

Fishery Management Report No. 04-18

**Recreational Fisheries of Northern Cook Inlet, 2003-
2004: Report to the Alaska Board of Fisheries,
January 2005**

by

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and

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December 2004

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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Weights and measures (metric)		General		Measures (fisheries)	
centimeter	cm	Alaska Administrative Code	AAC	fork length	FL
deciliter	dL			mid-eye-to-fork	MEF
gram	g	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	mid-eye-to-tail-fork	METF
hectare	ha			standard length	SL
kilogram	kg			total length	TL
kilometer	km	all commonly accepted			
liter	L	professional titles	e.g., Dr., Ph.D., R.N., etc.		
meter	m	at	@	Mathematics, statistics	
milliliter	mL	compass directions:		<i>all standard mathematical signs, symbols and abbreviations</i>	
millimeter	mm	east	E	alternate hypothesis	H _A
		north	N	base of natural logarithm	<i>e</i>
Weights and measures (English)		south	S	catch per unit effort	CPUE
cubic feet per second	ft ³ /s	west	W	coefficient of variation	CV
foot	ft	copyright	©	common test statistics	(F, t, χ^2 , etc.)
gallon	gal	corporate suffixes:		confidence interval	CI
inch	in	Company	Co.	correlation coefficient	
mile	mi	Corporation	Corp.	(multiple)	R
nautical mile	nmi	Incorporated	Inc.	correlation coefficient	
ounce	oz	Limited	Ltd.	(simple)	r
pound	lb	District of Columbia	D.C.	covariance	cov
quart	qt	et alii (and others)	et al.	degree (angular)	°
yard	yd	et cetera (and so forth)	etc.	degrees of freedom	df
		exempli gratia		expected value	<i>E</i>
Time and temperature		(for example)	e.g.	greater than	>
day	d	Federal Information Code	FIC	greater than or equal to	≥
degrees Celsius	°C	id est (that is)	i.e.	harvest per unit effort	HPUE
degrees Fahrenheit	°F	latitude or longitude	lat. or long.	less than	<
degrees kelvin	K	monetary symbols		less than or equal to	≤
hour	h	(U.S.)	\$, ¢	logarithm (natural)	ln
minute	min	months (tables and figures): first three letters	Jan, ..., Dec	logarithm (base 10)	log
second	s	registered trademark	®	logarithm (specify base)	log ₂ , etc.
		trademark	™	minute (angular)	'
Physics and chemistry		United States (adjective)	U.S.	not significant	NS
all atomic symbols		United States of America (noun)	USA	null hypothesis	H ₀
alternating current	AC	U.S.C.	United States Code	percent	%
ampere	A	U.S. state	use two-letter abbreviations (e.g., AK, WA)	probability	P
calorie	cal			probability of a type I error (rejection of the null hypothesis when true)	α
direct current	DC			probability of a type II error (acceptance of the null hypothesis when false)	β
hertz	Hz			second (angular)	"
horsepower	hp			standard deviation	SD
hydrogen ion activity (negative log of)	pH			standard error	SE
parts per million	ppm			variance	
parts per thousand	ppt, ‰			population	Var
volts	V			sample	var
watts	W				

FISHERY MANAGEMENT REPORT NO. 04-18

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REPORT TO THE ALASKA BOARD OF FISHERIES, JANUARY 2005**

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and
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December 2004

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ABSTRACT

This report provides a detailed summary of sport fisheries in the Northern Cook Inlet Management Area for which the Alaska Board of Fisheries (BOF) is considering proposals in January 2005. Included are a description and historical overview of each fishery, how the fishery is managed, and sport fishery performance and escapement for 2003 and 2004.

Key words: Northern Cook Inlet Management Area, Alaska Board of Fisheries, sport fisheries overview.

INTRODUCTION

This report provides a detailed summary of sport fisheries in the Northern Cook Inlet Management Area (NCIMA) for which the Alaska Board of Fisheries (BOF) is considering proposals in January 2005. Included are a description and historical overview of each fishery, how the fishery is managed, and sport fishery performance and escapement for 2003 and 2004. Historical harvest and catch tables of major fisheries within the Knik Arm, Eastside, Westside, and West Cook Inlet Units of the NCIMA for species that may be relevant to BOF review may be found in Appendix A.

The Northern Cook Inlet (NCI) sport fish management area (Figure 1) includes all freshwater drainages and adjacent marine waters of Upper Cook Inlet between the southern tip of Chisik Island and the Eklutna River, excluding the upper Susitna River drainage above the Oshetna River confluence. The management area encompasses approximately 30,000 square miles and is dominated by the Susitna River drainage which originates in glaciers of the Alaska and Talkeetna mountain ranges and flows south about 200 miles to Cook Inlet near Anchorage. Most sport fisheries in the NCIMA are easily accessible by road or jet boat, with the exception of the remote West Cook Inlet Unit (WCI) waters accessible only by boat or aircraft.

For the purposes of management and harvest reporting, the NCIMA is divided into four major units (Figure 1):

1. Knik Arm Unit: includes all waters bounded on the north by Willow Creek (not including Willow Creek), on the west by a line ½ mile east of the Susitna River, on the south by Cook Inlet, Knik Arm and the Eklutna River (not including the Eklutna River), and on the east by the Upper Susitna River drainage upstream of its confluence with the Oshetna River. All adjacent marine waters of Cook Inlet are included.
2. Eastside Susitna Unit: includes all drainages of the upper Susitna River above the Chulitna River to and including the Oshetna River drainage, all eastside drainages of the Chulitna River, and all eastside drainages of the Susitna River below its confluence with the Chulitna River to and including Willow Creek to the south. This management unit has no marine waters.
3. Westside Susitna Unit: includes all westside drainages of the Chulitna River, and all westside drainages of the Susitna River below its confluence with the Chulitna River and, primarily for management purposes, eastside drainages of the Susitna River within a half-mile of the Susitna River downstream of Willow Creek. This management unit has no marine waters.
4. West Cook Inlet Unit: beginning in 1999, includes all freshwater drainages entering Cook Inlet between the Susitna River and the latitude of the southern tip of Chisik Island, and all

adjacent marine waters of Cook Inlet. Prior to 1999 this unit included all freshwater drainages entering Cook Inlet between the Susitna River and the West Forelands, and all adjacent marine waters of Cook Inlet.

CHINOOK SALMON FISHERIES

Twenty-one proposals (339-352, 357-359, 373-374, and 386-387) specifically addressing Northern Cook Inlet Chinook salmon fisheries will be addressed by the BOF in January 2005.

Chinook salmon runs to the NCIMA are made up of many stocks, and collectively make up the largest proportion of Cook Inlet drainage stocks. The Susitna River stock is the most numerous in the management area, and the fourth numerous in Alaska, smaller only than the Yukon, Kuskokwim and Nushagak river stocks (Delaney and Vincent-Lang *unpublished*). Although estimates of total return are unavailable for Northern Cook Inlet Chinook salmon because estimates of escapement are not available for all stocks, the collective annual return is probably from 100,000-200,000 fish (Delaney and Vincent-Lang *unpublished*).

Total harvests of NCI Chinook salmon for all users varied from about 11,000 to 70,000 from 1893-1940 (Table 1), averaging about 38,500 fish. This harvest appears to be sustainable, considering it was maintained for over a half century. After harvests increased from 1940-1951, peaking at 150,000 and averaging 84,500 fish annually, harvests declined precipitously until fisheries were closed in 1963 to allow stocks to rebuild (Figure 2). This history suggests that the maximum sustainable harvest range for NCI Chinook salmon is from 38,500-70,000 fish.

In 1976, the Magnuson Fishery Conservation and Management Act was established. This act, also known as the 200-mile limit law, extended federal fishery management authority into waters within 3 to 200 miles of the United States coast. It phased out foreign fishing fleets and implemented fishery management in offshore waters. Its effects on Cook Inlet Chinook salmon stocks are not fully understood; however, it is likely that the act and its associated fishery management plans increased Chinook salmon returns to NCI.

A variety of users have historically harvested the Chinook salmon returns to the NCIMA, including freshwater and marine recreational, commercial, subsistence, personal use, and educational (Table 2). However, harvest strategies for NCI Chinook salmon have changed substantially since the 1890s. The fishery has slowly evolved from a mixed-stock commercial harvest to a recreationally dominated harvest that targets a multitude of discrete substocks. A detailed user history is documented in Whitmore et al. *unpublished*.

From 1975-1990, recreational fisheries targeting NCI Chinook salmon runs were gradually expanded to allow harvest of increasing returns. The Upper Cook Inlet Salmon Management Plan (5 AAC 21.363), adopted by the BOF in 1977, guided these expansions. This plan as it relates to NCI Chinook salmon stocks, originally stipulated that stocks normally moving through Upper Cook Inlet to spawning grounds prior to July 1 are to be managed primarily for recreational uses. Therefore, recreational fisheries were expanded and currently constitute the largest harvests. In 1986 the BOF adopted the Northern District King Salmon Management Plan (5 AAC 21.366) to allocate a portion of the increasing NCI Chinook salmon returns to the commercial fishery. This step-down plan allows for a harvest up to 12,500 Chinook salmon by a commercial setnet fishery in the Northern District during June.

Under these plans, total harvest of NCI Chinook salmon increased from 1986-1993, ranging from 40,300-54,200 fish and averaging 34,604 fish (Table 1). Mean and peak harvest of NCIMA Chinook salmon in recreational fisheries from 1986-1993 were 34,604 and 49,387 fish, respectively (Table 3; Mills 1987-1994). Sport harvests decreased substantially in 1995, but increased to an average of 29,137 Chinook salmon in 1998-2002 (Howe et al. 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a).

In response to development of a recreationally dominated harvest that targeted a multitude of discrete substocks, biological escapement goals (BEGs) were established in 1993 for 18 NCIMA Chinook salmon spawning streams based on long-term escapement survey data. Escapement goals are intended to ensure the long-term viability of NCIMA Chinook salmon stocks. The BEGs were replaced with sustainable escapement goals (SEGs) as new assessment methods were developed (Bue and Hasbrouck 2001; Table 4). During the February 2002 BOF meeting, escapement goals were reviewed based on the Policy for the Management of Sustainable Salmon Fisheries and the Policy for Statewide Salmon Escapement Goals, both adopted by the BOF during winter 2000-2001.

Therefore, the primary management objective for NCIMA Chinook salmon is to achieve established escapement goals. Spawning escapement on each of the 18 streams is indexed annually using helicopter surveys or weirs. To ensure escapement goals are met, fishery managers may reduce harvest potential by reducing daily and seasonal bag limits, prohibiting bait, and reducing time and areas open to fishing. Streams that consistently fall short of escapement goals may be closed to Chinook salmon fishing. On streams with weirs or programs that provide inseason sport harvest information, regulations may be liberalized by emergency order (EO) if harvestable surpluses are projected.

From the late 1970s through 1989, escapement goals were achieved. However, beginning in 1990, observed spawning escapements in selected streams decreased, and in 1992-1995 fell well below escapement goals. In response, actions were taken in 1994 through EOs and BOF regulations to reduce harvest levels. As a result, the combined harvest of NCI Chinook salmon from 1995-1998 was reduced to approximately half of the 1993 peak harvest (Table 2). Harvests increased in 1999 and remained steady through 2003.

KNIK ARM UNIT CHINOOK SALMON FISHERIES

Fishery Description

Within the Knik Arm Management Unit (Figures 1 and 3), the Little Susitna River (Figure 4) is the only stream open to Chinook salmon harvest, other than the newly stocked Eklutna tailrace fishery (see section below). It supports a major Chinook salmon fishery as well as the largest coho salmon fishery in the NCIMA. Chinook salmon bound for the Little Susitna River are also harvested in marine sport and commercial fisheries, and subsistence and personal use fisheries.

Chinook salmon return to the Little Susitna River from late May through early July with the peak immigration approximately mid-June. Spawning occurs from the Burma Road area upstream into Hatcher Pass with the majority of spawning taking place upstream of the Parks Highway Bridge. Few Chinook salmon use tributaries for spawning. Peak spawning typically occurs during the last week of July.

Angler access to the Little Susitna River occurs at three primary locations: (1) intertidal waters of the river are accessed by boats crossing Knik Arm from the Port of Anchorage public boat

launch; (2) the road-accessible Little Susitna Public Use Facility (Burma Road Access) which includes a launch and campground; and (3) private and public launches near the Parks Highway which provide access to the upper reaches of the river. The Little Susitna Public Use Facility is the most heavily used access to the river. Powerboats can travel on the Little Susitna River from its mouth to the Parks Highway during periods of moderate to high water levels. However, during low flows, travel is restricted to smaller jet boats between rm 28 and the Parks Highway at rm 70.

Historical Harvest and Escapement

Information about the fishery and Chinook salmon stock is available from several sources. Inseason sport harvest and fishing effort for Chinook salmon were estimated by onsite creel surveys from 1979 through 1990. Creel survey and Statewide Harvest Survey (SWHS) estimates produced comparable results; therefore, the creel survey program was discontinued in 1991. Average annual harvest of Chinook salmon from the Little Susitna River was approximately 2,115 fish from 1977-2002 (Figure 5; Appendix A1; Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a).

Due to the semiglacial character of the Little Susitna River, aerial survey counts of Chinook salmon on spawning grounds cannot be conducted annually, although surveys were completed in 17 years from 1983-2004. The average Chinook salmon escapement index during these years was 1,308 fish, with a peak count of 3,197 fish in 1988 (Table 5). During 1988, 1989, 1994 and 1995 a weir was operated at rm 32.5, with escapement counts ranging from 2,809-7,400 fish (Table 5).

Stocking Program

To increase road-accessible harvest opportunities and ensure sustainability of the area's wild Chinook salmon populations, Sport Fish Division began a program to stock Chinook salmon at the Eklutna power plant tailrace (Figure 6) in 1999. Ship Creek Chinook salmon are used as brood stock (ADF&G *unpublished* a). There are no wild Chinook salmon returns to the tailrace, although a few hold in the confluence area before traveling to other Knik River streams to spawn. All fishing takes place in the ½ mile long power plant tailrace from the Old Glenn Highway to its confluence with the Knik River. Prior to the Sport Fish Division program, there was a recreational fishery supported by coho and sockeye salmon stocked by the Cook Inlet Aquaculture Association (CIAA) hatchery located at the head of the tailrace. This nonprofit hatchery operated from 1981-1998.

In May 2002, the first hatchery-reared Chinook smolt were released into the tailrace (Table 6). A complete return of 4, 5, and 6-year-old fish is not expected until 2006, however 4- and 5-year-old fish and 1-ocean jacks will be available for harvest in 2005.

Fishery Management and Objectives

The Chinook salmon fishing season for the Little Susitna River is from January 1 through July 13 with fishing permitted from the river's mouth upstream to the Parks Highway, a distance of about 70 miles.

Management of Chinook salmon has undergone changes (Appendix B1). In 2002, a sustainable escapement goal (SEG) range of 900-1,800 Chinook salmon was set for the Little Susitna River (Bue and Hasbrouck 2001), replacing the BEG of 850 Chinook salmon that was set in 1993. During 1988, 1989, 1994 and 1995, years in which a weir program was conducted and harvest

estimates were available, inriver exploitation rates were estimated at approximately 28%, 49%, 59% and 38%, respectively. This indicated an increased rate of exploitation from 1988 to 1994 which might not have been sustainable. From 1995-2004 escapement ranged from 1,000-1,700 fish (Table 5) while harvest varied from about 1,500-3,100 fish (Appendix A1), indicating that the present regulation scheme is maintaining the necessary escapement to ensure a sustainable fishery.

The management objective for the Little Susitna River Chinook salmon fishery is to maximize fishing opportunity while ensuring the attainment of the SEG. The annual objective for the Eklutna Tailrace stocking program is to release 150,000 Chinook smolt, resulting in a return of 4,000 adults and generating 10,000 angler-days of effort.

Sport Fishery Performance and Escapement in 2003 and 2004

The 2003 sport harvest of Chinook salmon from the Little Susitna River was 2,138 fish (Jennings et al. *in prep.* b), below the 1998-2002 average of 2,587 fish (Appendix A1). The Little Susitna River harvest accounted for approximately 8% of the total Chinook salmon sport harvest from NCIMA waters during 2003 (Table 3 and Appendix A1). An aerial index of 1,114 Chinook salmon was documented for the Little Susitna River in 2003 (Table 5). The only other Knik Arm Unit Chinook salmon stream indexed annually is Moose Creek, a tributary of the Matanuska River. In 2003, 471 fish were counted during the survey (Table 5). The Eklutna Tailrace provided a jack (under 20 inches in length) Chinook salmon fishery in 2003. Anglers reported obtaining their 10 fish bag limit with jack Chinook salmon from late-May through mid-July.

During 2004 catch rates reported by guides and anglers were good throughout the Chinook fishing season. Due to an unusually warm, dry, summer the water level remained extremely low and clear throughout the season creating ideal fishing conditions. In anticipation of the return of two-ocean Chinook (over 20 inches in length) to the Eklutna Tailrace, an EO allowing harvest of these fish was issued in 2004. Department staff observations of fishing at the tailrace indicated good catches from late-May through mid-July.

Low, clear water conditions continued into August providing excellent visibility during the escapement survey on July 20, 2004. The survey counted 1,694 Chinook (Table 5), well within the SEG range of 900-1,800 and above the 1983-2003 mean of 1,284 fish.

In 2004, an aerial survey conducted on Moose Creek counted 197 fish, substantially below the 1994-2003 average of 490 (Table 5). There is no SEG established for Moose Creek, however, escapement counts from aerial surveys since 2000 have all fallen below the long-term average indicating a possible decrease in run strength for unknown reasons.

EASTSIDE SUSITNA MANAGEMENT UNIT CHINOOK SALMON FISHERIES

Fishery Description

The Eastside Susitna Management Unit (Figures 1, 7 and 8) is composed of three distinct geographical areas with different regulations: (1) the eastside Susitna River tributaries between the Dshka and Talkeetna rivers, (2) the Talkeetna River, and (3) the upper Susitna area which includes the Susitna River and its tributaries between Talkeetna River and Oshetna River (including the Oshetna River drainage) and all eastside tributaries of the Chulitna River (including the East Fork drainage of the Chulitna River).

Deshka to Talkeetna Area

Tributaries of the Deshka to Talkeetna area (Figures 7 and 8) are numerous and are characterized by their clear water. The majority of the fisheries in this portion of the management unit are accessible by road. There are exceptions, including Little Willow and Greys creeks and various Susitna River side sloughs that require a boat to access their most productive portions. The George Parks Highway (Alaska Route 1), which connects Anchorage and Fairbanks, parallels the Susitna River on the east. The Alaska Railroad also parallels the east side of the Susitna River to a large extent. Both transportation systems provide angler access to numerous tributaries.

Talkeetna River

The Talkeetna River joins the Susitna River about 98 miles upstream from Cook Inlet. This glacial system contains two major and numerous minor clear water tributaries that support Chinook salmon (Figure 9). Clear Creek is the most prominent Chinook fishery within the Talkeetna River drainage. The Talkeetna Spur Road provides access to the Talkeetna River; however, a boat is required to reach virtually all Chinook salmon fisheries within the drainage. This area is primarily accessed from the Talkeetna boat launch.

Upper Susitna River Area

The upper Susitna River area (Talkeetna to Devils Canyon; Figure 7) is accessible only by boat or railroad. A public boat launch adjacent to the community of Talkeetna provides access to the area. Boat travel is relatively safe from the Talkeetna River upstream to the entrance of Devils Canyon, a distance of about 55 miles. Boat travel beyond the entrance to Devils Canyon is extremely hazardous and few boat operators venture past this location. Indian River and Portage Creek are the most prominent Chinook salmon fisheries within the Upper Susitna River Area. The entrance to Devils Canyon, beyond which salmon cannot migrate, is about 150 miles upstream from Cook Inlet.

The Chulitna River empties into the Susitna River a short distance upstream of Talkeetna River at rm 92. Most tributaries entering the Chulitna River from the east are relatively short, high gradient streams, which receive few spawners. The exception is the East Fork, currently the only Chulitna River tributary supporting a Chinook salmon fishery (Middle Fork, West Fork mouth and lower Honolulu Creek are included in this fishery).

Stocking Program

Willow Creek was identified in 1981 as a candidate for Chinook salmon stocking in the Cook Inlet Regional Salmon Enhancement Plan (CIRPT 1981). A Chinook salmon smolt stocking program was initiated in 1985 and the program has continued annually with the exception of 1987.

Historical Harvest and Escapement

Information about the fishery and Chinook salmon stock is available from creel surveys, escapement surveys, and tagging studies. In the Deshka to Talkeetna area, most of the Chinook salmon harvest occurs the third and fourth weekends in June because few Chinook salmon arrive at the mouths of eastside Susitna tributaries prior to mid-June. At the Talkeetna River the fishery peaks the first week in July. The Upper Susitna River fishery has run timing similar to the Talkeetna River.

Tagging studies have shown that Chinook salmon substocks from Willow Creek, Talkeetna River, Sheep Creek and Montana Creek are subject to harvest at stream mouths other than their natal stream (Peltz and Sweet 1992). For example, stocks from the upper portions of the drainage such as Prairie Creek are harvested at stream mouths along their migration corridor. The magnitude of nonnatal stream harvest has not been determined.

From 1979-1995, harvest ranged from 1,298 Chinook salmon in 1979 to 22,688 in 1993 (Table 3). From 1998-2002, Eastside Susitna Management Unit fisheries made up approximately 43% of the total NCIMA Chinook salmon harvest (Table 3). Harvest was steady during this period, ranging from 10,472-16,875 Chinook salmon. Included in these harvests are approximately 500-4,000 hatchery fish taken in Willow Creek beginning in 1988.

Willow Creek, Talkeetna River, Sheep Creek and Montana Creek traditionally produce the largest harvest of Chinook salmon in the Eastside Susitna Management Unit. The 1998-2002 average annual harvest for these fisheries ranged from 1,291 fish in Sheep Creek to 3,945 fish in Willow Creek (Appendix A2).

Creel surveys were employed from 1979-1989 to monitor the effort for and harvest of Chinook salmon and to collect biological samples at Montana Creek and the Talkeetna River. In 1991, 1992 and 1995 creel surveys were conducted for the Talkeetna River. Biological samples were collected from the Talkeetna River during the 1993, 1994 and 1996 seasons. Creel surveys were intermittently conducted at Sheep, Goose, Caswell, Little Willow, Sunshine, and Birch creeks and within the upper Susitna River area. Findings from these surveys are documented in Department of Fish and Game annual reports (Watsjold 1980, 1981; Bentz 1982, 1983; Hepler and Bentz 1984-1987; Hepler et al. 1988, 1989; Sweet and Webster 1990; Sweet et al. 1991; Peltz and Sweet 1992, 1993; Sweet and Peltz 1994; Whitmore et al. 1995, 1996; Whitmore and Sweet 1997).

The Willow Creek stocking program has been evaluated annually since its inception in 1985. Evaluation is in the form of relative contribution of hatchery fish to the mouth sport fishery, mainstem escapement, and Deception Creek escapement where stocking occurs. A creel survey program to estimate the relative contribution of hatchery-produced Chinook salmon to the sport harvest is conducted at the mouth of Willow Creek annually. A carcass survey of the Willow Creek spawning area is conducted to monitor hatchery straying into the spawning grounds of mainstem Willow Creek. A carcass survey of the escapement to estimate hatchery contribution is also conducted at Deception Creek. The 10-year (1994-2004) average contribution of hatchery fish to Willow Creek sport harvest, mainstem escapement, and Deception Creek escapement was 41%, 3%, and 53%, respectively (Sweet 1999; Whitmore and Sweet 1998, 1999; Rutz and Sweet 2000; Sweet and Rutz 2001; Sweet et al. 2003, 2004).

Aerial survey escapement counts of Eastside Susitna Management Unit Chinook salmon stocks suggest that these substocks comprise from 40% to 60% of the Susitna River Chinook salmon escapement (Table 7). Prairie Creek, a headwater tributary of the Talkeetna River, consistently receives the largest escapement with an average escapement of 5,831 Chinook salmon from 1981-2004 (Table 8).

Fishery Management and Objectives

Management of Chinook salmon in the Eastside Susitna Unit has undergone numerous changes since the 1980s, as has management of Chinook salmon in the entire NCIMA (Appendix B1).

In the Dëshka to Talkeetna area, waters within one-quarter mile of the Susitna River are open to Chinook salmon fishing from January 1 through the third Monday in June and on Saturday, Sunday and Monday for two consecutive weeks beginning the fourth Saturday in June. For the Willow, Little Willow, Caswell, Sheep, Goose and Montana creeks (Figure 8), fishing is allowed from the Susitna River upstream to the Parks Highway, except Montana Creek for which fishing extends one-half mile upstream of the Parks Highway Bridge.

The Talkeetna River and upper Susitna River drainages are open to Chinook salmon fishing from January 1 through July 13, from 6 am to 11 pm. Bag and possession limits are one fish per day and one in possession. Within the Talkeetna River area, Clear Creek is open upstream to rm 2. Both Larson and Prarie Creeks are closed to Chinook salmon fishing. Eastside Chulitna River tributaries are closed to Chinook salmon fishing with the exception of East Fork Chulitna and its tributaries. Harvest is allowed within a quarter mile of the confluence of the East Fork and West Fork of Chulitna River and including the Middle Fork and the first quarter mile of Honolulu Creek under the weekend only management strategy described for the Dëshka to Talkeetna area. During the rest of the week, only catch-and-release fishing is allowed. The portion of the Susitna River above the Talkeetna River is designated as a trophy fishery for rainbow trout; therefore, only unbaited, single-hook artificial lures are permitted as terminal gear.

SEG ranges for nine Eastside Susitna Management Unit streams were established in 2002 (Table 4) based on historic escapement index counts (Bue and Hasbrouck 2001). The management objective for these nine streams is to achieve the escapement goal for each system. In the streams that cross the George Parks Highway, management strategies provide maximum levels of sustained Chinook salmon fishing opportunity while attaining escapement objectives.

Goals of the Willow Creek stocking program are to: (1) maintain the present quality and quantity of natural Chinook salmon production, (2) produce through supplemental hatchery production an additional 6,000 returning Chinook salmon of which 4,000 would be available for harvest at Willow Creek on an annual basis, and (3) provide 10,000-15,000 angler-days of Chinook salmon fishing opportunity during Chinook salmon season (Sweet 1999).

Sport Fishery Performance and Escapement in 2003 and 2004

The 2003 Chinook salmon harvest from the Eastside Susitna Management Unit was 9,499 fish (Appendix A3), approximately 75% of the 1998-2002 average harvest of 12,664 fish, and about 34% of the entire Chinook salmon harvest from the NCIMA (Table 3). The harvest estimate for 2003 includes approximately 1,600 hatchery fish taken in the Willow Creek fishery (Table 3).

During 2003 the harvest of Chinook salmon from Willow Creek was 3,922 (approximately 1,600 hatchery produced), and about 1,200 each from Sheep Creek, Montana Creek, and the Talkeetna River, accounting for the majority of the total harvest from the Eastside Susitna Management Unit (Appendix A3; Howe et al. 2001 c-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b). Hatchery fish accounted for approximately 41% of the Willow Creek harvest in 2003.

Information provided to the department from recreational anglers and guides combined with information obtained from the Willow Creek Chinook salmon creel program in 2004 indicated that returns to eastside Susitna tributaries were above average. Hatchery fish accounted for approximately 34% of the Willow Creek harvest in 2004.

The 2004 escapement surveys for Eastside Susitna Management Unit Chinook salmon indicated that SEGs were met for all streams except Sheep Creek (Table 8). All 2004 Eastside surveys were completed.

WESTSIDE SUSITNA MANAGEMENT UNIT CHINOOK SALMON FISHERIES

Fishery Description

Tributaries that drain into the Susitna River from the west (Figure 7) support significant Chinook salmon fisheries. This unit includes all westside drainages of the Chulitna River, and all westside drainages of the Susitna River below its confluence with the Chulitna River and, primarily for management purposes, eastside drainages of the Susitna River within a half mile of the Susitna River downstream of Willow Creek. Major tributaries within this unit which support Chinook salmon fisheries include the glacially turbid Yentna River, the largest tributary of the Susitna River, which flows into the Susitna River about 30 miles upstream from Cook Inlet, the Deshka River with confluence at rm 40 of the Susitna River, and Alexander Creek (confluence at rm 10 of the Susitna River). Lake Creek (64 miles from the mouth of the Susitna River at rm 34 of the Yentna River), supports the largest Chinook salmon fishery on the Yentna River.

Access to these relatively remote fisheries is primarily by boat or aircraft. Susitna Landing, located at the mouth of the Kashwitna River, and Deshka Landing, located about 4 miles upstream from the Deshka River, are the principal boat access sites on the Susitna River. A few anglers also gain access to Westside Susitna Management Unit fisheries by traversing Cook Inlet by boat from the Port of Anchorage. The Petersville Road provides the only vehicular access to this portion of the Susitna River drainage, allowing access to the upper reaches of the Deshka River and Peters Creek.

Commercial services are important in Westside Susitna Management Unit fisheries. Creel surveys in 1989 revealed that 64% of the Chinook salmon fishing effort at Lake Creek was supported by some form of commercial service; e.g. fishing guides, lodges, and air charters (Whitmore et al. 1994). In contrast, only 14% and 6% of the participants at Alexander Creek and the Deshka River used commercial services, respectively. Commercial services probably increased in the Alexander and Deshka river fisheries since the 1989 survey.

Historical Harvest and Escapement

Information about the fishery and Chinook salmon stock is available from the SWHS, weirs, and escapement surveys. Chinook salmon enter Westside Susitna tributaries in May and June. Peak harvest at the mouth of Alexander Creek normally occurs during the first week of June. Harvest at the mouth of the Deshka River peaks during mid-June, and at Lake Creek the peak harvest usually takes place during the third week in June.

Westside Susitna River Chinook salmon fisheries supported the largest harvests of Chinook salmon within the NCIMA from 1979-1991 (Table 3). Within the Westside Susitna management unit, the Deshka River, Alexander Creek and Lake Creek have historically supported the largest Chinook salmon fisheries (Appendix A4), making up about 80% of the Chinook salmon harvest of the unit from 1998-2002.

Harvest by major westside Susitna River fisheries increased substantially from 1979-1993 (Appendix A4), probably as a result of improved access (as described in Whitmore et al. 1994) and population growth. However, liberalized regulations from 1986-1992 also contributed to increased harvests.

The Deshka River consistently provided the largest Chinook salmon harvest within the NCIMA until 1993 (Appendix A4). In 1994 Deshka River harvests declined dramatically, resulting in closure of the Deshka River to Chinook salmon fishing from June 17, 1994 through June 21, 1997. Deshka River regained its potential to allow a large harvest of Chinook salmon by 1997. From 1998-2003 it again produced the largest harvests in the NCIMA (Mills 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b).

Escapements have been monitored annually in six Westside Susitna Unit tributaries using aerial surveys (Table 9). A weir has been used to census escapements to the Deshka River since 1995 (Table 9). From 1991-1996, Chinook salmon spawning abundance in westside Susitna River tributaries fell below escapement goals (Table 9). At the Deshka River, Chinook salmon escapement counts indicated an alarming decline during this period, while the average recreational harvest of Chinook salmon from 1990-1992 was approximately 40% greater than the average harvest during the previous 10 years (Appendix A5). The escapement goal for the Deshka River of 11,200 Chinook salmon, counted by aerial survey, was not achieved from 1991-1996 (Table 9). In 1997-2002, the SEG or BEG was met for all streams, except Alexander Creek which fell 164 fish short in 2002 (Table 9).

Fishery Management and Objectives

Management of Chinook salmon in the Westside Susitna Unit has undergone numerous changes since the 1980s, as has management of Chinook salmon in the entire NCIMA (Appendix B1). SEG ranges for four Westside Susitna Management Unit systems (Lake, Alexander, Peters creeks and the Talachulitna River) were established in 2002 (Table 4). These escapement goals were based on historic aerial counts of escapement index areas (Bue and Hasbrouck 2001). A weir-based biological escapement goal (BEG) range of 13,000-28,000 fish was established for the Deshka River at the same time, based on actual escapement, age, and harvest data gathered at the weir. The management objective for these five systems is to achieve the escapement goals while providing maximum levels of Chinook salmon fishing opportunity.

Currently, the bag limit for Westside Susitna Chinook fisheries is one daily and two in possession (except Alexander Creek; one in possession), and a seasonal limit of five Cook Inlet Chinook salmon. Only unbaited, single-hook artificial lures are allowed in large portions of Lake and Alexander creeks and the Deshka River, and in the Talachulitna River. Sport fishing guides may not participate or engage in fishing during the Chinook salmon season while clients are present or within their control.

Sport Fishery Performance and Escapement in 2003 and 2004

In 2003, total Chinook salmon harvest from all Westside Susitna River Management Unit streams was 15,035 fish, 117% of the 1998-2002 mean (Table 3; Appendix A3; Howe et al. 2001 c-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b). These fisheries supported the largest harvests of Chinook salmon within the NCIMA in 2003. Based on escapement surveys, all streams achieved their escapement goals except Alexander Creek which was 88 fish short (Table 9).

Early in the 2004 season catch information from lodge owners, guides and anglers at Alexander Creek indicated the beginning of an average return for that stream. The final Deshka River weir count for 2004 totaled 57,934 Chinook salmon, a record that exceeded the SEG range of 13,000-28,000, and nearly double the 10-year mean of Chinook salmon counted through the weir (Table 9).

Additional inseason reports from the Yentna River drainage at Lake Creek and the Talachulitna River also indicated that the 2004 Chinook salmon return was above average. Escapement surveys of Lake Creek and the Talachulitna River confirmed these observations with counts above the upper point of their SEG ranges (Table 9).

WEST COOK INLET MANAGEMENT UNIT CHINOOK SALMON FISHERIES

Fishery Description

Prior to 2000 the West Cook Inlet Management Unit extended south from the mouth of the Susitna River to the West Foreland of Cook Inlet (Figure 10). Beginning in 2000 it was expanded to include all waters along the westside of Cook Inlet to the latitude of the southern tip of Chisik Island. Streams of this area, with the exception of the Chakachatna-McArthur and the Beluga River drainages, are relatively small clearwater coastal drainages that originate in the Alaska Range, Aleutian Range or from slopes of Mount Susitna. The Chakachatna-McArthur and Beluga River drainages are largely glacial and receive minor use by Chinook salmon anglers. Beginning in 2000 the data in this report reflect harvest, effort and catch data from the expanded management unit.

The Theodore, Chuitna and Lewis rivers are the area's most prominent Chinook salmon sport fisheries. Streams south of the West Foreland, namely the Kustatan River and Polly Creek, support small returns of Chinook salmon and generate only a little Chinook harvest. Stocks from the West Cook Inlet unit are also harvested in commercial and subsistence fisheries.

Chinook salmon begin to arrive in the area during late May with the peak of most fisheries occurring during mid to late June.

Access to the coastal fisheries of the West Cook Inlet Management Unit is by air or water because there is no road link to the Southcentral Alaska highway system. Helicopters are used to access the upper reaches of these streams, and airplane combined with vehicle to access the lower reaches. A road network, built to facilitate oil and gas exploration and the timber industry, does exist in the Tyonek/Beluga area. Several gravel aircraft landing strips are present and a few roads also serve as runways. The village of Tyonek, with a population of nearly 300, is the area's primary population center.

Historical Harvest and Escapement

The total annual harvest of Chinook salmon from all streams in the West Cook Inlet Management Unit ranged from 693 to 1,227 fish and averaged 976 fish from 1998-2002 (Appendix A7; Howe et al. 2001 c-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b).

In the 1990s, observed spawning escapements for some streams in the unit did not always reach their goal (Table 10). The reduced abundance of spawning Chinook salmon in the unit cannot be attributed solely to elevated instream sport angling and harvest. Weak returns were also probably caused by flood-related mortality of eggs and juveniles in 1986. Inspection of the coastal streams after an October 1986 flood revealed substantial streambed scouring and rechannelization. In association with flooding, there was severe erosion, landslides and subsequent deposition of earth and debris into the streams. The 1993 escapement index count showed an improvement over the previous 4 years but decreased again in 1994. The 1994-1996 escapement counts for all streams were low. This trend finally reversed in 1997-1999 when all West Cook Inlet goals were reached (Table 10). Run strength continued to be good through

2002, with the exception of the Chuitna River in 2001 which fell just short of the lower end of its SEG range.

Fishery Management and Objectives

SEGs for three West Cook Inlet Management Unit streams were established in 2002 (Table 4), based on historic escapement index counts. The management objective for these three streams is to achieve the escapement goal while providing maximum levels of sustained Chinook salmon fishing opportunity.

West Cook Inlet Chinook fisheries are open January 1-June 30. The current bag and possession limit is one daily and one in possession, and a seasonal limit of five Cook Inlet Chinook salmon. Only unbaited, single-hook artificial lures are allowed in drainages between the mouth of Susitna River and West Foreland. In drainages from West Foreland to the southern tip of Chisik Island, bait is allowed after May 15. The Chuitna River is open to Chinook salmon sport fishing below the old cable crossing. Both the Lewis and Theodore Rivers are currently catch-and-release only Chinook salmon fisheries.

Fishery Performance and Escapement in 2003 and 2004

The estimated 2003 West Cook Inlet harvest totaled 1,124 Chinook salmon, exceeding the previous 5-year mean of 976 (Table 3; Howe et al. 2001 c-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b). Aerial surveys in 2003 indicated strong returns at approximately the mid to high end of SEG ranges (Table 10).

The Chuit River is the main indicator for gauging the strength of Chinook salmon runs to West Cook Inlet Management Unit streams. Catch information in 2004 from anglers fishing the Chuit indicated a strong run. Spawning escapement surveys indicated that the Chuit and Lewis rivers exceeded the upper end of their SEG ranges with a record count of Chinook returning to the Lewis River (Table 10). The Theodore River fell nine fish below the lower end of its SEG range in 2004.

COHO SALMON FISHERIES

Eight proposals (363-370) addressing bag limit modifications in coho salmon fisheries of the NCIMA will be addressed by the BOF in January 2005.

AREA-WIDE OVERVIEW

Area-wide Historical Harvest and Escapement

Recreational harvests of coho salmon in the NCIMA ranged from 17,206-105,252 fish from 1977-2002, and averaged 57,422 fish (Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b; Table 11 and Appendix A9). From 1998-2002 NCIMA harvests accounted for 21% of the coho salmon harvests in the Southcentral region and 12% of the statewide harvests (Table 11). Within the NCIMA, the Knik Management Unit, which includes the Little Susitna River, accounted for the largest harvest of coho salmon through 2002 with the exception of 1999 and 2000 when Eastside Susitna surpassed it. The Eastside Susitna Unit is usually a close second followed by the Westside Susitna Unit. The West Cook Inlet Management Unit, with fewer accessible streams, is a distant fourth in average harvest. Harvests of coho salmon in the Knik Management Unit are dominated by harvests from the Little Susitna River while harvests from other management units are distributed across several systems (Appendices A10, 12, 14, 16).

Area-wide Fishery Management and Objectives

Management of coho salmon in the NCIMA has undergone numerous changes (Appendix B2). Management strategies for NCIMA coho salmon begin to develop as the stocks enter Cook Inlet and are intercepted by the commercial fishery. The magnitude, catch per unit effort, and geographical distribution of the commercial harvest are the first indicators of general run strength. Comparison between years can be difficult because fishery restrictions may vary from year to year. As coho salmon enter fresh water, the department has had very limited ability to gauge overall run size. Until 1997, counting weirs at the Little Susitna River and the Deshka River provided the only quantitative measure of coho abundance in the many drainages of Northern Cook Inlet. Beginning in 1997, weirs were also operated in Wasilla, Cottonwood and Fish creeks. Fish wheels and sonar on the Yentna River, and foot and aerial index counts for a few streams also contribute information about relative abundance. Wasilla and Fish Creek coho weirs were discontinued after 2003, although the Fish Creek weir was operated in 2004 for the sockeye return.

In response to a poor return of coho salmon to Cook Inlet in 1997, emergency orders were issued to close the commercial fishery and to institute an areawide bag limit reduction and bait prohibition for wild stock recreational fisheries. Restrictive action was again taken in the commercial fishery in 1998 because of a poor sockeye return. Because of the nature of the mixed-stock fishery, this action probably resulted in more coho salmon on the spawning grounds. No additional action was required in the sport fishery during 1998, because instream coho abundance seemed to be above average. In 1999, poor returns again resulted in restrictions to the sport and commercial fisheries. Unfortunately these restrictions were made too late to increase coho salmon inriver abundance. Low abundance of coho salmon to UCI streams prompted the governor and users to submit a request to the BOF to meet out of cycle and address this conservation problem. The BOF met in February 2000 and significant actions to both the sport and commercial fisheries were taken to reduce the overall harvest of Cook Inlet coho salmon.

A creel survey to estimate coho salmon harvest and fishing effort was conducted at the Little Susitna River from 1982 through 1993. Intermittent or partial creel survey data have also been collected from other coho salmon fisheries.

KNIK ARM MANAGEMENT UNIT: LITTLE SUSITNA RIVER COHO SALMON FISHERY

Fishery Description

Access to the Little Susitna River (Figure 4) occurs at three primary locations: (1) intertidal waters of the river are accessed by boats crossing Knik Arm from the Port of Anchorage public boat launch; (2) the road-accessible Little Susitna Public Use Facility (Burma Road Access) which includes a launch and campground; and (3) private and public launches near the Parks Highway which provide access to the upper reaches of the river. The Little Susitna Public Use Facility is the most heavily used access to the river. Powerboats can travel on the Little Susitna River from the mouth of the river to the Parks Highway during periods of moderate to high water levels. However, during low flows travel is restricted to smaller jet boats between rm 28 and the Parks Highway at rm 70.

