Chignik Management Area Salmon and Herring Annual Management Report, 2012

by

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Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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

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CHIGNIK MANAGEMENT AREA SALMON AND HERRING ANNUAL MANAGEMENT REPORT, 2012

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TABLE OF CONTENTS

	Page
LIST OF TABLES	ii
LIST OF FIGURES	iii
LIST OF APPENDICES	iii
ABSTRACT	1
INTRODUCTION	1
COMMERCIAL HERRING	2
Herring Management Overview	2
Historical Data	2
2012 Herring Fishery	2
COMMERCIAL SALMON	2
Overview of Management Plans	2
Chignik Salmon Management Plan	2
Cape Igvak Salmon Management Plan	3
Southeastern District Mainland Salmon Management Plan	
2012 Chignik Salmon Management	
Chignik Bay and Central Districts Commercial Salmon Fishery	
Eastern District Commercial Salmon Fishery	
Western and Perryville Districts Commercial Salmon Fishery	
Escapement and Harvest Data	
Stock Separation Techniques Escapement Goals	
2012 Escapement Information	
Harvest Information	
Economic Value	
Chignik Lagoon Test Fishery	9
Genetic Stock Identification	9
CHIGNIK AREA SUBSISTENCE SALMON FISHERIES	10
REFERENCES CITED	11
TABLES AND FIGURES	13
APPENDIX A. SUMMARY OF 2012 EMERGENCY ORDERS	75
APPENDIX B. CHIGNIK SALMON REGULATIONS, 2012	79
APPENDIX C. 2012 CHIGNIK SOCKEYE SALMON POSTWEIR ESCAPEMENT ESTIMATE MEMORANDUM	87
APPENDIX D. COMMERCIAL SALMON FISHERY CATCH AND EFFORT, BY DAY	91

LIST OF TABLES

Fable	Pa	ıge
1.	List of Chignik Management Area herring management units	.14
2.	Chignik Management Area commercial herring harvest, 1980 through 2012	
3.	Chignik River sockeye salmon escapement objectives, 2012.	.16
4.	Estimated Chignik River sockeye salmon escapement, by day and management objective period, 2012	.17
5.	Estimated Chignik River Chinook, coho, pink, and chum salmon, and Dolly Varden escapement, by	
	day, 2012	.18
6.	Estimated Chignik River Chinook, coho, pink, and chum salmon, and Dolly Varden escapement, 1980	
	through 2012.	.20
7.	Total Chignik River sockeye salmon escapement and escapement goals, based on post-season analysis,	
	by run, 1980 through 2012.	.21
8.	Peak sockeye salmon aerial survey escapement estimates for Black Lake tributaries, 1980 through	
	2012	.22
9.	Peak sockeye salmon aerial survey escapement estimates for Chignik Lake and Black River tributaries,	
	1980 through 2012	.23
10.	Estimated pink salmon escapement and objectives in the Chignik Management Area, by district and	
	year, 1980 through 2012	.24
11.	Estimated chum salmon escapement and objectives in the Chignik Management Area, by district and	
	year, 1980 through 2012	.25
12.	Total commercial salmon harvests, including home pack and the department's test fishery harvests,	
	from the Chignik Management Area by species and year, 1980 through 2012	
13.	Annual Chignik Management Area Chinook salmon harvest, 1980 through 2012	
14.	Chignik Management Area Chinook salmon harvest, by district and year, 1980 through 2012	
15.	Chignik Management Area Chinook salmon harvest, by district and day, 2012	.29
16.	Total harvest of sockeye salmon considered by regulation to be Chignik-bound in the Chignik, Cape	
	Igvak, and Southeastern District Mainland commercial salmon fisheries, 1970 through 2012	
17.	Total annual Chignik Management Area sockeye salmon harvest, by district, 1980 through 2012	
18.	Chignik Management Area sockeye salmon harvest, by district and day, 2012.	.35
19.	Harvest of sockeye salmon considered by regulation to be Chignik-bound in the Chignik, Cape Igvak,	
	and Southeastern District Mainland commercial salmon fisheries from June 1 through July 25, 1978–	
	2012	.38
20.	Chignik sockeye salmon escapement, total harvest considered Chignik-bound, and total run, 1970	
	through 2012.	.40
21.	Chignik sockeye salmon forecasts and actual runs, by run and year, 1994 through 2012, in millions of	
	fish	
22.	Chignik Management Area coho salmon harvest, by year, 1980 through 2012.	
23.	Chignik Management Area coho salmon harvest, by district and year, 1980 through 2012.	
24.	Chignik Management Area coho salmon harvest, by district and day, 2012.	
25.	Chignik Management Area pink salmon harvest, by year, 1980 through 2012	
26.	Chignik Management Area pink salmon harvest, by district and year, 1980 through 2012	
27.	Chignik Management Area pink salmon harvest, by district and day, 2012.	
28.	Chignik Management Area chum salmon harvest, by year, 1980 through 2012.	
29.	Chignik Management Area chum salmon harvest, by district and year, 1980 through 2012	
30.	Chignik Management Area chum salmon harvest, by district and day, 2012.	.54
31.	Value of the commercial salmon harvest, by species, and average value per active permit, in dollars, in	-7
22	the Chignik Management Area, 1970 through 2012.	.5/
32.	Sampling dates, final sample sizes, estimates of stock composition, upper and lower 90% credibility	
	intervals, and standard deviations for samples of the escapement through the Chignik River weir in 11	50
22	strata in 2010, 2011, and 2012 using the program BAYES with a sequential prior.	.39
33.	Historical number of subsistence permits issued and returned and estimated subsistence salmon harvest, by species and year, 1980 through 2010.	60
	nai vest, uy species and year, 1700 undugh 2010.	. UU

