

Fishery Management Report No. 17-07

**Area Management Report for the Recreational
Fisheries of Northern Cook Inlet, 2014–2015**

by

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and

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February 2017

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



Symbols and Abbreviations

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Weights and measures (metric)		General		Mathematics, statistics	
centimeter	cm	Alaska Administrative Code	AAC	<i>all standard mathematical signs, symbols and abbreviations</i>	
deciliter	dL	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	alternate hypothesis	H_A
gram	g	all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.	base of natural logarithm	e
hectare	ha	at	@	catch per unit effort	CPUE
kilogram	kg	compass directions:		coefficient of variation	CV
kilometer	km	east	E	common test statistics	(F, t, χ^2 , etc.)
liter	L	north	N	confidence interval	CI
meter	m	south	S	correlation coefficient (multiple)	R
milliliter	mL	west	W	correlation coefficient (simple)	r
millimeter	mm	copyright	©	covariance	cov
		corporate suffixes:		degree (angular)	$^\circ$
Weights and measures (English)		Company	Co.	degrees of freedom	df
cubic feet per second	ft ³ /s	Corporation	Corp.	expected value	E
foot	ft	Incorporated	Inc.	greater than	>
gallon	gal	Limited	Ltd.	greater than or equal to	\geq
inch	in	District of Columbia	D.C.	harvest per unit effort	HPUE
mile	mi	et alii (and others)	et al.	less than	<
nautical mile	nmi	et cetera (and so forth)	etc.	less than or equal to	\leq
ounce	oz	exempli gratia	e.g.	logarithm (natural)	ln
pound	lb	(for example)		logarithm (base 10)	log
quart	qt	Federal Information Code	FIC	logarithm (specify base)	log ₂ , etc.
yard	yd	id est (that is)	i.e.	minute (angular)	'
		latitude or longitude	lat or long	not significant	NS
Time and temperature		monetary symbols		null hypothesis	H_0
day	d	(U.S.)	\$, ¢	percent	%
degrees Celsius	°C	months (tables and figures): first three letters	Jan, ..., Dec	probability	P
degrees Fahrenheit	°F	registered trademark	®	probability of a type I error (rejection of the null hypothesis when true)	α
degrees kelvin	K	trademark	™	probability of a type II error (acceptance of the null hypothesis when false)	β
hour	h	United States (adjective)	U.S.	second (angular)	"
minute	min	United States of America (noun)	USA	standard deviation	SD
second	s	U.S.C.	United States Code	standard error	SE
		U.S. state	use two-letter abbreviations (e.g., AK, WA)	variance	
Physics and chemistry				population	Var
all atomic symbols				sample	var
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				

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by
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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 2014-2015. 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 2014-2015 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 2014–2015 are discussed.

MANAGEMENT AREA DESCRIPTION

The Northern Cook Inlet sport fish management area (NCIMA; 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 4 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, a major portion of this management area is very similar to the boundaries of the Matanuska–Susitna Borough, but the WCIMU 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 4 sport fishing regulatory areas: the Knik Arm (same as KAMU described above for management and harvest reporting), Susitna River (includes ESMU and WSMU), West Cook Inlet (same as WCIMU), 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), and 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 5 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 January 2014. The next regularly-scheduled BOF meeting to address NCI issues is scheduled for 2017. 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).

SPORT 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, 1981b, 1982-1994; Howe et al. 1995, 1996; Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish [cited January, 2017], available from <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>). The SWHS 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 2 complete SWHS reporting areas and a portion of a third (Jennings et al. 2015). 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). Area K covers the KAMU, and Area N includes the WCIMU but also includes fresh and marine waters between the southern tip of Chisik Island and Cape Douglas, an area outside of the NCIMA. Area M includes the ESMU and WSMU but also includes several rivers and many lakes north of the Oshetna River boundary of the NCIMA. Fisheries outside of the NCIMA are not included in this report.

Effort

From 1977 through 2014, an average of 218,821 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 19% of the Southcentral Region¹ (Region II) and 13% of the total statewide angling effort. Angler effort peaked at 403,805 angler-days in 1992 (Figure 2). From 1995 through 1998, and again from 2009 to 2015, angler-effort fell abruptly, mirroring years when major Chinook salmon (*Oncorhynchus tshawytscha*) fisheries were either closed or severely restricted. Total effort for NCIMA averaged 191,536 angler-days from 2010 to 2014 (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 2014, anglers spent an estimated 214,350 angler-days fishing NCIMA waters, an increase of about 25,000 angler-days above the past year. Effort in 2014 represented 14% and 9% of the Southcentral Region and total statewide angling effort, respectively (Table 1).

¹ ADF&G, Division of Sport Fish, Southcentral Region (i.e., Region II) includes the following management areas: Anchorage, Bristol Bay, Kodiak–Aleutians, Lower Cook Inlet (Kenai), Northern Cook Inlet (Matanuska–Susitna), Prince William Sound, Seward–North Gulf Coast, and Upper Kenai Peninsula.

On average (1977–2014), about 40% of the total effort from the NCIMA has historically occurred in the Knik Arm Management Unit (Table 1). From 1977 to 2014, these waters supported an average of 113,422 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 31,762 angler-days of effort for the period 1977–2014 (Table 2, Figure 3). Effort on Jim Creek (Knik River), where a coho salmon (*O. kisutch*) fishery takes place, averages 12,660 angler-days (1977–2014; Table 2). Effort on Jim Creek has dropped recently; the most recent 5-year average (2010–2014) is now 10,255 angler-days, and only 5,746 angler-days of effort were expended in 2015. Effort has decreased with poor coho salmon runs and restrictions to the fishery. A terminal Chinook salmon fishery at the Eklutna Tailrace, begun in 2002, and a coho salmon fishery, begun in 1999 have also contributed to an increase in effort in the KAMU. During 2014, the KAMU represented 45% 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 Cottonwood and Wasilla creeks and the Big Lake drainage (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 (ESMU) from 1977 through 2014 expended an average of 91,012 angler-days (Table 1), representing an average of 32% of the total sport effort from all NCIMA waters. A total of 52,571 angler-days were spent in this area during 2015, a decrease of about 10,000 angler-days from the previous 2 years (Table 3). Major fisheries occur in Willow Creek, Montana Creek, Sheep Creek, Little Willow Creek, and the Talkeetna River (Figure 4). These fisheries were restricted to catch-and-release fishing for Chinook salmon for both 2014 and 2015.

Anglers fishing the Westside Susitna Management Unit (WSMU) from 1977 through 2014 expended an average of 65,211 angler-days (Table 1). This effort has represented an average of 23% of the total effort from all NCIMA waters during this time period. A total of 45,422 angler-days occurred during 2015, following the 5-year mean of 41,686 (Table 4). Alexander Creek, a once major Chinook salmon fishery, has been closed to all Chinook salmon fishing as of 2008. The Deshka River and Lake Creek each compose about 32% and 23% of the total WSMU effort, respectively (1977–2014 average). Other moderate to minor fisheries with less fishing effort occur in the Yentna River drainage, including the Talachulitna River (Figure 5). Small amounts of angler effort occur in numerous remote lakes in the area.

From 1977 through 2014, anglers fishing West Cook Inlet Management Unit (WCIMU) waters expended an average effort of 12,177 angler-days (Table 1). This 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 2015 of 11,459 angler-days was below the 2005–2014 average of 14,748 angler-days and below the 2010–2014 average of 11,994 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 2014, an average of 188,045 fish were caught and kept (i.e., harvested) by anglers fishing NCIMA waters (Table 6). In 2015, 120,275 fish were harvested in NCIMA,

below the long-term mean (Figure 7); 38% of the harvest was from the KAMU and 26% from WSMU (Table 6). Coho salmon, rainbow trout (*O. mykiss*), and Chinook salmon accounted for 32%, 17%, and 11% of the average harvest respectively from 1977 through 2014 (Table 7). In 2015, Chinook salmon harvest of 5,627 fish was just below the 2010–2015 mean of 5,877 (Table 7).

On average, fish from the Knik Arm Management Unit accounted for 42% of fish caught and kept within the NCIMA during 1977–2014 (Table 6). Coho salmon and rainbow trout dominated the harvest (Table 8). The Eastside Susitna and Westside Susitna management units accounted for 26% and 25% 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 Management Unit (WCIMU) accounted for 7% of the average (1977–2014) NCIMA harvest (Table 6), with coho and sockeye salmon accounting for the majority of the WCIMU 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 2002 through 2015, the average percent released was approximately 73% of the total catch (calculated from Table 12).

The proportion and type of fish released by anglers varies within and among management units (Tables 13–16). On average, pink salmon, chum salmon (*O. keta*), Arctic grayling, and rainbow trout had the greatest release percentages of angled fish species during 2002–2015 (Table 12). The percentage of Chinook salmon released has increased since 2011, most likely a result of emergency orders issued in 2012 and 2013 to restrict ESMU fisheries to catch-and-release only. The percentage of fish released has been greatest in the ESMU since 2011 (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. 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 (SF) 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 2009-2014). 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 (eastside and westside) and those of WCIMA (Table 17). However, WCIMA has greater concentrations of guides on fewer systems than the Susitna River. Most of the guided sport fishing effort in the WCIMA is expended on Big River Lakes and the Kustatan and Chuitna rivers. Clients on Big River Lakes fish an average (2006–2015) of 3,283 client-days (Source: Freshwater Logbook Database. Alaska Department of Fish and Game, Division of Sport Fish. 2006 to present. [Accessed September 3, 2016]. [URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests]), fishing for mostly sockeye and coho salmon under the direction of 40 guides (Figure 10). On the Susitna River drainage, most of the 2006–2015 guided effort occurs at Lake Creek, where an average of 58 guides (Figure 10) oversaw an average effort of 3,341 client days per year for mostly Chinook and coho salmon (Freshwater Logbook Database). Other areas of high guide use in the WCIMA include the Chuitna and Kustatan rivers (Figure 10). On the Susitna River drainage, the Deshka, Talachulitna, Lake Creek, and Talkeetna rivers also sustain relatively high use by guides (Figure 10). The Little Susitna River supported an average (2006–2015) of 14 guides (Figure 10) who oversaw an average effort of 1,265 client-days per year, nearly exclusively for Chinook and coho salmon (Figure 11).

The largest guided harvest for Chinook salmon in the NCIMA occurs at Lake Creek where an average (2006–2015) of 467 Chinook salmon are harvested annually (Figure 12). Other major guided Chinook salmon fisheries occur on the Deshka, Talachulitna, Talkeetna, and Little Susitna rivers (Figure 12). The proportion of the Chinook salmon catch that is released varies considerably between these systems (Figure 12). Between 2006 and 2015, guided anglers fishing the Talachulitna River released on average 81% of the Chinook salmon caught, but only 17% of Chinook salmon caught on the Little Susitna River were released. About 50–65% 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 the WCIMA (Figure 13). Average coho salmon harvest was 4,233 fish at Big River Lakes and 2,921 fish for the Kustatan River. Less than 20% were released at these two sites (Figure 13). The largest guided harvest of coho salmon within the Susitna River (eastside and westside) and Knik Arm Management Unit was at Lake Creek (2006–2015 average 1,538) and the Little Susitna River (2006–2015 average 965). As with Chinook salmon, catch-and-release fishing for coho salmon was greatest on the Talachulitna River (72% released; Figure 13). The smallest percentage released occurred on the Little Susitna River (11% released). A listing of guides operating within the NCIMA can be found in Appendices D1–D2.

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 4.5 million salmon

by the various UCI commercial fisheries, whereas during this same period, an average of approximately 186,000 anadromous salmon were harvested annually by sport fish anglers (calculated from Appendix E2 and Table 7, respectively). 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, 2013–2015. (Shields and Dupuis 2016, Table 7, and 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. Catch sampling of Chinook salmon in the Northern District setnet fishery from 1998 to 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 et al. 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 addressed 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.

From 2014 through 2016, a project was implemented to improve understanding of stock productivity by estimating the stock-specific harvests of Chinook salmon from the Tyonek subsistence fishery and the Northern District commercial set gillnet fishery (St. Saviour and Barclay. 2015; Table 18). Stock-specific harvests were estimated by collecting and analyzing genetic tissue samples from fish caught in these fisheries. This information will help inform the calculations for escapement goals and will assist in the management of the Chinook salmon runs that support the Tyonek subsistence and Northern District commercial set gillnet fisheries. Detailed information on fishery sampling is given in Table 18.

The genetic baseline used for this project comprises 80 spawning locations throughout NCI. This baseline characterizes 55 Cook Inlet populations from which it is possible to estimate stock composition for 4 selected reporting groups (*UCI Northwest, Susitna-Matanuska, Knik-Turnagain, and Kenai Peninsula*) (Barclay and Habicht 2015).

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 ADF&G estimated the economic value of sport fishing across the state for 2007 (Southwick Associates Inc. et al. 2008). Expenditures in the Southcentral region were estimated to be \$988.5 million (Table 19). “Spending” is defined as money spent on goods and services, such as trips, packages, equipment, and real estate, and is assumed to be purchases of equipment and real estate exclusively used for sport fishing. Spending within Southcentral Alaska generated \$386.5 million in income and created 11,535 jobs (Table 19). Colt and Schwoerer (2009) used data from Southwick Associates et al. (2008) to estimate the economic

value of sport fishing within the Matanuska–Susitna Borough (Mat–Su). Mat–Su values for spending and generated income and jobs were based on 16.5% of the values for Southcentral Alaska². Total spending within the Mat–Su borough was an estimated \$162.8 million (Table 19). Residents spent \$92.4 million, while nonresidents spent \$70.4 million on fishing related expenses. Estimates of spending 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 of the Mat-Su, creating 852 resident and 1,048 nonresident jobs (Table 19).

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. Proposed, current, and completed access projects as well as detailed stocked lakes access summaries are provided in Appendices F1–F4.

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. Appendices G1–G2 summarize the ongoing I & E programs in the 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 (Delaney and Vincent-Lang, *Unpublished*³). Until recently, estimates of total Chinook salmon runs to the Susitna River have not been available because estimates of escapement were not available. The collective (all Chinook salmon stocks) total annual run has long been assumed to number from 100,000 to 200,000 fish (see Delaney and Vincent-Lang, *Unpublished*). Susitna River salmon studies, ongoing since 2006, have tracked distributions and estimated abundances of various salmon species; the estimated Susitna River mainstem Chinook salmon run was 89,463 in 2013 (Table 20). Yentna River drainage and WCI Chinook salmon runs were not part of the estimate. The estimate represents a low run year.

Total harvests of NCI Chinook salmon for all users varied from about 11,200 to 70,000 from 1893 to 1940 (Table 21), averaging about 38,500 fish annually. This harvest appears to be sustainable, considering it was maintained for over a half century. Harvests increased from 1940 to 1951, averaging 84,500 fish 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 38,500–70,000 across most years.

² The fraction 16.5% is derived from the fraction of 295,981 angler-days expended within the Mat–Su vs. the total number of 1,796,805 angler-days expended within Southcentral Alaska.

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*.

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

Historically, a variety of users including freshwater and marine sport, commercial, subsistence, personal use, and educational have harvested NCIMA Chinook salmon runs. 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 through 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 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 to 1993, ranging from about 40,300 to 54,300 fish and averaging 46,500 fish (calculated from Table 22). Average and peak harvest of NCIMA Chinook salmon in sport fisheries from 1986 to 1993 were about 34,600 and 49,400 fish, respectively (Table 22). Sport harvests decreased substantially to about 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 about 33,100 fish in 2000. From 2002 to 2006, harvests were stable, with an average of 27,913 fish harvested. The average total harvest of NCI Chinook salmon by all users was about 32,000 fish during the same time period (Table 22).

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 (Bue and Hasbrouck *Unpublished*). 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*

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.

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 23).

The primary management objective for NCIMA Chinook salmon is to achieve established escapement goals. Spawning escapement on each of the 17 monitored streams is indexed annually using helicopter surveys or weirs. To provide consistent annual index counts, spawning streams are flown in their entirety from mouth to headwaters (with the exception of the Little Susitna River) to avoid shifts in spawning distribution and in case the survey is not flown during peak spawning. On the Little Susitna River, approximately 40 miles of the lower river is not part of the index count and contains relatively little spawning habitat. Aerial and weir counts paired on the Little Susitna and Deshka River during the late 1980s and mid-1990s indicated 40–60% (average 46%) of the actual escapement was counted from the air (Lafferty 1997). Aerial and weir counts compared on the Deshka River for 1995–1997, 1999, 2002, and 2004 showed an average of 45% of the actual escapement counted in the aerial survey (Ivey 2014). A significant linear regression describes the relationship, which has been used to estimate escapement from aerial indices on years of incomplete weir counts and for years prior to the weir program (Ivey 2014). Aerial counts between 2 surveyors, each counting the same stream, were also paired in 1993–1996 on several streams of NCI. Paired aerial counts revealed an average of 93% agreement between surveyors, ranging from 91% to 98% agreement (Lafferty 1997). This effort was repeated in 2012 with 3 surveyors each flying 6 streams of the ESMU; percent agreement was similarly high between surveyors (Sam Ivey, Fishery Biologist, ADF&G, Palmer, personal communication).

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 to reduce harvest levels in 1994 through EOs and BOF regulations. As a result, the combined sport harvest of NCI Chinook salmon from 1995 to 1998 was reduced to approximately half of the 1993 peak harvest (Table 21). Escapement goals were again achieved beginning in 1997 when runs to the area rebounded. Fisheries were subsequently reopened, which contributed in part to increased harvest levels beginning in 1999.

After 1999, escapement goals were mostly met through 2006, and sport harvest levels remained stable through the mid-2000s despite liberalizations to major fisheries. Harvest since 2006 has trended downward, becoming variable in fisheries with recent restrictions that were imposed to address periods of low Chinook salmon production and below average runs. Of 17 Chinook salmon goals in NCI, performance has declined from achieving over 90% prior to 2007 (2002–2006) to about 40% (2007–2010) despite various EOs restricting major sport fisheries. In 2011, the BOF made stock of concern (SOC) designations on 6 systems located in the WCI and Susitna River areas. Chuitna, Theodore, and Lewis rivers and Alexander Creek were designated as stocks of management concern, and Willow and Goose creeks were designated as stocks of yield concern. The BOF closed the Chuitna, Theodore, and Lewis rivers and Goose Creek and reduced fishing time within Unit 2 of the Eastside Susitna River Management Unit in an effort to reduce

harvest by 50% in that unit (Appendix B1). Only 24% of the NCIMA escapement goals were achieved in 2011 even with these changes in place, and further restrictions to sport and commercial fisheries were necessary to adequately address the areawide downturn (Table 24). A strategy was developed initiated by EO prior to the 2012 season that targeted a 50% reduction in harvest off previous low run years 2009-2011, Susitna and Little Susitna rivers combined, through various restrictions to annual limit, gear, and time (Table 25). Commercial fisheries targeting Chinook salmon in the Northern District were restricted from 12 to 6 hour periods. The objective was to achieve the majority of goals while providing for a full season of fishing opportunity. Harvest reductions were initially based upon the level needed to achieve escapement goals in the various areas based off the immediate past 2 to 3 years of harvest and escapement data. In addition, consideration has been given to potential shifts in effort due to some areas being more restrictive than other areas (Figure 16). The 2012 run was lower than anticipated and the Susitna and Little Susitna drainages were ultimately closed prior to the end of the regulatory season. Only 24% of the NCIMA escapement goals were achieved in 2012. In 2013, the strategy was refined to target a 75% reduction, weighing heavily on the outcome of the 2012 season, and 69% of the escapement goals were achieved. Within the sport fishery, the 2013 restrictions resulted in about a 70% harvest reduction off the low run years (2009–2011) when approximately 10,000 Chinook salmon were harvested and about a 90% harvest reduction off the high run years experienced in 1999–2006 (Table 26). The restrictions developed for the 2013 season resulted in a favorable outcome in terms of opportunity and achievement of goals and this set of restrictions was continued through the 2015 season. Only 3 of 15 SEGs were missed in 2015, the least missed since 2006. These strategies are detailed in the following report sections. The downward trend in run size since 2007 is probably due to poor marine survival. The full regulatory history of Chinook salmon in Northern Cook Inlet Management Area waters is presented in Appendix B1.

KNIK ARM MANAGEMENT UNIT CHINOOK SALMON FISHERIES

Fishery Description

Within the Knik Arm Management Unit (Figures 1 and 17), 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 3 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 1,981 fish from 1977 to 2014 (Figure 18; Table 27). However, harvest has trended downward, averaging 541 from 2010 to 2014 due to diminished runs and restrictions placed on the fishery.

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 2014 was 1,344 fish, ranging from 3,197 fish counted in 1988 to 589 fish counted in 2010 (Table 28; Figure 19). The SEG of was missed in 2010 and 2011 despite restrictions to the sport fishery. During 1988, 1989, 1994, 1995, and 2013–2015 a weir was operated at RM 32.5, with escapement counts ranging from about 2,800 to 7,400 fish (Table 28). 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, SF began a program to stock Chinook salmon at the Eklutna Power Plant tailrace (Figure 20) in 1999. Deception Creek salmon are used as the primary source for broodstock; however, Ship Creek Chinook salmon are used as broodstock in times of shortfall (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 29). 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 (15.9 g) in 2012, ending a period of cold water only rearing (2006–2011). Stronger runs were noted in Chinook harvest in both 2014 with 589 harvested and in 2015 with 956 harvested. Beginning 2014, stocking numbers were increased from a target of 150,000 to 400,000 in order to offset poor marine survival and to provide greater harvest opportunity.

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 (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 (comparing Tables 27 and 28). These estimates indicate an increased rate of exploitation from 1988 to 1994 and show that inriver exploitation can exceed 50%. The Chinook salmon 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 6:00 AM–11:00 PM daily. From 1999 to 2008, the aerial index count of the escapements ranged from 1,100 to 2,100 fish and harvest varied from about 2,200 to 3,300 fish (Tables 27 and 28), 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 weir program was reinstated in 2013 at the RM 32.5 site to provide a tool for inseason management of the fishery during a time of diminished runs.

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 400,000 Chinook smolt, resulting in a return of 4,000 adults and generating 10,000 angler-days of effort (ADF&G Statewide Stocking Plan, <http://www.adfg.alaska.gov/index.cfm?adfg=fishingsportstockinghatcheries.stockingplan>, accessed January 2017). 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 2012 due to a 100-year flood, which swept much of the NCIMA during the last 2 weeks in August 2012. Even though the recent Chinook salmon downturn is a statewide issue and probably marine derived, the flood occurring in 2006 may have contributed to the intensity of area downturns occurring from 2010 to 2012. Similarly, the number of Chinook salmon returning in 2016–2018 as age-4 to age-6 fish could be affected by the 2012 flood.

Beginning in 2012, a management strategy was developed and preseason action taken to reduce harvest up to 50% across the Susitna and Little Susitna drainages (Table 25) in an effort to address the Chinook downturn with a variety of restrictions that would spread harvest evenly across the season and provide consistent fishing opportunity throughout the season. A reduction of 50% on the Little Susitna River was based on the 2012 run being similar in size to the 2010 and 2011 runs. The 2010 and 2011 inriver runs were probably similar in size to each other; 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. The preseason strategy in 2012 restricted harvest to 4 days per week (Friday–Mondays) and allowed catch-and-release fishing on the other 3 days of the week (Tuesdays–Thursdays); the annual limit was reduced from 5 to 2 Chinook salmon over 20 inches and gear restricted to single hook only. The 2012 run was smaller than anticipated and closure of the fishery by June 15 was necessary to achieve the SEG. The result was an 80% reduction in harvest (Table 26). The strategy for 2013

was based on the outcome of the 2012 season and targeted a 75% harvest reduction. The restrictions imposed were similar to 2012 except Fridays were removed as a harvest day (harvest was allowed Saturdays–Mondays; catch-and-release Tuesdays–Fridays). The weir count of 2,379 Chinook salmon (Table 28) was considered incomplete due to extensive flooding through the majority of the season. However, the SEG is based on the postseason aerial count, which was achieved with a count of 1,651 fish (Table 28).

Sport Fishery Performance and Escapement in 2014 and 2015

The management strategy implemented during 2013 was continued during 2014 and 2015, targeting a 75% reduction in harvest (Table 26). The weir was installed early and prior to May 15 in both years; complete counts were obtained. A weir-based management target of 2,400–4,000 Chinook salmon was used to guide inseason management of the fishery. This range was based on the SEG of 900–1,800 and assumed at least 40% would be counted later in the aerial survey. The fishery was restored to 7 days per week late inseason (July 4) in 2014. This same action took place on June 27 in 2015 followed by a liberalization of the fishery on July 3 with the allowance of bait. The SEG was met in each year. Sport harvest was 437 in 2014 and 672 in 2015 (Table 27). The lifting of restrictions in both years and the liberalization in 2015 contributed to lower than targeted harvest reductions (Table 26). Catch rates reported by anglers at the Eklutna Tailrace improved during 2014 and 2015. A harvest of 956 fish in 2015 was the largest harvest since 2007 (Table 27). In 2014, about 300 fish were counted during the Moose Creek survey (Table 28). Moose Creek was not counted in 2015 due to budget cuts. Chinook harvest in the KAMU accounted for approximately 30% of the total Chinook salmon sport harvest from NCIMA waters during 2014 and 2015 (Table 30).

EASTSIDE SUSITNA MANAGEMENT UNIT CHINOOK SALMON FISHERIES

Fishery Description

The Eastside Susitna Management Unit (ESMU; Figures 1 and 21–23) is composed of 3 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 River 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 Rivers 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 2 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 23) 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 current goals of this program are as follows: 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, and 3) provide 10,000 angler-days of annual weekend and weekday fishing opportunity directed at stocked Chinook salmon in Willow Creek.

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 to 2005. The program ended when harvests of stocked fish became 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 (calculated from Table 31 for 2005–2015). The newly built WJHSF Hatchery on Ship Creek began producing robust smolt of target size (13 g) in 2012, ending a period of cold water only rearing (2006–2011) when the numbers (as low as 111,322 in 2007 from a high of 262,063 in 2003) and quality (mean weight as low as 6.8 g in 2007) of stocked fish had diminished (Table 32). 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. However, this low survival was probably during a period of better marine conditions than is currently being experienced. In consideration of survivals less than 1%, an effort is underway to increase the current stocking level.

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.

Creel surveys were employed from 1979 to 1989 to monitor the effort for and harvest of Chinook salmon and to collect biological samples from catch 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; Hepler and Bentz 1985; Hepler and Bentz 1986, 1987; Hepler et al. 1988; Hepler et al. 1989; Sweet and Webster 1990; Sweet et al. 1991; Peltz and Sweet 1992; Peltz and Sweet 1993; Sweet and Peltz 1994; Whitmore et al. 1996; Whitmore et al. 1995; Whitmore and Sweet 1997).

Eastside Susitna Management Unit (ESMU) fisheries average about 20% of the total NCIMA Chinook salmon harvest (calculated from Table 28). From 1979 to 1993, harvest trended upward from about 1,300 Chinook salmon in 1979 to 22,700 in 1993 (Table 28), representing a period of fishery growth. From 1996 to 2002, harvest remained between 10,400 and 17,000 fish. Harvest steadily declined after this period to 2,710 fish in 2011. Below average harvest reflects diminished runs after 2006 and subsequent restrictions places on the sport fisheries within the ESMU (Appendix B1).

Historically, approximately 500–4,000 hatchery fish taken in the Willow Creek sport fishery have contributed to the annual ESMU harvest. Due to disease issues in 2006 and decreased smolt size from 2007 to 2011—the result of cold water rearing at the Fort Richardson Hatchery—fewer numbers than in 2003 and 2004 and poorer quality fish were stocked (Table 32). Additionally, poor marine survival of all Alaskan stocks has resulted in low runs since 2007. Although the ramifications of reduced stocking and poor marine survival 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 2010–2014 average annual harvest for these fisheries was 103; 443; 149; and 73 fish, respectively (Table 31). There was no harvest on these fisheries due to low returns to these rivers and emergency orders, restricting harvest but providing Catch and Release opportunities. All Parks Highway streams within Unit 2 of the Susitna River were restricted by EO during 2009–2015 (Appendix H1).

Aerial survey escapement counts suggest that ESMU stocks compose about 40–60% of the Susitna River Chinook salmon escapement (Table 34). Prairie Creek, a headwater tributary of the Talkeetna River, has historically received the largest escapements with an average escapement of 2,472 Chinook salmon from 2010–2014 (Table 35). Escapements among eastside streams have trended downward since about 2005, but more drastically in 2007–2015 as a result of the statewide downturn.

Fishery Management and Objectives

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

In the Deshka to Talkeetna area (Unit 2 or Parks Highway streams), a weekend only fishing strategy has been cautiously developed since sport fisheries reopened in 1979 after a period of closure (Appendix B1). About 10 streams within this area share restrictive regulations due to the potential for high angling effort and close proximity to each other (management actions taken on one stream can easily affect effort and harvest on adjacent streams. By regulation, Unit 2 streams 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 2 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.

By regulation, the Talkeetna River and upper Susitna River drainages are open to Chinook salmon fishing from January 1 through July 13, from 6:00 AM to 11:00 PM. Bag and possession limits are 1 fish per day and 1 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 rivers 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 9 ESMU streams were established in 2002 (Table 23) based on historical escapement index counts (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 8 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.

Due to the downturn in Chinook salmon runs, which was first recognized in 2007, fisheries have become increasingly restrictive and since 2009, EOs have been issued in every year. Willow and Goose creeks were designated as stocks of yield concern at the 2011 BOF meeting. BOF 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 6:00 AM to 11:00 PM (Appendix B1). Sheep and Goose creeks share a common channel created in 1971 by a flood that caused a breach in the Sheep Creek channel. Despite efforts to prevent Sheep Creek water flowing into this channel, it persists and is part of the Goose Creek aerial survey index area. Sheep Creek was designated as a “stock of management concern” at the 2014 BOF.

BOF action taken in 2011 to decrease harvest in ESMU streams was insufficient to achieve desired escapement objectives in 2011. The 2011 Chinook salmon harvest from the ESMU was 2,710 fish, approximately 66% less than the 2001–2010 average harvest of 7,840 fish (Table 30). Although harvest was probably reduced through added restrictions as intended by the BOF, escapements to eastside streams were lower than the previous year, and all streams along the Parks Highway, with the exception of Little Willow Creek and the Chulitna River, failed to achieve escapement goals (Figure 24). Beginning in 2012, preseason action was taken by EO to reduce harvest up to 50% across the Susitna and Little Susitna river drainages based off low run years leading up to 2012. Streams of the ESMU have not demonstrated the ability to sustain harvest in recent years and have been restricted to catch-and-release only fishing during the times and area outlined in regulation since 2013. Even harvest of the hatchery stock at Willow Creek has not been possible due mainly to an inability to meet egg-take goals in recent years. While only 2 out of 8 SEGs were attained in 2012, the majority of SEGs were met in 2013 (6 of 8) in the ESMU.

Sport Fishery Performance and Escapement in 2014 and 2015

ESMU streams (Units 2, 3, 5, and 6) were restricted to catch-and-release only fishing opportunity during 2014 and 2015 by preseason EO that took effect May 1 (Table 25). Staff surveys of anglers participating in the catch-and-release fisheries during the weekends indicated fishing success to be fair to good. Rainbow trout anglers routinely reported Chinook salmon staging and ascending the lower reaches of streams crossing the Parks Highway. Inseason helicopter survey flown late in June in each year corroborated those reports; however, no inseason changes were made to alter the management strategy, which targeted 100% sport harvest reduction. Aerial index surveys conducted during the last 2 weeks in July (Table 35) showed 2 of 8 SEGs were met in the ESMU in 2014; SEGs were missed on Goose and Prairie creeks. All SEGs of streams counted in 2015 were achieved. Sheep and Goose creeks could not be counted due to poor water visibility (Table 35).

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 run of Chinook salmon to the NCI area; these fish exhibit early run timing due to the relative closeness of the Deshka River 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 4 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 to 1991 (Table 30) 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 until Alexander Creek was closed to Chinook salmon fishing in 2008 (Table 36). More recently, the Deshka River, Lake Creek, and the Talachulitna River have generated the largest harvests in this unit—about 80% from 2008 to 2012. The Deshka River has historically provided the largest Chinook salmon harvest within the entire NCIMA (Table 36) 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 36), probably a result of improved access (as described in Whitmore et al. 1994) and population growth. However, liberalized regulations from 1986 to 1992 also contributed to increased harvests.

Escapements have been monitored annually in 6 tributaries using aerial surveys (Table 37). A weir has been used to census escapements to the Deshka River since 1995 (Table 37). From 1991 to 1996, Chinook salmon spawning abundance in WSMU tributaries fell below escapement goals for some years (Table 37). At the Deshka River, Chinook salmon escapement index counts indicated an alarming decline during this period, whereas the average sport harvest of Chinook salmon from 1990 to 1992 was approximately 40% greater than the average harvest during the previous 10 years (Table 36). 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 B2). The escapement goal for the Deshka River of 11,200 Chinook salmon, counted by aerial survey, was not met from 1991 to 1996 (Table 37). Overall harvest dipped to an average of 6,700 fish from 1995 to 1997, then after rebounding in 1998, runs stabilized at

about 14,000 fish over the next 10 years and continuing through a period of high run years that ended in 2006. Throughout this period, SEGs were met for all streams except Alexander Creek. Alexander Creek escapement counts began a steep downward trend beginning in 2006 (Table 37). The Alexander Creek fishery has been closed since 2008 and has been designated a stock of management concern since 2010. Managers suspect northern pike have contributed to reduced Chinook salmon productivity in the Alexander Creek drainage and a large-scale northern pike suppression program is underway (see northern pike section). It is likely that a combination of northern pike predation and poor marine survival are responsible for the low productivity of Alexander Creek Chinook salmon.

Harvest and escapement has dropped sharply since 2006 as a result of low inriver runs and subsequent EOs issued to restrict fisheries (Appendix H1). On the Deshka River, the largest WSMU Chinook salmon fishery, harvest dropped from an average of 7,200 Chinook salmon harvested 2003–2007 to 2,186 fish harvested 2008–2012 (Table 36). The Deshka River did not achieve its escapement goal in 2008 and 2009, but has achieved its goal since (Table 39).

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 runs during most of the 1980s and from about 1997 to 2006, surrounding period of weak runs (1991–1996 and 2007–present).

Currently, the bag limit for WSMU Chinook fisheries is 1 fish daily and 2 in possession. A seasonal limit of 5 Cook Inlet Chinook salmon also applies. Only unbaited, single-hook artificial lures are allowed in large portions of Lake Creek and the Deshka River and Talachulitna rivers. Sport fishing guides may not participate or engage in fishing for Chinook salmon while clients are present or within their control.

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 River weir operates from mid-May through the duration of the Chinook salmon season to provide managers with timely inseason run information as well as postseason biological data used to assess productivity in this system (Appendices I1–I2). 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 4 other WSMU systems (Lake, Alexander, and Peters creeks, and the Talachulitna River) were also established in 2002 (Table 23). SEGs were based on historical aerial index counts of escapement (Bue and Hasbrouck *Unpublished*). The management objective for these 5 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 used to estimate sport harvest, whereas marine harvest is estimated by taking a proportion of the combined harvests in the Northern District directed commercial setnet, the Tyonek subsistence,

and the Kustatan subdistrict commercial setnet fisheries. That proportion is determined from the aerial survey count of the Deshka River 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 3 major returning age classes; the outlook has been off by an average of 8,000 fish, mostly over forecasting runs. It is useful as an index of expected run strength, but should not be used alone for making management decisions.

The Deshka River weir has also provided insight into accuracy of the aerial count. Comparisons of aerial and weir counts for the Deshka River during 1995–1997, 1999, 2002, and 2004 showed an average of 45% of the weir count is counted in the aerial survey (Ivey 2014). A significant linear regression describes the relationship, which has been used to estimate escapement from aerial indices on years of incomplete weir counts and for years prior to the weir program (Ivey 2014).

Inseason liberalizations to the Deshka River Chinook salmon fishery were common in 2000–2006 (Appendix B2) because the Deshka River escapement exceeded the escapement goal of 17,500 fish from 1999 to 2001 and exceeded or was within the more recent SEG range from 2002 to 2007 (Figure 25). 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 the low end of the goal would be achieved; however, the outlook had overestimated the forecast of the age-4 component of the run in the past and 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 River 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 River goal was missed in 2008 and 2009 (Table 37). The goal was attained 2010–2011 near the midpoint of the goal range (SEG 13,000–28,000) with minimal inseason change.

During 2012, preseason action was taken to reduce harvest up to 50% across the Susitna and Little Susitna drainages based off low run years leading up to 2012. An areawide restriction reduced the annual limit to 2 Chinook over 20 inches and allowed use of only 1, single-hook, artificial lure except in the Deshka River where bait was allowed per regulation. A poorer than anticipated run materialized in 2012 resulting in a midseason closure of the entire Susitna drainage by June 25 (Table 25). In 2013, the strategy was refined to target a 75% reduction, weighing heavily on the outcome of the 2012 season. In addition to the areawide annual limit and single-hook artificial only restriction imposed by EO during 2012, harvest was restricted to 4 days per week on most Yentna River fisheries (Fridays–Mondays), except for the Talachulitna River, which was restricted to catch-and-release only fishing. A 60% reduction to harvest was targeted for most Yentna River tributaries such as Lake Creek, although a 100% reduction was targeted specifically on the Talachulitna River. Bait was restricted from the outset of the season on the Deshka River. Within the sport fishery, the 2013 restrictions resulted in about a 70% harvest reduction off the low run years 2009–2011 across the Susitna River drainage. The Lake Creek and Peters Creek SEGs were achieved with a 60% reduction to harvest and the Talachulitna SEG was narrowly achieved with a 100% harvest reduction. Bait was reinstated on the Deshka River June 29 and the SEG achieved with a final weir count of 18,297 fish; however,

sport harvest was lower than planned owing to below average fishing success due to unusually warm water temperatures and stalling of upstream salmon migration (Table 26). Fishing at the mouth of the Deshka River was mostly good, but considered lower than the previous 2 seasons. A weir located at RM 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, and models with average to record late run time 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 River weir projections had not improved. By that date, the run was about 60% through the historical average run; only 6,852 Chinook salmon had been counted through the weir; and based on models of average and late run time, 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 25). Preseason action taken to reduce the annual bag limit 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 2 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 37).

Northern pike have probably 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 northern pike population in Alexander Creek through annual gillnetting (see northern pike section).

Areawide 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 to 2018 could be affected.

Sport Fishery Performance and Escapement in 2014 and 2015

The Chinook salmon management strategy used during the 2013 season was duplicated for the 2014 and 2015 seasons (Table 25). The run to the Deshka River was approximately a week early in both 2014 and 2015, falsely inflating on-time run projections and creating challenges to inseason management of the fishery. However, models of early run timing projected runs strong enough to support a bait fishery, which was restored by EO by June 14 in each year. In 2015, the Deshka River fishery was restored to regulation (annual limit restriction was rescinded) on June 27. Staff surveys were flown over Lake Creek and the Talachulitna River around June 25 in both years to gauge run strength; no inseason changes to the management strategy was necessary for these systems in either year. Four of 5 SEGs in the WSMU were achieved in 2014 and 2015 (the SEG on Alexander Creek was missed in each year). The 2015 Deshka River Chinook salmon weir count of 24,316 fish was the largest since 2006 (Table 37, Figure 25).

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 26). 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 38) until being closed in 2010 due to low returns. Streams south of the West Foreland, namely the Kustatan River and Polly Creek, support small runs of Chinook salmon and generate only a small Chinook salmon harvest. Stocks from the WCIMU are also harvested in commercial fisheries as well as a subsistence fishery located near the community of Tyonek (Table 22).

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 community 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 27). 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 4 years, but decreased again in 1994. The 1994–1996 escapement counts for all streams were low. This trend finally reversed in 1997–1999 when all escapement goals were met (Figure 27). 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 39). All goals were met in 2006. Since 2006, escapements on these 3 streams have trended downward and SEGs have been missed (Figure 27). 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 38) and in 2010 the Chinook salmon fishery was closed pre-season by emergency order. The fishery was closed by BOF regulatory action prior to the 2011 season and has remained closed since. The average escapement from 1979 to 2007 was 1,937 fish (Table 39). A more recent average (2008–2012) was 716 fish. 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 2007–2012.

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 27). The average aerial index count from 1979 to 2007 was 1,068 fish (calculated from Table 39). A more recent average (2008–2012) was 281 fish. The SEG for Chinook salmon returning to the Theodore River is 500–1,700 fish. The Theodore River has failed to meet the SEG since 2007 despite being catch-and-release only since 1999 and closed since 2010.

On the Lewis River, sport harvest was greater than 150 fish annually from 1987 to 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 aerial index count from 1979 to 2007 was 533 fish (calculated from Table 39). A more recent average (2008–2012) is 97 fish. 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 3 WCIMU streams were established in 2002 (Table 23), based on historical escapement index counts. The management objective for these 3 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 1 daily and 1 in possession, and a seasonal limit of 5 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 4–5 consecutive year period. These systems remain designated as stocks of management concern. The Beluga River drainage was also closed at the 2011 meeting.

A 3-year project to count the actual escapement of Chinook salmon on the Theodore and Lewis rivers by weir was initiated in 2012 to assess the effectiveness of the aerial count as an index of the spawning escapement. The Chuitna River was the first choice for a weir program; however, it was found to be unsuitable for a weir and sonar was eliminated as an option because species apportionment would probably impair estimates. Aerial surveys conducted on the Theodore River in 2012 and 2013 indicated 27% and 70% of the actual escapement counted from the air, respectively. On the Lewis River, count comparisons indicate 96% of the escapement counted from the air; however, it is likely many Chinook salmon remained downstream of the weir prior

to its removal on August 3 and were not included in the weir count. It was noted that 79 of 107 fish total counted during the aerial survey, conducted on July 18, were downstream of the weir. Between July 18 and August 3, only 16 Chinook salmon were counted through the weir. Additional years of comparisons would be necessary to adequately assess the consistency of these index counts over time. A weir versus aerial count comparison on the Lewis River was not possible in 2013. The 2013 aerial survey, while counting 61 Chinook, also noted the Lewis River had overflowed its bank about one-half mile downstream of the bridge and was diverted into a large muskeg area with no outlet to Cook Inlet. It is speculated that the Lewis River jumped its channel after flooding that occurred the previous fall and that the Chinook salmon counted in the index survey during 2013 arrived during a period of high spring runoff when enough water existed in the old channel for adequate salmon migration and prior to when it was feasible to install the weir. The weir was installed on June 11, when water levels were probably too low to wet the old channel below the point of diversion. A postseason effort was made to restore the channel to its original condition. The final weir count on the Lewis River was 2 Chinook salmon, both counted after August 10, after the restoration effort.

Fishery Performance and Escapement in 2014 and 2015

Only 122 Chinook salmon were reported harvested from the West Cook Inlet area in 2015 (Table 38). All reported harvest was between the Susitna River and the North Foreland. The major WCI Chinook salmon 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. Aerial index surveys were conducted in late July and although SEGs were missed on the Theodore and Lewis rivers (where only 5 Chinook salmon were observed), the SEG was attained on the Chuitna River with an aerial count of 1,965 Chinook salmon (Table 39) and at a level close to the 1979–2014 mean. The SEG on the Chuitna River was achieved in 2014 but only by 198 fish.

COHO SALMON FISHERIES

AREAWIDE OVERVIEW

Areawide Historical Harvest and Escapement

Sport harvest of coho salmon in the NCIMA ranged from 17,206 to 105,300 fish from 1977 to 2015 and averaged 60,196 (Table 40). Harvest in 2014 was 48,934 fish and in 2015, harvest increased to 59,883 (Table 40). The average harvest of 45,424 fish from 2010 to 2014 represented 14% of the coho salmon harvest in the Southcentral region and 8% of the statewide harvest (Table 40). Within the NCIMA, the KAMU, which includes the Little Susitna River, accounted for the largest harvest of coho salmon in 2014 (Table 40). Harvest in 2015 was highest in the KAMU as well. The WCIMU, with fewer accessible streams, had its greatest harvest in 2008.

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, ADF&G 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 was discontinued after 2004. The Fish Creek weir operated from 2009 to 2014 in cooperation with U.S. Fish and Wildlife Service (USFWS) to count both sockeye and coho salmon escapements. Prior to 2009, the weir was removed around August 15, half way through the historical coho salmon run. For 2009–2014, the weir remained in the creek until September. Fish wheels on the lower Susitna and Yentna rivers and foot and aerial index counts for a few streams also contribute information about relative abundance. Within the NCIMA, 8 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). Ongoing abundance estimates of coho salmon in the Susitna drainage should help determine if Deshka River weir counts provide a reliable index of run strength to the Susitna drainage. In addition to foot surveys in the fall, low runs and a large recreational fishery prompted a weir project for Jim Creek in mid-July 2015–2017 to measure escapement.

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 in the area.

Poor runs in 1997 and 1999 prompted inseason restrictions to both sport and commercial fisheries. In response to a poor run of coho salmon to Cook Inlet in 1997, emergency orders were issued to close the commercial fishery and to institute an areawide bag limit reduction and bait prohibition for wild stock sport fisheries. Restrictive action was again taken in the commercial fishery in 1998 because of a poor sockeye salmon run. Because of the nature of the multispecies fishery, this action probably resulted in higher escapements. No additional action was required in the sport fishery during 1998 because instream coho salmon abundance seemed to be above the historical average. In 1999, poor runs 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 of Alaska and users of the coho salmon fishery 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). Beginning later in 2000 and continuing through 2009, coho salmon runs were mostly above average. From 2010 to 2012, runs across NCI were again below average and considered to be particularly poor in 2011 and 2012. Escapement goals on the Little Susitna River and Jim Creek system were missed in these years despite actions taken to restrict sport fisheries (Appendix H1). In 2011, the BOF made changes to the Central District Drift Plan (Appendix C1) during the last 2 weeks in July in an effort to pass more coho salmon to the Northern District.

There has been growing interest in genetic stock identification (GSI) of coho salmon in Cook Inlet to help determine where northern stocks are harvested both temporally and spatially as they migrate through various fisheries to natal streams (referred to as mixed stock analysis or MSA). In 2013, the state funded a 3-phase study to develop a Cook Inlet coho salmon baseline and apply this baseline to analyze fishery mixtures. The first phase involved an analysis using

existing samples collected by the USFWS and opportunistically by ADF&G personnel to determine whether the genetic diversity among Cook Inlet coho salmon populations would allow for accurate MSA estimates. Statistical analysis of these data indicated that sufficient variation exists among Cook Inlet coho salmon stocks (Barclay et al. 2017), and that it was appropriate to proceed with baseline development (phase II) and sampling of the UCI commercial harvest for genetic MSA (phase III).

In 2016, the baseline development phase of the study will be completed. The genetic baseline contains 84 Cook Inlet coho salmon populations analyzed for 86 genetic markers⁵.

Phase III of this project used the baseline as reported in Barclay et al. (2016) and analyzed samples collected in 2013-2015 from the offshore test fisheries and the commercial fishery⁶.

KNIK ARM MANAGEMENT UNIT: LITTLE SUSITNA RIVER COHO SALMON FISHERY

Fishery Description

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

Coho salmon return to the Little Susitna River primarily from mid-July through early September. Tagging studies indicate that coho salmon migrate slowly up the Little Susitna River and remain available to the fishery for about 4 weeks, after which they pass the George Parks Highway Bridge into waters closed to fishing for salmon. Spawning takes place from late September through mid-October. Spawning primarily occurs upstream from the George Parks Highway in the mainstem of the river, but some spawning occurs in tributary streams.

Stocking Program

Stocking of coho salmon occurred at the Little Susitna River from 1982 to 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, 1996a-b).

⁵ Barclay, A. W., P. A. Crane, D. B. Young, H. A. Hoyt, and C. Habicht. *In prep-a*. Population Structure of Cook Inlet Coho Salmon and Evaluation for mixed-stock analysis using 86 SNP loci and 84 Populations. Alaska Department of Fish and Game, Fishery Manuscript Series, Anchorage.

⁶ Barclay, A. W., C. Habicht, W. Gist, and T. M. Willette. *In prep-b*. Genetic stock identification of Upper Cook Inlet coho salmon harvest, 2013-2015. Alaska Department of Fish and Game, Fishery Manuscript Series, Anchorage.

Historical Harvest and Escapement

From 1977 to 2014, harvest of Little Susitna River coho salmon ranged from 1,618 to 27,610 fish with an average harvest of 11,255 fish (Table 41). It has been a consistent second to the Kenai River, which supports the largest freshwater coho salmon harvest in Alaska.

Prior to 1986, coho salmon escapement to the Little Susitna River was indexed by either ground surveys, aerial surveys, or both when water conditions permitted. Coho salmon escapements have been counted at a weir on the Little Susitna River since 1986 (Table 42). The weir was operated from 1986 to 1995 in the lower river, several miles upstream of the LSPUF. The weir was moved and operated upstream of the Parks Highway bridge at RM 71 from 1996 to 2011. Although most spawning occurs above the upper weir site, the weir was a poor tool for inseason management of the fishery due to a 40-mile separation from the main fishery. The weir was returned to the lower river site at RM 32.5 in 2012, where it remains.

During 1997 and 1999, the Little Susitna River (Table 42), as well as the whole NCIMA, experienced poor coho salmon runs. However, the stock rebounded by 2001 with a weir count of 30,587 coho salmon. A record escapement of 47,938 coho salmon occurred in 2002.

Harvest estimates from the SWHS and escapement data indicate that coho salmon abundance at the Little Susitna River fluctuates widely. Inriver runs (escapement plus sport harvest) ranged from approximately 12,000 to 67,000 fish from 1996 to 2014 (Tables 41 and 42); 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 42% (Figure 28).

Fishery Management and Objectives

Currently the bag and possession limits are 2 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 nonhatchery fish and now 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, 2 other measures have been adopted to help reduce hook-and-release mortality: 1) anglers are required to quit fishing when they reach their bag limit of Little Susitna River 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). The weir at its present location at RM 32.5 provides timely data to manage the sport fishery.

Fishery Performance and Escapement in 2014 and 2015

During 2014, harvest rates monitored at the exit booth on the Little Susitna River were average to above average for the duration of the season. The SWHS showed 6,922 coho salmon were harvested from the Little Susitna River, above the 2010–2014 average of 5,377 fish (Table 41). On the Little Susitna River, water flows were favorable for weir operations and fish passage

through the weir throughout the first 75% of the historical run. The low end of the SEG of 10,100–17,700 fish was achieved on August 16. The weir was operable for the duration of the season through September 8. The final weir count of 24,211 was considered a complete count (Table 42). The upper end of the goal range of 17,700 was met August 21. An emergency order was issued August 15 increasing the bag and possession limit for coho from 2 to 3 fish.

In 2015, harvest rates monitored at the exit booth on the Little Susitna River were average to above average for the duration of the season. The SWHS showed 8,880 coho salmon were harvested from the Little Susitna River, above the 2010–2014 average of 5,377 fish (Table 41). On the Little Susitna River, water flows were extremely low until the first week in August. The low end of the SEG of 10,100–17,700 was achieved on August 11. The 2015 weir count is considered incomplete because the weir was pulled August 26 for the duration of the season. The final weir count was 12,756 (Table 42). An emergency order was issued August 15 increasing the bag and possession limit for coho from 2 to 3 fish.

KNIK ARM MANAGEMENT UNIT: OTHER COHO SALMON FISHERIES

Fishery Description

The Knik Arm Management Unit (Figures 1 and 17) presently supports 5 significant sport fisheries for coho salmon 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 3 educational permit fisheries (Knik Tribal Council, Eklutna Village, and Big Lake Cultural Outreach).

Until 2006, the Little Susitna was the largest Knik Arm sport fishery in terms of both participation and coho salmon harvest (Table 41). Jim Creek harvest rates have been higher than the Little Susitna River harvest rates during 2006–2009 and 2011–2012, but effort (angler-days) was slightly less (Table 41). 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 6 pounds.

Stocking Program

The sport fishery at the Eklutna Power Plant tailrace (Figure 20) 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 to 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 2 miles downstream of the confluence. Sport anglers harvest stocked coho salmon and a few wild sockeye and chum salmon in the tailrace during the coho salmon run. 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. 2015).

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 to 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 6 sport fisheries (Fish, Cottonwood, Wasilla, and Jim creeks, the Little Susitna, and Eklutna Tailrace) averaged 13,509 coho salmon from 2010 to 2014 (calculated from Table 41). Little Susitna River had the highest average during this time with 5,377 and Jim Creek with 3,947 coho salmon harvested, whereas the 3 weekend-only fisheries averaged 417 fish at Fish Creek, 422 fish at Cottonwood Creek, and 1,118 fish at Wasilla Creek (Table 41).

Escapement index surveys have been conducted on four Knik Arm streams: Cottonwood, Wasilla, Jim, and Yellow creeks (Tables 42 and 43). 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 2009–2014 to encompass the majority of the coho run for Fish Creek (Table 42).

Jim Creek escapement has been monitored by a weir from 1993 to 1994. Funding became available to run a coho salmon weir for the first time since 1994 for the years 2015–2017. The weir is installed 15 July and runs through September providing a complete coho salmon count. Index surveys are also conducted on McRoberts and Upper Jim Creek in late October.

Fishery Management and Objectives

Fish, Cottonwood, and Wasilla creeks (Figure 17) 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 runs during 1997 and 1999 (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 weirs operated on each creek in the past from about 20 July through 25 September 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. 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, Fisheries Biologists, ADF&G, Palmer, personal communication).

Fish Creek weir counts are used for inseason management of Fish Creek as well as Wasilla and Cottonwood creeks where weirs are not currently operated. The Little Susitna weir located at RM 32.5 is a useful tool for timely inseason management of the coho salmon fishery.

The BOF reduced the bag and possession limits for all Knik Arm fisheries in 2000, excluding the stocked coho fishery at the Eklutna Tailrace, to 2 coho salmon 16 inches or more in total length in response to poor runs occurring in 1997 and 1999 (Appendix B3). Jim Lake, McRoberts Creek, and upper Jim Creek, tributaries supporting large spawning populations in the Jim Creek drainage, were closed to salmon fishing in 2000; Mud and Leaf lakes of the Jim Creek system joined the list of closed waters in 2014.

Between 2002 and 2009, effort and harvest have more than doubled from previously on Jim Creek (Table 41). Managers are cautiously monitoring this system for any signs of overharvest. In an effort to reduce harvest closer to historical levels, the BOF reduced fishing time on Jim Creek by allowing sport fishing to occur on Wednesdays through Sundays only beginning the second Saturday in August.

Fishery Performance and Escapement in 2014 and 2015

Total sport harvest of coho salmon in Knik Arm streams (excluding the Little Susitna River) was 9,668 fish in 2014; the 2010–2014 average was 8,508 fish (calculated from Table 41). Coho salmon runs to the Knik Arm were above average (1981–2014) in 2014 with the exception of Jim Creek (Tables 42–43). Fishing success at Jim Creek during August was reported by anglers to be average. Fishing success on the weekend-only fisheries of Cottonwood, Fish, and Wasilla creeks was excellent later in August. The Eklutna Tailrace harvest of 4,103 fish was the highest harvest since 2009 (Table 41).

Index survey counts were above average with the exception of Jim Creek (Tables 42–43). The Fish Creek SEG of 1,200–4,400 coho salmon was met on August 3, approximately 20% of the way through the historical run. An EO was issued on August 6, liberalizing Fish, Cottonwood, and Wasilla creeks to add Mondays and increase the bag limit of coho salmon to 3 per day. The final weir count on Fish Creek was 10,283 coho salmon. The count was considered complete (Table 42).

In 2014, a foot index survey of McRoberts Creek (Jim Creek system) of 122 fish was below average, and not close to the SEG of 450–700 coho salmon (Figure 29). An index count of 1,698 coho salmon at Cottonwood Creek was above the long-term (1981–2014) average of 600 fish and a count of 1,067 fish on Wasilla Creek was above an average of 832 fish for 2010–2014 (Tables 42 and 43). The fourth annual youth-only fishery on Fish Creek occurred the first weekend in August. Fishing success was reported as fair to good.

Harvest in 2014 of coho salmon in Jim Creek, Cottonwood Creek, and the Eklutna Tailrace was 3,045, 275, and 4,103 fish, respectively (Table 41); Jim and Cottonwood creek harvests were below the 2010–2014 averages and the Eklutna Tailrace was above the 2010–2014 average of 2,120 (Table 41).

The sport harvest of coho salmon in Knik Arm streams (excluding the Little Susitna River) was 9,228 for 2015 (calculated from Table 41). Coho salmon runs to the Knik Arm were above average in 2015 with the exception of the Wasilla Creek drainage (Table 42). Fishing success was excellent for the duration of the season with the exception of Jim Creek, which was sporadic. Fish Creek made the escapement goal for coho salmon on 8 August. An emergency

order was issued the same day, increasing the bag limit for coho salmon to 3 fish for Fish Creek, Cottonwood Creek, and Wasilla Creek, and Fish Creek was opened 7 days per week. The fifth annual youth-only fishery on Fish Creek occurred the first week in August and success was good. The Jim Creek fishery progressed slowly. Low water and warm conditions at Jim Creek provided slow conditions for fish passage until 11 August. An emergency order was issued 2 September closing the coho salmon fishery at Jim Creek given the weak run of coho salmon (Appendix H1).

Index surveys counts for 2015 of 375 coho salmon for the Wasilla Creek drainage were below the 2010–2014 average of 832 coho salmon (Table 42). The remainder of the Knik arm drainage stream index survey counts were above the 5-year average. Fish Creek was over the top end of the 1,200–4,400 SEG by 19 August, approximately 50% of the way through the historical run. This fishery was liberalized as discussed above. The fifth annual youth-only fishery was a success.

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 that 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 River provide modest harvests, whereas 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 11,282 fish in the ESMU and 12,835 fish in the WSMU from 2010 to 2014 (Table 40). The contribution from the ESMU and WSMU to the total NCIMA coho salmon harvest during 2010–2014 was 25% and 28%, respectively.

From 2010 to 2014, Talkeetna River, Montana Creek, and Willow Creek produced the largest coho salmon harvests in the ESMU, averaging 2,375, 1,679, and 1,625 fish, respectively, and accounting for approximately 54% of the Eastside Susitna harvest (Table 44). During that period, in the WSMU, coho salmon harvest averaged 4,061 fish from Lake Creek, 2,917 fish from the Deshka River, and 2,789 fish from the Yentna River (Table 45).

Side-scan sonar and fish wheels have been used to estimate coho salmon abundance in the Yentna River from 1981 to 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 were also counted, though factors such as the offshore

distribution of upstream migrating coho affect the accuracy of the counts. Estimates of coho salmon were considered index counts only (Tarbox et al. 1983; Davis and King 1997).

Abundance in a portion of the mainstem Susitna River upstream of RM 80 was estimated during the early 1980s. From 1981 to 1983, average coho salmon abundance was an estimated 47,000 fish in the Susitna River excluding all systems below RM 80 (Table 46). It is important to recognize that significant coho salmon runs occur in tributaries of the Susitna River downstream of RM 80 (Merizon et al. 2010). Coho salmon abundances in the Deshka River, Alexander Creek, Willow Creek, and many other important coho salmon systems were not measured during the 1981–1983 studies.

Coho salmon distribution and abundance was estimated on the Susitna drainage in 2014 and 2015. In 2014, in the Susitna River, fish wheels were operated at RM 34 to capture coho salmon for marking with radio tags. Second event sampling occurred at the Deshka River and Montana Creek weir sites. In the Yentna River, fish wheels were used at RM 6 to capture coho salmon for marking with dart tags. Second event sampling occurred at Yentna RM 18 using fish wheels (Cleary et al. 2014 and 2015).

In 2015, in Susitna River, fish wheels and were operated at RM 34 to capture coho salmon for marking with dart-PIT tags (a dart tag with an imbedded passive integrated transponder [PIT]). Recapture events occurred at the Deshka River and Montana Creek weir sites. In the Yentna River, fish wheels were used at RM 6 to capture coho salmon for marking with dart tags (no PIT tag component). Recapture events occurred at RM 18 of the Yentna River using fish wheels.

During each year, radio tags were applied to a subsample of coho salmon in the Susitna and Yentna rivers to determine spawning distribution and handling effects. Biweekly aerial telemetry surveys and stationary receiver-loggers were employed to track movements of radiotagged salmon.

The 2014 coho salmon abundance on the Susitna River drainage was 84,749 (CI 68,799–106,083) and 73,819 (CI 61,120–87,004) in the Yentna River drainage. The 2015 coho salmon estimates were 97,789 (CI 75,570–120,007) for the Susitna River drainage and 110,321 (CI 97,157–123,869) for the Yentna River (Table 20).

Coho salmon have been counted through a weir on the Deshka River since 1995. The weir was operated at RM 17 from 1995 to 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, 2006, and 2011–2013 due to high water events (Ivey 2014). Estimating escapement during incomplete count years is nearly impossible because run timing for Deshka River coho salmon is highly variable (Ivey 2014). Average escapement from 2010 to 2014 at RM 7, including the complete count years of 2010 and 2014 was 10,986 coho salmon (Table 46). The 10-year average escapement from 2005 to 2014 was 17,464 coho salmon. A peak escapement of 62,940 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. Closed areas 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 statewide management standards for wild trout (5 AAC 75.220) and in part under current Chinook salmon management strategies (Appendix C1). 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 (*Lota lota*) when legal burbot fishing gear is used.

The BOF reduced the bag and possession limits for all Susitna River fisheries in 2000 to 2 coho salmon 16 inches or more in total length in response to poor runs occurring in 1997 and 1999 (Appendix B3). Runs to the Susitna River rebounded in 2000 resulting in a relaxation of restrictions in following years. Bag and possession limits were increased in the WSMU at the January 2005 BOF meeting to 3 fish 16 inches or more in total length and 6 in possession, except in Alexander Creek where the 2 fish bag and possession limits were retained. The bag and possession limits were increased to 3 per day and in possession in the Talkeetna, Chulitna, and upper Susitna River areas (Units 3, 5, and 6) during the 2011 BOF meeting. The bag and possession limits for coho salmon remains at 2 fish along Parks Highway streams of Unit 2 within the ESMU.

Besides the Deshka River weir where actual escapement is counted, 4 other small streams are indexed on an annual basis: Rabideux, Birch, Question, and Answer creeks (Table 46). There are no SEGs within the ESMU and WSMU. The sport fishery is currently managed under conservative regulations meant to ensure sustainable harvest over the long term because inriver exploitation is relatively low.

Ongoing abundance estimates of coho salmon in the Susitna River drainage should help determine if Deshka River weir counts provide a reliable index of run strength to the Susitna drainage.

Sport Fishery Performance and Escapement in 2014 and 2015

Fishing success in 2014 along Eastside Susitna streams was fair to good through the month of August, providing consistent fishing opportunity. Coho salmon arrived in harvestable numbers in the Talkeetna River drainage by mid-July, about a month earlier than in 2013, providing for a relatively long fishing season. The most favorable fishing was reported at the mouths of Willow, Little Willow, Clear, and Sunshine creeks. There are no coho salmon escapement goals on Eastside Susitna streams, therefore sport fishery management is reliant on conservative regulations that allow a daily bag limit of only 2 coho salmon per day over most of this area (3 coho per day are allowed on the Talkeetna River drainage).

Fishing success for coho salmon on the Deshka River was fair in 2014. Water temperatures and levels were favorable for fish passage; coho salmon passed the weir at a consistent rate of about 200 fish per day through the month of August and the run was on time. There is currently no established escapement goal on the Deshka River. The final weir count of 11,578 fish was below an average of 20,975 fish (Table 46). Fishing success on Yentna River tributaries were reported to be fair through most of the season, becoming good late in the season.

The 2014 sport coho salmon harvest was an estimated 12,462 fish from the ESMU and 12,972 fish from the WSMU (Tables 44 and 45), above the 2010–2014 averages.

During 2014 on the Deshka River, the majority of the run was passed over a 23 day period beginning 6 August, with the peak daily count of 2,810 coho salmon occurring on 17 August. Escapement index counts for ESMU and WSMU streams were variable for 2014 (Table 46). The final minimum weir count on the Deshka River of 11,578 fish was above the 5-year average of 10,986 (Table 46). Birch and Question creeks had average escapement counts of 398 and 251 fish, while Answer Creek was below the 2010–2014 average of 44 fish with an escapement index of 40 fish (Table 46).

In 2015, Deshka River coho salmon weir ran without interruption and 10,775 coho salmon were counted (Table 46); this was below the 2010–2014 average of 10,986 fish (Table 46). The 2015 Deshka River harvest resembled last season with an average to below average harvest.

The estimated 2015 harvest from the ESMU was 15,043 (Table 44), which was above the 5-year average of 11,282. The WSMU was also up (14,191 fish) from the 5-year average of 12,793. Fishing success in general was good and mirrored the 2014 season with above average fishing in the Susitna River drainage (Tables 44 and 45).

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 7,631 fish in the WCIMU from 2010 to 2014 (Table 40). The unit's contribution to the total NCIMA was 17% during this period. The tributaries of Big River Lakes were the primary producer of coho salmon in the management unit. Average harvest in this system from 2010 to 2014 was an estimated 2,312 fish (Table 47). The second and third major coho salmon producers are the Kustatan River with a 2010–2014 average sport harvest of 2,243 fish and other streams south of the Northern Foreland with an average of 863 coho salmon harvested during the same period (Table 47).

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 to December 31. The bag and possession limits for coho salmon are 3 per day and 6 in possession. South of the West Foreland the limit is 3 per day and 6 in possession. There are no coho salmon goals for the WCIMU.

Sport Fishery Performance and Escapement in 2014 and 2015

The 2014 sport harvest of coho salmon from WCIMU was an estimated 7,320 fish (Table 40), below the 2010–2014 average of 7,631. The largest harvest of coho salmon came from the

tributaries of Big River Lakes with an estimated harvest of 2,737 fish, which was above the 2010–2014 average of 2,312 fish (Table 47). The Kustatan River had a harvest of 1,822 fish, which was below the average of 2,243 fish for 2010–2014 (Table 47).

Coho salmon fishing was reported as good across tributaries of WCIMU in 2014. Reports of good fishing came from the Big River Lakes, and Kustatan and Chuitna rivers and small tributaries of Beluga River.

Inseason catch information received in 2014 from sport anglers and guides indicated an average return. Big River Lakes surpassed the Kustatan River harvest for the first time since 2010 by 915 coho salmon in 2014.

Low water during 2015 prompted concern from local lodge owners and guides of potential overharvest of coho salmon.

The 2015 sport harvest of coho salmon from WCIMU was an estimated 12,849 fish. This was the largest estimated harvest since 2004 and well above the 2010–2014 average of 7,533 coho salmon. Coho salmon fishing at the beginning of the 2015 season for WCIMU started slow and improved by the end of the season. The harvest of 4,231 fish on the Kustatan River was once again the highest, and harvest on Big River Lakes was next highest with 2,383 coho salmon (Table 47). Theodore River saw the highest harvest since 2002 with 1,190 coho salmon, well above the 2010–2014 average of 174 coho salmon (Table 47).

SOCKEYE SALMON FISHERIES

FISHERY DESCRIPTION

The Yentna River is thought to support about 77% of the Susitna River sockeye salmon 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. Any surpluses of sockeye salmon above escapement needs at Fish Creek of the KAMU are targeted by a personal use fishery (see Personal use and Subsistence Fisheries section).

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 3,140 to 23,235 fish during 1977 to 2015 and averaged 13,921 fish (Table 48). 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 sport fishery at Wolverine Creek (Big River lakes) began to grow; most recently, harvest has been greatest for

sockeye in WCIMU (Figure 30). The Knik River dominates KAMU harvests (Table 49), whereas ESMU harvests are predominately from the Talkeetna River, specifically Larson Creek (Table 50). Lake Creek is the largest fishery in the WSMU (Table 51), and the WCIMU harvest is predominately from Wolverine Creek (Big River lakes; Table 52). 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 (Tables 53 and 54). Bodenbug Creek, a Knik River tributary, was surveyed annually from 1968 to 2015, except for 1984 and 1988 (Table 55).

The escapement of sockeye salmon into the Fish Creek drainage has been extensively 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 1969 to 2015, escapement of sockeye salmon ranged from 2,700 fish in 1973 to 192,400 fish in 1984 and averaged 53,029 fish (Table 53); escapements were below the historical average from 2012 to 2014.

