

ALASKA LEGISLATURE SPECIAL COMMITTEE / SUBJECT FILES 86/2

732 SCOM122: ALASKA LANDS FILE 1977-78

The total recreational salmon catch in Cook Inlet has not been accurately defined. Statistically based creel census programs which provide fairly accurate estimates of catch and angling effort are maintained on most major fisheries in Cook Inlet. A host of smaller fisheries adds some unknown additional number of salmon to the catch. Table 2 is the Sport Fisheries Division's best estimate of the recreational salmon harvest in Cook Inlet.

Table 2. Estimated Sport Harvest of Salmon From Cook Inlet, 1973-1977.

<u>Year</u>	<u>King</u>	<u>Coho</u>	<u>Red</u>	<u>Pink</u>	<u>Chum</u>	<u>Total</u>
1973	3,850	11,000	65,700	12,600	3,650	96,800
1974	6,900	16,800	36,500	36,500	3,100	99,800
1975	5,050	23,000	31,100	15,350	2,600	77,100
1976	15,350	26,000	17,550	61,000	2,600	122,500
1977	15,200	20,000	60,000	20,500	2,800	118,500

The king salmon estimate is most accurate as all of the present fisheries are monitored. The sockeye catch is also well estimated as most fish are taken from the Russian River, which is closely monitored. Coho catches are accurately monitored in the Kenai River. Periodic creel censuses at other areas in Cook Inlet provide a less accurate estimate of current total catches. Pink and chum catches are broad estimates based on the frequency these species are seen in sport catches and during creel censuses of king and coho fisheries. Catches of pink and chum salmon are not significant compared to run sizes of these species.

With the exception of a very few immature feeder kings taken near Seldovia and in Prince William Sound, the entire salmon sport fishery in south-central Alaska is conducted on adults as they approach their spawning streams or within those streams. Therefore, most fisheries in this region are fairly brief, with anglers moving from one fishery to another as the various runs appear.

Relatively few anglers have boats of sufficient size to handle rough marine waters. Launching and berthing facilities at the two most popular marine bays (Kachemak and Resurrection) are already overloaded. The marine fishery at Seward has remained relatively stable at 25,000 man-days since 1968. Current use levels and trends at Kachemak Bay are undefined. A third marine fishery for salmon is a king salmon troll fishery conducted along the Kenai beaches south of Deep Creek. Effort in this fishery has grown rapidly, from 5,000 man-days in 1974 to 26,000 in 1977, but it is

important to realize that in contrast to typical marine fisheries, the Deep Creek troll fishery is most'y conducted within 100-200 yards of the beach in "car-top" boats which are pulled up on the beach whenever the water gets rough.

River fisheries on the other hand have increased far more rapidly. For example, the Kenai River king salmon fishery, excluding the Deep Creek marine fishery, has increased from 45,000 man-days in 1974 to 108,000 man-days in 1977. A breakdown of effort data for king salmon fisheries is shown in Figure 5.

The percentage of the Cook Inlet sport fishery which occurs on the Kenai Peninsula appears to be substantially increasing. This increase is undoubtedly due to two major reasons:

1. The availability of large king and coho salmon stocks in a generally healthy condition which provides at least an acceptable catch rate.
2. Good access to those waters having king and coho stocks.

In contrast, in Upper Cook Inlet access to waters west of the Susitna River is restricted to river boat or aircraft access, king salmon fishing has been closed for five years, and the catch rate of cohos has been unsatisfactory in recent years. A breakdown of recreational harvest by species for the Kenai Peninsula and Upper Cook Inlet is shown in Figure 6.

The impending capitol move to the Willow area will have a major effect both on the amount and the distribution of recreational fishing demand in Cook Inlet. The new capitol is forecast to have a population of approximately 30,000 persons which should result in a significant increase in the number of Cook Inlet anglers. Most Anchorage anglers now drive 150 to 200 miles each way to fish for salmon on the Kenai Peninsula. However, the new capitol site is approximately 70 road miles farther north and this additional distance will make many anglers more reluctant to drive to Kenai Peninsula waters for weekend fishing. The Department anticipates increased demand for recreational salmon fishing in Northern Cook Inlet waters. Since marine waters of Northern Cook Inlet are silty, and thus unsuited to sport fishing, recreational fishing must be conducted in fresh water.

In attempting to meet the recreational demand of increasing population, the Sport Fish Division has undertaken a sizeable lake chemical treatment and stocking program and an associated research program to increase the recreational harvest of lake-reared resident game fish, primarily trout and landlocked silver salmon. This program has been very successful, but chiefly in producing spring and fall fisheries. This fact results both from a reduced catch rate during midsummer and most anglers preference for salmon rather than resident game fish species when both types of fisheries are available. Many, if not most, anglers in southcentral Alaska tend to fish the lakes until salmon runs arrive. They then turn to salmon fishing until these runs are over, at which time they return to the lakes for fall

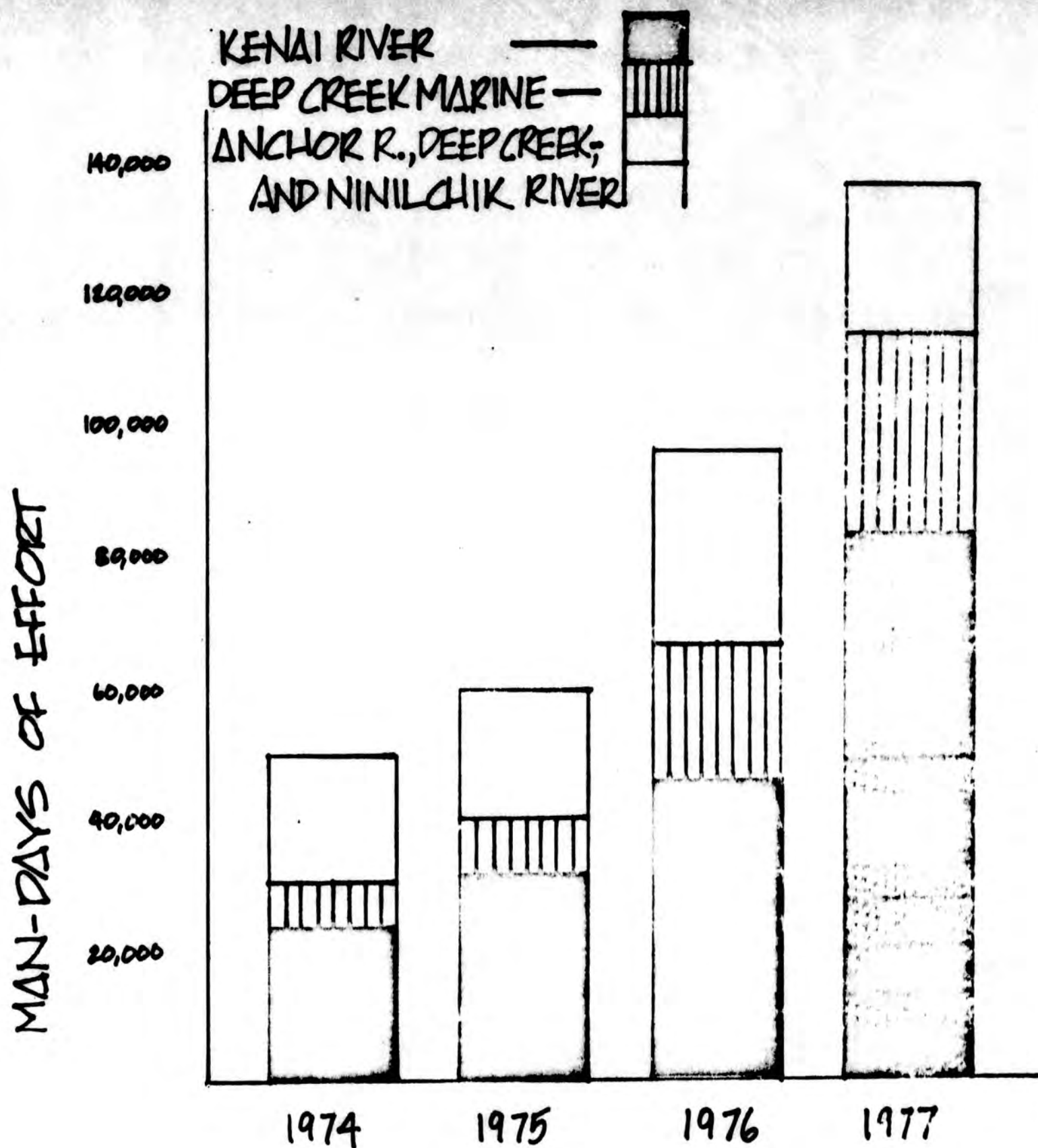
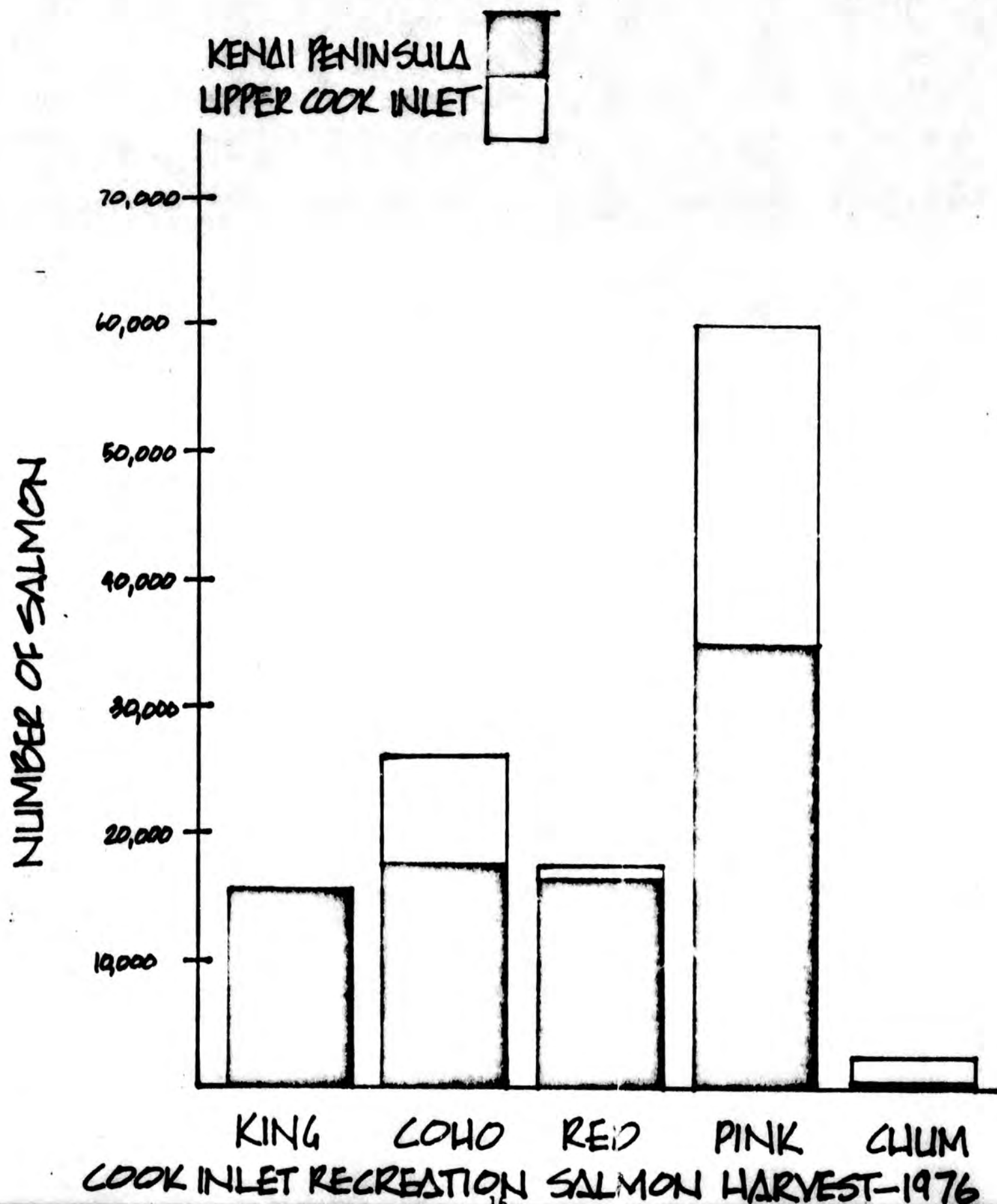


FIGURE 5. KENAI PENINSULA TOTAL KING SALMON RECREATIONAL EFFORT FROM 1974-1977

FIGURE 6. TYPICAL DISTRIBUTION OF ~~SOOT~~ SALMON CATCHES, KENAI PENINSULA AND UPPER COOK INLET



fishing. The lake stocking program does provide an alternative to salmon fishing for a limited number of anglers, however it is not an acceptable alternative for the vast majority of the Cook Inlet angling public.

Probably the best method of defining recreational fishing needs is a measure of catch rates (catch/man-hour). Definition of acceptable catch rates for sport fisheries is subject to widespread disagreement. This parameter obviously differs for different species and different geographic areas. Various studies have shown that catch per unit of effort (C.P.U.E.) is correlated with total fishing effort, i.e., when C.P.U.E. either increases or decreases, fishing participation follows suit. A declining C.P.U.E. often catalyzes controversy which in turn places an added burden on resource managers.

Catch rates for the major Kenai Peninsula salmon fisheries are summarized in Table 3.

Table 3. Catch Rates for the Major Kenai Peninsula Salmon Fisheries.

<u>Fishery</u>	<u>Period</u>	<u>Catch Per Hour</u>	<u>Hours To Catch a Fish</u>
Early Russian River Red Salmon	1972-77	0.104	10
Late Russian River Red Salmon	1972-77	0.186	5
Early Kenai River Coho Salmon	1975-76	0.088	11
Late Kenai River Coho Salmon	1976	0.122	8
Early Deep Creek Marine King Salmon	1972-77	0.069	14
Late Deep Creek Marine King Salmon	1974-77	0.024	42
Early Kenai River King Salmon	1972-77	0.077	13
Late Kenai River King Salmon	1974-77	0.048	21
Lower Peninsula King Salmon	1973-77	0.013	77

A look at C.P.U.E. information for various Cook Inlet sport salmon fisheries (other than king salmon fisheries) suggests that when the catch per hour drops and stays much below 0.100 salmon per hour, significant dissatisfaction is expressed.