LIST OF FIGURES

Figure	e P	age
1.	Map of the Alaska Peninsula illustrating the relative locations of the Chignik, Kodiak, and Alaska	
	Peninsula management areas.	
2.	Map of the Chignik Management Area illustrating district and section boundaries and statistical areas	62
3.	Representation of days open to commercial salmon fishing, by district and month, 2012	63
4.	Map depicting the Inner, and Outer Castle Cape Sections of the Western District.	64
5.	Map of upper Chignik Lagoon showing the location of the Pillar Rock, Mensis Point, Humes Point,	
	Mallard Duck, and Schooner Bay marker locations.	65
6.	Chignik River estimated daily and cumulative Chinook salmon escapement, 2012.	66
7.	Chignik River Chinook salmon escapement as compared to the current escapement goal range, by year,	
	1980 through 2012	67
8.	Chignik River sockeye salmon daily and cumulative escapement, 2012.	68
9.	Chignik River sockeye salmon early, late, and combined run escapements 1970 through 2012,	
	compared to the 2012 sustainable escapement goals	
10.	Chignik-bound sockeye salmon early-run harvest, 1980 through 2012.	
11.	Chignik-bound sockeye salmon late-run harvest, 1980 through 2012.	71
12.	Total sockeye salmon escapement and catch considered Chignik-bound including home pack, the	
	department's test fishery harvest, and Cape Igvak and SEDM allocations, by year and run, 1970	
	through 2012	
13.	Average exvessel value, in dollars, per permit and total permits fished by year 1980 through 2012	73
14.	Proportional genetic estimates of Black Lake stock composition with upper and lower 90% credibility	
	intervals for samples of the escapement through Chignik weir 2010, 2011, and 2012 using the program	
	BAYES with a sequential prior.	74
	LIST OF APPENDICES	
	LIST OF AFFENDICES	
Appen	ndix P	age
Ā1.	Summary of the 2012 Chignik Management Area Emergency Orders.	76
B1.	Chignik salmon regulations, 2012.	
C1.	2012 Chignik sockeye salmon post-weir escapement estimate memorandum.	
D1.	Commercial salmon fishing effort and harvest, by day in the Chignik Management Area, 2012	92