Coho salmon return to the Little Susitna River primarily from mid-July through early September. Tagging studies indicate that coho salmon migrate slowly up the Little Susitna River and remain

available to the fishery for about 4 weeks, after which they pass the George Parks Highway Bridge into waters closed to fishing for salmon. Spawning takes place from late September through mid-October. Spawning primarily occurs upstream from the George Parks Highway in the mainstem of the river, but some spawning occurs in tributary streams.

Stocking Program

Stocking of coho salmon occurred at the Little Susitna River from 1982-1995. Beginning in 1987, returns from smolt releases started to make significant contributions to the sport harvest. The 1995 smolt release in Nancy Lake was the last stocking of hatchery coho salmon for the Little Susitna River. The program was terminated because it was no longer cost effective to stock the Little Susitna River because of the strength of the natural run and high cost of hatchery enhancement. A summary of the stocking program can be found in the following reports: Bartlett and Conrad 1988; Bartlett and Vincent-Lang 1989; Bartlett and Sonnichsen 1990; Bartlett and Bingham 1991, 1993; Bartlett 1992, 1994, 1996 a-b.

Historical Harvest and Escapement

From 1977-2002, harvest of Little Susitna River coho salmon ranged from 2,835-27,610 fish with a mean harvest of 12,166 fish (Table 12; Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a). It has been a consistent second to the Kenai River, which supports the largest freshwater coho salmon harvest in Alaska.

Prior to 1986, coho salmon escapement to the Little Susitna River was indexed by ground and/or aerial surveys when water conditions permitted. Coho salmon escapements were counted at a weir in 1986 and from 1988-2002. In 1986 the weir was damaged for several days by floodwaters and the count through the weir was incomplete (Table 13). From 1988-1995 the weir was located at rm 32.5; average count was 22,630 coho salmon during that period. From 1996-2002, the weir was located upstream at rm 71; average count during that period was 19,819 coho salmon. Direct comparison of counts between weir sites is not possible, although most spawning occurs above the rm 71 site.

During 1997 and 1999 the Little Susitna River (Table 13), as well as the whole NCIMA, experienced poor coho salmon returns. Rebound from 1997 was positive, with an escapement of approximately 30,600 coho salmon in 2001. A record escapement of 47,938 coho salmon occurred in 2002.

Harvest estimates from the SWHS and escapement data indicate that coho salmon abundance at the Little Susitna River fluctuates widely. Inriver returns (escapement plus sport harvest) ranged from approximately 12,000-67,000 fish from 1996-2002 (Tables 12 and 13). Mean inriver exploitation for the same period was 50%.

Fishery Management and Objectives

The Little Susitna River coho salmon sport fishery has been managed in accordance with the Little Susitna River Coho Salmon Management Plan (5 AAC 61.060) since 1991 and as modified following the 1992 and 1996 seasons (Appendix B2). Management objectives stated in the plan are to provide an SEG of 10,100-17,700 naturally spawning coho salmon upstream of the George Parks Highway (Table 14), and to provide coho salmon fishing opportunity from the George Parks Highway downstream to tidewater without emergency restrictions.

Currently the bag and possession limits are two coho salmon 16 inches or more in length per day and in possession. Only unbaited, artificial lures are allowed in the Little Susitna River from October 1 - August 5. This regulation was originally designed to reduce the catch rate of early arriving nonhatchery fish and remains in effect to reduce hook-and-release mortality. The hook-and-release mortality of bait-caught, ocean-fresh coho salmon has been documented to be approximately 70% (Vincent-Lang et al. 1993). The management plan allows the use of bait beginning August 6. Coho salmon intended for release cannot be removed from the water, a regulation that also helps reduce hook-and-release mortality. Downstream of rm 32.5 (the first weir site) anglers are required to quit fishing when they reach their bag limit of Little Susitna coho salmon.

Fishery Performance and Escapement in 2003 and 2004

During 2003, 13,672 coho were harvested from the Little Susitna River (Jennings et al. *In prep-b*), below the 1998-2002 mean of 16,008 fish (Table 12). The final weir count for 2003 was 10,887 fish (Table 13), near the low end of the river's SEG range of 10,100-17,7000 fish. The dominant age class for the return in 2003 originated from the weak 1999 return (Table 13).

During 2004 fishery guides and anglers reported average catches of coho salmon throughout the season despite extremely low water levels, which made river travel and angling difficult. A total of 40,199 coho salmon were counted through the Little Susitna River weir at rm 71 (Table 13), more than double the high end of the SEG range.

KNIK ARM MANAGEMENT UNIT: OTHER COHO SALMON FISHERIES

Fishery Description

The Knik Arm Management Unit (Figures 1 and 3) presently supports five significant recreational coho salmon fisheries in addition to the Little Susitna River: Fish Creek, Cottonwood Creek, Wasilla Creek, Jim Creek, and Eklutna Tailrace. This unit also has a personal use dip net fishery on Fish Creek and two educational permit fisheries (Knik Tribal Council and Eklutna Village).

Next to the Little Susitna, Jim Creek is historically the second largest Knik Arm recreational fishery in terms of both participation and coho salmon harvest (Table 15). Jim Creek enters the glacial Knik River about 10 river miles from salt water. Most sport fishing occurs at the confluence of Jim Creek and the Knik River, an area locally known as the Jim Creek Flats. Fishing effort and harvest rates in the Jim Creek Flats area are strongly influenced by the Knik River because its glacial waters can inundate the entire area. Powered and nonpowered boats can access upstream reaches of Jim Creek.

Coho salmon return to the Knik Arm fisheries from late-July through August. Spawning occurs from late September through mid-October. The average weight of Knik Arm coho salmon, excluding those of Little Susitna River origin, is less than 6 pounds.

Stocking Program

The recreational fishery at the Eklutna power plant tailrace (Figure 6) was originally supported by coho salmon returning to the Cook Inlet Aquaculture Association's (CIAA) hatchery located at the head of the tailrace. A fish ladder linked the hatchery with the tailrace, which in turn drains into the Knik River. The nonprofit Eklutna hatchery operated from 1981-1998. Presently fish reared at the ADF&G Fort Richardson Hatchery support the fishery which is confined to the 0.5 mi long tailrace. Sport anglers harvest stocked coho, and a few wild sockeye and chum

salmon in the tailrace during the coho return. Salmon of Knik River, and recently of Matanuska River, drainage origin are also harvested at the confluence of the tailrace and the Knik River. Because of recent area wide restrictions to wild stock coho salmon harvest beginning in 2001, the coho salmon stocking program is being increased at this site.

Coho salmon have been periodically stocked into other Knik Management Unit systems. Stocking of Fish and Cottonwood creeks was initiated during the late 1970s, and at Jim and Wasilla creeks in the late 1980s. This stocking program was made up of a combination of fingerling and smolt releases produced by the ADF&G Big Lake Hatchery, Elmendorf Hatchery and Fort Richardson Hatchery, and by CIAA's Eklutna Hatchery. Contribution of hatchery fish to the catch and harvest in the recreational fisheries was not evaluated.

Historical Harvest and Escapement

The total annual harvest for these five fisheries averaged 13,538 coho salmon from 1998-2002 (Howe et al. 2001 c-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b; Table 15). Jim Creek averaged 7,778 coho salmon harvested during this period, whereas the three weekend-only fisheries averaged 805 fish at Fish Creek, 666 fish at Cottonwood, and 389 fish at Wasilla Creek (Table 15).

Fishery Management and Objectives

Fish Creek, Cottonwood Creek, and Wasilla Creek (Figure 3) are restricted primarily to intertidal fisheries, and have been open to salmon fishing on weekends only (Saturday and Sunday) since 1971 because harvestable stock surpluses cannot normally accommodate continuous daily exploitation. Time restrictions were added in February 1999 after poor returns during 1997 and 1999 were realized for this area. Motorboats are not permitted on Wasilla Creek during weekends from July 15 - August 15.

Biological escapement goals set in 1994 were reevaluated in 2002 and SEGs were established for Fish, Cottonwood, and Jim creeks (Table 14). The BEG for Wasilla Creek was dropped in 2002 because of a lack of historical escapement data from which to develop one. The Jim Creek SEG is based on historic escapement index counts, and the Fish and Cottonwood goals are based on average coho salmon weir counts through 2000. The management objective for these four systems is to achieve the escapement goal while providing a maximum level of sustained coho salmon fishing opportunity.

The Cook Inlet Coho Salmon Conservation Management Plan was adopted by the BOF in February 2000 (Appendix B2) in response to poor returns of coho salmon to the Knik Arm Management Unit in 1997 and 1999 (Table 13). The plan sets the bag and possession limits for all Knik Arm fisheries, excluding the stocked coho fishery at the Eklutna Tailrace, at two coho salmon 16 inches or more in length. Jim Lake and McRoberts Creek, and upper Jim Creek, tributaries supporting large spawning populations, are the only areas closed to coho salmon fishing in the Jim Creek drainage.

Fishery Performance and Escapement in 2003 and 2004

Total recreational harvest of coho salmon in Knik Arm streams (excluding Little Susitna River) was 10,581 fish in 2003, about 10% below the 1998-2002 mean of 13,538 fish (Table 15). Weir and index counts for 2003 were below average, but all SEGs were met with the exception of Cottonwood Creek, which fell just a few fish short (Table 13). The 2003 return was mostly the product of a weak 1999 return. Coho weirs on Fish and Wasilla creeks were discontinued after

2003, although the Fish Creek weir was operated through part of the coho return to enumerate sockeye salmon.

Limited inseason information is available for Fish, Cottonwood, and Wasilla creeks because of the very limited open season and little angler effort. Reports that were received from anglers in 2004 indicated an average return. Anglers reported good catches at Jim Creek. Eklutna Tailrace had an average run as reported by anglers and supported by an onsite inspection by area staff.

In 2004, 2,038 coho salmon were counted at the Cottonwood Creek weir, well within the SEG (Table 13). Even though the Fish Creek weir was pulled early, August 15, the partial weir count of 3,255 fish was within the SEG. An index count of 4,652 coho salmon was recorded for McRoberts Creek, resulting in a record high count totaling 5,697 for Jim Creek spawners (Table 13).

EASTSIDE SUSITNA AND WESTSIDE SUSITNA MANAGEMENT UNITS COHO SALMON FISHERIES

Fishery Description

A description of these management units, including access, is presented in the Chinook salmon section of this report. The Susitna River drainage supports the largest coho salmon stock within the NCIMA and the entire Upper Cook Inlet area. Coho salmon returning to the Susitna River units are early-run stocks, which begin to enter these drainages about mid-July. The migration into the Yentna River drainage (rm 28 of the Susitna River, Westside Susitna Management Unit) normally peaks the last week in July, whereas the peak passage into the Talkeetna River (rm 98 of the Susitna River, Eastside Susitna Management Unit) takes place 7 to 10 days later. Few coho salmon enter the Susitna River after early September. Most spawning occurs between mid-September and mid-October.

All Eastside Susitna Management Unit tributaries provide fishing opportunities for coho salmon. The Deshka River, Alexander Creek and Lake Creek are the major Westside Susitna Management Unit coho salmon fisheries.

Historical Harvest and Escapement

Coho salmon harvests averaged 27,585 fish in the Eastside Susitna and 17,571 fish in the Westside Susitna management units from 1998-2002 (Table 11; Howe et al. 2001 c-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a). The contribution from the Eastside Susitna and Westside Susitna Management units to the total NCIMA coho salmon harvest during 1998-2002 was 53%.

From 1998-2002, Willow Creek and the Talkeetna River produced the largest coho salmon harvests in the Eastside Susitna Management Unit, averaging 6,496 and 5,938 fish, respectively, and accounting for approximately 45% of the Eastside Susitna harvest (Appendix A12). During that period, coho salmon harvest averaged 5,305 fish from the Deshka River, 1,687 fish from Alexander Creek, and 5,561 fish from Lake Creek, accounting for 72% of the Westside Susitna Management Unit coho salmon harvest (Appendix A14).

Total coho salmon abundance in the Susitna River drainage has not been estimated. Abundance in portions of this vast drainage has been measured by sonar, fish wheel, weir, and mark-recapture methods. From 1981-1983, average coho salmon abundance was an estimated 47,000 fish in the Susitna River excluding all systems below rm 80 (Table 16). It is important to

recognize that significant coho salmon returns occur in tributaries of the Susitna River downstream of rm 80. Coho salmon abundance in the Deshka River, Alexander Creek, Willow Creek, and many other important coho salmon systems was not measured during the 1981-1983 studies.

Side-scan sonar and fish wheels have been used to estimate coho salmon abundance in the Yentna River from 1981-2004 (Westerman and Willette *in prep*). The Yentna River sonar program was designed to estimate sockeye salmon escapement utilizing sonar counters and fish wheels on opposite banks. Coho salmon are also counted, though factors such as the offshore distribution of upstream migrating coho affect the accuracy of the counts. Estimates of coho salmon are considered index counts only (Tarbox et al. 1983; Davis and King 1997). Coho salmon estimates made from 1981-1984 encompassed the entire coho salmon migration. Partial counts were recorded from 1985-2004 due to the sonar project shutting down prior to the end of the coho run. The number of coho salmon passing rm 80 on the Susitna River exceeded the number of coho salmon entering the Yentna River annually from 1981-1983. Sonar enumeration of coho salmon entering the Yentna River drainage ranged from 6,279-92,343 fish from 1981-2004 (Table 16).

Coho salmon were counted through a weir at approximately rm 17 on the Deshka River during 1995-2004. During 1996 the weir was operational only through July 30, after which high water made counting fish impossible. In 1997 the weir was moved downstream to rm 7 to enumerate a larger portion of the escapement and allow weir crews easier access. The weir continues to be operated at this site annually.

Fishery Management and Objectives

Coho salmon sport fishing is permitted throughout the year at most sites in the Eastside and Westside Susitna River. However, portions of several Eastside Susitna Management Unit fisheries are closed to salmon fishing to protect spawning fish. Closures usually include upper reaches of tributaries that are road accessible.

Flowing waters of major tributaries, or portions of tributaries, within the Susitna River drainage are restricted to unbaited, single-hook artificial lures throughout the year. These regulations are implemented as part of special management regulations for rainbow trout under the Cook Inlet and Copper River Basin Rainbow/Steelhead Trout Management Policy (CIRTMP) and in part under current Chinook salmon management strategies (Appendices B1-B3). Under CIRTMP, only unbaited artificial lures may be used from September 1 through May 15 in all flowing waters of the Susitna River drainage. Additionally, except in the Deshka River, bait is prohibited from May 15 through July 13 in waters open to Chinook salmon fishing. Exceptions have been made for fishing burbot when legal burbot fishing gear is used.

In the Eastside Susitna Management Unit, the bag and possession limit for coho salmon is two fish 16 inches or more in length. In the Westside Susitna Unit, the bag and possession limits are two per day and four in possession.

Sport Fishery Performance and Escapement in 2003 and 2004

The 2003 recreational coho salmon harvest was an estimated 18,585 fish from the Eastside Susitna Unit, and 16,072 fish from the Westside Susitna (Table 11). Eastside and Westside units fell below their respective previous 5-year means. The Deshka weir count and escapement index counts for Eastside and Westside Susitna streams were approximately average for 2003 (Table

16). The 2003 return can be attributed mostly to 1999 spawners, for which a poor return was recorded for the Susitna River.

During 2004, fishing guides and anglers reported average to below average catches of coho salmon for the Westside Susitna Unit throughout the season. Extremely low water levels, the result of area wide drought, were most likely the cause of low catch rates throughout much of the season. Typically coho salmon hold in cooler water such as the Susitna River when spawning tributaries have low water and high temperatures. Upstream migration may be delayed under these conditions. A large late run was realized for the Dëshka River. The final 2004 weir count for the Dëshka River reached a record 62,940 fish (Table 16). The 2004 escapement to the Yentna River, estimated by sonar at rm 4, was a record 92,343 coho salmon (Table 16), even though the sonar project concluded on August 12 before the run was complete. As stated earlier it is unknown if this is an accurate representation of the coho escapement as there are questions about the migration pattern of coho within the river.

There are no departmental programs that monitor inseason returns of coho salmon to Eastside Susitna Unit streams; however, catch information from anglers and guides combined with periodic observations of the sport fishery by Sport Fish staff indicated an average to below average return in 2004. As with Westside Susitna Unit streams, extremely low water conditions through the majority of the run likely contributed to low catch rates. The department conducted surveys to index escapement of coho salmon on two area streams, both of which supported average returns relative to previous years (Table 16).

WEST COOK INLET MANAGEMENT UNIT COHO SALMON FISHERIES

Fishery Description

A description of this management unit, including access, is presented in the Chinook salmon section of this report. Little information is available regarding run timing of West Cook Inlet Management Unit coho salmon; however, it is assumed to be similar to that of the Susitna River. The Chuit and Theodore rivers provide the major fisheries north of the West Foreland, and the Kustatan River and Polly Creek provide the major fishery sites south of the West Foreland.

Historical Harvest and Escapement

Coho salmon harvests averaged 11,308 fish in the West Cook Inlet management unit from 1998-2002 (Howe et al. 2001 c-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a; Table 11). The unit's contribution to the total NCIMA was 13% during this period. The Kustatan River is the primary producer of coho salmon in the management unit. Average harvest in this stream from 1998-2002 was an estimated 4,718 fish, accounting for approximately 42% of the harvest within this management unit (Appendices A16, A37). A second major coho producer is the Chuitna River, with an average 1998-2002 harvest of 2,341 coho (Appendix A9).

During recent years the department has collected no coho salmon escapement information in the West Cook Inlet Management Unit, so very little information exists regarding coho salmon abundance.

Fishery Management and Objectives

Regulatory history of this unit is found in Appendix B2. In the West Cook Inlet Unit all flowing waters are closed to salmon fishing October 1-December 31. In the unit north of the West Foreland, the bag and possession limits for coho salmon are two per day and four in possession. South of the West Foreland the limit is three per day and six in possession.

Sport Fishery Performance and Escapement in 2003 and 2004

The 2003 recreational coho salmon harvest from West Cook Inlet unit was an estimated 14,239 fish (Table 11), 126% of its 5-year mean. Inseason catch information received in 2004 from recreational anglers and guides indicated an average return.

SOCKEYE SALMON FISHERIES

The BOF will consider three proposals (355-356 and 360) addressing Larson Creek and Crescent Lake sockeye salmon fisheries in January 2005.

FISHERY DESCRIPTION

The recreational fishery for sockeye salmon in the Susitna River and Knik Arm drainages is mostly incidental to harvest of other salmon. However, directed sockeye salmon fisheries occur in the Susitna River drainage at Larson Creek (Talkeetna River drainage), Lake Creek, Talachulitna River, at the mouth of Nancy Lake Creek in the Little Susitna River drainage and at Jim Creek (Appendices A18-A25). The Yentna River is thought to support about 50% of Susitna River sockeye.

STOCKING PROGRAM

Due to declining abundance of sockeye salmon during the early 1970s, stocking of Fish Creek with sockeye salmon was initiated in 1975. The Big Lake state fish hatchery supported the program through 1992 using Fish Creek broodstock. After the Big Lake hatchery closed in 1993, enhancement continued using Fish Creek broodstock reared at the Eklutna hatchery, a private hatchery operated by Cook Inlet Aquaculture Association (CIAA), located on the Knik River in the Eklutna power plant tailrace. In 1997 an additional 1.5 million fry were retained for further rearing and released as smolt into the Eklutna tailrace. The CIAA discontinued operation of the Eklutna Hatchery in 1998 following the 1997 release, at which time the program was switched to the Trail Lakes Hatchery, another CIAA facility. Current production goals are 9 million sockeye salmon eggs of Fish Creek brood, from which sockeye salmon fry are released annually into the Big Lake drainage.

HISTORICAL HARVEST AND ESCAPEMENT

Recreational harvests of sockeye salmon in the NCIMA ranged from 3,140-23,235 fish during 1977-2002 and averaged 12,883 fish (Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a; Table 17). Within the NCIMA, the Knik and Eastside Susitna management units historically account for the majority of the harvest of sockeye salmon. The West Cook Inlet Management Unit, with fewer accessible streams, places last in average harvest. The Little Susitna River, Knik River and Cottonwood Creek dominate Knik Management Unit harvests while Eastside Susitna River Unit harvests are predominately from the Talkeetna River, specifically Larson Creek. The Talkeetna River accounted for 80% of the Eastside Susitna Unit harvest from 1998-2002. Lake Creek is by far the major contributor to the Westside Susitna River harvests, and West Cook Inlet Unit's harvest is predominately from Wolverine Creek in the Big River Lakes drainage (Appendices A18, 20, 22, 24).

Sockeye salmon populations are present in numerous streams throughout the Knik Arm Unit, some of which were surveyed sporadically in the past (Table 18). Bodenburg Creek, a Knik River tributary, was surveyed annually from 1968-2004, except for 1984 (Table 19).

The escapement of sockeye salmon into the Fish Creek drainage has been documented. Escapement of these late-run sockeye salmon ranged from 2,705 fish in 1973 to 307,000 fish in 1940 (Chlupach and Kyle 1990). From 1968-2004, escapement of sockeye salmon ranged from 2,705 fish in 1973 to 192,352 fish in 1984 (Table 18, Figure 11).

Escapement of sockeye salmon to the Susitna River drainage was documented annually from 1978-2004 at the Yentna River sonar site operated by the Commercial Fisheries Division, and by CIAA weirs at Chelatna Lake (Lake Creek drainage) from 1993-1998, Larson Lake (Talkeetna River drainage) in 1984-1987 and 1997-2000, and Hewitt Lake in 1990 (Table 18). Within the NCIMA, Commercial Fisheries Division has also operated a weir at Packers Creek on Kalgin Island and at Judd Lake.

FISHERY MANAGEMENT AND OBJECTIVES

The management objective for sockeye salmon in the NCIMA is to attain established escapement goals as measured at various weirs and sonar sites while harvesting fish in excess of these escapement goals. The SEG for Fish Creek is 20,000-70,000 sockeye salmon counted through a weir. The SEG for the Yetna River is 90,000-160,000 counted by side-scan sonar at rm 4 of the Yetna River.

SPORT FISHERY PERFORMANCE AND ESCAPEMENT IN 2003 AND 2004

The 2003 sport harvest of sockeye salmon in the Knik Management Unit totaled 6,606 fish. The majority of the harvest occurred in the Little Susitna River (Appendix A18). Harvest from the Eastside Susitna unit was 2,734 coho salmon, 8,660 fish from the Westside Susitna unit and 4,708 fish from the West Cook Inlet unit (Appendices A20, 22, 24). All units exceeded their 1998-2002 mean except Eastside Susitna in which the Talkeetna River dictates total harvest level (Howe et al. 2001 c-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b).

In 2004, anglers fishing Knik Management Unit streams reported poor sockeye catches. A return of 22,157 sockeye was counted at the Fish Creek weir, within but near the low end of the SEG range (Table 18). Talkeetna River anglers and spot checks by department staff indicated an average year at Clear Creek and Larson Creek. The Yentna River fishery was also average. The Yentna River sonar count of 71,281 was below its SEG range.

STOCKED LAKE FISHERIES

The BOF will consider two proposals (378-379) addressing the daily limit and annual harvest limit of rainbow trout 20 inches or greater in NCIMA stocked lakes.

Currently 85 lakes in the NCIMA are stocked on an annual or biennial basis, including one research lake that is closed to fishing. These lakes range from 2 - 362 surface acres and are stocked with a variety of sizes and species of game fish including: rainbow trout, coho salmon, Chinook salmon, Arctic grayling, Arctic char, and lake trout.

In most cases stocked landlocked lakes represent new fisheries because game fish were not present before stocking occurred. Stocked lakes benefit anglers and related businesses by providing diverse, year-round fishing opportunities and by diverting angling pressure from wild stocks. The majority of the stocking is directed toward road-accessible lakes that tend to draw entire family groups for some combination of fishing, camping, picnicking, boating, snow machining and ice skating.

HISTORICAL STOCKING PROGRAM

The stocking program began in 1952 when two lakes received 22,000 rainbow trout fry. Eight species of salmonids have been stocked since 1952. Steelhead/rainbow trout from the Karluk River (Kodiak) and four strains of Alaska rainbow trout (Naknek River, Talarik Creek, Swanson River and Big Lake), as well as rainbow trout from federal and private hatcheries located in Idaho, Montana, Oregon and Washington have been stocked. Landlocked salmon fisheries have been supported by coho salmon from Washington State and at least nine Alaskan egg take sources, and Chinook salmon from three Alaskan sources. Since 1979 only indigenous Alaskan fish have been stocked in the NCIMA. Arctic grayling egg take sources have been Junction Lake, Tolsona Lake and Moose Creek. Arctic char, originating from egg takes at Aleknagik Lake, and lake trout from Paxson Lake were first stocked in 1988.

The final egg take from Big Lake strain rainbow trout brood stock at Fort Richardson Hatchery took place in 1993. All resulting fingerlings were stocked in Big Lake drainage lakes and all remaining brood stock were stocked in Anchorage area landlocked lakes and in Big Lake. Swanson River strain rainbow trout are the sole rainbow trout brood stock source remaining at the Ft. Richardson Hatchery. Beginning in 1994, Big Lake drainage system lakes having intermittent outlets have been stocked with triploid all-female Swanson River strain rainbow trout.

CURRENT STOCKING PROGRAM

Rainbow trout, coho salmon, Arctic char and Arctic grayling are now the primary species used in the stocking program. Rainbow trout comprised 60% of all fish stocked in landlocked lakes within the NCIMA from 1993 - 2003. Annual releases of all species during 1999-2003 ranged from 530,964 to 947,653 fish.

The majority of rainbow trout released into NCIMA waters are fingerlings. Most fingerlings weigh 1 - 2 grams and are released in July and August. Catchable rainbow trout, weighing about 100 grams, are stocked in nonproductive lakes to increase angling opportunities and help maintain good catch rates in heavily fished lakes. Nearly 15% of the rainbow trout stocked in the NCIMA are catchable size at introduction. Anglers expended an average of 28,516 fishing days to harvest an average of 15,505 rainbow trout from 1998-2003 (Table 20).

Coho salmon are normally stocked in May at about 3 to 5 grams each. These fish achieve a harvestable size (6 to 11 inches) at age 2, the year following release. Most coho salmon are either harvested or die after becoming sexually mature by age 3. Stocked salmon support important winter fishing opportunities in the NCIMA.

Arctic grayling are stocked in early summer as catchables weighing 70 to 80 grams. Chinook salmon are stocked as catchables, weighing about 100 grams, in early November providing winter ice fishing opportunities in three heavily fished lakes. Arctic char are stocked as catchables weighing about 100 grams in May, providing more diversity for sport fishing.

STOCKING PROGRAM EVALUATIONS

Research has accompanied development of the area's stocking program since the early 1970s. The primary objective of this research has been to develop cost-effective stocking practices that provide both expanded and diverse fishing opportunities. A survey of anglers fishing stocked lakes in the NCIMA in 1977 revealed that 70% preferred to fish for rainbow trout, 19% desired landlocked coho salmon and 11% listed Arctic grayling as their choice (Watsjold 1978).

Lake stocking research has also been directed toward the following: evaluation and selection of rainbow trout brood stock, development of effective stocking densities and size of stocked fish for various lake environments, establishment of optimal time and frequency of stockings in various landlocked lake environments, evaluation of sterile coho salmon and rainbow trout for stocking lakes that have open or intermittent linkage with drainages that support wild fish, and evaluation of female diploid rainbow trout to eliminate high mortality associated with spawning males (Bentz et al. 1991). Although research indicates that the contributions from the landlocked lake stocking program have been significant to date, poor survival of stocked fish has also been documented.

Studies have also documented growth of stocked rainbow trout fingerlings released in July and August weighing 1 - 2 grams. By June of the year following introduction, age 1 fingerlings will typically range from 3 - 6 inches in length, at age 2 from 6 to 11 inches, at age 3 from 11 to 16 inches, and at age 4-5 from 16 plus inches in length. Approximately 70% to 80% of the rainbow trout harvested from stocked lakes are age 2 and about 15% to 20% are age 3. Few stocked rainbow trout exceed age 5 and relatively few rainbow trout achieve harvestable size prior to age 2 (Havens et al. 1995).

FISHERY MANAGEMENT AND OBJECTIVES

Presently there are three lake management plans addressing stocking for NCIMA lakes: Finger Lake Management Plan, Kepler-Bradley Complex Management Plan and Matanuska-Susitna Valley Small Lakes Management Plan (ADF&G *Unpublished b*).

The primary objective of the stocking program is to provide additional fishing opportunities in a cost effective manner on a sustainable basis by stocking lakes with game fish that are indigenous to Alaska. An additional objective is to reduce effort on the area's wild stocks and ensure that stocking does not negatively impact wild stock genetics or other fisheries. All stocking is conducted in accordance with guidelines set forth in the Statewide Stocking Plan for Recreational Fisheries (ADF&G *Unpublished b*).

Stocked landlocked lakes fall under the maximum sustained yield management concept. Bag and possession limits under this management concept are five rainbow trout only one over 20 inches with an annual limit of two fish over 20 inches. Although stocked lakes are primarily managed for put-and-take fisheries, three stocked lakes (Long Lake in the Kepler/Bradley complex, Wishbone Lake, and X Lake) have been established for catch-and-release fishing. These three lakes allow only unbaited artificial lures, and are closed November 1 to April 30.

SPORT FISHERY PERFORMANCE IN 2003 AND 2004

In 2003, 74 lakes were stocked with 947,653 game fish. The majority of these lakes are located in the Knik Arm Management Unit and the remainder in the Eastside Susitna Management Unit. Releases in 2003 included 652,146 rainbow trout; 108,186 coho salmon; 28,533 Arctic grayling; 44,605 Chinook salmon and 114,183 Arctic char. Twenty-six lakes were stocked with more than one species of fish in 2003.

An estimated 26,486 angler-days of participation resulted from the area's landlocked stocking program in 2003 (Jennings et al. *In prep-b*; Table 20), excluding effort at lakes having both stocked and indigenous game fish. The 2003 catch from stocked landlocked lakes included an estimated 52,337 rainbow trout of which 14,371 (27%) were harvested; 11,869 landlocked salmon of which 47% were harvested; 3,388 Arctic grayling of which 24% were harvested; and

4,018 Arctic char of which 29% were harvested. Rainbow trout from stocked lakes represented 31% of all rainbow trout caught and 66% of the entire harvest of this species from the NCIMA during 2003 (Tables 20 and 21).

Anglers expended an average of 28,516 fishing days to harvest an average of 15,505 rainbow trout from 1998-2003. Harvest and effort was consistent throughout this period (Table 20).

In 2003 the Kepler Lake Complex (including Kepler, Bradley, Canoe, Echo, Irene, Long, Victor) supported 4,408 angler-days of effort. Finger Lake supported 5,096 angler-days of effort (Table 22). Collectively, these two sites yielded approximately 36% of the effort associated with stocked landlocked lakes within the NCIMA (Jennings et al. *In prep-b*).

RAINBOW TROUT FISHERIES

The BOF will consider six proposals (376 and 379-383) addressing wild rainbow trout regulatory changes in January 2005.

FISHERY DESCRIPTION

The majority of wild rainbow trout angling occurs in the Eastside and Westside Susitna Management Units (Figure 7). Wild rainbow trout fisheries of the Eastside Susitna Unit extend from Willow Creek north along the Susitna River as far as Portage Creek and include Talkeetna River and the relatively smaller tributaries of the Chulitna River and East Fork Chulitna River. Most tributaries of the Eastside Unit are cold-water streams originating in the Talkeetna Mountains. Access is primarily the George Parks Hwy and by jet boat. The Westside Susitna Unit includes tributaries of the Yetna River and all streams entering the Susitna River from the west (Figure 7). Westside tributaries are a mix of streams either originating out of lake systems or from the Alaska Range. Access to these fisheries is by raft, power boat or airplane. Because of the shallow nature of many of the westside streams, drop off float trips are common. Many lodges accommodate anglers fishing the Westside Unit.

Several lake and riverine populations of rainbow trout in the Westside Susitna Management Unit have been severely impacted by northern pike predation (Rutz 1999).

Assessment of migration and the age and length characteristics of rainbow trout stocks were the primary focus of several investigations, including studies on rainbow trout stocks of the Dshka River, Lake Creek and Talachulitna River in 1989 and 1990 (Bradley 1990, 1991), the Kashwitna River in 1991, Peters Creek in 1992 (Rutz 1992, 1993) and the North Fork Kashwitna in 1996.

There were significant differences in age composition and mean length-at-age among Susitna River tributaries sampled during 1989-1992 (Rutz 1992, 1993). Rainbow trout tagged during 1991 and 1992 indicated low numbers of trout over 510 mm in length, the size limit for trophy trout defined in the Criteria for Establishing Special Management for Trout. This lack of adequately sized fish, combined with the relatively slow growth rate of Susitna River basin trout in comparison to other Alaskan waters containing trophy trout, suggests that these Susitna River rainbow trout stocks are not viable candidates for management as trophy fisheries (Rutz 1992).

Onsite creel surveys were also conducted at Lake Creek during 1988 (Vincent-Lang and Hepler 1989) and 1989 (Bradley 1990).

HISTORICAL HARVEST

NCIMA rainbow trout harvests ranged from 19,884 to 74,962 fish and averaged 40,198 fish from 1977 - 2002 (Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a; Table 21), accounting for 38% of the average harvest in Region II and 27% in the state. From 1990 (when estimates of catch became available) through 2002, the average catch of rainbow trout in the NCIMA was 145,630 fish (Table 21).

Rainbow trout harvested from the Knik Arm Management Unit during this time period accounted for approximately 70% of the total NCIMA harvest. The Knik Management Unit also dominates the catch, the majority of which is from stocked lakes. A large percentage of catch and harvest is a result of the stocked lakes program.

The Westside Susitna unit accounted for 14% of the NCIMA harvest and the Eastside Susitna unit accounted for 13% from 1977-2002. Harvest of Susitna River (Eastside and Westside units combined) rainbow trout from 1998-2002 averaged 2,649 fish. Approximately 55% of the rainbow trout harvest from the Susitna River drainage was from Eastside Susitna Management Unit tributaries during this time (Table 21).

The Deshka River and Lake Creek generally provide the largest harvests among Westside Susitna Management Unit fisheries while the Talachulitna River and Lake Creek generally produce the largest catches (Appendices A26-A33). Willow and Montana creeks produced the largest harvests until 1997, when they became catch-and-release streams.

The West Cook Inlet Management Unit made up 3% of the NCIMA harvest from 1977-2002.

FISHERY MANAGEMENT AND OBJECTIVES

Management of wild rainbow trout in the NCIMA has undergone numerous changes (Appendix B3). A statewide management plan (5 ACC 75.220) and policy (5 ACC 75.222) for the management of sustainable wild trout fisheries was adopted by the BOF in March 2003 as a means of uniformly managing wild trout stocks across Alaska. The goal of the policy is to protect the largely intact wild trout populations unique to Alaska by conservatively managing for optimal sustained yield. Under the optimal sustained yield concept, fishery benefits including quality of experience, diversity of opportunity, conservative consumptive harvest opportunity, and economic benefits are considered while maintaining healthy stock status (e.g. biologically desirable size compositions and abundance levels) and genetic diversity. Conservative management of wild trout in the NCIMA follows these standards: a bag and possession limit of two trout of which only one may be over 20 inches in length with an annual limit of two trout over 20 inches in length.

In addition, many tributaries or sections of tributaries in the NCIMA are designated as rainbow trout special management waters, either as trophy rainbow trout waters or as catch-and-release only waters. A major portion of the Eastside Susitna Management Unit, from the junction of the Susitna and Talkeetna rivers upstream to Devils Canyon, has been managed for trophy-size trout (trout over 20 inches) since 1987. Under this strategy, only one trout 20 inches or more in length is allowed daily with a two trout over 20 inches seasonal limit. All trout under 20 inches must be released immediately. An unbaited, single-hook lure requirement complements this strategy.

Catch-and-release rainbow trout fisheries include the Talachulitna River, most of the Lake Creek drainage, much of the Deshka River, the Fish Creek drainage located within the Talkeetna River

drainage, the North Fork of the Kashwitna River, and Willow and Montana creeks. Unbaited, single-hook lures are mandatory in all catch-and-release waters. Catch-and-release strategies perpetuate quality fishing rather than protect or rebuild depressed stocks (Engel and Vincent-Lang *unpublished*).

Wild trout fisheries are not supplemented with hatchery trout in the Susitna River drainage. Past public testimony has suggested little interest in the use of hatchery fish to augment wild stocks and the current stocking policy supports the public's stance. Stocked rainbow trout are generally managed for maximum sustained yield (see the Stocked Fisheries section above).

SPORT FISHERY PERFORMANCE IN 2003 AND 2004

The 2003 harvest of 2,581 rainbow trout in the Eastside Susitna management unit represents 182% of the 1998-2002 mean harvest for this stock. The Westside Susitna management unit harvest of 1,425 fish represents 116% of the 1998-2002 mean (Table 21; Howe et al. 2001 c-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b).

The 2003 catch for the Eastside Susitna Management Unit was 59,440 rainbow trout, 134% of the previous 5-year mean of 44,338 fish. The 2003 Westside Susitna Management Unit catch was 40,327, nearly twice the 1998-2002 average of 28,415 fish (Table 21). From 1999-2003 less than 5% of the total rainbow trout catch in Eastside and Westside Susitna Management Units was harvested (Table 21).

In 1997 Willow and Montana creeks, previously the largest producers of rainbow trout harvest of the eastside Susitna River drainage became catch-and-release fisheries. This accounted for a large portion of the drop in harvest for the Eastside Susitna Management Unit from previous years (Appendix A28). These two fisheries continued to dominate Eastside Susitna Management Unit catch in 2003 at nearly 45% (Appendix A29).

Catch from Westside Susitna River fisheries was driven by a record high catch at Lake Creek, more than double the 1998-2002 average. During 2003 an estimated 561 rainbow trout were harvested in Lake Creek from a catch of 22,460 fish (Appendices A30, A31). The Deshka River, also a Westside Susitna tributary, yielded a rainbow trout catch of 5,868 fish and harvest of 368. The Talachulitna River drainage, which is a catch-and-release only fishery, produced a catch of 9,721 rainbow trout.

The vast majority of the rainbow trout harvest in the Knik Arm Unit resulted from stocked lake fisheries (Appendix A26), as discussed in the Stocked Lake Fisheries section above.

NORTHERN PIKE FISHERIES

The BOF will consider one proposal (385) to allow gillnet harvest of northern pike in the NCIMA.

FISHERY DESCRIPTION

Northern pike are not indigenous to the NCIMA. They were illegally introduced into the area during the early 1950s. Since then, northern pike have been reported in more than 100 lakes and more than a dozen tributaries of the Susitna River (Sweet and Rutz 2001). Prior to 1992 several of these lakes consistently produced northern pike in the trophy class range (greater than 40 inches for catch-and-release honorary certificates or 15 pounds) and it was common to find fish weighing up to 20 lb and occasionally over 30 lb.

HISTORICAL HARVEST

In 1977, the first year estimates were available, harvest of northern pike in the NCIMA was less than 200 fish, accounting for only 1% of the statewide harvest of northern pike (Mills 1979; Table 23). Northern pike harvests slowly increased through 1983 when the harvest totaled less than 1,000 fish. Since 1984, harvest of northern pike has greatly increased. The average harvest during 1984-1987 was 1,917, 1988-1991 averaged 3,946 fish, and 1992-1996 averaged 5,311 fish (Figure 12). As northern pike spread throughout the NCIMA anglers became more interested in them as a recreational fish, indicated by increasing harvest and catch estimates since 1991 (Table 23). With the exception of 1994 and 1995, all years since 1990 recorded harvests over 5,000 fish (Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b).

The first northern pike catch from the Eastside Susitna or West Cook Inlet management units was documented in the SWHS in 1993; previously, other than public testimony, no information was available regarding northern pike catch or harvest from these areas. During 1997, for the first time the NCIMA pike harvest surpassed the Arctic-Yukon-Kuskokwim (AYK) area, previously the major producer of pike. The NCIMA catch of northern pike has not yet surpassed the AYK catch.

FISHERY MANAGEMENT AND OBJECTIVES

The management objective for this fishery is to maximize harvest opportunity. The majority of the NCIMA does not have a bag or possession limit for northern pike.

In an effort to provide anglers the opportunity to catch large fish, in 1998 the BOF adopted a slot limit regulation for Alexander and Trapper lakes. The daily bag limits were set at: less than 22 inches in length no limit, 22-30 inches no retention, and over 30 inches 1 per day. The objective was to remove fish less than 22 inches in length from the population while protecting fish in the 22-30 inch range allowing them a chance to attain a larger size when they would again be available for harvest. In 2002 the slot limit was repealed for Trapper Lake. Alexander Lake will be closely monitored to evaluate the effectiveness of the slot limit regulation.

SPORT FISHERY PERFORMANCE IN 2003 AND 2004

The NCIMA estimated harvest of northern pike during the 2003 season was 8,024 fish, approximately 25% less than the 1998-2002 mean harvest. The Knik and Westside Management units each accounted for just under half the harvest, with the remainder from the Eastside Susitna and West Cook Inlet units (Table 23). The Nancy Lake Complex and Flathorn Lakes contributed to approximately 65% of the Knik Management Unit mean catch from 1998 - 2002. Alexander Lake, including Alexander Creek, was the main producer of northern pike on the Westside Susitna throughout the same period (Appendix A34).