Escapement of sockeye salmon to the Yentna River drainage was documented annually from 1981 to 2008 by the Division of Commercial Fisheries and at various times by CIAA operating weirs at Chelatna Lake (Lake Creek drainage), Judd Lake (Talachulitna drainage), Larson Lake (Talkeetna River drainage), Shell Lake, and Hewitt Lake (Tables 53 and 54). Within the NCIMA, Division of Commercial Fisheries has also operated a weir at Packers Creek on Kalgin Island. A major effort to better understand the dynamics surrounding sockeye salmon production in the Susitna River was conducted from 2006 to 2008 by the Division of Sport Fish. Abundance estimates were generated using a combination of fish wheels and weirs, and the distribution of spawners was assessed. The abundance of mainstem Susitna River sockeye salmon was estimated at 107,000 (Table 20) fish in 2006 using PIT tags deployed at a site called “Flathorn” and recovered at a site called “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 70,552 in 2008. In the Yentna River, estimates were 239,849 in 2007 and 288,988 in 2008, based on radio tags (Table 20; Fair et al. 2009).

CIAA operated a weir on Wolverine Creek from 1981 to 1983 (Table 54). 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 54).

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 3 per day and 6 in possession; ESMU and KAMU tributaries are 3 per day and 3 in possession. Wolverine Creek within a 500-yard radius of its mouth is managed as the areas only fly-fishing-only waters during 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 to 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.

A project to estimate abundance and spawning distribution on the Susitna River drainage was conducted 2006–2008 (Table 20). 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 to 2009 may be found in Barclay et al. (2010).

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 in 2008 based on a failure to achieve the Yentna River SEG in 5 of the previous 8 years (Table 54) and lower than expected yields⁸. An action plan ensued, directing management of the Central District drift gillnet fishery to continue under restrictive guidelines set forth in the plan, and a restrictive measure within the *Northern District Salmon Management Plan* was implemented that limits fishing to one-third of the normally allotted gear (1 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 the BOF cycle (Fair et al. 2009) to address uncertainty in estimating Yentna River sockeye salmon escapements using Bendix sonar. This review determined that the sonar-based SEG should be abandoned and replaced with 3 weir-based SEGs. Inseason management of the sport fisheries has not taken place since implementation of the aforementioned 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 3 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 postseason evaluation of run size.

At the 2014 BOF meeting, the BOF amended the *Central District Drift Gillnet Fishery Management Plan*. Changes were made in how the drift fleet is to be fished during the following 2 time periods in July:

- 1) From July 9 to July 15,
 - a) both regular fishing periods will be restricted to the Expanded Kenai and Expanded Kasilof sections and Drift Gillnet Area 1, and

⁷ www.adfg.state.ak.us/special/susalpol.pdf.

⁸ Susitna Sockeye Salmon Action Plan

- b) at Kenai River run strengths greater than 2.3 million fish, a third 12-hour fishing period during this time may be allowed in the Expanded Kenai and Expanded Kasilof sections and Drift Gillnet Area 1.
- 2) From July 16 to 31,
 - a) at run strengths less than 2.3 million Kenai River sockeye salmon, fishing during all regular 12-hour fishing periods will be restricted to the Expanded Kenai and Expanded Kasilof sections,
 - b) at run strengths of 2.3 million to 4.6 million Kenai River sockeye salmon, fishing during one 12-hour regular fishing period per week will be restricted to any or all of the following areas: Expanded Kenai Section, Expanded Kasilof Section, Anchor Point Section (Figure 4), and Drift Area 1; the remaining weekly 12-hour regular fishing period will be restricted to 1 or more of the following: Expanded Kenai, Expanded Kasilof, or Anchor Point sections,
 - c) at run strengths greater than 4.6 million Kenai River sockeye salmon, fishing during one 12-hour fishing period per week will be restricted to the Expanded Kenai, Expanded Kasilof, and Anchor Point sections. There are no mandatory restrictions on the remaining 12-hour regular fishing period.
- 3) All additional fishing time, other than regular fishing periods, is allowed in any or all of the following: Expanded Kenai, Expanded Kasilof, and Anchor Point sections.
- 4) The “Anchor Point Section” is added to the list of corridors.

The purpose of this plan was to ensure adequate escapement of salmon into the Northern District drainages and to provide management guidelines to ADF&G (Appendix C1).

SPORT FISHERY PERFORMANCE AND ESCAPEMENT IN 2014 AND 2015

In 2014, fishing success varied across the NCIMA. Anglers fishing KAMU streams reported poor sockeye salmon catches whereas those fishing Susitna River stocks reported fair catches. The total sockeye salmon harvest across the NCIMA in 2014 was 15,132 fish, which was above the historical average harvest of 13,921 fish (Table 48). Larson Creek (Talkeetna River) produced a below-average harvest of 2,504 fish (Table 50). A harvest of 1,378 fish at Lake Creek of the WSMU was below average (Table 51), whereas a harvest of 4,786 fish at Wolverine Creek (Big River Lakes) in the WCIMU was the second highest since 2007 (Table 52). In the KAMU, harvest on the Little Susitna dropped to 66 fish, a new record low (Table 49), and the sockeye salmon fishery at Jim Creek (Knik River) produced 1,021 fish, which was below its 2010–2014 average of 1,651 fish (Table 49). Although no directed sport fishery occurs at Fish Creek for sockeye salmon, 43,913 sockeye salmon were counted through the weir, above the SEG range of 20,000–70,000 fish; the personal use fishery was opened (see Personal Use Fisheries section). In 2014, the SEG was met at Chelatna Lake and narrowly missed at Judd Lake (Table 54 and Figure 31). The SEG at Larson Lake of 15,000–50,000 fish was missed with a count of 12,040 fish (Table 53).

A foot survey of Bodenburg Creek revealed a count of 315 sockeye salmon, which was below the 2010–2014 average of 416 fish (Table 55). The 2014 harvest across NCIMA was 15,132, which was just above the 1977–2015 average (Table 48).

In 2015, escapement goals for sockeye salmon were met at Fish Creek, Chelatna Lake, Judd Lake, and Larson Lake. Larson lake sockeye salmon sport fishing was closed to retention August 5th. The weir count on August 2 was 5,020 fish. Historical run timing indicated 60 percent of the

run was upstream of the weir. Even with a projected run timing of 5 days late, the escapement was not sufficient to achieve the escapement goal. The sport fishery retention was restored 13 August for the remainder of the season when 15,059 sockeye had passed the weir. The 2015 Fish Creek escapement of 102,296 fish was the highest since 2010 (Table 53). The Fish Creek personal use fishery was open July 24 through July 31 (see Personal Use Fisheries section). Sockeye escapement at Bodenbergs Creek has been documented with a foot survey since 1968. The 2015 escapement of 753 sockeye is the highest on record (Table 55).

RAINBOW TROUT FISHERIES

FISHERY DESCRIPTION

The majority of wild rainbow trout angling occurs in the Knik Arm and Eastside Susitna Management Units (Table 56). Wild rainbow trout fisheries of the ESMU 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 ESMU are cold water streams originating in the Talkeetna Mountains. Access is primarily via the George Parks Highway and by jet boat. The WSMU includes tributaries of the Yentna River and all streams entering the Susitna River from the west (Figure 32). 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 WSMU.

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, which is 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 WSMU have been severely impacted by northern pike predation (Rutz 1999).

NCIMA rainbow trout harvests ranged from 9,198 to 74,962 fish and averaged 31,991 fish from 1977 to 2014, accounting for 39% of the average harvest in Region II and 27% in the state

(Table 56). From 1990 (when estimates of catch became available) through 2014, the average catch of rainbow trout in the NCIMA was 137,646 fish (Table 56).

Rainbow trout harvested from KAMU during this time period accounted for approximately 73% of the total NCIMA harvest (calculated from Table 56). The KAMU 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 WSMU accounted for 13% of the NCIMA harvest and the Eastside Susitna unit accounted for 13% from 1977 to 2014 (calculated from Table 56). The WCIMU made up 1% of the NCIMA harvest from 1977 to 2014.

In the ESMU, 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 (Table 57). Since 1997, the largest catches in the ESMU are still from Willow and Montana creeks (Table 58). The Deshka River and Lake Creek generally provide the largest harvests of rainbow trout among WSMU fisheries whereas Lake Creek and Talachulitna River usually produce the largest catches (Tables 59 and 60). 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 C1). 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 2 trout of which only 1 may be over 20 inches in total length with an annual limit of 2 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 1 trout 20 inches or more in total length is allowed daily with a seasonal limit of 2 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).

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 2 fisheries, along with the Talkeetna River, dominate ESMU catch (Table 58).

SPORT FISHERY PERFORMANCE IN 2014 AND 2015

The 2014 harvest of rainbow trout in the Knik Arm Management Unit was 9,286 fish (Tables 61 and 62). The 2010–2014 average harvest for this stock was 9,426 fish (Tables 61 and 62). Most of the rainbow trout 2014 harvest in the KAMU was from stocked lake fisheries: the Kepler Lake complex (2,475 fish), Finger Lake (942 fish), Memory Lake (209 fish), Lucille Lake (283 fish), and Knik Lake (217 fish) (Tables 61 and 62).

Rainbow trout catches in KAMU during 2014 were highest at Kepler Lake complex (14,784 fish), Big Lake (5,466 fish), closely followed by Finger Lake (4,345 fish), and Lucille Lake (1,422 fish) (Tables 63 and 64). The Little Susitna River rainbow trout catches varied from 1,071 fish in 2010 to 163 fish in 2014, the average for this fishery from 2010 to 2014 was 425 fish (Tables 63).

In the ESMU, the 2014 harvest was 1,160 rainbow trout and was just below the five-year ESMU average. The 2014 Westside Susitna management unit harvest of 872 fish was more than the 2010-2014 average of 493 rainbow trout (Table 52 and 57).

The 2014 catch for the ESMU was 33,899 rainbow trout; this was less than the 2010–2014 average of 41,811 fish. The 2014 Westside Susitna Management Unit catch was above the 2010–2014 average of 28,804 with 40,833 fish (Table 56).

Catch from WSMU fisheries is dominated by Lake Creek (Table 60). During 2014, only an estimated 568 rainbow trout were harvested in Lake Creek from a catch of 23,717 fish (Tables 59 and 60). The Deshka River, also a Westside Susitna tributary, yielded a rainbow trout catch of 1,951 fish (Table 60) and a harvest of 29 fish (Table 59). The Talachulitna River drainage, which is a catch-and-release-only fishery, produced a catch of 11,032 rainbow trout (Table 60). The rainbow trout catch at Alexander Creek of 250 fish is above the 2010–2014 mean of 83 fish (Table 60). It is believed that northern pike predation is responsible for the decline in Alexander Creek rainbow trout catches since 1990; the 2014 catch of 250 is the highest since 2003, which in part may be due to the pike suppression project in Alexander Creek (see Northern Pike Fisheries).

The 2015 harvest of rainbow trout in the Knik arm was 10,265 fish (Table 62). In 2015, most rainbow trout harvests in the KAMU were from the stocked lake fisheries: Kepler Lake Complex (2,201 fish), Finger Lake (1,786 fish), and Big Lake (923 fish) (Tables 61 and 62). Catch for the

Knik Arm was dominated by the Kepler Lakes Complex (12,070) and Finger Lake (5,915) (Tables 61 and 62).

The 2015 ESMU total harvest was 468, which was below the 2010–2014 average of 1,183 rainbow trout (Table 57). The 2015 catch of 49,431 was above the average of 40,610 (Table 58). The catch in Talkeetna and Willow creeks was greatest, with 17,987 and 14,168 rainbow trout, respectively (Table 58).

In 2015, Lake Creek dominated catch in the WSMU with 13,955 rainbow trout (Table 60). Total catch for WSMU for 2015 was 38,294 fish (Table 60).

NORTHERN PIKE FISHERIES

FISHERY DESCRIPTION

Northern pike are not indigenous to the NCIMA although they are indigenous 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 River 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 northern pike populations and habitat (Figure 33). In the KAMU, most northern pike habitat exists in a triangle created by the Susitna River and Parks Highway south of Willow (Figure 17). 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 northern 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 northern pike habitat in ESMU waters is sparse when compared to that of the WSMU or KAMU. Regardless, northern 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 132 fish, accounting for only 1% of the statewide harvest of northern pike (Table 65). Northern pike harvests slowly increased through 1983 when the harvest totaled 944 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 33). Harvests have been over 5,000 fish in all years since 1990 except 1994 and 1995. The 2010–2014 average harvest in the NCIMA was 11,458 fish, much higher than the historical (1977–2014) average of 6,328 fish (Table 65).

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 65). 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 northern pike are indigenous and are managed conservatively.

In 1997 and 2002, the BOF liberalized harvest methods in many lakes within the NCIMA where northern pike populations were pervasive (Appendix B4) by allowing use of 5 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 River drainage that were thought to contain mostly northern pike. Additional water bodies may be added to this list as northern 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 as follows: for northern pike less than 22 inches in total length, there was no limit; for northern pike between 22 and 30 inches, there was no retention; and for northern pike over 30 inches, the limit was 1 per day. The objective was to remove fish less than 22 inches in length from the population while protecting fish in the 22–30 inch range, allowing them a chance to attain a larger size when they would again be available for harvest. In 2002, the slot limit was repealed for Trapper Lake when it was determined that only 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 northern pike sampled in 1995–1996 and those sampled in 2008. The slot limit may have maintained the historical size structure, providing continued opportunity to harvest trophy-sized northern pike, whereas liberalized regulations on other popular lakes such as those shown in Figure 8 and Flathorn lakes have generally resulted in low numbers of large northern pike. Both liberalization and limits can result in angler dissatisfaction because liberal regulations tend to result in high abundance of smaller northern pike whereas a slot limit allows a harvest of mostly small northern pike (less than 22 inches). To remedy dissatisfaction with the slot limit, in 2009 the BOF met out of cycle to change the slot limit to a size limit of 27 inches. The strategy allowed unlimited harvest of northern pike less than 27 inches in total length and a daily bag limit of 1 northern pike over 27 inches in length. At the 2011 BOF meeting, the size limit was repealed and unlimited harvest of northern pike was allowed on Alexander Lake. Special provisions were added to Big and Nancy lakes to use bait from November 1 to March 15 in order to target northern pike through the ice. The BOF further changed area regulations in an attempt to increase harvest by making it illegal to release northern pike back into the water alive in all waters managed as the Susitna drainage and in the WCIMU.

Efforts are made annually to verify the suspected existence of northern pike in certain waters around NCIMA. It is suspected that northern pike have invaded Cottonwood Creek because they have been documented in Anderson Lake, which is intermittently connected to the Cottonwood Creek system. ADF&G has had anecdotal reports of northern pike in Jim Creek, but their presence has not been documented. Because Cottonwood and Jim creek systems have ideal northern pike habitat, salmonid populations would probably be severely affected by colonization.

The Little Susitna River has limited northern pike habitat, so the negative effects to salmonid stocks there may be limited, except for sockeye salmon production that occurs in Nancy Lake. Areas that once contained healthy fish populations but that now contain mostly northern 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 WCIMU.

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* (Fay 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 and 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 northern pike within this system. To date (2015 field season), 17,000 northern pike have been removed from this system (2,000 were killed during the feasibility study in 2009–2010) as a result of suppression efforts (Dave Rutz, Fishery Biologist, ADF&G, Palmer, personal communication).

SPORT FISHERY PERFORMANCE IN 2014 AND 2015

The NCIMA estimated harvest of northern pike during the 2014 season was 9,708 fish and the 2010–2014 average harvest was 11,458 fish (Table 65). The KAMU and WSMU each accounted for the majority of the harvest, with the remainder from the ESMU and WCIMU (Table 65). Nancy Lake Complex and Figure 8 Lake contributed the majority of the KAMU catch in 2014 (Table 66). Trapper Lake was the main producer of northern pike (1,262) in the WSMU in 2014 as well (Table 67). Estimated catch of northern pike in the NCIMA during 2014 was 15,570 fish, which was well below the 5-year average of 22,517 (Table 65).

The NCIMA estimated harvest of northern pike during the 2015 season was 17,465 fish, and the 2010–2014 average harvest was 11,458 fish (Table 65). The KAMU and WSMU each accounted for the majority of the harvest, with the remainder from the ESMU and WCIMU (Table 65). Cottonwood Creek (Anderson Lake), Nancy Lake Complex, and Flathorn Lake contributed the majority of the KAMU catch in 2015 (Table 67). Alexander Creek was the main producer of northern pike (catch of 1,959) in the WSMU in 2015 (Table 67). Estimated catch of northern pike in the NCIMU during 2015 was 23,344 fish, which was above the 5-year average of 22,517 fish (Table 65). Estimated harvest of northern pike in NCIMU for 2015 was 17,465 fish, with KAMU leading the harvest with 10,097 northern pike (Table 65).

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

STOCKED LAKES FISHERIES

Currently 85 lakes in the NCIMA are stocked on an annual or biennial basis. These lakes range from 2 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 char, and Arctic grayling (stocking of Arctic grayling was discontinued in 2014 due to budget cuts, and rainbow trout production was lowered by 20%).

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 quiet hours listed in lake management plans established by the Matanuska–Susitna Borough (Appendix J1).

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 (or rainbow trout) from the Karluk River (Kodiak) and 4 stocks 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 by ADF&G. Landlocked salmon fisheries have been supported by coho salmon from Washington State and at least 9 Alaskan egg-take sources, and Chinook salmon from 3 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 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 rainbow trout are the sole rainbow trout broodstock source that remained at the Ft. Richardson Hatchery until its closure in 2012. Beginning in 1994, Big Lake drainage system lakes having intermittent outlets have been stocked with triploid all-female Swanson River rainbow trout.

CURRENT STOCKING PROGRAM

Rainbow trout, coho salmon, Arctic char, and Chinook salmon are now the primary species used in the stocking program. Rainbow trout composed 80% of all fish stocked in landlocked lakes within the NCIMA in 2014–2015. Annual releases of all species during 2015 totaled 1,475,571 fish (Table 68).

The majority of rainbow trout released into NCIMA waters are fingerlings. Most fingerlings weigh 3–4 g and are released in June or early July. Catchables weigh around 100 g and are stocked in nonproductive lakes to increase angling opportunities and help maintain good catch rates in heavily fished lakes. Nearly 14% of the rainbow trout stocked in the NCIMA are

catchable size at introduction. Anglers expended a total of 20,234 fishing days to catch 39,566 rainbow trout in 2015 (Table 69).

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

Historically, Arctic grayling were stocked in early summer as subcatchables weighing up to 70 g. The first year Arctic grayling catchables were available from the new William Jack Hernandez Sport Fish Hatchery for stocking was in 2013; these fish were 100 g at release. Catch rates are expected to improve with these larger stocked fish. Due to budget cuts, the grayling program was cut in 2014. Anglers caught 1,858 grayling in 2015, which was the highest catch since 2005 (Table 69).

Chinook salmon were stocked as catchables, weighing about 100 g, in early October, providing winter ice fishing opportunities in 4 heavily fished lakes. Anglers caught 3,016 Chinook salmon in 2015 (Table 69). Chinook salmon are easily caught and lakes stocked with Chinook salmon produce successful angler-days. Lakes stocked with Chinook salmon are popular youth fisheries for this reason.

Arctic char are stocked as triploid catchables in 9 lakes and are about 100 grams at release in June, providing more diversity for sport fishing (Table 70). Arctic char brood weighing 1,300–2,200 grams were stocked late November in 2 lakes. On average, approximately 300 brood (diploid) Arctic char are stocked annually.

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 sizes 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 g. By June of the year following introduction, age-1 fingerlings will typically have a total length that ranges from 3 to 6 inches; at age 2 fish range from 6 to 11 inches, at age 3 from 11 to 16 inches, and at age 4–5, they are typically above 16 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 3 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 2015).

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* (<http://www.adfg.alaska.gov/index.cfm?adfg=fishingsportstockinghatcheries.stockingplan>, accessed January 2017).

Stocked landlocked lakes fall under the maximum sustained yield management concept. Bag and possession limits under this management concept are 5 rainbow trout, only 1 over 20 inches, with an annual limit of 2 fish over 20 inches, except in the stocked lakes of the Knik Arm and Susitna River areas, where the annual limit is 10 rainbow trout 20 inches or longer. Although stocked lakes are primarily managed for put-and-take fisheries, 3 stocked lakes (Long Lake in the Kepler-Bradley complex, Wishbone Lake, and X Lake) have been established for catch-and-release fishing. These 3 lakes allow only unbaited, artificial lures, and are closed November 1 to April 30.

Future management of stocked lakes has 3 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. For example, due to the presence of northern pike, stocking in Big and Little No Luck lakes was discontinued and stocking has been altered and limited to fully landlocked catchable fish only in South Rolly, Prator, and Memory lakes (Appendix K1).
- 2) The second issue is ongoing in our area. In the past 20 years, the Matanuska-Susitna (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 numbers of conflicts between lakefront owners and other users concerning noise and boat wakes has led to the creation of Mat-Su Borough Lake Management Plans for a number of Mat-Su Valley Lakes (Appendix J1). These plans were developed through a public meeting process that 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.
- 3) Budget restrictions have led to a reduction in stocking products. Rainbow trout production in 2015 is down 20% and the grayling program has been cut. Along with a reduction in stocking, we may begin to see less harvest and catch. Grayling may be of particular concern because conservative bag limits across all management areas limit

opportunities. Wild stocks may see more pressure because the intent of the stocking program is to divert fishing pressure from these conservatively managed fisheries.

SPORT FISHERY PERFORMANCE IN 2014 AND 2015

In 2014, 83 lakes were stocked. Almost all the lakes in the Knik Arm Management Unit and the remainder in the Eastside Susitna management Unit are stocked with rainbow trout (Table 71). Thirteen lakes were stocked with coho salmon, 11 were stocked with Arctic char, 10 with Arctic grayling, and 4 lakes with Chinook salmon catchables (Table 71).

An estimated 31,907 angler-days of participation resulted from the area's landlocked stocking program in 2014 (Table 72), excluding effort at lakes having both stocked and indigenous game fish. The 2014 catch from stocked landlocked lakes included an estimated 23,178 rainbow trout, of which 5,305 (23%) were harvested; 10,286 landlocked salmon of which 40% were harvested increasing catches by over 3,000 fish from 2013; 964 Arctic grayling, of which 21% were harvested; and 2,331 Arctic char, of which 52% were harvested (Table 72).

The Kepler Lake Complex (including Kepler, Bradley, Canoe, Echo, Irene, Long, Matanuska, and Victor lakes) supported 12,066 angler-days of effort. Finger Lake supported 8,176 angler-days of effort (Table 2). Collectively, these 2 sites yielded approximately 37% of the effort associated with stocked landlocked lakes within the NCIMA (Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish [cited January 2017]. Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>).

In 2015, 77 lakes were stocked (Table 70). The majority of these lakes are located in the Knik Arm Management Unit and the remainder in the Eastside Susitna Management Unit. Releases in 2015 included rainbow trout in 74 lakes, coho salmon in 13 lakes, Arctic grayling in 11 lakes, and 9 lakes were stocked with Arctic char (Table 70).

An estimated 20,234 angler-days of participation resulted from the area's landlocked stocking program in 2015 (Table 69), excluding effort at lakes having both stocked and indigenous game fish. The 2015 catch from stocked landlocked lakes included an estimated 39,566 rainbow trout, of which 8,064 (20%) were harvested; 3,016 landlocked salmon of which 23% were harvested; 1,858 Arctic grayling, of which 0% were harvested; and 1,665 Arctic char, of which 25% were harvested (Table 69).

The Kepler Lake Complex (including Kepler, Bradley, Canoe, Echo, Irene, Long, Matanuska, and Victor) supported 4,209 angler-days of effort in 2015 (Table 2). Finger Lake supported 4,750 angler-days of effort (Table 2). Collectively, these 2 sites yielded approximately 46% of the effort associated with stocked landlocked lakes within the NCIMA (Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish [cited January 2017]. Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>).

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, subsistence¹⁰, and 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 23,443 fish (Table 73). The personal use fishery was open in 2014 and 2015.

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 AM until 8:00 PM. 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 (Sweet et al. 2003: Table 60). 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 (*Thaleichthys pacificus*) fishery, the majority of which takes place in the Susitna River.

There is also a small harvest of eulachon in the Knik Unit at the mouth of Fish Creek (Table 74).

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 community of Tyonek; harvest occurs by gillnets (see also Appendix C1).

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.

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 10,469 sockeye salmon from 1987 to 2015, ranging from 463 fish in 2001 to 37,224 fish in 1993 (Table 73). The fishery was closed by EO after the third day in 2001 and since then has been opened 5 times (2009–2011 and 2014–2015) with an average harvest of 12,186 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. Levels of escapement in the past 10 years vary from 14,215 sockeye salmon in 2005 to 126,836 in 2010.

The average Susitna River eulachon harvest from 2010 to 2014 was 2,347 fish and ranged from 1,213 to 6,763 fish (Table 74). The inriver run of eulachon to the Susitna River drainage ranges in the millions with personal use harvest accounting for less than 1% of this run. In terms of harvest, this fishery is probably 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.

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 75). The lowest harvest to date was in 2012 with a harvest of only 16 salmon. The 2008–2015 average harvest for this salmon fishery is 92 fish (Table 75). Sockeye and coho salmon make up the majority of the harvest.

Average annual salmon harvest in the upper Yentna River subsistence fishery was 542 fish from 2010 to 2014 (Table 76). Sockeye salmon are the primary species harvested. For the same period, the average sockeye harvest was 401 fish (Table 76). The total harvest in 2015 of 810 fish is the largest to date (Table 76).

The Tyonek subsistence fishery average Chinook salmon harvest from 1980 to 2015 was 1,202 fish, which was above the 2011–2015 average of 775 Chinook salmon (Table 77). An average of 151 sockeye and 140 coho salmon were harvested from 1980 to 2015 (Table 77). Very few chum and pink salmon are harvested in this subsistence fishery.

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 ADF&G 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 run 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 a stock of yield concern after demonstrating a chronic inability to meet the escapement goal (50,000 fish at the time) over the previous 5 years (Figure 31, Table 53). At the same meeting, an SEG of 20,000–70,000 fish was recommended based on wild fish (pre-hatchery) escapements from 1938 to 1978 (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, escapement monitoring, and research 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 BOF determined a personal use fishery to be opened when ADF&G projects the escapement to exceed 50,000 sockeye salmon. 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 78). Fish Creek was last stocked by CIAA in 2008 and hatchery fish no longer contribute to this return.

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 salmon-producing systems during the late 1980s. Further, wild survival to the smolt stage was lower than hatchery-origin fish. Two plausible explanations for the 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 opened in both 2014 and 2015.

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 reinstated as the Upper Yentna River subsistence salmon fishery beginning in 1998. The open season for this subsistence fishery is from July 15 through July 31, from 4:00 AM until 8:00 PM on Mondays, Wednesdays, and Fridays. During the February 2011 meeting, the BOF 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 and amended in 2011. 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 AM–8:00 PM. 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 6-inch mesh. During the February 2011 meeting the BOF determined 700–2,700 Chinook salmon and 150–500 salmon other than Chinook salmon are reasonably necessary for subsistence use in the Tyonek Subdistrict.

During 2008, BOF 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. The fishery occurs annually from July 10 to August 31. 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.

FISHERY PERFORMANCE AND ESCAPEMENT IN 2014 AND 2015

With runs projecting to exceed the upper end of the escapement goal, the personal use fishery on Fish Creek was opened in 2009–2011 and 2014–2015 due to strong runs enumerated by the Fish Creek weir. The total weir count in 2014 and 2015 was 43,915 and 102,367 fish, respectively (Table 53). The Fish Creek personal use dip net fishery was opened in 2014 and 2015 with projections exceeding 50,000 sockeye. The fishery was open to the retention of salmon except Chinook salmon. In 2014, personal use harvest was 12,169 fish (Table 73) and the dip net fishery was open for 7 days from July 25 to July 31 from 6:00 AM to 11:00 PM. In 2015, personal use harvest was 24,239 fish (Table 73) and the fishery was open for 8 days from July 24 to July 31.

Annual harvest in the upper Yentna River subsistence fishery during 2014 was 417. Average harvest per permit holder during 2014 was 20 fish. Sockeye salmon are the target species, although some coho, pink, and chum salmon are also harvested. No Chinook salmon harvest was allowed. A total of 810 salmon were harvested in 2015 and average harvest per permit holder was 29.

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. The number of permits issued in 2014 and 2015 was 107 and 83, respectively. The number of permits issued was higher

than the 1980–2015 average (76) in both years (Table 77). The total number of salmon harvested in 2014 was 1,271 fish and 1,950 fish were harvested in 2015.

The 2015 NCIMA estimated eulachon harvest was 1,015 fish, all from the Yentna River (Table 74). No eulachon were reported harvested in the KAMU. It should be noted that no reported harvest has occurred in the past. This most likely indicates low fishery participation, which makes it difficult to estimate harvest through the SWHS, which surveys anglers randomly. The 2010–2014 average harvest in the WSMU was 3,523 eulachon. Inseason observations of run strength by staff in 2014 and 2015 indicate good runs. The eulachon harvest in 2015 of 1,015 was well under the 2010–2014 average of 3,523 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 ADF&G to issue educational fishing permits.

The Knik Tribal Council and the Native Village of Eklutna were first issued educational fishing 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 ADF&G annually. The Tyonek Subsistence Camp was issued permits from 1998 to 2000. More recently, an additional educational fishery (McLaughlin Youth) was added in the NCIMA. Educational fishery permits were issued to the Big Lake Cultural Outreach Program from 2005 to 2015, and 1 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 communities. 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 232 fish annually from 1994 to 2015 (Table 79). The Eklutna Native Village educational fishery harvested an average of 315 salmon annually during the same period, and Big Lake Cultural Outreach harvest averaged 98 salmon from 2005 to 2014 (Table 79).

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.

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 2014 AND 2015

The Knik Tribal Council educational fishery salmon harvest in 2014 was 76 fish. Salmon harvest in 2015 was 80 fish. The majority of the 2014 harvest was coho salmon, with 62 fish followed by 14 sockeye salmon. In 2015, the majority of the harvest was sockeye salmon, with 43 fish harvested, followed by a harvest of 21 chum salmon (Table 79).

The educational fishery conducted by Eklutna Native Village harvested 333 salmon in 2014 and 80 salmon in 2015. Sockeye salmon were the primary species in their harvest, with 248 fish in 2014 and 43 fish in 2015. (Table 79).

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) composing over half of their harvest (Table 79). In 2014, this educational fishery recorded 48 salmon; 31 were coho salmon and the remainder were sockeye and chum salmon. In 2015, 34 salmon were harvested, 25 of which were sockeye salmon.

Due to low Chinook salmon abundance, the Tyonek Village permit was not issued in 2014–2015.

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TABLES

Table 1.—Number of angler-days of sport fishing effort expended by sport anglers fishing Northern Cook Inlet Management Area waters, 1977–2015.

Year	Northern Cook Inlet Management Area												
	Knik Arm		Eastside Susitna		Westside Susitna		West Cook Inlet ^a		NCIMA total effort	Alaska total effort	NCIMA % of Alaska	Region II total effort ^b	NCIMA % of Region II
	Effort	%	Effort	%	Effort	%	Effort	%					
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

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Table 1.–Page 2 of 2.

Year	Northern Cook Inlet Management Area								NCIMA total effort	Alaska total effort	NCIMA % of Alaska	Region II total effort ^b	NCIMA % of Region II
	Knik Arm		Eastside Susitna		Westside Susitna		West Cook Inlet ^a						
	Effort	%	Effort	%	Effort	%	Effort	%					
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
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	7	160,131	1,885,786	8	1,252,263	13
2013	76,112	40	63,195	33	37,623	20	12,400	7	189,330	2,202,957	9	1,488,383	13
2014	97,254	45	63,308	30	41,596	19	12,192	6	214,350	2,309,853	9	1,571,650	14
Average													
1977–2014	113,422	40	91,012	32	65,211	23	12,177	4	281,821	2,123,148	13	1,493,690	19
2005–2014	100,843	42	71,413	30	51,736	22	14,748	6	238,740	2,215,569	11	1,527,382	15
2010–2014	78,622	40	59,234	31	41,686	22	11,994	6	191,536	2,063,615	9	1,402,148	14
2015	85,342	44	52,571	27	45,422	23	11,459	6	194,794	2,212,331	9	1,470,381	13

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

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

^b 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.

Table 2.—Angler-days of sport fishing effort for the Knik Arm Management Unit by fishery, 1977–2015.

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

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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
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
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
2012	^c	10,115	7,474	5,475	506	884	1,343	2,439	3,161	4,151	3,096	19,596	433	58,673
2013	^c	12,012	8,474	8,370	1,569	901	1,033	6,118	7,594	4,030	6,014	19,252	745	76,112
2014	^c	13,636	9,376	13,443	1,258	1,522	2,095	8,176	12,066	7,349	4,616	22,702	1,015	97,254
Average														
1977–2014	1,668	31,762	12,660	10,191	2,093	3,346	2,178	6,681	8,643	9,092	7,611	20,619	1,329	113,422
2005–2014	352	22,520	16,929	15,360	1,275	2,130	1,516	5,523	6,379	5,108	5,460	17,617	780	100,843
2010–2014	132	14,678	10,255	9,594	1,397	1,421	1,681	5,178	6,863	4,596	5,368	16,810	729	78,622
2015	^c	17,845	5,746	13,968	1,467	2,645	2,587	4,750	4,209	6,077	2,638	22,533	877	85,342

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

^a Knik River and tributaries including Jim Creek.

^b Includes effort for lakes and streams, 1977–1982.

^c No data.

Table 3.—Angler-days of sport fishing effort for the Eastside Susitna River Management Unit by fishery, 1977–2015.

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

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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
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
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
2013	12,337	2,668	1,345	774	5,268	674	12,089	865	1,141	11,471	10,968	3,595	63,195
2014	13,687	4,286	2,615	919	4,887	3,672	9,381	1,057	2,606	7,571	9,396	3,231	63,308
Average													
1977–2014	23,817	5,771	2,408	3,353	9,788	2,410	17,197	1,024	3,507	13,851	5,255	5,043	91,012
2005–2014	16,444	4,395	2,447	1,439	7,288	1,590	13,446	897	2,523	12,601	5,207	3,138	71,413
2010–2014	11,845	2,681	1,944	1,117	5,388	1,422	10,070	951	1,681	10,742	7,883	3,510	59,234
2015	12,068	1,934	1,157	380	3,885	733	10,291	149	1,327	10,693	5,714	4,240	52,571

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

^a Including Clear Creek.

^b Includes angler days from the Susitna River.

Table 4.—Angler-days of sport fishing effort for the Westside Susitna River Management Unit by fishery, 1977–2015.

Year	Alex- ander Creek	Deshka River	Rabi- deux Creek	Moose Creek	Yentna River	Peters Creek	Lake Creek	Fish Creek ^a	Tala- chulitna 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

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Table 4.–Page 2 of 2.

Year	Alex- ander Creek	Deshka River	Rabi- deux Creek	Moose Creek	Yentna River	Peters Creek	Lake Creek	Fish Creek ^a	Tala- chulitna River	Judd Lake	Shell Lake	Whis- key Lake	Hewitt Lake	Other streams ^b	Other lakes ^b	Total
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
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
2013	1,180	9,673	^c	642	3,179	519	13,101	752	2,945	206	251	581	272	2,076	2,246	37,623
2014	3,119	10,947	749	749	2,962	775	10,294	959	3,120	467	0	609	399	3,216	3,231	41,596
Average																
1977–2014	9,451	20,916	639	343	3,333	1,039	14,961	3,431	4,365	493	508	176	286	6,434	2,736	65,211
2005–2014	2,014	18,069	585	256	4,641	873	13,443	1,281	4,138	179	498	185	198	2,984	2,554	51,736
2010–2014	1,254	12,467	632	385	3,985	652	10,944	784	3,262	198	469	286	204	3,625	2,665	41,686
2015	1,109	11,296	745	28	4,330	907	11,657	1,542	5,409	90	76	56	52	3,885	4,240	45,422

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

^a Fish Lake drainage (Yentna River drainage).

^b May include effort from West Cook Inlet drainage waters.

^c No data.

Table 5.—Angler-days of sport fishing effort for the West Cook Inlet Management Unit by fishery, 1977–2015.

Year	Chuitna River	Beluga River	Theodore River	Lewis River	Kustatan River	Polly Creek	Susitna River-N. Foreland	South of N. Foreland	Big River Lakes ^a	Polly Creek, 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

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Table 5.–Part 2 of 2.

Year	Chuitna River	Beluga River	Theodore River	Lewis River	Kustatan River	Polly Creek	Susitna River-N. Foreland	South of N. Foreland	Big River Lakes ^a	Polly Creek, Crescent R. Beach	Other	Total
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
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
2013	369	167	322	54	2,485	20	659	3,062	2,931	186	2,145	12,400
2014	439	266	185	27	1,497	112	1,942	3,076	3,949	276	423	12,192
Average												
1977–2014	2,172	527	1,690	427	3,232	228	1,689	1,778	2,379	816	2,044	12,177
2005–2014	1,255	470	489	230	2,363	106	1,577	1,863	3,729	466	2,258	14,748
2010–2014	463	360	331	163	1,860	60	1,081	2,088	3,620	271	1,697	11,994
2015	352	439	454	97	2,468	283	1,182	2,208	3,462	471	43	11,459

Source: 1977–2005 Statewide Harvest Survey estimates from Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>. 2006 SWHS estimates from ADF&G, Division of Sport Fish, Research and Technical Services, Anchorage. Unpublished ADF&G database of survey estimates accessed 7/24/2008; project leader Gretchen Jennings.

^a Big River lakes encompasses Big River drainage, including Wolverine Creek.

Table 6.–Northern Cook Inlet Management Area sport harvest by management unit, 1977–2015.

Year	Northern Cook Inlet Management Area										NCIMA % of Alaska total	Region II total harvest	NCIMA % of Region II total
	Knik Arm		Eastside Susitna		Westside Susitna		West Cook Inlet		NCIMA total harvest	Alaska total harvest			
	Harvest	%	Harvest	%	Harvest	%	Harvest	%					
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	3,338,071	8	2,547,294	10

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Table 6.–Page 2 of 2.

Year	Northern Cook Inlet Management Area										NCIMA % of Alaska total	Region II total harvest	NCIMA % of Region II total
	Knik Arm		Eastside Susitna		Westside Susitna		West Cook Inlet		NCIMA total harvest	Alaska total harvest			
	Harvest	%	Harvest	%	Harvest	%	Harvest	%					
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	3,052,136	6	2,177,555	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	2,709,406	7	1,942,870	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
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
2013	37,650	34	25,630	23	32,577	30	13,281	12	109,138	2,941,908	4	1,972,619	6
2014	42,986	37	22,739	20	34,517	30	14,632	13	114,874	2,484,880	5	1,558,917	7
Average													
1977–2012	79,417	42	49,761	26	46,326	25	12,541	7	188,045	3,012,419	6	2,330,386	8
2010–2014	38,165	35	23,198	22	31,189	30	13,683	13	106,235	2,628,171	4	1,836,751	6
2015	45,474	38	24,448	20	31,373	26	18,980	16	120,275	2,484,880	5	1,558,917	8

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Table 7.—Northern Cook Inlet Management Area sport fish harvest by species, 1977–2015.

Year	Salmon						Rain- bow trout	Dolly Varden	Arctic grayling	Lake trout	Burbot	Nor- thern pike	White- fish	Smelt	Other	Total
	Chinook	Coho	Sock- eye	Pink	Chum	Land- locked										
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

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Table 7.–Page 2 of 2.

Year	Salmon						Rain- bow trout	Dolly Varden	Arctic gray- ling	Lake trout	Burbot	Nor- thern pike	White- fish	Smelt	Other	Total
	Chinook	Coho	Sock- eye	Pink	Chum	Land- locked										
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
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
2013	2,940	46,064	17,112	3,391	1,979	1,850	10,911	2,142	1,502	199	580	18,764	0	1,704	0	109,138
2014	3,205	48,934	15,132	2,599	3,421	4,126	11,350	3,342	9,377	110	989	9,708	91	2,426	64	114,874
Average																
1977–2014	21,321	60,196	13,932	9,729	4,959	11,340	31,991	9,302	9,369	1,173	1,442	6,328	728	5,630	606	188,045
2010–2014	5,877	45,424	15,089	2,605	2,784	2,347	11,076	2,298	2,874	272	598	11,458	85	3,339	108	106,235
% of average																
1977–2014	11	32	7	5	3	6	17	5	5	1	1	3	<1	3	<1	100
2015	5,627	59,883	13,119	3,123	3,039	679	11,288	2,087	1,568	282	969	17,465	34	1,015	97	120,275

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Table 8.—Knik Arm Management Unit sport fish harvest by species as estimated by SWHS, 1977–2015.

Year	Salmon						Rain- bow trout	Dolly Varden	Arctic gray- ling	Lake trout	Burbot	Nor- thern pike	White- fish	Smelt	Other	Total
	Chinook	Coho	Sock- eye	Pink	Chum	Land- locked										
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

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Table 8.–Page 2 of 2.

Year	Salmon						Rain- bow trout	Dolly Varden	Arctic gray- ling	Lake trout	Burbot	Nor- thern pike	White- fish	Smelt	Other	Total
	Chinook	Coho	Sock- eye	Pink	Chum	Land- locked										
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
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
2013	495	12,335	2,749	180	302	1,822	9,195	1,028	180	0	26	9,338	0	0	0	37,650
2014	1,026	16,180	2,252	761	778	4,005	9,286	2,751	332	12	484	5,067	40	0	12	42,986
Average																
1977–2014	2,175	21,957	5,489	914	1,264	10,858	23,485	5,896	2,629	568	393	3,630	282	613	216	80,370
2010–2014	780	13,676	3,381	464	610	2,261	9,398	1,582	383	32	168	5,394	34	0	2	38,165
% of average																
1977–2014	3	27	7	1	2	14	29	7	3	1	<1	5	<1	1	<1	100
2015	1,628	17,800	2,183	338	840	679	10,265	1,078	63	20	386	10,097	0	0	97	45,474

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Table 9.—Eastside Susitna River Management Unit sport fish harvest by species, 1977–2015.

Year	Salmon						Rain- bow trout	Dolly Varden	Arctic gray- ling	Lake trout	Burbot	White- fish	Nor- thern pike	Smelt	Other	Total
	Chinook	Coho	Sock- eye	Pink	Chum	Land- locked										
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

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Table 9.–Page 2 of 2.

Year	Salmon						Rain- bow trout	Dolly Varden	Arctic gray- ling	Lake trout	Burbot	White- fish	Nor- thern pike	Smelt	Other	Total
	Chinook	Coho	Sock- eye	Pink	Chum	Land- locked										
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
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	203	7,629	4,277	1,367	2,214	105	623	95	277	103	217	0	79	0	275	17,464
2013	18	12,989	4,170	2,986	1,519	28	1,248	605	226	144	474	0	1,223	0	0	25,630
2014	31	12,462	3,325	1,188	1,590	121	1,160	309	320	98	262	40	620	1,213	0	22,739
Average																
1977–2014	7,472	16,608	3,201	7,271	3,153	482	3,979	1,985	3,775	387	496	289	405	774	155	49,761
2010–2014	1,047	11,282	3,629	1,714	1,778	86	1,167	368	316	189	291	13	1,019	243	56	23,198
% of average																
1977–2014	15	33	6	15	6	1	8	4	8	1	1	1	1	2	<1	100
2015	258	15,043	1,984	2,533	1,821	0	468	679	905	166	194	26	371	0	0	24,448

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

^a Totals for 2011 include Susitna River salmon, rainbow trout, Arctic grayling, and burbot.

Table 10.—Westside Susitna River Management Unit sport fish harvest by species, 1977–2015.

Year	Salmon					Rain- bow trout	Dolly Varden	Arctic gray- ling	Lake trout	Burbot	Nor- thern pike ^a	White- fish	Smelt ^b	Other	Total
	Chinook	Coho	Sock- eye	Pink	Chum										
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

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Table 10.—Page 2 of 2.

Year	Salmon					Rain- bow trout	Dolly Varden	Arctic gray- ling	Lake trout	Burbot	Nor- thern pike ^a	White- fish	Smelt ^b	Other	Total
	Chinook	Coho	Sock- eye	Pink	Chum										
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
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
2013	2,427	13,042	5,190	225	158	468	162	909	44	80	8,168	0	1,704	0	32,577
2014	2,018	12,972	2,759	650	1,017	872	26	8,684	0	243	4,021	11	1,213	31	34,517
Average															
1977–2014	10,700	13,860	2,833	1,426	493	4,124	923	2,914	210	553	3,145	331	5,899	227	46,326
2010–2014	3,838	12,835	2,797	380	322	459	84	2,129	45	140	4,989	35	3,096	41	31,189
% of average															
1977–2014	23	30	6	3	1	9	2	6	<1	1	7	1	13	<1	100
2015	3,619	14,191	3,427	252	378	494	186	337	96	373	6,997	8	1,015	0	31,373

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

^a Northern pike may include Susitna River totals.

^b Smelt may include Susitna River totals.

Table 11.—West Cook Inlet Management Unit sport fish harvest by species, 1977–2015.

Year	Salmon					Rain- bow trout	Dolly Varden	Arctic gray- ling	Lake trout	Burbot	White- fish	Smelt	Nor- thern pike	Other	Total
	Chinook	Coho	Sock- eye	Pink	Chum										
1977	473	532	6	670	7	958	852	0		0	0	0	0	12	3,510
1978	478	378	0	650	0	723	841	0		0	0	0	0	0	3,070
1979	98	337	0	64	0	1,063	846	0		0	0	0	0	45	2,453
1980	34	628	0	301	0	560	275	0		0	0	0	0	0	1,798
1981	192	604	48	95	0	1,734	958	0		0	0	0	0	0	3,631
1982	147	745	10	210	0	398	304	0		0	0	0	0	0	1,814
1983	1,185	2,552	466	21	10	871	366	115		0	0	0	0	10	5,596
1984	1,833	2,681	249	62	0	748	535	37		0	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

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Table 11.–Page 2 of 2.

Year	Salmon					Rain- bow trout	Dolly Varden	Arctic gray- ling	Lake trout	Burbot	White- fish	Smelt	Nor- thern pike	Other	Total
	Chinook	Coho	Sock- eye	Pink	Chum										
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
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
2013	0	7,698	5,003	0	0	0	347	187	11	0	0	0	35	0	13,281
2014	130	7,320	6,796	0	36	32	256	41	0	0	0	0	0	21	14,632
Average															
1977–2014	975	7,771	2,408	119	49	403	497	51	16	1	10	163	82	7	12,541
2010–2014	212	7,631	5,282	48	74	53	263	46	7	0	3	0	56	8	13,683
% of average															
1977–2014	8	62	19	1	<1	3	4	<1	<1	<1	<1	1	1	<1	100
2015	122	12,849	5,525	0	0	61	144	263	0	16	0	0	0	0	18,980

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Table 12.—Catch and percent of fish released by recreation anglers in the Northern Cook Inlet Management Area for 2002–2015.

Year		Salmon					Land-locked	Lake trout	Dolly Varden	Rain-bow Trout	Arctic Gray-ling	White-fish	Nor-thern pike	Burbot	Smelt	Other	Total
		Chinook	Coho	Sock-eye	Pink	Chum											
2002	Catch	78,534	205,927	31,661	92,105	89,862	17,879	5,280	25,653	206,537	44,056	1,426	32,460	2,473	4,667	921	839,441
	% Rel.	66.3	51.8	62.3	94.4	93.9	48.9	87.8	83.8	84.7	94.3	76.8	62.1	44.6	29.3	68.2	74.5
2003	Catch	93,627	141,407	48,540	62,963	82,645	13,454	3,714	43,851	169,677	32,216	2,919	29,278	2,122	7,498	1,360	735,271
	% Rel.	69.9	48.0	53.2	96.4	94.7	56.1	76.9	90.0	87.1	94.0	90.3	72.6	36.6	0.0	43.3	75.0
2004	Catch	77,865	188,606	38,286	126,574	58,706	15,538	2,300	35,519	161,254	30,204	3,492	33,880	1,354	12,640	422	786,640
	% Rel.	64.6	52.9	55.8	94.8	93.3	61.8	68.1	88.8	86.7	92.9	90.6	64.1	46.2	0.5	71.1	74.1
2005	Catch	151,901	184,758	29,771	64,022	48,532	17,526	8,661	47,603	143,424	21,572	6,151	37,894	3,672	3,068	8,423	776,978
	% Rel.	81.1	59.2	61.8	94.6	93.1	61.9	95.3	93.7	89.1	94.8	86.9	70.2	63.0	0.0	54.3	78.2
2006	Catch	84,225	174,139	27,002	83,821	45,155	11,042	1,119	26,933	132,482	20,571	1,480	31,550	4,065	110	1,626	645,320
	% Rel.	66.0	45.4	56.8	94.0	95.1	66.6	86.0	90.8	87.7	89.6	77.7	63.9	73.4	35.5	13.3	71.8
2007	Catch	70,322	110,675	39,248	46,864	30,031	4,308	1,694	27,677	138,979	14,946	1,220	21,711	2,424	744	108	510,951
	% Rel.	63.9	38.7	49.4	93.5	94.2	59.3	62.0	82.2	91.2	88.3	63.2	62.4	62.4	0.0	54.6	70.7
2008	Catch	41,086	141,508	32,586	46,753	32,831	6,892	1,659	26,981	123,722	20,303	1,826	24,367	3,167	1,832	304	505,817
	% Rel.	61.3	36.4	48.6	94.7	93.2	68.1	72.7	88.8	85.5	92.3	80.1	67.2	45.8	0.0	48.0	67.5
2009	Catch	32,710	129,331	38,370	112,200	30,622	11,344	1,589	19,398	105,467	26,465	871	27,903	937	880	355	538,442
	% Rel.	65.9	40.6	48.6	94.7	91.6	88.4	84.6	87.3	90.9	92.0	92.4	69.6	67.7	0.0	79.2	73.7
2010	Catch	23,107	106,123	27,462	54,859	36,190	6,443	2,781	19,390	103,203	19,171	1,157	29,557	1,044	6,956	0	437,443
	% Rel.	54.5	37.9	40.7	94.3	93.2	67.7	88.6	86.7	87.2	89.8	87.8	66.5	37.0	63.9	–	69.9
2011	Catch	26,308	63,235	27,868	30,949	41,077	1,862	2,063	17,301	147,433	25,130	369	15,262	611	6,763	0	406,231
	% Rel.	63.1	42.6	50.2	93.5	93.0	54.8	72.7	88.5	92.7	96.8	69.6	27.3	49.6	0.0	1.0	75.8
2012	Catch	10,132	42,728	24,077	42,970	50,760	4,530	961	16,396	82,220	19,476	462	19,387	505	3,296	586	318,486
	% Rel.	70.2	30.0	45.8	95.6	93.7	37.4	82.0	91.2	88.8	96.3	82.0	59.7	10.1	0.2	1.0	75.7
2013	Catch	18,137	76,426	28,697	40,551	25,824	7,782	2,519	19,657	117,153	25,391	412	32,808	855	0	0	396,212
	% Rel.	83.8	39.7	40.4	91.6	92.3	76.2	92.1	89.1	90.7	94.1	100.0	42.8	32.2	–	–	72.5
2014	Catch	15,853	71,136	29,104	31,135	34,399	10,971	256	23,496	122,949	27,306	884	15,570	1,119	0	96	406,515
	% Rel.	79.8	31.2	48.0	91.7	90.1	62.4	57.0	85.8	90.8	65.7	89.7	37.6	11.6	–	1.0	71.7
2015	Catch	31,912	97,540	28,600	69,582	60,705	3,016	1,409	36,447	140,404	24,108	439	23,344	2,051	1,142	1,528	522,227
	% Rel.	82.4	38.6	54.1	95.5	95.0	77.5	80.0	94.3	92.0	93.5	92.3	25.2	52.8	11.1	93.7	77.0

Source: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Table 13.—Catch and percent of fish released by recreational anglers in the Knik Arm Management Unit, 2010–2015.

Species	2010		2011		2012		2013		2014		2015	
	Catch	% Rel.	Catch	% Rel.	Catch	% Rel.	Catch	% Rel.	Catch	% Rel.	Catch	% Rel.
Chinook salmon	2,789	61.4	2,066	51.0	474	38.4	963	48.6	1,829	43.9	3,124	47.9
Coho salmon	34,402	23.4	12,471	32.0	7,286	31.2	16,106	23.4	20,434	20.8	21,100	15.6
Sockeye salmon	7,751	27.4	4,936	27.3	4,423	39.3	3,401	19.2	4,659	51.7	2,806	22.2
Pink salmon	5,109	82.0	1,734	83.0	1,340	87.6	914	80.3	2,771	72.5	1,430	76.4
Chum salmon	4,166	87.3	3,835	82.8	4,147	81.1	2,921	89.7	3,417	77.2	5,080	83.5
Landlocked salmon	5,659	64.5	1,393	46.9	4,425	38.3	7,610	76.1	10,769	62.8	3,016	77.5
Lake trout	712	86.0	199	100.0	288	83.3	115	100.0	23	47.8	20	0.0
Dolly Varden	5,004	67.8	5,868	72.9	3,944	76.5	3,746	72.6	5,554	50.5	6,282	82.8
Rainbow trout	42,267	74.3	44,805	79.1	29,680	72.1	52,070	82.3	46,671	80.1	51,799	80.2
Arctic grayling	2,794	75.4	2,888	84.8	1,814	84.7	3,976	95.5	2,783	88.1	2,413	97.4
Whitefish	149	88.6	112	0.0	43	100.0	38	100.0	47	14.9	0	
Northern pike	6,031	44.1	7,930	24.8	5,742	43.7	11,182	16.5	7,941	36.2	9,417	0.0
Burbot	207	21.3	157	15.9	84	60.7	42	38.1	614	21.2	1,379	72.0
Smelt	0		0		0		0		2,022	100.0	0	
Other	0		0		0		0		24	50.0	1,176	91.8
Total	117,040	54.4	88,394	63.4	63,690	61.6	103,084	63.5	109,558	60.8	109,042	58.3

Source: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Table 14.—Catch and percent of fish released by recreational anglers in the Eastside Susitna River Management Area, 2010–2015.

Species	2010		2011		2012		2013		2014		2015	
	Catch	% Rel.	Catch	% Rel.	Catch	% Rel.	Catch	% Rel.	Catch	% Rel.	Catch	% Rel.
Chinook salmon	7,660	70.3	7,680	64.7	1,855	89.1	5,502	99.7	2,847	98.9	10,638	97.6
Coho salmon	28,503	49.9	19,016	52.5	14,164	46.1	21,147	38.6	18,874	34.0	25,747	41.6
Sockeye salmon	7,118	45.0	5,983	58.9	7,777	45.0	8,372	50.2	5,406	38.5	6,275	68.4
Pink salmon	29,266	95.0	19,556	92.0	26,095	94.8	37,286	92.0	13,523	91.2	52,708	95.2
Chum salmon	25,365	94.5	28,674	92.4	37,125	94.0	20,939	92.7	17,492	90.9	38,475	95.3
Landlocked salmon	784	90.3	469	78.3	105	0.0	172	83.7	202	40.1	0	
Lake trout	1,555	94.6	1,421	63.7	516	80.0	1,887	92.4	162	39.5	1,127	85.3
Dolly Varden	6,515	90.9	6,628	96.4	4,669	98.0	8,820	93.1	8,575	96.4	21,614	96.9
Rainbow trout	39,958	95.4	63,725	98.5	27,446	97.7	44,029	97.2	33,899	96.6	49,431	99.1
Arctic grayling	9,579	94.3	14,120	98.5	10,218	97.3	11,772	98.1	15,798	98.0	13,550	93.3
Whitefish	433	93.8	147	100.0	230	100.0	374	100.0	220	81.8	256	89.8
Northern pike	6,935	85.1	3,508	39.1	3,959	98.0	1,630	25.0	919	32.5	4,309	91.4
Burbot	726	39.4	313	80.8	217	0.0	514	7.8	262	0.0	194	0.0
Smelt	4,446	100.0	6,763	100.0	0		0		20,219	94.0	0	
Other	0		0		516	46.7	0		7	100.0	180	100.0
Total	168,843	83.4	178,003	87.5	134,892	87.1	162,444	84.2	138,405	83.6	224,504	89.1

Source: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Table 15.–Catch and percent of fish released by recreational anglers in the Westside Susitna River Management Area, 2010–2015.

Species	2010		2011		2012		2013		2014		2015	
	Catch	% Rel.	Catch	% Rel.	Catch	% Rel.	Catch	% Rel.	Catch	% Rel.	Catch	% Rel.
Chinook salmon	10,429	39.5	15,374	61.5	7,525	66.4	11,360	78.6	9,670	79.1	17,774	79.6
Coho salmon	29,673	45.3	22,034	43.3	9,434	0.0	25,256	48.4	18,874	31.3	30,111	52.9
Sockeye salmon	4,826	68.8	8,307	58.9	3,643	69.3	9,516	45.5	6,066	54.5	10,420	67.1
Pink salmon	19,695	97.0	9,524	98.7	14,994	97.9	1,443	84.4	13,724	95.3	14,974	98.3
Chum salmon	5,261	95.8	6,872	99.2	7,916	98.0	245	35.5	11,088	90.8	15,098	97.5
Landlocked salmon	0		0		0		0		0		0	
Lake trout	160	17.5	31	0.0	145	89.0	210	79.0	0		199	51.8
Dolly Varden	4,131	99.0	2,159	97.6	2,199	93.7	2,451	93.4	2,892	99.1	5,290	96.5
Rainbow trout	20,232	97.9	38,060	99.1	24,718	99.3	20,178	97.7	40,833	97.9	38,294	98.7
Arctic grayling	6,798	89.3	7,975	98.1	7,313	97.6	9,456	90.4	8,684	0.0	7,882	95.7
Whitefish	569	83.0	110	100.0	147	55.1	0		222	95.0	174	95.4
Northern pike	15,826	66.6	3,787	21.6	9,686	53.5	19,753	58.6	5,578	27.9	9,548	26.7
Burbot	111	50.5	141	17.7	204	0.0	299	73.2	243	0.0	478	22.0
Smelt	2,510	0.0	0		3,296	0.2	0		0		1,142	11.1
Other	0		0		53	100.0	0		44	29.5	44	100.0
Total	120,221	71.6	114,374	71.5	91,273	75.8	100,167	67.5	117,918	70.7	151,428	79.3

Source: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Table 16.—Catch and percent of fish released by recreational anglers in the West Cook Inlet Management Area, 2010–2015.

Species	2010		2011		2012		2013		2014		2015	
	Catch	% Released	Catch	% Released	Catch	% Released	Catch	% Released	Catch	% Released	Catch	% Released
Chinook salmon	2,229	61.7	1,188	93.6	278	100.0	312	100.0	1,507	91.4	376	67.6
Coho salmon	13,545	33.3	9,714	35.2	11,844	34.0	13,917	44.7	12,954	43.5	20,582	37.6
Sockeye salmon	7,767	32.6	8,642	48.9	8,234	39.7	7,408	32.5	12,973	47.6	9,099	39.3
Pink salmon	789	76.8	135	81.5	541	93.9	908	100.0	1,117	100.0	470	100.0
Chum salmon	1,398	77.8	1,696	100.0	1,572	98.3	1,719	100.0	2,402	98.5	2,052	100.0
Landlocked salmon	0		0		0		0		0		0	
Lake trout	354	100.0	412	95.9	12	50.0	307	96.4	71	100.0	63	100.0
Dolly Varden	3,740	91.3	2,646	96.0	5,584	94.9	4,640	92.5	6,475	96.0	3,261	95.6
Rainbow trout	746	88.1	843	94.9	376	72.9	876	100.0	1,546	97.9	880	93.1
Arctic grayling	0		147	100.0	131	100.0	187	0.0	41	0.0	263	0.0
Whitefish	6	100.0	0		42	59.5	0		395	100.0	9	100.0
Northern pike	765	70.6	37	48.6	0		243	85.6	1,132	100.0	70	100.0
Burbot	0		0		0		0		0		0	
Smelt	0		0		0		0		0		0	
Other	0		0		17	0.0	0		21	0.0	128	100.0
Total	31,339	48.2	25,460	56.8	28,631	53.7	30,517	56.5	40,634	64.0	37,253	49.1

Source: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Table 17.—Summary of guided effort in the Northern Cook Inlet Management Area by management unit, 2006–2015.

Year	Knik Arm ^a		Eastside Susitna		Westside Susitna		West Cook Inlet		Total	
	Trips	Client-days	Trips	Client-days	Trips	Client-days	Trips	Client-days	Trips	Client-days
2006	373	1,344	778	2,871	2,445	7,658	2,566	9,650	6,162	21,523
2007	456	1,668	880	3,353	2,775	8,786	2,812	10,656	6,923	24,463
2008	492	1,843	774	3,003	3,555	10,294	2,700	10,653	7,521	25,793
2009	473	1,696	437	1,656	2,300	6,795	1,960	7,203	5,170	17,350
2010	359	1,312	401	1,460	3,509	10,311	1,824	6,929	6,093	20,012
2011	282	1,075	603	2,243	2,836	8,070	1,958	7,528	5,679	18,916
2012	160	563	531	2,062	2,300	6,772	2,002	7,519	4,993	16,916
2013	209	767	386	1,508	1,894	5,725	2,134	7,957	4,623	15,957
2014	258	980	504	1,759	1,652	4,845	1,568	6,301	3,982	13,885
2015	396	1,486	794	3,218	1,692	5,331	1,608	6,407	4,490	16,442
Average	346	1,273	609	2,313	2,496	7,459	2,113	8,080	5,564	19,126

Source: Freshwater Logbook Database. Alaska Department of Fish and Game, Division of Sport Fish. 2006 to present. (Accessed September 3, 2016). [URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests.]. See also Sigurdsson and Powers (2009–2014).

^a Nearly all effort is from the Little Susitna River.

Table 18.—Time and area strata sampled for Chinook salmon genetics, reported harvest, and samples run for mixed stock analysis (MSA).

Date range	Geographic area ^a	Reported harvest ^b	Number sampled	Proportion sampled ^c	Number analyzed for MSA	Proportion analyzed for MSA
May 29–June 30, 2014	Trading Bay	532	133	25.0%	131	24.6%
May 29–June 30, 2014	Tyonek commercial	164	174	106.1%	121	73.8%
May 29–June 30, 2014	General Subdistrict (north)	398	302	75.9%	236	59.3%
May 29–June 30, 2014	Eastern Subdistrict	326	138	42.3%	130	39.9%
May 16–June 30, 2014	Tyonek subsistence	714	196	27.0%	196	27.5%
May 29–June 12, 2015	Tyonek commercial	114	118	103.5%	118	103.5%
June 13–30, 2015	Tyonek commercial	268	201	75.0%	173	64.6%
May 29–June 12, 2015	General Subdistrict (north)	343	234	68.2%	134	39.1%
June 13–22, 2015	General Subdistrict (north)	331	228	68.9%	133	40.2%
May 29–June 12, 2015	Eastern Subdistrict	208	213	102.4%	188	90.4%
June 13–30, 2015	Eastern Subdistrict	152	107	70.4%	100	65.8%
May 16–31, 2015	Tyonek subsistence	NA	105	NA	105	NA
June 1–20, 2015	Tyonek subsistence	961 ^b	222	34.0% ^c	201	31.8% ^c
Totals		5,255	2,371	45.1%	1,966	37.4%

^a Refers to the Northern District commercial fishery unless subsistence is explicitly stated.

^b Subsistence harvest is only reported as a season total.

^c Proportion of subsistence harvest is calculated as the total number sampled divided by the reported harvest for the entire season.

Table 19.—Economic value of sport fishing in Southcentral Alaska and the Matanuska–Susitna Borough during 2007.

Parameter	Southcentral ^a			Matanuska–Susitna Borough ^b		
	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 Source: Southwick Associates Inc. et al. 2008.

^b Source: Colt and Schwoerer 2009

^c Includes license and stamps, trips, packages, equipment, and real estate, and assumes all equipment and real estate were to be used only for sport fishing.

Table 20.—Susitna River mark–recapture estimated abundance by species and year.

Salmon species	Return year	Mainstem Susitna River		Yentna River		Total	
		Abundance point estimate	Spawner distribution	Abundance Point Estimate	Spawner Distribution	Abundance Point Estimate	Source ^a
Sockeye	2006	107,000	Weighted	311,197	Weighted	418,197	FDS 07-83
	2007	87,883	Weighted	239,849	Weighted	327,732	FDS 11-19
	2008	70,552	Weighted	288,988	Weighted	359,540	FDS 11-12
Coho	2009	Not done	Radio only	Not done	Radio only	Not done	FDS 10-72
	2010	73,640	Weighted	122,777	Weighted	196,417	FDS 13-05
	2011	131,878	Weighted	84,677	Weighted	216,555	FDS 16-35
	2012	90,397	Weighted	93,919	Weighted	184,316	FDS <i>In prep.</i>
	2013	130,026	Weighted	Not done	Not done	Not done	AEA 2014
	2014	84,879	Weighted	73,819	Not done	158,698	AEA 2015, FDS <i>In prep.</i>
	2015	97,789	Not Done	Under way	Not done	Under way	preliminary estimate
Chum	2009	Not done	Radio only	Not done	Radio only	Not done	FDS 10-72
	2010	151,127	Weighted	205,869	Weighted	356,996	FDS 13-05
	2011	1,468,231	Weighted	283,801	Weighted	1,752,032	FDS 16-35
	2012	229,903	Weighted	99,442	Weighted	329,345	FDS <i>In prep.</i>
Chinook	2012	Not done	Radio only	Not done	Not done	Not done	AEA 2013
	2013	89,463	Weighted	Not done	Radio only	Not done	AEA 2014
	2014	68,225	Weighted	22,267	Weighted	90,492	AEA 2015
	2015	88,600	Weighted	48,400	Weighted	137,000	FDS <i>In prep.</i>
Pink	2012	Not done	Radio only	Not done	Radio only	Not done	AEA 2013
	2013	Not done	Radio only	Not done	Not done	Not done	AEA 2014
	2014	Not done	Radio only	Not done	Not done	Not done	AEA 2015

^a FDS = Fishery Data Series report published by ADF&G, Anchorage; FDS 07-83 is Yanusz et al. 2007; FDS 10-72 is Merizon et al. 2010; FDS 11-12 is Yanusz et al. 2011a; FDS 11-19 is Yanusz et al. 2011b; FDS 13-05 is Cleary et al. 2013; FDS 16-35 is Cleary et al. 2016; *In prep* = pending FDS report; AEA is published by the Alaska Energy Authority. AEA 2013 = Yanusz, R. J., P. Cleary, S. Ivey, J. W. Erickson, D. J. Reed, R. Neustel, and J. Bullock. 2013. Distribution of spawning Susitna River Chinook *Oncorhynchus tshawytscha* and pink salmon *O. gorbuscha*, 2012. Alaska Energy Authority. Susitna-Watana Hydroelectric Project. Anchorage; AEA 2014 = LGL Research Associates, Inc., and Alaska Department of Fish and Game, Division of Sport Fish. 2014. Initial Study Report Part A: Sections 1–6, 8–10. Susitna-Watana Hydroelectric Project, Anchorage; AEA 2015 = LGL Research Associates, Inc., and Alaska Department of Fish and Game, Division of Sport Fish. 2015. Salmon Escapement Study, Study Plan Section 9.7. Study Completion Report. Susitna-Watana Hydroelectric Project, Anchorage.

Table 21.—Estimated harvests of Chinook salmon of North Cook Inlet origin by all user groups, 1983–2015.

1893–1933		1934–1976		1977–2015	
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	25,461
1902	39,210	1944	68,168	1986	43,327
1903	52,818	1945	55,362	1987	40,391
1904	24,058	1946	51,425	1988	44,263
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	42,641
1908	27,019	1950	130,274	1992	51,650
1909	47,699	1951	150,010	1993	54,489
1910	39,222	1952	59,600	1994	35,516
1911	44,676	1953	71,544	1995	22,182
1912	38,293	1954	52,260	1996	22,984
1913	50,922	1955	37,199	1997	24,497
1914	38,043	1956	52,248	1998	26,569
1915	67,034	1957	34,214	1999	37,634
1916	50,316	1958	18,278	2000	37,344
1917	52,399	1959	26,226	2001	33,833
1918	27,909	1960	22,031	2002	29,986
1919	19,041	1961	15,822	2003	31,590
1920	31,650	1962	16,216	2004	31,244
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	30,555
1924	21,610	1966	815	2008	21,278
1925	40,826	1967	623	2009	13,530
1926	60,496	1968	1,163	2010	13,155
1927	69,923	1969	3,927	2011	12,683
1928	55,908	1970	1,853	2012	4,974
1929	54,155	1971	10,494	2013	5,208
1930	57,854	1972	5,748	2014	5,456
1931	41,122	1973	246	2015	8,590
1932	56,745	1974	238		
1933	47,425	1975	301		
1934	57,903	1976	692		

Source: SWHS for the Division of Sport Fish, data archived with the Division of Commercial Fisheries and the Division of Subsistence.

