Fishery Management Report No. 13-50

Area Management Report for the Recreational Fisheries of Northern Cook Inlet, 2011–2012.

by

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and

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December 2013

Alaska Department of Fish and Game **Divisions of Sport Fish and Commercial Fisheries**

Symbols and Abbreviations

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Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols	
alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

Alaska Administrative Code	AAC
all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat or long
monetary symbols (U.S.)	$, ¢
months (tables and figures): first three letters	Jan,...,Dec
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	*e*
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	*E*
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$log_{2,}$ etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

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ABSTRACT

This report provides a detailed summary of the sport fisheries occurring within the Northern Cook Inlet Management Area and their performance for the years 2011–2012. Included is an organizational and geographic description of the management area, a description of programs related to management of the area, a historical overview of each fishery, how each fishery is managed, and the sport fishery performance and escapement for the 2011–2012 management years.

Key words: Northern Cook Inlet Management Area, Knik Arm Management Unit, Eastside Susitna Management Unit, Westside Susitna Management Unit, West Cook Inlet Management Unit, sport fisheries overview, stocked lakes, Chinook salmon, *Oncorhynchus tshawytscha,* coho salmon, *Oncorhynchus kisutch*, sockeye salmon, *Oncorhynchus nerka,* rainbow trout, *Oncorhynchus mykiss,* northern pike, *Esox lucius,* personal use fisheries, dip net, subsistence, educational fisheries, Alaska Board of Fisheries.

INTRODUCTION

This report provides a detailed summary of sport fisheries within the Northern Cook Inlet Management Area (NCIMA). Included is a description of the management area and programs related to management of area fisheries. Fisheries are described and organized by species and management unit. A historical overview and description of each fishery, historical harvest and escapement, management strategies and objectives, and sport fishery performance and escapement for the years 2011–2012 are discussed.

MANAGEMENT AREA DESCRIPTION

The Northern Cook Inlet (NCI) sport fish management area (Figure 1) includes all freshwater drainages and adjacent marine waters of Upper Cook Inlet (UCI) between the southern tip of Chisik Island and the Eklutna River, excluding the upper Susitna River drainage upstream of 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 remote West Cook Inlet (WCI) waters, which are accessible only by boat or aircraft.

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

1. Knik Arm Management Unit (KAMU): includes all waters bounded on the north by Willow Creek (not including Willow Creek); on the west by a line one-half 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 Management Unit (ESMU): includes all drainages of the upper Susitna River upstream of 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 downstream of its confluence with the Chulitna River to and including Willow Creek to the south. This management unit has no marine waters.

3. Westside Susitna Management Unit (WSMU): includes all westside drainages of the Chulitna River, all westside drainages of the Susitna River downstream of its confluence with the Chulitna River, and the eastside drainages of the Susitna River within one-half mile of the Susitna River downstream of Willow Creek. This management unit has no marine waters.
4. West Cook Inlet Management Unit (WCIMU): 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.

In terms of political geography, the major portion of this management area is very similar to the boundaries of the Matanuska-Susitna Borough; the West Cook Inlet Unit extends into the Kenai Peninsula Borough. The State of Alaska is the principal land manager in the NCIMA. Other significant land managers include the Matanuska-Susitna (Mat-Su) Borough, Kenai Peninsula Borough, various Native corporations and villages, and the federal government.

FISHERY DEVELOPMENT AND REGULATION

The waters of the NCIMA fall within four sport fishing regulatory areas: the Knik Arm, Susitna River, West Cook Inlet, and the Cook Inlet–Resurrection Bay Salt Water regulatory area. Regulations governing the sport fisheries of the Knik Arm, Susitna River, West Cook Inlet, and the Cook Inlet–Resurrection Bay Salt Water regulatory areas are established in Chapters 60–62 and 58, respectively, of Title 5 of the Alaska Administrative Code. Regulations pertaining to other Cook Inlet fisheries including subsistence (Chapter 01), personal use (Chapter 77), educational permits (Chapter 93); statewide provisions (Chapter 75) and commercial fisheries (Chapter 21) are also contained in Title 5 of the Alaska Administrative Code.

The process of developing fishing regulations appropriate for fisheries in the NCIMA occurs within the established Alaska Board of Fisheries (BOF) process. Public input concerning regulation changes and allocation issues is provided for in this process through various means including submission of proposals, direct testimony to the BOF, and participation in local fish and game advisory committees. Advisory committees have been established throughout Alaska to assist the BOF and the Alaska Board of Game (BOG) in assessing fisheries and wildlife issues and proposed regulations. Active committees meet several times each year. Division of Sport Fish (SF) staff and other Alaska Department of Fish and Game (ADF&G) divisions are often invited to attend the committee meetings. In this way, advisory committee meetings allow for direct public interaction with ADF&G staff involved with resource issues of local concern. Within the NCIMA there are four ADF&G Advisory Committees: Denali, Matanuska, Susitna, Tyonek, and Mt. Yenlo (Appendix A1). ADF&G staff also interact frequently with the Anchorage Advisory Committee, whose constituents and concerns affect the NCIMA. Under the current operating schedule, BOF meets on a 3-year cycle. Proposals regarding finfish species within the NCIMA were addressed most recently in February 2011. The next regularly-scheduled BOF meeting to address NCI issues is scheduled for 2014. Appendices B1 to B4 provide summaries of BOF regulatory actions.

MANAGEMENT PLANS

Upper Cook Inlet fisheries have been the focus of intensive allocation battles for many years. These conflicts have led the BOF to establish numerous management plans and policies to guide the area's fisheries. These plans attempt to assure sustained yield of the area's fish resources, as

well as establishing allocations, management actions, and guidelines. There are presently 14 management plans or policies that the BOF has adopted that impact NCIMA fisheries (Appendix C1).

RECREATIONAL EFFORT, HARVEST, AND CATCH

Beginning in 1977, sport fishing effort in the NCIMA has been estimated using the Statewide Harvest Survey (SWHS), a mail survey (Mills 1979-1980, 1981a-b, 1982-1994, c; Howe et al. 1995, 1996,, b, c; 2001 a-d; Walker et al. 2003; , b, b; Jennings et al. 2004, 2006 a-b, 2007, 2009 a-b, 2010a-b, In prep a-b, 2012). This survey estimates the number of angler-days of sport fishing effort expended by anglers fishing Alaskan waters, as well as the harvest and, beginning in 1990, catch (number harvested plus number released) of important sport species. The SWHS is designed to provide estimates of effort, harvest and catch by site but is not designed to provide estimates of effort directed towards a single species at a site. Unless noted otherwise, all estimates of effort, harvest and catch that follow are from the SWHS.

The NCIMA is composed of two complete SWHS reporting areas and a portion of a third (Jennings et al. *In prep*). These areas are as follows: 1) the Knik Arm Drainage Area reporting unit (Area K), 2) the West Cook Inlet reporting unit (Area N), and 3) the Susitna River Drainage reporting unit (Area M). The West Cook Inlet Area presently includes fresh and marine waters between the southern tip of Chisik Island and Cape Douglas, an area outside of the NCIMA. The Susitna River area includes several rivers and many lakes north of the Oshetna River boundary of the NCIMA. Area M fisheries outside of the NCIMA are not included in this report.

Effort

From 1977 through 2011, an average of 289,869 angler-days were expended by anglers fishing NCIMA waters (Table 1). Historically, the effort expended by anglers fishing NCIMA waters has represented an average of 14% of the total statewide and 19% of the Southcentral Region[1] (Region II) angling effort. Angler-effort peaked at 403,805 angler-days in 1992 (Figure 2). From 1995 through 1998, and again from 2009 to 2012, angler-effort fell abruptly, mirroring years when major Chinook salmon *Oncorhynchus tshawytscha* fisheries were either closed or severely restricted. Total effort for NCIMA averaged 246,242 angler-days from 2007 to 2011 (Table 1). The Kenai Peninsula sport fish management area is currently the only management area in Alaska that receives greater use by recreational anglers (Jennings et al. 2011).

During 2012, anglers spent an estimated 160,131 angler-days fishing NCIMA waters, the lowest estimate to date. Effort in 2012 represented 8% and 13% of the total statewide and Southcentral Region angling effort, respectively (Table 1).

About 40% of the total effort from the NCIMA has historically occurred in the Knik Arm Management Unit (Table 1). From 1977 to 2011, these waters supported an average of 116,514 angler-days of fishing effort. Nearly all of the effort over this period was expended in fresh water (Table 2). The Little Susitna River is the most heavily fished stream in the KAMU, averaging 33,462 angler-days of effort for the period 1977–2011 (Figure 3). Effort on Jim Creek (Knik River), where a coho salmon *O. kisutch* fishery takes place, supported an average of more than 20,000 angler days from 2007 to 2011 (Table 2). Jim Creek angler-days in 2012 were 7,474. A

[1] ADF&G, Sport Fish Division, Southcentral Region (i.e., Region II) includes the following management areas: Anchorage Area, Bristol Bay, Kodiak/Aleutians, Lower Cook Inlet (Kenai), Northern Cook Inlet (Mat-Su), Prince William Sound Area, Seward North Gulf Coast, and Upper Kenai Peninsula.

terminal Chinook salmon fishery at the Eklutna Tailrace has also contributed to an increase in effort in the KAMU. During 2011, the KAMU represented 37% of the effort in the NCIMA (Table 1). Other major fisheries occur in the many stocked lakes in the basin (notably in Finger Lake and the Kepler Lake complex) and at various road-accessible streams including the Big Lake drainage and Cottonwood and Wasilla creeks (Figure 3). A limited saltwater (i.e., marine) fishery also occurs off the mouth of Fish Creek in Knik Arm (Figure 3).

Anglers fishing the Eastside Susitna Management Unit from 1977 through 2011 expended an average of 93,775 angler-days (Table 1), representing an average of 32% of the total sport effort from all NCIMA waters. A total of 50,521 angler-days were spent in this area during 2012, an historic low (Table 3). Major fisheries occur in Willow Creek, Montana Creek, Sheep Creek, Little Willow Creek, and the Talkeetna River (Figure 4).

Anglers fishing the Westside Susitna Management Unit from 1977 through 2011 expended an average of 67,387 angler-days (Table 1). This expenditure of effort has represented an average of 23% of the total effort from all NCIMA waters during this time period. A total of 40,255 angler-days occurred during 2012, the lowest on record since 1978 (Table 4). Alexander Creek, a major Chinook salmon fishery, has been closed to all Chinook salmon fishing as of 2008. Other major fisheries occur in Yentna River tributaries including Lake Creek (Figure 5). Other moderate level fisheries occur in numerous remote lakes in the area.

From 1977 through 2011, anglers fishing West Cook Inlet Management Unit waters expended an average effort of 12,213 angler-days (Table 1). This expenditure of effort represents an average of 4% of the total effort from all NCIMA waters for the same period. A record total of 20,459 angler-days occurred during 2005 (Table 5), the result of increased fishing effort at Big River Lakes. WCIMU effort in 2012 of 10,682 angler-days was below the 2002-2011 average of 16,330 angler-days and below the 2007-2011 average of 15,195 angler-days. The sockeye salmon *O. nerka* fishery at Big River Lakes (Big River drainage, including Wolverine Creek) has developed during the last decade into the largest fishery in WCIMU; other major fisheries include the Kustatan, Chuitna, and Theodore rivers (Figure 6).

Harvest

From 1977 through 2011, an average of 195,553 fish were caught and kept (i.e., harvested) by anglers fishing NCIMA waters (Table 6). In 2012, a historic low of 77,328 fish were harvested in NCIMA (Figure 7); 32% of the harvest was from the KAMU and 23% from ESMU (Table 6). Coho salmon, rainbow trout *O. mykiss*, and Chinook salmon accounted for 32%, 17%, and 12% of the average harvest from 1977 through 2011 (Table 7). In 2012, Chinook salmon harvest was the lowest on recorded at 3,020 (Table 7).

On average, fish from the Knik Arm Management Unit accounted for 43% of fish caught and kept within the NCIMA during 1977–2011 (Table 6). Coho salmon and rainbow trout dominated the harvest (Table 8). The Eastside Susitna and Westside Susitna management units accounted for 27% and 24% of the average NCIMA harvest during this time period, respectively (Table 6), with coho salmon, Chinook salmon, pink salmon *O. gorbuscha*, rainbow trout, and Arctic grayling *Thymallus arcticus* dominating harvests (Tables 9 and 10). The West Cook Inlet Unit accounted for 6% of the NCIMA harvest (Table 6), with coho, sockeye, and Chinook salmon accounting for the majority of the WCI harvest (Table 11 and Figure 8).

Catch-and-Release

Estimates of the number of fish caught and released by anglers fishing NCIMA waters became available for the first time during 1990 (Mills 1991). From 2001 through 2012, the average percent released was approximately 73% of the total catch (Table 12).

The proportion and type of fish released by anglers varies within and among management units (Tables 13 and 14). Pink salmon, chum salmon *O. keta*, Arctic grayling, and rainbow trout were the most frequently released fish species during 2001–2012 (Table 12). In all units during 2001–2012, the number of fish caught and released was greatest in ESMU (Figure 9).

SPORT FISH GUIDE LICENSING AND LOGBOOK PROGRAM

Sport fishing guide registration and licensing has developed over the years in response to a lack of information regarding the industry and its impact on fishery resources. The program was designed to provide a comprehensive system to better define this diverse industry. Sport fish guide registration has been required since 1995 throughout the state. In 1998, the Alaska Board of Fisheries (BOF) adopted statewide registration regulations and definitions. Licenses with associated fees were not part of the registration process at that time. Division of Sport Fish has operated the Sport Fish Guide Licensing and Logbook program since 1998 to register sport fishing guides and sport fishing guide businesses. In 2004, the Alaska Legislature adopted House Bill 452 (HB 452). The Bill established licensing requirements for sport fishing guide business owners and sport fishing guides on a statewide basis. This bill was created to establish minimum professional standards that both freshwater and saltwater sport fish guides and business owners must follow before a license can be obtained. The standards were established to protect consumers and to promote the viability and legitimacy of a professional sport fish guide industry. Businesses providing sport fish guided services were now required to obtain a State of Alaska Occupational Business License and hold liability insurance with a minimum of $300,000 coverage for all incidents in a year (AS 16.40.260). Licensed sport fishing guides were required (1) to be citizens of the United States, Canada, or Mexico, (2) hold a current first aid card, (3) have a current year Alaska sport fishing license, and (4) have a valid U.S. Coast Guard operator's license if they were to operate a motorized vessel in navigable waters. License application forms and the information collected in logbooks on fishing participation, effort, and harvest have remained consistent in design since 2006 (Sigurdsson and Powers 2009-2013). Logbook information is used to provide management biologists with comprehensive and credible data on guided sport fishing activities. The data can be used as an index to track effort and harvest trends, changes in effort across management areas, and to help inform the decisions of regulatory agencies such as the BOF.

In the NCIMA, guiding effort is similar between Susitna River tributaries and those of WCI (Table 15). However, WCI has greater concentrations of guides on fewer systems than the Susitna River. Most of the guided sport fishing effort in WCI is expended on Big River Lakes and the Kustatan and Chuitna rivers. Clients fish an average of about 3,500 days, fishing for mostly sockeye and coho salmon under the direction of about 40 guides at Big River Lakes (Figure 10). On the Susitna drainage, most of the guided effort occurs at Lake Creek, where an average of 60 guides fish 3,700 clients per year for mostly Chinook and coho salmon. Other higher use guide areas in WCI include the Chuitna and Kustatan rivers. On the Susitna drainage, the Deshka, Talachulitna, and Talkeetna rivers also sustain relatively high use by guides. The

Little Susitna River supports an average of 16 guides (Figure 10) who fish about 1,500 clients per year, nearly exclusively for Chinook and coho salmon (Figure 11).

The largest guided harvest for Chinook salmon occurs at Lake Creek where an average of 564 Chinook salmon are harvested annually. Other major guided Chinook salmon fisheries occur on the Deshka, Talachulitna, Talkeetna, and Little Susitna rivers (Figure 12). The proportion of Chinook salmon caught and released varies considerably between these systems. Guided anglers fishing the Talachulitna River released on average 75% of the Chinook salmon caught, but only 11% of Chinook salmon caught on the Little Susitna River were released. About 50–55% of Chinook salmon were released on the other major systems. Most guided coho salmon harvest occurs at Big River Lakes and the Kustatan River of WCI (Figure 13). Average coho salmon harvest was 5,181 fish at Big River Lakes and 2,942 fish for the Kustatan River. Less than 25% were released at these two sites. The largest guided harvest of coho salmon within the Susitna and Knik Arm area was at Lake Creek (average 1,654) and the Little Susitna River (average 1,012). As with Chinook salmon, catch-and-release fishing was greatest on the Talachulitna River (75%). The smallest percentage occurred on the Little Susitna River (14%). A listing of guides operating within the NCIMA can be found in Appendix D1.

OTHER USER GROUPS

Salmon returning to the NCIMA are harvested by various set and drift gillnet fisheries in Upper Cook Inlet (UCI) commercial salmon fishing districts (Appendix E1). In nearly all cases, harvests in the commercial fisheries are much larger than in NCIMA sport fisheries (Figure 14). The average commercial harvest from 1977 through 2011 was approximately 4.7 million salmon by the various UCI commercial fisheries, whereas during this same period, an average of approximately 112,000 anadromous salmon were harvested annually by sport fish anglers (Figure 14 and Appendix E2). Chinook salmon are the exception; since 1988 the yearly sport harvest of Chinook salmon has exceeded the commercial harvest in all years except 1995 and 2011 (Shields and Dupuis 2013, Table 7; Appendix E2).

It is generally assumed that not all commercial fisheries in Upper Cook Inlet intercept the same proportion of NCIMA salmon stocks. For purposes of management, it has generally been assumed that NCIMA salmon stocks are to a larger extent intercepted in the driftnet and Western Subdistrict setnet fisheries of the Central District and in the setnet fishery of the Northern District than in other commercial fishing districts. Although quantifiable estimates of contribution to these commercial fisheries by specific stocks are not available for many of the species, a consistently high proportion of the harvests in the Northern District setnet fisheries is assumed to be composed of NCIMA stocks. Catch sampling of Chinook salmon caught in the Northern District setnet fishery from 1998–2002 revealed an average combined contribution of 4% Deception and Ship Creek stocks(Whitmore and Sweet 1999, Rutz and Sweet 2000, Sweet and Rutz 2001, Sweet, Ivey, and Rutz. 2003). However, it is presently unknown how this contribution relates to the overall contribution of specific NCIMA wild stocks to the Northern District setnet fishery. This question could be advanced through genetic stock identification of Chinook salmon within marine sport, commercial, and subsistence fisheries. Toward this effort, a genetic baseline is being developed that includes determining the extent of genetic separation or discrimination between stocks.

The identification of discrete stocks through genetic sampling of commercially caught sockeye salmon has allowed ADF&G limited insight into the compositions of these mixed stock fisheries

by area and time. Seeb et al. (2000) estimated that Yentna/Susitna River sockeye salmon comprised an average of 16% (range 3–35%) of the Central District drift harvests from 1995–1997, while Barclay et al. (2010a) estimated an average of 7% contribution (range 0–15%) from 2005–2007. In 2009, the proportion of Yentna/Susitna (range 1–6%) and JCL (Judd/Chelatna/Larson lakes) (range 1–9%) increased after the June 22–July 2 period. Their combined contribution in the four periods between July 6 and August 6, ranged between 8% and 13% (Barclay et al. 2011). It should be noted that the contributions of various stocks harvested in the drift fishery may be the result of run size, fishery restrictions/liberalizations, and run timing on a given year (Barclay et al. 2010a).

Sockeye bound for Yentna/Susitna were harvested in increasing proportions in subsections of the eastside setnet fishery farthest from the Kenai and Kasilof river mouths. Sampling in 2009 indicated Fish Creek sockeye primarily migrate up the east side of the Northern District, while sockeye bound for the Susitna drainage migrate up the west side (Barclay et al. 2011). Genetic sampling of commercial harvests continues, as well as sampling along a northern Offshore Testnet Fishery (OTF) line, crossing the inlet near the north end of Kalgin Island, which began in 2012. Development of a genetic baseline for coho stocks within Cook Inlet is currently underway.

Fish stocks of NCIMA are also harvested in the Tyonek subsistence fishery, Fish Creek personal use dip net fishery, Upper Yentna River subsistence fish wheel fishery, and by various educational fisheries through permits issued to the villages of Eklutna and Tyonek, the Knik Tribal council, and the Big Lake Cultural Outreach program. The harvest by these fisheries on wild stocks is relatively small when compared to recreational and commercial harvests.

ECONOMIC VALUE OF SPORT FISHING

Southwick Associates and the department estimated the economic value of sport fishing across the state for 2007. Expenditures in the Southcentral region was estimated to be $988.5 million (Table 16). Spending incorporates money spent on goods and services, such as trips, packages, equipment, and real estate and assumes all purchased equipment and real estate to be exclusively used for sport fishing. Spending within Southcentral generated $386.5 million in income and created 11,535 jobs (Table 16). Colt and Schwoerer (2009), used data from Southwick Assoc. et al. (2008) to estimate the economic value of sport fishing within the Matanuska–Susitna (Mat Su) Borough. Mat Su values for spending and generated income and jobs were based on 16.5% of the values for Southcentral[2]. Total spending within the Mat Su borough was an estimated $162.8 million (Table 16). Residents spent $92.4 million, while non residents spent $70.4 million on fishing related expenses. Spending here can be considered high-case because expenses such as equipment and real estate are assumed to be entirely purchased for fishing (e.g. a fishing cooler or recreational cabin could be used for other purposes besides sport fishing, even if the original intent was for fishing). Spending generated $28.8 million in income for residents and $34.9 million for nonresidents, creating 852 resident and 1,048 nonresident jobs (Table 16).

RELATED PROGRAMS

The Recreational Boating and Angler Access Programs provide new access opportunities and upgrade existing angler access in order to increase fishing opportunities in NCIMA fisheries.

[2] 16.5% is the fraction of 295,981 angler-days expended within the Mat Su vs. 1,796,805 angler-days within Southcentral.

Proposed, current, and completed access projects as well as a detailed stocked lakes access summary are provided in Appendix F.

The Information and Education Program (I & E) aims to educate the public on sport fish opportunities and regulations as well as biological aspects such as life histories of fish, their habitat needs, and in ecosystem/watershed awareness. Appendix G summarizes the ongoing I & E programs in NCIMA.

CHINOOK SALMON FISHERIES

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[3]. 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 (see Delaney and Vincent-Lang *Unpublished)*.

Total harvests of NCI Chinook salmon for all users varied from about 11,200 to 70,000 from 1893–1940 (Table 17), averaging about 38,500 fish. This harvest appears to be sustainable, considering it was maintained for over a half century. Harvests increased from 1940–1951. Fish numbers averaged 84,500 annually, and peaked at 150,000 in 1951. After 1951, harvests declined precipitously until fisheries were closed in 1963 to allow stocks to rebuild (Figure 15). 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 passed. This act, also known as the 200-mile limit law, extended federal fishery management authority into waters within three 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 including freshwater and marine sport, commercial, subsistence, personal use, and educational have historically harvested NCIMA Chinook salmon returns, (Table 18). 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 can be found in Whitmore et al. *Unpublished*[4].

From 1975–1990, sport fisheries targeting NCI Chinook salmon runs were gradually expanded to allow harvest of increasing returns (Figure 15). 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

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[3] Delaney, K. and D. Vincent-Lang. *Unpublished*. Current status and recommendations for the future management of the Chinook salmon stocks of Northern Cook Inlet. A report to the Alaska Board of Fisheries, Anchorage, Alaska, November 1992. Alaska Department of Fish and Game, Division of Sport Fish, Anchorage. Subsequently referred to as Delaney and Vincent-Lang *Unpublished*.

[4] Whitmore, C. D. Sweet and L. Bartlett. *Unpublished*. Area Management Report for the recreational fisheries of Northern Cook Inlet, 1992. Located at Alaska Department of Fish and Game, Division of Sport Fish, 333 Raspberry Road, Anchorage.

Cook Inlet to spawning grounds prior to July 1 are to be managed primarily for recreational uses. Therefore, sport 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 of 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 continued to increase from 1986–1993, ranging from 40,300–54,300 fish and averaging 46,500 fish (Table 18). Average and peak harvest of NCIMA Chinook salmon in sport fisheries from 1986–1993 were 34,600 and 49,400 fish, respectively (Table 18). Sport harvests decreased substantially to 16,500 fish in 1995 due in part to fishery closures and restrictions (Appendix B1) placed on sport fisheries following a period of poor escapements observed in the early 1990s. As Chinook salmon stocks rebounded in the mid to late 1990s, fisheries were reopened and some restrictions were lifted. Beginning in 1997, sport harvests trended upward, peaking at 33,100 fish in 2000. From 2002–2006, harvests were stable, with an average of 27,913 fish harvested. The average total harvest of NCI Chinook salmon by all users was 32,000 fish during the same time period (Table 18).

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 1993 BEGs were replaced with sustainable escapement goals (SEGs) as new assessment methods were developed.[5] Escapement goals were revised during the February 2002 BOF meeting, and again at the 2005 BOF meeting (Hasbrouck and Edmundson 2007) based on the *Policy for the Management of Sustainable Salmon Fisheries* and the *Policy for Statewide Salmon Escapement Goals*, both were adopted by the BOF during winter 2000–2001. Currently there are 17 SEGs for Chinook salmon in the NCIMA (Table 19).

Therefore, the primary management objective for NCIMA Chinook salmon is to achieve established escapement goals. Spawning escapement on each of the 17 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 below 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 streams with escapement goals decreased, and in 1992–1995 were well below escapement goals in many streams. In response, actions were taken in 1994 through EOs and BOF regulations to reduce harvest levels. As a result, the combined sport harvest of NCI Chinook salmon from 1995–1998 was reduced to approximately half of the 1993 peak harvest (Table 18). Escapement goals were again achieved beginning in 1997.

[5] Bue, B. G., and J. J. Hasbrouck. Unpublished. Escapement goal review of salmon stocks of Upper Cook Inlet. Alaska Department of Fish and Game, Report to the Alaska Board of Fisheries, November 2001 (and February 2002), Anchorage. Subsequently referred to as Bue and Hasbrouck, *Unpublished*.

Fisheries were subsequently reopened, which contributed in part to increased harvest levels beginning in 1999.

Escapement goals were mostly met through 2006, while harvest levels were stable. Harvest remained stable through the mid-2000s despite liberalizations to major fisheries. Harvest since 2006 has trended downward, becoming variable between fisheries. Of 17 Chinook salmon goals in NCI, performance has declined from achieving 93% prior to 2007 (2002–2006) to 41% (2007–2011) despite various emergency orders restricting major sport fisheries. The downward trend in run size since 2007 is likely due to poor marine survival. The regulatory history of Chinook salmon in Northern Cook Inlet waters is presented in Appendix B1.

KNIK ARM UNIT CHINOOK SALMON FISHERIES

Fishery Description

Within the Knik Arm Management Unit (Figures 1 and 16), the Little Susitna River is the only stream open to Chinook salmon harvest, other than the Eklutna tailrace terminal fishery (see section below). The Little Susitna River 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; the run peaks around 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. There are few Chinook salmon that 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 river mile (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 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 2,161 fish from 1977–2010 (Figure 17; Table 20).

Due to the semiglacial character of the Little Susitna River, aerial survey counts of Chinook salmon on spawning grounds were not counted because the waters were too turbid in 1986, 1989, 1993, 1997, and 1999, surveys have been completed in 25 years since 1983. The average Chinook salmon escapement index count through 2010 was 1,340 fish, with a peak count of

3,197 fish in 1988 (Table 21; Figure 18). During 1988, 1989, 1994 and 1995, a weir was operated at RM 32.5, with escapement counts ranging from about 2,800–7,400 fish (Table 21). Aerial counts in 1988, 1994, and 1995 were 43%, 41%, and 61% of the actual weir counts, respectively.

Stocking Program

To increase road-accessible harvest opportunities and ensure sustainability of the area's wild Chinook salmon populations, Division of Sport Fish began a program to stock Chinook salmon at the Eklutna Power Plant tailrace (Figure 19) in 1999. Ship Creek Chinook salmon are used as broodstock (Loopstra 2007). 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. Most fishing takes place in the one-half mile long power plant tailrace from the Old Glenn Highway to the confluence with the Knik River.

The tailrace was first stocked with Chinook salmon smolt in May 2002 (Table 22). A full complement of age classes was realized in 2006. The largest harvest to date of 1,084 fish was observed in 2007. It is speculated that loss of warm water production at the hatchery in 2006 combined with low marine survival has contributed to the small harvests observed since 2007. The newly built William Jack Hernandez Hatchery on Ship Creek began producing robust smolt of target size in 2012, ending a period of cold water only rearing (2006–2011). It is hoped that these larger and healthier smolt will contribute to stronger returns in the future.

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, an SEG range of 900–1,800 Chinook salmon was set for the Little Susitna River (see Bue and Hasbrouck, *Unpublished*), 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 Chinook salmon harvest estimates were available for the Little Susitna River, inriver exploitation rates were estimated at approximately 28%, 49%, 59% and 38%, respectively. This indicated an increased rate of exploitation from 1988 to 1994 and showed that inriver exploitation can exceed 50%. The Chinook weir program ended after 1995. In 1995, in response to poor Chinook salmon returns, the BOF restricted the use of bait and limited the fishery to 6 a.m.–11 p.m. daily. From 1999–2008, the aerial index count of the escapements ranged from 1,100–2,100 fish and harvest varied from about 2,200–3,300 fish (Tables 20 and 21), indicating that the present regulatory framework is maintaining the necessary escapement to ensure a sustainable fishery over most years. Note that the index count is assumed to represent no more than half of the actual escapement.

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 (Loopstra 2012). The only other Knik Arm Unit Chinook salmon stream indexed annually is Moose Creek, a tributary of the Matanuska River, but there is no escapement goal or associated fishery.

In the near future, NCI managers will be looking for signs of reduced returns from brood year 2011 due to a 100-year flood, which swept much of the NCIMA during the last two weeks in August 2012. Even though the recent Chinook salmon downturn is a statewide issue and likely marine derived, the flood occurring in 2006 may have contributed to the intensity of area downturns occurring from 2010–2012. Similarly, Chinook returning in 2016–2018 as age 4 – age 6 could be affected by the 2012 flood.

Sport Fishery Performance and Escapement in 2011 and 2012

The 2011 sport harvest of Chinook salmon from the Little Susitna River was 828 fish, less than half the 2006–2010 average of 2,255 fish (Table 20). The Little Susitna River harvest accounted for approximately 10% of the total Chinook salmon sport harvest from NCIMA waters during 2011 (Table 23). Low harvest was the result of closing the fishery on June 17, mid way through the season (Appendix B1). During 2011, sport fish guides and anglers reported low to moderate catch rates at the Little Susitna River. Harvest numbers reported at the Little Susitna Public Use Facility (LSPUF) fee booth indicated a below average run with catch rates similar to those observed in 2010, a year in which the escapement goal (SEG 900–1,800) was not achieved. An aerial index of 887 Chinook salmon was documented for the Little Susitna River in 2011 (Table 21), near the low end of the SEG minimum of 900 fish. Catch rates reported by anglers at the Eklutna Tailrace were low through most of the Chinook fishing season. Department staff observations of fishing at Eklutna Tailrace substantiated the angler reports. Harvest of Chinook salmon at the Eklutna Tailrace in 2011 was about 200 fish. In 2011, about 175 fish were counted during the Moose Creek survey (Table 21).

During 2012, preseason action was taken to reduce harvest up to 50% across the Susitna and Little Susitna drainages. A reduction of 50% on the Little Susitna was based on the 2012 run being similar in size as the 2010 and 2011 runs. The 2010 and 2011 inriver runs were likely similar in size; however, the SEG of 900–1,800 was missed in 2010 by a substantial margin with action taken too late in the season for meaningful savings. The SEG was narrowly missed in 2011 after the fishery was closed midway through the season to save the remaining 35–40% of the run. In 2012, harvest numbers reported at the LSPUF fee booth indicated a below average run with catch rates much lower than anticipated. Guides and anglers reported a general absence of Chinook in the lower Little Susitna and a staff survey corroborated those reports. The 2012 run appeared weaker than in 2011. The sport fishery was closed on June 15, two days earlier than in 2011, with a potential harvest reduction of about 75%, all restrictions included. An aerial index survey conducted on July 17 counted 1,154 spawners, within the SEG range (Table 21; Figure 18). Survey conditions were excellent. A weir will be operated at RM 32.5 during the 2013 season to provide timely inseason escapement information to managers. Department staff observations of fishing at the Eklutna Tailrace indicated poor catches from late-May through mid-July. In 2012, an aerial survey conducted on Moose Creek counted 163 fish, 33% of the 1983–2008 average of 485 fish (Table 21).

EASTSIDE SUSITNA MANAGEMENT UNIT CHINOOK SALMON FISHERIES

Fishery Description

The Eastside Susitna Management Unit (ESMU; Figures 1, 21 and 22) is composed of three distinct geographical areas with different regulations: 1) the eastside Susitna River tributaries between the Deshka 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 21 and 22) 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. These streams are considered only moderate producers of Chinook salmon and are susceptible to high use. Therefore, regulations are more conservative than in any other areas with respect to time and area. Streams within this area are generally managed as a unit since independent actions taken on one stream can transfer a significant amount of effort to adjacent fisheries.

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 22). 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 20) 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 the 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. The goals of this program are to: 1) maintain the present quality and quantity of natural

Chinook salmon production, 2) produce through stocking 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 the Chinook salmon season (Sweet 1999). Until the new hatchery is at full production, goals for Willow Creek are currently: 1) maintain the present quality and quantity of natural Chinook salmon production, 2) produce through stocking an additional 4,000 returning Chinook salmon, of which 1,750 Chinook spawn naturally, as assessed by aerial survey, 3) provide 10,000 angler-days of annual weekend and weekday fishing opportunity directed at stocked Chinook salmon in Willow Creek (Loopstra 2012).

A project to estimate the relative contribution of stocked Chinook salmon to the sport harvest was conducted at the mouth of Willow Creek annually from 1988–2005. The program was ended when it was determined that harvests of stocked fish were well documented and relatively stable, averaging about 40% of the total harvest and ranging from 26% to 51% for 1991–2005, years in which a full complement of stocked fish returned (Sweet 1999; Whitmore and Sweet 1998, 1999; Rutz and Sweet 2000;Sweet and Rutz 2001; Sweet et al. 2003, 2004). The contribution of hatchery fish to the escapement in Willow Creek and Deception Creek continues to be monitored by staff annually. An estimated 2% of hatchery fish stray into the Willow Creek escapement annually (Table 24). It is speculated that loss of warm water production at the hatchery in 2006 combined with low marine survival has contributed to the small harvests and below average escapements observed since 2007. The BOF declared Willow Creek wild Chinook a stock of concern at the 2010 meeting. Since this time, the fishery has essentially not been able to support harvest, even on hatchery fish, due mainly to an inability to achieve egg-take goals in 2011 and 2012.

The newly built William Jack Hernandez Hatchery on Ship Creek began producing robust smolt of target size in 2012, ending a period of cold water only rearing (2006–2011). It is hoped that these larger and healthier smolt will lead to stronger returns and achievement of egg-take goals in the future. Smolt to adult survivals through 1996 of 0.6–1.5% were below the original target of 3% (Sweet 1999) for Willow Creek. This survival likely represents a period of better marine survival than is currently being experienced. In consideration of survivals less than 1%, it may be necessary to double or triple the number of smolt released into this system in order to approach the current program goals.

Historical Harvest and Escapement

Information about the fishery and Chinook salmon stock is available from the SWHS, 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, the 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, Chinook 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 about 1,300 Chinook salmon in 1979 to 22,700 in 1993 (Table 23). From 2001–2010, Eastside Susitna Management Unit (ESMU) fisheries averaged about 33% of the total NCIMA Chinook salmon harvest (Table 23). Harvest steadily declined during this period, from about 13,500 Chinook salmon in 2001 to about 2,600 fish in 2010. Total eastside harvest has been less than Westside Susitna harvest since 1999. Historically, approximately 500–4,000 hatchery fish taken in the Willow Creek sport fishery have contributed to the annual eastside harvest. Due to disease issues in 2006 and decreased smolt size since 2007—the result of cold water rearing at the Fort Richardson Hatchery—the number and/or quality of fish stocked has diminished over recent years (Table 25). Although the ramifications of reduced stocking are unmeasured, it is speculated that fewer hatchery adults have contributed to this fishery beginning in 2008.

Willow Creek, the Talkeetna River, Montana Creek, and Sheep Creek traditionally produce the largest harvest of Chinook salmon in the ESMU. The 2001–2005 average annual harvest for these fisheries was 3,474; 2,238; 1,663; and 1,085 fish, respectively (Table 26). By comparison, the 2006–2010 average annual harvest for the same fisheries was 1,019; 1,738; 778; and 525 fish, respectively. Low returns to these rivers and emergency restrictions contributed to the decrease in harvest levels. All Parks Highway streams within Unit 2 of the Susitna River were restricted by EO during 2009 and 2010 (Appendix H).

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).

Aerial survey escapement counts suggest that ESMU substocks comprise from 40% to 60% of the Susitna River Chinook salmon escapement (Table 27). Prairie Creek, a headwater tributary of the Talkeetna River, has historically received the largest escapements with an average escapement of 3,649 Chinook salmon from 2006–2010 (Table 28). Escapements among eastside streams have trended downward since about 2005, but more drastically since 2007. Five of eight SEGs were met in 2009. Despite management action to close the last weekend of fishing, escapement goals were not achieved on Willow, Sheep, and Goose creeks. A large beaver dam was noted as blocking fish passage on Goose Creek in which only 65 Chinook salmon were counted, the lowest on record. In 2010, seven of eight streams failed to achieve escapement minimums amidst severe action to close the last two weekends of fishing. Little Willow Creek narrowly achieved its escapement goal with 468 fish (SEG 450–1,800). Willow and Goose creeks each missed their respective goals for the fourth consecutive year. During the 2010 BOF meeting, Willow and Goose creeks were designated as stocks of yield concern. The board closed Goose Creek and placed additional restrictions on the Willow Creek sport fishery (Appendix B1).

Fishery Management and Objectives

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

In the Deshka to Talkeetna area (Unit 2 or Parks Highway streams), 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 the next three consecutive weeks. For the Willow, Little Willow, Caswell, Kashwitna, Sheep, Goose and Montana creeks (Figure 21), fishing is allowed from the Susitna River upstream to the Parks Highway. Fishing on Montana Creek extends one-half mile upstream of the Parks Highway Bridge. The weekend-only fishing strategy has been cautiously liberalized since sport fisheries reopened in 1979 after a period of closure. Initially only Willow, Caswell, and Montana creeks were open for four consecutive Saturday-Sunday weekends beginning the second Saturday in June. In 1986, Little Willow, Goose, Sunshine, Sheep, and Birch creeks were added, and in 1987 all eight eastside streams were liberalized by the addition of Monday to the fishing weekend. In 1989 the Kashwitna River was added as the ninth eastside fishery, and Willow Creek was liberalized to continuous fishing through the third Monday in June and the next two consecutive three-day (Saturday–Monday) weekends. In 1999, all eastside fisheries followed suite with the regulations in place on Willow Creek. In 2005, Parks Highway streams were opened for an additional three-day weekend (Appendix B1). Willow and Goose creeks were designated as stocks of yield concern at the 2010 BOF meeting. The board closed Goose Creek and placed additional restrictions on other streams within Unit 2 of the Susitna River in an effort to reduce harvest by 50% and thereby boost escapement levels. The last weekend of fishing, added in 2005, was removed from regulation in addition to only allowing fishing from 6 a.m. to 11 p.m. (Appendix B1).

The Talkeetna River and upper Susitna River drainages are open to Chinook salmon fishing from January 1 through July 13, from 6 a.m. to 11 p.m. 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 Prairie creeks are closed to Chinook salmon fishing. Eastside Chulitna River tributaries are closed to Chinook salmon fishing with the exception of the East Fork Chulitna and its tributaries. Harvest is allowed within a quarter mile of the confluence of the East Fork and West Fork of the Chulitna River (including the Middle Fork) and the first quarter-mile of Honolulu Creek under the weekend-only management strategy described for the Deshka 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 19) based on historic escapement index counts (see Bue and Hasbrouck *Unpublished*). The Deception Creek SEG was removed at the 2005 BOF meeting (Hasbrouck and Edmundson 2007) because Deception Creek is managed as part of Willow Creek. The management objective for these eight 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.

Sport Fishery Performance and Escapement in 2011 and 2012

Board action taken in 2010 to decrease harvest in Eastside Susitna streams was insufficient to achieve desired escapement objectives in 2011. The 2011 Chinook salmon harvest from the Eastside Susitna Management Unit was 2,710 fish, approximately 66% less than the 2001–2010 average harvest of 7,840 fish (Table 23). A below average return of Chinook salmon was observed along Parks Highway streams in 2010. While harvest was likely reduced through added restrictions as intended by the board, returns to eastside streams were lower than last season. Despite the recent restrictions to these sport fisheries, all streams along the Parks Highway, with the exception of Little Willow Creek and the Chulitna River, failed to achieve escapement goals (Figure 23).

During 2012, preseason action was taken to reduce harvest up to 50% across the Susitna and Little Susitna drainages. An area-wide restriction reduced the annual limit to two Chinook over 20 inches and allowed use of only one, single hook, artificial lure. Parks Highway streams within Unit 2 of the Susitna River were further restricted to catch and release only after the second Monday in June in addition the area-wide blanket. Staff was present during the weekend outlined in regulation (June 16–18) when fish were expected to be caught in moderate numbers and observed low catch rates overall. Helicopter surveys conducted on June 25–26 over eastside streams and on Clear Creek of the Talkeetna River confirmed poor numbers of Chinook salmon holding in the lower reaches of these systems. Eastside streams, along with the rest of the Susitna Drainage, were closed to Chinook salmon fishing beginning June 25. Despite Unit 2 streams being reduced in harvest by at least 95%, escapements to several streams were of record low numbers, including Willow and Montana creeks (Table 28). In general, returns to eastside streams were lower than in 2011. The SEG on Little Willow Creek was met. Savings on the Talkeetna River likely approached 75% as a result of the closure; however, final index counts were mixed, with Clear Creek achieving its SEG with a count of 1,177, while a count of 1,185 on Prairie Creek was the lowest on record

WESTSIDE SUSITNA MANAGEMENT UNIT CHINOOK SALMON FISHERIES

Fishery Description

The Westside Susitna Management Unit (WSMU) 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 that 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 its confluence at RM 40 of the Susitna River; and Alexander Creek (confluence at RM 10 of the Susitna River). The Deshka River produces the largest return of Chinook salmon to the NCI area; these fish exhibit early run timing due to the relative closeness of the Deshka to the mouth 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 four miles upstream from the Deshka River, are the principle 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.

Historical Harvest and Escapement

Information about the WSMU fisheries and Chinook salmon stock is available from the SWHS, weirs, and escapement surveys. Chinook salmon enter WSMU tributaries in May and 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.

The WSMU supported the largest harvests of Chinook salmon within the NCIMA from 1979–1991 (Table 23) and again after 2000; ESMU dominated harvests 1992–1999. Within the unit, the Deshka River, Alexander Creek and Lake Creek historically supported the largest Chinook salmon fisheries (Table 29) until Alexander Creek was closed to Chinook salmon fishing in 2008. More recently, the Deshka River, Lake Creek, and the Talachulitna River have generated the largest harvests in this unit—about 80% from 2006–2010. The Deshka River has historically provided the largest Chinook salmon harvest within the entire NCIMA (Table 29) except during the mid-1990s when the fishery was closed due to low observed escapements.

Harvest by major WSMU fisheries increased substantially from 1979–1993 (Table 29), probably 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.

Escapements have been monitored annually in six tributaries using aerial surveys (Table 30). A weir has been used to census escapements to the Deshka River since 1995 (Table 30). From 1991–1996, Chinook salmon spawning abundance in WSMU tributaries fell below escapement goals (Table 30). At the Deshka River, Chinook salmon escapement index counts indicated an alarming decline during this period, while the average sport harvest of Chinook salmon from 1990–1992 was approximately 40% greater than the average harvest during the previous 10 years (Table 29). In response, restrictions were implemented on major WSMU streams and the Deshka River was closed to Chinook salmon fishing from June 17, 1994 to June 21, 1997 (Appendix B1). The escapement goal for the Deshka River of 11,200 Chinook salmon, counted by aerial survey, was not met from 1991–1996 (Table 30). In 1997–2007, the SEG or BEG was met for all streams, except Alexander Creek. Alexander Creek escapement counts began a steep downward trend beginning in 2006 (Table 30). Alexander Chinook salmon were designated a stock of management concern in 2010 and the fishery has remained closed since 2008. Managers suspect northern pike have contributed to reduced Chinook salmon productivity in the Alexander Drainage and a large scale pike suppression program is underway (see northern pike section). It is likely that a combination of pike predation and poor marine survival are responsible for the low productivity of Alexander Chinook salmon. The Deshka River did not achieve its escapement goal in 2008 and 2009, but did meet the goal in 2010 with a count of 18,600 (Table 30). The Lake Creek goal was missed 2008–2010 and the Talachulitna goal missed in 2010.

Fishery Management and Objectives

Management of Chinook salmon in the WSMU has undergone numerous changes since the 1980s, as has management of Chinook salmon in the entire NCIMA (Appendix B1). These changes reflect periods of strong Chinook salmon returns during most of the 1980s and from

about 1997 to 2006, surrounding period of weak returns (1991–1996 and 2007–present). An escapement monitoring weir at RM 7 of the Deshka River is an important tool for managing Chinook salmon returning to the Susitna River because of large observed escapements and relatively early run timing due the river's closeness to the mouth of the Susitna River. The Deshka weir operates from mid-May through the duration of the Chinook salmon season to provide managers with timely inseason run information as well as post season biological data used to assess productivity in this system (Appendix I). A weir-based SEG range of 13,000–28,000 fish was established for the Deshka River based on actual escapement, age, and harvest data gathered at the weir. SEG ranges for four other WSMU systems (Lake, Alexander, and Peters creeks, and the Talachulitna River) were also established in 2002 (Table 19). SEGs were based on historical aerial index counts of escapement[6]. The management objective for these five systems is to achieve the escapement goals while providing maximum levels of Chinook salmon fishing opportunity.

A weir has been the cornerstone for inseason management of the Chinook salmon fishery on the Deshka River since its inception in 1995. Over recent years, a preseason outlook of run size to the Deshka River has been used for early inseason management. The preseason outlook uses sibling regression to predict the number of returning age-5 and age-6 fish. It also uses a spawner-recruit relationship combined with the average proportion of age-4 spawners to predict the number of age-4 fish. Harvest is incorporated to estimate total run size. The SWHS is generally to estimate sport harvest, whereas marine harvest is estimated by taking a proportion of the combined catches in the Northern District directed commercial setnet, Tyonek subsistence, and Kustatan subdistrict commercial setnet fisheries. That proportion is the aerial survey count of the Deshka Chinook salmon escapement divided by the sum of all aerial Chinook salmon counts in the NCI area. The outlook has limited utility as a management tool because of the variability in precision of the various models used in forecasting the three major returning age classes; the outlook has been off by an average of 8,000 fish, either over forecasting or under-forecasting runs. It is useful as an index of expected run strength, but should not be used alone to base management decisions upon.

The Deshka weir has also provided insight into accuracy of the aerial count. Spawners have been counted by helicopter since 1979, with a single pass over all known spawning areas at the peak of spawning (Lafferty 1997). Because the Deshka River is the top producer of Chinook salmon in the NCIMA, a weir was installed in 1995 in order to monitor actual numbers in the escapement. Subsequent aerial counts were correlated with the escapements (weir count minus harvest above the weir) and averaged 40% of the escapement (Table 30). The aerial counts were used as an index of escapement even prior to the weir program. Poor aerial counts during the early 1990s suggested diminished runs and were the basis of areawide restrictions affecting Chinook salmon fisheries. The weir substantiated that the low aerial counts were an index of low escapements

Inseason liberalizations to the Deshka River Chinook salmon fishery were common 2000–2006 (Appendix B2) because the Deshka River escapement exceeded the escapement goal of 17,500 fish from 1999–2001 and exceeded or was within the more recent SEG range from 2002–2007

[6] Bue, B. G., and J. J. Hasbrouck. *Unpublished.* Escapement goal review of salmon stocks of Upper Cook Inlet. Alaska Department of Fish and Game, Report to the Alaska Board of Fisheries, November 2001 (and February 2002), Anchorage.

(Figure 24). Escapements trended downward after 2007, likely the result of poor marine survival. In 2008, inseason information from the weir indicated a weak run and the fishery was closed by June 19. In 2009, the outlook indicated achieving the low end of the goal; however, past performance of the outlook in over forecasting the age-4 component of the run led to concern over achieving the goal and therefore preseason action was taken to reduce harvest by restricting harvest to Saturday–Mondays only and not allowing bait. A lower than anticipated run forced a closure of the Deshka on June 11 at the quarter point of the historical run. The low count in 2009 was due to a record low return of age-5 and age-6 fish rather than a low return of age-4 fish, as projected (Richard Yanusz, Fishery Biologist, ADF&G, Division of Sport Fish, Palmer, Alaska, *personal communication*). The Deshka goal was missed in 2008 and 2009. The goal was attained in 2010 with minimal inseason change (an EO restricted bait from the fishery between June 12 and June 19 (Table 30).

Northern pike have likely reduced Chinook salmon productivity in the Alexander Creek drainage through predation on juvenile salmon. Low escapement counts beginning in 2006 resulted in the sport fishery being closed by BOF action in 2008. Currently an effort is underway to suppress the pike population in Alexander Creek through annual gillnetting (see northern pike section).

Area wide flooding has been an issue within the past decade. A 100-year flood swept much of the NCIMA during August 2006. This flood would have affected major age classes returning from 2010–2012, further compounding diminished returns thought to have been caused by poor marine survival since 2007. A similar large flood occurred in September 2012; runs occurring from 2016–2018 could be affected.

Currently, the bag limit for WSMU Chinook fisheries is one fish daily and two in possession. A seasonal limit of five Cook Inlet Chinook salmon also applies. 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 for Chinook salmon while clients are present or within their control.

Sport Fishery Performance and Escapement in 2011 and 2012

In 2011, total Chinook salmon harvest from all WSMU streams was 5,900 fish, about one-third of the average harvest during the early 2000s (Table 23) when harvest levels were stable. No inseason action was necessary in 2011 in the Deshka Chinook fishery. A final weir count of 18,968 was below the average of 26,000 and about the midpoint of the escapement goal range (SEG 13,000–28,000; Table 30). Despite angler success being fair to good throughout the season, the resulting harvest of 3,139 was below the 2006-2010 average of 2,959 (Table 29). Among WSMU streams, 3 of 5 SEGs were attained in 2011. Goals were missed on Alexander Creek and the Talachulitna River (Figure 24).

During 2012, preseason action was taken to reduce harvest up to 50% across the Susitna and Little Susitna drainages. An area wide restriction reduced the annual limit to 2 Chinook over 20 inches and allowed use of only one, single hook, artificial lure. Fishing at the mouth of the Deshka River was mostly good, but considered lower than the previous two seasons. A weir located at river mile 7 was used to evaluate run strength daily throughout the season. Projections of escapement lagged through the first half of the average run and by June 18, average to record late run time models projected the escapement at 11,200–16,130 fish. An EO was issued on June 18 to prohibit use of bait beginning on a Monday, June 20. By June 21, Deshka weir projections had not improved. By that date, about 60% through the historical average run, only 6,852

Chinook salmon had been counted through the weir and based on average and late run time models, only 11,350–14,500 fish could be projected. This information in addition to staff surveys of Lake Creek and eastside streams, justified closing the entire Susitna River drainage effective June 25. A helicopter survey of Lake Creek on June 26 substantiated low numbers of Chinook salmon in Lake Creek. The Deshka River SEG was achieved on July 7. The final weir count was 14,067 within the SEG range, near the low end of the SEG; Figure 24). Preseason action taken to reduce the annual bag to 2 fish, coupled with bait restriction and subsequent closure may have reduced harvest on the Deshka River by 25–30%. The run to the Deshka River was approximately two days late. The SEG of 2,500–7,100 at Lake Creek was narrowly missed with a final aerial count of 2,366 despite an anticipated savings of about 35–40% (Table 30).

WEST COOK INLET MANAGEMENT UNIT CHINOOK SALMON FISHERIES

Fishery Description

Prior to 2000, the WCIMU extended south from the mouth of the Susitna River to the West Foreland of Cook Inlet (Figure 25). 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 in the WCIMU, 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 Chuitna and Theodore rivers were the area's most prominent Chinook salmon sport fisheries (Table 31) until being closed in 2010 due to low returns. Streams south of the West Foreland, namely the Kustatan River and Polly Creek, support small returns of Chinook salmon and generate only a small Chinook harvest. Stocks from the WCIMU are also harvested in commercial fisheries as well as a subsistence fishery located near the village of Tyonek (Table 18).

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 WCIMU 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 airplanes, combined with the use of land vehicles provide access to 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 200, is the area's primary population center.

Historical Harvest and Escapement

In the 1990s, escapement goals were not met for some streams (Figure 26). The reduced abundance of spawning Chinook salmon in WCIMU may have been due to elevated sport harvest and flood-related mortality of eggs and juveniles in 1986. Inspection of the coastal streams after an October 1986 flood revealed substantial streambed scouring and channelization. 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 four 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 escapement goals were met (Figure 26). Run strength continued to be good through 2005, except that the Theodore River escapement was marginally less than the lower end of the SEG range in 2004 and 2005 (Table 32). All goals were met in 2006. Since 2006, escapements on these three streams have trended downward and SEGs have been missed (Figure 26). A spawning escapement survey conducted on the Lewis River on July 17, 2007, counted zero Chinook salmon. Upon investigation, it was found that the river had overflowed its bank about one-half mile below the bridge and was flowing into a large swampy area. After the channel was restored, the river was again surveyed on August 7 to check for evidence of spawning. No Chinook salmon were observed spawning in the Lewis River in 2007.

Sport angler harvest of Chinook salmon on the Chuitna River was as high as 1,185 fish (1983). However, in 2009 only 109 fish were harvested (Table 31) and in 2010 the Chinook salmon fishery was closed preseason by emergency order. The average escapement from 1979–2005 was approximately 2,000 fish (Table 32). A more recent average (2006–2010) was approximately 1,000 fish, nearly one-half the previous 5-year average. The sustainable escapement goal (SEG) for Chinook salmon returning to the Chuitna River is 1,200–2,900 fish. Despite restrictive action since the mid 1990s and closure of the sport fishery in 2010, the lower bound of this goal was not achieved 2007–2010.

Sport harvest of Chinook salmon from the Theodore River peaked in 1986 at 1,400 fish and decreased to 183 prior to regulatory changes that closed the sport fishery in 1996. In 1999, sport fishing was restricted to catch-and-release. Chinook salmon escapements into the Theodore River have also declined (Figure 26). The average escapements from 1979–2005 were approximately 1,090 fish (Table 32). A more recent average (2006–2010) was approximately 350 fish, less than one-half the previous 5-year average. The SEG for Chinook salmon returning to the Theodore River is 500–1,700 fish. The Theodore River failed to meet the SEG in six of the last 10 years leading up to and including 2010 despite a catch-and-release sport fishery for Chinook salmon since 1999 and closure beginning 2010.

On the Lewis River, sport harvest was greater than 150 fish annually from 1987–1990, but the sport fishery was closed by regulation in 1996 and then restricted to catch-and-release by regulation beginning in 1999 (Appendix B1). The average escapement from 1979–2010 was approximately 490 fish (Table 32). A more recent average (2006–2010) is 72 fish, approximately one-fourth the previous period's average. The Lewis River SEG for Chinook salmon is 250–800 fish. The Lewis River failed to meet the SEG for Chinook salmon 2007–2010 despite a catch-and-release sport fishery since 2002 and closure in beginning 2010.

Fishery Management and Objectives

SEGs for three WCIMU streams were established in 2002 (Table 19), based on historical 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, Theodore, and Lewis rivers were closed by the BOF during the 2011 meeting due to failed escapements over a four to five consecutive year period. These systems remain designated as stocks of management concern. The Beluga River drainage was also closed at the 2011 meeting.

Fishery Performance and Escapement in 2011 and 2012

The estimated 2011 West Cook Inlet harvest was 76 Chinook salmon, less than 10% of previous five-year harvest of 826 fish (Table 31). The major WCI Chinook fisheries occurring on the Chuitna, Theodore, and Lewis rivers have been closed since 2010, first by EO in 2010 and then by regulation beginning 2011 (Appendix B1). Beluga River drainage streams were also closed in 2011. This harvest can be attributed to a small tributaries and sloughs of the McArthur River and other minor Chinook producing streams such as the Crescent and Kustatan rivers. Aerial index surveys were conducted in late July and no SEGs were attained on the Chuitna, Theodore, or Lewis rivers.

In 2012, weirs were operated on the Lewis and Theodore rivers to enumerate the actual escapement and to estimate the proportion of the escapement counted in the aerial index count. The Chuitna River was the first choice for a weir program; however, it was found to be unweirable and sonar was eliminated as an option because species apportionment would likely impair estimates. No SEGs were met in 2012 for WCIMU streams (Figure 26; Table 32), marking the sixth consecutive year in which escapement goals were missed. The comparison of aerial count to the weir count through the date of survey, July 18, revealed 48.3% of the escapement counted on the Lewis River and 22.4% on the Theodore River (58 fish through Lewis weir and 577 through Theodore weir by date of survey). The final weir count on the Lewis River was 111 fish, 657 fish on the Theodore River.

COHO SALMON FISHERIES

AREAWIDE OVERVIEW

Areawide Historical Harvest and Escapement

Sport harvests of coho salmon in the NCIMA ranged from 17,200–105,300 fish from 1977–2012, and averaged 79,148 fish from 2006 to 2010 (Table 33). From 2006–2010, NCIMA harvests accounted for 21% of the coho salmon harvests in the Southcentral region and 13% of the statewide harvests (Table 33). Within the NCIMA, the KAMU, which includes the Little Susitna River, accounted for the largest harvest of coho salmon through 2010 with the exception of 1999 and 2000 when ESMU surpassed it. The ESMU is usually a close second, followed by the WSMU. The WCIMU, with fewer accessible streams, is a distant fourth in average harvest. Coho salmon harvest in the KAMU was dominated by harvests from the Little Susitna River until 2006. Jim Creek harvest has been slightly higher than Little Susitna River 2006–2009, and 2011–2012 (Table 34). Harvest by specific streams within the KAMU, ESMU, WSMU, and WCIMU are provided in tables 18, 20, 21, and 23, respectively.

Areawide Fishery Management and Objectives

Management of coho salmon in the NCIMA has undergone numerous changes (Appendix B3). Each season, management strategies for NCIMA coho salmon are implemented as the stocks begin entering Cook Inlet and are intercepted, first by the commercial fishery and then the sport fishery.

As coho salmon enter fresh water, the department has 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 NCIMA. Beginning in 1997, weirs were also operated in Wasilla, Cottonwood and Fish creeks. Wasilla and Fish creek weirs were discontinued after 2003 and Cottonwood Creek weir after 2004. The Fish Creek weir operated 2009–2010 in cooperation with U.S. Fish and Wildlife Service (USFWS) to count both sockeye salmon escapement and coho. Prior to 2009, the weir was removed around August 15, half way through the historical coho salmon run. For 2009–2010 the weir remained in the creek until September 24. For 2012, the weir remained in the creek until September 16.

Fish wheels and sonar on the Yentna River, and foot and aerial index counts for a few streams also contribute information about relative abundance. Within the NCIMA, eight index areas are surveyed annually by foot: McRoberts and upper Jim creeks (Knik River), Cottonwood and Wasilla creeks (Knik Arm), and Rabideux, Birch, Question, and Answer creeks (Susitna River).

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.

Poor runs in 1997 and 1999 prompted inseason restrictions to both sport and commercial fisheries. 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 area wide bag limit reduction and bait prohibition for wild stock sport fisheries. Restrictive action was again taken in the commercial fishery in 1998 because of a poor sockeye return. Because of the nature of the multi-species fishery, this action probably resulted in higher escapements. 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 escapement. Low escapements 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 (Appendix B3). Since then, coho salmon returns to NCIMA streams have been mostly above average. A 100-year flood swept much of the NCIMA during the third week of August 2006. Escapement and harvest levels observed in 2008 did not indicate any effects from this flood. A 100 – year flood swept much of the NCIMA again in 2012 during the peak coho spawning period the third week in September. Coho salmon were observed spawning new Talkeetna during index surveys after the flood crested.

KNIK ARM MANAGEMENT UNIT: LITTLE SUSITNA RIVER COHO SALMON FISHERY

Fishery Description

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 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 four 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. From the mid 1980s until the 2011 Board of Fisheries Meeting, the Little Susitna River coho salmon sport fishery was 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 B3). Management objectives stated in the plan were to provide an SEG of 10,100–17,700 naturally spawning coho salmon upstream of the George Parks Highway (Table 35), and to provide coho salmon fishing opportunity from the George Parks Highway downstream to tidewater without emergency restrictions.

Historical Harvest and Escapement

From 1977 to 2010, harvest of Little Susitna River coho salmon ranged from 2,452–27,600 fish with a average harvest of 12,102 fish (Table 34). It has been a consistent second to the Kenai River, which supports the largest freshwater coho salmon harvest in Alaska. Most recently, Jim Creek harvest surpassed Little Su from 2006–2009, and again in 2011 (Table 34).

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 to present (Table 35). In 1986 the weir was damaged for several days by floodwaters and the count through the weir was incomplete (Table 35). Weir counts in 2005 and 2006 were also incomplete due to high water events and again in 2012. From 1988–1995, and 2012 the weir was located at RM 32.5. From 1996 to 2011, the weir was located upstream at RM 71. As of 2012 the weir is back at RM 32.5. 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 35), as well as the whole NCIMA, experienced poor coho salmon returns. However, these low returns did not appear to affect returns in subsequent years as escapement in 2001 was 30,600 coho salmon. A record escapement of 48,000 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 1996–2011 (Tables 34 and 35); years after the stocking program ended and for which complete escapement counts are available. Average inriver exploitation has varied with escapement over the same time period and averaged 37% (Figure 27).

Fishery Management and Objectives

Currently the bag and possession limits are two coho salmon 16 inches or more in total length per day and in possession. Only unbaited, artificial lures are allowed in the Little Susitna River from October 1 through August 5. This regulation was originally designed to reduce the catch rate of early arriving non-hatchery fish and remains in effect to reduce hook-and-release mortality of ocean-fresh coho salmon entering the lower river during the first quarter of the run. Hook-and-release mortality of coho caught within the estuary using bait was found to approximate 70% (Vincent-Lang et al. 1993) in a 1993 study designed to simulate fishing practices at the time. Today, in addition to a delay in bait use until later in the season, two other measures have been adopted, which help reduce hook-and-release mortality: 1) anglers are required to quit fishing when they reach their bag limit of Little Susitna coho salmon, and 2) coho salmon intended for release cannot be removed from the water.

Coho salmon runs on the Little Susitna River have been found to be significantly correlated to those of other Knik Arm streams (Tom Namtvedt [retired] and Richard Yanusz, Division of Sport Fish Biologists, Palmer, Alaska, *personal communication*). However, the Little Susitna River weir at its previous location (RM 71) provided very little potential for gauging run strength in other Knik Arm streams or for inseason management of the fishery which occurs primarily on the lower 40 miles of river. The weir has since moved back to river mile 32.5 to provide inseason data once again (2012). A weir was operated at this site from 1988–1995, providing run timing info for managing the fishery.

Fishery Performance and Escapement in 2011 and 2012

During 2011, fishing guides and anglers reported below average catches of coho salmon throughout the season. The SWHS showed 2,452 coho were harvested from the Little Susitna River, 78% lower than the 2006–2010 average of 11,199 fish (Table 34). The final weir count was 4,826 fish (Table 35).

In 2012, by early August, harvest numbers on the lower Little Susitna were below average. Anglers and guides reported limits being taken, but more fishing time was needed to catch a limit

of fish. A weir was operated this season at RM 32.5. A weir was operated at this site from 1988–1995, providing run timing information for managing the fishery in 2012. On August 3, low weir counts prompted action to slow the harvest of coho salmon by not allowing the bait fishery to start on Monday, August 6. This strategy was an attempt to keep harvest levels stable until a better assessment of run strength could be made the following week as it was too early for a meaningful projection of escapement. Weir counts did not improve through the weekend, resulting in action to close the sport fishery beginning August 10. Just past the midpoint of the historical run, only 4,260 coho could be projected in the Little Susitna escapement. The final weir count on the Little Susitna River of 6,779 coho salmon was incomplete due to flooding during the last three days of August. However, it is unlikely the goal would have been met even without the flooding (SEG 10,100 – 17,700). Harvest for 2012 was 1,681 coho from the Little Susitna (Table 34).

KNIK ARM MANAGEMENT UNIT: OTHER COHO SALMON FISHERIES

Fishery Description

The Knik Arm Management Unit (Figures 1 and 16) presently supports five significant sport 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 four educational permit fisheries (Knik Tribal Council, Eklutna Village, and Big Lake Cultural Outreach).

Until 2006, the Little Susitna was, historically, the largest Knik Arm sport fishery in terms of both participation and coho salmon harvest (Table 34). Jim Creek harvest rates have been higher than the Little Susitna 2006–2009 and 2011–2012, but effort is slightly less than the Little Susitna. 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 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 six pounds.

Stocking Program

The sport fishery at the Eklutna Power Plant tailrace (Figure 19) was originally supported by coho salmon returning to the Cook Inlet Aquaculture Association's (CIAA) hatchery located at the head of the tailrace. The nonprofit Eklutna Hatchery operated from 1981–1998. Presently fish reared at the ADF&G William Jack Hernandez Sport Fish Hatchery support the fishery, which is confined to the 0.5-mile-long tailrace and all waters within a half mile radius of its confluence with the Knik River, and to an ADF&G marker located two miles downstream of the confluence. Sport anglers harvest stocked coho and a few wild sockeye and chum salmon in the tailrace during the coho return. Salmon of the Knik River and Matanuska River drainage origin are also harvested at the confluence of the tailrace and the Knik River. Current objectives of the Eklutna stocking program are to stock 120,000 thermally-marked coho salmon annually to produce a return of 7,500 adult coho salmon and generate 6,000 angler-days of effort (Loopstra and Hansen 2012).

Coho salmon have been periodically stocked into other KAMU systems. Stocking of Fish and Cottonwood creeks was initiated during the late 1970s, and at Jim and Wasilla creeks in the late 1980s (Whitmore et al. 1994-1996; Whitmore and Sweet 1997-1999; Rutz and Sweet 2000; Sweet and Rutz 2001; Sweet et al. 2003, 2004). Contribution of hatchery fish to the catch and harvest in the sport fisheries was not evaluated.

Historical Harvest and Escapement

From 1987–1998, Knik Arm stocks were harvested by a set gillnet commercial fishery that operated near the mouth of Fish Creek. Coho salmon harvests averaged 2,900 annually during this period (Whitmore et al. 1996; Whitmore and Sweet 1997-1999). BOF action closed the Knik Arm commercial set gillnet fishery beginning in 1999 to allow higher coho and sockeye salmon escapements into Knik Arm streams. The total annual harvest for the six sport fisheries (Fish, Cottonwood, Wasilla, and Jim creeks, the Little Susitna, and Eklutna Tailrace) averaged 22,694 coho salmon from 2006–2010 (Table 34). Jim Creek had the highest average during this time with 13,130 coho salmon harvested, whereas the three weekend-only fisheries averaged 643 fish at Fish Creek, 751 fish at Cottonwood Creek, and 1,231 fish at Wasilla Creek (Table 34).

Escapement index surveys have been conducted on four Knik Arm streams: Cottonwood, Wasilla, Jim, and Yellow creeks. Coho salmon escapement on Fish Creek has been monitored historically by weir, except from 1994–1996 and 2004–2008, and 2011; when the weir was removed prior to August 15 and before the majority of the run. In cooperation with the USFWS, six weeks were added to weir time (after August 15) for 2009–2012 to encompass the majority of the coho run for Fish Creek (Table 35).

Fishery Management and Objectives

Fish, Cottonwood, and Wasilla creeks (Figure 16) are restricted primarily to intertidal fisheries, and have been open to salmon fishing on weekends only (Saturday and Sunday) since 1971 because harvestable surpluses cannot normally accommodate continuous daily exploitation. Time restrictions were added in February 1999 after poor returns during 1997 and 1999 occurred in these creeks (Appendix B3). Motorboats are not permitted on Wasilla Creek during weekends from July 15 through August 15.

Historical escapement data are available for Fish, Cottonwood, and Wasilla creeks from past weirs operated on each creek from about July 20 through September 25 and foot index counts conducted annually on Cottonwood and Wasilla creeks. For Jim Creek, foot surveys are conducted on McRoberts Creek, a tributary of Jim Creek, and upper Jim Creek; the counts are summed to provide a total Jim Creek escapement index. However, only the McRoberts Creek counts are used in the escapement goal. Biological escapement goals set in 1994 were reevaluated in 2002 and SEGs were established for Fish, Cottonwood, and Jim creeks (Table 35). The BEG for Wasilla Creek was eliminated in 2002 because of a lack of historical escapement data. The Jim Creek SEG was based on historic escapement index counts, and the Fish and Cottonwood goals were based on average coho salmon weir counts. Wasilla and Fish creek weirs were discontinued after 2003 and Cottonwood Creek weir after 2004. Therefore, the Cottonwood and Fish creek SEGs were subsequently dropped. Only one SEG of 450–700 fish on the Jim Creek drainage (McRoberts Creek) remains (Table 35). The management objective for these four

systems is to achieve the escapement goal while providing a maximum level of sustained coho salmon fishing opportunity.

Coho salmon weir counts on Wasilla, Cottonwood, and Fish creeks and the Little Susitna River have been found to be significantly correlated (Tom Namtvedt and Richard Yanusz, *personal communication*). Despite its low use as an inseason management tool due to the weir's location high up on the river, Little Susitna weir counts were used to liberalize bag and possession limits on the Little Susitna River and Cottonwood, Fish, and Wasilla creeks. Midseason fishing reports at Cottonwood and Wasilla creeks varied from average to below average. Sporadic fishing success continued at the mouth of Jim Creek.However, anglers fishing upstream reported low numbers of fish ascending the creek.

Effort and harvest have more than doubled on Jim Creek since about 2002 (Table 34). Managers are cautiously monitoring this system for any signs of overharvest. Adjustments to the fishery in order to maintain or lower harvest may be necessary in the future. The Cook Inlet Coho Salmon Conservation Management Plan was adopted by the BOF in February 2000 (Appendix B3) in response to poor returns of coho salmon to the Knik Arm Management Unit in 1997 and 1999 (Table 35). 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 total length. Jim Lake, 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 2011 and 2012

Total sport harvest of coho salmon in Knik Arm streams (excluding the Little Susitna River) was 6,032 fish in 2011; the 2006–2010 average was 27,324 fish (Table 34). Anglers reported good catches at Jim Creek in 2010 and poor catches in 2011. Limited inseason information on sport fishing success is available for Fish, Cottonwood, and Wasilla creeks because of the very limited open season and little angler effort. Eklutna Tailrace had below average harvest in 2011 of 1,350. The 2006–2010 average harvest was 4,331. Index survey counts varied by fishery (Table 35). The SEG (450–700) for McRoberts Creek (Jim Creek drainage) has not been met since 2009. The 2012 count was conducted late in the season due to high water and poor survey conditions. The escapement count in 2011 was 261 coho and in 2012 the count was 213 (Table 35).

In 2012, about 350 fish had been counted through the Fish Creek weir, resulting in a projected escapement of 950 fish nearing the midpoint of the run. A second boat survey of Jim Creek revealed run strength had not improved despite previous action taken the week before to reduce harvest. The Knik Arm Management Unit (KAMU), with the exception of the Eklutna Tailrace, was closed to fishing for coho salmon effective August 17. Part of the justification for closing the entire KAMU was based on past research which indicates run strength positively correlated between the Little Susitna, Fish Creek, and other weekend only fisheries such as Wasilla and Cottonwood creeks. The escapement goal on Fish Creek (SEG 1,200 – 4,400) was narrowly attained by the end of the fishing season with a final count of 1,237. A foot index survey of McRoberts Creek (Jim Creek system) of 213 fish was below the SEG of 450–700 coho salmon. The McRoberts Creek SEG has been missed for the past three consecutive years (Figure 28). The second annual youth-only fishery on Fish Creek took place the first weekend in August. Fishing success was reported as good.

In 2012, an Emergency Order was issued for Jim Creek which restricted fishing time to 6 a.m. – 6 p.m. and reduced the bag and possession limit to one coho salmon. The Jim Creek EO was

justified by a boat survey conducted by staff on lower McRoberts Creek, upper Jim Creek, and Leaf Lake, which indicated coho numbers lower than observed in the past two seasons when the escapement goal for this system was no achieved. Fishing success was also reported to be sporadic and below average, similar to the 2011 season. Harvest of coho in Jim Creek, Cottonwood Creek, and the Eklutna Tailrace was 1,858, 616, and 394 fish, respectively; all three harvests were below the 2006–2010 average (Table 34).

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, WSMU) 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 and Lake Creek are the major Westside Susitna Management Unit coho salmon fisheries. Fish Lakes Creek and the Talachulitna provide modest harvests, while the Alexander Creek fishery has diminished over the past decade, possibly a result of northern pike predation on juvenile coho salmon.

Historical Harvest and Escapement

Coho salmon harvests averaged 18,004 fish in the ESMU and 16,075 fish in the WSMU from 2006–2010 (Table 33). The contribution from the ESMU and WSMU to the total NCIMA coho salmon harvest during 2006–2010 was 23% and 20%, respectively.

From 2006–2010, Willow Creek, Montana Creek, and the Talkeetna River produced the largest coho salmon harvests in the ESMU, averaging 3,151, 3,308, and 3,034 fish, respectively, and accounting for approximately 53% of the Eastside Susitna harvest (Table 36). During that period, in the WSMU, coho salmon harvest averaged 3,932 fish from the Deshka River, 3,340 fish from Yentna River, and 4,205 fish from Lake Creek (Table 37).

Total coho salmon abundance in the Susitna River drainage has been estimated, in 2002, at 663,000 fish, with 46% going up the Yentna River (Willette et al. 2003); and again in 2010 with the estimated number of coho spawning upstream of the Flathorn site on the Susitna River at 196,417. Abundance in portions of this vast drainage has also 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 38). It is important to recognize that significant coho salmon returns occur in tributaries of the Susitna River downstream of RM 80 (Merizon et al. 2010). 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 1981–2008 (Westerman and Willette 2010). 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 duration of the coho salmon migration. Partial counts were recorded from 1985–2007 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 6,300–132,900 fish from 1985–2008 (Table 38).

Four fish wheels were used to capture and tag chum and coho salmon with dart tags at RM 22 in the Susitna River in July and August, 2010. Two fish wheels were used at RM 6.2 in the Yentna River and two fish wheels were used at RM 30 in the mainstem Susitna River to sample salmon for tags. Estimated abundance of chum salmon was 151,127 (SE 37,564) fish for the mainstem Susitna River and 205,869 (SE 30,256) fish for the Yentna River. Estimated abundance of coho salmon was 73,640 (SE 25,153) fish for the mainstem Susitna River and 122,777 (SE 22,697) fish for the Yentna River. A total of 719 radio tags were placed in chum and coho salmon. Their movements were tracked using 13 ground tracking stations and four drainage-wide aerial surveys. All but five of the radio tags were relocated, and 633 (88.5%) were assigned a putative spawning location. Both chum and coho salmon exhibited bank orientation at the tagging site. Chum salmon appeared to utilize predominately mainstem spawning locations, while coho salmon appeared to utilize primarily tributary locations for spawning.

Coho salmon have been counted through a weir on the Deshka River since 1995. The weir was operated at RM 17 from 1995–1996 and at RM 7 from 1997 to present. During 1996, the weir was operational only through July 30, after which high water made counting fish impossible. Incomplete counts were also recorded in 1998–1999 and 2002 due to high water events (Ivey *In prep.*). Estimating escapement during incomplete count years is nearly impossible as run timing for Deshka River coho is highly variable (Ivey *In prep.*). Average escapement from 2001 to 2010 at RM 7, including the complete count years of 2003–2005 and 2007–2010, was 27,387 coho salmon (Table 38). A peak escapement of 62,900 coho salmon occurred in 2004. 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 ESMU and WSMU. However, portions of several ESMU 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 (Appendix C). 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 ESMU, the bag and possession limit for coho salmon is two fish 16 inches or more in total length. Bag and possession limits were increased in the WSMU at the January 2005 BOF meeting to three fish 16 inches or more in total length and six in possession, except in Alexander Creek where the two fish bag/possession limit was retained.

Besides the Deshka River weir where actual escapement is counted, four other small streams are indexed on an annual basis: Rabideux, Birch, Question, and Answer creeks (Table 38). There are no SEGs within the ESMU and WSMU.

Sport Fishery Performance and Escapement in 2011 and 2012

The 2011 sport coho salmon harvest was an estimated 9,040 fish from the ESMU, and 12,483 fish from the WSMU (Table 36 and 37), below the 2006–2010 averages. All escapement index counts for ESMU and WSMU streams were below average for 2011 and 2012 (Table 38). The Deshka weir count of 7,508 fish was below the 2006–2010 average of 15,260 coho and considered incomplete due to the weir being underwater for an extended period of time.

During 2012, fishing guides and anglers reported slow fishing for coho salmon in both the WSMU and ESMU throughout much of the season. A below average run was realized for the Deshka River. The final 2012 weir count for the Deshka River was 6,825 fish (Table 38). The 2012 harvest of coho salmon was 7,629 from the ESMU, and 9,434 from the WSMU streams, both were below average (Tables 36 and 37).

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 Chuitna and Theodore rivers provide the major fisheries north of the West Foreland, and the Kustatan River and tributaries of Big River Lakes provide the major fishery sites south of the West Foreland. Harvest levels on Big River Lakes' tributaries surpassed those of Chuitna River every year since 2003. Currently this fishery mirrors the Kustatan River in size.

Historical Harvest and Escapement

Coho salmon harvests averaged 11,605 fish in the WCIMU from 2006–2010 (Table 33). The unit's contribution to the total NCIMA was 15% during this period. The Kustatan River is the primary producer of coho salmon in the management unit. Average harvest in this stream from 2006–2010 was an estimated 3,349 fish (Table 39). The second and third major coho producers are tributaries of Big River Lakes, with a 2006–2010 sport harvest average of 2,726 fish and Silver Salmon Creek with 1,019 coho salmon harvested during the same period (Table 39).

During recent years, the department has collected no coho salmon escapement information in the WCIMU.As a result, little information exists regarding coho salmon abundance.