During the years 1966-1975 the Resurrection Bay coho fishery averaged 0.120 catch per hour. Creel checks on the Anchor River in 1968 and 1969 revealed catch rates of 0.256 and 0.212 coho per angler hour, respectively. In upper Cook Inlet coho catch rates for such streams as the Deshka, Alexander, and Lake Creek averaged about 0.35+ fish per hour during the 1960's. These fisheries did not result in widespread dissatisfaction.

However, catch rates for coho fisheries in Upper Cook Inlet during the 1970's have dropped below 0.10 fish per hour (0.06 for the Deshka in 1977). Catch rates from roadside fisheries in upper Cook Inlet in 1976 and 1977 average about 0.05 coho per hour. These low catch rates have to a large extent caused the current controversy regarding Susitna coho stocks.

While most sport fishermen in Cook Inlet, if questioned, would not agree that a salmon catch rate of 0.10 salmon per hour was acceptable, it appears that neither major controversy nor major decreases in fishing effort occur when a minimum catch rate of 0.10 salmon per hour is maintained.

The statements made above do not apply to king salmon fisheries in Cook Inlet. In general, fishermen will and do settle for significantly lower catch rates (and bag limits) for king salmon, probably related to the "trophy" size of this fish. Average catch rates of 0.100 have not been achieved in any of the area's king salmon fisheries.

In summary, the sport fishery harvests all of the five species of salmon. However, anglers show little interest in chum salmon. Pink salmon are often taken incidental to other species and most anglers will turn to other salmon species, if available. Sockeye are harvested only in certain locations in Cook Inlet and the future recreational catch of this species is not expected to significantly increase over present levels.

Recreational demand centers on king and coho salmon. Anglers prefer kings to any other species; however, the better coho distribution and greater numbers spread over a longer time interval results in fishing intensity similar to king salmon.

Some opportunity is present for expanding recreational fisheries in salt water, but the type of boats required, and the water characteristics, will limit expansion largely to freshwater fisheries. Recreational fishermen must have access, room to fish, water clarity, and they must have a desirable species of fish.

STATUS AND UTILIZATION OF PRINCIPAL STOCKS BY SPECIES

This section begins a discussion of the specific stocks upon which management decisions can be based. The first part is a description and recap of the general status of sockeye, pink, and chum salmon runs in Cook Inlet. These three species make up the bulk of the commercial harvest as shown in Table 4. These species do contribute some fish to the recreational fishery. However, as noted earlier, recreational demand centers on king and coho salmon and many, if not most, pink and chum salmon are taken while fishing for other species.

Table 4. Cook Inlet Gill Net District Catches, 1966-1977, Central and Northern Districts Combined.

<u>Year</u>	<u>King</u>	<u>Sockeye</u>	<u>Coho</u>	<u>Pink</u>	<u>Chum</u>	<u>Total</u>
1966	9,540	1,851,990	289,690	2,005,891	532,616	4,689,727
1967	7,859	1,380,062	177,729	32,229	296,837	1,894,716
1968	4,536	1,104,904	470,450	2,278,197	1,119,114	4,977,201
1969	12,398	692,254	100,952	33,422	269,855	1,108,881
1970	8,347	731,214	275,173	813,895	775,167	2,603,796
1971	19,765	636,303	100,636	35,624	327,029	1,119,357
1972	16,086	879,824	80,933	628,580	630,148	2,235,571
1973	5,194	670,025	104,420	326,184	667,573	1,773,396
1974	6,596	497,185	200,125	483,730	396,840	1,584,476
1975	4,790	684,818	227,372	336,359	951,796	2,205,135
1976*	10,621	1,643,089	216,970	1,258,710	471,747	3,601,137
1977*	<u>13,372</u>	<u>2,025,243</u>	<u>186,990</u>	<u>545,975</u>	<u>1,248,972</u>	<u>4,020,552</u>
Average	9,925	1,066,409	202,620	731,566	640,641	2,651,162

* Preliminary

The second part of the section deals with 11 stocks, mostly king and coho, which can contribute to meeting recreational demand. Those stocks are discussed in greater depth.

Data on total run size by system for nearly all species is lacking for the years prior to the late 1960's. Since then, information on escapements is fragmentary and available for only certain major stocks. There is little, other than commercial catch, to describe the current condition of salmon stocks in Cook Inlet. Figure 7 shows the catch by species for various time periods. The first bar shows the annual average catch during the historical thirty year peak period of the fishery.

By comparison, the next bar on the chart shows the average annual catch during the 1960 to 1975 period. Severe climatological conditions occurred in the early 1970's and severely depressed salmon runs and harvests throughout the state during the 1973 to 1975 period. That period is shown separately to illustrate this effect. There has been an increase in survival rates since the earlier 1970's. This, coupled with some excellent escapements secured at significant cost to the commercial harvest, during the early and mid-1970's, has resulted in improved harvests and runs experienced during 1976 and 1977. The 1976-1977 average harvest is also shown to illustrate this comparison.

Based on these data, it is obvious that king salmon have suffered the worst decline since the period of peak harvests. A major reason for recent low catch levels is due to the fact that commercial fishing has been sharply restricted since about 1964 on this species. Nevertheless, catches were declining prior to that and the status of the stocks was assumed to be poor, particularly in the case of the major Susitna run. A reversal of this trend has been evident in escapement levels to the Susitna River in 1976-1977.

Sockeye harvests during 1960-75 also declined significantly from the historical period. The 1976-77 average harvest, however, was larger than the historical period, and the 1977 harvest of over 2 million sockeye is the largest catch since 1951. Generally, based on escapements obtained since 1971, these stocks would appear to be increasing.

It is difficult to interpret coho stock trends. Some decline in commercial catch is evident from these data, but a more thorough discussion under specific coho stocks will be required to better define the status of these fish.

Chum salmon harvest have stayed at or above the historical level and show an increasing trend.

Pink salmon harvests shown in Figure 7 combine lower and upper Inlet stocks. Pink salmon stocks of upper Cook Inlet are rapidly rebuilding from the short term decline brought about by harsh environmental conditions.

In general, Cook Inlet salmon stocks appear to be in a currently healthy state. There are some exceptions and some specific reasons for concern which will be discussed by individual stock units.

NATURAL
1976-77 AVERAGE

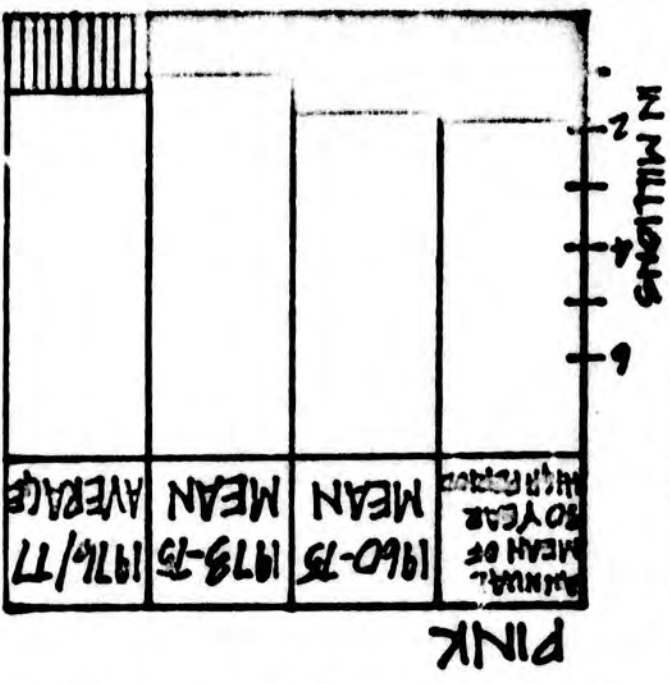
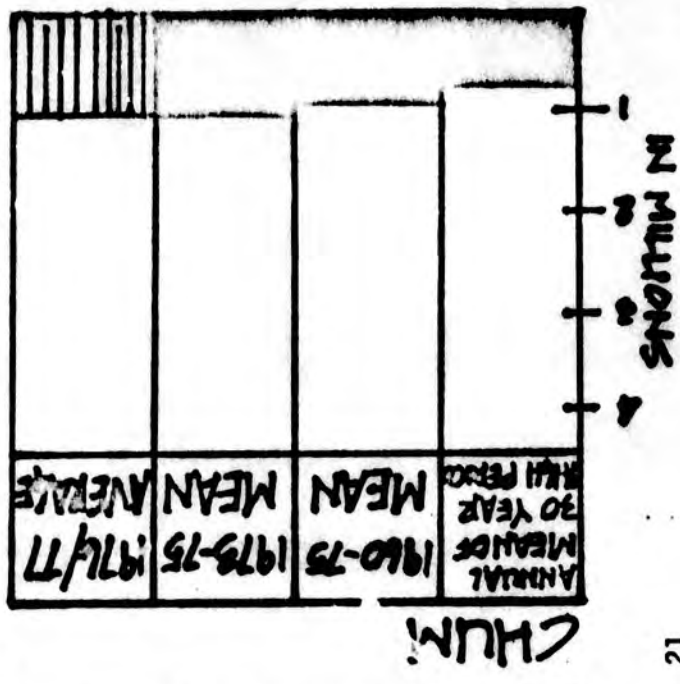
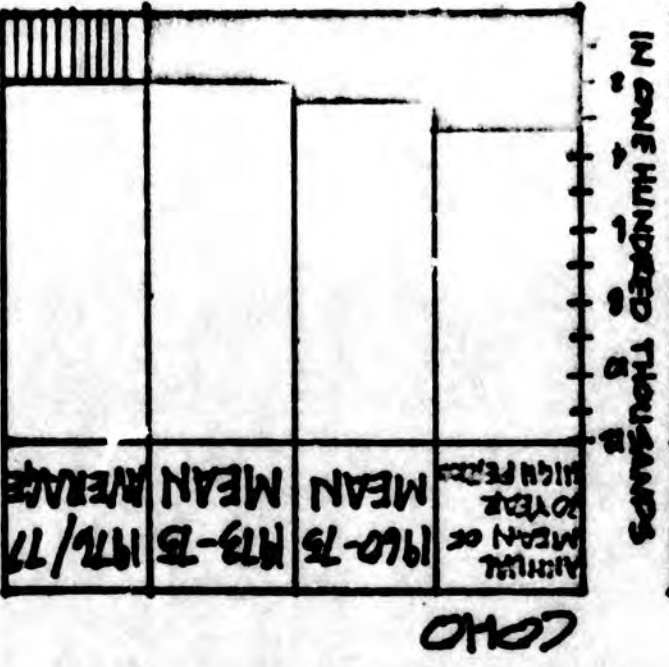
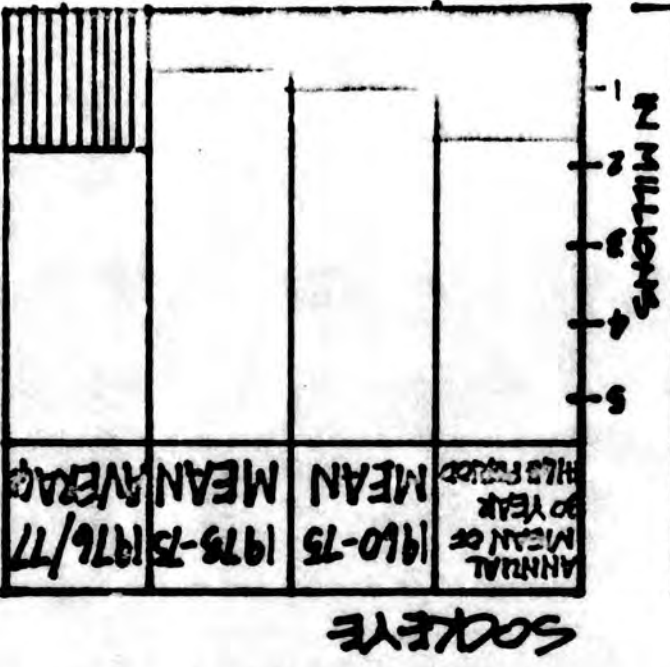
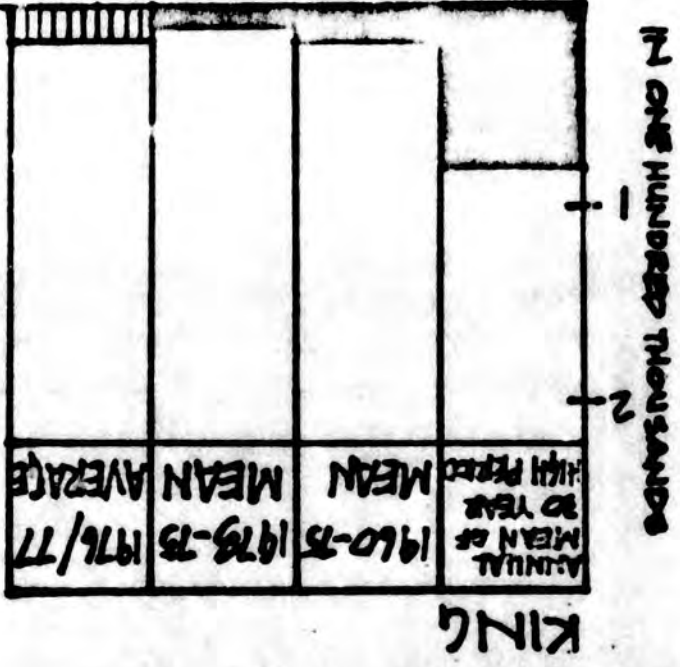


FIGURE 7.

Stocks most important to the commercial fishery will be discussed first, as they provide the bulk of the harvest in numbers, pounds, and value. These species are sockeye, chum, and pink salmon, in order of value. Sockeye stocks of primary importance are those bound for the Kenai, Kasilof, and Susitna Rivers. In the Kenai River, sonar counters provide an accurate estimate of escapement. This stock appears to be in generally good condition and at least minimum escapement goals have been achieved for the last seven years. No particular problems have been detected in various spawning areas with the exception of high water blocking access to the Russian River lakes in some years. The overall sport sockeye harvest on the Kenai Peninsula, except in the Russian River, is minimal. The Kenai River was the single largest recreational sockeye fishery prior to the promulgation of anti-snagging regulations. (In 1974 the sport catch approached 50,000 per year. Since the inception of the anti-snag regulation the catch has declined to an average of less than 10,000.) The bulk of the 1977 recreational catch of 60,000 fish was taken from the Russian River. This fishery is regulated based on commercial catch, sonar escapement data, and visual observation of fish in the Russian River and through the Russian River weir.