Table 22.—Estimated harvests of Chinook salmon originating from the Northern Cook Inlet Management Area, 1977–2015.

Year	Commercial ^a			Sport ^b					Subsistence ^d	Grand Total
	NCI ^c	Kus-tatan	Total	Knik Arm drainages	Eastside Susitna	Westside Susitna	West Cook Inlet	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	195	2,085	1,889	4,342	13,644	2,029	21,904	1,472	25,461
1986	15,488	290	15,778	1,524	8,569	13,402	2,378	25,873	1,676	43,327
1987	12,700	175	12,875	2,476	8,603	13,350	1,477	25,906	1,610	40,391
1988	12,836	120	12,956	2,916	9,139	15,970	1,695	29,720	1,587	44,263
1989	12,731	1,144	13,875	4,341	9,783	19,343	2,325	35,792	1,250	50,917
1990	9,582	1,082	10,664	2,022	9,423	17,425	2,097	30,967	781	42,412
1991	6,859	922	7,781	2,277	9,083	21,836	762	33,958	902	42,641
1992	4,554	963	5,517	3,969	21,307	18,737	1,213	45,226	907	51,650
1993	3,307	425	3,732	3,602	22,688	21,142	1,955	49,387	1,370	54,489
1994	3,193	449	3,642	4,303	14,970	10,248	1,583	31,104	770	35,516
1995	4,130	198	4,328	1,707	7,872	6,265	693	16,537	1,317	22,182
1996	1,958	148	2,106	1,579	11,023	5,879	1,358	19,839	1,039	22,984
1997	1,133	105	1,238	2,938	10,989	7,799	894	22,620	639	24,497
1998	2,547	83	2,630	2,031	10,472	9,716	693	22,912	1,027	26,569
1999	2,812	789	3,601	2,724	16,875	12,131	1,073	32,803	1,230	37,634
2000	2,307	778	3,085	2,824	11,774	17,341	1,163	33,102	1,157	37,344
2001	1,811	651	2,462	2,255	13,504	13,914	722	30,395	976	33,833
2002	1,895	537	2,432	3,195	10,695	11,357	1,227	26,474	1,080	29,986
2003	1,683	504	2,187	2,562	9,499	15,035	1,124	28,220	1,183	31,590
2004	1,926	430	2,356	2,556	8,498	15,694	795	27,543	1,345	31,244
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	3,818	43	3,861	4,326	8,337	11,370	1,380	25,413	1,281	30,555
2008	3,983	198	4,181	2,843	5,834	6,805	437	15,919	1,178	21,278
2009	1,631	107	1,738	2,152	3,462	4,713	829	11,156	636	13,530
2010	1,750	52	1,802	1,076	2,274	6,306	854	10,510	843	13,155
2011	2,299	77	2,376	1,012	2,710	5,914	76	9,712	595	12,683
2012	1,049	65	1,114	292	203	2,525	0	3,020	840	4,974
2013	1,327	124	1,451	495	18	2,427	0	2,940	817	5,208
2014	1,470	118	1,588	1,026	31	2,018	130	3,205	663	5,456
2015	1,923	79	2,002	1,628	258	3,619	122	5,627	961	8,590

^a Source: Shields and Dupuis 2013.

^b Source: Mills 1979–1980, 1981a–b, 1982–1994; Howe et al. 1995, 1996. Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2015). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

^c “Northern District” total from Shields and Dupuis (2013).

^d Source: Shields and Dupuis 2013. Includes Tyonek subsistence fishery (1980–2003) and Northern and Central districts subsistence fisheries (1985, 1991–1993). Data for 1994–1995 include the Northern District.

Table 23.—Chinook salmon escapement goals for Northern Cook Inlet Management Area waters.

Management unit	Drainage	Escapement goal range	Type ^a	Method of survey
Knik Arm	Little Susitna River	900–1,800	SEG	Aerial
Eastside Susitna River	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	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	Chuitna River	1,200–2,900	SEG	Aerial
	Lewis River	250–800	SEG	Aerial
	Theodore River	500–1,700	SEG	Aerial

Source: Fair et al. 2013.

^a SEG = sustainable escapement goal.

Table 24.—History of escapement goals and escapement for Chinook salmon in NCIMA, 2006–2015.

Management unit	System	Goal range		Escapement									
		Lower	Upper	2006	2007	2008 ^a	2009	2010	2011	2012 ^b	2013	2014	2015
Knik Arm													
	Little Susitna River	900	1,800	1,855	1,731	1,297	1,028	589	887	1,154	1,651	1,759	1,507
Eastside Susitna													
	Willow Creek	1,600	2,800	2,193	1,373	1,255	1,133	1,173	1,061	756	1,752	1,335	2,046
	Little Willow Creek	450	1,800	816	1,103	NC	776	468	713	494	858	684	788
	Sheep Creek	600	1,200	580	400	NC	500	NC	350	363	NC	262	NC
	Goose Creek	250	650	306	105	117	65	76	80	57	62	232	NC
	Montana Creek	1,100	3,100	1,850	1,936	1,357	1,460	755	494	416	1,304	953	1,416
	Clear (Chunilna) Creek	950	3,400	1,520	3,310	1,795	1,205	903	512	1,177	1,471	1,390	1,205
	Prairie Creek	3,100	9,200	3,570	5,036	3,039	3,500	3,022	2,038	1,185	3,304	2,812	3,209
	Chulitna River	1,800	5,100	2,862	5,166	2,514	2,093	1,052	1,875	667	1,262	1,011	3,137
Westside Susitna													
	Alexander Creek	2,100	6,000	885	480	150	275	177	343	181	588	911	1,117
	Deshka River	13,000	28,000	31,150	18,714	7,533	11,967	18,594	19,026	14,010	18,531	16,335	24,316
	Peters Creek	1,000	2,600	1,114	1,225	NC	1,283	NC	1,103	459	1,643	1,443	1,514
	Lake Creek	2,500	7,100	5,300	4,081	2,004	1,394	1,617	2,563	2,366	3,655	3,506	4,686
	Talachulitna River	2,200	5,000	6,152	3,871	2,964	2,608	1,499	1,368	847	2,285	2,256	2,582
West Cook Inlet													
	Lewis River	250	800	341	0 ^a	120	111	56	92	107	61	61	5 ^c
	Theodore River	500	1,700	958	486	345	352	202	327	179	476	312	426
	Chuitna River	1,200	2,900	1,911	1,180	586	1,040	735	719	502	1,690	1,398	1,965
Total	Chinook EG's missed			2 of 17	7 of 17	9 of 15	9 of 17	13 of 15	12 of 17	13 of 17	5 of 16	9 of 17	3 of 15

Note: Numbers with grey fill indicate a missed escapement goal.

^a Beginning of downturn in Chinook salmon escapements.

^b Beginning of conservative management.

^c Lewis River diverged into muskeg one-half mile below the bridge; intermittent connection with Cook Inlet.

Table 25.—Preseason and inseason emergency orders (EOs) issued to manage Chinook salmon fisheries in NCIMA, 2012–2015.

Location	Year	Preseason EOs	Inseason EOs
Little Susitna River	2012	Annual 2; single hook only; harvest Fri–Mon (4 days)	Closed June 15
	2013	Annual 2; single hook only; harvest Sat–Mon (3 days)	
	2014	Same as 2013	Reinstated 7 days/wk July 4
	2015	Same as 2013	Reinstated 7 days/wk June 19; restored to regulation June 27; liberalized adding bait July 3
Deshka River	2012	Annual 2	Closed June 25
	2013	Annual 2; single hook artificial only	Reinstated bait June 29
	2014	Same as 2013	Reinstated bait June 14
	2015	Same as 2013	Reinstated bait June 13; restored to regulation June 27
Eastside Susitna area (units 2, 3, 5, 6)	2012	Annual 2; single hook only; harvest through second Monday, then catch-and-release only on weekends	Closed June 25
	2013	Catch-and-release only; single hook only	None
	2014	Same as 2013	None
	2015	Same as 2013	None
Yentna River	2012	Annual 2	Closed June 25
	2013	Annual 2; single hook only; harvest Fri–Mon (4 days)	None
	2014	Same as 2013	None
	2015	Same as 2013	None
Talachulitna River	2012	Annual 2	Closed June 25
	2013	Catch-and-release only; single hook only	None
	2014	Same as 2013	None
	2015	Same as 2013	None

Table 26.–Chinook salmon sport harvest reduction by area as a result of emergency restrictions in the NCIMA, 2012–2015.

Year	Harvest reductions	Susitna River drainage						Total
		Little Susitna River	Deshka River	Unit 2 streams	Talkeenta River	Yentna River drainage	Talachulitna River	
2009–2011	Average low year harvest	1,123	2,414	1,238	1,361	3,210	325	9,653
2012	Target reduction	50%	22%	90%	25%	45%		50%
	Harvest	216	1,650	35	113	875	17	2,944
	Actual % reduction	81%	32%	97%	92%	73%	95%	70% ^a
2013	Target reduction	75%	25%	100%	100%	60%	100%	70-75%
	Harvest	336	1,087	0	0	1,340	0	2,781
	Actual % reduction	70%	55% ^b	100%	100%	58%	100%	71%
2014	Target reduction	75%	25%	100%	100%	60%	100%	70-75%
	Harvest	437	1,329	0	0	689	0	2,486
	Actual % reduction	61%	45%	100%	100%	79%	100%	74%
2015	Target reduction	75%	25%	100%	100%	60%	100%	70-75%
	Harvest	672	1,927	0	0	1,544	0	4,549
	Actual % reduction	40%	20%	100%	100%	52%	100%	53% ^c

^a Midseason closures resulted in further harvest reduction than targeted.

^b Warm water temperatures may have contributed to low fishing success.

^c Relaxation of restrictions on Deshka and Little Susitna rivers may have resulted in less harvest reduction than targeted.

Table 27.—Sport harvest of Chinook salmon from KAMU, 1977–2015.

Year	Little Susitna River	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	0	1,012
2012	216	76	0	292
2013	336	159	0	495
2014	437	589	0	1,026
Average				
1977–2014	1,981	443	54	2,175
2010–2014	541	259	3	804
2015	672	956	0	1,628

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

Note: An en dash means data were not available.

Table 28.—Escapement of Chinook salmon, KAMU, 1977–2015.

Year	Little Susitna River		Moose Creek ^a
	Weir	Aerial	
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	1,079 ^c	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
2013	2,379 ^f	1,651 ^e	257
2014	3,135	1,759	299
Average			
1983–2014		1,344	463
2005–2014		1,405	242
2010–2015		1,208	207
2015	4,902	1,507	^b

Note: ND means no data.

^a Foot survey (1977–1994); helicopter survey (1995–2006).

^b No count conducted; water too turbid.

^c Biological Escapement Goal (BEG) is 850 fish.

^d Late count.

^e Sustainable Escapement Goal (SEG) is 900–1,800 fish.

^f Incomplete count due to high water.

Table 29.—Chinook salmon smolt stocked and adult sport fish harvest at Eklutna Tailrace from 2002–2015.

Year	Brood year	Total smolt released	Mark type ^a	Mean weight (g)	Release date	Brood stock	Hatchery	Harvest
2002	2001	106,991	TM	11.3	20 May	Ship Creek	Elmendorf	0
2003	2002	218,492	TM	12.8 (50.05%) 12.0 (49.95%)	3–4 June	Ship Creek	Ft. Richardson	399
2004	2002 ^b	215,165	TM	13.4	19 May	Ship Creek	Ft. Richardson	23
2005	2003 ^b	164,586	TM	14.0	1 Jun	Ship Creek	Ft. Richardson	941
2006	2004 ^b	213,250	TM	10.6	31 May–1 Jun	Ship Creek	Ft. Richardson	484
2007	2005 ^b	110,978	TM	8.9	30 May	Ship Creek	Ft. Richardson	1,084
2008	2006 ^b	114,136	TM	9.1	27 May	Ship Creek	Ft. Richardson	594
2009	2007 ^b	77,785	TM	7.1	8 Jun	Ship Creek	Ft. Richardson	499
2010	2008 ^b	152,014	TM	9.1	19 Jun	Ship Creek	Ft. Richardson	168
2011	2009 ^b	122,962	TM	11.0	31 May	Ship Creek	Ft. Richardson	184
2012	2011	160,347	TM	13.5	29 May	Ship Creek	WJHSFH ^c	76
2013	2012	94,609	TM	15.9	18 Jun	Ship Creek	WJHSFH ^c	159
2014	2013	424,000	TM	14.0	15 Jun	Deception Creek	WJHSFH ^c	589
2015	2014	424,000	TM	14.0	18 Jun	Deception Creek	WJHSFH ^c	956

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^a TM means thermal mark.

^b Cold water rearing conditions required growth over 2 winters to reach optimal release size.

^c William Jack Hernandez Sport Fish Hatchery.

Table 30.—Sport harvest of Chinook salmon from the NCIMA management units: Eastside Susitna River, Westside Susitna River, West Cook Inlet, and Knik Arm drainages, 1979–2015.

Year	Eastside Susitna River			Westside Susitna River	West Cook Inlet	Knik Arm	Total
	Hatchery	Nonhatchery	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	7,285	8,254	15,694	795	2,556	27,299
2005	981	7,472	8,453	15,945	592	3,692	28,682
2006	^a	7,339	7,339	16,454	1,038	3,813	28,644
2007	^a	8,337	8,337	11,370	1,380	4,326	25,413
2008	^a	5,834	5,834	6,805	437	2,843	15,919
2009	^a	3,462	3,462	4,713	829	2,152	11,156
2010	^a	2,274	2,274	6,306	854	1,076	10,510
2011	^a	2,710	2,710	5,914	76	1,012	9,712
2012	^a	203	203	2,525	0	292	3,020
2013	^a	18	18	2,427	0	495	2,940
2014	^a	31	31	2,018	130	1,026	3,205
Average							
2010–2014		1,047	1,047	3,838	212	780	5,877
2015	^a	258	258	3,619	122	1,628	5,627

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

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

Table 31.—Contribution of hatchery-reared Chinook salmon to the sport harvest at Willow Creek and the escapements at Willow and Deception creeks, 2005–2015.

Year	Brood year (age)	Willow Creek						Deception Creek		
		Harvest ^a			Escapement ^b			Escapement ^b		
		<i>n</i>	# Recovered	Contrib. ^c	<i>n</i>	# Recovered	Contrib. ^c	<i>n</i>	# Recovered	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
2013		ND	ND	ND	139	1	0.7%	330	47	14.2% ^e
2014		ND	ND	ND	102	1	1.0%	160	74	46.3% ^e
2015		ND	ND	ND	102	2	2.0%	261	75	28.7%

Source: ADF&G unpublished staff foot survey data.

Note: *n* = total number of fish sampled; # Recovered = number of adipose finclipped (hatchery reared) fish with coded wire tags recovered at the ADF&G Mark, Tag, and Age 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 finclipped fish were decoded at the ADF&G Mark, Tag, and Age Lab in Juneau, AK.

^e The ratio of adipose finclipped (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 32.—Number of Chinook salmon smolt stocked in Willow Creek drainage, 1996–2014.

Brood year	Release date	Release location ^a	Total number released	Number coded wire tagged	Mean weight (g)
1996	11–20 Jun 1997	Deception	209,944	207,973	12.2
1997	17–26 Jun 1998	Deception	197,392	195,615	11.5
1998	14, 16–17 Jun 1999	Deception	201,586	199,772	11.5
1999 ^b		Deception	7,500		
		Deception	198,996		
	2, 13–14 Jun 2000	Total	206,946	205,051	12.6
2000	18–19 Jun 2001	Deception	207,465	204,560	14.2
2001	21,24 Jun 2002	Deception	197,277	196,608	12.1
2002	19 Jun 2003	Deception	100,635	101,407	14.5
	8 Jun 2004	Deception	113,523	104,101	12.2
		Total	214,158	205,508	
2003	9 Jun 2004	Deception	99,047	97,660	15.7
	6 Jun 2005	Deception	163,016	162,415	12.6
		Total	262,063	260,075	
2004	8 Jun 2006	Deception	50,426	50,376	12.5
2005	29 May 2007	Deception	103,016	103,016	9.5
2006	16 Jun 2008	Deception	112,219	111,321	11.0
2007	4 Jun 2009	Deception	111,322	111,322	6.8
2008	27 May 2010	Deception	155,125	155,125	8.4
2009	6 Jul 2011	Deception	47,428	47,428 ^c	12.7
	6 Jul 2011	Deception	92,838	0 ^c	12.4
		Total	140,266		
2010	9 Jul 2012	Deception	151,220		17.0
2012	12 Jun 2013	Deception	149,041	149,041 ^c	17.0
2013	20 Jun 2014	Deception	211,812	0 ^c	14.2
2014	11, 18 Jun 2015	Deception	214,495	211,707	14.4

Source: ADF&G unpublished hatchery records.

^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 finclipped and thermal marked.

Table 33.—Eastside Susitna River Management Unit Chinook salmon harvest by fishery, 1977–2015.

Year	Willow Creek	Little 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	0	241	0	52	450	220	2,063
1983	534	0	231	272	0	0	504	0	105	934	272	2,852
1984	774	37	0	586	0	0	1,522	0	125	1,272	112	4,428
1985	1,063	25		527	0	0	979	0	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	0	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	315	8,544
2005	2,466	621	112	394	878	150	1,328	287	205	1,960	52	8,453

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Year	Willow Creek	Little Willow Creek	Kashwitna River	Caswell Creek	Sheep Creek	Goose Creek	Montana Creek	Birch Creek	Sunshine Creek	Talkeetna River ^a	Other ^b	Total
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
2013	0	0	0	0	0	0	0	0	0	0	18	18
2014	0	0	0	0	0	0	0	0	0	0	31	31
Average												
2010–2014	103	40	79	0	73	0	149	5	14	443	204	1,110
2015	0	0	0	0	0	0	0	0	0	0	258	258

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017).

Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Note: Blanks indicate no data available.

Table 34.–Northern Cook Inlet Management Area Chinook salmon escapement index counts (aerial), 1979–2015.

Year	Susitna River			Knik Arm	West Cook Inlet	NCIMA total
	Eastside	Westside	Total			
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	1,317	972	12,825
2013	11,979	18,602	30,581	1,908	2,487	34,976
2014	10,117	9,256	19,373	2,058	2,182	23,613
Average			-			
1979–2014	18,264	22,098	40,236	1,485	3,443	45,290
2005–2014	13,029	13,370	26,398	1,647	1,934	29,979
2010–2014	8,974	9,725	18,698	1,415	1,459	21,572
2015	12,106	11,880	23,986	1,507	2,851	28,344

Source: Unpublished ADF&G aerial survey data.

Note: NCIMA means Northern Cook Inlet Management Area.

^a Majority from the Little Susitna River.

Table 35.—Eastside Susitna River Management Unit Chinook salmon escapement index counts (aerial), 1979–2015.

Year	Willow Creek ^a	Deception Creek		Little			Montana Creek	Clear Creek	Prairie Creek	Chulitna River	Portage Creek	Indian River	Kash-witna River	Other ^b	Total
		Total	Non-hatchery	Willow Creek	Sheep Creek	Goose Creek									
1979	848	239		327	778	^c	1,094 ^d	864	^c	^c	190	285	457	^c	5,082
1980															
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

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Year	Deception Creek			Little Willow Creek	Sheep Creek	Goose Creek	Montana Creek	Clear Creek	Prairie Creek	Chulitna River	Portage Creek	Indian River	Kashwitna River	Other ^b	Total
	Willow Creek ^a	Total	Non-hatchery												
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 ^h	1,460	1,205	3,500	2,093	1,228	409	317		12,686
2010	1,173			468	^c	76 ^h	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
2013	1,752	350		858		62	1,304	1,471	3,304	1,262	868	332	234		11,797
2014	1,335	688		684	262	232	953	1,390	2,812	1,011		558	88	104	10,013
Average															
1979–2014	2,171	801	497	1,134	771	359	1,660	2,038	5,038	3,069	1,520	784	518	862	17,749
2005–2014	1,452	647	399	855	459	157	1,313	1,521	3,137	2,134	1,170	512	353	62	13,000
2010–2014	1,215	392		643	325	101	784	1,091	2,472	1,173	862	378	135		8,917
2015	2,046	^c		788	^c	^c	1,416	1,205	3,209	3,137	^c	^c	224	0	12,106
SEG ⁱ	1,600–2,800		350–700 ^j	450–1,800	600–1,200	250–650	1,100–3,100	950–3,400	3,100–9,200	1,800–5,100					

Source: ADF&G staff surveys.

^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 Beaver dam blocks fish passage.

ⁱ SEG = sustainable escapement goal.

^j Deception Creek SEG discontinued after 2005.

Table 36.—Westside Susitna River drainage Chinook salmon harvest by fishery, 1977–2015.

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

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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
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	2,273	174	258	239	0	4,713
2010	0	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
2013	0	1,087	0	115	29	1,088	0	0	108	0	2,427
2014	0	1,329	0	36	81	572	0	0	0	0	2,018
Average											
2010–2014	0	2,117	5	365	41	1,060	18	147	85	0	3,838
2015	0	1,927	0	402	159	911	72	0	148	0	3,619

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^a Fish Lake drainage (Yentna River drainage).

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

Table 37.—Westside Susitna River Management Unit Chinook salmon escapement index counts, 1979–2015.

Year	Alexander Creek	Deshka River				Talachulitna River	Cache Creek	Other streams ^b	Aerial total
		Aerial index	Weir ^a	Peters Creek	Lake Creek				
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

-continued-

Table 37.—Page 2 of 2.

Year	Deshka River						Cache Creek	Other streams ^b	Aerial total
	Alexander Creek	Aerial index	Weir ^a	Peters Creek	Lake Creek	Talachulitna River			
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
2013	588	8,686	18,297	1,643	3,655	2,285	582	1,163	18,602
2014	911	^c	16,335	1,443	3,506	2,256	475	1,064	9,655
Average									
1979–2014	2,574	12,475	24,476	1,932	4,026	3,838	760	865	22,122
2005–2014	613	6,410	19,338	1,222	3,283	2,826	630	826	13,454
2010–2014	440	5,403	17,258	1,162	2,741	1,651	293	655	9,893
2015	1,117	^c	24,316	1,514	4,686	2,582	363	1,618	11,880
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 means not applicable; ND means no attempts were made to collect data.

^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 16 June 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 Deshka River Chinook salmon: 11,200 fish (1994–1998), 8,750 (1999–2001), and discontinued thereafter (2002–2009).

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

Table 38.—West Cook Inlet drainage Chinook salmon harvest by fishery, 1977–2015.

Year	Chuitna River	Beluga River	Theodore River	Lewis River	Susitna River–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
2013	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	11	119	130
Average								
2010–2014	0	12	0	0	24	109	67	212
2015	0	0	0	0	122	0	0	122

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

Table 39.—West Cook Inlet Management Unit Chinook salmon escapement index counts, 1979–2015.

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 ^c	773		2,439
2008	586	345	120			1,051
2009	1,040	352	111	119 ^d		1,622
2010	735	202	56			993
2011	719	327	92	373		1,511
2012	502	179	107	184		972
2013	1,690	476	61	138		2,365
2014	1,398	312	61	411		2,182
Average						
1979–2014	1,734	917	441	578	677	3,464
2005–2014	1,107	412	139	437		2,007
2010–2014	1,009	299	75	277		1,605
2015	1,965	426	5	455		2,851
SEG ^e	1,200–2,900	500–1,700	250–800			

Source: ADF&G staff surveys.

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

^b No count conducted, turbid water.

^c River diverged into open muskeg one-half mile below bridge. No water in mainstem.

^d Mainstem too glacial to count. Only counted above forks.

^e SEG means sustainable escapement goal.

Table 40.—Harvest of coho salmon from the NCIMA by management unit, 1977–2015.

Year	Northern Cook Inlet Management Area					South- central Region total	NCIMA % of region	Alaska total	NCIMA % of state
	Knik Arm	Eastside Susitna	Westside Susitna	West Cook Inlet	Total				
1977	4,366	5,709	6,599	532	17,206	67,866	25	105,004	16
1978	7,895	8,573	10,173	378	27,019	81,990	33	131,945	20
1979	7,139	7,564	9,036	337	24,076	93,234	26	119,329	20
1980	16,030	10,368	12,141	628	39,167	127,958	31	164,302	24
1981	10,484	6,593	5,940	604	23,621	95,376	25	125,666	19
1982	13,676	10,167	10,658	745	35,246	136,153	26	195,644	18
1983	6,139	5,176	3,610	2,552	17,477	87,935	20	149,270	12
1984	23,429	13,916	9,511	2,681	49,537	166,688	30	238,536	21
1985	14,339	7,042	11,270	6,320	38,971	137,671	28	200,773	19
1986	12,361	16,190	13,117	4,222	45,890	188,872	24	255,887	18
1987	25,787	11,028	8,746	8,548	54,109	176,710	31	235,435	23
1988	40,037	19,518	16,283	7,403	83,241	225,812	37	281,450	30
1989	23,846	17,078	18,226	7,683	66,833	237,155	28	338,195	20
1990	18,762	11,743	13,883	6,016	50,404	214,114	24	325,936	15
1991	22,186	19,479	20,507	8,253	70,425	254,961	28	389,569	18
1992	25,814	33,790	16,218	7,037	82,859	237,204	35	345,513	24
1993	35,763	26,063	15,454	10,326	87,606	283,868	31	412,487	21
1994	28,539	20,870	15,361	8,247	73,017	299,849	24	502,948	15
1995	20,650	19,165	17,148	8,182	65,145	263,749	25	368,631	18
1996	24,874	24,174	17,375	11,430	77,853	328,178	24	503,413	15
1997	11,773	10,297	7,123	6,492	35,685	283,311	13	462,931	8
1998	23,750	23,086	13,235	8,160	68,231	375,742	18	600,862	11
1999	14,429	23,292	17,995	9,339	65,055	309,564	21	632,829	10
2000	32,530	37,748	23,262	11,712	105,252	419,835	25	624,327	17
2001	30,106	26,617	19,221	13,949	89,893	480,048	19	811,799	11
2002	44,448	27,183	14,144	13,380	99,155	488,911	20	776,033	13
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	16,036	9,030	65,726	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
2013	12,335	12,989	13,042	7,698	46,064	345,105	13	698,469	7
2014	16,180	12,462	12,972	7,320	48,934	327,894	15	630,068	8
Average									
2010–2014	13,676	11,282	12,793	7,631	45,424	317,048	14	579,802	8
% of total									
NCIMA avg.	30	25	28	17					
2015	17,800	15,043	14,191	12,849	59,883	422,429	14	743,188	8

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

Table 41.—Coho salmon harvest and fishing effort from Knik Arm sport fisheries, 1977–2015.

Year	Little Susitna River			Other Knik Arm										Total			
	Harvest	Hatchery ^b	Angler-days ^c	Jim Creek ^a		Wasilla Creek		Cottonwood Creek		Fish Creek		Eklutna Tailrace		Other		Harvest	Angler-days ^c
				Harv.	Angl.-days ^c	Harv.	Angl.-days ^c	Harvest	Angler-days ^c	Harv.	Angl.-days ^c	Harvest	Angler-days ^c	Harv.	Angl.-days ^c		
1977	3,415		11,063			472	2,805							479	68,081	4,366	81,949
1978	4,865		12,127			2,112	3,446							918	59,967	7,895	75,540
1979	3,382		21,301			1,211	4,024	1,198	5,345					1,348	47,741	7,139	78,411
1980	6,302		22,420			3,555	5,726	3,375	9,268					2,798	65,116	16,030	102,530
1981	5,940		26,162	1,801	4,904	814	4,019	1,373	8,663					556	61,304	10,484	105,052
1982	7,116		24,020	2,306	6,653	1,624	6,261	1,886	5,186					744	49,593	13,676	91,713
1983	2,835		35,477	774	9,183	345	3,239	518	5,944					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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	234	45,700	27,000	115,763

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Table 41.–Page 2 of 2.

Year	Little Susitna River		Other Knik Arm														
	Harv.	Hatch. ^b	Angler-days ^c	Jim Creek ^a		Wasilla Creek		Cottonwood Creek		Fish Creek		Eklutna Tailrace		Other		Total	
				Harv.	Angl.-days ^c	Harv.	Angl.-days ^c	Harv.	Angler-days ^c	Harv.	Angl.-days ^c	Harv.	Angl.-days ^c	Harv.	Angl.-days ^c	Harv.	Angler-days ^c
2006	12,399	0	28,547	19,259	25,271	857	869	789	3,867	281	948	6,104	20,465	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	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	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	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	616	44,008	26,369	106,281
2011	2,452		12,779	3,132	9,810	372	1,300	619	1,736	414	970	1,350	5,972	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	0	32,999	5,014	58,673
2013	5,229		12,012	3,258	8,474	1,286	1,569	297	901	356	1,000	1,521	8,370	388	43,786	12,335	76,112
2014	6,922		13,636	3,045	9,376	853	1,258	275	1,522	622	2,068	4,103	13,443	360	56,604	16,180	97,907
Average																	
1977–2014	11,257		31,324	6,033	12,441	975	2,093	817	3,341	587	2,011	2,568	10,191	1,004	56,138	21,957	113,752
2008–2014	5,389		14,678	3,947	10,255	1,118	1,397	422	1,421	417	1,484	2,120	9,594	302	42,303	13,676	81,131
2015	8,880		17,845	2,910	5,746	1,471	1,467	53	2,645	2,041	2,587	2,224	13,968	529	41,084	18,108	85,342

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^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, 1996a, 1996b).

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

^d Includes Fish Creek saltwater areas.

Table 42.—Westside Knik Arm drainage coho salmon escapement counts, 1981–2015.

Year	Little Susitna River		Cottonwood Creek		Weir		Wasilla Creek drainage			Total	
	Fish Creek weir ^a	Stocked fish	Weir ^c	Weir	Index ^b	Wasilla Creek	Spring Creek	Indices ^b			
						Wasilla Creek	Spring Creek	Wasilla Creek mainstem	Upper Spring Creek	Spring Creek flats	
1981	2,382			2,436 ^d	423			238	^e	64	302
1982	5,201			2,064 ^d	737			171	^e	105	276
1983	2,342				506			4	^e	28	32
1984	4,510				935			876		90	966
1985	5,089				334			16	150	81	247
1986	2,166		6,999 ^f		121			^e	141	147	288
1987	3,871				360			251	110	42	403
1988	2,162	4,428	21,437		293			^e	82	30	112
1989	3,479	6,862	15,855		147			^e	67	39	106
1990	2,719	3,370	15,511		167			34	38	12	84
1991	1,297	8,322	39,241		158			118	16	5	139
1992	1,705	2,690	21,182		6			3	11	0	14
1993	2,328	9,189	34,822		265			^e	67	69	136
1994	350	5,442	28,948		232			282	76	60	418
1995	390	1,135	12,266		242			46	20	38	104
1996	682		15,803		168			84	30	29	143
1997	2,578		9,894 ^f	936	386			156	38	35	229
1998	5,463		15,159	2,114	537	3,614	163	120 ^g	31 ^g	25	176
1999	1,766		3,017	458 ^h	131 ⁱ	1,579 ⁱ	8	211	40	16	267
2000	5,218 ^h		15,436	1,482 ^h	876 ⁱ	6,154	0	380 ^g	224	50	654
2001	9,247 ^h		30,587	2,921 ^h	983 ⁱ	6,508	276	453	37	15	505
2002	14,651 ^h		47,938	4,081 ^h	1,191 ⁱ	12,495	162	933	188	75	1,196
2003	1,231 ^h		10,877	706 ^h	229 ⁱ	2,962	^j	227	17	50	294
2004	1,415		40,199	1,772 ^h	430 ⁱ	^j		934	114	100	1,148
2005	3,011		16,839 ^f	^j	619 ⁱ			^e	^e	130	0 ^k

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Table 42.–Page 2 of 2.

Year	Little Susitna River		Cottonwood Creek		Wasilla Creek drainage						
	Fish Creek weir ^a	Stocked fish	Weir ^c	Weir	Index ^b	Weir		Indices ^b			Total
						Wasilla Creek	Spring Creek	Wasilla Creek mainstem	Upper Spring Creek	Spring Creek flats	
2006	4,967		8,786 ^f		912 ⁱ			294 ^k	171	272	737 ^k
2007	6,868		17,573		1,024 ⁱ			380 ^k	50	0	430 ^k
2008	4,868		18,485		1,821 ⁱ			1,461 ⁱ	63	12	1,536
2009	8,214 ^h		9,523		942 ⁱ			936 ⁱ	28	14	978
2010	6,977 ^h		9,214		756 ⁱ			927	290	6	1,223
2011	1,428 ^h		4,826		698			518	55	3	576
2012	1,237		6,779 ^f		467	e		e	e	e	e
2013	7,593 ^f		13,583 ^f		1,618			422	12	26	460 ^e
2014	10,283		24,211		1,698			1,030	14	23	1,067
Average											
1981–2014	4,050	5,180	20,550	1,897	600	5,552	122	411	78	51	462
2005–2014	5,317	–	13,972	–	1,056	–	–	746	85	54	779
2010–2014	4,981	–	12,750	–	1,047	–	–	724	93	15	832
2015	7,912		12,756 ^{f,l}		1,068			292	63	20	375
SEG	1,200– 4,400	10,100–17,700									

Note: The symbol “–” indicates value can’t be calculated due to limitations of the data.

^a Weir count plus stream survey during 1982–1991; weir count only during 1992–1993; weir was removed on 15 August before the majority of the coho run during 1994–1996, 2004–2008, and 2011; weir was out on 1 September in 1997.

^b Foot surveys unless otherwise noted.

^c Weir located at RM 34 in 1986 and 1988–1995; weir located at RM 71 in 1996–2010.

^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 Creek 1999–2004: 20 (1999), 406 (2000), 604 (2001), 189 (2002), 85 (2003), 266 (2004).

ⁱ Beginning in 1999, the highest count of 3 counts occurred within a 2-week period.

^j Weir discontinued.

^k Poor counting conditions.

^l Weir pulled early on August 26, 2015.

Table 43.—Eastside Knik Arm drainage coho salmon escapement counts, 1981–2015.

Year	Matanuska River indices ^a			Jim Creek drainage			
	Yellow Creek	Wolverine Creek	Bartko side channel	Indices ^a			Total
				Weir	McRoberts Creek	Upper Jim Creek	
1981	b						b
1982	b						b
1983	b						b
1984	b						b
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	^c	150	440		1,331	1,193	2,524
2010	^c		189		242	420	662
2011	^c		23		261	229	490
2012	^c		^b		213 ^d	495	708
2013	^c		62		663	1,029	1,692
2014	^c		124		122	618	740
Average							
1981–2014	153	–	–	–	944	916	1,707
2003–2014	74	–	–	–	930	980	1,910
2008–2014	25	–	100	–	300	558	858
2015	^c		5	3,572	571	374	945
SEG					450–1,400		

Source: ADF&G staff surveys and weir data.

Note: The symbol “–” indicates value can’t be calculated due to limitations of the data.

^a Foot surveys unless otherwise noted.

^b No survey conducted.

^c Index discontinued after more than half the index area was destroyed by the Matanuska River.

^d Count conducted late due to high water.

Table 44.—Eastside Susitna River drainage coho salmon harvest by fishery, 1977–2015.

Year	Willow Creek	Little 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

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Table 44.–Page 2 of 2.

Year	Willow Creek	Little Willow Creek	Kashwitna River	Caswell Creek	Sheep Creek	Goose Creek	Montana Creek	Birch Creek	Sunshine Creek	Talkeetna River ^a	Other ^b	Total
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
2013	1,760	210	541	284	1,699	52	2,428	652	685	2,940	1,738	12,989
2014	1,408	807	564	99	995	1,593	1,602	172	1,775	2,028	1,419	12,462
Average 2010–2014	1,625	601	561	268	1,098	490	1,679	299	1,117	2,375	1,168	11,282
2015	3,127	437	376	203	2,215	519	1,530	0	873	3,377	2,386	15,043

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^a Talkeetna River and tributaries including Clear Creek.

^b Includes lakes and streams.

Table 45.—Westside Susitna River drainage coho salmon harvest by fishery, 1977–2015.

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

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Year	Alexander Creek	Deshka River	Rabideux Creek	Peters Creek	Yentna River	Lake Creek	Fish Creek ^a	Talachulitna River	Other ^b	Total
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	566	16,036
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
2013	448	2,658	0	0	2,111	4,961	81	1,040	1,743	13,042
2014	415	2,598	60	757	2,064	4,659	322	621	1,476	12,972
Average										
2010–2014	312	2,917	88	402	2,789	4,061	312	664	1,249	12,793
2015	406	2,221	636	418	3,077	4,390	473	1,859	711	14,191

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^a Fish Lake drainage (Yentna River drainage).

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

Table 46.—Eastside and Westside Susitna river drainages coho salmon escapement counts, 1981–2015.

Year	Westside Susitna Management Unit				Eastside Susitna Management Unit ^a				Susitna River ^d	Total
	Yentna River ^b	Deshka River ^c	Rabideux Creek index	Total	Birch Creek index	Question Creek index	Answer Creek index	Total		
1981	17,017		^e	17,017	^e	^e	^e		37,000	54,017
1982	34,089		^e	34,089	^e	^e	^e		80,000	114,089
1983	8,867		^e	8,867	^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		407	131	538	^e	63,409
2004	92,343	62,940	^e	155,283		822	111	933	^e	156,216

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Year	Westside Susitna Management Unit				Eastside Susitna Management Unit ^a					
	Yentna River ^b	Deshka River ^c	Rabideux Creek index	Total	Birch Creek index	Question Creek index	Answer Creek index	Total	Susitna River ^d	Total
2005	76,890	47,887	^e	124,777	1,014	537	35	1,586	^e	126,363
2006	132,889	59,419 ^c	3,063	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	^e	7,176
2013		22,341	127	22,468	159	265	19	443	^e	22,911
2014		11,578	139	11,717	398	251	40	689	^e	12,406
Average										
1981–2014	39,110	20,975	765	44,762	357	306	139	760	47,000	49,602
2005–2014	33,934	17,464	1,991	51,420	411	209	117	725	–	52,145
2010–2014	–	10,986	121	11,826	205	145	44	386	–	12,212
2015		10,775	^e	10,842	191	166	14	371		11,213

Source: ADF&G weir and foot surveys.

^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 to 2008 are partial because the Yentna River sonar shut down before the end of the coho salmon run. Yentna River 2005 and 2006 coho salmon estimates are reported by Westerman and Willette (2007a, 2007b)

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

^d Mark-recapture abundance estimates for upstream of Susitna River (RM 80) (ADF&G 1981, 1982; 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 count years at Deshka River weir (RM 7): 1997, 2000–2001, and 2003–2005.

ⁱ Extreme low water conditions.

^j Bendix sonar discontinued.

Table 47.—West Cook Inlet drainage coho salmon harvest by fishery, 1977–2015.

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

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Table 47.—Page 2 of 2.

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
2002	2,586		1,208	200	5,795		490		1,725	761	615	13,380
2003	1,467	426	225	197	3,967	190	2,830	2,269	429	1,611	628	14,239
2004	1,655	520	645	90	3,984	39	2,648	1,389	225	3,471	1,103	15,769
2005	972	120	229	524	3,551		3,916	1,568	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	3,627	714	130	892	0	9,030
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	734	974	665	7,813
2013	375	48	328	92	2,550	0	2,293	224	427	1,269	92	7,698
2014	251	985	202	0	1,822	61	2,737	409	0	761	92	7,320
Average												
2010–2014	416	425	174	41	2,243	34	2,312	481	429	863	213	7,631
2015	488	780	1,190	71	4,231	423	2,383	864	1,157	154	1,108	12,849

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^a Wolverine Creek and other tributaries of Big River Lakes.

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

Table 48.—Northern Cook Inlet Management Area sport harvest of sockeye salmon by management unit, 1977–2015.

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	6,695	2,975	1,428	5,652	16,750
2009	5,997	7,324	2,358	4,261	19,940
2010	5,630	3,944	1,505	5,232	16,311
2011	3,719	2,459	3,413	4,412	14,003
2012	2,685	4,277	1,118	4,966	13,046
2013	2,749	4,170	5,190	5,003	17,112
2014	2,252	3,325	2,759	6,796	15,132
2015	2,183	1,984	3,427	5,525	13,119
Average					
1977–2015	5,409	3,176	2,848	2,488	13,921
2011–2015	2,718	3,243	3,181	5,340	14,482

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

Table 49.—Knik Arm drainage sockeye salmon harvest by fishery, 1977–2015.

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	0	6,695
2009	1,152	2,612	865	165	341	647	215	5,997
2010	1,257	2,440	689	242	256	632	114	5,630
2011	295	1,852	301	161	893	87	130	3,719
2012	506	1,348	45	0	193	548	45	2,685
2013	271	1,596	248	320	80	193	41	2,749
2014	66	1,021	557	69	238	242	59	2,252
Average								
2010–2014	479	1,651	368	158	332	340	78	3,407
2015	166	1,050	286	39	216	180	246	2,183

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^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 harvest, and miscellaneous lakes and streams.

Table 50.—Eastside Susitna River drainage sockeye salmon harvest by fishery, 1977–2015.

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

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Table 50.–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	Other lakes	Total
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	232	0	3,944
2011	185	0	0	15	0	0	0	186	56	1,458	559	0	2,459
2012	48	20	0	0	16	0	59	63	28	3,817	226	0	4,277
2013	171	43	0	0	0	0	98	14	0	3,527	317	0	4,170
2014	119	101	0	29	69	14	44	88	0	2,504	357	0	3,325
Average 2010–2014	105	36	30	9	20	3	67	70	20	2,938	338	0	3,635
2015	60	0	0	0	0	61	27	16	0	1,730	90	0	1,984

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

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

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

Table 51.—Westside Susitna River drainage sockeye salmon harvest by fishery, 1977–2015.

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

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Table 51.–Page 2 of 2.

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
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	697	0	3,413
2012	0	0	0	231	669	0	111	0	107	0	1,118
2013	0	0	0	392	3,739	0	994	0	65	0	5,190
2014	0	262	0	157	1,378	191	349	18	404	0	2,759
Average											
2010–2014	0	59	0	367	1,509	68	523	4	267	0	2,797
2015	0	54	0	34	2,461	80	665	113	20	0	3,427

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^a Yentna River drainage.

^b May include harvest from West Cook Inlet waters.

Table 52.—West Cook Inlet drainage sockeye salmon harvest by fishery, 1977–2015.

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

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Table 52.–Page 2 of 2.

Year	Chuitna River	Theodore River	Lewis River	Kustatan River	Big River Lakes ^a	Susitna R.–N. Foreland	South of N. Foreland	Other ^b	Total
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	3,646	57	1,247	106	5,232
2011	17	0	0	0	3,932	307	156	0	4,412
2012	0	0	0	0	4,474	144	80	268	4,966
2013	19	0	0	228	4,025	162	569	0	5,003
2014	40	29	0	232	4,786	0	1,709	0	6,796
Average									
2010–2014	15	6	0	127	4,173	134	752	94	5,282
2015	0	0	0	123	3,893	231	1,278	0	5,525

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^a The majority of the harvest occurs at the mouth of Wolverine Creek.

^b Includes lakes and streams. Beginning in 1999, this category includes saltwater shoreline.

Table 53.—Sockeye salmon escapement estimates from Knik Arm and Eastside Susitna River drainages in the Northern Cook Inlet Management Area, 1969–2015.

Year	Knik Arm					Eastside Susitna	
	Little Susitna River weir ^a	Fish Creek weir ^a	Cotton-wood Creek weir	Wasilla Creek weir	Jim Creek weir	Larson Lake weir	Stephan Lake weir
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 ^b					
1980		62,828 ^{b,c}					
1981		50,479 ^{b,c}					
1982		28,164 ^c					
1983		118,797 ^{b,c}					
1984		192,352 ^{b,c}				35,254 ^d	
1985		68,577 ^{b,c}				37,874 ^d	
1986		29,800 ^{b,c}				32,322 ^d	
1987		91,215 ^{b,c}				16,753 ^d	
1988	2,642	71,603 ^{b,c}					
1989	6,203	67,224 ^{b,c}					
1990		48,717 ^{b,c}					
1991		50,500 ^{b,c}					
1992		72,108 ^{b,c}					
1993		117,619 ^{b,c}			3,548		
1994	16,918	100,638 ^b			5,197		
1995	7,129	115,101 ^b					
1996		63,164 ^b					
1997		55,035 ^b	8,224			40,112	
1998		22,865 ^b	27,930	840		63,514	
1999		26,725 ^b	39,572	854		18,943	
2000		19,533 ^b	16,921	245		11,822	
2001		43,498 ^b	15,229	198			
2002		90,482 ^b	6,791	1,354			
2003		91,952 ^b	4,601	757			
2004		22,157 ^b	3,127				
2005		14,215 ^b				9,959	

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Year	Knik Arm					Eastside Susitna	
	Little Susitna River weir	Fish Creek weir ^a	Cotton-wood Creek weir	Wasilla Creek weir	Jim Creek weir ^c	Larson Lake weir	Stephan Lake weir
2006		32,562 ^b				56,305	
2007		27,948 ^b				47,819	4,120
2008		19,339 ^b				35,040	5,000
2009		83,480 ^b				41,929	
2010		126,836 ^b				20,324	
2011		66,678				12,393	
2012		18,823				16,708	
2013	367	18,912				21,821	
2014	900	43,915				12,040	
Average							
1979–2014	5,693	62,294	15,299	708		31,038	–
2005–2014	634	45,271	–	–	–	–	–
2010–2014	634	55,033	–	–	–	–	–
2015		102,296			4,917	23,214	
SEG ^d		20,000– 70,000				15,000– 50,000	

Note: An en dash indicates that the value can't be computed due to limitations of the data and SEG is sustainable escapement goal.

Source: Little Susitna River weir: Bartlett and Vincent-Lang (1989), Bartlett and Sonnichsen (1990), Bartlett (1996a, 1996b). Jim Creek weir: Bartlett (unpublished b-c).

^a Fish Creek weir locations were river mile (RM) 0.6 in 1969–1982, about RM 7.5 in 1983–1991, and RM 3.0 (1992–2006).

^b Hatchery-reared sockeye salmon contributed to Fish Creek drainage escapements in 1979–1981 and 1983–2010.

^c Foot survey counts below the Fish Creek weir site are included in the 1980–1993 data.

^d CIAA (1988b).

Table 54.—Sockeye salmon escapement estimates from Westside Susitna River and West Cook Inlet drainages in the Northern Cook Inlet Management Area, 1969–2015.

Year	Westside Susitna River							West Cook Inlet		
	Yentna River sonar	Chelatna Lake weir	Judd Lake weir	Shell Lake weir	Hewitt Lake weir	Byers Lake	Swan Lake	Crescent R. sonar	Packers Ck. weir ^a	Wolverine Ck. ^b
1969										
1970										
1971										
1972										
1973										
1974										
1975										
1976										
1977										
1978										
1979								87,000		
1980								91,000	16,477	
1981	139,401 ^c							41,000	13,024	17,822 ^d
1982	113,847 ^c							59,000	15,687	32,950 ^d
1983	104,414 ^c							92,000	18,403	18,189 ^d
1984	149,375 ^c							118,000	30,684	
1985	107,124 ^c							129,000	36,850	
1986	92,000			4,237 ^e				N/C	29,604	
1987	66,000							119,000	35,401	
1988	52,347							57,716	18,607	
1989	96,269							71,064	22,304	
1990	140,379				12,943 ^f			52,180	31,868	
1991	105,000							44,500	41,275	
1992	66,057							58,227	28,361	
1993	141,694	20,235 ^g						37,556	40,869	
1994	128,032	28,303 ^g						30,355	30,788	
1995	121,479	20,104 ^g						52,250	29,473	
1996	90,781	28,684 ^g						28,729	17,767	
1997	157,797	84,899 ^g						70,768	19,364	
1998	119,623	27,284 ^g	34,416					62,257	17,732	
1999	99,029							68,985	16,860	
2000	123,749							56,599	20,151	
2001	83,532							78,081	no count	
2002	78,430							62,833	no count	
2003	181,404							122,909	no count	
2004	71,281							103,183	no count	10,541 ^h
2005	36,921							125,787	22,000	15,625 ^{h,i}

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Table 54.–Page 2 of 2.

Year	Westside Susitna River							West Cook Inlet		
	Yentna River sonar	Chelatna Lake weir	Judd Lake weir	Shell Lake weir	Hewitt Lake weir	Byers Lake	Swan Lake	Crescent River sonar	Packers Creek weir ^a	Wolverine Creek ^b
2006	92,045	13,266	40,630	69,747	2,507	3,074		92,533	no count	2,000 ^{h,i}
2007	79,901	11,671	58,134	26,784		1,701	5,489	79,406	46,637	
2008	90,146	73,469	54,304	2,624		1,492	4,037	62,030	25,247	
2009	^j	17,865	43,153	4,961				no count	16,473	
2010	^j	37,784	18,361	2,222				86,333	no count	
2011	^j	70,353	39,997	937				81,952	no count	
2012	^j	36,577	18,303	no count				58,838	no count	
2013		70,555	14,088	133				no count	no count	
2014		26,212	22,416	6				no count	20,000 ^k	
Average										
1979–2014	104,573	40,941	36,402	15,930	–	–	–	74,408	25,676	–
2005–2014	91,950	–	–	–	–	–	–	90,330	–	–
2010–2014	90,146	–	–	–	–	–	–	72,288	–	–
2015		69,750	47,684	no count					20,000 ^k	
SEG	^l	20,000–65,000	25,000–55,000					30,000–50,000	15,000–30,000	

^a A remote camera was used to count fish beginning in 2005.

^b Tributary of Big River Lakes. A weir was operated by Cook Inlet Aquaculture Association (CIAA) from 1981 to 1983. A remote camera was operated by ADF&G from 2004 to 2006.

^c Davis (2000).

^d CIAA (1981–1982, 1984).

^e CIAA (1987).

^f CIAA (1991).

^g CIAA (1998a).

^h This was an incomplete count because of problems with the video cassette recording (VCR) tapes self-ejecting and because the digital video recorder (DVR) camera system was down for 2 weeks in 2005.

ⁱ Includes 5,000 fish counted at the mouth in 2005 and 2,000 counted in 2006 on the day the camera was pulled.

^j Sonar counts discontinued.

^k Escapement is an estimate; final escapement won't be known until video data from the weir are processed.

^l Sustainable escapement goal (SEG) of 90,000–160,000 and optimum escapement goal (OEG) of 75,000–185,000 discontinued after 2008

Table 55.—Bodenburg Creek (Knik River drainage) salmon escapement index surveys, 1968–2015.

Year	Month	Date	Escapement index	
			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

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Table 55.–Page 2 of 2.

Year	Month	Date	Escapement index	
			Sockeye salmon	Chum salmon
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
2013	Aug	28	491	2
2014	Aug	25	315	0
Average				
1968–2014			251	12
2003–2014			386	5
2008–2014			416	9
2015	Aug	27	753	17

Source: ADF&G foot surveys.

Note: “ND” indicates there is no data because no attempts were made to collect it.

Table 56.—Northern Cook Inlet Management Area sport catch and harvest of rainbow trout by management unit, 1977–2015.

Year	Northern Cook Inlet Management Area													
	Knik Arm		Eastside Susitna		Westside Susitna		West Cook Inlet		Total		Southcentral Region		Statewide	
	Catch ^a	Harvest	Catch ^a	Harv.	Catch ^a	Harv.	Catch ^a	Harv.	Catch ^a	Harv.	Harvest	% NCIMA	Harvest	% 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	50,371	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	40,217	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	60,139	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	67,507	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	45,667	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	80,365	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	75,037	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	65,140	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	113,405	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	102,044	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	90,568	21,468	56,082	38.3	85,136	25.2
2005	59,870	14,367	36,188	793	46,575	339	791	196	84,785	15,695	39,790	39.4	60,826	25.8

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Table 56.–Page 2 of 2.

Northern Cook Inlet Management Area														
Year	Knik Arm		Eastside Susitna		Westside Susitna		West Cook Inlet		Total		Southcentral Region		Statewide	
	Catch ^a	Harvest	Catch ^a	Harv.	Catch ^a	Harv.	Catch ^a	Harv.	Catch ^a	Harv.	Harvest	% NCIMA	Harvest	% NCIMA
2006	48,064	13,524	38,862	1,590	44,018	1,027	1,538	170	84,960	16,311	33,119	49.2	53,086	30.7
2007	40,742	10,613	64,077	840	32,036	619	2,124	216	98,367	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	56,381	17,908	36,334	49.3	49,159	36.4
2009	39,983	7,981	36,707	691	27,455	865	1,322	10	65,510	9,547	23,365	40.9	35,976	26.5
2010	42,267	10,845	39,958	1,826	20,232	434	746	89	61,085	13,194	25,712	51.3	38,941	33.9
2011	44,805	9,368	63,725	977	38,060	341	843	43	102,740	10,729	23,073	46.5	32,098	33.4
2012	29,680	8,294	27,446	623	24,718	179	376	102	52,583	9,198	21,912	42.0	29,942	30.7
2013	52,070	9,195	44,029	1,248	20,178	468	876	0	117,153	10,911	29,931	36.5	40,589	26.9
2014	46,671	9,286	33,899	1,160	40,833	872	1,546	32	122,949	11,350	26,312	43.1	37,722	30.1
Average														
1977–														
2014	67,018	23,485	37,591	3,979	31,354	4,124	1,683	403	137,646	31,991	82,529	38.8	116,762	27.4
2010–														
2014	43,099	9,398	41,811	1,167	28,804	459	877	53	114,592	11,076	25,388	43.9	35,858	31.0
2015	51,799	10,265	49,431	468	38,294	494	880	61	140,404	11,288	38,039	29.7	62,812	18.0

Source: (Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish. Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>)

^a Catch data not available until 1990.

Table 57.—Eastside Susitna River drainage rainbow trout harvest by fishery, 1977–2015.

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

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Table 57.—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	Other lakes	Total
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
2013	0	41	0	0	69	123	0	0	0	208	122	685	1,248
2014	0	185	153	0	312	254	0	0	82	0	14	160	1,160
Average													
2010–2014	17	72	53	44	156	131	0	10	26	105	78	492	1,183
2015	0	63	0	0	44	33	0	0	0	115	90	123	468

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017).

Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^a Talkeetna River and tributaries including Clear Creek.

^b Includes lakes and streams, 1977–1982.

Table 58.—Eastside Susitna River drainage rainbow trout catch by fishery, 1990–2015.

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

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Table 58.—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	Other lakes	Total
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
2013	8,973	1,109	103	0	459	2,618	17,636	78	116	7,379	3,641	1,917	44,029
2014	13,566	1,090	1,307	48	1,830	1,924	8,348	89	273	1,990	2,987	447	33,899
Average													
2010–2014	12,198	1,234	498	272	2,873	1,629	10,164	94	179	5,027	4,450	1,993	40,610
2015	14,168	2,326	313	0	2,597	193	8,482	33	89	17,987	2,276	967	49,431

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^a Talkeetna River and tributaries including Clear Creek.

Table 59.—Westside Susitna River drainage rainbow trout harvest by fishery, 1977–2015.

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

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Table 59.—Page 2 of 2.

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
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
2013	0	103	0	0	0	174	0	0	191	0	468
2014	0	29	0	65	0	568	18	0	192	0	872
Average											
2010–2014	0	63		48	5	223	4		97	42	493
2015	0	166	0	17	0	200	0	0	111	0	494

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^a Fish Lake drainage (Yentna River drainage).

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

Table 60.—Westside Susitna River drainage rainbow trout catch by fishery, 1990–2015.

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	1,335	8,300		1,879	375	7,739	1,335	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	2,411	9,000	150	1,295	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

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Table 60.–Page 2 of 2.

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
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
2013	123	731	0	794	449	9,015	52	5,433	2,408	1,173	20,178
2014	250	1,951	56	1,169	646	23,717	36	11,032	1,210	766	40,833
Average											
2010–2014	83	1,346	36	1,293	295	15,697	83	7,493	2,024	788	29,136
2015	0	624	0	439	320	13,955	1,127	12,798	7,251	1,780	38,294

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017).

Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

Table 61.—Knik Arm drainage rainbow trout harvest for Little Susitna River, Knik River, Wasilla Creek, Cottonwood Creek, Big Lake, Wasilla Lake, Finger Lake, Kepler Lake complex, and Lucille Lake drainages, 1977–2015.

Year	Little Susitna	Knik River ^a	Wasilla Creek	Cottonwood Ck	Big Lake ^b	Wasilla Lake	Finger Lake	Kepler L. complex	Big Lake	Lucille Lake
1977	843		252				0	1,822	3,906	0
1978	886		45				0	5,180	4,845	0
1979	1,391		500	1,736		2,782	0	3,372	2,882	0
1980	852		121	1,085		2,084	0	5,906	5,398	0
1981	2,692	0	38	824		2,261	0	8,200	9,810	0
1982	1,551	0	63	786		2,243	0	7,325	9,369	0
1983	1,290	0	84	556		1,804	0	3,986	4,102	0
1984	860	549	312	748		848	0	9,128	4,938	0
1985	1,294	780	260	590	347	1,231	3,381	14,011	6,953	35
1986	1,407	235	11	145	391	1,653	3,172	7,249	5,105	168
1987	447	58	126	301	204	680	2,476	7,758	2,476	3,379
1988	1,273	382	582	782	309	891	5,421	16,462	4,220	8,495
1989	599	0	91	163	1,063	972	2,788	18,233	5,402	972
1990	673	0	131	410	361	443	2,544	10,223	3,282	246
1991	781	0	28	628	209	1,953	2,539	8,496	4,883	600
1992	720	0	24	404	791	483	1,860	6,839	2,090	309
1993	186	0	30	475	228	630	2,037	2,930	2,073	424
1994	300	0	135	425	393	735	2,666	3,551	2,260	156
1995	326	0	37	413	150	390	1,887	2,648	1,371	249
1996	121	0	40	248	74	1,735	2,316	5,092	2,260	
1997	348	0	29	215	321	475	3,720	8,407	2,083	335
1998	59	0	0	390	412	483	1,804	3,167	1,358	214
1999	253	0	0	93	2,114	762	3,301	5,391	1,501	
2000	252	0		218	355	1,037	3,511	7,469	1,475	116
2001	253	0		613	182	305	1,534	4,197	905	1,107
2002	154	0	0	290	236	329	5,608	3,498	1,521	989
2003	140	0	0	32	11	511	1,326	3,625	884	1,194
2004	93	82	0	290	23	264	1,527	4,423	626	842
2005	51	22	88	44	0	535	1,358	3,657	752	391
2006	166	0	0	115	15	115	1,566	2,419	1,005	996
2007	197	0	0	802	11	131	573	1,903	332	79
2008	147	0	19	199	53	628	2,156	3,696	785	64
2009	79	0	52	9	30	89	893	2,497	299	148
2010	203	0	0	88	117	95	1,520	1,916	551	0
2011	13	24	0	61	0	289	2,095	1,637	887	101
2012	33	0	0	0	0	140	821	973	492	175
2013	101	0	0	0	0	82	1,665	2,698	488	0
2014	12	0	97	376	139	96	942	2,475	703	281
Average										
2010–2014	72	5	19	105	51	140	1,409	1,940	624	111
2015	346	0	44	22	88	234	1,768	2,201	923	164

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^a Knik River tributaries include Jim Creek.

^b Big Lake drainage streams.

Table 62.—Knik Arm drainage rainbow trout harvest for Kalmbach Lake, Carpenter Lake, Knik Lake, Memory Lake, Seymour Lake, Bonnie Lakes, Nancy Lake complex, and other lakes and streams, and total KAMU harvest; 1977–2015.

Year	Kalmbach Lake	Carpenter Lake	Knik Lake	Memory Lake	Seymour Lake	Bonnie Lakes	Nancy L. complex	Other streams ^a	Other lakes	Knik Arm total
1977							2,642	9,150		18,615
1978							1,853	10,330		23,139
1979							2,909	9,271		24,843
1980							2,540	11,382		29,368
1981							4,723	13,201		41,749
1982							2,840	6,372		30,549
1983							4,846	1,490	8,263	26,421
1984				382			1,771	1,247	5,635	26,418
1985							2,514	1,197	13,838	46,431
1986					726	736	2,200	815	3,677	27,690
1987							2,728	427	3,603	24,663
1988						910	5,439	964	12,479	58,609
1989	1,625		872	590	445	945	3,696	117	5,945	44,518
1990						738	2,182	1,131	8,335	30,699
1991			600	1,046		363	2,818	545	14,147	39,636
1992	610	1,116	887	364	459	1,045	2,945	8	7,041	27,995
1993				890	734	399	2,116	248	8,165	21,565
1994				323	570	1,184	1,300	56	8,392	22,446
1995	543	393		395		365	785	119	4,797	14,878
1996	221			53			753	189	8,678	21,780
1997				406		520	963	72	7,806	25,695
1998			984				321	42	8,459	17,693
1999			713			572	611	81	9,135	24,527
2000			1,569			223	1,900	84	10,536	28,745
2001	92	42	634	604	117	81	1,349	25	9,021	21,061
2002	359	29	907	408	17	223	916	535	12,306	28,325
2003	98	230	786	247	224	107	1,601	0	6,601	17,617
2004	175	79	226	234	517	26	525	21	7,765	17,738
2005	155	44	66	395	144	22	771	120	5,752	14,367
2006	60	24	521	132	147	231	1,032	19	4,961	13,524
2007	236	29	117	0	69	94	1,078	53	4,909	10,613
2008	49	319	394	107	143	71	174	18	6,515	15,537
2009	61	100	216	502	54	88	274	0	2,590	7,981
2010	117	616	596	113	15	178	15	240	4,465	10,845
2011	0	0	385	290	81	61	40	56	3,490	9,510
2012	488	32	0	0	182	111	0	146	4,701	8,294
2013	164	0	343	321	219	146	102	82	2,784	9,195
2014	0	153	217	209	124	110	107	151	3,094	9,286
Average										
2010–2014	154	160	308	187	124	121	53	135	3,707	9,426
2015	0	0	450	499	155	95	414	102	2,760	10,265

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^a Includes lakes and streams, 1977–1982.

Table 63.—Knik Arm drainage rainbow trout catch for Little Susitna River, Knik River, Wasilla Creek, Cottonwood Creek, Big Lake, Wasilla Lake, Finger Lake, Kepler Lake complex, and Lucille Lake drainages, 1990–2015.

Year	Little Susitna	Knik River ^a	Wasilla Creek	Cottonwood Ck	Big Lake ^b	Wasilla Lake	Finger Lake	Kepler L. complex	Big Lake	Lucille Lake
1990	1,953	0	607	2,183	2,100	1,707	5,645	35,085	8,123	1,034
1991	1,507	0	28	795	614	2,916	4,576	18,986	10,588	670
1992	2,319	0	40	1,987	2,375	1,544	6,087	24,887	5,296	602
1993	1,308	0	195	3,987	1,445	1,497	7,272	16,151	4,845	651
1994	1,198	0	312	911	2,295	2,142	6,168	16,534	5,502	302
1995	1,783	0	92	1,015	412	1,001	5,792	16,634	3,565	514
1996	323	0	40	1,153	171	4,384	6,494	24,201	8,023	
1997	1,029	0	53	992	476	938	9,218	27,065	6,357	610
1998	319	0	94	1,878	1,276	1,405	6,789	16,175	5,298	1,385
1999	1,658	0	49	1,903	2,243	2,287	5,602	20,169	6,569	
2000	1,567			957	1,081	2,144	9,327	27,859	7,212	1,161
2001	1,794	0	58	3,016	548	1,499	4,313	16,349	4,546	3,616
2002	1,319	0	0	1,628	2,114	896	9,753	17,330	4,601	6,193
2003	1,568	0	130	1,727	206	2,230	5,217	16,575	5,614	4,842
2004	1,368	1,414	0	726	1,239	1,720	5,030	19,991	3,253	2,330
2005	772	259	221	628	33	1,468	4,833	13,823	5,937	1,727
2006	1,583	944	0	1,500	159	224	5,221	12,348	2,975	2,896
2007	995	0	94	3,612	213	657	1,851	9,737	3,039	695
2008	792	0	187	885	53	2,319	6,631	16,838	5,381	755
2009	644	34	496	255	245	774	4,867	14,712	2,963	777
2010	1,071	118	29	440	2,292	271	3,774	10,736	2,699	498
2011	352	35	101	162	20	353	5,444	13,609	5,278	455
2012	288	0	13	33	338	353	3,611	5,902	1,858	576
2013	253	0	0	330	20	475	8,129	18,190	4,033	1,038
2014	163	0	242	985	973	251	4,345	14,784	5,466	1,422
Average										
2010–2014	425	31	77	390	729	341	5,061	12,644	3,867	798
2015	1,544	0	89	44	308	1,047	5,915	12,070	5,677	2,652

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^a Knik River and tributaries including Jim Creek.

^b Big Lake drainage streams.

Table 64.—Knik Arm drainage rainbow trout harvest for Kalmbach Lake, Carpenter Lake, Knik Lake, Memory Lake, Seymour Lake, Bonnie Lakes, Nancy Lake complex, and other lakes and streams, and total KAMU harvest; 1990–2015.

Year	Kalmbach Lake	Carpenter Lake	Knik Lake	Memory Lake	Seymour Lake	Bonnie Lakes	Nancy L. complex	Other streams	Other lakes	Total
1990						2,133	7,466	5,448	25,236	98,720
1991			2,246	1,576		893	6,348	2,371	34,531	88,645
1992	3,103	1,868	1,504	1,314	712	3,309	7,765	64	20,555	85,331
1993				1,523	1,224	2,356	5,130	367	21,684	69,635
1994				1,230	1,413	2,657	4,372	282	24,932	70,255
1995	1,067	824		863		1,331	2,344	209	18,662	56,108
1996	252			727			1,966	409	32,614	80,757
1997				968		1,253	3,098	359	32,862	85,278
1998		3,324	3,324				1,173	151	27,570	66,837
1999			1,746			1,658	3,538	421	36,848	84,691
2000			4,163			1,834	7,273	443	48,992	114,013
2001	215	1,040	1,447	2,098	175	328	3,874	351	25,554	70,821
2002	755	87	2,037	1,804	268	586	4,361	934	38,854	93,520
2003	455	1,685	1,698	343	1989	311	3,767	86	19,769	68,212
2004	1554	79	862	1,531	587	119	4,184	106	24,804	70,897
2005	464	376	0	1,828	199	508	1,994	485	24,315	59,870
2006	360	271	576	827	202	709	2,828	62	14,379	48,064
2007	870	190	204	278	748	709	2,371	154	14,325	40,742
2008	637	810	2,002	145	933	1,123	8,530	935	18,629	67,585
2009	249	118	277	1,687	274	407	1,711	52	9,441	39,983
2010	323	821	882	158	69	1,046	695	189	16,156	42,267
2011	89	223	1,174	411	613	202	73	283	10,650	39,527
2012	803	49	0	0	538	1,090	283	347	13,799	29,881
2013	1,297	0	596	1,587	423	2,462	676	82	12,418	52,009
2014	70	344	535	349	286	689	1,306	468	13,993	46,671
Average										
2010–2014	516	287	637	501	386	1,098	607	274	13,403	42,071
2015	0	0	2,836	2,646	1594	322	1,116	205	13,734	51,799

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

Table 65.—Northern Cook Inlet Management Area sport catch and harvest of northern pike by management unit, 1977–2015.