Fishery Management and Objectives

Regulatory history of WCIMU is found in Appendix B3. In the WCIMU all flowing waters are closed to salmon fishing October 1–December 31. In the WCIMU, the bag and possession limits for coho salmon are three per day and six in possession. South of the West Foreland the limit is three per day and six in possession.

Sport Fishery Performance and Escapement in 2011 and 2012

The 2011 sport harvest of coho salmon from WCI unit was an estimated 6,292 fish (Table 33), below the 2006–2010 average of 11,605. The largest harvest of coho salmon came from the Kustatan River with an estimated harvest of 1,876 fish, below the 2006–2010 average of 3,349 fish. The tributaries of Big River Lakes had a harvest of 1,270 fish, below the average of 2,726 fish for 2006–2010 (Table 39).

Inseason catch information received in 2012 from sport anglers and guides indicated an average return. The 2012 harvest was below the 2006–2010 overall average, and again, the largest harvests were from Kustatan and Big River Lakes at 2,136 coho and 1,634 fish, respectively (Table 39).

SOCKEYE SALMON FISHERIES

FISHERY DESCRIPTION

The Yentna River is thought to support about 77% of the Susitna River sockeye escapement (Fair et al. 2009). The sport fishery for sockeye salmon in NCIMA drainages is mostly incidental to harvest of other salmon. Big River lakes, a major sockeye salmon sport fishery in the WCIMU, has grown over recent years and is currently the largest fishery in the NCIMA. The majority of the harvest in this fly-fishing-only fishery occurs at the mouth of Wolverine Creek, which drains into Big River lakes. Other directed sockeye salmon fisheries occur in the Susitna River drainage at Larson Creek (Talkeetna River drainage) in the ESMU; Lake Creek and the Talachulitna River in the WSMU; the mouth of Nancy Lake Creek (Little Susitna River drainage), and at Jim Creek in the KAMU. Harvests are generally smaller in the WCIMU (Tables 40–42). Any surpluses of sockeye above escapement needs at Fish Creek of the KAMU are targeted by a personal use fishery (see Personal use and Subsistence Fisheries section). The only sport fishery currently on Fish Creek is directed at the harvest of coho salmon and begins the second Saturday in August. Fewer than 350 sockeye salmon are harvested in this sport fishery on average (Table 40).

STOCKING PROGRAM

Due to declining abundance of sockeye salmon during the early 1970s, stocking of Fish Creek with sockeye salmon was initiated in 1975. See Personal Use and Subsistence Fisheries section for further information.

HISTORICAL HARVEST AND ESCAPEMENT

Sport harvests of sockeye salmon in the NCIMA ranged from 3,100–23,200 fish during 1977–2010 and averaged 13,700 fish (Table 43). Within the NCIMA, the KAMU and ESMU historically accounted for the majority of the harvest of sockeye salmon. The WCIMU, with fewer accessible streams, placed last in average harvest until about 1993 when the the sport

fishery at Wolverine Creek (Big River lakes) began to grow; most recently harvest has been greatest for sockeye in WCIMU (Figure 29). The Knik River and the Little Susitna dominate KAMU harvests (Table 40), whereas ESMU harvests are predominately from the Talkeetna River, specifically Larson Creek (Table 41). The Talkeetna River accounted for 60% of the ESMU harvest from 2006–2010. Lake Creek is the largest fishery in the WSMU, but the WCIMU harvest is predominately from Wolverine Creek (Big River lakes; tables 42 and 44). Wolverine Creek, located in Redoubt Bay Critical Habitat Area, has developed into a popular sockeye salmon fly-fishing and bear viewing area since the early 1980s.

Sockeye salmon populations are present in numerous streams throughout the KAMU, some of which were surveyed sporadically in the past (Table 45). Bodenburg Creek, a Knik River tributary, was surveyed annually from 1968–2012, except for 1984 and 1988 (Table 46).

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 (Kyle and Chlupach 1990). From 1968–2011, escapement of sockeye salmon ranged from 2,700 fish in 1973 to 192,400 fish in 1984 and averaged 65,400 fish (Table 45; Escapements were below the historical average from 1998–2001 and 2004–2008.

Escapement of sockeye salmon to the Susitna River drainage has been documented annually since 1978 at the Yentna River sonar site operated by the Division of Commercial Fisheries at RM 4 of the Yentna River, and at various times by CIAA weirs at Chelatna Lake (Lake Creek drainage), Larson Lake (Talkeetna River drainage), and Hewitt Lake (Table 45). Within the NCIMA, Division of Commercial Fisheries has also operated a weir at Packers Creek on Kalgin Island and at Judd Lake.

CIAA operated a weir on Wolverine Creek from 1981–1983 (Table 45). Increased harvest and use of the area prompted managers to investigate the escapement of sockeye salmon into Wolverine Creek beginning in 2004. A remote camera station was set up on Wolverine Creek in mid-June 2004. Technical problems resulted in incomplete counts 2004–2006 (Table 45).

FISHERY MANAGEMENT AND OBJECTIVES

Regulations for sockeye salmon sport fisheries of the NCIMA follow general regulations for other salmon over 16 inches in total length. The bag and possession limit on WSMU and WCIMU tributaries is three per day and six in possession; ESMU and KAMU tributaries are three per day and three in possession. Wolverine Creek within a 500-yard radius of its mouth is managed as the areas only fly-fishing-only waters June 1–July 31.

The management objective for sockeye salmon in the NCIMA sport fisheries is to attain established escapement goals as measured at various weirs and a sonar site 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. Yentna River sockeye salmon were estimated by side scan sonar located at RM 4 of the Yentna River through 2008 and evaluated against an SEG of 90,000–160,000 fish. Under the Northern District Salmon Management Plan, when runs were greater than 4,000,000 sockeye salmon to the Kenai River, an OEG of 75,000–180,000 fish became the escapement goal. The Yentna SEG and OEG were discontinued after 2008 and replaced with three weir based SEGs: Chelatna Lake (SEG 20,000–65,000), Judd Lake (SEG 25,000–55,000), and Larson Lake (15,000–50,000).

From 2004–2007, sockeye salmon sport fisheries occurring on the Susitna River were restricted through various emergency orders prohibiting retention. The EOs were based on low inseason escapement estimates generated at the Yentna River sonar and additionally in 2006, on a low preseason projection of 190,000 sockeye salmon returning to Susitna River.

In light of declines in sockeye salmon escapements to the Susitna River, a major effort to better understand the dynamics surrounding sockeye salmon production in the Susitna River was conducted from 2006–2008. Abundance estimates were generated using a combination of fish wheels and weirs, and the distribution of spawners was assessed. Mainstem Susitna River sockeye were estimated at 107,000 (Table 45) fish in 2006 using PIT tags deployed at Flathorn and recovered at Sunshine (Yanusz et al. 2007). Neither the estimate based on PIT tags nor the estimates based on radio tags met conditions for a reliable capture–recapture experiment for the Yentna River during 2006. Sockeye salmon abundance estimates for the mainstem Susitna River were 87,883 in 2007 and 70,772 in 2008, and for the Yentna River were 239,849 in 2007 and 288,988 in 2008, based on radio tags (Table 45; Fair et al. 2009).

Part of this project was directed at establishment of a genetic baseline for Susitna sockeye salmon. Microsatellite and Single Nucleotide Polymorphism (SNPs) technology were used to further the department's understanding of stock identification, and, in turn, exploitation of Susitna origin sockeye among various fisheries. Proportions and numbers of Susitna-origin sockeye salmon harvested in these fisheries from 2005–2009 may be found in Barclay et al. (2010).

At the 2011 Board of Fisheries meeting, the board amended the Central District Drift Gillnet Fishery Management Plan. The purpose of this plan is to ensure adequate escapement of salmon into the Northern District drainages and to provide management guidelines to the department (Appendix C1). The intent with the amendment was to pass sockeye salmon to the northern district through the first half of July and allow coho passage the latter half of July. Following guidelines set forth in the *Policy for Management of Sustainable Salmon Fisheries Policy* for the State of Alaska[7], the BOF designated Susitna River sockeye salmon a stock of yield concern based on a failure to achieve the Yentna SEG in 5 of 8 years (Table 45) and lower than expected yields[8]. An action plan ensued, directing management of the Central District drift gillnet fishery to continue under restrictive guidelines set forth in the plan, and implementation of a restrictive measure within the *Northern District Salmon Management Plan* that limits fishing to one third of the normally allotted gear (one set gillnet not more than 35 fathoms in length) from July 20 to August 7. In late 2008, a sockeye salmon escapement goal review was conducted out of cycle (Fair et al. 2009) to address uncertainty in estimating Yentna River sockeye escapements using Bendix sonar. Review indicated the sonar based SEG should be abandoned and replaced with three weir based SEGs. Inseason management of the sport fisheries has not taken place since implementation of the action plan. The action plan states sport harvest will not be used to determine escapements or in developing escapement goals. Further, the Susitna sport fisheries will remain open with a three fish bag unless directed otherwise by the BOF and any harvest restrictions will be realized in commercial fisheries, in most cases. Weir counts at Judd, Chelatna, and Larson lakes are to be used for post season evaluation of run size.

[7] www.adfg.state.ak.us/special/susalpol.pdf
[8] Susitna Sockeye Salmon Action Plan

SPORT FISHERY PERFORMANCE AND ESCAPEMENT IN 2011 AND 2012

The total sockeye salmon harvest across the NCIMA in 2011 was 14,003 fish, below the 2006–2010 average harvest of 15,961 fish (Table 43). Larson Creek is the primary sockeye fishery in the Talkeetna Drainage. A harvest of 1,351 fish at Lake Creek of the WSMU was above average (Table 42), while a harvest of 3,932 fish at Wolverine Creek (Big River Lakes) in the WCIMU was slightly below average (Table 44). In the KAMU, harvest on the Little Susitna dropped to 81% of its 5-year average of 1,624 fish (Table 40) and the sockeye fishery at Jim Creek produced 1,852 fish, about 770 fish below its 2006–2010 average. Although no directed sport fishery occurs at Fish Creek for sockeye salmon, 66,678 sockeye were counted through the weir; and the personal use fishery was not opened by emergency order (see PU section). In 2011, the SEGs at Chelatna lake was met, while a count of 12,393 sockeye salmon at the Larson Lake weir was below its SEG of 15,000–50,000 fish (Table 45).

In 2012, fishing success varied across the NCIMA. Anglers fishing KAMU streams reported poor sockeye catches while those fishing Susitna River stocks were fair. A foot survey of Bodenburg Creek revealed a count of only 60 sockeye salmon, well below the 2001–2010 average of about 400 fish (Table 46). In 2012, the SEGs at Larson, Chelatna and Crescent were all met, while a count of 18,303 sockeye at the Judd Lake weir was below its SEG of 25,000 – 55,000 fish (Table 45). The 2012 harvest across NCIMA was 14,784 just below the 2006–2010 average (Table 43). The Knik River and Tributaries (including Jim Creek) had the highest harvest of sockeye with 1,704 (Table 40). Eastside streams harvested 4,277 sockeye above the 2006–2010 average of 3,921 (Table 41) and Lake Creek dominates the harvest for Westside streams with 669 sockeye (Table 42). WCIMU was just below average harvesting 4,966 sockeye (Table 44).

RAINBOW TROUT FISHERIES

FISHERY DESCRIPTION

The majority of wild rainbow trout angling occurs in the Knik Arm and Eastside Susitna Management Units (Table 47). 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 coldwater 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 Yentna River and all streams entering the Susitna River from the west (Figure 31). 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.

HISTORICAL HARVEST

Rainbow trout are a highly sought-after sport fish within the NCIMA. To ensure sustained yield, various research projects have been conducted. 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 Deshka 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. Onsite creel surveys were also conducted at Lake Creek during 1988 (Vincent-Lang and Hepler 1989) and 1989 (Bradley 1990).

There were significant differences in age composition and average 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 total 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 Alaska waters containing trophy trout, suggests that these Susitna River rainbow trout stocks are not viable candidates for management as trophy fisheries (Rutz 1992).

Northern pike investigations conducted in the mid-1990s revealed the potential for a reduction of Susitna River drainage rainbow trout stocks as a direct result of northern pike colonization and proliferation throughout the area. Several lake and river populations of rainbow trout in the Westside Susitna Management Unit have been severely impacted by northern pike predation (Rutz 1999).

NCIMA rainbow trout harvests ranged from 9,547 to 74,962 fish and averaged 33,834 fish from 1977– 2011 (Mills 1979-1980, 1981a-b, 1982-1994, c; Howe et al. 1995, 1996,, b, c; 2001 a-d; Walker et al. 2003; Jennings et al. 2004 Table 47), accounting for 39% of the average harvest in Region II and 27% in the state. From 1990 (when estimates of catch became available) through 2011, the average catch of rainbow trout in the NCIMA was 141,765 fish (Table 47).

Rainbow trout harvested from the Knik Arm Management Unit during this time period accounted for approximately 50% 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 22% of the NCIMA harvest and the Eastside Susitna unit accounted for 26% from 1977–2011. The West Cook Inlet Management Unit made up 1% of the NCIMA harvest from 1977–2011.

In the Eastside Susitna Unit, Willow and Montana creeks produced the largest rainbow trout harvests until 1997 when the BOF designated them as catch-and-release fisheries for rainbow trout and Arctic grayling. The Deshka River and Lake Creek generally provide the largest harvests of rainbow trout among WSMU fisheries while Lake Creek and Talachulitna River usually produce the largest catches (Tables 48 and 49). In general, a comparison of long and short-term averages among Susitna River tributaries shows a noticeable drop in rainbow trout harvest and an increase in catch. Increased catch rates indicate growing fisheries on the Susitna River.

FISHERY MANAGEMENT AND OBJECTIVES

Management of wild rainbow trout in the NCIMA has undergone numerous changes (Appendix C). 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 total length with an annual limit of two trout over 20 inches in total length. Beginning in 1987, prior to the development of statewide management standards, wild rainbow trout fisheries of NCIMA were managed under the conservative yield concept, aimed at maintaining historical size and age compositions and abundance.

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 total length is allowed daily with a seasonal limit of two trout over 20 inches. All trout less than 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 (see 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 yield (see the Stocked Fisheries section above).

SPORT FISHERY PERFORMANCE IN 2011 AND 2012

The 2011 harvest of rainbow trout in the Knik Arm Management Unit was 9,510 fish, respectively. The 2007–2011 average harvest for this stock was 10,897 fish (Table 50).

In 2011, most rainbow trout harvests in the KAMU were from the stocked lake fisheries: the Kepler Lake complex (1,673 fish), Finger Lake (2,095 fish), Memory Lake (290 fish), Big Lake (887 fish), and Knik Lake (385 fish).

Rainbow trout catches in KAMU during 2011 was highest at Kepler Lake complex (13,609 fish), Finger Lake (5,444 fish), closely followed by Big Lake (5,278 fish), and Knik Lake (1,174 fish) (Table 51). The Little Susitna River rainbow trout catches varied from 1,071 fish in 2010 to 352 fish in 2011, the average for this fishery from 2007–2011 was 771 fish (Table 51).

In the Eastside Susitna management unit the 2011 harvest was 1,058 rainbow trout and was just above the five-year average for the ESMU. The 2011 Westside Susitna management unit harvest of 514 fish was slightly less than the 2007–2011 average of 635 rainbow trout (Table 48 and 52).

The 2011 catch for the Eastside Susitna Management Unit was 57,719 rainbow trout; this was greater than the previous five-year average of 47,208 fish. The 2011 Westside Susitna Management Unit catch was above the five-year average with 39,168 fish (Table 53 and 49).

The 2012 harvest of rainbow trout in the Knik arm was 8,294 fish, respectively (Table 50). In 2012, most rainbow trout harvests in the KAMU were from the stocked lake fisheries: Kepler

Lake Complex (973 fish), Finger Lake (821 fish), and Big Lake (492 fish) (Table 50). Catch for the Knik Arm was dominated by the Kepler Lakes Complex (5,902) and Finger Lake (3,611) (Table 51).

ESMU harvest was 623 below the 2007–2011 average of 1,200 rainbow trout. The 2012 catch of 27,446 was below the average of 47,208 (Table 48 and 53). Montana and Willow creeks lead catch with 8,590 and 8,207 rainbows, respectively (Table 53).

Catch from Westside Susitna River fisheries is dominated by Lake Creek. During 2011 only an estimated 143 rainbow trout were harvested in Lake Creek from a catch of 23,420 fish (Tables 52 and 49). The Deshka River, also a Westside Susitna tributary, yielded a rainbow trout catch of 2,156 fish and no harvest reported (Table 49). The Talachulitna River drainage, which is a catch-and-release-only fishery, produced a catch of 8,647 rainbow trout. The rainbow trout catch at Alexander Creek of 43 fish is just above the five-year mean of 37 fish. It is believed that northern pike predation is responsible for the decline in Alexander Creek rainbow trout catches since 1990.

In 2012, Lake Creek dominated catch on the Westside Susitna Management Unit with 12,321 rainbow trout. Total catch for WSMU for 2012 was 24,718 (Table 49).

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. These two fisheries, along with the Talkeetna River, dominate Eastside Susitna Management Unit catch (Table 53).

NORTHERN PIKE FISHERIES

FISHERY DESCRIPTION

Northern pike are not indigenous to the NCIMA although they are north of the Alaska Range. They were illegally introduced into the area during the early 1950s. Since then, northern pike have expanded their range both naturally and through subsequent illegal stockings. They have been reported in more than 100 lakes and more than a dozen tributaries of the Susitna River (Sweet and Rutz 2001). Prior to about 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 lb), and it was common to find fish weighing up to 20 lb and occasionally over 30 lb. The potential for proliferation of northern pike in the Susitna Drainage is immense. Most of the habitat suitable to northern pike is found within the lower-lying WSMU. The area from the headwaters of the Deshka River (Petersville Road) across the Kahiltna River to Hewitt Lake, then down to the mouth of the Susitna River, encompasses areas where most of the pike and pike habitat exists (Figure 31). In the KAMU, most pike habitat exists in a triangle created by the Susitna River and Parks Highway south of Willow (Figure 16). This area includes the Nancy Lake, Big Lake, and the Little Susitna River drainages, and lakes of the Susitna Flats such as Flathorn and Figure Eight lakes. Growing or even new pike fisheries are expected in these areas as northern pike continue colonization of the NCIMA. Northern pike were documented in Big Lake and Nancy Lake in 2005. The amount of available pike habitat in ESMU waters is sparse when compared to that of the WSMU or KAMU. Regardless, pike have been documented or reported in some of the lakes in the ESMU.

HISTORICAL HARVEST AND CATCH

In 1977, the first year estimates were available, harvest of northern pike in the NCIMA was only 130 fish, accounting for only 1% of the statewide harvest of northern pike (Table 54). Northern pike harvests slowly increased through 1983 when the harvest totaled 950 fish. Since 1984, harvest of northern pike has greatly increased, likely due to continued range expansion and increased angler interest. Interest in northern pike as a sport fish grew in the mid-1990s as concerns about their spread increased and regulations were subsequently liberalized (Appendix B4). As interest increased, harvest increased sharply (Figure 32). Harvests have been over 5,000 fish in all years since 1990 except 1994 and 1995. The 2007–2011 average harvest in the NCIMA was 9,129 fish, about twice the historical average of 5,833 fish (Table 54).

Since 1990, the first year catch estimates were generated from the SWHS, the average catch of northern pike in the NCIMA has been about 3.5 times the harvest. The first northern pike catch from the ESMU and WCIMU was documented in the SWHS in 1996 and 1993, respectively (Table 54). Previously, other than anecdotal information, no information was available regarding northern pike catch or harvest from these areas. The NCIMA harvest surpassed the Arctic-Yukon-Kuskokwim area for the first time in 1997.

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. Note that this is in contrast to other areas of Alaska where pike are indigenous and are managed conservatively.

In 1997 and 2002, the BOF liberalized harvest methods in many lakes within the NCIMA where pike populations were pervasive (Appendix B4) by allowing use of five lines while fishing through the ice. Five line areas were further expanded at the 2008 BOF meeting with the addition of several tributaries of the Susitna drainage that were thought to contain nearly only pike. Additional water bodies may be added to this list as pike gain strongholds in new areas through continued range expansion. In 1998 the BOF adopted a slot limit regulation for Alexander and Trapper lakes to provide anglers the opportunity to catch large fish. The daily bag limits were set at: less than 22 inches in total length, no limit; 22–30 inches, no retention; and over 30 inches, one 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 when it was determined only one lake, Alexander Lake, would be used to evaluate the effectiveness a slot limit management strategy. Evaluation took place in 2008. Length frequencies were found to be similar between pike sampled 1995–1996 and 2008. The slot limit may have maintained the historical size structure, providing continued opportunity to harvest trophy-sized pike, whereas liberalized regulations on other popular lakes such as Figure 8 and Flathorn lakes have generally resulted in low numbers of large pike. Either case can result in angler dissatisfaction since liberal regulations tends to result in high abundance of smaller pike while a slot strategy allows mostly harvest of small pike (less than 22 inches). To remedy dissatisfaction with the slot limit, in 2009, the BOF met out of cycle to eliminate the slot limit and replace it with a size limit that would allow harvest of medium-size pike (22–27 inches), but still somewhat protect trophy pike. This new strategy allows unlimited harvest of pike less than 27 inches in total length and a daily bag limit of one pike over 27 inches in total length. At the

2011 BOF special provisions were added to Big and Nancy lakes to use bait from November 1–March 15 in order to target pike through the ice.

The current management strategy was based on recommendations stemming from a study conducted from 1994 to 1996 that described seasonal movements and age, length, and diet composition of northern pike in selected Susitna River tributaries (Rutz 1999). This study gathered baseline data to describe pike population structure and measure the effects of pike on salmonid productivity in the area. Results were extrapolated to potential effects on other salmonid-producing areas of NCI (Whitmore and Sweet 1998). Coho salmon productivity was found to be most adversely affected due to overlap in habitat use (Rutz 1999;Roth and Stratton 1984). Areas that once contained healthy fish populations but that now contain mostly pike include Alexander Lake and all inlet streams, Fish Creek of the Nancy Lake canoe system, Fish Creek of Kroto Slough, Fish Lake Creek of the Yentna River, and Three Mile River and lakes of WCI. It is suspected that pike have invaded Cottonwood Creek because they have been documented in Anderson Lake, a lake intermittently connected to the Cottonwood system. The department has had anecdotal reports of northern pike in Jim Creek, but their presence has not been documented. Because the Big Lake, Cottonwood, and Jim creek systems have ideal pike habitat, salmonid populations would likely be severely affected by colonization. The Little Susitna River has limited pike habitat, so the negative effects to salmonid stocks there may be limited except for sockeye salmon production that occurs in Nancy Lake.

Future management of northern pike in the NCIMA will follow guidelines and strategies outlined in the Management Plan for Invasive Northern Pike in Alaska (ADF&G 2007) implemented in 2005, and the Alaska Aquatic Nuisance Species Management Plan (ADF&G 2002). In 2010, a regional effort was made to prioritize northern pike waters in the Matanuska–Susitna, Anchorage, and Kenai areas for eradication or suppression. Prioritization was based on many factors, including threat to species existence, threat to an existing fishery, the magnitude of the fishery, economic impact, cultural significance, feasibility, probability of success, etc[9]. All waters have not been prioritized as of yet, though Alexander Creek was fully evaluated using this priority matrix and rated a number one priority for suppression. Legislative funding was secured to initiate a full-scale gillnetting effort on side channel sloughs of Alexander Creek beginning in 2011. See Oslund, S. and S. Ivey. 2010, Appendix C for a history of northern pike in the Alexander Creek drainage, impacts to anadromous and resident fish species, and past studies conducted on pike within this system. To date (2012 field season), 9,000 pike have been removed from this system as a result of suppression efforts.

SPORT FISHERY PERFORMANCE IN 2011 AND 2012

The NCIMA estimated harvest of northern pike during the 2011 season was 11,089 fish. The 2007–2011 average harvest was 9,129 fish. The KAMU and WSMU each accounted for the majority of the harvest, with the remainder from the ESMU and WCIMU (Table 54). Figure 8 and Flathorn lakes, and Nancy Lake complex contributed over 60% of the KAMU average catch in 2011 (Table 55). Alexander Creek Drainage was the main producer of northern pike (>50%) on the WSMU throughout the same period (Table 56). Estimated catch of northern pike during 2012 was 500 fish below the five-year average. Estimated harvest of pike in 2012 was 7,815 fish. WSMU leading harvest with 4,505 pike (Table 54).

[9] Region II Invasive Northern Pike Priorities. *Memorandum*. Alaska Department of Fish and Game, Division of Sport Fish, Anchorage.

STOCKED LAKE FISHERIES

Currently 83 lakes in the NCIMA are stocked on an annual or biennial basis. These lakes range from two to 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, and Arctic char.

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. Many lakes have additional restrictions on motor use, access, and quite hours listed in lake management plans established by the Mat–Su borough (Appendix J).

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 broodstock at Fort Richardson Hatchery took place in 1993. All resulting fingerlings were stocked in Big Lake drainage lakes and all remaining broodstock was stocked in Anchorage area landlocked lakes and in Big Lake. Swanson River strain rainbow trout are the sole rainbow trout broodstock 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 2011–2012. Annual releases of all species during 2010–2012 ranged from 1,010,675 to 606,588 fish (Table 57).

The majority of rainbow trout released into NCIMA waters are fingerlings. Most fingerlings weigh 1–2 grams and are released in July and August. Catchables weigh around 100 grams and 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 23,363 fishing days to catch 22,232 rainbow trout in 2012 (Table 58).

Coho salmon are normally stocked in May at about 3 to 5 grams each. These fish achieve a harvestable size (six 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

Historically, Arctic grayling were stocked in early summer as sub-catchables weighing up to 70 grams. 2013 is the first year catchables will be available from the new William Jack Hernandez Sport Fish Hatchery for stocking and grayling will be 100 grams. Chinook salmon were stocked as catchables, weighing about 100 grams, in early November providing winter ice fishing opportunities in four heavily fished lakes. Arctic char are stocked as catchables weighing about 250 grams in June, providing more diversity for sport fishing (Table 59).

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 broodstock, 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 total 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 total 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* (Loopstra 2012).

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* (Loopstra 2012).

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, except in the stocked lakes of the Knik Arm and Susitna River areas, where the annual limit is ten rainbow trout 20 inches or longer. 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.

Future management of stocked lakes face two main issues:

(1) Northern pike have been illegally stocked in local lakes. An invasive species program is currently underway (see northern pike section of this report) with a goal to control or eradicate northern pike in stocked lakes and to prevent future illegal stockings. The alternative to northern pike control is to discontinue or alter stocking on a case-by-case basis. Differences in lake structure with respect to available northern pike habitat and deep water refuges for stocked species warrant different approaches to management Stocking in Big and Little No Luck lakes was discontinued. Stocking has been altered and limited to fully landlocked catchable fish only in South Rolly, Prator, and Memory lakes due to presence of northern pike (Appendix K).

(2) The second issue is ongoing in our area. In the past 20 years, the Mat–Su Valley population has increased enormously. Subdivisions have been developed around lakes that once had no development and very little use. Now sport fishing, wildlife viewing and jet skiing are new activities on many of these lakes. Increasing arguments between lakefront owners and other users concerning noise and boat wakes led to the creation of Mat–Su Borough Lake Management Plans for a number of Mat–Su Valley Lakes (Appendix K). These plans were developed through a public meeting process which determined prohibited activities for each lake. As the population continues to increase, the number of management plans that limit use of lakes will increase as well.

SPORT FISHERY PERFORMANCE IN 2011 AND 2012

In 2011, 81 lakes were stocked with 606,588 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 2011 included 443,186 rainbow trout; 50,057 coho salmon; 55,575 Arctic grayling; and 57,770 Arctic char (Table 57).

An estimated 21,056 angler-days of participation resulted from the area's landlocked stocking program in 2011 (Jennings et al. 2012*)* excluding effort at lakes having both stocked and indigenous game fish. The 2012 catch from stocked landlocked lakes included an estimated 22,232 rainbow trout, of which 5,280 (24%) were harvested; 4,863 landlocked salmon of which 58% were harvested tripling catches from 2011; 565 Arctic grayling, of which 8% were harvested; and 1,097Arctic char, of which 27% were harvested (Table 58).

The Kepler Lake Complex (including Kepler, Bradley, Canoe, Echo, Irene, Long, Matanuska, and Victor) supported 3,161 angler-days of effort. Finger Lake supported 2,439 angler-days of effort (Table 35). Collectively, these two sites yielded approximately 37% of the effort associated with stocked landlocked lakes within the NCIMA (Jennings et al. 2012).

Rainbow trout and Landlocked salmon dominate catch in stocked lakes. In 2012 4,863 land locked salmon and 22,232 rainbows were caught (Table 58).

PERSONAL USE AND SUBSISTENCE FISHERIES

OVERVIEW

Brannian and Fox (1996) and Reimer and Sigurdsson (2004) provide a detailed history of subsistence and personal use salmon fishing regulation and management in UCI. Sockeye salmon is the predominant harvest in these fisheries in UCI.

Fish Creek sockeye salmon have long been used in commercial and subsistence[10], as well as personal use, fisheries. The Knik Arm subsistence fishery was operational through 1970. In 1971 the fishery was closed because of declining sockeye salmon escapements into Fish Creek. It was reopened in 1984 and 1985, and then closed again in 1986.

The Fish Creek commercial set gillnet and personal use dip net fisheries along the northwest shore of Knik Arm were initiated by the BOF in 1986 to harvest sockeye salmon surplus to spawning and egg take needs. These fisheries continued annually, contingent upon a projected escapement of 50,000 Fish Creek sockeye salmon. The commercial gillnet fishery was closed by BOF action from 1999 through 2001, due to low returns in 1997 and 1998. The fishery was eliminated by the BOF in 2002 because returns continued below desired escapement levels. Average annual harvest of sockeye salmon in the commercial gillnet fishery while in existence was 23,400 fish (Table 60). The personal use fishery has been opened in 2011 and closed in 2012.

The *Upper Cook Inlet Subsistence Management Plan* provided for a subsistence set gillnet fishery in marine waters in the Northern District of UCI in 1991, 1992 and 1994. Subsistence set gillnet fishing was allowed for a total of 17 days between May 21 and September 28. Hours for the fishery were 8:00 a.m. until 8:00 p.m. The threat of a court-ordered closure of this subsistence fishery for the 1995 season caused the BOF to take action to allow the fishery to proceed as a personal use gillnet fishery. Annual harvest ranged from 3,900 fish in 1985 to 53,300 fish in 1994 with an average harvest of 31,500 sockeye salmon (see Table 60 in Sweet et al. 2003). Coho, sockeye, and pink salmon were harvested as well. This personal use gillnet fishery was eliminated by the BOF prior to the 1996 season.

FISHERY DESCRIPTIONS

The current personal use fisheries within the NCIMA include a sockeye salmon dip net fishery in Fish Creek, a dip net fishery for Alaska residents 60 or older on the Beluga River, and a personal use eulachon fishery, the majority of which takes place in the Susitna River. During the 2008 the board opted to create a personal use fishery for residents over the age of 60 in the Beluga Area. This fishery was predicated on the loss of fishing opportunity in the Beluga area as a result of pike predation on sockeye salmon in Three Mile Creek, lack of access to area fisheries, and poor Chinook salmon returns to WCI streams. A permit holder may obtain his or her annual limit of 25 salmon per head of household and 10 additional salmon per listed dependent. No Chinook salmon may be retained and a cap of 500 other salmon is enforced. All Chinook salmon caught must be released immediately. This permit is only good for the Beluga River and does not allow the permittee to participate in any other Alaskan personal use fishery.

[10] Engel, L. and D. Vincent-Lang. *Unpublished*. Area Management Report for the recreational fisheries of Northern Cook Inlet. Report to the Alaska Board of Fisheries, November 1992. Alaska Department of Fish and Game, Division of Sport Fish, Anchorage.

There is also a small harvest of eulachon in the Knik Unit at the mouth of Fish Creek (Table 61).

Subsistence fisheries include the Yentna River subsistence fish wheel fishery and the Tyonek subsistence fishery. The Yentna subsistence fishery occurs in the mainstem Yentna River from its confluence with Martin Creek upstream to its confluence with the Skwentna River, and is prosecuted only by fish wheel. The Tyonek subsistence fishery occurs adjacent to the village of Tyonek; harvest occurs by gillnets (see also Appendix C1).

FISH CREEK SOCKEYE SALMON 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, stocking continued using Fish Creek broodstock reared at the Eklutna Hatchery, a private non-profit hatchery operated by CIAA (Cook Inlet Aquaculture Association) and located on the Knik River in the Eklutna Power Plant tailrace. 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. Production goals were 9 million sockeye salmon eggs of Fish Creek brood, from which sockeye salmon fry and smolt were released annually into the Big Lake drainage. Stocking was discontinued after the 2008 release.

HISTORICAL HARVEST AND ESCAPEMENT

The personal use dip net fishery on Fish Creek sustained an annual average harvest of 9,700 sockeye salmon from 1987–2001, ranging from 460 fish in 2001 to 37,200 fish in 1993 (Table 60). The fishery was closed by EO after the third day in 2001 and has been opened three times since, in 2009–2011 with an average harvest of 11,542 salmon. Prosecution of this fishery is dependent on projected escapements into Fish Creek. This dipnet fishery may open between July 10 and July 31 when the escapement of sockeye salmon is projected to be more than 50,000 fish. The preseason forecast (2012) was for a total run of 84,000 sockeye salmon to Fish creek with half assumed harvested in Cook Inlet commercial fisheries. The 50,000 fish trigger could not be projected during the season and the dipnet fishery was not opened. The final weir count was 18,813 sockeye salmon and short of the goal (SEG 20,000 – 70,000). Levels of escapement have been mostly below average since about 1998, until 2009.

The average Susitna River eulachon harvest from 2002–2011 was 2,719 fish and ranged from 10–16,900 fish (Table 61). The inriver return of eulachon to the Susitna River drainage ranges in the millions with personal use harvest accounting for less than 1% of this return. In terms of harvest, this fishery is likely one of the most underutilized in the state. It is managed inseason with spot checks conducted by ADF&G staff in the Palmer office, and postseason through the SWHS. It is likely that unless increased access is provided to the Susitna River, the personal use harvest of eulachon will remain fairly stable. No eulachon were reported harvested in the KAMU. It should be noted that no reported harvest has occurred since 2007 which most likely indicates low participation in this fishery, making it difficult to estimate harvest through the SWHS which randomly surveys anglers. Inseason observations of run strength by staff in 2011–2012 indicate good returns. The harvest in 2012 was 3,290 and is similar to the 2007–2011 average.

The personal use dip net fishery on Beluga River began in 2008. The peak of salmon harvest in this fishery to date is 225 salmon in 2009 (Table 62). The harvest in 2011 was predominately

sockeye, and a total of 159 salmon. The lowest harvest to date was 2012 with a harvest of only 16 salmon.

Average annual harvest in the upper Yentna River subsistence fishery is 513 fish from 2002–2011. Sockeye salmon are the primary species harvested. For the same period, the average sockeye harvest is 401 fish (Table 63), 279 sockeye were harvested in 2012.

The Tyonek subsistence fishery average Chinook harvest from 1981–2011 is 1,233 fish, followed by an average harvest of 134 sockeye and 126 coho salmon. Very few chum and pink salmon are harvested in this subsistence fishery (Table 64).

FISHERY MANAGEMENT AND OBJECTIVES

In 2002 the SEG for sockeye salmon on Fish Creek was changed from a point goal of 50,000 fish to a range of 20,000–70,000 fish. Further, the Fish Creek dip net fishery was modified under the *Upper Cook Inlet Personal Use Salmon Fisheries Management Plan* (5AAC 77.540). The commissioner will open the fishery from July 10 through July 31, if the department projects the escapement of sockeye salmon into Fish Creek will be above the upper end of the escapement goal of 20,000–70,000 fish. Prior to 2002, the fishery was open until closed by EO. Participants in the fishery must obtain an UCI personal use permit, which also includes the Kenai River and Kasilof River personal use dip net fisheries, and the Kasilof River set gillnet personal use fishery. The annual limit is 25 fish for the head of household plus 10 fish for each additional member of the household, and is inclusive of all UCI personal use fisheries. Permits must be returned with the total catch recorded. The closing date is set at July 31 to limit the number of coho salmon harvested.

The management objective for the Fish Creek personal use fishery is to allow escapement of sockeye salmon along the entire course of the return while harvesting fish in excess of spawning needs. There are no specific management objectives for the personal use eulachon fishery. All fisheries are managed to provide sustained yield.

Management of Fish Creek sockeye salmon has undergone many changes in conjunction with an observed decline in total escapements in recent years. During the February 2002 BOF meeting, Fish Creek sockeye salmon were designated as a stock of yield concern after demonstrating a chronic inability to meet the escapement goal, 50,000 fish at the time, over the previous five years (Figure 30; Table 45). At the same meeting, an SEG of 20,000–70,000 fish was recommended based on wild fish (pre-hatchery) escapements from 1938–1978 (see Bue and Hasbrouck, *Unpublished*). An action plan was developed, as directed by the BOF in 2002, to modify current land use patterns that may adversely affect fish habitat resource values in the Fish Creek watershed through education, increased community planning involvement, monitoring, and research to increase escapement toward the goal of achieving the SEG. Specific actions recommended for achieving this objective may be found in Sweet et al. (2004). During the February 2011 BOF meeting, the board determined a personal use fishery to be opened when the department projects to exceed 50,000 sockeye.

Litchfield and Willette (2002) found dissolved oxygen and nutrient concentrations similar to levels experienced in the early 1980s, suggesting no relationship to the decline in survival of Fish Creek sockeye salmon. Aggregate survival (hatchery and wild fish) to the smolt life stage was one-quarter the survival rates of other sockeye-producing systems during the late 1980s. Further, wild survival to the smolt stage was lower than hatchery-origin fish. Two plausible explanations

to overall decline in wild stock productivity were identified: 1) a cofferdam at the Big Lake outlet could have reduced productivity of the subpopulation spawning below the dam; and 2) Big Lake Hatchery operations prevented sockeye salmon from entering Meadow Creek above the hatchery in an effort to reduce potential spread of disease (Litchfield and Willette 2002). The cofferdam was removed in 2004 in an attempt to improve passage of fry into the Lake (Hasbrouck and Edmundson 2007). The Fish Creek stock was reevaluated at the 2005 BOF meeting where it was determined to no longer be a stock of yield concern. The Fish Creek personal use fishery was not opened 2001–2008,

The BOF established the Skwentna River personal use salmon fishery in March 1996. As a result of actions by the State of Alaska Supreme Court and the BOF, it was reinstituted as the Upper Yentna River subsistence salmon fishery beginning in 1998. The open season for this subsistence fishery is July 15 through July 31, from 4:00 a.m. until 8:00 p.m. on Mondays, Wednesdays, and Fridays. During the February 2011 meeting, the Board of Fisheries determined 400–750 salmon, other than Chinook salmon are reasonably necessary for subsistence uses in the Yentna River drainage.

Regulations for a Tyonek subsistence fishery were established in 1980. Participants are allowed to harvest all salmon species. Residents of Tyonek are the major participants in the fishery. The season starts on May 15 and continues through October 15. The fishery is open May 15–June 15 on Tuesdays, Thursdays, and Fridays, from 4:00 a.m.–8 p.m. From June 16 through October 15, fishing shifts to Saturdays only. This fishery is prosecuted by gillnet 10 fathoms in length by 45 meshes deep, with six inch mesh. During the February 2011 meeting the Board determined 700–2,700 Chinook salmon and 150–500 salmon, other than Chinook salmon, are reasonably necessary for the subsistence use in the Tyonek Subdistrict.

FISHERY PERFORMANCE AND ESCAPEMENT IN 2011 AND 2012

With runs projecting to exceed the upper end of the escapement goal, the personal use fishery on Fish Creek was opened for the first time since 2001 and again in 2009–2011 due to strong returns to the Fish Creek system as measured by the Fish Creek weir. The total weir count in 2011 and 2012 was 66,678 and 18,823 fish, respectively (Table 45). The Fish Creek personal use dip net fishery was opened in 2011 with projections exceeding 50,000 sockeye. The fishery was open to the retention of salmon except Chinook. In 2011 personal use harvest was 5,190 fish (Table 60) and the dip net fishery was open three days, July 29–July 31, from 6AM to 11PM. Contributions of hatchery fish to the Fish Creek escapement are estimated to be 17% for 2012, and have ranged from 2% in 2002 to 73% in 2006 (Table 65).

Average annual harvest in the upper Yentna River subsistence fishery was 520 salmon from 1996–2011 (Table 63). Average harvest per permit holder was 26 fish over the same period. Sockeye salmon are the target species, although some coho, pink, and chum salmon are also harvested. No Chinook salmon harvest is allowed. A total of 384 salmon were harvested in 2012.

Chinook salmon dominate the harvest in the Tyonek subsistence fishery, with a smaller harvest of coho and sockeye salmon. Few pink and chum salmon are harvested. From 1981–2011, the average number of permits issued was 74 (Table 64). The total salmon harvest in 2011 was 789 fish and 1,160 fish in 2012.

The 2011 NCIMA estimated eulachon harvest was 6,763 fish, all from the Susitna River (Table 61). No eulachon were reported harvested in the KAMU. It should be noted that no reported

harvest has occurred in the past. This most likely only indicates low fishery participation, which makes it difficult to estimate harvest through the SWHS which surveys anglers randomly. The 2007–2011 average harvest in the WSMU was 3,500 eulachon. Inseason observations of run strength by staff in 2011 and 2012 indicate good returns. The eulachon harvest in 2012 of 3,290 was just under the 2007–2011 average of 3,500 fish.

EDUCATIONAL FISHERIES

FISHERY DESCRIPTION

The first educational fishery, the 1989 Kenaitze Tribal fishery (on the Kenai Peninsula), originated as a Federal Court-ordered subsistence fishery resulting from extensive legislation and litigation related to both state and federal interpretation of subsistence. Prior to the 1993 fishing season the Alaska Superior Court, in negotiations with ADF&G and the Kenaitze Tribe, ordered the department to issue educational fishing permits.

The Knik Tribal Council and the Native Village of Eklutna were first issued permits for the 1994 season. These educational fisheries, originally ordered as interim fisheries until the court cases were decided, have been applied for and renewed by the department annually. The Tyonek Subsistence Camp was issued permits from 1998 to 2000. More recently, an additional educational fishery was added in NCIMA, the McLaughlin Youth. Educational fishery permits were issued to the Big Lake Cultural Outreach Program in 2005–2012 and one permit was issued to the Intertribal Native Leadership group in 2006. The current educational fisheries are limited to certain areas and periods of operation as described in the following Fishery Management and Objectives section. In general the Eklutna and Knik villages fish waters adjacent to their respective community. Educational fishing also takes place along the north shores of Goose Bay and Pt. MacKenzie and on Fire Island.

HISTORICAL HARVEST

The total salmon harvest by the Knik Tribal Council educational fishery averaged 254 fish annually from 1994–2012 (Table 66). The Eklutna Native Village educational fishery harvested an average of 334 salmon annually during the same period.

FISHERY MANAGEMENT AND OBJECTIVES

The objective of this fishery is to implement the provisions of the permit. Standards, general conditions, and requirements of an educational fishery program were established by the BOF and are administered under Chapter 93 of the Alaska Administrative Code (5 AAC 93.200–235). The open fishing season is from May 1 to September 30. The fishery can take place at the discretion of the permit holder except in the Fish Creek Terminal Harvest Area during commercial fishery openings and on Mondays or Thursdays when commercial openings are scheduled in the Northern District between Point MacKenzie and the Little Susitna River and adjacent to Fire Island. Otherwise, the fishery may be prosecuted in waters of the Northern District between Point Mackenzie and Little Susitna River and adjacent to Fire Island, and in waters within 1 mile of average high water on the western shore of Knik Arm from the Goose Bay airstrip beach access road boat launch located on the north shore of Goose Bay to Fish Creek. The educational fishery may not occur in the tidal channel of Fish Creek or in Fish Creek. Permits are issued on an annual basis and must be renewed each year. Permit holders must submit a postseason summary to ADF&G as indicated in the specifications. A failure to meet specifications will

result in nonrenewal of a permit. Council and Tribal objectives for the educational fisheries include teaching and preserving the cultural and traditional subsistence way of life as well as providing food for elders and others in need.

Reports on the educational program, as required by each permit, have been submitted annually to the NCIMA biologist and compiled in the Area Management Report. Educational fishery salmon harvests are minimal and they do not affect inriver sport fisheries.

FISHERY PERFORMANCE AND ESCAPEMENT IN 2011–2012

The Knik Tribal Council educational fishery salmon harvest in 2011 was 70 fish and in 2012 they harvested 58 fish. Sockeye salmon were the predominate species, with 61 fish harvested in 2011 and 88 fish harvested in 2012 (Table 66).

The educational fishery conducted by Eklutna Native Village harvested 704 salmon in 2011 and 533 salmon in 2012. Sockeye salmon was the primary species in their harvest with 343 fish in 2011 and coho as the primary catch in 2012 with 242 fish (Table 66).

The Big Lake Cultural Outreach educational fishery began in 2005. In its first year, the group harvested a total of 348 salmon, with coho salmon (99 fish) and sockeye salmon (98 fish) comprising over half of their harvest (Table 66). In 2012, this educational fishery did not fish.

The McLaughlin educational fishery was new in 2012. Due to conservation concerns for coho the 2012 permit was revoked (Table 66).

Due to low Chinook abundance, the Tyonek Village permit was not issued in 2012.

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TABLES

Table 1.–Number of angler-days of sport fishing effort expended by recreational anglers fishing Northern Cook Inlet Management Area waters, 1977–2012.

	Knik Arm		Eastside Susitna		Westside Susitna		West Cook Inlet [a]		NCIMA	Alaska	% by	Region II	% by
Year	Effort	% NCIMA	Effort	% NCIMA	Effort	% NCIMA	Effort	% NCIMA	Total	Total	NCIMA	Total	NCIMA
1977	81,949	48	56,651	33	29,211	17	2,735	2	170,546	1,198,486	14	828,351	21
1978	75,540	38	86,010	43	35,709	18	2,262	1	199,521	1,285,063	16	913,417	22
1979	78,411	38	78,222	38	48,362	23	2,012	1	207,007	1,364,739	15	1,014,018	20
1980	102,530	42	91,277	38	46,768	19	1,357	1	241,932	1,488,962	16	1,072,384	23
1981	105,052	52	59,854	30	35,072	17	2,263	1	202,241	1,420,172	14	1,016,731	20
1982	91,713	41	80,745	36	50,738	23	1,126	1	224,322	1,623,090	14	1,131,358	20
1983	138,389	50	67,471	24	63,919	23	6,237	2	276,016	1,732,528	16	1,212,680	23
1984	130,727	46	81,758	29	61,263	22	7,512	3	281,260	1,866,837	15	1,341,658	21
1985	122,626	43	67,764	24	77,092	27	16,455	6	283,937	1,943,069	15	1,406,419	20
1986	131,606	40	92,289	28	87,736	27	13,537	4	325,168	2,071,412	16	1,518,712	21
1987	140,167	44	77,817	24	84,448	26	16,247	5	318,679	2,152,886	15	1,556,050	20
1988	183,029	46	107,977	27	95,339	24	11,875	3	398,220	2,311,291	17	1,679,939	24
1989	146,912	41	96,864	27	96,308	27	14,851	4	354,935	2,264,079	16	1,583,381	22
1990	142,884	41	101,917	29	92,435	26	14,392	4	351,628	2,453,284	14	1,745,110	20
1991	146,605	39	113,178	30	104,072	28	13,336	4	377,191	2,456,328	15	1,782,055	21
1992	141,825	35	149,484	37	101,496	25	11,000	3	403,805	2,540,374	16	1,889,930	21
1993	118,214	32	128,382	35	106,724	29	17,993	5	371,313	2,559,408	15	1,867,233	20
1994	143,372	38	114,533	30	106,112	28	15,950	4	379,967	2,719,911	14	1,966,985	19
1995	126,154	42	102,686	34	60,177	20	12,557	4	301,574	2,787,670	11	1,985,539	15
1996	90,990	40	83,227	36	42,717	19	12,146	5	229,080	2,006,528	11	1,434,943	16
1997	95,730	39	85,228	35	50,366	21	11,218	5	242,542	2,079,514	12	1,400,983	17
1998	78,218	35	89,014	40	44,931	20	10,019	5	222,182	1,856,976	12	1,258,482	18
1999	112,642	34	133,310	40	74,374	22	14,402	4	334,728	2,499,152	13	1,659,966	20
2000	121,601	33	141,609	38	88,503	24	18,483	5	370,196	2,627,805	14	1,844,824	20
2001	111,027	35	121,039	38	73,885	23	14,205	4	320,156	2,261,941	14	1,560,562	21
2002	126,194	39	116,254	36	63,286	20	16,335	5	322,069	2,259,091	14	1,569,513	21
2003	103,978	35	112,061	37	66,882	22	16,927	6	299,848	2,219,398	14	1,535,501	20
2004	113,528	36	107,689	35	72,721	23	17,809	6	311,747	2,473,961	13	1,709,671	18
2005	115,763	39	87,893	29	73,971	25	20,459	7	298,086	2,463,929	12	1,712,610	17
2006	119,795	41	85,029	29	73,700	25	15,771	5	294,295	2,297,961	13	1,605,852	18
2007	120,681	40	87,177	29	70,923	24	19,705	7	298,486	2,543,674	12	1,799,352	17
2008	136,572	48	85,755	30	47,061	16	16,627	6	286,015	2,315,601	12	1,622,920	18

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Table 1.–Page 2 of 2.

	Knik Arm		Eastside Susitna		Westside Susitna		West Cook Inlet [a]		NCIMA	Alaska	% by	Region II	% by
Year	Effort	% NCIMA	Effort	% NCIMA	Effort	% NCIMA	Effort	% NCIMA	Total	Total	NCIMA	Total	NCIMA
2009	122,508	48	72,109	29	43,273	17	14,948	6	252,838	2,216,445	11	1,522,345	17
2010	106,281	46	63,025	27	48,298	21	14,512	6	232,116	2,000,167	12	1,371,492	17
2011	54,791	34	56,121	35	40,657	25	10,184	6	161,753	1,919,313	8	1,326,950	12
2012	58,673	37	50,521	32	40,255	25	10,682	6	160,131	1,885,786	8	1,252,263	13
Average													
1977–2011	116,514	40	93,755	32	67,387	23	12,213	4	289,869	2,122,316	14	1,498,512	19
2002–2011	112,727	39	94,647	33	63,597	22	16,330	6	287,300	2,299,941	12	1,598,466	18
2007–2011	108,167	43	72,837	30	50,042	21	15,195	6	246,242	2,199,040	11	1,528,612	16

Source: Statewide Harvest Survey estimates (Mills 1979-1980, 1981a-b, 1982-1994, Howe et al. 1995,1996, 2001a-d; Walker et al. 2003 Jennings et al. 2004, 2006a-b; 2007, 2009a, 2009b, 2010a-b, 2011-b, In prep; Jennings et al. 2006a; Jennings et al. 2006b; Romberg et al. In prep.)

[a] Data include saltwater effort from outside the North Cook Inlet Management Area, as reported in the Statewide Fishing Survey.

Table 2.–Angler-days of sport fishing effort for the Knik Arm drainage by fishery, 1977–2012.

Year	Marine	Little Susitna River	Knik River[a]	Eklutna Tailrace	Wasilla Creek	Cottonwood Creek	Big Lake drainage streams	Finger Lake	Kepler Lk Complex	Big Lake	Nancy Lk Complex	Other lakes[b]	Other streams	Total
1977		11,063			2,805			14,864	7,962	11,869	7,259	26,127		81,949
1978		12,127			3,446			11,502	5,730	9,865	7,647	25,223		75,540
1979		21,301			4,024	5,345		4,433	5,439	8,300	7,011	22,558		78,411
1980		22,420			5,726	9,268		6,483	8,597	12,195	9,153	28,688		102,530
1981		26,162	4,904		4,019	8,663		5,267	8,227	14,568	8,488	24,754		105,052
1982		24,020	6,653		6,261	5,186		3,514	6,943	15,371	8,615	15,150		91,713
1983	17,127	35,477	9,183		3,239	5,944		8,512	9,149	15,989	10,907	19,571	3,291	138,389
1984	4,316	48,517	9,369	3,413	3,547	7,144		6,843	9,770	12,916	7,194	15,892	1,806	130,727
1985	692	41,643	8,970	2,995	3,115	4,560	903	4,259	9,226	16,299	5,960	22,243	1,761	122,626
1986	983	45,770	13,015	8,549	3,387	5,653	2,641	5,589	9,544	14,559	6,520	13,147	2,249	131,606
1987	1,974	35,659	6,990	11,663	2,173	2,934	2,898	10,830	14,379	17,693	15,125	16,187	1,662	140,167
1988	1,239	49,731	23,229	13,188	2,228	4,056	3,110	8,240	18,245	10,077	12,099	35,159	2,428	183,029
1989	2,352	54,798	11,141	10,342	2,406	3,069	4,204	4,840	12,821	12,748	8,349	19,024	818	146,912
1990	2,494	40,159	17,878	7,618	2,679	3,056	3,936	6,737	13,644	11,798	9,973	19,949	2,963	142,884
1991	3,147	50,838	13,736	5,892	2,893	1,623	3,693	5,998	11,337	13,759	10,239	20,043	3,407	146,605
1992	1,540	49,304	8,856	4,279	1,110	1,974	4,534	5,506	15,556	11,545	12,299	24,723	599	141,825
1993	2,116	42,249	6,824	4,523	1,774	3,077	2,976	7,843	7,461	8,446	9,393	20,606	926	118,214
1994	1,244	45,149	9,658	8,974	2,226	3,230	3,496	9,434	11,832	9,987	10,197	25,063	2,882	143,372
1995	940	41,119	10,893	11,453	1,373	2,598	2,256	7,814	10,885	6,979	9,723	18,928	1,193	126,154
1996	966	24,575	7,561	6,448	1,386	1,783	934	8,962	7,431	7,290	5,140	17,464	1,050	90,990
1997	672	27,883	5,349	3,835	1,188	2,070	1,104	7,242	8,139	9,644	7,275	19,944	1,385	95,730
1998	952	22,108	5,272	5,100	1,171	3,454	2,256	4,286	6,500	6,143	4,861	15,729	386	78,218
1999	250	30,437	6,860	6,150	990	3,506	2,182	8,076	9,149	8,418	7,899	26,981	1,744	112,642
2000	447	39,556	10,975	7,938	328	1,265	1,408	7,786	8,708	7,587	8,670	25,519	1,414	121,601
2001	622	33,521	13,028	10,166	419	2,627	1,670	6,902	8,439	5,555	6,789	20,831	458	111,027
2002	1,218	40,346	17,989	11,767	1,037	1,534	2,776	7,094	6,108	5,176	5,659	24,612	878	126,194
2003	435	31,993	13,474	8,423	757	2,238	1,182	5,096	6,470	5,226	6,653	21,267	764	103,978
2004	184	33,819	19,342	9,588	1,079	3,282	2,029	4,713	6,958	4,430	5,501	21,954	649	113,528
2005	802	27,490	19,605	19,339	684	1,484	1,461	5,514	4,719	6,481	4,391	22,989	804	115,763
2006	323	28,547	25,271	20,465	869	3,867	948	6,055	5,684	5,616	7,279	14,225	646	119,795
2007	590	35,636	21,342	22,619	1,194	3,448	907	3,229	3,926	5,261	5,053	16,087	1,389	120,681
2008	325	31,989	27,874	20,586	1,394	2,718	1,343	7,715	8,264	7,326	4,958	21,426	654	136,572

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Table 2.–Page 2 of 2.

Year	Marine	Little Susitna River	Knik River[a]	Eklutna Tailrace	Wasilla Creek	Cottonwood Creek	Big Lake drainage streams	Finger Lake	Kepler Lk Complex	Big Lake	Nancy Lk Complex	Other lakes[b]	Other streams	Total
2009	159	28,151	23,925	22,625	1,619	2,679	2,092	6,821	6,881	3,415	6,081	17,395	665	122,508
2010	124	24,846	16,140	14,708	2,354	2,064	2,966	4,821	5,594	4,369	8,736	18,867	692	106,281
2011	139	12,779	9,810	5,972	1,300	1,736	970	4,338	5,899	3,080	4,377	3,633	758	54,791
Average														
1977–2011	1,668	33,462	13,068	10,308	2,177	3,550	2,255	6,776	8,732	9,428	7,871	20,627	1,390	116,514
2002–2011	447	30,723	18,231	14,516	1,086	2,412	1,646	5,840	6,471	5,294	6,179	19,596	814	112,727
2007–2011	304	29,834	22,910	17,302	1,572	2,529	1,656	5,385	6,113	4,690	5,841	15,482	832	108,167
2012		10,115	7,474	5,475	506	884	1,343	2,439	3,161	4,151	3,096	19,596	433	58,673

Source: Statewide Harvest Survey estimates (Mills 1979-1980, 1981a-b, 1982-1994, Howe et al. 1995,1996, 2001a-d; Walker et al. 2003 Jennings et al. 2004, 2006a-b; 2007, 2009a, 2009b, 2010a-b, 2011-b, *In prep;* Jennings et al. 2006a; Jennings et al. 2006b; Romberg et al. *In prep.)*

[a] Knik River and tributaries including Jim Creek.

[b] Includes effort for lakes and streams, 1977-1982.

Table 3.–Angler-days of sport fishing effort for the Eastside Susitna River drainage by fishery, 1977–2012.

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]	Lakes	Total
1977	14,024	4,583			8,112		14,268			3,163		12,501	56,651
1978	22,682	5,687			11,869		25,762			5,040		14,970	86,010
1979	18,911	5,171		3,710	6,728		22,621		3,317	5,125		12,639	78,222
1980	29,011	8,190		4,963	8,014		19,287		5,208	4,388		12,216	91,277
1981	14,060	3,845		3,860	6,936		16,657		3,062	3,584		7,850	59,854
1982	19,704	5,579		5,101	9,093		23,645		3,787	3,856		9,980	80,745
1983	13,405	2,791	1,344	5,048	6,237		17,109		3,429	7,564	5,460	5,084	67,471
1984	21,649	5,872	2,995	4,952	6,106	1,305	19,239		3,229	9,252	4,417	2,742	81,758
1985	16,282	5,705		5,289	2,844		20,028		4,144	7,213	4,162	2,097	67,764
1986	10,733	4,490	2,908	4,362	10,091	1,993	20,268	2,010	8,124	8,638	10,566	8,106	92,289
1987	13,583	5,850	2,717	3,332	9,019	1,865	13,745	2,046	3,912	17,096	2,101	2,551	77,817
1988	27,758	10,768	1,454	4,529	18,699	2,947	16,498	2,074	4,129	12,733	3,648	2,740	107,977
1989	23,811	5,285	6,320	4,029	13,010	3,058	16,179	767	4,592	15,218	1,907	2,688	96,864
1990	32,200	6,505	2,313	6,103	11,392	3,714	11,284		4,485	18,299	3,287	2,335	101,917
1991	32,520	7,792	1,981	7,816	14,872	2,811	10,745	1,056	5,788	18,466	6,172	3,159	113,178
1992	50,958	9,240	2,177	6,391	17,509	4,908	18,437	1,366	4,833	21,478	6,347	5,840	149,484
1993	41,218	6,422	1,600	5,033	12,636	3,423	21,615	655	4,094	22,580	5,161	3,945	128,382
1994	34,362	6,744	1,957	5,842	11,526	3,300	16,220	1,092	4,265	18,642	6,134	4,449	114,533
1995	29,392	6,386	1,460	3,912	9,758	1,993	16,303	826	2,756	19,358	6,019	4,523	102,686
1996	23,508	5,890	1,140	1,473	8,112	1,796	13,485	506	3,028	18,386	2,907	2,996	83,227
1997	21,511	5,829	1,916	1,317	9,172	3,151	14,111	525	1,585	18,133	3,765	4,213	85,228
1998	23,920	4,987	1,663	2,983	9,716	2,510	14,952	1,063	2,374	16,713	5,130	3,003	89,014
1999	37,384	8,596	2,004	2,764	17,188	3,561	22,382	1,226	3,805	21,988	7,299	5,113	133,310
2000	44,648	9,028	2,331	4,385	12,660	3,266	26,070	1,426	5,487	21,324	5,744	5,240	141,609
2001	34,979	7,059	2,320	2,637	11,742	2,339	22,454	1,065	1,955	21,590	8,440	4,459	121,039
2002	31,997	7,189	2,648	2,562	12,853	2,845	22,008	446	3,192	21,548	4,870	4,096	116,254
2003	29,668	4,815	5,028	3,018	12,878	2,965	20,794	666	3,616	19,335	4,387	4,891	112,061
2004	26,722	5,031	1,906	902	10,310	2,645	22,860	881	2,820	19,632	8,161	5,819	107,689
2005	24,181	6,566	1,626	2,395	8,521	2,039	16,083	1,356	4,089	16,172	1,902	2,963	87,893
2006	21,927	4,536	2,489	1,767	9,437	2,593	19,657	779	3,732	13,043	2,800	2,269	85,029
2007	22,139	7,126	1,099	1,260	10,156	621	18,111	414	3,098	18,025	2,947	2,181	87,177
2008	17,953	8,213	5,634	1,524	8,574	1,895	16,174	964	4,153	14,392	2,687	3,592	85,755

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Table 3.–Page 2 of 2.

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]	Lakes	Total
2009	19,019	4,105	3,897	1,859	9,248	1,640	14,084	698	1,749	10,669	2,322	2,819	72,109
2010	12,487	3,562	1,614	2,524	7,042	1,051	10,931	1,025	2,009	11,952	3,782	5,046	63,025
2011	10,949	1,282	3,444	822	5,868	717	8,644	578	1,314	11,212	8,530	2,761	56,121
2012	9,763	1,609	704	546	3,877	994	9,303	1,230	1,337	11,502	6,738	2,918	50,521
1977-2011 Ave	24,836	6,021	2,499	3,590	10,227	2,480	17,792	1,020	3,672	14,166	4,864	5,196	93,755
2002-2011 Ave	22,911	5,408	2,882	1,934	9,694	1,941	17,436	807	2,884	16,143	4,621	3,718	90,377
2007-2011 Ave	18,705	4,858	3,138	1,598	8,178	1,185	13,589	736	2,465	13,250	4,054	3,280	72,837

Source: Statewide Harvest Survey estimates (Mills 1979-1980, 1981a-b, 1982-1994, Howe et al. 1995,1996, 2001a-d; Walker et al. 2003 Jennings et al. 2004, 2006a-b; 2007, 2009a, 2009b, 2010a-b, 2011-b, *In prep;* Jennings et al. 2006a; Jennings et al. 2006b; Romberg et al. *In prep.)*

[a] Including Clear Creek.

[b] Include angler days from the Susitna River.

Table 4.–Angler-days of sport fishing effort for the Westside Susitna River drainage by fishery, 1977–2012.

Year	Alexander Creek	Deshka River	Rabideux Creek	Moose Creek	Yentna River	Peters Creek	Lake Creek	Fish Creek[a]	Talachulitna River	Judd Lake	Shell Lake	Whiskey Lake	Hewitt Lake	Other Streams[b]	Other Lakes[b]	Total
1977	5,991	3,852					6,946		1,342	317	566	287	436	7,269	2,205	29,211
1978	6,914	9,111					8,767		732	151	302	129	172	6,011	3,420	35,709
1979	8,284	13,236					13,881		2,185	519	263	189	613	7,577	1,615	48,362
1980	6,812	19,364					8,325		2,542	814	414	29	471	4,998	2,999	46,768
1981	6,892	13,248					6,471		1,378					4,963	2,120	35,072
1982	10,748	18,391					8,649		1,911		444	171		7,012	3,412	50,738
1983	9,425	23,174					14,749		4,566	155	913			6,284	4,653	63,919
1984	7,261	20,561				786	14,739		3,848	1,255				9,652	3,161	61,263
1985	12,884	29,322					14,323		1,682					13,159	5,722	77,092
1986	19,113	29,739		1,193			15,626	3,838	2,186	963				13,753	1,325	87,736
1987	13,220	30,008					16,842	6,918	3,242	2,698				9,571	1,949	84,448
1988	19,591	32,160				2,001	16,007	5,784	8,040	588				8,047	3,121	95,339
1989	14,651	39,432	550	345	656	914	14,061	8,035	8,698	400				5,565	3,001	96,308
1990	19,863	32,082	1,024		849	1,318	17,914	4,857	5,184					5,430	3,914	92,435
1991	26,235	38,011	459		1,003	2,466	14,726	3,820	6,589	544				6,560	3,659	104,072
1992	18,085	37,056	992		1,985	2,198	16,869	3,873	5,153				800	9,586	4,899	101,496
1993	21,660	30,643			2,110	1,263	26,113	6,454	5,613					10,587	2,281	106,724
1994	25,608	19,267			3,936	1,195	27,958	7,011	7,292					10,113	3,732	106,112
1995	10,648	4,808			2,728	1,465	15,808	4,729	6,354					10,790	2,847	60,177
1996	6,062	5,246			1,293	981	12,091	2,158	5,151					9,735		42,717
1997	7,514	5,110			1,760	606	16,033	3,028	5,651					10,664		50,366
1998	6,538	11,574			889		11,260	2,618	3,224					8,828		44,931
1999	11,187	20,088			3,259	536	17,991	5,107	7,680					8,526		74,374
2000	11,733	30,997			5,474	1,057	21,671	3,850	6,415					7,306		88,503
2001	9,360	23,734	417		5,035	396	20,559	4,026	5,813					4,429	116	73,885
2002	10,169	20,362	737		4,091	853	14,933	3,672	3,995					4,010	464	63,286
2003	6,855	24,904	520		1,866	681	19,857	3,320	4,391					3,614	874	66,882
2004	5,679	28,653	894	355	3,319	606	20,898	3,594	3,631	344	744		110	626	3,268	72,721
2005	3,907	26,638	365	19	5,524	961	21,844	3,438	4,740		1,082		539	3,720	1,194	73,971
2006	4,337	31,015	727	271	6,679	620	19,801	2,084	4,455	52		53	112	2,530	964	73,700
2007	2,666	34,659	289	67	5,647	1,779	13,486	981	6,704	107	663		74	2,298	1,503	70,923

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Table 4.–Page 2 of 2.

Year	Alexander Creek	Deshka River	Rabideux Creek	Moose Creek	Yentna River	Peters Creek	Lake Creek	Fish Creek[a]	Talachulitna River	Judd Lake	Shell Lake	Whiskey Lake	Hewitt Lake	Other Streams[b]	Other Lakes[b]	Total
2008	299	15,514	774	0	4,778	756	11,891	1,212	5,310	441	194	0	34	1,733	4,125	47,061
2009	2,660	10,532	586	283	3,860	1,358	12,693	1,169	3,855	18	200	0	198	1,432	4,429	43,273
2010	481	17,520	752	347	4,693	880	10,674	878	3,460	140	1,432	22	151	3,485	3,383	48,298
2011	931	13,206	386	122	4,511	851	11,520	92	2,482	105	601	0	50	3,669	2,131	40,657
2012	560	10,987	641	63	4,580	234	9,129	1,240	4,305	73	63	218	146	5,681	2,335	40,255
Averages																
1977-2011	10,122	21,806	631	300	3,302	1,105	15,314	3,713	4,443	534	601	88	289	6,672	2,750	67,387
2002-2011	4,304	22,431	586	183	4,546	886	16,196	2,224	4,440	172	702	15	159	2,868	2,041	61,332
2007-2011	1,407	18,286	557	164	4,698	1,041	12,053	866	4,362	162	618	6	101	2,523	3,114	50,042

Source: Statewide Harvest Survey estimates (Mills 1979-1980, 1981a-b, 1982-1994, Howe et al. 1995,1996, 2001a-d; Walker et al. 2003 Jennings et al. 2004, 2006a-b; 2007, 2009a, 2009b, 2010a-b, 2011-b, *In prep;* Jennings et al. 2006a; Jennings et al. 2006b; Romberg et al. *In prep.)*

[a] Fish Lake drainage (Yentna River drainage)..

[b] May include effort from West Cook Inlet drainage waters..

Table 5.–Angler-days of sport fishing effort for the West Cook Inlet drainage by fishery, 1977–2012.

Year	Chuitna River	Beluga River	Theodore River	Lewis River	Kustatan River	Polly Creek	Susitna R.-N. Foreland	South of N. Foreland	Big River Lakes [a]	Polly Cr., Crescent R. Beach	Other	Total
1977	1,355		1,037	343								2,735
1978	1,185		905	172								2,262
1979	1,069		912	31								2,012
1980	614		700	43								1,357
1981	1,364		899									2,263
1982	751		375									1,126
1983	4,290		448		1,499							6,237
1984	2,342		3,497		1,673							7,512
1985	3,381		5,601	1,023	4,335					2,115		16,455
1986	3,532		4,786		2,737					2,482		13,537
1987	3,169		6,194	1,231	3,622					2,031		16,247
1988	1,637		4,056	837	3,674					1,671		11,875
1989	2,666	866	4,113	1,114	3,522				370	962	1,238	14,851
1990	4,443		3,626	1,285	3,724					1,314		14,392
1991	2,454		2,841	496	6,674					871		13,336
1992	2,817	512	2,091		4,150	747				683		11,000
1993	2,966		2,528	400	5,403			2,379	535	1,117	2,665	17,993
1994	2,236		3,492		3,972			1,283	653	604	3,710	15,950
1995	2,205		2,425		3,684	688		845	659	617	1,434	12,557
1996	2,505		1,811		2,699	342	1,075	855	1,251	541	1,067	12,146
1997	2,210		521		2,684		1,738	882	976	572	1,635	11,218
1998	3,221		280		2,749		1,139	862	729	329	710	10,019
1999	2,440		488		3,234		2,333	2,623	1,341	677	1,266	14,402
2000	4,104		1,452		4,393		2,593	2,450	2,504	987		18,483
2001	3,580		1,347		3,336		2,027	2,615	902	398		14,205
2002	2,864		1,450	237	5,254		2,340	1,686	678	499	1,327	16,335
2003	2,422		618	310	3,915		945	2,517	3,497	386	2,317	16,927
2004	2,165	777	828	428	2,854	233	2,135	1,482	3,322	608	2,977	17,809
2005	2,053	233	669	310	2,649		2,423	1,194	5,365	2,000	3,563	20,459
2006	1,279	1040	337	228	2,515	78	3,155	1,955	4,957		227	15,771
2007	3,745	742	749	238	3,517	56	1,381	1,582	2,203	192	5,300	19,705
2008	1,805	499	525	222	3,416	359	580	1,857	2,837	201	4,326	16,627

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Table 5.–Page 2 of 2.

Year	Chuitna River	Beluga River	Theodore River	Lewis River	Kustatan River	Polly Creek	Susitna R.-N. Foreland	South of N. Foreland	Big River Lakes [a]	Polly Cr., Crescent R. Beach	Other	Total
2009	1,354	383	952	485	2,238	161	2,823	1,599	3,829	446	678	14,948
2010	441	656	595	340	2,152	92	1,710	2,048	4,859	644	975	14,512
2011	515	364	435	376	1,215	30	455	977	2,452	126	3,239	10,184
2012	549	349	117	18	1,949	44	641	1,277	3,908	125	1,705	10,682
1977-2011 Ave	2,319	607	1,817	483	3,362	279	1,803	1,668	2,196	887	2,147	12,213
2002-2011 Ave	2,020	587	773	317	3,006	144	1,816	1,774	3,173	550	2,493	16,135
2007-2011 Ave	1,725	529	651	332	2,508	140	1,684	1,613	3,236	322	2,904	15,195

Source: Statewide Harvest Survey estimates (Mills 1979-1980, 1981a-b, 1982-1994, Howe et al. 1995,1996, 2001a-d; Walker et al. 2003 Jennings et al. 2004, 2006a-b; 2007, 2009a, 2009b, 2010a-b, 2011-b, *In prep;* Jennings et al. 2006a; Jennings et al. 2006b; Romberg et al. *In prep.)*.

[a] Big River Lakes (Big River drainage, including Wolverine Creek).

Table 6.–Northern Cook Inlet Management Area recreational harvest by management unit, 1977–2012.

	Knik Arm		Eastside Susitna		Westside Susitna		West Cook Inlet		NCIMA	Alaska	% by	Region II	% by
Year	Harvest	% NCIMA	Harvest	% NCIMA	Harvest	% NCIMA	Harvest	% NCIMA	Total	Total	NCIMA	Total	NCIMA
1977	67,979	43	49,274	31	36,096	23	3,510	2	156,859	2,300,332	7	1,929,407	8
1978	66,419	31	96,469	46	45,208	21	3,070	1	211,166	2,399,472	9	1,992,212	11
1979	68,658	41	50,476	30	46,939	28	2,453	1	168,526	2,502,213	7	2,044,813	8
1980	102,015	41	93,271	38	50,474	20	1,798	1	247,558	2,627,312	9	2,118,543	12
1981	109,824	57	46,558	24	32,153	17	3,631	2	192,166	2,528,056	8	2,052,719	9
1982	82,976	44	58,998	31	46,189	24	1,814	1	189,977	2,828,706	7	2,222,354	9
1983	92,689	50	45,330	24	41,855	23	5,596	3	185,470	3,086,280	6	2,409,876	8
1984	94,974	45	62,071	29	48,947	23	6,145	3	212,137	3,115,966	7	2,517,185	8
1985	104,136	51	39,684	20	47,868	24	10,853	5	202,541	3,096,044	7	2,469,836	8
1986	90,264	39	73,083	32	59,300	26	8,031	3	230,678	3,163,433	7	2,609,304	9
1987	98,373	46	47,548	22	57,252	27	11,400	5	214,573	3,207,138	7	2,584,420	8
1988	156,784	53	62,693	21	67,567	23	10,954	4	297,998	3,483,306	9	2,841,033	10
1989	115,070	49	51,426	22	55,361	24	11,592	5	233,449	3,213,867	7	2,519,404	9
1990	90,035	46	44,360	23	52,846	27	9,713	5	196,954	3,033,301	6	2,428,172	8
1991	103,384	44	51,068	22	66,514	29	11,492	5	232,458	3,311,513	7	2,633,148	9
1992	88,267	37	76,569	32	62,768	26	9,275	4	236,879	3,234,048	7	2,675,940	9
1993	90,017	39	67,907	30	55,215	24	15,384	7	228,523	2,989,720	8	2,387,224	10
1994	87,547	44	51,984	26	47,891	24	13,583	7	201,005	3,349,821	6	2,689,718	7
1995	57,182	39	42,845	29	37,688	25	10,741	7	148,456	2,909,979	5	2,396,666	6
1996	88,461	45	53,672	27	35,940	18	17,522	9	195,595	3,336,773	6	2,733,663	7
1997	69,199	45	37,909	24	36,110	23	11,755	8	154,973	3,294,273	5	2,643,988	6
1998	64,060	38	51,514	30	40,329	24	14,604	9	170,507	3,163,194	5	2,365,536	7
1999	70,384	32	66,153	30	70,806	32	15,120	7	222,463	3,093,608	7	2,163,862	10
2000	102,831	40	75,496	29	61,252	24	19,202	7	258,781	3,338,083	8	2,547,294	10
2001	79,920	37	59,205	27	57,173	26	19,582	9	215,880	3,078,100	7	2,228,839	10
2002	102,112	48	53,912	25	40,031	19	17,752	8	213,807	3,216,432	7	2,401,826	9
2003	68,332	37	41,764	23	52,462	29	21,416	12	183,974	3,052,124	6	2,177,543	8
2004	77,563	38	42,991	21	61,552	30	21,884	11	203,990	3,332,948	6	2,350,240	9
2005	67,036	40	35,066	21	49,444	29	17,936	11	169,482	3,235,176	5	2,173,207	8
2006	77,054	42	40,043	22	45,933	25	18,662	10	181,692	2,710,560	7	1,944,024	9
2007	60,293	40	30,763	21	35,021	23	23,537	16	149,614	3,032,493	5	2,123,212	7
2008	69,881	42	40,009	24	32,918	20	21,827	13	164,635	2,976,610	6	2,169,154	8

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Table 6.–Page 2 of 2.

	Knik Arm		Eastside Susitna		Westside Susitna		West Cook Inlet		NCIMA	Alaska	% by	Region II	% by
Year	Harvest	% NCIMA	Harvest	% NCIMA	Harvest	% NCIMA	Harvest	% NCIMA	Total	Total	NCIMA	Total	NCIMA
2009	63,310	45	34,813	25	27,325	19	16,304	12	141,752	2,951,263	5	2,139,793	7
2010	53,326	40	27,957	21	34,140	26	16,249	12	131,672	2,566,595	5	1,900,591	7
2011	32,385	33	22,198	23	32,589	33	10,989	11	98,161	2,677,077	4	1,979,899	5
2012	24,480	32	17,464	23	22,121	29	13,263	17	77,328	2,470,395	3	1,771,727	4
Average													
1977-2011	83,221	43	52,145	27	47,747	24	12,439	6	195,553	3,012,419	6	2,330,386	8
2007-2011	55,839	41	31,148	23	32,399	24	17,781	13	137,167	2,818,711	5	2,046,668	7

Source: Statewide Harvest Survey estimates (Mills 1979-1980, 1981a-b, 1982-1994, Howe et al. 1995,1996, 2001a-d; Walker et al. 2003 Jennings et al. 2004, 2006a-b; 2007, 2009a, 2009b, 2010a-b, 2011-b, *In prep;* Jennings et al. 2006a; Jennings et al. 2006b; Romberg et al. *In prep.)*

Table 7.–Northern Cook Inlet Management Area sport fish harvest by species, 1977–2012.