Sonar counters provide accurate escapement estimates of sockeye in the Kasilof River. Escapement goals have been achieved in four out of the last seven years. These stocks are smaller than the Kenai system and escapement goals have not been as consistently achieved. Management is directed primarily on the basis of Kenai River escapement rates. The Kasilof system cannot presently be managed as a separate entity due to intermingling with sockeye bound for the Kenai River.

Sockeye runs to the Susitna River drainage are judged to be larger than those to the Kasilof, but to date have been accurately assessed because of the large, glacial trunk river system and the distribution of sockeye to numerous small lakes and spawning areas. Aerial counts are used to provide a relative indication of escapement size and a tag and recapture program has been initiated to attempt to provide total escapement. The Susitna River has no specific escapement goal, but it is felt that adequate escapement densities were achieved in index streams in three of the last seven years. Susitna stocks are believed to be more depressed than in either the Kenai or the Kasilof rivers. This stock is difficult to manage due to the mixture of many small stocks in the run and the inter-mixing with other species in both the Central and Northern District gill net fisheries.

The major chum salmon run in Cook Inlet spawns in the Susitna drainage. Chum salmon escapement knowledge is limited to only sockeye salmon index areas. Although these stocks experience run fluctuations they appear to be in generally good health as evidenced by the fairly consistent harvest history. It is estimated that only several thousand Northern District chums are taken annually by recreational fishermen seeking pinks and/or coho salmon.

Two other areas of chum salmon production occur in Cook Inlet. One in Chinitna Bay and the other from the west side of the Central District. Chinitna Bay escapements are estimated by aerial survey and the fishery is managed separately from the balance of Cook Inlet. These stocks appear to be in good condition. Very little is known about the stocks on the west

side of the Central District. They are a minor portion of the total Cook Inlet chum salmon production. No serious management problems are apparent.

The major portion of Cook Inlet commercial pink salmon harvest is produced in the Susitna drainage. Estimates of total run size are not available and limited escapement information is collected incidentally to aerial surveys for other species. Pink salmon production from the Kenai and Kasilof rivers is second in importance to the Susitna.

The final portion of this report deals with 11 stocks identified as having particular value in meeting the need of recreational fisheries---either now or potentially. These stocks could, and in some cases do, enter the commercial fishery. These are stocks which the Board must guide the Department with decisions between various management options, which in many cases will amount to an allocation to one user group or another. The following discussion of these 11 stocks is designed to assist the Board in its deliberations by pointing out the opportunities available to satisfy the recreational and commercial needs and the problems or trade-offs attendant to making such choices. The Board of Fisheries must be aware of limitations imposed by timing and migration of these stocks and our management ability to carry out various options.

The 11 stocks which have been identified as being presently or potentially important in satisfying recreational needs are listed in Table 5. We have subjectively shown these stocks in a sequence which shows a transition from the easiest or least important decisions, to the most difficult or most important decisions that have to be made.

These stocks were grouped using three considerations:

1. The ability to meet recreational needs. This has to do with the desirability of the species, the size of the stock, the accessibility to recreational fishermen, and the duration of the fishery.
2. Manageability, meaning the fishery staff's scientific ability to regulate the harvest of that particular stock, and to achieve desired escapements. This was examined separately for commercial fisheries and sport fisheries, since there are often management methods and efficiency of harvest.
3. Stock separation, meaning the ability to manage for the harvest of that stock separately from others. In other words, what it would cost in the commercial fishery in terms of harvest of the target or other species lost to insure an increased target species escapement to recreational fishing areas.

Regulatory and policy options deal primarily with late Kenai River coho, Susitna kings, early Kenai River coho, late Kenai River kings, and Susitna coho, because of the importance of these stocks and the difficulty of the management decisions that need to be made.

Table 5. A Summary of Eleven Cook Inlet Salmon Stocks Having Potential To Meet Recreational Need.

Stock No.	Stock Name	Current Harvests	
		Sport	Commercial (1966-77)
1	Lower Kenai Peninsula Kings	900 (1966-76) 2,200 (in 1977)	0
2	Lower Kenai Peninsula Coho	2,500 (Max. Est.)	0
3	West Side Coho	1,000 (Max. Est.)	24,000
4	Early Russian River Sockeye	7,200 (1972-77)	Unknown-slight
5	Late Russian River Sockeye	14,000 (1972-77)	Unknown-Significant
6	Early Kenai River Kings*	1,300 (1974-76) 2,200 (1977)	1,300
7	Late Kenai River Coho	7,500 (1976 only)	13,000
8	Susitna Kings	0	0
9	Early Kenai River Coho	6,400 (1976 only)	24,000 (set net only)
10	Late Kenai River Kings**	4,000 (1974-76) 5,500 (1977)	5,000
11	Susitna Coho	7,500 (Max. Est.)	129,000

* An average of 2,100 king salmon were taken during the early run Deep Creek marine fishery from 1972 through 1977 with an unknown portion of these of Kenai River Origin.

** Includes the late run Deep Creek marine catch which are of Kenai River origin.

Cook Inlet Salmon Stocks & their Utilization

Critical need for long term management

Major user groups need (Sport/Commercial)

Natural resource ability to meet need

Managers ability to manipulate resources to meet need

Problems

Mixed stock { all 3 species w/ overlap in timing & migration routes }

Ability to forecast adult returns by species } ^{turdid}
estimating roapment size } ^{water, muday,}
~~glacioperson~~

estimating escapement size

Verfugungselement in Strom & Jahr

Salmon Producing Habitat - Competition for use

Competition of user groups / different manner of knowing

Data Images

Coquitlam Inlet Natural Salmon Run = 5% of ^{Coquitlam} Statewide Production

(Cert Dist Com fishermen (entry permit) = 14% of statewide Salmon ^{fishing} net

Good Inlet recreational angles: Half of all rec angles

Cood Inlet Basin - half of state human population. {
Peak
in one
rest of 500

Look Inlet Salmon Stream - now accessible by ^{highway} ~~road~~ than in

Commercial fisheries now limited.

Coast Inlet Angling growing at approx 8% per year.

Commercial Fisheries

677 set gill ~~net~~ permits - ^{total periphery of inlet} Upper Cook Inlet - 43% of total
545 drift gill net permits - ^{Central part of} Cook Inlet - 57% of salmon
catch (12,372)

Gill Net Cook Inlet Harvest 1977 Total Salmon 4,030, 552 (King)

Sports Fisheries

102,000 Anglers estimated as Cook Inlet waters - 1976

P.12 Chart

Estim Sport Salmon Harvest Cook Inlet

1977 Total 118,500 (Kings 15,200)

STOCK I

Lower Kenai Peninsula King Salmon

This is currently a punch card fishery which occurs during the last weekend in May and the first three weekends in June on the Anchor River, Deep Creek, and Ninilchik River. The punch card limit is one king salmon per day and two per season over 20 inches in length. King salmon occur in these streams from late May through early July with the run peaking during mid-June. The area open to fishing is the lower two miles of each stream with virtually all of the spawning area closed to salmon fishing.

The recreational harvest for all streams since 1966, averaged 890 king salmon and the 1977 harvest was estimated at 2,000 fish. The minimum escapement have averaged 3,290 fish. The recreational fishery has captured only 21% of the average run of 4,180 fish since 1966. The 1977 total run of 8,750 king salmon was the largest since the fishery was first monitored in 1954.

Sport fishery effort for these streams has averaged 25,230 man-days since 1973. The angling effort is related to the length of the punch card season, water conditions, and the size of the run. The catch rate since 1973 has averaged 0.013, or 77 hours to catch a fish.

The three lower Kenai Peninsula streams are readily accessible to the population centers of Anchorage (200 miles) and Kenai-Soldotna (50 miles). Because the fishery is confined to the lower two miles, the fishery is congested, averaging 3,690 anglers per day for the three streams since 1973.

King salmon stocks in these three streams are considered to be in excellent condition and appear to be the most stable king salmon runs in the Cook Inlet drainage.

There is practically no commercial fishery on these runs since set gill nets are not allowed in this area and drift gill nets are prohibited within 1/4 mile from shore. Late commercial openings further protect the stocks. No current user group conflicts exist.

The streams have a greater potential for meeting increased recreational angling needs since only 21% of the total run is currently being harvested. If king salmon punch cards were eliminated it would provide for greater management flexibility by allowing greater harvests in years of strong runs.

Stock I - Lower Kenai Peninsula King Salmon

Option A

Retain present management policy of allowing sport fishing during only four weekends, using a punch card with a bag limit of one king salmon per day and two per year.

Harvest 21% of the stocks

Option B Increase management flexibility to harvest large runs by removal of punch card. See Sport Fish Proposal #28.

Option C Increase harvest rate. See Sport Fish Proposal #31.

STOCK II

Lower Kenai Peninsula Coho Salmon

This fishery occurs on the Anchor River, Stariski Creek, Deep Creek, and Ninilchik River from late July through late September. The limit is three coho salmon daily or in possession. The area open to fishing is the lower two miles of each stream, with virtually all of the spawning area closed to salmon fishing. Because these streams are located south of the east side set net fishery, there is limited commercial effort on these stocks except for possibly the sites immediately north of Ninilchik.

Although these four streams have been monitored on a very limited basis since the late 60's, it appears that the coho salmon stocks have been relatively stable. The combined sport catch appears to range between 2,000 to 2,500 fish taken by 12,000 to 15,000 man-days of effort.

The area open to fishing in these streams is fairly restricted but fishing is usually not particularly crowded. The opportunity for a substantial increase in harvest is probably fairly limited as these streams are near their natural carrying capacity.

Again, no user group conflict exists with these coho stocks.

Stock II - Lower Kenai Peninsula Coho Salmon

No policy options or regulatory proposals pertinent.

STOCK III

West Side Coho

Coho stocks on the west side (Central District) of Cook Inlet are currently of relatively minor importance to the recreational fishery. Sport fishing effort averages less than 1,500 man-days per year. Most streams are accessible only by aircraft. The 1976 sport catch from this area was estimated at a maximum of 1,000 coho. A gradual increase in sport fishing effort and harvest is anticipated.

These stocks are commercially harvested almost exclusively by set nets located on the west side of Cook Inlet and average 24,000 per year. Coho represent about 28% of the total salmon harvest in the area, with sockeye and chum accounting for most of the balance.

About one-third of this coho harvest occurs during the local sockeye run and the remaining two-thirds occurs during the chum run. It would not be possible to limit the commercial harvest of these coho without significantly reducing local chum and sockeye harvests. West side coho run later than coho's bound for the Northern District. This fishery is believed to be supported by local stocks of all species and can be adequately managed under present practices and regulations. The status of this stock is unknown because of the lack of escapement data. However, stable catches indicate that the stocks are probably in good condition.

There is no significant user group conflict involving this stock.

Stock III - West Side Coho

No policy options or regulatory proposals pertinent.

STOCK IV

Early Russian River Sockeye Salmon

The recreational fishery occurs from early June until mid-July in that section of the Russian River from its confluence with the Kenai River to a marker 600 yards below the Russian River Falls. A sanctuary area at the confluence is closed during the early run. Approximately 2.5 miles of stream are open to fishing. Anglers are restricted to the use of streamer flies and the limit is one sockeye salmon daily or in possession until July 15. Early run sockeye salmon, which are predominately six years old, spawn in a tributary to Upper Russian Lake. With the late June opening in the Cook Inlet gill net districts, there is very little commercial harvest of early Russian River fish.

Recreational catches in this fishery since 1972 have averaged 7,230 fish. The average escapement during this same period was 11,980 sockeye salmon. For the past six years 33% of the early run has been harvested by the sport fishery.

Early run angling effort on the Russian River has averaged 15,165 man-days since 1972. The intensity of fishing effort on the early fishery is directly dependent on the size of the run. Although Russian River is the only area with a one sockeye salmon limit on the Kenai Peninsula, the reduced limit appears to have had little effect in reducing effort. The catch per hour since 1972 has averaged 0.104, or 10 hours to catch a fish.

Early Russian River sockeye salmon stocks appear to be relatively stable except for years when fish are unable to ascend the Russian River falls due to a high water velocity barrier. A minimum escapement goal of 8,500 fish established by the Department has been achieved 67% of the time since 1966. The commercial set net harvest on the east side beaches during the years of early openings from late May through mid-June (1959-63) averaged 11,570 sockeye salmon. These fish are believed to have been primarily of Russian River origin based on scale analysis.

Existing Board policy states that the Commercial Fisheries Division will allow 20,000 early run sockeye to enter the Kenai River prior to June 20. However, the current commercial season opening of June 25 allows only a minor commercial harvest. The Sport Fish Division is directed to manage the Russian River so as to permit an escapement of 8,500. Since 1972 total return to Russian River has averaged 19,200. Escapement for the same period has averaged 11,980.

The area is readily accessible from Anchorage and Kenai-Soldotna. The potential for increased recreational utilization of the early run fishery is limited because the total sockeye salmon run size is relatively small. Considering the relatively small size of the run, its intermingling with other stocks that pass along the east side of the Central District, and present Board policy, it would be difficult to conduct a commercial fishery on these stocks and still provide a recreational fishery.

Stock IV - Early Russian River Sockeye

Option A Retain present management policy of one fish per day in the sport fishery in a restricted portion of the lower Russian River. Retain the existing commercial opening date of the first Monday or Friday after June 25.

Option B Open commercial fishery earlier than present. See Commercial Proposal #117.

Note: It is also desirable to clarify that portion of the existing Board Policy which calls for a 20,000 fish escapement prior to June 20. Current commercial opening date of June 25 or later precludes the necessity of this requirement.

STOCK V

Late Russian River Sockeye Salmon

This recreational fishery occurs from mid-July until late August in the same section of the Russian River described for the early Russian River sockeye except that the sanctuary area is opened during the late run. The limit after July 14 is three salmon daily or in possession. Late run fish, which are primarily five years old, spawn chiefly in Upper Russian Lake and its tributaries. The entire spawning area is closed to salmon fishing except for the area below Russian River Falls, which is utilized by a small segment of the run.