The NCIMA estimated catch of northern pike during 2003 was 29,278 fish. The Westside Susitna Management Unit and the Knik Management Unit contributed the majority of the catch (Table 23).

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TABLES AND FIGURES

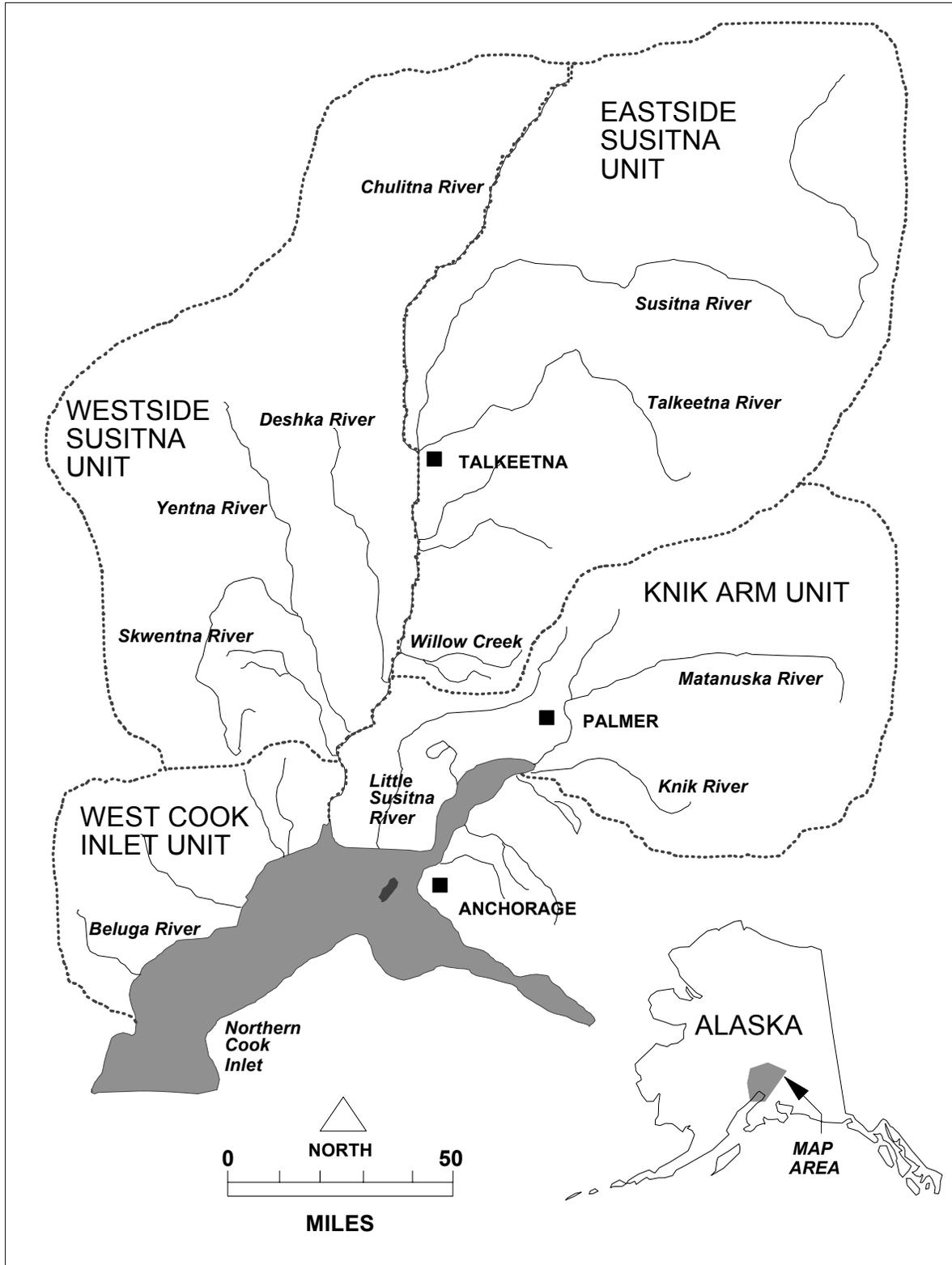


Figure 1.-The Northern Cook Inlet sport fish management area.

Table 1.-Estimated harvests, by all user groups, of Chinook salmon of Northern Cook Inlet origin, 1893-2003.

Year	Harvest	Year	Harvest	Year	Harvest
1893	24,000	1935	60,060	1977	5,446
1894	12,400	1936	64,850	1978	4,430
1895	20,159	1937	68,786	1979	9,837
1896	14,461	1938	46,130	1980	11,301
1897	11,266	1939	42,181	1981	11,372
1898	13,111	1940	50,413	1982	17,121
1899	13,682	1941	83,858	1983	18,706
1900	21,346	1942	76,144	1984	23,996
1901	27,455	1943	89,105	1985	25,842
1902	39,210	1944	68,168	1986	43,192
1903	52,818	1945	55,362	1987	40,335
1904	24,058	1946	51,425	1988	44,153
1905	14,134	1947	85,443	1989	50,981
1906	17,936	1948	84,797	1990	42,430
1907	50,355	1949	89,025	1991	43,397
1908	27,019	1950	130,274	1992	52,788
1909	47,699	1951	150,010	1993	54,235
1910	39,222	1952	59,600	1994	36,183
1911	44,676	1953	71,544	1995	22,944
1912	38,293	1954	52,260	1996	22,961
1913	50,922	1955	37,199	1997	24,495
1914	38,043	1956	52,248	1998	28,906
1915	67,034	1957	34,214	1999	40,983
1916	50,316	1958	18,278	2000	40,176
1917	52,399	1959	26,226	2001	37,215
1918	27,909	1960	22,031	2002	31,196
1919	19,041	1961	15,822	2003	32,401
1920	31,650	1962	16,216		
1921	11,157	1963	14,106		
1922	24,824	1964	3,698		
1923	23,929	1965	7,801		
1924	21,610	1966	815		
1925	40,826	1967	623		
1926	60,496	1968	1,163		
1927	69,923	1969	3,927		
1928	55,908	1970	1,853		
1929	54,155	1971	10,494		
1930	57,854	1972	5,748		
1931	41,122	1973	246		
1932	56,745	1974	238		
1933	47,425	1975	301		
1934	57,903	1976	692		

Data sources: 1893-1968 Delaney and Vincent-Lang *unpublished*; 1969-2003 Fox and Shields 2004; Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b.

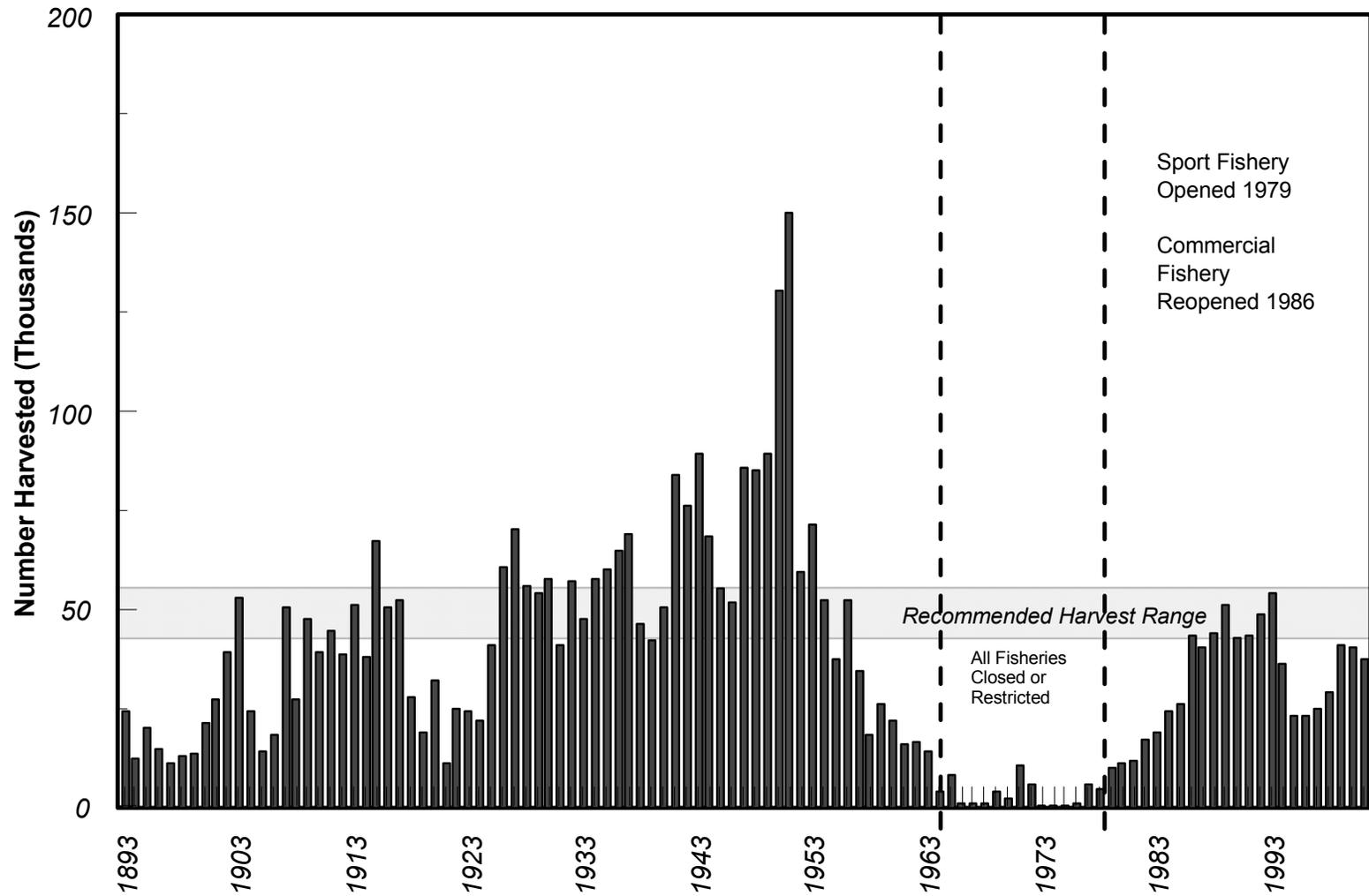


Figure 2.-Estimated harvests by all user groups of Chinook salmon of Northern Cook Inlet origin, 1893-2003.

Table 2.-Estimated harvests of Chinook salmon originating from the Northern Cook Inlet Management Area, 1977-2004.

Year	Commercial ^a			Recreational ^b				Subsistence ^d	Grand Total
	NCI ^c	Kustatan	Total	Knik Arm Drainages	Eastside Susitna	Westside Susitna	West Cook Inlet		
1977	565	207	772	207	1,056	2,938	473	4,674	5,446
1978	666	221	887	140	886	2,039	478	3,543	4,430
1979	1,714	159	1,873	800	1,298	5,768	98	7,964	9,837
1980	993	174	1,167	646	1,370	6,148	34	8,198	11,301
1981	725	43	768	1,466	2,202	4,742	192	8,602	11,372
1982	2,716	391	3,107	1,666	2,063	8,573	147	12,449	17,121
1983	933	163	1,096	1,255	2,852	9,568	1,185	14,860	18,706
1984	1,004	214	1,218	2,057	4,428	12,106	1,833	20,424	23,996
1985	1,890	211	2,101	1,889	4,342	13,644	2,029	21,904	25,842
1986	15,488	308	15,796	1,524	8,569	13,402	2,378	25,873	43,192
1987	12,701	176	12,877	2,476	8,603	13,350	1,477	25,906	40,335
1988	12,836	123	12,959	2,916	9,139	15,970	1,695	29,720	44,153
1989	12,731	1,144	13,875	4,341	9,783	19,343	2,325	35,792	50,981
1990	9,582	1,084	10,666	2,022	9,423	17,425	2,097	30,967	42,430
1991	6,859	925	7,784	2,277	9,083	21,836	762	33,958	43,397
1992	4,554	964	5,518	3,969	21,307	18,737	1,213	45,226	52,788
1993	3,277	424	3,701	3,602	22,688	21,142	1,955	49,387	54,335
1994	3,185	449	3,634	4,303	14,970	10,248	1,583	31,104	36,189
1995	4,130	198	4,328	1,707	7,872	6,265	693	16,537	22,963
1996	1,945	145	2,090	1,579	11,023	5,879	1,358	19,839	22,968
1997	1,120	113	1,233	2,938	10,989	7,799	894	22,620	24,492
1998	2,471	83	2,554	2,031	10,472	9,716	693	22,912	26,493
1999	2,657	776	3,433	2,724	16,875	12,131	1,073	32,803	37,466
2000	2,226	759	2,985	2,824	11,774	17,341	1,163	33,102	37,244
2001	2,210	712	2,922	2,255	13,504	13,914	722	30,395	34,293
2002	1,473	439	1,912	3,195	10,695	11,357	1,227	26,474	29,466
2003	1,159	445	1,604	2,562	9,499	15,035	1,124	28,220	30,797
2004	2,081	430	2,511 ^e	data not available				905 ^e	3,416

^a Fox and Shields *in prep.*

^b Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b.

^c Northern District total.

^d Fox and Shields *in prep.* Includes Tyonek subsistence fishery in 1980-2003 and Northern/Central districts subsistence fisheries in 1985 and 1991-1993. 1994-1995 data include Northern districts.

^e Preliminary data.

Table 3.-Harvest of Chinook salmon from Eastside Susitna River, Westside Susitna River, West Cook Inlet and Knik Arm drainages, 1979-2003.

Year	Eastside Susitna River			Westside Susitna River	West Cook Inlet	Knik Arm	Total
	Hatchery	Non- hatchery	Total				
1979			1,298	5,768	98	800	7,964
1980			1,370	6,148	34	646	8,198
1981			2,202	4,742	192	1,466	8,602
1982			2,063	8,573	147	1,666	12,449
1983			2,852	9,568	1,185	1,255	14,860
1984			4,428	12,106	1,833	2,057	20,424
1985			4,342	13,644	2,029	1,889	21,904
1986			8,569	13,402	2,378	1,524	25,873
1987			8,603	13,350	1,477	2,476	25,906
1988	355	8,784	9,139	15,970	1,695	2,916	29,720
1989	1,079	8,704	9,783	19,343	2,325	4,341	35,792
1990	1,194	8,229	9,423	17,425	2,097	2,022	30,967
1991	844	8,239	9,083	21,836	762	2,277	33,958
1992	4,566	16,741	21,307	18,737	1,213	3,969	45,226
1993	3,977	18,711	22,688	21,142	1,955	3,602	49,387
1994	2,703	12,267	14,970	10,248	1,583	4,303	31,104
1995	1,111	6,761	7,872	6,265	693	1,707	16,537
1996	1,205	9,818	11,023	5,879	1,358	1,579	19,839
1997	1,091	9,898	10,989	7,799	894	2,938	22,620
1998	902	9,570	10,472	9,716	693	2,031	22,912
1999	2,464	14,411	16,875	12,131	1,073	2,724	32,803
2000	1,776	9,998	11,774	17,341	1,163	2,824	33,102
2001	2,057	11,447	13,504	13,914	722	2,255	30,395
2002	1,720	8,975	10,695	11,357	1,227	3,195	26,474
1998-2002	1,784	10,880	12,664	12,892	976	2,606	29,137
Mean							
2003	1,602	7,897	9,499	15,035	1,124	2,562	28,220

Sources: Mills 1981a-b, 1982-1994; Howe et al. 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b.

Table 4.-Chinook salmon escapement goals for Northern Cook Inlet Management Area waters in 2004.

Drainage	Escapement Goal Range	Type ^a	Method of Survey
<u>Knik Arm Management Unit</u>			
Little Susitna River	900-1,800	SEG	Aerial
<u>Eastside Susitna River Management Unit</u>			
Chulitna River	1,800-5,100	SEG	Aerial
Clear Creek	950-3,400	SEG	Aerial
Goose Creek	250-650	SEG	Aerial
Little Willow Creek	450-1,800	SEG	Aerial
Montana Creek	1,100-3,100	SEG	Aerial
Prairie Creek	3,100-9,200	SEG	Aerial
Sheep Creek	600-1,200	SEG	Aerial
Willow Creek	1,600-2,800	SEG	Aerial
Deception Creek	350-700	SEG	Aerial
<u>Westside Susitna River Management Unit</u>			
Alexander Creek	2,100-6,000	SEG	Aerial
Deshka River	13,000-28,000	BEG	Weir
Lake Creek	2,500-7,100	SEG	Aerial
Peters Creek	1,000-2,600	SEG	Aerial
Talachulitna River	2,200-5,000	SEG	Aerial
<u>West Cook Inlet Management Unit</u>			
Chuitna River	1,200-2,900	SEG	Aerial
Lewis River	250-800	SEG	Aerial
Theodore River	500-1,700	SEG	Aerial

^a SEG-sustainable escapement goal, BEG-biological escapement goal.

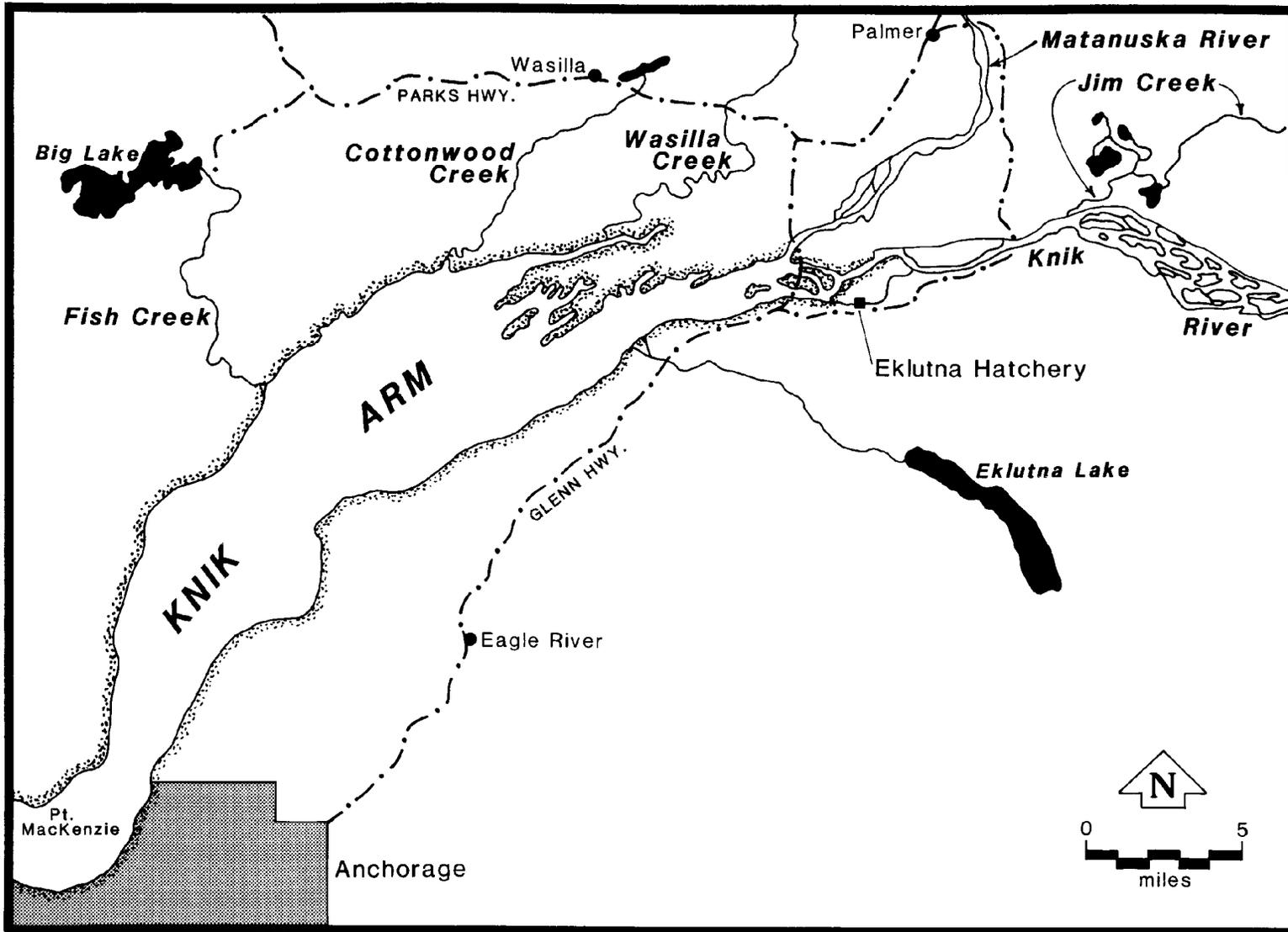


Figure 3.-The Knik Arm drainage.

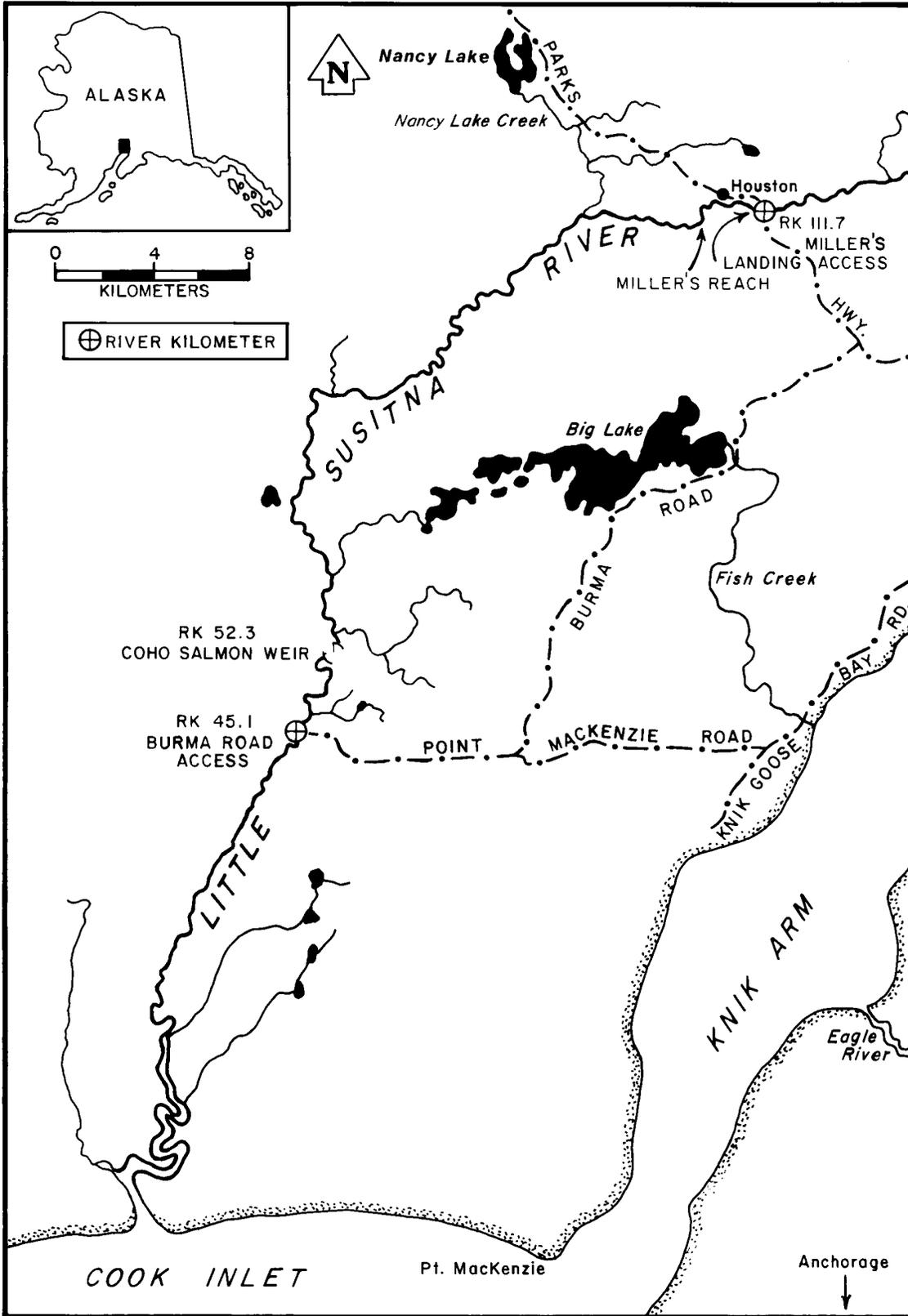
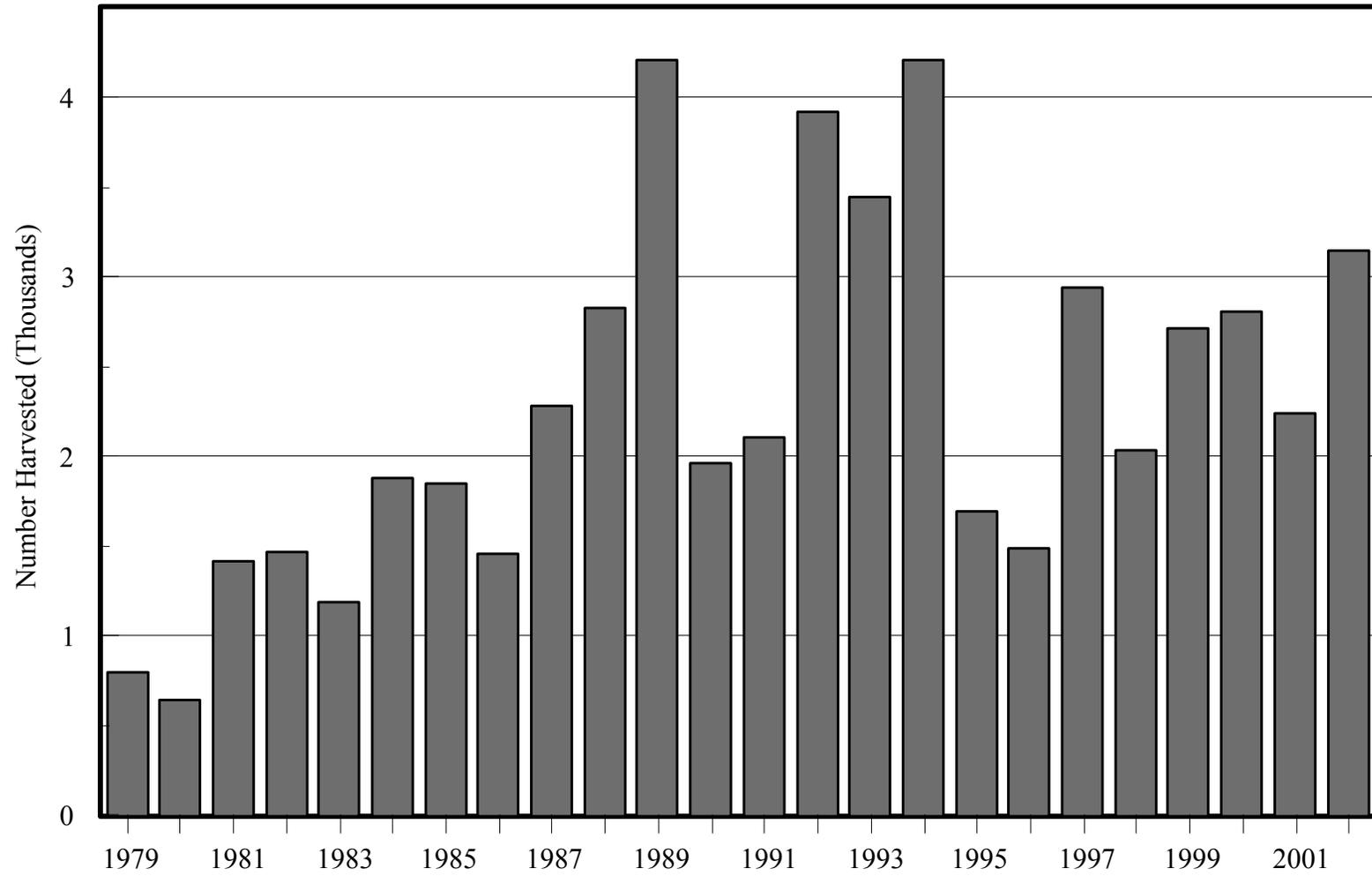


Figure 4.-The Little Susitna River.



Source: SWHS, Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b.

Figure 5.-Little Susitna River Chinook salmon sport harvest, 1979-2003.

Table 5.-Knik Arm Management Unit Chinook salmon escapement index counts, 1979-2004.

Year	Little Susitna River			Matanuska River	
	Weir	Aerial	Comments	Moose Creek ^a	Comments
1979			b	253	
1980			b		b
1981			b	238	
1982			b	406	
1983		929		452	
1984		558		541	
1985		1,005		475	
1986			b	419	
1987		1,386		957	
1988	7,400	3,197		1,072	
1989	4,367		b	999	
1990		922		545	
1991		892		704	
1992		1,441		959	
1993			b	175	Late count
1994	2,981	1,221		894	
1995	2,809	1,714		488	
1996		1,079		652	
1997			b	652	
1998		1,091		214	
1999			b	744	
2000		1,094		198	
2001		1,238		275	
2002		1,660		310	
2003		1,114		471	
2004		1,694		197	
Mean	4,389	1,308		532	
SEG ^c		900-1,800		No SEG	

^a Foot survey through 1994, helicopter beginning in 1995.

^b No count conducted, turbid water.

^c Sustainable escapement goal.

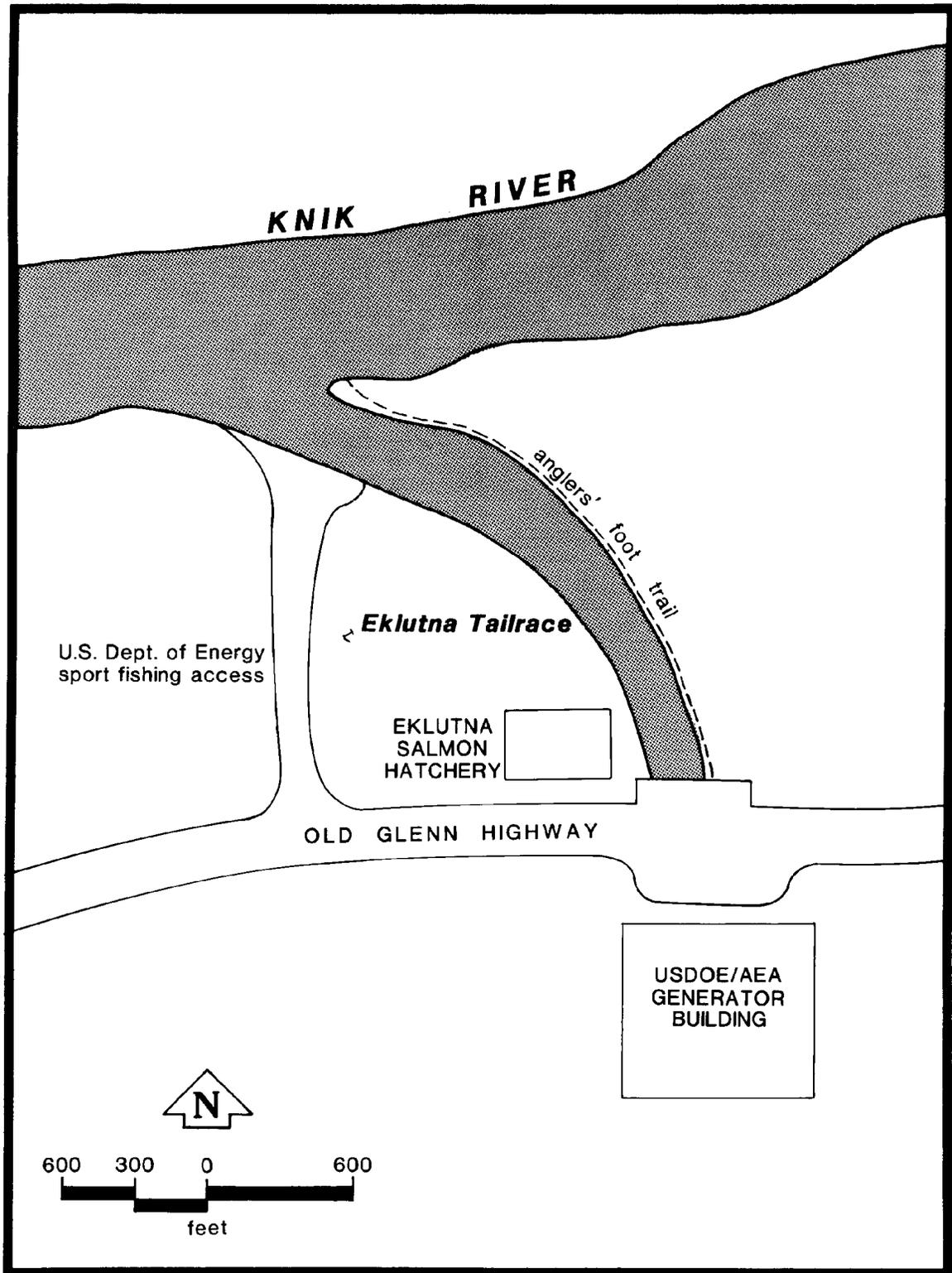


Figure 6.-The Eklutna hatchery and Eklutna power plant tailrace.

Table 6.-Chinook salmon smolt stocked into Eklutna Tailrace and adult harvest, 2002-2004.

Release Year	Brood Year	Total Smolt Released	Mark type ^a	Mean Size (g)	Release Date	Brood Stock	Hatchery	Harvest
2002	2001	106,991	TM	11.3	5/20	Ship Creek	Elmendorf	
2003	2002	218,492	TM	12.8 (50.05%), 12.0 (49.95%)	6/3, 6/4	Ship Creek	Ft. Richardson	399
2004	2002 ^b	215,165	TM	13.4	5/19	Ship Creek	Ft. Richardson	^c

^a TM = Thermal Mark.

^b Cold water rearing conditions required growth over two winters to reach optimal release size.

^c Data not available.

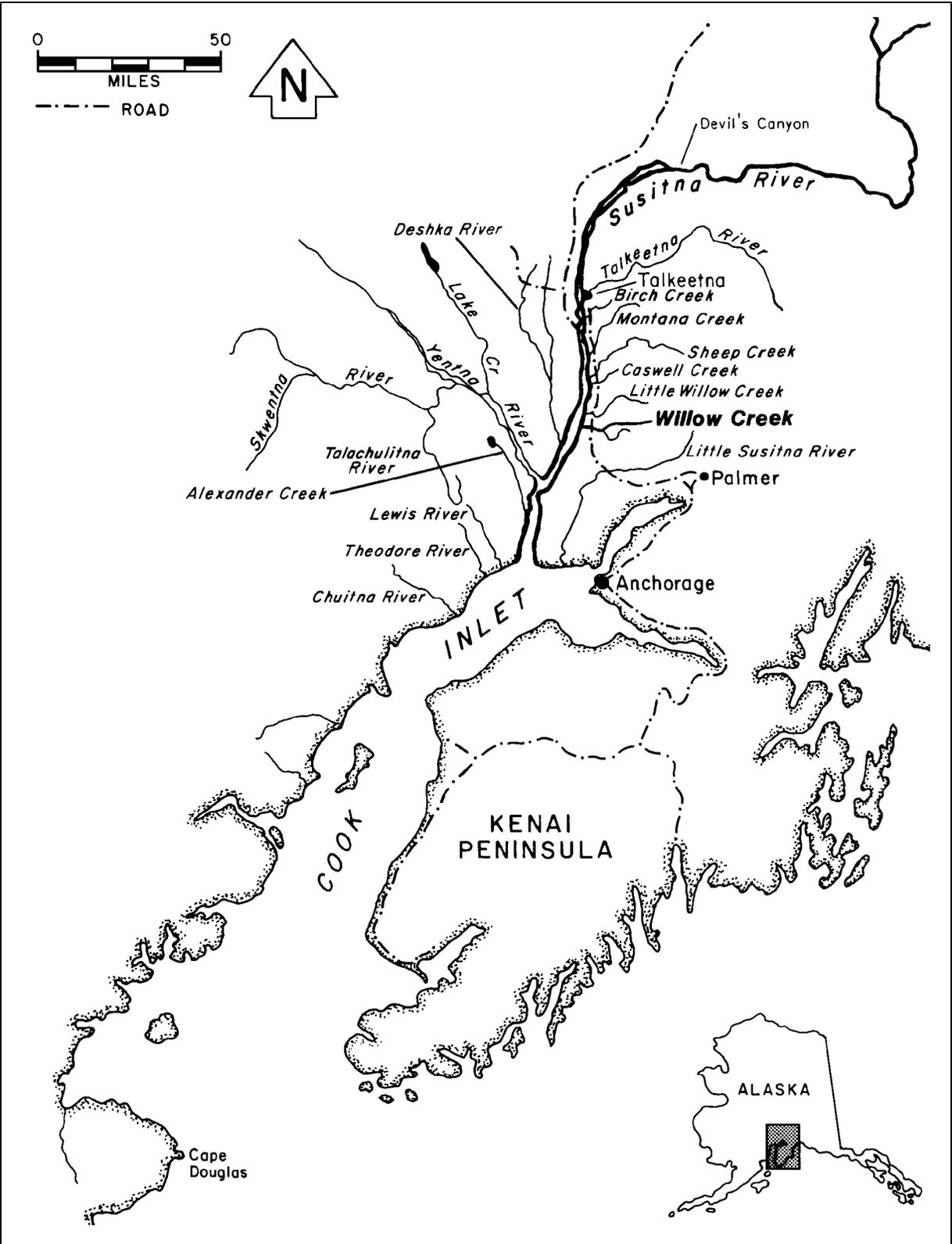


Figure 7.-The Northern Cook Inlet area.

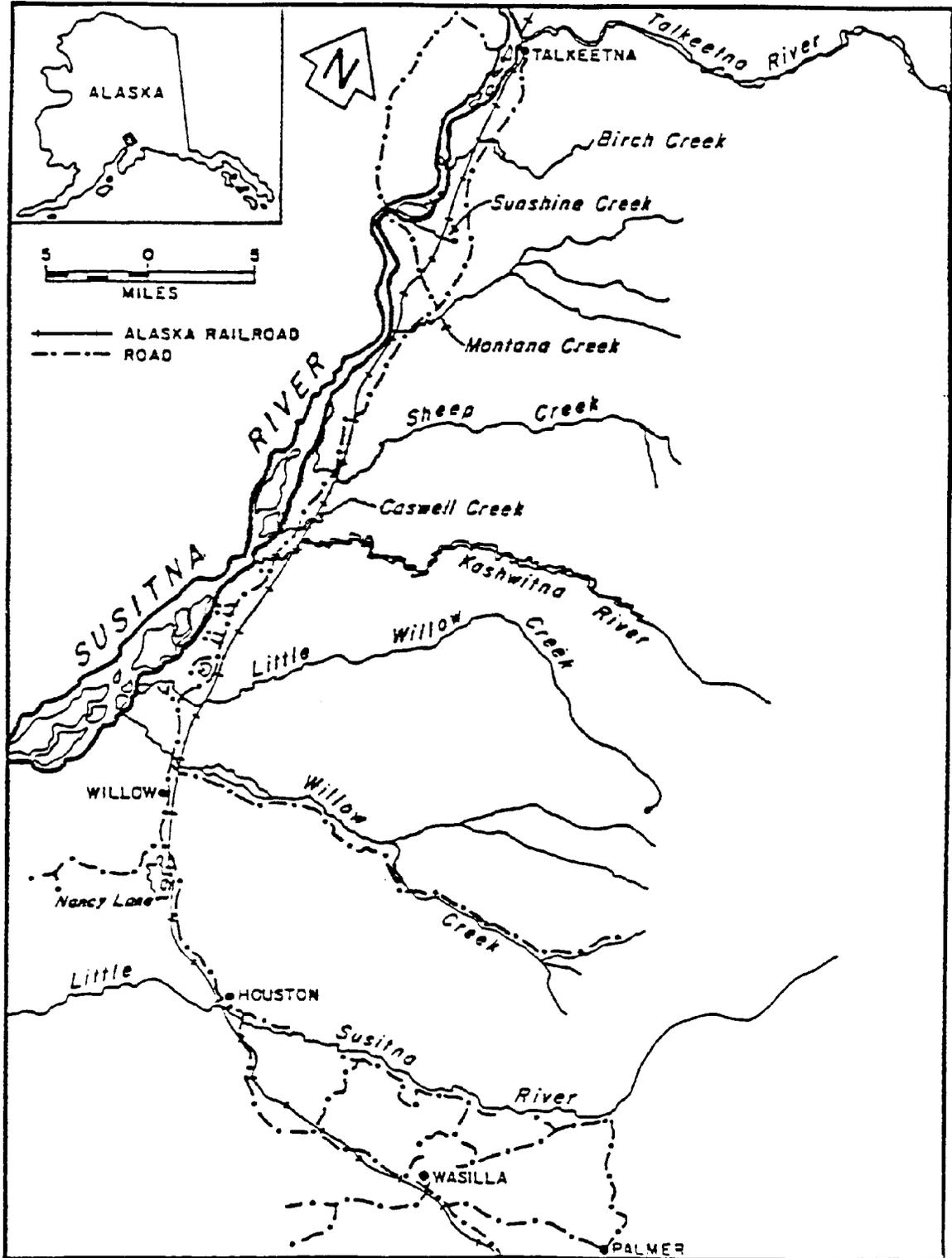


Figure 8.-Eastside tributaries of the Susitna River.