Year	Chinook salmon	Coho salmon	Sockeye salmon	Pink salmon	Chum salmon	Land-locked salmon	Rainbow trout	Dolly Varden	Arctic grayling	Lake trout	Burbot	Northern pike	White-fish	Eulachon	Other	Total
1977	4,674	17,206	7,962	30,136	2,062	27,429	32,270	13,365	15,799	3,231	1,024	132	0	0	1,569	156,859
1978	3,543	27,019	3,140	58,808	17,969	21,252	42,087	17,130	15,728	1,980	876	316	0	0	1,318	211,166
1979	7,964	24,076	6,193	13,925	5,599	12,144	47,924	17,718	27,949	1,789	1,172	382	0	0	1,691	168,526
1980	8,198	39,167	7,658	61,985	5,577	21,163	49,428	18,255	29,720	2,833	1,383	232	0	0	1,959	247,558
1981	8,602	23,621	8,369	9,627	4,820	24,533	63,592	20,310	24,506	2,375	518	125	0	0	1,168	192,166
1982	12,449	35,246	9,067	19,045	8,111	11,841	49,948	19,723	19,196	1,560	1,656	607	0	0	1,528	189,977
1983	14,860	17,477	21,533	5,686	6,032	23,854	46,184	20,362	21,332	3,532	2,305	944	0	0	1,369	185,470
1984	20,424	49,537	15,609	14,763	8,115	15,428	42,901	14,440	21,148	2,843	2,778	1,821	1,058	0	1,272	212,137
1985	21,904	38,971	9,840	4,018	3,053	15,345	63,319	18,626	18,554	622	1,855	1,404	2,477	2,240	313	202,541
1986	25,873	45,890	14,203	15,992	9,354	16,405	42,642	20,268	20,109	2,286	2,899	1,977	2,105	10,651	24	230,678
1987	25,906	54,109	13,530	4,634	6,358	15,032	39,909	16,421	16,405	2,046	5,140	2,464	2,861	9,265	493	214,573
1988	29,720	83,241	14,573	8,693	13,408	17,207	74,962	17,645	18,735	2,529	1,835	3,473	3,128	8,849	0	297,998
1989	35,792	66,833	14,403	5,191	9,043	11,577	54,962	12,860	12,238	2,397	978	3,120	1,716	2,324	15	233,449
1990	30,967	50,404	11,839	6,005	2,557	16,101	40,139	13,792	8,187	1,656	3,141	2,842	3,516	5,591	217	196,954
1991	33,958	70,425	11,713	3,495	3,240	15,754	52,513	13,859	10,084	1,527	981	6,640	2,057	6,132	80	232,458
1992	45,226	82,859	11,921	8,225	2,858	11,961	34,161	7,496	6,385	1,698	1,412	5,382	862	15,523	910	236,879
1993	49,387	87,606	14,579	4,827	2,536	14,567	27,950	5,978	5,175	765	1,655	5,721	878	6,596	303	228,523
1994	31,104	73,017	12,479	3,878	2,937	14,198	28,855	5,163	8,044	411	2,276	3,893	1,193	13,135	422	201,005
1995	16,537	65,145	11,441	3,081	7,967	7,318	19,884	4,167	3,199	456	858	3,546	227	4,549	81	148,456
1996	19,839	77,853	11,048	5,430	4,841	23,350	26,653	9,096	5,724	471	898	7,934	176	2,181	101	195,595
1997	22,620	35,685	15,229	3,620	4,267	11,721	30,089	6,594	4,425	520	1,874	9,024	214	8,853	238	154,973
1998	22,912	68,231	16,343	7,889	3,451	5,377	19,931	3,736	3,752	338	1,358	8,180	566	8,376	67	170,507
1999	32,803	65,055	16,535	3,819	4,222	9,377	28,425	5,906	4,135	402	1,271	10,824	134	39,555	0	222,463
2000	33,102	105,252	23,235	14,627	5,166	12,064	31,703	6,116	2,923	385	2,177	9,577	311	11,827	316	258,781
2001	30,395	89,893	20,565	5,229	5,026	7,556	23,202	4,560	2,864	439	689	12,739	797	11,630	296	215,880
2002	26,474	99,155	11,946	5,177	5,461	9,137	31,521	4,150	2,532	643	1,371	12,318	331	3,298	293	213,807
2003	28,220	73,479	22,708	2,276	4,402	5,905	21,887	4,375	1,942	858	1,346	8,024	283	7,498	771	183,974
2004	27,543	88,746	16,936	6,629	3,959	5,940	21,468	3,965	2,148	734	729	12,171	327	12,573	122	203,990
2005	28,682	75,309	11,381	3,460	3,364	6,685	15,695	2,999	1,119	404	1,357	11,306	807	3,068	3,846	169,482
2006	28,644	95,086	11,653	5,009	2,227	3,688	16,311	2,486	2,134	157	1,082	11,404	330	71	1,410	181,692
2007	25,413	67,842	19,864	3,069	1,749	1,754	12,288	4,927	1,756	643	911	8,156	449	744	49	149,614
2008	15,919	90,006	16,750	2,499	2,233	2,198	17,908	3,030	1,571	453	1,715	7,999	364	1,832	158	164,635

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Table 7.–Page 2 of 2.

Year	Chinook salmon	Coho salmon	Sockeye salmon	Pink salmon	Chum salmon	Landlocked salmon	Rainbow trout	Dolly Varden	Arctic grayling	Lake trout	Burbot	Northern pike	White-fish	Eula-chon	Other	Total
2009	11,156	76,871	19,712	5,942	2,557	1,321	9,547	2,467	2,124	244	303	8,488	66	880	74	141,752
2010	10,510	65,935	16,281	3,142	2,460	2,084	13,194	2,570	1,958	316	658	9,913	141	2,510	0	131,672
2011	9,712	36,299	13,873	2,015	2,880	842	10,729	1,989	804	564	308	11,089	112	6,763	182	98,161
2012	3,020	29,890	13,046	1,880	3,178	2,835	9,198	1,445	729	173	454	7,815	83	3,290	292	77,328
1977–2011 Average	22,887	61,787	13,832	10,338	5,139	12,060	33,834	9,901	9,840	1,260	1,508	5,833	785	5,900	647	195,553
% of total Average	12	32	7	5	3	6	17	5	5	1	1	3	<1	3	<1	100
2007–2011 Average	14,542	67,391	17,296	3,333	2,376	1,640	12,733	2,997	1,643	444	779	9,129	226	2,546	93	137,167

Note: species names are as follows: Chinook salmon *Oncorhynchus tshawytscha*, coho salmon *O. kisutch*, sockeye salmon *O. nerka*, pink salmon *O. gorbuscha*, chum salmon *O. keta*, landlocked salmon *O.* spp., rainbow trout *O. mykiss*, Dolly Varden *Salvelinus malma*, Arctic grayling *Thymallus arcticus*, lake trout *S. namaycush*, burbot *Lota lota,* northern pike *Esox lucius*, lake whitefish *Coregonus clupeaformis*, and eulachon *Thaleichthys pacificus*.

Table 8.–Knik Arm drainage sport fish harvest by species as estimated by SWHS, 1977–2012.

Year	Chinook salmon	Coho salmon	Sockeye salmon	Pink salmon	Chum salmon	Land-locked salmon	Rainbow trout	Dolly Varden	Arctic grayling	Lake trout	Burbot	Northern pike	White-fish	Eulachon	Other	Total
1977	207	4,366	1,576	1,661	250	26,917	18,615	7,541	3,916	2,260	290				380	67,979
1978	140	7,895	1,239	1,842	1,131	18,884	23,139	7,982	2,413	507	452				795	66,419
1979	800	7,139	3,616	818	654	11,853	24,843	8,582	8,371	1,254	291				437	68,658
1980	646	16,030	5,674	4,701	534	19,500	29,368	12,484	9,514	2,118	310				1,136	102,015
1981	1,466	10,484	6,080	834	431	24,255	41,749	14,475	7,396	1,791	87				776	109,824
1982	1,666	13,676	4,621	1,425	1,174	10,845	30,549	13,540	2,924	1,058	681				817	82,976
1983	1,255	6,139	14,297	1,009	642	22,805	26,421	13,391	4,425	1,279	597				429	92,689
1984	2,057	23,429	9,240	2,743	2,032	14,768	26,418	9,103	2,480	1,919	336				449	94,974
1985	1,889	14,339	5,612	787	514	14,461	46,431	13,336	4,768	277	210	156	587	560	209	104,136
1986	1,524	12,361	6,009	1,800	3,770	14,299	27,690	13,048	4,233	313	804	458	580	3,351	24	90,264
1987	2,476	25,787	8,785	886	2,574	14,887	24,663	11,425	3,893	906	325	924	380	0	462	98,373
1988	2,916	40,037	8,076	1,927	5,221	16,588	58,609	11,314	8,367	1,911	291	364	1,163	0	0	156,784
1989	4,341	23,846	9,040	1,321	4,477	11,041	44,518	8,143	5,429	835	372	863	844	0	0	115,070
1990	2,022	18,762	6,588	650	746	15,950	30,699	8,746	3,068	1,067	262	754	622	0	99	90,035
1991	2,277	22,186	4,968	926	1,099	15,740	39,636	9,138	2,816	512	477	2,709	900	0	0	103,384
1992	3,969	25,814	5,349	1,044	510	11,875	27,995	4,186	2,511	840	500	2,605	257	0	812	88,267
1993	3,602	35,763	5,926	230	885	13,829	21,565	3,686	1,343	201	482	2,102	227	0	176	90,017
1994	4,303	28,539	5,082	635	1,356	14,153	22,446	3,532	2,898	66	512	1,328	242	2,292	163	87,547
1995	1,707	20,650	4,349	409	4,115	7,285	14,878	2,109	818	118	151	522	71	0	0	57,182
1996	1,579	24,874	4,307	961	1,681	21,364	21,780	5,606	1,940	76	218	4,021	16	0	38	88,461
1997	2,938	11,773	4,095	377	393	11,599	25,695	4,639	1,938	20	709	4,858	96	0	69	69,199
1998	2,031	23,750	5,499	646	797	5,057	17,693	2,425	1,300	68	121	4,272	356	0	45	64,060
1999	2,724	14,429	3,658	119	738	8,674	24,527	3,798	1,740	108	369	6,785	7	2,708	0	70,384
2000	2,824	32,530	7,536	954	1,254	11,233	28,745	3,393	1,194	116	805	5,698	113	6,131	305	102,831
2001	2,255	30,106	4,328	404	1,155	7,556	21,061	2,662	1,215	162	230	6,544	551	1,574	117	79,920
2002	3,195	44,448	4,619	466	1,685	9,137	28,325	1,822	881	533	1,069	5,716	190	0	26	102,112
2003	2,562	24,583	6,606	52	1,124	5,800	17,617	2,247	1,222	339	438	4,026	108	1,578	30	68,332
2004	2,556	34,298	7,148	859	808	5,915	17,738	2,380	703	0	171	4,961	15	11	0	77,563
2005	3,692	27,000	3,460	270	747	6,685	14,367	2,040	507	220	805	6,160	710	0	373	67,036
2006	3,813	39,953	4,622	698	780	3,680	13,524	1,525	972	40	550	6,664	162	71	0	77,054
2007	4,326	27,733	7,030	287	364	1,654	10,613	4,063	605	127	240	3,050	43	124	34	60,293
2008	2,843	35,996	6,695	304	620	2,198	15,537	1,935	744	300	926	1,752	31	0	0	69,881

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Table 8.–Page 2 of 2.

Year	Chinook salmon	Coho salmon	Sockeye salmon	Pink salmon	Chum salmon	Land-locked salmon	Rainbow trout	Dolly Varden	Arctic grayling	Lake trout	Burbot	Northern pike	White-fish	Eulachon	Other	Total
2009	2,152	37,271	5,963	370	732	793	7,981	1,842	1,455	71	17	4,647	16	0	0	63,310
2010	1,076	26,369	5,630	919	528	2,008	10,845	1,612	687	100	163	3,372	17	0	0	53,326
2011	1,012	8,484	3,589	294	659	740	9,368	1,593	439	0	132	5,963	112	0	0	32,385
2012	292	5,014	2,685	166	782	2,730	8,294	928	277	48	33	3,231	0	0	0	24,480
1977–2011 Ave	2,310	22,881	5,740	961	1,319	11,544	24,733	6,267	2,832	615	411	3,381	312	681	234	84,221
% of total average	3	27	7	1	2	14	29	7	3	1	<1	4	<1	1	<1	100
2007–2011 Ave	2,282	27,171	5,781	435	581	1,479	10,869	2,209	786	120	296	3,757	44	25	7	55,839

Table 9.–Eastside Susitna River drainage sport fish harvest by species, 1977–2012.

Year	Chinook Salmon	Coho Salmon	Sockeye Salmon	Pink Salmon	Chum Salmon	Land-locked Salmon	Rainbow Trout	Dolly Varden	Arctic Grayling	Lake Trout	Burbot	White-fish	Northern Pike	Eulachon	Other	Total
1977	1,056	5,709	3,594	19,663	1,382	512	5,225	2,726	7,469	693	619				626	49,274
1978	886	8,573	267	50,711	14,203	2,368	5,930	5,640	6,590	877	271				153	96,469
1979	1,298	7,564	1,020	11,189	3,791	291	9,463	3,699	10,489	472	427				773	50,476
1980	1,370	10,368	873	52,746	4,552	1,663	6,715	2,671	10,959	267	367				720	93,271
1981	2,202	6,593	833	8,143	4,149	278	8,813	2,874	11,860	287	220				306	46,558
1982	2,063	10,167	1,555	15,345	6,644	996	7,536	4,066	9,747	335	199				345	58,998
1983	2,852	5,176	3,221	3,954	4,982	1,049	9,639	4,205	7,478	1,404	901				469	45,330
1984	4,428	13,916	2,705	9,491	5,211	660	7,656	4,004	11,222	362	1,133	1,058			225	62,071
1985	4,342	7,042	1,465	2,510	2,142	884	7,872	3,138	7,822	17	1,085	1,365			0	39,684
1986	8,569	16,190	4,029	10,527	4,756	2,106	8,061	4,213	10,346	1,816	1,380	1,090			0	73,083
1987	8,603	11,028	2,046	2,209	3,042	145	6,647	3,946	7,568	343	1,175	796			0	47,548
1988	9,139	19,518	2,857	4,129	6,604	619	7,622	4,748	6,020	291	600	546			0	62,693
1989	9,783	17,078	2,527	2,715	4,151	536	4,972	3,040	4,562	1,210	395	442			15	51,426
1990	9,423	11,743	2,677	4,093	1,565	151	5,008	3,613	2,910	387	1,345	1,378			67	44,360
1991	9,083	19,479	2,897	2,001	1,950	14	7,854	2,140	3,875	726	407	626			16	51,068
1992	21,307	33,790	3,468	5,899	2,044	86	3,948	2,394	2,189	495	608	265			76	76,569
1993	22,688	26,063	4,137	3,941	1,480	738	3,713	1,413	2,401	288	909	87	0		49	67,907
1994	14,970	20,870	3,443	1,968	1,269	45	3,658	1,033	3,484	232	674	172	0		166	51,984
1995	7,872	19,165	3,682	2,311	3,234	33	3,138	1,012	1,486	254	517	80	0		61	42,845
1996	11,023	24,174	2,675	3,890	2,808	1,986	2,510	2,027	1,913	308	284	0	11		63	53,672
1997	10,989	10,297	5,851	2,477	2,852	122	2,324	906	1,387	189	304	32	95		84	37,909
1998	10,472	23,086	5,859	5,579	2,260	320	968	889	1,413	217	208	96	130		17	51,514
1999	16,875	23,292	4,608	2,887	2,941	703	1,755	918	1,614	222	230	32	260	9,816	0	66,153
2000	11,774	37,748	6,509	11,483	3,279	831	1,521	823	979	154	242	52	101	0	0	75,496
2001	13,504	26,617	6,776	3,650	3,180	0	1,112	1,172	1,036	226	214	135	55	1,349	179	59,205
2002	10,695	27,183	3,427	3,760	3,389	0	1,751	1,512	1,165	103	211	67	618	0	31	53,912
2003	9,499	18,585	2,734	1,775	2,725	105	2,581	1,694	393	339	511	82	0	0	741	41,764
2004	8,498	20,484	3,107	3,321	2,547	25	1,924	1,093	975	594	238	94	91	0	0	42,991
2005	8,453	17,471	1,677	2,625	2,506	0	793	482	404	32	260	0	104	0	259	35,066
2006	7,339	22,719	1,412	3,918	1,321	8	1,590	619	427	111	406	0	137	0	36	40,043
2007	8,337	13,464	1,470	2,165	1,204	100	840	253	779	296	321	164	1,355	0	15	30,763
2008	5,834	24,211	2,975	1,985	1,229	0	1,521	359	421	98	533	244	468	0	131	40,009

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Table 9.–Page 2 of 2.

Year	Chinook Salmon	Coho Salmon	Sockeye Salmon	Pink Salmon	Chum Salmon	Land-locked Salmon	Rainbow Trout	Dolly Varden	Arctic Grayling	Lake Trout	Burbot	White-fish	Northern Pike	Eulachon	Other	Total
2009	3,462	15,335	7,130	4,657	1,531	528	691	282	487	125	200	0	385	0	0	34,813
2010	2,274	14,291	3,914	1,455	1,399	76	1,826	592	546	84	440	27	1,033	0	0	27,957
2011[a]	2,710	9,040	2,459	1,572	2,167	102	977	239	211	516	60	0	2,138	0	7	22,198
2012[a]	203	7,629	4,277	1,367	2,214	105	623	95	277	103	217	0	79	0	275	17,464
1977-2011 Ave	8,105	17,087	3,139	7,736	3,271	517	4,233	2,127	4,075	411	511	319	367	859	161	52,145
% of total Average	16	33	6	15	6	1	8	4	8	1	1	1	1	2	<1	100
2007-2011 Ave	4,523	15,268	3,590	2,367	1,506	161	1,171	345	489	224	311	87	1,076	0	31	31,148

[a] Totals include Susitna River salmon, rainbow trout, grayling, and burbot.

Table 10.–Westside Susitna River drainage sport fish harvest by species, 1977–2012.

Year	Chinook Salmon	Coho Salmon	Sockeye Salmon	Pink Salmon	Chum Salmon	Rainbow Trout	Dolly Varden	Arctic Grayling	Lake Trout	Burbot	Northern Pike[a]	White-fish	Eulachon	Other	Total
1977	2,938	6,599	2,786	8,142	423	7,472	2,246	4,414	278	115	132			551	36,096
1978	2,039	10,173	1,634	5,605	2,635	12,295	2,667	6,725	596	153	316			370	45,208
1979	5,768	9,036	1,557	1,854	1,154	12,555	4,591	9,089	63	454	382			436	46,939
1980	6,148	12,141	1,111	4,237	491	12,785	2,825	9,247	448	706	232			103	50,474
1981	4,742	5,940	1,408	555	240	11,296	2,003	5,250	297	211	125			86	32,153
1982	8,573	10,658	2,881	2,065	293	11,465	1,813	6,525	167	776	607			366	46,189
1983	9,568	3,610	3,549	702	398	9,253	2,400	9,314	849	807	944			461	41,855
1984	12,106	9,511	3,415	2,467	872	8,079	798	7,409	562	1,309	1,821			598	48,947
1985	13,644	11,270	2,302	584	347	8,114	1,267	5,895	328	560	1,248	525	1,680	104	47,868
1986	13,402	13,117	4,076	3,385	615	6,668	2,470	5,441	157	715	1,519	435	7,300	0	59,300
1987	13,350	8,746	2,427	1,467	688	8,020	688	4,908	797	3,640	1,540	1,685	9,265	31	57,252
1988	15,970	16,283	3,167	2,582	1,474	8,058	1,401	4,275	327	944	2,818	1,419	8,849	0	67,567
1989	19,343	18,226	2,307	1,045	415	4,928	1,486	2,104	352	192	2,257	382	2,324	0	55,361
1990	17,425	13,883	1,938	1,238	234	3,960	1,163	2,158	202	1,534	2,088	1,381	5,591	51	52,846
1991	21,836	20,507	3,083	524	191	4,526	1,436	3,367	289	97	3,931	531	6,132	64	66,514
1992	18,737	16,218	2,916	1,264	304	2,028	400	1,572	363	304	2,777	340	15,523	22	62,768
1993	21,142	15,454	2,161	586	147	2,481	463	1,422	276	264	3,619	555	6,596	49	55,215
1994	10,248	15,361	1,919	1,259	312	2,526	507	1,654	113	1,090	2,556	779	9,483	84	47,891
1995	6,265	17,148	2,106	361	591	1,757	622	895	84	190	3,024	76	4,549	20	37,688
1996	5,879	17,375	1,115	558	297	1,924	693	1,736	87	396	3,902	160	1,818	0	35,940
1997	7,799	7,123	3,109	729	989	1,452	249	844	311	861	4,026	18	8,515	85	36,110
1998	9,716	13,235	2,463	1,589	394	1,081	122	987	46	1,029	3,753	114	5,795	5	40,329
1999	12,131	17,995	5,279	577	421	1,866	266	715	72	672	3,686	95	27,031	0	70,806
2000	17,341	23,262	4,946	2,159	594	1,226	534	666	60	1,130	3,692	139	5,492	11	61,252
2001	13,914	19,221	6,311	1,074	439	759	304	575	34	245	5,479	111	8,707	0	57,173
2002	11,357	14,144	1,881	700	377	1,209	320	479	0	91	5,865	74	3,298	236	40,031
2003	15,035	16,072	8,660	449	476	1,425	78	327	169	397	3,816	93	5,465	0	52,462
2004	15,694	17,785	3,358	2,292	520	1,629	124	291	109	320	6,626	218	12,562	24	61,552
2005	15,945	18,266	2,219	519	111	339	151	208	152	292	4,889	71	3,068	3,214	49,444
2006	16,454	20,474	626	338	113	1,027	209	716	0	126	4,318	168	0	1,364	45,933
2007	11,370	14,065	3,177	451	136	619	79	330	56	350	3,526	242	620	0	35,021
2008	6,805	15,126	1,428	201	231	744	91	350	55	256	5,683	89	1,832	27	32,918

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Table 10.–Page 2 of 2.

Year	Chinook Salmon	Coho Salmon	Sockeye Salmon	Pink Salmon	Chum Salmon	Rainbow Trout	Dolly Varden	Arctic Grayling	Lake Trout	Burbot	Northern Pike[a]	White-fish	Eulachon	Other	Total
2009	4,713	14,464	2,358	734	193	865	190	182	48	86	3,368	50	0	74	27,325
2010	6,306	16,245	1,505	585	223	434	40	725	132	55	5,283	97	2,510	0	34,140
2011	5,914	12,483	3,413	124	54	341	52	154	31	116	2,969	0	6,763	175	32,589
2012	2,525	9,434	1,118	314	156	179	139	175	16	204	4,505	66	3,290	0	22,121
1977-2011 Average	11,418	14,035	2,817	1,514	497	4,434	993	2,884	226	585	2,938	365	6,325	246	47,747
% of total Average	24	29	6	3	1	9	2	6	<1	1	6	1	13	1	100
2007-2011 Average	7,022	14,477	2,376	419	167	601	90	348	64	173	4,166	96	2,345	55	32,399

[a] Pike may include Susitna river totals.

Table 11.–West Cook Inlet drainage sport fish harvest by species, 1977–2012.

Year	Chinook Salmon	Coho Salmon	Sockeye Salmon	Pink Salmon	Chum Salmon	Rainbow Trout	Dolly Varden	Arctic Grayling	Lake Trout	Burbot	White-fish	Eulachon	N. Pike	Other	Total
1977	473	532	6	670	7	958	852	0		0		0	0	12	3,510
1978	478	378	0	650	0	723	841	0		0		0	0	0	3,070
1979	98	337	0	64	0	1,063	846	0		0		0	0	45	2,453
1980	34	628	0	301	0	560	275	0		0		0	0	0	1,798
1981	192	604	48	95	0	1,734	958	0		0		0	0	0	3,631
1982	147	745	10	210	0	398	304	0		0		0	0	0	1,814
1983	1,185	2,552	466	21	10	871	366	115		0		0	0	10	5,596
1984	1,833	2,681	249	62	0	748	535	37		0		0	0	0	6,145
1985	2,029	6,320	461	137	50	902	885	69		0	0	0	0	0	10,853
1986	2,378	4,222	89	280	213	223	537	89		0	0	0	0	0	8,031
1987	1,477	8,548	272	72	54	579	362	36		0	0	0	0	0	11,400
1988	1,695	7,403	473	55	109	673	182	73		0	0	0	291	0	10,954
1989	2,325	7,683	529	110	0	544	191	143		19	48	0	0	0	11,592
1990	2,097	6,016	636	24	12	472	270	51		0	135	0	0	0	9,713
1991	762	8,253	765	44	0	497	1,145	26		0	0	0	0	0	11,492
1992	1,213	7,037	188	18	0	190	516	113		0	0	0	0	0	9,275
1993	1,955	10,326	2,355	70	24	191	416	9		0	9	0	0	29	15,384
1994	1,583	8,247	2,035	16	0	225	91	8	0	0	0	1,360	9	9	13,583
1995	693	8,182	1,304	0	27	111	424	0	0	0	0	0	0	0	10,741
1996	1,358	11,430	2,951	21	55	439	770	135	0	0	0	363	0	0	17,522
1997	894	6,492	2,174	37	33	618	800	256	0	0	68	338	45	0	11,755
1998	693	8,160	2,522	75	0	189	300	52	7	0	0	2,581	25	0	14,604
1999	1,073	9,339	2,990	236	122	277	924	66	0	0	0	0	93	0	15,120
2000	1,163	11,712	4,244	31	39	211	1,366	84	55	0	7	204	86	0	19,202
2001	722	13,949	3,150	101	252	270	422	38	17	0	0	0	661	0	19,582
2002	1,227	13,380	2,019	251	10	236	496	7	7	0	0	0	119	0	17,752
2003	1,124	14,239	4,708	0	77	264	356	0	11	0	0	455	182	0	21,416
2004	795	16,179	3,323	157	84	177	368	179	31	0	0	0	493	98	21,884
2005	592	12,572	4,025	46	0	196	326	0	0	0	26	0	153	0	17,936
2006	1,038	11,940	4,993	55	13	170	133	19	6	0	0	0	285	10	18,662
2007	1,380	12,580	8,187	166	45	216	532	42	164	0	0	0	225	0	23,537
2008	437	14,673	5,652	9	153	106	645	56	0	0	0	0	96	0	21,827

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Table 11.–Page 2 of 2.

Year	Chinook Salmon	Coho Salmon	Sockeye Salmon	Pink Salmon	Chum Salmon	Rainbow Trout	Dolly Varden	Arctic Grayling	Lake Trout	Burbot	White-fish	Eulachon	N. Pike	Other	Total
2009	829	9,801	4,261	181	101	10	153	0	0	0	0	880	88	0	16,304
2010	854	9,030	5,232	183	310	89	326	0	0	0	0	0	225	0	16,249
2011	76	6,292	4,412	25	0	43	105	0	17	0	0	0	19	0	10,989
2012	0	7,813	4,966	33	26	102	283	0	6	0	17	0	0	17	13,263
1977-2011 Average	1,054	7,785	2,135	128	51	434	515	49	18	1	11	177	88	6	12,439
% of total Average	8	63	17	1	<1	3	4	<1	<1	<1	<1	1	1	<1	100
2007-2011 Average	715	10,475	5,549	113	122	93	352	20	36	0	0	176	131	0	17,781

Table 12.–Percent of fish released by recreational anglers in the Northern Cook Inlet Management Area for 2001–2012.

	2001		2002		2003		2004		2005		2006		2007		2001-2012
	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released	Average Percent Released
Chinook Salmon	90,706	66.5	78,534	66.3	93,627	69.9	77,865	64.6	151,901	81.1	84,225	66.0	70,322	63.9	66.1
Coho Salmon	174,916	48.6	205,927	51.8	141,407	48.0	188,606	52.9	184,758	59.2	174,139	45.4	110,675	38.7	44.4
Sockeye Salmon	42,639	51.8	31,661	62.3	48,540	53.2	38,286	55.8	29,771	61.8	27,002	56.8	39,248	49.4	52.1
Pink Salmon	71,872	92.7	92,105	94.4	62,963	96.4	126,574	94.8	64,022	94.6	83,821	94.0	46,864	93.5	94.4
Chum Salmon	65,219	92.3	89,862	93.9	82,645	94.7	58,706	93.3	48,532	93.1	45,155	95.1	30,031	94.2	93.4
Landlocked Salmon	24,228	68.8	17,879	48.9	13,454	56.1	15,538	61.8	17,526	61.9	11,042	66.6	4,308	59.3	61.6
Lake Trout	2,088	79.0	5,280	87.8	3,714	76.9	2,300	68.1	8,661	95.3	1,119	86.0	1,694	62.0	79.6
Dolly Varden	24,458	81.4	25,653	83.8	43,851	90.0	35,519	88.8	47,603	93.7	26,933	90.8	27,677	82.2	87.8
Rainbow Trout	134,763	82.8	206,537	84.7	169,677	87.1	161,254	86.7	143,424	89.1	132,482	87.7	138,979	91.2	87.9
Arctic Grayling	32,641	91.2	44,056	94.3	32,216	94.0	30,204	92.9	21,572	94.8	20,571	89.6	14,946	88.3	92.7
Whitefish	2,435	67.3	1,426	76.8	2,919	90.3	3,492	90.6	6,151	86.9	1,480	77.7	1,220	63.2	80.4
Northern Pike	42,422	70.0	32,460	62.1	29,278	72.6	33,880	64.1	37,894	70.2	31,550	63.9	21,711	62.4	62.9
Burbot	1,121	38.5	2,473	44.6	2,122	36.6	1,354	46.2	3,672	63.0	4,065	73.4	2,424	62.4	47.9
Eulachon	12,552	7.3	4,667	29.3	7,498	0.0	12,640	0.5	3,068	0.0	110	35.5	744	0.0	11.4
Other	1,636	81.9	921	68.2	1,360	43.3	422	71.1	8,423	54.3	1,626	13.3	108	54.6	47.2
Total	723,696	70.2	839,441	74.5	735,271	75.0	786,640	74.1	776,978	78.2	645,320	71.8	510,951	70.7	73.1

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Table 12.–Page 2 of 2.

	2008		2009		2010		2011		2012	
	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released
	2008		2009		2010		2011		2012	
Chinook Salmon	41,086	61.3	32,710	65.9	23,107	54.5	26,308	63.1	10,132	70.2
Coho Salmon	141,508	36.4	129,331	40.6	106,123	37.9	63,235	42.6	42,728	30.0
Sockeye Salmon	32,586	48.6	38,370	48.6	27,462	40.7	27,868	50.2	24,077	45.8
Pink Salmon	46,753	94.7	112,200	94.7	54,859	94.3	30,949	93.5	42,970	95.6
Chum Salmon	32,831	93.2	30,622	91.6	36,190	93.2	41,077	93.0	50,760	93.7
Landlocked Salmon	6,892	68.1	11,344	88.4	6,443	67.7	1,862	54.8	4,530	37.4
Lake Trout	1,659	72.7	1,589	84.6	2,781	88.6	2,063	72.7	961	82.0
Dolly Varden	26,981	88.8	19,398	87.3	19,390	86.7	17,301	88.5	16,396	91.2
Rainbow Trout	123,722	85.5	105,467	90.9	103,203	87.2	147,433	92.7	82,220	88.8
Arctic Grayling	20,303	92.3	26,465	92.0	19,171	89.8	25,130	96.8	19,476	96.3
Whitefish	1,826	80.1	871	92.4	1,157	87.8	369	69.6	462	82.0
Northern Pike	24,367	67.2	27,903	69.6	29,557	66.5	15,262	27.3	19,387	59.7
Burbot	3,167	45.8	937	67.7	1,044	37.0	611	49.6	505	10.1
Eulachon	1,832	0.0	880	0.0	6,956	63.9	6,763	0.0	3,296	0.2
Other	304	48.0	355	79.2	0	1.0	0	1.0	586	50.2
Total	505,817	67.5	538,442	73.7	437,443	69.9	406,231	75.8	318,486	75.7

Table 13.–Percent of fish released by recreational anglers in the Knik Arm and Eastside Susitna River areas, 2007–2012.

	2007		2008		2009		2010		2011		2012	
Knik Arm Area	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released
Chinook Salmon	8,215	47.3	4,989	43.0	4,388	51.0	2,789	61.4	2,066	51.0	474	38.4
Coho Salmon	38,549	28.1	50,585	28.8	52,560	29.1	34,402	23.4	12,471	32.0	7,286	31.2
Sockeye Salmon	9,994	29.7	8,836	24.2	11,248	47.0	7,751	27.4	4,936	27.3	4,423	39.3
Pink Salmon	1,874	84.7	3,361	91.0	3,355	89.0	5,109	82.0	1,734	83.0	1,340	87.6
Chum Salmon	2,599	86.0	4,833	87.2	3,367	78.3	4,166	87.3	3,835	82.8	4,147	81.1
Landlocked Salmon	4,208	60.7	6,892	68.1	8,176	90.3	5,659	64.5	1,393	46.9	4,425	38.3
Lake Trout	705	82.0	712	57.9	210	66.2	712	86.0	199	100.0	288	83.3
Dolly Varden	10,291	60.5	12,101	84.0	8,520	78.4	5,004	67.8	5,868	72.9	3,944	76.5
Rainbow Trout	40,742	74.0	67,585	77.0	39,983	80.0	42,267	74.3	44,805	79.1	29,680	72.1
Arctic Grayling	1,164	48.0	6,774	89.0	7,300	80.1	2,794	75.4	2,888	84.8	1,814	84.7
Whitefish	130	66.9	244	87.3	26	38.5	149	88.6	112	0.0	43	100.0
Northern Pike	6,013	49.3	3,612	51.5	10,213	54.5	6,031	44.1	7,930	24.8	5,742	43.7
Burbot	697	65.6	1,642	43.6	482	96.5	207	21.3	157	15.9	84	60.7
Eulachon	124	0.0	0		0		0		0		0	
Other	34	0.0	21	100.0	0		0		0		0	
Total	125,339	51.9	172,187	59.4	149,828	57.7	117,040	54.4	88,394	63.4	63,690	61.6
	2007		2008		2009		2010		2011		2012	
East Susitna Area												
Chinook Salmon	28,663	70.9	18,229	68.0	10,593	2,011.0	7,660	70.3	7,680	64.7	1,855	89.1
Coho Salmon	23,397	42.5	39,895	39.3	27,523	44.3	28,503	49.9	19,016	52.5	14,164	46.1
Sockeye Salmon	4,944	70.3	6,484	54.1	14,389	50.4	7,118	45.0	5,983	58.9	7,777	45.0
Pink Salmon	29,269	92.6	33,882	94.1	79,467	94.1	29,266	95.0	19,556	92.0	26,095	94.8
Chum Salmon	20,970	94.3	21,232	94.2	23,325	93.4	25,365	94.5	28,674	92.4	37,125	94.0
Landlocked Salmon	100	0.0	0		3,168	83.3	784	90.3	469	78.3	105	0.0
Lake Trout	647	54.3	769	87.3	790	84.2	1,555	94.6	1,421	63.7	516	80.0
Dolly Varden	8,290	96.9	7,216	95.0	6,028	95.3	6,515	90.9	6,628	96.4	4,669	98.0
Rainbow Trout	64,077	98.7	36,798	95.9	36,707	98.1	39,958	95.4	63,725	98.5	27,446	97.7
Arctic Grayling	6,520	88.1	9,177	95.4	10,012	95.1	9,579	94.3	14,120	98.5	10,218	97.3
Whitefish	499	67.1	1,039	76.5	277	100.0	433	93.8	147	100.0	230	100.0
Northern Pike	2,833	52.2	4,750	90.1	1,318	70.8	6,935	85.1	3,508	39.1	3,959	98.0
Burbot	441	27.2	1,077	50.5	298	32.9	726	39.4	313	80.8	217	0.0
Eulachon	0		0		0		4,446	100.0	6,763	100.0	0	
Other	29	48.3	256	48.8	176	100.0	0		0		516	46.7
Total	190,679	83.9	180,804	77.9	214,071	83.7	168,843	83.4	178,003	87.5	134,892	87.1

Table 14.–Percent of fish released by recreational anglers in the Westside Susitna River and West Cook Inlet areas, 2007–2012.

	2007		2008		2009		2010		2011		2012	
West Susitna River	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released	Catch	Percent Released
Chinook Salmon	28,832	60.6	16,206	58.0	15,822	70.2	10,429	39.5	15,374	61.5	7,525	66.4
Coho Salmon	29,007	51.5	28,928	47.7	29,838	51.5	29,673	45.3	22,034	43.3	9,434	0.0
Sockeye Salmon	10,297	69.1	6,951	79.5	4,726	50.1	4,826	68.8	8,307	58.9	3,643	69.3
Pink Salmon	14,624	96.9	8,780	97.7	27,877	97.4	19,695	97.0	9,524	98.7	14,994	97.9
Chum Salmon	5,708	97.6	4,775	95.2	3,090	93.8	5,261	95.8	6,872	99.2	7,916	98.0
Landlocked Salmon	0		0		0		0		0		0	
Lake Trout	113	50.4	156	64.7	397	87.9	160	17.5	31	0.0	145	89.0
Dolly Varden	4,733	98.3	3,360	97.3	2,010	90.5	4,131	99.0	2,159	97.6	2,199	93.7
Rainbow Trout	32,036	98.1	18,063	95.9	27,455	96.8	20,232	97.9	38,060	99.1	24,718	99.3
Arctic Grayling	7,052	95.3	4,269	91.8	9,142	98.0	6,798	89.3	7,975	98.1	7,313	97.6
Whitefish	591	59.1	536	83.4	539	90.7	569	83.0	110	100.0	147	55.1
Northern Pike	12,640	72.1	15,776	64.0	14,389	76.6	15,826	66.6	3,787	21.6	9,686	53.5
Burbot	1,286	72.8	448	42.9	157	45.2	111	50.5	141	17.7	204	0.0
Eulachon	620	0.0	1,832	0.0	0		2,510	0.0	0		3,296	0.2
Other	45	100.0	27	0.0	179	58.7	0		0		53	100.0
Total	147,584	76.3	110,107	70.1	135,621	79.9	120,221	71.6	114,374	71.5	91,273	75.8
West Cook Inlet												
Chinook Salmon	4,612	70.1	1,662	73.7	1,907	56.5	2,229	61.7	1,188	93.6	278	100.0
Coho Salmon	19,722	36.2	22,100	33.6	19,410	49.5	13,545	33.3	9,714	35.2	11,844	34.0
Sockeye Salmon	14,013	41.6	10,315	45.2	8,007	46.8	7,767	32.6	8,642	48.9	8,234	39.7
Pink Salmon	1,097	84.9	730	98.8	1,501	87.9	789	76.8	135	81.5	541	93.9
Chum Salmon	754	94.0	1,991	92.3	840	88.0	1,398	77.8	1,696	100.0	1,572	98.3
Landlocked Salmon	0		0		0		0		0		0	
Lake Trout	229	28.4	22	100.0	192	100.0	354	100.0	412	95.9	12	50.0
Dolly Varden	4,363	87.8	4,304	85.0	2,840	94.6	3,740	91.3	2,646	96.0	5,584	94.9
Rainbow Trout	2,124	89.8	1,276	91.7	1,322	99.2	746	88.1	843	94.9	376	72.9
Arctic Grayling	210	80.0	83	32.5	11	100.0	0		147	100.0	131	100.0
Whitefish	0		7	100.0	29	100.0	6	100.0	0		42	59.5
Northern Pike	225	0.0	229	58.1	1,983	95.6	765	70.6	37	48.6	0	
Burbot	0		0		0		0		0		0	
Eulachon	0		0		880	0.0	0		0		0	
Other	0		0		0		0		0		17	0.0
Total	47,349	50.3	42,719	48.9	38,922	58.1	31,339	48.2	25,460	56.8	28,631	53.7

Table 15.–Harvest summary data for guided sport anglers in the Northern Cook Inlet Management Area, 2006-2012.

Management Unit	Year	Guides	Clients	Trips	Chinook salmon	Coho salmon	Sockeye salmon	Rainbow trout
Knik Arm	2006	19	1,344	373	379	1,044	2	0
	2007	19	1,668	456	363	937	33	1
	2008	22	1,843	492	419	1,361	3	1
	2009	19	1,696	473	323	718	5	3
	2010	17	1,312	359	146	1,143	5	8
	2011	14	1,075	282	149	869	2	0
	2012	13	563	160	16	332	3	2
Susitna Drainage	2006	157	10,529	3,223	2,887	5,074	59	84
	2007	172	12,139	3,655	2,892	3,994	1,297	88
	2008	203	13,297	4,329	2,283	6,809	1,325	105
	2009	138	8,451	2,737	1,422	4,094	1,403	24
	2010	147	11,771	3,910	1,686	5,982	1,053	49
	2011	147	10,313	3,439	1,836	4,969	1,730	97
	2012	122	8,834	2,831	807	2,892	1,166	42
Eastside Susitna	2006	[a]	2,871	778	621	997	13	2
	2007	[a]	3,353	880	616	1,239	344	1
	2008	[a]	3,003	774	523	1,293	680	0
	2009	[a]	1,656	437	340	375	555	0
	2010	[a]	1,460	401	223	333	398	1
	2011	[a]	2,243	603	397	650	442	5
	2012	[a]	2,062	531	23	903	575	0
Westside Susitna	2006	[a]	7,658	2,445	2,266	4,077	46	82
	2007	[a]	8,786	2,775	2,276	2,755	953	87
	2008	[a]	10,294	3,555	1,760	5,516	645	105
	2009	[a]	6,795	2,300	1,082	3,719	848	24
	2010	[a]	10,311	3,509	1,463	5,649	655	48
	2011	[a]	8,070	2,836	1,439	4,319	1,288	92
	2012	[a]	6,772	2,300	784	1,989	591	42
West Cook Inlet	2006	18	9,650	2,566	146	12,211	8,240	0
	2007	122	10,656	2,812	213	10,861	12,697	14
	2008	127	10,653	2,700	49	15,133	8,752	0
	2009	105	7,203	1,960	124	7,256	7,562	0
	2010	83	6,929	1,824	17	8,987	6,535	0
	2011	97	7,528	1,958	8	7,347	7,630	0
	2012	107	7,519	2,002	25	6,931	9,674	0

[a] Total number of guides is available for the Susitna drainage only.

Table 16.–Economic value of sport fishing in Southcentral Alaska and the Matanuska-Susitna Borough during 2007.

	South Central [a]			Matanuska-Susitna Borough		
	Resident	Nonresident	Total	Resident	Nonresident	Total
Angler days	1,085,962	710,843	1,796,805	178,886	117,095	295,981
as % of Southcentral				16.5	16.5	16.5
Spending [c]	$560,955,071	$427,603,048	$988,558,119	$92,404,041	$70,437,459	$162,841,500
$/angler day	$517	$602	$550	$517	$602	$550
Income	$174,829,996	$211,633,737	$386,463,733	$28,799,095	$34,861,638	$63,660,732
Employment (jobs)	5,170	6,365	11,535	852	1,048	1,900

[a] Southwick Associates et al. 2008.

[b] Colt, S. and T. Schwoerer 2009.

[c] Includes license and stamps, trips, packages, equipment, and real estate and assumes all equipment and real estate to be used solely for sport fishing.

Table 17.–Estimated harvests, by all user groups, of Chinook salmon of Northern Cook Inlet origin, 1893–2012.

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	17,146
1899	13,682	1941	83,858	1983	18,621
1900	21,346	1942	76,144	1984	23,842
1901	27,455	1943	89,105	1985	25,477
1902	39,210	1944	68,168	1986	43,345
1903	52,818	1945	55,362	1987	40,393
1904	24,058	1946	51,425	1988	44,266
1905	14,134	1947	85,443	1989	50,917
1906	17,936	1948	84,797	1990	42,414
1907	50,355	1949	89,025	1991	42,644
1908	27,019	1950	130,274	1992	51,651
1909	47,699	1951	150,010	1993	54,458
1910	39,222	1952	59,600	1994	35,508
1911	44,676	1953	71,544	1995	22,182
1912	38,293	1954	52,260	1996	22,981
1913	50,922	1955	37,199	1997	24,505
1914	38,043	1956	52,248	1998	26,569
1915	67,034	1957	34,214	1999	37,621
1916	50,316	1958	18,278	2000	37,325
1917	52,399	1959	26,226	2001	33,894
1918	27,909	1960	22,031	2002	29,888
1919	19,041	1961	15,822	2003	31,518
1920	31,650	1962	16,216	2004	31,376
1921	11,157	1963	14,106	2005	33,124
1922	24,824	1964	3,698	2006	34,092
1923	23,929	1965	7,801	2007	30,553
1924	21,610	1966	815	2008	21,278
1925	40,826	1967	623	2009	13,529
1926	60,496	1968	1,163	2010	14,174
1927	69,923	1969	3,927	2011	12,683
1928	55,908	1970	1,853	2012	4,968
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		

Table 18.–Estimated harvests of Chinook salmon originating from the Northern Cook Inlet Management Area, 1977-2012.

	Commercial			Recreational						
Year	NCI[a]	Kustatan	Total	Knik Arm Drainages	Eastside Susitna	Westside Susitna	West Cook Inlet	Total	Subsistence[b]	Grand Total
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	1,936	11,301
1981	725	43	768	1,466	2,202	4,742	192	8,602	2,002	11,372
1982	2,716	391	3,107	1,666	2,063	8,573	147	12,449	1,590	17,146
1983	933	163	1,096	1,255	2,852	9,568	1,185	14,860	2,665	18,621
1984	1,004	214	1,218	2,057	4,428	12,106	1,833	20,424	2,200	23,842
1985	1,890	211	2,101	1,889	4,342	13,644	2,029	21,904	1,472	25,477
1986	15,488	308	15,796	1,524	8,569	13,402	2,378	25,873	1,676	43,345
1987	12,701	176	12,877	2,476	8,603	13,350	1,477	25,906	1,610	40,393
1988	12,836	123	12,959	2,916	9,139	15,970	1,695	29,720	1,587	44,266
1989	12,731	1,144	13,875	4,341	9,783	19,343	2,325	35,792	1,250	50,917
1990	9,582	1,084	10,666	2,022	9,423	17,425	2,097	30,967	781	42,414
1991	6,859	925	7,784	2,277	9,083	21,836	762	33,958	902	42,644
1992	4,554	964	5,518	3,969	21,307	18,737	1,213	45,226	907	51,651
1993	3,277	424	3,701	3,602	22,688	21,142	1,955	49,387	1,370	54,458
1994	3,185	449	3,634	4,303	14,970	10,248	1,583	31,104	770	35,508
1995	4,130	198	4,328	1,707	7,872	6,265	693	16,537	1,317	22,182
1996	1,958	145	2,103	1,579	11,023	5,879	1,358	19,839	1,039	22,981
1997	1,133	113	1,246	2,938	10,989	7,799	894	22,620	639	24,505
1998	2,547	83	2,630	2,031	10,472	9,716	693	22,912	1,027	26,569
1999	2,812	776	3,588	2,724	16,875	12,131	1,073	32,803	1,230	37,621
2000	2,307	759	3,066	2,824	11,774	17,341	1,163	33,102	1,157	37,325
2001	1,811	712	2,523	2,255	13,504	13,914	722	30,395	976	33,894
2002	1,895	439	2,334	3,195	10,695	11,357	1,227	26,474	1,080	29,888
2003	1,670	445	2,115	2,562	9,499	15,035	1,124	28,220	1,183	31,518
2004	2,058	430	2,488	2,556	8,498	15,694	795	27,543	1,345	31,376
2005	3,373	87	3,460	3,692	8,453	15,945	592	28,682	982	33,124
2006	4,261	244	4,505	3,813	7,339	16,454	1,038	28,644	943	34,092
2007	3,822	37	3,859	4,326	8,337	11,370	1,380	25,413	1,281	30,553
2008	3,983	198	4,181	2,843	5,834	6,805	437	15,919	1,178	21,278
2009	1,630	107	1,737	2,152	3,462	4,713	829	11,156	636	13,529
2010	1,750	52	1,802	2,274	2,274	6,322	659	11,529	843	14,174
2011	2,299	77	2,376	1,012	2,710	5,914	76	9,712	595	12,683
2012	1,050	58	1,108	292	203	2,525	0	3,020	840	4,968

[a] Northern District total.

[b] Includes Tyonek subsistence fishery 1980-2003 and Northern/Central districts subsistence fisheries 1985 and 1991-1993. 1994-1995 data include Northern districts.

Table 19.–Chinook salmon escapement goals for Northern Cook Inlet Management Area waters.

Drainage	Escapement Goal Range	Type[a]	Method of Survey
Knik Arm Management Unit			
Little Susitna River	900-1,800	SEG	Aerial
Eastside Susitna River Management Unit			
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	No goal		
Westside Susitna River Management Unit			
Alexander Creek	2,100-6,000	SEG	Aerial
Deshka River	13,000-28,000	SEG	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
West Cook Inlet Management Unit			
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.

Table 20.–Harvest of Chinook salmon from the Knik Arm Management Unit, 1977-2012.

Year	Little Susitna R.	Eklutna Tailrace	Other	Total
1977	191		16	207
1978	93		47	140
1979	800		0	800
1980	646		0	646
1981	1,418		48	1,466
1982	1,467		199	1,666
1983	1,187		68	1,255
1984	1,883		174	2,057
1985	1,845		44	1,889
1986	1,457		67	1,524
1987	2,282		194	2,476
1988	2,822		94	2,916
1989	4,204		137	4,341
1990	1,965		57	2,022
1991	2,102		175	2,277
1992	3,920		49	3,969
1993	3,441		161	3,602
1994	4,204		99	4,303
1995	1,698		9	1,707
1996	1,484		95	1,579
1997	2,938		0	2,938
1998	2,031		0	2,031
1999	2,713		11	2,724
2000	2,802		22	2,824
2001	2,243		12	2,255
2002	3,144		51	3,195
2003	2,138	399	25	2,562
2004	2,362	23	66	2,451
2005	2,724	941	27	3,692
2006	3,303	484	26	3,813
2007	3,210	1,084	32	4,326
2008	2,219	594	30	2,843
2009	1,653	499	0	2,152
2010	889	288	17	1,194
2011	828	184	-	1,012
2012	216	76	-	292
1977-2010 Average	2,161	539	60	2,348
2006-2010 Average	2,255	590	21	2,866

Table 21.–Escapement of Chinook salmon, Knik Arm Management Unit, 1977-2012.

	Little Susitna River		
Year	Weir	Aerial	Moose Creek[a]
1979	ND	[b]	253
1980	ND	[b]	[b]
1981	ND	[b]	238
1982	ND	[b]	406
1983	ND	929	452
1984	ND	558	541
1985	ND	1,005	475
1986	ND	[b]	419
1987	ND	1,386	957
1988	7,374	3,197	1,072
1989	4,367	[b]	999
1990	ND	922	545
1991	ND	892	704
1992	ND	1,441	959
1993	ND	[bc]	175[d]
1994	2,981	1,221[c]	894
1995	2,809	1,714[c]	488
1996	ND	1,079c	652
1997	ND	[bc]	652
1998	ND	1,091[c]	214
1999	ND	[bc]	744
2000	ND	1,094[c]	198
2001	ND	1,238[c]	275
2002	ND	1,660[e]	310
2003	ND	1,114[e]	471
2004	ND	1,694[e]	197
2005	ND	2,095[e]	254
2006	ND	1,855[e]	216
2007	ND	1,731[e]	330
2008	ND	1,297[e]	384
2009	ND	1,028[e]	201
2010	ND	589[e]	142
2011	ND	887[e]	175
2012	ND	1,154[e]	163
1983-2010 Average		1,340	497
2001-2010 Average		1,430	278
2006-2010 Average		1,300	255

Note: ND = no data.
[a] Foot survey (1977-1994); helicopter survey (1995-2006).
[b] No count conducted, water too turbid.
[c] Biological Escapement Goal (BEG) = 850 fish.
[d] Late count.
[e] Sustainable Escapement Goal (SEG) = 900 to 1,800 fish.

Table 22.–Chinook salmon smolt stocked and adult sport fish harvest at Eklutna Tailrace2002–2013, and planned smolt release for 2014..

Year	Brood Year	Total Smolt Released	Mark Type [a]	Mean Weight (g)	Release Date	Brood Stock	Hatchery	Harvest[a]
2002	2001	106,991	TM	11.3	5/20	Ship Creek	Elmendorf	0
2003	2002	218,492	TM	12.8 (50.05%) 12.0 (49.95%)	6/3, 6/4	Ship Creek	Fort Richardson	399
2004	2002 [b]	215,165	TM	13.4	5/19	Ship Creek	Fort Richardson	23
2005	2003 [b]	164,586	TM	14.0	6/1	Ship Creek	Fort Richardson	941
2006	2004 [b]	213,250	TM	10.6	5/31, 6/1	Ship Creek	Fort Richardson	484
2007	2005 [b]	110,978	TM	8.9	5/30	Ship Creek	Fort Richardson	1,084
2008	2006 [b]	114,136	TM	9.1	5/27	Ship Creek	Fort Richardson	594
2009	2007 [b]	77,785	TM	7.1	6/8	Ship Creek	Fort Richardson	499
2010	2008 [b]	152,014	TM	9.1	6/19	Ship Creek	Fort Richardson	168
2011	2009 [b]	122,962	TM	11.0	5/31	Ship Creek	Fort Richardson	184
2012	2011	160,347	TM	13.5	5/29	Ship Creek	WJHSFH	76
2013	2012	94,609	TM	15.9	6/18	Ship Creek	WJHSFH	ND
2014[c]	2013	424,000 [c]	TM	14.0	6/15	Deception Creek	WJHSFH	ND

Note: TM=thermal mark; WJHSFH = William Jack Hernandez Sport Fish Hatchery. ND = Data not available from Statewide Harvest Survey.

[a] Harvest estimates from Statewide Harvest Surveys (Jennings et al. 2006 a-b, 2007, 2009 a-b, 2010 a-b, 2011a-b, *In prep*; Romberg et al. *In prep*.

[b] Cold water rearing conditions brood years 2004-2012 required growth over two winters to reach optimal release size.

[c] Planned smolt release.

Table 23.–Harvest of Chinook salmon from eastside Susitna River, westside Susitna River, West Cook Inlet and Knik Arm drainages, 1979-2012.

	Eastside Susitna River						
Year	Hatchery	Non-hatchery	Total	Westside Susitna River	West Cook Inlet	Knik Arm	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
2003	1,605	7,894	9,499	15,035	1,124	2,562	28,220
2004	969	7,529	8,498	15,694	795	2,556	27,543
2005	981	7,472	8,453	15,945	592	3,692	28,682
2006	[a]		7,339	16,454	1,038	3,813	28,644
2007	[a]		8,337	11,370	1,380	4,326	25,413
2008	[a]		5,834	6,805	437	2,843	15,919
2009	[a]		3,655	4,713	829	2,152	11,349
2010	[a]		2,588	6,306	854	1,076	10,824
2011			2,710	5,914	76	1,012	9,712
2012			203	2,525	0	292	3,020
2001-2010 Ave	1,466	8,663	7,840	11,759	900	2,847	23,346
2006-2010 Ave			5,551	9,130	908	2,842	18,430

[a] Hatchery contribution no longer available. Creel program concluded in 2005.

Table 24.–Contribution of hatchery-reared Chinook salmon to the sport harvest at Willow Creek and the escapements at Willow and Deception creeks, 2005-2012.

		Willow Creek						Deception Creek		
	Brood Year	Harvest [a]			Escapement [b]			Escapement [b]		
Year	(Age)	n	# Recov	Contrib [c]	n	# Recov	Contrib [c]	n	# Recov	Contrib [c]
2005	2000- (0.4)		63	7.0%		0	0.0%		ND	ND
	2001- (0.3)		272	29.9%		2	0.9%		ND	ND
	2002- (0.2)		6	0.7%		0	0.0%		ND	ND
	2002- (1.1)		2	0.2%		0	0.0%		ND	ND
	2003- (0.1)		18	2.0%		0	0.0%		ND	ND
	Total	965	361	39.8% [d]	331	2	0.9% [d]	174	113	64.9% [e]
2006 [f]	2001- (0.4)		ND	ND		1	0.4%		ND	ND
	2002- (0.3)		ND	ND		0	0.0%		ND	ND
	2003- (1.1)		ND	ND		1	0.4%		ND	ND
	2003- (0.1)		ND	ND		1	0.4%		ND	ND
	Total	ND	ND	ND	277	3	1.1% [d]	248	151	60.9% [e]
2007	2003- (1.2)		ND	ND		1	0.7%			
	Total	ND	ND	ND	274	1	0.7% [d]	258	175	67.8% [e]
2008		ND	ND	ND	118	3	2.5%	156	105	67.3% [e]
2009		ND	ND	ND	117	4	3.4%	96	46	50.0% [e]
2010		ND	ND	ND	104	2	1.9%	25	7	28.0% [e]
2011		ND	ND	ND	101	1	1.0%	8	4	50.0%
2012		ND	ND	ND	66	3	4.5%	44	9	20.5% [e]

Note: n = the total number of fish sampled; # Recov = number of adipose fin clipped (hatchery reared) fish with coded wire tags recovered at the Tag Lab; Contrib = percent contribution; ND = no data because no attempts were made to collect it.

[a] Creel survey.

[b] Carcass sampling.

[c] Percent contribution may differ from the quotient of number recovered to number sampled due to head or tag loss.

[d] Sum of contribution by brood year. Tags from the heads of adipose clipped fish were decoded at the State Mark, Tag, and Age Lab in Juneau, AK.

[e] Ratio of adipose clipped (marked) fish to total fish inspected during a carcass survey.

[f] The Willow Creek creel survey was discontinued in 2006; no sport fish harvests on this stream were sampled that year.

Table 25.–Number of Chinook salmon smolt stocked in Willow Creek drainage, 1985-2012.

Brood Year	Release location[a]	Total smolt release	No. coded wire tagged	Ave Weight (g)	Release Date
1983	Deception	101,256	8,152	18.0	6/13/1985
1984	Deception	214,384	11,038	13.8	6/11-12/1985
	Deception	218,743	10,708	14.0	6/20/1985
1985	Deception	49,668	9,933	16.7	5/1/1986
	Deception	127,904	18,400	12.2	5/10/1986
	Deception	147,877		11.4	5/10/1986
		325,449	28,333		
1987	Deception	201,091	20,936	10.9	7/12/1988
1988	Deception	240,885	19,851	13.0	5/31/1989
1989	Deception	219,362	41,570	14.4	5/24/1990
	Deception	219,432	40,575	13.4	5/24/1990
	Deception	216,697	40,438	13.9	5/24/1990
		655,491	122,583		
1990	Deception	168,777		11.2	5/21/1991
	Deception	70,258	31,167	12.3	5/31/1991
	Willow	73,756		12.3	5/28/1991
	Willow	78,878	31,167	12.3	5/30/1991
		391,669	62,334		
1991	Deception	179,724	33,464	13.5	5/29/1992
	Deception	35,752		14.5	6/9/1992
		215,476	33,464		
1992	Deception	160,194	39,420	14.9	6/1/1993
1993	Deception	177,913	45,921	13.3	5/24-25/1994
1994	Deception	184,740	46,256	13.5	5/25/1995
1995	Deception	186,918	47,145	14.4	6/12-17/1996
1996	Deception	209,944	207,973	12.2	6/11-20/1997
1997	Deception	197,392	195,615	11.5	6/17-26/1998
1998	Deception	201,586	199,772	11.5	6/14,16,17/1999
1999[b]	Deception	7,500			
	Deception	198,996			
		206,946	205,051	12.6	6/2,13,14/2000
2000	Deception	207,465	204,560	14.2	6/18,19/2001
2001	Deception	197,277	196,608	12.1	6/21,24/2002
2002	Deception	100,635	101,407	14.5	6/19/2003
	Deception	113,523	104,101	12.2	6/8/2004
		214,158	205,508		
2003	Deception	99,047	97,660	15.7	6/9/2004
	Deception	163,016	162,415	12.6	6/6/2005
		262,063	260,075		
2004	Deception	50,426	50,376	12.5	6/8/2006
2005	Deception	103,016	103,016	9.5	5/29/2007
2006	Deception	112,219	111,321	11.0	6/16/2008
2007	Deception	111,322	111,322	6.8	6/4/2009
2008	Deception	155,125	155,125	8.4	5/27/2010
2009	Deception	47,428	47,428 [c]	12.7	7/6/2011
	Deception	92,838	0[c]	12.4	7/6/2011
		140,266			
2010	Deception	151,220		17.0	7/9/2012

[a] Prior to 1996 the Deception Creek release site was at the mouth of Deception Creek. Beginning in 1996 the release site was at the Four Mile Road crossing.

[b] In 2000 the stocking truck got stuck on Four Mile Road. Approximately 7,500 smolt were bucketed to Deception Creek at Four Mile Road, the remaining smolt were released at Hatcher Pass Road Bridge near the mouth of Deception Creek.

[c] Number of fish adipose clipped and thermal marked.

Table 26.–Eastside Susitna River drainage Chinook salmon harvest by fishery, 1977-2012.

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
2003	3,922	510	373	26	1,284	350	1,242	167	154	1,276	195	9,499
2004	2,818	445	125	23	914	335	1,071	0	25	2,473	25	8,254
2005	2,466	621	112	394	878	150	1,328	287	205	1,960	52	8,453
2006	2,141	449	210	264	707	27	1,672	97	211	1,561	0	7,339
2007	2,258	870	223	190	964	31	1,294	0	0	2,476	31	8,337
2008	1,101	505	237	30	589	134	1,188	46	431	1,479	94	5,834
2009	499	85	212	17	393	0	257	0	0	1,982	210	3,655
2010	218	169	214	0	153	0	371	26	56	1,013	368	2,588
2011	282	33	172	0	213	0	362	0	16	1,087	545	2,710
2012	13	0	8	0	0	0	13	0	0	113	56	203
2006-2010 Average	1,019	407	222	59	525	41	778	18	122	1,738	176	5,104

[a] Talkeetna River and tributaries including Clear Creek.

[b] Includes lakes and streams.

Table 27.–Northern Cook Inlet Management Area Chinook salmon escapement index counts (aerial), 1979-2012.

	Susitna River			Knik	West	Total
Year	Eastside	Westside	Total	Arm	Cook Inlet	NCIMA
1979	5,082	39,552	44,634	253	2,540	47,427
1980	No Data					
1981	7,419	2,025	9,444	238	3,601	13,283
1982	10,700	25,224	35,924	406	7,384	43,714
1983	17,859	42,850	60,709	1,381	5,562	67,652
1984	25,678	27,974	53,652	1,099	5,043	59,794
1985	18,177	38,932	57,109	1,480	4,619	63,208
1986	15,828	32,330	48,158	419	6,114	54,691
1987	26,535	23,936	50,471	2,343	2,423	55,237
1988	26,255	40,963	67,218	4,269	5,546	77,033
1989	23,117	4,818	27,935	999	2,468	31,402
1990	25,040	28,042	53,082	1,467	1,329	55,878
1991	21,773	19,425	41,198	1,596	1,348	44,142
1992	15,782	18,899	34,681	2,400	2,835	39,916
1993	13,066	18,028	31,094	175	3,882	35,151
1994	11,904	9,423	21,327	2,115	2,121	25,563
1995	21,778	15,828	37,606	2,202	2,223	42,031
1996	22,084	16,802	38,886	1,731	2,392	43,009
1997	35,927	38,437	74,364	652	5,087	80,103
1998	24,393	32,958	57,351	1,305	4,805	63,461
1999	24,306	30,260	54,566	744	7,812	63,122
2000	20,161	11,137	31,298	1,292	3,964	36,554
2001	23,047	15,102	38,149	1,513	4,394	44,056
2002	35,137	28,066	63,203	1,970	3,649	68,822
2003	15,341	24,294	39,635	1,585	4,974	46,194
2004	22,567	54,421	76,988	1,891	5,038	83,917
2005	21,780	27,774	49,554	2,349	2,730	54,633
2006	16,934	23,074	40,008	2,071	4,206	46,285
2007	23,229	18,645	41,874	2,061	2,439	46,374
2008	10,789	5,609	16,398	1,681	1,051	19,130
2009	12,686	9,971	22,657	1,229	1,622	25,508
2010	7,449	3,293	10,742	731	993	12,466
2011	8,936	13,324	22,260	1,062	659	23,981
2012	6,388	4,148	10,536	1317	972	12,825
1979-2010 Ave	19,414	23,487	42,900	1,472	3,684	48,057
2001-2010 Ave	18,435	21,683	40,118	1,730	2,967	44,814
2006-2010 Ave	13,538	9,380	22,918	1,426	1,526	25,870

Table 28.–Eastside Susitna River Management Unit Chinook salmon escapement index counts (aerial), 1979-2012.

Year	Willow Creek [a]	Deception Creek Total	Deception Creek Nonhatch	Little Willow Creek	Sheep Creek	Goose Creek	Montana Creek	Clear Creek	Praire Creek	Chulitna River	Portage Creek	Indian River	Kashwitna River	Other [b]	Total
1979	848	239		327	778	[c]	1,094[d]	864	[c]	[c]	190	285	457	[c]	5,082
1980															0
1981	991	366		459	1,013	262	814	[c]	1,875	[c]	659	422	558	[c]	7,419
1982	592	229[e]		316	527	140	887[d]	982	3,844	863	1,111	1,053	156	268	10,700
1983	777	121[e]		1,042	975	477	1,641[d]	938	3,200	4,058	3,140	1,193	297	[c]	17,859
1984	2,789	675[e]			1,028	258	2,309[d]	1,520	9,000	4,191	2,341	1,456	111	[c]	25,678
1985	1,856	1,044[e]		1,305	1,634	401	1,767[d]	2,430	6,500	783	[f]	[f]	457	4,066	18,177
1986	2,059	521[e]	364	2,133	1,285	630	[c]	[c]	8,500	[c]	[c]	[c]	700	[c]	15,828
1987	2,768	692[e]	518	1,320	895	416	1,320[d]	[c]	9,138	5,252	2,616	1,246	872	[c]	26,535
1988	2,496	790[e]	537	1,515	1,215	1,076	2,016[d]	4,850	9,280	[c]	1,402	456	1,159	[c]	26,255
1989	5,060	800[e]	623	1,325	610	835	2,701[d]	[c]	9,463	[c]	1,309	659	355	[c]	23,117
1990	2,365	700[e]	420	1,115	634	552	1,269	2,380	9,113	2,681	1,886	1,473	872	[c]	25,040
1991	2,006	747[e]	515	498	154[g]	968	1,215	1,974	6,770	4,410	1,223	1,468	340	[c]	21,773
1992	1,660	983[e]	423	673	[c]	369	1,560	1,530	4,453	2,527	1,078	479	470	[c]	15,782
1993	2,227	1,011[e]	502	705	[c]	347	1,281	886	3,023	2,070	629	362	525	[c]	13,066
1994	1,479	766	388	712	542	375	1,143	1,204	2,254	1,806	857	336	430	[c]	11,904
1995	3,792	834	445	1,210	1,049	374	2,110	1,928	3,884	3,460	1,505	796	836	[c]	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	[c]	22,084
1997	4,841	1,340	[c]	2,390	[c]	308	3,073	5,100	7,710	5,618	3,086	1,700	761	[c]	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	[c]	24,393
1999	2,081	1,000	801	1,837	[c]	268	2,088	2,216	5,871	5,455	1,797	1,049	644	[c]	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	[c]	20,161
2001	3,188	1,975	943	2,084	[c]	[c]	1,930	2,096	5,191	2,353[g]	2,334	1,292	604	[c]	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	[c]	35,137
2003	3,964	914	288	879	[c]	175	2,576	[c]	4,095	[c]	827[d]	1,365	546	[c]	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
2005	2,463	1,806	634	1,784	760	468	2,600	1,924	3,862	2,838	2,151	670	454	83	21,780
2006	2,217	940	368	816	580	306	1,850	1,520	3,570	2,862	942	718	613		16,934
2007	1,373	604	194	1,103	400	105	1,936	3,310	5,036	5,166	2,284	1,017	895		23,229
2008	1,255[g]	255[g]		[c]	[c]	117	1,357	1,795	3,039	2,514	169	288	[c]		10,789
2009	1,133	[c]		776	500	65[j]	1,460	1,205	3,500	2,093	1,228	409	317		12,686

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Table 28.–Page 2 of 2.

Year	Willow Creek [a]	Deception Creek Total	Deception Creek Nonhatch	Little Willow Creek	Sheep Creek	Goose Creek	Montana Creek	Clear Creek	Praire Creek	Chulitna River	Portage Creek	Indian River	Kashwitna River	Other [b]	Total
2010	1,173			468	[c]	76[j]	755	903	3,022	1,052			[c]		7,449
2011	1,061	180		713	350	80	494	512	2,038	1,875	1,217	282	134		8,936
2012	756	349		494	363	57	416	1,177	1,185	667	501	338	85		6,388
1979-2010 Ave	2,293	858	497	1,196	829	394	1,776	2,177	5,399	3,368	1,590	843	571	1,267	18,807
2001-2010 Ave	2,147	857	296	1,217	563	255	1,890	2,196	4,401	3,461	1,614	773	602	368	18,435
2006-2010 Ave	1,234	430	194	782	450	91	1,377	1,803	3,649	2,706	1,227	571	606		13,538
SEG [h]	1,600-2,800	350-700 [i]		450-1,800	600-1,200	250-650	1,100-3,100	950-3,400	3,100-9,200	1,800-5,100					

[a] Includes hatchery fish.
[b] May include Honolulu, Byers, Troublesome, Bunco, Birch, Sunshine, Larson creeks.
[c] No counts conducted due to poor water visibility.
[d] Foot survey.
[e] Combination of foot surveys and weir counts.
[f] Included with other streams.
[g] Poor count due to timing, poor visibility or weather conditions.
[h] SEG = Sustainable Escapement Goal.
[i] Deception Creek SEG discontinued after 2005.
[j] Beaver dam blocks fish passage.

Table 29.–Westside Susitna River drainage Chinook salmon harvest by fishery, 1977-2012.

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
2003	2,293	6,605		277	122	4,467	371	587	313	0	15,035
2004	1,294	9,050	12	523	85	3,657	390	344	293	0	15,648
2005	1,052	7,332		963	0	4,508	307	800	915	68	15,945
2006	1,396	7,753	40	1,964	33	4,070	103	452	643	0	16,454
2007	412	5,696	0	827	465	2,881	68	1021	0	0	11,370
2008	0	2,036	0	1,009	220	2,756	89	435	260	0	6,805
2009	0	723	35	863	148	2273	174	258	239	0	4,713
2010	-	3,381	16	722	36	1,644	41	323	143	16	6,322
2011	0	3,139	10	834	61	1,392	51	393	34	0	5,914
2012	0	1,650	0	118	0	602	0	17	138	0	2,525
2006-2010 Ave	103	2,959	13	855	217	2,389	93	509	161	4	7,303

[a] Fish Lake drainage (Yentna River drainage).

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

Table 30.–Westside Susitna River Management Unit Chinook salmon escapement index counts, 1979–2012.

		Deshka River							
Year	Alexander Creek	Aerial index	Weir [a]	Peters Creek	Lake Creek	Talachulitna River	Cache Creek	Other Streams [b]	Aerial Total
1979	6,215	27,385	NA	108	4,196	1,648	[c]	ND	39,552
1980	[c]	[c]	NA	[c]	[c]	[c]	[c]	ND	ND
1981	[c]	[c]	NA	[c]	[c]	2,025	[c]	ND	2,025
1982	2,546	16,000	NA	[c]	3,577	3,101	[c]	ND	25,224
1983	3,755	19,237	NA	2,272	7,075	10,014	497	ND	42,850
1984	4,620	16,892	NA	324	[c]	6,138	[c]	ND	27,974
1985	6,241	18,151	NA	2,901	5,803	5,145	206	485	38,932
1986	5,225	21,080	NA	1,915	[c]	3,686	424	ND	32,330
1987	2,152	15,028	NA	1,302	4,898	[c]	556	ND	23,936
1988	6,273	19,200	NA	3,927	6,633	4,112	818	ND	40,963
1989	3,497	[c]	NA	959	[c]	[c]	362	ND	4,818
1990	2,596	18,166	NA	2,027	2,075	2,694	484	ND	28,042
1991	2,727	8,112 [d]	NA	2,458	3,011	2,457	499	161	19,425
1992	3,710	7,736	NA	996	2,322	3,648	487	ND	18,899
1993	2,763	5,769	NA	1,668	2,869	3,269	1,690	ND	18,028
1994	1,514	2,665	NA	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 [e]	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 [d]	[c]	35,242	1,648	4,035	2,414	709	ND	11,137
2001	2,282	[c]	29,004	4,226	4,661	3,309	624	ND	15,102
2002	1,936	8,749	29,428	2,959	4,852	7,824	671	1,075	28,066
2003	2,012	[c]	39,496	3,998	8,153	9,573	558	ND	24,294
2004	2,215	28,778	57,934	3,757	7,598	8,352	212	3,509	54,421
2005	2,140	11,495	37,725	1,508	6,345	4,406	1,460	420	27,774
2006	885	6,499 [d]	31,150	1,114	5,300	6,152	1,230	1,894	23,074
2007	480	6,712	18,714	1,225	4,081	3,871	551	1,725	18,645
2008	150 [d]	[c]	7,533	[c]	2,004	2,964	[c]	491	5,609
2009	275	3,954	11,967	1,283	1,394	2,608	[c]	457	9,971
2010	177	[c]	18,594	[c]	1,617	1,499	[c]	209	3,502
2011	343	7,522	18,968	1,103	2,563	1,368	27	398	13,324
2012	181	0	14,096	459	2,366	847	87	440	4,380
1979-2010 Ave	2,850	13,359	26,364	2,046	4,174	4,134	838	890	23,494
2001-2010 Ave	1,141	11,031	28,060	2,263	4,594	5,250	780	1,223	21,706
2006-2010 Ave	271	5,333	14,202	1,254	2,274	2,736	551	721	9,432
Escapement Goal	2,100-6,000 [f]	[g]	13,000-28,000 [h]	1,000-2,600 [f]	2,500-7,100 [f]	2,200-5,000 [f]			

Note: NA = not applicable; ND = no data because no attempts were made to collect it.

[a] No weir on the Deshka River prior to 1995. Weir count, not an actual escapement count.

[b] May include Donkey Creek, Red Creek, Red Salmon Creek, Canyon Creek, and other miscellaneous creeks.

[c] No count due to poor water visibility.

[d] Low count due to timing, poor visibility, or weather conditions.

[e] High water delayed the deployment of the weir until June 16, 1998. Therefore, this weir count is low and may represent only half of the return.

[f] Sustainable Escapement Goal (SEG) established in 2001 (Bue and Hasbrouck Unpublished).

[g] Aerial escapement goals for Deska River Chinook salmon: 11,200 fish (1994-1998); 8,750 fish (1999-2001); and discontinued thereafter (2002-2009).

[h] Weir based Biological Escapement Goal (BEG) established in 2001 (Bue and Hasbrouck Unpublished).

Table 31.–West Cook Inlet drainage Chinook salmon harvest by fishery, 1977-2012.

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
2003	592	51	13	0	194	144	130	1,124
2004	333	276	0	0	102	0	84	795
2005	294	105	0	0	24	92	77	592
2006	445	66	0	0	160	32	335	1,038
2007	984	143	0	0	33	47	173	1,380
2008	46	15	0	0	217	159	0	437
2009	109	51	0	0	112	204	353	829
2010	0	58	0	0	121	480	0	659
2011	0	0	0	0	0	54	22	76
2012	0	0	0	0	0	0	0	0
2006-2010 Ave	285	67	0	0	121	223	132	826

Table 32.–West Cook Inlet Management Unit Chinook salmon escapement index counts, 1979-2012.

Year	Chuitna River	Theodore River	Lewis River	Coal Creek	Other Streams[a]	Total WCI
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	1,501	1,237	502	1,154		4,394
2002	1,394	934	439	882		3,649
2003	2,339	1,059	878	698		4,974
2004	2,938	491	1000	609		5,038
2005	1,307	478	441	504		2,730
2006	1,911	958	341	996		4,206
2007	1,180	486	0 [d]	773		2,439
2008	586	345	120			1,051
2009	1,040	352	111	119 [e]		1,622
2010	735	202	56			993
2011	719	327	92	373		1,511
2012	502	179	107	184		972
1979-2010 Ave	1,822	994	489	665	677	3,684
2001-2010 Ave	1,492	589	376	654		2,967
2006-2010 Ave	885	346	72	446		1,526
SEG [c]	1,200-2,900	500-1,700	250-800			

"-" = value can't be computed due to limitations of the data.

[a] May include Olsen, Nikoli, Coal, Straight, Bishop, Drill, and Scarp creeks.

[b] No count conducted, turbid water.

[c] SEG = sustainable escapement goal.

[d] River diverged into open muskeg 1/2 mile below bridge. No water in mainstem.

[e] Mainstem too glacial to count. Only counted above forks.

Table 33.–Northern Cook Inlet Management Area recreational harvest of coho salmon by management unit, 1977–2012.

	Northern Cook Inlet Management Area					South-central			
Year	Knik Arm	Eastside Susitna	Westside Susitna	West Cook Inlet	Total Harvest	Region Total	% by NCIMA	Alaska Total	% by NCIMA
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
2003	24,583	18,585	16,072	14,239	73,479	450,231	16	783,328	9
2004	34,298	20,484	17,785	16,179	88,746	516,183	17	861,490	10
2005	27,000	17,471	18,266	12,572	75,309	514,473	15	937,965	8
2006	39,953	22,719	20,474	11,940	95,086	425,981	22	652,953	15
2007	27,733	13,464	14,065	12,580	67,842	444,032	15	716,815	9
2008	35,996	24,211	15,126	14,673	90,006	426,916	21	676,376	13
2009	37,271	15,335	14,464	9,801	76,871	397,945	19	665,000	12
2010	26,369	14,291	16,245	9,030	65,935	369,235	18	565,943	12
2011	8,484	9,040	12,483	6,292	36,299	331,506	11	575,303	6
2012	5,014	7,629	9,434	7,813	29,890	211,501	14	429,229	7
1977-2010 Average	23,305	17,323	14,080	7,829	62,537	282,581	24	445,841	16
2006-2010 Ave	33,464	18,004	16,075	11,605	79,148	412,822	19	655,417	12
% of NCIMA 2006-2010	42	23	20	15			21		13

Table 34.–Coho salmon harvest and fishing effort from Knik Arm sport fisheries, 1977-2012.

