities that would be entitled to recover for natural resource damage, damages to persons and property, whether private or public, and certain other costs typically recoverable only by governments; villages would also be entitled to the same defenses from liability as the state or a municipality. (Sections 11-13.) To the extent that these sections are designed to enhance the ability of communities on a local level, however organized, to deal on several levels with

the complex impacts of a release of oil or hazardous substance, we see no problems. We are concerned, though, that these sections could be interpreted as state recognition that certain "villages" have governmental powers, authority over public land, and authority to exercise what normally are governmental functions. Furthermore, the reference to "natural resource damage" may lead to conflicts over who has a "trust" responsibility for state-owned land and resources that are used by village members. For example, who would be the trustee and have a right to recover for damages to tidelands, which are state-owned, if used by villagers for subsistence?

We suggest that the committee clarify, through either a letter of intent or a modification of proposed AS 46.03.822(a) in Section 11 of the bill, that the purpose behind these sections is not to recognize governmental powers or authority over public lands for villages, either directly or indirectly, on the basis of their status as an Indian Reorganization Act council or traditional Indian council. We would also suggest that proposed AS 46.03.-822(a) be further amended to clarify that a village can recover only for damages sustained to resources owned by the village. The committee may also wish to consider redefining village for purposes of the bill; one possibility would be to define village as "an unincorporated community with a residential populatioln of 25 or more which is a social unit." See, e.g., 19 AAC 60.900(2).

Our other concern relates to Section 25, which makes this bill retroactive to March 24, 1989. The validity of retroactive legislation is currently under challenge in a suit by the oil producers against the state regarding the retroactive provisions of the ELF amendments. If payments are made under this legislation from the oil and hazardous release response fund to municipalities for past expenses relating to the Exxon Valdez spill, thereby requiring the oil producers to pay an additional surcharge under AS 43.55 230 to replenish the fund, we believe the producers will likely challenge the validity of this retroactive provision. This retroactivity clause may be especially vulnerable, since it extends back considerably beyond the current calendar year, which has traditionally been the acceptable length of time for retroactive tax legislation. We are merely pointing this out for your consideration, although the Department of Law is prepared to defend this or any other retroactivity provision.

We hope this letter is helpful to you in your deliberations.

Sincerely yours,

DOUGLAS B. BAILY
ATTORNEY GENERAL

By:
Jeffrey W. Bush and
Gary I. Amendola
Assistant Attorneys General

JWB:GIA:jf

cc: Hon. Johne Binkley
Hon. Rick Uehling, Co-Chairs
Senate Finance Committee

STATE OF ALASKA
THE LEGISLATURE

LEGISLATIVE AFFAIRS AGENCY

MEMORANDUM April 5, 1990

SUBJECT: House Bill 577 -- sectional analysis

TO: Representative Eileen MacLean, Chair
House Community & Regional Affairs Committee

FROM: Jack Chenoweth
Legislative Counsel

This bill draft is based on proposals first offered by mayors of municipalities whose communities bore the brunt of the Exxon Valdez disaster. The measure generally follows a suggested model prepared by Perkins Coie, an Anchorage-based law firm, to broaden the ability of municipalities and villages to address and receive compensation for their efforts to contain and clean up spilled oil and hazardous substances.

This bill establishes a second fund, parallel to, but not duplicative of, the existing oil and hazardous release response fund (AS 46.08.040). The principal distinction between the two funds is this: the existing oil and hazardous substance release response fund is intended to be the principal source of money for expenditures incurred by any eligible party within the state directly for oil and hazardous substance discharge containment and clean up, and by the state (alone) for incremental and additional public services prompted by that containment and clean up; the new municipal impact assistance fund would serve as a source of assistance to municipalities (alone) for incremental and additional public services prompted by necessary containment and clean up. There would be no overlap.

*

Municipal extra-jurisdictional authority:

These changes to Title 29 were sought by mayors and officials of municipalities who bore the burden of the Exxon Valdez spill and clean up.

Bill sections 1 - 3, amendments to various sections of AS 29.35, extend the authority of municipalities to exercise containment and clean up of spilled oil and hazardous substances if the spill occurs outside the municipal boundaries. The change made by bill section 1 specifically prescribes how extra-jurisdictional containment and clean up authority may be legally assumed by a municipality while the changes made by bill sections 2 and 3 authorize the exercise of extra-jurisdictional containment and cleanup authority for second and third class boroughs, respectively. (First class boroughs already enjoy general authority; home rule boroughs [e.g. North Slope Borough] and unified municipalities [e.g. Anchorage, Juneau, Sitka] already enjoy that authority under existing law, so it is not necessary to amend the law in any way to authorize municipalities of those classes to so act.)