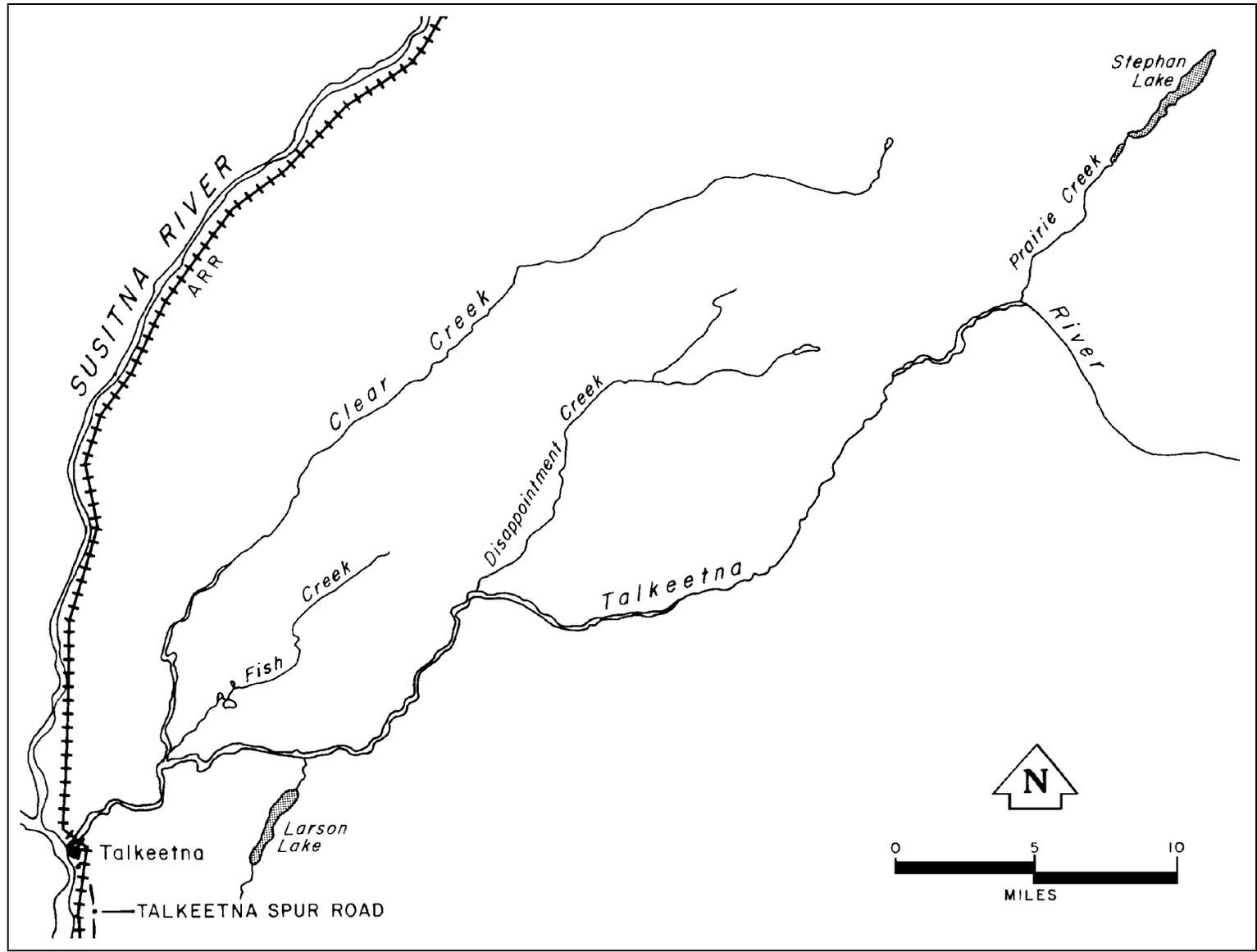


Figure 9.-The Talkeetna River area.

Table 7.-NCIMA Chinook salmon escapement index counts (aerial), 1979-2004.

Year	Susitna River			Knik Arm ^a	West Cook Inlet	Total NCIMA
	Eastside	Westside	Total			
1979	5,082	39,552	44,634		2,540	47,174
1980						
1981	7,419	2,025	9,444		3,601	13,045
1982	10,700	25,224	35,924		7,384	43,308
1983	17,859	42,850	60,709	929	5,562	67,200
1984	25,678	27,974	53,652	558	5,043	59,253
1985	18,177	38,932	57,109	1,005	4,619	62,733
1986	15,198	32,330	47,528		6,114	53,642
1987	26,535	23,936	50,471	1,386	2,423	54,280
1988	26,255	40,963	67,218	3,197	5,546	75,961
1989	23,117	4,818	27,935		2,468	30,403
1990	25,347	28,042	53,389	922	1,329	55,640
1991	22,163	19,425	41,588	892	1,348	43,828
1992	15,782	18,899	34,681	1,441	2,835	38,957
1993	13,213	18,028	31,241		3,882	35,123
1994	11,904	9,423	21,327	1,221	2,121	24,669
1995	21,778	15,828	37,606	1,714	2,223	41,543
1996	22,084	16,802	38,886	1,079	2,392	42,357
1997	35,927	38,437	74,364		5,087	79,451
1998	24,393	32,958	57,351	1,091	4,805	63,247
1999	24,306	30,260	54,566		7,812	62,378
2000	20,161	11,137	31,298	1,094	3,964	36,356
2001	23,047	15,102	38,149	1,238	4,043	43,430
2002	35,137	28,066	63,203	1,660	3,649	68,512
2003	15,341	24,294	39,635	1,114	4,974	45,723
2004	22,567	54,421	76,988	1,694	5,038	83,720

^a Knik Arm = Little Susitna River only.

Notes: blank cells denote no survey conducted.

Table 8.-Eastside Susitna River Management Unit Chinook salmon escapement index counts (aerial), 1979-2004.

Year	Willow Creek	Deception Creek ^f		Little											Other ^b	Total
		Total	Nonhatch	Willow Creek	Sheep Creek	Goose Creek	Montana Creek	Clear Creek	Prairie Creek	Chulitna River	Portage Creek	Indian River	Kashwitna River			
1979	848	239		327	778	a	1,094	864	a	a	190	285	457	a	5,082	
1980																
1981	991	366		459	1,013	262	814	a	1,875	a	659	422	558	a	7,419	
1982	592	229		316	527	140	887	982	3,844	863	1,111	1,053	156	268	10,700	
1983	777	121		1,042	975	477	1,641	938	3,200	4,058	3,140	1,193	297	a	17,859	
1984	2,789	675			1,028	258	2,309	1,520	9,000	4,191	2,341	1,456	111	a	25,678	
1985	1,856	1,044		1,305	1,634	401	1,767	2,430	6,500	783		c	c	457	4,066	18,177
1986	2,059	521	364	2,133	1,285	a	a	a	8,500	a	a	a	700	a	15,198	
1987	2,768	692	518	1,320	895	416	1,320	a	9,138	5,252	2,616	1,246	872	a	26,535	
1988	2,496	790	537	1,515	1,215	1,076	2,016	4,850	9,280	a	1,402	456	1,159	a	26,255	
1989	5,060	800	623	1,325	610	835	2,701	a	9,463	a	1,309	659	355	a	23,117	
1990	2,365	700	420	1,115	634	552	1,576	2,380	9,113	2,681	1,886	1,473	872	a	25,347	
1991	2,006	747	515	498	154 ^d	968	1,605	1,974	6,770	4,410	1,223	1,468	340	a	22,163	
1992	1,660	983	423	673	a	369	1,560	1,530	4,453	2,527	1,078	479	470	a	15,782	
1993	2,227	1,221	502	705	a	347	1,218	886	3,023	2,070	629	362	525	a	13,213	
1994	1,479	766	388	712	542	375	1,143	1,204	2,254	1,806	857	336	430	a	11,904	
1995	3,792	834	445	1,210	1,049	374	2,110	1,928	3,884	3,460	1,505	796	836	a	21,778	
1996	1,776	1,211	654	1,077	1,028	305	1,841	2,091	5,037	4,172	2,185	579	782	a	22,084	
1997	4,841	1,340	a	2,390	a	308	3,073	5,100	7,710	5,618	3,086	1,700	761	a	35,927	
1998	3,500	1,273	699	1,782	1,160	415	2,936	3,894	4,465	2,586	1,261	502	619	a	24,393	
1999	2,081	1,000	801	1,837	a	268	2,088	2,216	5,871	5,455	1,797	1,049	644	a	24,306	
2000	2,601	1,563	828	1,121	1,162	348	1,271	2,142	3,790	4,218	1,015	601	329	a	20,161	
2001	3,188	1,975	943	2,084	a	a	1,930	2,096	5,191	2,353 ^d	2,334	1,292	604	a	23,047	
2002	2,758	1,000	123	1,680	854	565	2,357	3,496	7,914	9,002	3,336	1,126	1,049	a	35,137	
2003	3,964	914	288	879	a	175	2,576	a	4,095	a	827 ^d	1,365	546	a	15,341	
2004	2,985	480	170	2,227	285	417	2,117	3,417	5,570	2,162	1,972	593	342	652	22,567	
Mean	2,458	859	513	1,239	886	439	1,831	2,297	5,831	3,561	1,642	891	571	1,662	19,583	
SEG ^e	1,600-2,800		350-700	450-1,800	600-1,200	250-650	1,100-3,100	950-3,400	3,100-9,200	1,800-5,100						

- a No counts conducted.
- b May include Honolulu, Byers, Troublesome, Bunco, Birch, Sunshine, Larson creeks.
- c Included with other streams.
- d Poor count due to timing, poor visibility or weather conditions.
- e Sustainable escapement goal.
- f Prior to 1994 counts are a combination of foot surveys and weir counts.

Table 9.-Westside Susitna River Management Unit Chinook salmon escapement index counts, 1979-2004.

Year	Alexander Creek	Deshka River		Peters Creek	Lake Creek	Talachulitna River	Cache Creek	Other Streams ^b	Aerial Total
		Aerial	Weir ^g						
1979	6,215	27,385		108	4,196	1,648	a	a	39,552
1980 ^a									
1981	a	a		a	a	2,025	a	a	2,025
1982	2,546	16,000		a	3,577	3,101	a	a	25,224
1983	3,755	19,237		2,272	7,075	10,014	497	a	42,850
1984	4,620	16,892		324	a	6,138	a	a	27,974
1985	6,241	18,151		2,901	5,803	5,145	206	485	38,932
1986	5,225	21,080		1,915	a	3,686	424	a	32,330
1987	2,152	15,028		1,302	4,898	a	556	a	23,936
1988	6,273	19,200		3,927	6,633	4,112	818	a	40,963
1989	3,497	a		959	a	a	362	a	4,818
1990	2,596	18,166		2,027	2,075	2,694	484	a	28,042
1991	2,727	8,112 ^c		2,458	3,011	2,457	499	161	19,425
1992	3,710	7,736		996	2,322	3,648	487	a	18,899
1993	2,763	5,769		1,668	2,869	3,269	1,690	a	18,028
1994	1,514	2,665		573	1,898	1,575	628	570	9,423
1995	2,090	5,150	10,048	1,041	3,017	2,521	1,601	408	15,828
1996	2,319	6,343	14,349	749	3,514	2,748	581	548	16,802
1997	5,598	19,047	35,587	2,637	3,841	4,494	1,774	1,046	38,437
1998	2,807	15,556	15,409 ^f	4,367	5,056	2,759	1,771	642	32,958
1999	3,974	12,904	29,649	3,298	2,877	4,890	1,720	597	30,260
2000	2,331 ^c	a	35,242	1,648	4,035	2,414	709	a	11,137
2001	2,282	a	29,004	4,226	4,661	3,309	624	a	15,102
2002	1,936	8,749	29,428	2,959	4,852	7,824	671	1,075	28,066
2003	2,012	a	39,496	3,998	8,153	9,573	558	a	24,294
2004	2,215	28,778	57,934	3,757	7,598	8,352	212	3,509	54,421
Mean	3,392	14,597	29,615	2,179	4,379	4,278	803	904	25,589
SEG ^d	2,100-6,000	e	13,000- 28,000	1,000- 2,600	2,500- 7,100	2,200-5,000			

^a No count conducted.

^b May include Donkey Creek, Red Creek and other miscellaneous creeks.

^c Low count due to timing, poor visibility or weather conditions.

^d Sustainable escapement goal.

^e Aerial escapement goal 1994-1998 was 11,200; revised for 1999 to 8,750; in 2002 aerial escapement goal was abolished.

^f During 1998 weir count represents only half the return. High water delayed construction until June 16.

^g Weir count, not an actual escapement count.

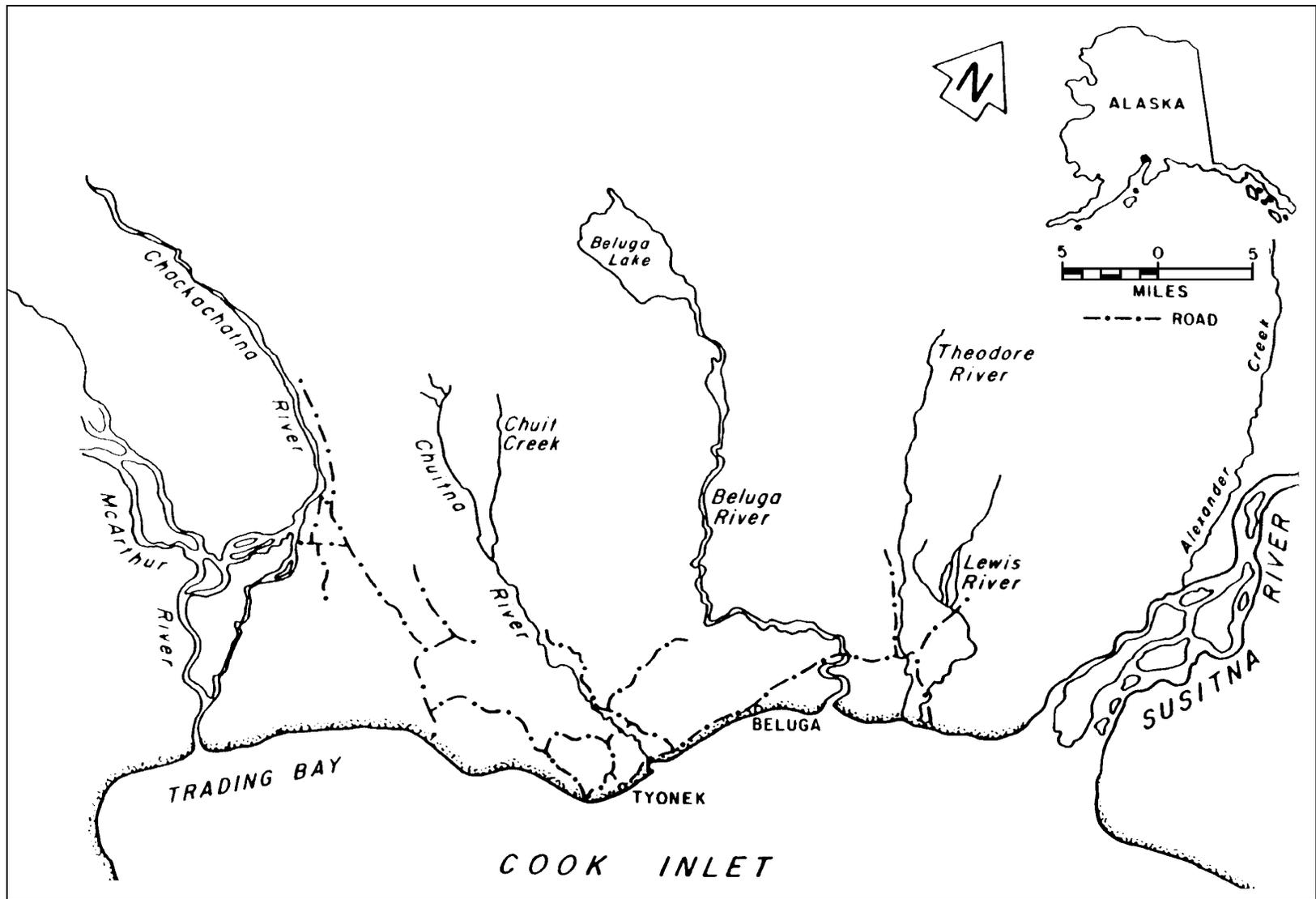


Figure 10.-West Cook Inlet coastal streams.

Table 10.-West Cook Inlet Management Unit Chinook salmon escapement index counts (aerial), 1979-2004.

Year ^a	Chuitna River	Theodore River	Lewis River	Coal Creek	Other Streams ^c	Total
1979	1,246	512	546		236	2,540
1980 ^b						
1981	1,362	535	560		1,144	3,601
1982	3,438	1,368	606		1,972	7,384
1983	4,043	1,519	^b		^b	5,562
1984	2,845	1,251	947		^b	5,043
1985	1,600	1,458	861		700	4,619
1986	3,946	1,281	722		165	6,114
1987	^b	1,548	875		^b	2,423
1988	3,024	1,906	616		^b	5,546
1989	990	1,026	452		^b	2,468
1990	480	642	207		^b	1,329
1991	537	508	303		^b	1,348
1992	1,337	1,053	445		^b	2,835
1993	2,085	1,110	531		156	3,882
1994	1,012	577	164		368	2,121
1995	1,162	694	146	221		2,223
1996	1,343	368	257	424		2,392
1997	2,232	1,607	777	471		5,087
1998	1,869	1,807	626	503		4,805
1999	3,721	2,221	675	1195		7,812
2000	1,456	1,271	480	757		3,964
2001	1,150	1,237	502	1,154		4,043
2002	1,394	934	439	882		3,649
2003	2,339	1,059	878	698		4,974
2004	2,938	491	1,000	609		5,038
Mean	1,981	1,119	567	691	677	4,032
SEG ^d	1,200-2,900	500-1,700	250-800			

^a Aerial count unless otherwise indicated.

^b No count conducted, turbid water.

^c May include Olsen, Nikoli, Coal, Straight, Bishop, Drill, and Scarp creeks.

^d Sustainable escapement goal.

Table 11.-Recreational harvest of coho salmon in the Northern Cook Inlet Management Area, by management unit, 1977-2003.

Year	Northern Cook Inlet Management Area					Total Harvest	South-central Region Total	% by NCIMA	Alaska Total	% by NCIMA
	Knik Arm	Eastside Susitna	Westside Susitna	West Cook Inlet	Total					
1977	4,366	5,709	6,599	532	17,206	67,866	25	105,004	16	
1978	7,895	8,573	10,173	378	27,019	81,990	33	131,945	20	
1979	7,139	7,564	9,036	337	24,076	93,234	26	119,329	20	
1980	16,030	10,368	12,141	628	39,167	127,958	31	164,302	24	
1981	10,484	6,593	5,940	604	23,621	95,376	25	125,666	19	
1982	13,676	10,167	10,658	745	35,246	136,153	26	195,644	18	
1983	6,139	5,176	3,610	2,552	17,477	87,935	20	149,270	12	
1984	23,429	13,916	9,511	2,681	49,537	166,688	30	238,536	21	
1985	14,339	7,042	11,270	6,320	38,971	137,671	28	200,773	19	
1986	12,361	16,190	13,117	4,222	45,890	188,872	24	255,887	18	
1987	25,787	11,028	8,746	8,548	54,109	176,710	31	235,435	23	
1988	40,037	19,518	16,283	7,403	83,241	225,812	37	281,450	30	
1989	23,846	17,078	18,226	7,683	66,833	237,155	28	338,195	20	
1990	18,762	11,743	13,883	6,016	50,404	214,114	24	325,936	15	
1991	22,186	19,479	20,507	8,253	70,425	254,961	28	389,569	18	
1992	25,814	33,790	16,218	7,037	82,859	237,204	35	345,513	24	
1993	35,763	26,063	15,454	10,326	87,606	283,868	31	412,487	21	
1994	28,539	20,870	15,361	8,247	73,017	299,849	24	502,948	15	
1995	20,650	19,165	17,148	8,182	65,145	263,749	25	368,631	18	
1996	24,874	24,174	17,375	11,430	77,853	328,178	24	503,413	15	
1997	11,773	10,297	7,123	6,492	35,685	283,311	13	462,931	8	
1998	23,750	23,086	13,235	8,160	68,231	375,742	18	600,862	11	
1999	14,429	23,292	17,995	9,339	65,055	309,564	21	632,829	10	
2000	32,530	37,748	23,262	11,712	105,252	419,835	25	624,327	17	
2001	30,106	26,617	19,221	13,949	89,893	480,048	19	811,799	11	
2002	44,448	27,183	14,144	13,380	99,155	488,911	20	776,033	13	
<hr/>										
1977-2002										
Mean	20,737	17,017	13,317	6,352	57,422	233,183	26	357,643	18	
<hr/>										
1998-2002										
Mean	29,053	27,585	17,571	11,308	85,517	414,820	21	689,170	12	
<hr/>										
% of NCIMA 1998-2002	34	32	21	13						
<hr/>										
2003	24,583	18,585	16,072	14,239	73,479	450,231	16	783,328	9	

Source: SWHS, Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b.

Table 12.-Harvest and effort for Little Susitna River coho salmon, 1977-2003.

Year	Harvest			Annual Effort	
	Hatchery ^a	Nonhatchery	Total ^b	Released	Angler days ^c
1977		3,415	3,415		11,063
1978		4,865	4,865		12,127
1979		3,382	3,382		21,301
1980		6,302	6,302		22,420
1981		5,940	5,940		26,162
1982		7,116	7,116		24,020
1983		2,835	2,835		35,477
1984		14,253	14,253		48,517
1985		7,764	7,764		37,498
1986	109	5,930	6,039		45,776
1987	3,407	9,596	13,003		35,659
1988	9,638	9,371	19,009		49,731
1989	10,597	3,550	14,129		54,708
1990	2,242	5,255	7,497	4,906	40,159
1991	7,699	8,751	16,450	4,692	50,838
1992	3,406	16,627	20,033	7,960	49,304
1993	7,703	19,907	27,610	10,589	42,249
1994	6,165	11,500	17,665	4,576	45,149
1995	2,991	11,460	14,451	5,042	41,119
1996	3,418	13,335	16,753	5,445	24,575
1997	0	7,756	7,756	2,242	27,883
1998	0	14,469	14,469	4,558	22,108
1999	0	8,864	8,864	3,036	30,437
2000	0	20,357	20,357	11,160	39,556
2001	0	17,071	17,071	7,565	33,521
2002	0	19,278	19,278	11,304	40,346
Mean	3,375	9,960	12,166	6,390	35,066
1998-2002		16,008	16,008	7,525	33,194
2003		13,672	13,672	7,977	31,993

^a Bartlett and Conrad 1988; Bartlett and Vincent-Lang 1989; Bartlett and Sonnichsen 1990; Bartlett and Bingham 1991, 1993; Bartlett 1992, 1994, 1996 a-b.

^b Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b.

^c Participation directed at coho salmon represents only a portion of the annual effort.

Table 13.-Knik Arm drainage coho salmon escapement index counts, 1981-2004.

Year	Little Susitna River ^{a,b}			Fish Creek Weir ^c	Cotton- wood Ck Weir	Cotton- wood Ck ^d Survey	Wasilla/ Spring Ck Weir
	Hatchery	Non- hatchery	Total				
1981			6,750	2,382	2,436 ^h	423	
1982			6,800	5,201	2,064 ^h	737	
1983			2,666	2,342		506	
1984			22,206	4,510		935	
1985			3,889	5,089		334	
1986			6,999 ^e	2,166		121	
1987			4,865	3,871		360	
1988	4,428	16,063	20,491	2,162		293	
1989	6,862	8,370	15,232	3,479		147	
1990	3,370	10,940	14,310	2,719		167	
1991	8,322	29,279	37,601	1,297		158	
1992	2,324	19,069	20,393	1,705		6	
1993	9,615	23,763	33,378	2,328		265	
1994	5,124	22,696	27,820	350		232	
1995	1,069	10,748	11,817	390		242	
1996	444	16,255	16,699	682		168	
1997			9,894	2,578	936	386	
1998			15,159	5,463	2,114	537	3,614/163
1999			3,017	1,766	478 ^j	131 ⁱ	1,579 ⁱ /8
2000			15,436	5,979	1,888 ^j	879 ⁱ	6,154/0
2001			30,587	10,047	3,525 ^j	974 ⁱ	6,508/276
2002			47,938	14,651	4,270 ^j	1,243 ⁱ	12,495
2003			10,877	1,221	791 ^j	226 ⁱ	2,962
2004			40,199	3,255 ^{cj}	2,038 ^j	451 ⁱ	no weir
Mean	4,618	17,465	17,709	3,568	2,054	413	7,729
SEG Range			10,100- 17,700	1,200-4,400	800-2,200		

Continued

Table 13.-Page 2 of 2.

Year	Wasilla Creek Drainage ^a				Knik River Drainage ^a							Grand Total ^g
	Wasilla Creek Mainstem	Spring Creek (Upper)	Spring Creek (Flats)	Wasilla River ^a Creek Total	Matanuska Yellow Creek	McRoberts Creek	Upper Jim Creek	Total	Jim Ck Weir	Eklutna Tailrace		
1981	238	^d	64	302				^d				9,857
1982	171	^d	105	276	^d			^d				13,014
1983	4	^d	28	32	^d			^d				5,546
1984	876		90	966	^d			^d				28,617
1985	16	150	81	247	65	662		662		266		10,552
1986	^d	141	147	288	20	439		439		403		10,436
1987	251	110	42	403	58	667		667		1,587		11,811
1988	^d	82	30	112	110	1,911		1,911		1,848		26,927
1989	^d	67	39	106	226	597		597		253		20,040
1990	34	38	12	84	146	599	589	1,188		668		19,282
1991	118	16	5	139	136	484	418	902		286		40,519
1992	3	11	0	14	57	11	59	70		39		22,284
1993	^d	67	69	136	490	503	535	1,038	5,532	496		38,131
1994	282	76	60	418	172	506	2,119	2,625	6,451	714		32,331
1995	46	20	38	104	220	702	1,288	1,990		107		14,870
1996	84	30	29	143	101	72	439	511		224		18,528
1997	156	38	35	229	367	701	563	1,264		350		15,068
1998	120 ^f	31 ^f	25	176	302	922	560	1,482				23,119
1999	211	40	16	267	88	12	320	332				5,601
2000	380 ^f	224	50	654	169	657	2,561	3,218				26,335
2001	453	37	15	505	419	1,019	575	1,594				44,126
2002	933	188	75	1,196	65	2,473	1,630	4,103				69,196
2003	2,962	17	50	3,029	53	1,421	393	1,814				17,220
2004	934	114	100	1,148	0	4,652	1,045	5,697				50,750
Mean	414	75	50	1,791	163	951	873	1,605	5,992	557		23,923
SEG Range						450-700						

^a Foot surveys unless otherwise noted.

^b Foot and aerial surveys 1981-1985 and 1987. Weir counts from weir at River Mile 34, 1986, 1988-1995; RM 71, 1996-2004.

^c 1982-1991 weir count plus stream survey; 1992, 1993 weir count; 1994-1996 and 2004 weir was removed on August 15 before the majority of the coho run. In 1997 the weir was out on September 1; in 1998 it was out September 27; in 1999 it was out September 26.

^d No survey conducted.

^e Weir washed out in flood from July 21-July 29, 1986.

^f Count conducted late due to high water.

^g Grand total includes Little Susitna total, Fish Creek weir, Cottonwood Creek survey, Wasilla Creek survey total, Yellow Creek, McRoberts Creek/Jim Creek total and Eklutna Tailrace.

^h Combination weir and foot survey. Weir was removed prior to completion of coho run.

ⁱ Beginning in 1999 highest count of three counts in a 2-week period.

^j Includes fish counted below weir at close of season.

Table 14.-Coho salmon sustainable escapement goals (SEG) for Knik Arm Management Unit streams.

Stream	Sustainable Escapement Goal (SEG)
Cottonwood Creek (weir)	800-2,200
Wasilla Creek (weir)	No goal
Fish Creek (weir)	1,200-4,400
Jim Creek Drainage (foot survey)	450-700
Little Susitna River (weir)	10,100-17,700

Note: Original Biological Escapement Goals (BEGs), prior to 2002, were redefined as Sustainable Escapement Goals (SEGs) under new criteria for establishing escapement goals set forth in the Salmon Escapement Goal Policy adopted by the BOF in 2002.

Table 15.-Fishing effort and coho salmon harvest from Knik Arm fisheries, excluding the Little Susitna River, 1977-2003.

Year	Wasilla Creek		Cottonwood Creek		Fish Creek		Eklutna Tailrace		Jim Creek ^b		Total	
	Harvest	Angler-days ^a	Harvest	Angler-days ^a	Harvest	Angler-days ^a	Harvest	Angler-days ^a	Harvest	Angler-days ^a	Harvest	Angler-days ^a
1977	472	2,805									472	2,805
1978	2,112	3,446									2,112	3,446
1979	1,211	4,024	1,198	5,345							2,409	9,369
1980	3,555	5,726	3,375	9,268							6,930	14,994
1981	814	4,019	1,373	8,663					1,801	4,904	3,988	17,586
1982	1,624	6,261	1,886	5,186					2,306	6,653	5,816	18,100
1983	345	3,239	518	5,944					774	9,183	1,637	18,366
1984	1,920	3,547	1,895	7,144			561	3,413	3,429	9,369	7,805	23,473
1985	1,900	3,115	1,005	4,560	284	903	557	2,995	2,523	8,970	6,269	20,543
1986	944	3,387	690	5,653	364	2,641	502	8,549	2,948	13,015	5,448	33,245
1987	1,195	2,173	1,159	2,934	833	2,898	2,318	11,663	3,676	6,990	9,181	26,658
1988	1,273	2,228	746	4,056	1,637	3,110	3,329	13,188	11,078	23,229	18,063	45,811
1989	975	2,406	876	3,069	784	3,314	1,666	10,342	4,220	11,141	8,521	30,272
1990	1,012	2,679	286	3,056	398	3,936	1,012	7,618	6,184	17,878	8,892	35,167
1991	844	2,893	176	1,623	486	3,693	631	5,892	2,920	13,736	5,057	27,837
1992	413	1,110	348	1,974	526	3,638	664	4,279	3,409	8,856	5,360	19,857
1993	1,133	1,774	736	3,077	741	2,341	1,337	4,523	2,878	6,824	6,825	18,539
1994	1,390	2,226	1,100	3,230	492	2,358	3,553	8,974	3,946	9,658	10,481	26,446
1995	445	1,373	340	2,598	435	2,256	990	11,453	3,549	10,893	5,759	28,573
1996	872	1,386	762	1,783	607	934	1,217	6,448	3,911	7,561	7,369	18,112
1997	708	1,188	372	2,070	148	1,104	728	3,835	1,786	5,349	3,742	13,546
1998	970	1,171	1,098	3,454	1,334	2,256	1,422	5,100	4,197	5,272	9,021	17,253
1999	313	990	537	3,506	233	2,182	1,453	6,150	2,612	6,860	5,148	19,688
2000	0	328	282	1,265	470	1,408	5,053	7,938	5,653	10,975	11,458	21,914
2001	0	419	851	2,627	753	1,670	4,497	10,166	11,723	13,028	17,824	27,910
2002	664	1,037	561	1,534	1,233	2,776	7,073	11,767	14,707	17,989	24,238	35,103
Mean	1,042	2,498	924	3,901	653	2,412	2,030	7,594	4,556	10,379	7,686	22,101
1998-2002												
Mean	389	789	666	2,477	805	2,058	3,900	8,224	7,778	10,825	13,538	24,374
2003	261	757	665	2,238	112	758	3,128	8,423	6,415	13,474	10,581	25,650

^a Participation includes effort directed at species other than coho salmon.

^b Knik River and tributaries including Jim Creek.

Table 16.-Coho salmon escapement index counts for Eastside and Westside Susitna River unit drainages, 1981-2004.

Year	Westside Susitna River Drainage				Eastside Susitna River Drainage ^a				Susitna River ^d	Grand Total
	Yentna River ^b	Deshka River ^c	Rabideux Creek	Total	Birch Creek	Question Creek	Answer Creek	Total		
1981	17,017		^e	17,017	^e	^e	^e	^e	37,000	54,017
1982	34,089		^e	34,089	^e	^e	^e	^e	80,000	114,089
1983	8,867		^e	8,867	^e	^e	^e	^e	24,000	32,867
1984	18,172		480	18,652	236	60	57	353	^e	19,005
1985	9,181		82	9,263	30	89	9	128	^e	9,391
1986	23,457		^e	23,457	25	^e	^e	25	^e	23,482
1987	6,279		50 ^f	6,329	46	149	10	205	^e	6,534
1988	12,173		230	12,403	63	337	160	560	^e	12,963
1989	25,695		20	25,715	180	31	66	277	^e	25,992
1990	21,346		20	21,366	36	41	6	83	^e	21,449
1991	57,275		185	57,460	300	492	51	843	^e	58,303
1992	29,073		^e	29,073	167	227	181	575	^e	29,648
1993	37,752		^e	37,752	178	370	34	582	^e	38,334
1994	25,173		105	25,278	224	339	0 ^g	563	^e	25,841
1995	74,406	12,824	39	87,269	127	155	35	317	^e	87,586
1996	34,420		^e	34,420	458	238	43	739	^e	35,159
1997	13,670	8,063	114	21,847	217	186	57	460	^e	22,307
1998	24,769	6,773	56	31,598	356	519	45	920	^e	32,518
1999	37,933	4,563	169	42,665	153	128	470	751	^e	43,416
2000	40,921	26,387	354	67,662	809	1,040	899	2,748	^e	70,410
2001	47,077	29,927	656	77,660	1,470	450	371	2,291	^e	79,951
2002	75,090	24,612	^e	99,702	1,158	1,010	249	2,417	^e	102,119
2003	45,222	17,305	344	62,871	^e	407	131	538	^e	63,409
2004	92,343	62,940	^e	155,283	^e	822	111	933	^e	156,216
Mean	33,808	21,488	194	41,987	328	355	149	777	47,000	48,542

^a Survey conducted by walking portions of the creek.

^b Sonar counts, dates of assessment vary; estimates for 1981-1984 encompass the entire coho salmon migration. Estimates after 1984 are partial due to sonar site closure part way through the coho return.

^c Weir count. 1995 RM 17, 1997-2003 RM 7: 1998, 1999, and 2002 weir was underwater for an extended time during coho season resulting in an incomplete count.

^d Sonar counts upstream of River Mile 80.

^e No survey conducted.

^f Poor survey conditions.

^g Beaver dam downstream of index area blocking passage of fish.

Table 17.-Harvest of sockeye salmon in the NCIMA, 1977-2003.

Year	Harvest
1977	7,962
1978	3,140
1979	6,193
1980	7,658
1981	8,369
1982	9,067
1983	21,533
1984	15,609
1985	9,840
1986	14,203
1987	13,530
1988	14,573
1989	14,403
1990	11,839
1991	11,713
1992	11,921
1993	14,579
1994	12,479
1995	11,441
1996	11,048
1997	15,229
1998	16,343
1999	16,535
2000	23,235
2001	20,565
2002	11,946
Mean	12,883
1998-2002 Mean	17,725
2003	22,708

Source: SWHS, Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b.

Table 18.-Sockeye salmon counts from Yentna and Crescent River sonar, Chelatna, Hewitt, Judd and Larson lakes, Fish, Cottonwood, Wasilla, Jim and Packers creeks weirs, and the Little Susitna River weir, 1968-2004.

Year	Jim Ck Weir ^a	Fish Ck Weir ^{b,c}	Little Susitna R Weir ^d	Yentna R Sonar	Crescent R Sonar	Hewitt Lk Weir ^e	Chelatna Lk Weir ^f	Larson Lk Weir ^g	Packers Ck Weir	Judd Lk. Weir	Cottonwood Ck Weir	Wasilla Ck Weir
1968		19,616 ^h										
1969		12,456										
1970		25,000										
1971		31,470										
1972		6,981										
1973		2,705										
1974		16,225										
1975		29,882										
1976		14,032										
1977		5,183										
1978		3,555		94,000								
1979		68,739		157,000	87,000							
1980		62,828		191,000	91,000				16,477			
1981		50,479		340,000	41,000				13,024			
1982		28,164		216,000	59,000				15,687			
1983		118,797		112,000	92,000				18,403			
1984		192,352		194,000	118,000			35,254	30,684			
1985		68,577		228,000	129,000			37,874	36,850			
1986		29,800		92,000	N/C			32,322	29,604			
1987		91,215		66,000	119,000			16,753	35,401			
1988		71,603	2,642	52,347	57,716				18,607			
1989		67,224	6,203	96,269	71,064				22,304			
1990		48,717		140,379	52,180	12,943			31,868			
1991		50,500		105,000	44,500				41,275			
1992		72,108		66,057	58,227				28,361			
1993	3,548	117,619		141,694	37,556		20,235		40,869			
1994	5,197	100,638	16,918	128,032	30,355		28,303		30,788			
1995		115,101	7,129	121,479	52,250		20,104		29,473			
1996		63,164		90,781	28,729		28,684		17,767			
1997		55,035		157,797	70,768		84,899	40,112	19,364		8,224	
1998		22,865		119,623	62,257		27,284	63,514	17,732	34,416	27,930	840
1999		26,725		99,029	68,985			18,943	16,860		39,572	854
2000		19,533		123,749	56,599			11,822	20,151		16,921	245
2001		43,498		83,532	78,081						15,229	198
2002		90,482		78,430	62,833						6,791	1,354
2003		91,952		181,404	122,909						4,601	757
2004		22,157		71,281	103,183						3,127 discontinued	
Mean	4,373	52,891	8,223	131,366	71,768		34,918	32,074	25,312		15,299	708
Goal		20,000-70,000		90,000-160,000	25,000-50,000				15,000-25,000			

Continued

Table 18.-Page 2 of 2.

- ^a Bartlett *unpublished* a and b.
- ^b Measured by weir (1968 excepted). Years 1980-1993 include downstream foot surveys upon removing weir.
- ^c Years hatchery sockeye salmon contributed to the escapement were 1979-1981, 1983-2002.
- ^d Bartlett and Vincent-Lang 1989; Bartlett and Sonnichsen 1990; Bartlett 1996a; Bartlett 1996b.
- ^e CIAA 1991.
- ^f CIAA 1998a.
- ^g CIAA 1998b.
- ^h A counting screen was used instead of a weir.

Table 19.-Bodenburg Creek sockeye salmon escapement index surveys, 1968-2004.

Date	Sockeye	Chum	Date	Sockeye
Aug 1968	350	0	8/8/1988	86
Sep 1969	125	0	8/31/1989	190
8/25/1970	83	0	9/7/1990	195
9/5/1971	110	0	8/27/1991	0
8/31/1972	464	0	9/6/1991	160
8/27/1973	208	0	8/29/1992	54
9/6/1974	169	0	9/2/1992	66
9/3/1975	148	0	8/24/1993	212
9/19/1975	0	3	8/25/1994	220
9/8/1976	111	0	9/6/1994	0
8/29/1977	178	0	8/28/1995	156
8/29/1978	541	0	9/4/1996	111
8/29/1979	321	0	8/28/1997	142
8/25/1980	483	0	8/21/1998	156
8/19/1981	260	0	8/30/1999	257
9/17/1982	722	0	8/28/2000	228
8/31/1983	359	0	8/29/2001	232
1984	No count		8/30/2002	320
9/5/1985	232	0	8/22/2003	402
9/4/1986	119	120	8/26/2004	283
9/3/1987	77	1		
Mean				213

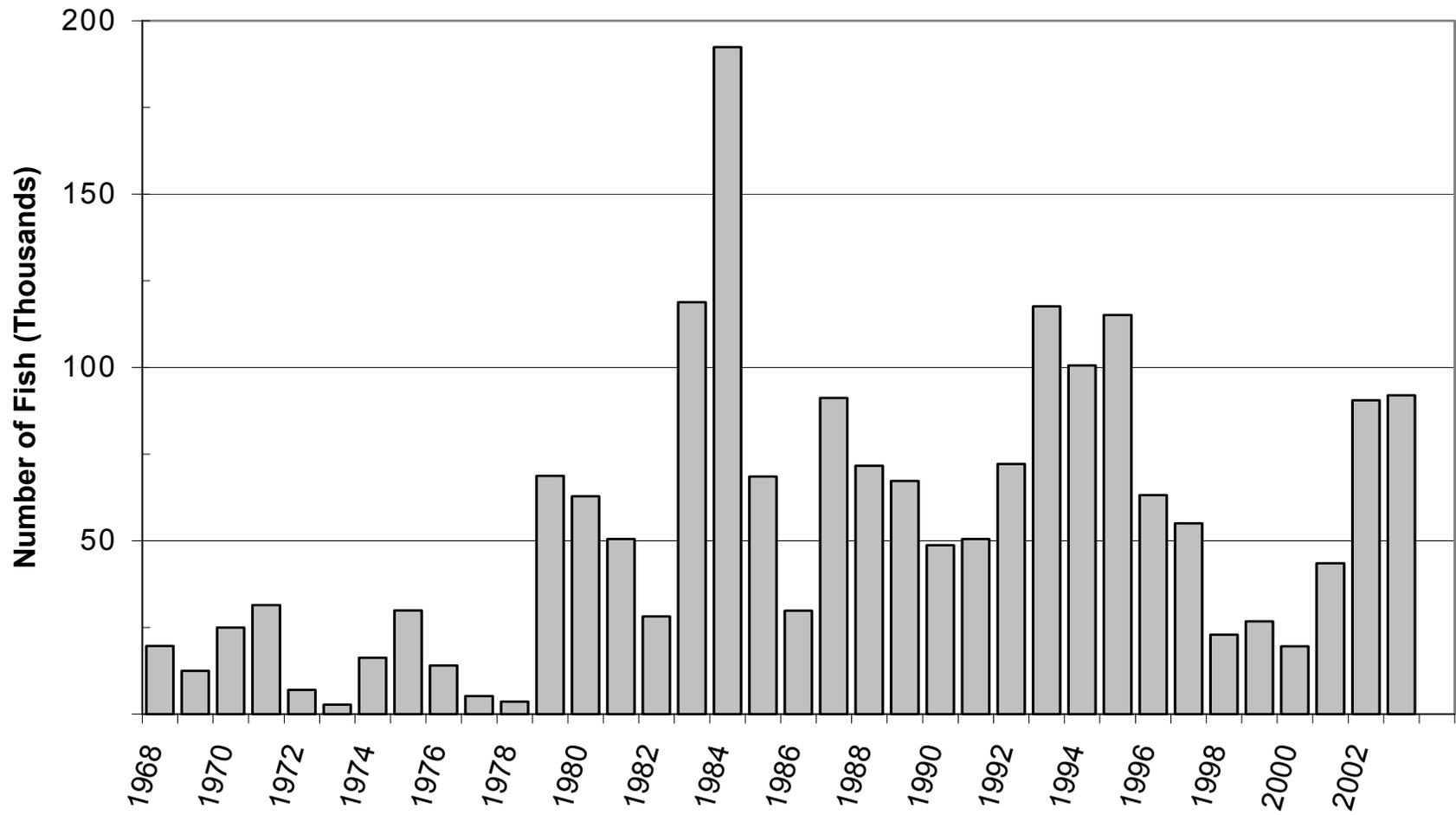


Figure 11.-Fish Creek sockeye salmon escapement, 1968-2003.