	Little Susitna River			Other Knik Arm															
				Jim Creek[a]		Wasilla Creek		Cottonwood Creek		Fish Creek		Eklutna Tailrace		Total		Other		Total	
Year	Harvest	(Hatchery)[b]	Angler-days[c]	Harvest	Angler-days[c]	Harvest	Angler-days[c]	Harvest	Angler-days[c]	Harvest	Angler-days[c]	Harvest	Angler-days[c]	Harvest	Angler-days[c]	Harvest	Angler-days[c]	Harvest	Angler-days[c]
1977	3,415		11,063			472	2,805							472	2,805	479	68,081	4,366	81,949
1978	4,865		12,127			2,112	3,446							2,112	3,446	918	59,967	7,895	75,540
1979	3,382		21,301			1,211	4,024	1,198	5,345					2,409	9,369	1,348	47,741	7,139	78,411
1980	6,302		22,420			3,555	5,726	3,375	9,268					6,930	14,994	2,798	65,116	16,030	102,530
1981	5,940		26,162	1,801	4,904	814	4,019	1,373	8,663					3,988	17,586	556	61,304	10,484	105,052
1982	7,116		24,020	2,306	6,653	1,624	6,261	1,886	5,186					5,816	18,100	744	49,593	13,676	91,713
1983	2,835		35,477	774	9,183	345	3,239	518	5,944					1,637	18,366	1,667	84,546	6,139	138,389
1984	14,253		48,517	3,429	9,369	1,920	3,547	1,895	7,144			561	3,413	7,805	23,473	1,371	58,737	23,429	130,727
1985	7,764		37,498	2,523	8,970	1,900	3,115	1,005	4,560	284	903	557	2,995	6,269	20,543	306	64,585	14,339	122,626
1986	6,039	109	45,776	2,948	13,015	944	3,387	690	5,653	364	2,641	502	8,549	5,448	33,245	874	52,585	12,361	131,606
1987	13,003	3,407	35,659	3,676	6,990	1,195	2,173	1,159	2,934	833	2,898	2,318	11,663	9,181	26,658	3,603	77,850	25,787	140,167
1988	19,009	9,638	49,731	11,078	23,229	1,273	2,228	746	4,056	1,637	3,110	3,329	13,188	18,063	45,811	2,965	87,487	40,037	183,029
1989	14,129	10,597	54,708	4,220	11,141	975	2,406	876	3,069	784	3,314	1,666	10,342	8,521	30,272	1,196	61,932	23,846	146,912
1990	7,497	2,242	40,159	6,184	17,878	1,012	2,679	286	3,056	398	3,936	1,012	7,618	8,892	35,167	2,373	67,558	18,762	142,884
1991	16,450	7,699	50,838	2,920	13,736	844	2,893	176	1,623	486	3,693	631	5,892	5,057	27,837	679	67,930	22,186	146,605
1992	20,033	3,406	49,304	3,409	8,856	413	1,110	348	1,974	526	3,638	664	4,279	5,360	19,857	421	72,664	25,814	141,825
1993	27,610	7,703	42,249	2,878	6,824	1,133	1,774	736	3,077	741	2,341	1,337	4,523	6,825	18,539	1,328	57,426	35,763	118,214
1994	17,665	6,165	45,149	3,946	9,658	1,390	2,226	1,100	3,230	492	2,358	3,553	8,974	10,481	26,446	393	71,777	28,539	143,372
1995	14,451	2,991	41,119	3,549	10,893	445	1,373	340	2,598	435	2,256	990	11,453	5,759	28,573	440	56,462	20,650	126,154
1996	16,753	3,418	24,575	3,911	7,561	872	1,386	762	1,783	607	934	1,217	6,448	7,369	18,112	752	48,303	24,874	90,990
1997	7,756	0	27,883	1,786	5,349	708	1,188	372	2,070	148	1,104	728	3,835	3,742	13,546	275	54,301	11,773	95,730
1998	14,469	0	22,108	4,197	5,272	970	1,171	1,098	3,454	1,334	2,256	1,422	5,100	9,021	17,253	260	38,857	23,750	78,218
1999	8,864	0	30,437	2,612	6,860	313	990	537	3,506	233	2,182	1,453	6,150	5,148	19,688	417	62,517	14,429	112,642
2000	20,357	0	39,556	5,653	10,975	0	328	282	1,265	470	1,408	5,053	7,938	11,458	21,914	715	60,131	32,530	121,601
2001	17,071	0	33,521	8,374	13,028	0	419	647	2,627	361	1,670	3,399	10,166	12,781	27,910	254	49,596	30,106	111,027
2002	19,278	0	40,346	14,707	17,989	664	1,037	561	1,534	1,233	2,776	7,073	11,767	24,238	35,103	932	50,745	44,448	126,194
2003	13,672		31,993	6,415	13,474	261	757	665	2,238	112	758	3,128	8,423	10,581	25,650	330	46,335	24,583	103,978
2004	15,307	0	33,819	11,766	19,342	488	1,079	532	3,282	774	2,029	5,084	9,588	18,644	35,320	347	44,389	34,298	113,528
2005	10,203	0	27,490	10,114	19,605	347	684	668	1,484	535	1,461	4,899	19,339	16,563	42,573	234	45,700	27,000	115,763
2006	12,399	0	28,547	19,259	25,271	857	869	789	3,867	281	948	6,104	20,465	27,290	51,420	264	39,828	39,953	119,795
2007	11,089	0	23,233	11,848	21,342	324	1,194	856	3,448	120	907	3,298	22,619	16,446	49,510	198	47,938	27,733	120,681
2008	13,498	0	31,989	17,545	27,874	1,086	1,394	308	2,718	993	1,343	2,253	20,586	22,185	53,915	313	50,668	35,996	136,572
2009	8,346		28,151	11,573	16,486	1,002	1,619	1,503	2,512	1,178	2,050	6,767	22,625	22,023	45,292	6,902	49,065	37,271	122,508
2010	10,662		24,846	8,442	16,140	2,886	2,354	301	2,064	966[d]	2,161	3,233	14,708	25,524	62,273	616	44,008	51,664	106,281
2011	2,452		12,779	3,132	9,810	372	1,300	619	1,736	414	970	1,350	5,972	8,339	32,567	145	34,117	8,484	66,684
2012	1,681		10,115	1,858	7,474	191	506	616	884	274	1,220	394	5,475	5,014	25,674	0	433	5,014	26,107

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Table 34.–Page 2 of 2.

	Little Susitna River		Other Knik Arm												Other		Total	
			Jim Creek[a]		Wasilla Creek		Cottonwood Creek		Fish Creek		Eklutna Tailrace		Total					
Year	Harvest(Hatchery)[b]	Angler-days[c]	Harvest	Angler-days[c]	Harvest	Angler-days[c]	Harvest	Angler-days[c]	Harvest	Angler-days[c]	Harvest	Angler-days[c]	Harvest	Angler-days[c]	Harvest	Angler-days[c]	Harvest	Angler-days[c]
Averagess																		
1977-2010	12,102	33,582	6,461	12,929	1,010	2,203	862	3,601	614	2,118	2,675	10,468	10,413	27,664	1,096	57,815	24,049	118,330
2006-2010	11,199	27,353	13,130	21,423	1,231	1,486	751	2,922	643	1,482	4,331	20,201	22,694	52,482	1,659	46,301	38,523	121,167

[a] Includes other Knik River tributaries

[b] Bartlett and Conrad 1988, Bartlett and Vincent-Lang 1989, Bartlett and Sonnichsen 1990, Bartlett and Bingham 1991, Bartlett 1992-1994, 1996.

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

[d] Includes Fish Creek Salt water areas

Table 35.–Knik Arm drainage coho salmon escapement counts, 1981–2012.

						Wasilla Creek drainage					
	Little Susitna River [b]		Fish			Weir		Index [a]			
	Stocked		Creek	Cottonwood Creek		Wasilla	Spring	Wasilla Creek	Spring Creek		
Year	fish	Weir	Weir [c]		Index [a]	Creek	Creek	(mainstem)	(upper)	(Flats)	Total
1981			2,382	2,436 [d]	423			238	[e]		302
1982			5,201	Weir2,064 [d]	737			171	[e]		276
1983			2,342		506			4	[e]		32
1984			4,510		935			876		90	966
1985			5,089		334			16	150	81	247
1986		6,999 [f]			121			[e]	141 64		288
1987			3,871		360			251	110 105	42	403
1988	4,428	20,491	2,166 2,162		293			[e]	82 28		112
1989	6,862	15,232	3,479		147			[e]	67		106
1990	3,370	14,310	2,719		167			34	38	12	84
1991	8,322	37,601	1,297		158			118	16 147	5	139
1992	2,324	20,393	1,705		6			3	11	0	14
1993	9,615	33,378	2,328		265			[e]	67		136
1994	5,124	27,820	350		232			282	76 30	60	418
1995	1,069	11,817	390		242			46	20 39	38	104
1996		15,803	682		168			84	30	29	143
1997		9,894 [f]		936	386			156	38	35	229
1998		15,159	5,463	2,114	537	3,614	163	120 [g]	[g]		176
1999		3,017	2,578 1,766	458 [h]	131 [i]	1,579 [i]	8	211	40 69	16	267
2000		15,436	5,218 [h]	1,482 [h]	876 [i]	6,154	0	380 [g]		50	654
2001		30,587	9,247 [h]	2,921 [h]	983 [i]	6,508	276	453 31	37	15	505
2002		47,938	14,651 [h]	4,081 [h]	1,191 [i]	12,495	162	933	188	75	1,196
2003		10,877	1,231 [h]	706 [h]	229 [i]	2,962	[j]	224	17 25	50	294
2004		40,199	1,415 [ch]	1,772 [h]	430 [i]	[j]		934	114	100	1,148
2005		16,839 [f]	3,011 [ch]	[j]	619 [i]			[e]	[e]	130	130
2006		8,786 [f]	4,967 [ch]		912 [i]			294 [k]		272	737
2007		17,573	6,868 [ch]		1,024 [i]			380 [k]	50		430
2008		18,485	4,868 [ch]		1,821 [i]		227	1,461	63	12	1,536
2009		9,523	8,214 [h]		942 [i]			936 171	28	14	978
2010		9,214	6,977 [h]		756 [i]			927	290	6	1,223
2011		4,826	1,428 [ch]		698			518	55	3	576
2012		6,779 [f]			467	[e]					[e]
1981-2010 Ave	5,139	20,743	3,905	1,897	531	5,552	122	381	84 0	55	442
2001-2010 Ave	-	21,973	1,237	-	891	-	-	727	106	67	818
2006-2010 Ave	-	13,699		-	1,091	-	-	800	120	61	981
SEG range	10,100-17,700		6,145 1,200-4,400 6,379								

-continued-

Table 35.-Page 2 of 3.

	Matanuska River				Jim Creek drainage Index [a]		
Year	Yellow Creek Index [a]	Wolverine Creek [a]	Bartko side channel [a]	Weir	McRoberts Creek	Upper Jim Creek	Total
1981	[e]						[e]
1982	[e]						[e]
1983	[e]						[e]
1984	[e]						[e]
1985	65				662		662
1986	20				439		439
1987	58				667		667
1988	110				1,911		1,911
1989	226				597		597
1990	146				599	589	1,188
1991	136				484	418	902
1992	57				11	59	70
1993	490			5,532	503	535	1,038
1994	172			6,451	506	2,119	2,625
1995	220				702	1,288	1,990
1996	101				72	439	511
1997	367				701	563	1,264
1998	302				922	560	1,482
1999	88				12	320	332
2000	169				657	2,561	3,218
2001	419				1,019	575	1,594
2002	65				2,473	1,630	4,103
2003	53				1,421	393	1,814
2004	0				4,652	1,045	5,697
2005	305				1,464	1,883	3,347
2006	47				2,389	1,750	4,139
2007	50				725	1,150	1,875
2008	0				1,890	1,029	2,919
2009	[l]	150	440		1,331	1,193	2,524
2010	[l]				242	420	662
2011	[l]		23		261	229	490
2012	[l]		[e]		213 [g]	495	708
1981-2010 Ave	153	-	-	-	1,040	977	1,830
2001-2010 Ave	117	-	-	-	1,761	1,107	2,867
2006-2010 Ave	25	-	-	-	1,315	1,108	2,424
SEG range					450-700		

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Table 35.–Page 3 of 3.

Note: "-" = value can't be calculated due to limitations of the data.

[a] Foot surveys unless otherwise noted.

[b] Weir located at River Mile 34 in 1986 and 1988-1995; weir located at RM 71 from 1996-2010.

[c] 1982-1991 weir count plus stream survey; 1992, 1993 weir count; 1994-1996 and 2004-2008 and 2011 weir was removed on August 15 before the majority of the coho run. In 1997 the weir was out on September 1.

[d] Combination weir and foot survey. Weir was removed prior to completion of coho run.

[e] No survey conducted.

[f] Incomplete or partial count due to weir submersion.

[g] Count conducted late due to high water.

[h] Coho salmon counted below weir after it was pulled:
Fish Creek 2000-2010: 761 (2000), 800 (2001), 536 (2002), 911 (2003), 1,840 (2004), 825 (2005), 756 (2006), 2,750 (2007), 4,735 (2008), 452 (2009), 57 (2010), 872(2011).
Cottonwood Creek1999-2004: 20 (1999), 406 (2000), 604 (2001), 189 (2002), 85 (2003), 266 (2004)

[i] Beginning in 1999, the highest count of three counts occurred within a 2-week period.

[j] Weir discontinued.

[k] Poor counting conditions.

[l] Index discontinued after more than half the index area was destroyed by the Matanuska River .

Table 36.–Eastside Susitna River drainage coho salmon harvest by fishery, 1977-2012.

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
2003	2,918	635	1,090	938	1,908	220	3,361	421	2,508	3,984	602	18,585
2004	2,981	1,290	251	189	2,636	248	4,866	223	2,070	4,454	1,276	20,484
2005	4,255	1,103	369	340	2,337	267	2,592	288	2,493	3,359	68	17,471
2006	5,031	1,511	1,202	780	3,602	906	2,622	281	3,460	3,224	100	22,719
2007	3,625	853	253	185	2,707	75	2,017	149	1,318	2,166	116	13,464
2008	3,760	1,340	2,880	649	2,125	594	5,628	58	2,928	4,128	121	24,211
2009	3,232	1,027	525	607	1,594	635	3,087	320	816	3,114	1,713	16,670
2010	1,986	1,506	660	670	1,641	132	2,498	345	1,123	2,729	1,001	14,291
2011	2,055	189	755	129	762	64	780	196	1,046	1,895	1,169	9,040
2012	918	295	285	160	395	608	1,085	129	957	2,282	515	7,629
2006-2010 Average	3,151	1,182	1,080	528	2,017	359	3,308	218	1,546	3,034	738	17,159

[a] Talkeetna River and tributaries including Clear Creek.

[b] Includes lakes and streams.

Table 37.–Westside Susitna River drainage coho salmon harvest by fishery, 1977–2012.

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
2003	1,071	4,946		155	1,162	5,263	959	1,543	973	16,072
2004	1,827	4,440	586	149	1,283	6,106	1,880	959	555	17,785
2005	757	3,616	168	96	678	8,684	2,292	583	1,392	18,266
2006	119	6,042	837	105	3,040	6,330	1,433	1,127	1,441	20,474
2007	328	2,550	134	454	3,512	3,685	842	1,804	756	14,065
2008	10	3,426	714	227	3,563	4,147	567	1,511	961	15,126
2009	501	4,060	23	472	2,607	4,417	417	675	1,292	14,464
2010	214	5,690	112	200	3,679	4,572	322	681	775	16,245
2011	245	2,282	118	894	3,685	3,340	139	533	1,247	12,483
2012	237	1,358	149	158	2,406	2,775	696	444	1,211	9,434
2006-2010 Average	263	3,932	246	338	3,340	4,205	537	1,168	946	14,975

[a] Fish Lake drainage (Yentna River drainage).

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

Table 38.–Eastside and westside Susitna River drainage coho salmon escapement counts, 1981–2012.

	Westside Susitna Management Unit				Eastside Susitna Management Unit[a]					
Year	Yentna River[b]	Deshka River[c]	Rabideux Creek index	Total	Birch Creek index	Question Creek index	Answer Creek index	Total	Susitna River[d]	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 [c]	56	31,598	356	519	45	920	[e]	32,518
1999	37,933	4,563 [c]	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 [c]	[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
2005	76,890	47,887	[e]	124,777	1,014	537	35	1,586	[e]	126,363
2006	132,889	59,419 [c]	3063	195,371	883	299	270	1,452	[e]	196,823
2007	39,957	10,575	[e]	50,532	167	241	26	434	[e]	50,966
2008	33,934	12,724	10,043	56,701	798	273	382	1,453	[e]	58,154
2009	[j]	27,348	345 [i]	27,693	219 [i]	9 [i]	166 [i]	394	[e]	28,087
2010		10,393	161	10,554	117	41	2	160	[e]	10,714
2011		7,508 [c]	58	7,566	76	94	116	286	[e]	7,852
2012		6,825	[e]	6,825	276	75 [f]	[e]	351		7,176
Averages										
1981-2010	39,110	24,216	869	49,111	377	327	149	807	47,000	54,537
2001-2010	70,904	27,387	2,435	86,114	728	409	174	1,166		87,280
2006-2010	-	15,260	3,403	68,170	437	173	169	779		68,949

[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 (Davis 2000). All estimates from 1985-2008 are partial because Yentna River sonar shut down before the end of the coho run. Yentna River 2005 and 2006 coho salmon estimates reported by Westerman and Willette (2007a-b).

[c] Weir count. Deshka River weir locations: 1995 (rm 17) and 1997-2000 (rm 7). In 1998, 1999, 2002, 2006, and 2011 the weir was underwater for an extended time during coho season resulting in incomplete counts.

[d] Mark-recapture estimates of abundance upstream of Susitna River (rm 80). Source - (ADF&G 1981, 1983; Barrett et al. 1984).

[e] No survey conducted.

[f] Poor survey conditions.

[g] Beaver dam downstream of index area blocking passage of fish.

[h] Average includes only complete counts years at Deshka River weir (rm 7): 1997, 2000-2001, and 2003-2005.

[i] extreme low water conditions

[j] Bendix sonar discontinued.

Table 39.–West Cook Inlet drainage coho salmon harvest by fishery, 1977–2012.

Year	Chuitna River	Beluga River	Theodore River	Lewis River	Kustatan River	Polly Creek	Big River Lakes [a]	Silver Salmon Creek	Other Susitna R.- N. Foreland	Other South of N. Foreland	Other [b]	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
2003	1,467	426	225	197	3,967	190	2830	2269	429	1,611	628	14,239
2004	1,655	520	645	90	3,984	39	2648	1389	225	3,471	1103	15,769
2005	972	120	229	524	3,551		3916	1568	491	913	288	12,572
2006	531	313	282	177	3,556	73	3,953	997	360	1,538	160	11,940
2007	1,577	537	811	82	4,057	45	1,644	1,041	792	820	1,174	12,580
2008	1,401	490	31	29	3,868	285	3,560	356	122	967	3,564	14,673
2009	707	154	313	73	2,639	106	3,032	1,133	1,009	548	87	9,801
2010	257	244	178	77	2,832	79	2,667	714	451	971	960	9,430
2011	425	512	45	9	1,876	28	1,270	640	852	419	216	6,292
2012	770	338	116	27	2,136	0	1,634	419	909	974	0	7,323
2006-2010 Average	986	323	333	177	3,349	127	2,726	1,019	594	827	1,446	11,621

[a] Wolverine Creek and other tributaries of Big River Lakes.

[b] Includes lakes and streams. Beginning in 1999 includes saltwater shoreline.

Table 40.–Knik Arm drainage sockeye salmon harvest by fishery, 1977–2012.

Year	Little Susitna [a]	Knik River [b]	Eklutna Tailrace	Wasilla Creek	Cottonwood Creek	Big Lake [c]	Other [d]	Total
1977	888			274			414	1,576
1978	859			0			380	1,239
1979	1,478			0	1,525		613	3,616
1980	2,127			0	2,660		887	5,674
1981	1,619	450		0	3,245		766	6,080
1982	1,865	880		0	608		1268	4,621
1983	2,787	1,277		0	1,632		8601	14,297
1984	6,385	823	187	200	661		984	9,240
1985	2,894	1,037	142	120	1,179	109	131	5,612
1986	3,616	905	28	61	789	39	571	6,009
1987	3,513	1,105	254	18	869	1,087	1939	8,785
1988	2,310	1,928	200	36	346	2,037	1219	8,076
1989	2,315	1,322	204	98	683	2,900	1518	9,040
1990	891	2,219	29	19	271	2,238	921	6,588
1991	1,722	1,459	19	56	47	565	1100	4,968
1992	1,274	1,471	173	8	633	1,241	549	5,349
1993	2,487	1,041	211	134	453	598	1002	5,926
1994	1,809	1,258	133	76	807	476	523	5,082
1995	1,116	990	190	31	895	651	476	4,349
1996	2,286	1,077	84	42	444	68	306	4,307
1997	1,845	864	100	20	1,008	122	136	4,095
1998	872	1,220	57	212	2,906	154	78	5,499
1999	1,282	614	151	11	1,080	432	88	3,658
2000	3,661	1,543	764		1,118	21	429	7,536
2001	1,959	922	999		314	10	124	4,328
2002	2,133	1,268	529	12	319	147	211	4,619
2003	3,337	1,554	122	0	961	57	575	6,606
2004	2,776	2,499	491	33	719	400	230	7,148
2005	1,442	848	362	0	538	79	191	3,460
2006	1,556	2,173	289	260	279	0	65	4,622
2007	2,387	3,001	397	70	766	289	120	7,030
2008	1,699	4,187	81	30	672	26	215	6,910
2009	1,152	2,612	865	165	341	647	215	5,997
2010	1,257	1,139	689	242	256	632	0	4,215
2011	295	1,852	301	161	893	0	130	3,632
2012	621	1,704	101	59	193	1,618	127	4,423
2006-2010 Average	1,624	2,735	508	127	509	399	138	6,038

[a] Majority of harvest from Nancy Lake Creek.

[b] Knik River and tributaries including Jim Creek.

[c] Big Lake drainage streams.

[d] Includes Nancy Lake complex lakes, all marine, and miscellaneous lakes and streams.

Table 41.–Eastside Susitna River drainage sockeye salmon harvest by fishery, 1977–2012.

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
2003	147	63	0	0	74	27	267	105	116	1,574	361	0	2,734
2004	110	45	0	0	20	0	336	33	109	2,399	55	0	3,107
2005	85	91	0	0	84	0	113	0	24	1,280	0	0	1,677
2006	378	55	183	0	18	0	499	0	44	110	60	65	1,412
2007	90	201	0	0	45	0	89	0	0	952	93	0	1,470
2008	45	30	0	0	32	120	794	205	75	1,517	157	0	2,975
2009	96	13	36	0	48	17	184	299	50	6,137	444	0	7,324
2010	0	15	149	0	15	0	134	0	17	3,382	202	0	3,914
2011	185	0	0	15	0	0	0	186	56	1,458	247	0	2,147
2012	48	20	0	0	16	0	59	63	28	3,817	226	0	4,277
2006-2010 Average	58	65	46	0	35	34	300	126	36	2,997	224	0	3,921

[a] Talkeetna River and tributaries including Clear Creek and Larson Creek.

[b] Other includes lakes and streams for 1977–1982.

Table 42.–Westside Susitna River drainage sockeye salmon harvest by fishery, 1977–2012.

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
2003	138	0		137	6,900	162	233		1090	0	8,660
2004	0	154		247	1,977	392	339		249		3,358
2005	0	70		54	1,622	410	34		29		2,219
2006	66	92	11	48	214	0	195	0			626
2007	30	128	0	604	1,341	221	816	37	0	0	3,177
2008	0	0	0	141	737	197	246	107	0	0	1,428
2009	0	10	0	547	1,256	37	11	0	497	0	2,358
2010	0	33	0	560	407	20	424	0	61	0	1,505
2011	0	0	0	497	1,351	131	737	0	0	0	2,716
2012	0	0	0	231	669	0	111	0	107	0	1,118
2006-2010 Average	8	43		463	935	119	374		140	0	2,117

[a] Yentna River drainage.

[b] May include harvest from West Cook Inlet waters.

Table 43.–Northern Cook Inlet Management Area recreational harvest of sockeye salmon by management unit, 1977–2012.

Year	Knik Arm	Eastside Susitna	Westside Susitna	West Cook Inlet	Total
1977	1,576	3,594	2,786	6	7,962
1978	1,239	267	1,634	0	3,140
1979	3,616	1,020	1,557	0	6,193
1980	5,674	873	1,111	0	7,658
1981	6,080	833	1,408	48	8,369
1982	4,621	1,555	2,881	10	9,067
1983	14,297	3,221	3,549	466	21,533
1984	9,240	2,705	3,415	249	15,609
1985	5,612	1,465	2,302	461	9,840
1986	6,009	4,029	4,076	89	14,203
1987	8,785	2,046	2,427	272	13,530
1988	8,076	2,857	3,167	473	14,573
1989	9,040	2,527	2,307	529	14,403
1990	6,588	2,677	1,938	636	11,839
1991	4,968	2,897	3,083	765	11,713
1992	5,349	3,468	2,916	188	11,921
1993	5,926	4,137	2,161	2,355	14,579
1994	5,082	3,443	1,919	2,035	12,479
1995	4,349	3,682	2,106	1,304	11,441
1996	4,307	2,675	1,115	2,951	11,048
1997	4,095	5,851	3,109	2,174	15,229
1998	5,499	5,859	2,463	2,522	16,343
1999	3,658	4,608	5,279	2,990	16,535
2000	7,536	6,509	4,946	4,244	23,235
2001	4,328	6,776	6,311	3,150	20,565
2002	4,619	3,427	1,881	2,019	11,946
2003	6,606	2,734	8,660	4,708	22,708
2004	7,148	3,107	3,358	3,323	16,936
2005	3,460	1,677	2,219	4,025	11,381
2006	4,622	1,412	626	4,993	11,653
2007	7,030	1,470	3,177	8,187	19,864
2008	6,910	2,975	1,428	5,652	16,965
2009	5,997	7,324	2,358	4,261	19,940
2010	4,215	3,914	1,505	2,393	12,027
2011	3,719	2,459	3,413	4,412	14,003
2012	4,423	4,277	1,118	4,966	14,784
Average					
1977-2010	5,769	3,165	2,799	1,985	13,718
2006-2010	5,604	2,972	1,962	5,424	15,961

Table 44.–West Cook Inlet drainage sockeye salmon harvest by fishery, 1977–2012.

Year	Chuitna River	Theodore River	Lewis River	Kustatan River	Big River Lakes [a]	Susitna R.-N. Foreland	South of N. Foreland	Other [b]	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
2003	179	24	0	397	3,491	94	372	151	4,708
2004	23	0		89	2,793	294	23	101	3,323
2005	123			95	3,401	121	139	146	4,025
2006	0	11	0	95	3,980	306	458	143	4,993
2007	104	0	0	102	7,028	252	568	133	8,187
2008	0	0	0	429	4,436	238	393	156	5,652
2009	0	0	0	157	3,746	120	238	0	4,261
2010	0	0	0	176	837	57	1,247	76	2,393
2011	17	0	0	0	3,932	307	156	0	4,412
2012	0	0	0	0	4,474	144	80	268	4,966
2006-2010 Average	26	0		216	4,012	167	612	91	5,123

[a] Majority of harvest occurs at the mouth of Wolverine Creek.

[b] Includes lakes and streams. Beginning in 1999 includes saltwater shoreline.

Table 45.–Sockeye salmon escapement estimates from Northern Cook Inlet Management Area drainages by management unit, 1969–2012.

	Management Units																
	Knik Arm					Eastside Susitna		Westside Susitna							West Cook Inlet		
Year	Little Susitna R weir [a]	Fish Ck weir [b]	Cottonwood Ck weir	Wasilla Ck weir	Jim Ck weir [c]	Larson Lk weir	Stephan Lk weir	Yentna R sonar	Chelatna Lk weir	Judd Lk. weir	Shell Lk weir	Hewitt Lk weir	Byers Lk	Swan Lk	Crescent R sonar	Packers Ck weir [q]	Wolverine Ck [d]
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															
1979		68,739 [e]													87,000		
1980		62,828 [e, f]													91,000	16,477	
1981		50,479 [e, f]						139,401 [p]							41,000	13,024	17,822 [g]
1982		28,164 [f]						113,847 [p]							59,000	15,687	32,950 [g]
1983		118,797 [e, f]						104,414 [p]							92,000	18,403	18,189 [g]
1984		192,352 [e, f]				35,254 [h]		149,375 [p]							118,000	30,684	
1985		68,577 [e, f]				37,874 [h]		107,124 [p]							129,000	36,850	
1986		29,800 [e, f]				32,322 [h]		92,000			4,237 [i]				N/C	29,604	
1987		91,215 [e, f]				16,753 [h]		66,000							119,000	35,401	
1988	2,642	71,603 [e, f]						52,347							57,716	18,607	
1989	6,203	67,224 [e, f]						96,269							71,064	22,304	
1990		48,717 [e, f]						140,379				12,943 [j]			52,180	31,868	
1991		50,500 [e, f]						105,000							44,500	41,275	
1992		72,108 [e, f]						66,057							58,227	28,361	
1993		117,619 [e, f]			3,548			141,694	20,235 [k]						37,556	40,869	
1994	16,918	100,638 [e]			5,197			128,032	28,303 [k]						30,355	30,788	
1995	7,129	115,101 [e]						121,479	20,104 [k]						52,250	29,473	
1996		63,164 [e]						90,781	28,684 [k]						28,729	17,767	
1997		55,035 [e]	8,224			40,112		157,797	84,899 [k]						70,768	19,364	
1998		22,865 [e]	27,930	840		63,514		119,623	27,284 [k]	34,416					62,257	17,732	

-continued-

Table 45.–Page 2 of 2.

	Management Units																
	Knik Arm					Eastside Susitna		Westside Susitna							West Cook Inlet		
Year	Little Susitna R weir [a]	Fish Ck weir [b]	Cottonwood Ck weir	Wasilla Ck weir	Jim Ck weir [c]	Larson Lk weir	Stephan Lk weir	Yentna R sonar	Chelatna Lk weir	Judd Lk. weir	Shell Lk weir	Hewitt Lk weir	Byers Lk	Swan Lk	Crescent R sonar	Packers Ck weir [q]	Wolverine Ck [d]
1999		26,725 [e]	39,572	854		18,943		99,029							68,985	16,860	
2000		19,533 [e]	16,921	245		11,822		123,749							56,599	20,151	
2001		43,498 [e]	15,229	198				83,532							78,081	no count	
2002		90,482 [e]	6,791	1,354				78,430							62,833	no count	
2003		91,952 [e]	4,601	757				181,404							122,909	no count	
2004		22,157 [e]	3,127					71,281							103,183	no count	10,541 [l]
2005		14,215 [e]				9,959		36,921							125,787	22,000	15,625 [l, m]
2006		32,562 [e]				56,305		92,045	13,266	40,630	69,747	2,507	3,074		92,533	no count	2,000 [l, m]
2007		27,948 [e]				47,819	4,120	79,901	11,671	58,134	26,784		1,701	5,489	79,406	46,637	
2008		19,339 [e]				35,040	5,000	90,146	73,469	54,304	2,624		1,492	4,037	62,030	25,247	
2009		83,480 [e]				41,929		[n]	17,865	43,153	4,961				no count	16,473	
2010		126,836 [e]				20,324		[n]	37,784	18,361	2,222				86,333	no count	
2011		66,678				12,393		[n]	70,353	39,997	937				81,952	no count	
2012		18,823				16,708		[n]	36,577	18,303	No count				58,838	no count	
1979–2010 Ave		65,445	15,299	708	–	33,810	–	104,573	34,213	–	–	–	–	–	74,274	26,060	–
2001–2010 Ave	–	55,247	–	–	–	–	–	89,208	–	–	–	–	–	–	90,344	–	–
2006–2010 Ave	–	58,033	–	–	–	–	–	87,364	–	–	–	–	–	–	80,076	–	–
SEG		20,000–70,000				15,000–50,000			20,000–65,000	25,000–55,000					30,000–50,000	15,000–30,000	

Note: Dashes indicate value can't be computed due to limitations of the data. SEG = sustainable escapement goal. OEG = optimum escapement goal.

[a] Sources (Bartlett and Vincent-Lang 1989; Bartlett and Sonnichsen 1990; Bartlett 1996 a-b).
[b] Fish Creek weir locations: river mile (rm) 0.6 (1969–1982), about rm 7.5 (1983–1991), and rm 3.0 (1992–2006).
[c] Bartlett (Unpublished b-c).
[d] Tributary of Big River Lakes. Weir operated by Cook Inlet Aquaculture Association (CIAA) from 1981 to 1983. Remote camera operated by ADG&G from 2004 to 2006.
[e] Hatchery-reared sockeye salmon contributed to Fish Creek drainage escapements in 1979–1981 and 1983–2010.
[f] Foot survey counts below the Fish Creek weir site include in 1980–1993 data.
[g] CIAA 1981-1982, 1984.
[h] CIAA 1998b.
[i] CIAA 1987.
[j] CIAA 1991.
[k] CIAA 1998a.
[l] Incomplete count. Problems with the video cassette recording (VCR) tapes self-ejecting and the digital video recorder (DVR) camera system was down for two weeks in 2005. Problems with the DVR camera system continued in 2006, and it did not operate for most of the season.
[m] Includes 5,000 fish counted at the mouth in 2005 and 2,000 counted in 2006 on the day the camera was pulled.
[n] Bendix sonar counts discontinued.
[o] SEG of 90,000–160,000 and OEG of 75,000–185,000 discontinued after 2008.
[p] Davis 2000.
[q] Remote camera used to count fish beginning 2005.

Table 46.–Bodenburg Creek (Knik River drainage) salmon escapement index surveys, 1968–2012.

			Escapement index	
Year	Month	Date	Sockeye salmon	Chum salmon
1968	Aug	ND	350	0
1969	Sept	ND	125	0
1970	Aug	25	83	0
1971	Sept	5	110	0
1972	Aug	31	464	0
1973	Aug	27	208	0
1974	Sept	6	169	0
1975	Sept	3	148	0
	Sept	19	0	3
1976	Sept	8	111	0
1977	Aug	29	178	0
1978	Aug	29	541	0
1979	Aug	29	321	0
1980	Aug	25	483	0
1981	Aug	19	260	0
1982	Sept	17	722	0
1983	Aug	31	359	0
1984	ND	ND	ND	ND
1985	Sept	5	232	0
1986	Sept	4	119	120
1987	Sept	3	77	1
1988	ND	ND	ND	ND
1989	Aug	31	190	6
1990	Sept	7	195	3
1991	Aug	27	0	1
	Sept	6	160	0
1992	Aug	29	54	0
	Sept	2	66	4
1993	Aug	24	212	14
1994	Aug	25	220	0
	Sept	6	0	93
1995	Aug	28	156	219
1996	Sept	4	111	0
1997	Aug	28	142	4
1998	Aug	21	156	13
1999	Aug	30	257	21
2000	Aug	28	228	5
2001	Aug	29	232	8
2002	Aug	30	320	25
2003	Aug	22	402	3
2004	Aug	26	283	0
2005	Aug	29	269	0
2006	Aug	28	367	6
2007	Aug	24	164	2
2008	Aug	28	442	0
2009	Aug	26	540	0
2010	Aug	30	722	24
2011	Sept	2	493	1
2012	Sept	10	60	18
1968-2010 Average			243	13
2001-2010 Average			374	7
2006-2010 Average			447	6

Note: ND = no data because no attempts were made to collect it.

Table 47.–Northern Cook Inlet Management Area recreational catch and harvest of rainbow trout by management unit, 1977-2012.

	Northern Cook Inlet Management Area													
	Knik Arm		Eastside Susitna		Westside Susitna		West Cook Inlet		Total		Southcentral Region		Statewide	
Year	Catch[a]	Harvest	Catch[a]	Harvest	Catch[a]	Harvest	Catch[a]	Harvest	Catch[a]	Harvest	Harvest	% NCIMA	Number	% NCIMA
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
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
2004	70,897	17,738	46,130	1,924	42,969	1,629	1,258	177	161,254	21,468	56,082	38.3	85,136	25.2
2005	59,870	14,367	36,188	793	46,575	339	791	196	143,424	15,695	39,790	39.4	60,826	25.8
2006	48,064	13,524	38,862	1,590	44,018	1,027	1,538	170	132,482	16,311	33,119	49.2	53,086	30.7
2007	40,742	10,613	64,077	840	32,036	619	2,124	216	138,979	12,288	30,361	40.5	50,231	24.5
2008	67,585	15,537	36,798	1,521	18,063	744	1,276	106	123,722	17,908	36,334	49.3	49,159	36.4
2009	39,983	7,981	36,707	691	27,455	865	1,322	10	105,467	9,547	23,365	40.9	35,976	26.5
2010	42,267	10,845	39,958	1,826	20,232	434	746	89	103,203	13,194	25,712	51.3	38,941	33.9
2011	44,805	9,368	63,725	977	38,060	341	843	43	147,433	10,729	23,073	46.5	32,098	33.4
2012	29,680	8,294	27,446	623	24,718	179	376	102	82,220	9,198	21,912	42.0	29,942	30.7
Averages														
1977-2011	70,320	24,733	37,927	4,233	31,733	4,434	1,785	434	141,765	33,834	87,370	38.7	123,678	27.4
2007-2011	47,076	10,869	48,253	1,171	27,169	601	1,262	93	123,761	12,733	27,769	45.7	41,281	30.9

Table 48.–Eastside Susitna River drainage rainbow trout harvest by fishery, 1977–2012.

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
2003	61	65	194	31	163	54	0	0	0	299	305	1409	2,581
2004	144	23	0	0	58	70	0	47	0	157	259	1166	1,924
2005	32	64	11	0	51	22	0	0	0	61	101	451	793
2006	103	94	73	22	52	34	0	12	0	125	43	1032	1,590
2007	10	71	0	0	157	0	0	0	0	186	216	200	840
2008	60	210	61	0	79	138	0	0	178	511	31	253	1,521
2009	62	96	0	0	0	18	0	0	13	34	167	366	756
2010	84	135	9	20	288	239	0	0	0	85	97	869	1,826
2011	0	0	101	202	88	0	0	0	0	154	102	411	1,058
2012	0	0	0	0	21	38	0	50	50	78	53	333	623
2007-2011 Average	43	102	34	44	122	79	0	0	38	194	123	420	1,200

[a] Talkeetna River and tributaries including Clear Creek.

[b] Includes lakes and streams, 1977-1982.

Table 49.–Westside Susitna River drainage rainbow trout catch by fishery, 1990-2012.

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
2003	313	5,868		768	510	22,460	176	9,721	511	0	40,327
2004	220	5,868		1,514	381	22,130	2411	9,000	150	1295	42,969
2005	64	3,161		2,521	838	21,197	260	17,060	1,433	41	46,575
2006	402	9,635		1,752	195	28,013	395	2,883	707	36	44,018
2007	106	3,905	58	3,728	663	11,405	173	11,846	152	0	32,036
2008	0	2,070	0	1,974	268	10,267	624	2,249	580	31	18,063
2009	34	3,093	0	2,723	812	10,217	479	6,331	3,766	0	27,455
2010	0	1,334	0	1,886	326	10,011	122	5,242	734	1,130	20,785
2011	43	2,156	101	1,376	53	23,420	0	8,647	2,520	852	39,168
2012	0	556	24	1,238	0	12,321	204	7,109	3,249	17	24,718
Average 2007-2011	37	2,512		2,337	424	13,064	280	6,863	1,550	403	27,501

[a] Fish Lake drainage (Yentna River drainage).

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

Table 50.–Knik Arm drainage rainbow trout harvest by fishery, 1977–2012

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
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
2004	93	82	0	290	23	264	1,527	4,423	626	842	175	79	226	234	517	26	525	21	7,765	17,738
2005	51	22	88	44	0	535	1,358	3,657	752	391	155	44	66	395	144	22	771	120	5,752	14,367
2006	166	0	0	115	15	115	1,566	2,419	1,005	996	60	24	521	132	147	231	1,032	19	4,961	13,524
2007	197	0	0	802	11	131	573	1,903	332	79	236	29	117	0	69	94	1,078	53	4,909	10,613
2008	147	0	19	199	53	628	2,156	3,696	785	64	49	319	394	107	143	71	174	18	6,515	15,537
2009	79	0	52	9	30	89	893	2,497	299	148	61	100	216	502	54	88	274	0	2,590	7,981
2010	203	0	0	88	117	95	1,520	1,916	551	0	117	616	596	113	15	178	15	240	4,465	10845
2011	13	24	0	61	0	289	2,095	1,637	887	101	0	0	385	290	81	61	40	56	3,490	9,510
2012	33	0	0	0	0	140	821	973	492	175	488	32	0	0	182	111	0	146	4,701	8,294
2007-2011 Average	128	5	14	232	42	246	1,447	2,330	571	78	93	213	342	202	72	98	316	73	4,394	10,897

[a] Knik River and tributaries including Jim Creek.
[b] Big Lake drainage streams.
[c] Includes lakes and streams, 1977–1982.

Table 51.–Knik Arm drainage rainbow trout catch by fishery, 1990–2012.

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	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
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
2004	1,368	1,414	0	726	1,239	1,720	5,030	19,991	3,253	2,330	1554	79	862	1,531	587	119	4,184	106	24,804	70,897
2005	772	259	221	628	33	1,468	4,833	13,823	5,937	1,727	464	376	0	1,828	199	508	1,994	485	24,315	59,870
2006	1,583	944	0	1,500	159	224	5,221	12,348	2,975	2,896	360	271	576	827	202	709	2,828	62	14,379	48,064
2007	995	0	94	3,612	213	657	1,851	9,737	3,039	695	870	190	204	278	748	709	2,371	154	14,325	40,742
2008	792	0	187	885	53	2,319	6,631	16,838	5,381	755	637	810	2,002	145	933	1,123	8,530	935	18,629	67,585
2009	644	34	496	255	245	774	4,867	14,712	2,963	777	249	118	277	1,687	274	407	1,711	52	9,441	39,983
2010	1,071	118	29	440	2,292	271	3,774	10,736	2,699	498	323	821	882	158	69	1,046	695	189	16,156	42,267
2011	352	35	101	162	20	353	5,444	13,609	5,278	455	89	223	1,174	411	613	202	73	283	10,650	39,527
2012	288	0	13	33	338	353	3,611	5,902	1,858	576	803	49	0	0	538	1,090	283	347	13,799	29,881
2007-2011 Average	771	37	181	1,071	565	875	4,513	13,126	3,872	636	434	432	908	536	527	697	2,676	323	13,840	46,021

[a] Knik River and tributaries including Jim Creek.

[b] Big Lake drainage streams.

Table 52.–Westside Susitna River drainage rainbow trout harvest by fishery, 1977–2012.

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
2003	0	368		154	48	561	77		217	0	1,425
2004	0	938		0	23	587	27		54	0	1,629
2005	0	60		52	11	209	0		7	0	339
2006	0	523		96	39	159	198	0	0	12	1,027
2007	0	185	29	52	117	236	0	0	0	0	619
2008	0	419	0	134	10	153	13	0	0	15	744
2009	0	562	0	86	122	27	0	0	43	25	865
2010	0	122	0	57	0	154	0	0	0	101	434
2011	0	0	20	119	27	143	0	26	72	107	514
2012	0	61	11	0	0	76	0	0	31	0	179
2007-2011 Average	0	258		90	55	143	3		23	50	635

[a] Fish Lake drainage (Yentna River drainage).

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

Table 53.–Eastside Susitna River drainage rainbow trout catch by fishery, 1990–2012.

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
2003	13,750	3,576	2,315	344	5,289	1,691	12,393	54	97	7,875	5,191	6,865	59,440
2004	10,920	2,293	698	58	1,869	1,835	10,171	540	351	6,384	6,961	4,050	46,130
2005	10,863	2,878	961	11	2,218	685	6,151	133	183	6,772	1,759	3,574	36,188
2006	10,032	1,744	993	46	2,716	1,121	7,610	60	24	7,653	4,997	1,866	38,862
2007	20,905	2,800	163	191	4,244	506	16,740	0	12	8,766	9,005	745	64,077
2008	8,235	2,597	1,068	78	1,769	746	8,014	909	632	7,889	3,649	1,212	36,798
2009	14,700	1,707	558	269	1,137	237	6,474	26	30	6,482	4,156	1,713	37,489
2010	10,689	2,260	24	20	5,495	1,567	6,409	0	14	5,266	4,746	3,468	39,958
2011	19,557	1,109	729	1,242	5,709	976	9,836	91	53	6,769	8,125	3,523	57,719
2012	8,207	602	326	50	870	1,061	8,590	210	441	3,730	2,749	610	27,446
2007-2011 Average	14,817	2,095	508	360	3,671	806	9,495	205	148	7,034	5,936	2,132	47,208

[a] Talkeetna River and tributaries including Clear Creek.

Table 54.–Northern Cook Inlet Management Area recreational catch and harvest of northern pike by management unit, 1977–2012.

	Northern Cook Inlet Management Area[a]													
	Knik Arm[b]		Eastside Susitna		Westside Susitna		West Cook Inlet		Total		Soutcentral Region		Statewide	
Year	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
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
2004	11,179	4,961	119	91	21,878	6,626	704	493	33,880	12,171	17,122	71.1	28,799	42.3
2005	11,347	6,160	513	104	25,704	4,889	330	153	37,894	11,306	13,802	81.9	24,819	45.6
2006	14,754	6,664	312	137	15,685	4,318	799	285	31,550	11,404	13,261	86.0	18,184	62.7
2007	6,013	3,050	2,833	1,355	12,640	3,526	225	225	21,711	8,156	11,062	73.7	17,174	47.5
2008	3,612	1,752	4,750	468	15,776	5,683	229	96	24,367	7,999	9,270	86.3	12,959	61.7

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Table 54.–Page 2 of 2.

	Northern Cook Inlet Management Area[a]													
	Knik Arm[b]		Eastside Susitna		Westside Susitna		West Cook Inlet		Total		Soutcentral Region		Statewide	
Year	Catch[c]	Harvest	Catch[c]	Harvest	Catch[c]	Harvest	Catch[c]	Harvest	Catch[c]	Harvest	Harvest	% NCIMA	Number	% NCIMA
2009	10,213	4,647	1,318	385	14,389	3,368	1,983	88	27,903	8,488	12,919	65.7	18,763	45.2
2010	6,031	3,372	6,935	1,033	15,826	5,283	765	225	29,557	9,913	11,093	89.4	16,353	60.6
2011	7,930	5,963	3,508	2,138	3,787	2,969	37	19	15,262	11,089	11,093	100.0	16,353	67.8
2012	5,742	3,231	3,959	79	9,686	4,505	0	0	19,387	7,815	8,580	91.1	12,999	60.1
1977-2011 Average	9,397	2,608	1,251	367	16,459	2,938	408	88	27,288	5,833	7,648	67.2	19,202	30.1
2007-2011 Average	6,760	3,757	3,869	1,076	12,484	4,166	648	131	23,760	9,129	11,087	83.0	16,320	56.6

[a] Prior to 1985, SWHS harvest estimates for northern pike in the Knik Arm drainage area may have been included in the "other" (fish species) category.

[b] No reported catch or harvest from Eastside Susitna or West Cook Inlet management units prior to 1993.

Table 55.–Knik Arm drainage northern pike harvest by fishery and total catch, 1985–2012.

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	0	156	0	156	0
1986	0	0	0	0	0	0	458	0	458	0
1987	0	0	0	0	0	0	924	0	924	0
1988	0	0	0	0	0	0	364	0	364	0
1989	0	0	0	0	0	0	863	0	863	0
1990	0	0	0	0	0	0	754	0	754	2,593
1991	0	0	0	0	0	227	2,406	76	2,709	7,021
1992	0	0	0	0	0	427	2,101	77	2,605	7,097
1993	0	0	0	0	0	479	1,438	185	2,102	10,141
1994	0	0	0	0	0	539	789	0	1,328	2,816
1995	29	0	0	0	0	471	0	22	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
2003	0	0	820	0	24	1,246	1,543	393	4,026	14,094
2004	30	0	2,726	0	0	1,665	1,918	287	6,626	11,179
2005	0	0	1,889	0	12	1,843	1,448	968	6,160	11,347
2006	0	0	2,418	0	71	1,825	2,203	147	6,664	14,754
2007	0	0	825	0	236	1,280	1,749	240	4,330	8,658
2008	0	0	466	0	98	444	1,083	105	2,196	8,011
2009	88	0	547	27	923	245	2,621	441	4,647	10,827
2010	0	0	357	0	215	945	2,379	421	4317	6,031
2011	0	0	2,092	0	297	909	712	4,954	8,964	17,928
2012	0	0	1,002	0	20	563	1,551	95	3,231	6,462
2007-2011 Average	18	0	857	5	354	765	1,709	1,232	4,891	10,291

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.

Table 56.–Westside Susitna River drainage northern pike harvest by fishery, 1977–2012.

Year	Alexander Creek [a]	Deshka River	Peters Creek	Lake Creek	Fish Creek [b]	Trapper Lake	Other Streams [c]	Other Lakes [c]	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
2003	885	143	0	198	792	255	1,190	352	3,815
2004	1,707	336	0	25	329	202	2,147	448	5,194
2005	925	240	0	124	532	1,659	1,209	200	4,889
2006	588	505	0	344	300	923	1,251	407	4,318
2007	677	277	0	0	964	1138	145	325	3,526
2008	173	168	0	199	177	4460	377	129	5,683

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Table 56.–Page 2 of 2.

Year	Alexander Creek [a]	Deshka River	Peters Creek	Lake Creek	Fish Creek [b]	Trapper Lake	Other Streams [c]	Other Lakes [c]	Total
2009	1,406	455	0	30	229	791	95	1,109	4,115
2010	655	240	0	20	387	880	631	2,470	5,283
2011	3,494	258	0	94	192	377	2,721	4,287	11,423
2012	10	64	0	82	935	753	767	1,894	4,505
2007-2011 Average	1,281	280	0	69	390	1,529	794	1,664	6,006

[a] Alexander creek drainage (Alexander Lake, Sucker Lake).

[b] Fish Lake drainage (Yentna River drainage).

[c] May include harvest from West Cook Inlet waters through 1998.

Table 57.–Number of fish stocked in Northern Cook Inlet Management Area waters, 2010–2012.

Species/Life Stage/Site	2010[a] (Actual)	2011[ab] (Actual)	2012[a] (Actual)	FTP #	Expiration Date
Chinook Salmon Anadromous Smolt					
Eklutna Tailrace (Knik River)	152,014	122,962	160,347	12A-0006	12/31/2017
Deception Creek	155,125	140,266	151,220	12A-0001	12/31/2019
Total	307,139	263,228	311,567		
Coho Salmon Anadromous Smolt					
Eklutna Tailrace (Knik River)	131,123	97,087	40,921	12A-0014	12/31/2017
Coho Salmon Landlocked Fingerlings					
Barley Lake	2,903	0	2,077	12A-0008	12/31/2017
Bear Paw Lake	5,440	3,600	4,500	12A-0008	12/31/2017
Carpenter Lake	40,700	8,377	38,428	12A-0008	12/31/2017
Christiansen Lake	18,907	12,160	31,376	12A-0008	12/31/2017
Diamond Lake	29,756	8,800	14,192	12A-0008	12/31/2017
Echo Lake	2,300	2,640	2,300	12A-0008	12/31/2017
Johnson Lake	1,000	0	1,000	12A-0008	12/31/2017
Kalmbach Lake	11,000	8,800	25,724	12A-0008	12/31/2017
Klaire Lake	900	720	934	12A-0008	12/31/2017
Loberg (Junction) Lake	0	0	1,100	12A-0008	12/31/2017
Lucille Lake	19,627	6,400	8,000	12A-0011	12/31/2017
Victor Lake	2,700	2,160	2,752	12A-0008	12/31/2017
Willow Lake	3,000	2,400	3,000	12-A-0010	12/31/2017
Total	138,233	56,057	135,383		
Chinook Salmon Landlocked Catchables					
Finger Lake	0	0	30,863	12A-0005	12/31/2017
Knik Lake	0	0	3,486	12A-0005	12/31/2017
Matanuska Lake	0	0	2,974	12A-0005	12/31/2017
Memory Lake	0	0	2,167	12A-0005	12/31/2017
Total	0	0	39,490		

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Table 57.–Page 2 of 6.

Species/Life Stage/Site	2010[a] (Actual)	2011[ab] (Actual)	2012[a] (Actual)	FTP #	Expiration Date
Chinook Salmon Landlocked Fingerling					
Finger Lake	114,148	0	0	05A-0060	12/31/2014
Knik Lake	27,098	0	0	05A-0060	12/31/2014
Matanuska	67,160	0	0	05A-0060	12/31/2014
Memory Lake	0	0	0	05A-0060	12/31/2014
Total	208,406	0	0		
Rainbow Trout Landlocked Catchables					
Bruce Lake	2,086	0	992	11A-0020	12/31/2015
Canoe Lake	4,100	0	2,007	11A-0020	12/31/2015
Coyote	0	0	300	11A-0021	12/31/2015
Echo Lake	3,211	0	1,550	11A-0020	12/31/2015
Irene Lake	3,700	0	1,205	11A-0020	12/31/2015
Gate Lake	0	0	973	11A-0021	12/31/2015
Kashwitna	0	0	3,700	11A-0021	12/31/2015
Kepler/Bradley Lake	8,848	1,734	4,989	11A-0020	12/31/2015
Knik Lake	4,295	525	5,672	11A-0020	12/31/2015
Knob Lake	0	0	2,912	11A-0020	12/31/2015
Loberg (Junction) Lake	2,200	0	990	11A-0020	12/31/2015
Long Lake (Mile 86 Glenn Hwy.)	7,494	0	3,539	11A-0020	12/31/2015
Lucille Lake	0	0	6,413	11A-0023	12/31/2015
Matanuska Lake	10,010	0	5,937	11A-0020	12/31/2015
Meirs Lake	2,600	0	1,212	11A-0020	12/31/2015
Memory Lake	5,154	0	2,681	11A-0020	12/31/2015
Mile 180 Lake	0	0	2,822	11A-0021	12/31/2015
North Knob Lake	0	0	685	11A-0020	12/31/2015
Ravine Lake	4,320	0	3,468	11A-0020	12/31/2015
Reflections Lake	0	0	600	11A-0020	12/31/2015
Rocky Lake	2,209	0	1,385	11A-0020	12/31/2015
Slipper (Eska) Lake	0	0	1,670	11A-0021	12/31/2015
South Rolly Lake	0	0	5,315	11A-0023	12/31/2015
Tanaina Lake	0	0	2,502	11A-0023	12/31/2015
Walby Lake	0	0	1,500	11A-0021	12/31/2015
Weiner Lake	0	0	1,987	11A-0021	12/31/2015
Willow Lake	0	0	2,381	11A-0021	12/31/2015
Total	60,227	2,259	69,387		

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Table 57.–Page 3 of 6.

Species/Life Stage/Site	2010[a] (Actual)	2011[ab] (Actual)	2012[a] (Actual)	FTP #	Expiration Date
Rainbow Trout Landlocked Fingerlings					
Barley Lake	1,700	0	4,250	11A-0023	12/31/2015
Bear Paw Lake	6,165	2,280	5,000	11A-0023	12/31/2015
Bench Lake	0	1700	0	11A-0023	12/31/2015
Benka	6,066	7,493	0	11A-0023	12/31/2015
Beverly Lake	4,200	4,200	5,200	11A-0024	12/31/2015
Big Beaver Lake	16,100	16,236	16,100	11A-0024	12/31/2015
Boot Lake	2,933	0	0	11A-0024	12/31/2015
Brocker lake	2,250	2,100	4,250	11A-0024	12/31/2015
Carpenter Lake	22,371	21,653	16,660	11A-0023	12/31/2015
Caswell #3 Lake	3,000	3,000	4,250	11A-0025	12/31/2015
Christiansen Lake	11,435	18,257	9,860	11A-0023	12/31/2015
Crooked Lake	10,900	10,378	0	11A-0024	12/31/2015
Crystal Lake	17,300	18,115	17,300	11A-0025	12/31/2015
Dawn Lake	2,400	2,526	3,000	11A-0025	12/31/2015
Diamond Lake	13,500	13,905	15,000	11A0023	12/31/2015
Echo Lake	0	5,200	0	N/A	12/31/2015
Farmer Lake	1,000	1,100	935	11A-0023	12/31/2015
Finger Lake	58,982	33,408	55,315	11A-0023	12/31/2015
Florence Lake	5,500	5,700	5,499	11A-0023	12/31/2015
Gate Lake	1,000	0	0	N/A	12/31/2015
Golden Lake	1,485	1,500	3,000	11A-0023	12/31/2015
Goober Lake	0	0	0	11A-0023	12/31/2015
Homestead Lake	1,700	1,832	3,200	11A-0025	12/31/2015
Honeybee Lake	7,714	6,813	6,800	11A-0023	12/31/2015
Ida Lake	5,400	5,100	4,600	11A-0023	12/31/2015
Johnson	0	0	0	11A-0023	12/31/2015
Kalmbach Lake	12,150	12,500	12,500	11A-0023	12/31/2015
Kepler/Bradley Lake	8,848	2,673	0	N/A	12/31/2015
Knob Lake	2,500	2,500	0	11A-0023	12/31/2015
Lalen Lake	9,200	9,200	18,093	11A-0024	12/31/2015
Little Beaver Lake	4,400	4,442	5,400	11A-0024	12/31/2015
Little Lonely Lake	8,433	8,703	8,400	11A-0023	12/31/2015

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Table 57.–Page 4 of 6.

Species/Life Stage/Site	2010[a] (Actual)	2011[ab] (Actual)	2012[a] (Actual)	FTP #	Expiration Date
Loberg (Junction) Lake	0	2970	0	N/A	12/31/2015
Long Lake (K/B)	5,400	7,000	5,400	11A-0023	12/31/2015
Long Mile 86	40,000	9,051	0	11A-0023	12/31/2015
Loon Lake	14,300	14,300	16,000	11A-0025	12/31/2015
Lorraine Lake	13,500	12,760	11,220	11A-0023	12/31/2015
Lucille Lake	2,500	2,500	0	11A-0023	12/31/2015
Lynne Lake	10,028	11,032	8,000	11A-0023	12/31/2015
Marion Lake	11,250	11,380	11,300	11A-0023	12/31/2015
Meirs Lake	2,000	0	0	11A-0023	12/31/2015
Morvro Lake	4,500	0	4,096	11A-0025	12/31/2015
North Friend Lake	8,100	7,867	7,225	11A-0024	12/31/2015
North Rolly Lake	5,900	12,200	6,500	11A-0024	12/31/2015
Peggy Lake	4,800	0	4,080	11A-0023	12/31/2015
Reed Lake	2,000	2,000	3,000	11A-0023	12/31/2015
Rhein Lake	9,400	10,200	11,100	11A-0024	12/31/2015
Ruby Lake	2,400	0	0	11A-0024	12/31/2015
Seventeenmile Lake	31,571	10,000	13,000	11A-0023	12/31/2015
Seymour Lake	22,300	22,300		11A-0025	12/31/2015
Slipper (Eska) Lake	2,500	2,500	0	11A-0023	12/31/2015
South Friend Lake	5,600	5,645	6,800	11A-0024	12/31/2015
Threemile Lake	3,000	0	0	11A-0024	12/31/2015
Tigger Lake	2,566	2,570	3,400	11A-0023	12/31/2015
Twin Island Lake	15,100	14,596	6,800	11A-0024	12/31/2015
Vera Lake	11,100	10,900	11,100	11A-0024	12/31/2015
Visnaw Lake	13,100	13,100	13,100	11A-0024	12/31/2015
Walby Lake	2,500	2,475	1,500	11A-0023	12/31/2015
Weiner Lake	2,500	2,500	0	11A-0024	12/31/2015
West Beaver	8,250	8,260	8,250	11A-0024	12/31/2015
West Sunshine Lake	4,500	4,500	3,825	11A-0024	12/31/2015
Wishbone Lake	0	2600	0	11A-0024	12/31/2015
Wolf Lake	0	9,207	10,000	11A-0025	12/31/2015
"X" Lake	5,100	0	5,100	11A-0023	12/31/2015
"Y" Lake	3,966	4,000	4,250	11A-0023	12/31/2015
Total	518,363	440,927	399,658		

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Table 57.–Page 5 of 6.

Species/Life Stage/Site	2010[a] (Actual)	2011[ab] (Actual)	2012[a] (Actual)	FTP #	Expiration Date
Arctic Grayling Landlocked Fingerling					
Canoe Lake	4,000	9,000	0	12A-0055	12/31/2012
Finger Lake	8,000	18,000	0	12A-0055	12/31/2012
Florence Lake	1,000	2,250	0	12A-0055	12/31/2012
Ida Lake	3,703	8,325	0	12A-0055	12/31/2012
Kepler/Bradley Lake	3,000	6,750	0	12A-0055	12/31/2012
Knik Lake	2,775	0	0	12A-0055	12/31/2012
Lorraine Lake	5,100	0	0	12A-0055	12/31/2012
Meirs Lake	5,000	9,000	0	12A-0055	12/31/2012
Reed Lake	1,000	2,250	0	12A-0055	12/31/2012
Total	33,578	55,575	0		
Arctic Char Landlocked Catchables					
Benka Lake	0	1,000	0	010A-0110	12/31/2014
Carpenter Lake	1,869	0	1,448	010A-0110	12/31/2014
Echo Lake	1,706	0	554	010A-0110	12/31/2014
Finger Lake	0	2,631	0	010A-0110	12/31/2014
Irene Lake	0	776	0	010A-0110	12/31/2014
Johnson Lake	300	0	305	010A-0110	12/31/2014
Long Lake (Mile 86 Glenn Hwy.)	3,637	164	2,578	010A-0110	12/31/2014
Lynne Lake	800	0	859	010A-0110	12/31/2014
Marion Lake	0	910	0	010A-0110	12/31/2014
Matanuska Lake	0	1,631	437	010A-0110	12/31/2014
Memory Lake	400	0	440	010A-0110	12/31/2014
Prator Lake	500	0	0	010A-0110	12/31/2014
Rush Lake	0	0	300		
Seventeenmile Lake	0	951	0	010A-0110	12/31/2014
Total	9,212	8,063	6,921		

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Table 57.–Page 6 of 6.

Species/Life Stage/Site	2010[a] (Actual)	2011[ab] (Actual)	2012[a] (Actual)	FTP #	Expiration Date
Arctic Char Landlocked					
Fingerlings					
Carpenter Lake	3,754	0	0	10A-0010	12/31/2014
Finger Lake	0	5902	10,783	10A-0010	12/31/2014
				10A-0010	12/31/2014
Irene Lake	0	0	0	10A-0010	12/31/2014
Johnson Lake	0	0	0	10A-0010	12/31/2014
Long Lake (Mile 86 Glenn Hwy.)	38,902	34,737	0	10A-0010	12/31/2014
			0	10A-0010	12/31/2014
Lynne Lake	0	0	0	10A-0010	12/31/2014
Matanuska Lake	0	3,068	10,032	10A-0010	12/31/2014
Seventeenmile Lake	0	0	0	10A-0010	12/31/2014
Total	42,656	43,707	20,815		
Total Anadromous Stockings	438,262	491,438	352,488		
Total Landlocked Stockings	1,010,675	606,588	671,654		
Total Stockings	2,459,612	1,098,026	1,024,142		

[a] Size of catchables decreased to sub-catchbale size due to loss of hot water at hatchery.

[b] Catchable king salmon and rainbow trout are not available because of Elmendorf hatchery closure 2011.

%

Table 58.–Sport fish catch and harvest from stocked lakes in Northern Cook Inlet Management Area, 2012.

SWHS 53 fishing sites	Days fished[a]	% of effort	Landlocked salmon Catch	Landlocked salmon Harvest	Landlocked salmon % harvest	Arctic char Catch	Arctic char Harvest	Arctic char % harvest	Rainbow trout Catch	Rainbow trout Harvest	Rainbow trout % harvest	Arctic grayling Catch	Arctic grayling Harvest	Arctic grayling % harvest	Northern pike Catch	Northern pike Harvest	Northern pike % harvest	Total Catch	Total Harvest	Total % harvest
Bear Paw	292	0.0%	103	103														103	103	100%
Benka	194	0.7%																0	0	0%
Beverley	153	0.7%							514	171	100%							514	171	33%
Big Beaver	103	0.4%	0	0	0%						0%							0	0	0%
Bradley (Kepler Lk complex)	105	0.4%							51	0	0%							51	0	0%
Bruce	153	0.7%							685	257	38%							685	257	38%
Canoe (Kepler Lk complex)	335	1.4%							1,054	101	10%	0	0	0%				1,054	101	10%
Carpenter	263	1.1%	105	105	0%				372	266	72%							477	371	78%
Christiansen	332	1.4%	469	102	22%				572	162	28%							1,041	264	25%
Crooked	1,843	7.9%							375	58	15%							375	58	15%
Crystal (near Willow)	143	0.6%							11	0	0%							11	0	0%
Diamond	144	0.6%							150	84	0%							150	84	0%
Echo (Kepler Lk complex)	212	0.9%				0	0	0%	367	205	56%							367	205	56%
Eska (Slipper)	13	0.1%							27	0	0%							27	0	0%
Farmer	1,303	5.6%							754	343	45%							754	343	45%
Finger	2,439	10.4%	1,754	1,119	64%	119	110	92%	3,611	821	23%	0	0	0%	16	16	0%	5,500	2,066	38%
Florence	110	0.5%							188	17	0%							188	17	9%
Irene (Kepler Lk complex)	1,847	7.9%				0	0	0%	501	201	0%							501	201	40%
Kalmbach (also Baptist Lk)	961	4.1%	1,103	848	77%				803	488	61%							1,906	1,336	70%
Kepler	541	2.3%							494	153	31%	0	0	0%				494	153	31%
Knik	51	0.2%	0	0	0%				0	0	0%	0	0	0%	0	0	0%	0	0	0%
Knob	176	0.8%							134	100	0%			0%				134	100	0%
Little Beaver	26	0.1%							50	0	0%							50	0	0%
Loberg (Junction)	304	1.3%	158	126	0%				252	63	0%							410	189	0%
Long (Kepler Lk complex)	424	1.8%							1,769	0	0%							1,769	0	0%
Long (Mile 85 Glenn Hwy)	872	1.6%				748	80	11%	706	0	0%	0	0	0%				1,454	80	6%
Loon		1.6%	103	103	100%				17	0	0%							120	103	86%
Lorraine	636	2.7%							2,491	686	28%	50	0	0%				2,541	686	27%
Lucille	2,504	10.7%	0	0	0%				576	175	30%							576	175	30%
Lynne	62	0.3%				0	0	0%	67	67	100%							67	67	100%
Marion	0	0.0%				0	0	0%	0	0	0%							0	0	0%
Matanuska (Kepler Lk complex)	709	3.0%	502	147	0%	198	77	39%	1,049	229	22%							1,749	453	26%
Meirs (in Palmer)	272	1.2%							753	33	0%	403	47	0%				1,156	80	7%
Memory	168	0.7%	0	0	0%	0	0	0%	0	0	0%				0	0		0	0	0%

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%

Table 58.–Page 2 of 2.

SWHS 53 fishing sites	Days fished[a]	% of effort	Landlocked salmon Catch	Landlocked salmon Harvest	Landlocked salmon % harvest	Arctic char Catch	Arctic char Harvest	Arctic char % harvest	Rainbow trout Catch	Rainbow trout Harvest	Rainbow trout % harvest	Arctic grayling Catch	Arctic grayling Harvest	Arctic grayling % harvest	Northern pike Catch	Northern pike Harvest	Northern pike % harvest	Total Catch	Total Harvest	Total % harvest
Prator	121	0.5%													79	79	100%	79	79	100%
Ravine	390	1.7%							1,438	243	17%							1,438	243	17%
Reflections	335	1.4%							17	0	0%							17	0	0%
Rocky	180	0.8%							188	0	0%				0	0	0%	188	0	0%
Ruby	66	0.3%							42	42	100%							42	42	100%
Rush	0	0.0%							0	0	0%							0	0	0%
Seventeenmile	292	1.2%				32	32	0%	234	33	14%	0	0	0%				266	65	24%
Seymour (was Herring Lk)	1,187	5.1%							538	182	34%							538	182	34%
South Rolly (Nancy Lk Rec system)	489	2.1%							33	0	0%				158	0	0%	191	0	0%
Tigger (Talkeetna Lks)	219	0.9%							67	50	75%							67	50	75%
Vera	630	2.7%							171	0	0%							171	0	0%
Victor	103	0.4%	669	284	36%													669	284	42%
Visnaw	636	2.7%							167	33	20%							167	33	20%
Walby	123	0.5%							84	0	0%							84	0	0%
Weiner	391	1.7%							518	0	0%	112	0	0%				630	0	0%
Wishbone	41	0.2%							0	0	0%							0	0	0%
Wolf	302	1.3%							226	0	0%							226	0	0%
X & Y (Talkeetna Lks)	29	0.1%							21	0	0%							21	0	0%
Total	23,363	100%	4,863	2,834	58%	1,097	299	27%	22,232	5,280	24%	565	47	8%	253	95	38%	29,010	8,555	29%

Note: Catch = fish harvested plus fish released; Harvest = fish kept; Catch and harvest estimates from Statewide Harvest Survey (SWHS; Alaska Department of Fish and Game, Division of Sport Fish, Research and Technical Services, Anchorage, published database of survey estimates, accessed 10/7/2012. Project leader Gretchen Jennings).

[a] Days fished are not species-specific, but rather days fished for all species combined (including species not listed on this table.

Table 59.-Northern Cook Inlet Management Area lake stocking summary for nonanadromous fish, 2012.

LAKE STOCKED	SURFACE ACRES	DATE STOCKED	NUMBER STOCKED	BROODSTOCK (TREATMENT) [a]	2N/3N	HATCHERY	STOCKING SIZE in.	STOCKING METHOD [b]
Rainbow Trout								
Barley	19	8/29/2012	4,250	12 Swanson R	3N	WJHSFH	2.30	T/BU
Bearpaw	45	8/30/2012	5,000	12 Swanson R	3N	WJHSFH	2.20	T/BU
Benka	123	8/28/2012	5,950	12 Swanson R	3N	WJHSFH	2.30	T/BU
Beverly	42	8/23/2012	5,200	12 Swanson R	3N	WJHSFH	2.30	T/BU
Big Beaver	161	8/27/2012	16,100	12 Swanson R	3N	WJHSFH	2.30	T
Brocker	44.2	8/29/2012	4,250	12 Swanson R	3N	WJHSFH	2.30	T
Bruce	27	8/29/2012	992	11 Swanson R	3N	WJHSFH	8.00	T
Canoe	21	6/6/2012	2,001	11 Swanson R	2N MX	WJHSFH	8.50	T/BU
Carpenter	176	8/29/2012	16,660	12 Swanson R	3N	WJHSFH	2.30	T
Caswell #3	33	8/28/2012	4,250	12 Swanson R	3N	WJHSFH	2.30	T
Christiansen	179	8/28/2012	9,860	12 Swanson R	3N	WJHSFH	2.30	T
Coytote	2.4	6/14/2012	300	11 Swanson R	3N	WJHSFH	7.40	T
Crystal	132	8/3082012	17,300	12 Swanson R	3N	WJHSFH	2.30	T
Dawn	12	8/27/2012	3,000	12 Swanson R	3N	WJHSFH	2.30	T/BU
Diamond	139	8/27/2012	15,000	11 Swanson R	3N	WJHSFH	2.30	T
Echo	23	6/6/2012	1,550	11 Swanson R	3N	WJHSFH	7.40	T
Farmer	21	8/29/2012	935	11 Swanson R	3N	WJHSFH	2.30	T/BU
Finger	362	5/25/2012	30,494	11 Swanson R	2N MX	Ft. Richardson	3.60	T
		8/30/2012	24,821	12 Swanson R	2N MX	WJHSFH	2.20	T
Florence	55	8/30/2012	5,499	12 Swanson R	3N	WJHSFH	2.30	T/BU
Gate	8.5	8/23/2012	973	11 Swanson R	3N	WJHSFH	6.80	T
Golden	13	8/23/2012	3,000	12 Swanson R	3N	WJHSFH	2.30	T
Homestead	17	8/27/2012	3,200	12 Swanson R	3N	WJHSFH	2.30	T/BU
Honeybee	58	8/30/2012	6,800	12 Swanson R	3N	WJHSFH	2.20	T/BU
Ida	46	8/27/2012	4,600	12 Swanson R	3N	WJHSFH	2.30	T/BU
Irene	18	8/27/2012	1,205	11 Swanson R	3N	WJHSFH	8.00	T/BU
Kalmbach	125	8/23/2012	12,500	12 Swanson R	3N	WJHSFH	2.30	T
Kashwitna	161	6/14/2012	3,700	12 Swanson R	3N	WJHSFH	7.40	T
Kepler-Bradley	58	6/6/2012	1,073	11 Swanson R	2N MX	WJHSFH	8.50	T
		6/22/2012	2,072	11 Swanson R	2N MX	WJHSFH	8.30	T
		8/2/2012	1,844	11 Swanson R	2N MX	WJHSFH	8.70	T
Knik	50	6/1/2012	2,278	11 Swanson R	3N	WJHSFH	7.40	T
		8/2/2012	3,394	11 Swanson R	2N MX	WJHSFH	8.70	T
Knob	52	6/12/2012	2,912	11 Swanson R	3N	WJHSFH	7.60	T

-continued-

Table 59.-Page 2 of 5.

LAKE STOCKED	SURFACE ACRES	DATE STOCKED	NUMBER STOCKED	BROODSTOCK (TREATMENT) [a]	2N/3N	HATCHERY	STOCKING SIZE in.	STOCKING METHOD [b]
Rainbow Trout								
Lalen	92	5/25/2012	10,196	11 Swanson R	3N	Ft. Richardson	3.40	T
		8/30/2012	7,897	12 Swanson R	3N	WJHSFH	2.20	T
Little Beaver	44	8/27/2012	5,400	12 Swanson R	3N	WJHSFH	2.30	T
Little Lonely	56	8/30/2012	8,400	12 Swanson R	3N	WJHSFH	2.20	T
Loberg	11	5/23/2012	990	11 Swanson R	2N MX	WJHSFH	8.10	T
Long [K/B]	74	8/28/2012	5,400	12 Swanson R	3N	WJHSFH	2.30	T/BU
Long (Mi. 86)	106	6/22/2012	3,539	11 Swanson R	2N MX	WJHSFH	8.30	T
Loon	108	8/23/2012	16,000	12 Swanson R	3N	WJHSFH	2.30	T
Lorraine	132	8/29/2012	11,200	12 Swanson R	3N	WJHSFH	2.30	T/4W
Lucille	362	5/24/2012	6,413	11 Swanson R	3N	WJHSFH	7.50	T
Lynne	70	8/30/2012	8,000	12 Swanson R	3N	WJHSFH	2.20	T
Marion	113	8/27/2012	11,300	12 Swanson R	3N	WJHSFH	2.30	T/BU
Matanuska	62	5/10/2012	3,147	11 Swanson R	3N	Ft. Richardson	3.60	T
		5/23/2012	5,937	11 Swanson R	2N MX	WJHSFH	8.10	T
Meirs	17	6/1/2012	1,212	11 Swanson R	3N	WJHSFH	7.40	T
Memory	84	6/1/2012	2,681	11 Swanson R	3N	WJHSFH	7.40	T
Mile 180	30.6	6/18/2012	2,822	11 Swanson R	3N	WJHSFH	6.80	T/BU
Morvro	87	8/30/2012	4,096	11 Swanson R	3N	Ft. Richardson	2.30	T/BU
North Friend	81	8/29/2012	7,225	12 Swanson R	3N	WJHSFH	2.30	T/BU
North Knob	36.2	6/12/2012	685	11 Swanson R	3N	WJHSFH	7.60	T/BU
North Rolly	122	8/30/2012	6,500	11 Swanson R	3N	WJHSFH	2.30	T/BU
Peggy	53	8/28/2012	4,080	12 Swanson R	3N	WJHSFH	2.30	T/BU
Ravine	12	6/22/2012	1,347	11 Swanson R	2N MX	WJHSFH	8.30	T/BU
		8/28/2012	2,121	11 Swanson R	2N MX	WJHSFH	8.70	T/BU
Reed	20	8/27/2012	3,000	12 Swanson R	3N	WJHSFH	2.30	T/BU
Rhein	84	8/30/2012	11,100	11 Swanson R	3N	WJHSFH	2.20	T/BU
Rocky	59	5/23/2012	1,385	11 Swanson R	2N MX	Ft. Richardson	8.10	T
Seventeenmile	100	8/27/2012	13,000	12 Swanson R	3N	WJHSFH	2.30	T
Seymour	229	5/25/2012	26,434	11 Swanson R	3N	Ft. Richardson	3.40	T
		8/30/2012	12,410	12 Swanson R	3N	WJHSFH	2.20	T
Slipper	9	6/14/2012	1,670	11 Swanson R	3N	WJHSFH	7.40	T
South Friend	56	8/28/2012	6,800	12 Swanson R	3N	WJHSFH	2.30	T/BU
South Rolly	108	5/24/2012	5,315	11 Swanson R	3N	WJHSFH	7.50	T
Tanaina	109	6/20/2012	2,502	11 Swanson R	3N	WJHSFH	7.50	T/BU
Tigger	19	8/28/2012	3,400	12 Swanson R	3N	WJHSFH	2.30	T/BU

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Table 59.-Page 3 of 5.

LAKE STOCKED	SURFACE ACRES	DATE STOCKED	NUMBER STOCKED	BROODSTOCK (TREATMENT) a	2N/3N	HATCHERY	STOCKING SIZE in.	STOCKING METHOD b
Rainbow Trout								
Twin Island	151	8/29/2012	6,800	12 Swanson R	3N	WJHSFH	2.30	T/4W
Vera	111	8/30/2012	11,100	12 Swanson R	3N	WJHSFH	2.20	T/BU
Visnaw	131	8/23/2012	13,100	12 Swanson R	3N	WJHSFH	2.30	T
Walby	54	6/20/2012	1,500	11 Swanson R	3N	WJHSFH	6.80	T
Weiner	21	6/12/2012	1,987	11 Swanson R	3N	WJHSFH	7.60	T
West Beaver	103	8/27/2012	8,250	12 Swanson R	3N	WJHSFH	2.30	T
West Sunshine	22	8/28/2012	3,825	12 Swanson R	3N	WJHSFH	2.30	T/BU
Willow	143	6/14/2012	2,381	11 Swanson R	3N	WJHSFH	7.40	
Wolf	62	8/27/2012	10,000	12 Swanson R	3N	WJHSFH	2.30	T/BU
"X"	101	8/28/2012	5,100	12 Swanson R	3N	WJHSFH	2.30	T/BU
"Y"	40	8/28/2012	4,250	12 Swanson R	3N	WJHSFH	2.30	T/BU
Total 72 Lakes	4,683		514,860					

2012	Diploid	2012	Triploid
Catchables	25,703	Catchables	43,078
Fingerling	55,315	Fingerling	390,764
Total:	81,018	Total:	433,842

LAKE STOCKED	SURFACE ACRES	DATE STOCKED	NUMBER STOCKED	BROODSTOCK (TREATMENT) a	2N/3N	HATCHERY	STOCKING SIZE in.	STOCKING METHOD b
Coho Salmon	(nonanadromous)							
Barley	19	7/13/2012	2,077	11 Ship Creek	3N	WJHSFH	3.5	T/BU
Bearpaw	45	6/29/2012	4,500	11 Ship Creek	3N	WJHSFH	3.2	T
Carpenter	176	7/13/2012	38,428	11 Ship Creek	3N	WJHSFH	3.5	T
Christiansen	179	6/12/2012	31,376	11 Ship Creek	3N	WJHSFH	3.2	T
Diamond	139	7/13/2012	14,192	11 Ship Creek	3N	WJHSFH	3.5	T
Echo	23	6/29/2012	2,300	11 Ship Creek	3N	WJHSFH	3.2	T
Johnson	40	6/16/2012	1,000	11 Ship Creek	3N	WJHSFH	3.2	T
Kalmbach	125	6/29/2012	25,724	11 Ship Creek	3N	WJHSFH	3.2	T
Klaire	7	6/29/2012	934	11 Ship Creek	3N	WJHSFH	3.2	T/BU
Loberg	11	6/29/2012	1,100	11 Ship Creek	3N	WJHSFH	3.2	T

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Table 59.-Page 4 of 5.