Year	Northern Cook Inlet Management Area ^a													
	Knik Arm ^b		Eastside Susitna		Westside Susitna		West Cook Inlet		Total		Southcentral Region		Statewide	
	Catch ^c	Harvest	Catch ^c	Harv.	Catch ^c	Harv.	Catch ^c	Harv.	Catch ^c	Harv.	Harv.	% NCIMA	Harvest	% 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	7,757	3,893	5,800	67.1	25,558	15.2
1995	825	522	0	0	15,414	3,024	0	0	15,465	3,546	5,323	66.6	19,006	18.7
1996	12,220	4,021	368	11	17,657	3,902	0	0	18,025	7,934	10,503	75.5	23,043	34.4
1997	9,137	4,858	795	95	16,266	4,026	75	45	17,136	9,024	10,489	86.0	16,603	54.4
1998	10,223	4,272	130	130	17,928	3,753	321	25	22,124	8,180	9,595	85.3	15,617	52.4
1999	14,231	6,785	441	260	14,348	3,686	334	93	17,845	10,824	13,327	81.2	19,766	54.8
2000	16,717	5,698	308	101	27,381	3,692	234	86	34,054	9,577	12,019	79.7	18,062	53.0
2001	15,457	6,544	776	55	25,147	5,479	1,042	661	28,539	12,739	16,673	76.4	23,623	53.9
2002	13,079	5,716	647	618	18,450	5,865	284	119	19,381	12,318	14,862	82.9	22,567	54.6
2003	14,094	4,026	11	0	14,818	3,816	355	182	16,762	8,024	11,282	71.1	17,388	46.1
2004	11,179	4,961	119	91	21,878	6,626	704	493	22,769	12,171	17,122	71.1	28,799	42.3
2005	11,347	6,160	513	104	25,704	4,889	330	153	26,547	11,306	13,802	81.9	24,819	45.6

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Northern Cook Inlet Management Area ^a														
Year	Knik Arm ^b		Eastside Susitna		Westside Susitna		West Cook Inlet		Total		Southcentral Region		Statewide	
	Catch ^c	Harv.	Catch ^c	Harv.	Catch ^c	Harv.	Catch ^c	Harv.	Catch ^c	Harv.	Harv.	% NCIMA	Harvest	% NCIMA
2006	14,754	6,664	312	137	15,685	4,318	799	285	16,867	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	15,822	8,156	11,062	73.7	17,174	47.5
2008	3,612	1,752	4,750	468	15,776	5,683	229	96	20,755	7,999	9,270	86.3	12,959	61.7
2009	10,213	4,647	1,318	385	14,389	3,368	1,983	88	17,690	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	23,526	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	7,332	11,089	11,093	100.0	16,353	67.8
2012	5,742	3,231	3,959	79	9,686	4,505	0	0	13,645	7,815	8,580	91.1	12,999	60.1
2013	11,182	9,338	1,630	1,223	19,753	8,168	243	35	32,808	18,764	24,778	75.7	29,218	64.2
2014	7,941	5,067	919	620	5,578	4,021	1,132	0	15,570	9,708	11,024	88.1	11,024	88.1
Average														
1977–2014	9,264	2,866	1,376	405	15,884	3,145	415	82	26,724	6,328	8,213	68.6	19,088	33.3
2010–2014	7,765	5,394	3,390	1,019	10,926	4,989	435	56	22,517	11,458	13,314	88.8	17,189	68.2
2015	9,417	10,097	4,309	371	9,548	6,997	70	0	23,344	17,465	21,930	79.6	25,090	69.6

Source: (Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish. Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>)

^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 66.—Knik Arm drainage northern pike catch by fishery, 1990–2015.

Year	Little Susitna	Knik River ^a	Figure 8 Lake	Cottonwood Creek	Big Lake ^b	Flathorn Lake	Nancy Lake ^c	Other ^d	Total
1990	0	0	0	0	0	66	2,314	213	2,593
1991	0	0	0	0	0	560	6,385	76	7,021
1992	0	0	0	0	0	948	5,970	179	7,097
1993	0	0	0	0	0	1,786	6,445	1,910	10,141
1994	0	0	0	0	64	709	1,846	197	2,816
1995	59	0	0	0	0	722	0	44	825
1996	0	0	0	0	13	3,852	7,210	1,145	12,220
1997	0	0	1,553	0	7	3,152	3,759	666	9,137
1998	150	0	1,002	0	202	4,241	3,761	867	10,223
1999	0	0	2,305	0	159	1,321	9,336	1,110	14,231
2000	66	0	1,946	0	667	3,708	8,685	1,645	16,717
2001	129	0	1,499	0	235	3,123	7,840	2,631	15,457
2002	76	0	4,078	0	0	3,869	991	4,065	13,079
2003	0	0	1,388	0	48	6,676	1,312	4,670	14,094
2004	150	0	3,389	0	0	1,740	5,354	546	11,179
2005	118	0	2,160	0	0	1,959	5,254	1,856	11,347
2006	0	0	3,141	0	71	5,744	5,606	192	14,754
2007	12	0	825	0	246	2,645	4,230	700	8,658
2008	0	0	724	0	98	4,399	2,572	218	8,011
2009	88	0	1,294	27	1,262	614	6,678	864	10,827
2010	0	0	677	0	249	6,796	4,968	137	12,827
2011	0	0	2,804	0	297	2,279	2,193	2,747	10,320
2012	0	0	1,525	0	20	3,880	4,102	95	9,622
2013	21	0	2,805	0	67	1,395	5,884	2,405	12,577
2014	239	0	1,569	0	605	0	5,344	180	7,937
Average									
2010–2014	52	0	1,876	0	248	2,870	4,498	1,113	10,657
2015	0	0	165	6,181	25	680	1,202	1,844	10,097

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^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 67.—Westside Susitna River drainage northern pike catch by fishery, 1990–2015.

Year	Alexander Creek ^a	Deshka River	Peters Creek	Lake Creek	Fish Creek ^b	Trapper Lake	Other streams ^c	Other lakes ^c	Total
1990	3,149	0	0	589	3,065		691	6,971	14,465
1991	2,866	0	0	376	2,490	1,997	13	3,451	11,193
1992	3,912	0	0	196	1,170	1,349	693	6,508	13,828
1993	12,172	0	0	596	3,885	4,128	3,098	198	24,077
1994	2,306	96	0	318	839	881	832	164	5,436
1995	7,651	0	0	334	1,288	2,359	2,862	920	15,414
1996	7,814	172	0	306	1,347	6,033	1,985		17,657
1997	9,362	272	0	81	1,804	1,948	246	2,175	15,888
1998	10,386	113	0	1,015	418	1,729	556	3,704	17,921
1999	5,018	555	0	284	1,269	3,162		4,060	14,348
2000	13,834	753	0	426	1,870		2,887	7,611	27,381
2001	18,103	962	0	1030	1,467	891	2,694	0	25,147
2002	9,627	297	0	237	2,266	999	4,142	882	18,450
2003	6,649	515	0	799	2,228	2066	2,192	352	14,801
2004	11,833	1645	0	444	921	1456	4,010	1,569	21,878
2005	10,717	927	0	1074	1,815	2182	7,676	1,313	25,704
2006	2,886	1596	0	812	5,524	1971	2,248	621	15,658
2007	7,172	322	10	20	2,262	2099	280	475	12,640
2008	2,400	586	0	447	688	10626	377	652	15,776
2009	8,622	540	0	104	1,093	2760	327	1,796	15,242
2010	6,680	260	0	40	737	938	950	6,223	15,828
2011	6,397	421	0	404	192	377	3,066	9,766	20,623
2012	4,043	96	0	82	1,196	1066	759	2,444	9,686
2013	6,039	1317	0	2,026	497	858	4,491	4,525	19,753
2014	1,252	342	0	759	192	1262	285	1,486	5,578
Average									
2010–2014	4,882	487	0	662	563	900	1,910	4,889	14,294
2015	1,959	318	0	545	2,579	458	244	3,445	9,548

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

^a Alexander Creek drainage including Alexander Lake and Sucker Lake.

^b Fish Lake drainage (Yentna River drainage).

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

Table 68.—Number of fish stocked in Northern Cook Inlet Management Area waters, 2011–2015.

Species and life stage	Site	2011 ^{ab}	2012	2013 ^c	2014 ^c	2015	FTP #	Expiration date
Chinook salmon anadromous smolt	Eklutna Tailrace (Knik River)	122,962	160,347	94,609	395,332	424,923	14A-0098	12/31/2019
	Deception Creek	140,266	151,220	149,041	211,812	214,495	12A-0001	12/31/2019
	Total	263,228	311,567	243,650	607,144	639,418		
Coho salmon anadromous smolt	Eklutna Tailrace (Knik River)	97,087	40,921	132,661	81,760	135,835	12A-0007	12/31/2017
Coho salmon landlocked fingerlings	Barley Lake	0	2,077	900	3,900	900	13A-0027	12/31/2017
	Bear Paw Lake	3,600	4,500	4,500	8,500	4,500	13A-0027	12/31/2017
	Carpenter Lake	8,377	38,428	15,000	15,000	17,557	13A-0027	12/31/2017
	Christiansen Lake	12,160	31,376	15,200	25,236	12,107	13A-0027	12/31/2017
	Diamond Lake	8,800	14,192	11,000	11,000	11,583	13A-0027	12/31/2017
	Echo Lake	2,640	2,300	1,645	2,300	2,383	13A-0027	12/31/2017
	Johnson Lake	0	1,000	1,039	0	894	13A-0027	12/31/2017
	Kalmbach Lake	8,800	25,724	11,000	11,005	11,097	13A-0027	12/31/2017
	Klaire Lake	720	934	642	900	894	13A-0027	12/31/2017
	Loberg (Junction) Lake	0	1,100	785	2,100	1,191	13A-0027	12/31/2017
	Lucille Lake	6,400	8,000	8,000	8,000	8,001	13A-0027	12/31/2017
	Victor Lake	2,160	2,752	1,928	2,700	2,625	13A-0027	12/31/2017
	Willow Lake	2,400	3,000	3,000	3,000	2,991	13A-0027	12/31/2017
	Total	56,057	135,383	74,639	93,641	76,723		
	Chinook salmon landlocked catchables	Finger Lake	0	30,863	26,452	26,422	23,606	12A-0005
Knik Lake		0	3,486	1,890	2,423	2,089	12A-0005	12/31/2017
Matanuska Lake		0	2,974	0	2,561	2,257	12A-0005	12/31/2017
Memory Lake		0	2,167	0	1,915	3,026	12A-0005	12/31/2017
Total		0	39,490	28,342	33,321	30,978		

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Table 68.–Page 2 of 6.

Species and life stage	Site	2011 ^{ab}	2012	2013 ^c	2014 ^c	2015	FTP #	Expiration date
Rainbow trout landlocked catchables	Bruce Lake	0	992	1,239	1,000	785	16A-0007	1/31/2025
	Canoe Lake	0	2,007	2,005	1,997	1,688	16A-0007	1/31/2025
	Coyote	0	300	300	300	300	16A-0009	1/31/2025
	Echo Lake	0	1,550	1,511	1,605	1,497	16A-0007	1/31/2025
	Gate Lake	0	973	500	500	403	16A-0009	1/31/2025
	Irene Lake	0	1,205	859	2,000	1,563	16A-0007	1/31/2025
	Kashwitna	0	3,700	4,956	3,471	3,420	16A-0009	1/31/2025
	Kepler/Bradley Lake	1,734	4,989	8,424	6,067	6,313	16A-0007	1/31/2025
	Knik Lake	525	5,672	2,303	2,365	1,942	16A-0007	1/31/2025
	Knob Lake	0	2,912	3,234	2,520	2,626	16A-0009	1/31/2025
	Loberg (Junction) Lake	0	990	3,273	1,697	1,238	16A-0007	1/31/2025
	Long Lake (Mile 86 Glenn Hwy.)	0	3,539	4,999	3,898	3,560	16A-0007	1/31/2025
	Lucille Lake	0	6,413	8,690	7,574	5,945	16A-0011	1/31/2025
	Matanuska Lake	0	5,937	6,071	6,518	4,003	16A-0007	1/31/2025
	Meirs Lake	0	1,212	1,252	1,703	1,323	16A-0007	1/31/2025
	Memory Lake	0	2,681	2,488	2,442	2,007	16A-0007	1/31/2025
	Mile 180 Lake	0	2,822	2,200	2,005	1,601	16A-0009	1/31/2025
	North Knob Lake	0	685	750	600	703	16A-0009	1/31/2025
	Ravine Lake	0	3,468	1,250	2,442	1,498	16A-0007	1/31/2025
	Reflections Lake	0	600	600	600	618	16A-0009	1/31/2025
	Rocky Lake	0	1,385	500	1,217	999	16A-0007	1/31/2025
	Slipper (Eska) Lake	0	1,670	1,531	1,200	1,599	16A-0009	1/31/2025
	South Rolly Lake	0	5,315	5,400	5,605	4,783	16A-0011	1/31/2025
	Tanaina Lake	0	2,502	2,503	2,571	2,127	16A-0011	1/31/2025
	Walby Lake	0	1,500	1,549	1,313	997	16A-0009	1/31/2025
	Weiner Lake	0	1,987	2,567	1,748	2,053	16A-0009	1/31/2025
	Willow Lake	0	2,381	2,250	2,057	2,113	16A-0009	1/31/2025
	Total		2,259	69,387	73,204	67,015	57,704	

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Table 68.—Page 3 of 6.

Species and life stage	Site	2011 ^{ab}	2012	2013 ^c	2014 ^c	2015	FTP #	Expiration date
Rainbow trout landlocked fingerlings	Barley Lake	0	4,250	3,000	5,000	5,500	16A-0008	1/31/2025
	Bear Paw Lake	2,280	5,000	5,922	5,000	5,674	16A-0008	1/31/2025
	Bench Lake	1700	0	1,500	0	1,575	16A-0010	1/31/2025
	Benka Lake	7,493	0	7,000	7,000	8,301	16A-0008	1/31/2025
	Beverly Lake	4,200	5,200	5,000	5,198	6,214	16A-0010	1/31/2025
	Big Beaver Lake	16,236	16,100	15,900	16,100	18,429	16A-0010	1/31/2025
	Brocker Lake	2,100	4,250	4,800	4,190	5,500	16A-0010	1/31/2025
	Buck (Spider) Lake	0	0	0	0	2,000	16A-0010	1/31/2025
	Carpenter Lake	21,653	16,660	22,623	19,600	21,975	16A-0008	1/31/2025
	Caswell #3 Lake	3,000	4,250	4,800	5,000	6,500	16A-0012	1/31/2025
	Christiansen Lake	18,257	9,860	11,600	10,866	11,601	16A-0008	1/31/2025
	Crooked Lake	10,378	0	0	0	0	16A-0010	1/31/2025
	Crystal Lake	18,115	17,300	17,800	17,295	28,159	16A-0012	1/31/2025
	Dawn Lake	2,526	3,000	3,000	3,005	3,583	16A-0012	1/31/2025
	Diamond Lake	13,905	15,000	17,973	15,064	14,648	16A-0008	1/31/2025
	Echo Lake	5,200	0	1,511	1,605	0	N/A	1/31/2025
	Farmer Lake	1,100	935	1,900	1,101	4,100	16A-0008	1/31/2025
	Finger Lake	33,408	55,315	74,798	56,385	63,739	16A-0008	1/31/2025
	Florence Lake	5,700	5,499	5,500	5,509	6,801	16A-0008	1/31/2025
	Golden Lake	1,500	3,000	3,013	3,000	4,357	16A-0008	1/31/2025
	Goober Lake	0	0	0	0	562	16A-0008	1/31/2025
	Homestead Lake	1,832	3,200	3,200	3,200	2,734	11A-0025	1/31/2025
	Honeybee Lake	6,813	6,800	6,800	6,802	8,130	16A-0008	1/31/2025
	Ida Lake	5,100	4,600	5,000	4,582	5,141	16A-0008	1/31/2025
	Johnson	0	0	2,000	0	2,364	16A-0008	1/31/2025
	Kalmbach Lake	12,500	12,500	12,500	12,500	13,857	16A-0008	1/31/2025
	Kepler/Bradley Lake	2,673	0	0	0	0	N/A	1/31/2025
	Knob Lake	2,500	0	0	0	0	16A-0008	1/31/2025

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Table 68.–Page 4 of 6.

Species and life stage	Site	2011 ^{ab}	2012	2013 ^c	2014 ^c	2015	FTP #	Expiration date
Rainbow trout landlocked fingerlings (continued)	Lalen Lake	9,200	18,093	10,000	10,200	12,047	16A-0010	1/31/2025
	Little Beaver Lake	4,442	5,400	5,000	5,400	6,000	16A-0010	1/31/2025
	Little Lonely Lake	8,703	8,400	8,400	8,404	9,725	16A-0008	1/31/2025
	Loberg (Junction) Lake	2970	0	0	0	0	N/A	1/31/2025
	Long Lake (K/B)	7,000	5,400	7,000	5,400	8,038	11A-0023	1/31/2025
	Long Mile 86	9,051	0	0	36,647	0	11A-0023	1/31/2025
	Loon Lake	14,300	16,000	19,183	16,000	19,104	16A-0012	1/31/2025
	Lorraine Lake	12,760	11,220	13,100	29,012	15,429	16A-0008	1/31/2025
	Lucille Lake	2,500	0	0	0	0	16A-0012	1/31/2025
	Lynne Lake	11,032	8,000	11,000	8,000	12,919	16A-0008	1/31/2025
	Marion Lake	11,380	11,300	11,300	11,300	11,549	16A-0008	1/31/2025
	Meirs Lake	0	0	1,252	0	0	16A-0008	1/31/2025
	Morvro Lake	0	4,096	0	4,500	0	16A-0012	1/31/2025
	North Friend Lake	7,867	7,225	8,200	8,500	9,514	16A-0010	1/31/2025
	North Rolly Lake	12,200	6,500	12,800	6,500	14,339	16A-0010	1/31/2025
	Peggy Lake	0	4,080	0	4,800	0	16A-0008	1/31/2025
	Reed Lake	2,000	3,000	3,000	3,000	3,583	16A-0008	1/31/2025
	Rhein Lake	10,200	11,100	10,900	11,100	10,182	16A-0010	1/31/2025
	Ruby Lake	0	0	0	3,000	0	16A-0010	1/31/2025
	Seventeenmile Lake	10,000	13,000	13,000	13,768	12,539	16A-0008	1/31/2025
	Seymour Lake	22,300		22,300	22,300	24,977	16A-0012	1/31/2025
	Slipper (Eska) Lake	2,500	0	0	0	0	16A-0008	1/31/2025
	South Friend Lake	5,645	6,800	7,800	8,000	9,000	16A-0010	1/31/2025
	Tigger Lake	2,570	3,400	2,500	4,000	2,508	16A-0008	1/31/2025
	Twin Island Lake	14,596	6,800	5,000	3,180	6,400	16A-0010	1/31/2025
	Vera Lake	10,900	11,100	10,900	11,100	12,909	16A-0010	1/31/2025
	Visnaw Lake	13,100	13,100	13,100	13,100	15,186	16A-0010	1/31/2025
	Walby Lake	2,475	1,500	0	0	0	16A-0008	1/31/2025

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Table 68.—Page 5 of 6.

Species and life stage	Site	2011 ^{ab}	2012	2013 ^c	2014 ^c	2015	FTP #	Expiration date
Rainbow trout landlocked fingerlings (continued)								
	Weiner Lake	2,500	0	0	0	0	16A-0010	1/31/2025
	West Beaver	8,260	8,250	8,000	8,250	10,143	16A-0010	1/31/2025
	West Sunshine Lake	4,500	3,825	4,200	4,500	6,010	16A-0010	1/31/2025
	Wishbone Lake	2600	0	2,575	0	0	16A-0010	1/31/2025
	Wolf Lake	9,207	10,000	10,000	10,000	12,897	16A-0012	1/31/2025
	"X" Lake	0	5,100	0	6,000	0	16A-0008	1/31/2025
	"Y" Lake	4,000	4,250	5,000	5,000	5,002	16A-0008	1/31/2025
	Total	440,927	403,682	462,650	488,963	505,474		
Arctic grayling								
	Canoe Lake	9,000	0	2,004	0	2,075	13A-0050	12/31/2023
	Finger Lake	18,000	0	4,170	0	3,607	13A-0050	12/31/2023
	Florence Lake	2,250	0	500	0	600	13A-0050	12/31/2023
	Ida Lake	8,325	0	1,648	0	1,503	13A-0050	12/31/2023
	Kepler/Bradley Lake	6,750	0	1,500	0	2,000	13A-0050	12/31/2023
	Knik Lake	0	0	958	0	1,013	13A-0050	12/31/2023
	Lorraine Lake	0	0	2,300	0	2,301	13A-0050	12/31/2023
	Meirs Lake	9,000	0	2,093	0	1,925	13A-0050	12/31/2023
	Reed Lake	2,250	0	500	0	589	13A-0050	12/31/2023
	Ravine Lake	0	0	0	0	1,012	13A-0050	12/31/2023
	Total	55,575	0	15,673	0	16,625		
Arctic char landlocked catchables								
	Benka Lake	1,000	0	725	0	995	13A-0049	12/31/2018
	Carpenter Lake	0	1,448	557	0	0	13A-0049	12/31/2018
	Echo Lake	0	554	470	0	515	13A-0049	12/31/2018
	Finger Lake	2,631	0	2,200	0	2,023	13A-0049	12/31/2018
	Irene Lake	776	0	1,125	0	500	13A-0049	12/31/2018
	Johnson Lake	0	305	0	0	0	13A-0049	12/31/2018
	Long Lake (Mile 86 Glenn Hwy.)	164	2,578	2,893	3,584	2,996	13A-0049	12/31/2018

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Species and life stage	Site	2011 ^{ab}	2012	2013 ^c	2014 ^c	2015	FTP #	Expiration date
Arctic char landlocked catchables (continued)								
	Lynne Lake	0	859	1,142	738	0	13A-0049	12/31/2018
	Marion Lake	910	0	1,357	0	608	13A-0049	12/31/2018
	Matanuska Lake	1,631	437	1,670	908	1,600	13A-0049	12/31/2018
	Memory Lake	0	440	1,964	200	200	13A-0049	12/31/2018
	Prator Lake	0	0	750	800	147	13A-0049	12/31/2018
	Rush Lake	0	300	0	0	0	13A-0049	12/31/2018
	Seventeenmile Lake	951	0	1,465	1,564	1,215	13A-0049	12/31/2018
	Total	8,063	8,933	16,318	7,794	12,814		
Arctic char landlocked fingerlings								
	Carpenter Lake	0	0	0	0	0	10A-0010	12/31/2014
			10,783	0	0	0	10A-0010	12/31/2014
	Finger Lake	5902				0	10A-0010	12/31/2014
	Irene Lake	0	0	0	0	0	10A-0010	12/31/2014
	Johnson Lake	0	0	0	0	0	10A-0010	12/31/2014
	Long Lake (Mile 86 Glenn Hwy.)	34,737	0	0	0	0	10A-0010	12/31/2014
	Lynne Lake	0					10A-0010	12/31/2014
	Matanuska Lake	3,068					10A-0010	12/31/2014
	Seventeenmile Lake	0	0	0	0	0	10A-0010	12/31/2014
	Total	43,707	20,815	0	0	0		
Total anadromous stockings		360,315	352,488	376,311	688,904	775,253		
Total landlocked stockings		606,588	677,690	670,826	690,734	700,318		
Total stockings		966,903	1,030,178	1,047,137	1,379,638	1,475,571		

Source: ADF&G hatchery records.

^a Size of catchables decreased to subcatchable size due to loss of hot water at Ft. Richardson hatchery.

^b Catchable Chinook salmon and rainbow trout were not available due to Elmendorf hatchery closure in 2011.

^c Catchable Arctic grayling were first stocked in 2013.

Table 69.—Sport fish effort, catch (C), harvest (H), and percent of catch harvested (%) from stocked lakes in Northern Cook Inlet Management Area, 2015.

SWHS fishing sites	Days fished ^a	Percent of total effort	Landlocked salmon ^b			Arctic char			Rainbow trout			Arctic grayling			Northern pike			Total		
			C	H	%	C	H	%	C	H	%	C	H	%	C	H	%	C	H	%
Bear Paw	56	0.3%	20	20	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	20	20	100%
Benka	86	1.8%	0	0	0%	28	14	0%	0	0	0%	0	0	0%	0	0	0%	28	14	50%
Beverly	370	1.8%	0	0	0%	0	0	0%	1,920	0	0%	0	0	0%	0	0	0%	1,920	0	0%
Bradley (Kepler Lk complex)	177	0.9%	0	0	0%	0	0	0%	380	89	23%	0	0	0%	0	0	0%	380	89	23%
Brocker	139	0.7%	0	0	0%	0	0	0%	102	0	0%	0	0	0%	0	0	0%	102	0	0%
Bruce	90	0.4%	0	0	0%	0	0	0%	73	73	100%	0	0	0%	0	0	0%	73	73	100%
Byers	260	1.3%	0	0	0%	0	0	0%	133	89	67%	0	0	0%	0	0	0%	133	89	67%
Canoe (Kepler Lk complex)	438	2.2%	0	0	0%	0	0	0%	710	289	41%	31	0	0%	0	0	0%	741	289	39%
Christiansen	425	2.1%	0	0	0%	0	0	0%	178	34	19%	0	0	0%	0	0	0%	178	34	19%
Crooked	423	2.1%	0	0	0%	128	32	0%	304	115	38%	0	0	0%	0	0	0%	432	147	34%
Crystal (near Willow)	26	0.1%	0	0	0%	0	0	0%	18	18	0%	0	0	0%	0	0	0%	18	18	100%
Echo (Kepler Lk complex)	457	2.3%	0	0	0%	128		0%	633	89	0%	0	0	0%	0	0	0%	761	89	12%
Finger	4,750	23.5%	2,509	535	21%	35	19	54%	5,915	1,768	30%	99	0	0%	0	0	0%	8,558	2,322	27%
Florence	90	0.4%	0	0	0%	0	0	0%	36	0	0%	0	0	0%	0	0	0%	36	0	0%
Golden	241	1.2%	0	0	0%	0	0	0%	333	333	0%	0	0	0%	0	0	0%	333	333	100%
Honeybee	28	0.1%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	—
Irene (Kepler Lk complex)	121	0.6%	0	0	0%	0	0	0%	133	133	100%	0	0	0%	0	0	0%	133	133	100%
Kashwitna	48	0.2%	0	0	0%	0	0	0%	67	0	0%	0	0	0%	0	0	0%	67	0	0%
Kepler	1,669	8.2%	0	0	0%	0	0	0%	6,154	1,001	16%	960	0	0%	0	0	0%	7,114	1,001	14%
Knik	1,003	5.0%	0	0	0%	0	0	0%	2,836	450	16%	768	0	0%	0	0	0%	3,604	450	12%
Knob	54	0.3%	0	0	0%	0	0	0%	36	36	0%	0	0	0%	0	0	0%	36	36	100%
Lalen	362	1.8%	0	0	0%	0	0	0%	888	0	0%	0	0	0%	0	0	0%	888	0	0%

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Table 69.—Page 2 of 3.

SWHS fishing sites	Days fished ^a	Percent of total effort	Landlocked salmon ^b			Arctic char			Rainbow trout			Arctic grayling			Northern pike			Total		
			Harvest			Harvest			Harvest			Harvest			Harvest			Harvest		
			C	H	%	C	H	%	C	H	%	C	H	%	C	H	%	C	H	%
Little Beaver	145	0.7%	0	0	0%	0	0	0%	200	0	0%	0	0	0%	0	0	0%	200	0	0%
Little Lonely	394	1.9%	0	0	0%	0	0	0%	109	0	0%	0	0	0%	0	0	0%	109	0	0%
Loberg (Junction)	28	0.1%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	—
Long (Kepler Lk complex)	436	2.2%	0	0	0%	0	0	0%	2,181	0	0%	0	0	0%	0	0	0%	2,181	0	0%
Long (Mile 86 Glenn Hwy)	493	0.5%	0	0	0%	351	136	39%	1,079	302	28%	0	0	0%	0	0	0%	1,430	438	31%
Loon	101	0.5%	0	0	0%	0	0	0%	392	196	50%	0	0	0%	0	0	0%	392	196	50%
Lorraine	48	0.2%	0	0	0%	0	0	0%	222	222	100%	0	0	0%	0	0	0%	222	222	100%
Lucille	899	4.4%	0	0	0%	0	0	0%	2,652	164	0%	0	0	0%	12	0	0%	2,664	164	6%
Lynne	309	1.5%	0	0	0%	0	0	0%	396	61	0%	0	0	0%	0	0	0%	396	61	15%
Marion	56	0.3%	0	0	0%	20	20	0%	20	20	0%	0	0	0%	0	0	0%	40	40	100%
Matanuska (Kepler Lk complex)	911	4.5%	384	63	16%	492	117	24%	1,879	600	32%	0	0	0%	0	0	0%	2,755	780	28%
Meirs (in Palmer)	145	0.7%	0	0	0%	0	0	0%	200	0	0%	0	0	0%	12	0	0%	212	0	0%
Memory	799	3.9%	103	61	59%	444	39	9%	2,646	499	19%	0	0	0%	426	416	98%	3,619	1,015	28%
Morvro	56	0.3%	0	0	0%	0	0	0%	44	44	100%	0	0	0%	0	0	0%	44	44	100%
North Friend (also Montana Lk)	69	0.3%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	—
Prator	28	0.1%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	100%
Ravine	231	1.1%	0	0	0%	0	0	0%	222	67	30%	0	0	0%	0	0	0%	222	67	30%
Reed Lake	124	0.6%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	—
Rhein (Nancy Lk Rec system)	28	0.1%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	—
Reflections	159	0.8%	0	0	0%	0	0	0%	114	18	0%	0	0	0%	0	0	0%	114	18	16%
Rocky	310	1.5%	0	0	0%	0	0	0%	102	61	0%	0	0	0%	0	0	0%	102	61	60%
Ruby	164	0.8%	0	0	0%	0	0	0%	169	44	26%	0	0	0%	0	0	0%	169	44	26%

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Table 69.–Page 3 of 3.

SWHS fishing sites	Days fished ^a	Percent of total effort	Landlocked salmon ^b			Arctic char			Rainbow trout			Arctic grayling			Northern pike			Total		
			Harvest			Harvest			Harvest			Harvest			Harvest			Harvest		
			C	H	%	C	H	%	C	H	%	C	H	%	C	H	%	C	H	%
Seventeenmile Seymour (was Herring Lk)	265	1.3%	0	0	0%	39	39	0%	555	44	8%	0	0	0%	0	0	0%	594	83	14%
South Rolly (Nancy Lk Rec system)	749	3.7%	0	0	0%	0	0	0%	1,594	155	10%	0	0	0%	0	0	0%	1,594	155	10%
Tanaina Lake (Nancy Lk Rec system)	654	3.2%	0	0	0%	0	0	0%	630	249	40%	0	0	0%	59	59	100%	689	308	45%
Tigger (Talkeetna Lks)	28	0.0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	–
Visnaw	86	0.4%	0	0	0%	0	0	0%	133	133	0%	0	0	0%	0	0	0%	133	133	100%
Walby	265	1.3%	0	0	0%	0	0	0%	1,177	0	0%	0	0	0%	0	0	0%	1,177	0	0%
Weiner	203	1.0%	0	0	0%	0	0	0%	61	0	0%	0	0	0%	0	0	0%	61	0	0%
Willow	421	2.1%	0	0	0%	0	0	0%	912	590	65%	0	0	0%	0	0	0%	912	590	65%
Wishbone	78	0.4%	0	0	0%	0	0	0%	18	0	0%	0	0	0%	0	0	0%	18	0	0%
Wolf	22	0.1%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	–
X & Y (Talkeetna Lks)	169	0.8%	0	0	0%	0	0	0%	932	0	0%	0	0	0%	0	0	0%	932	0	0%
Total	48	0.2%	0	0	0%	0	0	0%	78	78	0%	0	0	0%	0	0	0%	78	78	100%
	20,234	100%	3,016	679	23%	1,665	416	25%	39,566	8,064	20%	1,858	0	0%	509	475	93%	46,614	9,634	21%

Source: Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2016). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Note: “C” or “catch” is the number of fish harvested plus the number of fish released; “H” or “harvest” is the number of fish kept.

^a The number of days fished is not species-specific, but rather is the number of days fished for all species combined (including species not listed on this table).

^b Stocked Chinook salmon.

Table 70.—Northern Cook Inlet Management Area lake stocking summary for nonanadromous fish, 2015.

Species	Lake	Surface acres	Stocking date	Number stocked	Broodstock ^a	Ploidy	Hatchery ^b	Stocking size (g)	Stocking method ^c
Rainbow trout	Barley	19	10 Jun	5,500	14 Swanson R	3N	WJHSFH	3.5	T/BU
	Bearpaw	45	11 Jun	5,674	14 Swanson R	3N	WJHSFH	5.4	T/BU
	Benka	123	7 Jul	8,301	14 Swanson R	3N	WJHSFH	3.8	T/BU
	Bench	52	31 Jul	1,575	14 Swanson R	3N	WJHSFH	3.8	A
	Beverly	42	16 Jun	6,214	14 Swanson R	3N	WJHSFH	3.0	T/BU
	Big Beaver	161	16 Jun	18,429	14 Swanson R	3N	WJHSFH	3.5	T
	Brocker	44	2 Jul	5,500	14 Swanson R	3N	WJHSFH	5.0	T
	Bruce	27	12 May	785	14 Swanson R	3N	WJHSFH	105.0	T
	Buck (Spider)	23	20 Jul	2,000	14 Swanson R	3N	WJHSFH	3.5	T/4W
	Canoe	21	27 May	1,688	14 Swanson R	3N	WJHSFH	104.0	T/BU
	Carpenter	176	28 Jul	21,975	14 Swanson R	3N	WJHSFH	3.8	T
	Caswell #3	33	30 Jun	6,500	14 Swanson R	3N	WJHSFH	3.5	T
	Christiansen	179	11 Jun	11,601	14 Swanson R	2N MX	WJHSFH	4.3	T
	Coytote	2	19 May	300	14 Swanson R	3N	WJHSFH	105.0	T
	Crystal	132	30 Jun	28,159	14 Swanson R	3N	WJHSFH	3.2	T
	Dawn	12	11 Jun	3,583	14 Swanson R	3N	WJHSFH	3.4	T/BU
	Diamond	139	30 Jun	14,648	14 Swanson R	3N	WJHSFH	3.4	T
	Echo	23	4 May	1,497	13 Swanson R	2N	WJHSFH	185.0	T
	Farmer	21	2 Jul	2,300	14 Swanson R	3N	WJHSFH	3.4	T/BU
	Finger	362	31 Jul	654	13 Swanson R	3N	WJHSFH	105.0	T
			1 Jul	63,085	14 Swanson R	2N MX	WJHSFH	3.2	T
	Florence	55	30 Jun	6,801	14 Swanson R	3N	WJHSFH	3.2	T/BU
	Gate	9	22 May	403	14 Swanson R	3N	WJHSFH	105.0	T
	Golden	13	16 Jun	4,357	14 Swanson R	3N	WJHSFH	3.0	T
	Homestead	17	30 Jun	2,734	14 Swanson R	3N	WJHSFH	4.1	T/BU
	Honeybee	58	30 Jun	8,130	14 Swanson R	3N	WJHSFH	3.2	T/BU
	Ida	46	16 Jun	5,141	14 Swanson R	3N	WJHSFH	3.4	T/BU
	Irene	18	5 May	1,563	13 Swanson R	2N MX	WJHSFH	105.0	T/BU

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Table 70.—Part 2 of 5.

Species	Lake	Surface acres	Stocking date	Number stocked	Broodstock ^a	Ploidy	Hatchery ^b	Stocking size (g)	Stocking method ^c
Rainbow trout (cont.)									
	Kalmbach	125	16 Jun	13,857	14 Swanson R	3N	WJHSFH	4.3	T
	Kashwitna	161	15 May	3,420	14 Swanson R	3N	WJHSFH	105.0	T
	Kepler-Bradley	58	4 May	2,309	13 Swanson R	3N	WJHSFH	185.0	T
			28 May	2,015	13 Swanson R	2N	WJHSFH	104.0	T
			29 Jun	1,839	13 Swanson R	3N	WJHSFH	104.0	T
			3 Sep	150	12 Swanson R	2N MX	WJHSFH	819.0	T
			18 May	1,942	13 Swanson R	3N	WJHSFH	105.0	T
	Knob	52	4 Jun	2,626	13 Swanson R	3N	WJHSFH	105.0	T
	Lalen	92	16 Jun	12,047	14 Swanson R	3N	WJHSFH	3.0	T
	Little Beaver	44	16 Jun	6,000	14 Swanson R	3N	WJHSFH	3.5	T
	Little Lonely	56	30 Jun	9,725	14 Swanson R	3N	WJHSFH	3.2	T
	Loberg	11	4 Sep	150	12 Swanson R	2N	WJHSFH	185.0	T
			4 May	1,088	13 Swanson R	2N	WJHSFH	104.0	T
	Long [K/B]	74	8 Jun	8,038	14 Swanson R	3N	WJHSFH	3.5	T/BU
	Long (Mi. 86)	106	21 May	3,273	13 Swanson R	2N	WJHSFH	105.0	T
			4 Sep	287	12 Swanson R	2N MX	WJHSFH	819.0	T
	Loon	108	11 Jun	19,104	14 Swanson R	3N	WJHSFH	3.4	T
	Lorraine	132	2 Jun	8,932	14 Swanson R	3N	WJHSFH	3.5	T/4W
			10 Jul	6,560	14 Swanson R	3N	WJHSFH	3.2	T/4W
	Lucille	362	11 May	5,945	13 Swanson R	3N	WJHSFH	185.0	T
	Lynne	70	30 Jun	12,919	14 Swanson R	3N	WJHSFH	4.3	T
	Marion	113	30 Jun	11,549	14 Swanson R	3N	WJHSFH	4.1	T/BU
	Matanuska	62	4 May	4,003	13 Swanson R	2N	WJHSFH	185.0	T
	Meirs	17	4 May	1,323	13 Swanson R	2N	WJHSFH	104.0	T
	Memory	84	15 May	2,007	13 Swanson R	2N	WJHSFH	105.0	T
	Mile 180	31	22 May	1,601	13 Swanson R	3N	WJHSFH	105.0	T/BU
	North Friend	81	30 Jun	9,514	14 Swanson R	3N	WJHSFH	3.8	T/BU
	North Knob	36	4 Jun	703	13 Swanson R	3N	WJHSFH	105.0	T/BU
	North Rolly	122	1 Jul	11,339	14 Swanson R	3N	WJHSFH	3.5	T/BU
	Ravine	12	26 May	1,498	13 Swanson R	3N	WJHSFH	105.0	T/BU

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Table 70.–Part 3 of 5.

Species	Lake	Surface acres	Stocking date	Number stocked	Broodstock ^a	Ploidy	Hatchery ^b	Stocking size (g)	Stocking method ^c
Rainbow trout (cont.)									
	Reed	20	20 May	1,189	12 Swanson R	3N	WJHSFH	185.0	T/BU
			11 Jun	3,583	14 Swanson R	3N	WJHSFH	3.0	T/BU
	Reflections	21	21 May	618	13 Swanson R	3N	WJHSFH	105.0	T/BU
	Rhein	84	1 Jun	12,182	14 Swanson R	3N	WJHSFH	3.5	T/BU
	Rocky	59	18 May	9,989	13 Swanson R	3N	WJHSFH	112.0	T
	Seventeenmile	100	16 Jun	12,539	14 Swanson R	3N	WJHSFH	3.0	T
	Seymour	229	16 Jul	24,977	14 Swanson R	3N	WJHSFH	3.4	T
	Slipper	9	19 May	1,599	13 Swanson R	3N	WJHSFH	105.0	T
	South Friend	56	30 Jun	9,000	14 Swanson R	3N	WJHSFH	3.8	T/BU
	South Rolly	108	14 May	4,783	13 Swanson R	3N	WJHSFH	105.0	T
	Tanaina	109	14 May	2,127	13 Swanson R	3N	WJHSFH	105.0	T/BU
	Tigger	19	9 Jun	2,508	14 Swanson R	2N	WJHSFH	3.0	T/BU
	Twin Island	151	2 Jun	6,400	14 Swanson R	3N	WJHSFH	3.2	T/4W
	Vera	111	30 Jun	12,909	14 Swanson R	3N	WJHSFH	3.5	T/BU
	Visnaw	131	16 Jun	15,186	14 Swanson R	3N	WJHSFH	3.4	T
	Walby	54	11 May	997	13 Swanson R	3N	WJHSFH	185.0	T
	Weiner	21	21 May	2,053	14 Swanson R	3N	WJHSFH	105.0	T
	West Beaver	103	16 Jun	10,143	14 Swanson R	3N	WJHSFH	3.5	T
	West Sunshine	22	30 Jun	6,010	14 Swanson R	3N	WJHSFH	3.8	T/BU
	Willow	143	15 May	2,113	13 Swanson R	3N	WJHSFH	105.0	T/BU
	Wolf	62	11 Jun	12,897	14 Swanson R	3N	WJHSFH	3.0	T/BU
	"Y"	40	9 Jun	5,002	14 Swanson R	2N	WJHSFH	3.5	T/BU
	Total for 74 lakes	4,638		573,664					
	Total diploid			99,552					
	Fingerling			82,196					
	Catchables			17,356					
	Total triploid			465,677					
	Fingerling			420,441					
	Catchables			45,236					

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Table 70.—Part 4 of 5.

Species	Lake	Surface acres	Stocking date	Number stocked	Broodstock ^a	Ploidy	Hatchery ^b	Stocking size (g)	Stocking method ^c
Coho salmon									
	Barley	19	2 Jul	900	14 Ship Creek	3N	WJHSFH	4	T/BU
	Bearpaw	45	11 Jul	4,500	14 Ship Creek	3N	WJHSFH	4	T
	Carpenter	176	2 Jul	17,557	14 Ship Creek	3N	WJHSFH	4	T
	Christiansen	179	9 Jul	12,107	14 Ship Creek	3N	WJHSFH	4	T
	Diamond	139	30 Jul	11,583	14 Ship Creek	3N	WJHSFH	4	T
	Echo	23	8 Jun	2,383	14 Ship Creek	3N	WJHSFH	4	T
	Kalmbach	125	1 Jul	11,097	14 Ship Creek	3N	WJHSFH	3.98	T
	Klaire	7	8 Jun	894	14 Ship Creek	3N	WJHSFH	3.98	T/BU
	Loberg	11	8 Jun	1,191	14 Ship Creek	3N	WJHSFH	4	T
	Lucille	362	11 Jun	8,001	14 Ship Creek	3N	WJHSFH	4	T
	Victor	14	8 Jun	2,625	14 Ship Creek	3N	WJHSFH	3.98	T/BU
	Willow	143	1 Jul	2,991	14 Ship Creek	3N	WJHSFH	3.98	T
	Wolf	62	11 Jun	3,000	14 Ship Creek	3N	WJHSFH	4	T
	Total for 13 lakes	1,305		78,829					
	Total triploid fingerling			78,829					
Arctic char									
	Benka	123	18 May	995	13 Aleknagik L.	3N	WJHFSH	128.9	T
	Echo	23	8 May	515	13 Aleknagik L.	3N	WJHFSH	128.9	T
	Finger	362	8 May	2242	13 Aleknagik L.	3N	WJHFSH	140.0	T
			19 Sep	100	11 Aleknagik L.	2N	WJHFSH	2284.0	T
			8 Jun	2996	13 Aleknagik L.	3N	WJHFSH	128.9	T
	Long (Mi. 86)	106	19 Sep	185	13 Aleknagik L.	3N	WJHFSH	140.0	T
			19 Sep	129	11 Aleknagik L.	2N	WJHFSH	2284.0	T
			18 Jun	608	13 Aleknagik L.	3N	WJHFSH	140.0	T
	Marion	113	18 Jun	608	13 Aleknagik L.	3N	WJHFSH	140.0	T
	Matanuska	62	8 Jun	1600	13 Aleknagik L.	3N	WJHFSH	140.0	T
	Memory	84	5 May	200	13 Aleknagik L.	3N	WJHFSH	128.9	T
	Prator	98	18 May	147	13 Aleknagik L.	3N	WJHFSH	128.9	T
	Seventeenmile	100	18 May	623	13 Aleknagik L.	3N	WJHFSH	128.9	T
			8 Jun	529	13 Aleknagik L.	3N	WJHFSH	140.0	T

-continued-

Table 70.–Part 5 of 5.

Species	Lake	Surface acres	Stocking date	Number stocked	Broodstock ^a	Ploidy	Hatchery ^b	Stocking size (g)	Stocking method ^c
Arctic char (cont.)									
	Total for 9 lakes	1,071		10,869					
	Total diploid catchables			229					
	Total triploid catchables			10,640					
Arctic grayling									
	Canoe	21	21 May	2,075	13 Chena River	3N	WJHSFH	107.2	T
	Finger	362	15 May	3,607	13 Chena River	3N	WJHSFH	107.2	T
	Florence	55	30 Jun	600	13 Chena River	3N	WJHSFH	107.2	T
	Ida	46	26 May	1,503	13 Chena River	3N	WJHSFH	107.2	T
	Kepler/Bradley	58	14 May	2,000	13 Chena River	3N	WJHSFH	107.2	T
	Knik	50	15 May	1,013	13 Chena River	3N	WJHSFH	107.2	T
	Long (Mi. 86)	74	26 May	797	13 Chena River	3N	WJHSFH	107.2	T
	Lorraine	132	15 May	2,301	13 Chena River	3N	WJHSFH	103.0	T
	Meirs	17	15 May	1,925	13 Chena River	3N	WJHSFH	107.2	T
	Ravine	12	26 May	1,012	13 Chena River	3N	WJHSFH	107.2	T
	Reed	20	21 May	589	13 Chena River	3N	WJHSFH	107.2	T/BU
	Total 11 for lakes	847		17,422					
Chinook salmon									
	Finger	362	8 Aug	13,664	14 Ship Creek	2N/3N	WJHSFH	137.8	T
			15 Sep	9,942	14 Ship Creek	2N/3N	WJHSFH	117.0	T
	Knik	50	8 Aug	2,089	14 Ship Creek	3N MX	WJHSFH	117.0	T
	Matanuska	62	7 Aug	2,257	14 Ship Creek	3N MX	WJHSFH	117.0	T
	Memory	84	8 Aug	3,026	14 Ship Creek	2N/3N	WJHSFH	137.8	T
	Total 4 lakes	508		30,978					
Grand total									
	Fingerling			581,466					
	Catchables			121,861					
	Total			703,327					

Source: ADF&G Hatchery records.

^a Treatment: triploid all female.

^b WJHSFH is William J. Hernandez Sport Fish Hatchery.

^c “T” is tank truck; “T-BU” means fish were carried in buckets to lake; “T-4W” means transported by 4-wheeler.

Table 71.—Northern Cook Inlet Management Area lake stocking summary for nonanadromous fish, 2014.

Species	Lake	Surface acres	Stocking date	Number stocked	Broodstock ^a	Ploidy	Hatchery ^b	Stocking size (g)	Stocking method ^c
Rainbow trout	Barley	19	16 Jun	5,000	13 Swanson R	3N	WJHSFH	3.5	T/BU
	Bearpaw	45	13 Jun	5,000	13 Swanson R	3N	WJHSFH	5.4	T/BU
	Benka	123	27 Jun	7,000	13 Swanson R	3N	WJHSFH	3.8	T/BU
	Beverly	42	2 Jun	5,198	13 Swanson R	3N	WJHSFH	3.0	T/BU
	Big Beaver	161	13 Jun	16,100	13 Swanson R	3N	WJHSFH	3.5	T
	Brocker	44	12 Aug	4,190	13 Swanson R	3N	WJHSFH	5.0	T
	Bruce	27	2 Jun	1,000	13 Swanson R	2N	WJHSFH	105.0	T
	Canoe	21	16 May	538	13 Swanson R	2N	WJHSFH	104.0	T/BU
			29 Aug	1,459	13 Swanson R	3N	WJHSFH	185.0	T/BU
	Carpenter	176	16 Jun	19,600	13 Swanson R	3N	WJHSFH	3.8	T
	Caswell #3	33	27 Jun	5,000	13 Swanson R	3N	WJHSFH	3.5	T
	Christiansen	179	11 Jun	10,866	13 Swanson R	2N MX	WJHSFH	4.3	T
	Coytote	2	30 May	300	13 Swanson R	3N	WJHSFH	105.0	T
	Crystal	132	3 Sep	17,295	14 Swanson R	2N MX	WJHSFH	3.2	T
	Dawn	12	3 Sep	3,005	14 Swanson R	2N MX	WJHSFH	3.4	T/BU
	Diamond	139	3 Sep	15,064	14 Swanson R	2N MX	WJHSFH	3.4	T
	Echo	23	14 May	1,605	12 Swanson R	3N	WJHSFH	185.0	T
	Farmer	21	3 Sep	1,101	14 Swanson R	2N MX	WJHSFH	3.4	T/BU
	Finger	362	2 Sep	33,198	14 Swanson R	2N MX	WJHSFH	3.4	T
			10 Sep	23,187	14 Swanson R	2N MX	WJHSFH	3.2	T
	Florence	55	2 Sep	5,509	14 Swanson R	2N MX	WJHSFH	3.2	T/BU
	Gate	9	11 Jun	500	13 Swanson R	3N	WJHSFH	105.0	T
	Golden	13	12 Jun	3,000	13 Swanson R	3N	WJHSFH	3.0	T
	Homestead	17	11 Jun	3,200	13 Swanson R	2N MX	WJHSFH	4.1	T/BU
	Honeybee	58	2 Sep	6,802	14 Swanson R	2N MX	WJHSFH	3.2	T/BU
	Ida	46	2 Sep	4,582	14 Swanson R	2N MX	WJHSFH	3.4	T/BU
	Irene	18	22 May	2,000	13 Swanson R	2N MX	WJHSFH	105.0	T/BU

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Table 71.–Part 2 of 6.

Species	Lake	Surface acres	Stocking date	Number stocked	Broodstock ^a	Ploidy	Hatchery ^b	Stocking size (g)	Stocking method ^c
Rainbow trout (cont.)									
	Kalmbach	125	2 Jun	12,500	13 Swanson R	2N MX	WJHSFH	4.3	T
	Kashwitna	161	9 Jun	3,471	13 Swanson R	3N	WJHSFH	105.0	T
	Kepler-Bradley	58	14 May	2,627	12 Swanson R	3N	WJHSFH	185.0	T
			26 Aug	2,771	13 Swanson R	2N	WJHSFH	104.0	T
			29 Aug	538	13 Swanson R	2N	WJHSFH	104.0	T
			1 Oct	131	12 Swanson R	2N MX	WJHSFH	819.0	T
			22 May	2,365	13 Swanson R	2N MX	WJHSFH	105.0	T
	Knob	52	30 May	2,520	13 Swanson R	3N	WJHSFH	105.0	T
	Lalen	92	12 Jun	10,200	13 Swanson R	3N	WJHSFH	3.0	T
	Little Beaver	44	13 Jun	5,400	13 Swanson R	3N	WJHSFH	3.5	T
	Little Lonely	56	2 Sep	8,404	14 Swanson R	2N MX	WJHSFH	3.2	T
	Loberg	11	13 May	997	12 Swanson R	3N	WJHSFH	185.0	T
			29 Aug	700	13 Swanson R	2N	WJHSFH	104.0	T
	Long [K/B]	74	13 Jun	5,400	13 Swanson R	3N	WJHSFH	3.5	T/BU
	Long (Mi. 86)	106	29 May	3,522	13 Swanson R	2N	WJHSFH	105.0	T
			10 Sep	36,647	14 Swanson R	2N MX	WJHSFH	3.4	T
			1 Oct	376	12 Swanson R	2N MX	WJHSFH	819.0	T
	Loon	108	13 Jun	16,000	13 Swanson R	3N	WJHSFH	3.4	T
	Lorraine	132	20 Jun	13,200	13 Swanson R	3N	WJHSFH	3.5	T/4W
			10 Sep	15,812	14 Swanson R	2N MX	WJHSFH	3.2	T/4W
	Lucille	362	14 May	7,574	13 Swanson R	3N	WJHSFH	185.0	T
	Lynne	70	4 Jun	8,000	13 Swanson R	2N MX	WJHSFH	4.3	T
	Marion	113	11 Jun	11,300	13 Swanson R	2N MX	WJHSFH	4.1	T/BU
	Matanuska	62	13 May	5,509	12 Swanson R	3N	WJHSFH	185.0	T
	Meirs	17	29 Aug	1,009	13 Swanson R	2N	WJHSFH	104.0	T
	Memory	84	22 May	2,442	13 Swanson R	2N MX	WJHSFH	105.0	T
	Mile 180	31	9 Jun	2,005	13 Swanson R	3N	WJHSFH	105.0	T/BU
	Morvo	87	13 Jun	4,500	13 Swanson R	3N	WJHSFH	3.5	T/BU
	North Friend	81	27 Jun	8,500	13 Swanson R	3N	WJHSFH	3.8	T/BU
	North Knob	36	30 May	600	13 Swanson R	3N	WJHSFH	105.0	T/BU
	North Rolly	122	17 Jun	6,500	13 Swanson R	3N	WJHSFH	3.5	T/BU
	Peggy	53	27 Jun	4,800	13 Swanson R	3N	WJHSFH	3.8	T/BU

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Table 71.–Part 3 of 6.

Species	Lake	Surface acres	Stocking date	Number stocked	Broodstock ^a	Ploidy	Hatchery ^b	Stocking size (g)	Stocking method ^c
Rainbow trout (cont.)									
	Ravine	12	29 May	2,442	13 Swanson R	2N	WJHSFH	105.0	T/BU
	Reed	20	16 May	1,050	12 Swanson R	3N	WJHSFH	185.0	T/BU
			12 Jun	3,000	13 Swanson R	3N	WJHSFH	3.0	T/BU
	Reflections	21	9 Jun	600	13 Swanson R	3N	WJHSFH	105.0	T/BU
	Rhein	84	17 Jun	11,100	13 Swanson R	3N	WJHSFH	3.5	T/BU
	Rocky	59	11 Jun	1,217	13 Swanson R	2N	WJHSFH	112.0	T
	Ruby	24	12 Aug	3,000	13 Swanson R	3N	WJHSFH	5.0	T/4W
	Seventeenmile	100	12 Jun	13,768	13 Swanson R	3N	WJHSFH	3.0	T
	Seymour	229	13 Jun	22,300	13 Swanson R	3N	WJHSFH	3.4	T
	Slipper	9	30 May	1,200	13 Swanson R	3N	WJHSFH	105.0	T
	South Friend	56	27 Jun	8,000	13 Swanson R	3N	WJHSFH	3.8	T/BU
	South Rolly	108	27 May	5,605	13 Swanson R	2N	WJHSFH	105.0	T
	Tanaina	109	27 May	2,571	13 Swanson R	2N	WJHSFH	105.0	T/BU
	Tigger	19	11 Jun	4,000	13 Swanson R	2N	WJHSFH	4.6	T/BU
	Twin Island	151	3 Sep	3,180	14 Swanson R	3N	WJHSFH	3.2	T/4W
	Vera	111	17 Jun	11,100	13 Swanson R	3N	WJHSFH	3.5	T/BU
	Visnaw	131	13 Jun	13,100	13 Swanson R	3N	WJHSFH	3.4	T
	Walby	54	16 May	1,313	12 Swanson R	3N	WJHSFH	185.0	T
	Weiner	21	30 May	1,748	13 Swanson R	3N	WJHSFH	105.0	T
	West Beaver	103	13 Jun	8,250	13 Swanson R	3N	WJHSFH	3.5	T
	West Sunshine	22	27 Jun	4,500	13 Swanson R	3N	WJHSFH	3.8	T/BU
	Willow	143	9 Jun	2,057	13 Swanson R	3N	WJHSFH	105.0	T/BU
	Wishbone	53		10,000	13 Swanson R	3N	WJHSFH		T/4W
	Wolf	62	12 Jun	10,000	13 Swanson R	3N	WJHSFH	3.0	T/BU
	"X"	101	11 Jun	6,000	13 Swanson R	2N	WJHSFH	4.6	T/BU
	"Y"	40	11 Jun	5,000	13 Swanson R	2N	WJHSFH	4.6	T/BU
	Total for 74 lakes	4,775		553,720					
	Total diploid			260,699					
	Fingerling			231,472					
	Catchables			29,227					
	Total triploid			293,021					
	Fingerling			255,886					
	Catchables			37,135					

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Table 71.–Part 4 of 6.

Species	Lake	Surface acres	Stocking date	Number stocked	Broodstock ^a	Ploidy	Hatchery ^b	Stocking size (g)	Stocking method ^c
Coho salmon									
	Barley	19	16 Jun	900	13 Bear Lake	2N	WJHSFH	4	T/BU
			1 Jul	100	13 Bear Lake	2N	WJHSFH	4.2	T/BU
			1 Jul	2,900	13 Ship Creek	3N	WJHSFH	4.2	T/BU
	Bearpaw	45	13 Jun	4,500	13 Bear Lake	2N	WJHSFH	4	T
			1 Jul	100	13 Bear Lake	2N	WJHSFH	4.2	T
			1 Jul	3,900	13 Ship Creek	3N	WJHSFH	4.2	T
	Carpenter	176	16 Jun	15,000	13 Bear Lake	2N	WJHSFH	4	T
	Christiansen	179	11 Jun	15,200	13 Bear Lake	2N	WJHSFH	4	T
			1 Jul	10,036	13 Ship Creek	3N	WJHSFH	4.2	T
	Diamond	139	16 May	11,000	13 Bear Lake	2N	WJHSFH	4	T
	Echo	23	9 Jun	2,300	13 Ship Creek	3N	WJHSFH	4	T
	Johnson	40	4 Jun	1,000	13 Ship Creek	3N	WJHSFH	3.98	T
	Kalmbach	125	2 Jun	11,005	13 Ship Creek	3N	WJHSFH	3.98	T
	Klaire	7	4 Jun	900	13 Ship Creek	3N	WJHSFH	3.98	T/BU
	Loberg	11	9 Jun	1,100	13 Ship Creek	3N	WJHSFH	4	T
			1 Jul	1,000	13 Ship Creek	3N	WJHSFH	4.2	T
	Lucille	362	9 Jun	8,000	13 Ship Creek	3N	WJHSFH	4	T
	Victor	14	4 Jun	2,700	13 Ship Creek	3N	WJHSFH	3.98	T/BU
	Willow	143	9 Jun	3,000	13 Ship Creek	3N	WJHSFH	3.98	T
	Total for 13 lakes	1,283		94,641					
	Total triploid fingerling			94,641					
Arctic char									
	Carpenter	176	22 May	1975	12 Aleknagik L.	3N	WJHFSH	128.9	T
	Echo	23	29 May	500	12 Aleknagik L.	3N	WJHFSH	128.9	T
	Finger	362	9 Jul	2121	12 Aleknagik L.	3N	WJHFSH	140.0	T
	Johnson	40	4 Jun	100	12 Aleknagik L.	3N	WJHFSH	128.9	T/BU
	Long (Mi. 86)	106	29 May	1450	12 Aleknagik L.	3N	WJHFSH	128.9	T
			9 Jul	1832	12 Aleknagik L.	3N	WJHFSH	140.0	T
			21 Oct	101	10 Aleknagik L.	2N	Ft. Rich	2284.0	T
			30 Oct	201	12 Aleknagik L.	2N	WJHFSH	268.0	T

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Table 71.—Part 5 of 6.

Species	Lake	Surface acres	Stocking date	Number stocked	Broodstock ^a	Ploidy	Hatchery ^b	Stocking size (g)	Stocking method ^c
Arctic char (cont.)									
	Lynne	70	4 Jun	738	12 Aleknagik L.	3N MX	WJHFSH	128.9	T
	Matanuska	62	9 Jul	550	12 Aleknagik L.	3N MX	WJHFSH	140.0	T
			22 Oct	57	10 Aleknagik L.	2N MX	Ft. Rich	2284.0	T
			28 Oct	135	11 Aleknagik L.	2N MX	WJHFSH	1396.0	
			30 Oct	166	12 Aleknagik L.	2N MX	WJHFSH	268.0	
			22 May	200	12 Aleknagik L.	3N MX	WJHFSH	128.9	T
	Prator	98	4 Jul	200	12 Aleknagik L.	3N MX	WJHFSH	128.9	T
			9 Jul	600	12 Aleknagik L.	3N MX	WJHFSH	140.0	T
	Rush	38	13 Aug	128	12 Aleknagik L.	3N MX	WJHFSH	140.0	T/4W
	Seventeenmile	100	29 May	716	12 Aleknagik L.	3N MX	WJHFSH	128.9	T
			9 Jul	848	12 Aleknagik L.	3N MX	WJHFSH	140.0	T
Total for 11 lakes		1,159		12,618					
Total diploid catchables				660					
Total triploid catchables				11,958					
Arctic grayling									
	Canoe	21	20 May	2,090	13 Chena River	3N MX	WJHSFH	107.2	T
			31 Jul	118	13 Chena River	3N MX	WJHSFH	113.0	T
	Finger	362	20 May	3,999	13 Chena River	3N MX	WJHSFH	107.2	T
	Florence	55	20 May	979	13 Chena River	3N MX	WJHSFH	107.2	T
	Ida	46	30 May	1,201	13 Chena River	3N MX	WJHSFH	107.2	T
	Kepler/Bradley	58	20 May	1,580	13 Chena River	3N MX	WJHSFH	107.2	T
	Knik	50	22 May	1,007	13 Chena River	3N MX	WJHSFH	107.2	T
	Long (Mi. 86)	74	29 May	500	13 Chena River	3N MX	WJHSFH	107.2	T
	Lorraine	132	20 Jun	1,700	13 Chena River	3N MX	WJHSFH	103.0	T
			31 Jul	271	13 Chena River	3N MX	WJHSFH	113.0	T
	Meirs	17	20 May	2,000	13 Chena River	3N MX	WJHSFH	107.2	T
			6 Aug	200	13 Chena River	3N MX	WJHSFH	113.0	T
	Reed	20	20 May	979	13 Chena River	3N MX	WJHSFH	107.2	T/BU
Total for 10 lakes		835		16,624					

-continued-

Table 71.–Part 5 of 6.

Species	Lake	Surface acres	Stocking date	Number stocked	Broodstock ^a	Ploidy	Hatchery ^b	Stocking size (g)	Stocking method ^c
Chinook salmon	Finger	362	8 Dec	5,584	13 Decep/Ship	2N/3N	WJHSFH	137.8	T
			20 Oct	1,777	13 Ship Creek	3N MX	WJHSFH	117.0	T
			16 Oct	7,409	13 Ship Creek	3N MX	WJHSFH	120.0	T
			30 Sep	11,252	13 Ship Creek	3N MX	WJHSFH	119.0	T
			23 Feb	400	12 Ship Creek	2N/3N	WJHSFH	175.0	T
	Knik	50	22 May	2,423	13 Ship Creek	3N MX	WJHSFH	117.0	T
	Matanuska	62	20 Oct	2,561	13 Ship Creek	3N MX	WJHSFH	117.0	T
	Memory	84	8 Dec	1,915	13 Decep/Ship	2N/3N	WJHSFH	137.8	T
	Total 4 lakes		508		33,321				
	Grand total	Fingerling			581,999				
Catchables			128,925						
Total			710,924						

Source: ADF&G Hatchery records.

^a Treatment: triploid all female.

^b WJHSFH is William J. Hernandez Sport Fish Hatchery.

^c “T” is tank truck; “T-BU” means fish were carried in buckets to lake; “T-4W” means transported by 4-wheeler.

Table 72.—Sport fish effort, catch (C), harvest (H), and percent of catch harvested (%) from stocked lakes in Northern Cook Inlet Management Area, 2015.

SWHS fishing sites	Days fished ^a	Percent of total effort	Landlocked salmon ^b			Arctic char			Rainbow trout			Arctic grayling			Northern pike			Total		
			Harvest			Harvest			Harvest			Harvest			Harvest			Harvest		
			C	H	%	C	H	%	C	H	%	C	H	%	C	H	%	C	H	%
Bear Paw	27	0.0%	0	0	0%	0	0	0%	9	0	0%	0	0	0%	0	0	0%	9	0	0%
Benka	38	0.6%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%
Beverly	195	0.6%	0	0	0%	0	0	0%	41	41	100%	0	0	0%	0	0	0%	41	41	100%
Big Beaver	755	2.4%	0	0	0%	0	0	0%	418	0	0%	0	0	0%	0	0	0%	418	0	0%
Bradley (Kepler Lk complex)	388	1.2%	0	0	0%	0	0	0%	1,464	19	1%	0	0	0%	0	0	0%	1,464	19	1%
Bruce	27	0.1%	0	0	0%	0	0	0%	65	0	0%	0	0	0%	0	0	0%	65	0	0%
Canoe (Kepler Lk complex)	316	1.0%	0	0	0%	0	0	0%	372	19	5%	282	0	0%	0	0	0%	654	19	3%
Christiansen	46	0.1%	0	0	0%	0	0	0%	344	32	0%	0	0	0%	0	0	0%	344	32	9%
Carpenter	343	1.1%	202	121	60%	0	0	0%	72	72	100%	0	0	0%	0	0	0%	274	193	70%
Crooked	261	0.8%	0	0	0%	20	0	0%	272	27	10%	0	0	0%	0	0	0%	292	27	9%
Crystal (near Willow)	0	0.0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%
Echo (Kepler Lk complex)	0	0.0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%
Finger Fish (Glenn Highway)	8,176	25.6%	8,752	3,764	43%	1,525	566	37%	4,345	942	22%	20	20	100%	0	0	0%	14,642	5,292	36%
Florence	0	0.0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%
Irene (Kepler Lk complex)	5,706	17.9%	0	0	0%	20	0	0%	4,958	1,028	21%	0	0	0%	0	0	0%	4,978	1,028	21%
Kalmbach (also Baptist Lk)	126	0.4%	0	0	0%	0	0	0%	70	0	0%	0	0	0%	0	0	0%	70	0	0%
Kepler	2,003	6.3%	0	0	0%	0	0	0%	2,988	488	16%	241	101	42%	0	0	0%	3,229	589	18%
Knik	782	2.5%	1,034	118	11%	0	0	0%	535	217	41%	60	0	0%	0	0	0%	1,629	335	0%

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Table 72.—Page 2 of 3.

SWHS fishing sites	Days fished ^a	Percent of total effort	Landlocked salmon ^b			Arctic char			Rainbow trout			Arctic grayling			Northern pike			Total		
			Harvest			Harvest			Harvest			Harvest			Harvest			Harvest		
			C	H	%	C	H	%	C	H	%	C	H	%	C	H	%	C	H	%
Knob	76	0.2%	0	0	0%	0	0	0%	28	0	0%	0	0	0%	0	0	0%	28	0	0%
Loberg (Junction)	112	0.4%	0	0	0%	0	0	0%	68	68	100%	0	0	0%	0	0	0%	68	68	0%
Long (Kepler Lk complex)	219	0.7%	0	0	0%	0	0	0%	484	0	0%	0	0	0%	0	0	0%	484	0	0%
Long (Mile 85 Glenn Hwy)	632	0.4%	0	0	0%	320	239	75%	604	139	23%	81	0	0%	0	0	0%	1,005	378	38%
Loon	112	0.4%	0	0	0%	0	0	0%	27	27	100%	0	0	0%	0	0	0%	27	27	100%
Lorraine	293	0.9%	0	0	0%	0	0	0%	250	0	0%	20	20	100%	0	0	0%	270	20	7%
Lucille	680	2.1%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%
Marion	0	0.0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%
Matanuska (Kepler Lk complex)	1,329	4.2%	15	15	100%	155	155	100%	922	400	43%	0	0	0%	0	0	0%	1,092	570	52%
Meirs (in Palmer)	447	1.4%	0	0	0%	0	0	0%	320	320	0%	120	0	0%	0	0	0%	440	320	0%
Memory	1,416	4.4%	81	81	100%	81	81	100%	349	209	60%	0	0	0%	72	0	0%	583	371	0%
Prator	53	0.2%	0	0	0%	89	44	0%	0	0	0%	0	0	0%	0	0	0%	89	44	100%
Ravine	53	0.2%	0	0	0%	0	0	0%	697	0	0%	0	0	0%	0	0	0%	697	0	0%
Reflections	76	0.2%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%
Rocky	179	0.6%	0	0	0%	0	0	0%	162	70	0%	0	0	0%	0	0	0%	162	70	0%
Ruby	238	0.7%	0	0	0%	0	0	0%	37	0	0%	0	0	0%	0	0	0%	37	0	0%

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Table 72.–Page 3 of 3.

SWHS fishing sites	Days fished ^a	Percent of total effort	Landlocked salmon ^b			Arctic char			Rainbow trout			Arctic grayling			Northern pike			Total		
			Harvest			Harvest			Harvest			Harvest			Harvest			Harvest		
			C	H	%	C	H	%	C	H	%	C	H	%	C	H	%	C	H	%
Seventeenmile Seymour (was Herring Lk)	394	1.2%	0	0	0%	121	121	0%	152	121	80%	101	61	60%	0	0	0%	374	303	81%
South Rolly (Nancy Lk Rec system)	1,199	3.8%	0	0	0%	0	0	0%	246	28	11%	0	0	0%	399	49	12%	645	77	12%
Tigger (Talkeetna Lks)	0	0.0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%
Victor	0	0.0%	202	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	202	0	0%
Visnaw	642	2.0%	0	0	0%	0	0	0%	549	205	37%	0	0	0%	0	0	0%	549	205	37%
Walby	4,029	12.6%	0	0	0%	0	0	0%	1,745	765	44%	0	0	0%	0	0	0%	1,745	765	44%
Weiner	137	0.4%	0	0	0%	0	0	0%	299	68	23%	39	0	0%	0	0	0%	338	68	20%
Wolf	99	0.3%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%
X & Y (Talkeetna Lks)	0	0.0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%
Total	31,907	100%	10,286	4,099	40%	2,331	1,206	52%	23,178	5,305	23%	964	202	21%	471	49	10%	37,230	10,861	29%

Source: Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2016). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Note: “C” or “catch” is the number of fish harvested plus the number of fish released; “H” or “harvest” is the number of fish kept.