Recreational catches on this fishery since 1972 have averaged 13,820 fish. The average escapement during the same period is 41,650 sockeye salmon. The minimum escapement goal is 30,000. For the past six years 24% of the late run has been harvested by the sport fishery.

Late run angling effort since 1972 on the Russian River has averaged 16,475 man-days. The amount of effort is directly dependent on run size. The catch per hour since 1972 has averaged 0.186, or approximately five hours to catch a fish.

The late Russian River sockeye salmon stock fluctuates in abundance and does not necessarily correlate to the size of the total run into the Kenai River. This was the case in 1977 when the Kenai River escapement was estimated at 760,000 sockeye salmon, based on sonar counters, and the Russian River received only 65,825 fish, or 9% of the total run. Since 1968 the late Russian River run has averaged 32% of the total Kenai River run. The minimum escapement goal has been achieved 83% of the time since 1966.

The late Russian River sockeye run comprises a relatively small portion of Cook Inlet's total sockeye run. They are harvested mainly by the drift fleet and set gillnets on the east side of the Central District, which are the principal harvesters of most late run sockeye stocks.

There is no way at present to segregate Russian River stocks in the commercial fishery and therefore cannot be afforded protection beyond that given to other sockeye stocks.

The potential for increased recreational utilization of the late run fishery will continue to fluctuate with total run size. However, the availability of parking in the U.S. Forest Service and Fish and Wildlife Service campgrounds may limit increased utilization during large runs.

Stock V - Late Russian River Sockeye

No policy options or regulatory proposals pertinent for this stock.

STOCK VI

Early Kenai River King Salmon (Prior to July 1)

This recreational fishery takes place both within the Kenai River and off the Deep Creek beach where a mixed stock fishery is conducted.

The Deep Creek saltwater fishery occurs from mid-May through late June adjacent to the Kenai Peninsula beaches south of Deep Creek. King salmon taken in this fishery are made up of fish destined for the Kenai River, Kasilof River, Deep Creek, Ninilchik River, and Susitna Basin streams. The bag limit is two king salmon daily or in possession.

There was no appreciable recreational harvest in the Deep Creek area prior to 1972 when anglers discovered they could take king salmon in the clearer waters of lower Cook Inlet. Sport catches in this fishery since 1972 have averaged 2,100 king salmon over 20 inches, with a 1977 catch of 4,620 fish.

Early run angling effort on the Deep Creek marine fishery has increased from 2,360 man-days in 1972 to 18,800 man-days in 1977. The intensity of angler effort on this fishery is primarily related to the number of calm weather days in Cook Inlet, as well as king salmon abundance.

This area has a good potential for meeting increased recreational angling needs because the area is large, the fishery is not particularly efficient, and utilizes several different king salmon stocks. The main limitation to increased utilization at the present time is the availability of space at the state campground adjacent to Deep Creek.

The Kenai River fishery occurs from early June through early July in that section of the Kenai River from its mouth upstream to Skilak Lake outlet. The bag limit for this fishery is one king salmon over 20 inches in length daily or in possession.

There was no appreciable recreational harvest in the Kenai River prior to 1974 when angling from a drifting boat became popular. Sport catches in this fishery since 1974 have averaged 1,510 king salmon over 20 inches, with a 1977 catch of 2,170 fish. Approximately 65% of the king salmon taken are males.

Early run angling effort on the Kenai River has increased from 11,270 man-days in 1974 to 35,480 man-days in 1977. The abundance of king salmon does not appear to be a major factor in determining angling effort. The opportunity to take a trophy fish seems to provide sufficient impetus to utilize the fishery.

The total recreational harvest from both Deep Creek and Kenai River early run fisheries since 1974 has averaged 4,295 king salmon. The large harvests of 1976 and 1977, 7,050 and 6,790 respectively, were made up predominately of fish taken in the marine fishery (73%). These large harvest figures coincide with excellent escapements into Susitna Basin streams, Ninilchik River, and Deep Creek.

The early Kenai River king salmon run appears to be in good condition as the average sport harvest has not substantially exceeded the historical commercial harvest from the east side set net beaches of 3,600 fish (1959-1963). The early run has been generally protected from commercial harvest since 1964, due to a later season opening with an average catch of 1,311 from 1966 through 1977. During four of those years when the opening dates fell between June 17 and 19, the catch averaged 2,761. When the opening date fell after June 24 (1973-1977) the average harvest was only 527 fish. The timing of this run coincides with the early run sockeye and other early run king stocks.

If a commercial fishery was open during this time, the bulk of the June Kenai king harvest would occur in the east side area of the Central District. 

Allowing a commercial fishery on the east side of the Central District restricted to standard sockeye gear would afford only minimal protection to these king stocks. The only way to allow a viable commercial fishery for king salmon stocks destined for other systems running at this time would be to exclude the east side of the Central District from the fishery.

Stock VI - Early Kenai Peninsula King Salmon

- Option A Retain present management policy of a commercial fishery opening date of first Monday or Friday after June 25, and a sport fishery with a bag limit of one per day in the Kenai River and two per day in salt water.
- Option B Open commercial fishery earlier with king gear or sockeye gear. See Commercial Proposals 117 and 122. 

STOCK VII

Second Run Kenai River Coho Salmon Fishery (after August 15)

The stock became controversial in 1976 with the filing of the Izaak Walton initiative calling for a commercial fishery closure of August 15. Beginning in 1976 the Sport Fish Division initiated a creel census program on the Kenai River to define the harvest, effort, and catch rate.

The 1976 late run coho salmon recreational harvest was 7,445 fish taken during 17,450 man-days of effort. The catch per hour was 0.122, or 8 hours to catch a fish. In 1977 fishing effort and harvest were reduced by intermittent flooding conditions which precludes comparative analysis of the two years. Anglers harvested only 3,150 cohos during 6,565 man-days in 1977.

This recreational fishery occurs from late August through early October. The area limit is three coho daily or in possession. Kenai Lake and its tributaries are closed to salmon fishing.

The late run coho commercial fishery on the east side set net beaches occurs from mid-August through September and are not mixed with other stocks. This catch is relatively insignificant compared with the overall salmon harvest. However, the fish are of high quality and command a high price.

It would be relatively easy to manipulate the commercial harvest of these fish by adjusting the fishing time on the east side of the Central District (Upper subdistrict). The only difficulty would be in determining the desired harvest level since total stock size is not known.

There are other stocks of salmon that run to the west side of the Central District during the late Kenai coho run. Since the late Kenai coho stock is taken only along the east side of the Central District, any management options directed toward this stock should only affect the eastern portion of the Central District. Otherwise, harvest of other stocks would be unnecessarily inhibited.

The size of the run can only be approximated from catch information. The commercial fishery harvest, which is taken almost entirely by the east side set net fishery, averaged 13,700 fish per year from 1966 through 1976, and does not appear to be changing. This average harvest plus the 1976 sport catch of 7,400 indicates this stock is of limited size.

Despite the reduced recreational catch and effort in the 1977 fishery it is anticipated that this recreational fishery will increase, emphasizing the need for long range policy or regulations to govern this limited stock.

Stock VII - Late Kenai Coho (after August 15)

Option A Continue present flexible management policy based on two 12-hour commercial periods per week. Commercial fishing time dependent upon relative catches.

Note: This policy option does not define or designate which user group will have preference when low runs occur.

Option B Curtail commercial fishery catch level to attempt to provide a satisfactory recreational fishery:



1. Adopt a policy that, if the commercial catch rates indicate a below average run, the commercial fishery would close. If the commercial fishery catch rates are at or above average, the maximum commercial fishing time would be two 12-hour periods.

2. Terminate commercial fishery after August 15. See Commercial Proposal #114.

Option C Adopt a policy to curtail the recreational fishery when the run is weak to maintain a limited commercial fishery by closing or restricting the Kenai River sport fishery as soon as possible after August 20 when catch rate data from East Side set nets indicate the run is below average.

*Noted. Structure to Staff
Of Item B.1. - Adopted*

STOCK VIII

Upper Cook Inlet (Susitna) King Salmon

The history of decline of Upper Cook Inlet king salmon has been well documented.

In 1963 the Alaska Board of Fish and Game declared a closure of king salmon fishing to both commercial and sport fishing in an effort to increase escapement and rebuild the salmon runs. This basic closure remained in effect for 1964 and 1965.

In December of 1965, the Alaska Board of Fish and Game adopted a proposal allowing a limited sport fishery in 1966 for king salmon in selected fresh-water streams of Upper Cook Inlet. This fishery lasted until 1972 when it was again closed by the Board of Fish and Game.

Both in 1971 and 1972 two commercial 12-hour test periods were conducted in early June as a result of increasing escapements noted in 1969 and 1970. The intent of these periods was to establish a measure of run strength.

Enumeration of king salmon in the Susitna River drainage is confined to the clear water tributaries. Since 1964, king salmon surveys have been made annually on selected streams in the Susitna basin. No appreciable change in the escapement was noted until 1968. An increase in escapement was noted that year and again in 1969 and 1970. Escapement counts dropped again during 1971 but because enumeration conditions were extremely poor the counts are not comparable to previous surveys. From 1972 through 1975, escapement figures were generally stable and within the expected range of annual fluctuation.

Since 1973 escapement surveys of sufficient magnitude to estimate total king salmon spawning escapements have been conducted on all major clear water streams of Upper Cook Inlet. In 1973-75 total stock estimates ranged from 11,500 to 15,800 kings. In 1976 the majority of surveyed streams showed substantially larger escapements than any previous year with a total run estimate of 72,000. In 1977 an even larger escapement of 118,000 kings was estimated.

When sport fishing was last allowed on Susitna king salmon stocks, sport fishing effort on west side tributaries was comparatively light, with the primary limitation being that of access. Angler access was and still is limited to riverboat and float plane. Current existing boat launching facilities on the Susitna River have made access to the area more convenient for boaters and a considerable increase in boat traffic has been noted on west side streams.

All streams on the east side of the Susitna River can readily be reached by automobile, except Chunilna (Clear) Creek, which remains accessible only by riverboat or aircraft.

Since it appears that these stocks can be segregated in the commercial fishery from other stocks of importance that are running at this time, it would be possible to commercially fish these stocks without affecting other stocks by restricting this fishery to the west side of the Inlet.

The problem with managing commercial fishing on this stock, or any early run stock, is the absence of comparative data from which to interpret catches. Glacial conditions of the Susitna currently prevents timely escapement enumeration and consequently the use of escapement data for in-season management. Since there has not been a significant commercial fishery on these stocks since 1964 there is not a good historical data base from which to interpret catches.

Systems that would be the most susceptible to overharvest would be those that would have to withstand the pressure of a sport fishery as well as the commercial fishery. Since the commercial fishery takes its harvest from most of the stocks that comprise the run it would be difficult, if not impossible, to determine from the catch the impact upon individual populations.

Despite the limitations of access, the desirability of king salmon to the recreational angler gives this stock the potential to meet the recreational needs for a large number of anglers. Based on current distribution of the run in various streams in the Susitna drainage, sport fisheries could be designed to fish in areas where 70-75% of this stock is available.

Based upon commercial catch data and test fishing in the Susitna River, the Susitna king salmon run reaches the Northern District in mid-May, peaks in early June, and is essentially through the commercial fishing districts by June 25.

There is currently no significant commercial harvest of these stocks as they run prior to the opening of the commercial fishery. This is the largest run of kings into Cook Inlet. The run coincides with other early king runs and early sockeye runs, particularly to the Russian River.

The migration path of these kings is thought to be mainly along the west side of the Inlet which would partially segregate them from stocks headed to systems on the east side of the Central District.

However, it is believed that a significant percentage of the Deep Creek marine sport catch in May are Susitna bound kings. During the past two years a major increase in catch and catch rate in that fishery has coincided both with the major increase in run size of the Susitna stock and the passage time through the Central District for that stock.

Run size estimates made in 1976 and 1977 are of a size which could have provided catches comparable to commercial catches of about 50,000 fish made from about 1900 to about 1940.

A final consideration in planning the management of this stock is the lack of assurance that this stock has recovered to its historic levels. Associated with the very large Susitna runs of 1976 and 1977 have been abnormally

large king salmon runs in many southcentral Alaskan rivers. For example, the lower Kenai streams (Anchor, Deep and Ninilchik) believed to have been at maximum production levels for the past decade suddenly produced runs nearly three times as large in 1976 and 1977. The 1976 and 1977 Susitna runs were produced by abnormally high survival from small parent runs. If survival rates return to more normal levels we cannot expect king runs during the balance of the cycle to be as large as the past two years.

Stock VIII - Susitna King Salmon

- | | |
|----------|---|
| Option A | Retain present management policy of complete closure. |
| Option B | Open limited sport fishery. <u>See Sport Fish Proposal #50.</u> |
| Option C | Open commercial Northern District setnet fishery and/or Central District drift and setnet fishery. <u>See Commercial Proposals #113, 117, 119, and 124.</u> |

/ / / /

STOCK IX

Early Run Kenai River Coho Salmon (Prior to August 15)

This recreational fishery occurs from late July through late August in the Kenai River. The area limit is three coho salmon daily or in possession. Kenai Lake and its tributaries are closed to salmon fishing.

Increased recreational catches of coho salmon appear to have occurred coincidentally with the increase in king salmon angling. The large number of boats used in the king salmon drift fishery readily switch to coho salmon fishing after the king salmon season terminates on July 31. Since virtually all coho salmon are taken while anchored, there is a minimal incidental harvest of king salmon associated with this fishery. The early Kenai River coho salmon fishery was first monitored in 1975 when 5,715 fish were taken by 9,725 man-days of effort. The catch per hour was 0.091 or 11 hours to catch a fish. In 1976, effort on this fishery had increased to 18,620 man-days. The recreational catch was 6,365 coho salmon, with a catch per hour of 0.085, or 12 hours to catch a fish. Data obtained during 1977 are not representative of the fishery due to the chronic flooding of the Kenai River from late July through mid-September.

The run has a good potential for meeting increased recreational needs depending upon the harvest rate of the east side commercial set net fishery. Harvest rates are generally higher on even years when pink salmon runs occur and/or years of large sockeye runs. Public and private campgrounds are far less utilized than during the chinook salmon fishery.