LAKE STOCKED	SURFACE ACRES	DATE STOCKED	NUMBER STOCKED	BROODSTOCK (TREATMENT) [a]	2N/3N	HATCHERY	STOCKING SIZE in.	STOCKING METHOD [b]
Coho Salmon	(nonanadromous)							
Lucille	362	6/29/2012	8,000	11 Ship Creek	3N	WJHSFH	3.2	T
Victor	14	6/29/2012	2,752	11 Ship Creek	3N	WJHSFH	3.2	T/BU
Willow	143	6/29/2012	3,000	11 Ship Creek	3N	WJHSFH	3.2	T
Total 13 Lakes	1,283		135,383					

2012	Triploid	Total
Fingerling	135,383	135,383

LAKE STOCKED	SURFACE ACRES	DATE STOCKED	NUMBER STOCKED	BROODSTOCK (TREATMENT) [a]	2N/3N	HATCHERY	STOCKING SIZE in.	STOCKING METHOD [b]
Arctic Char								
Carpenter	176	5/31/2012	1,197	10 Aleknagik L.	3N AF	Ft. Richardson	11.00	T
		5/31/2012	251	10 Aleknagik L.	3N AF	Ft. Richardson	10.70	T
Echo	23	5/15/2012	554	10 Aleknagik L.	3N AF	Ft. Richardson	11.00	T
Finger	362	8/9/2012	10,783	11 Aleknagik L.	3N AF	Ft. Richardson	2.90	T
Johnson	40	7/7/2012	305	11 Aleknagik L.	3N AF	Ft. Richardson	2.90	T/BU
Long (Mi. 86)	106	6/4/2012	1,576	10 Aleknagik L.	3N AF	Ft. Richardson	10.70	T
		6/4/2012	1,002	10 Aleknagik L.	3N AF	Ft. Richardson	11.10	T
Lynne	70	5/15/2012	859	10 Aleknagik L.	3N AF	Ft. Richardson	11.00	T
Matanuska	62	8/9/2012	1,437	11 Aleknagik L.	3N AF	Ft. Richardson	2.60	T
		8/9/2012	2,408	11 Aleknagik L.	3N AF	Ft. Richardson	3.10	T
		8/9/2012	6,187	11 Aleknagik L.	2N MX	Ft. Richardson	3.80	T
		9/7/2012	437	10 Aleknagik L.	3N AF	Ft. Richardson	11.20	T
Memory	84	5/15/2012	440	10 Aleknagik L.	3N AF	Ft. Richardson	11.00	T
Rush	100	8/7/2012	313	10 Aleknagik L.	3N AF	Ft. Richardson	10.60	T
Total 9 Lakes 2012	884		27,436					

2012	Diploid	2012	Triploid
Fingerling	6,187	Fingerling	14,933
Catchables	0	Catchables	6,316
Total	6,187	Total	21,249

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Table 59.-Page 5 of 5.

LAKE STOCKED	SURFACE ACRES	DATE STOCKED	NUMBER STOCKED	BROODSTOCK (TREATMENT) [a]	2N/3N	HATCHERY	STOCKING SIZE in.	STOCKING METHOD[b]
Arctic Grayling								
Finger		7/27/2012	8,343	11 Chena River	3N	WJHSFH	1.1	T
Knik		8/2/2012	3,000	11 Chena River	3N	WJHSFH	1.5	T
Meirs		7/27/2012	4,000	11 Chena River	3N	WJHSFH	1.1	T
Reed		7/27/2012	1,000	11 Chena River	3N	WJHSFH	1.1	T/BU
Florence		7/27/2012	1,000	11 Chena River	3N	WJHSFH	1.1	T
Ida		7/27/2012	3,700	11 Chena River	3N	WJHSFH	1.1	T
Lorraine		8/2/2012	6,235	11 Chena River	3N	WJHSFH	1.55	T
Canoe		7/27/2012	4,000	11 Chena River	3N	WJHSFH	1.1	T
Kepler/Bradley		7/27/2012	2,952	11 Chena River	3N	WJHSFH	1.2	T
Total 9 Lakes 2012			34,230					

STOCKED	ACRES	DATE STOCKED	NUMBER STOCKED	(TREATMENT) a	2N/3N	HATCHERY	SIZE in	METHODb
Chinook Salmon	(nonanadromous)							
Finger	362	10/4/2012	12,093	11 Willow Creek	3n	Ft. Richardson	9	T T
Knik	50	10/5/2012	3,486	11 Willow Creek	2N MX	Ft. Richardson	9	T
Matanuska	62	10/5/2012	2,974	11 Willow Creek	2N MX	Ft. Richardson	9	T T
Memory	84	10/5/2012	2,167	11 Willow Creek	2N MX	Ft. Richardson	9	T
Total 4 Lakes 2012			20,720					

Grand Total 82 Lakes 2012	
2012	Fingerling
Grand Totals	621,879

2012	Catchables	Total
Grand Totals	95,817	717,696

[a] Treatment: AF = triploid all-female.

[b] Stocking Method: T= tank truck; T/BU = carried in buckets to lake; T/4W = transported by 4-wheeler; A= airplane.

Table 60.-Fish Creek salmon harvests, by commercial set gillnet and personal use dip net, 1987-2012.

	Commercial Gillnet [a]						Personal Use Dip Net					
Year	Sockeye	Coho	Chum	Pink	Chinook	Total	Sockeye	Coho	Chum	Pink	Chinook	Total
1987	24,090	2,043	403	264	[b]	26,800	2,200					2,200
1988	38,251	11,604	325	591	9	50,780	3,000					3,000
1989	47,925	6,075	4,979	545	4	59,528	5,000					5,000
1990	23,450	5,708	5,308	696	4	35,166	6,500					6,500
1991	10,459	1,630	961	21	[b]	13,071	14,369		549	567		15,485
1992	10,748	1,817	1,289	573	[b]	14,427	19,002		607	678		20,287
1993	47,751	831	990	29	[b]	49,601	37,224	973	503	2,068		40,768
1994	7,528	809	357	141	0	8,835	16,012	1,336	248	632		18,228
1995	19,477	1,999	1,018	72	5	22,571	9,102	2,640	99	290		12,131
1996	35,245	1,802	448	25	0	37,520	17,260	2,414	153	331	37	20,195
1997	13,791	85	31	1	1	13,909	3,277	63	4	53	0	3,397
1998	2,597	548	105	0	0	3,250	4,036	649	29	80	1	4,795
1999	No fishery						1,083	17	0	12	0	1,112
2000	No fishery						6,925	958	29	83	0	7,995
2001	No fishery						463	[c] 13	1	4	1	482
2002	Fishery eliminated by BOF						No fishery					
2003							No fishery					
2004							No fishery					
2005							No fishery					
2006							No fishery					
2007							No fishery					
2008							No fishery					
2009							9,898	[d] 53	33	66	10	10,060
2010							23,705	[e] 3,576	290	1,721	12	29,303
2011							4,240	[f] 775	59	114	2	5,190
2012	No fishery						No fishery					
1987-2012 Ave	23,443	2,913	1,351	247	3	27,955	10,183	1,122	186	479	7	11,452

Source: Personal Use 1987-1995 Mills 1988-1994, Howe et al. 1996; Commercial Harvest from 1996-2000 are estimates from returned permits.

[a] Harvest from statistical area 247-50.

[b] Not reported.

[c] Closed by EO on July 12 at 11pm (3 days of harvest). Reopened by EO at 6:00 am August 1 through 11:00 pm August 11.

[e] Opened by EO at 6:00 am July 24 through 11:00pm July 31.

[f] Opened by EO at 6:00 am July 29 through 11:00pm July 31.

Table 61.-Eulachon personal use harvest from Knik Arm and Westside Sustina management units, 1985-2012.

	Knik Arm Management Unit				Westside Susitna Management Unit						
Year	Marine Fish Creek	Other Marine	Fresh Water	Subtotal	Alexander Creek	Deshka River	Yentna River	Lake Creek	Susitna River	Subtotal	Total
1985	0	560	0	560	0	0		0	1,680	1,680	2,240
1986	0	3,351	0	3,351	0	7,300		0	0	7,300	10,651
1987	0	0	0	0	0	0		0	9,265	9,265	9,265
1988	0	0	0	0	1,547	0		1,083	6,219	8,849	8,849
1989	0	0	0	0	0	0	0	785	1,539	2,324	2,324
1990	0	0	0	0	707	842	3,368	674	0	5,591	5,591
1991	0	0	0	0	3,774	245	0	0	2,113	6,132	6,132
1992	0	0	0	0	379	0	1,082	0	14,062	15,523	15,523
1993	0	0	0	0	0	2,236	0	0	4,360	6,596	6,596
1994	0	2,292	0	2,292	0	458	3,438	235	5,352	9,483	11,775
1995	0	0	0	0	0	0	1,382	0	3,167	4,549	4,549
1996	0	0	0	0	364	0	364	0	1,455	2,183	2,183
1997	0	0	0	0	0	0	2,703	0	5,812	8,515	8,515
1998	0	0	0	0	0	0	2,050	0	3,745	5,795	5,795
1999	2,708	0	0	2,708	571	6,499	3,038	0	16,923	27,031	29,739
2000	0	2,725	3,406	6,131	7	1,363	2,725	0	1,397	5,492	11,623
2001	0	675	899	1,574	0	0	3,935	0	4,772	8,707	10,281
2002	0	0	0	0	0	2,228	1,061	0	9	3,298	3,298
2003	0	1,214	364	1,578	911	0	0	0	4,554	5,465	7,043
2004	0	0	11	11	0	2,550	2,252	0	7,760	12,562	12,573
2005	0	0	0	0	0	1,979	0	0	1,089	3,068	3,068
2006	0	0	71 [a]	71	0	0	0	0	0	0	71
2007	124	0	0	124	0	0	0	0	620	620	744
2008	0	0	0	0	0	1,095	0	0	737	1,832	1,832
2009	0	0	0 [0]	0	0	0	0	0	3,520	3,520	3,520
2010	0	0	0 [0]	0	0	0	2,510	0	2,133	4,643	4,643
2011	0	0	0	0	0	0	0	0	6,763	6,763	6,763
2012	0	0	0	0	0	0	3,290	0	0	3,290	3,290
1985-2011 Ave	105	401	176	681	306	992	1,300	103	4,039	6,548	7,229
2002-2011 Ave	12	121	45	178	91	785	582	0	2,719	4,177	4,356
2007-2011 Ave	25	0	0	25	0	219	502	0	2,755	3,476	3,500

Note: Harvest estimates from Statewide Harvest Surveys (Mills 1986-1994; Howe et al. 1995, 1996, 2001a-d; Walker et al. 2003; Jennings et al. 2004, 2006a-b; Jennings et al. 2007,2009a-b, 2010 a-b, 2011 a-b, *In prep*; Romberg et al. *In prep*). Eulachon grouped with "other fish" prior to 1985.

Table 62.–Beluga River senior personal use dipnet fishery summary, 2008–2012.

							Harvest				
Year	# Permits issued	# Permits returned	# Fished	Boat	Shore		Sockeye	Chum	Coho	Pink	Total
2008	20	20	5	2	3		31	0	35	0	66
2009	11	11	10	4	6		140	0	78	7	225
2010	14	9	5	3	2		47	5	1	0	53
2011	13	12	7	5	2		137	5	17	0	159
2012	7	7	4	2	2		9	0	7	0	16
						2008-2012 Ave	73	2	28	1	104

Table 63.–Upper Yentna River personal use and subsistence fish wheel salmon harvest, 1996–2012.

		Number of permits		Salmon harvest (number of fish)					
Fishery	Year	Returned	Issued	Sockeye	Coho	Pink	Chum	Total	Harvest/ permit
Personal use									
	1996	14	NR	191	36	88	40	355	25
	1997	21	NR	492	61	21	8	582	28
Subsistence									
	1998	21	28	473	147	33	20	673	32
	1999	21	NR	455	43	15	11	524	25
	2000	20	NR	379	92	4	7	482	24
	2001	16	NR	514	47	9	4	574	36
	2002	25	NR	414	116	14	28	572	23
	2003	15	NR	433	76	2	13	524	35
	2004	22	NR	391	132	0	2	525	24
	2005	21	NR	177	42	24	25	268	13
	2006	23	26	388	178	15	27	608	26
	2007	22	22	367	66	17	18	468	21
	2008	16	16	310	57	23	7	397	25
	2009	16	17	253	14	0	6	273	17
	2010	26	26	675	52	41	18	786	30
	2011	25	25	598	90	3	21	712	28
	2012	20	21	279	24	21	19	384	19
	1996-2011 Ave	20	23	407	78	19	16	520	26
	2002-2011 Ave	21	22	401	82	14	17	513	24
	2007-2011 Ave	21	21	441	56	17	14	527	24

Note: NR = not reported.

Table 64.–Tyonek subsistence gillnet salmon harvest, 1981–2012.

Year	Permits		Reported salmon harvests					
	Issued	Returned	Chinook	Sockeye	Coho	Chum	Pink	Total
1981	70	NA	2,002	269	64	32	15	2,382
1982	69	NA	1,590	310	113	4	14	2,031
1983	75	NA	2,665	187	59	6	0	2,917
1984	75	NA	2,200	266	79	23	3	2,571
1985	76	NA	1,472	164	91	10	0	1,737
1986	65	NA	1,676	203	223	46	50	2,198
1987	64	61	1,610	166	149	24	10	1,959
1988	47	42	1,587	91	253	12	8	1,951
1989	49	47	1,250	85	115	1	0	1,451
1990	42	37	781	66	352	12	20	1,231
1991	57	54	902	20	58	0	0	980
1992	57	44	907	75	234	19	7	1,242
1993	62	54	1,370	57	77	17	19	1,540
1994	58	49	770	85	101	22	0	978
1995	70	55	1,317	45	153	15	0	1,530
1996	73	49	1,039	68	137	7	21	1,272
1997	70	42	639	101	137	8	0	885
1998	74	49	1,027	163	64	2	1	1,257
1999	77	54	1,230	144	94	11	32	1,511
2000	60	59	1,157	63	87	0	6	1,313
2001	84	58	976	172	49	6	4	1,207
2002	101	71	1,080	209	115	4	9	1,417
2003	87	74	1,183	111	44	10	7	1,355
2004	97	75	1,345	93	130	0	0	1,568
2005	78	66	982	61	139	2	0	1,184
2006	82	55	943	20	14	1	0	978
2007	84	67	1,281	200	123	2	3	1,609
2008	94	77	1,178	121	194	9	13	1,515
2009	89	69	636	184	258	2	1	1,081
2010	105	77	843	212	167	2	2	1,226
2011	114	63	595	154	26	7	7	789
2012	89	69	840	176	138	2	4	1,160
Average								
2007-2011	97	71	907	174	154	4	5	1,244
2002-2011	93	69	1,007	137	121	4	4	1,272
1981-2011	74	58	1,233	134	126	10	8	1,512

Note: NA = Information regarding the number of permits returned in 1981-1986 does exist; however, it was not available at time this report was written.
Source ADF&G Division of Subsistence, Alaska Subsistence Fisheries Database 2013, Accessed 12/2013.

Table 65.–Contribution of hatchery fish to the Fish Creek sockeye salmon escapement 2002–2012.

Return Year	Percent Hatchery	Weir Count
2002	2%	90,482
2003	12%	91,952
2004	17%	22,157
2005	47%	14,215
2006	73%	32,562
2007	68%	27,948
2008	49%	19,339
2009	35%	83,480
2010	61%	126,836
2011	71%	66,678
2012	12%	18,823
2002-2010 Ave	57%	56,552
2006-2010 Ave	57%	58,033

Table 66.–Salmon harvests by educational fishery permit holders in Northern Cook Inlet Management Area, 1994–2012.

Educational fishery permit holder	Year	Dates of operation	Salmon harvest (number of fish)					
			Chinook	Coho	Sockeye	Pink	Chum	Total
Knik Tribal Council	1994	ND		ND	ND	ND	ND	29
	1995	ND	5	1	21	0	1	28
	1996	Jun 17-Jul 20	5	45	163	3	62	278
	1997	May 29-Aug 10	19	34	153	0	15	221
	1998	May 14-Aug 15	31	153	186	0	85	455
	1999	May 27-Aug 14	42	120	177	0	55	394
	2000	May 26-Aug 06	65	63	34	0	18	180
	2001	May 13-Aug 10	32	34	71	0	0	137
	2002	May 20-Aug 08	55	99	136	5	36	331
	2003	May 24-Aug 15	34	87	654	3	45	823
	2004	May 15-Aug 06	105	207	142	20	29	503
	2005	May 17-Aug 15	25	80	200	9	16	330
	2006	May 15-Sep 30	24	75	197	12	7	315
	2007		19	75	7	0	16	117
	2008	May 15-July 19	12	70	79	0	0	161
	2009	July 1-Sept 30	0	79	66	1	8	154
	2010	July 6-July 24	0	94	72	21	61	248
	2011	July 1-Sept 30	0	8	61	1	0	70
	2012	July 10-July 12	0	6	48	0	4	58
	1994-2012 Ave		26	74	137	4	25	254
	2008-2012 Ave		2	51	65	5	15	138
Eklutna Village	1994	ND	ND	7	ND	ND	ND	172
	1995	ND	14	37	55	6	42	154
	1996	ND	ND	ND	ND		ND	ND
	1997	May 01-Sep 30	7	14	39	16	7	83
	1998	May 01-Sep 30	32	116	104	6	51	309
	1999	May 01-Sep 30	11	25	80	3	20	139
	2000	May 01-Sep 30	17	85	76	21	51	250
	2001	May 01-Sep 30	58	95	52	56	34	295
	2002	May 01-Sep 30	58	156	220	40	76	550
	2003	May 01-Sep 30	69	49	160	14	21	313
	2004	May 01-Sep 30	50	297	311	4	71	733

-continued-

Table 66.–Page 2 of 2.

Educational fishery permit holder	Year	Dates of operation	Salmon harvest (number of fish) Chinook	Coho	Sockeye	Pink	Chum	Total
Eklutna Village	2005	May 01-Sep 30	72	242	166	8	29	517
	2006	May 01-Sep 30	43	199	59	11	7	319
	2007							0
	2008		16	178	19	3	0	216
	2009	July 1-Sept 30	0	221	135	20	23	399
	2010							
	2011	July 1-Sept 30	0	282	343	32	47	704
	2012	July 1-Sept 30	0	242	218	10	63	533
	1994-2012 Ave		30	140	136	17	36	334
	2008-2012 Ave		4	231	179	16	33	463
Tyonek Village	1998	Aug 12-Aug 14	0	41	11	3	1	56
	1999	Jul 07-Jul 10	0	0	100	0	0	100
	2000	Jul 06-Jul 09	0	0	97	0	0	97
	2008	May 31-June 1	2	0	0	0	0	2
	2009	June 4-June 12	3	0	0	0	0	3
	2010	June 21-June 23	0	0	1	0	0	1
	2011	Did not receive a permit - low Chinook abundance						
	2012	Did not receive a permit - low Chinook abundance						
	1998-2010 Ave		1	7	35	1	0	43
Big Lake Cultural Outreach	2005	May 15-Sep 30	61	99	98	56	34	348
	2006	Jun 07-Jul 31	8	12	68	1	3	92
	2007		19	46	7	0	16	88
	2008	June 19-Aug 2	20	62	9	0	6	97
	2009	July 7- Aug 2	0	70	35	4	1	110
	2010	July 22-Aug 11	0	100	94	6	16	216
	2011	3-Aug	0	6	4	3	3	16
	2012	Did not fish	0	0	0	0	0	0
	2005-2012 Ave		14	49	39	9	10	121
McLaughlin	2012	Permit terminated to conserve coho						
Intertribal Native Leadership	2006	May 15-Sep 30	12	95	135	85	21	348

Note: ND = no data because no attempt was made to collect it.

FIGURES

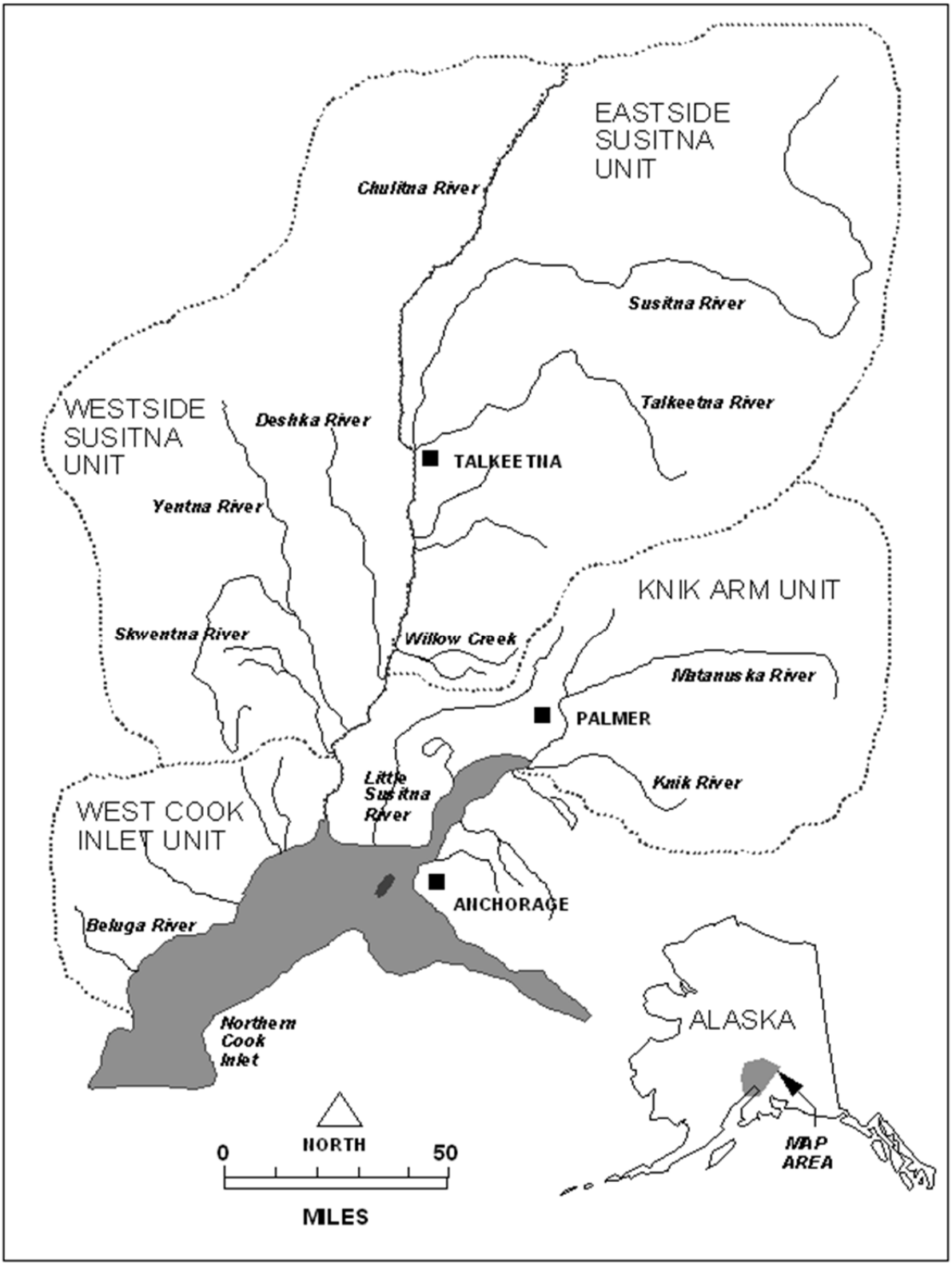


Figure 1.–Northern Cook Inlet (NCI) sport fish management area.

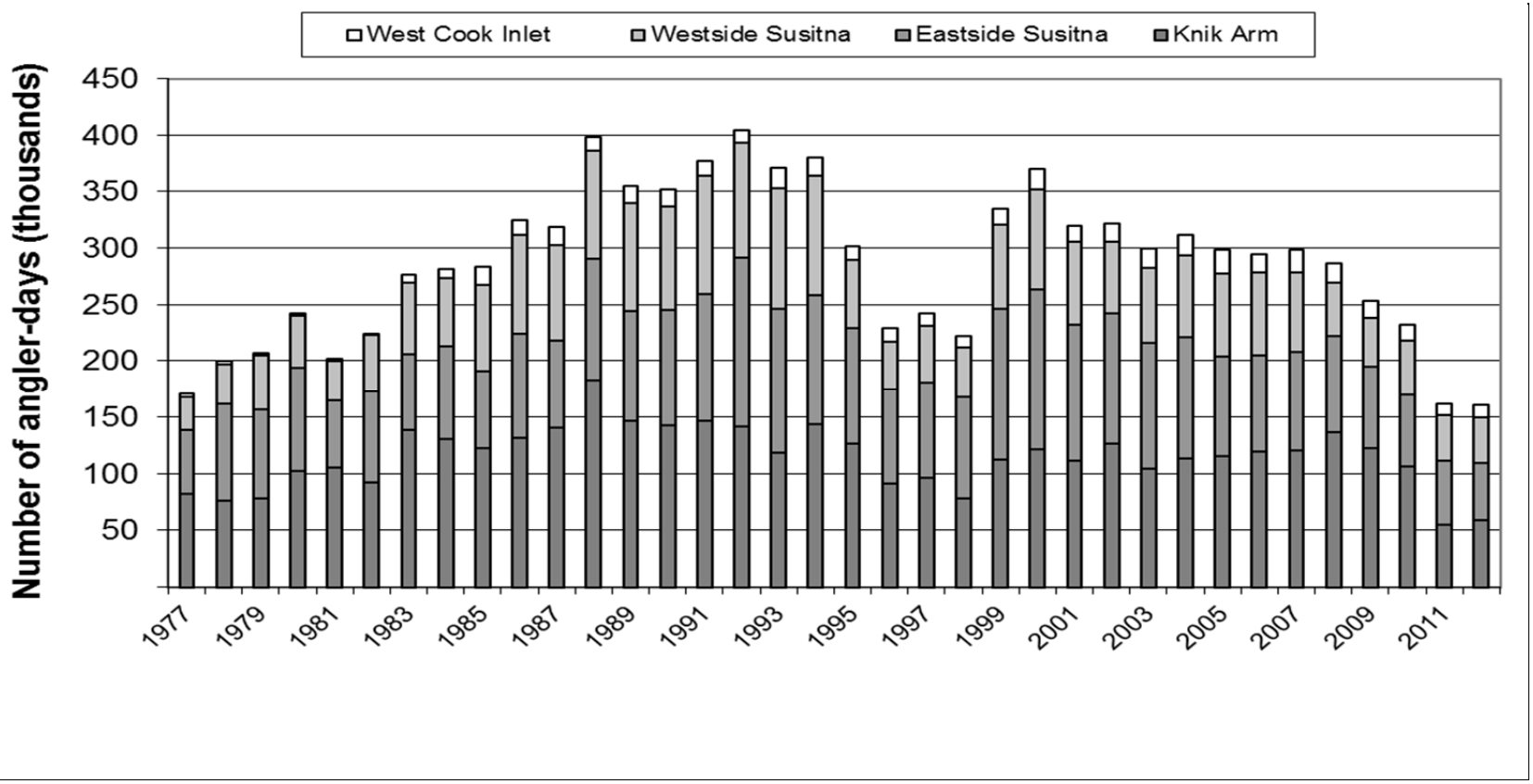


Figure 2.–Angler-days of sport fishing effort expended by recreational anglers fishing Northern Cook Inlet Management Area waters, 1977–2012.

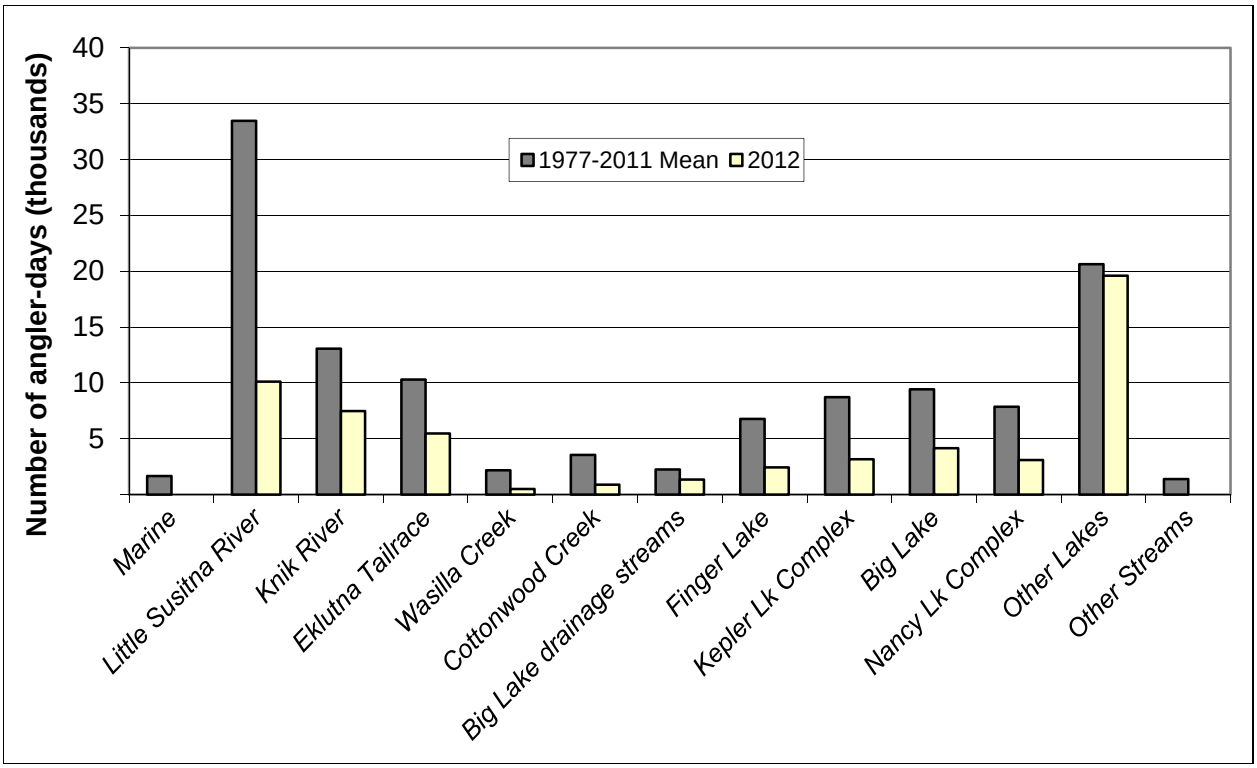


Figure 3.–Comparison of 2012 versus the 1977–2011 mean annual sport fishing effort (number of angler-days expended per year) at sites in the Knik Arm Management Unit.

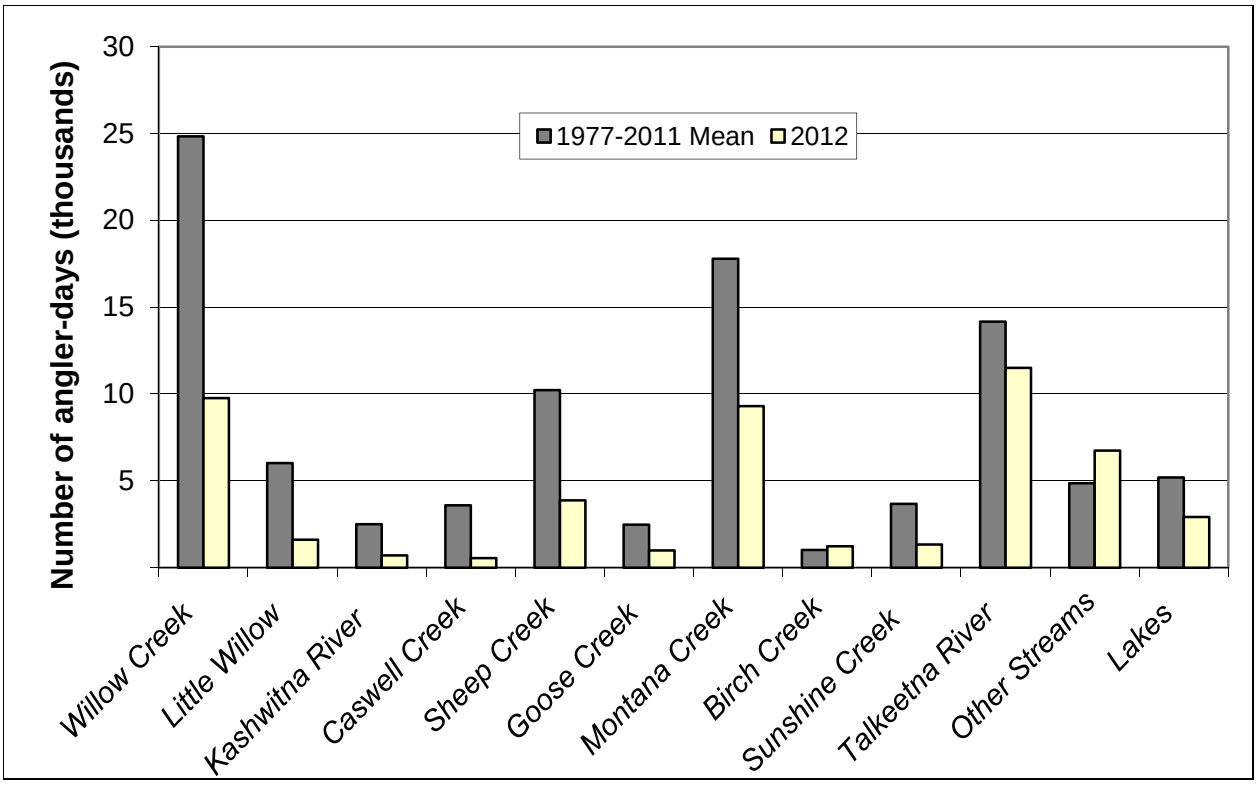


Figure 4.–Comparison of 2012 versus the 1977–2011 mean annual sport fishing effort (number of angler-days expended per year) at sites in the Eastside Susitna Management Unit.

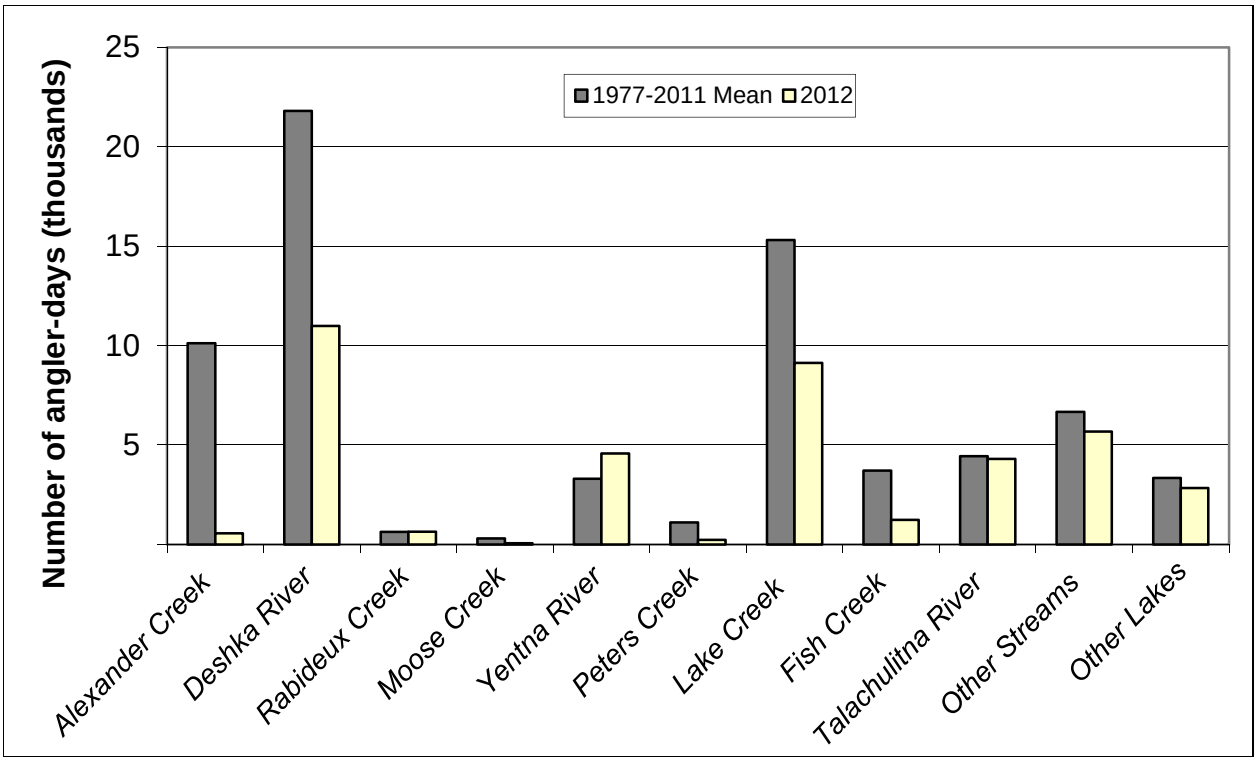
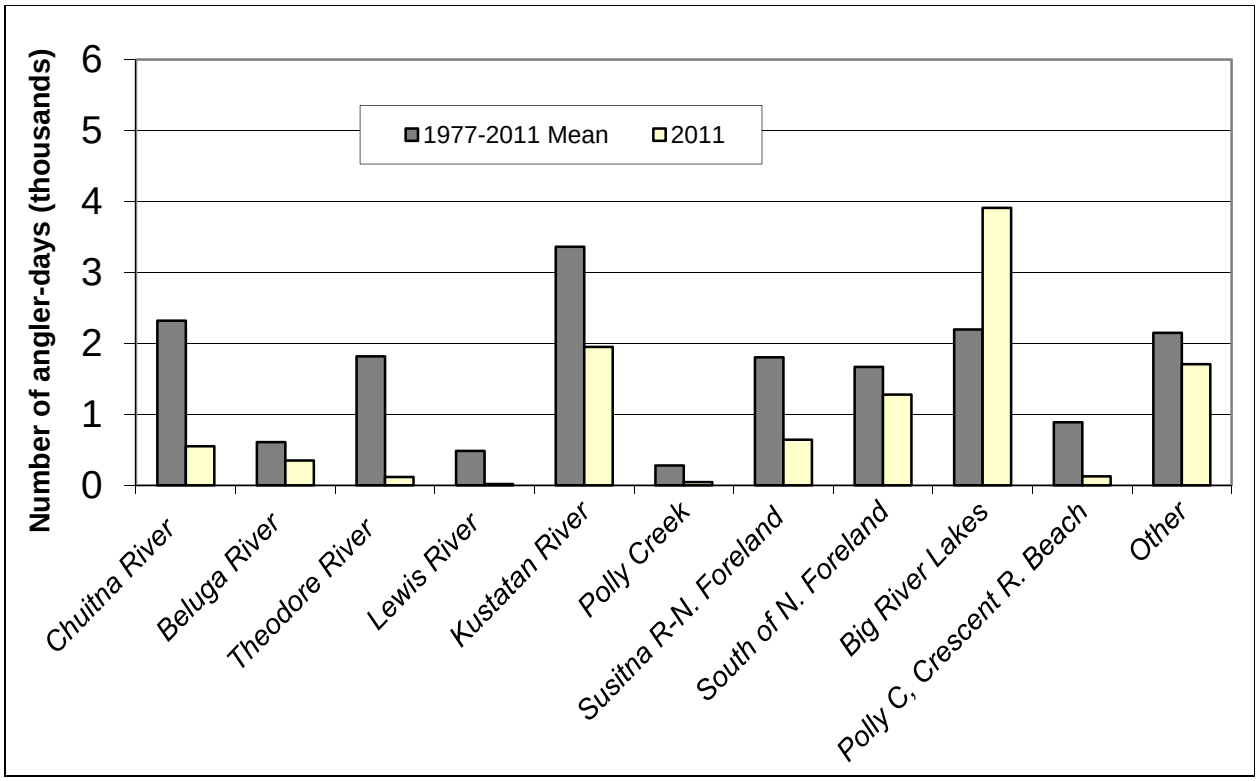


Figure 5.–Comparison of 2012 versus the 1977–2011 mean annual sport fishing effort (number of angler-days expended per year) at sites in the Westside Susitna Management Unit.



Note: Big River Lakes (Big River drainage, including Wolverine Creek).

Figure 6.–Comparison of 2012 versus the 1977–2011 mean annual sport fishing effort (number of angler-days expended per year) at sites in West Cook Inlet Management Unit.

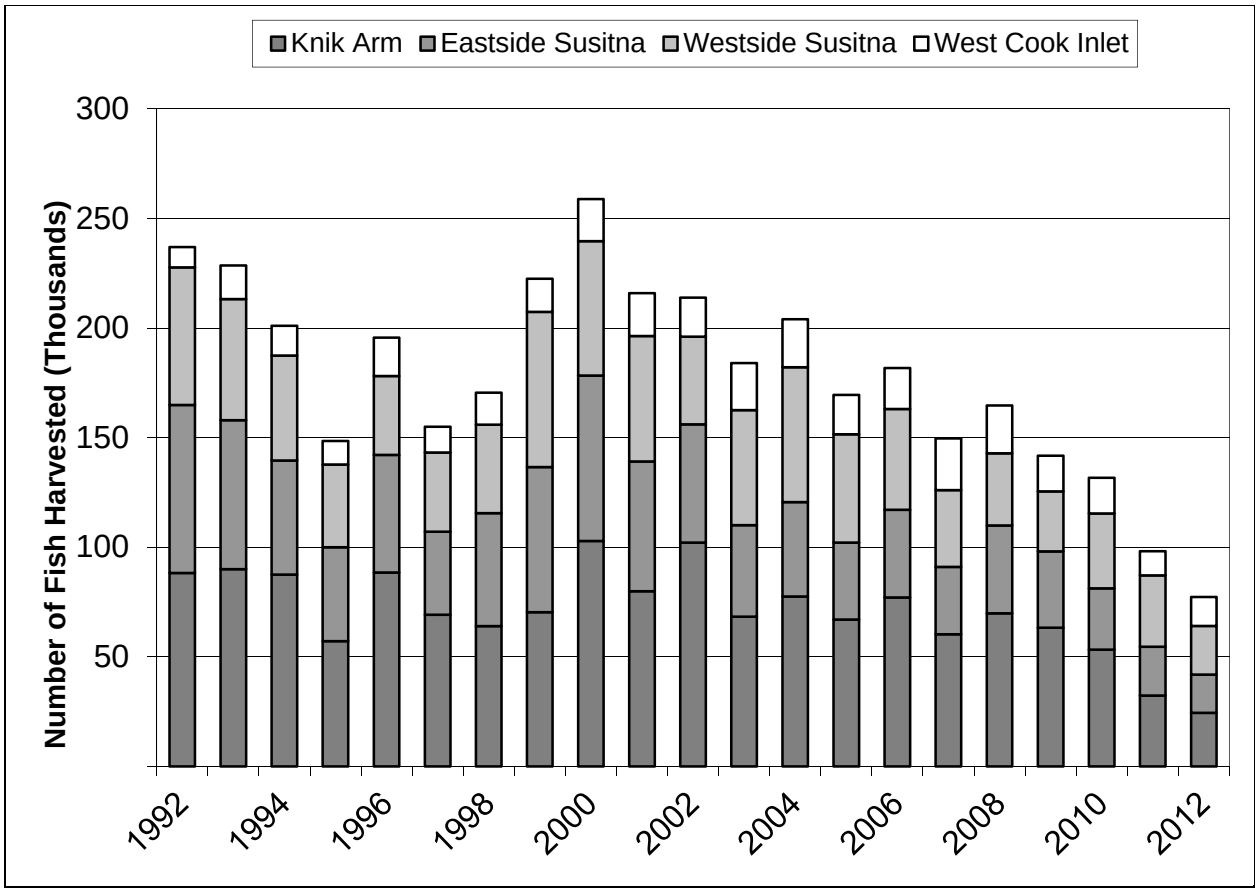


Figure 7.–Northern Cook Inlet Management Area recreational harvest, 1977–2012.

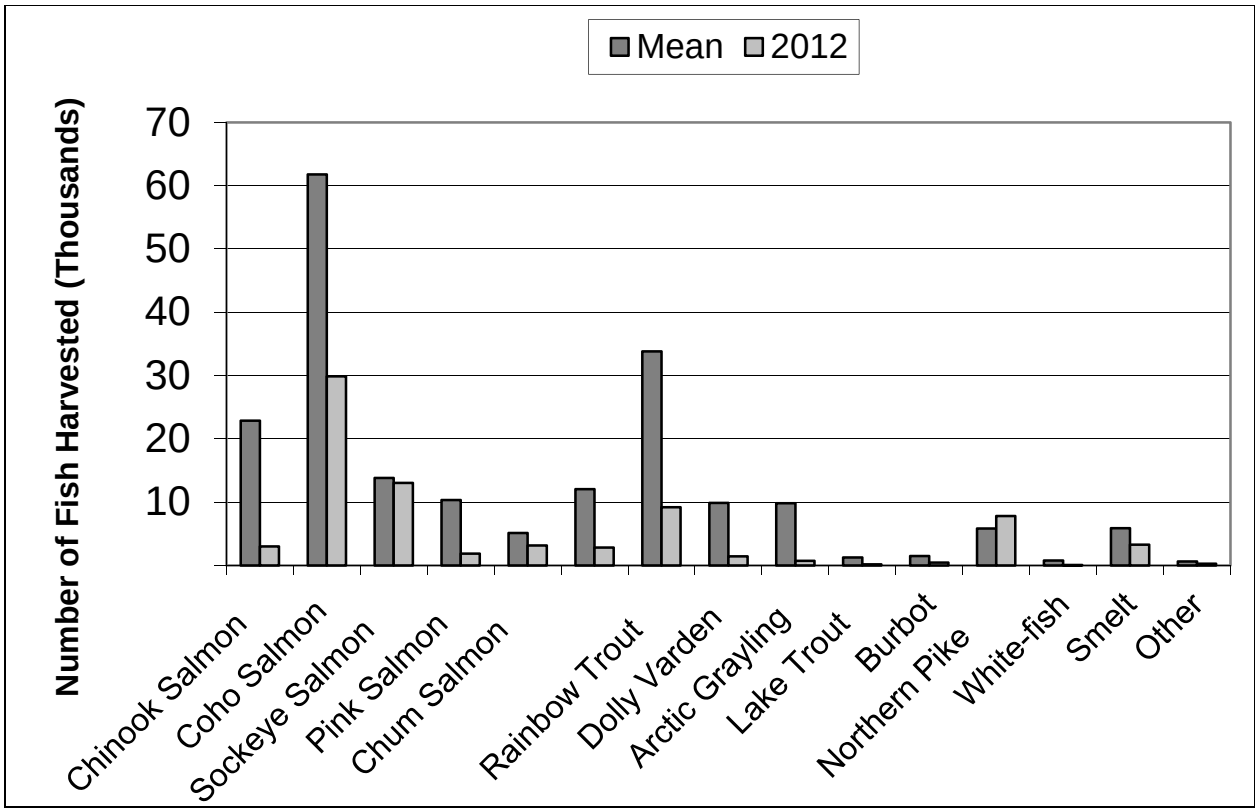


Figure 8.-Northern Cook Inlet Management Area mean recreational harvest by species, 1977-2012, recreational harvest.

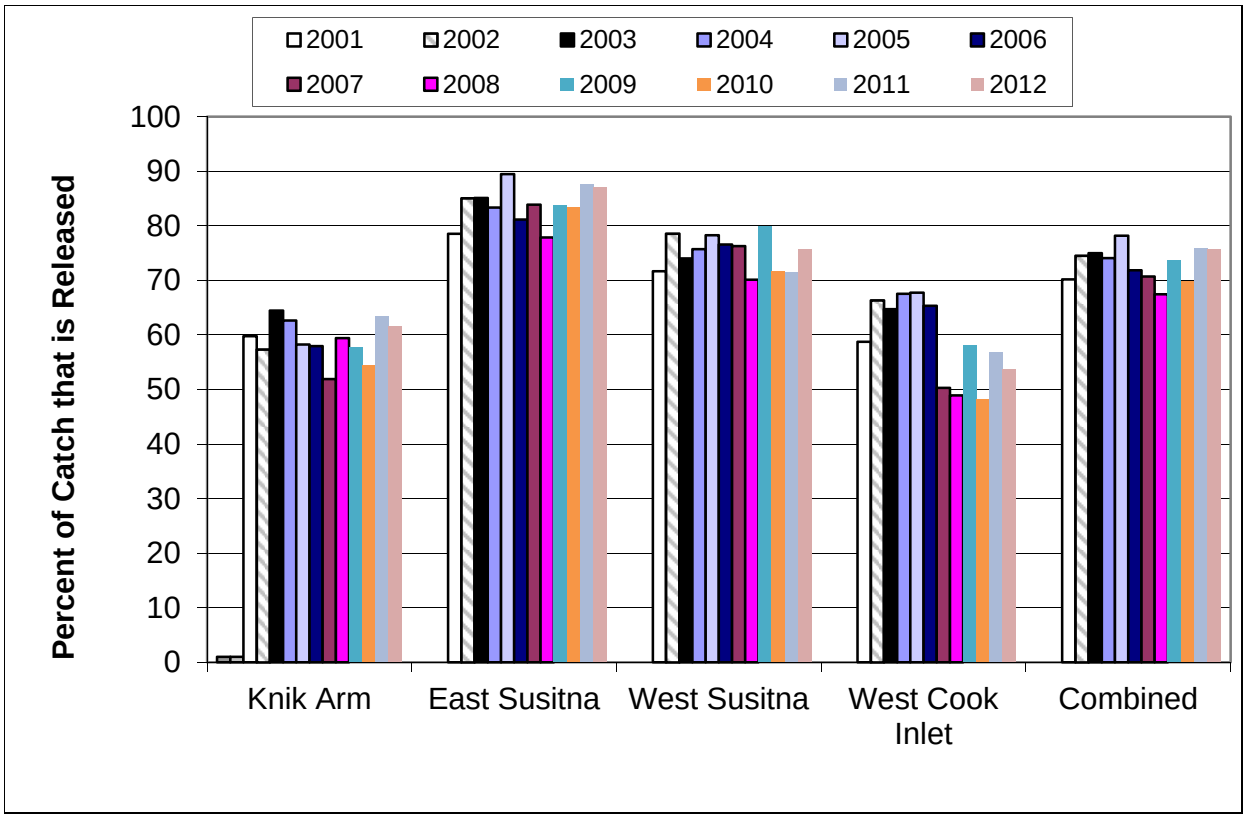


Figure 9.-Percent of the recreational catch of all species from the Northern Cook Inlet Management Area that was released, 2001-2012, by management unit.

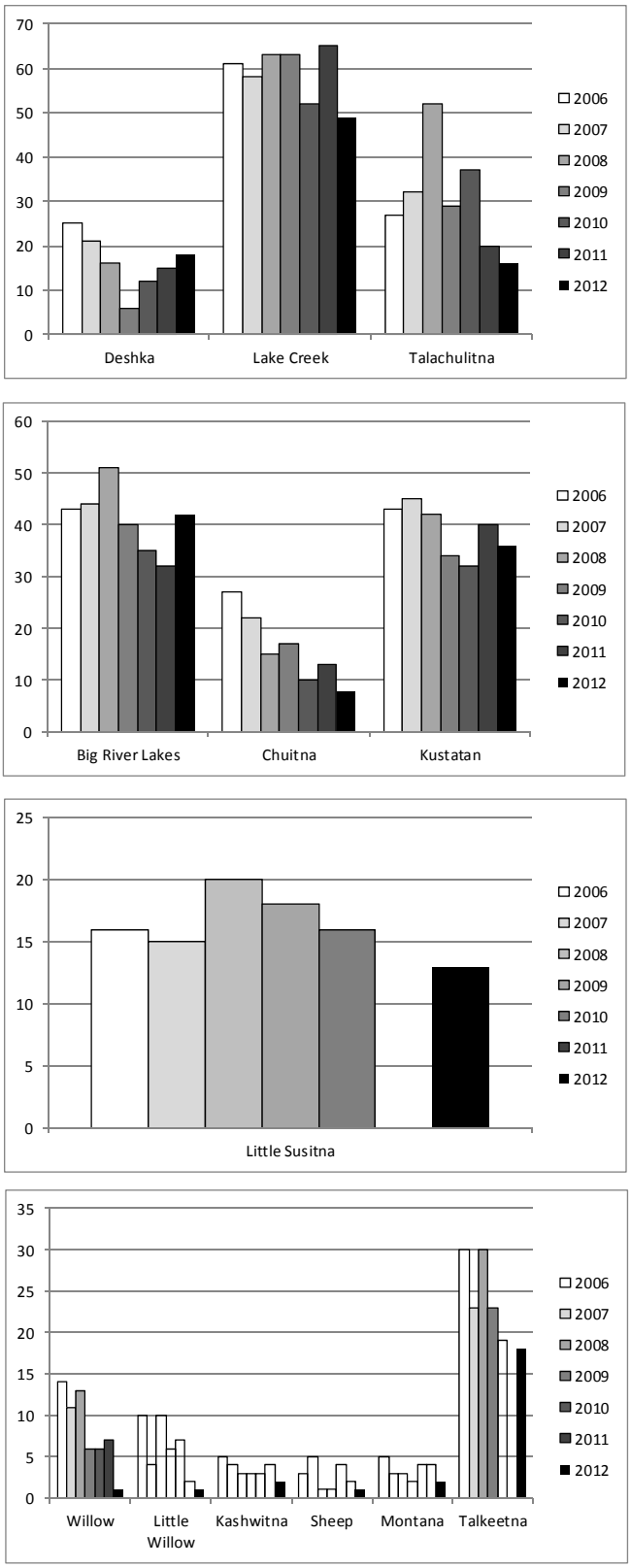


Figure 10.–Number of guides fishing major systems in the Northern Cook Inlet Management Area 2006-2012.

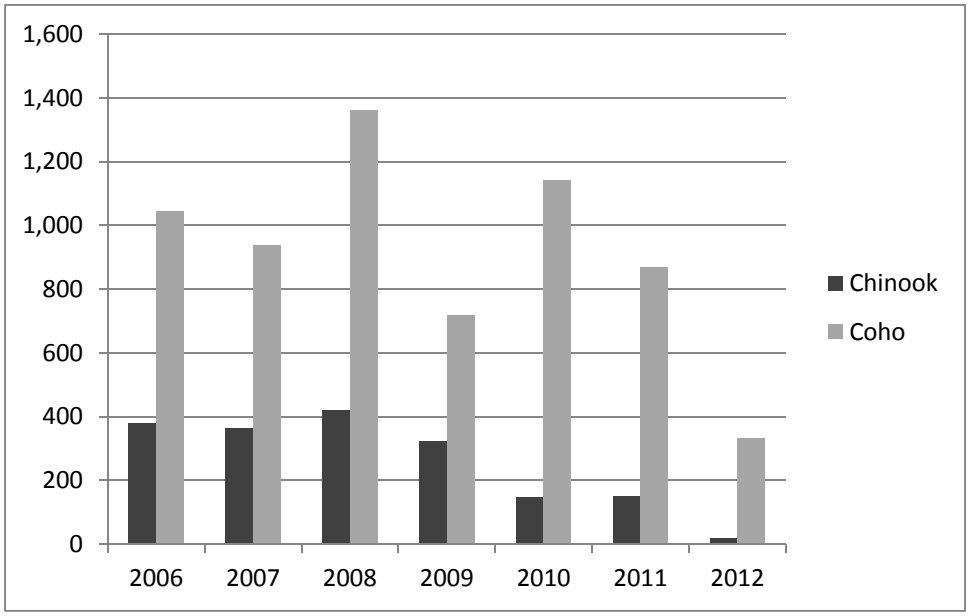


Figure 11.–Number of Chinook and coho salmon harvested by guided anglers on the Little Susitna River, 2006-2012.

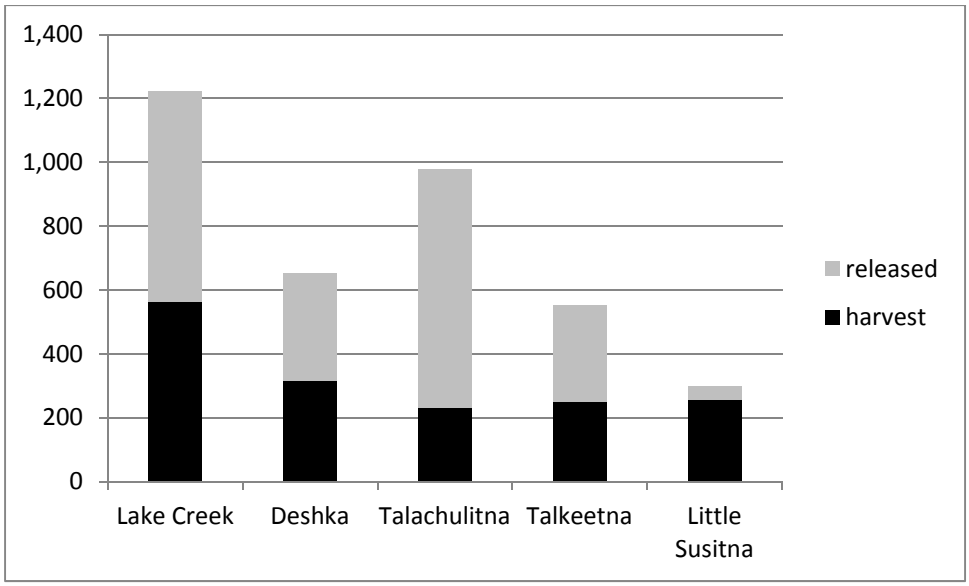


Figure 12.–Average guided harvest and average number released of Chinook salmon caught in the Northern Cook Inlet Management Area 2006–2012.

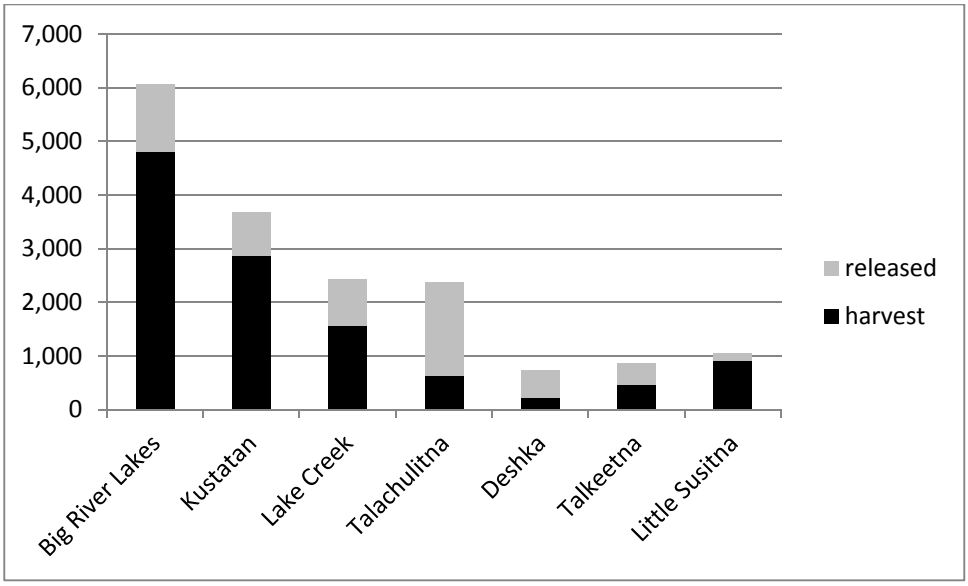


Figure 13.–Average guided harvest and average number released of coho salmon caught in the NCIMA 2006-2012.

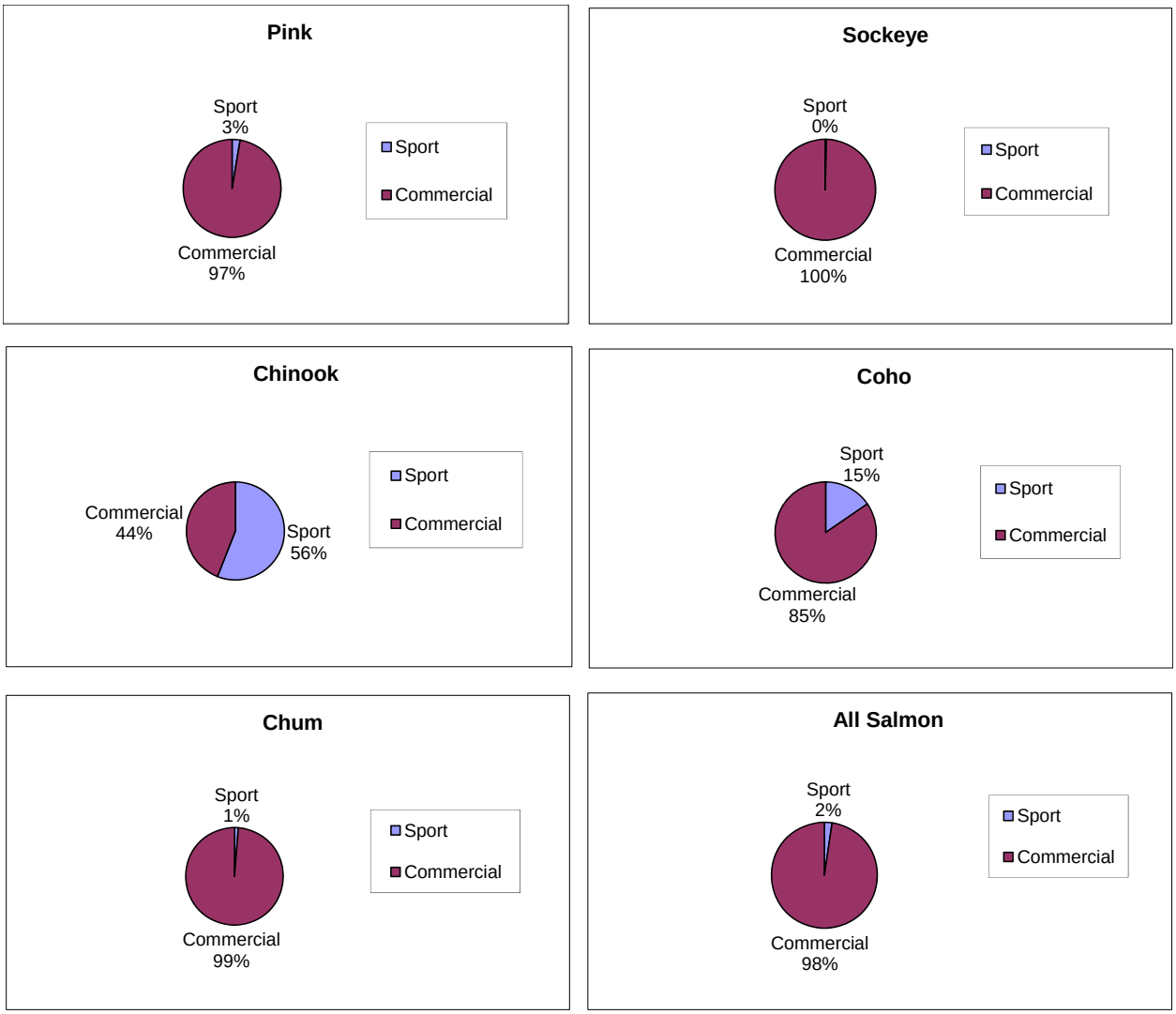


Figure 14.–Composition of the Northern Cook Inlet salmon harvest, 1977–2012.

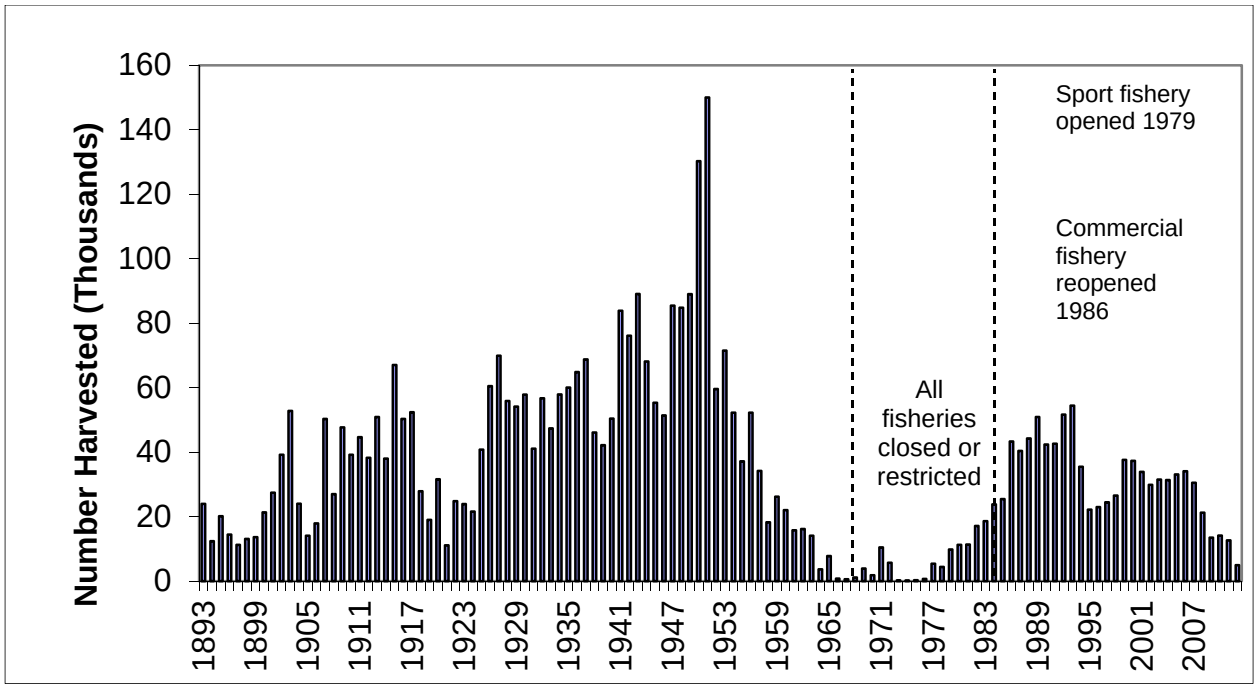


Figure 15.-Estimated harvests by all user groups of Chinook salmon of Northern Cook Inlet origin, 1893-2012

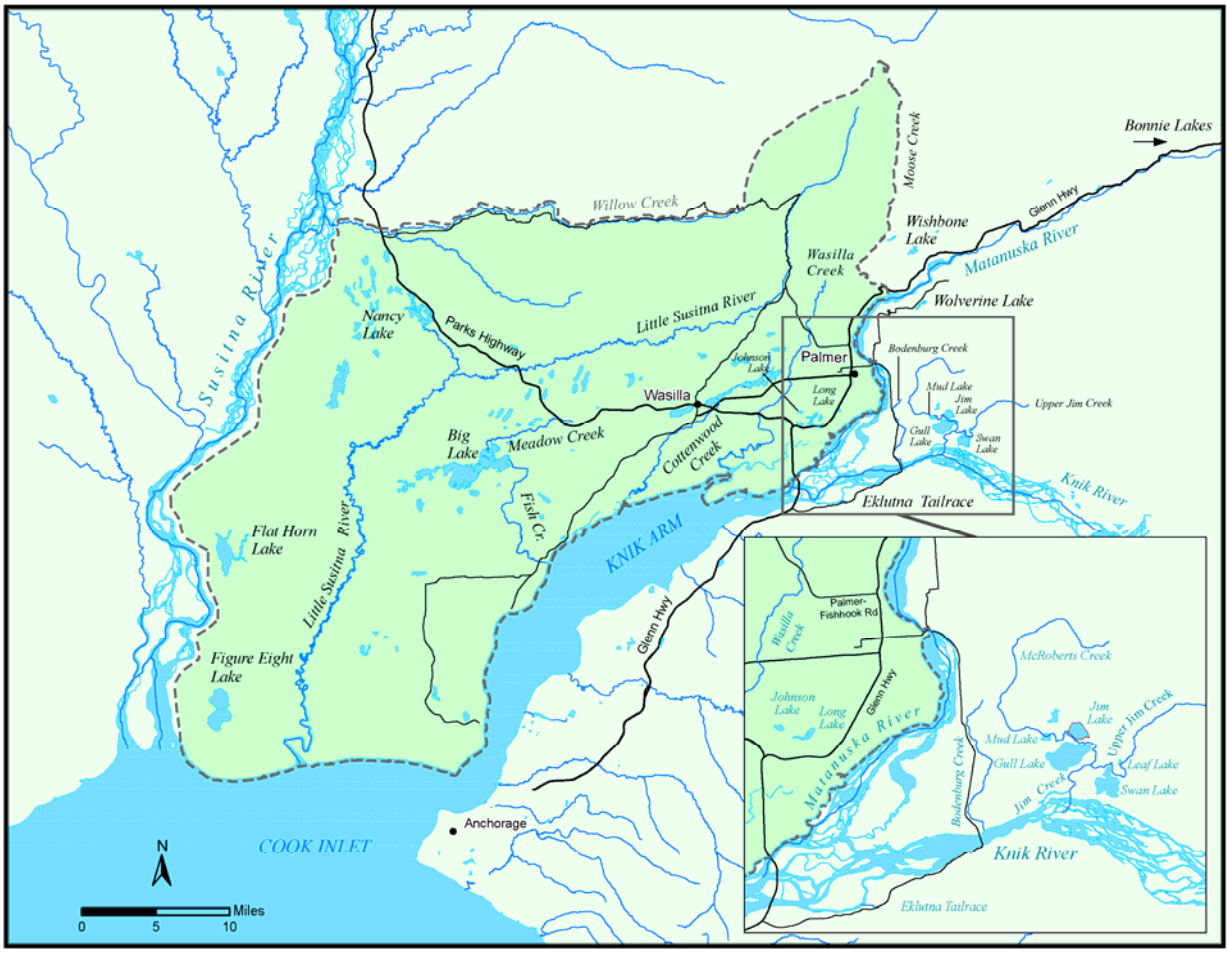


Figure 16.–Knik Arm Freshwaters.

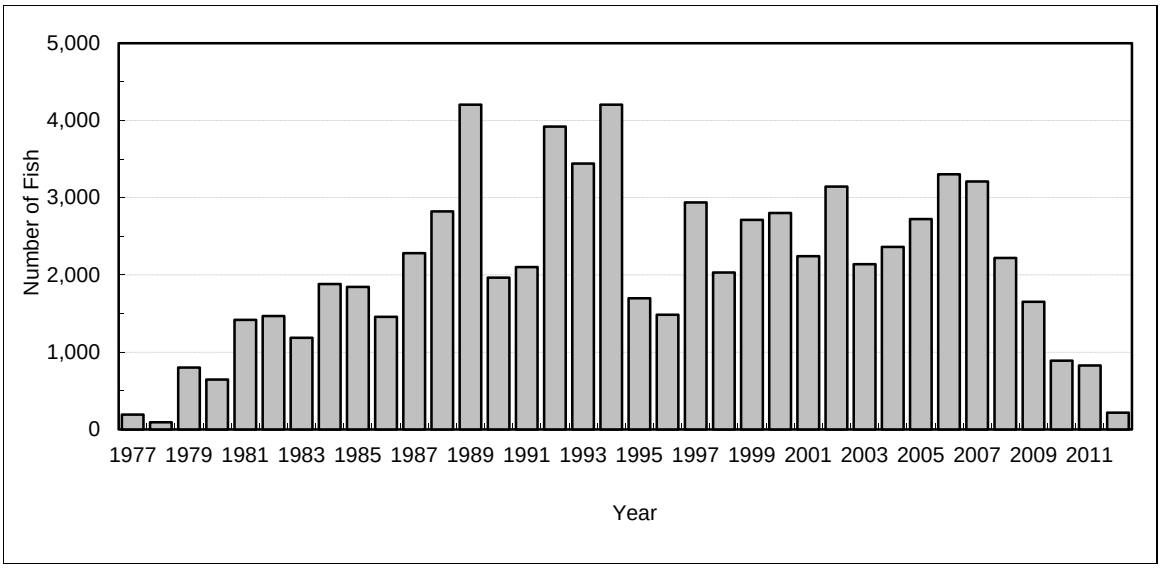


Figure 17.–Little Susitna River Chinook salmon harvest.

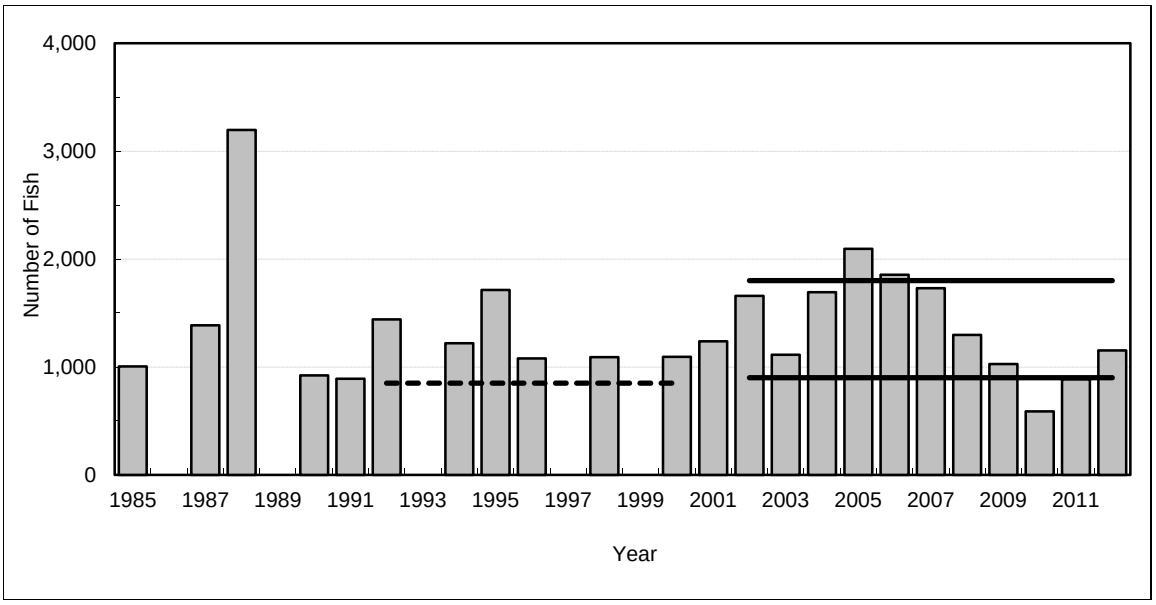


Figure 18.–Little Susitna River Chinook salmon escapement.

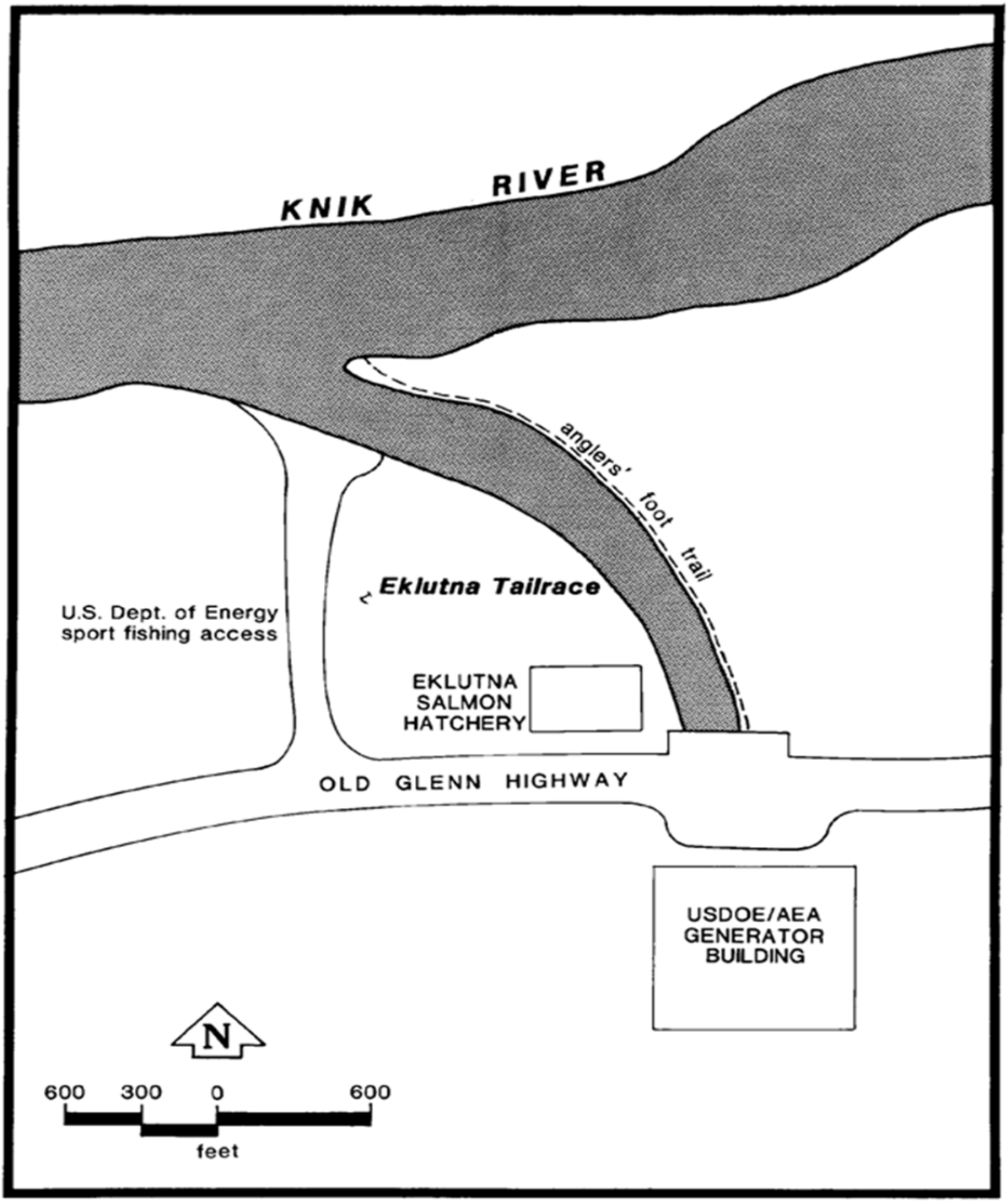


Figure 19.–Eklutna Power Plant tailrace.