ABSTRACT

This report is a summary of the 2012 commercial Pacific herring Clupea pallasii and Pacific salmon Oncorhynchus spp. fisheries within the Chignik Management Area (CMA; Area L). The CMA encompasses all coastal waters and inland drainages of the northwest Gulf of Alaska between Kilokak Rocks and Kupreanof Point. There was no commercial herring fishery in the CMA during 2012. All five species of North American Pacific salmon were commercially harvested in the CMA during 2012: Chinook O. tshawytscha, sockeye O. nerka, coho O. kisutch, pink O. gorbuscha, and chum O. keta salmon. In 2012, the Chinook salmon escapement of 1,449 fish to the Chignik River was within the escapement goal range of 1,300 to 2,700 fish. The 2012 Chignik River early-run sockeye salmon escapement of 353,441 fish was within the early-run escapement goal range of 350,000 to 400,000 fish. The late-run sockeye salmon escapement of 358,948 fish was within the late-run escapement goal range of 250,000 to 400,000 fish. The early run was below the recent 5-, 10-, and 20-year averages while the late run was above the recent 5-, 10-, and 20-year escapement averages. The 2012 total CMA sockeye salmon harvest of 1,800,121 fish was above the recent 5-, 10-, and 20-year average harvests. The CMA total coho harvest of 33,316 fish was well below recent 5-, 10-, and 20-year average harvests. The area wide chum salmon escapement of 210,973 fish exceeded the lower bound sustainable escapement goal of 57,400 fish. In 2012, 171,112 chum salmon were harvested which was similar to the recent 10- and 20-year average harvests but well below the recent 5-year average harvest. The 2012 area wide pink salmon escapement of 302,699 fish was within the even-year sustainable escapement goal range of 200,000 to 500,000 fish and was below the recent 5-, 10-, and 20-year escapement averages. The CMA harvest of 137,706 pink salmon was well below the recent 5-, 10-, and 20-year average pink salmon harvests. A total of 69 CMA permit holders made deliveries in 2012. The majority of the fishing effort in the 2012 season occurred in the Chignik Bay District. The exvessel value for the 2012 salmon harvest in the CMA totaled approximately \$13.7 million.

Key words: Chignik Management Area (CMA), Chignik River, *Oncorhynchus*, *Clupea pallasii*, salmon, herring, Alaska Board of Fisheries, 2012 commercial fisheries management, Fisheries Management Plan (FMP), harvest statistics, escapement

INTRODUCTION

The Alaska Department of Fish and Game (ADF&G) manages all Pacific herring *Clupea pallasii* and commercial salmon *Oncorhynchus* spp. fisheries within the Chignik Management Area (CMA; Area L). The CMA encompasses all coastal waters and inland drainages of the northwest Gulf of Alaska between Kilokak Rocks and Kupreanof Point (Figure 1). For management purposes, these waters are divided into five fishing districts: Eastern, Central, Chignik Bay, Western, and Perryville districts. Each district is further broken down into sections and statistical reporting areas (Figure 2).

Five species of North American Pacific salmon are commercially harvested in the CMA: Chinook *O. tschawytscha*, sockeye *O. nerka*, coho *O. kisutch*, pink *O. gorbuscha*, and chum *O. keta* salmon. Of these, sockeye salmon are the primary species targeted and the most important commercial and subsistence salmon species in the CMA. ADF&G manages all CMA commercial salmon resources by emergency order based on inseason evaluation of local stock abundance and escapement objectives. The majority of fishing effort is concentrated on salmon returning to the Chignik River watershed. Commercial salmon fishing is the economic mainstay for five villages: Chignik Bay, Chignik Lagoon, Chignik Lake, Perryville, and Ivanof Bay (Figure 1).

This report provides a summary of commercial herring and salmon management plans, fishing activity, escapements, and harvests in the CMA. This report also provides a chronology of significant regulatory changes that influenced the 2012 commercial salmon season. Most tables in this report have been verified against the Westward Region electronic fish ticket (1970 to

present) and historical escapement databases (1960 to present). The salmon harvest estimates reported in this document were summarized from the fish ticket database on October 1, 2012. Data published in this report supersede any data previously published.