*

State financial assistance to municipalities for municipal services:

Bill section 4 establishes a new "oil and hazardous substance municipal impact fund" and describes the manner of its administration. The fund is established in the Department of Community and Regional Affairs, and that department is given the principal responsibility for its administration.

There is a codified statement of policy and purpose (AS 29.60.500) underpinning the municipal impact assistance program. Sections establish the fund and spell out its general purpose ["to make grants under AS 29.60.530 for actual expenses incurred by municipalities and villages"] (AS 29.60.510), and authorize appropriations by the legislature to the fund (AS 29.60.520).

The principal provision applicable to the new "impact assistance fund" is AS 29.60.530. The legislation would permit the commissioner of community and regional affairs to make grants to a municipality that is

> . . . affected by release of oil or a hazardous substance and demonstrating extraordinary municipal expenditures that are beyond the reasonable capability of the municipality or village to meet from the municipality's or villages' current revenue sources.

(Page 3, lines 16 - 20). The specific expenditures that may qualify for grant assistance are those affected by prevention, containment, and clean up efforts are enumerated in subsection (b). Grant approval would be based on the determination by the commissioner by application of the three factors specifically identified in subsection (c) together with any "other criteria the department considers appropriate." (Page 5, line 4.) Subsection (d) authorizes the commissioner to reject a grant application, while subsection (e) authorizes the commissioner to prioritize or rank grant applications when requests exceed available resources, and specifies the ranking criteria. Subsection (f) permits partial payment of an approved grant. To better assure that the grants are used to offset extraordinary municipal initiatives in response to a spill emergency, the section includes language prohibiting the municipality receiving the grant from using the grant to reduce municipal tax rates or retire its bonded indebtedness.

The remainder of the new sections in bill section 4 are intended to provide for smooth operation of the fund. AS 29.60.540 establishes a record-keeping requirement. AS 29.60.550 directs preparation and submission of an annual report. AS 29.60.560 permits the commissioner to adopt necessary regulations. AS 29.60.590 sets out pertinent definitions.

*

Financing the new municipal impact assistance fund:

Bill sections 5 - 10 identify a source of money for the new fund. That source is the same nickel-per-barrel addition or surcharge to the state severance tax (technically, the oil and gas "properties production tax" as it applies only to produced oil) first imposed during the 1989 legislative session to support the oil and hazardous substance release response fund in AS 46. The proposed legislation contemplates that the proposed fund will have a normal operating balance of $10 million available to assist municipalities.

Bill section 5, amending AS 43.55.220, authorizes use of revenue from the surcharge for appropriation into the municipal impact assistance fund.

Bill section 6 amends the mechanism applicable to trigger the off-again on-again feature of the nickel-per-barrel surcharge to make it applicable to expenditures from both the existing oil and hazardous substance release response fund and the proposed municipal impact fund.

Bill sections 7 and 8 increase the benchmark figure applicable to the trigger mechanism from $50 million to $60 million, while bill section 9 revises the mechanism so that, as a condition of surcharge imposition, the legislature must appropriate not only to restore the balance of the existing oil and hazardous substance release response fund to $50 million, but also must restore the balance of the proposed municipal impact fund to $10 million.

The amendment proposed by bill section 10, an uncodified provision, is intended to assure that, from the inception of the nickel-per-barrel surcharge, its collection is not to be suspended until a total of $60 million is received in order to meet the normal operating balances of the two funds--$50 million in the existing oil and hazardous substance release response fund and $10 million in the proposed municipal impact fund.

*

Other technical and corrective changes sought based on the Exxon Valdez experience:

The remaining bill sections, also developed in conjunction with the initial Perkins Coie request, make technical and corrective changes sought by mayors of municipalities who bore the brunt of the Exxon Valdez disaster and cleanup. Here, as noted earlier, there have been changes incorporated to assure that municipalities eligible for financial assistance under the municipal impact fund of AS 29.60 are not also eligible for assistance for those same expenditures from sources in AS 46.