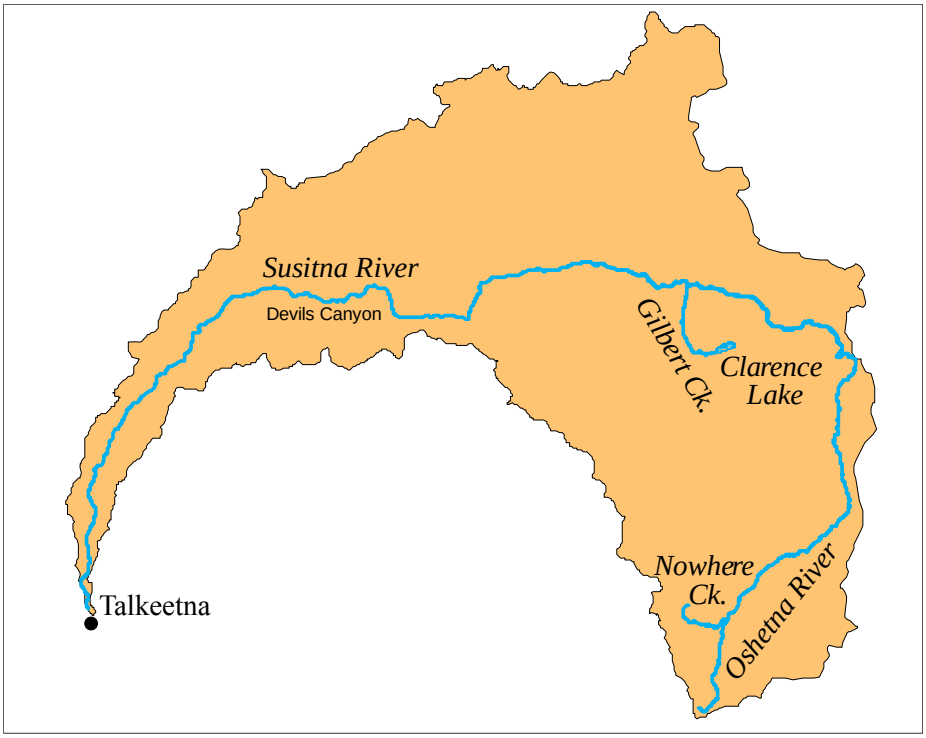


Figure 20.–Upper Susitna River area (Talkeetna to Devils Canyon).

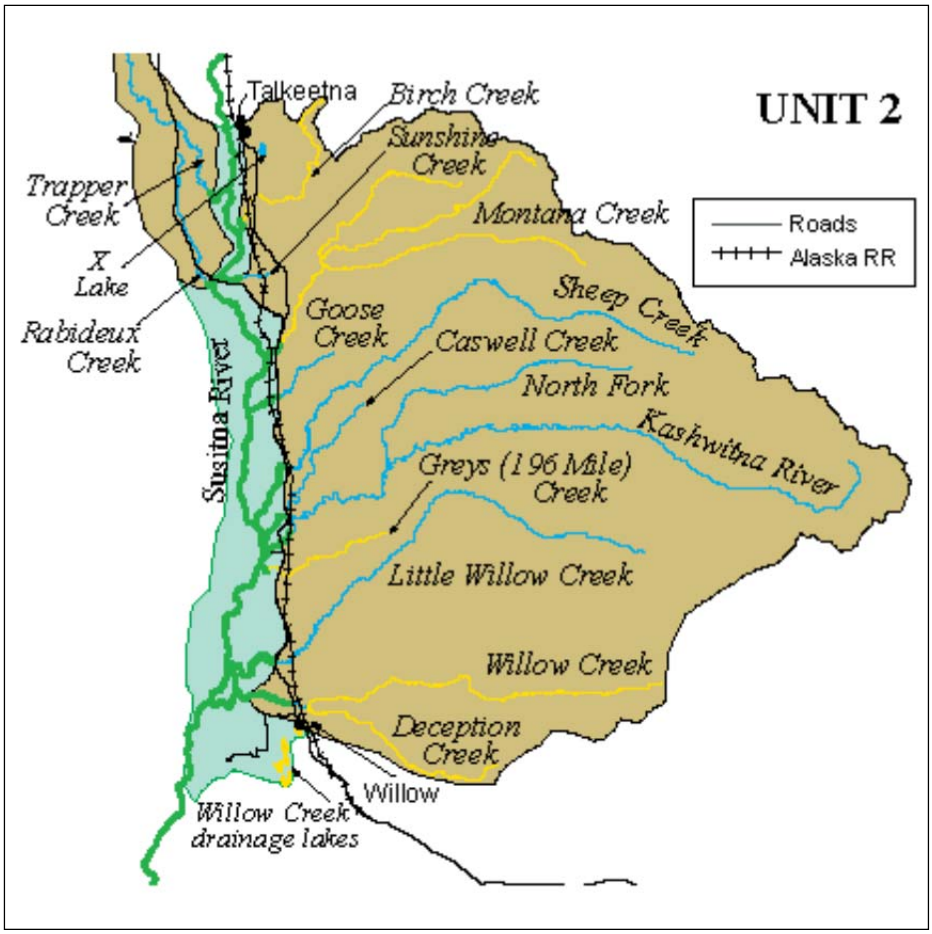


Figure 21.–Susitna River drainage from confluence with the Deshka River upstream to its confluence with the Talkeetna River.

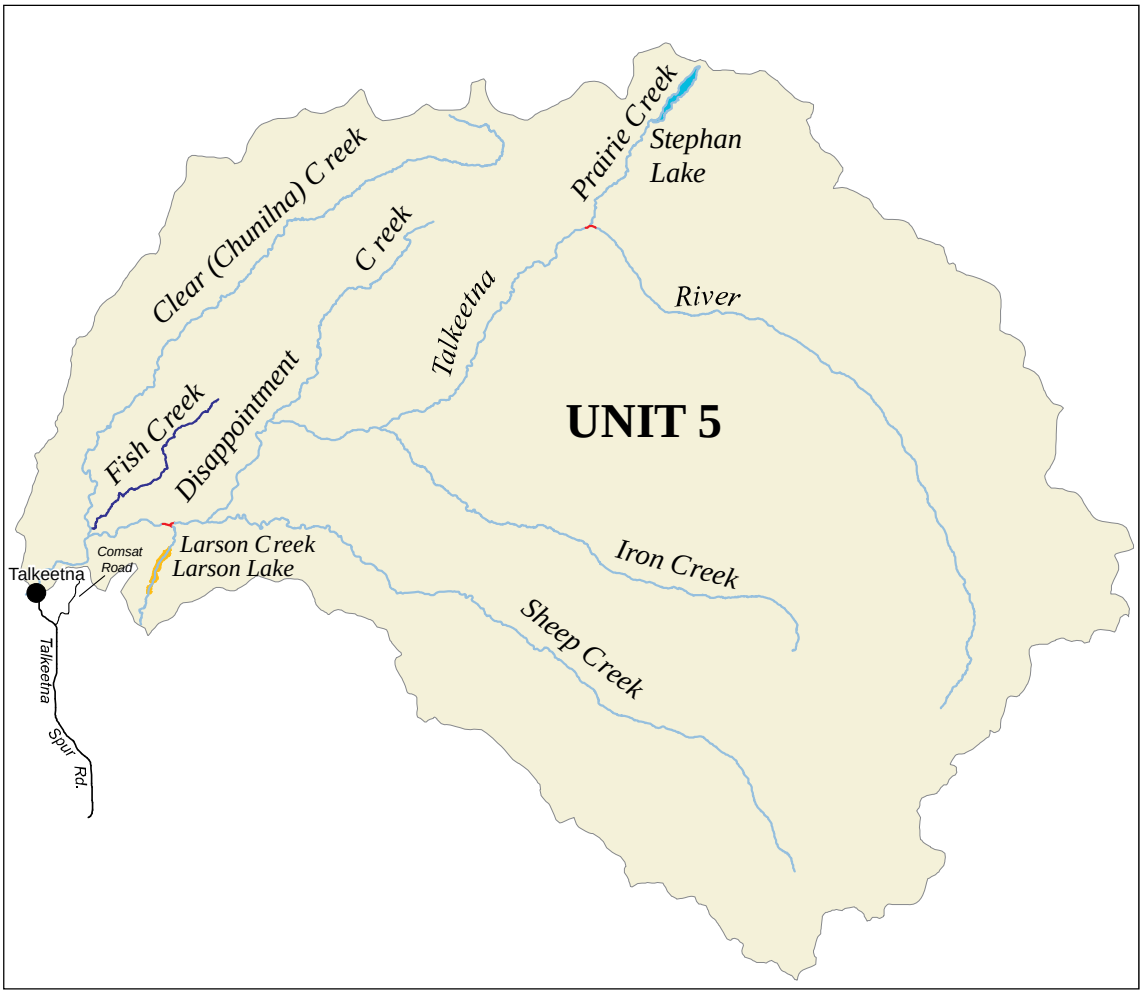


Figure 22.–Flowing waters, lakes and ponds of the Talkeetna River drainage.

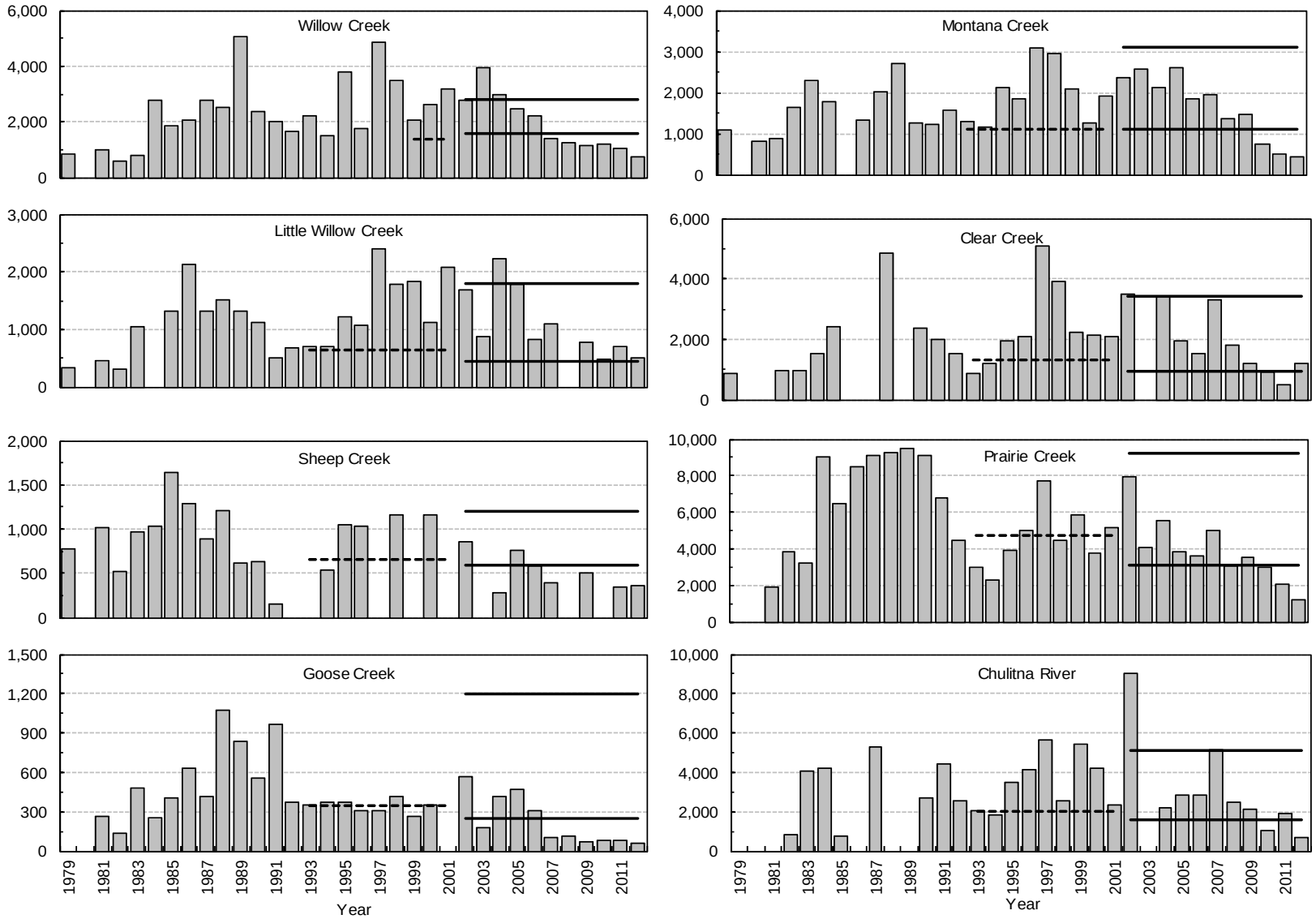


Figure 23.–Chinook salmon escapements at Eastside Susitna River tributaries and Chulitna River, 1979-2012. y-axis = Chinook salmon escapement (in number of fish). Dashed line = biological escapement goal. Solid lines = sustainable escapement goal range.

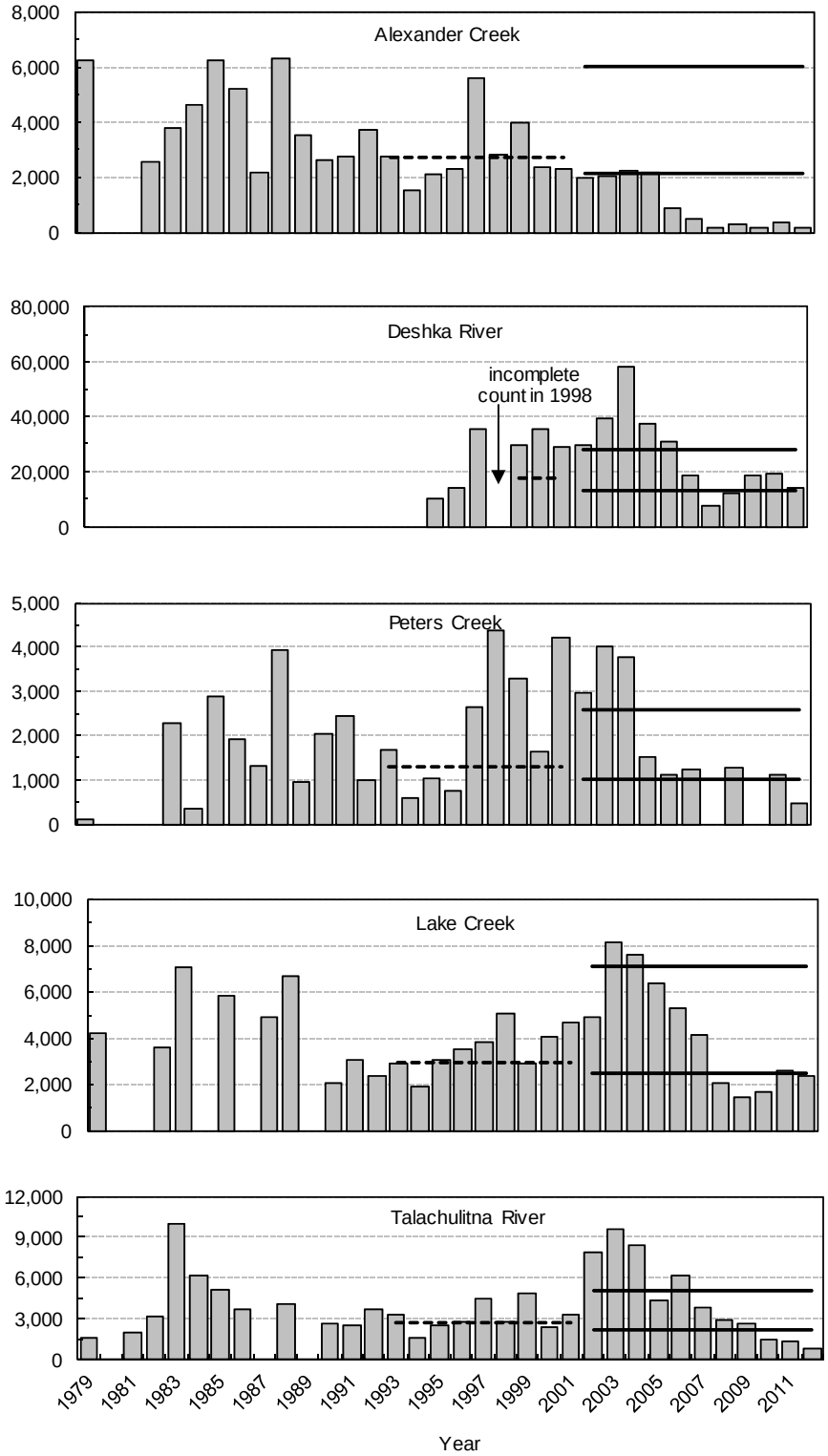


Figure 24.–Chinook salmon escapements at Westside Susitna River tributaries, 1979-2012. Y-axis = Chinook salmon escapement (in number of fish). Dashed line = biological escapement goal. Solid line = sustainable escapement goal.

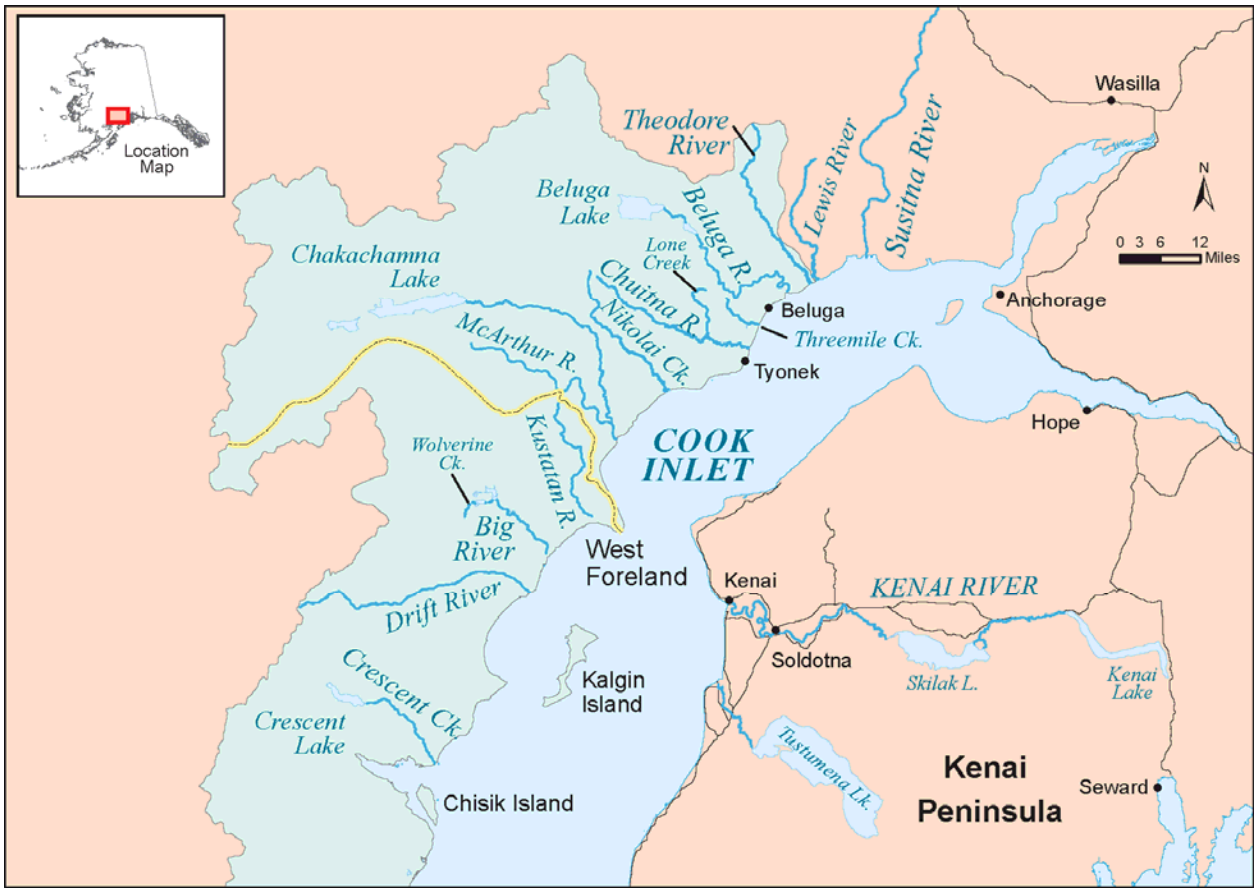


Figure 25.–West Cook Inlet Management Unit (WCIMU).

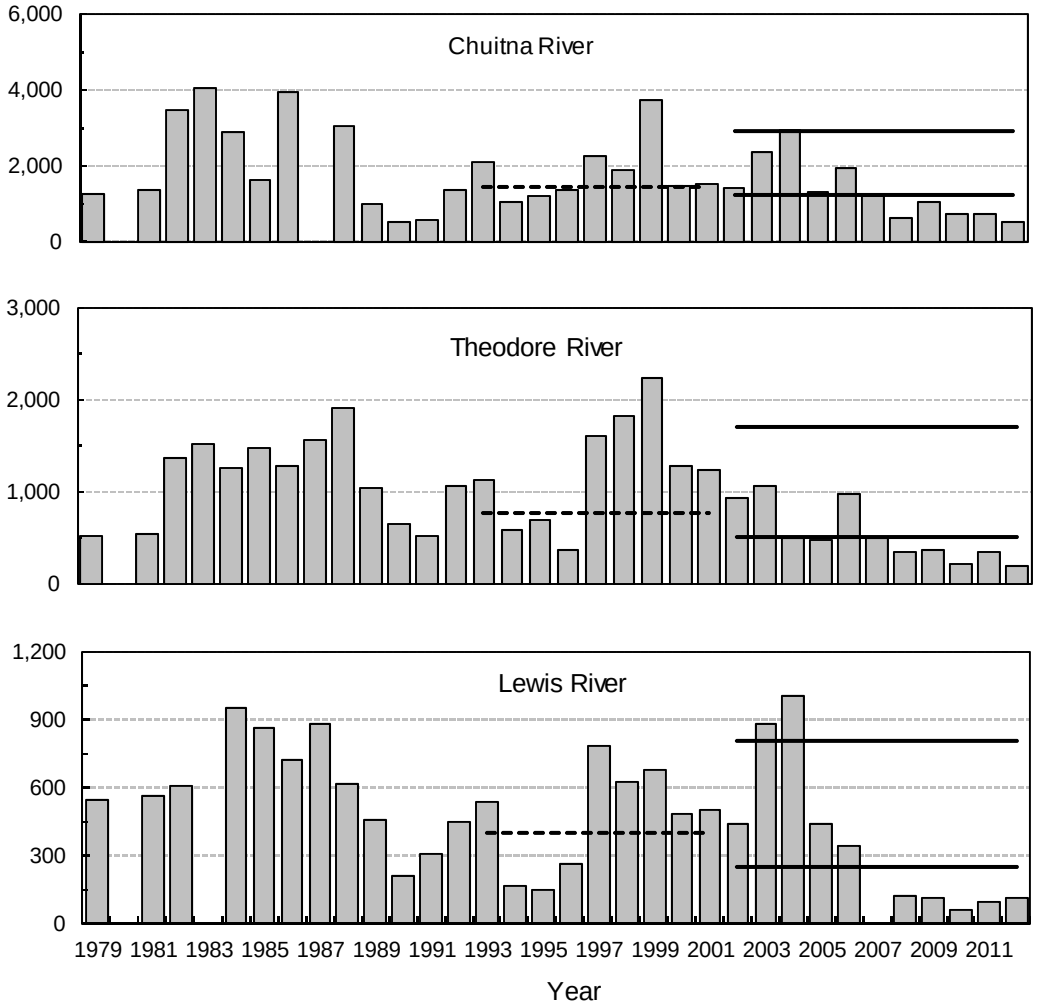
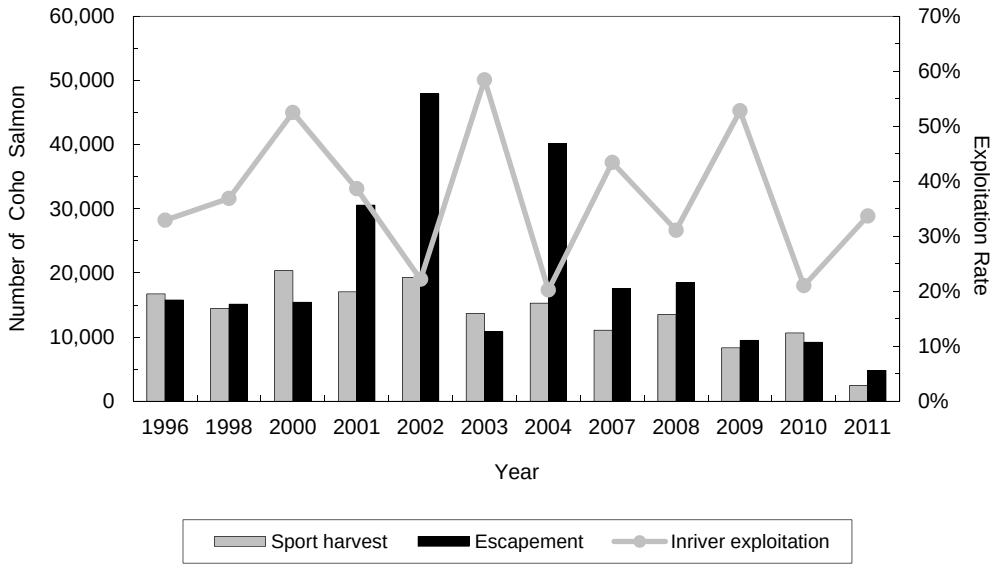
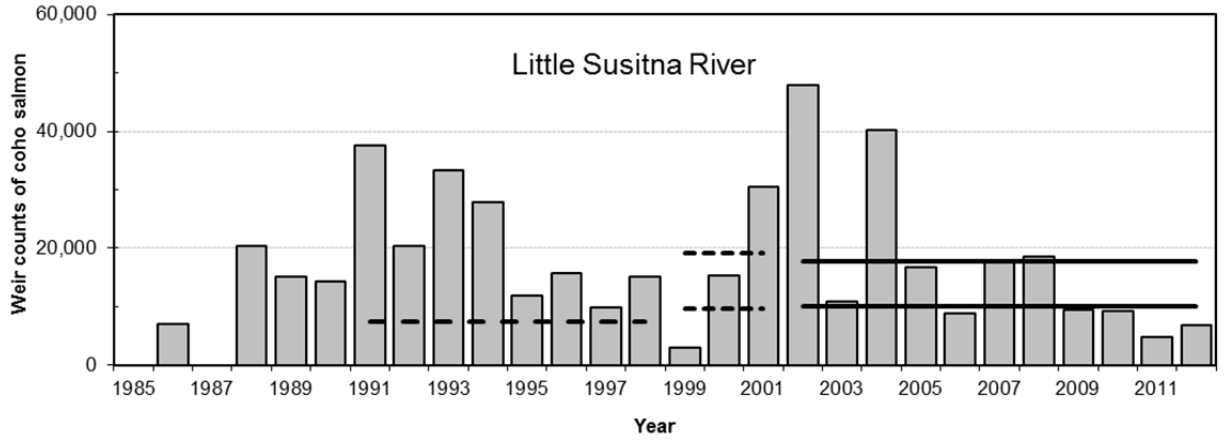


Figure 26.– Chinook salmon escapements at major West Cook Inlet freshwater drainages, 1979-2012. y-axis = Chinook salmon escapement (in number of fish). Dashed line = biological escapement goal. Solid line = sustainable escapement goal.

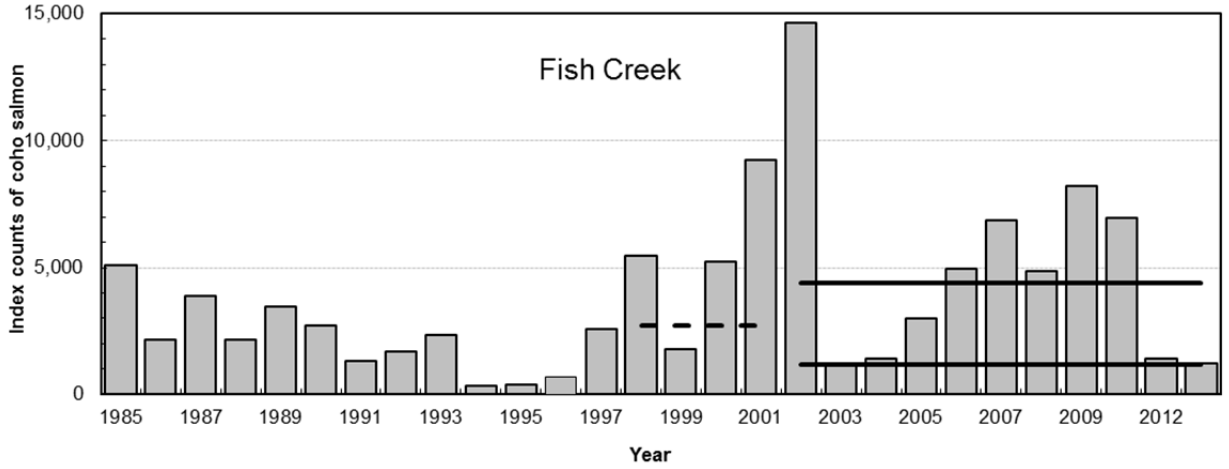


Note: Escapement counts in 1997 and 1999, 2005-06, and 2011 were incomplete due to flooding.

Figure 27.– Coho salmon harvest, escapement, and inriver exploitation from the Little Susitna River sport fishery for years counts were completed at a weir located at rm 71.



Note: No weir in 1985 and 1987; incomplete counts at Little Susitna River weir in 1986, 1997, 2005 - 2006, and 2012 due to flooding and weir submersion.



Note: Weir operated primarily for sockeye salmon; complete coho counts in 1990-1992, 1998-2003, 2009-2010, and 2012.

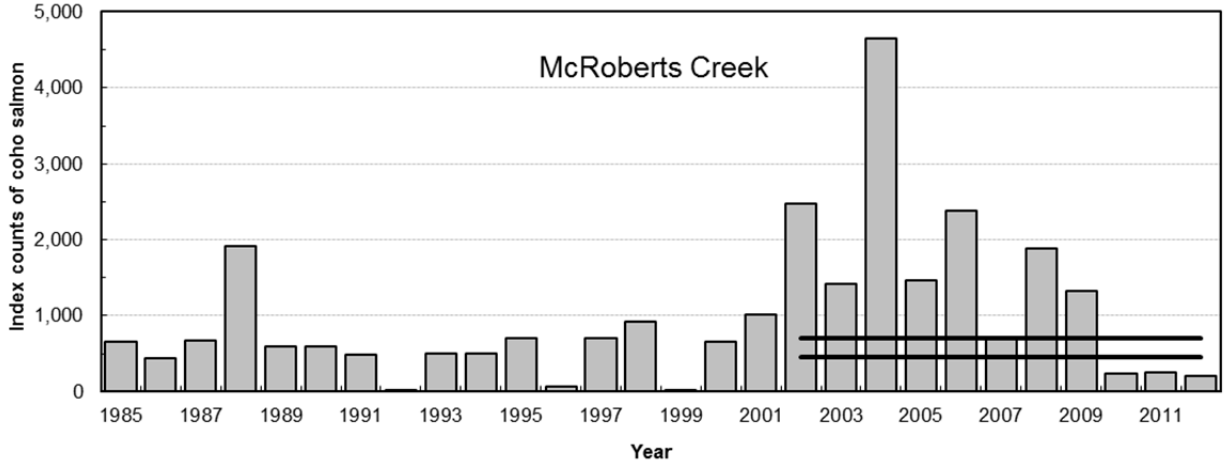


Figure 28.– Little Susitna River weir, Fish Creek weir, and McRoberts Creek index counts of coho salmon, 1985-2012. Dashed line = biological escapement goal. Solid lines = sustainable escapement goal range.

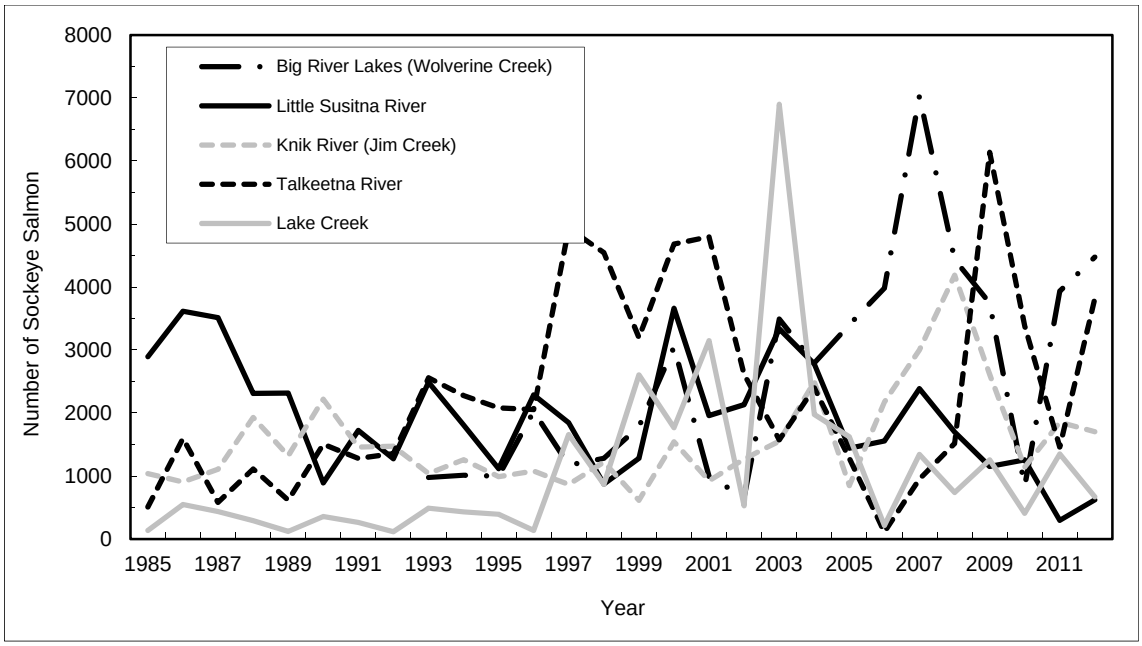


Figure 29.–Estimated harvest of Sockeye salmon from major fisheries within the NCIMA, 1985-2012.

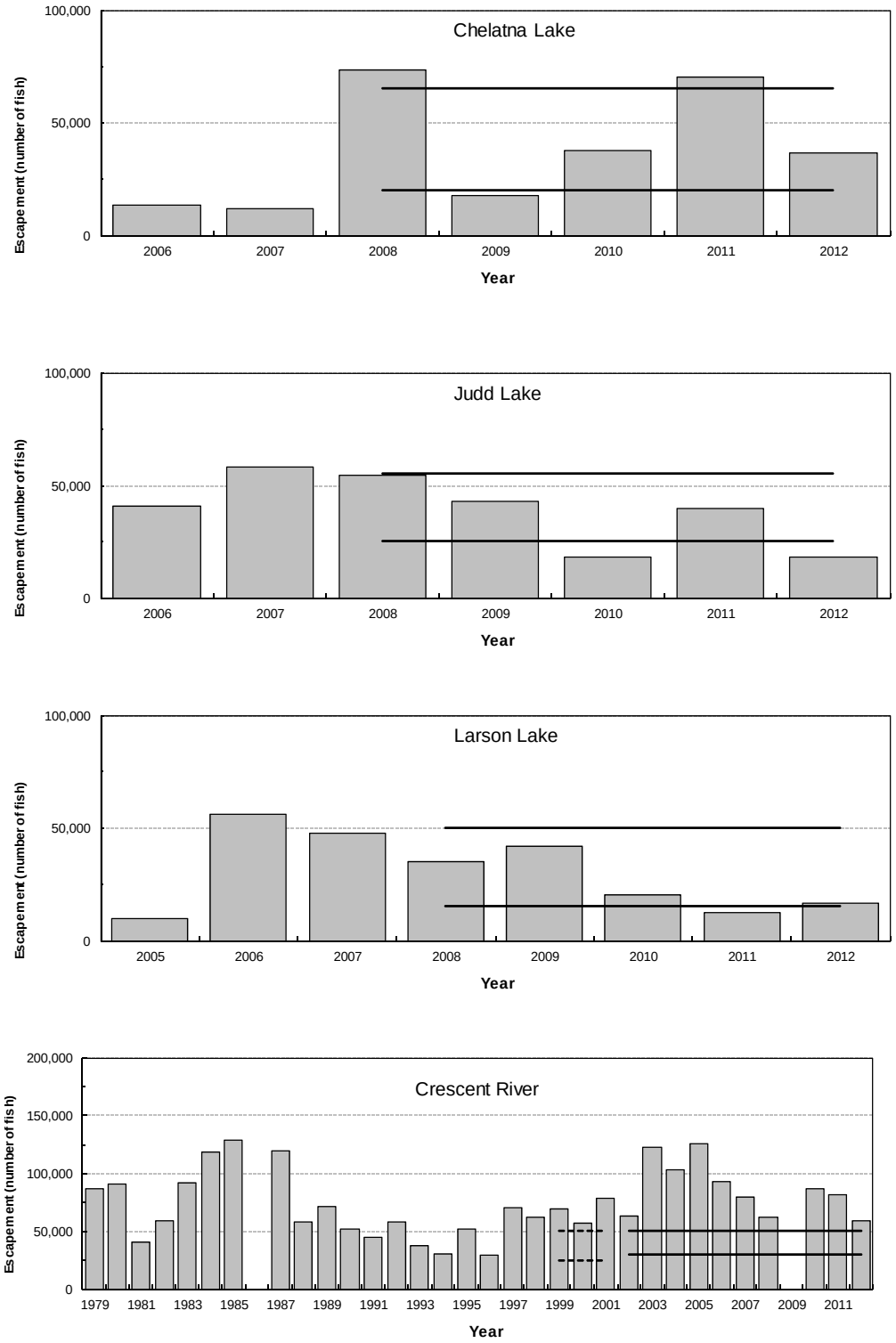


Figure 30.– Estimated sockeye salmon escapements from major fisheries in Northern Cook Inlet Management Area, 1979-2012. Dashed line(s) = old escapement goal or range. Solid lines = sustainable escapement goal range.

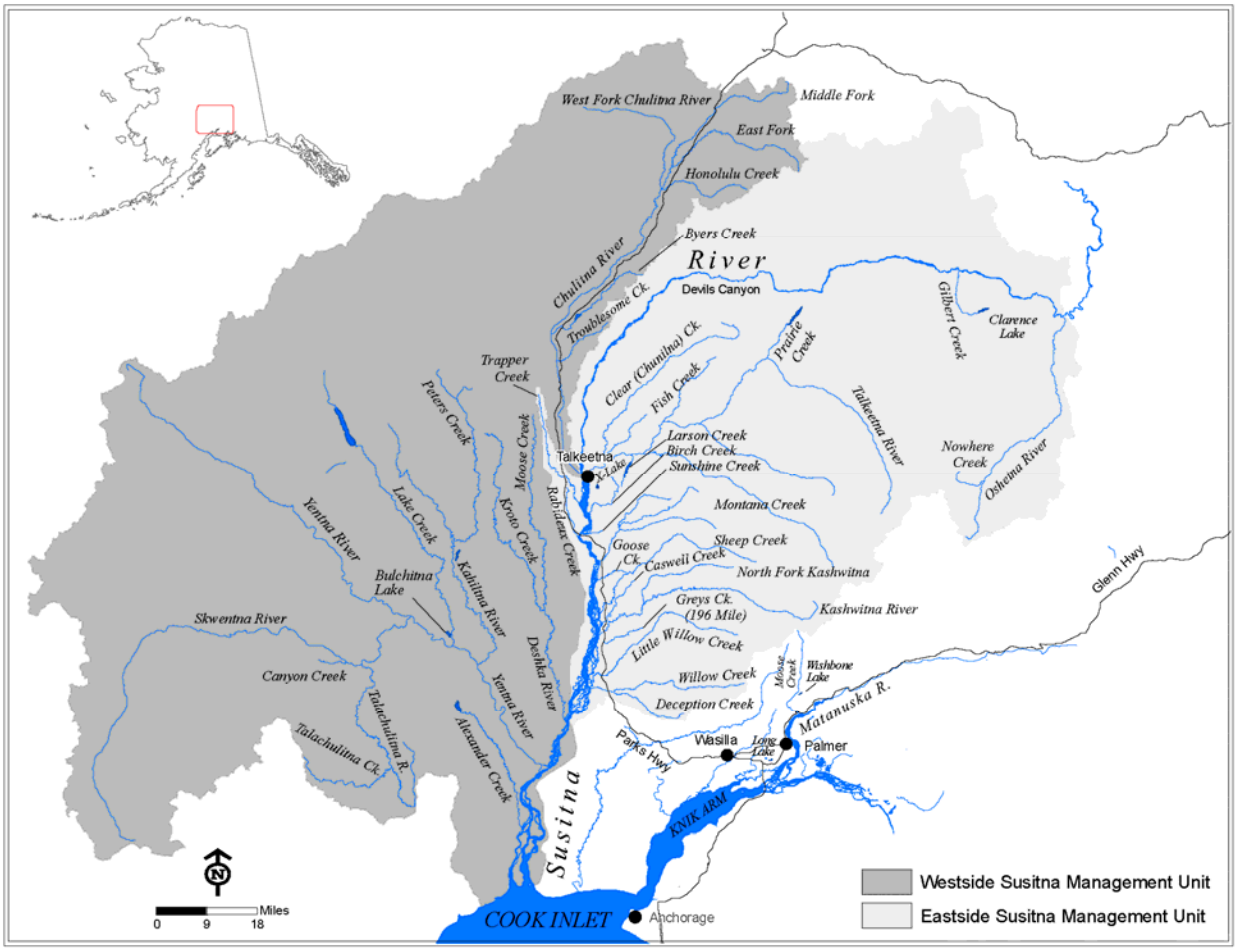


Figure 31.–Susitna River drainages.

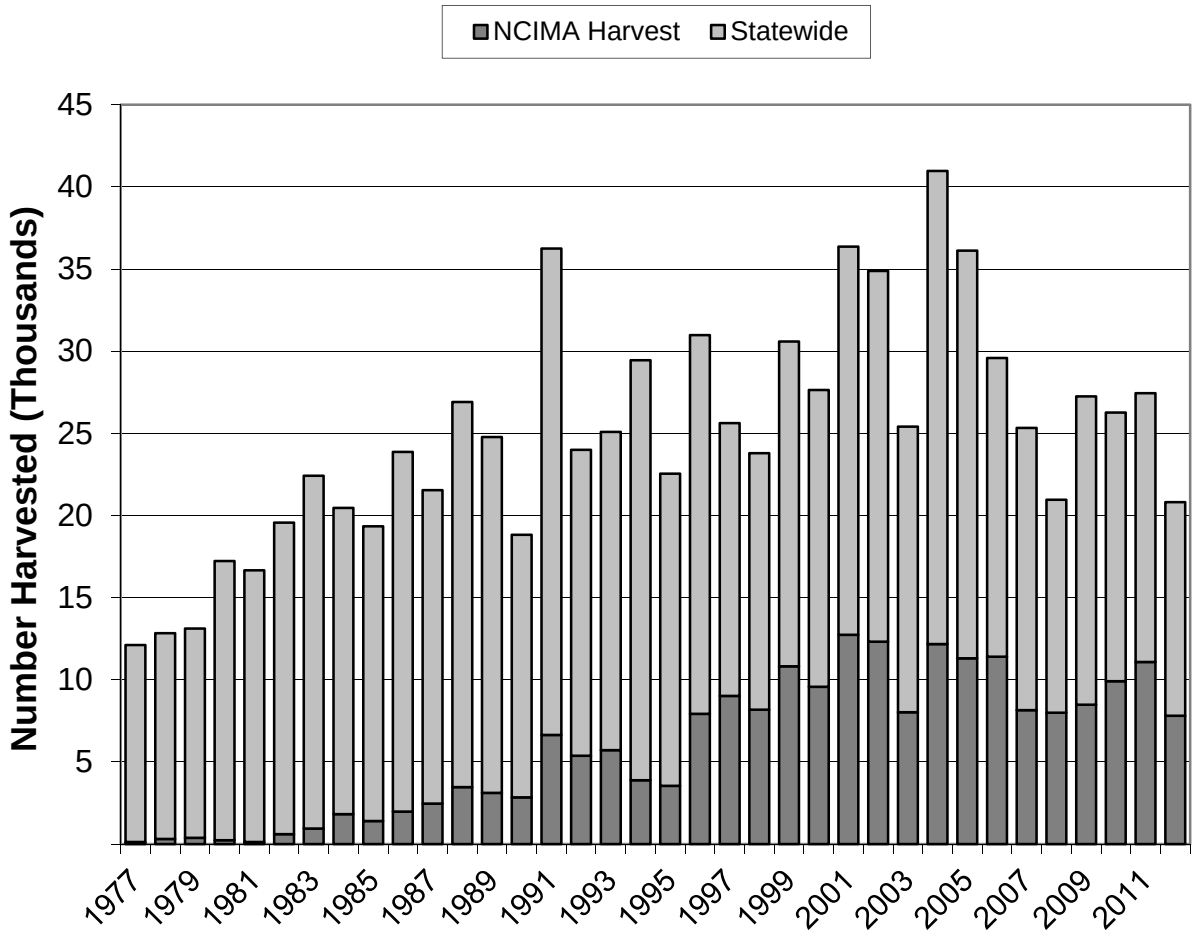


Figure 32.–Estimated northern pike harvest from the Northern Cook Inlet Management Area and statewide, 1977-2012.

APPENDIX A: FISH AND GAME ADVISORY COMMITTEE

Appendix A1.–Northern Cook Inlet Management Area, Fish and Game Advisory Committee members 2011–2012.

Advisory Committee	Last	First	City
Susitna Valley			
	Bakker	Melanie	Trapper Creek
	Gustafson	Gus	Talkeetna
	Kingery	Todd	Talkeetna
	Knowles	Bruce	Willow
	Logan	Tom	Big Lake
	Mayay	Israel	Talkeetna
	Meals	Robert	Talkeetna
	Runyan	Steve	Willow
	Seime	Craig	Wasilla
	Shanigan	Terrence	Willow
	Skipper	John	Palmer
Matanuska Valley			
	Bartelli	Stephen	Wasilla
	Beckman	Eric	Wasilla
	Buirge	Mike	Wasilla
	Couch	Andy	Palmer
	Crowley	Dane	Palmer
	Darilek	Stephen	Wasilla
	Dykstra	Gerrit	Wasilla
	Ehman	Jehnifer	Palmer
	Folsom	Bill	Palmer
	Grove	Melvin	Big Lake
	Jones	Tony	Wasilla
	Montgomery	Dan	Wasilla
	Payton	Israel	Wasilla
	Sager	Max	Wasilla
	Schachle	Ted	Willow
	Thompson	Kathy	Wasilla
	Tuttle	Jeff	Palmer
	Warta	Stephen	Palmer
	Westfall	Keith	Palmer
	Young	David	Wasilla
Mt. Yenlo			
	Brion	Tom	Skwentna
	Childs	Steve	Skwentna
	Childs	Bonnie Dee	Skwentna
	Ivey	James	Skwentna
	Johnson	Eric	Skwentna
	King	Sara	Skwentna
	Meisner	Bob	Wasilla
	Payton	Thomas	Skwentna
	Stanley	Barry	Willow
	Torkelson	Mark	Skwentna

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Advisory Committee	Last	First	City
Denali			
	Bulard	Keith and Armeda	Cantwell
	Burney	Jeff	Cantwell
	Caress	Marty	Cantwell
	Carlson	Gordon	Cantwell
	Gore	Marie	Cantwell
	Gore	Bruce	Cantwell
	Holum	Don	Cantwell
	Holum	Caleb	Cantwell
	Williams	Lance	Cantwell
Tyonek			
	Chickalusion	Chad	Tyonek
	Heilman	Larry	Beluga
	Jones	Randall	Tyonek
	Standifer	John	Tyonek
	Standifer	Arthur	Tyonek
	Standifer	Brandy	Tyonek
	Standifer	Randy	Tyonek
	Standifer	Jessica	Tyonek
	Standifer	Donald	Tyonek
	Valka	Betty	Tyonek

APPENDIX B: REGULATORY HISTORIES OF SELECTED FISHERIES

Sport fishing for Chinook salmon in NCIMA fresh waters was open from statehood (1959) through 1963. During 1964 through 1966, sport fishing for Chinook salmon in fresh waters 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 quota system that allotted harvest of 250 fish, over 20 inches in length. The season closed early if the quota was achieved. A 1-fish per day, 2-fish per season bag limit for fish over 20 inches in length was in place and a punch card was required to participate 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, possession of a punch card was still required to participate in the fishery. 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 sport fishing for Chinook salmon in 1979 after being closed for several years because of low stock abundance. Cautious incremental expansion has characterized the management of the area's Chinook salmon fisheries since they were reopened. From 1979 through 1982, sport fishing for Chinook salmon was permitted at Alexander Creek, Lake Creek, and at the Deshka River from the fourth Saturday in May through 6 July. These streams drain into the Susitna River from the west. The fishing season was similar for Clear Creek, a tributary of the Talkeetna River. In addition, three eastside tributaries of the Susitna River—Willow, Caswell, and Montana creeks—were open on Saturdays and Sundays only for four 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 rivers 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 1 January.

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 sport fishing for Chinook salmon. 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.

In 1987, Monday was added to all former weekend-only fisheries that drain into the Susitna River from the east, expanding fishing opportunities for Chinook salmon. Saturday through Monday was open to fishing 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 four continuous "weekends" similar to the previously mentioned Saturday through Monday fisheries. Fishing was permitted for Chinook salmon for the first time on the Susitna River drainage upstream from the Susitna River's confluence with the Talkeetna River to Devil’s Canyon but excluding the Chulitna River drainage. Unbaited, single-hook, artificial lures were mandatory in this area. The season extended from 1 January 1 through 13 July. The season for all Susitna River and coastal fisheries that formerly closed on 6 July was extended to 13 July in 1987.

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In 1989, sport fishing for Chinook salmon 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 1 January and the third Monday in June and on Saturday through Monday for two consecutive weeks starting the fourth Saturday in June.

In 1979, Bag and possession limits were one Chinook salmon 20 inches or over in length. The following year, bag and possession limits changed to two Chinook salmon 20 inches or over in length but only one Chinook salmon could be over 28 inches in length. In 1981, the bag limit was reduced to one 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 sport 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, daily bag and possession limits for the western drainages of the Susitna River were changed to two Chinook salmon, 16 inches or more in length, and four in possession; these limits remained through 1992. Only one fish daily and two 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 one Chinook salmon, 16 inches or more in length, and two in possession. The seasonal limit was five Chinook salmon 16 inches or more in length. From 1979 through 1988, anglers were required to list their Chinook salmon harvest on nontransferable harvest records. The date and location of harvested Chinook salmon were recorded. From 1980 through 1982, a $5.00 permit stamp was mandatory when fishing for Chinook salmon. The harvest record and yearly limit were 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. These regulations went into effect during the 1993 season. A seasonal limit of five 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.

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

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

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Action during the November 1992 BOF meeting also reduced the Chinook salmon bag and possession limits 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 one daily and two in possession.

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

Prior to the 1994 season, in anticipation of an inadequate Chinook salmon run to the Deshka River, an emergency order (EO) was issued reducing the Chinook salmon possession limit to one fish and eliminating the use of bait in the Deshka River from 1 May through 14 July. As the 1994 Chinook salmon fishing season progressed, it became apparent that weak runs were occurring in the entire Susitna River drainage and particularly in the Deshka River. In response to this, an EO 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 flows 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 from 17 June through 13 July 1994.

During its October 1994 work session, BOF chose to delegate to ADF&G the authority to change regulations for the 1995 fishing season. These regulation changes were as follows:

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

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

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BOF convened in Anchorage, Alaska during 11–17 November 1996. A brief summary of the regulatory changes adopted by BOF that affected the Susitna–West Cook Inlet Area Chinook (king) salmon 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 [ADF&G] 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.

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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 Chinook salmon fishing on 21 June through 13 July. Fishing was limited to the lower two 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 Chinook salmon fishing from its confluence with the Susitna River upstream five miles to an ADF&G marker. The seasonal bag limit for Chinook salmon over 16 inches in length and from the Deshka River was set at two. 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 that affected Chinook salmon fishing included opening Willow Creek from 20 to 22 June to correct an oversight in the regulations and adding one Friday to allow fishing for Chinook salmon in the Susitna River between the Deshka River and the Talkeetna River (excluding both rivers).

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The BOF made the following changes for the 1999 season. The Deshka River was open from 1 January to 13 July to Chinook salmon fishing from its mouth upstream to Chijuk Creek, a distance of approximately 17 river miles. Other area regulations applied: one fish per day bag and possession limits, a 5-fish seasonal limit, and a requirement that any angler harvesting a Chinook salmon must quit fishing for Chinook salmon the remainder of the day. Additionally, fishing was allowed only between the hours of 6:00 AM and 11:00 PM; no bait was allowed and guides could not fish while guiding clients.

For the 1999 season, the area open for retention of Chinook salmon on Alexander Creek was extended from its mouth upstream to Trail Creek. This provided anglers with an additional 11 miles of stream to harvest Chinook salmon that was not available during the 1997 and 1998 seasons.

The Theodore River was opened to catch-and-release fishing for Chinook salmon from 1 January through 30 June and only single hook artificial lures were allowed. Other West Cook Inlet Area regulations applied as follows: fishing was allowed only between the hours of 6:00 AM to 11:00 PM, bait was prohibited, and guides could not fish while guiding.

There were 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) were open to Chinook salmon fishing from 1 January through the third Monday in June and for the next two consecutive 3-day weekends. This regulation was consistent with that on Willow Creek.

On the Little Susitna River, anglers were 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 Chinook salmon fishing on the Kashwitna River was extended from its mouth upstream to the Parks Highway Bridge, a distance of two miles. The Kashwitna River, a Parks Highway stream, was regulated under the new season regulation implemented for the Parks Highway streams.

In all waters of the Westside Susitna Management Unit and the West Cook Inlet Management Unit (excluding waters between the Deshka River and the Talkeetna River mouths), anglers were allowed to continue to fish for Chinook salmon (catch-and-release only) once they had harvested their limit. Alexander Creek, Lake Creek, Deshka River, Fish Lake Creek, and Clear Creek were excluded from this regulation; in these streams, anglers were required to quit fishing for Chinook salmon for the day once they harvested their limit.

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

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

During the January 2001 BOF meeting a "jack" king salmon was defined as any king (Chinook salmon) 20 inches or less in length statewide. In all fresh waters open to Chinook salmon fishing, the bag and possession limit for "jacks" is 10. These limits are in addition to any limits for Chinook salmon over 20 inches in length and do not count against annual or seasonal limits. This new definition increased the length requirement for Chinook salmon 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 the Chinook 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 one-quarter mile of Honolulu Creek only). These waters which were scheduled to close on Monday, 2 July were opened through Wednesday, 4 July at 12:00 midnight.

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

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

1. Allow catch-and-release fishing for Chinook salmon in the East Fork of the Chulitna River 1 January through 13 July. Only one single-hook, unbaited artificial lure may be used 1 January through 13 July.
2. Increase possession limit to two Chinook salmon for West Susitna River tributaries (excluding Alexander Creek).

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3. In the Northern District King Salmon Management Plan: The commercial setnet fishery will open on the first Monday on or after 25 May and close 24 June. The number of commercial periods will depend upon expected northern Cook Inlet Chinook salmon run strengths and there shall be no more than three commercial openings targeting Chinook salmon. 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 Chinook salmon fishing for the remainder of the directed Chinook salmon fishery. If the Deshka River is closed to sport fishing, the commercial Chinook salmon fishery throughout the Northern District is closed for the remainder of the directed Chinook 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 Chinook salmon fishing for the remainder of the directed Chinook 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 Chinook salmon in all Westside Susitna River tributaries except Alexander Creek.
2. Opened the entire Theodore and Lewis rivers to catch-and-release for Chinook salmon through 30 June. Single hook, no bait.
3. Allowed the use of bait in the first 17 miles of the Deshka River and within a one-quarter mile radius of the mouth of the Deshka River with the Susitna River, 8 June through 13 July 2002.

All regulations became effective midway through the season. As in past years, an EO was issued which extended the Chinook salmon season in Willow, Sheep, and Montana creeks three days, 5–7 July from 6:00 AM to 11:00 PM.

In 2003 there were no new regulations. As in past years, an EO was issued which extended the Chinook salmon season in Willow, Sheep, and Montana creeks three days, 4–6 July from 6:00 AM to 11:00 PM. In mid-June when an exceptional return was realized for Deshka River, an EO was issued to increase the bag and possession limit of Chinook 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.

During 2004, two EO's were issued to liberalize the Deshka River Chinook salmon fishery. The first EO allowed use of bait in the first 17 miles of the river 28 May through 13 July. The second EO increased the daily bag and possession limits from one per day and two in possession to two per day and four in possession on that portion of river open to Chinook salmon fishing (first 17 miles). An EO was issued to open the Chinook salmon fishery at Eklutna Tailrace on 15 April.

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A BOF meeting was held January 2005. Sport fish regulatory changes included the following:

1. Anglers were allowed to use bait earlier in the Deshka River commencing 15 May.
2. The Parks Highway streams were opened for an additional 3-day weekend for Chinook salmon fishing. For 2005, the Parks Highway streams were open from 1 January to 20 June and on 25–27 June, 2–4 July, and 9–11 July.
3. The area open to Chinook salmon fishing on the Kashwitna River was increased by approximately one mile, from the Parks Highway Bridge to the Alaska Railroad Bridge.
4. Anglers may no longer fish for Chinook salmon 20 inches or less in waters closed to Chinook salmon fishing.
5. Eklutna Tailrace and all waters within a one-half mile radius of its confluence with the Knik River were opened to fishing for Chinook salmon from 1 January through 31 December. Once an angler retains a bag limit of Chinook salmon 20 inches or longer, they may not fish in any water open to Chinook salmon fishing on that same day.

Commercial fish regulatory changes included the following:

1. The Northern District King Salmon Management Plan was altered by limiting fishing periods to a maximum of three and increasing fishing time per period from six hours to 12 hours. The gear restriction of two nets from 1 August to 10 August was removed.
2. The Big River Sockeye Salmon Management Plan was amended to allow fishing in a portion of the Kalgin Island Subdistrict along the western shore from Light Point (lat 60° 29.00′N, lon 151° 50.50′W) to the Kalgin Island Light on the southern end of the island at lat 60° 20.80′N, lon 152° 05.09′W. Note: this fishery is closed if 1,000 Chinook salmon are harvested.

Two EO's were issued inseason to liberalize the Deshka River Chinook salmon fishery:

1. On 27 May, the daily bag and possession limit for Chinook salmon was increased from one per day, two in possession to two per day, four in possession. Fishing time was increased to 24 hours per day.
2. The fishery was extended from 14 July through 31 July.

In 2006, an EO increased the bag limit and fishing time on the Deshka River, effective on 26 May. The daily bag and possession limit was increased to two per day, four in possession and fishing time was increased to 24 hours per day.

On 25 May 2007, an EO increased the bag limit and fishing time on the Deshka River. The daily bag and possession limit was increased to two per day, four in possession and fishing time was increased to 24 hours per day.

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In 2008, a BOF meeting held in February resulted in the following Chinook salmon regulation changes:

1) Alexander Creek was closed to Chinook salmon fishing.
2) The area open to Chinook salmon fishing at the Eklutna Tailrace was expanded. In addition to the Tailrace and waters within a one-half mile radius of the mouth, anglers would be allowed to fish downstream to an ADF&G marker located approximately two miles downstream of the Tailrace mouth.

In June 2008, two EOs were issued to decrease the number of Chinook salmon harvested on the Deshka River. The first EO, issued on 12 June, disallowed the use of bait beginning 6:00 AM, 14 June. The second EO, issued on 19 June, closed the fishery for the remainder of the season. The last two regularly scheduled commercial periods on 23 and 26 June were closed as a result of closure of the Deshka River sport fishery.

In 2009, no new regulations were issued.

In June, as in 2008, two EOs were issued decreasing the harvest of Chinook salmon in the Deshka River. The first, issued 20 April, disallowed the use of bait and decreased retention by only allowing Chinook salmon to be retained on Saturdays, Sundays, and Mondays from 15 May through 13 July. Any Chinook salmon caught Tuesday through Friday could not be removed from the water and was to be released immediately. The second, issued on 11 June, closed the fishery for the remainder of the season. On 20 May, the BOF enacted an emergency regulation to reduce the fishing times in the Northern District setnet fishery from twelve to six hours by allowing commercial salmon fishing to occur only between 7:00 AM and 1:00 PM. On 11 June, the Northern District was closed to the harvest of Chinook salmon for the remainder of the fishing periods scheduled for 2009 due to the closure of the Deshka Chinook salmon sport fishery.

With concern about the low number of Chinook salmon returning to the area, another EO took effect 3 July, closing the Parks Highway streams of the Susitna River drainage and the Little Susitna River for the final three-day weekend to the taking of Chinook salmon from Friday, 3 July through the remainder of the season.

An EO issued on 1 July clarified that Areas in Unit 2 closed to Chinook salmon fishing throughout the year (upstream of Parks Highway bridges, ADF&G markers, etc.) were not affected by the 11 June EO and that anglers could continue to fish for trout and other species in those streams.

In 2010, no new regulations were issued.

Due to failure to meet escapement goals from 2007 to 2009, an EO was issued on 4 May that closed the Chinook salmon sport fishery, including catch-and-release, in the Theodore, Lewis, and Chuitna rivers at 6:00 AM on 15 May for the remainder of the season. The areas affected included all marine waters within a one-half mile radius of the mouths of these rivers. As a result, the Northern District setnet fishery was closed per the Northern District Chinook Salmon Management Plan from an ADF&G regulatory marker located one mile south of the Chuitna River to the Susitna River for the entire directed Chinook salmon fishery.

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On 9 June, an EO prohibited the use of bait in the lower portion of the Deshka River effective 6:00 AM, 12 June. This EO was rescinded on 19 June when it was projected the escapement goal would indeed be met. A step-down restriction followed in the Northern District setnet fishery with the third (14 June) of four regularly scheduled periods being restricted from 12 to 6 hours.

On 24 June, an EO reduced the annual limit for Chinook salmon in the Yentna River Drainage from five fish to one fish beginning 26 June. Any Chinook salmon recorded before 26 June on the harvest portion of an Alaska sport fishing license or harvest record card would not count towards the one Chinook salmon that could be harvested after 25 June.

On 30 June, an EO was issued that closed the Chinook salmon sport fishery on Parks Highway streams of the Susitna River drainage for the remaining two weekends and the Little Susitna River effective 11:00 PM on 2 July and continuing through the remainder of the season. Waters normally open to Chinook salmon fishing in Unit 2 were also closed to all sport fishing. The Little Susitna River downstream from the Parks Highway Bridge and waters normally closed to Chinook salmon fishing throughout the year in Unit 2 remained open to fishing for trout and other species.

A separate EO, also issued on 30 June, reduced the annual Chinook salmon limit on the Talkeetna and Chulitna rivers drainages from five fish to one fish effective at 11:00 PM, 2 July. Chinook salmon recorded before 3 July on the harvest portion of an Alaska sport fishing license or harvest record card would not count towards the one Chinook salmon that could be harvested after 2 July.

In 2011, a BOF meeting held in February resulted in the following Chinook salmon regulation changes:

1. The Chuitna, Theodore, Lewis, and Beluga rivers are closed to sport fishing for Chinook salmon.
2. Goose Creek within Unit 2 of the Susitna River is closed to sport fishing for Chinook salmon.
3. On the Parks Highway streams within Unit 2 of the Susitna River that are open to Chinook salmon fishing, the following regulations were made:
    a. The fishing season was shortened. Fishing is open until the third Monday in June and for the following two consecutive three-day weekends (Saturday–Monday). For 2011, the season is from 1 January to 20 June, 25 June to 27 June, and 2 July to 4 July.
    b. From 15 May to 13 July, fishing for all species is allowed only from 6 AM to 11 PM.
    c. These new regulations apply to Willow, Little Willow, Grays, Caswell, Sheep, Montana, Sunshine, and Rabideux creeks, and the Kashwitna River.
4. On a portion of the Susitna River at the farthest downstream mouth of Willow Creek, also known as the “first mouth” of Willow Creek, from 1 May to 13 July, fishing from a boat for any species is prohibited. The area closed to fishing from a boat is from a marker located on the upstream bank, downstream approximately 300 yards to another marker.
5. On the Talachulitna River, anglers retaining a Chinook salmon 20 inches or longer must stop fishing for Chinook salmon within a one-mile radius of the mouth of the Talachulitna River for the remainder of the day.

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6. Fishing for any species is closed within a one-half mile radius of the mouth of Alexander Creek from 1 May to 13 July.
7. Established stock of concern status for Chinook salmon stocks in three areas: 1) Chuitna, Theodore, and Lewis rivers within West Cook Inlet (WCI); 2) Goose and Willow creeks (Parks Highway streams) of the Susitna River; and 3) Alexander Creek of the lower Susitna River.
8. The area closed to commercial fishing was extended from 1 mile to about 4.8 miles south of the Chuitna River.

In 2012, no new regulations were issued.

On 1 May, two EOs were issued reducing the harvest of Chinook salmon in the Susitna River drainage and the Little Susitna River drainage. One EO reduced the annual limit for Chinook salmon 20 inches or longer from five fish to two fish and limited sport fishing gear to one unbaited, single-hook, artificial lure when fishing in Units 1–6 of the Susitna River drainage from 15 May through 13 July. This EO further prohibited the harvest of Chinook salmon in Unit 2 of the Susitna River drainage after 11 June through 13 July. The second EO reduced the annual limit for Chinook salmon 20 inches or longer from five fish to two fish and limited sport fishing gear to one unbaited, single-hook, artificial lure when fishing in the Little Susitna River drainage from 15 May through 13 July. In addition, retention of Chinook salmon was also prohibited on Tuesdays, Wednesdays, and Thursdays beginning 15 May.

On 13 June, an EO was issued closing the Little Susitna River in the Knik Arm Drainage Area to sport fishing for Chinook salmon, including catch-and-release fishing, from 15 June through 13 July.

On 18 June, an EO was issued which prohibited the use of bait in the Deshka River, and prohibited sport fishing for Chinook salmon in waters of the Deshka River upstream of the weir, located at river mile 7 from 20 June through 13 July.

On 22 June, an EO was issued closing the Susitna River drainage to sport fishing for Chinook salmon and limited sport fishing gear to one unbaited, single-hook, artificial lure when fishing in Units 1–6 of the Susitna River drainage in waters normally open to Chinook salmon fishing from 25 June to 13 July.

Appendix B2.–Deshka River Chinook salmon regulatory changes, 1977–2012.

Year	Fishery dates	Area & time restrictions	Method & gear restrictions	Bag & possession limits	Seasonal NCI limit	Other requirements
1977	closed to adults			20" or less only		
1978	closed to adults			20" or less only		
1979	4th Sat. in May–6 Jul	Mouth to Laub's Homestead marker		1/day over 20" & 1 possession	5 over 20"	Punch card required
1980	4th Sat. in May–6 Jul	Mouth to forks		2/day over 20", only 1 over 28" & 2 possession	5 over 20"	Punch card required
1981	4th Sat. in May–6 Jul	Mouth to forks		1/day over 20" & 2 possession	5 over 20"	Harvest record sticker
1982	4th Sat. in May–6 Jul	Mouth to forks		1/day over 20" & 2 possession	5 over 20"	Permit stamp. Record on back of license
1983	1 Jan–6 Jul	Mouth to forks		1/day over 20" & 2 possession	5 over 20"	Harvest record back of license
1984	1 Jan–6 Jul	Mouth to forks		1/day over 20" & 2 possession	5 over 20"	Harvest record back of license
1985	1 Jan–6 Jul	Mouth to forks		1/day over 20" & 2 possession	5 over 20"	Harvest record back of license
1986	1 Jan–6 Jul	Mouth to forks		Over 16": 2/day & 4 possession, only 1/day & 2 possession over 28"	5 over 16"	Harvest record back of license
1987	1 Jan–13 Jul	Mouth to forks		Over 16": 2/day & 4 possession, only 1/day & 2 possession over 28"	5 over 16"	Harvest record back of license
1988	1 Jan–13 Jul	Mouth to forks		Over 16": 2/day & 4 possession, only 1/day & 2 possession over 28"	5 over 16"	Harvest record back of license
1989	1 Jan–13 Jul	Mouth to forks		Over 16": 2/day & 4 possession, only 1/day & 2 possession over 28"	5 over 16"	
1990	1 Jan–13 Jul	Mouth to forks		Over 16": 2/day & 4 possession, only 1/day & 2 possession over 28"	5 over 16"	
1991	1 Jan–13 Jul	Mouth to forks		Over 16": 2/day & 4 possession, only 1/day & 2 possession over 28"	5 over 16"	
1992	1 Jan–13 Jul	Mouth to forks	No bait between Trapper Creek and forks on 22 Jun by EO	1/day over 16" & 1 possession. Release of fish over 16" between Trapper and forks on 22 Jun by EO	5 over 16"	

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Year	Fishery dates	Area & time restrictions	Method & gear restrictions	Bag & possession limits	Seasonal NCI limit	Other requirements
1993	1 Jan–13 Jul	Mouth to forks	Artificial only until 15 May	1/day over 16" & 2 possession	5 over 16"	King stamp. Harvest record back of license
1994	Closed 17 Jun by EO	Mouth to forks	Artificial only until 16 May	1/day over 16" & 2 possession	5 over 16"	King stamp. Harvest record back of license
1995	Closed					
1996	Closed					
1997	Opened 21 Jun by EO	Lower 2 miles of river	Artificial only	1/day over 16" & 1 possession	5 over 16"	King stamp. Harvest record back of license
1998	1 Jan–13 Jul	Lower 5 miles of river	Artificial only	1/day over 16" & 1 possession	5 over 16", only 2 from Deshka R.	King stamp. Harvest record back of license
1999	1 Jan–13 Jul	Mouth to Chijuk Creek, 6 AM–11 PM	Artificial only	1/day over 16" & 1 possession	5 over 16"	King stamp. Harvest record back of license
2000	1 Jan–13 Jul	Mouth to Chijuk Creek, 6 AM–11 PM	Bait allowed 8 Jun by EO	1/day over 16" & 1 possession	5 over 16"	King stamp. Harvest record back of license
2001	1 Jan–13 Jul	Mouth to Chijuk Creek, 6 AM–11 PM	Bait allowed 12 Jun by EO	1/day over 20" & 1 possession	5 over 20"	King stamp. Harvest record back of license
2002	1 Jan–13 Jul	Mouth to Chijuk Creek, 6 AM–11 PM	Bait allowed 8 Jun by regulation	1/day over 20" & 2 possession	5 over 20"	King stamp. Harvest record back of license
2003	1 Jan–13 Jul	Mouth to Chijuk Creek, 6 AM–11 PM	Bait allowed 8 Jun by regulation	2/day over 20" & 4 possession on 18 Jun by EO	5 over 20"	King stamp. Harvest record back of license
2004	1 Jan–13 Jul	Mouth to Chijuk Creek, 6 AM–11 PM	Bait allowed 28 May by EO	2/day over 20" & 4 possession on 12 Jun by EO	5 over 20"	King stamp. Harvest record back of license
2005	1 Jan–13 Jul. Extended through 31 Jul by EO.	Mouth to Chijuk Creek. Open 24-h on 27 May by EO	Bait allowed 15 May by regulation	2/day over 20" & 4 possession on May 27 by EO	5 over 20"	King stamp. Harvest record back of license

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Appendix B2.–Page 3 of 3.

Year	Fishery dates	Area & time restrictions	Method & gear restrictions	Bag & possession limits	Seasonal NCI limit	Other requirements
2006	1 Jan–13 Jul	Mouth to Chijuk Creek. Open 24-h on 26 May by EO.	Bait allowed 15 May by regulation	2/day over 20" & 4 possession on May 26 by EO	5 over 20"	King stamp. Harvest record back of license
2007	1 Jan–13 Jul	Mouth to Chijuk Creek. Open 24-h on 25 May by EO.	Bait allowed 15 May by regulation	2/day over 20" & 4 possession on May 25 by EO	5 over 20"	King stamp. Harvest record back of license
2008	1 Jan–13 Jul	Mouth to Chijuk Creek, 6 AM–11 PM. Closed 19 Jun by EO.	Bait not allowed 14 Jun–13 Jul by EO	1/day over 20" & 1 possession	5 over 20"	King stamp. Harvest record back of license
2009	1 Jan–13 Jul	Mouth to Chijuk Creek, 6 AM–11 PM. Retention Sat–Mon only, 13 May by EO. Closed 11 Jun by EO.	Bait not allowed after 20 Apr by EO	1/day over 20" & 1 possession	5 over 20"	King stamp. Harvest record back of license
2010	1 Jan–13 Jul	Mouth to Chijuk Creek, 6 AM–11 PM	Bait not allowed after 12 Jun–19 Jun by EO	1/day over 20" & 1 possession	5 over 20"	King stamp. Harvest record back of license
2011	1 Jan–13 Jul	Mouth to Chijuk Creek 6 AM–11 PM	Bait not allowed after 31 Aug	1/day over 20" & 1 possession	5 over 20"	King stamp. Harvest record back of license
2012	1 Jan–13 Jul	Mouth to Chijuk Creek, 6 AM–11 PM	Bait not allowed after 20 Jun–19 Jun. Sport fishing closed upstream of weir by EO	1/day over 20" & 1 possession	5 over 20"	King stamp. Harvest record back of license

1991

1. Little Susitna River Coho Salmon Management Plan (5 AAC 61.060). Initiated in 1991 season. One coho salmon 1 January through 5 August, three coho salmon 6 August through 31 December, increase to five 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 three-salmon daily bag limit, all three of which could be coho salmon.

Emergency Orders (EOs):

1. EO 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 27 July through 14 September 1991.
2. EO No. 2-RS-1-29-91 closed sockeye salmon fishing in all waters north of the latitude of Anchor Point. Effective 7:00 AM 26 July through 31 December 1991.
3. EO No. 2-RS-2-33-91 opened the Fish Creek personal use dip net fishery. Effective 30 July through 9 August 1991.
4. EO 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, 29 July through 31 December 1991.
5. EO No. 2-RS-2-36-91 rescinded EO 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 AM, 2 August through 31 December 1991.
6. EO No. 2-CS-2-38-91 closed the Eklutna Power Plant tailrace to sport fishing from the Old Glenn Highway downstream to ADF&G markers placed approximately 100 yards upstream of the confluence of the tailrace and the Knik River. Effective noon, 6 August through 31 December 1991.
7. EO No. 2-SS-2-42-91 increased bag and possession limits to five coho salmon at the Little Susitna River downstream from the ADF&G salmon counting weir at river mile 32.5. Effective noon, 14 August through 31 December 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 15 July through 5 August. The bag and possession limits for coho salmon 16 inches or more in length during this time period were increased to three 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 1 September through 15 May. 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 six 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. EO No. 2-RS-2-21-92 opened the Fish Creek personal use dip net fishery. Dip net fishing was allowed for three consecutive days followed by a one day closure on a continuing basis. Effective 6:00 AM, 23 July through 6 August 1992.
2. EO 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 25 July through 14 September 1992.
3. EO No. 2-RS-2-28-92 closed the Susitna River drainage to sockeye salmon fishing. Effective 31 July through 31 December 1992.
4. EO No. 2-SS-2-29-92 increased bag and possession limits to five coho salmon 16 inches or more in length downstream from the ADF&G counting weir at river mile 32.5. Effective 15 August through 31 December 1992.

1993

Emergency Orders:

1. EO No. 2-RS-2-23-93 opened the Fish Creek personal use fishery. The dip net fishery opened 9:00 AM, 24 July and closed midnight, 6 August, with the fishery being closed 26 July, 30 July, and 3 August 1993.
2. EO 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 23 July through 15 September 1993.
3. EO No. 2-SS-2-32-93 increased the bag and possession limits to five coho salmon at the Little Susitna River downstream from the ADF&G counting weir at river mile 32.5. Effective 11 August through 31 December 1993.
4. EO 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 12 August through 1 November 1993.

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1994

Emergency Orders:

1. EO No. 2-RS-2-28-94 opened the Fish Creek personal use fishery. The dip net fishery opened 9:00 AM, 27 July and closed midnight 5 August, with the fishery being closed 29 July and 2 August 1994.
2. EO No 2-RS-2-33-94 supersedes EO 2-RS-2-28-94 extending the Fish Creek Personal Use Dip Net Fishery through midnight, 9 August. Effective 7 through 9 August 1994.
3. EO 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 25 May through 15 September 1994.
4. EO No. 2-SS-2-32-94 increased the bag and possession limits to five coho salmon at the Little Susitna River downstream from the ADF&G counting weir at river mile 32.5. Effective 6 August through 31 December 1994.
5. EO 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 26 July through 1 November 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. EO 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 25 May through 15 September 1995.
2. EO No. 2-RS-02-32-95 opened the Fish Creek personal use fishery. The dip net fishery opened 5:00 AM, 26 July and closed midnight, 8 August, with the fishery being closed 28 July and 1 August and 4 August 1995.
3. EO No. 2-SS-02-40-95 increased the bag and possession limits to five coho salmon at the Little Susitna River downstream from the ADF&G counting weir at river mile 32.5. Effective 9 August through 31 December 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 opportunity is provided near the terminus of the Kasilof River. No Knik set gillnet fishery was provided.

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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 10 July through 31 July 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 Chinook salmon in the Little Susitna River are three 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. EO No. 2-RS-2-25-97 closed Fish Creek dipnetting from 11:00 AM, 23 July through 11:00 PM, 25 July 1997.
2. EO No. 2-RS-2-28-97 closed Fish Creek dipnetting for the remainder of the 1997 season on 26 July 1997.
3. EO 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 9 August 1997. Areas not included were Eklutna Tailrace, Ship, Bird, and Campbell creeks.
4. EO No. 2-SS-2-34-97 closed Wasilla Creek downstream from the railroad bridge, including Rabbit Slough and Spring Creek, to sport fishing 23 August through 31 October 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.

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Emergency Orders:

1. EO 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. EO No. 2-RS-2-15-98 closes Fish Creek to dipnetting effective 25 through 31 July 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 AM to 6:00 PM) in these Saturday and Sunday only fisheries. Once an angler has harvested a bag limit of three salmon, he or 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, and McArthur rivers), once an angler has harvested a bag limit of three coho salmon he or she may no longer fish on this stream for the remainder of the day. These same streams are closed to coho salmon fishing from 1 October through 31 December.
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. EO 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. EO No. 2-RS-2-15-99 closed Fish Creek to dipnetting on 26 July 1999.
3. EO No. 2-SS-2-20-99 reduced the bag limit to one coho salmon and no bait for Cottonwood, Wasilla, and Fish creeks and the Little Susitna River, on 19 August 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 salmon bag and possession limits in the Knik Arm (excluding the stocked coho salmon fishery in the Eklutna Tailrace) and the Susitna River were reduced to two. The West Cook Inlet bag and possession limits north of the West Foreland were reduced to two daily and four in possession. South of the West Foreland they remained at three daily and six in possession.

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

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

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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 salmon daily bag limit caused some confusion on the Little Susitna River so an EO was issued to clarify the new regulation.