COMMERCIAL HERRING

HERRING MANAGEMENT OVERVIEW

Herring may be harvested in the CMA from April 15 through June 30 (sac roe season) and from August 15 through February 28 (food and bait season), although specific commercial herring fishing periods and areas are allowed only by emergency order (5 AAC 27.560). Herring may be taken only by purse seines not more than 1,000 meshes in depth and 100 fathoms in length (5 AAC 27.575).

There are several distinct locations within the CMA where herring are managed as separate stocks (Table 1). Each location is managed on a maximum exploitation rate of 20%, given that a threshold biomass is available for harvest. Threshold biomass levels are determined prior to the fishing season after aerial survey estimates are conducted and potential effort levels are determined.

Historical Data

Commercial herring harvests were not recorded in the CMA until 1980 (Nicholson et al. 1980). In years when herring fisheries occurred, harvests ranged from 6 tons in 1996 to 587 tons in 1980 (Table 2). Due to lack of industry interest, the last herring biomass survey and commercial fishery occurred in 1996 (Table 2; Stichert 2007).

2012 Herring Fishery

There was no 2012 herring fishery in the CMA; no guideline harvest levels were set due to the lack of industry interest.

COMMERCIAL SALMON

OVERVIEW OF MANAGEMENT PLANS

Several management plans have been used to manage the CMA commercial salmon fishery in the last decade. The 2012 CMA commercial salmon fishery was managed based on the *Chignik Salmon Management Plan* (5 AAC 15.357). Sockeye salmon bound for the Chignik River watershed were also allocated under two additional management plans: the *Cape Igvak Salmon Management Plan* (5 AAC 18.360) in the Kodiak Management Area (Area K), and the *Southeastern District Mainland (SEDM) Salmon Management Plan* (5 AAC 09.360) in the Alaska Peninsula Management Area (Area M; Figure 1).

Chignik Salmon Management Plan

The Chignik Salmon Management Plan (5 AAC 15.357) was originally adopted in 1999. The goal of this plan was to allow traditional salmon fisheries in the CMA while achieving the established escapement goals for both early-run (Black Lake), and late-run (Chignik Lake) sockeye salmon. Purse seines and hand purse seines are the only legal commercial salmon fishing gear within the CMA. Legal seine gear ranged from 100 to 125 fathoms in length in the

Chignik Bay District and from 100 to 225 fathoms in length in all other districts (5 AAC 15.332). To assist management efforts, the management plan is organized into districts or groups of districts: the Chignik Bay and Central districts, the Eastern District, and the Western and Perryville districts (Figure 2).

Cape Igvak Salmon Management Plan

From June 1 through July 25, 90% of the sockeye salmon harvested within the Cape Igvak Section are allocatively considered to be Chignik-bound (5 AAC 18.360(d)). The Cape Igvak Section is the westernmost section of Area K, located directly northeast of the CMA (Figure 1). If the harvestable surplus of sockeye salmon in the CMA is above or expected to be above certain thresholds (5 AAC 18.360 (a-c)), then 15% of the total Chignik sockeye salmon harvest (total includes sockeye salmon caught at Cape Igvak and within certain portions of SEDM) is allocated to Area K fishermen. After July 25, there are no allocative ties between the CMA and Area K.

Southeastern District Mainland Salmon Management Plan

From June 1 through July 25, 80% of the sockeye salmon harvested within certain SEDM sections during specific times are allocatively considered to be Chignik-bound (5 AAC 09.360). The SEDM is composed of a group of sections at the eastern end of Area M, located directly southwest of the CMA (Figure 1). If the harvestable surplus of sockeye salmon in the CMA is above or expected to be above certain thresholds (5 AAC 09.360 (a–g)), then 7.6% of the total estimated CMA sockeye salmon harvest is allocated to SEDM fisherman. After July 25, there are no allocative ties between the CMA and Area M.

2012 CHIGNIK SALMON MANAGEMENT

ADF&G targeted the lower bounds of the sockeye salmon escapement goals during the 2012 season (Table 3) based on limnology data from 2000 through 2007 that suggested the forage base for juvenile sockeye salmon was depressed in Chignik Lake (Bouwens and Finkle 2003a, 2003b; Finkle 2005; Finkle 2006a, 2006b; Finkle and Bouwens 2001). ADF&G first adopted this practice in 2002 to improve juvenile sockeye salmon production by relieving grazing pressure on zooplankton in Chignik Lake (Bowens and Finkle 2003b).