Bill section 11: AS 46.03.822(a) defines the scope of a person's liability under the "Strict Liability" provisions of that chapter (AS 46.03). Under the first amendment proposed by this bill section, that liability would be extended to strict liability for damage to the natural resources of a village and for containment and removal efforts undertaken by a village (page 11, lines 5 and 7). Under the second, "incremental costs of providing public services" and "costs of providing additional public services" incurred "by the state, a municipality, or a village" would be recoverable from the spiller under this subsection (page 11, lines 7 - 10). Bill section 12 makes a pair of related changes, providing definitions of the terms "public services" and "village" that are introduced in bill section 11.

AS 46.04 generally addresses the subject of oil discharge and cleanup. Current AS 46.04.020(e) establishes a basis for agreements between parties to facilitate containment and cleanup. Bill section 13, amending the reimbursement agreement provision of AS 46.04.020(e), adds to the parties with whom the Department of Environmental Conservation may enter into cooperative agreements to include municipalities and villages. (The change supports a compensation arrangement modified by the amendments made in section 18, later in the bill.)

Oil discharge contingency plans are documents important to protection of the environment. The amendment made by addition of subsection (h) in bill section 14 directs the commissioner of environmental conservation to consult with a larger number of groups and to disseminate draft contingency plans to the public for review and comment.

Bill section 15 amends the definition of "containment and cleanup" applicable to AS 46.04 to add "discharged oil" as a legitimate object of containment and cleanup efforts. More significantly for purposes of this measure, the amendment of the definition of the term incorporates reference to certain incremental and additional public services costs "incurred in response to the actual discharge of . . . oil or a pollutant" and the costs of "additional services incurred in response to an actual discharge of . . . oil or [a] pollutant" as expenses qualifying within the definition.

Bill section 16 sets out additional definitions for two terms, "public services" and "village," that are added by the changes made to provisions of AS 46.04 in the bill.

Bill sections 17 - 21 amend the scope of expenses incurred that are compensable from the oil and hazardous substance release response fund, the existing "470" fund that carries a normal balance of $50 million dollars. This fund is currently managed by the commissioner of commerce and economic development.

The amendments set out in bill section 17 would (1) permit the money in the fund to be used for preparing "assessments," including assessments of social and economic effects of a discharge or threatened discharge; (2) authorize compensation of costs incurred by a village as a result of a discharge or threatened discharge; and (3) serve as a source of additional grants.

Bill section 18 incorporates amendments substituting mandated payment of compensation for actual abatement expenses incurred, whether by a municipality or by a village under an oil spill cleanup agreement, and further broadens authorized payment by the state from the fund if the response of the municipality or village council was "an appropriate" response, not just a "necessary emergency first response" to a release or threatened release.

The grant provision of bill section 19 is new. The section describes how municipalities and villages may receive "grants . . . to enable [them] to carry out an emergency first response to a release or threatened release." The grants would come from money available in the existing oil and hazardous substance release response fund, and would be payable on application, based on short deadlines (i.e. "as promptly as possible"), under regulations and procedures established by the commissioner of environmental conservation.

Bill sections 20 and 21 make the same amendments to the definition of "containment and cleanup" and add definitions of "service" and "village" to AS 46.08 that are described earlier with reference to the changes made to AS 46.04.

AS 46.09 is a chapter that addresses release of hazardous substances. The amendment to AS 46.09.060(b) made by bill section 22 is, in a sense, a technical change that gives to municipalities, for purposes of environmental protection, the broadest possible authority under all pertinent environmental-related chapters of AS 46 exercisable within the municipality's boundaries. (This change complements the amendments proposed in bill sections 1 - 3 applicable to extra-jurisdictional authority outside the municipality's boundaries.)

Bill sections 23 and 24 make the same amendment to the definition of "containment and cleanup" and add the definition of "service" to AS 46.09 that are described earlier with reference to the changes made to AS 46.04 and AS 46.08.

The legislation is made retroactive to March 24, 1989--the date of the Exxon Valdez oil spill (bill section 25)--and carries an immediate effective date (bill section 26).

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WKP4/020

Official Business

Alaska State Legislature

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HOUSE BILL 577, relating to oil and hazardous substance municipal impact funding

BACKGROUND OF THE LEGISLATION

This legislation was drafted in response to the concerns expressed by the "oiled mayors" of the communities affected by the March 24 Exxon Valdez oil spill. Funds were provided by the State DEC to the communities for their emergency first response expenses, such as the purchase of boom material, etc.

However, these communities also experienced far-ranging social and economic impacts as a result of the spill; there was an increased need for health services, an increase in public safety services, public utility services, housing services and an increased usage of public facilities, such as the harbors. These increased services placed an incredible burden on the communities, and there was no state fund or mechanism in place to assist the communities with the costs of these additional and incremental services which had been incurred. Additionally, there is also going to be a loss of revenue, such as that generated by the raw fish tax, inasmuch as so much fishing time was lost. True, Exxon did reimburse the communities for some of their costs but not all of the costs were covered and the need is still there.