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

2001

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

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

1. EO No. 2-RS-2-17-01 closed Fish Creek to dipnetting on 12 July at 11:00 PM.

2002

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

1. The Larson Creek drainage upstream of a marker one-quarter mile upstream from its mouth is closed to sport fishing for all salmon year-round.
2. Nancy Lake Creek drainage upstream of a marker one-quarter mile upstream from its mouth is closed to all salmon fishing including catch-and-release.
3. The Clearwater and Roscoe creeks drainages are closed year-round to all fishing upstream from a marker one-half 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 Chinook salmon). Saturday and Sunday only from 6:00 AM to 6:00 PM only.
6. Eliminate use of bait on Little Susitna River on 14 July upstream of the Little Susitna Public Use Facility.

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

1. EO No. 2-SS-2-29-02 in Fish Creek increased the coho salmon bag limit to three per day and allowed 24-hour per day fishing on Saturdays and Sundays beginning 17 August at 12:01 AM through 31 December.

2003

No new regulations adopted for 2003 and no EOs issued.

2004

No new regulations adopted for 2004 and no EOs issued.

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2005

The BOF met January 2005. Sport fish regulatory changes included the following:

1. A person may no longer fish in waters open to salmon fishing the same day they take a limit of salmon 16 inches or greater from Wasilla Creek.
2. Excluding Alexander Creek, the bag and possession limit for coho salmon on Westside Susitna streams was increased from two per day, four in possession to three per day, six in possession.
3. Anglers may no longer fish for other salmon (coho, pink, or chum salmon) 16 inches or less in waters closed to fishing for other salmon.

The BOF adopted the following commercial fishery regulations:

1. Central District Drift Gillnet Fishery Management Plan (5 AAC 21.353)

- The drift fishery opens the third Monday in June or June 19 whichever is later.
- From July 9 through July 15,
  - Drift gillnet fishing is restricted for two regular fishing periods to the Kenai and Kasilof Sections and Drift Area One described below.
  - In runs of over 2 million sockeye salmon to the Kenai River there may be one additional 12-hour period in the Kenai and Kasilof Sections of the Upper Subdistrict and in Drift Area One.
- From July 16 through July 31,
  - In runs of less than 2 million sockeye salmon to the Kenai River there will be two regular 12-hour fishing periods restricted to the Kenai and Kasilof Sections of the Upper Subdistrict and Drift Area one;
  - In runs of between 2 and 4 million sockeye salmon to the Kenai River; there will be two regular 12-hour fishing periods restricted to the Kenai and Kasilof Sections of the Upper Subdistrict and in Drift Areas One & Two;
  - In runs of over 4 million sockeye salmon to the Kenai River, there are no mandatory restrictions.
- From August 11 until closed by emergency order,
  - Drift Areas three & Four are open for regular periods;
  - Chinitna Bay may be opened by emergency order.

New Drift Fishing Areas:

(1) Drift Area One: includes those waters of the Central District south of Kalgin Island at 60° 20.43' N. lat.;

(2) Drift Area Two: includes those waters of the Central District enclosed by a line from 60° 20.43' N. lat., 151° 54.83' W. long. to a point at 60° 41.08' N. lat., 151° 39.00' W. long. to a point at 60° 41.08' N. lat., 151° 24.00' W. long. to a point at 60° 27.10' N. lat., 151° 25.70' W. long. to a point at 60° 20.43' N. lat., 151° 28.55' W. long.;

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(3) Drift Area Three; includes those waters of the Central District within one mile of mean lower low water (zero tide) south of a point on the West Foreland at 60° 42.70' N. lat., 151° 42.30' W. long.;

(4) Drift Area Four; includes those waters of the Central District enclosed by a line from 60° 04.70' N. lat., 152° 34.74' W. long. to the Kalgin Buoy at 60° 04.70' N. lat., 152° 09.90' W. long. to a point at 59° 46.15' N. lat., 152° 18.62' W. long. to a point on the western shore at 59° 46.15' N. lat., 153° 00.20' W. long., not including the waters of the Chinitna Bay Subdistrict.

Other commercial fishery regulatory changes included:

- Up to 50 fathoms of the 150 fathoms of allowable drift gillnet gear per boat may be monofilament mesh; you must register with ADF&G prior to using monofilament gear.
- Spotter planes are allowed during the fishing period.
- Pink salmon fishery during even years was reauthorized; mesh size restriction was removed.
- Up to 35 fathoms of set gillnet gear per permit may be monofilament mesh with no more than one net per permit having monofilament mesh; you must register with ADF&G prior to using monofilament gear.

No emergency orders were issued affecting coho salmon fisheries in 2005.

2006

No new regulations were adopted in 2006.

Emergency orders:

1. EO No. 2-SS-2-41-06 increased the daily bag limit of coho salmon to three daily in that portion of the Little Susitna River open to salmon fishing beginning 19 August.
2. EO No. 2-SS-2-44-06 increased salmon fishing time on Wasilla Creek to 24 hours per day while keeping the Saturday and Sunday, weekend only restriction and increased the bag limit for coho salmon to three daily in those waters open to salmon fishing on 19 August.
3. EO No. 2-SS-43-06 increased salmon (other than Chinook salmon) fishing time on Fish Creek to 24 hours per day while keeping the Saturday and Sunday, weekend only restriction and increased the bag limit for coho salmon to three daily in those waters open to salmon fishing on 19 August.
4. EO No. 2-SS-2-42-06 increased salmon fishing time on Cottonwood Creek to 24 hours per day while keeping the Saturday and Sunday, weekend only restriction and increased the bag limit for coho salmon to three daily in those waters open to salmon fishing on 19 August.

2007

No new regulations were adopted in 2007.

Emergency orders:

1. EO No. 2-SS-2-36-07 prohibits retention of coho salmon while sport fishing in the Knik Arm Management Area, excluding Eklutna Tail Race and fish creek effective 4 September.
2. EO No. 2-SS-2-37-07 rescinded EO No. 2-SS-2-36-07 on 11 September.

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2008

No new sport fish regulations adopted in 2008. The central drift fishery was liberalized from regular fishing periods (Monday and Thursday) being restricted to areas 3 and 4 after 11 August to no mandatory restrictions to regular fishing periods between 11 and 15 August.

Emergency orders:

1. EO No. 2-SS-2-26-08 Increased the bag limit for coho salmon to three per day in that portion of the Knik Arm open to salmon fishing, excluding Jim Creek beginning 16 August.

2009

No new regulations adopted in 2009.

Emergency orders:

1. EO No. 2-SS-2-27-09 Increased the bag limit for coho salmon to three per day in that portion of the Knik Arm open to salmon fishing except the Little Susitna river beginning 19 August.
2. This same EO also added Mondays to the weekend fisheries of Cottonwood, Wasilla, and Fish Creeks beginning 19 August.

2010

No new regulations adopted in 2010.

Emergency Orders:

1. EO No. 2-SS-2-42-10 increased the bag limit for coho salmon to three per day in that portion of the Knik Arm open to salmon fishing except Jim Creek and the Little Susitna River beginning 7 August.
2. EO No. 2-RS-2-38-10 opened the Fish Creek Personal Use Dip Net fishery for salmon other than Chinook salmon only between the hours of 6:00 AM and 11:00 PM starting at 6:00 AM, 24 July and ending 11:00 PM, 31 July.

2011

The BOF met February 2011. Sport fish regulatory changes included the following:

1. In fresh water of Cook Inlet, a coho salmon removed from the water shall be retained. No person may remove from the water a coho salmon he or she intends to release.
2. The bag and possession limits for coho salmon increased from two to three in streams of West Cook Inlet north of West Forelands to the Susitna River. Streams within in this area include Chuitna, Theodore, and Lewis rivers, and tributaries of the Beluga River.
3. The bag and possession limit for coho salmon increased from two to three in all streams within Units 3, 5, and 6 of the Susitna River drainage.
   a.) Talkeetna River streams (Unit 5) include Clear, Larson, and Prairie creeks.
   b.) Chulitna River streams (Unit 6) include Byers, Honolulu, and Troublesome creeks, and the East Fork Chulitna River.
   c.) Upper Susitna streams (Unit 3) include Indian and Portage creeks.

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Emergency Orders:

1. EO No. 2-SS-2-26-11 prohibited the use of bait on the Little Susitna River effective 12:01 AM, Saturday, 6 August 2011, through 11:50 PM, Friday, 20 September 2011.
2. EO No. 2-SS-2-27-11 closed all waters of the Knik Arm Management Area, excluding Eklutna Tailrace and Fish Creek, to fishing for coho salmon effective 12:01 AM, Saturday, 27 August 2011.

2012

Emergency Orders:

1. EO No. 2-KS-2-06-12 reduced the annual limit for Chinook salmon 20 inches or longer from five fish to two fish and limited sport fishing gear to one unbaited, single hook, artificial lure in the Susitna River drainage, effective 6:00 AM, Tuesday, 15 May 2012.
2. EO No. 2-KS-2-07-12 reduced the annual limit for Chinook salmon 20 inches or longer from five fish to two fish and limited sport fishing gear to one unbaited, single hook, artificial lure in the Little Susitna River drainage, effective 6:00 AM, Tuesday, 15 May 2012 through 11:59 PM, Friday, 13 July 2012.
3. EO No. 2-KS-2-14-12 closed the Little Susitna River to fishing for Chinook salmon effective 6:00 AM, Friday, 15 June 2012, through 11:59 PM, Friday, 13 July 2012.
4. EO No. 2-KS-2-15-12 prohibited the use of bait and limited sport fishing gear to one unbaited, single-hook artificial lure while sport fishing in the Deshka River, effective 6:00 AM, Wednesday, 20 June 2012, through 11:00 PM, Friday, 13 July 2012.
5. EO No. 2-KS-2-20-12 closed the Susitna River drainage to sport fishing for Chinook salmon and limited sport fishing gear to one unbaited, single hook, artificial lure when fishing in waters normally opened to Chinook salmon fishing, effective 6:00 AM, Monday, 25 June 2012, through 11:59 PM, Friday, 13 July 2012.
6. EO No. 2-RT-2-31-12 increased the possession limit for rainbow trout in Reflections Lake to five per day and five in possession, with only one 20 inches or greater in length, effective 6:00 AM, Friday, 6 July 2012, through 11:59 PM, Monday, 31 December, 2012.
7. EO No. 2-SS-2-49-12 prohibited sport fishing for coho salmon on the Little Susitna River effective 12:01 AM, Monday, 6 August 2012, through 11:59 PM, Sunday, 30 September 2012.
8. EO No. 2-SS-2-50-12 prohibited the use of bait for coho salmon on the Little Susitna River effective 12:01 AM, Monday, 6 August 2012, through 11:59 PM, Sunday, 30 September 2012.
9. EO No. 2-SS-2-51-12 reduced the bag limit for coho salmon in Jim Creek from two fish to one fish only between the hours of 6:00 AM to 6:00 PM, effective 6:00 AM, Friday, 10 August 2012.
10. EO No. 2-SS-2-53-12 closed all waters of the Knik Arm Management Area, excluding Eklutna Tailrace and Fish Creek, to fishing for coho salmon effective 12:01 AM, Friday, 17 August 2012.

Appendix B4.–Northern pike regulatory history for NCIMA, 1989–2012.

1989

1. The BOF adopted a proposal to establish a bag limit of 10 per day, 10 in possession on northern pike in the Susitna–West Cook Inlet Area.

1997

2. Sport fishing for northern pike using five lines is allowed in specified lakes of the Susitna–West Cook Inlet Area provided the following: 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 the following: 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 lakes.
3. The 10 fish bag and possession limits on northern pike in the Susitna–West Cook Inlet Area were repealed.

1998

4. Established a slot limit for northern pike in Alexander and Trapper lakes. No bag and possession limits are in effect for northern 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 northern pike 30 inches or greater in length are one per day and one in possession. Additionally, the action taken for Alexander and Trapper lakes reduced the number of lines allowed when fishing through ice for northern pike from five lines to two lines, and prohibited the use of spears and bow and arrows for taking of northern pike.
5. Action allowed the use of bow and arrow for taking northern pike in NCI waters.
6. Action resulted in eliminating the three-quarter-inch single-hook size restriction when fishing through the ice on select northern Cook Inlet lakes where five lines are allowed.

2002

1. The use of five lines while ice fishing for northern 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 northern 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 northern pike, anglers may use two hooks on a single line, provided that both hooks are attached to one single piece of bait.

2009

1. The BOF met out-of-cycle in April 2009: the slot limit regulation on Alexander Lake was replaced with a size limit regulation. Under the new regulation, all northern pike less than 27 inches may be harvested without a bag or possession limit, while only one pike larger than 27 inches may be retained per day and in possession.

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2011

1. The BOF met in February 2011: the size limit for northern pike on Alexander Lake was repealed. Additional gear is also allowed. Alexander Lake anglers may continue to use five lines through the ice, but will now be able to use bow-and-arrow and spears to take northern pike, with no bag, possession, or size limit year round.
2. Anglers may now fish for northern pike through the ice on Big and Nancy lakes under specific guidelines:
   a.) Five lines from 1 November to 15 March.
   b.) Fishing is only allowed 8:00 AM to 5:00 PM. Note: current regulations for other species within these lakes have not changed and anglers fishing for other species may fish outside hours designated for pike.
   c.) Hook gap must be at least three-quarters inch from point to shank.
   d.) Two single hooks are allowed per line so long as both hooks are attached to the same piece of bait.
   e.) A whole legally recognized bait fish such as a herring or eulachon must be used if fishing with bait.
   f.) Bait must be suspended above the bottom of the lake.
   g.) All lines must be closely attended.
   h.) All fish except northern pike must be immediately released unharmed.
   i.) In the Susitna River drainage, including all westside tributaries and waters of the eastside Susitna River north of Willow Creek, and in all West Cook Inlet area waters, northern pike may not be released back into the water alive. Further, anglers may choose to either discard dead pike in a responsible manner or harvest their catch.

APPENDIX C: MANAGEMENT PLANS AND POLICIES THAT IMPACT NORTHERN COOK INLET MANAGEMENT AREA FISHERIES

Appendix C1.–Management plans and policies that impact Northern Cook Inlet management area fisheries.

5 AAC 21.363. **UPPER COOK INLET SALMON MANAGEMENT PLAN** (UCISMP) provides long-term direction to the Alaska Board of Fisheries for allocation and conservation of fisheries involving Upper Cook Inlet (UCI) salmon stocks. The plan defines UCI salmon stocks as those that move through the Northern and Central Districts and spawn in waters draining into those districts. Various "step down" management plans relate to the Upper Cook Inlet Salmon Management Plan and provide specific direction to fishery managers regarding user groups, time, area, or species.

The Upper Cook Inlet Salmon Management Plan established the following provisions for the management and conservation of UCI salmon stocks:

1. Provide for a subsistence priority.
2. Harvest of UCI salmon will be governed by specific and comprehensive management plans.
3. In adopting these plans the following will be considered: need for subsistence, protection of fisheries habitat, and the needs and demands of user groups.
4. The management plans may address the following: the need to allocate harvestable surplus among commercial, sport, guided sport, and personal use fisheries and the need to allocate the harvestable surplus within user groups.
5. In the absence of a specific management plan, salmon shall be harvested in the fisheries that have historically harvested them.
6. In the absence of a specific management plan, the burden of conservation shall be shared among all user groups in close proportion to their respective harvest.

5 AAC 01.560. **TYONEK SUBSISTENCE FISHERY** provides subsistence fishing opportunity primarily to residents of the village of Tyonek. Fish harvested in this fishery are bound for NCIMA. Specific fishing periods occur from 15 May through 15 October. A harvest quota of 4,200 Chinook salmon was removed in 2011 and replaced with a bag and possession limit of 25 salmon for the head of a household and 10 salmon for each dependent of the permit holder. The ANS for this fishery is 2,700 Chinook salmon and 150–500 salmon other than Chinook salmon.

5 AAC 21.368. **BIG RIVER SOCKEYE SALMON MANAGEMENT PLAN** authorizes a harvest of Big River salmon by set gillnets in the Kustatan Subdistrict of the Central District. Sockeye salmon is the targeted species. This fishery extends from 1 June through 24 June, on Monday, Wednesday, and Friday from 7:00 AM to 7:00 PM. It is subject to emergency closure when the incidental harvest of Chinook salmon exceeds 1,000 fish. At the 2005 BOF meeting, the plan was amended to expand fishing to a portion of the Kalgin Island Subdistrict along the western shore from Light Point to the Kalgin Island Light on the southern end of the island.

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5 ACC 21.353. **CENTRAL DISTRICT DRIFT GILLNET FISHERY MANAGEMENT PLAN** was partitioned from the Northern District Salmon Management Plan during the 2005 BOF meeting. Management of the drift gillnet fishery is dependent on the run strength of sockeye salmon to the Kenai River. The plan was modified during the 2011 BOF meeting to include a preamble that the drift gillnet fishery was to be managed to minimize the harvest of Northern District and Kenai River coho salmon in order to provide sport and guided sport fishermen a reasonable opportunity to harvest these salmon stocks over the entire run, as measured by the frequency of inriver restrictions.

1. The drift fishery opens the third Monday in June or 19 June, whichever is later.
2. From 9 July through 15 July,
   a) fishing during the first regular period is restricted to the Expanded Kenai and Expanded Kasilof Sections; additional fishing time is restricted to these areas;
   b) fishing during the second regular fishing period is restricted to the Kenai and Kasilof Sections of the Upper Subdistrict and Drift Area 1; and
   c) at run strengths greater than 2.3 million, one additional fishing period may be allowed in the Kenai and Kasilof Sections of the Upper Subdistrict and Drift Gillnet Area 1.
3. From July 16 through July 31,
   a) at run strengths less than 2.3 million sockeye salmon to the Kenai River, fishing during one regular period will be restricted to the Expanded Kenai and Expanded Kasilof Sections of the Upper Subdistrict and Drift Area 1;
   b) at run strengths of 2.3–4.6 million sockeye salmon to the Kenai River, fishing during one regular 12-hour fishing period per week will be restricted to either or both the Expanded Kenai and Expanded Kasilof Sections of the Upper Subdistrict or Drift Area 1; and
   c) at run strengths greater than 4.6 million, there will be no mandatory restrictions during regular fishing periods.
4. From 16 August until closed by emergency order, Drift Gillnet Areas 3 and 4 are open for fishing during regular fishing periods.
5. From 11 August through 15 August, there are no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery is closed under 5 AAC 21.301(b)(2)(C)(iii), regular fishing periods are restricted to Drift Gillnet Areas 3 and 4.

5 AAC 21.358. **NORTHERN DISTRICT SALMON MANAGEMENT PLAN** provides for the following management guidelines:

1. Minimizes the harvest of coho salmon bound for the Northern District of UCI and provides ADF&G direction for management of salmon stocks.
2. Manage the Northern District commercial salmon fisheries based on abundance of sockeye salmon counted through the weirs on Larson, Chelatna, and Judd lakes or other salmon indices.

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3. From 20 July through 6 August, if ADF&G's assessment of abundance indicates that restrictions are necessary to achieve the escapement goal, the commissioner may, by emergency order, close the commercial set gillnet fishery in the Northern District and immediately reopen a season during which the number of set gillnets that may be used is limited to the following options selected at the discretion of the commissioner, except that from 31 July through 6 August, the commissioner may allow the use of two set gillnets in that portion of the General District south of the Susitna River.
4. Manage the Northern district commercial salmon fisheries to minimize the incidental take of coho salmon stocks bound for the Northern District.
5. Personal use fishing with a set gillnet is prohibited in the Northern District.
6. Directs ADF&G to conduct habitat assessments to determine loss of riparian habitat by noncommercial fishermen.

5 AAC 21.354. **COOK INLENT PINK SALMON MANAGEMENT PLAN** adopted in 2002 and amended in 2005 and 2011, provides for even year pink salmon returns to be managed primarily for commercial uses while minimizing the harvest of Northern District and Kenai River coho salmon stocks. A commercial pink salmon fishery is authorized if the sockeye salmon escapement goals in the Kenai and Kasilof Rivers are being achieved and if coho salmon run strength is sufficient to withstand additional harvest.

The first period will occur only if, during the regular fishing periods from 6 August through 10 August, the daily harvest of pink salmon exceeds 50,000 fish or the cumulative harvest is 10,000 or more pink salmon. The second pink salmon commercial fishing period will occur only if 50,000 or more pink salmon and no more than 2,500 coho salmon are harvested during the first pink salmon commercial fishing period.

5 AAC 21.366. **NORTHERN DISTRICT KING SALMON MANAGEMENT PLAN** was adopted in 1985 and amended in 2005, 2008, and 2011 by the BOF. This plan provides for the management of the commercial harvest of Chinook salmon in the Northern District as follows:

1. The season runs from the first Monday on or after 25 May through 24 June (4–5 periods depending on the calendar year); fishing was restricted to 3 periods in 2008.
2. Fishing periods were extended from 6 hours to 12 hours (7:00 AM to 7:00 PM) in 2005; periods occur on Mondays.
3. Harvest is capped at 12,500.
4. Set gillnets may not exceed 35 fathoms in length and 6 inches in mesh size.
5. No Commercial Fisheries Entry Commission (CFEC) permit holder may operate more than one set gillnet at a time.
6. No net shall be set within 1,200 feet of another.
7. No net shall be placed seaward of another.
8. 25 May through 24 June, the area from one mile south of the Theodore River to the Susitna River is open the second regular Monday only.
9. If the Theodore, Lewis, or Ivan rivers are closed to sport fishing, the area one mile south of the Theodore River to the Susitna River will be closed to commercial Chinook salmon fishing for the remainder of the season by emergency order.

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10. If the Deshka River is closed to sport fishing, the commercial Chinook salmon fishery throughout the Northern District will close for the remainder of the season by emergency order.

11. If the Chuitna River is closed to sport fishing, the area from a point at the wood chip dock (located about 4.5 miles south of the Chuitna River) to the Susitna River will be closed to commercial Chinook salmon fishing by emergency order for the remainder of the season.

*Note: although not directly part of this plan, the gear restriction (5 AAC 21.331(d)(2)) of two nets from 1 August to 10 August was repealed during the January 2005 BOF meeting.

5 AAC 21.370. **PACKERS CREEK SOCKEYE SALMON MANAGEMENT PLAN** directs ADF&G not to base commercial fishing time in the Kalgin Island subdistrict on enhanced run strength of Packers Creek sockeye salmon. The plan limits extra fishing time to no more than one additional fishing period per week.

5 AAC 75.210. **SPECIAL MANAGEMENT AREAS AND LIBERAL HARVEST OPPORTUNITIES FOR TROUT** (previously titled, Criteria for Establishing Special Management Areas for Trout) was adopted by the BOF in November 1996 from the Cook Inlet and Copper River Basin Rainbow/Steelhead Trout Management Policy. These criteria provide future Fisheries Boards, ADF&G managers, and the sport fishing public with the following:

1. Management policies and implementation directives for Cook Inlet rainbow and steelhead trout, and

2. A systematic approach to developing sport fishing regulations that includes a process for rational selection of waters for such special management as catch-and-release, trophy areas and high yield fisheries.

The Statewide Management Standards for Wild Trout (5 AAC 75.220), effective November 2003, directs ADF&G to manage wild stocks of rainbow trout for optimal sustained yield, based on management objectives that maximize benefits of the fisheries while maintaining genetic diversity, biologically desirable size composition, and abundance levels that do not require stocking to enhance or supplement the wild stocks.

Due to concerns over lack of stock status information and the potential for increased angler effort on wild stocks, the potential for loss of fishing opportunity, and the potential for over-exploitation, the BOF intends to manage wild rainbow trout stocks conservatively. Conservative management for areas of the state, other than Southeast Alaska, means a bag and possession limit of two fish, of which only one may be 20 inches of greater in length with an annual limit of two fish 20 inches or greater in length. Note: no changes to NCI wild rainbow trout regulations were made during the 2005 BOF meeting with respect to statewide management standards because regulations within the NCIMA already complied with these standards.

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5 AAC 77.540. **UPPER COOK INLET PERSONAL USE SALMON FISHERY MANAGEMENT PLAN** establishes time, area, methods, and means for taking salmon for personal use. This plan first went into effect during the 1996 season. Salmon harvest opportunity was established to replace the harvest opportunity previously provided through the Upper Cook Inlet Subsistence Salmon Management Plan, which was repealed by BOF in 1995. The plan provides for personal use dip net fisheries in the Kenai and Kasilof rivers and Fish Creek. Limited personal use gillnet fishing opportunity is provided near the terminus of the Kasilof River. The personal use fishery at Fish Creek may open by emergency order from 10 July through 31 July if ADF&G projects the escapement of sockeye salmon will be more than 50,000 fish.

5 AAC 01.593. **UPPER YENTNA RIVER SUBSISTENCE SALMON FISHERY** establishes a subsistence fish wheel fishery for salmon other than Chinook salmon in the Yentna River downstream of its confluence with the Skwentna River to the confluence of Martin Creek. 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. A harvest quota of 2,500 salmon, other than Chinook salmon, was removed in 2011 and replaced with a bag and possession limit of 25 salmon for the head of a household and 10 salmon for each dependent of the permit holder. The ANS for this fishery is 400–700 salmon, other than Chinook salmon.

Fisheries for other species not covered by the above management plans or policies are managed to assure sustained yield of the targeted fish stock while assuring the continued, and where possible, the expanded opportunity to participate in the fishery.

Susitna Basin Recreation Rivers Act. In the spring of 1988, the Alaska legislature passed the Recreation Rivers Act (Sec. 41.23.400) and assigned oversight responsibilities related to this act to the Alaska Department of Natural Resources (DNR). This act established six recreation rivers: Little Susitna River, Deshka River (including Moose and Kroto creeks), Talkeetna River, Lake Creek, Talachulitna River, and Alexander Creek. The legislation was enacted to insure that all state lands and waters within the six river corridors are maintained and enhanced for recreation and wildlife purposes. A 2-year planning process was completed, which included input from affected individuals, groups, agencies, and officials throughout the area. The plan (DNR 1991) was adopted as DNR policy in the spring of 1991 following legislative review of the document. Regulations associated with the plan were available for public comment through January 7, 1994. Regulations went into effect for the 1996 season, but no funds have been allocated for enforcement.

APPENDIX D: NCI SPORT FISHING GUIDES FOR 2011–2012

Appendix D1.–Northern Cook Inlet sport fishing guides for 2011–2012.

Business name	First name	Last name	City	State
ABSOLUTELY ALASKAN FISHING ADVENTURES	MONTE	ROBERTS	SOLDOTNA	AK
ACORD GUIDE SERVICE	GREG	ACORD	WASILLA	AK
ACORD GUIDE SERVICE	GREG	ACORD	WASILLA	AK
ADVENTURE GUIDING	GEORGE	ORTMAN	WILLOW	AK
ADVENTURE OUTFITTERS	JAKE	DOTH	BLAINE	MN
ADVENTURE OUTFITTERS ALASKA	JAKE	DOTH	KENAI	AK
AIRVENTURES ALASKA INC	CASEY	LONG	WASILLA	AK
ALAGASH ADVENTURES	MILTON	BATES	SOLDOTNA	AK
ALAGASH ADVENTURES	MILTON	BATES	SOLDOTNA	AK
ALASKA EVASION OUTFITTER	CATHERINE	THOMPSON	ANCHORAGE	AK
ALASKA FISHING ADVENTURES	BRADLEY	GIROUX	ANCHORAGE	AK
ALASKA FISHING AND RAFT ADVENTURES	REINHARD	NEUHAUSER	FAIRBANKS	AK
ALASKA FISHING WITH MARK GLASSMAKER	MARK	GLASSMAKER	SOLDOTNA	AK
ALASKA GOLD RUSH ADVENTURES LLC	RANDALL	QUINCY	WILLOW	AK
ALASKA RAINBOW LODGE	RON	HAYES	FORT WORTH	TX
ALASKA RAINBOW LODGE	RON	HAYES	FORT WORTH	TX
ALASKA RIVER ADVENTURES	GEORGE	HEIM	COOPER LANDING	AK
ALASKA RIVER ADVENTURES	GEORGE	HEIM	COOPER LANDING	AK
ALASKA ROBIN FISHING LLC	JOSE	MIQUELEZ	TALKEETNA	AK
ALASKA SAFARIS LTD	HENRIK	WESSEL	FAIRBANKS	AK
ALASKA SAFARIS LTD	HENRIK	WESSEL	FAIRBANKS	AK
ALASKA SALMON FISHING TRIPS	THERESA	STUDNICKA	HOUSTON	AK
ALASKA SPORTSMANS LODGE	BRIAN	KRAFT	ANCHORAGE	AK
ALASKA SPORTSMANS LODGE	BRIAN	KRAFT	ANCHORAGE	AK
ALASKA SUSITNA CHARTERS	GREGORY	GIAUQUE	PALMER	AK
ALASKA SUSITNA CHARTERS	GREGORY	GIAUQUE	PALMER	AK
ALASKA TROPHY SAFARIS	HARVEY	HARMS	CHUGIAK	AK
ALASKA WILDERNESS LODGES DBA ALASKA DENISE LAKE LODGE	GLADYS	HANSON	SOLDOTNA	AK
ALASKA'S RIVER WILD LODGE	SETH	KROENKE	PORT ALSWORTH	AK
ALASKAN ADVENTURES GUIDE COMPANY	MATT	PAULUS	KENAI	AK
ALASKAN GAMEFISHER	MEL	ERICKSON	SOLDOTNA	AK
ALASKAN OUTDOORS	RUSTY	CLARKE	VERNON	AZ
ALASKAN OUTDOORS	RUSTY	CLARKE	VERNON	AZ
ALASKAN RIVER GUIDES	CURTIS	FROMBERG	KASILOF	AK
ALASKAN RIVER GUIDES	CURTIS	FROMBERG	KASILOF	AK
ALASKAS FINS AND FEATHERS GUIDING COMPANY	DEREK	GARDNER	SOLDOTNA	AK
ALL ALASKA OUTDOORS INC	ROBERT	LEDDA	SOLDOTNA	AK
ALL ALASKA OUTDOORS, INC.	ROBERT	LEDDA	SOLDOTNA	AK
ARCTIC ADVENTURES LLC	ANTHONY	ONEY	ANCHORAGE	AK
ARCTIC ADVENTURES LLC	ANTHONY	ONEY	ANCHORAGE	AK

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Appendix D1.–Page 2 of 5.

Business name	First name	Last name	City	State
BAC INC DBA WILLOW AIR	STEVAN	WHITE	WILLOW	AK
BAC INC DBA WILLOW AIR	STEVE	WHITE	WILLOW	AK
BIG DAVES FISHING ADVENTURES	DAVID	MANNERS	SKWENTNA	AK
BIG DAVES FISHING ADVENTURES	DAVID	MANNERS	TILLAMOOK	OR
BILL WERNEKE REGISTERED GUIDE	WILLIAM	WERNEKE	SOLDOTNA	AK
BILL WERNEKE REGISTERED GUIDE	WILLIAM	WERNEKE	SOLDOTNA	AK
BRENT RINKERS ALASKA FISHING	BRENT	RINKER	LUCERNE	CA
BRENT RINKERS ALASKA FISHING	BRENT	RINKER	LUCERNE	CA
BREWERS GUIDE SERVICE	DOUG	BREWER	NIKISKI	AK
CAST AND BLAST	DANIEL	CHALOUX	SOLDOTNA	AK
CAST AND BLAST	DANIEL	CHALOUX	SOLDOTNA	AK
COTTONWOOD FISHING LODGE	BRUNO	KREBS	ANCHORAGE	AK
CROSSHAIRS OUTFITTERS	MICHAEL	COWAN	SOLDOTNA	AK
CROSSHAIRS OUTFITTERS OF ALASKA	MICHAEL	COWAN	SOLDOTNA	AK
DANS GUIDE SERVICE	DANIEL	VERKUILEN	KENAI	AK
DANS GUIDE SERVICE	DANIEL	VERKUILEN	KENAI	AK
DENALI FLY FISHING GUIDES LLC	RICHARD	MCMAHAN	CANTWELL	AK
DENALI FLY FISHING GUIDES LLC	RICHARD	MCMAHAN	CANTWELL	AK
DENALI SOUTHSIDE RIVER GUIDES	CRAIG	JORGENSEN	TALKEETNA	AK
DENIS GUIDE SERVICE	DENIS	GALLOTTI	NOVATO	CA
DENIS' GUIDE SERVICE	DENIS	GALLOTTI	NOVATO	CA
DESHKA WILDERNESS LODGE	MICHAEL	YENCHA	WILLOW	AK
DESHKA WILDERNESS LODGE	MICHAEL	YENCHA	WILLOW	AK
DRURY FISHING	DON	DRURY	KENAI	AK
EAGLEQUEST CABINS AND LODGE	ROY	ROTH	WILLOW	AK
EAGLEQUEST CABINS AND LODGE	ROY	ROTH	WASILLA	AK
ERIC LOOMIS FISHING ALASKA	ERIC	LOOMIS	SOLDOTNA	AK
ERIC LOOMIS FISHING ALASKA	ERIC	LOOMIS	SOLDOTNA	AK
FIREWEED LODGE AT LAKE CREEK LLC	WERNER	FRAUENFELDER	ANCHORAGE	AK
FIREWEED LODGE AT LAKE CREEK LLC	WERNER	FRAUENFELWER	ANCHORAGE	AK
FISHERMAN'S CHOICE CHARTERS, LLC	RAYMOND	BLODGETT	HOUSTON	AK
FISHTALE RIVER GUIDES	ANDREW	COUCH	PALMER	AK
FISHTALE RIVER GUIDES	ANDREW	COUCH	PALMER	AK
FREELANCE OUTDOOR ADVENTURES	LANCE	KRONBERGER	WASILLA	AK
FREELANCE OUTDOOR ADVENTURES	LANCE	KRONBERGER	WASILLA	AK
FRITZ GUIDING SERVICE	RYAN	FRITZ	SOLDOTNA	AK
FRITZ GUIDING SERVICE	RYAN	FRITZ	LINDSBORG	KS
FRONTIER ADVENTURES LLC	WESLEY	DAVIS	PALMER	AK
FRONTIER RIVER GUIDES OF ALASKA	MARTY	DECKER	ANCHORAGE	AK

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Appendix D1.–Page 3 of 5.

Business name	First name	Last name	City	State
GREAT LAND ADV	RICHARD	BOWEN	BURIEN	WA
GREAT LAND ADVENTURES LLC	RICHARD	BOWEN	BURIEN	WA
GREGS EZ LIMIT GUIDE SERVICE	GREGORY	BRUSH	SOLDOTNA	AK
GREGS EZ LIMIT GUIDE SERVICE	GREGORY	BRUSH	SOLDOTNA	AK
HIGH ADVENTURE AIR CHARTER	GREGORY	BELL	SOLDOTNA	AK
HIGH ADVENTURE AIR CHARTER INC	GREGORY	BELL	SOLDOTNA	AK
HITALUGA GUIDE SERVICE, LLC	CYNTHIA	OLIVER	ANCHORAGE	AK
IFISH ALASKA GUIDE SERVICE	PATRICK	DONELSON	WASILLA	AK
IFISH ALASKA GUIDE SERVICE	PAT	DONELSON	WASILLA	AK
INTRICATE BAY OPERATING LLC	BRIAN	HARRY	OIL CITY	PA
JOHN MATTHEW POTTER	JOHN	POTTER	SOLDOTNA	AK
JOHN POTTER	JOHN	POTTER	SOLDOTNA	AK
KATMAI AIR LLC	RAYMOND	PETERSEN	ANCHORAGE	AK
KATMAI AIR, LLC	RAYMOND	PETERSEN	KING SALMON	AK
KATMAILAND INC DBA ANGLERS PARADISE LODGES	RAYMOND	PETERSEN	ANCHORAGE	AK
KATMAILAND, INC DBA ANGLERS PARADISE LODGES	RAYMOND	PETERSEN	KING SALMON	AK
KENAI RIVER CHARTERS	TAYLOR	THORP	SOLDOTNA	AK
KENNYS ALASKA FISHING EXPERIENCE	KENNETH	WINGARD	SOLDOTNA	AK
KING POINT FISHING LODGE INC	HAAB	HANSHEIRI	ANCHORAGE	AK
KING POINT FISHING LODGE INC	HANSHEIRI	HAAB	ANCHORAGE	AK
KNIK RIVER OUTFITTERS	JACOB	FLETCHER	PALMER	AK
KNIK RIVER OUTFITTERS LLC	JACOB	FLETCHER	PALMER	AK
KODIAK ADVENTURES LODGE	LAWRENCE	CARROLL	BIG LAKE	AK
KSH FISHING CHARTERS	KEVIN	HARTMAN	WASILLA	AK
LAKE CREEK FISHING LODGE	JEFF	WOODWARD	ANCHORAGE	AK
LAKE CREEK FISHING LODGE LLC	JEFF	WOODWARD	ANCHORAGE	AK
LAKE MARIE LODGE, LLC	DAVID	WILSON	CHUGIAK	AK
LAKE MARIE LODGE, LLC	DAVID	WILSON	CHUGIAK	AK
LEWIS CHARTERS	DANIEL	LEWIS	WASILLA	AK
LIP RIPPEN CHARTERS	TIMOTHY	BROWN	WASILLA	AK
LITTLE RIVER ANGLERS	WALTER	ZALESKI	ANCHORAGE	AK
MATANUSKA TROUT FISHERS	JHAN	HADDELAND	BIG LAKE	AK
MCDOUGALL LODGE LLC	RON	JEWETT	SKWENTNA	AK
MCDOUGALL LODGE LLC	RON	JEWETT	SKWENTNA	AK
MILLERS RIVERBOAT SERVICE	BENJAMIN	ALLEN	WASILLA	AK
MILLERS RIVERBOAT SERVICE	BENJAMIN	ALLEN	WASILLA	AK
MOOSEHORN LODGE	ERICH	NAPFLIN	WASILLA	AK
MOOSEHORN LODGE	ERICH	NAPFLIN	WASILLA	AK
NEWHALEN LODGE	BILL	SIMS	ANCHORAGE	AK
NEWHALEN LODGE	BILL	SIMS	ANCHORAGE	AK

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Business name	First name	Last name	City	State
NORTHWOODS LODGE	ERIC	JOHNSON	SKWENTNA	AK
NORTHWOODS LODGE	ERIC	JOHNSON	SKWENTNA	AK
OUZEL EXPEDITIONS INC	PAUL	ALLRED	GIRDWOOD	AK
PERATAS GUIDED ADVENTURES	NICK	PERATA	NIKISKI	AK
PERATAS GUIDED ADVENTURES	NICK	PERATA	BOISE	ID
PHANTOM SALMON CHARTERS	RHETT	NEALIS	TRAPPER CREEK	AK
PHANTOM SALMON CHARTERS	RHETT	NEALIS	TRAPPER CREEK	AK
QUAGLIANA'S GUIDE SERVICE	MARK	QUAGLIANA	SOLDOTNA	AK
QUAGLIANAS GUIDE SERVICE	MARK	QUAGLIANA	SOLDOTNA	AK
RAINBOW BAY RESORT INC	JERRY	PIPPEN	PEDRO BAY	AK
RAINBOW BAY RESORT INC.	JERRY	PIPPEN	PEDRO BAY	AK
RAINBOW KING LODGE	ROGER	GLASPEY	LEMOORE	CA
RAINBOW KING LODGE INC	RODGER	GLASPEY	ILIAMNA	AK
RAINBOW RIVER EXPEDITIONS	NORMAN	HAYNES	WASILLA	AK
REDOUBT MOUNTAIN LODGE	WAYNE	HOLM	NORTH PLAINS	OR
REEL FLY ADVENTUREZ	JAKE	WILLIAMS	WASILLA	AK
REEL FLY ADVENTUREZ, LLC	JAKE	WILLIAMS	WASILLA	AK
RIVERSONG LODGE, INC.	RANDOLPH	DEWAR	ANCHORAGE	AK
RIVERSONG LODGE, INC.	RANDOLPH	DEWAR	ANCHORAGE	AK
RUSSELL FISHING COMPANY, INC	DUSTIN	RUSSELL	BROOKINGS	OR
RUSSELL FISHING COMPANY, INC	DUSTIN	RUSSELL	BROOKINGS	OR
SALTERY LAKE LODGE	DOYLE	HATFIELD	KODIAK	AK
SHULIN LAKE LODGE	DAVE	MULLEN	PALMER	AK
SHULIN LAKE LODGE	DAVE	MULLEN	PALMER	AK
SIERRA CLUB	DAVID	PERRY	SAN FRANCISCO	CA
SILVER SALMON CREEK INC	DAVID	CORAY	SOLDOTNA	AK
SILVER SALMON CREEK LODGE	DAVID	CORAY	SOLDOTNA	AK
SUSITNA ADVENTURE CHARTERS	STEVEN	SCHAFER	WILLOW	AK
TALAHEIM LODGE & AIR SERVICE	MARK	MILLER	ANCHORAGE	AK
TALAHEIM LODGE AND AIR SERVICE	MARK	MILLER	ANCHORAGE	AK
TALKEETNA DENALI VIEW LODGE LLC	THOMAS	REDMAN	TALKEETNA	AK
TALKEETNA FISHING GUIDES	GERALD	SOUSA	TALKEETNA	AK
TALKEETNA FISHING GUIDES	GERALD	SOUSA	TALKEETNA	AK
TALSTAR LODGE	RON	JEWETT	SKWENTNA	AK
TALSTAR LODGE LLC	JOHN	DAVIS	SKWENTNA	AK
TALVISTA LODGE	JONATHAN	CAMERON	SKWENTNA	AK
TC GUIDE SERVICE	LANCE	DESAW	WASILLA	AK
TC GUIDE SERVICE	LANCE	DESAW	WASILLA	AK
TIM CRIST ALASKAN ADVENTURES INC	TIM	CRIST	TWIN FALLS	ID

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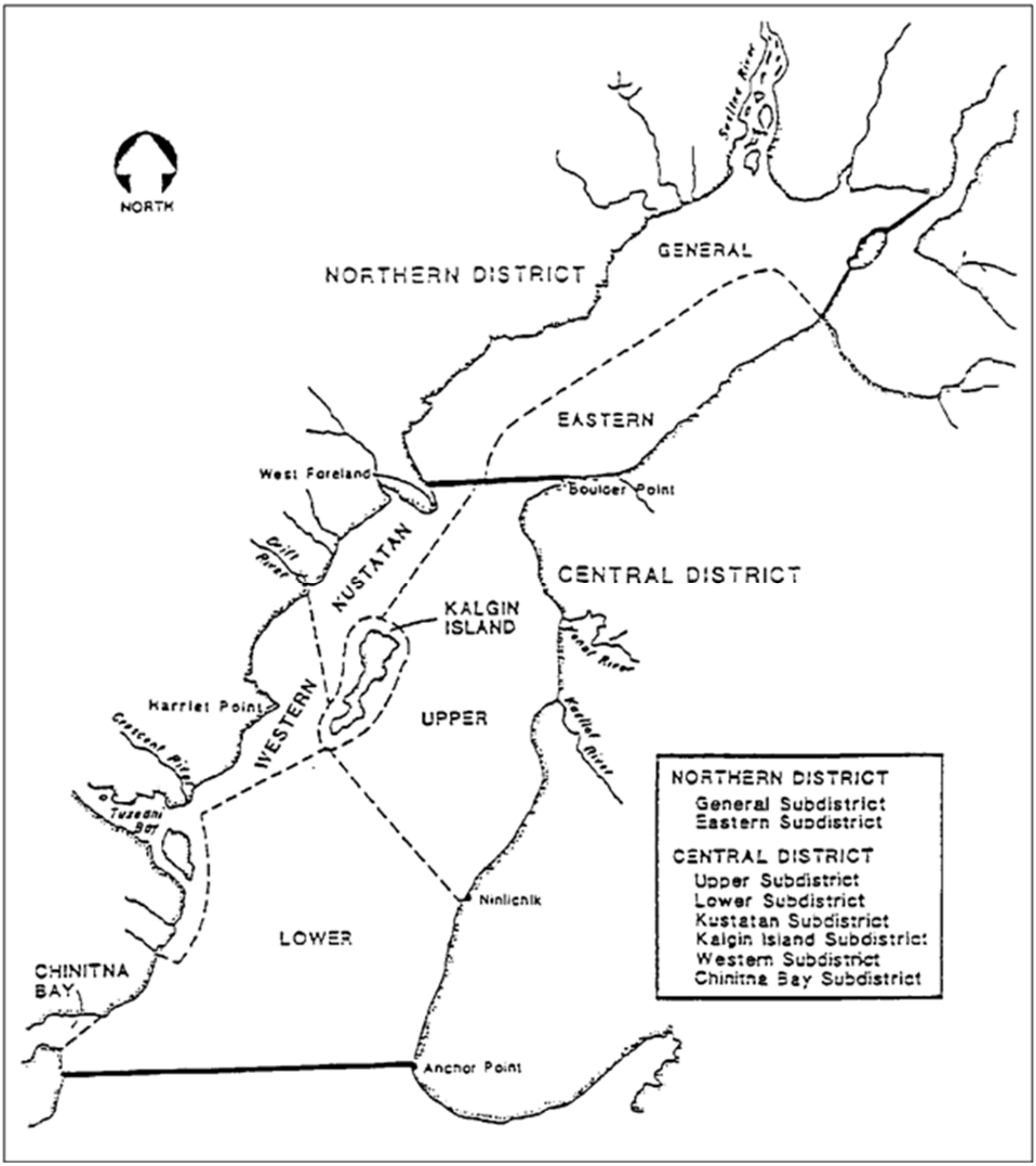
Business name	First name	Last name	City	State
TIM CRIST ALASKAN ADVENTURES INC	TIM	CRIST	TWIN FALLS	ID
TO-TOY-LON RIVER LODGE, LLC	DAVID	WILSON	CHUGIAK	AK
TONY'S GUIDE SERVICES	ANTHONY	MANN	VALDEZ	AK
TONYS GUIDE SERVICE	ANTHONY	MANN	VALDEZ	AK
TOP GUIDE	CARLOS	LAGOMASINO	KENAI	AK
TOWER ROCK LODGE	MICHAEL	TUHY	SOLDOTNA	AK
TOWER ROCK LODGE	MICHAEL	TUHY	SOLDOTNA	AK
TRAPPER TIM LLC	TIM	BUECHLE	TALKEETNA	AK
TRAPPER TIM LLC	TIM	BUECHLE	TALKEETNA	AK
TRI RIVER CHARTERS	ROBERT	MEALS	TALKEETNA	AK
TRI RIVER CHARTERS	ROBERT	MEALS	TALKEETNA	AK
TRIPLE C OUTFITTERS ALSKA,LLC	CLIFFORD	SMITH,JR.	WASILLA	AK
TROPHY CATCH CHARTERS	WILLIAM	BOOTH	PALMER	AK
TROPHY CATCH CHARTERS	WILLIAM	BOOTH	PALMER	AK
TURNERS GUIDE SERVICE	RALPH	TURNER	SUTTER	CA
TURNERS GUIDE SERVICE	RALPH	TURNER	SUTTER	CA
UNITED STATES ARMY	NULL	US ARMY	NULL	NULL
VALLEY RIVER CHARTERS	MATTHEW	PETERSON	WASILLA	AK
VALLEY RIVER CHARTERS	MATTHEW	PETERSON	ANCHORAGE	AK
WALLYS GUIDE SERVICE	WALTER	MARTIN	KENAI	AK
WESTERN GUIDE SERVICE	RODNEY	SMALL	KENAI	AK
WESTERN GUIDE SERVICE	RODNEY	SMALL	KENAI	AK
WET AND WILD ALASKA FISHING	JEFF	MOORE	STERLING	AK
WET AND WILD ALASKA FISHING	JEFF	MOORE	STERLING	AK
WILDERNESS PLACE LODGE	CORY	WENDT	ANCHORAGE	AK
WILDERNESS PLACE LODGE	JASON	ROCKVAM	ANCHORAGE	AK
WITHIN THE WILD ADVENTURE COMPANY	CARL	DIXON	ANCHORAGE	AK
WOMENS FLYFISHING	CECILIA	KLEINKAUF	ANCHORAGE	AK
WOMENS FLYFISHING	CECILIA	KLEINKAUF	ANCHORAGE	AK
YENTNA RIVER SERVICES	ROGER	PHILLIPS	SKWENTNA	AK
YENTNA RIVER SERVICES	ROGER	PHILLIPS	SKWENTNA	AK
YENTNA SETTERS	JACOB	WILSON	ANCHORAGE	AK
YENTNA SETTERS	JACOB	WILSON	ANCHORAGE	AK
YENTNA STATION ROADHOUSE	DANIEL	GABRYSZAK	WASILLA	AK
YENTNA STATION ROADHOUSE	DANIEL	GABRYSZAK	WASILLA	AK

APPENDIX E: UPPER COOK INLET COMMERCIAL SALMON FISHERY



Appendix E1.–Upper Cook Inlet commercial salmon fishing districts.

Appendix E2.–Upper Cook Inlet commercial salmon harvest from all Upper Cook Inlet districts, 1954-2012.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1966	8,544	1,852,114	289,837	2,005,745	532,756	4,688,996
1967	7,859	1,380,062	177,729	32,229	296,837	1,894,716
1968	4,536	1,104,896	468,160	2,276,993	1,107,903	4,962,488
1969	12,386	691,815	100,684	32,499	267,686	1,105,070
1970	8,336	732,572	275,205	814,760	750,774	2,581,647
1971	19,765	636,289	100,362	35,590	323,945	1,115,951
1972	16,086	879,811	80,896	628,566	626,414	2,231,773
1973	5,194	670,098	104,420	326,184	667,573	1,773,469
1974	6,596	497,185	200,125	483,730	396,840	1,584,476
1975	4,787	684,751	227,376	336,330	951,588	2,204,832
1976	10,865	1,664,149	208,663	1,256,728	469,180	3,609,585
1977	14,790	2,052,291	192,593	553,855	1,233,436	4,046,965
1978	17,299	2,621,421	219,193	1,688,442	571,779	5,118,134
1979	13,738	924,406	265,164	72,980	649,758	1,926,046
1980	13,798	1,573,588	271,416	1,786,421	387,815	4,033,038
1981	12,240	1,439,262	484,405	127,143	831,977	2,895,027
1982	20,870	3,259,864	792,224	790,644	1,432,940	6,296,542
1983	20,634	5,049,733	516,322	70,327	1,114,858	6,771,874
1984	10,062	2,106,714	449,993	617,452	680,726	3,864,947
1985	24,088	4,060,429	667,213	87,828	772,849	5,612,407
1986	39,254	4,792,072	757,353	1,300,939	1,134,817	8,024,401
1987	34,449	9,469,248	449,479	109,389	348,937	10,416,502
1988	29,080	6,843,833	560,948	471,076	710,615	8,615,552
1989	26,737	5,011,121	339,818	67,441	122,051	5,567,168
1990	16,105	3,604,259	501,643	603,434	351,123	5,076,564

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Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1991	13,542	2,178,331	426,487	14,663	280,223	2,913,246
1992	17,171	9,108,353	468,930	695,861	274,303	10,564,618
1993	18,871	4,755,329	306,882	100,934	122,770	5,304,786
1994	19,962	3,565,586	583,793	523,434	303,177	4,995,952
1995	17,893	2,951,827	446,954	133,575	529,422	4,079,671
1996	14,306	3,888,922	321,668	242,911	156,501	4,624,308
1997	13,292	4,176,738	152,404	70,933	103,036	4,516,403
1998	8,124	1,219,242	160,660	551,260	95,654	2,034,940
1999	14,383	2,680,510	125,908	16,174	174,541	3,011,516
2000	7,350	1,322,482	236,871	146,482	127,069	1,840,254
2001	9,295	1,826,833	113,311	72,559	84,494	2,106,492
2002	12,714	2,773,118	246,281	446,960	237,949	3,717,022
2003	18,490	3,476,159	101,756	48,789	120,767	3,765,961
2004	26,922	4,926,774	311,056	357,939	146,164	5,768,855
2005	27,667	5,238,672	224,657	48,419	69,740	5,609,155
2006	18,029	2,192,730	177,853	404,111	64,033	2,856,756
2007	17,625	3,316,779	177,339	147,020	77,240	3,736,003
2008	13,333	2,380,135	171,869	169,368	50,315	2,785,020
2009	8,750	2,045,794	153,210	214,321	82,811	2,504,886
2010	9,900	2,828,342	207,254	292,671	228,662	3,566,829
2011	11,248	5,277,440	95,276	34,030	129,202	5,547,196
2012	2,526	3,133,801	106,772	469,411	269,585	3,982,095
Average						
1966–2011	15,449	2,904,910	301,596	472,038	446,027	4,140,020
2002–2011	16,468	3,445,594	186,655	216,363	120,688	3,985,768

Note: Commercial salmon catch data for 1966–2012 from Appendix B6 in Shields and Dupuis (2013). Catch statistics prior to 2012 reflect minor adjustments to harvest database.

APPENDIX F.
ACCESS PROJECTS

Boating Projects

1) Signage identifying public access on an as-needed basis. Also providing small road, trail, and site maintenance on an as-needed basis.

2) Susitna Landing Facility Operations – In March of 2011, a contract for a new concessionaire to operate and maintain Su Landing Boat Launch Facility was awarded to JB Bear Cache Inc. (Jeff Boatright). To date Mr. Boatright has been doing an exceptional job operating and maintaining the ADG&G Boat Launch/Camping Facility.

3) Susitna Landing Operation Maintenance and Small Development Project (~$110K FY12 Funding Authority). This project will provide funding necessary to continue operations, maintenance and management of the ADF&G-owned Susitna Landing Boat Launch Facility.

4) Rocky Lake SRS Boat Launch Renovation Project ($170K FY10 Funding Authority). This is a Cooperative project with DNR, DPOR to upgrade/repair the existing gravel launch and parking lot. This project would include renovating the launch with installation of concrete planks and expansion of the parking area. Presently, the survey is complete, site and design plan, and permitting is complete and construction for the project is scheduled for the summer of 2014.

5) Big Lake South SRS Boat Launch Renovation Project ($135K FY11 Funding Authority) Cooperative project with DNR, DPOR the project will replace old, deteriorating "hook & eye" concrete ramp planks. Presently, the design plan is and permitting is 100% complete and construction for the project is scheduled for the summer of 2013.

6) Big Lake North SRS Boat Launch Renovation Project ($100K FY12 Funding Authority). Cooperative project with DNR DPOR, project will replace old, deteriorating "hook & eye" concrete ramp planks. Presently, the design plan is and permitting is at 100% complete. Construction for the project is scheduled for the summer of 2013.

7) Homer Boat Launch Facility and Floating Dock Renovation Project – Phase 1 ($350K FY12 Funding Authority). Multi-year cooperative Project with the City of Homer (City) and ADF&G for the repair of the City concrete plank boat launch ramps and mooring dock. Total project cost is estimated at $3.5 Mil. This request will pay for Phase I activities (preliminary design and permitting).

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Boating and Non-boating Projects

1) Stocked & Wild Lake Access Site Evaluation Project. South-Central (eighty-one stocked lakes) and Kenai Peninsula (thirty-eight stocked Lakes) area initially started assessment of stocked lake sites in the summer of 2010 and continues to evaluate lakes in the area through 2011 - 2012. Ultimately will add all legal access documentation signifying each easement classification and will list information on the ADF&G Access web site.

Annual Small Access Maintenance

1) LSPUF Operations and Maintenance Contract (~$104.3K – FY11, ~$105.4K – FY12, ~$157K – FY13) – Provide funds via RSA out of Small Access Maintenance Budget to DPOR to operate and manage the facility.

2) Grounds Cleaning/Refuse Service (~$21.565K FY11 – FY13) - Service for Sheep & Caswell creeks, Bonnie Lake, & Eklutna Tailrace.

3) Toilet Service, Portable and Vault Service (~$13.91K FY11 – FY13) - Caswell ($2.1K) and Sheep creeks ($360), Eklutna tailrace (~$10.17K), Talkeetna River ($380), Su Landing ($360), and Bonnie Lake ($540).

4) Installation of Public Access – Stocked Lake Signage – an ADF&G Technician continues to do an excellent job posting and maintaining signs. Many signs were repaired and posted throughout this period, including signage at Little Susitna Public Use Facility, Susitna and Talkeetna Landing, Barley, Boot, Caswell, 180-Mile, Kalmbach, and Slipper Lakes which helped direct the public and mitigate landowner trespass concerns.

5) Land Disputes – Land/access research was conducted on numerous angler access sites and public lake easements including Butterfly, Centennial, Crooked, Farmer, Johnson, Weiner, and Wolverine Lake in this area.

Appendix F2.–Completed access projects for Northern Cook Inlet Management Area, 2010–2012.

	Location	Project/Manager	Cost	Completed
		Non-Boating Projects		
1.	Maintenance of existing SFD angler access sites.	Toilets, waste/refuse removal, cleaning services, road grading and repairs, signage, and miscellaneous repairs.	$53,375.00	Seasonal 2010–2013 (May-September)
2.	Sheep Creek	Sheep Creek trail/fence upgrade.	$7,500.00	September 2012
3.	Eklutna Tailrace flood disaster repairs.	FEMA Flood disaster DR-4094-AK damage repair project (i.e. debris removal) was completed at Eklutna Tailrace day-use access site in fall of 2012.	$2,400.00	November 2012
4.	Legal Access Research	Completed access research and resolved issues at multiple sites including in-field work investigating/defining legal access easements, e.g. historical trails verses granted/dedicated access etc.	$0.00	2010-2012
5.	Eklutna, Sheep, and Caswell Creek AWT Position	Provide funds via RSA to AWT position to provide patrols of the facility for Public safety.	$10,000.00	Seasonal 2010-2012 (May-September)
		TOTAL	$73,275.00	
		Boating Projects		
1.	Maintenance of existing SFD boating access sites.	Toilets, waste removal, cleaning services, dredging, road grading and repairs, signage, and miscellaneous repairs.	$5,076.00	Seasonal 2010-.2012 (May-September)
2.	Su Landing/ Kashwitna River Septic Repair Project (Small Development Grant)	Emergency repairs of septic lift station, associated repairs included excavating, electrical hook ups, replacing septic tank, pumps and lift station, capping the tank with concrete, and clearing (clean-out) of sewer lines.	$41,600.00	June 2011
3.	Talkeetna maintenance dredge.	Dredge boat launch area to provide sufficient water for operation and safe boat navigation.	$2,400.00	April 2012
4.	LSPUF operations.	Funded DPOR for 2010/2012 maintenance and operations.	$104,288.00 $105,400.00 $156,957.00	July 2010 July 2011 July 2012
5.	Pillars Mooring Dock Renovation Project	Cooperative project with DNR DPOR, to design and construct new mooring floats at Pillar Boat Launch on the Kenai River. That will better accommodate boaters utilizing this high-use boat launch facility.	$250,000.00	June 2012
	LSPUF Vault Latrine Replacement Project	Cooperative project with DNR DPOR, to replace outdated wooden vault Latrines with concrete vault latrines.	$180,000.00	August 2011
6.	Anchor River Tractor Launch Improvement Project	Cooperative project with DNR DPOR, to reorganize and pave the parking and staging area, install traffic control lines, concrete parking bumpers, vehicle boat staging lanes, traffic control signs and log bollards, an orientation/fee station kiosk and elevated concessionaire deck, handicap parking spaces and an adequate turnaround area for vehicles with trailers.	$240,000.00	October 2012
	Su Landing / Kashwitna emergency flood repair. (Severe storm 4094 AK)	Completed emergency repairs at boat launch facility due to damage from high water event.	$20,500.95	Sept. – Oct. 2012
9.	Talkeetna River emergency flood repairs. (Severe Storm 4094 AK)	Completed emergency repairs at boat launch facility due to flood damage from high water event.	$7,200.00	Sept. – Oct. 2012
10.	LSPUF emergency flood repairs. (Severe Storm 4094)	Completed emergency repairs at boat launch facility due to flood damage from high water event.	$1,789.10	Sept. – Oct. 2012
		TOTAL	$1,115,211.05	

Note: DNR DPOR = Department of Natural Resources Division of Parks and Outdoor Recreation, SFD = Division of Sport Fish, LSPUF = Little Susitna Public Use Facility, AWT = Alaska Wildlife Troopers.

Appendix F3.–Proposed access projects for Northern Cook Inlet Management Area in 2010–2012.

Location	Project/Manager	Estimated Cost	Funding Year
	Nonboating		
1. Region II Small Access Maintenance	Site maintenance contracts, signage, road grading & repair, and miscellaneous repair.	$50,000.00	SAM Yearly
2. Eklutna Tailrace	Install double vault latrine to meet the increased demand to the newly designed and upgraded facility.	$60,000.00	Regional funding commitment
3. Sheep Creek Stairwell Renovation and Vault Latrine Replacement.	Cooperative project with DPOR with ADF&G for the removal/replacement of existing vault latrines and renovation of trail.	$253,500.00	Regional funding commitment
4. Wolverine Lake access parcels	Anchorage Legal Access Shop and DNR MLW need to resolve dispute on RS2477 legal access trail with discontented property owners (Moore's). To proceed possibly need AG's office involvement to step up process and spell-out legal determination in a registered letter to the Moore's. Once legal access is reconciled present proposal to purchase approximately a 10' x 60' access corridor/easement through MHTLO property from one of two lakefront parcels (~6.25 acres) to insure continued public access to lake. This portion of the project is contingent upon securing/finalizing legal access to the lots by way of the RS2477 easement. Cost - approximate estimate $25K total for survey and corridor/easement purchase.	$80,000.00	Regional funding commitment
	TOTAL	$425,500.00	
	Boating Projects [a]		
Location	Project/Manager	Estimated cost	Funding year
1. Region II Small Access Maintenance	Road and site maintenance, annual Su Landing contract and annual dredge work.	$83,000.00	SAM/CIP
2. Little Susitna River Public Use Facility	RSA to fund DNR DPOR for LSPUF operation.	$105,400.00 [c]	SAM FY11
3. Homer Harbor Launch Facility and Floating Dock Renovation Project	Multi-year funded cooperative project with the City of Homer and ADF&G for the renovation/improvement project at existing boat launch facility. Project includes replacing existing launch planks and mooring floats.	$3,670,000.00	CIP FY10,11,12
4. Stocked and Wild lakes	Conduct access site surveys.	$5,000	SAM
5. Susitna Landing O&M and Small Development Project	This project is to provide for continued high quality facility maintenance and operations of the Susitna Landing Boat Launch Facility by utilizing a private concessionaire (Jeff Boatright) salaried from this grant to staff and manage the facility. The project would also provide for construction of small development projects to provide a safer and secure facility.	$110,000.00 $65,000.00	CIP FY12,13
	TOTAL	$3,933,000.00	

[a] Completed access projects are listed in Appendix F2.

[b] CIP=Capitol Improvement Project; DNR = Division of Natural Resources, MLW = Division of Mining, Land, and Water; DPOR=Division of Parks & Outdoor Recreation; FY=Fiscal Year; SFD=Division of Sport Fish; LSPUF=Little Susitna Public Use Facility; MHTLO= State of Alaska Mental Health Trust Land Office; MSB=Mat-Su Borough; RSA= Reimbursable Service Agreement; SAM=Small Access Maintenance; and SRA=State Recreation Area (managed by DPOR)

[c] RSA - Reimbursable Service Agreement amount fluctuates year-to-year depending on revenue receipt income received.

Appendix F4.–Northern Cook Inlet Management Area stocked lakes access summary.

Lake	Access Route	Easement Classification [a]	Parking Area	Trail Condition	% Public Shoreline	Comments
Barley	good	PUE DNR	5 vehicle gravel	cleared section line	1.0%	100 yd. walk in
Bearpaw	good	PUA	5 vehicle gravel	gravel road to lake	50%	designated public park MSB plat maps
Benka	good	PUA	2 vehicle gravel	access rd. ends at lake	0.5%	no camping – home owner lease
Beverly	good	S/L (33')	5 vehicle gravel	swampy, ATV or foot access	15%	33' access at "Y" in trail to Kalmbach Lake; State land
Big	good	SRS	20 vehicle gravel	concrete boat launches	2%	2 State Rec. Sites; camping
Big Beaver	good	Rd. ROW	5 vehicles gravel	MSB gravel road and launch	1%	MSB Road ROW
Big No Luck	canoe trail	SRA DNR	15 vehicle gravel	canoe trail: 1.5 miles	100%	Nancy Lake SRA; camping
Bruce	good	PUE (60') MSB	5 vehicle gravel limited to road ROW	cleared easement	1%	shoreline muskeg; improve parking
Canoe	good	SRA DNR	6 vehicle gravel	packed gravel	21%	dock, picnic tables, outhouse; K/B Rec.
Carpenter	good	PUE (150') MSB	3 vehicle, dirt	gravel access rd. ends at lake	0.70%	gravel boat launch; no camping
Christiansen	good	PUE MSB Park	6 vehicle gravel	access rd. ends at lake	0.40%	gravel boat launch; no camping
Coyote	good	PUE (50') MSB	2 vehicle gravel	good	100%	borough blocked rd. access to park, very poor shape
Crystal	good	PUE (60') MSB	10 vehicle gravel	access rd. ends at lake	0.40%	vehicle access blocked; walk in and no camping
Dawn	good	PUE MSB Park	8 vehicle gravel	needs boardwalk	5%	designated public park: Tract C
Diamond	good	PUE (50')	6 vehicle gravel	foot trail	36%	ADL #225903 – 100 yd. walk in
Echo	good	Rd. ROW 100' Glenn Hwy	4 vehicle paved pull-out	signed, gravel	15%	shoreline trees, brush; private access
Farmer	good	50' Sec/Line	5 vehicle gravel	good	1%	shoreline muskeg;
Finger	good	SRA	30 vehicle gravel	access rd. ends at lake	5%	State Rec. Site, camping & fishing platforms ADA accessible
Florence	good	S/L (66') MSB	2 vehicle pull- out ROW	good	0.80%	no camping
Homestead	need signs	ROW Ease. 50' MSB dedicated access	limited to access rd.	access rd. ends at lake	1%	shoreline swampy; no camping
Honeybee	need signs	PUA MSB	limited to access rd.	needs work, swampy	6%	adjacent State land
Ida	need signs	PUE (20')	4 vehicle gravel	steep, gravel	0.1%	no camping
Irene	good	SRA	4 vehicle gravel	gravel	15%	K/B Rec. Area
Kalmbach	good	S/L (33') MSB	5 vehicle gravel	swampy, ATV or foot access	20%	Sec/Line Ease. to trail on State land
Kashwitna	good	Rd. ROW	30 vehicle paved	access is by lake	10%	shoreline muskeg along ROW
Kepler/Bradley	good	SRA	30 vehicle gravel	marked, gravel	89.50%	Public Use Access Easement for launch and parking, private camping
Klaire	good	SRA	30 vehicle gravel	0.4 mile; needs sign	100%	brushy shoreline; K/B Rec. Area
Knik	good	PUA	2 vehicle	access rd. ends at lake	0.60%	no camping
Lalen	good	PUE (20') MSB	2 vehicle gravel	access rd. ends at lake	0.20%	gravel boat launch; no camping
Long (Mile 86)	good	SRA	15 vehicle gravel	access rd. ends at lake	90%	Vacant/abandoned - State Rec. Site; camping/no amenities
Long (K/B)	good	SRA	7 vehicle gravel	packed dirt, steep	100%	hook-&-release only; K/B Rec. Area
Little Lonely	good	60' PUE to S/L MSB	limited to road ROW	short, dirt road	0.50%	access road. can be 4WD; no camping
Lorraine	good	MSB property	6 vehicle gravel	muddy, rutted by	95%	surrounded by borough land
Loon	good	S/L (50')	5 vehicle gravel	access area gravel	0.40%	no camping

-continued-

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Lake	Access Route	Easement Classification [a]	Parking area	Trail condition	% Public Shoreline	Comments
Lucille	good	PUE City of Wasilla	3 vehicle gravel	access road. ends at lake	4%	2 access sites; camping and parking at Lucille Park
Lynne	good	PUA	2 vehicle dirt	access rd. ends at lake	2%	access road.; 2% is State land
Marion	good	PUA	4 vehicle gravel	steep dirt, some erosion	12%	adj. to MSB land
Matanuska	good	SRA	30 vehicle gravel	short gravel	35%	docks, picnicking outhouse; K/B Rec Area
Meirs (McLeod)	good	PUE	8 vehicle, can be muddy	steep, dirt	1%	no camping
Memory	good	S/L (33') MSB	4 vehicle, gravel	access road. ends at lake	0.30%	no camping
Mile 180	good	Rd. ROW	10 vehicle, paved pullouts	pullouts beside lake	40%	lakeshore muskeg
Morvro	fair	S/L (33') MSB	limited to rd. ROW	swampy, foot trail	0.30%	needs work with trail and parking
North Friend (Montana)	good	Rd. ROW MSB	10 vehicle gravel cross Parks	short trail to outlet	0.50%	access ROW
Prator	good	PUA	4 vehicle gravel	access rd. ends at lake	2.0%	Castle Public Park; no camping
Ravine	fair	PUA DNR	4 vehicle gravel	steep, worn	50.0%	adj. State land
Reed	good	PUE (10') MSB	limited to rd. ROW	repairs made to drop-off, need timber steps	0.2%	improve parking; no camping
Rocky	good	SRS	30 vehicle gravel	access rd. ends at lake	5.0%	State Rec. Site; camping
Ruby	ATV, no signs	Trail Easement (50')	15 vehicle gravel	5 mile ATV trail	40.0%	new surveyed trail, adj. state land
Seventeen mile	good	PUA	8 vehicle gravel	access rd. ends at lake	0.6%	no camping
Seymour	good	S/L (83') MSB	4 vehicle gravel	access rd. ends at lake	0.5%	MSB land adjacent
Slipper (Eska)	good	Rd. ROW MSB	20 vehicle gravel	access rd. ends at lake	75.0%	last 1/4 mile rough
South Friend (Montana)	good	Rd. ROW MSB	10 vehicle gravel	short, dirt	10.0%	shoreline swampy along ROW
South Rolly	good	SRS DNR	20 vehicle gravel	access rd. ends at lake	100.0%	State Rec. Site; camping
Tigger	good	PUE	5 vehicle gravel	foot trail, needs sign	100.0%	new access acquired from MSB
Twin Island	fair	State prop.	4 vehicle gravel	swampy	0.6%	MSB prop conflict/mental health land
Vera	good	S/L (50') MSB	6 vehicle dirt	soft tundra	0.3%	no camping
Victor	good	SRA	30 vehicle gravel	dirt, some mud	100%	brushy shoreline; K/B Rec. Area
Visnaw	good	S/L (33") MSB	3 vehicle gravel	access rd. ends lake	0.4%	no camping
Walby	good	PUA MSB	6 vehicle gravel	access rd. ends lake	1%	no camping
Wiener	good	Rd. ROW	(2) 4 vehicle pullouts	pullouts beside lake	25%	access along Glenn Hwy.
West Sunshine	good	PUE (20') MSB	2 vehicle gravel limited rd. ROW	steep, dirt	0.4%	no camping
Willow	good	S/L (50') MSB	30 vehicle gravel	access rd. ends lake	0.4%	access by Willow Comm. Center
Wishbone	fair	State prop.	4 vehicle dirt	rough 4WD only	100%	hook-&-release only, State land
Wolf	good	SRA	10 vehicle gravel	short dirt	33%	vacant/abandoned SRA; no camping
"X"	good	PUA MSB	6 vehicle gravel	access trail to lake	100%	hook-&-release only; State land
"Y"	good	Rd. ROW	2 vehicle dirt	short, steep	100%	brushy, State land

[a] ROW = right of way
S/L = section line easement (feet wide)
PUA = dedicated (or reserved) public use area (parcel platted for public recreation) PUE = dedicated public use easement (feet wide)
SRA = state recreation area (parcel managed by State Parks) MSB = Matanuska Susitna Borough, DNR = Dept. Natural Resources.

APPENDIX G:
ADF&G INFORMATION AND EDUCATION PROGRAM 2011–2012

Appendix G1.–Classroom visits and presentations conducted for ADF&G Information and Education Program 2011–2012.

Date	School	No. Students	Age Group	Subject
10/3/2011	Swanson	50	Elementary	Salmon Dissection
10/3/2011	Larson	60	Elementary	Life Cycle Presentation
10/4/2011	Palmer	19	High School	Salmon Dissection
10/4/2011	Cottonwood Creek	56	Elementary	Salmon Dissection
10/5/2011	Butte	50	Elementary	Salmon Dissection
10/6/2011	Louise Farm School	9	Elementary	Watershed Presentation
10/6/2011	Machetanz	55	Elementary	Life Cycle Presentation
10/7/2011	Larson	60	Elementary	Salmon Dissection
10/7/2011	Talkeetna	35	Elementary	Salmon Dissection
10/10/2011	Pioneer Peak	50	Elementary	Life Cycle Presentation
10/10/2011	Beryozova	20	Elementary	Life Cycle Presentation
10/11/2011	Pioneer Peak	50	Elementary	Salmon Dissection
10/12/2011	Big Lake	134	Elementary	Salmon Dissection
10/13/2011	Snowshoe	62	Elementary	Salmon Dissection
10/13/2011	Swanson	50	Elementary	Life Cycle Presentation
10/14/2011	Shaw	70	Elementary	Salmon Dissection
10/14/2011	Finger Lake	42	Elementary	Salmon Dissection
10/17/2011	Sherrod	180	Elementary	Life Cycle Presentation
10/17/2011	Swanson	50	Elementary	Watershed Presentation
10/18/2011	Sherrod	180	Elementary	Salmon Dissection
10/19/2011	Houston	60	High School	Salmon Dissection
10/21/2011	Meadow Lakes	65	Elementary	Salmon Dissection
10/24/2011	Office Day			Rod Loaner Program
10/26/2011	Knik	75	Elementary	Watershed Presentation
10/27/2011	Louise Farm School	9	Elementary	Salmon Dissection
10/27/2011	Machetanz	55	Elementary	Salmon Dissection
10/28/2011	Knik	130	Elementary	Salmon Dissection
10/28/2011	Larson	60	Elementary	Watershed Presentation
5/10/2011	Salmon Celebration all schools	999	Elementary	Salmon release at Matanuska Lake
Total		2,735		

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Date	School	No. Students	Age Group	Subject
10/3/2012	Swanson	50	Elementary	Life Cycle Presentation
10/3/2012	Larson	60	Elementary	Life Cycle Presentation
10/4/2012	Palmer	19	High School	Salmon Dissection
10/4/2012	Cottonwood Creek	56	Elementary	Salmon Dissection
10/5/2012	Butte	50	Elementary	Salmon Dissection
10/6/2012	Louise Farm School	9	Elementary	Life Cycle Presentation
10/6/2012	Machetanz	55	Elementary	Life Cycle Presentation
10/7/2012	Talkeetna	31	Elementary	Salmon Dissection
10/10/2012	Pioneer Peak	52	Elementary	Life Cycle Presentation
10/10/2012	Beryozova	20	Elementary	Watershed Presentation
10/11/2012	Pioneer Peak	52	Elementary	Salmon Dissection
10/12/2012	Finger Lake	32	Elementary	Life Cycle Presentation
10/12/2012	Big Lake	128	Elementary	Salmon Dissection
10/13/2012	Snowshoe	62	Elementary	Salmon Dissection
10/13/2012	Swanson	50	Elementary	Life Cycle Presentation
10/14/2012	Shaw	70	Elementary	Salmon Dissection
10/14/2012	Finger Lake	42	Elementary	Salmon Dissection
10/17/2012	Sherrod	180	Elementary	Life Cycle Presentation
10/17/2011	Swanson	50	Elementary	Life Cycle Presentation
10/19/2012	Houston	60	High School	Salmon Dissection
10/19/2012	Sherrod	180	Elementary	Salmon Dissection
10/21/2012	Beryozova	20	Elementary	Salmon Dissection
10/21/2012	Meadow Lakes	65	Elementary	Salmon Dissection
10/26/2012	Knik	130	Elementary	Watershed Presentation
10/27/2012	Louise Farm School	9	Elementary	Salmon Dissection
10/27/2012	Machetanz	55	Elementary	Salmon Dissection
10/28/2012	Knik	130	Elementary	Salmon Dissection
10/28/2012	Larson	60	Elementary	Salmon Dissection
5/11/2012	Salmon Celebration all schools	939	Elementary	Salmon release at Matanuska Lake
Total		2,716		

APPENDIX H.
EMERGENCY ORDERS

1991

Emergency Orders:

8. 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.
9. 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.
10. E.O. No. 2-RS-2-33-91 opened the Fish Creek personal use dip net fishery. Effective July 30 through August 9, 1991.
11. 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.
12. 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.
13. 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.
14. 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

Emergency Orders:

5. 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.
6. 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.
7. E.O. No. 2-RS-2-28-92 closed the Susitna River drainage to sockeye salmon fishing. Effective July 31 through December 31, 1992.
8. 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.

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1993

Emergency Orders:

5. 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.
6. 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.
7. 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.
8. 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:

6. 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.
7. 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.
8. 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.
9. 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.
10. 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.

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1995

Emergency Orders:

4. 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.
5. 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.
6. 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.

1997

Emergency Orders:

5. 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.
6. E.O. No. 2-RS-2-28-97 closed Fish Creek dipnetting for the remainder of the 1997 season on July 26, 1997.
7. 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.
8. 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

Emergency Orders:

3. 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.
4. E.O. No. 2-RS-2-15-98 closes Fish Creek to dipnetting effective July 25, 1998 through July 31, 1998.

1999

Emergency Orders:

4. 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.
5. E.O. No. 2-RS-2-15-99 closed Fish Creek to dipnetting on July 26, 1999.
6. 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.

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2000

3. 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.
4. E.O. No. 2-RS-2-16-00 closed Fish Creek to dipnetting on July 26, 2000.

2001

Emergency Orders:

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

2002

Emergency Orders:

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.

2004

No new regulations adopted for 2004 and no EOs issued.

2005

No emergency orders were issued affecting coho salmon fisheries in 2005.

2006

Emergency orders:

5. E.O. No. 2-SS-2-41-06 increased the daily bag limit of coho salmon to three daily in that portion of the Little Susitna River open to salmon fishing beginning August 19.
6. E.O. No. 2-SS-2-44-06 increased salmon fishing time on Wasilla Creek to 24 hours per day while keeping the Saturday and Sunday, weekend only restriction and increased the bag limit for coho salmon to three daily in those waters open to salmon fishing on August 19.
7. E.O. No. 2-SS-43-06 increased salmon (other than king salmon) fishing time on Fish Creek to 24 hours per day while keeping the Saturday and Sunday, weekend only restriction and increased the bag limit for coho salmon to three daily in those waters open to salmon fishing on August 19.
8. E.O. No. 2-SS-2-42-06 increased salmon fishing time on Cottonwood Creek to 24 hours per day while keeping the Saturday and Sunday, weekend only restriction and increased the bag limit for coho salmon to three daily in those waters open to salmon fishing on August 19.

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2007

Emergency orders:

3. E.O. No. 2-SS-2-36-07 Prohibits retention of Coho salmon while sport fishing in the Kink Arm Management Area, excluding Eklutna Tail Race and fish creek effective September 4.

4. E.O. No. 2-SS-2-37-07 rescinded E.O. No. 2-SS-2-36-07 on September 11.

2008

Emergency orders:

2. **E.O No. 2-SS-2-26-08 Increased the** bag limit for coho salmon to three (3) per day in that portion of the Knik Arm open to salmon fishing, excluding Jim Creek beginning August 16.