^a The number of days fished is not species-specific, but rather is the number of days fished for all species combined (including species not listed on this table).

^b Stocked Chinook salmon.

Table 73.–Fish Creek salmon harvests by commercial set gillnet and personal use dip net, 1987–2015.

Year	Commercial gillnet harvest from statistical area 247-50						Personal use dip net harvest					
	Sockeye	Coho	Chum	Pink	Chinook	Total	Sockeye	Coho	Chum	Pink	Chinook	Total
1987	24,090	2,043	403	264	^a	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	^a	13,071	14,369		549	567		15,485
1992	10,748	1,817	1,289	573	^a	14,427	19,002		607	678		20,287
1993	47,751	831	990	29	^a	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 ^b	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 ^c	53	33	66	10	10,060
2010							23,705 ^d	3,576	290	1,721	12	29,303
2011							5,236 ^e	905	72	155	2	6,370
2012									No fishery			
2013									No fishery			

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Table 73.–Page 2 of 2.

Year	Commercial gillnet harvest from statistical area 247-50						Personal use dip net harvest					
	Sockeye	Coho	Chum	Pink	Chinook	Total	Sockeye	Coho	Chum	Pink	Chinook	Total
2014			No fishery				5,829 ^f	1,895	227	4,218	0	12,169
2015			No fishery				19,260 ^g	3,321	329	1,329	0	24,239
Average 1987–2015	23,443	2,913	1,351	247	3	27,955	10,469	1,344	198	768	6	12,186

Source: Personal use 1987–1995 data are from Mills 1988-1994, Howe et al. 1996; Commercial Harvest 1996–2000 data are estimated from returned permits.

^a Not reported.

^b Closed by Emergency Order (EO) on 12 July at 11:00 PM (3 days of harvest).

^c Opened by EO from 1 August at 6:00 AM through 11 August at 11:00 PM.

^d Opened by EO from 24 July at 6:00 AM through 31 July at 11:00 PM.

^e Opened by EO from 29 July at 6:00 AM through 31 July at 11:00 PM.

^f Opened by EO from 25 July at 6:00 AM through 31 July at 11:00 PM.

^g Opened by EO from 24 July at 6:00 AM through 31 July at 11:00 PM.

Table 74.—Eulachon personal use harvest from Knik Arm and Westside Susitna River management units, 1985–2015.

Year	Knik Arm Management Unit				Westside Susitna Management Unit						Total
	Marine Fish Creek	Other marine	Fresh water	Sub-total	Alex-ander Creek	Deshka River	Yentna River	Lake Creek	Susita River	Sub-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	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	3,520	3,520	3,520
2010	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
2013	0	0	0	0	0	0	80	0	1,624	1,704	1,704
2014	0	0	0	0	0	0	0	0	1,213	1,213	1,213
Average											
1985–2014	94	361	158	613	275	893	1,280	93	3,729	6,100	6,713
2005–2014	12	0	7	20	0	307	588	0	1,770	2,665	2,685
2010–2014	0	0	0	0	0	0	1,176	0	2,347	3,523	3,523
2015	0	0	0	0	0	0	1,015	0	0	1,015	1,015

Source: Alaska Sport Fishing Survey database [Internet]. 1996– . Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 14, 2015). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Note: Eulachon were grouped with “other fish” prior to 1985.

Table 75.—Beluga River senior personal use dip net fishery summary, 2008–2015.

Year	Permits issued	Permits returned	Number fished	Boat	Shore	Harvest				Total
						Sockeye	Chum	Coho	Pink	
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
2013	8	8	5	4	1	30	1	55	2	88
2014	10	10	7	4	3	32	1	12	1	46
2015	8	8	3	0	3	65	0	17	0	82
Average										
2008–2015						61	2	28	1	92

Source: Permits returned to ADF&G.

Table 76.—Upper Yentna River personal use and subsistence fish wheel salmon harvest, 1996–2015.

Fishery	Year	Number of permits		Salmon harvest (number of fish)					
		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
	2013	22	23	160	92	128	32	412	19
	2014	21	22	294	78	15	30	417	20
Average									
	1996–2014	20	23	381	76	25	18	502	25
	2005–2014	21	22	350	69	29	20	473	22
	2010–2014	23	23	401	67	42	24	542	23
	2015	28	30	563	147	44	56	810	29

Source: Permits returned to ADF&G.

Note: NR means data not reported.

Table 77.—Tyonek subsistence gillnet salmon harvest, 1981–2015.

Year	Number of permits		Salmon harvest (number of fish)						
	Returned	Issued	Chinook	Sockeye	Coho	Pink	Chum	Other	Total
1980	NA	67	1,757	235	0	0	0	NA	1,992
1981	NA	70	2,002	269	64	15	32	NA	2,382
1982	NA	69	1,590	310	113	14	4	NA	2,031
1983	NA	75	2,665	187	59	0	6	NA	2,917
1984	NA	75	2,200	266	79	3	23	NA	2,571
1985	NA	76	1,472	164	91	0	10	NA	1,737
1986	NA	65	1,676	203	223	50	46	NA	2,198
1987	61	64	1,610	166	149	10	24	NA	1,959
1988	42	47	1,587	91	253	8	12	NA	1,951
1989	47	49	1,250	85	115	0	1	NA	1,451
1990	37	42	781	66	352	20	12	NA	1,231
1991	54	57	902	20	58	0	0	NA	980
1992	44	57	907	75	234	7	19	NA	1,242
1993	54	62	1,370	57	77	19	17	NA	1,540
1994	49	58	770	85	101	0	22	NA	978
1995	55	70	1,317	45	153	0	15	NA	1,530
1996	49	73	1,039	68	137	21	7	NA	1,272
1997	42	70	639	101	137	0	8	NA	885
1998	49	74	1,027	163	64	1	2	NA	1,257
1999	54	77	1,230	144	94	32	11	NA	1,511
2000	59	60	1,157	63	87	6	0	NA	1,313
2001	58	84	976	172	49	4	6	NA	1,207
2002	71	101	1,080	209	115	9	4	1	1,418
2003	74	87	1,183	111	44	7	10	NA	1,355
2004	75	97	1,345	93	130	0	0	2	1,570
2005	66	78	982	61	139	0	2	0	1,184
2006	55	82	943	20	14	0	1	0	978
2007	67	84	1,281	200	123	3	2	0	1,609
2008	77	94	1,178	121	194	13	9	0	1,515
2009	69	89	636	184	258	1	2	0	1,081
2010	74	97	843	190	155	0	4	0	1,192
2011	62	116	595	161	26	7	7	0	796
2012	69	89	840	176	138	4	2	NA	1,160
2013	58	108	817	172	181	19	0	NA	1,189
2014	57	107	663	262	332	4	10	0	1,271
2015	72	83	961	457	512	5	15	NA	1,950
Average									
1980–2015	59	76	1,202	151	140	8	10	0	1,511
2006–2015	66	95	876	194	193	6	5	0	1,274
2011–2015	64	101	775	246	238	8	7	0	1,273

Source: Permits returned to ADF&G.

Table 78.— Contribution of hatchery fish to the Fish Creek sockeye salmon escapement 2002–2012.

Year	Sample % marked	Weir count
2002	2%	90,482
2003	12%	91,952
2004	17%	22,157
2005	55%	14,215
2006	73%	32,562
2007	71%	27,948
2008	51%	19,339
2009	36%	83,480
2010	67%	126,836
2011	69%	66,678
2012	17%	18,823
Average		
2004–2012	51%	45,782
2008–2012	48%	63,031

Table 79.—Salmon harvests by educational fishery permit holders in Northern Cook Inlet Management Area, 1994–2015.

Educational fishery permit holder	Year	Dates of operation	Salmon harvest (number of fish)					Total
			Chinook	Coho	Sockeye	Pink	Chum	
Knik Tribal Council	1994	ND	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
	2013	29–Jul	0	31	26	4	52	113
	2014	Aug 1–Aug 10	0	62	14	0	0	76
2015	Aug 1–Aug 11	0	15	43	1	21	80	
	Average 1994–2015		23	68	121	4	25	232
	2011–2015		0	24	38	1	15	79
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	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
	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	

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Table 79.–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 (continued)								
	2011	July 1–Sept 30	0	282	343	32	47	704
	2012	July 1–Sept 30	0	242	218	10	63	533
	2013	July 1–Sept 30	0	52	124	2	18	196
	2014	July 1–Sept 30	0	48	248	13	24	333
	2015	July 1–Sept 31	0	15	43	1	21	80
	Average							
	1994–2015		25	124	136	15	34	315
	2011–2015		0	128	195	12	35	369
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	No permit - low Chinook salmon abundance						
	2012	No permit - low Chinook salmon abundance						
	2013	No permit - low Chinook salmon abundance						
	Average							
	1998–2010		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
	2013	July 27–August 7	0	9	21	0	0	30
	2014	July 7–July 24	0	35	7	0	6	48
	2015	July 21–24	0	8	25	0	1	34
	Average							
	2005–2015		10	41	33	6	8	98
McLaughlin								
	2012	Permit terminated to conserve coho						
	2013	Did not fish						
Intertribal Native Leadership								
	2006	May 15–Sep 30	12	95	135	85	21	348

Source: Permit data returned to ADF&G

Note: ND means no attempt was made to collect data.

FIGURES

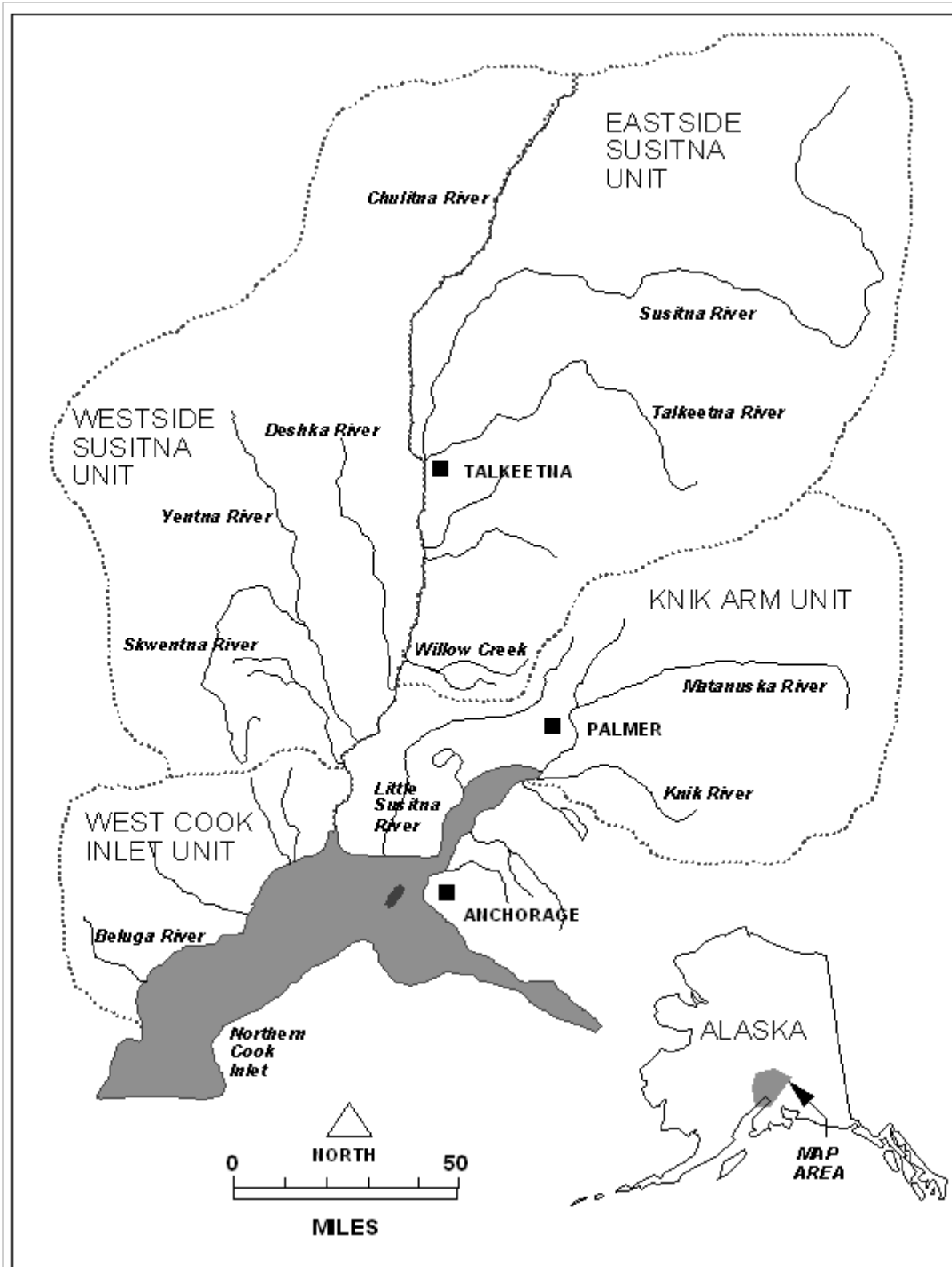


Figure 1.—Northern Cook Inlet sport fish management area (NCIMA).

Northern Cook Inlet Management Area

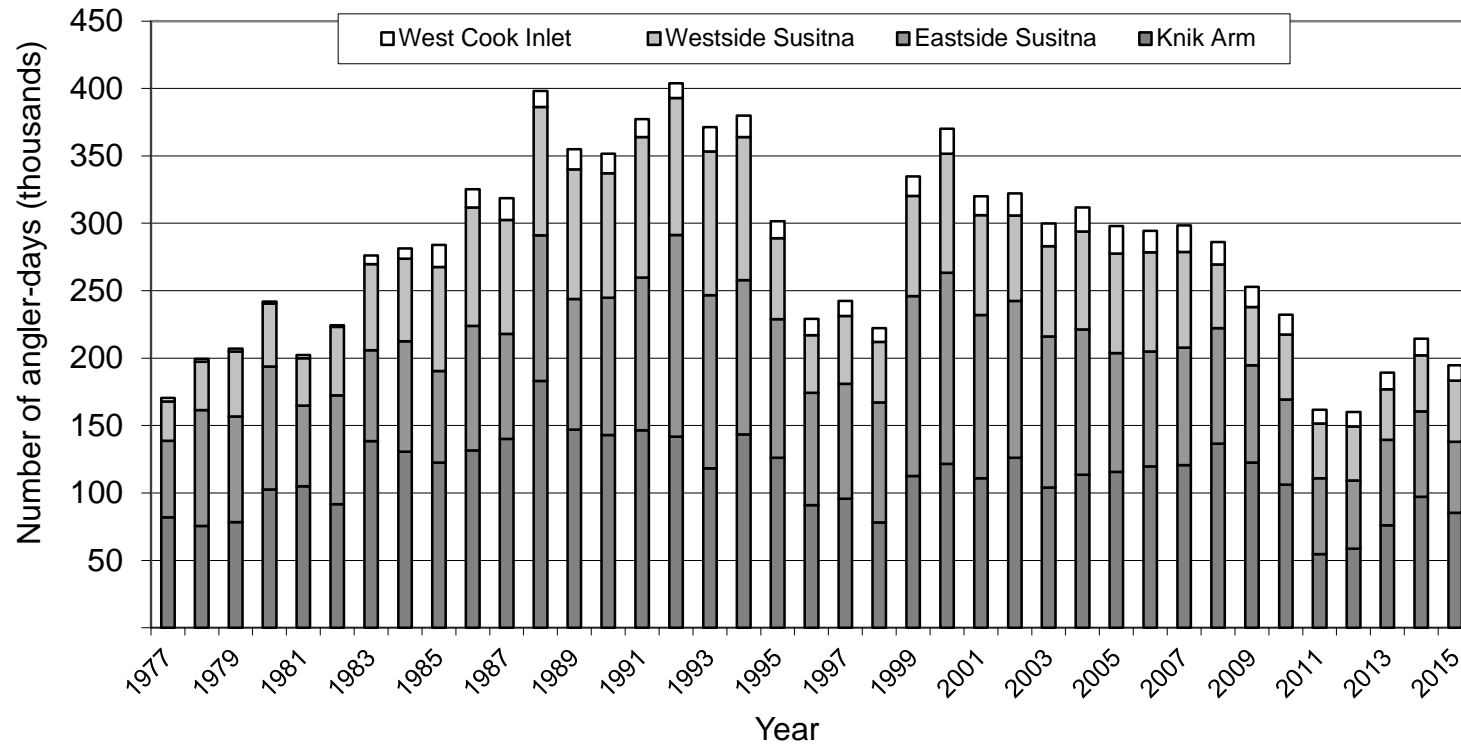


Figure 2.—Angler-days of sport fishing effort expended by recreational anglers fishing Northern Cook Inlet Management Area waters, 1977–2015.

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited December 2016). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Knik Arm Management Unit

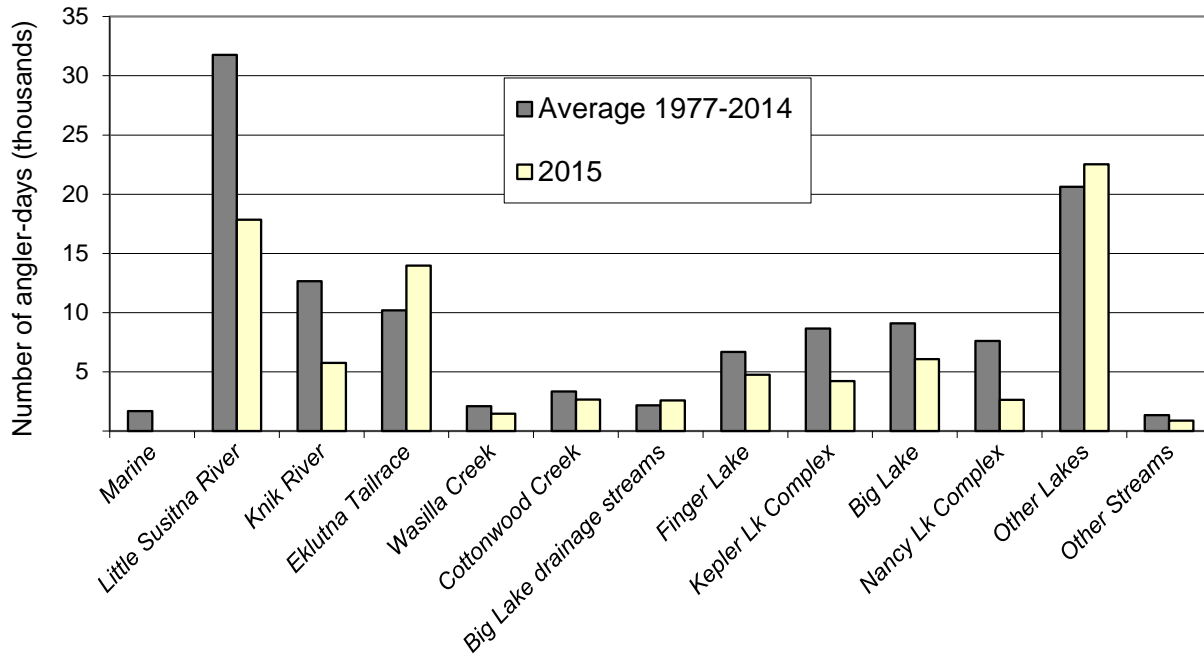


Figure 3.—Comparison of annual sport fishing effort (number of angler-days expended per year) for 2015 versus the average for 1977–2014 at sites in the Knik Arm Management Unit.

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2015). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

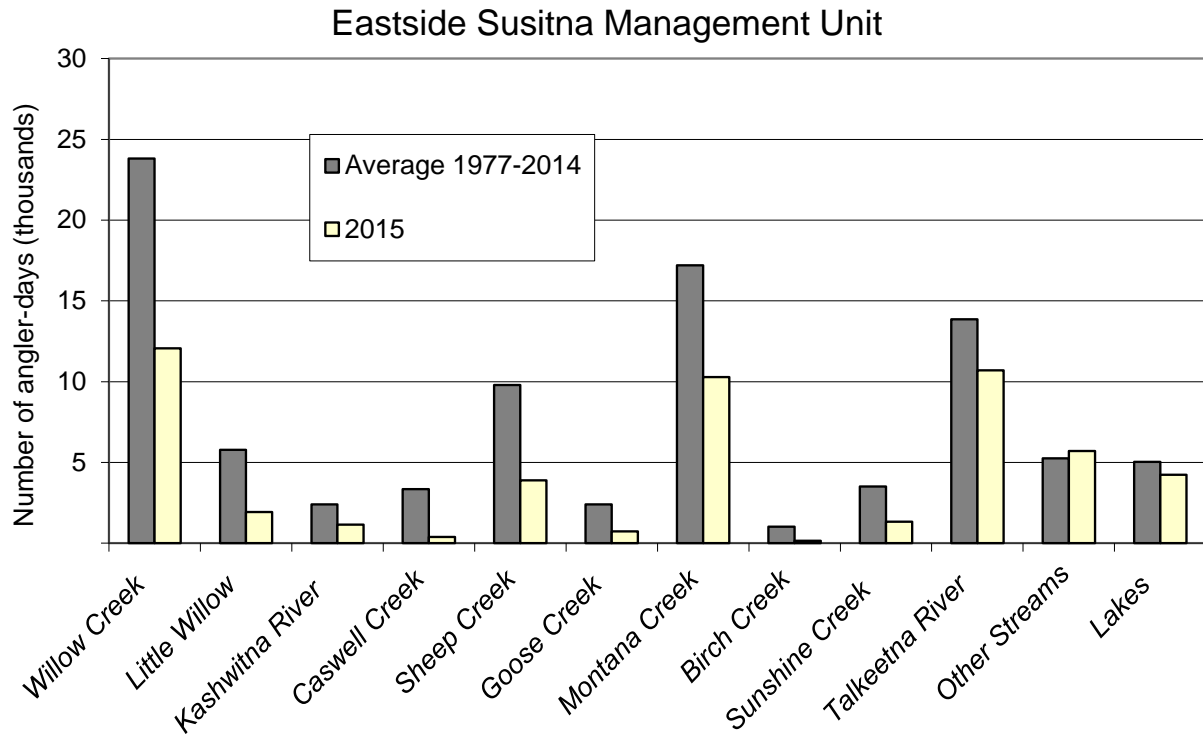


Figure 4.—Comparison of annual sport fishing effort (number of angler-days expended per year) for 2015 versus the average for 1977–2014 at sites in the Eastside Susitna River Management Unit.

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2015). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Westside Susitna Management Unit

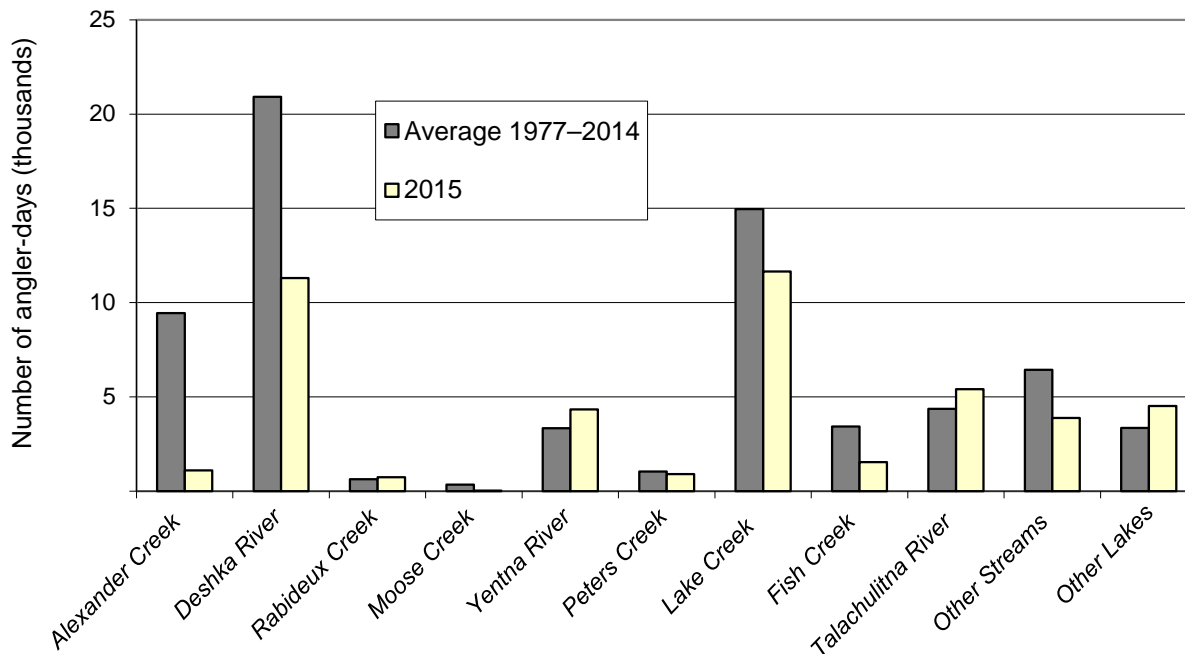


Figure 5.—Comparison of annual sport fishing effort (number of angler-days expended per year) for 2015 versus the average for 1977–2014 at sites in the Westside Susitna River Management Unit.

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2015). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

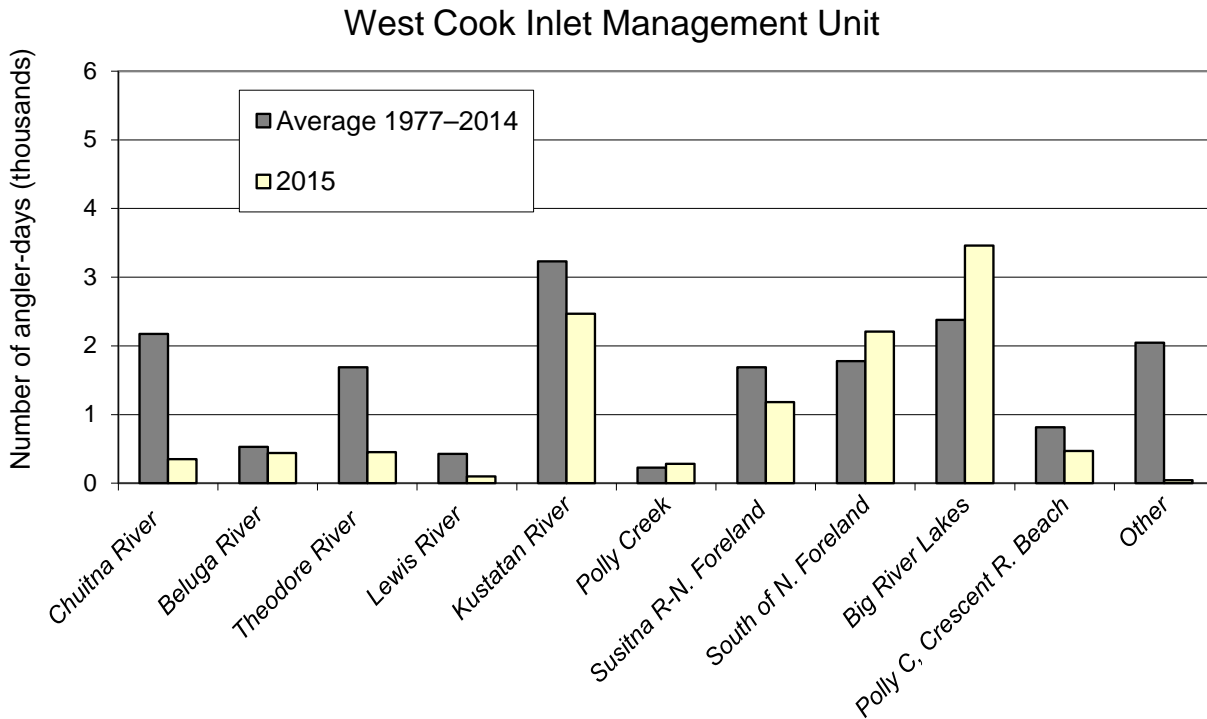


Figure 6.—Comparison of annual sport fishing effort (number of angler-days per year) for 2015 versus the average for 1977–2014 at sites in West Cook Inlet Management Unit.

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2015). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

Note: Big River Lakes includes Big River drainage, including Wolverine Creek.

Northern Cook Inlet Management Area

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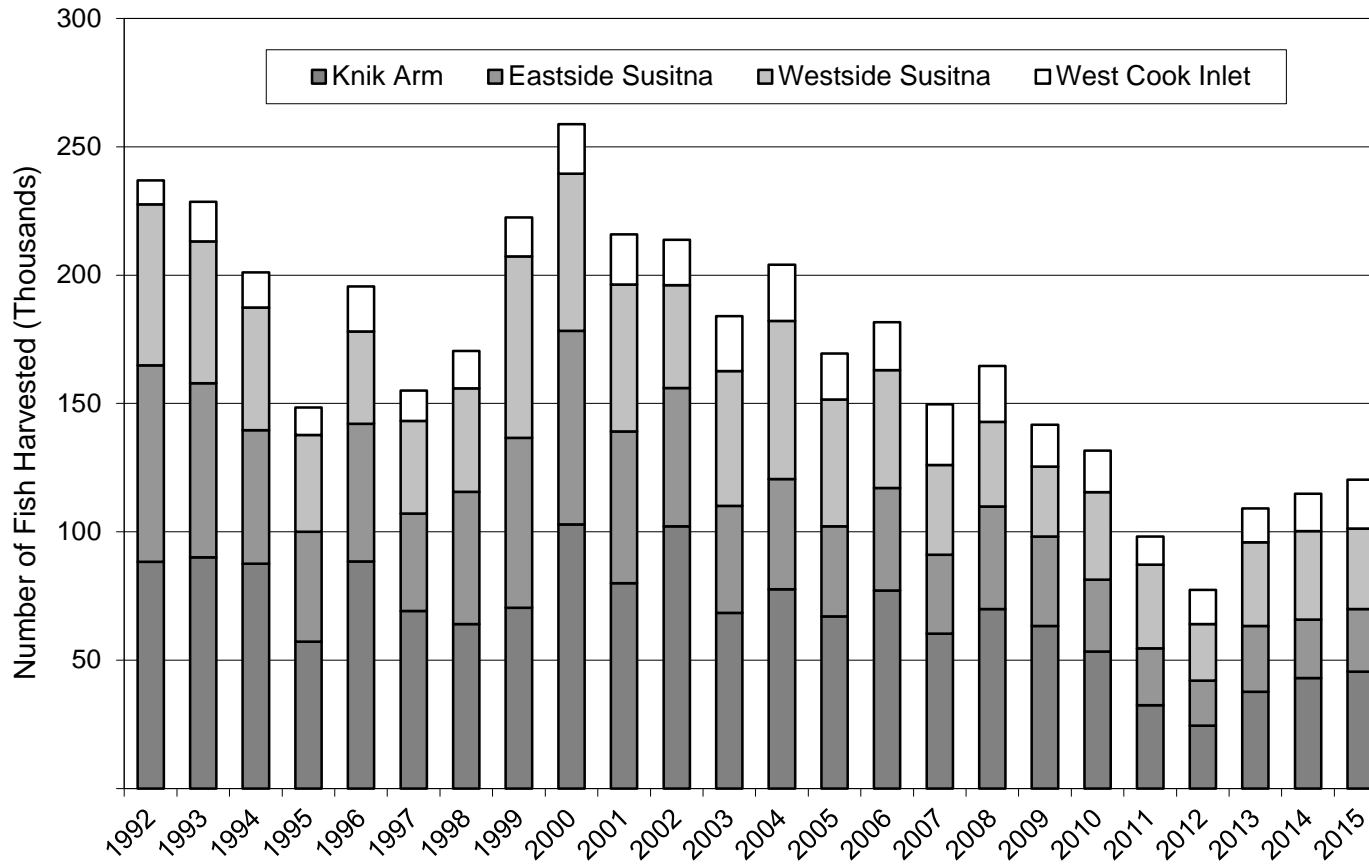


Figure 7.—Northern Cook Inlet Management Area sport fish harvest, 1977–2015.

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2015). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Northern Cook Inlet Management Area

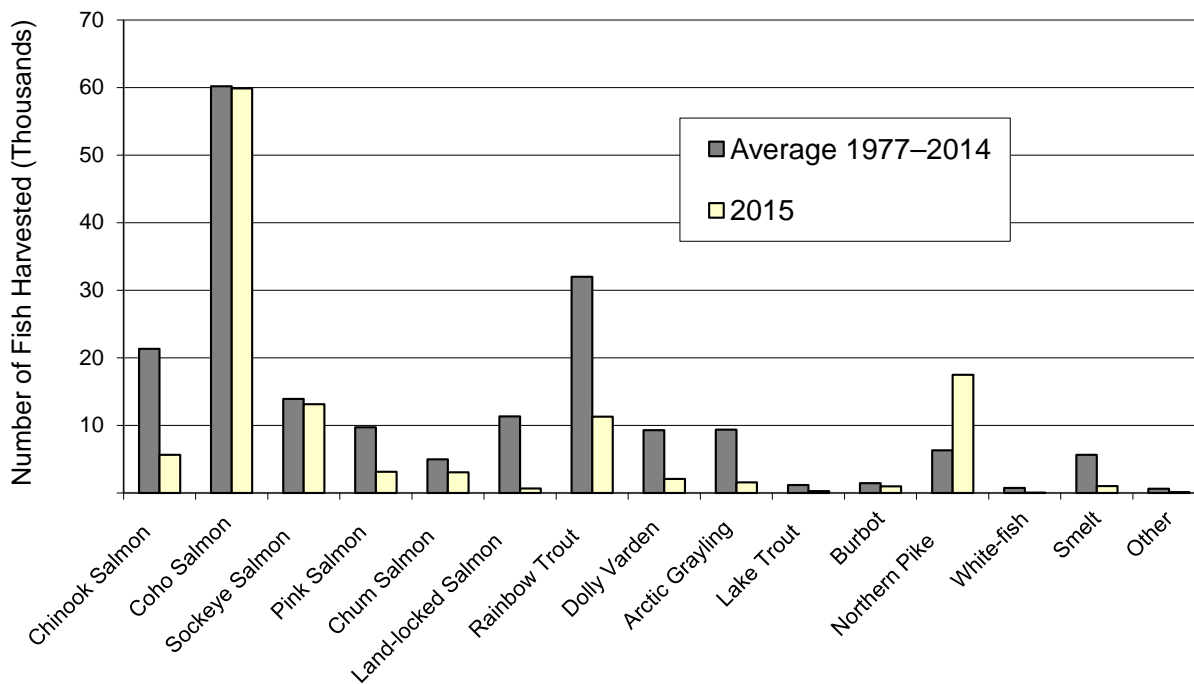


Figure 8.—Northern Cook Inlet Management Area sport harvest by species, comparison of 1977–2015 average harvest versus 2015 harvest.

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2015). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Northern Cook Inlet Management Area

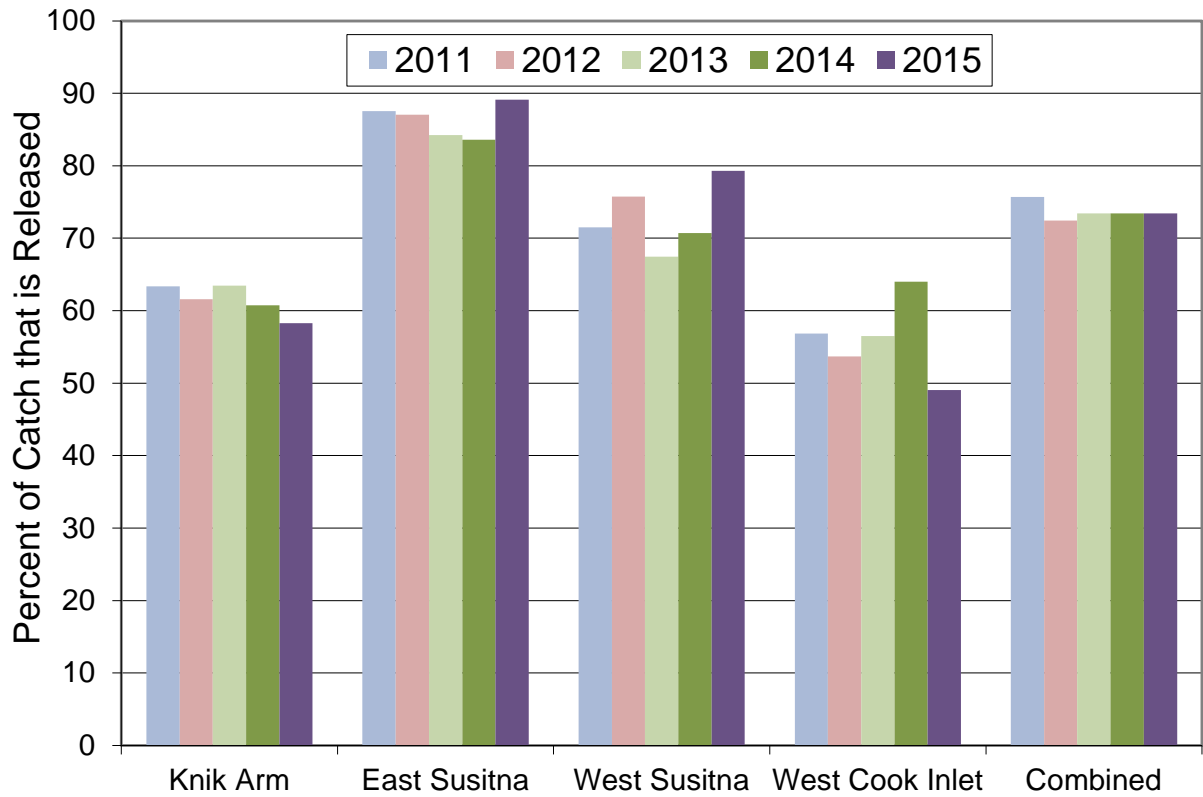


Figure 9.—Percentage of the recreational catch of all species from the Northern Cook Inlet Management Area that were released, 2011–2015, by management unit.

Source: Mills (1979, 1980, 1981a, 1981b, 1982–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2015). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

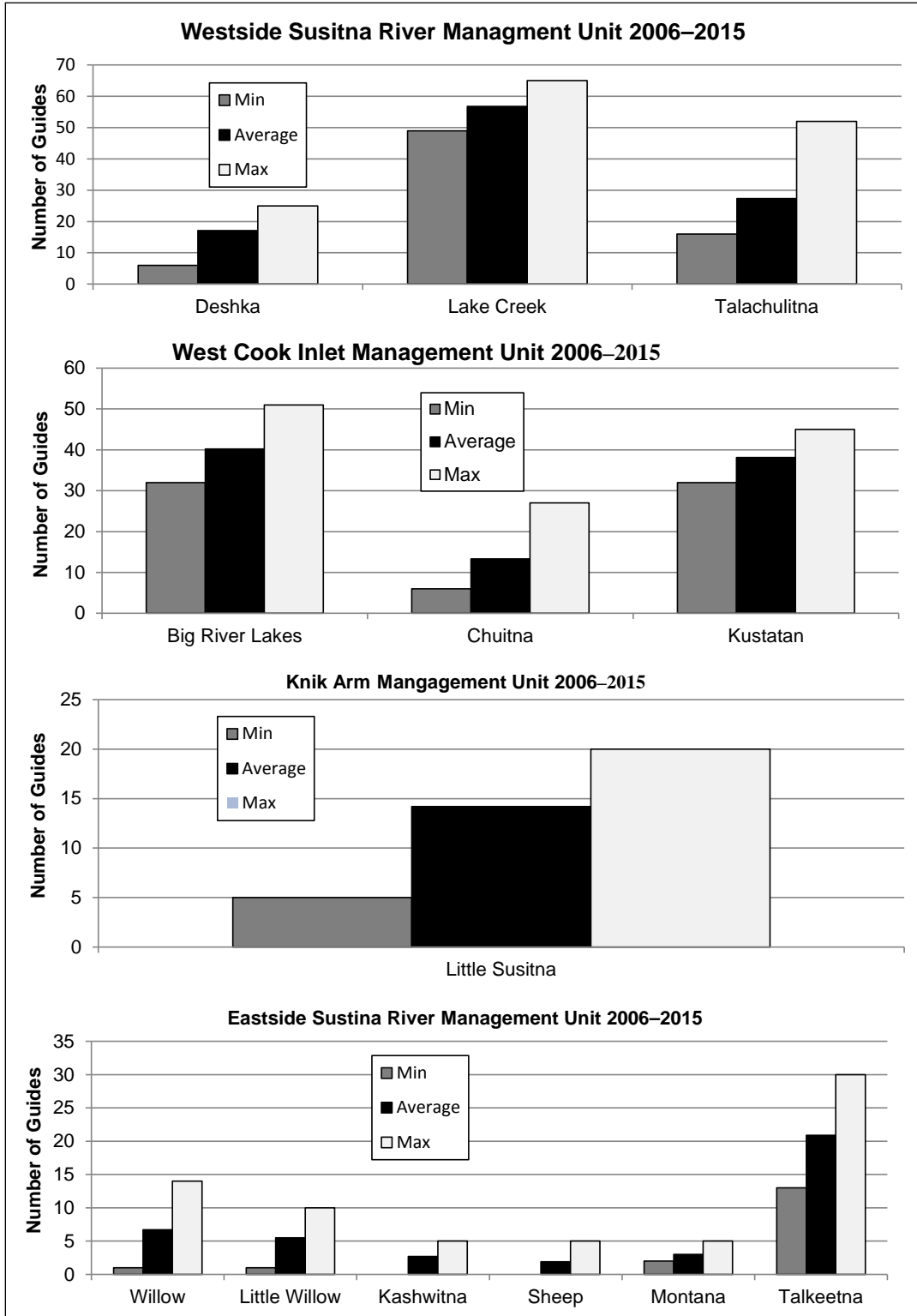


Figure 10.—Minimum, average and maximum number of guides fishing major systems within the NCIMA, 2006–2015.

Source: Freshwater Logbook Database. Alaska Department of Fish and Game, Division of Sport Fish. 2006 to present. (Accessed December 2016). [URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests.]. See also Sigurdsson and Powers (2009–2014).

Little Susitna River Guided Harvest

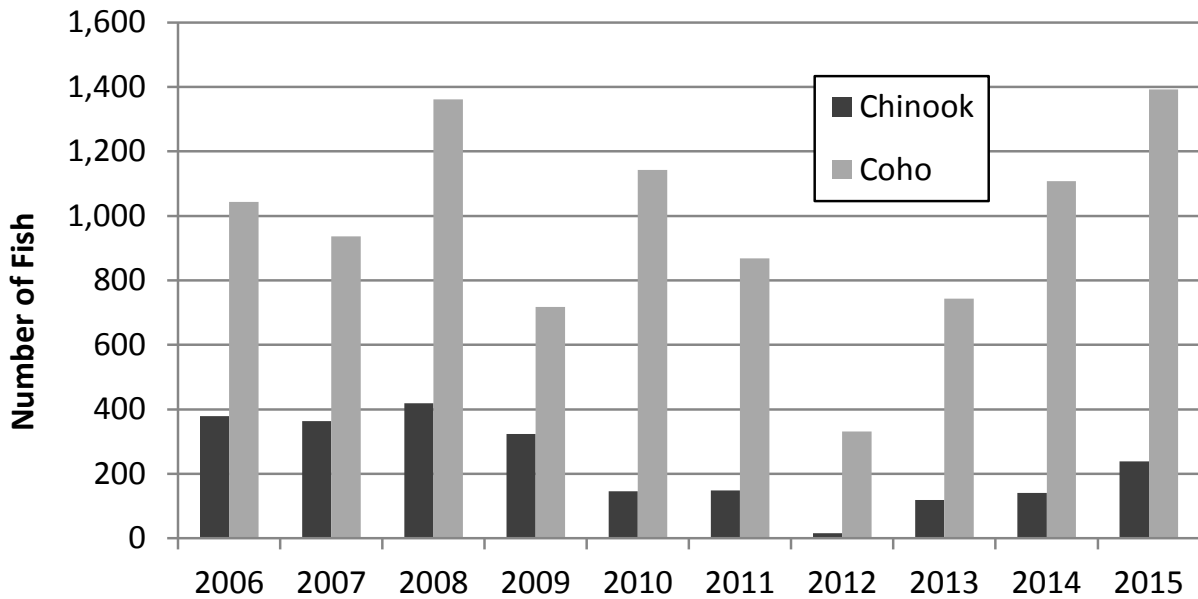


Figure 11.—Number of Chinook and coho salmon harvested by guided anglers on the Little Susitna River, 2006–2015.

Source: Freshwater Logbook Database. Alaska Department of Fish and Game, Division of Sport Fish. 2006 to present. (Accessed December, 2016). [URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests.] See also Sigurdsson and Powers (2009–2014).

Chinook Salmon in NCIMA 2006–2015

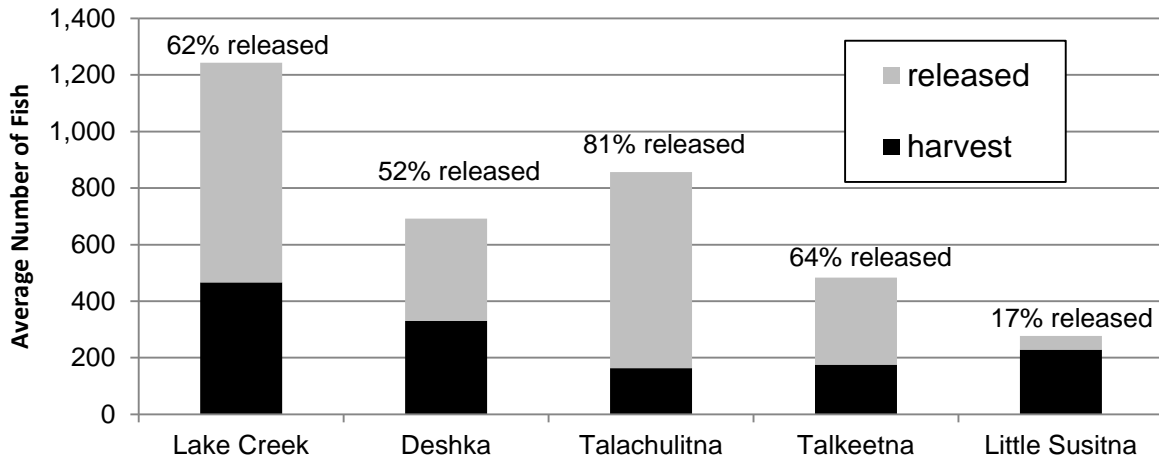


Figure 12.—Average guided catch divided into harvest and released of Chinook salmon in the NCIMA, 2006–2015.

Source: Freshwater Logbook Database. Alaska Department of Fish and Game, Division of Sport Fish. 2006 to present. (Accessed December, 2016). [URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests.] See also Sigurdsson and Powers (2009–2014).

Coho Salmon in NCIMA 2006–2015

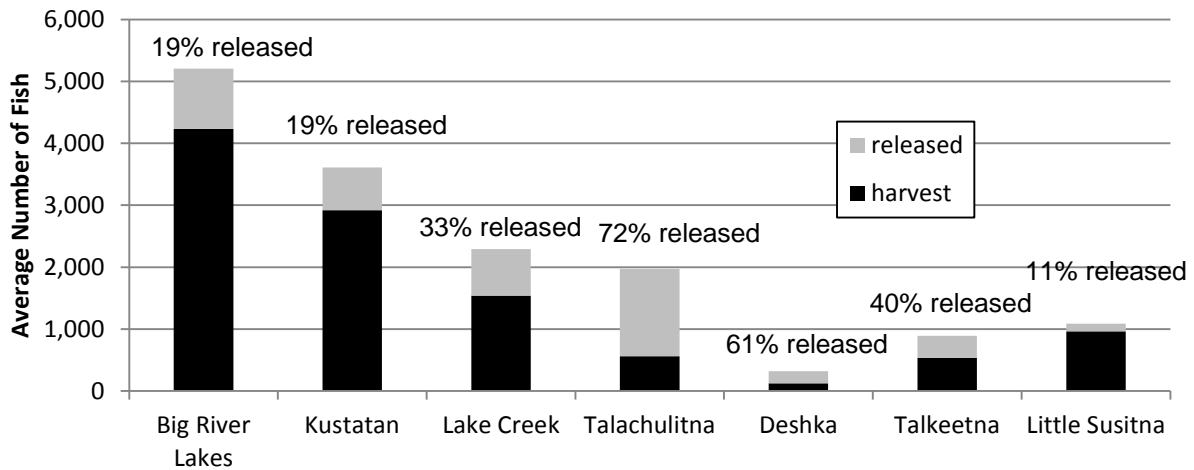


Figure 13.—Average guided catch divided into harvest and released of coho salmon in the NCIMA, 2006–2015.

Source: Freshwater Logbook Database. Alaska Department of Fish and Game, Division of Sport Fish. 2006 to present. (Accessed December, 2016). [URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests.] See also Sigurdsson and Powers (2009–2014).

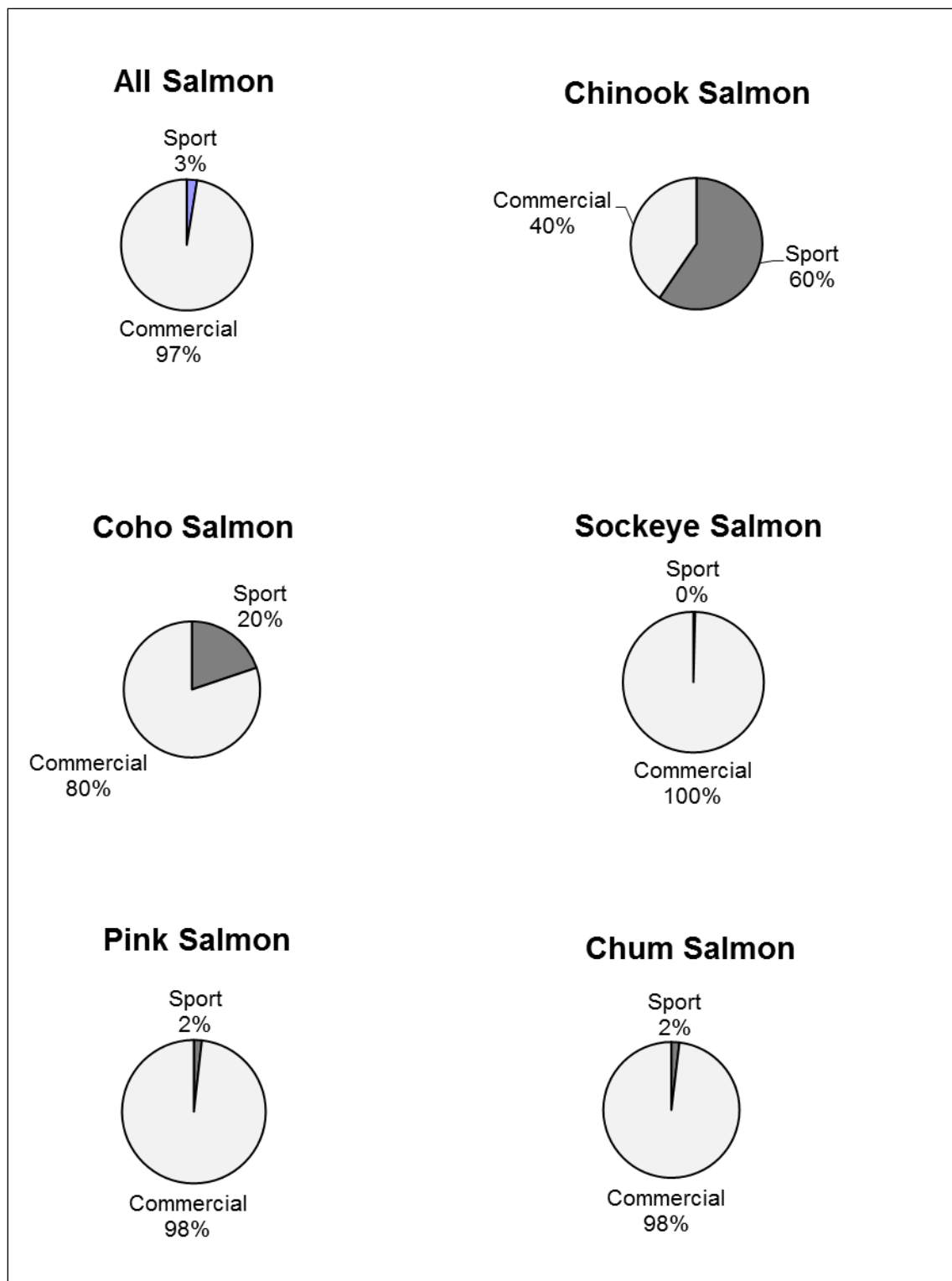


Figure 14.—Composition of the Northern Cook Inlet salmon harvest, 1977–2015.

Source: Commercial from Shields and Dupuis (2016). Sport fish from Mills (1984–1994); Howe et al. (1995, 1996); Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2015). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Chinook Salmon of Northern Cook Inlet Origin

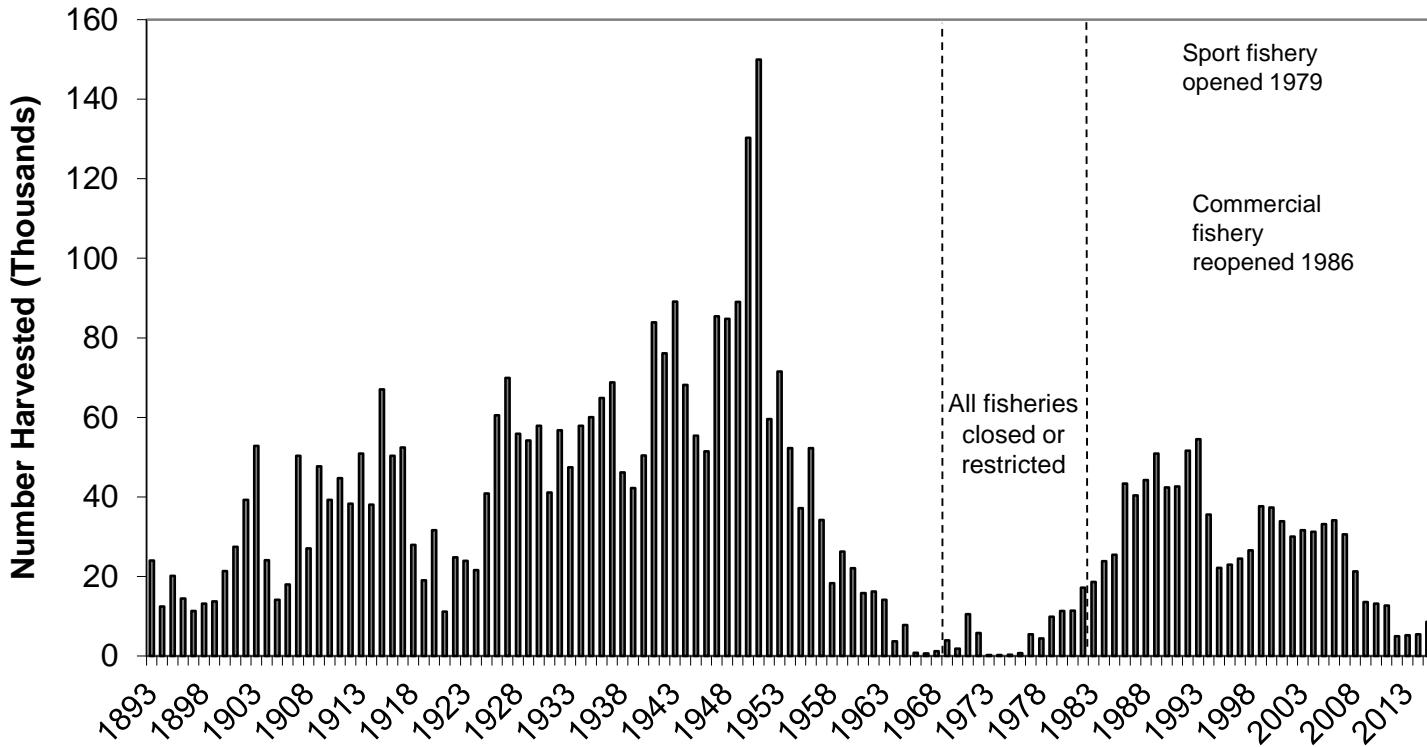


Figure 15.—Estimated harvests of Chinook salmon of Northern Cook Inlet origin by all user groups, 1983–2015.

Source: SWHS for the Division of Sport Fish, data archived with the Division of Commercial Fisheries and the Division of Subsistence.

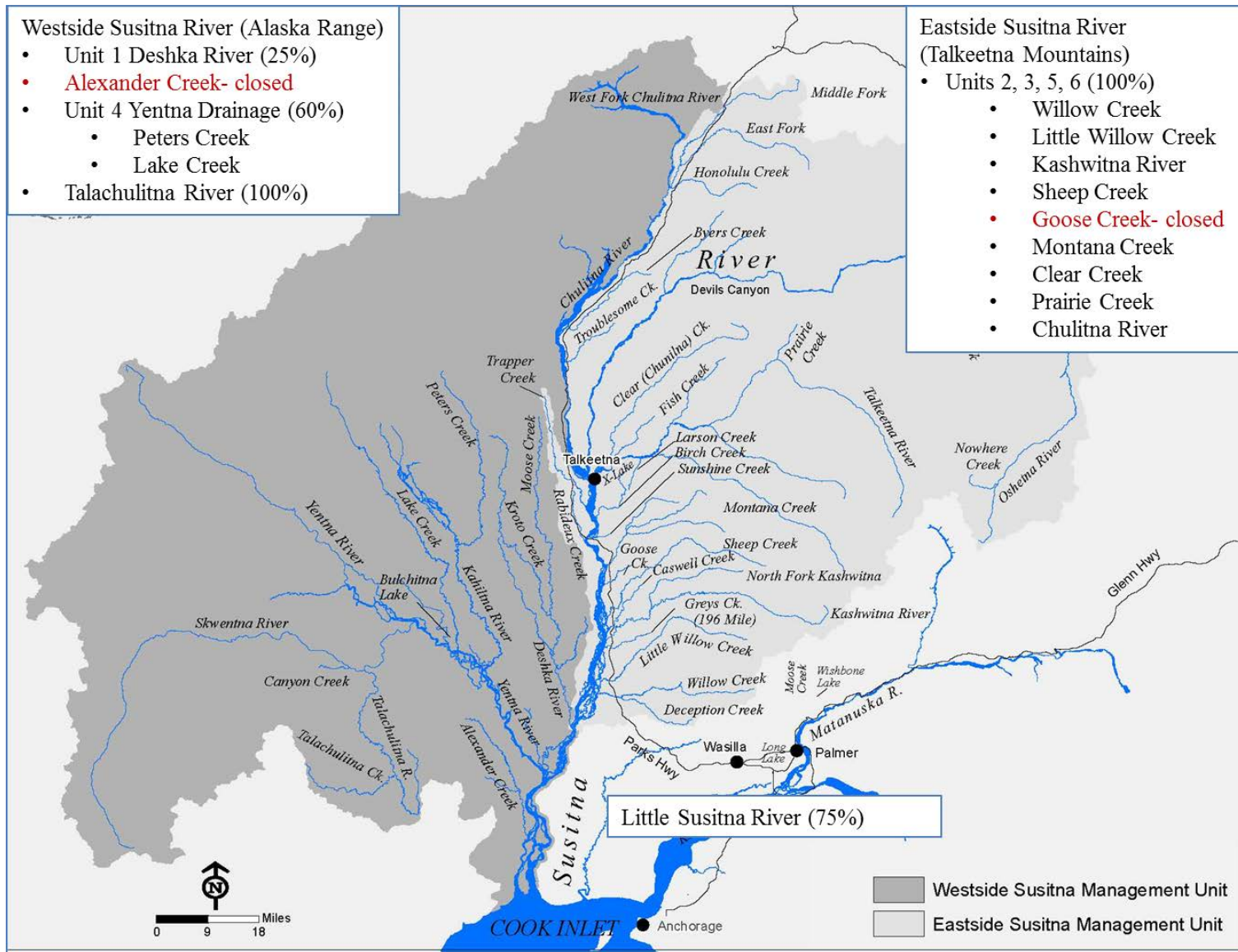


Figure 16.—Approximate Chinook salmon sport harvest targeted reductions by area of the Susitna River and Little Susitna River drainages, 2013–2015.

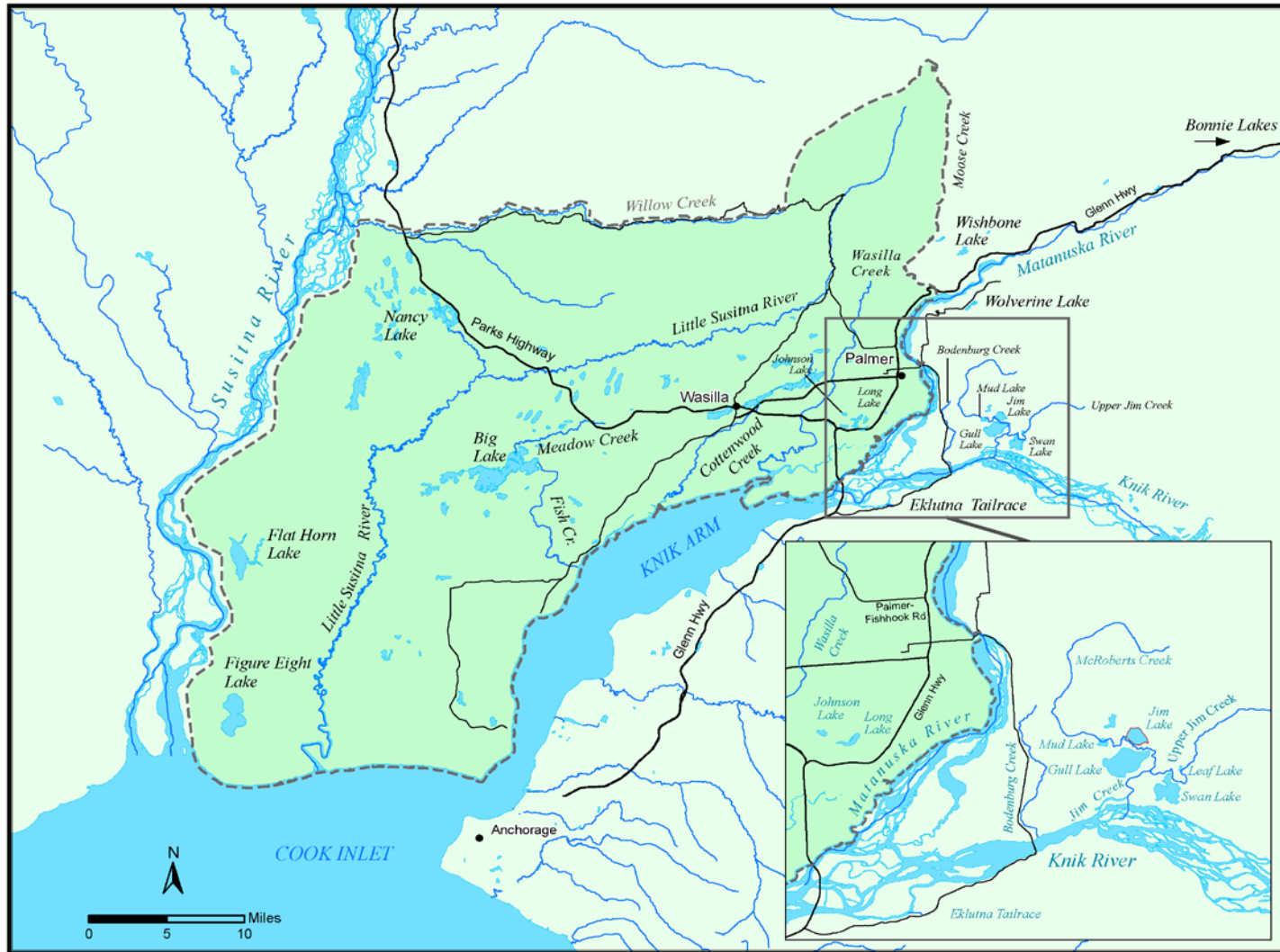


Figure 17.—Map showing the boundary of the Knik Arm Management Unit and the freshwater drainages therein.

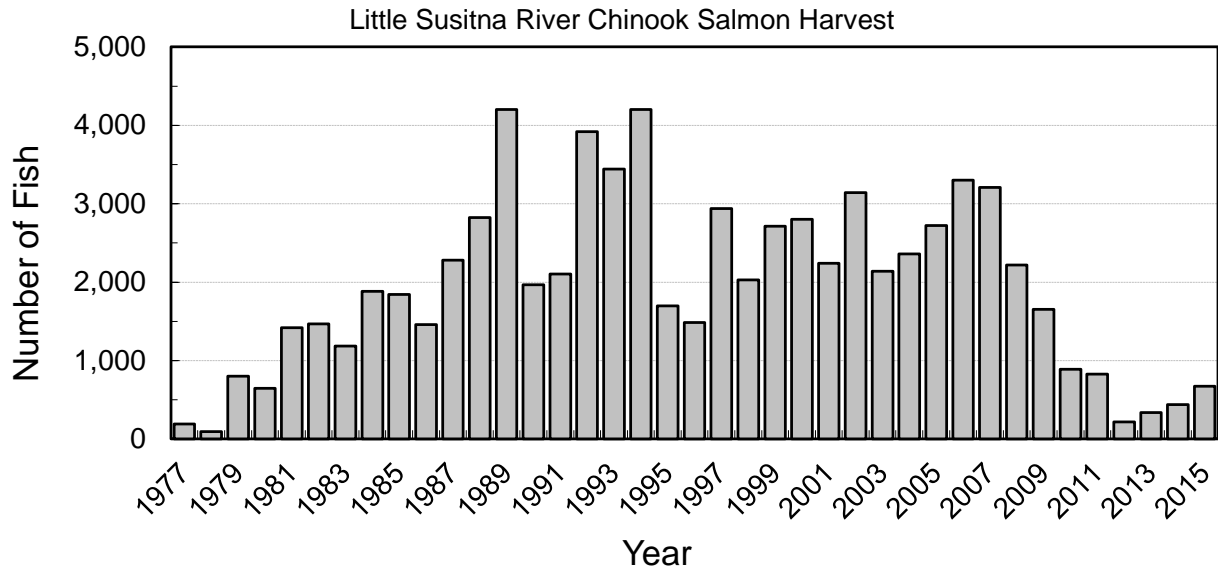


Figure 18.—Sport harvest of Chinook salmon from Little Susitna River, 1977–2015.

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2015). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

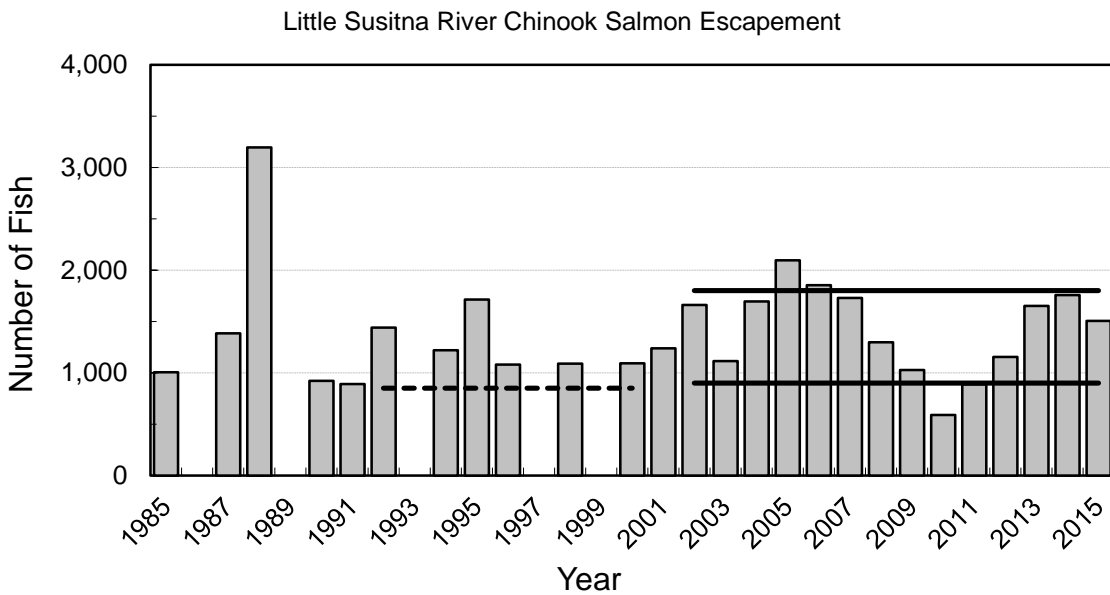


Figure 19.—Estimated escapement of Chinook salmon in the Little Susitna River with escapement goal range, 1985–2015.