Table 20.-Number of rainbow trout released into NCIMA stocked lakes, catch, harvest and effort, 1998-2004.

Year	Number of Fingerlings	Number of Catchables	Total stocked	Catch	Harvest	% Harvested	Angler-days ^a
1998	347,677	46,142	393,819	40,447	11,184	28%	22,196
1999	401,589	71,745	473,334	53,290	14,970	28%	32,526
2000	533,296	74,796	608,092	80,514	19,393	24%	33,399
2001	407,644	92,446	500,090	47,029	14,098	30%	28,796
2002	409,293	61,432	470,725	57,004	19,016	33%	27,695
2003	581,617	70,529	652,146	52,337	14,371	27%	26,486
2004 ^b	418,050	63,500	481,550	data not available			
Mean	442,738 87%	68,656 13%	511,394	55,104	15,505	28%	28,516

^a Total effort for all stocked lakes species.

^b Planned.

Table 21.-Northern Cook Inlet Management Area recreational catch and harvest of rainbow trout by management unit, 1977-2003.

Year	Northern Cook Inlet Management Area										Southcentral Region		Statewide	
	Knik Arm		Eastside Susitna		Westside Susitna		West Cook Inlet		Total		Harvest	% NCIMA	Number	% NCIMA
	Catch ^a	Harvest	Catch ^a	Harvest	Catch ^a	Harvest	Catch ^a	Harvest	Catch ^a	Harvest				
1977		18,615		5,225		7,472		958		32,270	80,345	40.2	94,307	34.2
1978		23,139		5,930		12,295		723		42,087	107,243	39.2	120,231	35.0
1979		24,843		9,463		12,555		1,063		47,924	129,815	36.9	139,390	34.4
1980		29,368		6,715		12,785		560		49,428	126,686	39.0	153,476	32.2
1981		41,749		8,813		11,296		1,734		63,592	149,460	42.5	178,613	35.6
1982		30,549		7,536		11,465		398		49,948	142,579	35.0	173,242	28.8
1983		26,421		9,639		9,253		871		46,184	141,705	32.6	168,677	27.4
1984		26,418		7,656		8,079		748		42,901	128,649	33.3	170,117	25.2
1985		46,431		7,872		8,114		902		63,319	142,316	44.5	181,991	34.8
1986		27,690		8,061		6,668		223		42,642	114,873	37.1	152,855	27.9
1987		24,663		6,647		8,020		579		39,909	101,397	39.4	138,698	28.8
1988		58,609		7,622		8,058		673		74,962	155,960	48.1	241,831	31.0
1989		44,518		4,972		4,928		544		54,962	127,444	43.1	209,961	26.2
1990	98,720	30,699	21,806	5,008	33,510	3,960	3,115	472	157,151	40,139	122,987	32.6	191,809	20.9
1991	88,645	39,636	26,329	7,854	46,870	4,526	1,756	497	163,600	52,513	127,492	41.2	205,642	25.5
1992	85,331	27,995	19,915	3,948	23,621	2,028	1,448	190	130,315	34,161	97,730	35.0	139,973	24.4
1993	69,635	21,565	24,240	3,713	29,911	2,481	1,788	191	125,574	27,950	82,312	34.0	136,681	20.4
1994	70,255	22,446	23,619	3,658	25,157	2,526	871	225	119,902	28,855	76,384	37.8	112,261	25.7
1995	56,108	14,878	15,363	3,138	23,432	1,757	1,222	111	96,125	19,884	74,972	26.5	112,681	17.6
1996	80,757	21,780	24,808	2,510	33,603	1,924	1,696	439	140,864	26,653	84,573	31.5	136,482	19.5
1997	85,278	25,695	34,742	2,324	30,217	1,452	2,371	618	152,608	30,089	67,261	44.7	100,372	30.0
1998	66,837	17,693	26,241	968	17,370	1,081	1,576	189	112,024	19,931	56,728	35.1	103,744	19.2
1999	84,691	24,527	39,753	1,755	37,864	1,866	2,617	277	164,925	28,425	77,707	36.6	132,481	21.5
2000	114,013	28,745	42,603	1,521	29,398	1,226	2,793	211	188,807	31,703	89,171	35.6	144,873	21.9
2001	70,821	21,061	32,904	1,112	27,697	759	3,341	270	134,763	23,202	57,629	40.3	81,279	28.5
2002	93,520	28,325	80,190	1,751	29,745	1,209	3,082	236	206,537	31,521	73,542	42.9	117,063	26.9
1977-2002														
mean	81,893	28,771	31,732	5,208	29,877	5,684	2,129	535	145,630	40,198	105,268	38.2	147,643	27.2
1998-2002														
mean	85,976	24,070	44,338	1,421	28,415	1,228	2,682	237	161,411	26,956	70,955	38.1	115,888	23.6
2003	68,212	17,617	59,440	2,581	40,327	1,425	1,698	264	169,677	21,887	53,155	41.2	84,531	25.9

Sources: Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b.

^a Catch estimates available beginning in 1990.

Table 22.-Harvest and catch for NCIMA lakes, estimated by the Statewide Harvest Survey, 2003.

SWHS	Days	% Of	Landlocked Salmon			Arctic Char			Rainbow Trout			Arctic Grayling			Northern Pike			TOTAL	TOTAL	%	
			Catch	Harvest	%	Catch	Harvest	%	Catch	Harvest	%	Catch	Harvest	%	Catch	Harvest	%				
Barley	360	1.4%	34	0	0%				1,020	601	59%								1,054	601	57%
Benka	1,383	5.2%				900	54	6%	2,329	87	4%								3,229	141	4%
Bearpaw	425	1.6%	25	0	0%				343	161	47%								368	161	44%
Bench	33	0.1%																	0	0	0%
Beverly	225	0.8%							312	37	12%								312	37	12%
Big Beaver	83	0.3%							161	107	66%								161	107	66%
Bradley	398	1.5%							1,899	365	19%								1,899	365	19%
Bruce	188	0.7%							322	107	33%								322	107	33%
Canoe	234	0.9%							627	322	51%	175	0	0%					802	322	40%
Carpenter	761	2.9%	169	0	0%				1,685	230	14%								1,854	230	12%
Christiansen	79	0.3%							129	73	57%								129	73	57%
Coyote	100	0.4%							193	193	100%								193	193	100%
Diamond	63	0.2%							129	129	100%								129	129	100%
Echo	738	2.8%				148	67	45%	1,416	247	17%								1,564	314	20%
Eska	33	0.1%							21	21	100%								21	21	100%
Farmer	185	0.7%							77	0	0%								77	0	0%
Finger	5,096	19.2%	8,084	4,482	55%	381	287	75%	5,217	1,326	25%	315	128	41%					13,997	6,223	44%
Florence	150	0.6%							472	129	27%								472	129	0%
Golden	50	0.2%							54	54	100%								54	54	0%
Honeybee	88	0.3%							290	172	59%								290	172	59%
Ida	138	0.5%							86	32	37%								86	32	37%
Irene	212	0.8%							368	282	77%								368	282	77%
Kalmbach	312	1.2%	953	422	44%				455	98	22%								1,408	520	37%
Kepler	927	3.5%							3,689	654	18%	221	105	48%					3,910	759	19%
Knik	515	1.9%	575	85	15%				1,698	786	46%	315	12	4%					2,588	883	34%
Knob	118	0.4%							1,313	111	8%								1,313	111	8%

Continued

Table 22.-Page 2 of 2.

SWHS Site	Days Fished	% Of Effort	Landlocked Salmon			Arctic Char			Rainbow Trout			Arctic Grayling			Northern Pike			TOTAL Catch	TOTAL Harvest	% Harvest
			Catch	Harvest	% Harvest	Catch	Harvest	% Harvest	Catch	Harvest	% Harvest	Catch	Harvest	% Harvest	Catch	Harvest	% Harvest			
Lalen	99	0.4%							0	0	0%							0	0	0%
Little Beaver	538	2.0%							526	97	18%							526	97	18%
Loberg	47	0.2%							22	22	100%							22	22	100%
Long (K/B)	436	1.6%							2,665	0	0%							2,665	0	0%
Long (Mile 86)	1,539	5.8%				2,140	471	22%	2,925	644	22%	117	0	0%				5,182	1,115	22%
Loon	263	1.0%							579	129	22%							579	129	22%
Lorraine	619	2.3%							2,572	750	29%	676	12	2%				3,248	762	23%
Lucille	2,167	8.2%							4,842	1,194	25%							4,842	1,194	25%
Lynne	88	0.3%							150	0	0%							150	0	0%
Marion	153	0.6%				345	211	61%	813	449	55%							1,158	660	57%
Matanuska	1,213	4.6%	366	115	31%	50	30	60%	2,825	579	20%	117	117	100%				3,358	841	25%
Meirs	563	2.1%							1,523	944	62%	711	291	41%				2,234	1,235	55%
Memory	475	1.8%	741	318	43%				343	247	72%				72	72	100%	1,156	637	55%
Mile 180	40	0.2%							32	0	0%	42	0	0%				74	0	0%
North Friend	55	0.2%							130	0	0%							130	0	0%
Prator	50	0.2%													85	85	100%	85	85	0%
Ravine	50	0.2%							32	32	100%							32	32	100%
Reed	363	1.4%							322	172	53%	233	140	60%				555	312	56%
Rocky	113	0.4%							107	21	20%							107	21	20%
Ruby	89	0.3%							73	30	41%							73	30	41%
Seventeen-mile	179	0.7%				54	27	50%	205	162	79%							259	189	73%
Seymour	1,098	4.1%							1,989	224	11%							1,989	224	11%
South Friend	138	0.5%							418	97	23%							418	97	23%
South Rolly	1,514	5.7%							1,909	1,151	60%				228	194	85%	2,137	1,345	63%
Tanaina	17	0.1%																0	0	0%
Tigger	17	0.1%							86	0	0%							86	0	0%
Vera	133	0.5%							398	135	34%							1,347	416	31%
Victor	250	0.9%	922	152	16%													922	152	16%
Visnaw	338	1.3%							343	182	53%							343	182	53%
Walby	405	1.5%							291	97	33%							291	97	33%
Weiner	38	0.1%							375	0	0%	466	0	0%				841	0	0%
Willow	439	1.7%							1,505	657	44%							1,505	657	44%
Wolf	66	0.2%							32	32	100%							32	32	0%
X & Y	413	1.6%							890	440	49%	23	23	100%				913	463	51%
TOTALS	26,486	100%	11,869	5,574	47%	4,018	1,147	29%	52,337	14,371	27%	3,388	805	24%	385	351	91%	73,859	22,992	31%

Source: Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b.

Table 23.-Northern Cook Inlet Management Area recreational catch and harvest of northern pike by management unit, 1977-2003.

Year	Northern Cook Inlet Management Area ^a													
	Knik Arm ^b		Eastside Susitna		Westside Susitna		West Cook Inlet		Total		Southcentral Region		Statewide	
	Catch ^c	Harvest	Catch ^c	Harvest	Catch ^c	Harvest	Catch ^c	Harvest	Catch ^c	Harvest	Harvest	% NCIMA	Number	% NCIMA
1977		0				132		0		132	321	41.1	11,982	1.1
1978		0				316		0		316	767	41.2	12,520	2.5
1979		0				382		0		382	762	50.1	12,741	3.0
1980		0				232		0		232	1,358	17.1	17,000	1.4
1981		0				125		0		125	1,411	8.9	16,536	0.8
1982		0				607		0		607	1,707	35.6	18,964	3.2
1983		0				944		0		944	2,642	35.7	21,476	4.4
1984		0				1,821		0		1,821	4,424	41.2	18,641	9.8
1985		156				1,248		0		1,404	2,240	62.7	17,943	7.8
1986		458				1,519		0		1,977	2,894	68.3	21,890	9.0
1987		924				1,540		0		2,464	4,839	50.9	19,079	12.9
1988		364				2,818		291		3,473	3,598	96.5	23,440	14.8
1989		863				2,257		0		3,120	4,434	70.4	21,659	14.4
1990	2,593	754			14,465	2,088		0	17,058	2,842	3,655	77.8	15,985	17.8
1991	7,021	2,709			11,193	3,931		0	18,214	6,640	8,704	76.3	29,611	22.4
1992	7,097	2,605			13,828	2,777		0	20,925	5,382	7,314	73.6	18,616	28.9
1993	10,141	2,102	0	0	24,077	3,619	19	0	34,237	5,721	7,131	80.2	19,366	29.5
1994	2,816	1,328	0	0	5,436	2,556	18	9	8,270	3,893	5,800	67.1	25,558	15.2
1995	825	522	0	0	15,414	3,024	0	0	16,239	3,546	5,323	66.6	19,006	18.7
1996	12,220	4,021	368	11	17,657	3,902	0	0	30,245	7,934	10,503	75.5	23,043	34.4
1997	9,137	4,858	795	95	16,266	4,026	75	45	26,273	9,024	10,489	86.0	16,603	54.4
1998	10,223	4,272	130	130	17,928	3,753	321	25	28,602	8,180	9,595	85.3	15,617	52.4
1999	14,231	6,785	441	260	14,348	3,686	334	93	29,354	10,824	13,327	81.2	19,766	54.8
2000	16,717	5,698	308	101	27,381	3,692	234	86	44,640	9,577	12,019	79.7	18,062	53.0
2001	15,457	6,544	776	55	25,147	5,479	1,042	661	42,422	12,739	16,673	76.4	23,623	53.9
2002	13,079	5,716	647	618	18,450	5,865	284	119	32,460	12,318	14,862	82.9	22,567	54.6
1977-2002														
mean	9,351	1,949	347	127	17,045	2,398	233	51	26,841	4,447	6,030	62.6	19,281	22.1
1998-2002														
mean	13,941	5,803	460	233	20,651	4,495	443	197	35,496	10,728	13,295	81.1	19,927	53.7
2003	14,094	4,026	11	0	14,818	3,816	355	182	29,278	8,024	11,282	71.1	17,388	46.1

Source: SWHS, Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b.

^a No reported catch or harvest from Eastside Susitna or West Cook Inlet management units until 1993.

^b Harvest of northern pike prior to 1985 may have been included in other fish species category.

^c Catch estimates available beginning in 1990.

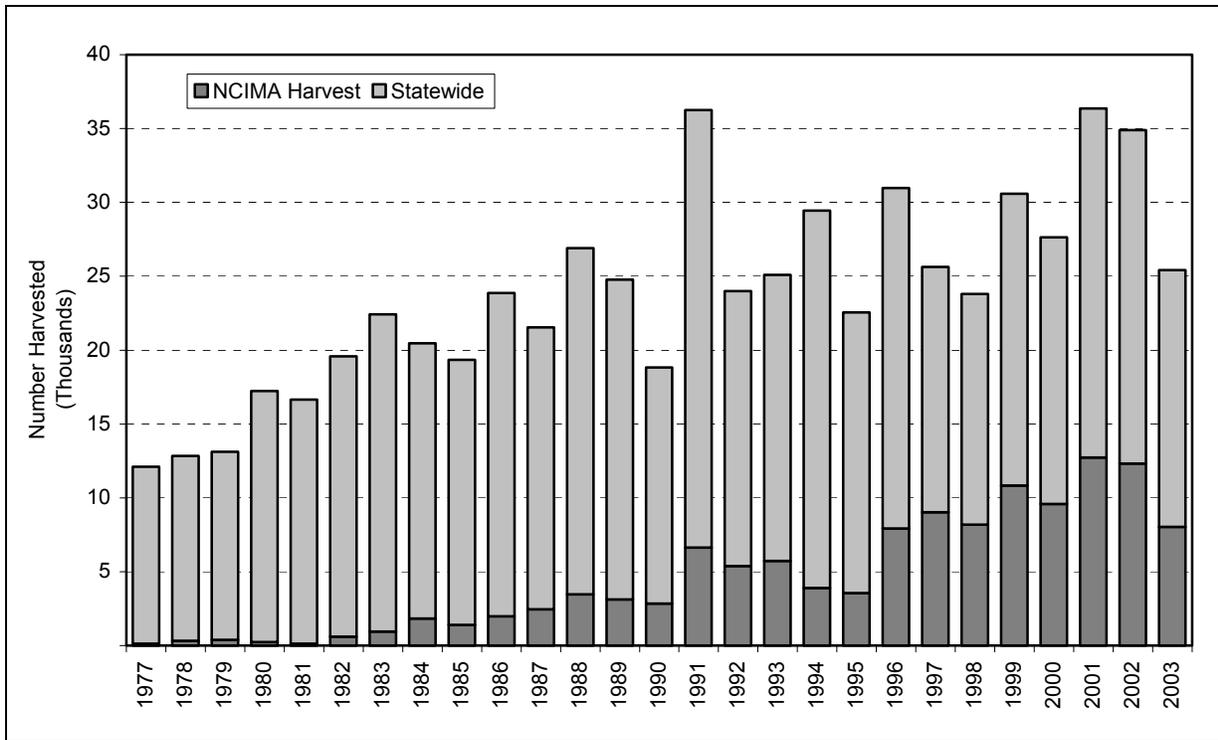


Figure 12.-Estimated northern pike harvest from the Northern Cook Inlet Management Area and statewide, 1977-2003.

APPENDIX A: HARVEST AND CATCH BY FISHERY

NOTES TO APPENDIX A

Sources for all Appendix A tables are the Statewide Harvest Survey (Mills 1979-1980, 1981a-b, 1982-1994; Howe et al. 1995, 1996, 2001 a-d; Walker et al. 2003; Jennings et al. 2004, *in prep.* a, b).

Appendix A1.-Knik Arm drainage Chinook salmon harvest by fishery, 1977-2003.

Year	Fish Ck. Marine	Other Marine ^a	Little Susitna	Knik River ^b	Eklutna Tailrace	Wasilla Creek	Cottonwood Creek	Big Lake ^c	Other ^d	Total
1977			191			0			16	207
1978			93			47			0	140
1979			800			0	0		0	800
1980			646			0	0		0	646
1981			1,418	0		0	0		48	1,466
1982			1,467	0		0	0		199	1,666
1983	16	47	1,187	5		0	0		0	1,255
1984	125	24	1,883	0	0	0	0		25	2,057
1985			1,845	0	0	0	0	44	0	1,889
1986		50	1,457	0	0	0	0	0	17	1,524
1987	117	58	2,282	0	0	0	0	19	0	2,476
1988	0	0	2,822	0	0	66	0	0	28	2,916
1989	77	44	4,204	0	0	16	0	0	0	4,341
1990	28	23	1,965	0	0	6	0	0	0	2,022
1991	129	23	2,102	0	0	17	0	6	0	2,277
1992	16	8	3,920	0	0	9	0	0	16	3,969
1993	104	48	3,441	0	0	9	0	0	0	3,602
1994	0	20	4,204	0	0	0	0	0	79	4,303
1995		9	1,698	0	0	0	0	0	0	1,707
1996		42	1,484	0	0	0	0	0	53	1,579
1997		0	2,938	0	0	0	0	0	0	2,938
1998		0	2,031	0	0	0	0	0	0	2,031
1999		11	2,713	0	0	0	0	0	0	2,724
2000		0	2,802	0	0	0	0	0	22	2,824
2001		12	2,243	0	0	0	0	0	0	2,255
2002		41	3,144	0	0	10	0	0	0	3,195
1998-2002										
Mean		13	2,587	0	0	2	0	0	4	2,606
2003		13	2,138	0	399	0	0	0	12	2,562

^a Beginning in 1995 includes all marine.

^b Knik River and tributaries including Jim Creek.

^c Big Lake drainage streams.

^d Includes lakes and streams.

Appendix A2.-Knik Arm drainage Chinook salmon catch by fishery, 1990-2003.

Year	Fish Ck. Marine	Other Marine ^a	Little Susitna	Knik River ^b	Eklutna Tailrace	Wasilla Creek	Cottonwood Creek	Big Lake ^c	Other ^d	Total
1990	40	29	3,069	0	0	12	0	0	90	3,240
1991	129	102	3,012	0	0	17	0	45	6	3,311
1992	16	17	6,484	0	0	48	0	9	16	6,590
1993	218	58	6,223	0	0	189	0	0	9	6,526
1994	0	20	5,993	0	0	0	0	0	129	6,142
1995		66	2,705	0	0	0	0	0	0	2,771
1996		42	3,639	0	0	0	0	0	64	3,745
1997		0	6,668	0	0	0	0	0	66	6,668
1998		0	3,785	0	0	0	0	0	0	3,785
1999		11	4,995	0	0	0	0	0	84	5,090
2000		0	5,436	0	0	0	0	0	78	5,514
2001		12	4,726	0	0	0	0	0	0	4,738
2002		145	6,473	0	71	130	0	0	35	6,854
1998-2002										
Mean		34	5,083	0	14	26	0	0	39	5,196
2003		78	5,044	0	571	102	0	0	132	5,927

^a Beginning in 1995 includes all marine.

^b Knik River and tributaries including Jim Creek.

^c Big Lake drainage streams.

^d Includes lakes and streams.

Appendix A3.-Eastside Susitna River drainage Chinook salmon harvest by fishery, 1977-2003.

Year	Willow Creek	Lt. Willow Creek	Kashwitna River	Caswell Creek	Sheep Creek	Goose Creek	Montana Creek	Birch Creek	Sunshine Creek	Talkeetna River ^a	Other ^b	Total
1977	137	16			259		415			25	204	1,056
1978	47	0			256		408			12	163	886
1979	459	0		156	10		312		10	312	39	1,298
1980	289	32		215	45		559		13	172	45	1,370
1981	585	0		249	0		661		57	373	277	2,202
1982	629	0		471	0		241		52	450	220	2,063
1983	534	0	231	272	0		504		105	934	272	2,852
1984	774	37	0	586	0	0	1,522		125	1,272	112	4,428
1985	1,063	25		527	0		979		771	871	106	4,342
1986	1,017	872	73	327	1,778	145	2,796	290	327	908	36	8,569
1987	1,987	711	116	88	1,610	334	1,726	44	319	1,639	29	8,603
1988	2,349	937	0	578	1,847	218	1,070	28	303	1,762	47	9,139
1989	2,846	507	11	357	1,116	385	1,708	28	368	2,372	85	9,783
1990	3,237	387	6	330	1,537	504	478		465	2,358	121	9,423
1991	3,208	684	41	305	1,519	288	575	47	230	2,025	161	9,083
1992	8,884	1,023	16	592	2,663	1,033	3,078	101	365	3,338	214	21,307
1993	8,626	1,200	38	531	2,300	633	4,054	9	280	4,729	288	22,688
1994	5,980	745	78	562	1,349	361	3,111	108	297	2,144	235	14,970
1995	2,742	436	18	397	746	226	1,004	0	132	2,126	45	7,872
1996	2,690	896	21	128	1,397	437	1,612	22	53	3,585	182	11,023
1997	3,135	699	10	30	550	298	2,181	30	53	3,800	203	10,989
1998	2,793	546	15	226	700	348	1,471	83	116	3,846	328	10,472
1999	4,988	1,344	83	142	2,558	371	3,279	134	11	3,701	264	16,875
2000	3,782	578	160	561	851	258	1,728	223	472	2,740	421	11,774
2001	4,573	941	74	238	1,420	160	2,646	65	93	2,866	428	13,504
2002	3,591	580	217	115	928	403	2,026	35	38	2,616	146	10,695
1998-2002												
Mean	3,945	798	110	256	1,291	308	2,230	108	146	3,154	317	12,664
2003	3,922	510	373	26	1,284	350	1,242	167	154	1,276	195	9,499

^a Talkeetna River and tributaries including Clear Creek.

^b Includes lakes and streams.

Appendix A4.-Eastside Susitna River drainage Chinook salmon catch by fishery, 1990-2003.

Year	Willow Creek	Lt. Willow Creek	Kashwitna River	Caswell Creek	Sheep Creek	Goose Creek	Montana Creek	Birch Creek	Sunshine Creek	Talkeetna River ^a	Other ^b	Total
1990	7,551	762	51	1,408	3,333	1,008	1,098		749	5,633	484	22,077
1991	5,267	886	75	420	2,421	725	1,766	80	351	4,215	368	16,574
1992	12,609	1,472	127	948	3,134	1,136	4,650	86	518	5,273	568	30,521
1993	21,555	2,710	88	830	4,412	1,482	9,305	37	461	12,205	1,183	54,268
1994	8,978	1,494	107	767	1,974	609	4,931	162	420	4,088	455	23,985
1995	4,897	905	91	519	1,323	422	2,226	0	245	5,464	284	16,376
1996	8,024	2,507	53	309	2,753	1,067	3,692	64	128	14,798	331	33,726
1997	9,982	1,608	59	123	1,924	893	7,173	79	252	15,904	940	38,937
1998	9,765	1,670	36	411	1,906	700	3,749	154	140	11,863	871	31,265
1999	15,913	3,505	105	379	4,815	928	8,428	167	208	13,030	922	48,400
2000	15,208	1,567	190	1,074	1,912	904	3,378	596	890	8,090	1612	35,421
2001	12,144	2,621	156	565	2,789	383	7,298	549	227	10,311	1,547	38,590
2002	11,160	2,220	348	268	3,284	1119	6,127	89	175	9,653	1,151	35,594
1998-2002												
Mean	12,838	2,317	167	539	2,941	807	5,796	311	328	10,589	1,221	37,854
2003	14,115	1,202	373	309	3,124	1,033	3,865	823	438	10,683	2,234	38,199

^a Talkeetna River and tributaries including Clear Creek.

^b Includes lakes and streams.

Appendix A5.-Westside Susitna River drainage Chinook salmon harvest by fishery, 1977-2003.

Year	Alexander Creek	Deshka River	Rabideux Creek	Yentna River	Peters Creek	Lake Creek	Fish Creek ^a	Talachulitna River	Other Streams ^b	Other Lakes ^b	Total
1977	820	1,017				464		224	413	0	2,938
1978	769	850				326		12	82	0	2,039
1979	712	2,811				1,796		293	156	0	5,768
1980	1,438	3,685				775		121	129	0	6,148
1981	1,121	2,769				795		57	0	0	4,742
1982	2,506	4,307				1,645		0	115	0	8,573
1983	1,711	4,889				2,423		336	209	0	9,568
1984	2,107	5,699			112	2,881		424	709	174	12,106
1985	2,761	6,407				2,575		224	1,677	0	13,644
1986	2,937	6,490				2,134	647	201	948	45	13,402
1987	2,224	5,632				3,282	834	116	1,252	10	13,350
1988	4,687	5,474			549	2,784	729	909	829	9	15,970
1989	4,882	8,062	12	215	339	3,554	1,202	403	656	18	19,343
1990	5,119	6,161	55	178	385	3,423	740	709	631	24	17,425
1991	6,548	9,306		301	495	2,712	660	848	942	24	21,836
1992	4,124	7,256	23	652	655	3,668	879	445	867	168	18,737
1993	5,154	5,682		653	283	6,425	1,148	875	922	0	21,142
1994	3,070	624		402	202	3,548	930	927	545	0	10,248
1995	1,217	0		425	252	2,838	545	509	479	0	6,265
1996	1,005	11		320	74	2,587	415	697	770	0	5,879
1997	1,470	42		315	34	3,777	557	778	826	0	7,799
1998	1,275	3,384		350		2,511	840	563	793	0	9,716
1999	2,241	3,496		939	197	3,037	1,188	977	56	0	12,131
2000	2,721	7,076		838	236	4,611	742	695	422	0	17,341
2001	2,313	5,007		648	88	4,067	965	409	417	0	13,914
2002	1,992	4,508		559	52	2,878	761	508	99	0	11,357
1998-2002											
Mean	2,108	4,694		667	143	3,421	899	630	357	0	12,892
2003	2,293	6,605		277	122	4,467	371	587	313	0	15,035

^a Fish Lake drainage (Yentna River drainage).

^b May include harvest from West Cook Inlet waters through 1998.

Appendix A6.-Westside Susitna River drainage Chinook salmon catch by fishery, 1990-2003.

Year	Alexander Creek	Deshka River	Rabideux Creek	Yentna River	Peters Creek	Lake Creek	Fish Creek ^a	Talachulitna River	Other Streams ^b	Other Lakes ^b	Total
1990	13,939	16,438	108	346	910	9,544	1,897	3,485	2,594	109	49,370
1991	11,319	14,006	0	441	2,076	5,321	1,242	2,885	1,417	87	38,794
1992	9,777	13,911	70	1,395	1,361	9,444	1,940	3,839	2,175	477	44,389
1993	15,897	14,032		1,462	1,712	25,150	2,725	6,492	2,579	0	70,049
1994	4,749	730		482	259	4,240	1,133	1,329	660	0	12,582
1995	2,225	232		1,123	725	5,627	1,193	2,207	805	0	14,137
1996	2,351	832		887	288	7,448	812	7,223	2,167	0	22,008
1997	4,134	1,847		1,137	198	14,334	1,734	6,618	3,110	0	33,112
1998	2,904	6,223		746		9,763	1,631	4,555	3,216	0	29,038
1999	5,714	8,681		2,558	922	13,687	2,570	8,758	1,106	0	43,996
2000	6,984	18,786		1,865	1,215	16,400	1,580	4,062	827	0	51,719
2001	8,104	9,744		1,580	661	12,652	3,141	5,953	2,137	0	43,972
2002	3,071	10,259		1,851	448	9,561	1,483	1,998	1,249	0	29,920
1998-2002											
Mean	5,355	10,739		1,720	812	12,413	2,081	5,065	1,707	0	39,729
2003	5,203	13,951		598	746	15,782	1,176	4,640	1,391	0	43,487

^a Fish Lake drainage (Yentna River drainage).

^b May include harvest from West Cook Inlet waters through 1998.

Appendix A7.-West Cook Inlet drainage Chinook salmon harvest by fishery, 1977-2003.

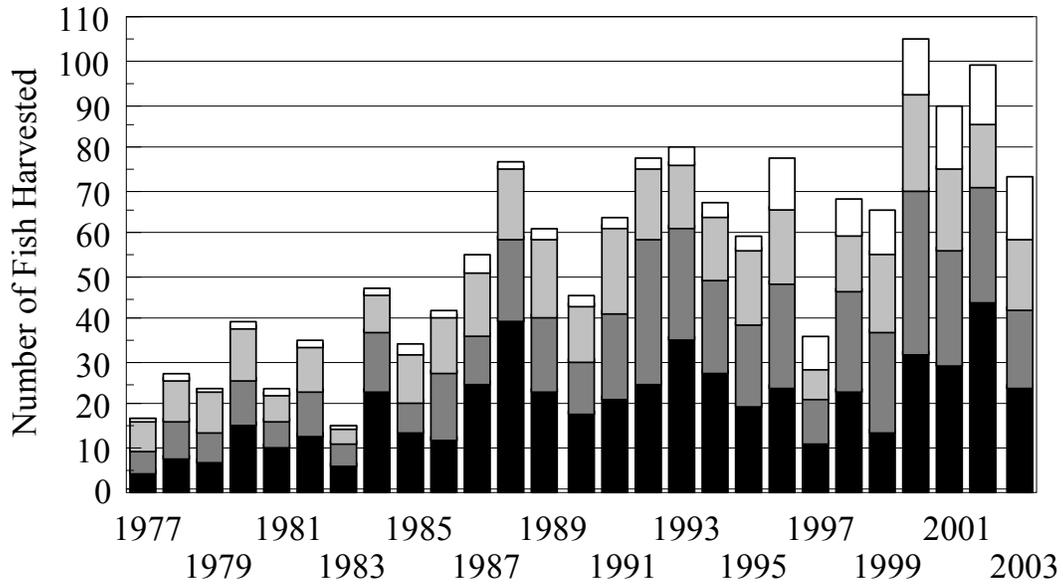
Year	Chuitna River	Beluga River	Theodore River	Lewis River	Susitna R.- N. Foreland	South of N. Foreland	Other Sites	Total
1977	227		237	9				473
1978	408		58	12				478
1979	78		20	0				98
1980	17		17	0				34
1981	115		77					192
1982	105		42					147
1983	1,185		0					1,185
1984	723		1,110					1,833
1985	734		1,195	100				2,029
1986	960		1,418					2,378
1987	146		1,146	185				1,477
1988	312		1,137	246				1,695
1989	581	237	1,317	190				2,325
1990	1,064		748	285				2,097
1991	377		369	16				762
1992	516	175	522					1,213
1993	893		527	27		100	408	1,955
1994	530		581			6	466	1,583
1995	201		360	0		19	113	693
1996	844		183	0	331	0	0	1,358
1997	728		0	0	121	22	23	894
1998	551		0	0	73	63	6	693
1999	561		0	0	301	189	22	1,073
2000	513		0		182	468	0	1,163
2001	457		21		54	64	126	722
2002	629		0	0	502	0	96	1,227
1998-2002								
Mean	542		4	0	222	157	50	976
2003	592	51	13	0	194	144	130	1,124

Appendix A8.-West Cook Inlet drainage Chinook salmon catch by fishery, 1990-2003.

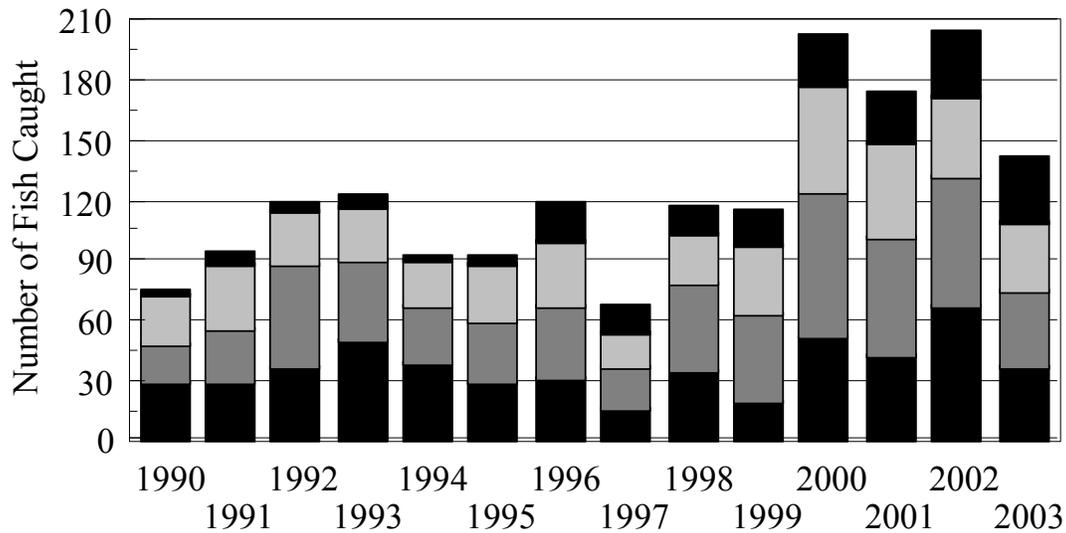
Year	Chuitna River	Beluga River	Theodore River	Lewis River	Susitna R.- N. Foreland	South of N. Foreland	Other Sites	Total
1990	2,659		2,252	887				5,798
1991	834		692	16				1,542
1992	2,848	207	1,945				207	5,207
1993	3,929		1,390	409	875	357	875	7,835
1994	699		877		565	25	565	2,731
1995	602		748		438	47	438	2,273
1996	2,732		621		683	11	11	4,058
1997	2,210		107	0	367	233	35	2,952
1998	2,052		13	0	391	117	6	2,579
1999	1,586		196	0	772	254	22	2,830
2000	2,012		887		466	1,591	0	4,956
2001	1,550		1,232		297	176	151	3,406
2002	2,417		2,431	215	755	55	293	6,166
1998-2002								
Mean	1,923		952	72	536	439	94	3,987
2003	3,502	255	622	108	448	365	714	6,014

Appendix A9.-Northern Cook Inlet Management Area recreational coho salmon harvest and catch, 1977-2002.

Harvest



Catch



Knik Arm Drainage
 East Susitna Drainage
 West Susitna Drainage
 West Cook Inlet Drainage

Appendix A10.-Knik Arm drainage coho salmon harvest by fishery, 1977-2003.

Year	Fish Ck. Marine	Other Marine ^a	Little Susitna	Jim Creek ^b	Eklutna Tailrace	Wasilla Creek	Cottonwood Creek	Fish Creek	Other ^c	Total
1977			3,415			472			479	4,366
1978			4,865			2,112			918	7,895
1979			3,382			1,211	1,198		1,348	7,139
1980			6,302			3,555	3,375		2,798	16,030
1981			5,940	1,801		814	1,373		556	10,484
1982			7,116	2,306		1,624	1,886		744	13,676
1983	983	513	2,835	774		345	518		171	6,139
1984	1,060	12	14,253	3,429	561	1,920	1,895		299	23,429
1985		120	7,764	2,523	557	1,900	1,005	284	186	14,339
1986		106	6,039	2,948	502	944	690	364	768	12,361
1987	181	453	13,003	3,676	2,318	1,195	1,159	833	2,969	25,787
1988	200	73	19,009	11,078	3,329	1,273	746	1,637	2,692	40,037
1989	142	204	14,129	4,220	1,666	975	876	784	850	23,846
1990	251	35	7,497	6,184	1,012	1,012	286	398	2,087	18,762
1991	255	182	16,450	2,920	631	844	176	486	242	22,186
1992	130	0	20,033	3,409	664	413	348	526	291	25,814
1993	181	984	27,610	2,878	1,337	1,133	736	741	163	35,763
1994	100	99	17,665	3,946	3,553	1,390	1,100	492	194	28,539
1995		132	14,451	3,549	990	445	340	435	308	20,650
1996		687	16,753	3,911	1,217	872	762	607	65	24,874
1997		187	7,756	1,786	728	708	372	148	88	11,773
1998		124	14,469	4,197	1,422	970	1,098	1,334	136	23,750
1999		0	8,864	2,612	1,453	313	537	233	417	14,429
2000		115	20,357	5,653	5,053	0	282	470	600	32,530
2001		214	17,071	8,374	3,399	0	647	361	40	30,106
2002		446	19,278	14,707	7,073	664	561	1233	486	44,448
1998-2002										
Mean		180	16,008	7,109	3,680	389	625	726	336	29,053
2003		69	13,672	6,415	3,128	261	665	112	261	24,583

^a Beginning in 1995 includes all marine.

^b Knik River and tributaries including Jim Creek.

^c Includes lakes and streams.

Appendix A11.-Knik Arm drainage coho salmon catch by fishery, 1990-2003.

Year	Fish Ck. Marine	Other Marine ^a	Little Susitna	Knik River ^b	Eklutna Tailrace	Wasilla Creek	Cottonwood Creek	Big Lake ^c	Other ^d	Total
1990	342	63	12,403	8,774	1,675	1,361	433	677	4,230	29,958
1991	364	249	21,142	3,715	917	1,068	310	637	406	28,808
1992	308	0	27,993	4,672	1,069	688	494	681	412	36,317
1993	267	1,042	38,199	4,365	1,615	2,132	1,032	1,133	889	50,674
1994	100	139	22,241	5,168	6,792	1,727	1,347	627	593	38,734
1995		273	19,853	4,435	1,441	771	359	577	1,149	28,858
1996		790	22,996	6,050	1,605	1,235	888	743	827	35,134
1997		376	11,560	2,625	964	1,109	432	291	343	17,700
1998		208	18,621	5,155	1,669	1,512	1,194	1,615	312	30,286
1999		0	11,990	3,337	1,857	445	1,026	400	525	19,490
2000		167	31,517	10,858	6,812	0	418	560	1,359	51,691
2001		329	24,636	11,723	4,497	0	851	753	202	42,991
2002		542	30,582	21,458	9,419	1,308	940	1,555	1,381	67,185
1998-2002										
Mean		249	23,469	10,506	4,851	653	886	977	756	42,329
2003		346	21,649	10,493	3,635	261	849	295	466	37,994

^a Beginning in 1995 includes all marine.