2009

Emergency orders:

3. EO No. 2-SS-2-27-09 Increased the bag limit for coho salmon to three (3) per day in that portion of the Knik Arm open to salmon fishing except the Little Susitna river beginning August 19.

4. This same EO also added Mondays to the weekend fisheries of Cottonwood, Wasilla and Fish Creeks beginning August 19.

2010

Emergency Orders:

3. 2-SS-2-42-10 increased the bag limit for coho salmon to three (3) per day in that portion of the Knik Arm open to salmon fishing except Jim Creek and the Little Susitna river beginning August 7.

4. 2-RS-2-38-10 opened the Fish Creek Personal Use Dip Net fishery for salmon other that King Salmon only between the hours of 6:00 am and 11:00 pm starting at 6:00 am July 24 and ending 11:00 pm July 31.

2011

Emergency Orders:

3. 2-SS-2-26-11 prohibited the use of bait on the Little Susitna River effective 12:01 a.m., Saturday, August 6, 2011, through 11:50 p.m., Friday, September 20, 2011.

4. 2-SS-2-27-11 closed all waters of the Knik Arm Management Area, excluding Eklutna Tailrace and Fish Creek, to fishing for coho salmon effective 12:01 a.m., Saturday, August 27, 2011.

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2012

Emergency Orders:

11. 2-KS-2-06-12 reduced the annual limit for king salmon 20 inches or longer from five fish to two fish and limited sport fishing gear to one unbaited, single hook, artificial lure in the Susitna River drainage, effective 6:00a.m., Tuesday, May 15, 2012.
12. 2-KS-2-07-12 reduced the annual limit for king salmon 20 inches or longer from five fish to two fish and limited sport fishing gear to one unbaited, single hook, artificial lure in the Little Susitna River drainage, effective 6:00a.m., Tuesday, May 15, 2012 through 11:59p.m., Friday, July 13, 2012.
13. 2-KS-2-14-12 closed the Little Susitna River to fishing for king salmon effective 6:00 a.m., Friday, June 15, 2012, through 11:59 p.m., Friday, July 13, 2012.
14. 2-KS-2-15-12 prohibited the use of bait and limited sport fishing gear to one unbaited, single-hook artificial lure while sport fishing in the Deshka River, effective 6:00 a.m., Wednesday, June 20, 2012, through 11:00p.m., Friday, July 13, 2012.
15. 2-KS-2-20-12 closed the Susitna River drainage to sport fishing for king salmon and limited sport fishing gear to one unbaited, single hook, artificial lure when fishing in waters normally opened to king salmon fishing, effective 6:00 a.m., Monday, June 25, 2012, through 11:59p.m., Friday, July 13, 2012.
16. 2-RT-2-31-12 increased the possession limit for rainbow trout in Reflections Lake to five per day and five in possession, with only one 20 inches or greater in length, effective 6:00 a.m., Friday, July 6, 2012, through 11:59 p.m., Monday, December 31, 2012.
17. 2-SS-2-49-12 prohibited sport fishing for coho salmon on the Little Susitna River effective 12:01 a.m., Monday, August 6, 2012, through 11:59 p.m., Sunday, September 30, 2012.
18. 2-SS-2-50-12 prohibited the use of bait for coho salmon on the Little Susitna River effective 12:01 a.m., Monday, August 6, 2012, through 11:59 p.m., Sunday, September 30, 2012.
19. 2-SS-2-51-12 reduced the bag limit for coho salmon in Jim Creek from two fish to one fish only between the hours of 6:00am to 6:00pm, effective 6:00 a.m., Friday, August 10, 2012.
20. 2-SS-2-53-12 closed all waters of the Knik Arm Management Area, excluding Eklutna Tailrace and Fish Creek, to fishing for coho salmon effective 12:01 a.m., Friday, August 17, 2012.

Appendix I1.–Little Susitna River weir data, 2011.

	Coho salmon					Chum salmon [a]						River Water	
	Passage		Sampled	Adipose fin		Passage		Daily passage				Stage	Temp.
Date	Daily	Cum	(n)	Inspected	Clips	Daily	Cum	King	Pink	Red	Other	(ft)	(C)
3-Aug	1	1	0	0	0	387	387	0	4	2	0	n/a	n/a
4-Aug	6	7	0	0	0	1,019	1,406	0	6	1	0	1.64	n/a
5-Aug	23	30	0	0	0	1,180	2,586	1	4	1	1	1.70	9.2
6-Aug	26	56	0	0	0	1,319	3,905	2	6	1	0	2.65	8.8
7-Aug	14	70	0	0	0	877	4,782	2	3	0	0	2.36	8.3
8-Aug	10	80	0	0	0	482	5,264	0	4	1	0	3.10	8.5
9-Aug	0	80	0	0	0	64	5,328	0	0	0	0	3.22	8.5
10-Aug	0	80	0	0	0	0	5,328	0	0	0	0	n/a	8.5
11-Aug	32	112	0	0	0	1,090	6,418	1	9	1	3	n/a	8.7
12-Aug	77	189	0	0	0	1,713	8,131	1	10	2	0	3.16	8.2
13-Aug	123	312	0	0	0	2,030	10,161	1	5	0	1	2.75	9.6
14-Aug	78	390	10	0	0	1,107	11,268	1	7	0	0	2.54	9.2
15-Aug	50	440	0	0	0	953	12,221	3	2	2	5	2.66	9.0
16-Aug	83	523	10	0	0	1,765	13,986	0	5	2	0	2.38	9.0
17-Aug	55	578	7	0	0	480	14,466	0	1	0	0	2.44	8.8
18-Aug	104	682	0	0	0	622	15,088	0	0	0	3	n/a	8.9
19-Aug	43	725	0	0	0	789	15,877	2	2	1	1	n/a	8.3
20-Aug	41	766	0	0	0	598	16,475	0	5	1	0	3.26	8.8
21-Aug	102	868	10	0	0	675	17,150	0	0	1	1	2.85	8.6
22-Aug	216	1,084	10	0	0	714	17,864	0	0	0	0	2.70	9.8
23-Aug	149	1,233	10	0	0	423	18,287	2	2	1	2	2.56	9.2
24-Aug	212	1,445	10	0	0	417	18,704	1	0	0	0	2.32	9.5
25-Aug	372	1,817	10	0	0	250	18,954	0	1	1	3	2.21	9.0
26-Aug	199	2,016	10	0	0	196	19,150	0	0	0	0	2.00	8.2
27-Aug	108	2,124	10	0	0	165	19,315	0	0	0	1	1.90	n/a
28-Aug	79	2,203	10	0	0	18	19,333	0	0	1	0	1.80	n/a
29-Aug	63	2,266	10	0	0	10	19,343	0	0	0	0	1.72	n/a
30-Aug	18	2,284	0	0	0	7	19,350	0	1	0	0	1.62	8.5
31-Aug	24	2,308	0	0	0	3	19,353	0	0	0	0	1.66	8.0
1-Sep	134	2,442	0	0	0	12	19,365	0	0	0	0	1.92	7.8
2-Sep	16	2,458	0	0	0	1	19,366	0	1	0	0	1.73	7.7
3-Sep	7	2,465	0	0	0	3	19,369	0	1	0	0	1.62	7.0
4-Sep	68	2,533	20	0	0	22	19,391	0	0	0	0	1.51	7.0

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Appendix I1.–Page 2 of 2.

	Coho salmon					Chum salmon [a]						River Water	
	Passage		Sampled	Adipose fin		Passage		Daily passage				Stage	Temp.
Date	Daily	Cum	(n)	Inspected	Clips	Daily	Cum	King	Pink	Red	Other	(ft)	(C)
5-Sep	114	2,647	20	0	0	12	19,403	0	0	0	1	1.43	6.8
6-Sep	119	2,766	10	0	0	10	19,413	0	0	0	0	1.36	7.0
7-Sep	174	2,940	20	0	0	5	19,418	0	0	0	0	1.31	7.0
8-Sep	107	3,047	14	0	0	14	19,432	0	0	0	2	1.28	6.8
9-Sep	549	3,596	40	0	0	15	19,447	0	0	1	0	1.15	6.8
10-Sep	287	3,883	30	0	0	11	19,458	0	0	1	1	1.13	7.4
11-Sep	66	3,949	0	0	0	5	19,463	0	0	1	0	1.07	6.6
12-Sep	12	3,961	0	0	0	2	19,465	0	0	0	1	1.07	6.9
13-Sep	142	4,103	15	0	0	2	19,467	0	0	0	0	1.00	7.0
14-Sep	203	4,306	20	0	0	5	19,472	0	0	0	0	0.98	7.5
15-Sep	64	4,370	10	0	0	5	19,477	0	0	0	0	0.97	6.5
16-Sep	38	4,408	10	0	0	6	19,483	0	0	0	0	0.95	6.4
17-Sep	1	4,409	0	0	0	8	19,491	0	0	0	0	0.92	5.5
18-Sep	129	4,538	20	0	0	3	19,494	0	0	0	0	0.91	5.4
19-Sep	12	4,550	0	0	0	1	19,495	0	0	0	0	0.88	5.7
20-Sep	3	4,553	0	0	0	0	19,495	0	0	0	1	0.86	5.5
21-Sep	71	4,624	20	0	0	0	19,495	0	0	0	0	0.86	5.8
22-Sep	183	4,807	40	0	0	7	19,502	0	0	0	0	0.83	5.4
23-Sep	0	4,807	0	0	0	3	19,505	0	0	0	0	0.81	5.6
24-Sep	19	4,826	19	0	0	1	19,506	0	0	0	0	0.79	5.6
25-Sep	0	4,826	0	0	0	0	19,506	0	0	0	0	0.76	5.0
26-Sep	0	4,826	0	0	0	0	19,506	0	0	0	0	0.74	4.0
27-Sep	0	4,826	0	0	0	0	19,506	0	0	0	0	0.72	4.0
Total	4,826		425	0	0	19,506		17	79	22	27		

Note: Cum = cumulative; n = sample size (number of fish); Inspected = total number of fish examined for adipose fin clips; Clips = no of fish with adipose; fin clips; King = Chinook salmon; Pink = pink salmon; Red = sockeye salmon; and ND = no data collected because no attempts were made to collect it.

[a] Chum salmon at Little Susitna Weir were not sampled for age-length-weight data.

Appendix I2.–Little Susitna River weir data, 2012.

	Coho salmon					Chum salmon [a]						River Water	
	Passage		Sampled	Adipose fin		Passage		Daily passage				Stage	Temp.
Date	Daily	Cum	(n)	Inspected	Clips	Daily	Cum	King	Pink	Red	Other	(ft)	(C)
16-Jul	0	0	0	0	0	0	0	0	0	0	0	n/a	n/a
17-Jul	2	2	0	0	0	553	553	41	2	0	0	n/a	n/a
18-Jul	0	2	0	0	0	2	555	7	0	0	0	n/a	n/a
19-Jul	3	5	0	0	0	1,551	2,106	90	8	3	0	n/a	n/a
20-Jul	0	5	0	0	0	1,315	3,421	30	8	0	0	n/a	n/a
21-Jul	2	7	0	0	0	1,463	4,884	7	26	4	0	n/a	n/a
22-Jul	3	10	0	0	0	909	5,793	5	24	0	0	2.44	12.0
23-Jul	3	13	0	0	0	234	6,027	2	18	0	0	2.44	12.0
24-Jul	0	13	0	0	0	1	6,028	0	1	0	0	2.16	12.0
25-Jul	0	13	0	0	0	409	6,437	0	0	1	0	1.94	11.0
26-Jul	32	45	0	0	0	3,201	9,638	11	74	1	0	1.72	12.0
27-Jul	23	68	1	0	0	2,229	11,867	28	91	23	0	1.62	10.0
28-Jul	23	91	8	0	0	2,861	14,728	9	383	41	0	1.56	10.0
29-Jul	23	114	18	0	0	938	15,666	3	253	13	0	1.49	11.0
30-Jul	3	117	0	0	0	266	15,932	7	89	4	0	1.48	12.0
31-Jul	1	118	0	0	0	545	16,477	2	40	0	0	1.40	12.0
1-Aug	2	120	0	0	0	577	17,054	4	26	0	0	1.36	12.0
2-Aug	4	124	2	0	0	606	17,660	6	63	5	0	1.30	11.5
3-Aug	24	148	9	0	0	603	18,263	5	196	6	0	1.50	11.5
4-Aug	200	348	23	0	0	1,630	19,893	16	657	18	0	2.10	11.0
5-Aug	20	368	5	0	0	250	20,143	14	174	9	0	1.80	10.5
6-Aug	21	389	6	0	0	301	20,444	11	155	12	0	1.72	10.3
7-Aug	126	515	5	0	0	618	21,062	17	283	10	0	1.60	12.0
8-Aug	225	740	0	0	0	683	21,745	1	327	11	0	1.58	15.0
9-Aug	150	890	10	0	0	461	22,206	4	251	14	0	1.42	12.0
10-Aug	360	1,250	10	0	0	360	22,566	1	318	7	0	1.40	12.5
11-Aug	284	1,534	10	0	0	345	22,911	2	245	12	0	1.38	13.0
12-Aug	280	1,814	5	0	0	219	23,130	4	188	11	1	1.37	13.0
13-Aug	441	2,255	10	0	0	285	23,415	7	190	12	1	1.39	14.0
14-Aug	332	2,587	5	0	0	157	23,572	4	154	4	0	1.36	13.0

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	Coho salmon					Chum salmon [a]						River Water	
	Passage		Sampled	Adipose fin		Passage		Daily passage				Stage	Temp.
Date	Daily	Cum	(n)	Inspected	Clips	Daily	Cum	King	Pink	Red	Other	(ft)	(C)
15-Aug	182	2,769	0	0	0	95	23,667	5	97	6	0	1.46	13.0
16-Aug	48	2,817	10	0	0	69	23,736	0	28	3	0	1.38	13.0
17-Aug	107	2,924	10	0	0	112	23,848	4	27	4	0	1.36	12.5
18-Aug	13	2,937	10	0	0	23	23,871	0	15	3	0	1.36	11.5
19-Aug	38	2,975	10	0	0	41	23,912	0	10	1	0	1.34	11.0
20-Aug	169	3,144	10	0	0	66	23,978	1	13	1	0	1.38	10.5
21-Aug	342	3,486	0	0	0	31	24,009	0	12	0	0	1.58	10.2
22-Aug	342	3,828	0	0	0	16	24,025	0	11	1	1	1.72	9.8
23-Aug	353	4,181	10	0	0	17	24,042	0	14	0	0	1.58	11.5
24-Aug	605	4,786	10	0	0	8	24,050	0	3	1	2	1.52	11.0
25-Aug	180	4,966	10	0	0	9	24,059	0	4	1	0	1.53	10.0
26-Aug	278	5,244	10	0	0	15	24,074	0	6	0	0	1.80	10.3
27-Aug	844	6,088	10	0	0	22	24,096	0	4	2	0	1.96	10.0
28-Aug	1	6,089	0	0	0	0	24,096	0	0	1	0	>3	9.5
29-Aug	0	6,089	0	0	0	0	24,096	0	0	0	0	>3	9.5
30-Aug	59	6,148	10	0	0	14	24,110	0	2	0	0	3.08	9.5
31-Aug	118	6,266	10	0	0	10	24,120	0	2	2	0	2.90	9.0
1-Sep	68	6,334	10	0	0	3	24,123	0	2	1	0	2.70	9.0
2-Sep	75	6,409	10	0	0	5	24,128	1	0	1	0	2.52	9.0
3-Sep	127	6,536	10	0	0	4	24,132	0	1	0	0	2.74	9.0
4-Sep	36	6,572	10	0	0	0	24,132	0	1	0	0	2.48	8.5
5-Sep	124	6,696	0	0	0	4	24,136	0	1	0	0	2.64	8.0
6-Sep	47	6,743	0	0	0	1	24,137	0	0	0	0	2.96	7.5
7-Sep	19	6,762	0	0	0	1	24,138	0	0	0	0	3.20	7.5
8-Sep	8	6,770	0	0	0	0	24,138	0	0	0	0	2.96	7.0
9-Sep	9	6,779	0	0	0	0	24,138	0	0	0	0	2.76	6.5
Total	6,779		287	0	0	24,138		349	4,497	249	5		

Note: Cum = cumulative; n = sample size (number of fish); Inspected = total number of fish examined for adipose fin clips; Clips = no of fish with adipose; fin clips; King = Chinook salmon; Pink = pink salmon; Red = sockeye salmon; and ND = no data collected because no attempts were made to collect it.

[a] Chum salmon at Little Susitna Weir were not sampled for age-length-weight data.

Appendix I3.–Fish Creek (Big Lake Drainage) weir data, 2011

	Sockeye salmon					Coho salmon					River water	
	Passage				Sampled	Passage		Daily passage			Stage	Temp.
Date	Adults	Jacks	Daily	Cum	(n)	Daily	Cum	King	Pink	Chum	(ft)	(C)
6-Jul	0	0	0	0	0	0	0	0	0	0	1.12	18.0
7-Jul	0	0	0	0	0	0	0	0	0	0	1.10	15.0
8-Jul	0	0	0	0	0	0	0	0	0	0	1.08	16.0
9-Jul	0	0	0	0	0	0	0	0	0	0	1.07	15.0
10-Jul	0	0	0	0	0	0	0	0	0	0	1.06	15.0
11-Jul	0	0	0	0	0	0	0	0	0	0	1.04	15.0
12-Jul	0	0	0	0	0	0	0	0	0	0	1.09	15.0
13-Jul	0	0	0	0	0	0	0	0	0	0	1.10	14.0
14-Jul	0	0	0	0	0	0	0	0	0	0	1.10	15.0
15-Jul	0	0	0	0	0	0	0	0	0	0	1.10	14.0
16-Jul	51	1	52	52	0	0	0	0	0	0	1.09	15.0
17-Jul	87	1	88	140	0	0	0	0	0	0	1.08	15.0
18-Jul	573	5	578	718	6	0	0	0	0	0	1.24	14.0
19-Jul	380	4	384	1,107	4	0	0	0	0	0	1.22	14.0
20-Jul	979	12	991	2,093	11	0	0	0	0	0	1.18	14.0
21-Jul	1,046	13	1,059	3,152	11	0	0	0	0	0	1.16	15.0
22-Jul	1,117	18	1,135	4,287	6	1	1	0	0	0	1.14	15.0
23-Jul	1,689	24	1,713	6,000	12	1	2	1	0	0	1.12	16.0
24-Jul	2,508	31	2,539	8,539	24	1	3	3	0	0	1.14	15.0
25-Jul	14,011	88	14,099	22,638	40	17	20	1	2	0	1.18	13.0
26-Jul	10,051	91	10,142	32,780	105	31	51	0	1	0	1.16	13.0
27-Jul	8,769	58	8,827	41,607	110	14	65	0	1	0	1.14	13.0
28-Jul	6,083	66	6,149	47,756	40	6	71	2	0	0	1.12	14.0
29-Jul	1,411	20	1,431	49,187	80	2	73	1	0	0	1.10	15.0
30-Jul	162	1	163	49,350	40	0	73	0	0	0	1.08	15.0
31-Jul	680	0	680	50,030	0	2	75	0	0	0	1.10	16.0
1-Aug	31	1	32	50,062	0	0	75	0	0	0	1.12	14.5
2-Aug	41	3	44	50,106	10	1	76	0	0	0	1.14	13.5
3-Aug	3,016	145	3,161	53,262	32	62	138	0	4	0	1.22	14.5
4-Aug	5,091	143	5,234	58,496	42	175	313	0	7	0	1.24	13.5
5-Aug	2,935	106	3,041	61,542	60	240	553	0	12	1	1.28	12.5
6-Aug	1,453	64	1,517	63,059	35	48	601	0	6	0	1.34	12.0

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	Sockeye salmon					Coho salmon					River water	
	Passage				Sampled	Passage		Daily passage			Stage	Temp.
Date	Adults	Jacks	Daily	Cum	(n)	Daily	Cum	King	Pink	Chum	(ft)	(C)
7-Aug	1,183	40	1,223	64,282	15	70	671	0	9	2	1.40	11.5
8-Aug	819	56	875	65,157	9	66	737	0	7	4	1.42	12.0
9-Aug	549	46	595	65,752	7	476	1,213	0	11	3	1.55	11.5
10-Aug	398	36	434	66,186	5	101	1,314	0	3	9	1.61	11.0
11-Aug	85	4	89	66,275	4	12	1,326	0	3	7	1.63	11.0
12-Aug	67	5	72	66,347	0	19	1,345	0	2	4	1.51	12.0
13-Aug	148	9	157	66,504	0	27	1,372	0	1	3	1.46	13.5
14-Aug	97	0	97	66,601	3	48	1,420	0	0	10	1.41	14.0
15-Aug [a]	77	0	77	66,678	0	8	1,428	0	2	2	1.49	13.5
Total	65,587	1,091	66,678		711	1,428		8	71	45		

Note: Jacks = salmon that return after one year in the ocean, smaller fish and predominately males (Groot and Margolis 1991); Cum = cumulative; n = sample size (number of fish); King = Chinook salmon; Pink = pink salmon; Chum = chum salmon; and ND = no data collected because no attempts were made to collect it.

Appendix I4.–Fish Creek (Big Lake Drainage) weir data, 2012.

	Sockeye salmon					Coho salmon					River water	
	Passage				Sampled	Passage		Daily passage			Stage	Temp.
Date	Adults	Jacks	Daily	Cum	(n)	Daily	Cum	King	Pink	Chum	(ft)	(C)
6-Jul	0	0	0	0	0	0	0	0	0	0	1.56	13.0
7-Jul	0	0	0	0	0	0	0	0	0	0	1.56	13.0
8-Jul	0	0	0	0	0	0	0	0	0	0	1.54	13.0
9-Jul	0	0	0	0	0	0	0	0	0	0	1.54	13.0
10-Jul	0	0	0	0	0	0	0	0	0	0	1.52	13.0
11-Jul	0	0	0	0	0	0	0	0	0	0	1.49	12.5
12-Jul	0	0	0	0	0	0	0	0	0	0	1.48	13.0
13-Jul	0	0	0	0	0	0	0	0	0	0	1.50	12.0
14-Jul	0	0	0	0	0	0	0	0	0	0	1.49	13.0
15-Jul	0	0	0	0	0	0	0	0	0	0	1.52	12.0
16-Jul	0	0	0	0	0	0	0	0	0	0	1.54	13.0
17-Jul	268	4	272	272	0	0	0	0	0	0	1.52	14.0
18-Jul	33	2	35	307	5	0	0	0	0	0	1.50	14.0
19-Jul	537	11	548	855	9	0	0	0	0	1	1.49	15.0
20-Jul	629	9	638	1,493	12	2	2	0	0	0	1.47	16.0
21-Jul	1,088	18	1,106	2,599	0	4	6	0	1	0	1.52	14.0
22-Jul	1,811	31	1,842	4,441	26	14	20	0	1	1	1.60	14.0
23-Jul	1,234	26	1,260	5,701	23	9	29	0	0	0	1.60	14.0
24-Jul	1,391	10	1,401	7,102	17	2	31	0	0	0	1.59	14.0
25-Jul	246	3	249	7,351	21	1	32	0	0	0	1.58	14.0
26-Jul	2,915	72	2,987	10,338	15	23	55	0	5	0	1.56	14.5
27-Jul	1,051	69	1,120	11,458	80	12	67	0	0	0	1.54	14.0
28-Jul	1,503	81	1,584	13,042	40	11	78	0	2	0	1.50	15.0
29-Jul	769	51	820	13,862	12	19	97	0	2	0	1.48	15.0
30-Jul	341	8	349	14,211	19	14	111	0	0	0	1.48	15.0
31-Jul	120	7	127	14,338	33	27	138	0	1	0	1.48	14.0
1-Aug	107	7	114	14,452	25	11	149	0	3	0	1.50	14.0
2-Aug	2,513	62	2,575	17,027	40	31	180	0	4	0	1.50	13.5
3-Aug	68	10	78	17,105	21	33	213	0	0	0	1.52	12.5

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	Sockeye salmon					Coho salmon					River water	
	Passage				Sampled	Passage		Daily passage			Stage	Temp.
Date	Adults	Jacks	Daily	Cum	(n)	Daily	Cum	King	Pink	Chum	(ft)	(C)
4-Aug	437	19	456	17,561	28	84	297	0	1	1	1.52	14.0
5-Aug	993	24	1,017	18,578	36	28	325	0	1	2	1.53	13.0
6-Aug	15	1	16	18,594	14	0	325	0	0	0	1.52	13.0
7-Aug	9	0	9	18,603	9	2	327	0	0	0	1.50	13.0
8-Aug	5	0	5	18,608	5	0	327	0	0	0	1.49	14.0
9-Aug	36	0	36	18,644	14	11	338	0	3	0	1.47	14.0
10-Aug	11	0	11	18,655	0	1	339	0	0	0	1.46	14.0
11-Aug	0	0	0	18,655	0	0	339	0	0	0	1.44	15.5
12-Aug	9	0	9	18,664	0	2	341	0	4	0	1.44	16.0
13-Aug	7	0	7	18,671	0	4	345	0	8	1	1.44	15.0
14-Aug	10	0	10	18,681	0	2	347	0	11	1	1.42	15.0
15-Aug [a]	18	0	18	18,699	0	5	352	0	30	2	1.40	15.0
16-Aug	6	0	6	18,705	0	3	355	0	7	0	1.40	15.0
17-Aug	14	0	14	18,719	0	11	366	0	16	0	1.40	14.0
18-Aug	2	0	2	18,721	0	0	366	0	4	0	1.38	13.0
19-Aug	4	0	4	18,725	0	6	372	0	8	0	1.40	13.0
20-Aug	27	1	28	18,753	0	47	419	0	17	5	1.42	12.5
21-Aug	30	1	31	18,784	0	102	521	0	12	1	1.42	12.5
22-Aug	0	0	0	18,784	0	1	522	0	1	0	1.44	12.5
23-Aug	13	0	13	18,797	0	118	640	0	2	0	1.46	13.5
24-Aug	2	0	2	18,799	0	5	645	0	1	0	1.52	12.0
25-Aug	1	1	2	18,801	0	0	645	0	0	0	1.49	13.0
26-Aug	0	0	0	18,801	0	1	646	0	0	0	1.49	12.5
27-Aug	16	3	19	18,820	0	570	1,216	0	3	10	1.64	12.0
28-Aug	3	0	3	18,823	0	18	1,234	0	0	0	1.66	11.0
29-Aug	0	0	0	18,823	0	0	1,234	0	0	0	1.62	12.0
30-Aug	0	0	0	18,823	0	0	1,234	0	0	0	1.58	12.0
31-Aug	0	0	0	18,823	0	1	1,235	0	0	0	1.62	12.0
1-Sep	0	0	0	18,823	0	0	1,235	0	0	0	1.64	11.0
2-Sep	0	0	0	18,823	0	0	1,235	0	0	0	1.65	11.0
3-Sep	0	0	0	18,823	0	0	1,235	0	0	0	1.65	11.0

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	Sockeye salmon					Coho salmon					River water	
	Passage				Sampled	Passage		Daily passage			Stage	Temp.
Date	Adults	Jacks	Daily	Cum	(n)	Daily	Cum	King	Pink	Chum	(ft)	(C)
4-Sep	0	0	0	18,823	0	0	1,235	0	0	0	1.66	10.5
5-Sep	0	0	0	18,823	0	0	1,235	0	0	0	1.70	9.5
6-Sep	0	0	0	18,823	0	0	1,235	0	0	0	1.71	9.0
7-Sep	0	0	0	18,823	0	0	1,235	0	0	0	1.70	9.5
8-Sep	0	0	0	18,823	0	0	1,235	0	0	0	1.68	9.0
9-Sep	0	0	0	18,823	0	0	1,235	0	0	0	1.66	8.0
10-Sep	0	0	0	18,823	0	0	1,235	0	0	0	1.64	7.0
11-Sep	0	0	0	18,823	0	0	1,235	0	0	0	1.60	7.0
12-Sep	0	0	0	18,823	0	0	1,235	0	0	0	1.61	7.5
13-Sep	0	0	0	18,823	0	2	1,237	0	0	0	1.63	7.5
14-Sep	0	0	0	18,823	0	0	1,237	0	0	0	1.61	8.5
15-Sep	0	0	0	18,823	0	0	1,237	0	0	0	1.70	9.0
16-Sep	0	0	0	18,823	0	0	1,237	0	0	0	1.92	8.5
Total	18,292	531	18,823		504	1,237		0	148	25		

Note: Jacks = salmon that return after one year in the ocean, smaller fish and predominately males (Groot and Margolis 1991); Cum = cumulative; n = sample size (number of fish); King = chinook salmon; Pink = pink salmon; Chum = chum salmon; and ND = no data collected because no attempts were made to collect it.

Appendix I5.–Deshka River weir data, 2011.

	Chinook salmon					Coho salmon								River water			Boat
	Passage		Sampled		Harvest	Passage		Sampled	Harvest	Daily passage				Stage	Temp.	Clarity	traffic
Date		Cum	n	Female	above weir	Daily	Cum	(n)	above weir	Red	Chum	Pink	Pike	(ft)	(°C)	(cm)	thru weir
24-May	Daily 0	0	0	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a	3
25-May	6	6	0	0	0	0	0	0	0	0	0	0	0	n/a	10.3	good	6
26-May	23	29	0	0	1	0	0	0	0	0	0	0	0	2.99	10.2	excellent	6
27-May	12	41	1	0	0	0	0	0	0	0	0	0	0	2.68	13.0	excellent	16
28-May	10	51	0	0	0	0	0	0	0	0	0	0	2	2.59	14.0	excellent	15
29-May	19	70	0	0	0	0	0	0	0	0	0	0	1	2.48	14.0	excellent	16
30-May	3	73	0	0	0	0	0	0	0	0	0	0	0	2.39	14.5	excellent	20
31-May	4	77	0	0	0	0	0	0	0	0	0	0	0	2.35	15.0	excellent	11
1-Jun	2	79	0	0	0	0	0	0	0	0	0	0	0	2.29	14.5	excellent	18
2-Jun	2	81	0	0	0	0	0	0	0	0	0	0	0	2.26	13.5	excellent	1
3-Jun	53	134	0	0	1	0	0	0	0	0	0	0	0	2.27	13.0	excellent	16
4-Jun	21	155	0	0	0	0	0	0	0	0	0	0	0	2.32	12.3	excellent	16
5-Jun	8	163	0	0	0	0	0	0	0	0	0	0	0	2.47	12.0	excellent	17
6-Jun	317	480	3	2	0	0	0	0	0	0	0	0	0	2.53	13.4	excellent	4
7-Jun	24	504	6	1	0	0	0	0	0	0	0	0	1	2.52	13.8	excellent	9
8-Jun	271	775	6	1	0	0	0	0	0	0	0	0	0	2.38	13.3	excellent	15
9-Jun	375	1,150	11	6	0	0	0	0	0	0	0	0	0	2.30	13.8	excellent	12
10-Jun	637	1,787	14	10	9	0	0	0	0	0	0	0	1	2.21	14.0	excellent	28
11-Jun	732	2,519	21	11	12	0	0	0	0	0	0	0	0	2.17	13.5	excellent	44
12-Jun	742	3,261	17	6	5	0	0	0	0	0	0	0	0	2.12	13.8	excellent	20
13-Jun	735	3,996	10	4	4	0	0	0	0	0	0	0	0	2.08	13.2	excellent	13
14-Jun	845	4,841	15	7	11	0	0	0	0	0	0	0	0	2.05	13.0	excellent	13
15-Jun	720	5,561	28	12	5	0	0	0	0	0	0	0	0	2.01	13.1	excellent	10
16-Jun	618	6,179	11	1	4	0	0	0	0	0	0	0	0	2.00	13.0	excellent	16
17-Jun	852	7,031	20	7	8	0	0	0	0	0	0	0	0	2.01	12.5	excellent	32
18-Jun	1,700	8,731	40	14	1	0	0	0	0	0	0	0	0	2.00	15.5	excellent	29
19-Jun	1,667	10,398	23	7	45	0	0	0	0	0	0	0	0	1.95	17.0	excellent	39
20-Jun	923	11,321	17	5	9	0	0	0	0	0	0	0	0	1.97	15.9	excellent	26
21-Jun	734	12,055	11	4	21	0	0	0	0	0	0	0	0	1.99	15.9	excellent	33
22-Jun	199	12,254	5	1	6	0	0	0	0	0	0	0	0	1.99	15.8	excellent	19
23-Jun	793	13,047	10	6	5	0	0	0	0	0	0	0	0	1.97	16.0	excellent	19
24-Jun	556	13,603	17	6	14	0	0	0	0	0	0	0	0	1.93	15.5	excellent	29

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	Chinook salmon					Coho salmon								River water			Boat
	Passage		Sampled		Harvest	Passage		Sampled	Harvest	Daily passage				Stage	Temp.	Clarity	traffic
Date	Daily	Cum	n	Female	above weir	Daily	Cum	(n)	above weir	Red	Chum	Pink	Pike	(ft)	(°C)	(cm)	thru weir
25-Jun	847	14,450	13	7	22	0	0	0	0	0	0	0	0	1.90	17.0	excellent	23
26-Jun	714	15,164	18	9	32	0	0	0	0	0	0	0	0	1.87	16.5	excellent	32
27-Jun	702	15,866	14	8	6	0	0	0	0	0	0	0	0	1.86	16.0	excellent	12
28-Jun	211	16,077	6	4	11	0	0	0	0	0	0	0	0	1.85	15.9	excellent	22
29-Jun	206	16,283	0	0	17	0	0	0	0	0	0	0	0	1.83	15.9	excellent	12
30-Jun	260	16,543	3	2	0	0	0	0	0	0	0	0	0	1.81	16.0	excellent	7
1-Jul	367	16,910	2	1	12	0	0	0	0	0	0	0	0	1.78	16.0	excellent	27
2-Jul	186	17,096	6	4	2	0	0	0	0	0	0	0	0	1.83	16.0	excellent	10
3-Jul	22	17,118	2	1	15	0	0	0	0	0	0	0	0	1.85	14.5	excellent	15
4-Jul	46	17,164	0	0	1	0	0	0	0	0	0	0	0	1.85	15.0	excellent	21
5-Jul	152	17,316	2	0	0	0	0	0	0	0	0	0	0	1.87	15.0	excellent	5
6-Jul	76	17,392	3	1	9	0	0	0	0	0	0	0	0	1.80	15.5	excellent	17
7-Jul	223	17,615	4	3	3	0	0	0	0	0	0	1	0	1.75	15.5	excellent	10
8-Jul	174	17,789	5	2	4	0	0	0	0	0	0	2	0	1.64	16.0	excellent	10
9-Jul	17	17,806	2	2	0	0	0	0	0	0	0	0	0	1.60	15.2	excellent	4
10-Jul	17	17,823	0	0	12	0	0	0	0	0	0	0	0	1.56	15.2	excellent	15
11-Jul	44	17,867	0	0	3	0	0	0	0	0	0	7	0	1.53	15.5	excellent	9
12-Jul	127	17,994	4	3	2	0	0	0	0	0	0	3	0	1.60	15.0	excellent	2
13-Jul	147	18,141	3	1	0	0	0	0	0	0	0	13	1	1.72	14.9	excellent	1
14-Jul	155	18,296	0	0	0	0	0	0	0	0	0	8	1	1.81	16.0	excellent	6
15-Jul	35	18,331	4	0	0	0	0	0	0	0	0	0	0	1.79	16.0	excellent	7
16-Jul	20	18,351	0	0	0	0	0	0	0	0	0	0	0	1.74	17.3	excellent	10
17-Jul	69	18,420	1	0	0	0	0	0	0	0	1	1	0	1.65	17.3	excellent	8
18-Jul	45	18,465	1	0	0	0	0	0	0	0	0	3	0	1.73	16.0	excellent	8
19-Jul	59	18,524	1	0	0	6	6	0	0	0	0	8	0	1.79	14.8	excellent	3
20-Jul	89	18,613	2	1	0	28	34	0	0	0	0	16	0	2.06	16.0	excellent	6
21-Jul	50	18,663	0	0	0	19	53	0	0	1	0	28	0	2.15	16.9	excellent	3
22-Jul	19	18,682	2	1	0	14	67	3	0	4	0	44	0	1.97	17.0	excellent	6
23-Jul	65	18,747	2	1	0	3	70	0	0	0	0	7	0	1.83	18.0	excellent	3
24-Jul	32	18,779	0	0	0	4	74	0	0	0	0	57	0	1.76	15.9	excellent	9
25-Jul	19	18,798	0	0	0	33	107	3	0	0	1	161	0	1.80	14.9	excellent	8

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	Chinook salmon					Coho salmon								River water			Boat
	Passage		Sampled		Harvest	Passage		Sampled	Harvest	Daily passage				Stage	Temp.	Clarity	traffic
Date	Daily	Cum	n	Female	above weir	Daily	Cum	(n)	above weir	Red	Chum	Pink	Pike	(ft)	(ºC)	(cm)	thru weir
26-Jul	12	18,810	0	0	0	69	176	13	0	0	4	74	0	1.93	13.9	excellent	4
27-Jul	13	18,823	0	0	0	204	380	32	0	1	2	270	0	2.15	14.9	excellent	10
28-Jul	13	18,836	0	0	0	103	483	0	0	17	2	312	0	2.00	15.0	excellent	9
29-Jul	15	18,851	0	0	0	48	531	6	0	6	1	429	0	1.89	16.4	excellent	17
30-Jul	10	18,861	0	0	0	51	582	11	0	4	2	318	0	1.78	17.6	excellent	18
31-Jul	7	18,868	0	0	0	24	606	0	0	2	0	109	0	1.85	16.8	excellent	24
1-Aug	13	18,881	0	0	0	81	687	26	1	1	0	195	0	1.87	16.4	excellent	13
2-Aug	28	18,909	0	0	0	2,415	3,102	7	0	14	6	1,531	0	2.12	14.9	poor	6
3-Aug	18	18,927	0	0	0	2,112	5,214	0	0	3	0	497	0	2.99	14.0	poor	6
4-Aug	2	18,929	0	0	0	420	5,634	10	2	0	2	32	0	3.78	12.9	poor	11
5-Aug	11	18,940	0	0	0	638	6,272	20	29	1	12	81	0	3.57	12.5	poor	30
6-Aug	11	18,951	0	0	0	280	6,552	10	43	1	14	54	1	3.48	12.8	poor	30
7-Aug	18	18,969	0	0	0	182	6,734	9	10	0	17	33	0	3.54	12.0	poor	14
8-Aug	0	18,969	0	0	0	0	6,734	0	5	0	0	0	0	4.31	11.9	very poor	7
9-Aug	0	18,969	0	0	0	0	6,734	0	0	0	0	0	0	4.90	n/a	very poor	3
10-Aug	0	18,969	0	0	0	0	6,734	0	17	0	0	0	0	n/a	n/a	poor	8
11-Aug	0	18,969	0	0	0	0	6,734	0	2	0	0	0	0	n/a	n/a	poor	6
12-Aug	0	18,969	0	0	0	0	6,734	0	4	0	0	0	0	n/a	n/a	poor	9
13-Aug	0	18,969	0	0	0	0	6,734	0	0	0	0	0	0	n/a	n/a	poor	10
14-Aug	0	18,969	0	0	0	0	6,734	0	6	0	0	0	0	n/a	n/a	poor	13
15-Aug	2	18,971	0	0	0	12	6,746	0	0	0	0	9	0	3.20	14.7	poor	6
16-Aug	6	18,977	0	0	0	42	6,788	20	3	0	0	49	0	3.07	14.7	poor	5
17-Aug	2	18,979	0	0	0	73	6,861	0	0	0	0	17	0	2.90	14.5	poor	8
18-Aug	5	18,984	0	0	0	104	6,965	20	3	0	3	28	0	2.88	13.8	poor	10
19-Aug	11	18,995	0	0	0	149	7,114	0	0	0	5	46	1	3.92	12.5	poor	6
20-Aug	5	19,000	0	0	0	16	7,130	0	7	0	0	5	1	4.51	12.0	poor	21
21-Aug	8	19,008	0	0	0	42	7,172	0	6	0	1	15	0	4.20	12.0	acceptable	17
22-Aug	9	19,017	0	0	0	65	7,237	18	6	0	4	9	0	3.85	12.5	acceptable	7
23-Aug	1	19,018	0	0	0	40	7,277	9	0	0	2	3	0	3.57	12.5	acceptable	2
24-Aug	3	19,021	0	0	0	26	7,303	3	4	0	1	7	0	3.67	12.0	acceptable	5
25-Aug	2	19,023	0	0	0	33	7,336	0	1	0	0	3	1	3.59	12.5	acceptable	0

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	Chinook salmon					Coho salmon								River water			Boat
	Passage		Sampled		Harvest	Passage		Sampled	Harvest	Daily passage				Stage	Temp.	Clarity	traffic
Date	Daily	Cum	n	Female	above weir	Daily	Cum	(n)	above weir	Red	Chum	Pink	Pike	(ft)	(ºC)	(cm)	thru weir
26-Aug	0	19,023	0	0	0	11	7,347	5	0	0	1	2	0	3.38	12.5	acceptable	12
27-Aug	1	19,024	0	0	0	28	7,375	11	0	0	0	3	0	3.17	13.0	acceptable	14
28-Aug	0	19,024	0	0	0	9	7,384	5	0	1	1	0	0	3.02	11.8	acceptable	13
29-Aug	0	19,024	0	0	0	6	7,390	5	0	0	1	0	0	2.88	12.1	acceptable	4
30-Aug	1	19,025	0	0	0	21	7,411	0	0	0	0	0	0	2.77	12.9	acceptable	1
31-Aug	1	19,026	0	0	0	22	7,433	0	0	1	0	0	0	2.69	12.5	acceptable	4
1-Sep	0	19,026	0	0	0	30	7,463	0	1	0	1	0	2	2.95	10.9	poor	5
2-Sep	0	19,019	0	0	0	13	7,476	0	0	0	0	0	0	3.89	10.9	acceptable	20
3-Sep	0	19,026	0	0	0	8	7,484	0	0	0	1	0	0	3.43	10.2	acceptable	12
4-Sep	0	19,026	0	0	0	16	7,500	0	0	0	0	0	0	3.16	10.3	acceptable	12
5-Sep	0	19,026	0	0	0	7	7,507	0	0	0	0	0	1	3.01	9.8	acceptable	10
6-Sep	0	19,026	0	0	0	1	7,508	0	0	1	0	0	0	2.94	9.7	n/a	0
Total	19,026		386	162	312	7,508		246	150	58	85	4,490	14				1,344

Note: Cum = cumulative; n = sample size (number of fish); Female = number of female fish in the sample; Red = sockeye salmon; Chum = chum salmon; Pink = pink salmon; Pike = northern pike; and ND = no data collected because no attempts were made to collect it.

Appendix I6.–Deshka River weir data, 2012

	Chinook salmon					Coho salmon								River water			Boat
	Passage		Sampled		Harvest	Passage		Sampled	Harvest		Daily passage			Stage	Temp.	Clarity	traffic
Date	Daily	Cum	n	Female	above weir	Daily	Cum	(n)	above weir		Chum	Pink	Pike	(ft)	(°C)	(cm)	thru weir
24-May	0	0	0	0	0	0	0	0	0	Red 0	0	0	0	n/a	n/a	n/a	6
25-May	0	0	0	0	0	0	0	0	0	0	0	0	0	n/a	n/a	poor	7
26-May	9	9	0	0	0	0	0	0	0	0	0	0	0	3.60	11.0	poor	18
27-May	22	31	0	0	0	0	0	0	0	0	0	0	0	3.56	10.8	poor	8
28-May	22	53	0	0	0	0	0	0	0	0	0	0	0	3.44	10.0	poor	14
29-May	18	71	0	0	0	0	0	0	0	0	0	0	0	3.20	10.9	good	6
30-May	2	73	0	0	0	0	0	0	0	0	0	0	0	3.07	11.3	good	10
31-May	24	97	0	0	0	0	0	0	0	0	0	0	0	2.94	11.6	good	8
1-Jun	21	118	5	0	0	0	0	0	0	0	0	0	0	2.86	11.0	good	8
2-Jun	107	225	0	0	0	0	0	0	0	0	0	0	1	2.76	12.1	good	24
3-Jun	33	258	6	4	4	0	0	0	0	0	0	0	1	2.67	12.0	excellent	23
4-Jun	77	335	0	0	0	0	0	0	0	0	0	0	1	2.59	11.5	excellent	10
5-Jun	10	345	0	0	0	0	0	0	0	0	0	0	0	2.55	11.1	excellent	9
6-Jun	87	432	2	1	0	0	0	0	0	0	0	0	0	2.49	12.5	excellent	6
7-Jun	68	500	3	0	0	0	0	0	0	0	0	0	1	2.47	11.8	excellent	10
8-Jun	217	717	7	1	0	0	0	0	0	0	0	0	1	2.45	13.2	excellent	32
9-Jun	368	1,085	15	6	0	0	0	0	0	0	0	0	0	2.40	12.8	excellent	34
10-Jun	672	1,757	17	5	8	0	0	0	0	0	0	0	0	2.39	12.9	excellent	32
11-Jun	383	2,140	15	4	4	0	0	0	0	0	0	0	0	2.40	12.9	excellent	18
12-Jun	147	2,287	5	1	5	0	0	0	0	0	0	0	0	2.38	12.2	excellent	6
13-Jun	813	3,100	0	0	6	0	0	0	0	0	0	0	0	2.66	10.5	poor	6
14-Jun	368	3,468	0	0	0	0	0	0	0	0	0	0	0	3.20	10.9	poor	12
15-Jun	230	3,698	12	5	5	0	0	0	0	0	0	0	1	3.15	12.0	good	30
16-Jun	584	4,282	1	0	16	0	0	0	0	0	0	0	0	2.80	12.0	good	44
17-Jun	496	4,778	1	1	6	0	0	0	0	0	0	0	0	2.61	14.0	good	8
18-Jun	453	5,231	15	8	5	0	0	0	0	0	0	0	0	2.46	15.1	good	20
19-Jun	538	5,769	14	6	6	0	0	0	0	0	0	0	0	2.45	15.1	good	29
20-Jun	708	6,477	19	7	1	0	0	0	0	0	0	0	0	2.49	17.0	excellent	9
21-Jun	402	6,879	8	3	0	0	0	0	0	0	0	0	0	2.38	17.1	excellent	6
22-Jun	659	7,538	14	7	0	0	0	0	0	0	0	0	0	2.29	18.3	excellent	12

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	Chinook salmon					Coho salmon								River water			Boat
	Passage		Sampled		Harvest	Passage		Sampled	Harvest		Daily passage			Stage	Temp.	Clarity	traffic
Date	Daily	Cum	n	Female	above weir	Daily	Cum	(n)	above weir		Chum	Pink	Pike	(ft)	(^{o}C)	(cm)	thru weir
23-Jun	199	7,737	3	1	0	0	0	0	0	Red 0	0	0	0	2.43	19.1	excellent	17
24-Jun	59	7,796	1	1	0	0	0	0	0	0	0	0	0	2.37	18.5	excellent	15
25-Jun	274	8,070	8	5	0	0	0	0	0	0	0	0	0	2.29	16.9	excellent	9
26-Jun	487	8,557	13	5	0	0	0	0	0	0	0	0	0	2.28	14.2	excellent	8
27-Jun	870	9,427	24	4	0	0	0	0	0	0	0	0	0	2.38	14.0	good	6
28-Jun	743	10,170	16	9	0	0	0	0	0	0	0	0	0	2.48	13.8	good	5
29-Jun	331	10,501	20	14	0	0	0	0	0	0	0	0	0	2.50	13.5	good	7
30-Jun	542	11,043	3	1	0	0	0	0	0	0	0	0	0	2.45	15.0	good	14
1-Jul	644	11,687	20	10	0	0	0	0	0	0	0	0	0	2.33	15.8	excellent	12
2-Jul	631	12,318	19	10	0	0	0	0	0	0	0	0	0	2.23	15.6	good	4
3-Jul	116	12,434	4	1	0	0	0	0	0	0	0	2	0	2.16	14.5	good	3
4-Jul	205	12,639	3	3	0	0	0	0	0	0	0	1	0	2.15	13.7	good	1
5-Jul	116	12,755	0	0	0	0	0	0	0	0	0	6	0	2.17	14.7	excellent	6
6-Jul	136	12,891	4	3	0	0	0	0	0	0	3	14	0	2.24	14.2	excellent	13
7-Jul	226	13,117	6	5	0	0	0	0	0	0	2	19	0	2.20	15.8	excellent	7
8-Jul	59	13,176	3	0	0	0	0	0	0	0	1	8	0	2.20	14.5	excellent	18
9-Jul	67	13,243	4	2	0	0	0	0	0	0	0	2	0	2.22	13.2	excellent	9
10-Jul	94	13,337	5	1	0	0	0	0	0	0	0	10	0	2.34	14.1	excellent	4
11-Jul	27	13,364	0	0	0	0	0	0	0	0	0	2	0	2.28	13.0	excellent	3
12-Jul	12	13,376	0	0	0	0	0	0	0	0	2	2	0	2.20	13.0	excellent	2
13-Jul	38	13,414	2	0	0	0	0	0	0	0	0	8	0	2.19	12.5	excellent	8
14-Jul	34	13,448	0	0	0	0	0	0	0	0	0	3	0	2.18	13.7	excellent	11
15-Jul	36	13,484	0	0	0	0	0	0	0	0	0	0	0	2.14	13.0	excellent	4
16-Jul	33	13,517	1	0	0	2	2	0	0	0	0	4	1	2.16	13.0	excellent	7
17-Jul	48	13,565	2	1	0	0	2	0	0	2	1	7	1	2.12	14.0	excellent	7
18-Jul	73	13,638	2	1	0	1	3	0	0	1	1	21	0	2.10	15.2	excellent	2
19-Jul	25	13,663	0	1	0	0	3	0	0	0	1	8	0	2.04	17.0	excellent	5
20-Jul	28	13,691	0	0	0	4	7	0	0	0	0	38	1	2.00	15.3	excellent	8
21-Jul	90	13,781	1	0	0	23	30	0	0	0	0	103	0	1.97	16.3	excellent	7
22-Jul	21	13,802	0	1	0	84	114	0	0	0	0	198	0	2.09	14.9	excellent	10

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	Chinook salmon					Coho salmon								River water			Boat
	Passage		Sampled		Harvest	Passage		Sampled	Harvest		Daily passage			Stage	Temp.	Clarity	traffic
Date	Daily	Cum	n	Female	above weir	Daily	Cum	(n)	above weir		Chum	Pink	Pike	(ft)	(^{o}C)	(cm)	thru weir
23-Jul	36	13,838	0	0	0	28	142	0	0	Red 0	3	749	0	2.56	14.0	excellent	10
24-Jul	14	13,852	0	0	0	53	195	0	0	0	0	74	0	2.67	14.0	average	5
25-Jul	7	13,859	0	0	0	47	242	0	0	0	4	562	0	2.57	14.0	excellent	10
26-Jul	18	13,877	0	0	0	12	254	0	0	0	3	2,624	0	2.37	15.1	excellent	3
27-Jul	10	13,887	0	0	0	163	417	0	1	0	1	545	0	2.22	16.3	excellent	12
28-Jul	15	13,902	0	0	0	82	499	0	3	1	17	16,563	0	2.13	17.0	excellent	11
29-Jul	6	13,908	0	0	0	192	691	8	4	2	8	11,282	0	2.04	16.0	excellent	10
30-Jul	3	13,911	0	0	0	308	999	32	0	0	12	12,500	0	2.00	16.0	excellent	4
31-Jul	6	13,917	0	0	0	490	1,489	10	0	2	7	7,112	0	2.00	15.0	excellent	5
1-Aug	9	13,926	0	0	0	596	2,085	0	0	5	5	8,233	0	2.03	15.3	excellent	8
2-Aug	4	13,930	0	0	0	352	2,437	20	0	2	3	4,111	0	2.10	14.0	excellent	5
3-Aug	7	13,937	0	0	0	846	3,283	10	1	4	5	2,681	0	2.21	13.2	excellent	13
4-Aug	24	13,961	0	0	0	653	3,936	10	2	11	16	5,330	0	2.65	13.4	poor	14
5-Aug	15	13,976	0	0	0	601	4,537	0	19	5	10	2,119	0	2.66	12.6	poor	19
6-Aug	14	13,990	0	0	0	207	4,744	0	3	7	8	928	0	3.68	12.4	poor	20
7-Aug	4	13,994	0	0	0	104	4,848	8	0	0	2	617	0	3.19	13.0	poor	12
8-Aug	4	13,998	0	0	0	267	5,115	2	18	0	1	524	0	2.78	14.5	poor	16
9-Aug	6	14,004	0	0	0	65	5,180	0	3	0	2	651	0	2.52	15.5	poor	7
10-Aug	5	14,009	0	0	0	83	5,263	10	5	0	1	280	0	2.30	15.8	good	20
11-Aug	4	14,013	0	0	0	89	5,352	10	4	1	0	255	0	2.20	15.8	good	16
12-Aug	2	14,015	0	0	0	62	5,414	12	17	2	1	147	1	2.15	16.0	good	17
13-Aug	4	14,019	0	0	0	59	5,473	10	0	0	0	98	0	2.06	16.0	good	3
14-Aug	6	14,025	0	0	0	34	5,507	7	0	1	2	71	0	2.00	16.0	excellent	5
15-Aug	12	14,037	0	0	0	29	5,536	1	0	0	0	58	1	1.99	15.9	excellent	3
16-Aug	6	14,043	0	0	0	92	5,628	0	0	0	0	61	0	1.95	15.2	excellent	5
17-Aug	10	14,053	0	0	0	11	5,639	0	5	0	0	90	1	1.94	15.0	excellent	11
18-Aug	6	14,059	0	0	0	25	5,664	3	8	0	3	21	0	1.95	14.0	excellent	17
19-Aug	5	14,064	0	0	0	26	5,690	17	13	3	2	13	0	1.95	12.9	excellent	9
20-Aug	1	14,065	0	0	0	718	6,408	20	1	0	0	4	0	2.01	12.0	excellent	4
21-Aug	4	14,069	0	0	0	71	6,479	10	0	1	1	47	0	2.46	12.0	poor	3

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	Chinook salmon					Coho salmon								River water			Boat
	Passage		Sampled		Harvest	Passage		Sampled	Harvest	Daily passage				Stage	Temp.	Clarity	traffic
Date	Daily	Cum	n	Female	above weir	Daily	Cum	(n)	above weir	Red	Chum	Pink	Pike	(ft)	(°C)	(cm)	thru weir
22-Aug	0	14,069	0	0	0	82	6,561	0	0	0	0	16	1	2.69	12.0	poor	2
23-Aug	2	14,071	0	0	0	12	6,573	12	0	0	2	7	0	2.50	14.5	poor	1
24-Aug	8	14,079	0	0	0	8	6,581	7	0	0	1	4	0	2.40	12.8	good	10
25-Aug	2	14,081	0	0	0	11	6,592	4	2	0	1	4	1	2.40	12.0	poor	5
26-Aug	4	14,085	0	0	0	36	6,628	1	0	0	0	4	0	2.30	12.0	poor	8
27-Aug	5	14,090	0	0	0	64	6,692	12	0	0	0	1	0	2.35	11.2	poor	6
28-Aug	2	14,092	0	0	0	17	6,709	14	0	0	0	0	0	3.20	11.0	poor	7
29-Aug	3	14,095	0	0	0	11	6,720	0	0	0	0	1	0	3.28	10.6	poor	8
30-Aug	0	14,095	0	0	0	6	6,726	0	0	0	1	0	0	2.77	11.9	poor	2
31-Aug	0	14,095	0	0	0	61	6,787	0	0	0	0	1	0	2.59	12.4	poor	7
1-Sep	1	14,096	0	0	0	13	6,800	0	0	0	0	13	0	2.89	10.5	poor	13
2-Sep	0	14,096	0	0	0	25	6,825	0	0	0	0	0	0	4.20	10.0	poor	9
3-Sep	0	14,096	0	0	0	0	6,825	0	0	0	0	0	0	4.18	10.2	poor	13
4-Sep	0	14,096	0	0	0	0	6,825	0	0	0	0	0	0	4.28	9.2	poor	8
5-Sep	0	14,096	0	0	0	0	6,825	0	0	0	0	0	0	4.86	n/a	poor	0
Total	14,096		323	138	66	6,825		250	109	50	133	78,857	14				1,080

Note: Cum = cumulative; n = sample size (number of fish); Female = number of female fish in the sample; Red = sockeye salmon; Chum = chum salmon; Pink = pink salmon; Pike = northern pike; and ND = no data collected because no attempts were made to collect it.

APPENDIX J
MATANUSKA-SUSITNA BOROUGH LAKE MANAGEMENT PLANS

Appendix J1.–Matanuska-Susitna Borough lake management plans.

Lake		Regulations	
Name	Characteristics	Details	Date Adopted
Big Lake	Surface Area: 2,495 acres Maximum Depth: 89 feet Mean Depth: 30 feet	Personal Watercraft Prohibited on Meadow Creek Quiet Hours: 11:00 p.m. - 8:00 a.m. Sun. - Sat. Ice House Registration No Wake Zone: 150 feet from shoreline	Aug-98
Blodgett Lake	Surface Area: 57.6 acres Maximum Depth: 29 feet Mean Depth: 10.7 feet	Horsepower Limit: 10 Personal Watercraft Prohibited Quiet Hours: 10:00 p.m. - 8:00 a.m. Sun. - Thurs. 11:00 p.m. - 8:00 a.m. Fri. - Sat.	Sep-97
Bonnie Lake Area	Surface Area: 105 acres	Electric Motors Only	Nov-96
Upper Bonnie Lake	Maximum Depth: 35 feet Mean Depth: Not Available	Personal Watercraft Prohibited	
Bonnie Lake	Surface Area: 99.8 acres Maximum Depth: 35 feet Mean Depth: Not Available	Personal Watercraft Prohibited	
Ravine Lake	Surface Area: 12 acres Maximum Depth: 25 feet Mean Depth: 12 feet	Horsepower Limit: 10 Personal Watercraft Prohibited	
Carpenter Lake	Surface Area: 176 Acres Maximum Depth: 30 feet Mean Depth: 8.1 feet	Personal Watercraft prohibited 10 HP Limit - Time Share Quiet hours: 10 pm to 8 am Sun - Sat. No wake zone 100 feet from shore, Winter Motor Vehicle Ban	Jun-06
Christiansen Lake	Surface Area: 179 acres Maximum Depth: 82 feet Mean Depth: 22 feet	Personal Watercraft prohibited 15 HP limit Quiet Hours: 10:00 p.m. to 8:00 a.m., Sunday - Sat. Special permit: To accommodate building construction, early season testing of river boats & other special uses. HP limit maybe waived by Special permit.	Sep-99
Crooked Lake	Surface Area: 250 acres Maximum Depth: 35 feet Mean Depth: 14 feet	No Wake Zone: 50 feet from shoreline at the public dock	Aug-95
Crystal Lake	Surface Area: 132 acres Maximum Depth: 24 feet Mean Depth: 11.7 feet	Quiet Hours: 10:00 p.m. - 8:00 a.m. Sun. - Sat.	Aug-96
Diamond Lake	Surface Area: 139 acres Maximum Depth: 23 feet Mean Depth: 7.6 feet	Horsepower Limit: 10 Quiet Hours: 10:00 p.m. – 8:00 a.m. Sun. –Sat. Ice House Registration No Wake Zone: 100 feet from ordinary high water mark	Apr-99

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Lake		Regulations	
Name	Characteristics	Details	Date Adopted
Florence Lake	Surface Area: 55 acres Maximum Depth: 41 feet Mean Depth: 17.6 feet	Quiet Hours: 10p.m. and 8a.m. Sun - Sat No Wake Zone: 100 feet from shoreline. Personal watercraft ban	Apr-06
Fish Lake	Surface Area: 59 acres Maximum Depth: Not Available Mean Depth: Not Available	Horsepower Limit: 5	Aug-97
Honeybee Lake	Surface Area: 58 acres Maximum Depth: 35 feet Mean Depth: 13.5 feet	Electric Motors Only Quiet Hours: 7:00 p.m. – 9:00 a.m. Sun. – Sat.	Nov-97
Lake		Regulations	
Name	Characteristics	Details	Date adopted
Island & Doubloon Lakes Island Lake	Surface Area: 85 acres Maximum Depth: Not Available Mean Depth: Not Available	Personal Watercraft Prohibited	Aug-96
Doubloon Lake	Surface Area: 14 acres Maximum Depth: Not Available Mean Depth: Not Available	Personal Watercraft Prohibited	
Jean Lake	Surface Area: 51 acres Maximum Depth: 30 feet Mean Depth: 3-5 feet	Personal Watercraft Prohibited Electric Motors Only Quiet Hours: 10:00 p.m. – 8:00 a.m. Sun.–Sat. Commercial floatplane operations are discouraged.	Jan-06
John Lake	Surface Area: 52 acres Maximum Depth: Not Available Mean Depth: Not Available	Horsepower Limit: 10 Quiet Hours: 10:00 p.m. – 8:00 a.m. Sun. – Sat. (electric and trolling motors allowed during quiet hours)	Aug-96
Knik Lake	Surface Area: 50 acres Maximum Depth: 37 feet Mean Depth: 19 feet	Horsepower Limit: 5 Quiet Hours: 10:00 p.m. – 8:00 a.m. Sun. – Thurs. 11:00 p.m. – 8:00 a.m. Fri. – Sat.	Aug-95
Liten Lake	Surface Area: 57 acres Maximum Depth: 10+ feet Mean Depth: 4-6 feet	Motorized Watercraft Prohibited Personal Watercraft Prohibited No Wake Zone: Lake Wide Quiet Hours: 10:00 p.m. – 8:00 a.m. Sun.–Sat. Public access to lake is discouraged. Commercial floatplane operations are discouraged.	Jan-06

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Lake		Regulations	
Name	Characteristics	Details	Date Adopted
Little Lonely Lake	Surface Area: 56 acres Maximum Depth: 63 feet Mean Depth: 20 feet	Personal Watercraft Prohibited Horsepower Limit: 10 No Wake Zone: Lake Wide Quiet Hours: 10:00 p.m. – 8:00 a.m. Sun.–Sat. Ice House Registration Commercial floatplane operations are discouraged.	May-05
Long Lake (Houston)	Surface Area: 44 acres Maximum Depth: 17 feet Mean Depth: 8.8 feet	Personal Watercraft Prohibited Horsepower Limit: 10 No Wake Zone: 100 feet from ordinary high water mark Quiet Hours: 10:00 p.m. - 8:00 a.m. Sun - Sat	Nov-01
Marilee Lake	Surface Area: 33.8 acres Maximum Depth: 18 feet Mean Depth: 7.3 feet	Horsepower Limit: 5	Sep-98
Marion Lake	Surface Area: 113 acres Maximum Depth: 42 feet Mean Depth: 20.6 feet	Personal Watercraft Prohibited Quiet Hours: 10:00 p.m. - 8:00 a.m. Sun.- Sat. No Wake Zone: 100 feet from ordinary high water mark. Time Share: A lake-wide no wake speed except on Thursdays, Fridays, Saturdays, and all 3-day weekends mandated by federal holiday (Memorial Day, Fourth of July, and Labor Day).	Nov-00
Memory Lake	Surface Area: 84 acres Maximum Depth: 20 feet Mean Depth: 7.2 feet	Horsepower Limit: 10 Quiet Hours: 10:00 p.m. - 8:00 a.m. Sun.- Sat. Access to be day use only	Sep-98
Morvoe Lake	Surface Area: 87 acres Mean Depth: 11 feet Maximum Depth: 17 feet	25 Horsepower limit Quiet Hours: 11:00 pm - 8:00 am Sun. - Sat.	2007
Neklasen Lake	Surface Area: 72 acres Maximum Depth: 67 feet Mean Depth: 16 feet	Personal Watercraft Prohibited Quiet Hours: 10:00 p.m. - 8:00 a.m. Sun.- Sat. No Wake Zone: 100 feet from shoreline except when a waterskier is leaving dock or shoreline. Timeshare: Lake-wide No Wake Zone except Thursdays, Fridays, first and third Saturdays of the month, national holidays, and three-day weekends resulting from national holidays.	Jan-00

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Lake		Regulations	
Names	Characteristics	Details	Date Adopted
Lower Neklasen Lake	Surface Area: 36 acres Maximum Depth: unknown Mean Depth: less than 5 feet	All Motorized Water Craft Prohibited	Jan-00
Paradise Lake	Surface Area: 25 acres Maximum Depth: 20 feet Mean Depth: 5-10 feet	Electric motors only Quiet Hours: 9 pm to 9am Sun - Sat Personal watercraft prohibited	Apr-07
Question Lake	Surface Area: 80 acres Maximum Depth: unknown Mean Depth: unknown	Horse Power Limit: 5 Quiet Hours: 10:00 p.m. - 8:00 a.m. Sun - Sat Motor Vehicles prohibited during winter months when lake is frozen	Sep-98
Little Question Lake	Surface Area: 25 acres Maximum Depth: unknown Mean Depth: unknown	Non-motorized Quiet Hours: 10:00 p.m. - 8:00 a.m. Sun - Sat Motor Vehicles prohibited during winter months when lake is frozen	Sep-98
Lake Five and Unnamed Lakes	Surface Area: unknown Maximum Depth: unknown Mean Depth: unknown	Non-motorized Quiet Hours: 10:00 p.m. - 8:00 a.m. Sun - Sat All these lakes allow for a special permit to exceed motor limits for building construction Motor Vehicles prohibited during winter months when lake is frozen Ice House Registration	Sep-98
Rainbow Lake	Surface Area: 72.3 acres Maximum Depth: Not Available Mean Depth: Not Available	Horsepower Limit: 10 Quiet Hours: 10:00 p.m. - 8:00 a.m. Sun - Sat	Nov-95
Shirley Lake	Surface Area: 121 acres Maximum Depth: 23 feet Mean Depth: 14.1 feet	Personal Watercraft prohibited. Quiet Hours: 10:00 pm - 8:00 am Sun - Sat No Wake Zone: 100 feet from ordinary high water mark	Apr-06
Stephans Lake	Surface Area: 95 acres Maximum Depth: 30 feet	Horsepower limit: 10 on timeshare basis. Personal watercraft ban, Quiet Hours 10:00 pm - 8:00 am Sun - Sat. No Wake Zone: 100 feet from shoreline	Mar-07
Oriana Lake	Surface Area: 9.37 acres Maximum Depth: 25 feet	No motorized watercraft.	Mar-07
Threemile Lake	Surface Area: 119 acres Maximum Depth: 15 feet Mean Depth: 3.3 feet	Personal Watercraft prohibited. Amphibious Vehicles prohibited. Horsepower Limit: 10 Quiet Hours: 10:00 pm - 8:00 am Sun - Sat	Nov-02

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Lake		Regulations	
Names	Characteristics	Details	Date Adopted
Toad Lake	Surface Area: 50 acres Maximum Depth: unknown Mean Depth: 10 feet	Electric motors only	Sep-98
Twin Island Lake	Surface Area: 151 acres Maximum Depth: 61 feet Mean Depth: 14.8 feet	Horsepower Limit: 10 Quiet Hours: 10:00 p.m. - 8:00 a.m. Sun - Thurs 11:00 p.m. - 8:00 a.m. Fri - Sat Walk-in only access	Jul-97
Walby Lake	Surface Area: 54 acres Maximum Depth: 18 feet Mean Depth: 5.4 feet	Horsepower Limit: 10 Quiet Hours: 10:00 p.m. - 8:00 a.m. Sun. - Sat. Motor Vehicles prohibited during winter months when lake is frozen	Sep-98
West Papoose Lake	Surface Area: 212 acres Maximum Depth: Not Available Mean Depth: Not Available	Personal Watercraft Prohibited Quiet Hours: 11:00 p.m. - 8:00 a.m. Sun - Sat No Wake Zone: 100 feet from ordinary high water mark	Aug-96
Whiskey Lake	Surface Area: 270 acres Maximum Depth: 35 feet Mean Depth: Unavailable	Personal Watercraft Prohibited No Wake Zone: 150 feet from ordinary high water mark Quiet Hours: 10:00 pm - 8:00 am Sun - Sat Motorized Watercraft Prohibited on portions of the inlet creek and outlet (Whiskey) creek.	Aug-04
Wolf Lake	Surface Area: 62 acres Maximum Depth: 17 feet Mean Depth: 6.8 feet	Horsepower Limit: 6 Motor Vehicles prohibited during winter months when lake is frozen	Jul-97
Wolverine Lake	Surface Area: 55 acres Maximum Depth: 7 feet Mean Depth: 2.2 feet	Personal Watercraft Prohibited Quiet Hours: 10:00 p.m. - 8:00 a.m. Sun. - Sat. Electric motors only Commercial Floatplane Operations Prohibited.	Aug-04
Cottonwood Lake		Mufflers, cowlings, exhaust systems Quiet Hours: 11:00 p.m. - 8:00 a.m., Sun. - Sat. No Wake Zone: 100 feet from shoreline Special Events Permits	1995
Finger Lake		Mufflers, cowlings, exhaust systems Quiet Hours: 11:00 p.m. - 8:00 a.m., Sun. - Sat. No Wake Zone: 100 feet from shoreline Special Events Permits	1995
Wasilla Lake		Mufflers, cowlings, exhaust systems Quiet Hours: 11:00 p.m. - 8:00 a.m., Sun. - Sat. No Wake Zone: 100 feet from shoreline Special Events Permits	1995
Cottonwood Creek		Non-motorized.	1995

APPENDIX K.
PRESENCE OF NORTHERN PIKE IN WATERS OF THE NORTHERN COOK INLET MANAGEMENT AREA

Appendix K1.-Confirmed and suspected presence of northern pike in waters of the Northern Cook Inlet Management Area.

Primary classification	Secondary Classification	Site	Presence Documented	Presence Suspected
Susitna Basin Lakes	Alexander Creek	Alexander Lake	X	
Susitna Basin Lakes	Alexander Creek	Sucker Lake	X	
Susitna Basin Lakes	Alexander Creek	Trail Lake	X	
Susitna Basin Lakes	Alexander Creek	Rabbit Lake	X	
Susitna Basin Lakes	Lower Susitna	Flathorn Lake	X	
Susitna Basin Lakes	Lower Susitna	Figure 8 Lake	X	
Susitna Basin Lakes	Mid Susitna	Witsoe Lake	X	
Susitna Basin Lakes	Mid Susitna	Witsol Lake	X	
Susitna Basin Lakes	Mid Susitna	Lockwood Lake	X	
Susitna Basin Lakes	Mid Susitna	Lady Slipper	X	
Susitna Basin Lakes	Mid Susitna	Unnamed	X	
Susitna Basin Lakes	Mid Susitna	Unnamed	X	
Susitna Basin Lakes	Mid Susitna	Unnamed	X	
Susitna Basin Lakes	Mid Susitna	Vern Lake	X	
Susitna Basin Lakes	Mid Susitna	Ding Dong	X	
Susitna Basin Lakes	Mid Susitna	Yensus Lake		X
Susitna Basin Lakes	Yentna River	Whiskey Lake	X	
Susitna Basin Lakes	Yentna River	Bulchitna Lake	X	
Susitna Basin Lakes	Yentna River	Fish Creek Lake 1	X	
Susitna Basin Lakes	Yentna River	Fish Creek Lake 2	X	
Susitna Basin Lakes	Yentna River	Fish Creek Lake 3	X	
Susitna Basin Lakes	Yentna River	Fish Creek Lake 4	X	
Susitna Basin Lakes	Yentna River	Donkey Lake	X	
Susitna Basin Lakes	Yentna River	Hewitt Lake	X	
Susitna Basin Lakes	Yentna River	No Name (Big Bend)	X	
Susitna Basin Lakes	Yentna River	Chelatna Lake	X	
Susitna Basin Lakes	Yentna River	Cabin Lake (Big Bend)	X	
Susitna Basin Lakes	Yentna River	Pear Lake (Upper Skwenta)	X	
Susitna Basin Lakes	Yentna River	Stickleback Lake	X	
Susitna Basin Lakes	Skwentna River	Eight Mile Lake	X	
Susitna Basin Lakes	Skwentna River	Seven Mile Lake	X	
Susitna Basin Lakes	Skwentna River	No Name (Herk Strip)	X	
Susitna Basin Lakes	Skwentna River	One Stone Lake	X	
Susitna Basin Lakes	Skwentna River	Shell Lake	X	
Susitna Basin Lakes	Deshka River	Parker Lake	X	
Susitna Basin Lakes	Deshka River	Trapper Lake	X	
Susitna Basin Lakes	Deshka River	No Name Lake	X	
Susitna Basin Lakes	Deshka River	Ambler Lake	X	
Susitna Basin Lakes	Deshka River	Rocky Lake	X	
Susitna Basin Lakes	Deshka River	Neil Lake	X	
Susitna Basin Lakes	Deshka River	Kroto Lake	X	
Susitna Basin Lakes	Deshka River	No Name 1mi SW Parker	X	

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Primary classification	Secondary Classification	Site	Presence Documented	Presence Suspected
Susitna Basin Lakes	Deshka River	No Name 2 mi SW Parker	X	
Susitna Basin Lakes	Upper Susitna	Kashwitna Lake		X
Susitna Basin Lakes	Upper Susitna	Caswell Lake		X
Susitna Basin Lakes	Upper Susitna	Fish Lake (Birch Ck)		X
Susitna Basin Lakes	Upper Susitna	Sawmill Lake		X
Susitna Basin Lakes	Upper Susitna	Swan Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Nancy Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Redshirt Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Lynx Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Cow Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Little Chicken Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Big No Luck Lake	X	
Susitna Basin Lakes	Nancy Lake Area	South Rolly Lake	X	
Susitna Basin Lakes	Nancy Lake Area	North Rolly Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Denaina Lake (Tanaina)	X	
Susitna Basin Lakes	Nancy Lake Area	Milo Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Frazer Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Little Frazer Lake	X	
Susitna Basin Lakes	Nancy Lake Area	James Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Owl Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Char Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Ardaw Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Phoebe Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Chicken Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Echo Pond #1	X	
Susitna Basin Lakes	Nancy Lake Area	Echo Pond #2	X	
Susitna Basin Lakes	Nancy Lake Area	Echo Pond #3	X	
Susitna Basin Lakes	Nancy Lake Area	Candle Stick Lake	X	
Susitna Basin Lakes	Nancy Lake Area	Bains Pond #1	X	
Susitna Basin Lakes	Nancy Lake Area	Bains Pond #2	X	
Susitna Basin Lakes	Nancy Lake Area	Bains Pond #3	X	
Susitna Tributaries		Fish Creek (Flathorn)	X	
Susitna Tributaries		Fish Creek (Kroto)	X	
Susitna Tributaries		Lake Creek	X	
Susitna Tributaries		Fish Lake Creek	X	
Susitna Tributaries		Alexander Creek	X	
Susitna Tributaries		Trappers Creek	X	
Susitna Tributaries		Sucker Creek	X	
Susitna Tributaries		Montana Creek	X	
Susitna Tributaries		Rolly Creek	X	
Susitna Tributaries		Moose Creek	X	
Susitna Tributaries		Bottle Creek	X	
Susitna Tributaries		Hewitt Creek	X	

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Appendix K1.-Page 3 of 4.

Primary classification	Secondary Classification	Site	Presence Documented	Presence Suspected
Susitna Tributaries		Donkey Creek	X	
Susitna Tributaries		Indian Creek (Yentna)	X	
Susitna Tributaries		Indian (Chulitna)		X
Susitna Tributaries		Rabideux Creek	X	
Susitna Tributaries		Fish Lake Creek	X	
Susitna Tributaries		Kutna Creek (Yentna)	X	
Susitna Tributaries		Shell Creek	X	
Susitna Tributaries		Eightmile Creek	X	
Susitna Tributaries		Caswell Creek	X	
Susitna Tributaries		Witsoe Creek	X	
Susitna Tributaries		Trapper (Talkeetna)		X
Susitna Tributaries		Talachulitna Creek		X
Susitna Tributaries		Johnson Creek	X	
Susitna Tributaries		Otter Creek	X	
Susitna Tributaries		Unnamed (Lower Su)	X	
Susitna Tributaries		Sunshine Creek		X
Susitna Tributaries		Anderson Creek		X
Susitna Tributaries		Wiggel Creek		X
Susitna Tributaries		Birch Creek		X
Susitna Tributaries		Yentna River	X	
Susitna Tributaries		Skwentna River	X	
Susitna Tributaries		Chulitna River		X
Susitna Tributaries		Tokositna	X	
Susitna Tributaries		Deshka River	X	
Knik Arm Drainage	Big Lake Drainage	Fish Creek (Big Lake)		X
Knik Arm Drainage	Big Lake Drainage	Meadow Creek (Big Lake)		X
Knik Arm Drainage	Big Lake Drainage	Big Lake	X	
Knik Arm Drainage	Big Lake Drainage	Blodgett Lake		X
Knik Arm Drainage	Big Lake Drainage	West Beaver Lake		X
Knik Arm Drainage	Big Lake Drainage	Rainbow Lake		X
Knik Arm Drainage	Cottonwood Creek	Cottonwood Creek		X
Knik Arm Drainage	Cottonwood Creek	Cottonwood Lake		X
Knik Arm Drainage	Cottonwood Creek	Andersen Lake	X	
Knik Arm Drainage	Cottonwood Creek	Wasilla Lake		X
Knik Arm Drainage	Cottonwood Creek	Mud Lake		X
Knik Arm Drainage		Little Susitna River	X	
Knik Arm Drainage	Little Susitna River	Horseshoe Lake (Little-Su)		X
Knik Arm Drainage	Knik River	Swan Lake		X
Knik Arm Drainage	Knik River	Jim Lake/Jim Creek		X
Knik Arm Drainage		Knik Lake	X	
Knik Arm Drainage		Mink Creek	X	
Knik Arm Drainage		Fire Creek	X	
West Cook Inlet		Chuit River	X	

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Primary classification	Secondary Classification	Site	Presence Documented	Presence Suspected
West Cook Inlet		Chuitbunga Lake	X	
West Cook Inlet		Threemile Creek	X	
West Cook Inlet	Threemile Creek	Threemile lakes	X	
West Cook Inlet		Tukallah Lake	X	
West Cook Inlet		Nikolai River	X	
Mat-Valley Lakes		Big Lake cut-off Lake	X	
Mat-Valley Lakes		Crystal Lake (Willow)	X	
Mat-Valley Lakes		Shirley Lake (Willow)		X
Mat-Valley Lakes		Long Lake (Willow)	X	
Mat-Valley Lakes		Prator Lake	X	
Mat-Valley Lakes		Memory Lake	X	
Mat-Valley Lakes		Finger Lake		X
Mat-Valley Lakes		Wallace Lake	X	
Anchorage Lakes		Sand Lake	X	
Anchorage Lakes		Delong Lake	X	
Anchorage Lakes		Lower Fire Lake	X	
Anchorage Lakes		Upper Fire Lake	X	