Source: ADF&G staff aerial surveys.

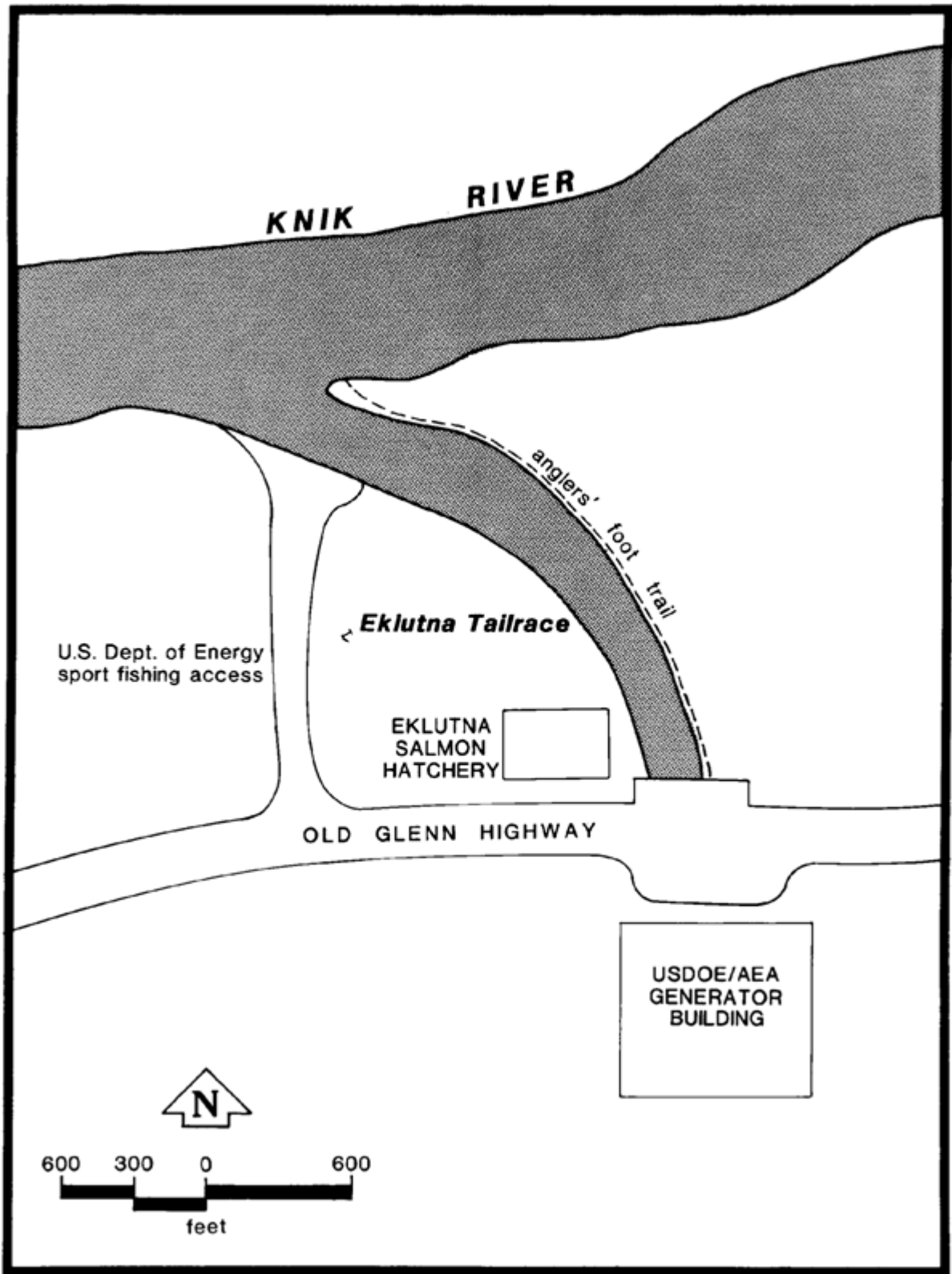


Figure 20.—Eklutna Power Plant tailrace, part of the Knik Arm Management Unit.

UNIT 2

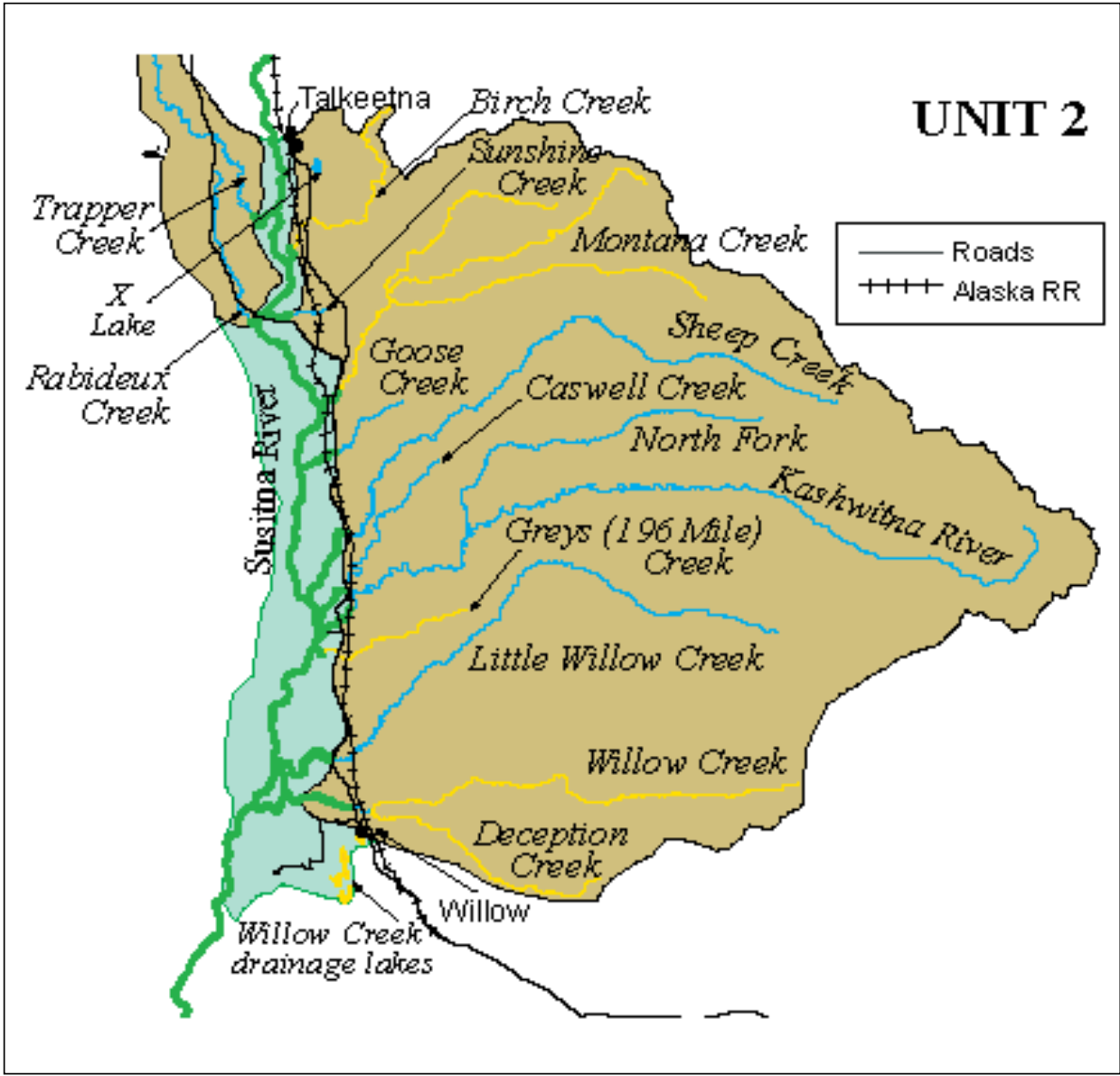


Figure 21.—Susitna River drainage from its confluence with the Deshka River upstream to its confluence with the Talkeetna River.

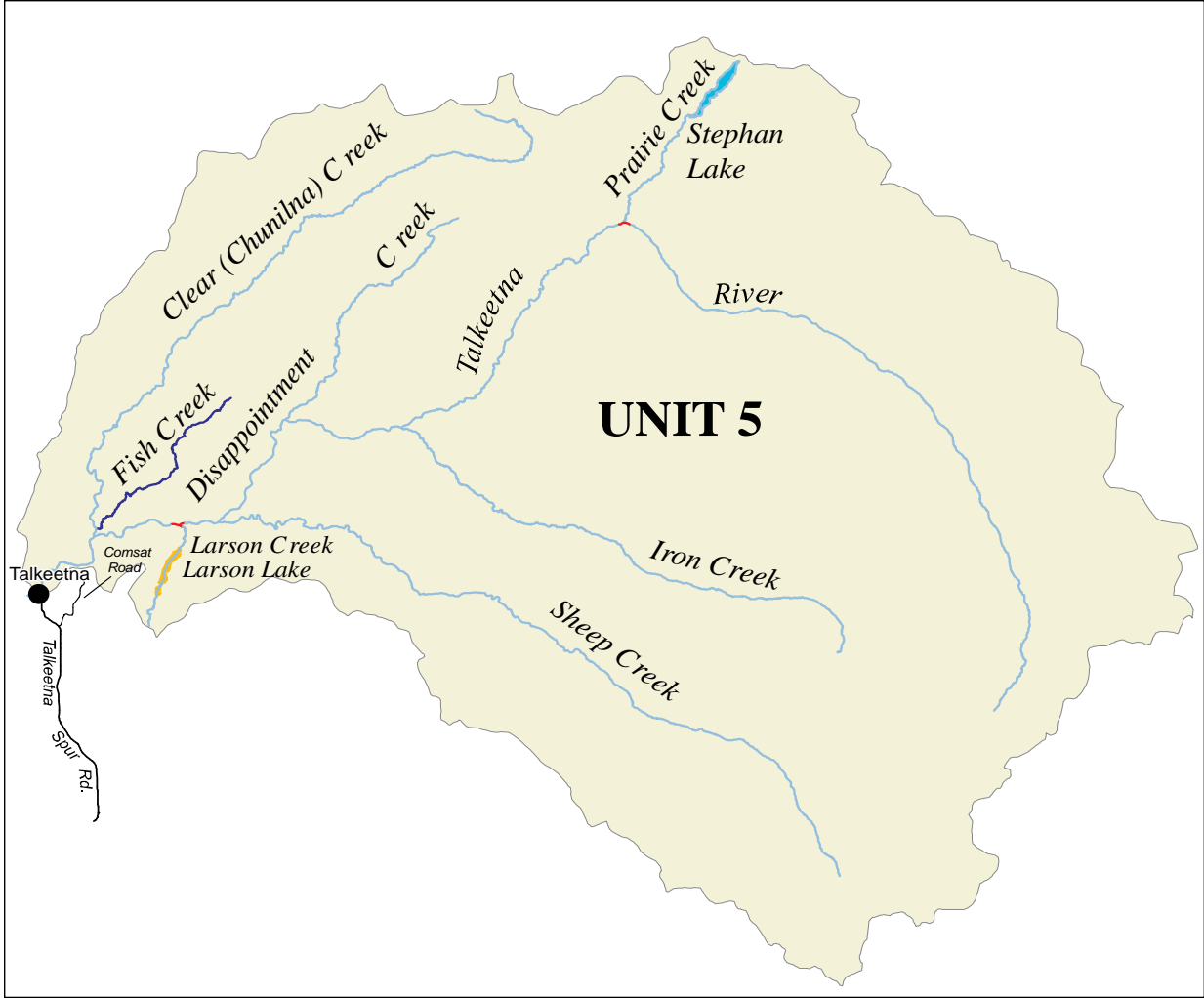


Figure 22.—Flowing waters, lakes, and ponds of the Talkeetna River drainage.

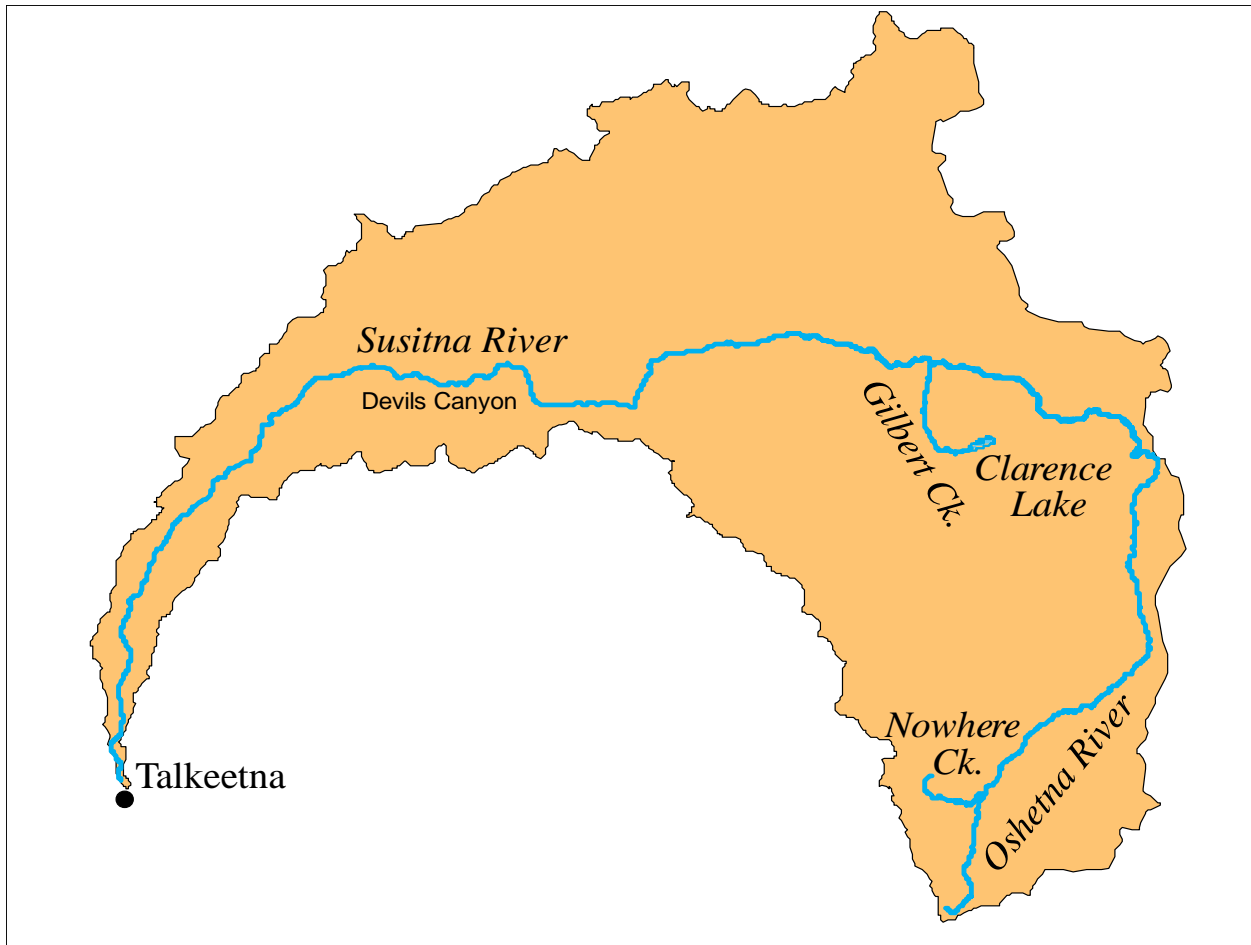


Figure 23.—Upper Susitna River area (Talkeetna to Devil’s Canyon), and including the Oeshetna River.

Chinook Salmon Escapements

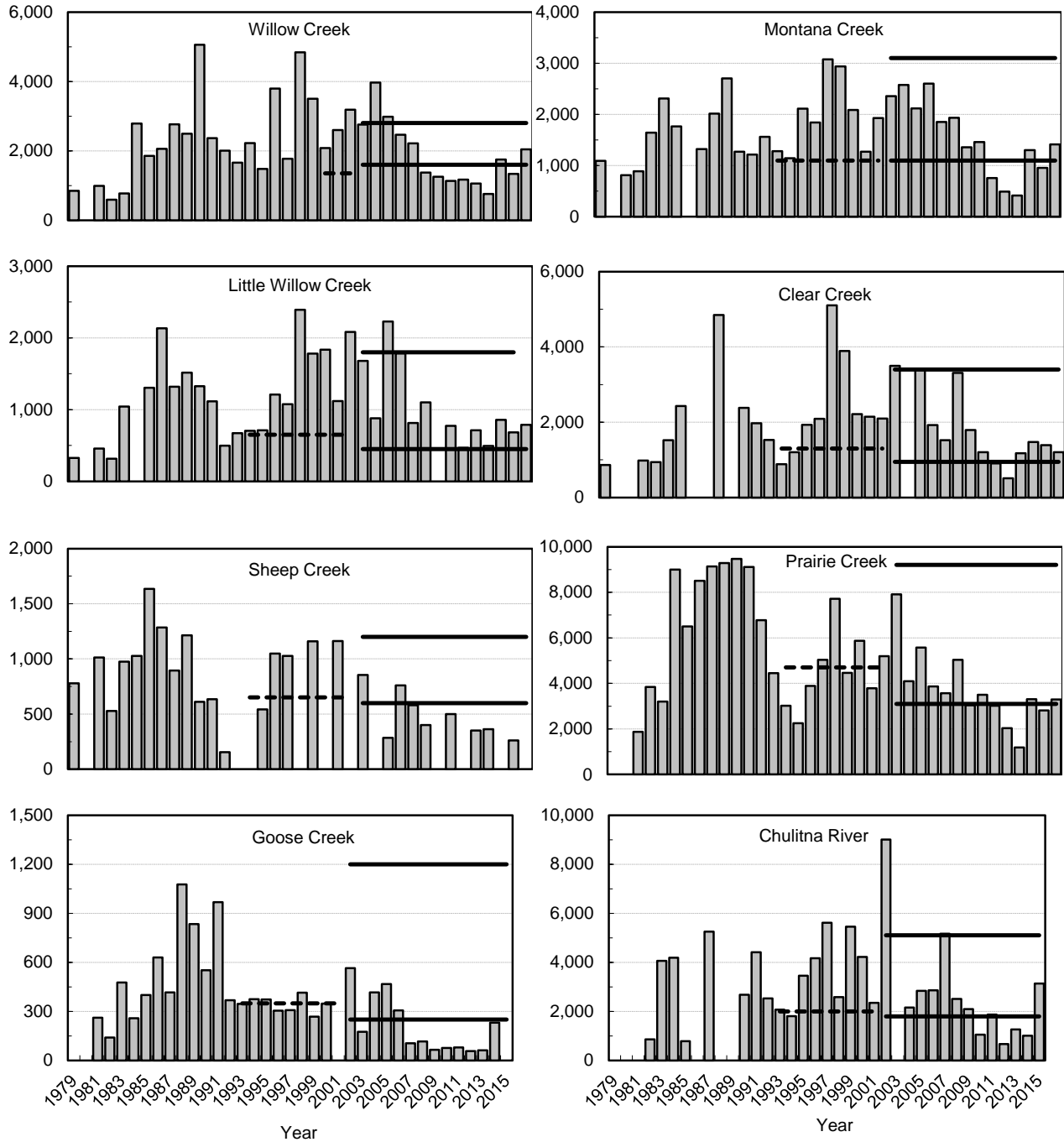


Figure 24.—Chinook salmon escapements at Eastside Susitna River tributaries and Chulitna River, 1979–2015.

Source: ADF&G staff surveys.

Note: Chinook salmon escapements (number of fish) are shown on the y-axes (scales differ between sites). The dashed line is the biological escapement goal; solid lines are the sustainable escapement goal range.

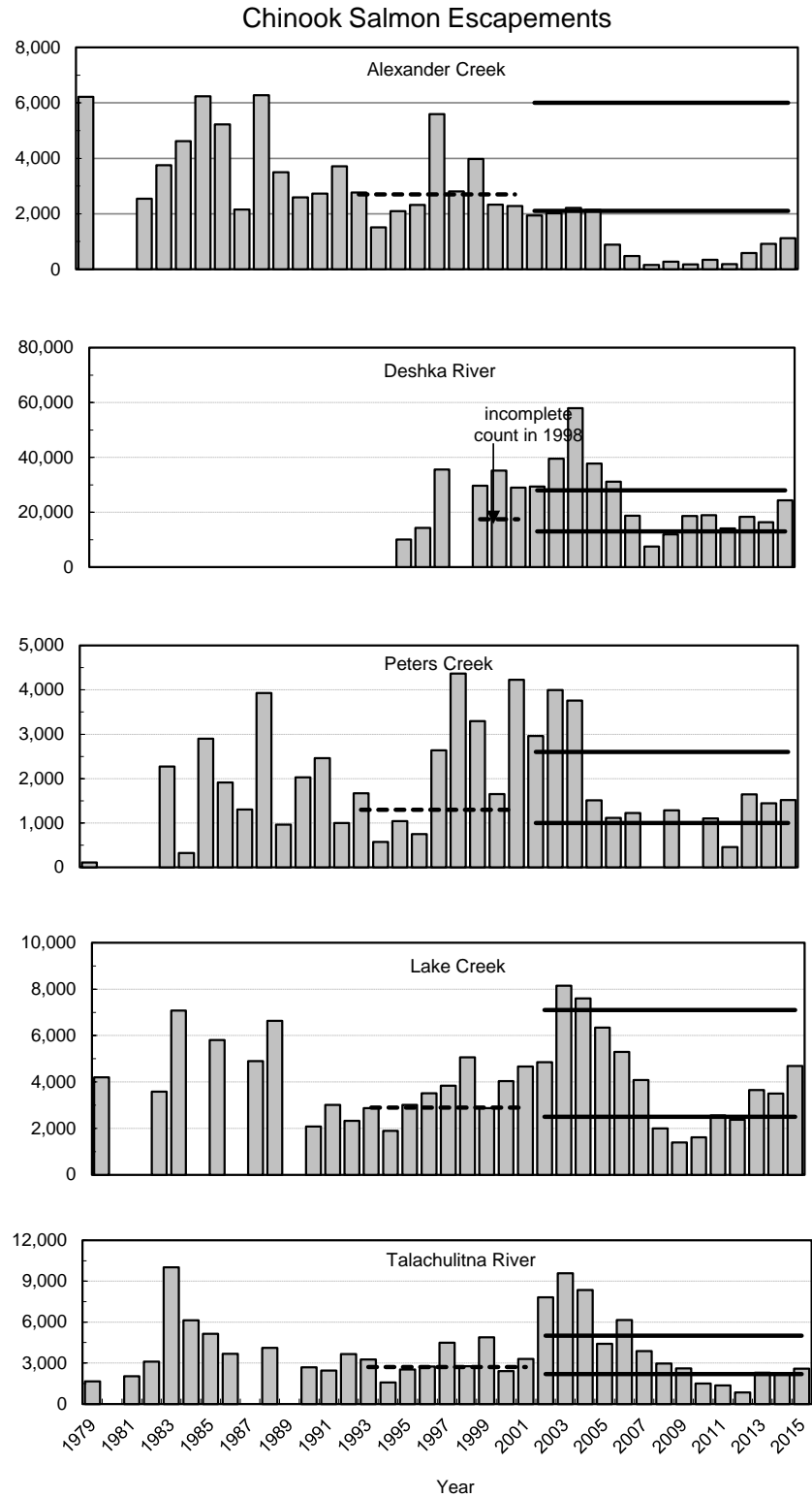


Figure 25.—Chinook salmon escapements at Westside Susitna River tributaries, 1979–2015.

Note: Chinook salmon escapements (number of fish) are shown on the y-axes (scales differ between sites). The dashed line is the biological escapement goal; solid lines are the sustainable escapement goal range.

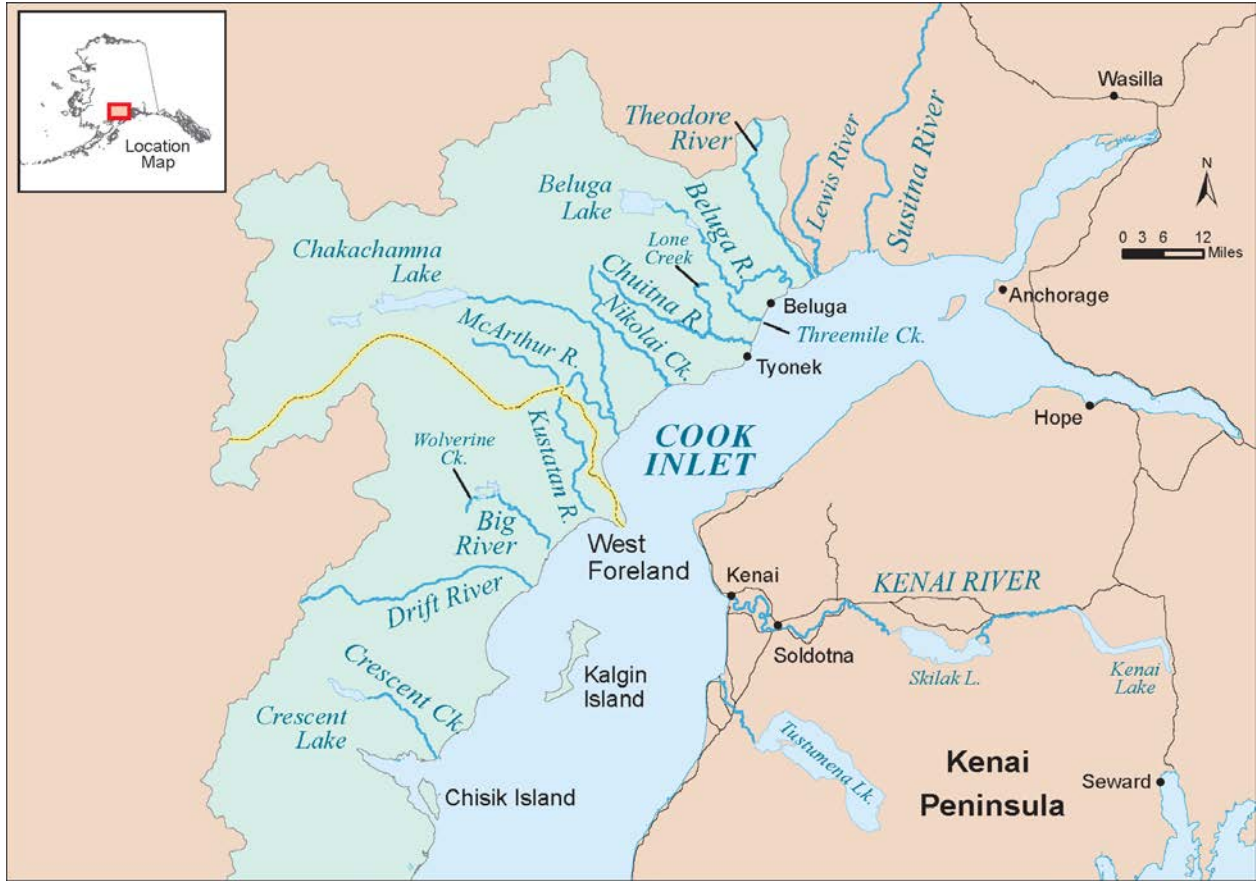


Figure 26.—West Cook Inlet Management Unit (WCIMU).

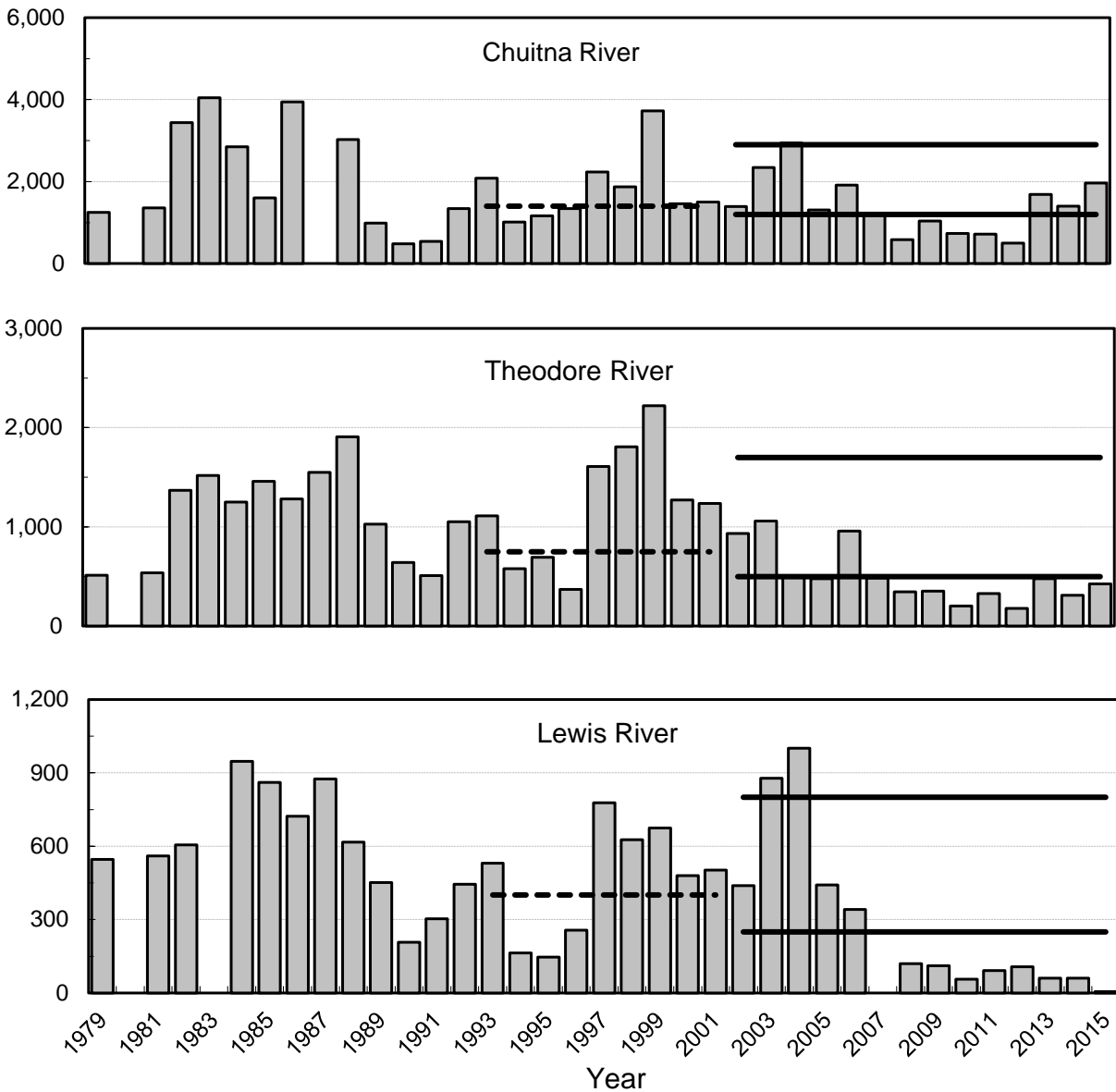


Figure 27.—Chinook salmon escapements at major West Cook Inlet freshwater drainages, 1979–2015.

Source: ADF&G aerial survey data.

Note: Chinook salmon escapements (number of fish) are shown on the y-axes (scales differ between sites). The dashed line is the biological escapement goal; solid lines are the sustainable escapement goal range.

Little Susitna River Coho Salmon

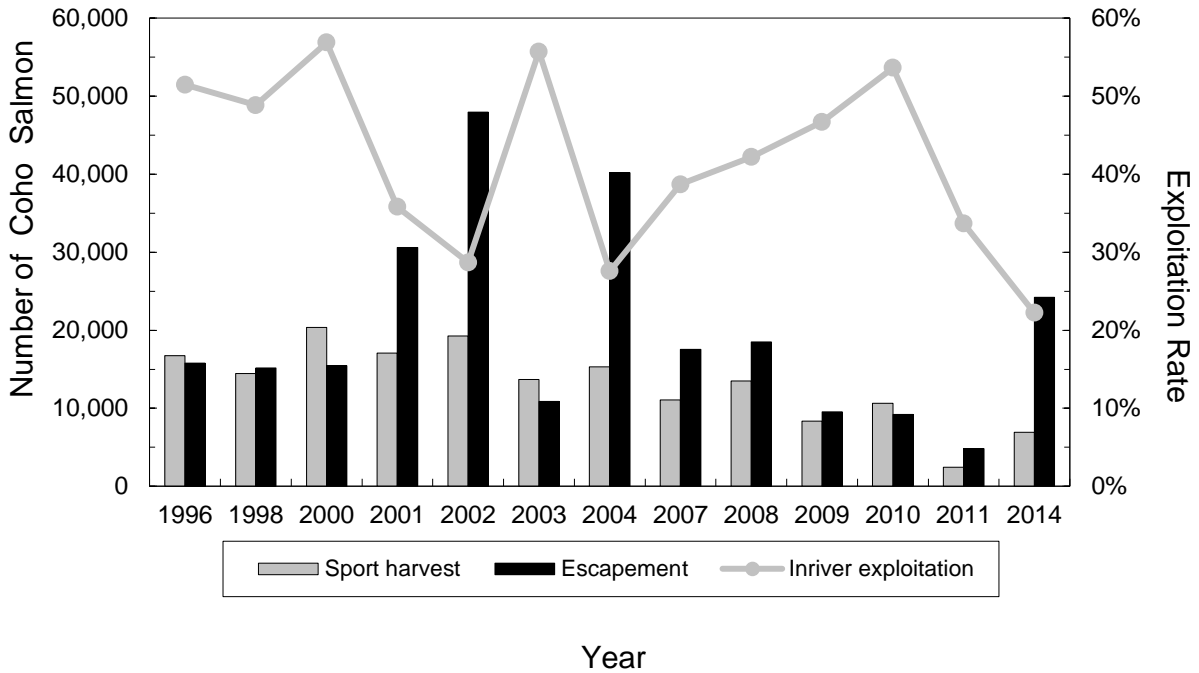


Figure 28.—Coho salmon harvest, escapement, and inriver exploitation from the Little Susitna River sport fishery for years that counts were completed at a weir located at RM 71.

Source: ADF&G aerial survey data and Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2015). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

Note: Escapement counts in 1997, 2005–2006, and 2012–2013, 2015 were incomplete due to flooding.

Coho Salmon Weir and Index Counts

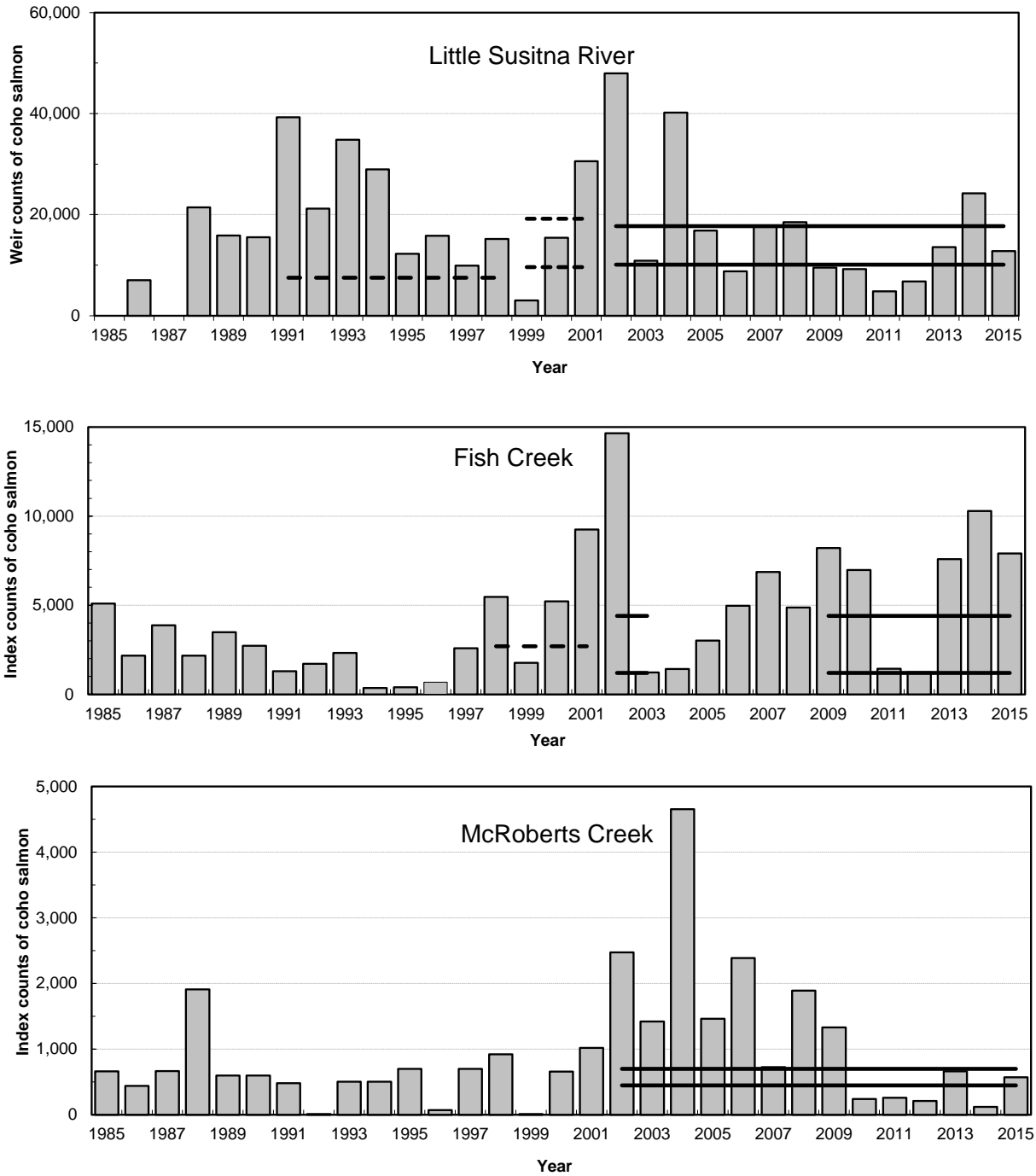


Figure 29.—Little Susitna River weir (top), Fish Creek weir (middle), and McRoberts Creek index counts (bottom) of coho salmon, 1985–2015.

Source: ADF&G foot and weir surveys.

Note: For Little Susitna River, there was no weir in 1985 and 1987; there were incomplete counts in 1986–1997, 2005–2006, and 2012–2013 due to flooding and weir submersion, and the weir was pulled early in 2015. For Fish Creek, the weir was operated primarily for sockeye salmon; complete coho salmon counts were obtained in 1990–1992, 1998–2003, 2009–2010, 2012, and 2014–2015. Solid lines indicate sustainable escapement goal range.

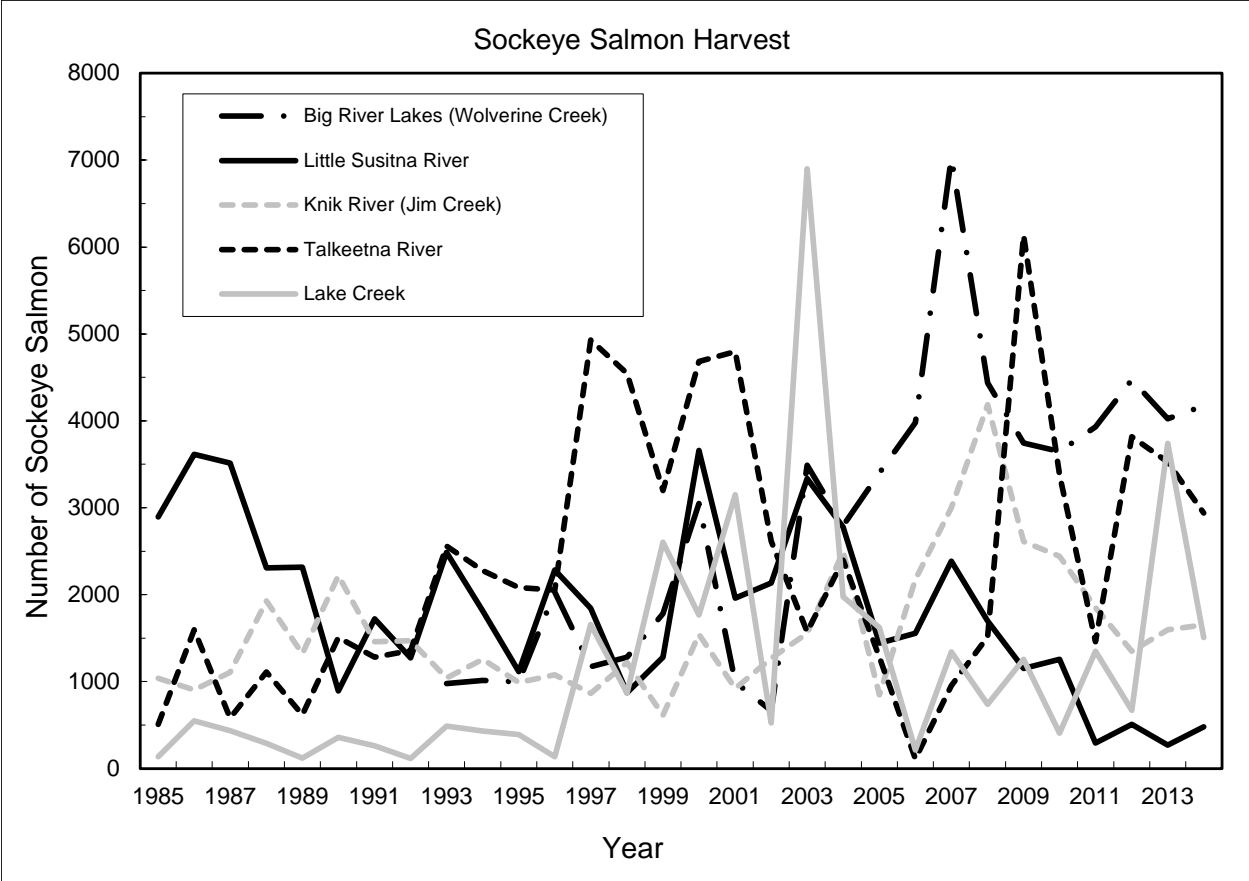


Figure 30.—Estimated harvest of sockeye salmon from major fisheries within the NCIMA, 1985–2014.

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2017). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

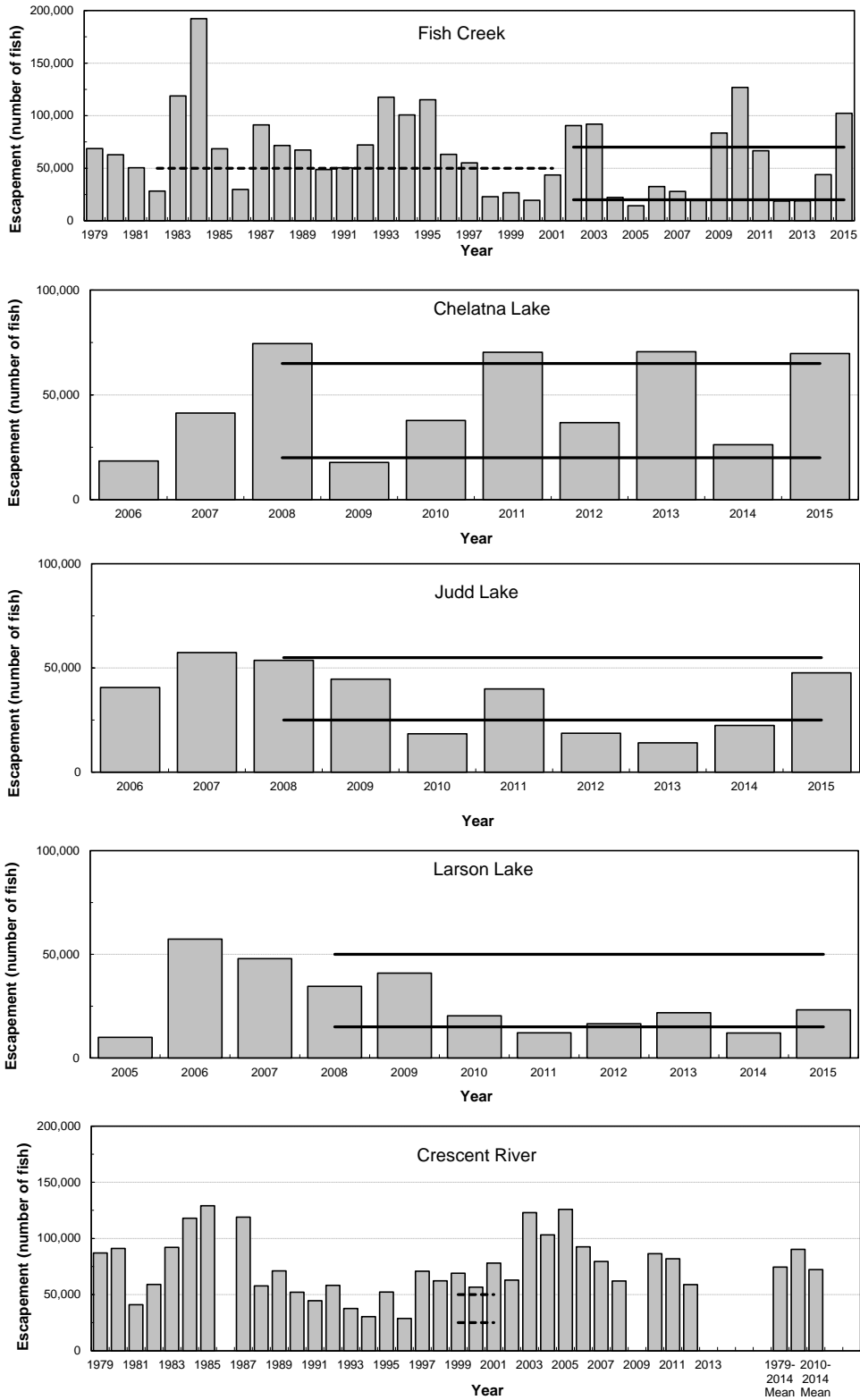


Figure 31.—Estimated sockeye salmon escapements from major fisheries in Northern Cook Inlet Management Area, 1979–2015.

Note: Dashed lines indicate an old escapement goal or range; solid lines indicate sustainable escapement goal range.

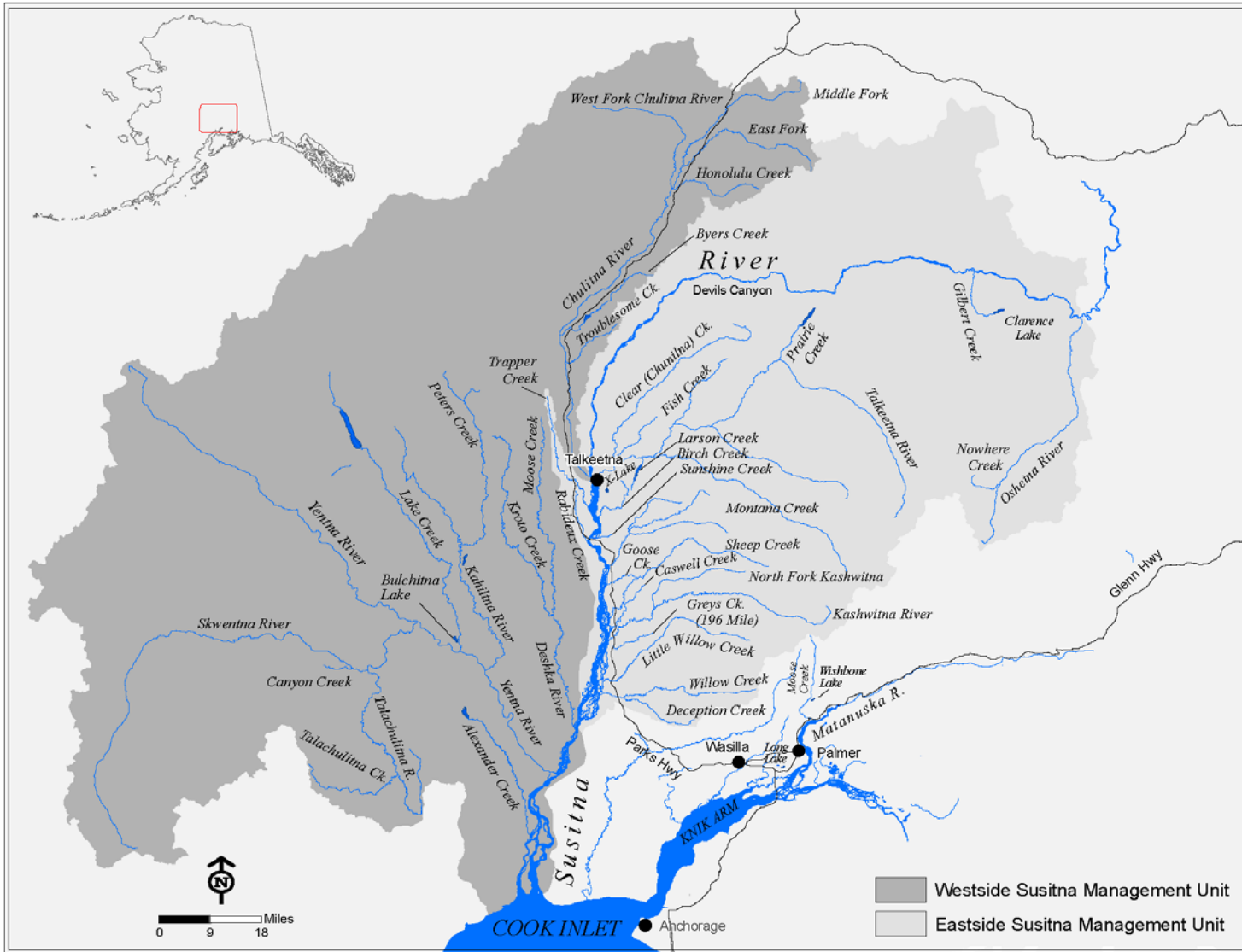


Figure 32.–Susitna River drainages.

Statewide and NCIMA Northern Pike Harvest

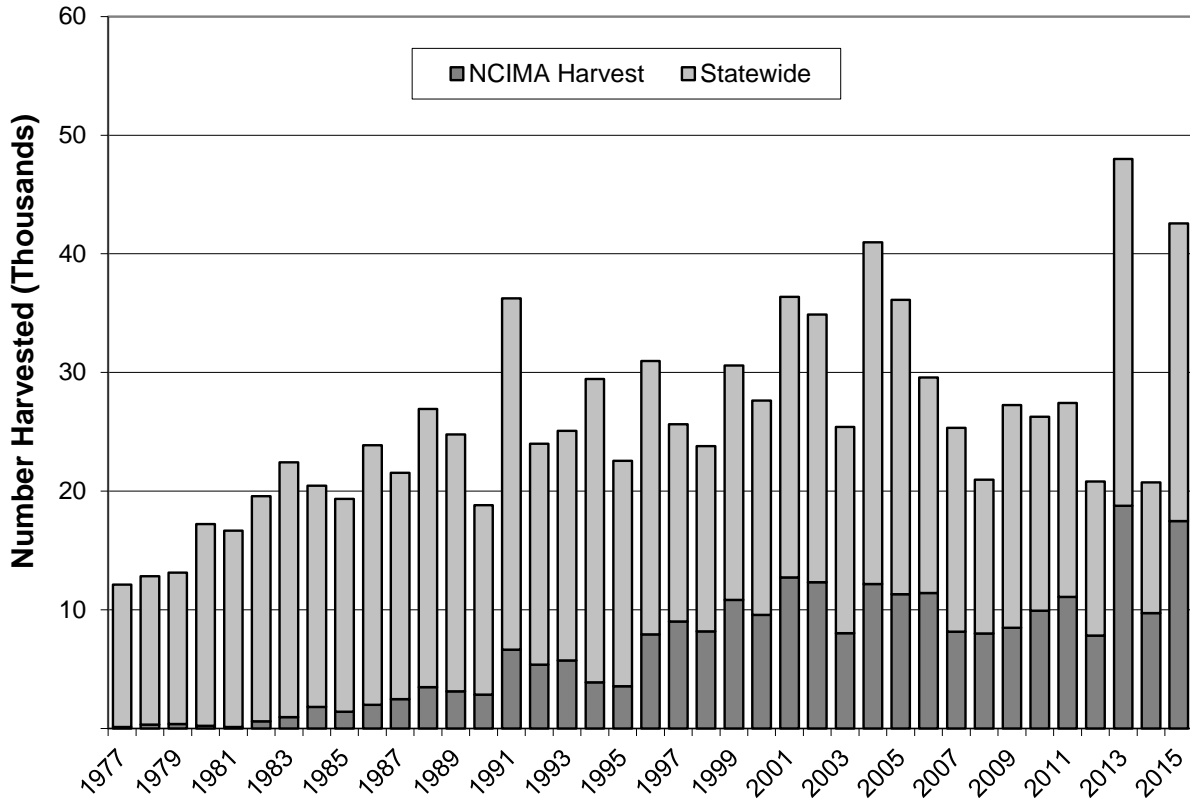


Figure 33.—Estimated northern pike harvest from the Northern Cook Inlet Management Area and statewide, 1977–2015.

Source: Alaska Sport Fishing Survey database [Internet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited January 2015). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

APPENDIX A: FISH AND GAME ADVISORY COMMITTEE

Appendix A1.–Northern Cook Inlet Management Area, Fish and Game
Advisory Committee members 2014–2015.

Advisory Committee	Last	First
Susitna Valley	Fitzgerald	Billy
	Gustafson	Gus
	Knowles	Bruce
	Mahay	Israel
	Meals	Robert
	Runyan	Steve
	Schacle	Ted
	Schafer	Steven
	Wood	Mike
Matanuska Valley	Bartelli	Stephen
	Buirge	Mike
	Cizek	Joe
	Couch	Andy
	DeLand	Tom
	Ehmann	Jehnifer
	Folsom	Bill
	Griese	Herman
	Grove	Mel
	Jones	Tony
	Montgomery	Dan
	Nininger	Terry
	Nordstrom	Hans
	Payton	Israel
	Talin	Randy
	Tuttle	Jeff
	Young	David
Mt. Yenlo	Brion	Tom
	Childs	Steve
	Childs	Bonnie
	Ivey	James
	Johnson	Eric
	King	Sara
	Payton	Tom
	Phillips	Roger
	Stanley	Barry
	Torkelson	Mark

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Advisory committee	Last	First
Denali	Atkins	Ray
	Bolard	Armeda
	Burney	Jeff
	Carlson	Gordon
	Gore	Marie
	Holum	Don
	Holum	Caleb
	Molory	Harold
	Williams	Lance
Tyonek	Bismark	Lindsey
	Caswell	Ben
	Chickalusion	Norma
	Chickalusion	Gwen
	Chinkalusion	Theodore
	Heilman	Larry
	Pfoff	Alex
	Standifer	Elizabeth
	Standifer	Randy
	Standifer Jr.	Donald
Verduce	Janelle	

**APPENDIX B: REGULATORY HISTORIES OF SELECTED
NCIMA FISHERIES**

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

Selected Susitna River streams were reopened to Chinook salmon fishing in 1979 after being closed for several years because of low stock abundance. Cautious incremental expansion has characterized the area's Chinook salmon fisheries since they reopened. From 1979 through 1982 Chinook salmon fishing was permitted at Alexander Creek, Lake Creek, and at the Deshka River from the fourth Saturday in May through July 6. These streams drain into the Susitna River from the west. Clear Creek, a tributary of the Talkeetna River, also had a similar Chinook salmon season. In addition, 3 eastside tributaries of the Susitna River—Willow, Caswell, and Montana creeks—were open on only Saturdays and Sundays for 4 consecutive weekends commencing on the second Saturday in June. Harvest quotas, ranging from 200 to 7,000 Chinook salmon, governed these fisheries from 1979 through 1982. The Chuitna River, a coastal stream near Beluga, and the entire Yentna and Talkeetna river drainages were opened to Chinook salmon fishing in 1983. The opening date for Chinook salmon fisheries that provided continuous daily fishing was also changed to January 1.

In 1984, the remaining coastal streams near Beluga and all waters draining into the westside of the Susitna River downstream from the Deshka River were opened to Chinook salmon fishing. In 1986, portions of 5 road-accessible streams on the east side of the Susitna River opened to weekend-only fishing. These streams were Little Willow, Goose, Sunshine, Sheep and Birch creeks.

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

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

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

In 1986, bag and possession limits for the western drainages of the Susitna River were changed to 2 Chinook salmon, 16 inches or more in length, daily, and 4 in possession; these limits remained through 1992. Only 1 fish daily and 2 in possession could be over 28 inches. Similar limits also applied to the West Cook Inlet coastal fisheries. Bag and possession limits for eastern drainages of the Susitna River in 1986 were 1 Chinook salmon, 16 inches or more in length, and 2 in possession. The seasonal limit was 5 Chinook salmon 16 inches or more in length. 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 permit stamp was mandatory for Chinook salmon angling. The harvest record and yearly limit was eliminated for all NCI Chinook salmon fisheries in 1989.

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

In effect for the 1993 season in the West Cook Inlet area, the Chinook salmon fishing season was reduced in length to end on June 30. The bag and possession limits were reduced in areas open to the retention of Chinook salmon 16 inches or more in length to 1 daily and 1 in possession. Additionally, only unbaited, artificial lures could be used, and Chinook salmon 16 inches or more in length could not be possessed or retained and had to be released immediately in the following areas of West Cook Inlet: 1) the Chuitna River drainage: upstream of an ADF&G marker located adjacent to the old cable crossing, 2) the Theodore River drainage upstream of an ADF&G marker located approximately 1 mile upstream of the Beluga–Anchorage high voltage power lines, and 3) the Lewis River drainage upstream of an ADF&G marker located approximately 1 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 1 daily and 2 in possession.

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

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

During its October 1994 work session, the BOF chose to delegate to ADF&G the authority to change regulations for the 1995 fishing season. These 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 1 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 May 15 through July 13. This time restriction will not apply to that portion of the Susitna River drainage currently opened to weekend-only fishing (e.g., between, but not including, the Deshka River and the Talkeetna River) and the Anchorage Management Unit.
- 6) The first opening of the Northern District commercial Chinook salmon fishery would occur by emergency order. Additional opening of this fishery would be 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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The BOF convened in Anchorage, Alaska during November 11–17, 1996. A brief summary of regulatory changes adopted by the BOF affecting the Susitna–West Cook Inlet Area Chinook salmon fisheries follows (note that “king” replaces “Chinook” in the regulatory language and “department” refers to Alaska Department of Fish and Game):

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:

- (3) The harvest shall not exceed 12,500 king salmon.
- (8) The season closes on June 24, unless closed earlier by emergency order.
- (9) The number of regular periods shall be determined by the department based on preseason expectations of king salmon run strength.
- (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.
- (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.
- (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 June 21 through July 13. Fishing was limited to the lower 2 miles of river and all Chinook salmon regulations applying to the Susitna River from its mouth to its confluence with the Deshka River were in effect for the Deshka River.

In 1998, the Deshka River was open to Chinook salmon fishing from its confluence with the Susitna River upstream 5 miles to an ADF&G marker. The Deshka River seasonal bag limit was 2 Chinook salmon over 16 inches. 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 opened Willow Creek June 20–22 to Chinook salmon fishing to correct an oversight in the regulations, and 1 Friday was added to Chinook salmon fishing in the Susitna River between the Deshka River and the Talkeetna River (excluding both).

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

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

The Theodore River was opened to catch-and-release fishing for Chinook salmon with only single hook artificial lures from January 1 through June 30. 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 were not allowed to 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 were open to Chinook salmon fishing from January 1 through the third Monday in June and for the next 2 consecutive 3-day weekends. This regulation was consistent with the fishing season on Willow Creek.

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

The area open to Chinook salmon fishing on the Kashwitna River was extended from its mouth upstream to the Parks Highway Bridge, a distance of 2 miles. The new season regulations for Parks Highway streams (above) were applied to the Kashwitna River.

In all waters of the Westside Susitna River and West Cook Inlet management areas (excluding waters between the mouths of the Deshka and Talkeetna rivers), anglers were allowed to continue to fish for Chinook salmon (catch-and-release) once they have harvested their limit (excluding Alexander Creek, Lake Creek, Deshka River, Fish Lake Creek and Clear Creek, which all required that fishing for Chinook salmon cease for the day once the limit was harvested).

During the January 2001, the BOF imposed a statewide definition of a "jack" Chinook salmon as any Chinook salmon 20 inches or less in length. In all fresh waters open to Chinook salmon fishing, the BOF imposed bag and possession limits for "jacks" of 10 fish, in addition to any limits for Chinook salmon over 20 inches in length, and ruled that "jack" limits do not count against annual or seasonal limits. This new definition increased the length requirement for Chinook salmon that must be recorded for the 5-fish seasonal limit from 16 inches to 20 inches.

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

- 1) Catch-and-release fishing was allowed for Chinook salmon in the east fork of the Chulitna River January 1 through July 13. Only 1 single-hook, unbaited artificial lure could be used January 1 through July 13.
- 2) The possession limit was increased to 2 Chinook salmon for Westside Susitna River tributaries (excluding Alexander Creek).
- 3) In the *Northern District King Salmon Management Plan*, the following was established: the commercial setnet fishery opens on the first Monday on or after May 25 and closes June 24. The number of commercial periods depends upon expected northern Cook Inlet Chinook salmon run strengths, and there shall be no more than 3 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) Catch-and-release fishing was allowed in the entire Theodore and Lewis rivers with no bait and 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) The possession limit was increased to 2 Chinook salmon in all Westside Susitna River tributaries except Alexander Creek.
- 2) The entire Theodore and Lewis rivers were opened to catch-and-release for Chinook salmon through June 30 with single hook and no bait.
- 3) The use of bait was allowed 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, June 8 through July 13, 2002.

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A BOF meeting was held January 2005 and included the following changes to the Chinook salmon sport fish regulations:

- 1) Anglers were allowed to use bait earlier in the Deshka River commencing May 15.
- 2) The Parks Highway streams were opened to Chinook salmon fishing for an additional 3-day weekend. For 2005, the Parks Highway streams were open from January 1 to June 20 and on June 25–27, July 2–4 and July 9–11.
- 3) The area open to Chinook salmon fishing on the Kashwitna River was increased by approximately 1 mile from the Parks Highway Bridge to the Alaska Railroad Bridge.
- 4) Anglers could 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 January 1 through December 31. Once a bag limit of Chinook salmon 20 inches or longer was retained, an angler could not fish in any water open to Chinook salmon fishing on that same day.

Commercial fish regulatory changes included the following:

- 1) Alterations to the *Northern District King Salmon Management Plan* limited fishing periods to a maximum of 3, increased fishing time per period from 6 hours to 12 hours, and removed the gear restriction of 2 nets from August 1 to August 10.
- 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, long 151°50.50'W) to the Kalgin Island Light on the southern end of the island (lat 60°20.80'N, long 152°05.09'W). This fishery was closed if 1,000 Chinook salmon were harvested.

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

- 1) Alexander Creek was closed to king 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 were allowed to fish downstream to an ADF&G marker located approximately 2 miles downstream of the Tailrace mouth.

In 2009, the BOF enacted an emergency regulation on May 20 to reduce the fishing time in the Northern District setnet fishery from 12 to 6 hours by allowing commercial salmon fishing to occur only between 7:00 AM and 1:00 PM. On June 11, 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 River Chinook salmon sport fishery.

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A BOF meeting held in February 2011 resulted in the following Chinook salmon regulation changes:

- 1) The Chuitna, Theodore, Lewis, and Beluga rivers were closed to sport fishing for Chinook salmon.
- 2) Goose Creek within Unit 2 of the Susitna River was closed to sport fishing for Chinook salmon.
- 3) For Parks Highway streams within Unit 2 of the Susitna River that are open to Chinook salmon fishing
 - a.) the fishing season was shortened (fishing was open until the third Monday in June and for the following 2 consecutive 3-day [Saturday–Monday] weekends; for 2011, the season was from January 1 to June 20, June 25 to June 27, and July 2 to July 4),
 - b.) from May 15 to July 13, fishing for all species was allowed only from 6:00 AM to 11:00 PM, and
 - c.) these new regulations applied to Willow, Little Willow, Grays, Caswell, Sheep, Montana, Sunshine, and Rabideux creeks, and the Kashwitna River.
- 4) Fishing from a boat for any species was prohibited 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 May 1 to July 13. Markers located on the upstream bank and downstream approximately 300 yards delineated the area closed to fishing from a boat.
- 5) On the Talachulitna River, anglers retaining Chinook salmon 20 inches or longer must stop fishing for Chinook salmon within a 1-mile radius of the mouth of the Talachulitna River for the remainder of the day.
- 6) Fishing for any species was closed within a one-half mile radius of the mouth of Alexander Creek from May 1 to July 13.
- 7) A “stock of concern” status was established for Chinook salmon stocks in the Chuitna, Theodore, and Lewis rivers within the WCIMU; a “stock of yield concern” status was established for Goose and Willow creeks (Parks Highway streams) of the Susitna River; and a “stock of management concern” status was established for 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.

No new regulations were issued in 2012–2013.

A BOF meeting in 2014 resulted in the following Chinook salmon regulation changes:

- 1) For the Eklutna Tailrace, a youth-only fishery for anglers 15 years of age and younger was designated for the third Saturday in June from 6:00 AM to 6:00 PM from the confluence with the Knik River upstream to the pedestrian bridge.
- 2) For the Deshka River, the starting date when bait is allowed by regulation was changed from May 15 to June 1.

Appendix B2.–Deshka River Chinook salmon regulatory changes, 1977–2015.