The Oil Spill Commission recognized this "gap" and addressed the need for local service impact funding in Recommendations 53 and 54 of the Commission Report; specifically, the Commission recommended that a separate fund be created to help local governments with the unreimbursable costs caused by an oil or hazardous substance release.

SUMMARY OF HOUSE BILL 577

House Bill 577 addresses the above concerns and needs by:

1) Broadening the powers of municipalities and villages under AS 29 and under AS 46 to enable them to more effectively deal with the release or threatened release of oil or a hazardous substance;

2) Establishes a separate grant program - the municipal impact fund -which is administered by the Department of Community and Regional Affairs. This fund would serve as a source of assistance to municipalities and villages for incremental and additional services prompted by necessary containment and clean-up.

This fund is parallel to, but not duplicative of, the existing oil and hazardous release response fund (the 470 Fund). The 470 fund is intended to be the principal source of readily available money for expenditures incurred by any eligible party directly for oil and hazardous substance discharge containment and clean up and by the state (alone) for incremental and additional public services prompted by that containment and clean up. Speaking more specifically, the 470 Fund is often spoken of as the "emergency first response fund."

The legislation sets out certain criteria which must be met for a community to be eligible for a grant and it also specifies the types of services which qualify for payment.

3) The source of funding for this municipal impact fund is the same nickel-per-barrel surcharge to the state severance tax first imposed during the 1989 legislative session to support the 470 Fund in AS 46. In order to provide a mechanism for funding, this new municipal impact fund under Title 29, House Bill 577 would increase the cap on the $.05 per barrel surcharge from its present $50 million to $60 million and the additional $10 million would be appropriated to this municipal impact fund. The other $50 million would continue to be appropriated by the Legislature to the 470 Fund.

4) The legislation also takes up a portion of the "strict liability" provisions of existing law (46.03.822) in order to clarify that "spillers" are liable for certain additional service costs incurred by the state, municipalities and villages and it clarifies that these provisions are retroactive to the date of the spill.

5) House Bill 577 also establishes a new grant program in the Department of Environmental Conservation. At present, the Department may reimburse municipalities and village councils for costs related to emergency first response. This legislation would spell out in much greater detail than in existing law how municipalities and village councils may receive "grants" for emergency first response expenditures. This is not to be confused with the Title 29 municipal impact fund which is established in HB 577 to fund the cost of additional and incremental services and functions which are not emergency first response.

COMPARISON OF HOUSE BILL 577 AND CSSSSB 359 (OIL AND GAS)

CSSSSB 359 (Oil and Gas) is presently in Senate Resources and while the overall thrust of the legislation is similar to House Bill 577,

there are some specific differences which may be noted. The following are not all of the differences but they do include the major differences:

1) CSSSSB 359 (Oil and Gas) does not establish a separate fund for the municipal impact grants. Rather, it provides that up to $10 million of the $50 million (maximum) in the 470 Fund may be appropriated to the Department of Community and Regional Affairs for these grants.

2) The Senate Bill also provides for a "trigger mechanism" whereby the Governor must make a declaration of disaster emergency in order for the municipal impact fund to be activated. Both the drafters of the House bill and Senator Szymanski, the sponsor of SSSB 359 felt that this was not necessary because the mechanism was built into the criteria in the bill.

3) The Senate Bill does not include a provision for clarifying the retroactivity of the strict liability in AS 03.822. This provision is felt to be very important by the oiled mayors.

4) Whereas the House Bill 577 provides for a emergency first response grant program under AS 46 for municipalities and villages, the Senate version provides for a cash advance to these entities.

5) Senate Oil and Gas Commitee was concerned that a municipality or village not benefit from an impact assistance grant if the discharge is eventually shown to be the recipient's responsibility. Hence, proposed AS 29.60.590 of the Senate bill authorizes a recovery of grant money paid under the municipal impact grant fund if the Commissioner determines that the municipality or village receiving the grant is responsible for the underlying spill.

(prepared by Senator Mike Szymanski)

Impact Assessment, Inc.

Economic, Social, Psychological Impacts
of the *Exxon Valdez* Oil Spill

INTERIM REPORT #1

ANALYSIS OF FISCAL IMPACTS TO LOCAL JURISDICTIONS

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