The first commercial fishing period began on June 8, and the last commercial fishing period ended on September 9. The commercial salmon fishery was open for a total of 84 days during 2012 (Figure 3). A total of 69 CMA commercial salmon permit holders (excluding the department test fishery permit) participated in the 2012 commercial salmon season.

Salmon were delivered to five locations in 2012: two floating processors operated by Trident Seafoods in Chignik Bay, Trident Seafoods in Sand Point, and Trident Seafoods and International Seafoods of Alaska in Kodiak. Processors filleted or headed and gutted the majority of Chignik salmon.

Chignik Bay and Central Districts Commercial Salmon Fishery

In mid-May the installation of the Chignik River weir was delayed due to sporadic ice flows. Due to this delay and reports of increasing subsistence harvests, escapement estimates where obtained by the use of DIDSON (Dual-frequency IDentification SONar) prior to completion of the weir. The first full day of escapement estimates (4,325 sockeye salmon) on May 31 was well

above the average escapement for that date indicating that the Black Lake run was arriving early and could be relatively strong. After completion of the weir structure on the evening of June 2, Chignik River escapement was monitored using underwater digital video equipment. After several additional days of moderately high escapement estimates and two Chignik Lagoon test fisheries (June 4 and 7), the 2012 commercial salmon fishery opened at 7:00 AM, June 8 in the Chignik Bay and Central districts as well as the Inner Castle Cape Subsection of the Western District (Figure 4). The initial fishing period in the Chignik Bay and Central districts was extended on three occasions due to strong escapement levels throughout the fishing period. The CMA then closed for 30 hours (June 14 and 15) to increase escapement into the Chignik River (Table 3 and 4; Figure 3). After reopening the commercial salmon fishery on June 16 sockeye salmon escapement into the Chignik River watershed remained relatively consistent allowing the fishery to largely remain open through July 10 when the department began targeting late-run sockeye salmon escapement objectives. Throughout the remainder of the commercial salmon fishing season just four short closures were necessary to ensure that the late-run sockeye salmon escapement goal was met. In total, the Chignik Bay District was open for 84 days while the Central District was open for 81 days during 2012.

The Chignik Lagoon closed waters markers alternated between Humes Point and Mensis Point during the 2012 salmon season (Figure 5). Generally, the Humes Point markers were used for the first 24 to 72 hours of a commercial fishing period to allow salmon above these markers to escape the fishery. The Humes Point markers were also used when sockeye salmon escapement was at or just above the lower bound of the late run escapement objectives. This increased escapement into the Chignik River and also allowed the department to assess the number of salmon entering the lagoon by concentrating the effort in the lower lagoon. A summary of emergency orders outlining the commercial salmon fisheries in the Chignik Bay and Central districts is located in Appendix A.

Eastern District Commercial Salmon Fishery

The Eastern District, by regulation (5 AAC 15.357 (c)(1)), opened concurrently with the Chignik Bay and Central districts during June (Figures 2 and 3; Appendix B). In 2012, the Eastern District was closed for the majority of July and August due to low pink salmon catch rates and escapement into local streams.

Inseason aerial surveys indicated that pink salmon escapement in 2012 was low compared to historical averages and chum salmon escapement was similar to recent averages.

In total, the Eastern District was open to commercial salmon fishing for 28 days during 2012 (Figure 3). A summary of emergency orders outlining the commercial salmon fisheries in the Eastern District is found in Appendix B.

Western and Perryville Districts Commercial Salmon Fishery

The Inner Castle Cape Subsection of the Western District, by regulation (5 AAC 15.357 (b)), opened concurrently with the Chignik Bay and Central districts in June (Figures 2, 3, and 4; Appendix B). Also by regulation (5 AAC 15.357 (e)), the Western District, excluding the Inner Castle Cape Subsection, opened to commercial salmon fishing for two 48-hour periods with a mandatory 48-hour closure between fishing periods through July 5. The first 48-hour fishing period began on June 12 and the second fishing period began on June 20. Both of these fishing periods were opened concurrently with the Chignik Bay and Central districts.