Year	Fishery dates	Area and time restrictions	Method and gear restrictions	Bag and possession limits	Seasonal NCI limit	Other requirements
1977	closed to adults			≤20" only		
1978	closed to adults			≤20" only		
1979	4th Sat. in May–6 Jul	mouth to Laub's Homestead marker		1/day >20" & 1 possession	5 >20"	punch card required
1980	4th Sat. in May–6 Jul	mouth to forks		2/day >20", only 1 >28" & 2 possession	5 >20"	punch card required
1981	4th Sat. in May–6 Jul	mouth to forks		1/day >20" & 2 possession	5 >20"	harvest record sticker
1982	4th Sat. in May–6 Jul	mouth to forks		1/day >20" & 2 possession	5 >20"	permit stamp with record on back of license
1983	1 Jan–6 Jul	mouth to forks		1/day >20" & 2 possession	5 >20"	harvest record on back of license
1984	1 Jan–6 Jul	mouth to forks		1/day >20" & 2 possession	5 >20"	harvest record on back of license
1985	1 Jan–6 Jul	mouth to forks		1/day >20" & 2 possession	5 >20"	harvest record on back of license
1986	1 Jan–6 Jul	mouth to forks		2/day >16" & 4 possession, only 1/day >28" & 2 possession	5 >16"	harvest record on back of license
1987	1 Jan–13 Jul	mouth to forks		2/day >16" & 4 possession, only 1/day >28" & 2 possession	5 >16"	harvest record on back of license
1988	1 Jan–13 Jul	mouth to forks		2/day >16" & 4 possession, only 1/day >28" & 2 possession	5 >16"	harvest record back of license
1989	1 Jan–13 Jul	mouth to forks		2/day >16" & 4 possession, only 1/day >28" & 2 possession	5 >16"	
1990	1 Jan–13 Jul	mouth to forks		2/day >16" & 4 possession, only 1/day >28" & 2 possession	5 >16"	
1991	1 Jan–13 Jul	mouth to forks		2/day >16" & 4 possession, only 1/day >28" & 2 possession	5 >16"	

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Year	Fishery dates	Area and time restrictions	Method and gear restrictions	Bag and possession limits	Seasonal NCI limit	Other requirements
1992	1 Jan–13 Jul	mouth to forks	no bait between Trapper Creek and forks on 22 Jun by EO	1/day >16" & 1 possession, release of fish >16" between Trapper Creek and forks on 22 Jun by EO	5 >16"	
1993	1 Jan–13 Jul	mouth to forks	artificial only until 15 May	1/day >16" & 2 possession	5 >16"	king stamp with harvest record on back of license
1994	closed 17 Jun by EO	mouth to forks	artificial only until 16 May	1/day >16" & 2 possession	5 >16"	king stamp with harvest record on back of license
1995	closed					
1996	closed					
1997	opened 21 Jun by EO	lower 2 miles of river	artificial only	1/day >16" & 1 possession	5 >16"	king stamp with harvest record on back of license
1998	1 Jan–13 Jul	lower 5 miles of river	artificial only	1/day >16" & 1 possession	5 >16" with only 2 from Deshka	king stamp with harvest record on back of license
1999	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM	artificial only	1/day >16" & 1 possession	5 >16"	king stamp with harvest record on back of license
2000	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM	bait allowed 8 Jun by EO	1/day >16" & 1 possession	5 >16"	king stamp with harvest record on back of license
2001	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM	bait allowed 12 Jun by EO	1/day >20" & 1 possession	5 >20"	king stamp with harvest record on back of license
2002	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM	bait allowed 8 Jun by regulation	1/day >20" & 2 possession	5 >20"	king stamp with harvest record on back of license
2003	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM	bait allowed 8 Jun by regulation	2/day >20" & 4 possession on 18 Jun by EO	5 >20"	king stamp with harvest record on back of license
2004	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM	bait allowed 28 May by EO	2/day >20" & 4 possession on 12 Jun by EO	5 >20"	king stamp with harvest record on back of license
2005	1 Jan–13 Jul	mouth to Chijuk Creek: opened 24-hr on 27 May by EO	bait allowed 15 May by regulation	2/day >20" & 4 possession on 27 May by EO	5 >20"	king stamp with harvest record on back of license

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Year	Fishery dates	Area and time restrictions	Method and gear restrictions	Bag and possession limits	Seasonal NCI limit	Other requirements
2006	1 Jan–13 Jul	mouth to Chijuk Creek: opened 24-hr on 26 May by EO	bait allowed 15 May by regulation	2/day >20" & 4 possession on 26 May by EO	5 >20"	king stamp with harvest record on back of license
2007	1 Jan–13 Jul	mouth to Chijuk Creek: opened 24-hr on 25 May by EO	bait allowed 15 May by regulation	2/day >20" & 4 possession on 25 May by EO	5 >20"	king stamp with harvest record on back of license
2008	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM, fishery closed 19 Jun by EO	bait not allowed 14 Jun–13 Jul by EO	1/day >20" & 1 possession	5 >20"	king stamp with harvest record on back of license
2009	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM, retention Sat, Sun, Mon only 13 May by EO, fishery closed 11 Jun by EO	bait not allowed after 20 Apr by EO.	1/day >20" & 1 possession	5 >20"	king stamp with harvest record on back of license
2010	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM	bait not allowed 12–19 Jun by EO	1/day >20" & 1 possession	5 >20"	king stamp with harvest record on back of license
2011	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM	bait allowed 15 May by regulation	1/day >20" & 1 possession	5 >20"	king stamp with harvest record on back of license
2012	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM, closed above weir after 19 Jun by EO, fishery closed 25 Jun by EO	single hook only after 1 May EO, bait not allowed after 19 Jun by EO	1/day >20" & 1 possession	2 >20" by EO	king stamp with harvest record on back of license
2013	1 Jan–13 Jul	mouth to Chijuk Creek: 6 AM–11 PM	single hook only after 1 May by EO, bait not allowed 1 May–29 Jun by EO	1/day >20" & 1 possession	2 >20" by EO	king stamp with harvest record on back of license
2014	June 1	mouth to Chijuk Creek	bait allowed 1 June by regulation.			

Note: Chinook salmon are “king” salmon in the regulatory language.

1995

- 1) The *Upper Cook Inlet Subsistence Salmon Management Plan* was repealed by the Alaska Board of Fisheries (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.

1996

- 1) The *Upper Cook Inlet Personal Use Salmon Fishery Management Plan* (5 AAC 77.540) established time, area, methods and means for taking salmon for personal use. This plan first went into effect during the 1996 season. It provided for personal use dip net fisheries in the Kenai and Kasilof rivers and Fish Creek. Additionally, limited personal use gillnet fishing opportunity was provided near the terminus of the Kasilof River. No Knik set gillnet fishery was provided.
- 2) Changes were made to the *Fish Creek Sockeye Management Plan* (5 AAC 21.364) concerning the Fish Creek personal use dip net fishery. The dip net fishery was opened July 10 through July 31 with a bag limit of 25 salmon per head of household plus 10 salmon per each household member. A permit was required.
- 3) The *Skwentna River Personal Use Salmon Fishery Management Plan* (5 AAC 77.526) established 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) The *Little Susitna River Coho Salmon Management Plan* was modified to repeal the increase the bag and possession limits of coho salmon in specified areas of the Little Susitna River when the escapement goal was projected to be 7,500 nonhatchery fish upstream of the Parks Highway. The bag and possession limits of salmon other than Chinook salmon in the Little Susitna River were 3 fish per day and in possession.
- 5) At the November 1996 meeting, the BOF modified 5 AAC 61.035. Only unbaited, single-hook, artificial lures could 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.

1998

- 1) The *Upper Yentna River Subsistence Salmon Fishery* (5 AAC 01.593) established 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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1999

- 1) Sport fishing time on Fish, Wasilla, and Cottonwood creeks was 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. An angler could no longer fish on these streams for the remainder of the day once that angler had harvested a bag limit of 3 salmon other than Chinook salmon.
- 2) In all waters of West Cook Inlet south of the Susitna River (i.e., the Chuitna, Lewis, Theodore, and McArthur rivers), once an angler harvested a bag limit of 3 coho salmon, that angler could no longer fish these streams for the remainder of the day. These same streams were closed to coho salmon fishing from October 1 to December 31.
- 3) For the Little Susitna River, existing bait restrictions were modified to allow the use of bait during the month of September.
- 4) The *Little Susitna River Coho Salmon Management Plan 5AA60.140* was modified. The escapement goal of 7,500 coho salmon was changed to an escapement range of 9,600–19,200 nonhatchery fish.

2000

- 1) The coho salmon bag and possession limits in the Knik Arm (excluding the stocked coho fishery in the Eklutna Tailrace) and the Susitna River were reduced to 2. The West Cook Inlet bag and possession limits north of the West Foreland were reduced to 2 daily and 4 in possession. South of the West Foreland they remained at 3 daily and 6 in possession.
- 2) Wasilla Creek, Jim Lake, Upper Jim Creek, and McRoberts Creeks were closed to coho salmon fishing.
- 3) After an angler harvested a limit of coho salmon from Fish or Cottonwood creeks, that angler could not fish that same day in Fish and Cottonwood creeks in waters open to salmon fishing.

2002

- 1) In the Larson Creek drainage, sport fishing for all salmon was closed year-round in streams upstream of a marker located one-quarter mile upstream from the mouth of Larson Creek.
- 2) In the Nancy Lake Creek drainage, all salmon fishing, including catch-and-release, was closed upstream of a marker located one-quarter mile upstream from the mouth of Nancy Lake Creek.
- 3) The Clearwater and Roscoe creek drainages were closed year-round to all fishing upstream from markers located one-half mile upstream of each of their confluences with the Chinitna River.

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2002 continued

- 4) The Fish Creek personal use fishery was opened by EO when the escapement goal was projected.
- 5) Wasilla Creek was opened for salmon fishing (excluding Chinook salmon) from its mouth to the Alaska Railroad Bridge Saturday and Sunday only from 6:00 AM to 6:00 PM only.
- 6) The use of bait on Little Susitna River was eliminated July 14, upstream of the Little Susitna Public Use Facility.

2005

- 1) An angler was no longer permitted to fish in waters open to salmon fishing the same day that angler took a limit of salmon 16 inches or greater from Wasilla Creek.
- 2) Excluding Alexander Creek, the bag and possession limits for coho salmon on Westside Susitna streams was increased from 2 per day, 4 in possession to 3 per day, 6 in possession.
- 3) Anglers were no longer permitted to fish for “other salmon” (coho, pink, or chum salmon) 16 inches or less in waters close`d to fishing for other salmon.

The BOF adopted the following commercial fishery regulations:

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

- 1) The drift fishery opens the third Monday in June or June 19, whichever is later.
- 2) From July 9 through July 15,
 - a) drift gillnet fishing is restricted for 2 regular fishing periods to the Kenai and Kasilof Sections and Drift Area One described below, and
 - b) in runs of over 2 million sockeye salmon to the Kenai River, there may be 1 additional 12-hour period in the Kenai and Kasilof Sections of the Upper Subdistrict and in Drift Area One.
- 3) From July 16 through July 31,
 - a) in runs of less than 2 million sockeye salmon to the Kenai River, there will be 2 regular 12-hour fishing periods restricted to the Kenai and Kasilof Sections of the Upper Subdistrict and Drift Area one;
 - b) in runs of between 2 and 4 million sockeye salmon to the Kenai River, there will be 2 regular 12-hour fishing periods restricted to the Kenai and Kasilof Sections of the Upper Subdistrict and in Drift Areas One and Two; and
 - c) in runs of over 4 million sockeye salmon to the Kenai River, there are no mandatory restrictions.

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2005 continued

- 4) From August 11 until closed by emergency order,
 - a) Drift Areas Three and Four are open for regular periods, and
 - b) Chinitna Bay may be opened by emergency order.

New drift fishing areas were as follows:

- 1) Drift Area One–includes those waters of the Central District south of Kalgin Island at lat 60°20.43'N.
- 2) Drift Area Two–includes those waters of the Central District enclosed by a line from lat 60°20.43'N, long 151°54.83'W to a point at lat 60°41.08'N, long 151°39.00'W to a point at lat 60°41.08'N, long 151°24.00'W to a point at lat 60°27.10'N, long 151°25.70'W to a point at lat 60°20.43'N, long 151°28.55'W.
- 3) Drift Area Three–includes those waters of the Central District within 1 mile of mean lower low water (zero tide) south of a point on the West Foreland at lat 60°42.70'N, long 151°42.30'W.
- 4) Drift Area Four–includes those waters of the Central District enclosed by a line from lat 60°04.70'N, long 152°34.74'W to the Kalgin Buoy at lat 60°04.70'N, long 152°09.90'W to a point at lat 59°46.15'N, long 152°18.62'W to a point on the western shore at lat 59°46.15'N, long 153°00.20'W, not including the waters of the Chinitna Bay Subdistrict.

Other commercial fishery regulatory changes included the following:

- 1) Up to 50 fathoms of the 150 fathoms of allowable drift gillnet gear per boat may be monofilament mesh, and monofilament gear must be registered with ADF&G prior to use.
- 2) Spotter planes were allowed during the fishing period.
- 3) The pink salmon fishery during even years was reauthorized; the mesh size restriction was removed.
- 4) Up to 35 fathoms of set gillnet gear per permit may be monofilament mesh with no more than 1 net per permit having monofilament mesh, and monofilament gear must be registered with ADF&G prior to use.

2011

- 1) In fresh water of Cook Inlet, a coho salmon removed from the water must be retained. No angler was permitted to remove a coho salmon from the water if it was intended for release.
- 2) The bag and possession limits for coho salmon were increased from 2 to 3 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.

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2011 continued

- 3) The bag and possession limits for coho salmon were increased from 2 to 3 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.
- 4) The *Central District Drift Gillnet Fishery Management Plan* was modified during the 2011 BOF meeting to include a preamble that the drift gillnet fishery was to 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. The expanded Kenai and Kasilof corridors were also created in 2011 and used as follows:
 - a) The drift fishery was to be opened the third Monday in June or June 19, whichever was later.
 - b) From July 9 through July 15,
 - i. fishing during the first regular period was restricted to the Expanded Kenai and Expanded Kasilof sections, and additional fishing time was restricted to these areas,
 - ii. fishing during the second regular fishing period was restricted to the Kenai and Kasilof sections of the Upper Subdistrict and Drift Area One, and
 - iii. at run strengths greater than 2.3 million, 1 additional fishing period could be allowed in the Kenai and Kasilof Sections of the Upper Subdistrict and Drift Gillnet Area One.
 - c) From July 16 through July 31,
 - i. at run strengths less than 2.3 million sockeye salmon to the Kenai River, fishing during 1 regular period was to be restricted to the Expanded Kenai and Expanded Kasilof Sections of the Upper Subdistrict and Drift Area One,
 - ii. at run strengths of 2.3–4.6 million sockeye salmon to the Kenai River, fishing during 1 regular 12-hour fishing period per week was to be restricted to either or both the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict or Drift Area One, and
 - iii. at run strengths greater than 4.6 million, there was to be no mandatory restrictions during regular fishing periods.
 - d) From August 16 until closed by emergency order, Drift Gillnet Areas Three and Four were to be open for fishing during regular fishing periods.
 - e) From August 11 through August 15, there were no mandatory area restrictions to regular periods, except that if the Upper Subdistrict set gillnet fishery was closed under 5 AAC 21.301(b)(2)(C)(iii), regular fishing periods would be restricted to Drift Gillnet Areas Three and Four.
- 5) The *Little Susitna Coho Management Plan 5 AAC 60.170* was repealed during the 2011 BOF.

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2014

- 1) The third Saturday in August, from 6:00 AM to 6:00 PM, there was a youth-only fishery at the Eklunta Tailrace. The area open to fishing from the confluence with the Knik River upstream to the pedestrian bridge.
- 2) For Jim Creek, waters open to fishing were redefined to include all waters of Jim Creek downstream to the Knik River and continuing downstream on the Knik River to within 100 yards of the Knik River confluence with Bodenbug Creek. In these waters:
 - a) Sport fishing was closed on Mondays and Tuesdays from the second Saturday in August through December 31.
 - b) A person who took a bag limit of salmon could not fish for any species of fish in waters open to salmon fishing on that same day.
 - c) Leaf Lake and Mud Lake were added to the list of waters closed year-round to salmon fishing.

1989

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

1997

- 1) Sport fishing for northern pike using 5 lines was allowed in specified lakes of the Susitna–West Cook Inlet Area provided the following was observed: hooks are single hooks with a gap between the point and shank no smaller than three-quarters inch, the lines are closely attended, and all species of fish other than northern pike are immediately released. Specified lakes include Alexander Lake, Sucker Lake, Trapper Lake, Flathorn Lake, Whiskey Lake, Hewitt Lake, Donkey Lake, Three Mile Lake (Beluga area), Neil Lake, Kroto Lake, and lakes of the Nancy Lake Recreation Area, excluding Nancy and Big No Luck Lake.
- 2) The 10-fish bag and possession limits on northern pike in the Susitna-West Cook Inlet Area were repealed.

1998

- 1) A slot limit was established for northern pike in Alexander and Trapper lakes. No bag and possession limits were in effect for northern pike less than 22 inches in length. Retention of northern pike between 22 inches and 30 inches in length was not allowed. The bag and possession limits for northern pike 30 inches or greater in length were 1 per day and 1 in possession. Additionally, the action taken for Alexander and Trapper lakes reduced the number of lines allowed when fishing through the ice for northern pike from 5 lines to 2 lines, and prohibited the use of spears and bow and arrows for taking of northern pike.
- 2) The use of bow and arrow was allowed for taking northern pike in NCI waters.
- 3) The three-quarter-inch single-hook size restriction was eliminated when fishing through the ice on select northern Cook Inlet lakes where 5 lines were allowed.

2002

- 1) The use of five lines while ice fishing for pike apply to seven additional lakes in Northern Cook Inlet: Trapper Lake, Big No Luck Lake, Figure Eight Lake, Cabin Lake, Lower Vern Lake, Upper Vern Lake and Lockwood Lake. On Trapper Lake, there is no longer a “slot limit” for pike; bait, multiple hooks, spears, and bow and arrow gear are now allowed. For the purposes of sport fishing, legal bow and arrow gear includes crossbows. When fishing through the ice for pike, anglers may use two hooks on a single line, provided that both hooks are attached to one single piece of bait.

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2009

- 1) The board 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 pike less than 27 inches may be harvested without a bag or possession limit, while only 1 pike larger than 27 inches may be retained per day and in possession.

2011

- 1) The BOF met in February 2011 and repealed the size limit for northern pike on Alexander Lake; no bag, possession, or size limit was imposed year round. Bow-and-arrow and spears to take northern pike were allowed as in other areas of NCI.
- 2) Anglers were allowed to fish for northern pike through the ice on Big and Nancy Lakes under the following specific guidelines:
 - a) Five lines are allowed from November 1 to March 15.
 - b) Fishing is only allowed 8:00 AM–5:00 PM. Current regulations for other species within these lakes did not change and anglers fishing for other species may fish outside hours designated for northern 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 smelt 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.
- 3) 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 were not allowed to be released back into the water alive. Further, anglers were allowed to choose to either discard dead northern 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)

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 UCISMP and provide specific direction to fishery managers regarding user groups, time, area or species.

The UCISMP 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 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

The 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 May 15 through October 15. 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 amount necessary for subsistence (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

The *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 June 1 through June 24 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

The *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 and 2014 BOF meetings to include a preamble that the drift gillnet fishery was to 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. The plan included the following:

- 1) The drift fishery opens the third Monday in June or June 19, whichever is later.
- 2) From July 9 through July 15,
 - i. Fishing during the first regular period and second period is restricted to the Expanded Kenai and Expanded Kasilof sections and Expanded Kasilof Section S of the Upper Subdistrict and Drift Gillnet Area One.
 - ii. At run strengths greater than 2.3 million sockeye salmon, 1 additional fishing period may be allowed in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and Drift Gillnet Area One.
- 3) From July 16 through July 31,
 - i. At run strengths less than 2.3 million sockeye salmon to the Kenai River, fishing during all regular 12-hour fishing periods will be restricted to the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict.
 - ii. At run strengths of 2.3–4.6 million sockeye salmon to the Kenai River, fishing during 1 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 the Anchor Point Section of the Lower Subdistrict, or to Drift Gillnet Area One. The remaining weekly 12-hour regular fishing period will be restricted to one or more of the following sections: the Expanded Kenai Section, the Expanded Kasilof, or the Anchor Point Section.
 - iii. At run strengths greater than 4.6 million, 1 regular 12-hour fishing period per week will be restricted to the Expanded Kenai, Expanded Kasilof, and Anchor Point sections.
- 4) From August 1 to August 15, there are no mandatory area restrictions to regular fishing periods, except that if the Upper Subdistrict set gillnet fishery is closed under 5 AAC 21.301(b)(2)(C)(iii), or ADF&G determines that less than 1 percent of the season’s total drift gillnet sockeye harvest has been taken per fishing period for 2 consecutive fishing periods in the drift gillnet fishery, regular fishing periods will be restricted to Drift Gillnet Areas Three and Four.
- 5) From August 16 until closed by emergency order, Drift Gillnet Areas Three and Four are open for fishing during regular fishing periods.

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5 AAC 21.358. NORTHERN DISTRICT SALMON MANAGEMENT PLAN

The *Northern District Salmon Management Plan* provides the following management guidelines:

- 1) Minimize the harvest of coho salmon bound for the Northern District of UCI.
- 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.
- 3) From July 20 through August 6, if the 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 July 31 through August 6, the commissioner may allow the use of 2 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 INLET PINK SALMON MANAGEMENT PLAN

The *Cook Inlet 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 coho salmon run strength is sufficient to withstand additional harvest.

The first period will occur only if during the regular fishing periods from August 6 through August 10, the daily harvest of pink salmon exceeds 50,000 fish or the cumulative harvest is 100,000 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.

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5 AAC 21.366. NORTHERN DISTRICT KING SALMON MANAGEMENT PLAN

The *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 May 25 through June 24 (4–5 periods depending on the calendar year).
- 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 Chinook salmon.
- 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 1 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) From May 25 through June 24, the area from 1 mile south of the Theodore River to the Susitna River is open the second regular Monday only.
- 9) If the Theodore, Lewis, or Ivan River is closed to sport fishing, the area 1 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.
- 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 that although not directly part of this plan, the gear restriction (5 AAC 21.331[d][2]) of 2 nets from August 1 to August 10 was repealed during the January 2005 BOF meeting.

5 AAC 21.370. PACKERS CREEK SOCKEYE SALMON MANAGEMENT PLAN

The *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 1 additional fishing period per week.

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5 AAC 75.210. SPECIAL MANAGEMENT AREAS AND LIBERAL HARVEST OPPORTUNITIES FOR TROUT (previously titled *Criteria for Establishing Special Management Areas for Trout*)

The *Special Management Areas and Liberal Harvest Opportunities 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 BOF, ADF&G managers, and the sport fishing public with the following:

- 1) management policies and implementation directives for Cook Inlet rainbow and steelhead trout
- 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 of wild stock that do not require stocking for enhancement or supplementation.

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 bag and possession limits of 2 fish, of which only 1 may be 20 inches or greater in length with an annual limit of 2 fish 20 inches or greater in length. Note that 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.

5 AAC 77.540. UPPER COOK INLET PERSONAL USE SALMON FISHERY MANAGEMENT PLAN

The *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 the BOF in 1995. The plan provides for personal use dip net fisheries in the Kenai and Kasilof rivers, Fish Creek, and Beluga River. 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 July 10 through July 31 if ADF&G projects the escapement of sockeye salmon will be more than 50,000 fish. The Beluga River fishery is for persons 60 years or older, and proxies are not authorized. This fishery is from July 10 to August 31.

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5 AAC 01.593. UPPER YENTNA RIVER SUBSISTENCE SALMON FISHERY

The 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 bag and possession limits 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. The season is from 15 July to 7 August.

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 6 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 6 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: NORTH COOK INLET SPORT FISHING
GUIDES, 2014–2015**

Appendix D1.—North Cook Inlet sport fishing guide business operators for 2014.

Business name	Proprietor		Address	City	State
	First name	Last name			
AARON COOPER EXTREME FISHING ADVENTURES	AARON	COOPER	PO BOX 1447	KENAI	AK
ABOVE ALASKA AVIATION	ANDREW	HAAG	PO BOX 821	TALKEETNA	AK
ABSOLUTELY ALASKAN FISHING ADVENTURES	MONTE	ROBERTS	PO BOX 1106	SOLDOTNA	AK
ACORD GUIDE SERVICE	GREG	ACORD	P.O.BOX 870790	WASILLA	AK
ADVENTURE OUTFITTERS ALASKA	JACOB	DOTH	PO BOX 7362	NIKISKI	AK
ALASKA FISHING WITH MARK GLASSMAKER	MARK	GLASSMAKER	33361 KEYSTONE DRIVE	SOLDOTNA	AK
ALASKA FLY ANGLERS	JOHN	HOHL	PO BOX 421	SOLDOTNA	AK
ALASKA RAINBOW LODGE	RON	HAYES	12449 INDIAN CREEK DRIVE	FORT WORTH	TX
ALASKA RIVER ADVENTURES	GEORGE	HEIM	PO BOX 725	COOPER LANDING	AK
ALASKA SAFARIS LTD	HENRIK	WESSEL	PO BOX 701	TALKEETNA	AK
ALASKA SALMON FISHING TRIPS	THERESA	STUDNICKA	PO BOX 940276	HOUSTON	AK
ALASKA SPORTSMANS LODGE	BRIAN	KRAFT	5870 ALPINE WOODS DR	ANCHORAGE	AK
ALASKA SUSITNA CHARTERS	GREGORY	GIAUQUE	3900 SOUTH TUSTIN DRIVE	PALMER	AK
ALASKAN ADVENTURES GUIDE COMPANY	MATT	PAULUS	PO BOX 328	SOLDOTNA	AK
ALASKAN RIVER GUIDES	CURTIS	FROMBERG	PO BOX 1224	KASILOF	AK
ALASKAS ENCHANTED LAKE LODGE	PENNY	REYES	19466 UPPER SKYLINE DR	EAGLE RIVER	AK
ALASKAS FINS AND FEATHERS GUIDING COMPANY	DEREK	GARDNER	35555 KENAI SPUR HWY #212	KENAI	AK
ALL ALASKA OUTDOORS	ROBERT	LEDDA	35905 RYAN LANE	SOLDOTNA	AK
ARCTIC ADVENTURES LLC	ANTHONY	ONEY	200 W 37TH AVENUE PMB 1219	ANCHORAGE	AK
BADGR'S EXTREME SPORT TOURS	MARK	BARAJAS	54266 WILMA DR	KENAI	AK
BEAR PAW RIVER GUIDES	AARON	KALOCI	PO BOX 875637	WASILLA	AK
BEARTRACKS LODGE	FRANK	BARRETT	2440 E TUDOR ROAD STE 1061	ANCHORAGE	AK
BIG DAVES FISHING ADVENTURES	DAVID	MANNERS	414 PACIFIC AVENUE PMB 101	TILLAMOOK	OR
BILL DAVIS FISHING GUIDE	WILLIAM	DAVIS	37911 RALPH LANE	KENAI	AK
BILL WERNEKE REGISTERED GUIDE	WILLIAM	WERNEKE	33056 ROBERT AVENUE E	SOLDOTNA	AK
BREWERS GUIDE SERVICE	DOUGLAS	BREWER	PO BOX 8553	NIKISKI	AK
BRISTOL BAY SPORTFISHING	JERRY	JACQUES	PO BOX 164	ILIAMNA	AK

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Business name	Proprietor		Address	City	State
	First name	Last name			
CARNIVORE CHARTERS	BRIAN	MERTZWEILLER	69360 ROYCE DRIVE	ANCHOR POINT	AK
CAST AND BLAST	DANIEL	CHALOUX	33755 ENTERPRISE AVENUE	SOLDOTNA	AK
COTTONWOOD FISHING LODGE	BRUNO	KREBS	PO BOX 100232	ANCHORAGE	AK
CROSSHAIRS OUTFITTERS	MICHAEL	COWAN	PO BOX 8553	NIKISKI	AK
DANS GUIDE SERVICE	DANIEL	VERKUILEN	PO BOX 443	KENAI	AK
DEEP CREEK FISHING CLUB	STEVEN	MOE	PO BOX 39410	NINILCHIK	AK
DENALI FLY FISHING GUIDES LLC	RICHARD	MCMAHAN	PO BOX 156	CANTWELL	AK
DESHKA LANDING CHARTERS & LODGE	JUSTIN	HENNEOUS	PO BOX 926	WILLOW	AK
DESHKA WILDERNESS LODGE	MICHAEL	YENCHA	PO BOX 123	WILLOW	AK
EHMANN OUTDOORS LLC	JENNIFER	EHMANN	PO BOX 2144	PALMER	AK
FIREWEED LODGE AT LAKE CREEK	WERNER	FRAUENFELDER	9321 BLACKBERRY	ANCHORAGE	AK
FISH DENALI	KIRK	MARTAKIS	PO BOX 127	CANTWELL	AK
FISHTALE RIVER GUIDES	ANDREW	COUCH	PO BOX 155	PALMER	AK
FREELANCE OUTDOOR ADVENTURES	LANCE	KRONBERGER	PO BOX 772133	EAGLE RIVER	AK
FRITZ GUIDING SERVICE	RYAN	FRITZ	PO BOX 1252	SOLDOTNA	AK
GREAT LAND ADVENTURES LLC	RICHARD	BOWEN	915 SOUTH 137TH ST	BURIEN	WA
GREGS EZ LIMIT GUIDE SERVICE	GREGORY	BRUSH	PO BOX 4278	SOLDOTNA	AK
HIGH ADVENTURE AIR CHARTER GUIDES & OUTFITTERS, INC.	GREGORY	BELL	P O BOX 486	SOLDOTNA	AK
IFISHALASKA	PATRICK	DONELSON	PO BOX 871580	WASILLA	AK
INTRICATE BAY OPERATING LLC	BRIAN	HARRY	PO BOX 166	ILIAMNA	AK
JASON LEE GUIDE SERVICES	JASON	LEE	PO BOX 695	SOLDOTNA	AK
KATMAI AIR LLC	RAYMOND	PETERSEN	4125 AIRCRAFT DRIVE	ANCHORAGE	AK
KING POINT FISHING LODGE INC.	ALAIN	OBERHOLZER	9321 BLACKBERRY STREET	ANCHORAGE	AK
LAKE CLARK AIR INC	GLEN	ALSWORTH SR	THE FARM LODGE BOX 1	PORT ALSWORTH	AK
LAKE CREEK FISHING LODGE	JEFF	WOODWARD	PO BOX 100232	ANCHORAGE	AK
LAKE MARIE LODGE, LLC	DAVID	WILSON	PO BOX 670869	CHUGIAK	AK
LEWIS CHARTERS	DANIEL	LEWIS	6700 E. FINGER LAKE VW. DR.	WASILLA	AK
LIFE ON THE LINE ALASKAN FLY FISHING	ARD	STETTS	PO BOX 877937	WASILLA	AK
LIPSERVICE FISHING CHARTERS	CHAD	LIPSE	6451 W. COMMADORE LN	WASILLA	AK

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Business name	Proprietor		Address	City	State
	First name	Last name			
MATT POTTER	MATT	POTTER	PO BOX 2713	SOLDOTNA	AK
MCDUGALL LODGE	RONALD	JEWETT	5534 W 10480 N	HIGHLAND	UT
MILLERS RIVERBOAT SERVICE	BEN	ALLEN	4150 EAST WICKERSHAM WAY	WASILLA	AK
MOOSEHORN LODGE	ERICH	NAPFLIN	PO BOX 873095	WASILLA	AK
MYRACLE GUIDING SERVICE	EVAN	WERNER	PO BOX 8341	NIKISKI	AK
NEWHALEN LODGE	BILL	SIMS	3851 CHINIAK BAY DRIVER	ANCHORAGE	AK
NEWTONS FISHING EXPEDITIONS	JACOB	NEWTON	46738 GARY AVENUE	KENAI	AK
NORTHERN SKY GUIDE SERVICE	SKY	SMITH	PO BOX 342	LA PINE	OR
NORTHWOODS LODGE	ERIC	JOHNSON	PO BOX 56	SKWENTNA	AK
PERATAS GUIDED ADVENTURES	NICK	PERATA	1815 MORTIMER	BOISE	ID
PHANTOM TRI RIVER CHARTERS	RHETT	NEALIS	PO BOX 312	TALKEETNA	AK
QUAGLIANAS GUIDE SERVICE	MARK	QUAGLIANA	PO BOX 2952	SOLDOTNA	AK
RAINBOW KING LODGE	RODGER	GLASPEY	PO BOX 177	OAKLAND	OR
RAINBOW RIVER LODGE	CHAD	HEWITT	PO BOX 330	ILIAMNA	AK
REDOUBT BAY LODGE	DANNY	BREWER	PO BOX 8223	NIKISKI	AK
REDOUBT MOUNTAIN LODGE	WAYNE	HOLM	PO BOX 1460	NORTH PLAINS	OR
REEL RANGER INC	PHILLIP	GOLDSTINE	PO BOX 771162	EAGLE RIVER	AK
RIVERSONG LODGE	WALTER	ZALESKI	3213 CASSIUS COURT	ANCHORAGE	AK
ROB FREEMANS OUTDOOR ADVENTURES	ROBERT	FREEMAN	245 S 180TH STREET	FORT SCOTT	KS
RUSSELL FISHING COMPANY, INC.	DUSTIN	RUSSELL	PO BOX 1927	BROOKINGS	OR
SILVER SALMON CREEK INC	DAVID	CORAY	PO BOX 3234	SOLDOTNA	AK
STEPHAN LAKE ADVENTURES	JOHN	MADSEN	400 HIGH VIEW DRIVE	ANCHORAGE	AK
TALAHEIM LODGE AND AIR SERVICE	MARK	MILLER	4410 DELONG DRIVE	ANCHORAGE	AK
TALKEETNA DENALI VIEW LODGE, LLC & ALASKA WILDERNESS RIVER FISHING GUIDES	THOMAS	REDMAN	PO BOX 526, 15669 EAST COFFEY LANE	TALKEETNA	AK
TALKEETNA FISHING GUIDES	GERALD	SOUSA	PO BOX 922	TALKEETNA	AK
TALVISTA LODGE	CHRISTOPHER	POYNTER	PO BOX 78	SKWENTNA	AK

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Business name	Proprietor		Address	City	State
	First name	Last name			
TIM CRIST ALASKAN ADVENTURES INC	TIM	CRIST	BOX 2261	TWIN FALLS	ID
TONY'S GUIDE SERVICES	ANTHONY	MANN	PO BOX 2771	VALDEZ	AK
TORDRILLO MOUNTAIN LODGE	MICHAEL	OVERCAST	3705 ARCTIC #429	ANCHORAGE	AK
TOWER ROCK LODGE	MICHAEL	TUHY	35555 KENAI SPUR HIGHWAY	SOLDOTNA	AK
TRAPPER TIM LLC	TIM	BUECHLE	PO BOX 118	TALKEETNA	AK
TURNERS GUIDE SERVICE	RALPH	TURNER	2554 CEDAR STREET	SUTTER	CA
VALLEY RIVER CHARTERS	MATTHEW	PETERSON	3701 E VALLEYSIDE CIRCLE	WASILLA	AK
WILDERNESS PLACE LODGE	JASON	ROCKVAM	PO BOX 190243	ANCHORAGE	AK
WOMENS FLYFISHING	CECILIA	KLEINKAUF	BOX 243963	ANCHORAGE	AK
YENTNA RIVER SERVICES	ROGER	PHILLIPS	P O BOX 68	SKWENTNA	AK
YENTNA STATION ROADHOUSE	DANIEL	GABRYSZAK	5287 E BIG ROCK DRIVE	WASILLA	AK

Appendix D2.–North Cook Inlet sport fishing guide business operators for 2015.

Business name	Proprietor		Address	City	State
	First name	Last name			
ABSOLUTELY ALASKAN FISHING ADVENTURES	MONTE	ROBERTS	PO BOX 1106	SOLDOTNA	AK
ACORD GUIDE SERVICE	GREG	ACORD	PO BOX 870790	WASILLA	AK
ADVENTURE OUTFITTERS ALASKA	JAKE	DOTH	PO BOX 7362	NIKISKI	AK
ALASKA EVASION OUTFITTER	CATHERINE	THOMPSON	PO BOX 10-2326	ANCHORAGE	AK
ALASKA FISHING WITH MARK GLASSMAKER	MARK	GLASSMAKER	33361 KEYSTONE DRIVE	SOLDOTNA	AK
ALASKA RAINBOW ADVENTURES	PAUL	HANSEN	PO BOX 874570	WASILLA	AK
ALASKA RAINBOW LODGE	RON	HAYES	12449 INDIAN CREEK DRIVE	FORT WORTH	TX
ALASKA RIVER ADVENTURES	GEORGE	HEIM	PO BOX 725	COOPER LANDING	AK
ALASKA SAFARIS LTS DBA TALKEETNA FISHING LODGE	HENRIK	WESSEL	PO BOX 701	TALKEETNA	AK
ALASKA SALMON FISHING TRIPS	THERESA	STUDNICKA	PO BOX 940276	HOUSTON	AK
ALASKA SPORTSMANS LODGE	BRIAN	KRAFT	PO BOX 231985	ANCHORAGE	AK
ALASKA SUSITNA CHARTERS	GREGORY	GIAUQUE	3900 S TUSTIN DRIVE	PALMER	AK
ALASKA WILDERNESS RIVER FISHING GUIDES OF TALKEETNA, AK	THOMAS	REDMAN	P. O. BOX 526, 15669 EAST COFFEY LANE	TALKEETNA	AK
ALASKA'S FINS AND FEATHERS GUIDING CO	DEREK	GARDNER	35555 KENAI SPUR HWY 212	SOLDOTNA	AK
ALASKA'S TROPHY KING LODGE	DREW	BUTTERWICK	3440 YOUNGFIELD ST 208	WHEAT RIDGE	CO
ALASKAN ADVENTURES GUIDE CO	MATT	PAULUS	PO BOX 328	SOLDOTNA	AK
ALASKAN GAMEFISHER	MEL	ERICKSON	PO BOX 1127	SOLDOTNA	AK
ALASKAN RIVER GUIDES	CURTIS	FROMBERG	PO BOX 1224	KASILOF	AK
ALL ALASKA OUTDOORS INC	ROBERT	LEDDA	35905 RYAN LANE	SOLDOTNA	AK
ANGLER'S ALIBI	JOHN	PERRY	2666 S. HOLMAN ST.	LAKESWOOD	CO
ARCTIC ADVENTURES	ANTHONY	ONEY	200 W 34TGH AVENUE	ANCHORAGE	AK
BEAR PAW RIVER GUIDES	AARON	KALOCI	PO BOX 875637	WASILLA	AK
BEARTRACKS LODGE	FRANK	BARRETT	2440 E TUDOR ROAD STE 1061	ANCHORAGE	AK
BIG DAVES FISHING ADVENTURES	DAVID	MANNERS	414 PACIFIC AVENUE PMB 101	TILLAMOOK	OR
BILL DAVIS FISHING GUIDES	WILLIAM	DAVIS	PO BOX 1705	SOLDOTNA	AK
BILL WERNEKE REGISTERED GUIDE	WILLIAM	WERNEKE	33056 ROBERT AVENUE E	SOLDOTNA	AK
BREWERS GUIDE SERVICE	DOUGLAS	BREWER	PO BOX 7571	NIKISKI	AK
BRISTOL BAY SPORTFISHING	JERRY	JACQUES	PO BOX 164	ILIAMNA	AK

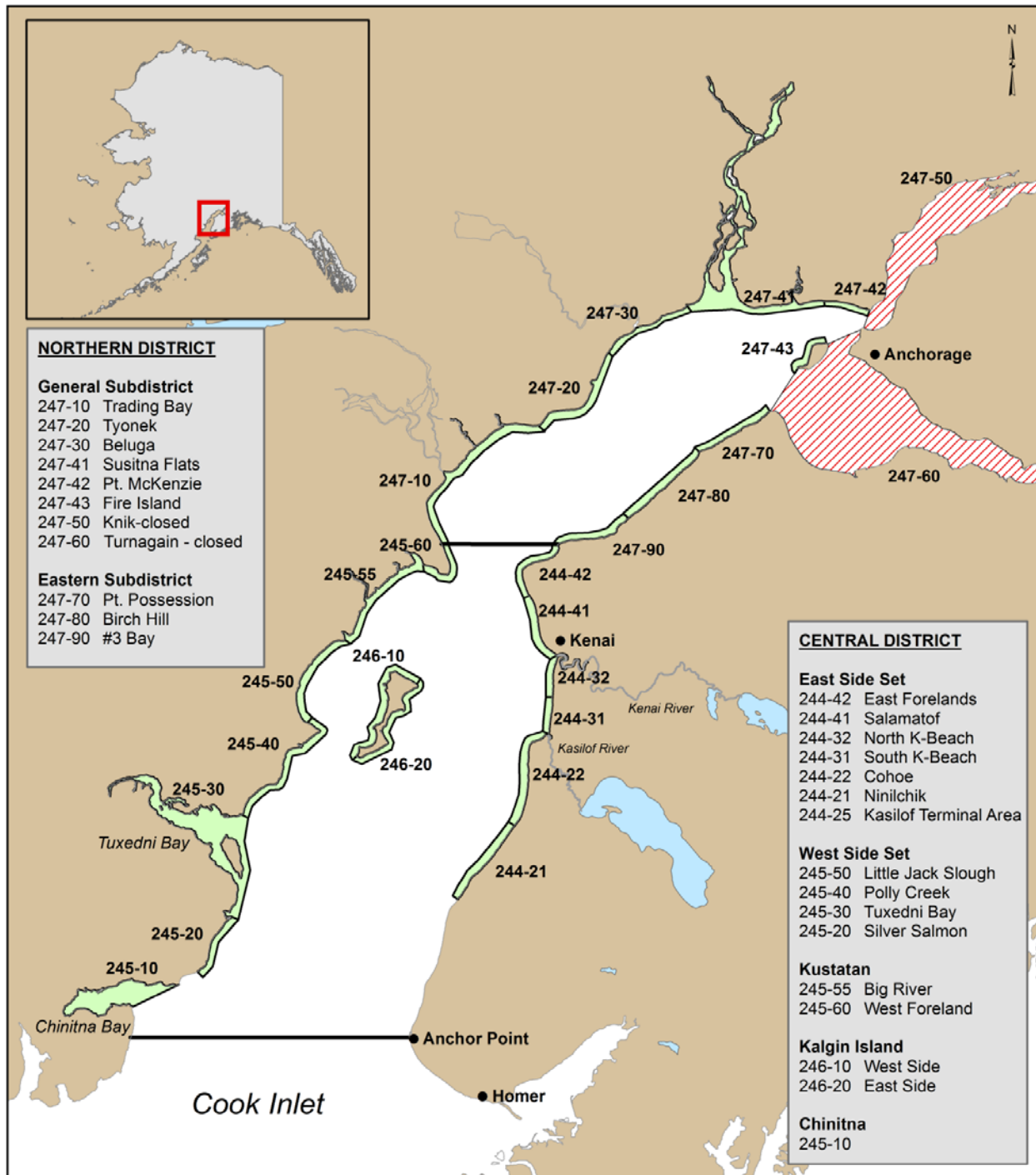
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Business name	Proprietor		Address	City	State
	First name	Last name			
CAST AND BLAST	DANIEL	CHALOUX	33755 ENTERPRISE AVENUE	SOLDOTNA	AK
CROSSHAIRS OUTFITTERS	MICHAEL	COWAN	PO BOX 8553	NIKISKI	AK
DANS GUIDE SERVICE	DANIEL	VERKUILEN	PO BOX 443	KENAI	AK
DESHKA LANDING CHARTERS & LODGE	JUSTIN	HENNEOUS	PO BOX 364	WILLOW	AK
DESHKA WILDERNESS LODGE	MICHAEL	YENCHA	PO BOX 123	WILLOW	AK
EHMANN OUTDOORS LLC	JENNIFER	EHMANN	PO BOX 2144	PALMER	AK
FIREWEED LODGE AT LAKE CREEK	WERNER	FRAUENFELDER	9321 BLACKBERRY STREET	ANCHORAGE	AK
FISHTALE RIVER GUIDES	ANDREW	COUCH	PO BOX 155	PALMER	AK
FREELANCE OUTDOOR ADVENTURES, LLC	LANCE	KRONBERGER	PO BOX 772133	EAGLE RIVER	AK
FRITZ GUIDING SERVICE	RYAN	FRITZ	PO BOX 1252	SOLDOTNA	AK
GREAT LAND ADVENTURES LLC	RICHARD	BOWEN	915 SOUTH 137TH STREET	BURIEN	WA
GREGS EZ LIMIT GUIDE SERVICE	GREGORY	BRUSH	PO BOX 4278	SOLDOTNA	AK
HIGH ADVENTURE AIR CHARTER GUIDES & OUTFITTERS, INC.	GREG	BELL	PO BOX 486	SOLDOTNA	AK
IFISH ALASKA GUIDE SERVICE	PATRICK	DONELSON	PO BOX 871580	WASILLA	AK
JASON LEE GUIDE SERVICES	JASON	LEE	PO BOX 695	SOLDOTNA	AK
JOHN POTTER	JOHN	POTTER	PO BOX 2713	SOLDOTNA	AK
KATMAI AIR LLC	RAYMOND	PETERSEN	4125 AIRCRAFT DRIVE	ANCHORAGE	AK
KING POINT FISHING LODGE INC.	ALAIN BEAT	OBERHOLZER	9321 BLACKBERRY STREET	ANCHORAGE	AK
LAKE MARIE LODGE, LLC	DAVID	WILSON	P.O. BOX 670869	CHUGIAK	AK
LEWIS CHARTERS	DANIEL	LEWIS	6700 E. FINGER LAKE VW. DR.	WASILLA	AK
LIFE ON THE LINE ALASKA FLY FISHING	ARD	STETTS	PO BOX 877937	WASILLA	AK
LIPSERVICE FISHING CHARTERS	CHAD	LIPSE	6451 W COMMADORE LANE	WASILLA	AK
MAJESTIC EXPEDITIONS INC	JOSHUA	GRAVES	PO BOX 261	GUSTAVUS	AK
MCDOUGALL LODGE LLC	RONALD	JEWETT	10939 N ALPINE HWY #128	HIGHLAND	UT
MEMORIES LODGE	LARRY	BEYER	PO BOX 34 DONKEY LAKE	SKWENTNA	AK
MILLERS RIVERBOAT SERVICE	BEN	ALLEN	4150 EAST WICKERSHAM WAY	WASILLA	AK
MOOSEHORN LODGE	ERICH	NAPFLIN	PO BOX 873095	WASILLA	AK
MYRACLE GUIDE SERVICE	EVAN	WERNER	PO BOX 8341	NIKISKI	AK

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Business name	Proprietor		Address	City	State
	First name	Last name			
NEWHALEN LODGE INC	BILL	SIMS	3851 CHINIAK BAY DRIVE	ANCHORAGE	AK
NORTHERN SKY GUIDE SERVICE	SKY	SMITH	PO BOX 342	LAPINE	OR
NORTHWOODS LODGE	ERIC	JOHNSON	PO BOX 56	SKWENTNA	AK
PERATAS GUIDED ADVENTURES	NICK	PERATA	PO BOX 8553	NIKISKI	AK
PHANTOM TRI-RIVER CHARTERS	RHETT	NEALIS	PO BOX 312	TALKEETNA	AK
QUAGLIANAS GUIDE SERVICE	MARK	QUAGLIANA	PO BOX 2952	SOLDOTNA	AK
RAINBOW KING LODGE, INC.	RODGER	GLASPEY	P.O. BOX 177	OAKLAND	OR
RAINBOW RIVER LODGE	CHAD	HEWITT	PO BOX 330	ILIAMNA	AK
REDOUBT BAY LODGE	DANNY	BREWER	P.O. BOX 8223	NIKISKI	AK
REDOUBT MOUNTAIN LODGE	RYAN	RICHARDS	PO BOX 1460	NORTH PLAINS	OR
REED'S GUIDING	MORGAN	REED	28300 E HISTORIC COLUMBIA RIVER HWY	TROUTDALE	OR
RIVERSONG LODGE	WALTER	ZALESKI	11995 WILDERNESS DRIVE	ANCHORAGE	AK
ROB FREEMANS OUTDOOR ADVENTURES	ROBERT	FREEMAN	245 S 180TH STREET	FORT SCOTT	KS
ROE HARD GUIDE SERVICE	CHRISTOPHER	TOBIAS	10215 VALLEY PARK DRIVE	ANCHORAGE	AK
SILVER SALMON CREEK LODGE	DAVID	CORAY	PO BOX 3234	SOLDOTNA	AK
TALAHEIM LODGE	MARK	MILLER	PO BOX 190043	ANCHORAGE	AK
TALKEETNA FISHING GUIDES	GERALD	SOUSA	POB 922	TALKEETNA	AK
TALSTAR LLC	MARK	COOLEY	PO BOX 1169	WILLOW	AK
TALVISTA LODGE	MIRANDA	POYNTER	PO BOX 78	SKWENTNA	AK
THE FARM LODGE INC	GLEN	ALSWORTH SR	THE FARM LODGE BOX 1	PORT ALSWORTH	AK
TIM CRIST ALASKAN ADVENTURES	TIM	CRIST	PO BOX 2261	TWIN FALLS	ID
TONY'S GUIDE SERVICES	ANTHONY	MANN	PO 2771	VALDEZ	AK
TORDILLO MOUNTAIN LODGE	MICHAEL	OVERCAST	3705 ARCTIC BLVD 429	ANCHORAGE	AK
TOWER ROCK LODGE	MICHAEL	TUHY	35555 KENAI SPUR HWY #222	SOLDOTNA	AK
TURNERS GUIDE SERVICE	RALPH	TURNER	2554 CEDAR STREET	SUTTER	CA
TWO DOGS CHARTERS	JOHN	MILLER II	PO BOX 1074	WILLOW	AK
VALLEY RIVER CHARTERS	MATTHEW	PETERSON	8701 E. KLATT RD	ANCHORAGE	AK
WILDERNESS PLACE LODGE	JASON	ROCKVAM	PO BOX 190243	ANCHORAGE	AK
WOMENS FLYFISHING	CECILIA	KLEINKAUF	2220 NORTH STAR #2	ANCHORAGE	AK
XTREME XPEDITIONS	ANDREW	WILLIS	7362 W PARKS HIGHWAY	WASILLA	AK
YENTNA RIVER SERVICES	ROGER	PHILLIPS	PO 68	SKWENTNA	AK
YENTNA STATION ROADHOUSE	DANIEL	GABRYSZAK	5287 E BIG ROCK DRIVE	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, 1954–2015.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1954	63,780	1,207,046	321,525	2,189,207	510,068	4,291,626
1955	45,926	1,027,528	170,777	101,680	248,343	1,594,254
1956	64,977	1,258,789	198,189	1,595,375	782,051	3,899,381
1957	42,158	643,712	125,434	21,228	1,001,470	1,834,002
1958	22,727	477,392	239,765	1,648,548	471,697	2,860,129
1959	32,651	612,676	106,312	12,527	300,319	1,064,485
1960	27,512	923,314	311,461	1,411,605	659,997	3,333,889
1961	19,737	1,162,303	117,778	34,017	349,628	1,683,463
1962	20,210	1,147,573	350,324	2,711,689	970,582	5,200,378
1963	17,536	942,980	197,140	30,436	387,027	1,575,119
1964	4,531	970,055	452,654	3,231,961	1,079,084	5,738,285
1965	9,741	1,412,350	153,619	23,963	316,444	1,916,117
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	39,242	4,792,072	757,353	1,300,939	1,134,817	8,024,401
1987	39,661	9,500,186	451,133	109,801	348,926	10,449,707
1988	29,060	6,834,342	559,922	469,968	708,573	8,601,865
1989	26,742	5,010,698	339,201	67,430	122,027	5,566,098
1990	16,105	3,604,259	501,643	603,434	351,123	5,076,564
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	18,749	4,755,012	306,858	100,918	122,767	5,304,304
1994	19,937	3,543,047	579,954	518,747	299,323	4,961,008
1995	17,860	2,960,646	450,787	133,850	531,215	4,094,358
1996	14,248	3,888,778	321,411	242,911	156,457	4,623,805
1997	13,235	4,176,696	152,404	70,928	103,036	4,516,299
1998	7,997	1,218,956	160,644	551,345	95,654	2,034,596
1999	14,128	2,680,707	125,343	16,129	174,243	3,010,550

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Appendix E2.–Page 2 of 2.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
2000	7,229	1,322,180	236,128	146,156	126,927	1,838,620
2001	9,295	1,826,833	113,311	72,559	84,494	2,106,492
2002	12,069	2,761,886	244,014	436,380	225,446	3,679,795
2003	18,258	3,524,411	102,237	51,693	121,430	3,818,029
2004	27,476	4,926,220	311,056	357,939	146,164	5,768,855
2005	28,171	5,238,168	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	13,202	2,371,718	171,737	168,890	50,312	2,775,859
2009	8,750	2,045,619	153,210	214,321	82,986	2,504,886
2010	9,901	2,828,367	207,256	292,672	228,670	3,566,866
2011	11,248	5,277,440	95,276	34,030	129,202	5,547,196
2012	2,526	3,133,803	106,775	469,598	269,733	3,982,435
2013	5,398	2,683,224	260,963	48,275	139,365	3,137,225
2014	4,660	2,343,529	137,376	642,879	116,093	3,244,537
2015	10,798	2,649,667	216,032	48,004	275,960	3,200,461
Average						
1954–2015	18,004	2,554,223	280,230	572,848	452,497	3,877,802
2006–2015	10,214	2,884,288	170,382	246,980	143,359	3,455,222

Source: 1954–1965 from Fox and Shields (2004); 1966–2015 from Shields and Dupuis (2013-2016).

Note: Catch statistics prior to 2006 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: As of March 2015, the facility private concessionaire (Jeff Boatright) successfully completed his fourth-year of service for the operations and maintenance (O&M) of the Susitna Landing Boat Launch Facility. Mr. Boatright’s contract was renewed at that time through September 30, 2015. This was to be the fifth year of a 10-year contract, with 1-year renewable options. Unfortunately, Mr. Boatright decided to step down at the end of his contract period on September 30, 2015. ADF&G subsequently proceeded with the State of Alaska process to advertise, accept proposals, and hire a new concessionaire to operate and maintain (O&M) the facility. In the interim, ADF&G staff provided O&M and management oversight for the facility. As of December 2015, Joe and Marilyn Rouswell (J&M's Boat Launch & RV Park) were hired and put under contract as the new concessionaire for the O&M of Susitna Landing Boat Launch Facility.
- 3) Susitna Landing Operation Maintenance and Small Development Project is an annual maintenance Capital Improvement Project (CIP) grant to provide funding for construction of small development projects to provide a safer and more secure site. Funding will also be used for payment of the on-site private concessionaire, who is salaried from this grant, for the O&M of this ADF&G–owned facility.
- 4) Rocky Lake SRS Boat Launch Renovation Project (\$170K FY10 Funding Authority): This is a Cooperative project with DNR, DPOR to upgrade and repair the existing gravel launch and parking lot. This project included renovating the gravel-hardened boat launch and expansion of the parking area. The project was completed in the spring and summer of 2015.
- 5) Big Lake South SRS Boat Launch and Boat Mooring Dock Renovation Project (\$135K FY11 Funding Authority): The cooperative project with DNR DPOR, to replace the old, deteriorating “hook-and-eye” concrete ramp planks, was completed in summer 2013. Presently, for the boat mooring dock replacement portion of the project, the site has been surveyed and the dock designed; the construction is scheduled for winter and spring of 2016.
- 6) Big Lake North SRS Boat Launch Renovation Project (\$100K FY12 Funding Authority): The cooperative project with DNR DPOR, to replace the old, deteriorating “hook-and-eye” concrete ramp planks, was completed in summer 2013. Presently, for the boat mooring dock replacement portion of the project, the site has been surveyed and the dock designed; the construction is scheduled for spring and summer of 2016.

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Boating Projects continued

- 7) Homer Boat Launch Facility and Floating Dock Renovation Project: This is a cooperative project with the City of Homer (City) and ADF&G for the renovation of the City concrete plank boat launch ramps and mooring docks. The existing concrete ramps and mooring floats have exceeded their useful life, have sustained structural damage, and are unsafe. The estimated total project cost is \$3.34Mil. The FY12 request \$350K paid for Phase I activities (preliminary design concepts, cost estimates, and permitting). This is a multi-year funded project; FY13 requested and received funding authority for an additional \$140K. FY14 requested and received funding authority for an additional \$1 Mil. FY15 requested and received funding authority for an additional \$1.85 Mil. The Cooperative Agreement has been finalized and signed; an engineering firm was hired and completed the 100% design concept. The project went to bid and a contractor has been hired, construction and completion is scheduled for the fall of 2015.

Boating and Nonboating Projects

- 1) Stocked and Wild Lake Access Site Evaluation Project: Preliminary assessment of Southcentral (81 stocked lakes) and Kenai Peninsula (38 stocked lakes) areas stocked lake sites was initiated in summer 2010 and has continued through 2011–2015. The ultimate goal is to list access site amenities, launch and trail types, and legal access documentation signifying each easement classification. All aforementioned information is planned to be listed on the ADF&G SF Access web site by the winter of 2017.

Annual Small Access Maintenance

- 1) Little Susitna Public Use Facility (LSPUF) Operations and Maintenance Contract (~\$104.3K FY11; ~\$105.4K FY12; ~\$157K FY13; ~\$193,681 FY14; ~\$129,933K FY15): This project provides funds via a Reimbursable Services Agreement (RSA) out of Headquarters Access Maintenance Budget and revenue receipts to DPOR to operate and manage the facility.
- 2) Grounds Cleaning and Refuse Service (~\$21.565K FY14–FY15): Provides service for Sheep and Caswell creeks, Bonnie Lake, and Eklutna Tailrace.
- 3) Toilet Service, Portable and Vault Service (~\$13.91K FY14–FY15): Provides service for 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 Caswell and Sheep Creek angler access sites, Little Susitna Public Use Facility, Susitna and Talkeetna Landing, Bonnie, Caswell, Eklutna, Florence, Loberg, Montana, Little Lonely, and X & Y 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 Boot, Bradley, Crystal, Echo, Florence, Horseshoe (Big Lake Area), Memory, Willow, and Wolf lakes in this area.

Appendix F2.–Completed access projects for Northern Cook Inlet Management Area, 2014–2015.

Project type	Location(s)	Project details	Cost	Completion
Nonboating				
1.	Maintenance of existing SFD angler access sites	Toilets, waste/refuse removal, cleaning services, road grading and repairs, signage, and miscellaneous repairs.	\$54,000.00	Seasonal (May–September)
2.	Eklutna Tailrace road repair (gravel)	Road grading and repairs project was completed at Eklutna Tailrace day-use access site in fall of 2015.	\$1,500.00	2014–2015
3.	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	2014–2015
Total			\$55,500.00	
Boating				
1.	Maintenance of existing SFD boating access sites	Maintenance: toilets, waste removal, cleaning services, dredging, road grading and repairs, signage, and miscellaneous repairs.	\$5,000.00	Seasonal (May–September)
2.	Talkeetna maintenance dredge	Dredge boat launch area to provide sufficient water for operation and safe boat navigation.	\$12,000.00	2014–2015
3.	LSPUF operations	Funded DPOR for 2014–2015 maintenance and operations.	\$193,681.00 (2014) \$129,933.00 (2015)	2014–2015
4.	CIP Susitna Landing Operation and Maintenance and small development project	This project will provide funding necessary to continue operations, maintenance, and management of the ADF&G–owned facility.	\$65,000.00 (2014) \$95,000.00 (2015)	2014–2015
5.	CIP Rocky Lake	Rocky Lake SRS Boat Launch Renovation Project. This is a cooperative project with DNR, DPOR to upgrade/repair the existing gravel launch and parking lot. This included renovating the gravel hardened boat launch and expansion of the parking area. The project was completed in the spring/summer of 2015.	170,000	2015
6.	CIP Homer Boat Launch Renovation Project	Homer Boat Launch Facility and Floating Dock Renovation Project Continuing, multi-year funded cooperative project with the City of Homer and ADF&G for renovation of the public boat launch ramp facility in Homer Harbor.	\$3,334,000.00	Completed 2015

Note: AWT = Alaska Wildlife Troopers; CIP = Capital Improvement Project; DNR DPOR = Department of Natural Resources Division of Parks and Outdoor Recreation; LSPUF = Little Susitna Public Use Facility; RSA = reimbursable service agreement; SF = Division of Sport Fish; SRS = State Recreation Site.

Appendix F3.–Proposed access projects for Northern Cook Inlet Management Area in 2013.

Project type	Location (s)	Project details ^a	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	By 2016, install 2 double vault latrines to meet the increased demand to the newly designed and upgraded facility.	\$150,000.00	Regional funding committed
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	Proposed 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 Attorney General'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	Proposed regional funding commitment
Total			\$533,500.00	

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Project type	Location (s)	Project details ^a	Estimated cost	Funding year
Boating				
1.	Region II small access	Road and site maintenance and annual dredge work.	\$5,000.00	SAM yearly
2.	Little Susitna River Public Use Facility	RSA to fund DNR DPOR for LSPUF operation.	\$154,400.00 ^c	SAM yearly
3.	Stocked and wild lakes	Conduct access site surveys.	\$5,000	SAM
4.	Susitna Landing operations and maintenance 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 (Joe Rouswell) 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	\$80,000.00	CIP SAM yearly
Total			244,400.00	

^a Completed access projects are listed in Appendix F2.

^b CIP = capital improvement project; DNR = Division of Natural Resources; MLW = Division of Mining, Land, and Water; DPOR = Division of Parks and Outdoor Recreation; FY = fiscal year; SF = Division of Sport Fish; LSPUF = Little Susitna Public Use Facility; MHTLO = State of Alaska Mental Health Trust Land Office; MSB = Matanuska-Susitna Borough; RSA = reimbursable service agreement; SAM = small access maintenance; SRA = State Recreation Area (managed by DPOR).

^c Reimbursable service agreement (RSA) 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	1.00%	100 yd. walk in
Bearpaw	good	PUA	5 vehicle gravel	Gravel road to lake	50.00%	Designated public park MSB plat maps
Benka	good	PUA	2 vehicle gravel	Access rd. ends at lake	0.50%	No camping – home owner lease
Beverly	good	S/L (33 ft)	5 vehicle gravel	Swampy; ATV or foot access	15.00%	33' access at “Y” in trail to Kalmbach Lake; state land
Big	good	SRS	20 vehicle gravel	Concrete boat launches	2.00%	2 State Rec. Sites; camping
Big Beaver	good	Rd. ROW	5 vehicles gravel	MSB gravel road and launch	1.00%	MSB Road ROW
Big No Luck	canoe trail	SRA DNR	15 vehicle gravel	Canoe trail: 1.5 miles	100.00%	Nancy Lake SRA; camping
Bruce	good	PUE (60 ft) MSB	5 vehicle gravel limited to road ROW	Cleared easement	1.00%	Shoreline muskeg; improve parking
Canoe	good	SRA DNR	6 vehicle gravel	Packed gravel	21.00%	Dock, picnic tables, outhouse; K/B Rec.
Carpenter	good	PUE (150 ft) 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 ft) MSB	2 vehicle gravel	Good	100.00%	Borough blocked rd. access to park, very poor shape
Crystal	good	PUE (60 ft) 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	5.00%	Designated public park: Tract C
Diamond	good	PUE (50 ft)	6 vehicle gravel	Foot trail	36.00%	ADL #225903 – 100 yd. walk in
Echo	good	Rd. ROW 100 ft Glenn Hwy	4 vehicle paved pull-out	Signed, gravel	15.00%	Shoreline trees, brush; private access
Farmer	good	50 ft Sec/Line	5 vehicle gravel	Good	1.00%	Shoreline muskeg

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Lake	Access route	Easement classification ^a	Parking area	Trail condition	% Public shoreline	Comments
Finger	good	SRA	30 vehicle gravel	Access rd. ends at lake	5.00%	State Rec. Site, camping & fishing platforms ADA accessible
Florence	good	S/L (66 ft) MSB	2 vehicle pull- out ROW	Good	0.80%	No camping
Homestead	needs signs	ROW Ease. 50 ft MSB dedicated access	Limited to access rd.	Access rd. ends at lake	1.00%	Shoreline swampy; no camping
Honeybee	needs signs	PUA MSB	Limited to access rd.	Needs work, swampy	6.00%	Adj. state land
Ida	need signs	PUE (20 ft)	4 vehicle gravel	Steep, gravel	0.10%	No camping
Irene	good	SRA	4 vehicle gravel	gravel	15.00%	K/B Rec. Area
Kalmbach	good	S/L (33 ft) MSB	5 vehicle gravel	Swampy, ATV, or foot access	20.00%	Sec/line ease. to trail on state land
Kashwitna	good	Rd. ROW	30 vehicle paved	Access is by lake	10.00%	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	100.00%	Brushy shoreline; K/B Rec. Area
Knik	good	PUA	2 vehicle	Access rd. ends at lake	0.60%	No camping
Lalen	good	PUE (20 ft) 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	90.00%	Vacant/abandoned - state rec. site; camping/no amenities
Long (K/B)	good	SRA	7 vehicle gravel	Packed dirt, steep	100.00%	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 rd. can be 4WD; no camping
Lorraine	good	MSB property	6 vehicle gravel	Muddy, rutted by	95.00%	Surrounded by borough land
Loon	good	S/L (50 ft)	5 vehicle gravel	Access area gravel	0.40%	No camping

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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 rd. ends at lake	4.00%	2 access sites; camping and parking at Lucille Park
Lynne	good	PUA	2 vehicle dirt	Access rd. ends at lake	2.00%	Access rd.; 2% is state land
Marion	good	PUA	4 vehicle gravel	Steep dirt, some erosion	12.00%	Adj. to MSB land
Matanuska	good	SRA	30 vehicle gravel	Short gravel	35.00%	Docks, picnicking outhouse; K/B Rec Area
Meirs (McLeod)	good	PUE	8 vehicle, can be muddy	Steep, dirt	1.00%	No camping
Memory	good	S/L (33 ft) MSB	4 vehicle, gravel	Access rd. ends at lake	0.30%	No camping
Mile 180	good	Rd. ROW	10 vehicle, paved pullouts	Pullouts beside lake	40.00%	Lakeshore muskeg
Morvro	fair	S/L (33 ft) 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	2.00%	Castle Public Park; no camping
Ravine	fair	PUA DNR	4 vehicle gravel	Steep, worn	50.00%	Adj. state land
Reed	good	PUE (10 ft) MSB	Limited to rd. ROW	Repairs made to drop-off, need timber steps	0.20%	Improve parking; no camping
Rocky	good	SRS	30 vehicle gravel	Access rd. ends at lake	5.00%	State Rec. Site; camping
Ruby	ATV, no signs	Trail Easement (50 ft)	15 vehicle gravel	5 mile ATV trail	40.00%	New surveyed trail, adj. state land
Seventeen mile	good	PUA	8 vehicle gravel	Access rd. ends at lake	0.60%	No camping
Seymour	good	S/L (83 ft) MSB	4 vehicle gravel	Access rd. ends at lake	0.50%	MSB land adjacent
Slipper (Eska)	good	Rd. ROW MSB	20 vehicle gravel	Access rd. ends at lake	75.00%	Last 1/4 mile rough

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Lake	Access route	Easement classification ^a	Parking area	Trail condition	% Public shoreline	Comments
South Friend (Montana)	good	Rd. ROW MSB	10 vehicle gravel	Short, dirt	10.00%	Shoreline swampy along ROW
South Rolly	good	SRS DNR	20 vehicle gravel	Access rd. ends at lake	100.00%	State Rec. Site; camping
Tigger	good	PUE	5 vehicle gravel	Foot trail, needs sign	100.00%	New access acquired from MSB
Twin Island	fair	State prop.	4 vehicle gravel	Swampy	0.60%	MSB prop conflict/mental health land
Vera	good	S/L (50 ft) MSB	6 vehicle dirt	Soft tundra	0.30%	No camping
Victor	good	SRA	30 vehicle gravel	Dirt, some mud	100.00%	Brushy shoreline; K/B Rec. Area
Visnaw	good	S/L (33 ft) MSB	3 vehicle gravel	Access rd. ends lake	0.40%	No camping
Walby	good	PUA MSB	6 vehicle gravel	Access rd. ends lake	1.00%	No camping
Wiener	good	Rd. ROW	(2) 4 vehicle pullouts	Pullouts beside lake	25.00%	Access along Glenn Hwy.
West Sunshine	good	PUE (20 ft) MSB	2 vehicle gravel limited rd. ROW	Steep, dirt	0.40%	No camping
Willow	good	S/L (50 ft) MSB	30 vehicle gravel	Access rd. ends lake	0.40%	Access by Willow Comm. Center
Wishbone	fair	State prop.	4 vehicle dirt	Rough 4WD only	100.00%	Hook-&-release only, state land
Wolf	good	SRA	10 vehicle gravel	Short dirt	33.00%	Vacant/abandoned SRA; no camping
“X”	good	PUA MSB	6 vehicle gravel	Access trail to lake	100.00%	Hook-&-release only; state land
“Y”	good	Rd. ROW	2 vehicle dirt	Short, steep	100.00%	Brushy, state land

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

**APPENDIX G: INFORMATION AND EDUCATION
PROGRAM**

Appendix G1.–Classroom visits and presentations conducted for ADF&G Information and Education Program, 2014.

Date	School	Students	Age group	Subject
23 Sep	District Wide	465	Elementary	Egg Take
24 Sep	District Wide	460	Elementary	Egg Take
30 Sep	Palmer	21	High School	Salmon Dissection
30 Sep	Larson	75	Elementary	Salmon Dissection
6 Oct	Fronteras	40	Elementary	Watershed Presentation
7 Oct	Cottonwood Creek	70	Elementary	Salmon Dissection
7 Oct	Machetanz	60	Elementary	Salmon Dissection
8 Oct	Talkeetna	30	Elementary	Salmon Dissection and Watershed Presentation
9 Oct	Willow	41	Elementary	Salmon Dissection
10 Oct	Sherrod	150	Elementary	Salmon Dissection
13 Oct	Midnightsun	48	Elementary	Watershed Presentation
13 Oct	Machetanz	60	Elementary	Watershed Presentation
14 Oct	Teeland	120	Middle School	Salmon Dissection
15 Oct	Houston	40	High School	Salmon Dissection
16 Oct	Midnightsun	50	Elementary	Salmon Dissection
16 Oct	Pioneer Peak	68	Elementary	Salmon Dissection
20 Oct	Finger Lake	27	Elementary	Watershed Presentation
20 Oct	Snowshoe	50	Elementary	Watershed Presentation
23 Oct	Big Lake	85	Elementary	Watershed Presentation
23 Oct	Willow	41	Elementary	Watershed Presentation
24 Oct	Shaw	70	Elementary	Salmon Dissection
24 Oct	Finger Lake	27	Elementary	Salmon Dissection
27 Oct	Sutton	24	Elementary	Salmon Dissection
27 Oct	Sherrod	150	Elementary	Watershed Presentation
28 Oct	Fronteras	42	Elementary	Salmon Dissection
28 Oct	Snowshoe	50	Elementary	Salmon Dissection
29 Oct	Birchtree	46	Elementary	Salmon Dissection
29 Oct	Butte	60	Elementary	Salmon Dissection
3 Nov	Tanaina	80	Elementary	Watershed Presentation
5 Nov	Tanaina	80	Elementary	Salmon Dissection
7 Nov	Trapper Creek	34	Elementary	Salmon Dissection
9 Dec	District Wide	673	Elementary	Ice Fishing Festival
10 Dec	District Wide	655	Elementary	Ice Fishing Festival
	Total	3,992		

Appendix G2.—Classroom visits and presentations conducted for ADF&G Information and Education Program, 2015.