The early run commercial coho salmon fishery on the east side set net beaches starts approximately mid-July, peaks in late July, and runs through mid-August. About 75% of the catch is taken by set gill nets on the east side of the Central District, and the balance by the drift gill net fleet.

Approximately 50% of the early Kenai coho commercial catch is taken coincidentally with the harvest of the late or main Kenai sockeye run. Additionally, on even years the pink salmon run to the Kenai River coincides with the early coho run. Thus, three species overlap in timing in the commercial fishery during even years.

The early Kenai coho east side set net catch averages 24,000 fish, while the sockeye catch averages 120,000 and during even years, an additional 540,000 pink salmon. Manipulation of the commercial fishery to protect early Kenai coho salmon would be at the expense of a portion of these important Kenai-Kasilof sockeye runs and a significant portion of the even year pink salmon runs.

At this time no indication of decline has been detected in the early Kenai River coho stock. However, the total harvest has started to increase significantly during the past four year cycle due to the rapid increase in participation in the recreational fishery.

This stock, in common with the late Kenai king salmon stock, faces the immediate future prospect of increased commercial fishing time which will be necessary to harvest anticipated large pink and sockeye runs. In addition, the rapid increase in sport fishing effort and harvest should continue and will exert additional pressure on this stock.

This stock will ultimately be endangered if the total harvest by all user groups is allowed to rise without constraints.

Stock IX - Early Kenai River Coho Salmon (Prior to August 15)

Option A Continue present management policy with primary commercial emphasis on sockeye and even-year pink salmon. The sport fishery maintained with a standard 3 fish-daily bag limit.

Note: This option assumes an ever-increasing coho salmon harvest due to continued increases in recreational fishing effort and above average commercial coho catches during those years when extensive extra fishing time for sockeye and pink salmon is granted.

Also, this policy option does not define or designate which user group shall have preference when low runs occur.

Option B Continue present commercial fisheries management policy with primary emphasis on sockeye and even-year pink salmon. The sport fishery to be curtailed when catch data indicate a weak run is in progress.

Option C Reduce the commercial harvest in the east side set net fishery to increase coho salmon escapement and to provide increased recreational opportunity.

Adopt a policy that would regulate fishing time based upon coho salmon catches:

- a. Fishing time will be limited to two 12-hour periods per week during the main part of the early coho salmon run when 50% of the catch usually occurs.
- b. Additional fishing time will not be allowed (beyond the standard two 12-hour periods per week) during years of high sockeye or pink salmon abundance after the coho salmon catch reaches 24,000.

This policy assumes large numbers of pinks and sock-eyes will be lost to commercial harvest in the East side set net districts.

Option D

Minimize commercial coho catches during the even-year Kenai-Kasilof pink salmon run by restricting mesh size to a maximum of 4-3/4 inches in the East side set net fishery during the main pink salmon run.

STOCK X

Late Kenai King Salmon (after July 1)

Like the early run, the late Kenai king recreational harvest occurs both off the Deep Creek beaches and in the Kenai River.

The Deep Creek marine fishery occurs from early July through early August, with the fishing area and bag limits identical to those described for the early run. Stocks taken in this fishery are believed to be primarily of Kenai River origin. Sport catches in the late run marine fishery since 1972 have averaged 660 king salmon over 20 inches, with a 1977 harvest of 565 fish. Late run angling effort on the Deep Creek marine fishery has increased from 1,250 man-days in 1972 to 6,940 man-days in 1977. The effort since 1972 has averaged 3,880 man-days.

The Kenai River fishery occurs from early July to July 31, when the season closes, although king salmon are present in the river until late August. Bag limits are identical to those described for the early run.

Sport catches in the late run fishery since 1974 have averaged 5,890 king salmon over 20 inches, with a 1977 harvest of 5,510 fish. Late run angling effort on the Kenai River has increased from 12,355 man-days in 1974 to 47,540 man-days in 1977.

Both the Deep Creek and Kenai River fisheries have been managed by a Fisheries Board policy adopted in 1975. This policy states "that the total late run recreational catch (Deep Creek marine and Kenai River) will not exceed the commercial set net catch after July 1 on the east side beaches (area 244-20, 30, 40) during the regularly scheduled two 12-hour periods by more than 10%". If this occurs, the sport fishery is closed by emergency order. In 1977 the Kenai River king salmon sport fishery closed July 28 on the basis of this policy.

The combined catch of the Deep Creek and Kenai River fisheries, since 1974, has averaged 4,350 king salmon over 20 inches. The 1977 total late run catch was 5,515 fish.

Angling effort on both fisheries has averaged 30,530 man-days since 1974. The 1977 total late run effort was 54,480 man-days.

The commercial fishery on late run Kenai king salmon occurs from the first week in July to the second week in August, and averages 5,000 king salmon. About 90% of the catch is taken by set gill nets on the east side of the Central District, and the remaining 10% by the drift fleet. The combined commercial and recreational harvest averages 10,000.

The 1977 combined catch was 15,800 kings, with 10,300 in the commercial catch. The increased commercial catch was due to additional fishing periods to harvest a strong Kenai sockeye run and shifting the drift

adjacent to the east shore in order to protect Susitna coho salmon while harvesting surplus sockeye salmon. This procedure was in line with Board of Fisheries policy.

While the 1977 catch was a substantial increase over the average catch, it is not believed that there has been a deleterious effect on the late run king salmon at this time. Set net catch rates over the past six years indicate a possible increase in stock abundance.

Since 90% of the late Kenai king catch is made in the east side set net fishery, any new management schemes should be directed only to this particular area.

During the late Kenai king salmon run, the east side set net fishery is taking its entire sockeye, pink, and early Kenai-Kasilof coho harvests. This catch averages 814,000 on the even years and 370,000 on odd years.

As of this time, stock levels appear to be stable. However, the total harvest is rising sharply and will likely continue to rise.

In general, we anticipate extra commercial fishing periods to adequately harvest anticipated large sockeye and pink runs. These extra periods will also increase commercial harvest of Kenai kings.

The sport fishery is increasing dramatically and is expected to continue to increase. In 1977 the Kenai River was closed to sport fishing for king salmon for the first time to conform to the Kenai River king salmon management policy. If the present management policy is retained, we anticipate sport catches will be at a level which will mandate sport fishing closures every year in the Kenai River due to progressively larger recreational participation.

If total Kenai River king salmon harvest is not stabilized this run will ultimately be overharvested in future years.

Stock X - Late Run Kenai King Salmon

Option A

Continue present commercial fisheries management policy with primary emphasis on sockeye and even-year pink salmon.

Stabilize the total harvest by limiting the recreational harvest through continuation of the existing Kenai River king salmon policy.

This policy assumes a sport fish field closure at some point in the run each year when recreational catches exceed set net catches.

Option B

Continue present commercial fisheries management policy with primary emphasis on sockeye and even-year pink salmon.

Rescind present Kenai River king salmon policy which relates recreational catch to catches made in the East Side set net fishery.

This option assumes an increasing king salmon harvest due to continued increases in recreational fishing effort and above average commercial king catches during those years when extensive extra fishing time for sockeye and pink salmon is granted.

Option C

Reduce the commercial harvest in the East Side set net fishery to increase king salmon escapement and to provide increased recreational opportunity.

Adopt a policy that would regulate fishing time based upon king salmon catches:

- a. Fishing time will be limited to two 12-hour periods per week during the period when 50% of the catch occurs.
- b. Additional fishing time will not be allowed (beyond the standard two 12-hour periods per week) during years of high sockeye or pink salmon abundance when the king salmon catch reaches 5,000.

This policy assumes large numbers of pinks and sockeyes will be lost to commercial harvest in the East Side set net districts.

STOCK XI

Northern District Coho

The recreational harvest of northern Cook Inlet coho, has for the most part, become significant during the past decade. Prior to construction of the Parks Highway in the early 1960's most coho fishing occurred on small roadside streams in the Palmer-Wasilla area and on fly-in west side tributaries of the Susitna River. Completion of the Parks Highway greatly expanded coho fishing opportunities by providing access to numerous streams between Willow and Talkeetna. The Parks Highway also improved river boat access to the Susitna River and west side tributaries. River boat access, however, still remains both difficult and hazardous because of a lack of suitable boat launches and the character of the Susitna River.

Total recreational fishing effort on northern coho cannot be reliably estimated at this time. Spot creel checks suggest, however, that fishing pressure is increasing rapidly on many roadside fisheries whereas a moderate rise in effort characterizes the west side Susitna tributaries. Declining fishing quality may explain the slower increase in effort for west side tributaries. Fishermen may be less interested in these streams because of the greater difficulty and cost of reaching them. On many roadside fisheries pink and chum salmon may be serving as a buffer to declining coho fishing success. The Parks Highway now also funnels most of Alaska's growing tourist trade by the east side tributaries (The Glenn Highway formerly skirted tourists around most of the area's salmon fisheries).

In the mid-1960's the area's daily bag and possession limit was six coho. This limit was reduced to three in 1968. Since statehood, concurrent with human population growth, there has been a trend toward restricting the areas open to coho fishing, particularly on small roadside streams. In 1971 three northern coho streams were designated as weekend only fisheries.

Coho primarily enter northern sport fisheries in late July with peak catches occurring during the first half of August. Most coho fishing is complete by early September.

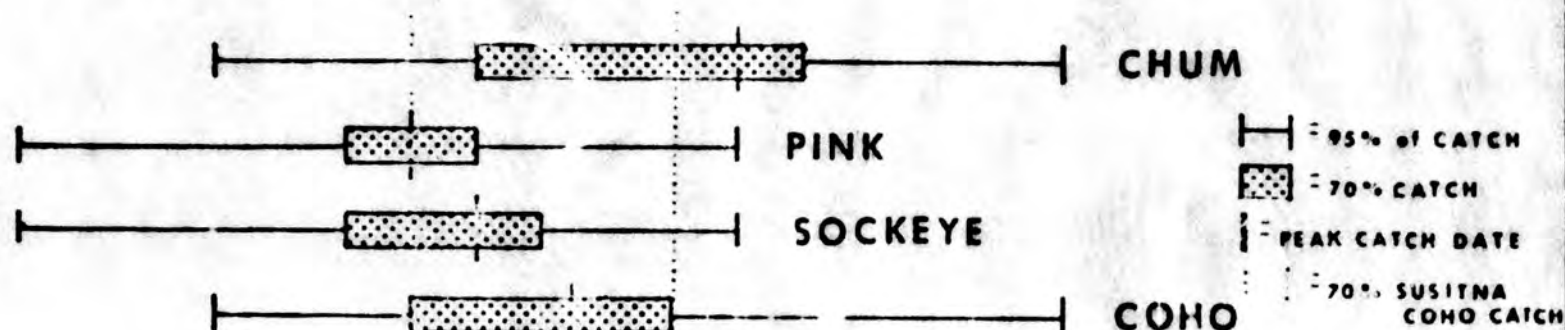
Historically, as with other salmon stocks, Susitna coho have been commercially fished throughout Cook Inlet by set nets and traps, and by drift gill nets since 1947. Prior to the introduction of drift gill net gear the majority of Susitna coho were harvested in the Northern District. This catch pattern has changed since the introduction of drift gill nets. Based on weight differences, it is estimated that some 60% of the Susitna bound coho catch is taken in the Central District, the majority of which are caught by the drift gill net fleet. The balance is caught by the Northern District set net fishery.

The commercial coho fishery on this stock begins about the first week in July, peaks between July 17-23 in the drift fishery and July 20-26 in the Northern District, and is over in early August.

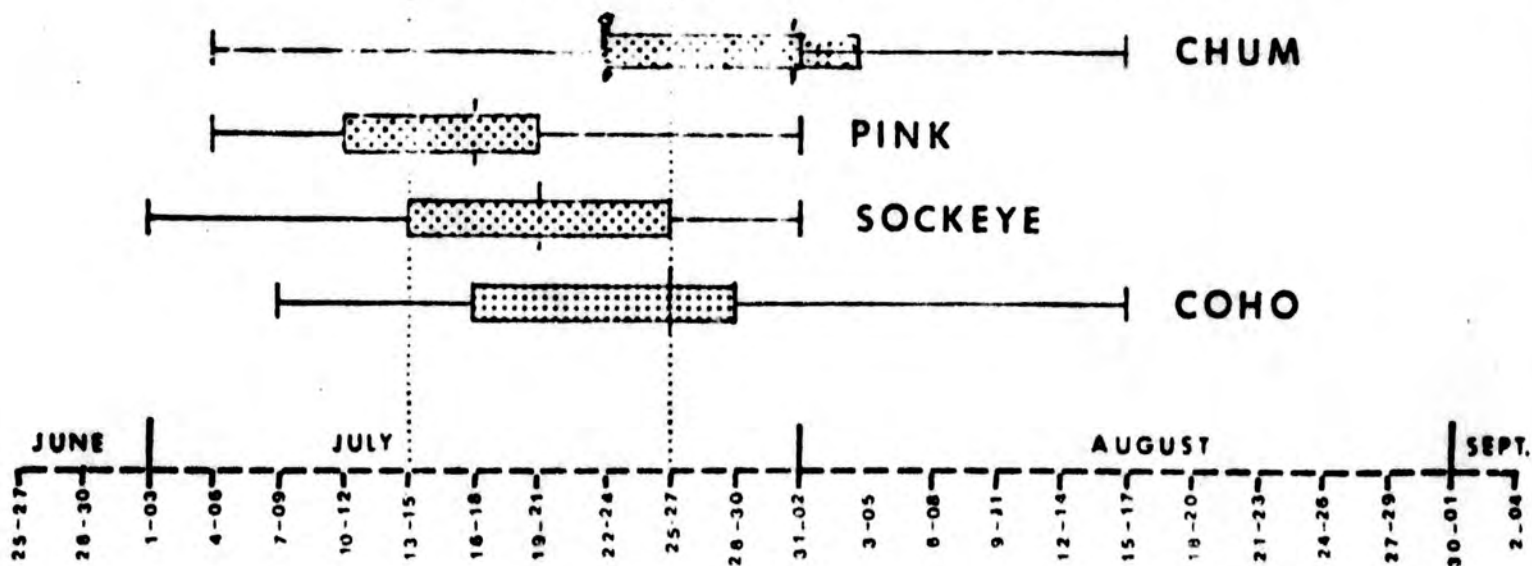
ODD YEAR CATCH TIMING

[1967 - 1975]