^b Knik River and tributaries including Jim Creek.

^c Big Lake drainage streams.

^d Includes lakes and streams.

Appendix A12.-Eastside Susitna River drainage coho salmon harvest by fishery, 1977-2003.

Year	Willow Creek	Lt. Willow Creek	Kashwitna River	Caswell Creek	Sheep Creek	Goose Creek	Montana Creek	Birch Creek	Sunshine Creek	Talkeetna River ^a	Other ^b	Total
1977	679	225			438		1,415			1,070	1,882	5,709
1978	905	151			478		2,451			2,200	2,388	8,573
1979	462	262		624	462		1,735		774	1,248	1,997	7,564
1980	1,207	494		1,124	430		2,684		1,534	661	2,234	10,368
1981	747	29		901	326		2,261		968	422	939	6,593
1982	1,069	398		776	367		3,060		1,719	996	1,782	10,167
1983	576	52	52	408	596		1,402		722	836	532	5,176
1984	1,846	1,147	162	1,247	661	449	4,502		1,733	1,509	660	13,916
1985	1,026	528		608	478		1,972		1,205	747	478	7,042
1986	944	363	871	472	1,343	363	1,488	980	4,029	3,376	1,961	16,190
1987	2,898	561	36	453	1,068	145	1,394	163	1,612	2,608	90	11,028
1988	4,875	1,237	327	1,455	3,165	291	2,219	691	2,146	2,929	183	19,518
1989	4,218	1,388	336	834	2,231	190	2,295	281	2,159	2,775	371	17,078
1990	2,711	639	197	2,596	991	180	778		704	2,539	408	11,743
1991	4,154	1,308	167	3,819	1,544	657	1,612	322	1,761	3,435	700	19,479
1992	8,591	1,830	713	5,393	4,049	502	3,595	858	2,259	5,531	469	33,790
1993	5,743	1,213	554	2,385	2,413	428	3,496	535	2,922	5,830	544	26,063
1994	4,504	1,452	328	1,569	1,586	478	2,619	281	1,906	5,476	671	20,870
1995	3,498	992	472	1,687	1,092	152	2,385	198	1,385	6,672	632	19,165
1996	5,176	1,892	360	668	1,896	430	3,118	258	2,612	7,325	439	24,174
1997	2,401	661	202	294	1,198	166	1,692	177	443	2,815	248	10,297
1998	5,908	1,185	670	564	3,417	382	2,720	920	1,589	5,340	382	23,086
1999	5,019	871	260	1,198	3,045	440	3,382	622	1,709	5,814	932	23,292
2000	8,679	2,885	994	1,702	3,348	1,181	5,454	1,160	3,274	7,703	1,368	37,748
2001	6,835	1,936	728	1,408	2,588	683	5,023	146	1,072	5,195	1,003	26,617
2002	6,040	1,513	494	797	2,995	204	4,644	288	3,238	5,640	1,330	27,183
1998-2002												
Mean	6,496	1,678	629	1,134	3,079	578	4,245	627	2,176	5,938	1,003	27,585
2003	2,918	635	1,090	938	1,908	220	3,361	421	2,508	3,984	602	18,585

a Talkeetna River and tributaries including Clear Creek.

b Includes lakes and streams.

Appendix A13.-Eastside Susitna River drainage coho salmon catch by fishery, 1990-2003.

Year	Willow Creek	Lt. Willow Creek	Kashwitna River	Caswell Creek	Sheep Creek	Goose Creek	Montana Creek	Birch Creek	Sunshine Creek	Talkeetna River ^a	Other ^b	Total
1990	4,111	1,007	344	3,276	1,581	254	1,491		950	4,488	672	18,174
1991	5,189	1,792	260	4,768	2,579	676	2,393	322	2,846	5,134	1,983	27,942
1992	12,300	3,037	972	7,171	5,531	664	6,397	1,126	3,182	9,717	1,864	51,981
1993	7,964	1,481	606	3,308	4,475	771	5,134	764	3,787	10,661	937	39,888
1994	5,845	1,806	328	1,796	1,959	615	3,296	525	2,116	8,485	1,946	28,717
1995	4,752	1,466	604	1,838	1,593	239	3,545	415	1,705	14,011	1,434	31,062
1996	7,740	2,218	379	996	2,448	706	5,002	420	3,457	14,044	953	38,363
1997	4,270	859	271	402	1,712	396	2,581	461	770	6,031	735	18,524
1998	8,495	1,769	856	720	4,214	894	3,880	1,222	1,837	11,459	2,047	37,393
1999	9,246	1,151	282	1,616	4,523	687	4,823	1,825	3,538	13,140	2,739	43,570
2000	13,744	3,949	1,119	3,297	4,126	3,092	11,828	2,505	5,384	21,798	2,463	73,305
2001	12,456	3,930	1,128	1,671	4,867	2,260	9,175	537	1,793	17,431	3,260	58,508
2002	11,369	2,532	1,046	1,803	5,478	1,018	9,598	973	6,909	19,759	4,072	64,557
1998-2002												
Mean	11,062	2,666	886	1,821	4,642	1,590	7,861	1,412	3,892	16,717	2,916	55,467
2003	5,679	1,078	1,485	1,242	3,076	660	5,648	815	4,919	10,668	2,168	37,438

^a Talkeetna River and tributaries including Clear Creek.

^b Includes lakes and streams.

Appendix A14.-Westside Susitna River drainage coho salmon harvest by fishery, 1977-2003.

Year	Alexander Creek	Deshka River	Rabideux Creek	Peters Creek	Yentna River	Lake Creek	Fish Creek ^a	Talachulitna River	Other ^b	Total
1977	1,562	559				1,203		346	2,929	6,599
1978	2,401	1,789				2,212		88	3,683	10,173
1979	1,560	973				2,671		125	3,707	9,036
1980	999	2,290				2,351		491	6,010	12,141
1981	891	632				1,035		240	3,142	5,940
1982	1,907	2,463				1,603		524	4,161	10,658
1983	408	1,036				1,392		84	690	3,610
1984	1,509	1,646		12		2,432		486	3,426	9,511
1985	1,455	2,637				4,105		224	2,849	11,270
1986	1,352	4,256				1,575	324	402	5,208	13,177
1987	1,539	2,789				1,358	362	235	2,463	8,746
1988	1,965	7,458		18		2,110	400	418	3,914	16,283
1989	2,207	8,947	409	47	103	1,907	549	688	3,369	18,226
1990	1,973	4,959	540	33	353	2,986	793	276	1,970	13,883
1991	2,296	8,111	32	221	718	4,221	1,081	828	2,999	20,507
1992	834	7,110	543	300	275	2,632	575	405	3,544	16,218
1993	1,719	6,530		67	227	3,101	920	152	2,738	15,454
1994	2,188	5,511		72	556	2,723	714	427	3,170	15,361
1995	2,692	2,275		183	569	4,736	1,058	1,031	4,604	17,148
1996	803	4,615		57	1,198	4,445	618	805	4,834	17,375
1997	1,307	1,169		89	591	1,445	332	793	1,397	7,123
1998	1,158	3,630			299	4,353	785	905	2,105	13,235
1999	1,418	4,034		65	1,093	6,931	2,261	1,453	740	17,995
2000	2,695	8,687		157	1,050	6,297	1,320	1,347	1,709	23,262
2001	1,972	6,556		0	620	5,610	1,958	1,142	1,363	19,221
2002	1,191	3,616		177	705	4,613	1,034	1,447	1,361	14,144
1998-2002										
Mean	1,687	5,305		100	753	5,561	1,472	1,259	1,456	17,571
2003	1,071	4,946		155	1,162	5,263	959	1,543	973	16,072

^a Fish Lake drainage (Yentna River drainage).

^b May include harvest from West Cook Inlet Management Unit lakes and streams.

Appendix A15.-Westside Susitna River drainage coho salmon catch by fishery, 1990-2003.

Year	Alexander Creek	Deshka River	Rabideux Creek	Peters Creek	Yentna River	Lake Creek	Fish Creek ^a	Talachulitna River	Other ^b	Total
1990	2,931	8,629	672	110	617	4,573	1,212	849	4,901	24,494
1991	3,465	10,849	32	1,112	211	7,424	1,491	3,716	4,484	32,974
1992	1,725	10,211	794	308	640	4,251	1,142	1,215	6,436	26,722
1993	2,698	10,698		181	370	5,401	1,342	408	5,966	27,064
1994	2,723	8,579		136	556	3,872	1,194	1,492	4,431	22,983
1995	3,098	3,746		874	634	6,135	1,921	5,271	6,502	28,181
1996	1,615	7,286		57	1,702	7,289	2,256	3,716	8,824	32,745
1997	2,287	3,151		356	1,255	2,544	614	2,511	4,967	17,685
1998	2,203	4,719			683	8,212	1,676	2,509	4,166	24,168
1999	2,732	5,235		76	1,941	10,932	4,210	4,306	5,210	34,642
2000	3,962	18,554		1,318	4,074	11,119	2,970	7,042	4,465	53,504
2001	3,148	11,353		46	3,141	11,066	3,618	13,033	3,335	48,740
2002	2,683	6,893		344	2,562	11,281	2,280	11,446	4,180	41,669
1998-2002										
Mean	2,946	9,351		446	2,480	10,522	2,951	7,667	4,271	40,545
2003	1,776	9,291		866	2,087	9,139	1,655	7,445	1,342	33,601

^a Fish Lake drainage (Yentna River drainage).

^b May include harvest from West Cook Inlet Management Unit lakes and streams.

Appendix A16.-West Cook Inlet drainage coho salmon harvest by fishery, 1977-2003.

Year	Chuitna River	Beluga River	Theodore River	Lewis River	Kustatan River	Polly Creek	Big River Lakes	Silver Salmon Creek	Other R. - N. Foreland	Susitna of N. Foreland	Other ^a	Total
1977	316		113	103								532
1978	277		101	0								378
1979	287		50	0								337
1980	258		370	0								628
1981	594		10									604
1982	220		115			410						745
1983	554		10		1,800	188						2,552
1984	898		137		1,646							2,681
1985	1,095		261	75	4,889							6,320
1986	815		168		3,239							4,222
1987	1,684		996	145	5,723							8,548
1988	782		400	0	6,221							7,403
1989	1,228	419	502	112	5,413						9	7,683
1990	1,113		198	33	4,584		88					6,016
1991	1,791		513	181	5,768							8,253
1992	1,547	243	421		4,494	332						7,037
1993	1,313		236	194	6,457		158			751	1,217	10,326
1994	559		521		5,259		25			268	1,615	8,247
1995	1,407		372		4,237	641	75			559	891	8,182
1996	1,263		361		6,266	170	600		741	1,858	171	11,430
1997	1,156		187		3,605		305		574	632	33	6,492
1998	2,348		380		3,999		264		650	382	137	8,160
1999	1,614		290		3,178		463		1,282	2,047	465	9,339
2000	1,872		1,161		5,699		325		1,134	1,521		11,712
2001	3,284		1,029		4,920		508		1,210	2,998		13,949
2002	2,586		1,208	200	5,795		490		1,725	761	615	13,380
1998-2002												
Mean	2,341		814		4,718		410		1,200	1,542	406	11,308
2003	1,467	426	225	197	3,967	190	2830	2269	429	1,611	628	14,239

^a Includes lakes and streams. Beginning in 1999 includes saltwater shoreline.

Appendix A17.-West Cook Inlet drainage coho salmon catch by fishery, 1990-2003.

Year	Chuitna River	Beluga River	Theodore River	Lewis River	Kustatan River	Polly Creek	Big River Lakes	Silver Salmon Creek	Other Susitna R.- N. Foreland	Other South of N. Foreland	Other ^a	Total
1990	2,336		231	44	6,899		331					9,841
1991	4,292		757	205	9,239							14,493
1992	2,486		1,207		6,227	445					259	10,624
1993	2,878		686	270	11,136		175		2,200	2,354	2,200	21,899
1994	691		693		6,611		25		1,713	388	1,713	11,834
1995	2,626		815		6,237	1,131	94		1,047	1,697	1,047	14,694
1996	2,097		460		10,600	564	924		1,174	3,556	477	19,852
1997	2,388		256		6,750		698		1,131	1,635	176	13,034
1998	3,551		411		6,369		601		816	1,241	594	13,583
1999	2,633		473		3,908		1,306		1,791	3,676	1,489	15,276
2000	4,318		2,678		9,725		566		3,077	3,681		24,045
2001	6,334		1,322		8,353		834		2,874	4,960		24,677
2002	5,170		2,455	404	11,463		1489		3,142	4,371	4,022	32,516
1998-2002												
Mean	4,401		1,468		7,964		959		2,340	3,586	2,035	22,019
2003	2,635	730	313	298	6,263	341	6,239	7,377	890	5,348	1,990	32,424

Appendix A18.-Knik Arm drainage sockeye salmon harvest by fishery, 1977-2003.

Year	Fish Ck. Marine	Other Marine ^a	Little Susitna	Knik River ^b	Eklutna Tailrace	Wasilla Creek	Cottonwood Creek	Big Lake ^c	Big Lake	Nancy Lake ^d	Other ^e	Total
1977			888			274			37	56	321	1,576
1978			859			0			0	14	366	1,239
1979			1,478			0	1,525		157	0	456	3,616
1980			2,127			0	2,660		43	69	775	5,674
1981			1,619	450		0	3,245		134	316	316	6,080
1982			1,865	880		0	608		126	618	524	4,621
1983	6,013	1,748	2,787	1,277		0	1,632		89	587	164	14,297
1984	499	237	6,385	823	187	200	661		175	12	61	9,240
1985		76	2,894	1,037	142	120	1,179	109	22	33	0	5,612
1986		50	3,616	905	28	61	789	39	0	99	422	6,009
1987	417	435	3,513	1,105	254	18	869	1,087	0	670	417	8,785
1988	437	36	2,310	1,928	200	36	346	2,037	0	109	637	8,076
1989	789	364	2,315	1,322	204	98	683	2,900	0	169	196	9,040
1990	174	87	891	2,219	29	19	271	2,238	0	107	553	6,588
1991	395	320	1,722	1,459	19	56	47	565	0	207	178	4,968
1992	8	148	1,274	1,471	173	8	633	1,241	0	263	130	5,349
1993	588	106	2,487	1,041	211	134	453	598	0	0	308	5,926
1994	123	6	1,809	1,258	133	76	807	476	0	66	328	5,082
1995		218	1,116	990	190	31	895	651	0	31	227	4,349
1996		137	2,286	1,077	84	42	444	68	0	88	81	4,307
1997		95	1,845	864	100	20	1,008	122	0	30	11	4,095
1998		20	872	1,220	57	212	2,906	154	0	0	58	5,499
1999		11	1,282	614	151	11	1,080	432	0	0	77	3,658
2000		32	3,661	1,543	764		1,118	21	0	55	342	7,536
2001		87	1,959	922	999		314	10	0	37	0	4,328
2002		102	2,133	1,268	529	12	319	147	0	0	109	4,619
1998-2002												
Mean		50	1,981	1,113	500	78	1,147	153	0	18	117	5,128
2003		115	3,337	1,554	122	0	961	57	0	36	424	6,606

^a Beginning in 1995 includes all marine.

^b Knik River and tributaries including Jim Creek.

^c Big Lake drainage streams.

^d Nancy Lake complex lakes.

^e Includes lakes and streams.

Appendix A19.-Knik Arm drainage sockeye salmon catch by fishery, 1990-2003.

Year	Fish Ck Marine	Other Marine ^a	Little Susitna	Knik River ^b	Eklutna Tailrace	Wasilla Creek	Cottonwood Creek	Big Lake ^c	Big Lake	Nancy Lake ^d	Other ^e	Total
1990	417	145	2,267	3,537	78	97	417	4,109		223	1,676	12,966
1991	405	320	2,908	1,713	19	56	47	678		320	526	6,992
1992	90	148	2,572	2,055	205	8	953	1,430		625	171	8,257
1993	708	106	3,755	1,185	284	151	1,099	1,330		38	308	8,964
1994	123	25	3,581	1,996	209	218	1,215	561		642	420	8,990
1995		416	2,116	1,357	221	114	1,228	725		227	41	6,445
1996		146	4,315	1,983	185	67	577	235	0	274	669	8,451
1997		95	2,540	1,491	110	20	1,438	162	0	110	73	6,039
1998		35	1,515	1,846	144	318	3,699	200	0	251	105	8,113
1999		11	2,253	787	455	11	1,328	432	0	0	282	5,559
2000		63	5,691	2,464	2,432		1,368	46	0	55	641	12,760
2001		160	3,910	2,414	2,121		478	88	0	85	131	9,387
2002		116	3,756	1,632	1,085	96	354	153	0	0	109	7,301
1998-2002												
Mean		77	3,425	1,829	1,247	142	1,445	184	0	78	254	8,624
2003		401	8,458	3,225	381	21	1,182	113	0	497	788	15,066

^a Beginning in 1995 includes all marine.

^b Knik River and tributaries including Jim Creek.

^c Big Lake drainage streams.

^d Nancy Lake complex lakes.

^e Includes lakes and streams.

Appendix A20.-Eastside Susitna River drainage sockeye salmon harvest by fishery, 1977-2003.

Year	Willow Creek	Little Willow	Kashwitna River	Caswell Creek	Sheep Creek	Goose Creek	Montana Creek	Birch Creek	Sunshine Creek	Talkeetna River ^a	Other Streams ^b	Other Lakes	Total
1977	831	305			450		978			334	696		3,594
1978	56	28			14		85			28	56		267
1979	94	141		0	31		346		157	31	220		1,020
1980	83	77		77	0		257		116	6	257		873
1981	77	67		38	105		182		220	29	115		833
1982	94	105		52	88		514		189	115	398		1,555
1983	425	110	0	151	370		534		685	534	343	69	3,221
1984	249	337	0	87	62	0	561		100	636	636	37	2,705
1985	139	80		110	30		279		249	508	70	0	1,465
1986	290	0	109	0	0	0	363	182	290	1,597	1,198	0	4,029
1987	254	72	54	0	163	0	163	72	181	580	507	0	2,046
1988	564	55	18	164	273	36	364	255	18	1,110	0	0	2,857
1989	414	51	59	110	169	17	296	76	363	617	25	330	2,527
1990	208	149	99	69	149	50	149	0	119	1,506	179	0	2,677
1991	397	71	62	230	168	0	44	97	88	1,280	460	0	2,897
1992	526	164	33	123	189	58	370	140	394	1,356	115	0	3,468
1993	528	120	0	106	39	0	237	241	183	2,560	113	10	4,137
1994	383	28	0	82	102	0	85	66	133	2,278	286	0	3,443
1995	430	73	0	0	98	52	481	0	220	2,082	145	101	3,682
1996	113	191	0	95	8	67	88	0	43	2,053	17	0	2,675
1997	119	85	41	30	190	70	144	11	60	4,931	170	0	5,851
1998	86	43	0	0	103	0	195	30	68	4,546	788	0	5,859
1999	162	64	11	0	112	32	248	184	0	3,197	382	216	4,608
2000	307	55	0	42	122	0	346	213	199	4,683	225	317	6,509
2001	244	70	58	0	269	48	584	77	48	4,797	344	237	6,776
2002	215	31	0	0	122	30	199	0	31	2,615	110	74	3,427
1998-2002													
Mean	203	53	14	8	146	22	314	101	69	3,968	370	169	5,436
2003	147	63	0	0	74	27	267	105	116	1,574	361	0	2,734

^a Talkeetna River and tributaries including Clear Creek and Larson Creek.

^b Other includes lakes and streams for 1977-1982.

Appendix A21.-Eastside Susitna River drainage sockeye salmon catch by fishery, 1990-2003.

Year	Willow Creek	Little Willow	Kashwitna River	Caswell Creek	Sheep Creek	Goose Creek	Montana Creek	Birch Creek	Sunshine Creek	Talkeetna River ^a	Other Streams	Other Lakes	Total
1990	862	208	99	119	208	79	406		159	2,121	238	0	4,499
1991	574	71	62	291	194	0	194	124	124	1,943	653	379	4,609
1992	929	205	33	140	296	173	600	140	731	3,173	246	41	6,707
1993	942	381	0	154	149	17	570	337	202	5,009	191	55	8,007
1994	616	161	0	130	210	0	399	66	199	4,331	995	9	7,116
1995	838	250	0	0	214	52	991	0	251	3,830	312	201	6,939
1996	392	505	33	145	8	92	266	0	51	4,521	84	0	6,097
1997	359	259	73	30	269	120	407	11	70	10,026	374	0	11,998
1998	655	43	15	15	412	76	285	181	87	7,056	1,734	0	10,559
1999	689	161	11	0	348	32	966	292	21	6,286	1,205	237	10,248
2000	1,652	101	0	63	340	13	622	509	294	8,917	1,057	423	13,991
2001	1,035	240	116	0	461	48	968	97	70	8,643	973	575	13,226
2002	900	241	17	56	370	291	1,455	0	31	9,016	397	240	13,014
1998-2002													
Mean	986	157	32	27	386	92	859	216	101	7,984	1,073	295	12,208
2003	664	105	0	11	336	69	859	158	179	3,749	820	421	7,371

^a Talkeetna River and tributaries including Clear Creek and Larson Creek.

Appendix A22.-Westside Susitna River drainage sockeye salmon harvest by fishery, 1977-2003

Year	Alexander Creek	Deshka River	Rabideux Creek	Yentna River	Lake Creek	Fish Creek ^a	Talachulitna River	Judd Lake	Other Streams ^b	Other Lakes ^b	Total
1977	349	0			658		457	24	842	456	2,786
1978	183	0			254		141	70	662	324	1,634
1979	79	0			440		47	220	362	410	1,557
1980	52	0			267		112	267	34	379	1,111
1981	67	0			211		172		594	364	1,408
1982	335	0			252		63		1,320	911	2,881
1983	69	0			726		41	0	1,370	1,314	3,549
1984	87	125			374		262	312	1,395	860	3,415
1985	261	50			137		50		772	1,032	2,302
1986	0	11			547	1,273	424	514	1,173	134	4,076
1987	72	272			435	398	290	580	163	217	2,427
1988	55	146			291	146	800	182	1,038	509	3,167
1989	260	217	9	139	121	165	251	130	547	468	2,307
1990	30	189	0	20	358	89	189		646	417	1,938
1991	136	262	155	0	262	475	78	233	968	514	3,083
1992	123	82	0	107	115	189	205		1,331	764	2,916
1993	45	87		103	489	412	171		724	130	2,161
1994	38	0		237	430	142	237		653	182	1,919
1995	94	42		239	392	178	191		879	91	2,106
1996	0	8		0	137	68	108		794		1,115
1997	61	11		410	1,656	209	335		427	0	3,109
1998	86	57	0	232	868	168	181		871		2,463
1999	205	50		324	2,604	865	337		894	0	5,279
2000	1,440	339		761	1,767	226	162		251		4,946
2001	544	249		397	3,149	714	159		1062	37	6,311
2002	257	67		94	526	238	278		421	0	1,881
1998-2002											
Mean	506	152	0	362	1,783	442	223		700	12	4,176
2003	138	0		137	6,900	162	233		1090	0	8,660

^a Yentna River drainage.

^b May include harvest from West Cook Inlet waters.

Appendix A23.-Westside Susitna River drainage sockeye salmon catch by fishery, 1990-2003.

Year	Alexander Creek	Deshka River	Rabideux Creek	Yentna River	Lake Creek	Fish Creek ^a	Talachulitna River	Judd Lake	Other Streams ^b	Other Lakes ^b	Total
1990	80	626	0	20	626	239	656		1,353	746	4,346
1991	136	281	155	19	911	523	475	853	1,676	959	5,988
1992	148	205	0	107	271	288	247		2,515	879	4,660
1993	194	207		463	1,517	480	322		1,579	720	5,482
1994	90	169		332	822	161	681		1,326	785	4,366
1995	116	64		239	615	295	1,003		1,498	348	4,178
1996	0	33		42	460	271	1,084		1,074		2,964
1997	125	335		410	5,025	384	3,340		1,316		10,935
1998	173	87		291	2,324	323	518		1,259		4,975
1999	431	920		421	6,045	1,886	863		1,628	0	12,194
2000	2,246	723		1,085	3,404	472	1,224		710		9,864
2001	1,040	314		1,960	5,700	1785	923		1,729	98	13,549
2002	866	115		612	2,767	312	1,527		682	0	6,881
1998-2002											
Mean	951	432		874	4,048	956	1,011		1,202	33	9,493
2003	297	11		328	12,636	349	709		2,516		16,846

^a Yentna River drainage.

^b May include harvest from West Cook Inlet waters through 1998.

Appendix A24.-West Cook Inlet drainage sockeye salmon harvest by fishery, 1977-2003.

Year	Chuitna River	Theodore River	Lewis River	Kustatan River	Big River Lakes ^b	Susitna R.- N. Foreland	South of N. Foreland	Other ^a	Total
1977	6	0	0						6
1978	0	0	0						0
1979	0	0	0						0
1980	0	0	0						0
1981	48	0							48
1982	10	0							10
1983	356	0		110					466
1984	62	0		187					249
1985	274	25	0	162					461
1986	22	67		0					89
1987	272	0	0	0					272
1988	437	18	0	18					473
1989	43	52	0	165				269	529
1990	139	50	0	10	437				636
1991	552	10	0	203					765
1992	8	49		131					188
1993	46	35	0	289	976		229	780	2,355
1994	0	9		285	1,013		114	614	2,035
1995	62	0		44	998		159	41	1,304
1996	228	0		102	2,028	127	152	314	2,951
1997	170	0		274	1,171	150	409	0	2,174
1998	235	8		314	1,282	266	288	129	2,522
1999	194	0		186	1,783	76	464	287	2,990
2000	58	42		210	3,047	210	677	0	4,244
2001	634	0		293	992	201	1,030	0	3,150
2002	585	0	0	232	664	24	160	354	2,019
1998-2002									
Mean	341	10		247	1,554	155	524	154	2,985
2003	179	24	0	397	3,491	94	372	151	4,708

^a Includes lakes and streams. Beginning in 1999 includes saltwater shoreline.

^b Majority of harvest occurs at the mouth of Wolverine Creek.

Appendix A25.-West Cook Inlet drainage sockeye salmon catch by fishery, 1990-2003.

	Chuitna River	Theodore River	Lewis River	Kustatan River	Big River Lakes ^b	Susitna R.- N. Foreland	South of N. Foreland	Other ^a	Total
1990	219	50	0	10	1,044				1,323
1991	698	10	0	329					1,037
1992	66	49		288					403
1993	181	35	0	337	2,364	1,429	689	1,429	6,464
1994	0	95		446	1,595	562	114	562	3,374
1995	62	0		96	2,180	41	190	41	2,610
1996	787	18		130	5,216	1,084	236	451	7,922
1997	276	0		294	3,242	210	844	42	4,908
1998	348	30		1,334	3,342	281	1,771	161	7,267
1999	194	0		282	2,922	324	1,284	614	5,620
2000	199	95		743	5,966	1,125	1,152	0	9,280
2001	1,107	0		312	3,057	381	1,620	0	6,477
2002	757	17	0	891	1,327	497	353	623	4,465
1998-2002									
Mean	521	28		712	3,323	522	1,236	280	6,622
2003	274	24	0	426	6,632	189	998	714	9,257

^a Includes lakes and streams. Beginning in 1999 includes saltwater shoreline.

^b Majority of harvest occurs at the mouth of Wolverine Creek.

Appendix A26.-Knik Arm drainage rainbow trout harvest by fishery, 1977-2003.

Year	Little Susitna	Knik River ^a	Wasilla Creek	Cotton- wood Ck	Big Lake ^b	Wasilla Lake	Finger Lake	Kepler L. Complex	Big Lake	Lucille Lake	Kalmbach Lake	Carpenter Lake	Knik Lake	Memory Lake	Seymour Lake	Bonnie Lakes	Nancy L. Complex	Other Streams ^c	Other Lakes	Total
1977	843		252				0	1,822	3,906	0							2,642	9,150		18,615
1978	886		45				0	5,180	4,845	0							1,853	10,330		23,139
1979	1,391		500	1,736		2,782	0	3,372	2,882	0							2,909	9,271		24,843
1980	852		121	1,085		2,084	0	5,906	5,398	0							2,540	11,382		29,368
1981	2,692	0	38	824		2,261	0	8,200	9,810	0							4,723	13,201		41,749
1982	1,551	0	63	786		2,243	0	7,325	9,369	0							2,840	6,372		30,549
1983	1,290	0	84	556		1,804	0	3,986	4,102	0							4,846	1,490	8,263	26,421
1984	860	549	312	748		848	0	9,128	4,938	0				382			1,771	1,247	5,635	26,418
1985	1,294	780	260	590	347	1,231	3,381	14,011	6,953	35							2,514	1,197	13,838	46,431
1986	1,407	235	11	145	391	1,653	3,172	7,249	5,105	168				726	736		2,200	815	3,677	27,690
1987	447	58	126	301	204	680	2,476	7,758	2,476	3,379							2,728	427	3,603	24,663
1988	1,273	382	582	782	309	891	5,421	16,462	4,220	8,495						910	5,439	964	12,479	58,609
1989	599	0	91	163	1,063	972	2,788	18,233	5,402	972	1,625		872	590	445	945	3,696	117	5,945	44,518
1990	673	0	131	410	361	443	2,544	10,223	3,282	246						738	2,182	1,131	8,335	30,699
1991	781	0	28	628	209	1,953	2,539	8,496	4,883	600			600	1,046		363	2,818	545	14,147	39,636
1992	720	0	24	404	791	483	1,860	6,839	2,090	309	610	1,116	887	364	459	1,045	2,945	8	7,041	27,995
1993	186	0	30	475	228	630	2,037	2,930	2,073	424				890	734	399	2,116	248	8,165	21,565
1994	300	0	135	425	393	735	2,666	3,551	2,260	156				323	570	1,184	1,300	56	8,392	22,446
1995	326	0	37	413	150	390	1,887	2,648	1,371	249	543	393		395		365	785	119	4,797	14,878
1996	121	0	40	248	74	1,735	2,316	5,092	2,260		221			53			753	189	8,678	21,780
1997	348	0	29	215	321	475	3,720	8,407	2,083	335				406		520	963	72	7,806	25,695
1998	59	0	0	390	412	483	1,804	3,167	1,358	214			984				321	42	8,459	17,693
1999	253	0	0	93	2,114	762	3,301	5,391	1,501				713			572	611	81	9,135	24,527
2000	252	0		218	355	1,037	3,511	7,469	1,475	116			1,569			223	1,900	84	10,536	28,745
2001	253	0		613	182	305	1,534	4,197	905	1,107	92	42	634	604	117	81	1,349	25	9,021	21,061
2002	154	0	0	290	236	329	5,608	3,498	1,521	989	359	29	907	408	17	223	916	535	12,306	28,325
1998-2002																				
Mean	194	0	0	321	660	583	3,152	4,744	1,352	607	226		961	506		275	1,019	153	9,891	24,070
2003	140	0	0	32	11	511	1,326	3,625	884	1,194	98	230	786	247	224	107	1,601	0	6,601	17,617

^a Knik River and tributaries including Jim Creek.

^b Big Lake drainage streams.

^c Includes lakes and streams, 1977-1982.

Appendix A27.-Knik Arm drainage rainbow trout catch by fishery, 1990-2003.

Year	Little Susitna	Knik Rivera	Wasilla Creek	Cotton-wood Ck	Big Lakeb	Wasilla Lake	Finger Lake	Kepler L. Complex	Big Lake	Lucille Lake	Kalmbach Lake	Carpenter Lake	Knik Lake	Memory Lake	Seymour Lake	Bonnie Lakes	Nancy L. Complex	Other Streams	Other Lakes	Total
1990	1,953	0	607	2,183	2,100	1,707	5,645	35,085	8,123	1,034						2,133	7,466	5,448	25,236	98,720
1991	1,507	0	28	795	614	2,916	4,576	18,986	10,588	670			2,246	1,576		893	6,348	2,371	34,531	88,645
1992	2,319	0	40	1,987	2,375	1,544	6,087	24,887	5,296	602	3,103	1,868	1,504	1,314	712	3,309	7,765	64	20,555	85,331
1993	1,308	0	195	3,987	1,445	1,497	7,272	16,151	4,845	651				1,523	1,224	2,356	5,130	367	21,684	69,635
1994	1,198	0	312	911	2,295	2,142	6,168	16,534	5,502	302				1,230	1,413	2,657	4,372	282	24,932	70,255
1995	1,783	0	92	1,015	412	1,001	5,792	16,634	3,565	514	1,067	824		863		1,331	2,344	209	18,662	56,108
1996	323	0	40	1,153	171	4,384	6,494	24,201	8,023		252			727			1,966	409	32,614	80,757
1997	1,029	0	53	992	476	938	9,218	27,065	6,357	610				968		1,253	3,098	359	32,862	85,278
1998	319	0	94	1,878	1,276	1,405	6,789	16,175	5,298	1,385		3,324	3,324				1,173	151	27,570	66,837
1999	1,658	0	49	1,903	2,243	2,287	5,602	20,169	6,569				1,746			1,658	3,538	421	36,848	84,691
2000	1,567			957	1,081	2,144	9,327	27,859	7,212	1,161			4,163			1,834	7,273	443	48,992	114,013
2001	1,794	0	58	3,016	548	1,499	4,313	16,349	4,546	3,616	215	1,040	1,447	2,098	175	328	3,874	351	25,554	70,821
2002	1,319	0	0	1,628	2,114	896	9,753	17,330	4,601	6,193	755	87	2,037	1,804	268	586	4,361	934	38,854	93,520
1998-2002																				
Mean	1,331	0	50	1,876	1,452	1,646	7,157	19,576	5,645	3,089	485	1,484	2,543	1,951		1,102	4,044	460	35,564	85,976
2003	1,568	0	130	1,727	206	2,230	5,217	16,575	5,614	4,842	455	1,685	1,698	343	1989	311	3,767	86	19,769	68,212

^a Knik River and tributaries including Jim Creek.

^b Big Lake drainage streams.

Appendix A28.-Eastside Susitna River drainage rainbow trout harvest by fishery, 1977-2003.

Year	Willow Creek	Little Willow	Kashwitna River	Caswell Creek	Sheep Creek	Goose Creek	Montana Creek	Birch Creek	Sunshine Creek	Talkeetna River ^a	Other Streams ^b	Other Lakes	Total
1977	1,055	224			368		727			450	2,401		5,225
1978	913	334			470		1,193			1,501	1,519		5,930
1979	1,500	345		282	573		1,536		382	1,373	3,472		9,463
1980	1,168	353		154	385		854		193	950	2,658		6,715
1981	1,475	374		326	201		1,111		249	1,226	3,851		8,813
1982	891	335		189	325		2,243		545	608	2,400		7,536
1983	1,689	514	357	231	409		1,332		178	1,836	1,656	1,437	9,639
1984	1,359	1,047	449	175	349	125	1,197		374	910	598	1,073	7,656
1985	2,046	746		139	191		1,248		416	832	1,266	988	7,872
1986	545	218	436	0	218	145	399	73	581	1,234	1,126	3,086	8,061
1987	1,141	1,213	471	308	507	272	417	36	72	869	471	870	6,647
1988	1,128	400	255	73	236	291	1,492	73	55	1,110	636	1,873	7,622
1989	906	277	675	37	240	240	407	37	259	822	443	629	4,972
1990	1,008	286	352	101	286	353	487		168	1,109	320	538	5,008
1991	2,044	430	261	384	569	354	615	231	0	1,076	999	891	7,854
1992	712	293	87	47	55	79	467	16	79	665	404	1,044	3,948
1993	934	264	49	148	338	127	271	0	59	242	670	611	3,713
1994	1,161	337	114	53	254	173	241	0	8	262	467	588	3,658
1995	351	250	0	56	79	28	285	0	0	287	442	1,360	3,138
1996	551	113	63	21	73	68	443	0	95	284	354	445	2,510
1997	0	182	137	24	208	179	0	0	24	226	636	708	2,324
1998	0	113	42	0	157	42	0	17	144	179	173	101	968
1999	0	77	82	0	94	152	0	24	0	207	489	630	1,755
2000	91	48	61	12	189	36	0	0	7	197	265	615	1,521
2001	119	42	22	42	131	77	0	0	8	92	315	264	1,112
2002	209	54	37	0	248	58	0	0	0	90	150	905	1,751
1998-2002													
Mean	84	67	49	11	164	73	0	8	32	153	278	503	1,421
2003	61	65	194	31	163	54	0	0	0	299	305	1409	2,581

^a Talkeetna River and tributaries including Clear Creek.

^b Includes lakes and streams, 1977-1982.

Appendix A29.-Eastside Susitna River drainage rainbow trout catch by fishery, 1990-2003.

Year	Willow Creek	Little Willow	Kashwitna River	Caswell Creek	Sheep Creek	Goose Creek	Montana Creek	Birch Creek	Sunshine Creek	Talkeetna River ^a	Other Streams	Other Lakes	Total
1990	3,914	689	1,630	689	840	1,378	1,277		622	4,788	3,913	2,066	21,806
1991	3,965	1,230	692	446	1,076	2,183	2,136	307	154	5,072	6,347	2,721	26,329
1992	3,206	1,124	293	142	633	617	2,501	40	103	5,581	2,754	2,921	19,915
1993	3,934	829	995	217	967	2,054	2,034	49	407	5,685	4,441	2,628	24,240
1994	4,673	2,024	319	172	757	1,566	1,807	56	56	4,687	2,838	4,664	23,619
1995	2,340	730	178	127	506	280	1,245	47	150	3,510	3,078	3,172	15,363
1996	4,766	1,077	654	21	2,077	384	2,828	0	179	6,790	3,049	2,983	24,808
1997	5,198	1,415	2,177	60	2,008	2,139	3,473	179	60	7,040	5,355	5,638	34,742
1998	4,487	1,259	1,593	93	4,885	333	4,138	135	186	4,560	2,492	2,080	26,241
1999	11,965	2,484	1,016	72	1,415	960	5,337	140	465	7,402	5,188	3,309	39,753
2000	8,836	1,920	2,107	145	2,173	3,175	7,236	569	132	6,669	3,740	5,901	42,603
2001	11,510	1,414	882	184	763	1,103	5,678	123	17	5,937	2,844	2,449	32,904
2002	22,650	2,821	1,402	105	9,308	4,063	19,170	45	66	11,312	5,164	4,084	80,190
1998-2002													
Mean	11,890	1,980	1,400	120	3,709	1,927	8,312	202	173	7,176	3,886	3,565	44,338
2003	13,750	3,576	2,315	344	5,289	1,691	12,393	54	97	7,875	5,191	6,865	59,440

^a Talkeetna River and tributaries including Clear Creek.

Appendix A30.-Westside Susitna River drainage rainbow trout harvest by fishery, 1977-2003.

Year	Alexander Creek	Deshka River	Rabideux Creek	Yentna River	Peters Creek	Lake Creek	Fish Creek ^a	Judd Lake	Other Streams ^b	Other Lakes ^b	Total
1977	1,251	1,556				1,853		68	1,677	1,067	7,472
1978	2,640	3,634				2,721		0	1,528	1,772	12,295
1979	1,182	3,182				4,527		100	2,709	855	12,555
1980	1,945	4,305				2,144		86	2,101	2,204	12,785
1981	2,290	3,631				2,874			872	1,629	11,296
1982	2,505	3,804				3,134			597	1,425	11,465
1983	608	2,434				2,287		0	2,917	1,007	9,253
1984	785	2,120			611	3,080		0	1,084	399	8,079
1985	1,318	3,104				1,439			1,387	866	8,114
1986	1,553	3,038				961	45	0	614	457	6,668
1987	978	3,006				1,902	398	0	1,357	379	8,020
1988	1,419	4,075			73	1,146	109	18	672	546	8,058
1989	486	1,676	0	38	162	676	428	105	576	781	4,928
1990	640	707	17	0	303	808	135		810	540	3,960
1991	917	1,275	0	140	295	498	358	0	810	233	4,526
1992	198	459	24	127	214	214	79		349	364	2,028
1993	128	452		36	49	184	172		1,163	297	2,481
1994	207	415		123	146	714	93		613	215	2,526
1995	86	183		140	46	565	360		588	89	2,057
1996	95	321		146	227	616	51		468		1,924
1997	0	264		0	80	436	56		616		1,452
1998	0	218		0		285	124		454		1,081
1999	0	561		59	70	640	168		368		1,866
2000	0	205		151	71	567	85		147	0	1,226
2001	0	270		156	56	183	33		20	41	759
2002	13	417		0	29	445	119		186	0	1,209
1998-2002											
Mean	3	334		73	57	424	106		235	14	1,228
2003	0	368		154	48	561	77		217	0	1,425

^a Fish Lake drainage (Yentna River drainage).

^b May include harvest from West Cook Inlet waters through 1995.

Appendix A31.-Westside Susitna River drainage rainbow trout catch by fishery, 1990-2003.