Excluding the Inner Castle Cape Section of the Western District, and the two 48-hour fishing periods, the Western and Perryville districts are closed to commercial salmon fishing through July 5 (5 AAC 15.357 (d)). Beginning July 6, these districts can be opened on a catch-per-unit-effort basis targeting migrating pink and chum salmon. Once fish enter local streams, management shifts to an escapement-based strategy.

Due to low pink salmon catch rates, the Western and Perryville districts were closed to commercial salmon fishing for the majority of July (Figure 3). After aerial surveys indicated adequate local pink salmon escapement on August 7, the Western and Perryville districts remained open to commercial salmon fishing until the districts closed for the season on September 8.

In total, the Western District was open to commercial salmon fishing for 45 days, and the Perryville District for 41 days during 2012 (Figure 3). A summary of emergency orders outlining the commercial salmon fisheries in the Western and Perryville districts is found in Appendix B.

ESCAPEMENT AND HARVEST DATA

Stock Separation Techniques

Two distinct sockeye salmon runs (an early- and late-run) enter the Chignik River watershed and temporally overlap during late June and early July (Templin et al. 1999). Prior to 2004, scale pattern analysis (SPA) was used to differentiate stock composition during this time, and the fishery was managed inseason based on the results of this analysis (Witteveen and Botz 2004). The Chignik SPA program was discontinued prior to the 2004 season due to funding limitations. However, examination of SPA data revealed that, on average, the number of early-run sockeye salmon that passed the Chignik River weir after July 4 was approximately equal to the number of late-run sockeye salmon that passed the weir prior to July 4. The 2012 fishery was managed based on this date, so that through July 4, fishing periods were based on achieving early-run escapement objectives, and beginning July 5, fishing periods were based on achieving late-run escapement objectives (Table 3). However, in 2012, for the first time, genetic stock composition information was collected and analyzed inseason and the information was used to assist with management decisions during the overlap period. Results from the project can be found in the *Genetic Stock Identification* section of this document.

Escapement Goals

In 2010, a salmon escapement goal review team, including staff from the Division of Commercial Fisheries and the Sport Fish Division, was formed to review salmon escapement goals in the CMA (Nemeth et. al. 2010). The team recommended no change to any of the established CMA salmon escapement goals. CMA escapement goals are as follows; the Chignik River Chinook salmon biological escapement goal range of 1,300–2,700 fish, the sockeye salmon early-run sustainable escapement goal (SEG) range of 350,000–400,000 fish (Table 3), the late-run sockeye salmon SEG range of 250,000–400,000 fish, the pink salmon even-year SEG range of 200,000–600,000 fish, the odd-year pink salmon SEG range of 500,000–800,000 fish, and the areawide aggregate chum salmon lower bound SEG of 57,400 fish.

2012 Escapement Information

In 2012, the majority of salmon escapements to the Chignik River were enumerated through the use of a weir. There were two gates in the weir, which were generally always open to allow for

unrestricted fish passage. Underwater video equipment was used to count fish passing through the weir gates. At night, lights allowed fish to be counted. The number of fish passing the weir, by species, were counted for the first 10 minutes of each hour, and then multiplied by six to obtain hourly escapement estimates. Hourly estimates were summed to provide an estimate of daily fish passage. Video footage from each 10-minute escapement count was recorded and archived.

The majority of the Chignik River Chinook, sockeye, pink, and chum salmon escapements were counted through the weir. Since Dolly Varden *Salvelinus malma* were not commercially harvested or actively managed in the CMA, their escapements are noted in the tables of this document for historical comparisons, but not discussed in detail in the escapement section below. The first count of the 2012 season was on May 30, and the last full count of the season was on August 29, after which the weir was removed (Table 5). A post-weir sockeye salmon escapement estimate was produced using time series analysis and the results were grouped into two reporting periods: August 30 to September 15 and September 16 to September 30 (Appendix C). The 2012 coho salmon counts were still increasing when the weir was removed, although sonar escapement estimates were obtained with the use of DIDSON unit for the month of September.