DRIFT

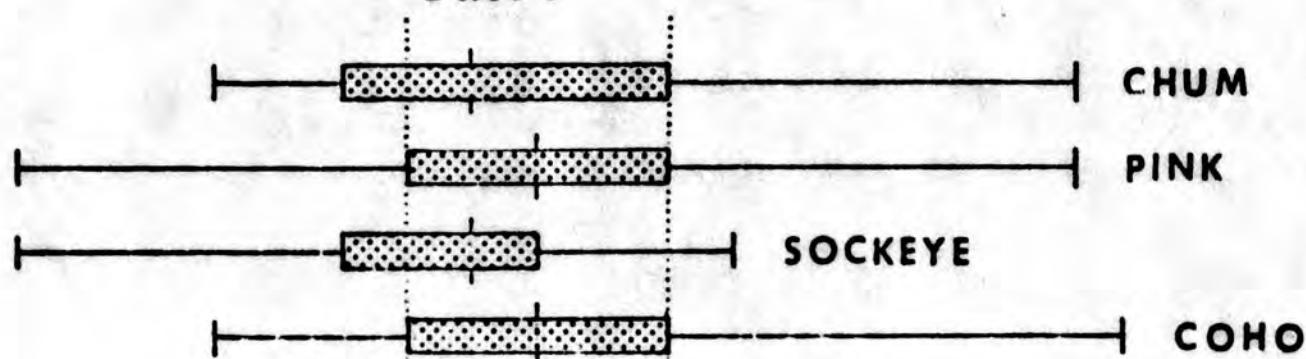


NORTHERN DISTRICT - SET NET

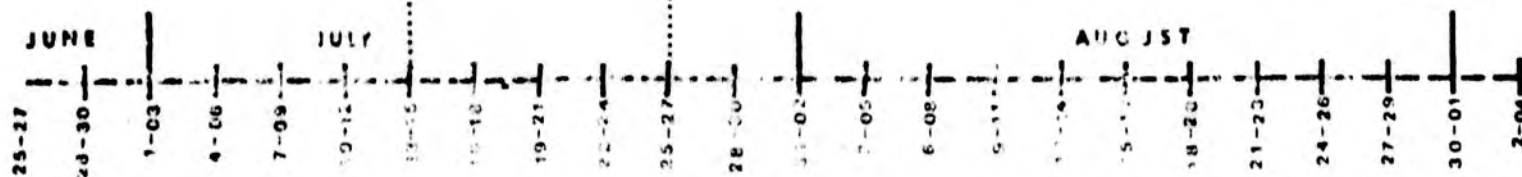
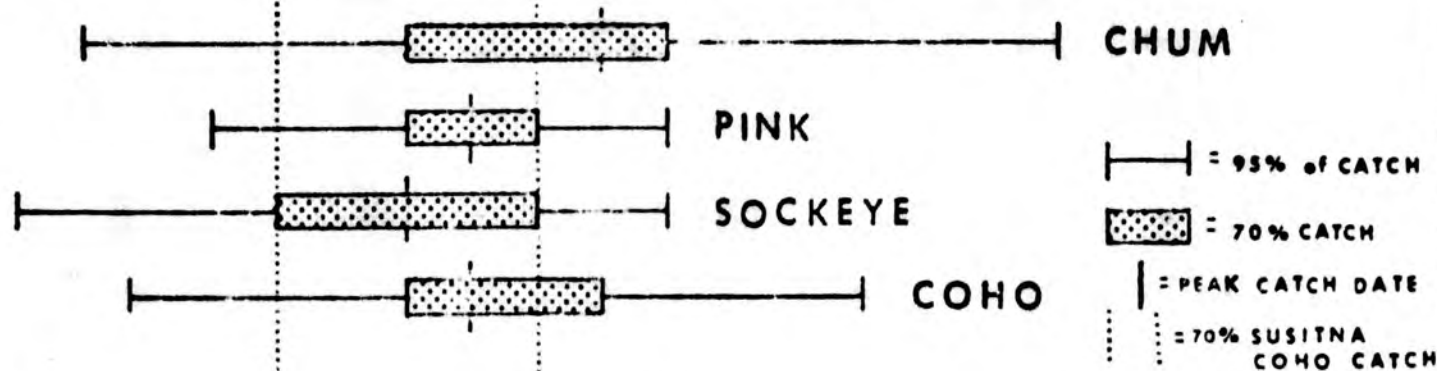


EVEN YEAR CATCH TIMING (1966-1976)

DRIFT



NORTHERN DISTRICT - SET NET



During the time that 70% of this coho stock is harvested, large harvest of other species occurs. Even and odd year runs differ. Even years are more critical, not only because of stronger pink salmon runs, but also because the run peaks of the various species more closely coincide. Figure 8 and 9 depict harvest by species for odd and even years during the time period that northern bound coho are passing through the gill net districts.

During even years since 1966 the catch, adjusted to represent only Susitna bound coho, averages 155,000. A total of 1,500,000 salmon of other species are taken at the same time (440,000 pinks, 610,000 sockeye, and 450,000 chums).

During odd years, along with an average catch of 85,000 coho, an additional 1,135,000 salmon of other species are taken (105,000 pinks...since the 1975 increase in this pink cycle...610,000 sockeye and 420,000 chums).

The period when any meaningful management options could be exercised is between July 15-27 when 70% of Susitna bound coho are normally caught. During this time period the average even year coho harvest is 107,000. The harvest of other salmon species during this same period averages 1,200,000.

The odd year average coho catch for this period is 60,000. The catch of other species averages 780,000.

These figures represent catches only from the Northern District and drift gill net fisheries since the bulk of northern bound coho are caught by these two fisheries.

Prior to 1976 little consideration was given this stock due to their relative insignificance in the total commercial fishery. Odd year harvests of this stock have remained relatively stable. On the other hand, the harvest of the dominant even year cycle ranged to a near record high of 330,000 in 1968, then dipped sharply to a 50-year low of 40,000 in 1970. Even year harvests since 1972 have averaged 120,000.

The decline after 1968 is thought to be the result of an overharvest during the 1968 season in conjunction with harvesting large runs of other species, and adverse environmental conditions. The increase in run size after 1972 is thought to be primarily the result of favorable environmental factors. Climatic conditions play an important role in determining production levels of coho salmon since they spend about 75% of their life in fresh water. Their fresh water habitat in the Northern District area is highly susceptible to adverse weather conditions.

The overall magnitude of this coho stock is unknown. Attempts have been made to quantify escapements, but results have been generally incomplete due to the relatively small numbers of fish, their broad distribution throughout Upper Cook Inlet, and poor survey conditions during the fall. A small number of streams currently serve as the only index of relative escapements.

At present, the primary indicators of run strength are commercial and recreational catch rates.

No statistically based harvest estimate is available for the overall northern coho recreational fishery. Creel checks have been conducted sporadically to measure effort and catch on select streams throughout the years; and spot creel checks are made on most popular sport fisheries. These checks indicate that the maximum estimated harvest during recent years has been 7,500 fish.

Catch rates for such northern streams as the Deshka, Alexander, and Lake Creek averaged about 0.35 coho per hour during the 1960's. Harvest rates for these same waters during the 1970's have dropped below 0.10 fish per hour, e.g., 0.06 coho per hour was recorded for the Deshka in 1977. Catch rates for most east side Susitna and Knik Arm fisheries have declined in a similar fashion. For example, in 1976 and 1977, roadside coho fisheries averaged about 0.05 fish per hour.

The northern coho stock's potential for satisfying recreational needs is great due to the magnitude of the run and its close proximity to Anchorage. Coho fisheries east of the Susitna River are within a one to two-hour drive of the state's major population center. The stock also offers a variety of fishing options varying from fly-in fishing, conventional boat fishing, float trips, as well as roadside fishing. The stock utilizes a great number of fishable streams over a wide area which would accommodate a large number of fishermen.

A major problem confronting greater sport utilization of this stock involves the commercial fishery interception of the northern coho run. As noted earlier, northern coho, while migrating through Cook Inlet, are mixed with three associated salmon species. Commercial exploitation, primarily directed at sockeye, pinks, and chums therefore takes the bulk of the harvestable surplus before the northern fish become available to the sport fishery. Current level of knowledge does not provide an adequate basis to manipulate the commercial fishery to assure significantly greater coho escapement while still adequately harvesting surplus stocks of other species.

Stock XI - Northern District Coho

- | | |
|----------|---|
| Option A | Continue present commercial management policy, including 1976 Board directive to attempt to increase Northern District coho escapement at the expense of commercial harvest on sockeye, pink and chum stocks. |
| Option B | Return commercial management to pre-1976 policy of full harvest of pink, chum, and sockeye stocks without special consideration for Northern District coho stocks. |

**PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED
AS A UNIT IN THE ORIGINAL DOCUMENT.**

Only The Kings Won

OF ALL THE options open to the Alaska Board of Fisheries in managing Cook Inlet's reviving king salmon runs, it adopted the worst in voting to protect the big salmon from both commercial and sports fishermen this summer.

The board reversed an earlier ruling to allow four weekends of sport fishing for kings and two 12-hour periods for commercial fishermen. The decision will only heat up the controversy over sports versus commercial fishing.

The recovery of Cook Inlet's king runs from 11,500 fish in 1973 to about 118,000 this year is encouraging to all Alaskans. It also indicates that the renewable resource has recovered to the point where harvest is justified.

NOW, as a result of the fisheries board's ruling, no legally taken Cook Inlet kings will reach tables this summer. Fish that could and should supplement Southcentral Alaska's food supply will not be eaten because the board couldn't decide between

contending forces.

Almost every fishery in the state has competing demands. If the board were to continue ducking hard decisions by banning fishing the result would be chaos. The governor or the Legislature would have to intervene.

An unfortunate result of the king salmon controversy is that it plays into the hands of those who seek legislative action to deal with fish and game problems. Professionals in the field say good management and politics don't mix.

THE ONLY WINNERS in the current battle are the king salmon. Free from human harvest this summer, the choice fish should return to upper Cook Inlet in ever increasing numbers in future years.

And if runs continue to gain strength as they have in the last three years, perhaps the Alaska Board of Fisheries will do its job and find a way to allow sports and commercial fishermen to share in harvesting this precious resource.

No Tax Reduction

ECONOMISTS at Citibank in New York have analyzed President Carter's tax cut proposal and come up with dismal news, especially for Alaskans: The tax cut is no cut at all for most taxpayers and those in areas with a

Eliminating itemized deductions removes one way taxpayers in those states can make up for part of the disparity.

What it boils down to, according to Citibank, is that while the Carter plan would cut the tax rate, it would not cut the tax burden. It would increase the tax burden for most taxpayers.

means politicians don't want to make a lot of noise about it.



GOOD NEWS! — ter's at last discovered inflation now: He's workers to voluntarily fat pay increases wifered.

That's an ingenious he can certainly con Herm, and his wife over at their place night. Herm hadn't

"AFTER HE president, he vowed a day to help increase productivity," Nancy too, he has that 12 from the office."

"You're sure to save gasoline," "It's a shame you Pinto last fall, the

"Oh, no" she wanted us to be to help ease trade deficit never drive a real gas si

At this tly th



THE IZAAK WALTON LEAGUE OF AMERICA
Recreational Park

P.O. Box 4-316
Anchorage, Alaska 99509



UPPER COOK INLET SALMON MANAGEMENT: A POSITION PAPER

Due to the apparent politically motivated , commercially oriented fishery management policies presently practiced in the upper Cook Inlet fisheries, it is the position of the Anchorage Chapter, Izaak Walton League of America to oppose the present state salmon enhancement program, policies and funding until the recreational, personal use, sport fishermen can be assured that salmon resources will be managed on a professional, non-political basis.

Since Statehood, commercially oriented management of the Cook Inlet salmon stocks has caused continuing resource loss to both the sport and commercial fishing interests in the northern district.

In 1951-54, 17.94% of the total Cook Inlet commercial salmon harvest came from the northern district. However, under politically motivated management practices, in 1975-77 this harvest had declined to 7.9% of the total.

In 1951-54, 44.94% of the silver salmon harvest north of Anchor Point came from the northern district. By 1975-77, the northern district coho catch had declined to 10.75% of the total.

In addition, the politically motivated mismanagement of the public's resources has caused a severe overexploitation of the Big Lake salmon stocks.

Big Lake, in 1940, supported a spawning stock of 306,982 red salmon and 16,546 silver salmon.

We are building a better outdoor



THE IZAAK WALTON LEAGUE OF AMERICA
Recreational Park

P.O. Box 4-316
Anchorage, Alaska 99509



By 1977, a near record year for upper Cook Inlet commercial fishermen, the total Big Lake escapement was 5,292 reds and 930 coho.

The problem is not construction of hydroelectric power dams, stream pollution or loss of aquatic habitat. It is simply commercial overexploitation of northern district salmon spawning stocks.

Now after nearly destroying Big Lake, formerly one of the most productive red salmon spawning systems on Cook Inlet, the state is preparing to spend millions of dollars of hatchery bond funds on what has been-up to now-an unsuccessful and hastily conceived artificial hatchery program while continuing to reduce natural Cook Inlet spawning stocks.

The generally poor results from the Cook Inlet propagation facilities, excluding Fire Lake and the military hatcheries, inspire little optimism for future success in this area.

In 1951, 180,221 kings were commercially harvested in upper Cook Inlet. By 1970, the catch was down to 8,347. This disastrous decline also reflects the inability of the state to meet the constitutional mandate of sustained yield for these resources.

Despite a 20-year history of steady decline in upper Cook Inlet salmon returns, the Board of Fish and Game, in 1971 and 72, opened an early June commercial king salmon "test" fishery.

This "test" fishery harvest in 1971 contributed substantially to a total Inlet harvest of 19,765 kings.

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Anchorage, Alaska 99500



The 1972 harvest, including "test" fish, was 16,086. However, escapement to upper Inlet systems for these two years was the lowest in recorded history.

As you know, that action led to a total king salmon closure in the northern district for both commercial and sport fishermen for five years.