Year	Alexander Creek	Deshka River	Rabideux Creek	Yentna River	Peters Creek	Lake Creek	Fish Creek ^a	Talachulitna River	Other Streams ^b	Other Lakes ^b	Total
1990	3,065	6,197	34	135	1,532	8,757	707	10,761	2,474	1,431	35,093
1991	2,301	5,303	16	295	1,182	12,969	1,415	18,489	2,863	2,037	46,870
1992	1,124	3,396	142	214	633	5,399	768	7,892	2,123	1,930	23,621
1993	992	5,772		101	331	9,232	647	8,824	3,329	683	29,911
1994	1,075	3,345		201	646	10,387	740	6,646	1,536	763	25,339
1995	472	2,288		1,638	644	5,546	596	6,286	3,499	2,463	23,432
1996	195	4,166		507	709	7,655	572	16,488	3,311		33,603
1997	1,034	2,355		232	331	9,378	1,379	12,535	2,973		30,217
1998	490	1,594		846		6,668	641	4,336	2,795		17,370
1999	643	5,323		446	152	15,310	2,144	11,072	2,774		37,864
2000	759	6,146		1,774	1,435	12,156	833	5,209	1,086		29,398
2001	1335	8,300		1,879	375	7,739	1335	7,027	727	75	28,792
2002	728	4,464		518	1,954	11,622	679	6,283	3,497	0	29,745
1998-2002											
Mean	791	5,165		1,093	979	10,699	1,126	6,785	2,176		28,634
2003	313	5,868		768	510	22,460	176	9,721	511	0	40,327

^a Fish Lake drainage (Yentna River drainage).

^b May include harvest from West Cook Inlet waters through 1995.

Appendix A32.-West Cook Inlet drainage rainbow trout harvest by fishery, 1977-2003.

Year	Chuitna River	Theodore River	Lewis River	Kustatan River	Big River Lakes	Susitna R- N. Foreland	South of N. Foreland	Other ^a	Total
1977	509	415	34						958
1978	443	226	54						723
1979	336	609	118						1,063
1980	301	250	9						560
1981	642	1,092							1,734
1982	199	199							398
1983	441	430			0				871
1984	424	274			50				748
1985	590	225	87		0				902
1986	67	145			11				223
1987	344	199	36		0				579
1988	218	382	18		55				673
1989	162	305	19		10			48	544
1990	286	135	17		17	17			472
1991	171	109	124		93				497
1992	79	63			40			8	190
1993	29	27	0		0		86	49	191
1994	70	0			16		32	107	225
1995	9	40			17		0	45	111
1996	249	55			32		11	0	439
1997	155	203			0		48	24	618
1998	32	25			0		132	0	189
1999	47	0	0		0		65	95	277
2000	70	55			26		48	12	211
2001	165	53			0		0	52	270
2002	18	41	0		0		27	0	236
1998-2002									
Mean	66	35	0		5		54	32	237
2003	125	21	0		11		22	32	264

^a Includes lakes and streams.

Appendix A33.-West Cook Inlet drainage rainbow trout catch by fishery, 1990-2003.

Year	Chuitna River	Theodore River	Lewis River	Kustatan River	Big River Lakes	Susitna R- N. Foreland	South of N. Foreland	Other ^a	Total
1990	1,126	842	370	17	84				2,439
1991	575	482	233	342					1,632
1992	309	435		71				16	831
1993	733	353	69	0	0	256	731	256	2,398
1994	161	229		89	0	139	64	139	821
1995	127	260		40	19	85	12	85	628
1996	860	256		74	0	158	53	177	1,578
1997	828	801	0	12	270	245	24	713	2,893
1998	354	720		23	0	264	0	1,738	3,099
1999	1,141	689	0	12	58	391	151	93	2,535
2000	1,384	353		321	12	656	111		2,837
2001	2,302	565	0	56	0	299	119	0	3,341
2002	143	512	50	78	0	312	292	1695	3,082
1998-2002									
Mean	1,065	568	17	98	14	384	135	882	2,979
2003	418	54	118	386	155	53	186	328	1,698

^a Includes lakes and streams.

Appendix A34.-Westside Susitna River drainage northern pike harvest by fishery, 1977-2003.

Year	Alexander Creek	Deshka River	Peters Creek	Lake Creek	Fish Creek ^a	Trapper Lake	Other Streams ^b	Other Lakes ^b	Total
1977	0	0		42			0	90	132
1978	0	0		9			0	307	316
1979	0	0		209			0	173	382
1980	0	0		103			0	129	232
1981	0	0		0			0	125	125
1982	0	0		52			0	555	607
1983	0	0		52			105	787	944
1984	0	0	0	50			1,136	635	1,821
1985	17	0		52			156	1,023	1,248
1986	514	0		0	491		45	469	1,519
1987	254	0		0	326		0	960	1,540
1988	800	0	0	36	1,455		346	181	2,818
1989	819	0	0	0	676		381	381	2,257
1990	404	0	0	320	370		152	842	2,088
1991	700	0	0	104	921	506	13	1,687	3,931
1992	641	0	0	85	359	410	146	1,136	2,777
1993	1,202	0	0	0	1,080	694	634	9	3,619
1994	1,093	78	0	82	411	558	298	36	2,556
1995	1,067	0	0	125	257	862	422	291	3,024
1996	813	161	0	80	328	1,602	918		3,902
1997	1,607	137	0	29	345	986	922		4,026
1998	1,869	18	0	95	224	876	671		3,753
1999	806	283	0	16	375	499		1,707	3,686
2000	1,037	462	0	127	328		1,738		3,692
2001	2,404	400	0	673	784	388	830		5,479
2002	2,014	226	0	76	461	163	2,054	871	5,865
1998-2002									
Mean	1,626	278	0	197	434	482	1,323	1,289	4,495
2003	886	143	0	198	792	255	1,190	352	3,816

^a Fish Lake drainage (Yentna River drainage).

^b May include harvest from West Cook Inlet waters through 1998.

Appendix A35.-Westside Susitna River drainage northern pike catch by fishery, 1990-2003.

Year	Alexander Creek	Deshka River	Peters Creek	Lake Creek	Fish Creek ^a	Trapper Lake	Other Streams ^b	Other Lakes ^b	Total
1990	3,149	0	0	589	3,065		691	6,971	14,465
1991	2,866	0	0	376	2,490	1,997	13	3,451	11,193
1992	3,912	0	0	196	1,170	1,349	693	6,508	13,828
1993	12,172	0	0	596	3,885	4,128	3,098	198	24,077
1994	2,306	96	0	318	839	881	832	164	5,436
1995	7,651	0	0	334	1,288	2,359	2,862	920	15,414
1996	7,814	172	0	306	1,347	6,033	1,985		17,657
1997	9,362	272	0	81	1,804	1,948	246	2,175	15,888
1998	10,386	113	0	1,015	418	1,729	556	3,704	17,921
1999	5,018	555	0	284	1,269	3,162		4,060	14,348
2000	13,834	753	0	426	1,870		2,887	7,611	27,381
2001	18,103	962	0	1030	1,467	891	2,694	0	25,147
2002	9,627	297	0	237	2,266	999	4,142	882	18,450
1998-2002									
Mean	11,394	536	0	598	1,458	1,695	2,570	3,251	20,649
2003	6,666	515	0	799	2,228	2066	2,192	352	14,818

^a Fish Lake drainage (Yentna River drainage).

^b May include harvest from West Cook Inlet waters through 1995.

Appendix A36.-Knik Arm drainage northern pike harvest by fishery and total catch, 1985-2003.

Year	Little Susitna	Knik River ^a	Figure 8 Lake	Cottonwood Creek	Big Lake ^b	Flathorn Lake	Nancy Lake ^c	Other ^d	Harvest Total	Catch Total
1985	0	0	0	0	0		156	0	156	
1986	0	0	0	0	0		458	0	458	
1987	0	0	0	0	0		924	0	924	
1988	0	0	0	0	0		364	0	364	
1989	0	0	0	0	0		863	0	863	
1990	0	0	0	0	0		754	0	754	2,593
1991	0	0	0	0	0		2,406	303	2,709	7,021
1992	0	0	0	0	0		2,101	504	2,605	7,097
1993	0	0	0	0	0		1,438	664	2,102	10,141
1994	0	0	0	0	0		789	539	1,328	2,816
1995	29	0	0	0	0		10	483	522	825
1996	0	0	0	0	13	1,689	1,943	376	4,021	12,220
1997	0	0	1,354	0	0	2,007	1,340	157	4,858	9,137
1998	42	0	766	0	270	910	2,023	261	4,272	10,223
1999	0	0	0	0	226	602	3,888	2,069	6,785	14,231
2000	21	0	992	0	601	1,402	2,475	207	5,698	16,717
2001	52	0	1369	0	110	1,081	2,824	1108	6,544	15,457
2002	76	0	1258	0	0	2,139	1,773	470	5,716	13,079
1998-2002										
Mean	38	0	877	0	241	1,227	2,597	823	5,803	13,941
2003	0	0	820	0	24	1,246	1,543	393	4,026	14,094

Note: Northern pike grouped with other fish prior to 1985.

^a Knik River and tributaries including Jim Creek.

^b Big Lake and drainage streams.

^c Nancy Lake complex lakes.

^d Includes lakes and streams.

Appendix A37.-Harvest and effort for the Kustatan River coho salmon sport fishery, 1984-2003.

Year	Harvest	Catch	Effort Angler-days ^a
1984	1,646		1,673
1985	4,889		4,335
1986	3,239		2,737
1987	5,723		3,622
1988	6,221		3,674
1989	5,413		3,522
1990	4,584		3,724
1991	5,768		6,674
1992	4,494	6,227	4,150
1993	6,457	11,136	5,403
1994	5,259	6,611	3,972
1995	4,237	6,237	3,684
1996	6,266	10,600	2,699
1997	3,605	6,750	2,684
1998	3,999	6,369	2,749
1999	3,178	3,908	3,234
2000	5,699	9,725	4,393
2001	4,920	8,353	3,336
2002	5,795	11,463	5,254
2003	3,967	6,263	3,915
Mean	4,768	7,804	3,772

^a Effort directed toward all species.

APPENDIX B: REGULATORY HISTORIES

Appendix B1.-Chinook salmon regulatory history for NCIMA waters.

Chinook salmon fishing in NCIMA waters was open from statehood through 1963. During 1964 through 1966 Chinook salmon fishing in fresh water was closed. During 1967 through 1970 Alexander Creek, Clear Creek, Deshka River and Lake Creek were open in their entirety. This fishery operated over a 15-day season during the middle of June on a 250 fish, over 20 inches in length, harvest quota system. Achievement of the quota may have resulted in early season closure. A 1 fish per day 2 per season bag limit for fish over 20 inches in length was in place and a punch card was a requirement of participation in the fishery. In 1971 the harvest quota was eliminated. During 1971 and 1972, in addition to the 15-day season in Alexander Creek, Deshka River, and Lake Creek, a more restrictive fishery was allowed (few days) in Clear Creek and portions of the Little Susitna River, Ship Creek (Anchorage) and Willow Creek; however, a punch card was still required. In 1973, the area Chinook salmon fishery was closed to the harvest of Chinook salmon 20 inches or larger in length and remained so through 1978.

Selected Susitna River streams were reopened to Chinook salmon fishing in 1979 after being closed for several years because of low stock abundance. Cautious incremental expansion has characterized the area's Chinook salmon fisheries since they reopened. From 1979 through 1982 Chinook salmon fishing was permitted at Alexander Creek, Lake Creek and at the Deshka River from the fourth Saturday in May through July 6. These streams drain into the Susitna River from the west. Clear Creek, a tributary of the Talkeetna River, also had a similar Chinook salmon season. In addition, three eastside tributaries of the Susitna River, Willow, Caswell and Montana creeks, were open on Saturdays and Sundays only for 4 consecutive weekends commencing on the second Saturday in June. Harvest quotas, ranging from 200 to 7,000 Chinook salmon, governed these fisheries from 1979 through 1982. The Chuitna River, a coastal stream near Beluga, and the entire Yentna and Talkeetna river drainages were opened to Chinook salmon fishing in 1983. The opening date for Chinook salmon fisheries that provided continuous daily fishing was also changed to January 1.

In 1984 the remaining coastal streams near Beluga and all waters draining into the westside of the Susitna River downstream from the Deshka River were opened to Chinook salmon fishing. In 1986, portions of five road-accessible streams on the east side of the Susitna River opened to weekend-only fishing. These streams were Little Willow, Goose, Sunshine, Sheep and Birch creeks.

Expanded Chinook salmon fishing opportunity continued in 1987 when Monday fishing was added to all former weekend-only fisheries that drain into the Susitna River from the east. Saturday through Monday fishing was also allowed on the Susitna River and all flowing waters within one-quarter mile of the Susitna River (excluding the Kashwitna River) between the Deshka and Talkeetna rivers. These "corridor" fisheries were open for 4 continuous "weekends" similar to the previously mentioned Saturday through Monday fisheries. Chinook salmon fishing was permitted for the first time on the Susitna River drainage upstream from the Susitna River's confluence with the Talkeetna River to Devils Canyon but excluding the Chulitna River drainage. Unbaited, single-hook, artificial lures were mandatory in this area. The season extended from January 1 through July 13. The season for all Susitna River and coastal fisheries that formerly closed on July 6 was extended to July 13 in 1987.

In 1989, Chinook salmon fishing was allowed within a one-quarter mile radius of the mouth of the Kashwitna River. That same year fishing was permitted daily at Willow Creek between January 1 and the third Monday in June and on Saturday through Monday for 2 consecutive weeks starting the fourth Saturday in June.

Bag and possession limits were 1 Chinook salmon 20 inches or over in length in 1979. The following year bag and possession limits changed to 2 Chinook salmon 20 inches or over in length but only 1 Chinook salmon could be over 28 inches in length. In 1981 the bag limit was reduced to 1 Chinook salmon 20 inches or more in length and in possession. This limit remained in effect through 1985. A 5 fish (20 inches or more in length) per year limit governed all Cook Inlet Chinook salmon fisheries from 1979 through 1985. This limit applied collectively to Northern Cook Inlet fresh water, Cook Inlet salt water and the Kenai Peninsula.

In 1986, bag and possession limits for the western drainages of the Susitna River were changed to 2 Chinook salmon, 16 inches or more in length daily and 4 in possession and remained so through 1992. Only 1 fish daily and 2 in possession could be over 28 inches. Similar limits also applied to the West Cook Inlet coastal fisheries. Bag and possession limits for eastern drainages of the Susitna River in 1986 were 1 Chinook salmon, 16 inches or more in length, and 2 in possession. The seasonal limit was 5 Chinook salmon 16 inches or more in length. Anglers were required to list their Chinook salmon harvest on nontransferable harvest records from 1979 through 1988. The date and location of harvested Chinook salmon were recorded. A \$5 permit stamp was mandatory for Chinook salmon fishing from 1980 through 1982. The harvest record and yearly limit was eliminated for all NCI Chinook salmon fisheries in 1989.

During the November 1992 BOF meeting several regulations were changed in the Susitna West-Cook Inlet Management Area to be in effect for the 1993 season. A seasonal limit of 5 Chinook salmon was established for all waters of Cook Inlet. Individuals or companies engaged in freshwater sport fish guiding were prohibited from participating or engaging in sport fishing while clients were present or within his or her control or responsibility during the Chinook salmon season except when guiding a client subject to the Americans with Disabilities Act.

In effect for the 1993 season in the West Cook Inlet area the Chinook salmon fishing season was reduced in length to end on June 30. The bag and possession limits were reduced in areas open to the retention of Chinook salmon 16 inches or more in length to 1 daily and 1 in possession.

Additionally, in the following areas of West Cook Inlet only unbaited, artificial lures could be used and Chinook salmon 16 inches or more in length could not be possessed or retained; all Chinook salmon caught had to be released immediately: (1) Chuitna River Drainage: upstream of a department marker located adjacent to the old cable crossing; (2) Theodore River Drainage: upstream of a department marker located approximately 1 mile upstream of the Beluga/Anchorage high voltage power lines; and (3) Lewis River Drainage: upstream of a department marker located approximately 1 river mile upstream of the main Beluga haul road bridge.

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Action during the November 1992 meeting also reduced the Chinook salmon bag and possession limit in the Susitna River drainage including all flowing waters draining into the west side of the Susitna River downstream of and including the Deshka River. The bag and possession limits for Chinook salmon over 16 inches were reduced to 1 daily and 2 in possession.

In addition to BOF action, legislative action during June of 1992 established provisions that prohibited resident or nonresident anglers from fishing in Alaska without a king salmon stamp beginning in 1993.

In anticipation of an inadequate return to the Deshka River, prior to the 1994 Chinook season an emergency order was issued reducing the Chinook salmon possession limit to 1 fish and eliminated the use of bait in the Deshka River May 1 through July 14. As the 1994 Chinook season progressed it became apparent a weak return was occurring in the entire Susitna River drainage and particularly in the Deshka River. In response to this an emergency order was issued closing all waters of the Deshka River to sport fishing for Chinook salmon and prohibiting the use of bait in all waters of the Susitna River drainage downstream of the Deshka River which flow into the Susitna River from the east and the Alexander Creek drainage, all waters of the Yentna River drainage, all waters of the Talkeetna River drainage, and all waters of the Chulitna River drainage, June 17 through July 13, 1994.

The BOF during its October 1994 work session choose to delegate to the department the authority to change regulations for the 1995 fishing season. These regulation changes were as follows:

1. The Deshka River and Prairie Creek are closed to fishing for Chinook salmon.
2. Alexander Creek above the confluence of Trail Creek is closed to fishing for Chinook salmon.
3. The bag and possession limits in the Susitna River and Little Susitna River drainages have been reduced to 1 Chinook salmon over 16 inches in length.
4. The use of bait throughout the NCIMA is prohibited (excluding the Anchorage Management Unit).
5. Fishing in the NCIMA is allowed only between the hours of 6:00 a.m. and 11:00 p.m. May 15 through July 13. This time restriction will not apply to that portion of the Susitna River drainage currently opened to weekend-only fishing (e.g. between, but not including, the Deshka River and the Talkeetna River) and the Anchorage Management Unit.
6. The first opening of the Northern District commercial Chinook salmon fishery will occur by emergency order. Additional opening of this fishery will be dependent upon inseason indications of run strength.

The only new regulation for the 1996 season was the closure of the Lewis River to king salmon fishing, including catch-and-release for king salmon.

The Alaska Board of Fisheries convened in Anchorage, Alaska during November 11-17, 1996. A brief summary of regulatory changes affecting the Susitna-West Cook Inlet Area Chinook salmon fisheries as adopted by the Board of Fisheries follows.

5 AAC 21.366. Northern District King Salmon Management Plan

- To fulfill changes to the Upper Cook Inlet King Salmon Management Plan, as adopted by the Board of Fisheries, the Department of Fish and Game shall manage the Northern District commercial king salmon fishery as follows:
 1. (3) The harvest shall not exceed 12,500 king salmon.
 2. (8) The season closes on June 24, unless closed earlier by emergency order.
 3. (9) The number of regular periods shall be determined by the department based on preseason expectations of king salmon run strength.
 4. (10) The area from 1 mile south of the Theodore River to the Susitna River is closed to fishing; provisions of this paragraph do not apply after December 31, 1998.
 5. (11) If at least 90% of the biological escapement goal for the Theodore River (BEG = 750) or Chuitna River (BEG = 1,400) is not met during the 1997 fishing season, the area from 1 mile south of the Chuitna River to the Susitna River will be closed to commercial fishing during the 1998 fishing season; the provisions of this paragraph do not apply after December 31, 1998.
 6. (12) In addition to (11) above, if at least 90% of the biological escapement goal for the Chuitna River has not been met during the 1997 fishing season, the area from 1 mile south of the Chuitna River to the Susitna River will be closed to sport fishing for king salmon during the 1998 fishing season; the provisions of this paragraph do not apply after December 31, 1998.

5 AAC 61.010. Fishing Seasons:

- The Alexander Creek drainage is open to the retention (harvest) of king salmon from January 1 through June 30 downstream from an ADF&G regulatory marker at Granite Creek.

5 AAC 61.020. Bag Limits, Possession Limits, and Size Limits:

- In all waters of Alexander Creek drainage between an ADF&G regulatory marker located at Granite Creek, upstream to an ADF&G regulatory marker located 400 yards upstream of Trail Creek, king salmon 16 inches or more in length may not be possessed or retained. All king salmon caught must be released immediately.

5 AAC 61.035. Methods and Means:

- Only unbaited, single-hook, artificial lures may be used from January 1 through June 30 in all waters of the Alexander Creek drainage between an ADF&G regulatory marker located at Granite Creek to an ADF&G regulatory marker located 400 yards upstream of Trail Creek.

5 AAC 61.050. Waters Closed to Sport Fishing:

1. Peters Creek (Susitna River drainage) is closed to sport fishing for king salmon upstream from an ADF&G regulatory marker, located approximately 1 mile upstream from its confluence with the Kahiltna River.
2. The Theodore River is closed to sport fishing for king salmon. The provisions of this paragraph do not apply after December 31, 1998.

5 AAC 61.020. Bag Limits, Possession Limits, and Size Limits:

1. In all waters of the Susitna River drainage between the confluence of the Deshka River and the confluence of the Talkeetna River: after taking a king salmon 16 inches or more in length, a person may not fish for any species of fish in any water open to king salmon fishing during that same day.
2. In the Little Susitna River from its mouth to the Parks Highway bridge at Houston: after taking a king salmon 16 inches or more in length, a person may not fish for any species of fish in any water open to king salmon fishing during that same day.
3. In all waters of the Susitna-West Cook Inlet Management Area, excluding the Susitna River between its confluence with the Deshka River and its confluence with the Talkeetna River: after taking a king salmon 16 inches or more in length, a person may not fish for king salmon during that same day.

5 AAC 61.020. Bag Limits, Possession Limits, and Size Limits:

- The bag and possession limits of king salmon 16 inches or more in length taken from the Little Susitna River drainage are 1 fish per day and in possession.

During 1997 the Deshka River was open to king salmon fishing on June 21 through July 13. Fishing was limited to the lower 2 miles of river and all Chinook salmon regulations applying to the Susitna River from its mouth to its confluence with the Deshka River were in effect for the Deshka River.

In 1998 the Deshka River was open to king salmon fishing from its confluence with the Susitna River upstream 5 miles to a Department marker. The seasonal bag limit for king salmon over 16 inches from the Deshka River was set at 2. In addition, all Chinook salmon regulations applying to the Susitna River from its mouth to its confluence with the Deshka River were in effect for the Deshka River. Inseason EOs affecting Chinook salmon fishing opened Willow Creek June 20-22 to correct an oversight in the regulations and added one Friday to Chinook fishing in the Susitna River between the Deshka River and the Talkeetna River (excluding both).

The BOF made the following changes for the 1999 season. The Deshka River will be open to king salmon fishing from its mouth upstream to Chijuk Creek a distance of approximately 19 river miles from January 1 to July 13. Other area regulations apply such as 1 fish per day bag and possession limits, a 5 fish seasonal limit, and once an angler harvests his or her king salmon they

must quit fishing for king salmon the remainder of the day. Additionally fishing is allowed only between the hours of 6:00 a.m. to 11:00 p.m., no bait is allowed and guides cannot fish while guiding clients.

The area open for retention of king salmon on Alexander Creek was extended from its mouth upstream to Trail Creek. This provides anglers with an additional 11 miles of stream from the 1997 and 1998 seasons in which they may harvest king salmon on Alexander Creek.

The Theodore River was opened to catch-and-release fishing for king salmon from January 1 through June 30, only single hook artificial lures will be allowed. Other West Cook Inlet Area regulations apply as follows: fishing is allowed only between the hours of 6:00 a.m. to 11:00 p.m., bait is prohibited, and guides cannot fish while guiding.

There will be increased fishing opportunities for the road-accessible Parks Highway streams (Eastside Susitna River tributaries) during the early part of June. The Parks Highway streams (Eastside Susitna River tributaries) will open to king salmon fishing from January 1 through the third Monday in June and for the next two consecutive 3-day weekends. This regulation identifying the fishing season is consistent with that on Willow Creek.

On the Little Susitna River, anglers will be allowed to use treble hooks year-round downstream of the Parks Highway Bridge. Existing bait restrictions were modified to allow the use of bait during the month of September.

The area open to king salmon fishing on the Kashwitna River was extended from its mouth upstream to the Parks Highway Bridge, a distance of 2 miles. The Kashwitna River, a Parks Highway stream, will be regulated under the new season regulation implemented for the Parks Highway streams.

In all waters of the Westside-Susitna River and West Cook Inlet Management Areas (excluding waters between the Deshka River and the Talkeetna River mouths), anglers will be allowed to continue to fish for king salmon (catch-and-release) once they have harvested their limit excluding Alexander Creek, Lake Creek, Deshka River, Fish Lake Creek and Clear Creek. In these streams you will be required to quit fishing for king salmon for the day once you have harvested your limit.

By EO Willow, Little Willow, Sheep and Montana creeks were open to king salmon fishing for an additional weekend, July 10 through July 12, 1999.

The 2000 season began with no regulation changes from 1999. When it was determined that the Deshka River was experiencing an exceptional return of Chinook, an EO was issued that allowed the use of bait in the first 17 miles of the Deshka River and within a ¼-mile radius of the mouth of the Deshka River with the Susitna River, June 8 through July 13, 2000. Two additional EOs were issued in 2000. One opened Willow, Little Willow, Sheep and Montana creeks to king salmon fishing for an additional day, July 4, 2000, and the other opened East Fork Chulitna River, Willow, Little Willow, Sheep and Montana creeks to king salmon fishing for an additional 3-day weekend, July 8 through July 10, 2000.

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During the January 2001 BOF meeting a "jack" king salmon was defined as any king 20 inches or less in length statewide. In all fresh waters open to king salmon fishing the bag/possession limit for "jacks" is 10. These limits are in addition to any limits for kings over 20 inches in length and do not count against annual or seasonal limits. This new definition increased the length requirement for kings that must be recorded for the five fish seasonal limit from 16 inches to 20 inches.

E.O. No. 2-KS-2-15-01 extended king salmon season in the Susitna River drainage upstream from its confluence with the Deshka River to its confluence with the Talkeetna River including Susitna River tributaries Willow Creek to Trapper Creek and the East Fork of the Chulitna River (including the first ¼ mile of Honolulu Creek only). These waters which were scheduled to close on Monday July 2 were opened through Wednesday, July 4 at 12:00 midnight.

In June of 2001 it was determined that the Deshka River was experiencing an exceptional return of Chinook. An EO was issued that allowed the use of bait in the first 17 miles of the Deshka River and within a ¼-mile radius of the mouth of the Deshka River with the Susitna River, June 12 through July 13. Three additional EOs were issued in 2001. One extended king salmon fishing on the Chuitna River downstream of the cable crossing July 1 through July 5. Another opened Willow Creek to king fishing June 29 at 12:01 a.m. adding one additional day of fishing. The last EO extended king salmon season in the Susitna River drainage upstream from its confluence with the Deshka River to its confluence with the Talkeetna River including Susitna River tributaries Willow Creek to Trapper Creek and the East Fork of the Chulitna River (including the first ¼ mile of Honolulu Creek only). These waters which were scheduled to close on Monday July 2 were opened through Wednesday, July 4 at 12:00 midnight.

A BOF meeting was held in February of 2002 resulting in the following king salmon regulations changes:

1. Allow catch-and-release fishing for kings in the East Fork of the Chulitna River January 1 through July 13. Only one single-hook, unbaited artificial lure may be used January 1 through July 13.
2. Increase possession limit to two kings for West Susitna River tributaries (excluding Alexander Creek).
3. In the Northern District King Salmon Management Plan: The commercial setnet fishery will open on the first Monday on or after May 25 and close June 24. The number of commercial periods will depend upon expected northern Cook Inlet king salmon run strengths and there shall be no more than three commercial openings targeting kings. The area from an ADF&G marker located 1 mile south of the Theodore River to the Susitna River is open to fishing in the second regular period only. If the Theodore, Lewis or Ivan rivers are closed to sport fishing, the area from an ADF&G regulatory marker located 1 mile south of the Theodore River to the Susitna River is closed to commercial king salmon fishing for the remainder of the directed king salmon fishery. If the Deshka River is closed to sport fishing, the commercial king salmon fishery throughout the Northern District is closed for the remainder of the directed king salmon fishery. If the Chuitna River is closed to sport fishing, the area from an ADF&G marker located 1 mile south of the Chuitna River to the

Susitna River is closed to commercial king salmon fishing for the remainder of the directed king salmon fishery.

4. Allow a catch-and-release fishery in the entire Theodore and Lewis rivers. No bait, single hook only.

These regulations were not signed into law prior to the start of the 2002 season. Because of this delay the following EOs were issued to allow the new regulations to be in effect during the beginning of the fishing season:

1. Increased the possession limit to two king salmon in all Westside Susitna River tributaries except Alexander Creek.
2. Opened the entire Theodore and Lewis rivers to catch-and-release for king salmon through June 30. Single hook, no bait.
3. Allowed the use of bait in the first 17 miles of the Deshka River and within a $\frac{1}{4}$ mile radius of the mouth of the Deshka River with the Susitna River, June 8 through July 13, 2002.

All regulations became effective midway through the season. As in past years an EO was issued which extended king salmon season in Willow, Sheep and Montana creeks 3 days, July 5-7 from 6:00 a.m. to 11:00 p.m.

In 2003 there were no new regulations. As in past years an EO was issued which extended king salmon season in Willow, Sheep and Montana creeks 3 days, July 4-6 from 6:00 a.m. to 11:00 p.m. In mid June when an exceptional return was realized for Deshka River, an EO was issued to increase the bag and possession limit of king salmon greater than 20 inches in the Deshka River from one per day and two in possession to two per day and four in possession.

Appendix B2.-Coho salmon regulatory history for NCIMA waters, 1991-2003.

1991

1. Little Susitna River Coho Salmon Management Plan (5 AAC 61.060). Initiated in 1991 season. One coho salmon January 1 through August 5, three coho salmon August 6 through December 31, increase to 5 coho salmon below weir and at Nancy Lake Creek when 7,500 projected above Parks Highway, quit fishing when bag limit harvested below Burma Landing. Previously there was a 3 salmon daily bag limit, all 3 of which could be coho salmon.

Emergency Orders:

1. E.O. No. 2-SS-2-27-91 closed to fishing that portion of the Little Susitna River from the fish counting weir located at River Mile 32.5 downstream for a distance of 1,500 feet. Effective July 27 through September 14, 1991.
2. E.O. No. 2-RS-1-29-91 closed sockeye salmon fishing in all waters north of the latitude of Anchor Point. Effective 7:00 a.m. July 26 through December 31, 1991.
3. E.O. No. 2-RS-2-33-91 opened the Fish Creek personal use dip net fishery. Effective July 30 through August 9, 1991.
4. E.O. No. 2-RS-2-34-91 reopened the Little Susitna River drainage and all freshwater drainages of Knik Arm to fishing for sockeye salmon. Effective noon, July 29 through December 31, 1991.
5. E.O. No. 2-RS-2-36-91 rescinded E.O. No. 2-RS-1-29-91, thereby reopening recreational sockeye salmon fisheries within waters of the Kenai Peninsula and Susitna-West Cook Inlet regulatory areas and marine waters of Cook Inlet north of Anchor Point. Effective 7:00 a.m. August 2 through December 31, 1991.
6. E.O. No. 2-CS-2-38-91 closed the Eklutna Power Plant tailrace to sport fishing from the Old Glenn Highway downstream to department markers placed approximately 100 yards upstream of the confluence of the tailrace and the Knik River. Effective noon, August 6 through December 31, 1991.
7. E.O. No. 2-SS-2-42-91 increased bag and possession limits to 5 coho salmon at the Little Susitna River downstream from the department's salmon counting weir at River Mile 32.5. Effective noon, August 14 through December 31, 1991.

1992

1. Little Susitna River Coho Salmon Management Plan modified. In effect for 1993 season. Only unbaited artificial lures may be used in the Little Susitna River from July 15 through August 5. The bag and possession limits for coho salmon 16 inches or more in length during this time period were increased to 3 daily and in possession.
2. Aimed at rainbow trout. Only unbaited artificial lures may be used in all flowing waters of the Susitna-West Cook Inlet area September 1 through May 15. Initiated in 1993 season.

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3. Changes in the Cook Inlet Personal Use Salmon Dip Net Fishery Management Plan (5 AAC 77.540) pertaining to the Fish Creek dip net fishery. 1993 was the first year coho salmon were allowed in the harvest. Daily bag and possession limit 6 salmon.
4. BOF found that most of Cook Inlet was a nonsubsistence zone and repealed the Upper Cook Inlet Subsistence Salmon Management Plan (5 AAC 01.592) thus eliminating the subsistence fishery in Upper Cook Inlet for the 1993 season (eliminated the Knik set gillnet fishery). This plan was reinstated by court action for the 1994 season. The only area that remained open to subsistence fishing in the Upper Cook Inlet area during 1993 was the Tyonek subdistrict of the Northern District on the west side of Cook Inlet.

Emergency Orders:

1. E.O. No. 2-RS-2-21-92 opened the Fish Creek personal use dip net fishery. Dip net fishing was allowed for 3 consecutive days followed by a 1 day closure on a continuing basis. Effective 6:00 a.m. July 23 through August 6, 1992.
2. E.O. No. 2-SS-2-22-92 closed to fishing that portion of the Little Susitna River from the fish counting weir located at River Mile 33 downstream for a distance of 1,500 feet. Effective July 25 through September 14, 1992.
3. E.O. No. 2-RS-2-28-92 closed the Susitna River drainage to sockeye salmon fishing. Effective July 31 through December 31, 1992.
4. E.O. No. 2-SS-2-29-92 increased bag and possession limits to 5 coho salmon 16 inches or more in length downstream from the department's counting weir at River Mile 32.5. Effective August 15 through December 31, 1992.

1993

Emergency Orders:

1. E.O. No. 2-RS-2-23-93 opened the Fish Creek personal use fishery. The dip net fishery opened 9:00 a.m. July 24 and closed midnight August 6, with the fishery being closed July 26, July 30, and August 3, 1993.
2. E.O. No. 2-SS-2-25-93 closed to fishing that portion of the Little Susitna River from the fish counting weir located at River Mile 33 downstream for a distance of 1,500 feet. Effective July 23 through September 15, 1993.
3. E.O. No. 2-SS-2-32-93 increased the bag and possession limits to 5 coho salmon at the Little Susitna River downstream from the department's counting weir at River Mile 32.5. Effective August 11 through December 31, 1993.
4. E.O. No. 2-SS-2-33-93 closed to fishing that portion of Jim Creek from the fish counting weir located at River Mile 1 downstream for a distance of 500 feet. Effective August 12 through November 1, 1993.

1994

Emergency Orders:

1. E.O. No. 2-RS-2-28-94 opened the Fish Creek personal use fishery. The dip net fishery opened 9:00 a.m. July 27 and closed midnight August 5, with the fishery being closed July 29 and August 2, 1994.
2. E.O. No 2-RS-2-33-94 supersedes E.O. 2-RS-2-28-94 extending the Fish Creek Personal Use Dip Net Fishery through midnight August 9. Effective August 7, 1994 through August 9, 1994.
3. E.O. No. 2-KS-2-05-94 closed to fishing that portion of the Little Susitna River from the fish counting weir located at River Mile 33 downstream for a distance of 1,500 feet. Effective May 25 through September 15, 1994.
4. E.O. No. 2-SS-2-32-94 increased the bag and possession limits to 5 coho salmon at the Little Susitna River downstream from the department's counting weir at River Mile 32.5. Effective August 6 through December 31, 1994.
5. E.O. No. 2-SS-2-29-94 closed that portion of Jim Creek to fishing from the fish counting weir located at River Mile 1 downstream for a distance of 1,000 feet. Effective July 26, 1994 through November 1, 1994.

1995

1. Upper Cook Inlet Subsistence Salmon Management Plan was repealed by the BOF in 1995. BOF took action to allow subsistence fishery as a personal use fishery. The Knik set gillnet fishery was executed as a personal use fishery in 1995.

Emergency Orders:

1. E.O. No. 2-KS-2-07-95 closed to fishing that portion of the Little Susitna River from the fish counting weir located at River Mile 33 downstream for a distance of 1,900 feet. Effective May 25 through September 15, 1995.
2. E.O. No. 2-RS-02-32-95 opened the Fish Creek personal use fishery. The dip net fishery opened 5:00 a.m. July 26 and closed midnight August 8, with the fishery being closed July 28 and August 1 and August 4, 1995.
3. E.O. No. 2-SS-02-40-95 increased the bag and possession limits to 5 coho salmon at the Little Susitna River downstream from the department's counting weir at River Mile 32.5. Effective August 9 through December 31, 1995.

1996

1. The Upper Cook Inlet Personal Use Salmon Fishery Management Plan (5 AAC 77.540) establishes time, area, methods and means for taking salmon for personal use. This plan first went into effect during the 1996 season. It provides for personal use dip net fisheries in the Kenai and Kasilof rivers and Fish Creek. Additionally, limited personal use gillnet fishing

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opportunity is provided near the terminus of the Kasilof River. No Knik set gillnet fishery was provided.

2. Changes were made to the Fish Creek Sockeye Management Plan (5 AAC 21.364) concerning the Fish Creek Personal Use Dipnet fishery. The dip net fishery will now run July 10 through July 31 with a bag limit of 25 salmon per head of household plus 10 salmon per each household member. A permit is required.
3. The Skwentna River Personal Use Salmon Fishery Management Plan (5 AAC 77.526) establishes a subsistence fish wheel fishery in the Yentna River downstream of its confluence with the Skwentna River. This fishery was implemented as a personal use fishery during the 1996 and 1997 seasons.
4. Little Susitna River Coho Salmon Management Plan was modified. The option to increase the bag and possession limits of coho salmon in specified areas of the Little Susitna River when the escapement goal of 7,500 nonhatchery fish upstream of the Parks Highway is projected, was repealed. The bag and possession limits of salmon other than king salmon in the Little Susitna River are 3 fish per day and in possession.
5. At the November 1996 meeting the BOF modified 5 AAC 61.035. Only unbaited, single-hook, artificial lures may be used in all flowing waters of the Alexander Creek drainage upstream of an ADF&G regulatory marker located 400 yards upstream of the confluence of Trail Creek.

1997

Emergency Orders:

1. E.O. No. 2-RS-2-25-97 closed Fish Creek dipnetting from 11:00 a.m. July 23 through 11:00 p.m. July 25, 1997.
2. E.O. No. 2-RS-2-28-97 closed Fish Creek dipnetting for the remainder of the 1997 season on July 26, 1997.
3. E.O. No. 2-SS-02-31-97 prohibited use of bait and reduced daily bag and possession limit of coho salmon to one in all waters of Cook Inlet on August 9, 1997. Areas not included were Eklutna Tailrace, Ship, Bird, and Campbell creeks.
4. E.O. No. 2-SS-2-34-97 closed Wasilla Creek downstream from the railroad bridge, including Rabbit Slough and Spring Creek, to sport fishing August 23 through October 31, 1997.

1998

1. The Upper Yentna River Subsistence Salmon Fishery (5 AAC 01.593) establishes a subsistence fish wheel fishery in the Yentna River downstream of its confluence with the Skwentna River. This fishery was implemented as a personal use fishery during the 1996 and 1997 seasons. State Supreme Court and BOF action changed it to a subsistence fishery beginning in 1998. This change did not affect coho salmon harvest.

Emergency Orders:

1. E.O. No. 2-KS-2-14-98 closes the Deshka River to all fishing 1,200 feet downstream and 300 feet upstream of the fish counting weir.
2. E.O. No. 2-RS-2-15-98 closes Fish Creek to dipnetting effective July 25, 1998 through July 31, 1998.

1999

1. Recreational fishing time on Fish, Wasilla and Cottonwood creeks has been reduced. Fishing hours were restricted from 24-hour fishing days to 12-hour fishing days (6:00 a.m. to 6:00 p.m.) in these Saturday and Sunday only fisheries. Once an angler has harvested a bag limit of three salmon, he/she may no longer fish on this stream for the remainder of the day.
2. In all waters of West Cook Inlet South of the Susitna River (i.e. Chuitna, Lewis, Theodore & McArthur River) once an angler has harvested a bag limit of 3 coho salmon he/she may no longer fish on this stream for the remainder of the day. These same streams are closed to coho salmon fishing from October 1-December 31.
3. For the Little Susitna River existing bait restrictions were modified to allow the use of bait during the month of September.
4. Little Susitna River Coho Salmon Management Plan was modified. The escapement goal of 7,500 coho salmon was changed to an escapement range of 9,600-19,200 nonhatchery fish.

Emergency Orders:

1. E.O. No. 2-KS-2-05-99 closed the Deshka River to fishing from 1,000 yards downstream to 200 yards upstream of the fish counting weir.
2. E.O. No. 2-RS-2-15-99 closed Fish Creek to dipnetting on July 26, 1999.
3. E.O. No. 2-SS-2-20-99 reduced the bag limit to 1 coho salmon and no bait for Cottonwood, Wasilla and Fish creeks and the Little Susitna River, on August 19, 1999.

2000

During the BOF meeting in February 2000 the following recreational fishery restrictions were put in place to address coho salmon conservation concerns.

The coho bag and possession limits in the Knik Arm (excluding the stocked coho fishery in the Eklutna Tailrace) and the Susitna River were reduced to 2. The West Cook Inlet bag and possession limits north of the West Foreland were reduced to 2 daily and 4 in possession. South of the West Foreland they remained at 3 daily and 6 in possession.

Wasilla Creek, Jim Lake, Upper Jim Creek and McRoberts Creeks were closed to coho fishing.

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After taking a limit of coho from Fish and Cottonwood creeks a person may not fish that same day in Fish and Cottonwoods creeks in waters open to salmon fishing.

The sockeye return to Fish Creek was poor again this year and the dip net fishery was closed early by EO.