Date	School	Students	Age group	Subject
29 Sep	District Wide	450	Elementary	Egg Take
30 Sep	District Wide	230	Elementary	Egg Take
2 Oct	Big Lake	80	Elementary	Salmon Dissection
2 Oct	Butte	50	Elementary	Salmon Dissection
5 Oct	Pioneer Peak	69	Elementary	Watershed Presentation
5 Oct	Cottonwood Creek	90	Elementary	Watershed Presentation
8 Oct	Pioneer Peak	69	Elementary	Salmon Dissection
8 Oct	Kellogg	12	Elementary	Watershed Presentation
8 Oct	Finger Lake	50	Elementary	Watershed Presentation
9 Oct	Teeland	112	Middle School	Salmon Dissection
12 Oct	Big Lake	80	Elementary	Watershed Presentation
12 Oct	Larson	62	Elementary	Watershed Presentation
13 Oct	Midnightsun	50	Elementary	Salmon Dissection
14 Oct	Shaw	62	Elementary	Salmon Dissection
15 Oct	Cottonwood Creek	90	Elementary	Salmon Dissection
22 Oct	Kellogg	12	Elementary	Salmon Dissection
22 Oct	Sherrod	140	Elementary	Salmon Dissection
23 Oct	Knik	180	Elementary	Salmon Dissection
23 Oct	Machetanz	90	Elementary	Salmon Dissection
26 Oct	Midnightsun	50	Elementary	Watershed Presentation
26 Oct	Shaw	62	Elementary	Watershed Presentation
27 Oct	Snowshoe	70	Elementary	Watershed Presentation
27 Oct	Machetanz	90	Elementary	Watershed Presentation
28 Oct	Snowshoe	70	Elementary	Salmon Dissection
29 Oct	Wasilla	58	High School	Salmon Dissection
29 Oct	Larson	62	Elementary	Salmon Dissection
5 Nov	Finger Lake	50	Elementary	Salmon Dissection
17 Nov	Talkeetna	25	Elementary	Salmon Dissection
17 Nov	Talkeetna	25	Elementary	Watershed Presentation
24 Nov	Houston	50	High School	Salmon Dissection
15 Dec	District Wide	632	Elementary	Ice Fishing Festival
16 Dec	District Wide	616	Elementary	Ice Fishing Festival
	Total	3,838		

APPENDIX H: EMERGENCY ORDERS

1994

- 1) EO No. 2-RS-2-28-94 opened the Fish Creek personal use fishery. The dip net fishery opened 9:00 AM on July 27 and closed midnight on August 5, except the fishery was closed July 29 and August 2.
- 2) EO No. 2-RS-2-33-94 superseded EO 2-RS-2-28-94, extending the Fish Creek personal use dip net fishery through midnight August 9, effective August 7–9.
- 3) EO No. 2-KS-2-05-94 closed to fishing that portion of the Little Susitna River from the ADF&G fish counting weir located at river mile 32.5 downstream for a distance of 1,500 feet, effective May 25 through September 15.
- 4) EO No. 2-SS-2-32-94 increased the bag and possession limits to 5 coho salmon at the Little Susitna River downstream from the ADF&G counting weir at river mile 32.5, effective August 6 through December 31.
- 5) EO No. 2-SS-2-29-94 closed that portion of Jim Creek to fishing from the ADF&G fish counting weir located at river mile 1 downstream for a distance of 1,000 feet, effective July 26 through November 1.
- 6) EO No. 2-KS-2-02-94 reduced the Chinook salmon possession limit to 1 fish and eliminated the use of bait in the Deshka River, effective May 1 through July 13.
- 7) EO No. 2-KS-2-13-94 closed all waters of the Deshka River drainage to sport fishing for Chinook salmon and prohibited the use of bait in the following waters of the Susitna River drainage: 1) all waters of the Susitna River drainage downstream of the Deshka River that flow into the Susitna River from the east and the Alexander Creek drainage, 2) all waters of the Yentna River drainage, 3) all waters of the Talkeetna River drainage, and 4) all waters of the Chulitna River drainage, effective June 17 through July 13.

1995

- 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 32.5 downstream for a distance of 1,900 feet, effective May 25 through September 15.
- 2) EO No. 2-KS-2-08-95 established a possession limit of 1 Chinook salmon 16 inches or more in length in the Little Susitna River, effective May 24 through September 15.
- 3) EO No. 2-KS-2-21-95 opened Willow Creek from its mouth upstream to the Parks Highway Bridge and all waters within a one-quarter mile radius of Willow Creek's confluence with the Susitna River to Chinook salmon fishing, effective 12:01 AM through midnight on Tuesday, July 4.

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1995 continued

- 4) EO No. 2-RS-02-32-95 opened the Fish Creek personal use fishery. The dip net fishery opened 5:00 AM on 26 July and closed midnight on 8 August, except the fishery was closed July 28, August 1, and August 4.
- 5) EO No. 2-SS-02-40-95 increased the bag and possession limits to 5 coho salmon at the Little Susitna River downstream from the ADF&G fish counting weir at river mile 32.5, effective August 9 through December 31.

1996

- 1) EO No. 2-KS-2-27-96 opened Willow, Little Willow, Sheep, and Montana creeks from their mouths upstream to the Parks Highway Bridge and all waters within a one-quarter mile radius of their confluence with the Susitna River to Chinook salmon fishing effective 12:01 AM on Thursday, July 4 through midnight Sunday, July 7.

1997

- 1) EO No. 2-KS-2-15-97 opened the Deshka River from the mouth to approximately 2 miles upstream and within a one-quarter mile radius of the Susitna River confluence to fishing for Chinook salmon over 16 inches in length from 6:00 AM through 11:00 PM daily through July 13.
- 2) EO No. 2-KS-2-18-97 opened eastside Susitna River streams to Chinook salmon fishing on July 4.
- 3) EO No. 2-RS-2-25-97 closed Fish Creek to dipnetting from 11:00 AM on July 23 through 11:00 PM on July 25.
- 4) EO No. 2-RS-2-28-97 closed Fish Creek to dipnetting for the remainder of the 1997 season on July 26.
- 5) EO No. 2-SS-02-31-97 prohibited use of bait and reduced daily bag and possession limits of coho salmon to 1 in all waters of Cook Inlet on August 9. Areas not included were Eklutna Tailrace, and Ship, Bird, and Campbell creeks.
- 6) EO 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.

1998

- 1) EO No. 2-KS-2-08-98 established for the Deshka River that upon harvesting a Chinook salmon 16 inches or more in length, an angler must quit fishing for Chinook salmon for the remainder of the day. This clarified a regulation that went into effect when the Deshka River was opened to Chinook salmon fishing for the 1998 season.
- 2) EO No. 2-KS-2-09-98 opened Willow Creek to Chinook salmon fishing June 20–22.

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1998 continued

- 3) EO No. 2-KS-2-12-98 added Friday, July 3 as a day open to Chinook salmon fishing in that portion of the Susitna River drainage upstream from its confluence with the Deshka River to its confluence with the Talkeetna River including Susitna River tributaries from Willow Creek to Trapper Creek.
- 4) EO No. 2-KS-2-14-98 closed the Deshka River to all fishing 1,200 feet downstream and 300 feet upstream of the ADF&G fish counting weir.
- 5) EO No. 2-RS-2-15-98 closed Fish Creek to dipnetting, effective July 25–31.

1999

- 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 ADF&G fish counting weir.
- 2) EO No. 2-KS-2-07-99 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, June 22 through July 13.
- 3) EO No. 2-KS-2-11-99 opened Willow, Little Willow, Sheep, and Montana creeks to Chinook salmon fishing for an additional weekend, July 10 through July 12.
- 4) EO No. 2-RS-2-15-99 closed Fish Creek to dipnetting on July 26.
- 5) EO 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.

2000

- 1) EO No. 2-KS-2-04-00 closed the Deshka River to fishing from 1,000 yards downstream to 200 yards upstream of the ADF&G fish counting weir.
- 2) EO No. 2-KS-2-05-00 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, June 8 through July 13.
- 3) EO No. 2-KS-2-11-00 opened Willow, Little Willow, Sheep, and Montana creeks to Chinook salmon fishing for an additional day on July 4.
- 4) EO No. 2-KS-2-12-00 opened the east fork of the Chulitna River, and Willow, Little Willow, Sheep, and Montana creeks to Chinook salmon fishing for an additional 3-day weekend, July 8 through July 10.
- 5) EO No. 2-SS-2-17-00 established for waters below river mile 32.5 of the Little Susitna River that after keeping 2 coho salmon, an angler must quit fishing in the Little Susitna River for the remainder of the day, July 28 through December 31.
- 6) EO No. 2-RS-2-16-00 closed Fish Creek to dipnetting on July 26.

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2001

- 1) EO No. 2-KS-2-03-01 closed the Deshka River to fishing from 1,000 yards downstream to 200 yards upstream of the ADF&G fish counting weir.
- 2) EO No. 2-KS-2-04-01 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, June 12 through July 13.
- 3) EO No. 2-KS-2-09-01 extended Chinook salmon fishing on the Chulitna River downstream of the cable crossing July 1 through July 5.
- 4) EO No. 2-KS-2-13-01 opened Willow Creek to Chinook salmon fishing on June 29 at 12:01 AM.
- 5) EO 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 the Susitna River tributaries from 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, July 2, were opened through Wednesday, July 4 at 12:00 midnight.
- 6) EO No. 2-RS-2-17-01 closed Fish Creek to dipnetting on July 12 at 11:00 PM.

2002

- 1) EO No. 2-KS-2-03-02 increased the possession limit to 2 Chinook salmon in all Westside Susitna River tributaries except Alexander Creek.
- 2) EO No. 2-KS-2-02-02 opened the entire Theodore and Lewis rivers to catch-and-release for Chinook salmon through 30 June, limited to single hook, no bait.
- 3) EO No. 2-KS-2-04-02 closed the Deshka River to fishing from 1,000 yards downstream to 200 yards upstream of the ADF&G fish counting weir.
- 4) EO No. 2-KS-2-05-02 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, June 8 through July 13.
- 5) EO No. 2-KS-2-17-02 extended the Chinook salmon season in Willow, Sheep, and Montana creeks 3 days from July 5 to July 7, 6:00 AM to 11:00 PM, daily.
- 6) EO No. 2-SS-2-29-02 increased the coho salmon bag limit in Fish Creek to 3 per day and allowed 24-hour per day fishing on Saturdays and Sundays, beginning August 17 at 12:01 AM through December 31.

2003

- 1) EO No. 2-KS-2-01-03 closed the Deshka River to fishing from 1,000 yards downstream to 200 yards upstream of the ADF&G fish counting weir.

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2003 continued

- 2) EO No. 2-KS-2-05-03 increased the bag and possession limits of Chinook salmon greater than 20 inches in the Deshka River from 1 per day and 2 in possession to 2 per day and 4 in possession.
- 3) EO No. 2-KS-2-07-03 rescinded EO 2-KS-2-01-03.
- 4) EO No. 2-KS-2-12-03 extended the Chinook salmon season in Willow, Sheep, and Montana creeks 3 days from July 4–6, 6:00 AM to 11:00 PM, daily.

2004

- 1) EO No. 2-RS-2-18-04 prohibited the retention of sockeye salmon while sport fishing in all waters of the Yentna River drainage, beginning August 4.
- 2) EO No. 2-KS-2-06-04 increased the daily bag and possession limits for Chinook salmon on the Deshka River from 1 per day, 2 in possession to 2 per day, 4 in possession, June 12 to July 13.
- 3) EO No. 2-KS-2-04-04 allowed use of bait in that portion of the Deshka River open to Chinook salmon fishing, beginning May 28.
- 4) EO No. 2-KS-2-01-04 opened Eklutna Tailrace to Chinook salmon fishing on April 15.

2005

- 1) EO No. 2-RS-2-27-05 prohibited the retention of sockeye salmon in that portion of Fish Creek open to salmon fishing, beginning August 13.
- 2) EO No. 2-RS-26-05 prohibited the retention of sockeye salmon while sport fishing in all waters of the Susitna River drainage, effective July 24.
- 3) EO No. 2-KS-2-21-05 extended the Chinook salmon season in the lower 2 miles of the Deshka River from July 14 to July 31.
- 4) EO No. 2-KS-2-03-05 increased the daily bag and possession limits for Chinook salmon on the Deshka River to 2 per day, 4 in possession, and increased fishing time to 24 hours per day, May 27 to July 13.

2006

- 1) EO No. 2-KS-2-07-06 increased the daily bag and possession limits for Chinook salmon on the Deshka River to 2 per day, 4 in possession, and increased fishing time to 24 hours per day, May 26 to July 13.
- 2) EO No. 2-SS-2-41-06 increased the daily bag limit of coho salmon to 3 daily in that portion of the Little Susitna River open to salmon fishing, beginning August 19.
- 3) EO No. 2-SS-2-44-06 increased the period open to salmon fishing on Wasilla Creek to 24 hours per day while keeping the Saturday, Sunday, and weekend only restriction, and increased the bag limit for coho salmon to 3 daily in those waters open to salmon fishing, beginning August 19.

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2006 continued

- 4) EO No. 2-SS-43-06 increased the period open to salmon (other than Chinook salmon) fishing on Fish Creek to 24 hours per day while keeping the Saturday, Sunday, and weekend only restriction, and increased the bag limit for coho salmon to 3 daily in those waters open to salmon fishing, beginning on August 19.
- 5) EO No. 2-SS-2-42-06 increased the period open to salmon fishing on Cottonwood Creek to 24 hours per day while keeping the Saturday, Sunday, and weekend only restriction, and increased the bag limit for coho salmon to 3 daily in those waters open to salmon fishing, beginning August 19.
- 6) EO No. 2-RS-2-258-06 prohibited retention of sockeye salmon while sport fishing in all waters of the Susitna River drainage, beginning July 15.
- 7) EO Nos. 2-RS-2-40-06 rescinded Emergency Order No. 2-RS-2-25-06, which closed the Susitna River drainage to the retention of sockeye salmon, effective August 11.

2007

- 1) EO No. 2-KS-2-09-07 increased the Deshka River Chinook salmon bag limit to 2 fish over 20 inches and allowed fishing 24 hours per day, effective May 25.
- 2) EO No. 2-SS-2-36-07 prohibited retention of coho salmon while sport fishing in the Kink Arm Management Area, excluding Eklutna Tail Race and Fish Creek, effective September 4.
- 3) EO No. 2-SS-2-37-07 rescinded EO No. 2-SS-2-36-07 on September 11.
- 4) EO No. 2-RS-2-35-07 prohibited retention of sockeye salmon while sport fishing in all waters of the Susitna River drainage, effective August 11.

2008

- 1) EO No. 2-KS-2-08-08 prohibited use of bait on the Deshka River, effective June 14.
- 2) EO No. 2-KS-2-12-08 closed Deshka to Chinook salmon fishing, effective June 20.
- 3) EO No. 2-SS-2-26-08 increased the bag limit for coho salmon to 3 per day in that portion of the Knik Arm open to salmon fishing excluding Jim Creek, beginning August 16.

2009

- 1) EO No. 2-KS-2-06-09 prohibited bait on the Deshka River and limited harvest to Saturdays through Mondays (catch-and-release only on Tuesdays through Fridays), effective May 15.
- 2) EO No. 2-KS-2-09-09 closed the Deshka River to Chinook salmon fishing, effective June 13.
- 3) EO No. 2-KS-2-20-09 closed the Little Susitna River to Chinook salmon fishing and closed the last 3 day weekend of fishing within Unit 2 of the Susitna River, effective July 3.

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2009 continued

- 4) EO No. 2-SS-2-27-09 increased the bag limit for coho salmon to 3 per day in that portion of the Knik Arm open to salmon fishing, except the Little Susitna River, beginning August 19. Mondays were added to the weekend fisheries of Cottonwood, Wasilla, and Fish creeks.

2010

- 1) EO No. 2-KS-2-09-10 closed the Chuitna, Theodore, and Lewis rivers to Chinook salmon fishing, effective May 15.
- 2) EO No. 2-KS-2-14-10 prohibited use of bait on the Deshka River, effective June 12.
- 3) EO No. 2-KS-2-22-10 rescinded EO 2-KS-2-14-10, effective June 19.
- 4) EO No. 2-KS-2-24-10 reduced the annual limit to 1 Chinook salmon over 20 inches in Unit 4 (Yentna River drainage), effective June 26.
- 5) EO No. 2-KS-2-31-10 reduced the annual limit to 1 Chinook salmon over 20 inches in Units 5 and 6 (Talkeetna and Chulitna river drainages), effective July 2.
- 6) EO No. 2-KS-2-30-10 closed the Little Susitna River to Chinook salmon fishing and closed the last 2 weekends of fishing within Unit 2 of the Susitna River, effective July 2.
- 7) 2-SS-2-42-10 increased the bag limit for coho salmon to 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.
- 8) 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 6:00 AM on July 24 and ending 11:00 PM on July 31.

2011

- 1) EO No. 2-KS-2-09-11 closed the Little Susitna River to Chinook salmon fishing, effective June 17.
- 2) 2-SS-2-26-11 prohibited the use of bait on the Little Susitna River, effective 12:01 AM, Saturday, August 6 through 11:50 PM, Friday, September 20.
- 3) 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, August 27.

2012

- 1) 2-KS-2-06-12 reduced the annual limit for Chinook salmon 20 inches or longer from 5 fish to 2 fish and limited sport fishing gear to 1 unbaited, single hook, artificial lure in the Susitna River drainage, effective 6:00 AM, Tuesday, May 15.
- 2) 2-KS-2-07-12 reduced the annual limit for Chinook salmon 20 inches or longer from 5 fish to 2 fish and limited sport fishing gear to 1 unbaited, single hook, artificial lure in the Little Susitna River drainage, effective 6:00 AM, Tuesday, May 15 through 11:59 PM, Friday, July 13.

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2012 continued

- 3) 2-KS-2-14-12 closed the Little Susitna River to fishing for Chinook salmon, effective 6:00 AM, Friday, June 15 through 11:59 PM, Friday, July 13.
- 4) 2-KS-2-15-12 prohibited the use of bait and limited sport fishing gear to 1 unbaited, single-hook artificial lure while sport fishing in the Deshka River, effective 6:00 AM, Wednesday, June 20 through 11:00 PM, Friday, July 13.
- 5) 2-KS-2-20-12 closed the Susitna River drainage to sport fishing for Chinook salmon and limited sport fishing gear to 1 unbaited, single hook, artificial lure when fishing in waters normally opened to Chinook salmon fishing, effective 6:00 AM, Monday, June 25 through 11:59 PM, Friday, July 13.
- 6) 2-RT-2-31-12 increased the possession limit for rainbow trout in Reflections Lake to 5 per day and 5 in possession, with only one 20 inches or greater in length, effective 6:00 AM, Friday, July 6 through 11:59 PM, Monday, December 31.
- 7) 2-SS-2-49-12 prohibited sport fishing for coho salmon on the Little Susitna River, effective 12:01 AM, Monday, August 6 through 11:59 PM, Sunday, September 30.
- 8) 2-SS-2-50-12 prohibited the use of bait for coho salmon on the Little Susitna River effective 12:01 AM, Monday, August 6 through 11:59 PM, Sunday, September 30.
- 9) 2-SS-2-51-12 reduced the bag limit for coho salmon in Jim Creek from 2 fish to 1 fish only between the hours of 6:00 AM to 6:00 PM, effective 6:00 AM, Friday, August 10.
- 10) 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, August 17.

2013

- 1) 2-KS-2-08-13 restricted sport fishing gear to 1 unbaited, single hook, artificial lure and closed fishing for any species after harvesting a Chinook salmon greater than 20 inches in length in the Susitna River drainage, effective 6:00 AM, Tuesday, May 15 through 11:59 PM, Friday, July 13. This EO further prohibited the retention of Chinook salmon (any size) each Tuesday, Wednesday, and Thursday (harvest allowed Fridays through Mondays) within Unit 4 (Yentna River drainage).
- 2) 2-KS-2-09-13 established a combined annual limit of 2 Chinook salmon 20 inches or greater in length for fish harvested in the Susitna River drainage and the Little Susitna River, effective 6:00 AM, Tuesday, May 15 through 11:59 PM, Friday, July 13.
- 3) 2-KS-2-10-13 restricted sport fishing gear to 1 unbaited, single hook, artificial lure and prohibited the retention of Chinook salmon (any size) each Tuesday, Wednesday, Thursday, and Friday (harvest was allowed Saturdays through Mondays), effective 6:00 AM, Tuesday, May 15 through 11:59 PM, Friday, July 13.

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2013 continued

- 4) 2-KS-2-18-13 decreased the waters of the Little Susitna River open to sport fishing by relocating the ADF&G regulatory marker downstream approximately 1,500 feet from the weir located at river mile 32.5, effective 6:00 AM, Friday, June 14 through 11:59 PM, Sunday, September 15.
- 5) 2-KS-2-29-13 reinstated use of bait and multiple hooks on the Deshka River for the remainder of the season, effective 6:00 AM, Saturday, June 29.
- 6) 2-SS-2-48-13 increased the bag and possession limits for coho salmon from 2 to 3 in Fish, Cottonwood, and Wasilla creeks, effective 12:01 AM, Saturday, August 17 through December 31. In addition, this emergency order extended the 2-day weekend fisheries of Fish, Cottonwood, and Wasilla creeks to a 3-day fishery to take place each Saturday through Monday.
- 7) 2-SS-2-49-13 allowed sport fishing on Fish Creek 7 days per week, effective 6:00 AM, Thursday, August 22.

2014

- 1) 2-KS-2-06-14 restricted sport fishing gear to 1 unbaited single-hook, artificial lure; prohibited bait. Also prohibited harvest of Chinook salmon in units 1 (except Deshka River), 2, 3, 5, and 6 of the Susitna River and in the Talachulitna River (Unit 4). Within Unit 4, except for the Talachulitna River, this emergency order allowed harvest each Friday, Saturday, Sunday, and Monday and prohibited the retention of Chinook salmon each Tuesday, Wednesday, and Thursday. Where harvest was prohibited, fishing for Chinook salmon was allowed. However, Chinook salmon could not be retained or possessed, and Chinook salmon caught could not be removed from the water and must be released immediately into those waters effective at 6:00 AM, Thursday, May 1 through 11:59 PM, Sunday, July 13.
- 2) 2-KS-2-07-14 established a combined annual limit of 2 Chinook salmon 20 inches or greater in length for fish harvested in the Susitna River and the Little Susitna River drainages, beginning 6:00 AM, Thursday, May 1 through 11:59 PM, Sunday, July 13.
- 3) 2-KS-2-08-14 Little Susinta River restricted to 1 unbaited, single-hook, artificial lure only effective at 6:00 AM, Thursday, May 1 through 11:59 PM, Sunday, July 13.
- 4) 2-KS-2-20-14 allowed use of bait and multiple hooks for Chinook salmon on the Deshka River effective at 6:00 AM, Saturday, June 14 through 11:59 PM, Sunday, July 13.
- 5) 2-KS-2-21-14 closed the Little Susitna River to Chinook salmon fishing as well as catch-and-release fishing effective at 12:01 AM, Friday, June 20 through 11:59 PM, Sunday July 13.
- 6) 2-KS-2-31-14 opened the Little Susitna River to sport fishing for Chinook salmon. Only single-hook artificial lures were allowed, and an annual limit of 2 Chinook salmon effective at 6:00 AM, Friday, July 4 through 11:59 PM, Sunday, July 13.
- 7) 2-KS-2-41-14 opened the Fish Creek personal use fishery. The dip net fishery opened 6:00 AM, Friday July 25 through 11:00 PM, Thursday July 31 with no retention of Chinook salmon allowed.

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2014 continued

- 8) 2-SS-2-46-14 increased the bag and possession limits for coho salmon from 2 to 3 in Fish, Cottonwood, and Wasilla creeks, effective 6:00 AM, Saturday, August 9 through December 31. In addition, this emergency order extended the 2-day weekend fisheries of Cottonwood and Wasilla creeks to a 3-day fishery to take place each Saturday through Monday.
- 9) 2-RS-2-47-14 prohibits the retention of sockeye salmon while sport fishing in Larson Creek and within one-quarter mile of its confluence with the Talkeetna River effective 12:01 AM, Saturday, August 9.
- 10) 2-SS-2-50-14 opened Fish Creek to sport fishing 7 days per week effective at 6:00 AM, Thursday, August 14 through 11:59 PM, Wednesday, December 31.
- 11) 2-SS-2-51-14 increased the bag and possession limit for salmon other than Chinook salmon, 16 inches or greater in length to 3 per day and in possession, of which, all 3 could be coho salmon in the Little Susitna River open to salmon fishing downstream of the Parks Highway Bridge effective 12:01 AM, Saturday, August 16 through 11:59 PM Wednesday, December 31.

2015

- 1) 2-KS-2-07-15 restricted sport fishing gear to 1 unbaited single-hook, artificial lure; prohibited bait. This EO also prohibited harvest of Chinook salmon in units 1 (except Deshka River), 2, 3, 5, and 6 of the Susitna River and in the Talachulitna River (Unit 4). Within Unit 4, except for the Talachulitna River, this EO allowed harvest each Friday, Saturday, Sunday, and Monday and prohibited the retention of Chinook salmon each Tuesday, Wednesday, and Thursday. Where harvest was prohibited, fishing for Chinook salmon was allowed. However, Chinook salmon could not be retained or possessed, and Chinook salmon caught could not be removed from the water and must be released immediately into those waters effective at 6:00 AM, Friday, May 1 through 11:59 PM, Monday, July 13.
- 2) KS-2-08-15 established a combined annual limit of 2 Chinook salmon 20 inches or greater in length for fish harvested in the Susitna River and the Little Susitna River drainages, beginning 6:00 AM, Friday, May 1 through 11:59 PM, Monday, July 13.
- 3) KS-2-09-15 restricted sport fishing gear in the Little Susitna River to 1 unbaited, single-hook, artificial lure and prohibited the retention of Chinook salmon (any size) each Tuesday, Wednesday, Thursday, and Friday (harvest allowed Saturdays–Mondays), effective 6:00 AM, Friday, May 1 through 11:59 PM, Monday, July 13.
- 4) 2-KS-2-10-15 restricted Deshka River angling to 1 unbaited, single-hook, artificial lure only effective 6:00 AM, Friday, May 1 through 11:59 PM, Monday, July 13.
- 5) 2-KS-2-17-15 decreased the waters of the Little Susitna River open to sport fishing by relocating the ADF&G regulatory marker downstream approximately 2,000 feet from the weir located at RM 32.5, effective 6:00 AM, Friday, May 29 through 11:59 PM Tuesday, September 15.

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2015 continued

- 6) 2-KS-2-19-15 reinstated use of bait and multiple hooks on the Deshka River for the remainder of the season, effective 6:00 AM, Saturday, June 13.
- 7) 2-KS-2-25-15 increased sport fishing to 7 days per week for Chinook salmon in the Little Susitna River from its mouth upstream to the Parks highway effective 6:00 AM, Friday, June 19 through 11:59 PM, Monday, July 13.
- 8) 2-KS-2-34-15 increased the waters of the Little Susitna River open to sport fishing by relocating the ADF&G regulatory marker downstream approximately 1,500 feet from the weir located at RM 32.5, effective 6:00 AM, Thursday, June 25 through 11:59 PM, Tuesday, September 15.
- 9) 2-KS-2-38-15 restored the annual limit to 5 Chinook salmon 20 inches or greater in length for fish harvested in the Deshka and Little Susitna rivers effective 6:00 AM, Saturday, June 27 through 11:59 PM, Monday, July 13.
- 10) 2-KS-2-41-15 reinstated use of bait and multiple hooks on the Little Susitna River for the remainder of the season, effective 6:00 AM, Friday, July 3.
- 11) 2-RS-2-45-15 opened the Fish Creek personal use fishery. The dip net fishery opened 6:00 AM, Friday July 24 through 11:00 PM, Friday, July 31, with no retention of Chinook salmon allowed.
- 12) 2-RS-2-52-15 prohibited the retention of sockeye salmon while sport fishing in Larson Creek and within one-quarter mile of its confluence with the Talkeetna River effective 12:01 AM, Wednesday, August 5.
- 13) 2-SS-2-53-15 increased the bag and possession limits for coho salmon from 2 to 3 in the Little Susitna River, effective 12:01 AM, Thursday, August 6 through 11:59 PM, Thursday, December 31.
- 14) No. 2-SS-2-54-15 increased the bag and possession limits for coho salmon from 2 to 3 in Fish, Cottonwood, and Wasilla creeks, effective 12:01 AM, Saturday, August 17 through December 31. In addition, this EO extended the 2-day weekend fisheries of Cottonwood, and Wasilla creeks to 3-day fisheries to take place each Saturday through Monday and increased Fish Creek to a 7-day per week fishery.
- 15) 2-RS-2-52-15 allowed retention of sockeye salmon while sport fishing in Larson Creek and within one-quarter mile of its confluence with the Talkeetna River effective 3:00 PM, Thursday, August 13.
- 16) 2-SS-2-57-15 closed sport fishing for salmon in Jim Creek effective 12:01 AM, Wednesday, September 2.

APPENDIX I: DESHKA RIVER WEIR DATA, 2014–2015

Appendix II.—Deshka River weir data, 2014.

Date	Chinook salmon					Coho salmon					Daily passage				River water			Boat traffic thru weir
	Passage		Sampled		Harvest above weir	Passage		Sampled	Harvest above weir	Red	Chum	Pink	Pike	Stage (ft)	Temp. (°C)	Clarity (cm)		
	Daily	Cum	n	Fem		Daily	Cum										n	
19 May	2	2	0	0	0	0	0	0	0	0	0	0	0	n/a	11.50	excellent	2	
20 May	3	5	0	0	0	0	0	0	0	0	0	0	1	n/a	10.00	excellent	2	
21 May	4	9	0	0	0	0	0	0	0	0	0	0	0	n/a	10.3	excellent	2	
22 May	10	19	0	0	0	0	0	0	0	0	0	0	0	2.40	11.5	excellent	1	
23 May	8	27	0	0	0	0	0	0	0	0	0	0	0	2.45	11.5	excellent	16	
24 May	9	36	0	0	0	0	0	0	0	0	0	0	0	2.40	12.0	excellent	12	
25 May	15	51	0	0	0	0	0	0	0	0	0	0	0	2.36	12.0	excellent	8	
26 May	25	76	3	2	0	0	0	0	0	0	0	0	0	2.34	12.0	excellent	11	
27 May	6	82	0	0	0	0	0	0	0	0	0	0	0	2.31	12.0	excellent	2	
28 May	7	89	0	0	0	0	0	0	0	0	0	0	0	2.41	11.5	excellent	0	
29 May	93	182	0	0	0	0	0	0	0	0	0	0	0	2.60	11.5	excellent	3	
30 May	14	196	0	0	0	0	0	0	0	0	0	0	0	2.69	11.2	excellent	8	
31 May	39	235	5	2	0	0	0	0	0	0	0	0	1	2.79	10.9	excellent	7	
1 Jun	13	248	0	0	0	0	0	0	0	0	0	0	0	2.83	9.0	excellent	6	
2 Jun	166	414	3	0	0	0	0	0	0	0	0	0	0	3.04	8.8	fair	4	
3 Jun	214	628	4	2	0	0	0	0	0	0	0	0	0	3.02	10.8	excellent	8	
4 Jun	86	714	4	0	0	0	0	0	0	0	0	0	0	2.83	12.8	excellent	12	
5 Jun	454	1,168	8	2	0	0	0	0	0	0	0	0	0	2.67	13.9	excellent	13	
6 Jun	735	1,903	20	6	0	0	0	0	0	0	0	0	0	2.51	14.5	excellent	15	
7 Jun	715	2,618	15	9	0	0	0	0	0	0	0	0	0	2.45	15.0	excellent	10	
8 Jun	608	3,226	21	18	5	0	0	0	0	0	0	0	0	2.38	15.0	excellent	10	
9 Jun	1,065	4,291	20	12	1	0	0	0	0	0	0	0	0	2.29	14.5	excellent	13	
10 Jun	2,279	6,570	25	12	0	0	0	0	0	0	0	0	0	2.40	13.0	excellent	1	
11 Jun	1,463	8,033	4	2	2	0	0	0	0	0	0	0	0	2.61	12.0	good	11	
12 Jun	1,033	9,066	22	15	6	0	0	0	0	0	0	0	0	3.01	12.0	good	19	
13 Jun	994	10,060	13	4	5	0	0	0	0	0	0	0	0	2.78	12.0	good	24	
14 Jun	666	10,726	20	6	22	0	0	0	0	0	0	0	1	2.60	11.5	good	49	
15 Jun	758	11,484	17	7	17	0	0	0	0	0	0	0	0	2.50	13.2	good	31	
16 Jun	955	12,439	20	8	13	0	0	0	0	0	0	0	1	2.45	13.3	excellent	11	

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Date	Chinook salmon					Coho salmon					River water			Boat traffic thru weir			
	Passage		Sampled		Harvest above weir	Passage		Sampled	Harvest above weir	Daily passage					Stage (ft)	Temp. (°C)	Clarity (cm)
	Daily	Cum	n	Fem		Daily	Cum			n	Red	Chum	Pink				
17 Jun	712	13,151	14	7	15	0	0	0	0	0	0	0	0	2.40	13.0	excellent	18
18 Jun	455	13,606	4	1	17	0	0	0	0	0	0	0	0	2.40	12.0	excellent	18
19 Jun	320	13,926	9	3	4	0	0	0	0	0	0	0	0	2.49	12.9	excellent	22
20 Jun	432	14,358	10	5	18	0	0	0	0	0	0	0	0	2.45	13.5	excellent	49
21 Jun	278	14,636	10	7	7	0	0	0	0	0	0	0	0	2.40	15.0	excellent	12
22 Jun	206	14,842	0	0	21	0	0	0	0	0	0	0	0	2.42	13.0	excellent	30
23 Jun	556	15,398	0	0	15	0	0	0	0	0	0	0	0	2.89	14.0	poor	20
24 Jun	92	15,490	7	2	8	0	0	0	0	0	0	0	0	3.01	14.0	poor	28
25 Jun	163	15,653	5	2	3	0	0	0	0	0	0	0	0	2.88	14.0	poor	13
26 Jun	94	15,747	4	1	4	0	0	0	0	0	0	0	0	2.80	12.0	poor	22
27 Jun	14	15,761	0	0	5	0	0	0	0	0	0	0	0	3.42	12.0	poor	13
28 Jun	0	15,761	0	0	2	0	0	0	0	0	0	0	0	4.75	10.5	poor	12
29 Jun	0	15,761	0	0	4	0	0	0	0	0	0	0	0	5.26	13.2	poor	23
30 Jun	10	15,771	2	0	1	0	0	0	0	0	0	0	0	4.18	15.0	poor	13
1 Jul	36	15,807	0	0	11	0	0	0	0	0	0	0	0	3.52	15.2	good	16
2 Jul	37	15,844	0	0	12	0	0	0	0	0	0	0	0	3.23	15.9	good	11
3 Jul	101	15,945	0	0	12	0	0	0	0	0	0	0	0	3.00	16.9	good	30
4 Jul	11	15,956	4	1	0	5	5	0	0	0	0	1	0	2.84	17.5	good	24
5 Jul	43	15,999	0	0	5	2	7	0	0	0	0	0	0	2.72	18.0	good	17
6 Jul	18	16,017	0	0	2	0	7	0	0	0	0	9	0	2.58	18.0	good	16
7 Jul	15	16,032	0	0	0	2	9	0	0	0	0	21	1	n/a	15.5	good	5
8 Jul	11	16,043	0	0	0	4	13	0	0	0	0	12	0	n/a	15.6	good	7
9 Jul	10	16,053	1	1	3	0	13	0	0	0	0	6	0	n/a	15.7	good	8
10 Jul	33	16,086	0	0	4	3	16	0	0	0	2	26	0	2.53	15.5	good	8
11 Jul	28	16,114	0	0	6	11	27	0	0	0	0	68	0	2.71	14.0	good	8
12 Jul	19	16,133	1	0	5	16	43	0	0	1	1	207	0	3.10	14.8	good	8
13 Jul	29	16,162	0	0	2	18	61	0	2	0	0	156	0	3.25	14.9	poor	8
14 Jul	4	16,166	0	0	0	9	70	0	0	0	1	172	0	3.25	14.9	good	8
15 Jul	11	16,177	0	0	0	23	93	0	0	0	2	564	0	3.10	15.0	accep	8

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Date	Chinook salmon					Coho salmon					River water			Boat traffic thru weir			
	Passage		Sampled		Harvest above weir	Passage		Sampled	Harvest above weir	Daily passage					Stage (ft)	Temp. (°C)	Clarity (cm)
	Daily	Cum	n	Fem		Daily	Cum			n	Red	Chum	Pink				
16 Jul	11	16,188	0	0	0	36	129	0	0	6	7	3,012	1	2.88	15.6	accep	8
17 Jul	13	16,201	0	0	0	11	140	0	0	0	13	3,100	0	2.71	16.0	accep	8
18 Jul	10	16,211	0	0	0	34	174	0	0	0	5	6,466	0	2.60	16.0	good	8
19 Jul	4	16,215	0	0	0	85	259	10	0	0	4	10,630	1	2.54	16.0	good	8
20 Jul	2	16,217	0	0	0	88	347	7	0	0	1	4,350	1	2.46	15.0	excellent	8
21 Jul	12	16,229	0	0	0	132	479	16	0	4	5	11,144	0	2.54	14.5	good	8
22 Jul	3	16,232	0	0	0	82	561	16	1	0	2	3,351	0	2.64	15.5	good	8
23 Jul	7	16,239	1	0	0	155	716	1	9	0	2	10,275	0	2.52	16.5	accep	8
24 Jul	0	16,239	0	0	0	139	855	0	0	2	4	7,837	0	2.44	16.0	accep	8
25 Jul	2	16,241	0	0	0	136	991	15	0	3	2	3,686	0	2.47	14.2	good	8
26 Jul	3	16,244	0	0	0	487	1,478	10	8	1	3	3,367	0	2.64	13.1	good	8
27 Jul	3	16,247	0	0	0	296	1,774	12	4	1	2	2,976	0	2.77	13.9	good	8
28 Jul	1	16,248	0	0	0	79	1,853	7	0	0	1	1,610	0	2.58	15.0	good	8
29 Jul	0	16,248	0	0	0	58	1,911	4	11	1	1	731	0	2.50	13.9	good	8
30 Jul	2	16,250	0	0	0	412	2,323	4	0	0	3	1,650	0	2.83	15.2	good	8
31 Jul	2	16,252	0	0	0	123	2,446	0	2	0	4	642	0	2.69	15.9	good	8
1 Aug	0	16,252	0	0	0	19	2,465	6	0	0	1	107	0	2.49	16.5	accep	8
2 Aug	0	16,252	0	0	0	80	2,545	10	0	0	1	482	1	2.40	16.0	accep	8
3 Aug	2	16,254	0	0	0	65	2,610	10	0	0	0	240	0	2.37	15.5	good	8
4 Aug	5	16,259	0	0	0	12	2,622	5	3	0	9	144	0	2.32	16.0	accep	8
5 Aug	2	16,261	0	0	0	152	2,774	10	0	2	5	194	0	2.30	15.0	excellent	8
6 Aug	1	16,262	0	0	0	308	3,082	9	9	0	0	192	0	2.39	15.5	excellent	8
7 Aug	2	16,264	0	0	0	262	3,344	0	0	1	1	152	0	2.44	15.5	excellent	8
8 Aug	1	16,265	0	0	0	364	3,708	10	2	0	3	134	0	2.59	15.2	excellent	8
9 Aug	3	16,268	0	0	0	385	4,093	15	1	0	1	79	0	2.46	14.9	excellent	8
10 Aug	0	16,268	0	0	0	376	4,469	0	5	0	0	73	0	2.36	15.6	accep	8
11 Aug	2	16,270	0	0	0	418	4,887	8	16	2	2	31	0	2.28	16.2	excellent	8
12 Aug	3	16,273	0	0	0	177	5,064	7	3	1	0	15	0	2.25	15.9	excellent	8
13 Aug	3	16,276	0	0	0	210	5,274	10	0	0	0	14	0	2.20	14.5	excellent	8

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Date	Chinook salmon					Coho salmon					River water			Boat traffic thru weir			
	Passage		Sampled		Harv. above weir	Passage		Sampled	Harv. above weir	Daily passage					Stage (ft)	Temp. (°C)	Clarity (cm)
	Daily	Cum	n	Fem		Daily	Cum			n	Red	Chum	Pink				
14 Aug	6	16,282	0	0	0	179	5,453	0	0	0	2	41	0	2.21	14.0	excellent	8
15 Aug	5	16,287	0	0	0	265	5,718	30	0	0	3	19	0	2.24	14.0	excellent	8
16 Aug	5	16,292	0	0	0	380	6,098	10	4	0	2	17	1	2.30	13.9	fair	8
17 Aug	7	16,299	0	0	0	2,810	8,908	10	12	0	5	34	1	2.82	13.5	poor	8
18 Aug	7	16,306	0	0	0	153	9,061	0	13	0	4	11	0	2.63	13.5	fair	8
19 Aug	8	16,314	0	0	0	184	9,245	0	0	0	2	19	0	2.60	13.9	fair	8
20 Aug	1	16,315	0	0	0	128	9,373	0	0	0	0	12	1	2.58	14.9	excellent	8
21 Aug	5	16,320	0	0	0	103	9,476	0	0	0	1	3	0	2.47	14.0	excellent	8
22 Aug	1	16,321	0	0	0	130	9,606	14	0	0	0	2	0	2.39	14.5	excellent	8
23 Aug	0	16,321	0	0	0	137	9,743	10	0	0	0	3	0	2.32	14.3	excellent	8
24 Aug	0	16,321	0	0	0	102	9,845	7	5	0	1	1	0	2.27	13.8	excellent	8
25 Aug	2	16,323	0	0	0	142	9,987	10	0	1	1	2	2	2.27	12.8	excellent	8
26 Aug	0	16,323	0	0	0	159	10,146	10	0	0	0	1	0	2.35	11.8	excellent	8
27 Aug	2	16,325	0	0	0	284	10,430	0	0	0	1	3	3	2.43	11.6	excellent	8
28 Aug	5	16,330	0	0	0	418	10,848	0	0	0	0	8	0	2.50	11.6	excellent	8
29 Aug	0	16,330	0	0	0	649	11,497	0	0	0	0	9	1	3.22	12.0	poor	8
30 Aug	0	16,330	0	0	0	0	11,497	0	0	0	0	0	0	3.90	11.0	poor	8
31 Aug	2	16,332	0	0	0	28	11,525	0	0	0	0	0	0	3.54	10.0	accep	8
1 Sep	3	16,335	0	0	0	31	11,556	0	0	0	0	0	0	3.18	10.0	accep	8
2 Sep	0	16,335	0	0	0	22	11,578	0	0	0	0	0	1	2.9	10	accep	8
Total	16,335		296	137	257	11,578		303	110	26	110	78,111	19				1,178

Note: Cum = cumulative; n = sample size (number of fish); Fem = number of female fish in the sample; Red = sockeye salmon; Chum = chum salmon; Pink = pink salmon; Pike = northern pike.

Appendix I2.—Deshka River weir data, 2015.

Date	Chinook salmon					Coho salmon					River water				Boat traffic thru weir			
	Passage		Sampled		Harvest above weir	Passage		Sampled	Harvest above weir	Daily passage				Stage (ft)		Temp. (°C)	Clarity (cm)	
	Daily	Cum	n	Fem		Daily	Cum			n	Red	Chum	Pink					Pike
20 May	0	0	0	0	0	0	0	0	0	0	0	0	0	2.55	n/a	exc	2	
21 May	15	15	0	0	0	0	0	0	0	0	0	0	0	2	2.49	11.0	exc	4
22 May	4	19	0	0	0	0	0	0	0	0	0	0	0	1	2.46	12.0	exc	14
23 May	14	33	0	0	0	0	0	0	0	0	0	0	0	3	2.40	13.0	exc	17
24 May	11	44	0	0	0	0	0	0	0	0	0	0	0	1	2.40	12.0	acc	21
25 May	3	47	0	0	0	0	0	0	0	0	0	0	0	0	2.43	12.0	exc	17
26 May	2	49	0	0	0	0	0	0	0	0	0	0	0	1	2.45	12.0	exc	5
27 May	2	51	0	0	0	0	0	0	0	0	0	0	0	1	2.45	12.0	exc	4
28 May	8	59	0	0	0	0	0	0	0	0	0	0	0	0	2.37	13.5	exc	7
29 May	34	93	1	1	0	0	0	0	0	0	0	0	0	0	2.30	14.0	exc	12
30 May	61	154	0	0	0	0	0	0	0	0	0	0	0	1	2.25	15.0	exc	9
31 May	33	187	2	0	0	0	0	0	0	0	0	0	0	0	2.20	15.0	exc	14
1 Jun	346	533	6	3	0	0	0	0	0	0	0	0	0	0	2.15	16.0	exc	6
2 Jun	661	1,194	7	4	0	0	0	0	0	0	0	0	0	0	2.10	16.0	exc	5
3 Jun	59	1,253	9	6	0	0	0	0	0	0	0	0	0	0	2.10	13.5	exc	10
4 Jun	56	1,309	12	9	0	0	0	0	0	0	0	0	0	0	2.24	12.0	exc	11
5 Jun	2,207	3,516	40	16	3	0	0	0	0	0	0	0	0	0	2.60	10.8	exc	18
6 Jun	633	4,149	26	8	4	0	0	0	0	0	0	0	0	0	2.60	10.2	exc	29
7 Jun	1,775	5,924	30	12	1	0	0	0	0	0	0	0	0	0	2.57	12.0	exc	27
8 Jun	406	6,330	26	9	0	0	0	0	0	0	0	0	0	0	2.50	12.2	exc	17
9 Jun	1,929	8,259	30	13	6	0	0	0	0	0	0	0	0	0	2.43	11.6	exc	11
10 Jun	1,172	9,431	20	12	2	0	0	0	0	0	0	0	0	0	2.40	11.5	exc	32
11 Jun	866	10,297	8	2	9	0	0	0	0	0	0	0	0	0	2.35	12.0	exc	16
12 Jun	1,871	12,168	20	8	6	0	0	0	0	0	0	0	0	0	2.35	11.2	exc	32
13 Jun	1,033	13,201	20	5	14	0	0	0	0	0	0	0	0	0	2.32	13.0	acc	41
14 Jun	1,615	14,816	30	11	5	0	0	0	0	0	0	0	0	0	2.50	15.0	acc	31
15 Jun	658	15,474	10	3	0	0	0	0	0	0	0	0	0	0	2.35	15.3	exc	2
16 Jun	1,137	16,611	26	14	0	0	0	0	0	0	0	0	0	0	2.22	17.3	exc	5
17 Jun	901	17,512	1	0	0	0	0	0	0	0	0	0	0	0	2.13	18.0	exc	6

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Date	Chinook salmon					Coho salmon					River water			Boat traffic thru weir			
	Passage		Sampled		Harvest above weir	Passage		Sampled <i>n</i>	Harvest above weir	Daily passage					Stage (ft)	Temp. (°C)	Clarity (cm)
	Daily	Cum	<i>n</i>	Fem		Daily	Cum			Red	Chum	Pink	Pike				
18 Jun	169	17,681	3	0	7	0	0	0	0	0	0	0	0	2.08	19.0	exc	16
19 Jun	127	17,808	7	4	1	0	0	0	0	0	0	0	0	2.00	19.0	exc	17
20 Jun	118	17,926	0	0	3	0	0	0	0	0	0	0	0	1.95	18.0	exc	16
21 Jun	363	18,289	8	1	7	0	0	0	0	0	0	0	0	1.90	17.0	exc	26
22 Jun	531	18,820	14	3	2	0	0	0	0	0	0	0	0	1.87	16.6	exc	7
23 Jun	423	19,243	14	3	0	0	0	0	0	0	0	0	0	1.82	16.4	exc	5
24 Jun	172	19,415	8	2	4	0	0	0	0	0	0	0	0	1.77	17.0	exc	12
25 Jun	1,160	20,575	0	0	4	0	0	0	0	0	0	0	0	1.73	18.5	exc	8
26 Jun	144	20,719	2	0	1	0	0	0	0	0	0	0	0	1.65	18.0	exc	18
27 Jun	154	20,873	3	1	5	0	0	0	0	0	0	0	0	1.61	16.5	exc	10
28 Jun	417	21,290	0	0	0	0	0	0	0	0	0	0	0	1.68	15.5	exc	12
29 Jun	230	21,520	14	7	0	0	0	0	0	0	0	0	0	1.68	17.0	exc	8
30 Jun	477	21,997	16	6	0	0	0	0	0	0	0	0	0	1.71	16.5	exc	1
1 Jul	264	22,261	0	0	0	0	0	0	0	0	0	0	0	1.75	16.0	exc	8
2 Jul	82	22,343	0	0	13	0	0	0	0	0	0	0	0	1.78	14.0	exc	18
3 Jul	245	22,588	6	0	8	0	0	0	0	0	0	0	0	2.00	13.0	exc	25
4 Jul	417	23,005	6	1	7	0	0	0	0	0	0	0	0	2.14	15.0	exc	30
5 Jul	157	23,162	0	0	0	0	0	0	0	0	0	0	0	2.00	15.2	exc	23
6 Jul	291	23,453	0	0	16	0	0	0	0	0	0	0	0	1.92	18.0	exc	3
7 Jul	49	23,502	0	0	0	0	0	0	0	0	0	0	0	1.90	18.0	exc	2
8 Jul	21	23,523	0	0	0	0	0	0	0	0	0	0	0	1.81	17.5	exc	7
9 Jul	11	23,534	0	0	0	0	0	0	0	0	0	0	0	1.80	16.0	exc	6
10 Jul	24	23,558	0	0	6	0	0	0	0	0	0	0	0	1.77	16.0	exc	14
11 Jul	8	23,566	0	0	0	0	0	0	0	0	0	5	0	1.73	16.5	exc	11
12 Jul	24	23,590	5	3	1	0	0	0	0	0	0	4	0	1.69	17.0	exc	14
13 Jul	19	23,609	0	0	0	0	0	0	0	0	0	3	0	1.73	17.0	exc	1
14 Jul	28	23,637	0	0	0	2	2	0	0	0	0	10	0	1.81	16.0	exc	0
15 Jul	7	23,644	0	0	0	0	2	0	0	0	0	2	0	1.81	14.5	exc	4
16 Jul	14	23,658	0	0	0	0	2	0	0	0	0	9	1	1.88	14.5	exc	2

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Date	Chinook salmon					Coho salmon					River water			Boat traffic thru weir			
	Passage		Sampled		Harvest above weir	Passage		Sampled <i>n</i>	Harvest above weir	Daily passage					Stage (ft)	Temp. (°C)	Clarity (cm)
	Daily	Cum	<i>n</i>	Fem		Daily	Cum			Red	Chum	Pink	Pike				
17 Jul	15	23,673	0	0	0	10	12	0	0	0	2	19	0	1.97	14.2	exc	8
18 Jul	22	23,695	0	0	0	11	23	3	1	0	0	18	0	2.09	13.1	exc	6
19 Jul	27	23,722	0	0	0	57	80	27	2	2	3	45	0	2.29	14.7	acc	18
20 Jul	29	23,751	0	0	0	52	132	5	0	1	2	87	0	2.21	16.3	exc	4
21 Jul	30	23,781	0	0	0	8	140	4	0	2	1	29	0	2.07	16.7	exc	7
22 Jul	14	23,795	0	0	0	8	148	6	0	1	1	39	0	1.95	16.8	exc	6
23 Jul	16	23,811	0	0	0	61	209	0	0	0	2	249	0	1.87	16.4	exc	3
24 Jul	4	23,815	0	0	0	72	281	15	1	0	2	167	0	1.89	17.0	exc	6
25 Jul	6	23,821	0	0	0	20	301	5	0	0	0	48	0	1.80	18.0	exc	4
26 Jul	29	23,850	0	0	0	148	449	30	0	0	0	642	0	1.89	16.9	exc	12
27 Jul	17	23,867	0	0	0	17	466	0	0	0	1	84	0	1.92	15.9	exc	1
28 Jul	16	23,883	0	0	0	73	539	5	0	0	2	228	0	1.92	15.0	exc	0
29 Jul	21	23,904	0	0	0	159	698	0	0	2	6	428	0	2.02	15.0	exc	6
30 Jul	28	23,932	0	0	0	658	1,356	10	0	3	5	1,264	1	2.12	15.5	acc	7
31 Jul	62	23,994	0	0	0	414	1,770	17	14	0	8	491	1	2.42	15.7	acc	13
1 Aug	11	24,005	0	0	0	121	1,891	10	9	0	3	323	0	2.25	16.9	acc	17
2 Aug	8	24,013	0	0	0	65	1,956	1	10	1	0	134	1	2.09	17.5	exc	13
3 Aug	2	24,015	0	0	0	17	1,973	2	0	0	0	72	0	1.96	17.8	exc	4
4 Aug	1	24,016	0	0	0	15	1,988	10	5	0	0	51	0	1.87	18.0	exc	6
5 Aug	6	24,022	0	0	0	12	2,000	0	0	0	0	95	1	1.79	18.5	exc	5
6 Aug	8	24,030	0	0	0	12	2,012	5	0	0	0	171	0	1.71	18.0	exc	3
7 Aug	4	24,034	0	0	0	7	2,019	4	0	0	0	144	0	1.68	18.0	exc	9
8 Aug	7	24,041	0	0	0	12	2,031	8	0	0	0	51	0	1.62	17.5	exc	13
9 Aug	7	24,048	0	0	0	37	2,068	10	0	0	3	151	0	1.61	16.5	acc	6
10 Aug	11	24,059	0	0	0	332	2,400	24	0	0	8	327	0	1.85	14.5	acc	5
11 Aug	62	24,121	0	0	0	3,218	5,618	0	0	0	0	482	0	2.77	14.0	poor	5
12 Aug	20	24,141	0	0	0	1,060	6,678	0	15	0	19	57	1	2.79	13.5	poor	4
13 Aug	6	24,147	0	0	0	218	6,896	20	5	1	4	31	0	2.46	14.5	poor	6
14 Aug	14	24,161	0	0	0	344	7,240	15	16	0	5	75	0	2.25	15.0	acc	14

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Date	Chinook salmon					Coho salmon					River water			Boat traffic thru weir			
	Passage		Sampled		Harvest above weir	Passage		Sampled	Harvest above weir	Daily passage					Stage (ft)	Temp. (°C)	Clarity (cm)
	Daily	Cum	n	Fem		Daily	Cum			n	Red	Chum	Pink				
15 Aug	6	24,167	0	0	0	136	7,376	0	39	0	1	34	0	2.12	15.5	acc	20
16 Aug	20	24,187	0	0	0	215	7,591	10	30	0	6	63	0	2.07	14.2	acc	18
17 Aug	21	24,208	0	0	0	133	7,724	0	8	1	1	57	4	2.15	13.7	acc	4
18 Aug	21	24,229	0	0	0	575	8,299	15	4	1	12	64	0	2.27	13.2	acc	4
19 Aug	33	24,262	0	0	0	581	8,880	15	1	0	9	23	1	2.48	13.6	acc	7
20 Aug	7	24,269	0	0	0	108	8,988	10	0	0	3	8	0	2.35	13.3	acc	13
21 Aug	12	24,281	0	0	0	94	9,082	0	0	0	6	16	0	2.20	13.0	acc	14
22 Aug	7	24,288	0	0	0	36	9,118	10	1	0	3	8	0	2.11	12.0	acc	15
23 Aug	10	24,298	0	0	0	78	9,196	0	18	1	7	7	0	2.02	11.5	acc	22
24 Aug	7	24,305	0	0	0	57	9,253	0	0	0	1	4	0	1.96	11.5	acc	6
25 Aug	8	24,313	0	0	0	71	9,324	5	0	1	5	3	0	1.90	13.0	exc	6
26 Aug	1	24,314	0	0	0	77	9,401	0	0	1	0	2	3	1.85	13.0	exc	0
27 Aug	0	24,314	0	0	0	135	9,536	0	0	1	2	2	1	1.83	13.0	exc	3
28 Aug	0	24,314	0	0	0	233	9,769	0	0	0	6	0	0	1.91	10.5	exc	7
29 Aug	0	24,314	0	0	0	74	9,843	0	0	0	6	0	0	1.97	9.8	exc	7
30 Aug	0	24,314	0	0	0	12	9,855	0	0	0	4	0	1	2.04	8.7	exc	8
31 Aug	0	24,314	0	0	0	27	9,882	0	0	0	3	0	3	1.97	8.5	exc	0
1 Sep	0	24,314	0	0	0	3	9,885	0	0	0	4	0	0	1.87	7.8	exc	6
2 Sep	0	24,314	0	0	0	21	9,906	0	0	1	3	0	0	1.81	7.8	exc	1
3 Sep	0	24,314	0	0	0	93	9,999	0	0	1	4	0	0	1.76	9.5	exc	1
4 Sep	1	24,315	0	0	0	531	10,530	0	0	0	7	0	1	1.84	10	exc	10
5 Sep	1	24,316	0	0	0	159	10,689	0	0	0	1	2	2	1.93	10	exc	4
6 Sep	0	24,316	0	0	0	128	10,817	0	0	0	0	0	0	2.15	10.5	exc	6
7 Sep	0	24,316	0	0	0	25	10,842	0	0	0	0	0	2	2.12	11	exc	11
Total	24,316		430	167	135	10,842		301	179	21	171	6,328	34				1,153

Note: Cum = cumulative; n = sample size (number of fish); Fem = number of female fish in the sample; Red = sockeye salmon; Chum = chum salmon; Pink = pink salmon; Pike = northern pike.

**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 PM–8:00 AM Sun–Sat Ice House Registration No Wake Zone: 150 feet from shoreline	Aug 1998
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 PM–8:00 AM Sun–Thurs 11:00 PM–8:00 AM Fri–Sat	Sep 1997
Bonnie Lake Area	Surface Area: 105 acres	Electric Motors Only	Nov 1996
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: 10:00 PM–8:00 AM Sun–Sat No wake zone 100 feet from shore, Winter Motor Vehicle Ban	Jun 2006

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Lake		Regulations	
Name	Characteristics	Details	Date adopted
Caswell Lake	Surface Area: 157 acres Maximum Depth: 28 feet Mean Depth: 10 feet	Personal Watercraft prohibited Quiet hours: 10:00 PM–8:00 AM Sun–Sat No wake zone 100 feet from shore, Winter Motor Vehicle Ban	Jun 2014
Christiansen Lake	Surface Area: 179 acres Maximum Depth: 82 feet Mean Depth: 22 feet	Personal Watercraft prohibited 15 HP limit Quiet Hours: 10:00 PM–8:00 AM, Sun–Sat Special permit: To accommodate building construction, early season testing of river boats and other special uses. HP limit maybe waived by Special permit.	Sep 1999
Cottonwood Creek		Non-motorized.	1995
Cottonwood Lake	Surface Area: 262 acres Maximum Depth: 39 feet Mean Depth: 11 feet	Mufflers, cowlings, exhaust systems Quiet Hours: 11:00 PM–8:00 AM Sun–Sat No Wake Zone: 100 feet from shoreline Special Events Permits	1995
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 1995
Crystal Lake	Surface Area: 132 acres Maximum Depth: 24 feet Mean Depth: 11.7 feet	Quiet Hours: 10:00 PM–8:00 AM Sun–Sat	Aug 1996
Diamond Lake	Surface Area: 139 acres Maximum Depth: 23 feet Mean Depth: 7.6 feet	Horsepower Limit: 10 Quiet Hours: 10:00 PM – 8:00 AM Sun–Sat Ice House Registration No Wake Zone: 100 feet from ordinary high water mark	Apr 1999
Florence Lake	Surface Area: 55 acres Maximum Depth: 41 feet Mean Depth: 17.6 feet	Quiet Hours: 10:00 PM and 8:00 AM Sun–Sat No Wake Zone: 100 feet from shoreline. Personal watercraft ban	Apr 2006

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Lake		Regulations	
Name	Characteristics	Details	Date adopted
Finger Lake	Surface Area: 362 acres Maximum Depth: 44 feet Mean Depth: 15.5 feet	Mufflers, cowlings, exhaust systems Quiet Hours: 11:00 PM–8:00 AM Sun–Sat No Wake Zone: 100 feet from shoreline Special Events Permits	1995
Fish Lake	Surface Area: 59 acres Maximum Depth: Not Available Mean Depth: Not Available	Horsepower Limit: 5	Aug 1997
Honeybee Lake	Surface Area: 58 acres Maximum Depth: 35 feet Mean Depth: 13.5 feet	Electric Motors Only Quiet Hours: 7:00 PM–9:00 AM Sun–Sat	Nov 1997
Island & Doubloon Island Lake	Surface Area: 85 acres Maximum Depth: Not Available Mean Depth: Not Available	Personal Watercraft Prohibited	Aug 1996
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 PM–8:00 AM Sun–Sat Commercial floatplane operations are discouraged.	Jan 2006
John Lake	Surface Area: 52 acres Maximum Depth: Not Available Mean Depth: Not Available	Horsepower Limit: 10 Quiet Hours: 10:00 PM–8:00 AM Sun–Sat (electric and trolling motors allowed during quiet hours)	Aug 1996
Knik Lake	Surface Area: 50 acres Maximum Depth: 37 feet Mean Depth: 19 feet	Horsepower Limit: 5 Quiet Hours: 10:00 PM–8:00 AM Sun–Thurs 11:00 PM–8:00 AM Fri–Sat	Aug 1995

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Lake		Regulations	
Name	Characteristics	Details	Date adopted
Lake of the Woods	Maximum Depth: 20-30 feet Mean Depth: 10-12 feet	Quiet hours: 7:00 PM–9:00 AM Sun–Sat Personal Watercraft ban Electric motors only Maintain current limited access.	Apr 2010
Liten Lake	Surface Area: 57 acres Maximum Depth: 10+ feet Mean Depth: 4-6 feet	Motorized Watercraft Prohibited Personal Watercraft Prohibited No Wake Zone: Like Wide Quiet Hours: 10:00 PM–8:00 AM Sun–Sat Public access to the lake is discouraged. Commercial floatplane operations are discouraged.	Jan 2006
Little Beaver Lake	Surface Area: 57 acres Maximum Depth: 10+ feet Mean Depth: 9 feet	Motorized Watercraft Prohibited Quiet Hours: 10:00 PM–8:00 AM Sun–Sat Maintain current limited access.	Jun 2008
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 PM–8:00 AM Sun–Sat Ice House Registration Commercial floatplane operations are discouraged.	May 2005
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 PM–8:00 AM Sun–Sat	Nov 2001
Marilee Lake	Surface Area: 33.8 acres Maximum Depth: 18 feet Mean Depth: 7.3 feet	Horsepower Limit: 5	Sep 1998

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Lake		Regulations	
Name	Characteristics	Details	Date adopted
Marion Lake	Surface Area: 113 acres Maximum Depth: 42 feet Mean Depth: 20.6 feet	Personal Watercraft Prohibited Quiet Hours: 10:00 PM–8:00 AM 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 2000
Memory Lake	Surface Area: 84 acres Maximum Depth: 20 feet Mean Depth: 7.2 feet	Horsepower Limit: 10 Quiet Hours: 10:00 PM–8:00 AM Sun–Sat Access to be day use only	Sep 1998
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	Jun 2005
Neklasen Lake	Surface Area: 72 acres Maximum Depth: 67 feet Mean Depth: 16 feet	Personal Watercraft Prohibited Quiet Hours: 10:00 PM–8:00 AM 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 2000
Lower Neklasen Lake	Surface Area: 36 acres Maximum Depth: unknown Mean Depth: less than 5 feet	All Motorized Water Craft Prohibited	Jan 2000
Paradise Lake	Surface Area: 25 acres Maximum Depth: 20 feet Mean Depth: 5-10 feet	Electric motors only Quiet Hours: 9:00 PM–9:00 AM Sun–Sat Personal watercraft prohibited	Apr 2007

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Lake		Regulations	
Name	Characteristics	Details	Date adopted
Question Lake	Surface Area: 80 acres Maximum Depth: unknown Mean Depth: unknown	Horse Power Limit: 5 Quiet Hours: 10:00 PM–8:00 AM Sun–Sat Motor Vehicles prohibited during winter months when lake is frozen	Sep 1998
Little Question Lake	Surface Area: 25 acres Maximum Depth: unknown Mean Depth: unknown	Non-motorized Quiet Hours: 10:00 PM–8:00 AM Sun–Sat Motor Vehicles prohibited during winter months when lake is frozen	Sep 1998
Lake Five and Unnamed Lakes	Surface Area: unknown Maximum Depth: unknown Mean Depth: unknown	Non-motorized Quiet Hours: 10:00 PM–8:00 AM Sun–Sat All these lakes allow for a special permit to exceed motor limits for Motor Vehicles prohibited during winter months when lake is frozen Ice House Registration	Sep 1998
Rainbow Lake	Surface Area: 72.3 acres Maximum Depth: Not Available Mean Depth: Not Available	Horsepower Limit: 10 Quiet Hours: 10:00 PM–8:00 AM Sun–Sat	Nov 1995
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 2006
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 2007
Sunbeam Lake	Surface Area: 22 acres Maximum Depth: 15 feet	Electric motors only Personal watercraft ban, Quiet Hours: 10:00 PM–8:00 AM Sun– Sat No Wake Zone: 100 feet from shoreline	Nov 2007
Suncrest Lake	Surface Area: 40 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	Nov 2007

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Appendix J1.–Page 7 of 7.

Lake		Regulations	
Name	Characteristics	Details	Date adopted
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 2002
Toad Lake	Surface Area: 50 acres Maximum Depth: unknown Mean Depth: 10 feet	Electric motors only	Sep 1998
Twin Island Lake	Surface Area: 151 acres Maximum Depth: 61 feet Mean Depth: 14.8 feet	Horsepower Limit: 10 Quiet Hours: 10:00 PM–8:00 AM Sun–Thu 11:00 PM–8:00 AM Fri–Sat Walk-in only access	Jul 1997
Walby Lake	Surface Area: 54 acres Maximum Depth: 18 feet Mean Depth: 5.4 feet	Horsepower Limit: 10 Quiet Hours: 10:00 PM–8:00 AM Sun–Sat Motor Vehicles prohibited during winter months when lake is frozen	Sep 1998
Wasilla Lake	Surface Area: 374 Maximum Depth: 48 feet Mean Depth: 17 feet	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	Jun 1905
West Papoose Lake	Surface Area: 212 acres Maximum Depth: Not Available Mean Depth: Not Available	Personal Watercraft Prohibited Quiet Hours: 11:00 PM–8:00 AM Sun–Sat No Wake Zone: 100 feet from ordinary high water mark	Aug 1996
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	Aug 2004
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 1997
Wolverine Lake	Surface Area: 55 acres Maximum Depth: 7 feet Mean Depth: 2.2 feet	Personal Watercraft Prohibited Quiet Hours: 10:00 PM–8:00 AM Sun–Sat Electric motors only Commercial Floatplane Operations Prohibited.	Aug 2004

**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	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	Lower Susitna	Arrowhead Lake	X	
Susitna Basin Lakes	Lower Susitna	Baver 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 (Upper Vern)	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 Skwentna)	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	

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Primary classification	Secondary classification	Site	Presence	
			Documented	Suspected
Susitna Basin Lakes	Deshka River	Kroto Lake	X	
Susitna Basin Lakes	Deshka River	No Name 1mi SW Parker	X	
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	

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Primary classification	Secondary classification	Site	Presence	
			Documented	Suspected
Susitna Tributaries		Moose Creek	X	
Susitna Tributaries		Bottle Creek	X	
Susitna Tributaries		Hewitt Creek	X	
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	Hourglass (Big L. Area)		
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

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Primary classification	Secondary classification	Site	Presence	
			Documented	Suspected
Knik Arm Drainage		Knik Lake	X	
Knik Arm Drainage		Mink Creek	X	
Knik Arm Drainage		Fire Creek	X	
West Cook Inlet		Chuit River	X	
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		Mirror Lake	X	
Anchorage Lakes		Lower Fire Lake	X	
Anchorage Lakes		Upper Fire Lake	X	