The Anchorage Chapter of the Izaak Walton League encourages the Board of Fisheries to adhere to their adopted policies regarding the targeting of Cook Inlet king and coho salmon stocks primarily for recreational use.

Our chapter is concerned about the decision to repeat another so-called "test" fishery for 1978.

We can only anticipate results similar to those of past years if this year's scheduled "test" fishery is conducted and we therefore urge you to rescind this 1978 king salmon "test" fishery.

To allow for a fair allocation, it is again recommended that there be no commercial harvest of salmon before July 1 or after August 15 in upper Cook Inlet waters.

Further, a detailed management plan recognizing the necessity of the sustained yield principle for all salmon stocks should be prepared and implemented. This plan must include provisions for Susitna and Kenai River king and silver salmon stocks and maximum utilization of natural spawning beds.

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Recreational Park

P.O. Box 4-316
Anchorage, Alaska 99509



Honest, equitable representation of sportsmen's interests on the Alaska Board of Fisheries is mandatory.

The highest and best use of Alaskan salmon is on Alaskan's dinner tables and contrary to the policies of present decision makers, we 102,000 licensed Cook Inlet area sport fishermen are personal consumptive users of these salmon resources.

Signed:

Sam. E. McDowell

Board of Directors, Anchorage Chapter IWL

Alaska Fisheries Resources Committee

Sam McDowell, President

We are building a better outdoor

COOK INLET GILLNET DISTRICT CATCHES, 1951-1977

CENTRAL AND NORTHERN DISTRICTS COMBINED

NORTHERN DISTRICT PERCENTAGE OF TOTAL COMBINED HARVEST

Year	Kings	Sockeye	Coho	Pink	Chum	Total	
1951 ^{1/}	180,228	2,113,791	246,671	29,799	207,818	2,778,307	17.94
1952	73,157	1,449,568	216,496	1,259,725	306,577	3,305,523	
1953	87,823	1,435,652	215,726	33,007	435,977	2,208,185	
1954	63,780	1,207,046	321,525	2,189,307	510,068	4,291,726	
1955	45,926	1,027,528	170,777	101,580	248,343	1,594,254	17.20
1956	64,975	1,258,789	198,189	1,595,375	782,051	3,899,379	
1957	42,253	643,712	125,434	21,228	1,001,470	1,834,097	
1958	22,727	477,392	239,765	1,648,548	471,697	2,860,129	
1959	32,648	606,896	102,849	12,854	289,833	1,045,080	18.76
1960 ^{2/}	27,512	923,314	311,461	1,411,605	653,922	3,327,814	
1961	19,737	1,162,303	117,778	34,017	349,628	1,683,463	
1962	20,210	1,147,538	349,919	2,702,938	970,582	5,191,187	
1963	17,536	942,933	197,140	30,436	387,027	1,575,072	12.53
1964	4,531	969,987	452,654	3,232,427	1,079,084	5,738,683	
1965	9,741	1,412,350	153,619	23,963	316,444	1,916,117	
1966	9,540	1,851,990	289,690	2,005,891	532,616	4,689,727	
1967	7,859	1,380,062	177,729	32,229	296,837	1,894,716	12.38
1968	4,536	1,104,904	470,450	2,278,197	1,119,114	4,977,201	
1969	12,398	692,254	100,952	33,422	269,855	1,108,881	
1970	8,347	731,214	275,173	813,895	775,167	2,603,796	
1971	19,765	636,303	100,636	35,624	327,029	1,119,357	10.64
1972	16,086	879,824	80,933	628,580	630,148	2,235,571	
1973	5,194	670,025	104,420	326,184	667,573	1,773,396	
1974	6,596	497,185	200,125	483,730	396,840	1,584,476	
1975	4,790	684,818	227,372	336,359	951,796	2,205,135	7.90
1976*	10,621	1,643,089	216,970	1,258,710	471,747	3,601,137	
1977*	13,372	2,025,243	186,990	545,975	1,248,972	4,020,552	

* Preliminary

1/ 1951-1959 data - Fish and Wildlife Service Statistical Digest 50.

2/ 1960-1974 data - A Fish and Wildlife resource inventory of the Cook Inlet - Kodiak areas; Volume II, Fisheries. Alaska Department of Fish and Game, 1976.

* The Northern and Central districts annual historical commercial harvest represents no more than 5% of total statewide annual historical salmon harvest.

COOK INLET GILLNET DISTRICT CATCHES, 1951-1977

NORTHERN DISTRICT - PERCENTAGE OF TOTAL HARVEST CENTRAL AND NORTHERN DISTRICTS COMBINED

Year	Kings	Sockeye	Coho	Pink	Chum	Total	
1951 ^{1/}	56,120	176,839	113,000	4,665	63,686	414,310	44.94
1952	21,418	159,688	91,777	204,297	113,960	591,140	
1953	32,089	261,795	104,002	4,904	90,591	493,381	
1954	22,585	120,508	139,464	347,040	84,571	714,168	
1955	20,522	52,927	46,365	3,226	40,321	163,361	36.27
1956	18,457	114,612	80,322	398,851	169,545	781,787	
1957	21,422	90,431	44,416	1,678	101,454	259,401	
1958	9,308	69,222	100,813	408,043	92,227	679,613	
1959 ^{2/}	13,222	134,930	41,230	2,348	50,699	242,429	42.65
1960	8,218	148,247	144,377	442,185	117,739	860,766	
1961	7,755	77,374	40,975	10,765	61,103	197,972	
1962	9,785	133,545	172,883	280,433	144,033	740,679	
1963	7,345	109,463	63,540	8,940	43,694	232,982	27.84
1964	168	160,264	167,928	586,386	126,958	1,041,704	
1965	300	31,575	21,902	4,914	16,906	75,597	
1966	1,422	131,105	80,568	372,667	35,637	621,399	
1967	184	118,065	43,854	8,460	38,384	208,947	26.64
1968	471	140,575	156,648	534,839	58,454	890,987	
1969	2,904	38,065	20,425	7,620	11,836	80,850	
1970	1,460	66,419	82,529	173,694	22,493	346,595	
1971	9,598	40,533	22,094	8,423	16,603	97,251	22.77
1972	4,912	85,737	19,346	90,830	19,780	220,605	
1973	170	45,614	23,951	137,250	30,851	237,836	
1974	169	41,563	47,038	42,876	36,490	168,136	
1975	129	65,526	33,051	90,953	30,787	220,446	10.75
1976*	401	69,565	38,523	145,618	14,297	271,404	
1977*	515	103,415	20,083	107,661	25,397	257,071	

* Preliminary

1/ 1951-1959 data - Fish and Wildlife Service Statistical Digest 50.

2/ 1960-1974 data - A Fish and Wildlife resource inventory of the Cook Inlet - Kodiak areas; Volume II, Fisheries. Alaska Department of Fish and Game, 1976.

King Salmon Escapement Counts, Northern District Cook Inlet, 1966 - 1977.

*King Salmon
Test Fisheries!*

	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
Deshka	933	1,535	3,318	4,836	4,441	161 ^{1/}	1,780	2,381	5,279	4,737	21,693	39,642
Alexander Creek	248	388	563	663	491	— ^{2/}	202	875	2,193	1,878	5,412	13,385
Lake Creek	147	723	653	770	189	119	920	761	535	281	3,375	7,391
Chuit	—	—	—	13	54	—	417	149	171	629	1,984	1,891 ^{4/}
Lewis	—	—	—	—	12	—	7	173	135	75	380	454
Theodore Creek	11	—	—	8	36	—	79	205	205	95	1,032	2,263
Ship Creek	50	200	500	710	1,746	221	121	165	146	120	806	1,011
Campbell Creek	15	300	125	— ^{3/}	63	102	37	201	79	— ^{3/}	210	349
S.F. Eagle River	49	50	28	— ^{3/}	31	— ^{3/}	— ^{3/}	61	— ^{3/}	— ^{3/}	81	313
						603	3563					

- ^{1/} Count made only on East Fork Deshka
^{2/} No count made due to poor water conditions
^{3/} No count available
^{4/} Incomplete count--poor water conditions.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME DIVISION OF COMMERCIAL FISHERIES

JAY S. HAMMOND, GOVERNOR

333 RASPBERRY ROAD
ANCHORAGE 99502

February 24, 1978

Mr. Sam McDowell
Expeditors Research & Supply, Inc.
3685 Arctic Boulevard
Anchorage, Alaska 99502

Dear Mr. McDowell:

Russ Redick informed me that in addition to the Big Lake escapement data that was sent to you last week, you have requested the same data for the years 1940 through 1950. Please add the following data to that which you now have.

<u>Year</u>	<u>Last Day of weir Operation</u>	<u>Sockeye</u>	<u>Coho</u>	<u>Pink</u>
1940	8/12	306,982	16,546	
1941	8/9	55,077	9,720	
1942-1945	No Counts Conducted			
1946		57,000	(estimated ground count)	
1947		150,000	(estimated ground count)	
1948		150,000	(estimated ground count)	
1949	8/17	68,240	1,642	
1950	8/17	29,659	1,042	699

If you have any additional questions please feel free to contact this office.

Sincerely yours,



Dennis Haanpaa
Assistant Regional Supervisor

DH:cw

**BIG LAKE ESCAPEMENT DATA
1951-1977**

<u>Year</u>	<u>Sockeye</u>	<u>Cohos</u>	<u>Pink</u>
1951	34,704	1,953	
1952	92,724	277	
1953	54,343	71	
1954	20,904	1,057	
1955	32,724	4,417	8
1956	32,663	22	32
1957	15,630	346	
1958	17,573	592	
1959	77,416		
1960	80,000		
1961	40,000		
1962	60,000		
1963	119,024	1,814	
1964	65,000		
1965	16,544	792	584
1966	41,312		10,760
1967	22,624	984	168
1968	19,616	2,088	48,128
1969	12,456	4,253	
1970	25,000	1,048	3,940
1971	32,000	583	
1972	6,981	709	57
1973	2,705	210	6
1974	16,225	1,154	8
1975	29,882	1,601	17
1976	14,032	765	81
1977	5,292	930	189

Note: From 1951-1971, the (average) last operating date of the weir or counting screen was August 5. Thus the coho counts are not representative of the final escapement. The average date from 1972-1976 was September 7, and in 1977 it was August 15.

COMPREHENSIVE MANAGEMENT POLICY FOR THE UPPER COOK INLET

The dramatically increasing population of the Cook Inlet area has resulted in increasing competition between recreational and commercial fishermen for the Cook Inlet salmon stocks. Concurrently, urbanization and associated road construction has increased recreational angler effort and may adversely affect fisheries habitat. As a result the Board of Fisheries has determined that a policy must now be determined for the long-term management of the Cook Inlet salmon stocks north of Anchor Point. This policy should rest upon the following considerations:

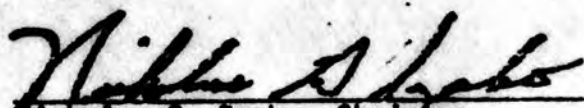
1. The ultimate management goal for the Cook Inlet stocks must be their protection and, where feasible, rehabilitation and enhancement. To achieve this biological goal, priorities must be set among beneficial uses of the resource.
2. The commercial fishing industry in Cook Inlet is a valuable long-term asset of this state and must be protected, while recognizing the legitimate claims of the non-commercial user.
3. Of the salmon stocks in Cook Inlet, the king and silver salmon are the target species for recreational anglers while the chum, pink, and red salmon are the predominant commercial fishery.
4. User groups should know what the management plan for salmon stocks will be in order that they can plan their use consistent with that plan. Thus, commercial fishermen must know if they are harvesting stocks which in the long-term will be managed primarily for recreational consumption so that they may plan appropriately. Conversely, as recreational demands increase the recreational user must be aware of what stocks will be managed primarily for commercial harvest in order that he not become overly dependent on these fish for recreational purposes.
5. Various agencies should be aware of the long-term management plan so that salmon management needs will be considered when making decisions in areas such as land use planning and highway construction.
6. It is imperative that the Department of Fish and Game receive long-range direction in management of these stocks rather than being called upon to respond to annually changing Board directives. Within the Department, divisions such as F.R.E.D., must receive such long-term direction.

7 [Therefore, the Board establishes priorities on the following Cook Inlet stocks north of Anchor Point. In so doing it is not the Board's intent to establish exclusive use of the stock while permitting secondary uses of the stock to the extent it is consistent with the requirements of the primary user group.

- A. Stocks which normally move in Cook Inlet to spawning areas prior to June 30, shall be managed primarily as a non-commercial resource.
- B. Stocks which normally move in Cook Inlet after June 30, shall be managed primarily as a non-recreational resource until August 15;

however existing recreational target fish shall only be harvested incidental to the non-recreational use; thereafter stocks moving to spawning areas on the Kenai Peninsula shall be managed primarily as a non-commercial resource. Other stocks shall continue to be managed primarily as a non-recreational resource.

C. The Susitna coho, the Kenai king, and the Kenai coho runs cannot be separated from other stocks which are being managed primarily as nonrecreational resources; however, efforts shall be made, consistent with the primary management goal to minimize the non-recreational catch of this stock.


Nicholas G. Szabo, Chairman
Alaska Board of Fisheries

ADOPTED: 12/13/77

Vote: 5-0

*Presented to the
Alaska Native Claims
Settlement Act
Committee
by Rep. [unclear]
in number of [unclear]*

A SPECIAL REPORT
OUTLINING THE CONCERNS OF RECREATIONAL FISHERMEN
AS THEY MAY BE AFFECTED BY LAND CLASSIFICATIONS
AS PROVIDED UNDER THE (d-2) SECTION OF THE
ALASKA NATIVE CLAIMS SETTLEMENT ACT

The report that follows will emphasize those special concerns of the recreational fishing community; not only resident Alaskans but non-resident visitors as well.

Recreational anglers comprise the single largest wildlife resource users in Alaska. The 1976 calendar license sales were in excess of 167,000. Add to this figure an estimated 60,000 juveniles under 16 years of age and persons over 60 years of age meeting residency requirements for free angling privileges for a total of some 227,000 persons participating or eligible to participate in sport fishing. Population characteristics indicate that 40 percent of the total estimated Alaskan population will participate in sport fishing in 1977.