Emergency Orders: The two coho daily bag limit caused some confusion on the Little Susitna River so an EO was issued to clarify the new regulation.

1. E.O. No. 2-SS-2-17-00 stated after keeping 2 coho below RM 32.5 Little Susitna River, an angler must quit fishing in the Little Susitna River for the remainder of the day, July 28-December 31.
2. E.O. No. 2-RS-2-16-00 closed Fish Creek to dipnetting on July 26, 2000.

2001

There were no new regulations concerning coho for the 2001 season.

Emergency Orders: Only one EO was issued affecting coho salmon harvest.

1. E.O. No. 2-RS-2-17-01 closed Fish Creek to dipnetting on July 12 at 11:00 p.m.

2002

The BOF met in February 2002 and adopted new regulations affecting coho.

1. The Larson Creek drainage upstream of a marker ¼ mile upstream from its mouth is closed to sport fishing for all salmon year-round.
2. Nancy Lake Creek drainage upstream of a marker ¼ mile upstream from its mouth is closed to all salmon fishing including catch-and-release.
3. The Clearwater and Roscoe creek drainages are closed year-round to all fishing upstream from a marker ½ mile upstream of their confluences with the Chinitna River.
4. Open Fish Creek personal use fishery by EO when escapement goal is projected.
5. Open Wasilla Creek from its mouth to the Alaska Railroad bridge for salmon fishing (excluding king salmon). Saturday and Sunday only from 6:00 a.m.–6:00 p.m. only.
6. Eliminate use of bait on Little Susitna River July 14, upstream of the Little Susitna Public Use Facility.

Emergency Orders: Only one EO was issued affecting coho salmon harvest.

1. E.O. No. 2-SS-2-29-02 in Fish Creek increased coho bag limit to 3 per day and allowed 24-hour per day fishing on Saturdays and Sundays beginning August 17 at 12:01 a.m. through December 31.

2003

No new regulations adopted for 2003 and no EOs issued.

Appendix B3.-Rainbow trout regulatory history for NCIMA, 1977-2003.

1977

1. Rainbow trout daily bag and possession limits are 10.
2. Talachulitna River became Alaska's first catch-and-release rainbow trout fishery. Only unbaited, single-hook lures are allowed.

1982

1. Beginning in 1982 the daily bag and possession limits dropped to 5 rainbow trout of which only 2 could be 20 inches or more in length.

1983

1. The daily bag and possession limits were further reduced to allow 5 fish of which only 1 could be 20 inches or more in length.

1985

1. In Lake Creek (Yentna River) daily bag and possession limits were reduced to 2 and upstream of a marker 2 miles upstream of the mouth only artificial lures were allowed.

1986

During the fall of 1986, the Board of Fisheries officially adopted the Cook Inlet and Copper River Rainbow/Steelhead Trout Management Policy. The BOF used this policy from 1986-1996 to implement regulations for rainbow trout within the NCIMA.

1987

1. In the flowing waters of the Susitna River, Matanuska River and West Cook Inlet drainages only unbaited, artificial lures are allowed September 1 through December 31.
2. In the flowing waters of the Susitna River, Matanuska River and West Cook Inlet daily bag and possession limits were reduced to 2 per day only 1 over 20 inches.
3. Anglers required to record harvest of rainbow trout over 20 inches on harvest record card (back of license). Yearly limit of 2 rainbow trout over 20 inches.
4. Beginning in 1987 a major portion of the Eastside Susitna Management Unit was managed for trophy-size trout (trout over 20 inches). This fishery encompasses all drainages of the Susitna River from the junction of the Susitna and Talkeetna rivers upstream to Devils Canyon. Only 1 trout 20 inches or more in length is allowed daily with a 2 trout over 20 inches seasonal limit. Trout less than 20 inches must be released immediately. An unbaited, single-hook lure requirement complements this strategy.

1989

1. Beginning in 1989 catch-and-release was initiated in the Lake Creek drainage ¼ mile upstream of Bulchitna Lake, the Deshka River upstream of the confluence of Moose and Kroto creeks (The Forks), and the Fish Creek drainage located within the Talkeetna River drainage. Only unbaited, single-hook lures are allowed in these waters.

2. Long (Kepler/Bradley), X and Wishbone Lakes designated catch-and-release only, unbaited, single hook, artificial lures only.

1991

1. In Lake Creek only unbaited, artificial lures may be used August 15 through December 31 from a department marker 100 yards upstream of the mouth to department marker $\frac{1}{4}$ mile upstream of Bulchitna Lake.
2. The Talachulitna River catch-and-release area was extended to within $\frac{3}{4}$ mile of the confluence of the Talachulitna River with the Skwentna River.

1993

1. In Big Lake the rainbow trout bag limit was reduced to 2 daily and in possession.
2. In the upper Cook Inlet area only 1 rainbow trout per day and 2 per season may be over 20 inches in length.
3. Long, X, and Wishbone lakes are closed to sport fishing from November 1 through April 30.
4. The North Fork of the Kashwitna River was established as a special management area for rainbow trout. Only single-hook, unbaited, artificial lures may be used in the North Fork of the Kashwitna River and rainbow trout may not be possessed or retained; all rainbow trout caught must be released immediately.
5. Only unbaited artificial lures may be used in all flowing waters of the Susitna-West Cook Inlet area (except when fishing for burbot when using legal gear for burbot) from September 1 through May 15, except in areas in which special regulations are in effect.
6. In the Lake Creek drainage, rainbow trout may not be possessed or retained in all flowing waters from August 15 through May 15, upstream from a department marker located approximately 100 yards upstream from its confluence with the Yentna River to a department marker located approximately one-quarter mile upstream from Bulchitna Lake. Only single-hook unbaited artificial lures may be used in this area during this time period. The Lake Creek drainage upstream from the Bulchitna Lake marker continues to be managed as a catch-and-release area for rainbow trout.

1995

1. Only unbaited artificial lures may be used in all flowing waters of the Susitna River drainage from September 1 through July 15.

1996

In November 1996 the BOF adopted the Criteria for Establishing Special Management for Trout, 5 ACC 75.013, to replace the Cook Inlet and Copper River Rainbow/Steelhead Trout Management Policy for use in instituting regulations. Bag and possession limits under this concept are 2 trout, of which only 1 may be 20 inches or more in length and also requires the use of unbaited artificial lures in all flowing waters from September 1 through May 15.

1997

1. Rainbow trout may not be possessed or retained and only unbaited, single-hook, artificial lures may be used in all waters of the Prairie Creek drainage and within one-quarter mile of its confluence with the Talkeetna River.
2. Rainbow trout, Dolly Varden, whitefish, and Arctic grayling may not be possessed or retained in all waters of the Alexander Creek drainage and within one-quarter mile of its confluence with the Susitna River.
3. The retention of rainbow trout in the Willow Creek drainage and in all waters within one-half mile radius of its confluence with the Susitna River is prohibited. All rainbow trout caught in the Willow Creek drainage and within a one-half mile radius of its confluence with the Susitna River must be immediately released.
4. The retention of rainbow trout is prohibited in Montana Creek drainage and all waters within a one-half mile radius of its confluence with the Susitna River.
5. The bag and possession limits for rainbow trout in all flowing waters and nonstocked lakes of the Susitna West-Cook Inlet Area open to the retention of rainbow trout are 2 rainbow trout of which 1 may be over 20 inches in length and the bag and possession limits in stocked lakes are 5 rainbow trout of which 1 may be over 20 inches in length. Stocked lakes are: Barley, Bear Paw, Bench, Benka, Beverly, Big No Luck, Upper and Lower Bonnie, Bruce, B-J, Canoe, Carpenter, Christiansen, Coyote, Crystal, Dawn, Diamond, Echo, Farmer, Finger, Lalen, Little Lonely, Little No Luck, Loberg (Junction), Long (Glenn Highway MP 86), Loon, Lorraine, Lucille, Lynne, Marion, Matanuska, Meirs, Memory, Morvro, North Friend, Prator, Ravine, Reed, Rocky, Ruby, Seventeenmile, Seymour, Slipper, South Friend, South Rolly, Tigger, Twin Island, Vera, Victor, Visnaw, Walby, Weiner, West Sunshine, Willow, Wolf, and Y.
6. Only unbaited, single-hook, artificial lures may be used in all flowing waters of the Alexander Creek drainage upstream of an ADF&G regulatory marker located 400 yards upstream of the confluence of Trail Creek.
7. Unbaited, single-hook, artificial lures are required year-round upstream of the Parks Highway in Rabideux Creek, Montana Creek, Goose Creek, Caswell Creek, Kashwitna River, Grays Creek, Little Willow Creek, Sheep Creek, Willow Creek, and Little Susitna River, and upstream of a department regulatory marker in Birch Creek drainage, Sunshine Creek drainage, and upstream of the Petersville Road in Trapper Creek.
8. Only unbaited, single-hook, artificial lures may be used from September 1 through May 31 in all waters of the above described drainages (number 7 above) and in all waters within a one-half mile radius of their confluence with the Susitna River or the mouth of the Little Susitna River.

9. Unbaited, single-hook, artificial lures are required year-round in the Willow Creek drainage upstream of a department marker located one-quarter mile upstream from its confluence with the Susitna River and in all waters of the Willow Creek drainage and within a one-half mile radius of its confluence with the Susitna River from September 1 through May 31.
10. Only unbaited, single-hook, artificial lures may be used year-round in Montana Creek upstream of the Parks Highway. Only unbaited, single-hook, artificial lures may be used in Montana Creek downstream of the Parks Highway and in all waters within a one-half mile radius of its confluence with the Susitna River from September 1 through May 31.

1999

1. Willow Creek went from no retention of rainbow trout to allowing the retention of 1 rainbow trout under 16 inches in length per day and in possession upstream of the Parks Highway bridge. The single-hook, unbaited, artificial lure provision for this area remains in effect. Downstream of the Parks Highway bridge rainbow trout may still not be possessed or retained.
2. Anglers will be allowed to retain rainbow trout and use bait when fishing on the Willow Creek drainage lakes. The bag and possession limits in Shirley, Long, and Rainbow lakes are 2 per day and 2 in possession with only 1 over 20 inches in length. The bag and possession limits in Willow and Crystal lakes, which are stocked annually, are 5 per day and 5 in possession with only 1 over 20 inches in length. The seasonal limit of 2 rainbow trout greater than 20 inches applies to these and all other Cook Inlet waters.
3. Anglers will not be allowed to harvest rainbow trout from Canyon Creek (Skwentna River drainage). Additionally, only single-hook, unbaited, artificial lures may be used in Canyon Creek year-round.
4. Anglers will not be allowed to retain rainbow trout in flowing waters of West Cook Inlet and the Susitna River drainage from April 15 to June 14. This regulation applies to all flowing waters in these areas, including Willow Creek. This regulation provides for catch-and-release fishing for rainbow trout during this time period.
5. In Big Lake (Houston area) only unbaited, single hook, artificial lures may be used from November 1 through April 30.
6. On the Little Susitna River, anglers will be allowed to use treble hooks year-round downstream of the Parks Highway Bridge. Existing bait restrictions were modified to allow the use of bait during the month of September. Aimed at salmon with small effect on rainbow trout fishing.

In **2000** and **2001** no changes were made affecting rainbow trout fisheries.

2002

The following regulations affecting rainbow trout were adopted by the BOF during the February 2002 meeting:

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1. Allow beads fixed on line within 2 inches of fly, lure, or hook.
2. Clarify the single-hook regulation to mean one single hook.
3. In the East Fork of Chulitna, Theodore and Lewis rivers only one single-hook, unbaited artificial lure may be used January 1 through July 13. This regulation was made in conjunction with allowing a hook-and-release fishery for king salmon.

At this time the majority of Cook Inlet rainbow trout fisheries are managed under a seasonal limit of 2 rainbow trout over 20 inches. To assure compliance with this regulation, anglers must, immediately upon harvesting a trout over 20 inches, record that harvest on the back of their license or on a harvest record.

2003

No new regulation adopted for 2003 and no EOs issued.

Appendix B4.-Board of Fisheries NCIMA regulatory changes made from November 1992 through 2003.

1993 Season

King Salmon Entire Area

A seasonal limit of 5 king salmon was established for all waters of Cook Inlet. Anglers harvesting a king salmon must immediately enter in ink on the back of their sport fishing license, in the appropriate location, the waters fished, species harvested, and date the fish was harvested. Anglers without an annual sport fishing license (anglers younger than 16 years of age and Alaska residents at least 60 years of age) must obtain a king salmon harvest record card prior to king salmon fishing. On harvesting a king salmon they must mark the harvest card accordingly.

The Board also adopted as regulation a proposal which stated that an individual or company engaged in freshwater sport fish guiding may not participate or engage in sport fishing while clients are present or within his or her control or responsibility during the king salmon season, except when guiding a client subject to the Americans with Disabilities Act.

In addition to BOF action, during the first legislative session in June of 1992, legislators passed House Bill 596. This bill included provisions that prohibited resident or nonresident anglers from fishing for king salmon in Alaskan waters unless they have purchased the current year's king salmon tag and have it in possession. King salmon tags are valid from January 1 through December 31. Anglers must stick the tag on the back of their sport fishing license and validate it by signing their name across the tag. Anglers can purchase king salmon tags at the same time they buy their 1993 sport fishing license from their local vendor. There are five groups of resident anglers who are not required to purchase a king salmon tag: (1) blind anglers who qualify for a 25-cent license; (2) anglers under the age of 16; (3) anglers 60 years of age or older who have been a resident of the state for at least 1 year; (4) disabled veterans who are eligible for a free sport fishing license; and (5) anglers who qualify for a \$5 sport fishing license. All nonresident anglers are required to purchase a tag if they are fishing for king salmon in Alaska.

King Salmon - West Cook Inlet Area

The king salmon fishing season was reduced in length to end on June 30. The bag and possession limits were reduced in areas open to the retention of king salmon 16 inches or more in length to 1 daily and 1 in possession.

In the following areas only unbaited, artificial lures may be used, and king salmon 16 inches or more in length may not be possessed or retained; all king salmon caught must be released immediately:

1. Chuitna River Drainage: upstream of a department marker located adjacent to the old cable crossing;
2. Theodore River Drainage: upstream of a department marker located approximately 1 mile upstream of the Beluga/Anchorage high voltage power lines; and
3. Lewis River Drainage: upstream of a department marker located approximately 1 river mile upstream of the main Beluga haul road bridge.

King Salmon - Susitna River Drainage

(including all flowing waters draining into the west side of the Susitna River downstream of and including the Deshka River)

The bag and possession limit for king salmon over 16 inches was reduced to 1 daily and 2 in possession.

Coho Salmon - Little Susitna River

The management plan for the Little Susitna River was modified. Only unbaited artificial lures may be used in the Little Susitna River from July 15 through August 5. The bag and possession limits for coho salmon 16 inches or more in length during this time period were increased to 3 daily and in possession.

Rainbow Trout

In Big Lake the rainbow trout bag limit was reduced to 2 daily and in possession. In the upper Cook Inlet area only 1 rainbow trout per day and 2 per season may be over 20 inches in length.

Long, X, and Wishbone lakes are closed to sport fishing from November 1 through April 30.

The North Fork of the Kashwitna River was established as a special management area for rainbow trout. Only single-hook, unbaited, artificial lures may be used in the North Fork of the Kashwitna River and rainbow trout may not be possessed or retained; all rainbow trout caught must be released immediately.

Only unbaited artificial lures may be used in all flowing waters of the Susitna-West Cook Inlet area (except when fishing for burbot when using legal gear for burbot as described under burbot in the section) from September 1 through May 15, except in areas in which special regulations are in effect. Areas with special regulations in effect generally require the use of unbaited artificial lures year-round and further stipulate that rainbow trout may not be possessed or retained.

In the Lake Creek drainage, rainbow trout may not be possessed or retained in all flowing waters from August 15 through May 15, upstream from a department marker located approximately 100 yards upstream from its confluence with the Yentna River to a department marker located approximately one-quarter mile upstream from Bulchitna Lake. Only single-hook unbaited artificial lures may be used in this area during this time period. The Lake Creek drainage upstream from the Bulchitna Lake marker continues to be managed as a catch-and-release area for rainbow trout.

Burbot

In the Susitna-West Cook Inlet area set lines are prohibited. Burbot may be taken with more than one line and hook if: (1) the total number of aggregate hooks does not exceed the daily bag limit for waters being fished; (2) the hooks are single hooks with a gap between point and shank larger than three-quarters of an inch; (3) each hook is set to sit on the bottom of the lake or stream; and (4) the burbot gear is closely attended.

The daily bag and possession limits for burbot are 5 daily and in possession in all waters of Susitna-West Cook Inlet Area.

Nancy Lake is closed to the harvest of burbot.

Lake Trout

The bag and possession limits for lake trout are 2 daily and in possession in all waters of Susitna-West Cook Inlet.

Three Mile Creek

Three Mile Creek in the West Cook Inlet area: that portion of Three Mile Creek from the road crossing upstream to Three Mile Lake and including that portion of Three Mile lake within a 300-foot radius of the outlet is closed to all fishing.

Fish Creek Personal Use

Changes in the Cook Inlet Personal Use Salmon Dip Net Fishery Management Plan pertaining to the Fish Creek dip net fishery are as follows:

1. The fishery will be opened by emergency order after July 23 on Saturdays, Sundays, and Wednesdays to the taking of sockeye and coho salmon provided the spawning escapement of sockeye salmon into Big Lake drainage is projected to exceed 50,000 fish.
2. Additional fishing time can be established by emergency order provided that no more than 3 consecutive days of fishing is allowed without a minimum of 1 day of closure if escapement into Fish Creek warrants such action.
3. The area to be open to harvesting salmon by dip net includes waters upstream from a department marker located at the mouth of Fish Creek to a department marker located approximately one-quarter mile upstream of the Knik-Goose Bay Road.
4. The daily bag and possession limit is 6 salmon not in addition to the daily sport fish bag and possession limit.
5. The fishery shall close the second Friday in August, or earlier by emergency order if the harvest of coho salmon becomes excessive in department opinion.

Subsistence

In December of 1992 the BOF found that most of Cook Inlet was a nonsubsistence zone and repealed the Upper Cook Inlet Subsistence Management Plan thus eliminating the subsistence fishery in Upper Cook Inlet. The only area that remained open to subsistence fishing in the Upper Cook Inlet area was the Tyonek subdistrict of the Northern District on the west side of Cook Inlet. A court ruling in November of 1993 which found this action by the BOF to be unconstitutional again allowed a subsistence fishery in Upper Cook Inlet for the 1994 season.

1995 Season

During their October 1994 meeting in Fairbanks the BOF delegated authority to restrict Chinook salmon harvests in Northern Cook Inlet to the commissioner of the ADF&G to address stock conservation concerns. The following regulations will be in effect for the 1995 Chinook salmon season:

King Salmon-Entire Area

1. The Deshka River and Prairie Creek are closed to fishing for Chinook salmon.
2. Alexander Creek above the confluence of Trail Creek is closed to fishing for Chinook salmon.
3. The bag and possession limits in the Susitna River drainage have been reduced to 1 Chinook salmon over 16 inches in length.
4. The use of bait throughout the NCIMA is prohibited.
5. Fishing in the NCIMA is allowed only between the hours of 6:00 a.m. and 11:00 p.m. May 15 through July 13. This time restriction will not apply to that portion of the Susitna River drainage currently opened to weekend-only fishing (e.g. between, but not including, the Deshka River and the Talkeetna River).
6. By emergency order only the first opening of the Northern District commercial Chinook salmon fishery will occur. Additional opening of this fishery will be dependent upon inseason indications of run strength.

1996 Season

The Alaska Board of Fisheries convened in Anchorage, Alaska during March 1996. A brief summary of regulatory changes affecting the Susitna-West Cook Inlet Area as adopted by the Board of Fisheries follows.

1. The Lewis River is closed to king salmon fishing, including catch-and-release for king salmon.
2. Changes were made to the Fish Creek Sockeye Management Plan concerning the Fish Creek Personal Use Dip Net fishery. The dip net fishery will now run July 10 through July 30 with a bag limit of 25 salmon per head of household plus 10 salmon per each household member. A permit is required.

3. The Skwentna River Personal Use Management Plan was established. Salmon, other than Chinook salmon, may be taken as follows:
 - a. A permit is required which shall be returned to ADF&G with the harvest recorded.
 - b. In the mainstem of the Yentna River from its confluence with Martin Creek upstream to its confluence with the Skwentna River from July 15 through July 31 from 4:00 a.m. through 8:00 p.m. Monday, Wednesday and Friday.
 - c. Only with a fish wheel as follows: (a) each fish wheel must be equipped with a livebox; the livebox must be constructed so that it contains no less than 45 cubic feet of water volume while it is in operation; (b) the permit holder shall attach a wood or metal plate that is at least 12 inches high by 12 inches wide, bearing the permit holder's name and address in letters and numerals at least one inch high, so that the name and address are plainly visible; (c) the permit holder shall be present to attend the fish wheel at all times while the fish wheel is in operation, and Chinook salmon and rainbow trout must be returned alive to the water; (d) a live box is a submerged container that is attached to the fish wheel that will keep fish caught by the fish wheel alive.
 - d. Only one permit may be issued to each household per year and the annual limit for the fishery is 25 salmon for the head of household and 10 salmon for each dependent of the permit holder.
 - e. The commissioner shall close the personal use fishery, by emergency order, as necessary to ensure that no more than 2,500 salmon are taken during the entire season under this section.
 - f. The provisions of this plan do not apply after December 31, 1999.

1997 Season

The Alaska Board of Fisheries convened in Anchorage, Alaska during November 1996. A brief summary of regulatory changes affecting the Susitna-West Cook Inlet Area as adopted by the Board of Fisheries follows.

King Salmon

5 AAC 21.366. Northern District King Salmon Management Plan

To fulfill changes to the Upper Cook Inlet King Salmon Management Plan, as adopted by the Board of Fisheries, the Department of Fish and Game shall manage the Northern District commercial king salmon fishery as follows:

1. The harvest shall not exceed 12,500 king salmon.
2. The season closes on June 24, unless closed earlier by emergency order.
3. The number of regular periods shall be determined by the department based on preseason expectations of king salmon run strength.

4. The area from 1 mile south of the Theodore River to the Susitna River is closed to fishing; provisions of this paragraph do not apply after December 31, 1998.
5. If at least 90% of the biological escapement goal for the Theodore River (BEG = 750) or Chuitna River (BEG = 1,400) is not met during the 1997 fishing season, the area from 1 mile south of the Chuitna River to the Susitna River will be closed to commercial fishing during the 1998 fishing season; the provisions of this paragraph do not apply after December 31, 1998.
6. In addition to above, if at least 90% of the biological escapement goal for the Chuitna River has not been met during the 1997 season, the Chuitna River will be closed to sport fishing for king salmon during the 1998 fishing season; the provisions of this paragraph do not apply after December 31, 1998.

5 AAC 61.010. Fishing Seasons:

1. The Alexander Creek drainage is open to the retention (harvest) of king salmon from January 1 through June 30 downstream from an ADF&G regulatory marker at Granite Creek.

5 AAC 61.020. Bag Limits, Possession Limits, and Size Limits:

1. In all waters of Alexander Creek drainage between an ADF&G regulatory marker located at Granite Creek, upstream to an ADF&G regulatory marker located 400 yards upstream of Trail Creek, king salmon 16 inches or more in length may not be possessed or retained. All king salmon caught must be released immediately.
2. In all waters of the Susitna River drainage between the confluence of the Deshka River and the confluence of the Talkeetna River: after taking a king salmon 16 inches or more in length, a person may not fish for any species of fish in any water open to king salmon fishing during that same day.
3. In the Little Susitna River from its mouth to the Parks Highway bridge at Houston: after taking a king salmon 16 inches or more in length, a person may not fish for any species of fish in any water open to king salmon fishing during that same day.
4. In all waters of the Susitna-West Cook Inlet Management Area, excluding the Susitna River between its confluence with the Deshka River and its confluence with the Talkeetna River: after taking a king salmon 16 inches or more in length, a person may not fish for king salmon during that same day.
5. The bag and possession limits of king salmon 16 inches or more in length taken from the Little Susitna River drainage are 1 fish per day and 1 in possession.

5 AAC 61.035. Methods and Means:

1. Only unbaited, single-hook, artificial lures may be used from January 1 through June 30 in all waters of the Alexander Creek drainage between an ADF&G regulatory marker located at Granite Creek to an ADF&G regulatory marker located 400 yards upstream of Trail Creek.

5 AAC 61.050. Waters Closed to Sport Fishing:

1. Peters Creek (Susitna River drainage) is closed to sport fishing for king salmon upstream from an ADF&G regulatory marker, located approximately 1 mile upstream from its confluence with the Kahiltna River.
2. The Theodore River is closed to sport fishing for king salmon.

Rainbow Trout (Resident Species)

5 AAC 61.020. Bag Limits, Possession Limits, and Size Limits:

1. Rainbow trout may not be possessed or retained in all waters of the Prairie Creek drainage and within one-quarter mile of its confluence with the Talkeetna River.
2. In Prairie Creek the bag and possession limits for Arctic grayling are 2 fish.
3. Rainbow trout, Dolly Varden, whitefish, and Arctic grayling may not be possessed or retained in all waters of the Alexander Creek drainage and within one-quarter mile of its confluence with the Susitna River. Northern pike may be possessed and retained.

5 AAC 61.035: Methods and Means:

1. Only unbaited, single-hook, artificial lures may be used in the Prairie Creek drainage and within one-quarter mile of its confluence with the Talkeetna River.
2. Only unbaited, single-hook, artificial lures may be used in all flowing waters of the Alexander Creek drainage upstream of an ADF&G regulatory marker located 400 yards upstream of the confluence of Trail Creek.
3. Unbaited, single-hook, artificial lures are required year-round upstream of the Parks Highway in Rabideux Creek, Montana Creek, Goose Creek, Caswell Creek, Kashwitna River, Grays Creek, Little Willow Creek, Sheep Creek, Willow Creek, and Little Susitna River, and upstream of a department regulatory marker in Birch Creek drainage, Sunshine Creek drainage, and upstream of the Petersville Road in Trapper Creek.
4. Only unbaited, single-hook, artificial lures may be used from September 1 through May 31 in all waters of the above described drainages and in all waters within a one-half mile radius of their confluence with the Susitna River or the mouth of the Little Susitna River.
5. Unbaited, single-hook, artificial lures are required year-round in the Willow Creek drainage upstream of a department marker located one-quarter mile upstream from its confluence with the Susitna River and in all waters of the Willow Creek drainage and within a one-half mile radius of its confluence with the Susitna River from September 1 through May 31.
6. Only unbaited, single-hook, artificial lures may be used year-round in Montana Creek upstream of the Parks Highway. Only unbaited, single-hook, artificial lures may be used in Montana Creek downstream of the Parks Highway and in all waters within a one-half mile radius of its confluence with the Susitna River from September 1 through May 31.

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5 AAC 61.050. Waters Closed to Sport Fishing:

1. Fish Lake Creek drainage upstream of the first lake is closed to salmon fishing from July 14 through December 31.
2. All waters of Rabideux Creek, Trapper Creek, Grays Creek, and the Kashwitna River within a one-quarter mile radius of their confluence with the Susitna River are closed to sport fishing from June 1 through July 13, except during king salmon season as authorized by 5 AAC 61.010(f)(2). King salmon season commences the second Saturday through Monday in June and continues for three additional consecutive 3-day weekends thereafter.

5 AAC 61.020. Bag Limits, Possession Limits, and Size Limits:

1. The retention of rainbow trout in the Willow Creek drainage and in all waters within one-half mile radius of its confluence with the Susitna River is prohibited. All rainbow trout caught in the Willow Creek drainage and within a one-half mile radius of its confluence with the Susitna River must be immediately released.
2. The retention of rainbow trout is prohibited in Montana Creek drainage and all waters within a one-half mile radius of its confluence with the Susitna River.
3. The bag and possession limits for rainbow trout in all flowing waters and nonstocked lakes of the Susitna-West Cook Inlet Area open to the retention of rainbow trout are 2 rainbow trout of which 1 may be over 20 inches in length and the bag and possession limits in stocked lakes are 5 rainbow trout of which 1 may be over 20 inches in length. Stocked lakes are: Barley, Bear Paw, Bench, Benka, Beverly, Big No Luck, Upper and Lower Bonnie, Bruce, B-J, Canoe, Carpenter, Christiansen, Coyote, Crystal, Dawn, Diamond, Echo, Farmer, Finger, Lalen, Little Lonely, Little No Luck, Loberg (Junction), Long (Glenn Highway MP 86), Loon, Lorraine, Lucille, Lynne, Marion, Matanuska, Meirs, Memory, Morvro, North Friend, Prator, Ravine, Reed, Rocky, Ruby, Seventeenmile, Seymour, Slipper, South Friend, South Rolly, Tigger, Twin Island, Vera, Victor, Visnaw, Walby, Weiner, West Sunshine, Willow, Wolf, and Y.

Northern Pike

5 AAC 61.035: Methods and Means:

1. Sport fishing for northern pike using five (5) lines is allowed in specified lakes of the Susitna-West Cook Inlet Area provided: hooks are single hooks with a gap between the point and shank no smaller than three-quarters inch, the lines are closely attended, and all species of fish other than northern pike are immediately released. Specified lakes include: Alexander Lake, Sucker Lake, Trapper Lake, Flathorn Lake, Whiskey Lake, Hewitt Lake, Donkey Lake, Three Mile Lake (Beluga area), Neil Lake, Kroto Lake, and lakes of the Nancy Lake Recreation Area excluding Nancy and Big No Luck Lake.

5 AAC 61.020. Bag Limits, Possession Limits, and Size Limits:

1. The 10 fish bag and possession limits on northern pike in the Susitna-West Cook Inlet Area were repealed. There are no bag, possession or size limits on northern pike in the Susitna-West Cook Inlet Area.

Burbot

5 AAC 61.035: Methods and Means:

1. In flowing waters of the Susitna River and Yentna River the requirement that burbot lines specified in 5 AAC 61.035 (h)(1),(2), and (3) be closely attended is repealed. The 24-hour requirement (each line must be physically inspected at least once during each 24-hour period) notwithstanding, burbot lines in the specified waters are not required to be closely attended.

Coho salmon

5 AAC 61.060: Little Susitna River Management Plan.

1. The option to increase the bag and possession limits of coho salmon in specified areas of the Little Susitna River when the escapement goal of 7,500 nonhatchery fish upstream of the Parks Highway is projected, was repealed. The bag and possession limits of salmon other than king salmon in the Little Susitna River are 3 fish per day and in possession.

Miscellaneous

5 AAC 61: Reformat the Susitna-West Cook Inlet Area Codified Regulations.

1. The format of the Susitna-West Cook Inlet codified regulation summary will be changed to agree with the format of other management areas.

October 1997 BOF meeting

A petition to open the Deshka River to king salmon fishing was presented to the Board by the public. The Board delegated authority to the Commissioner of the Department of Fish and Game to open the Deshka River to king salmon fishing in 1998 with regulation guidelines. The first 5 miles of river were opened and a seasonal bag limit was set at 2 fish. Additionally, those regulations applying to the Susitna River from its mouth to its confluence with the Deshka River were applied to the Deshka River.

October 1998 BOF meeting

The Alaska BOF convened in Wasilla, Alaska during October 1998. A brief summary of regulatory changes affecting the Susitna-West Cook Inlet Area as adopted by the BOF follows.

Resident Finfish

1. Action resulted in a change to the Big Lake Arctic char bag and possession limits and established a minimum size limit. The bag and possession limits changed in Big Lake from 2 per day 2 in possession to 1 per day 1 in possession with a minimum length requirement of 20 inches. Also, a special provision was established that requires the use of unbaited, single-hook, artificial lures from November 1 through April 30.
2. Action resulted in allowing the retention of 1 rainbow trout under 16 inches in length per day and in possession upstream of the Parks Highway bridge on Willow Creek. Downstream of the Parks Highway bridge rainbow trout may not be possessed or retained.

3. Action resulted in allowing the use of bait and provides for the retention of rainbow trout in the Willow Creek drainage lakes. The bag and possession limits in Shirley, Long, and Rainbow lakes are 2 per day and 2 in possession with only 1 over 20 inches in length. The bag and possession limits in Willow and Crystal lakes is 5 per day and 5 in possession with only 1 over 20 inches in length.
4. Action resulted in prohibiting the retention of rainbow trout in Canyon Creek and established special provisions allowing only the use of single-hook, unbaited, artificial lures in Canyon Creek.
5. Action resulted in prohibiting the retention of rainbow trout in flowing waters of West Cook Inlet and the Susitna River drainage from April 15 to June 14. This regulation applies to all flowing waters in these areas including Willow Creek.
6. Established a slot limit for northern pike in Alexander and Trapper lakes. No bag and possession limits are in effect for pike less than 22 inches in length. Northern pike between 22 inches and 30 inches in length may not be retained. The bag and possession limits for pike 30 inches or greater in length are 1 per day and 1 in possession. Additionally, the action taken for Alexander and Trapper lakes reduced the number of lines allowed when fishing through the ice for northern pike from 5 lines to 2 lines, and prohibited the use of spears and bow and arrows for taking of northern pike.
7. Action resulted in allowing the use of bow and arrow for taking northern pike in NCI waters.
8. Action resulted in eliminating the $\frac{3}{4}$ -inch single-hook size restriction when fishing through the ice on select northern Cook Inlet lakes where 5 lines are allowed.
9. Action resulted in establishing a Dolly Varden size restriction. The regulation now allows for the retention of only 1 Dolly Varden greater than 12 inches in length to be retained per day. The bag limit remains 5 fish per day, with 5 in possession for all NCI and Anchorage area flowing waters.

February 1999 BOF Meeting

1. Proposal 261. The Deshka River will be open to king salmon fishing from its mouth upstream to Chijuk Creek a distance of approximately 19 river miles from January 1 to July 13. Other area regulations apply such as 1 fish per day bag and possession limits, a 5 fish seasonal limit, and once an angler harvests his or her king salmon they must quit fishing for king salmon the remainder of the day. Additionally fishing is allowed only between the hours of 6:00 a.m. to 11:00 p.m., no bait is allowed and guides cannot fish while guiding clients.
2. Proposal 273. The area open for retention of king salmon on Alexander Creek was extended from its mouth upstream to Trail Creek. This provides anglers with an additional 11 miles of stream from the 1997 and 1998 seasons in which they may harvest king salmon on Alexander Creek.

3. Proposal 263. The Theodore River was opened to catch-and-release fishing for king salmon from January 1 through June 30, only single-hook artificial lures will be allowed. Other West Cook Inlet Area Regulations apply as follows: fishing is allowed only between the hours of 6:00 a.m. to 11:00 p.m., bait is prohibited, and guides cannot fish while guiding.
4. Proposal 265. There will be increased fishing opportunities for the road-accessible Parks Highway streams (Eastside Susitna River tributaries) during the early part of June. The Parks Highway streams (Eastside Susitna River tributaries) will open to king salmon fishing from January 1 through the third Monday in June and for the next two consecutive 3-day weekends. This regulation identifying the fishing season is consistent with that on Willow Creek.
5. Proposal 274. On the Little Susitna River, anglers will be allowed to use treble hooks year-round downstream of the Parks Highway Bridge. Existing bait restrictions were modified to allow the use of bait during the month of September.
6. Proposal 268. The area open to king salmon fishing on the Kashwitna River was extended from its mouth upstream to the Parks Highway Bridge, a distance of 2 miles. The Kashwitna River, a Parks Highway stream, will be regulated under the new season regulation implemented for the Parks Highway streams.
7. Proposal 269. In all waters of the Westside Susitna River and West Cook Inlet Management Areas (excluding waters between the Deshka River and the Talkeetna River mouths), anglers will be allowed to continue to fish for king salmon (catch-and-release) once they have harvested their limit excluding Alexander Creek, Lake Creek, Deshka River, Fish Lake Creek and Clear Creek. In these streams an angler will be required to quit fishing for king salmon for the day once they have harvested their limit.
8. Proposal 193. Recreational fishing time on Fish, Wasilla and Cottonwood creeks has been reduced. Fishing hours were restricted from 24-hour fishing days to 12-hour fishing days (6:00 a.m. to 6:00 p.m.) in these Saturday and Sunday-only fisheries. Once an angler has harvested a bag limit of 3 coho salmon they may no longer fish on these streams for the remainder of the day.
9. Proposal 260. In all waters of West Cook Inlet south of the Susitna River (i.e. Chuitna, Lewis, Theodore & McArthur rivers) once an angler has harvested a bag limit of 3 coho salmon they may no longer fish on these streams for the remainder of the day. These same streams are closed to coho salmon fishing commencing October 1-December 31.

February 2000 BOF Meeting

The Board developed a Cook Inlet Coho Salmon Conservation Management Plan which addressed conservation concerns by putting more coho on the spawning grounds. This plan reduced the harvest potential in both the commercial and recreational fisheries. The following are regulation changes affecting fisheries that occur in the NCIMA.

1. The coho bag and possession limits in Knik Arm, including the Little Susitna River and excluding the Eklutna Tailrace, were reduced from 3 to 2 fish.
2. Wasilla, McRoberts, Upper Jim creeks and Jim Lake were closed year-round to salmon fishing.
3. After taking a bag limit of salmon from Fish and Cottonwood creeks a person may not fish on Fish and Cottonwood creeks in waters open to salmon fishing on the same day.
4. Eastside Susitna River and the Susitna River upstream of its confluence with the Talkeetna River, including the Talkeetna River, the daily coho bag and possession limits were reduced from 3 to 2 fish.
5. Westside Susitna River and West Cook Inlet north of the West Foreland the daily coho bag limits were reduced from 3 to 2 fish and the daily possession limit was reduced from 6 to 4. Below the West Foreland the bag and possession limits remained at 3 and 6 fish.
6. Cook Inlet salt water: in all waters west of the longitude of Gore Point and north of the latitude of Cape Douglas the daily coho salmon bag and possession limits were reduced from 6 to 3 fish (except stocked coho fisheries in Seward and Homer Spit Lagoon).

January 2001 BOF Meeting

Defined "jack" king salmon as any king 20 inches or less in length statewide. In all fresh waters open to king salmon fishing the bag/possession limits for "jacks" are 10. These limits are in addition to any limits for kings over 20 inches in length. These jacks do not count against annual or seasonal limits.

February 2002 BOF Meeting

The following regulations were adopted during the February 2002 meeting:

1. Allow beads fixed on line within 2 inches of fly, lure, or hook.
2. Clarify the single-hook regulation to mean one single hook.
3. The use of five lines while ice fishing for pike apply to seven additional lakes in Northern Cook Inlet: Trapper Lake, Big No Luck Lake, Figure Eight Lake, Cabin Lake, Lower Vern Lake, Upper Vern Lake and Lockwood Lake. On Trapper Lake, there is no longer a "slot limit" for pike; bait, multiple hooks, spears, and bow and arrow gear are now allowed. For the purposes of sport fishing, legal bow and arrow gear includes crossbows. When fishing through the ice for pike, anglers may use two hooks on a single line, provided that both hooks are attached to one single piece of bait.
4. Allow catch-and-release fishing for kings in East Fork of Chulitna River through July 13. Only one single-hook, unbaited artificial lure may be used January 1 through July 13.
5. Increase possession limit to two kings for West Susitna River tributaries (excluding Alexander Creek).

6. The Larson Creek drainage upstream of a marker ¼ mile upstream from its mouth is closed to sport fishing for all salmon year-round.
7. Nancy Lake Creek drainage upstream of a marker ¼ mile upstream from its mouth is closed to all salmon fishing including catch-and-release.
8. The Clearwater and Roscoe creek drainages are closed year-round to all fishing upstream from a marker ½ mile upstream of their confluences with the Chinitna River.
9. Open Fish Creek personal use fishery by EO when escapement goal is projected.
10. The Fish Creek Sockeye Salmon Management Plan was repealed.
11. Finding of a yield concern for Fish Creek sockeye salmon exists and Board recommended establishing an action plan to address this stock. Board directed staff to bring an action plan for the Big Lake drainage that will address the habitat and mixed hatchery and wild stock composition.
12. In the Northern District King Salmon Management Plan: The commercial setnet fishery will open on the first Monday on or after May 25 and close June 24. The number of commercial periods will depend upon expected northern Cook Inlet king salmon run strengths and there shall be no more than three commercial openings targeting kings. The area from an ADF&G marker located 1 mile south of the Theodore River to the Susitna River is open to fishing in the second regular period only. If the Theodore, Lewis or Ivan rivers are closed to sport fishing, the area from an ADF&G regulatory marker located 1 mile south of the Theodore River to the Susitna River is closed to commercial king salmon fishing for the remainder of the directed king salmon fishery. If the Deshka River is closed to sport fishing, the commercial king salmon fishery throughout the Northern District is closed for the remainder of the directed king salmon fishery. If the Chuitna River is closed to sport fishing, the area from an ADF&G marker located 1 mile south of the Chuitna river to the Susitna River is closed to commercial king salmon fishing for the remainder of the directed king salmon fishery.
13. Allow a catch-and-release fishery in the entire Theodore and Lewis rivers. No bait, single hook only.
14. Open Wasilla Creek from its mouth to the Alaska Railroad bridge for salmon fishing (excluding king salmon). Saturday and Sunday only from 6:00 a.m.–6:00 p.m. only.
15. Eliminate use of bait on Little Susitna River July 14, upstream of the Little Susitna Public Use Facility.
16. Allow use of bait on Deshka River from its mouth upstream to a marker at River Mile 17 beginning June 8.