Surveys have shown that sport fishing provides many social and economic benefits while substantially contributing to the quality of Alaskan living. It is estimated that during 1976, sport fishing activities in Alaska generated in excess of \$60.0 million dollars to the total Alaskan economy.

Alaska enjoys the unique situation of being able to provide an extraordinary share of the nation's recreational fishing needs. Perhaps, even more significantly, a large part of the state's anadromous and resident species fisheries are on native wild stocks in untouched wilderness environments. The large size of Alaska, coupled with an abundance of fresh water (about 16 percent of the total fresh water contained in the continental United States), [REDACTED]

OUTDOOR NEWS BULLETIN

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LONNIE L. WILLIAMSON, Editor

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Contents:

	<u>Page</u>
Fish and Wildlife Gains Popularity	1&2
Trumpeters Doing Well	2
Conference Program Complete	3
Black Bear Workshop Scheduled	3
Wildlife Management Short Course Offered	4
Wildlife Film Festival Set	4
Washington Begins Nongame Inventory	4
Popular Literature Currently Available	5

Fish And Wildlife Gains Popularity:

More than 95 million people nine years old or older enjoy fish and wildlife-related activities in the U.S., according to the "1975 National Survey of Hunting, Fishing and Wildlife-Associated Recreation" released late in 1977 by the U.S. Fish and Wildlife Service.

The Survey, conducted every five years by the Service, estimated there were 20.6 million recreational hunters, 53.9 million recreational fishermen, 15 million wildlife photographers, and 49.3 million wildlife observers in 1975.

The 20.6 million hunters, 92 percent male and 8 percent female, reportedly participated in 478.6 million days of hunting. They spent \$5.8 billion for hunting activities, but valued those activities at \$24.9 billion per year.

The 53.9 million fishermen, 69 percent male and 31 percent female, reportedly participated in more than 1.3 billion days of fishing. They spent \$15.2 billion for fishing activities. They valued those fishing experiences, however, at \$154.5 billion, the Survey states.

In addition to information on fish and wildlife activities, the Survey also reports on recreational shooting such as trap and skeet. "While 16.2 million persons participated in some form of recreational shooting with firearms", the Survey states,

... continued

"22 percent of these were nonhunters and nonanglers, 26 percent were anglers, and 52 percent were hunters. In other words, 48 percent of those who shot firearms for recreation were not hunters."

The 1975 Survey, compared to the 1970 Survey, shows that hunting and fishing have grown considerably as recreational activities. In 1970, 14.3 million hunters were reported to spend \$2.1 billion on 203.7 million days of hunting. That same year, 33.2 million fishermen allegedly spent \$5 billion on 706.2 days of fishing. Thus the number of reported hunters increased about 44 percent during the five year period and the number of recreation days spent hunting more than doubled. The number of reported fishermen increased 62 percent during the five year period and the number of recreation fishing days almost doubled.

Another interesting aspect of the 1975 survey was the revelation that the ranks of wildlife observers and photographers included many sportsmen. Of the estimated 49.3 million persons who observed wildlife, almost half (23.6 million) were hunters and fishermen. And, more than half (7.8 million) of the 15 million wildlife photographers were hunters and fishermen. Only 11 percent of the hunters and 32 percent of the fishermen engaged in no other wildlife-related activity in 1975. If those estimates are correct, sportsmen value wildlife in a much broader context than for just hunting and fishing.

Trumpeters Doing Well:

A relatively new flock of trumpeter swans in South Dakota is doing well under intensive management programs, according to the Wildlife Management Institute.

The South Dakota Department of Game, Fish and Parks reports that the Lacreek area trumpeter swan flock increased from 159 in 1976 to 191 in 1977. That is near the 20 percent annual increase recorded since the birds were released.

Seventeen swans were captured from Red Rock Lake National Wildlife Refuge during 1960, 1961, and 1962 and released at Lacreek Refuge. Two pairs reared young on the refuge in 1963 and other birds began nesting outside the refuge in 1964. They have spread through South Dakota into Nebraska and now some swans nest as far as 200 miles from the original release site.

Anchorage

INCREASE Population - 1971 to 1976

FY 1971	102,994
1972	110,456
1973	115,418
1974	126,101
1975	162,499
1976	175,697

$$72703 = 41.3\%$$

Homer

FY 1971	1083
1972	1083
1973	1243
1974	1243
1975	1243
1976	1538

$$455 = 29.5\%$$

Kenai

FY 1971	3533
1972	3533
1973	3560
1974	3533
1975	4028
1976	5161

$$1628 = 31.5\%$$

Palmer

FY 1971	1212
1972	1335
1973	1485
1974	1409
1975	1409
1976	1549

$$337 = 21.7\%$$

Seward

FY 1971	1587
1972	1823
1973	1823
1974	1823
1975	1823
1976	1823

$$236 = 12.9\%$$

Soldotna

FY 1971	1202
1972	1202
1973	1202
1974	1202
1975	1202
1976	1800

$$598 = 33.2\%$$

1976 TOTAL, 187568

75957

STUDIES FOREIGN INVESTMENT

Portions of the Foreign Investment Study which I requested from the National Marine Fisheries Service last April appeared in the interim report to Congress "Foreign Direct Investment In The United States" which was published and submitted to Congress in October.

The section of the report dealing with foreign investment in the Alaska seafood industry points out several interesting facts:

- (1) Of 26 firms in the fishing industry reported to have foreign capital in 1975, 22 were in Alaska.
- (2) As of July 1975, the cumulative total of foreign investment in the Alaska fishing industry was placed at over \$17 million.
- (3) This compares with a total investment in 1971 of \$1.8 million and represents a growth of almost 1000% in under 5 years.
- (4) The largest of the Japanese investments is Whitney-Fidalgo Seafoods, Inc., which has several processing plants in Alaska. It is 98% owned by KYOKUYO and has a reported Japanese investment of \$11 million.
- (5) Investment of Japanese fishing and trading firms is concentrated in Alaska. The largest Japanese investors in our fishing industry are KYOKUYO HOGEL CO., MARUBENI-HADO and TAIYO GYO-GYO.

The National Marine Fisheries Service intends to continue this significant study as part of its responsibilities under the Foreign Investment Study Act of 1974. I will be announcing future developments regarding this study as they are reported to me.

To make all this a little easier to understand, I have had the chart on the right prepared which shows the number of fish processing plants in Alaska and the percentage of foreign investment in those plants.

FOREIGN INVESTMENT IN ALASKA FISH PROCESSING PLANTS

U.S. FIRM	LOCATIONS OF FAC.	FOREIGN OWNER.
Whitney-Fidalgo Seafoods, Inc.	Anchorage Ketchikan Kodiak Naknek Peterburg Port Graham Uyak and others	Kyokuyo Hogel, Co. Japan, 98%
Alaska Pacific Seafoods, Inc.	Kodiak	Marubeni-Hida, Japan
Bering Sea Fishers, Inc.	Yukon River	Marubeni-Hida, Japan, 25%
Juneau Cold Storage Co.	Juneau	Marubeni-Hida, Japan, 25%
Kodiak King Crab, Inc.	Kodiak Port Williams	Marubeni-Hida, Japan, 49.9%
Marubeni America Corp.	Bristol Bay	Marubeni-Hida, Japan, 100%
No. Pacific Processors	Kodiak Cordova	Marubeni-Hida, Japan, 50%
St. Elias Ocean Products	Cordova	Marubeni-Hida, Japan
Togiak Fisheries, Inc.	Togiak Quinhagak	Marubeni-Hida, Japan, 49.9%
B & B Fisheries, Inc.	Kodiak Valdez	Taiyo Gyogyo, Japan, 70%
Western Alaska Enterprises, Inc.	Does not operate its own facilities but manages production of salmon and herring roe in plants throughout Alaska.	Taiyo Gyogyo, Japan, 100%
Adak Aleutian Processors, Inc.	Adak	Nichiro Gyogyo, Japan, 30%
Orea Pacific Packing	Cordova	Nichiro Gyogyo and Mitsubishi, Japan, 50%
New Northern Processors, Inc.	Kodiak and others	Hokuyo Suisan & Co. Itoh, Japan, 50%
Morpac, Inc.	Cordova	Nippon Suisan & Mitsui, Japan 37.5%
Harbor Seafoods	Wrangell	Alaska Pulp Co., Japan, 100%
R. Lee Seafoods, Inc.	Soldotna	Kamae Fishing, Japan
Vita Food Products, Inc.	Two floating plants operating in Alaska	British-American Tobacco Co., Ltd. United Kingdom, 100%

* Additional Major Foreign investments in Alaskan fisheries since this publication!

Mr. Malone: Re HCL 105 & SB 491

I haven't got the resources to send this and the ones I hope to collect later - I just started this afternoon - to all the Anchorage legislators so I hope that through your office they can at least be available to them. I hope Ossini and Lethin note how many are from their bailiwicks. Thank you
Richard Person

APR 17 1978

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To The Alaska Legislature:

We, The following voting Anchorage residents wish the ~~Commercial~~
~~Commercial~~ fishery to be managed by professional scientists for the fair
 and equitable benefit of all Alaskans and not as a political football.

Name	Address	Zip	Years in State
JAMES A. HANPSTER	SRA 38-C Anch.	99507	13 years
Dejma Warren	2614 E. 17 th Anchorage	99504	12
Rachel Hyne	2625 Aspen	99502	18
Glenn Armstrong	7636 Arctic	99502	22
Raymond Kunkel	SRA Box 2214 Anch.	99507	5
Orta L. Forbes	3808 W. 61 st	99502	18
Kathleen G. Jones	SRI Box 1388, Eagle River	99577	6
Laura F. Otto	4511 Laurel St - Apt 26	99507	8 mos
Mary Ellen Luebeck	2823 Northern Lights Blvd.	99503	16 yrs.
Jeanne A. Monroe	9211 Abbott Loop Rd	99502	14 yrs
Cherie Brock	3425 Wesleyan Dr	99504	9 yrs
Eileen J. Smith	SRA. Box 42-5	99507	31 yrs
Nancy A. Means	3140 West 71 st Ave	99502	8 yrs
Thelma Spencer	7210 Kioka Circle Anch.	99504	12 yrs
Don L. Pasorgum	816 N Flower	99504	11 yrs
Marcia L. Summa	2301 Lumen Dr.	99504	3 years
Lillian Enari	321 E. 5th	99501	1 yr.
Richard E. Person	BRA Box 4010 ANCH	99507	28 yrs

We, The following voting Anchorage residents wish the Cook Inlet salmon fishery to be managed by professional scientists for the fair and equitable benefit of all Alaskans and not as a political football.

Name	Address	Zip	Years in State
Virginia Lewis	3928 E 88 th	99507	19
David H. Elgoy	6426 Carlos Ct	99504	10
Bernard J. Warner	1620 STANTON CT	99504	17
Doris Middleton	649 West 21 st Avenue	99504	8
Janet Sherwood	3001 Wiley Post Ave.	99503	15
Kerry DeLong	755-W 42 nd Ave. #19	99503	1 yr.
Beverly Hummer	12535 Landmark	99511	16 yrs.
Nancy Elgoy	1332 Crescent	99504	8 yrs.
Madrepared	124 Price St.	99504	4 yrs.
Sally L. Werner	3503 Dorbrandt	99503	1 yr.
Mary L. Hayes	2543 Brooke Dr.	99503	6
Frank Kufel	ERABOX 1450E Anchorage	99502	15 yrs.
Jan Queen	2501 Brooks Rd.	99503	24 yrs.
Irma Johnson	2101 Catalpa Circle	99504	25 yrs.
Ruth A. Mathes	1519 Wolvaine St.	99504	4
Ruth E. Doe	2011 Sunrise Rd.	99504	21
Karen Puh	2121 Lamer Rd.	99504	39 yrs.
George E. Osborne	1200 W. Dimond #421 ANCH, AK	99502	6 yrs.

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AS A UNIT IN THE ORIGINAL DOCUMENT.**

1. WORK FILE, 1/5/81, TECHNICAL COMMITTEE MEETING
2. DRAFTS - TITLE 29
3. WORK DRAFT NO. 3, ORIGINAL
4. WORK FILE, TITLE 29
5. TITLE 29, BACKGROUND MATERIALS
6. TRUSTEE PROGRAM, NATIVE VILLAGES, DEVELOPMENT CITIES
7. POLICY CONSIDERATIONS
8. READING FILE
9. LETTERS FROM CITIES
10. SUGGESTIONS RECEIVED
11. MASTER HANDOUT FILE
12. SUMMARY OF SUGGESTIONS
13. TITLE 29 - CORRESPONDENCE, MEETINGS
14. NOTICE OF MEETINGS
15. MINUTES, POLICY HEARINGS
16. MINUTES, POLICY GROUP MEETINGS
17. WORKING GROUP MEETING NOTES
18. BUDGET, TITLE 29 COMMISSION
19. DRAFT WITH FINAL PAGES, INDEX
20. WORK FILES, POLICY GROUP MEETING
21. DRAFT NO. 2 WITH CHANGES BY TECHNICAL COMMITTEE, JAN. 5-6, 1981
22. DRAFTS APPROVED BY POLICY GROUP
23. CHAPTER 3
24. CHAPTER 6
25. CHAPTER 9
26. CHAPTER 12

27. CHAPTER 15
28. CHAPTER 18
29. CHAPTER 21
30. CHAPTER 24
31. CHAPTER 27
32. CHAPTER 30
33. CHAPTER 33
34. CHAPTER 36
35. CHAPTER 39
36. CHAPTER 42
37. TECHNICAL GROUP RECOMMENDATIONS, NOTES AND
FINAL, CHAPTER 42
38. TECHNICAL GROUP RECOMMENDATIONS, NOTES AND
FINAL, CHAPTER 45
40. CHAPTER 48
41. TECHNICAL GROUP NOTES AND FINAL, CHAPTER 48
42. CHAPTER 51
43. TECHNICAL GROUP RECOMMENDATIONS, NOTES AND
FINAL, CHAPTER 51
44. CHAPTER 52
45. CHAPTER 65
46. CHAPTER 68
47. CHAPTER 71
48. CHANGES: AS 37.30.100
49. TECHNICAL COMMITTEE RECOMMENDATIONS, NOTES
AND FINAL, MISCELLANEOUS
50. FOR POLICY MEETING, JAN. 17-18, 1981