Aerial surveys were flown over the spawning grounds of the Chignik River watershed to assess sockeye salmon spawning escapement levels and distribution. Escapements to other CMA streams were also estimated via aerial surveys.

Chinook Salmon

The Chignik River is the only stream with substantial Chinook salmon escapement within the CMA. Chinook salmon began entering the Chignik River in late-June. The run peaked by mid-July, and was over by late-August (Table 5; Figure 6). The 2012 Chignik River Chinook salmon escapement of 1,449 fish was well below the 5-, 10-, and 20-year average escapements (Table 6) and within the biological escapement goal range of 1,300–2,700 fish (Figure 7; Nemeth et al. 2010).

Sockeye Salmon

Chignik River watershed sockeye salmon are managed based on daily escapement objectives, by run (Table 3; Nemeth et al. 2010). The Chignik River sockeye salmon early run peaked in mid-June and the late run peaked in mid-July (Table 4; Figure 8). The 2012 estimated total Chignik River watershed sockeye salmon escapement of 712,389 fish was similar to the 5-year average escapement, above the 10-year average escapement, and below the 20-year average escapement (Table 7). The early-run escapement was estimated at 353,441 sockeye salmon, which was within the early-run SEG range of 350,000–400,000 fish (Table 7; Figure 9). The late-run escapement was estimated at 358,948 sockeye salmon, which was within the late-run escapement goal range of 250,000–400,000 fish (Table 7; Figure 9). Because the weir was removed before the late run was complete, a post-weir sockeye salmon escapement estimate was produced using time series analysis. These results were grouped into two reporting periods; August 30 to September 15 (37,275 fish) and September 16 to September 30 (15,543 fish), and are included in the late-run estimate of total escapement (Table 6; Appendix C).

Peak aerial survey counts of spawning sockeye salmon in Black Lake tributaries were similar to the 10- year average, but below the 5- and 20-year averages (Table 8). Total peak aerial survey

counts of spawning sockeye salmon in the Chignik Lake and its tributaries were well above the 5-, 10-, and 20-year averages (Table 9).

Sockeye salmon escapements were documented, via aerial survey, in low numbers (generally fewer than 1,000 fish) in several other CMA streams. Due to small run sizes and limited effort, escapement goals for these streams have not been established (Witteveen et al. 2007).

Coho Salmon

Coho salmon enter CMA drainages in mid-August and generally continue through November. The 2012 Chignik River coho salmon escapement estimate through August 30 was 2,663 fish (Table 5), which was lower than the recent 5- and 10-year average escapements (Table 6). A post-weir escapement of 66,812 coho salmon was estimated using DIDSON from August 30 to September 28. Coho salmon escapements were monitored, via aerial survey, in low numbers (generally fewer than 1,000 fish) in several other CMA streams.

Due to late season run timing and limited directed effort, escapement goals for coho salmon have not been established in the CMA (Witteveen et al. 2007).

Pink Salmon

In 2012, pink salmon began entering the Chignik River in mid-July and peaked in mid-August with a total escapement of 2,849 salmon (Table 5). The 2012 pink salmon escapement into the Chignik River was well below the 5- and 10-year average escapements (Table 6).

Escapements into other CMA streams were monitored via aerial surveys. Aerial survey escapement estimates for all streams were summed and compared to the area wide even-year aggregate SEG for pink salmon. The 2012 overall combined escapement for the CMA was approximately 302,699 pink salmon, which was within the area wide aggregate even-year SEG range of 200,000–600,000 fish, but well below the 5-, 10-, and 20-year average escapement estimates (Table 10).

Chum Salmon

A limited number of chum salmon return to the Chignik River, mainly in August (Table 5). The 2012 Chignik River chum salmon escapement was 73 fish, which was below the recent 5-year and 10-year average escapements (Table 6).

Escapements into other CMA streams were monitored via aerial surveys and compared to the areawide aggregate SEG for chum salmon (Nemeth et al. 2010). The total 2012 CMA chum salmon escapement of 210,973 fish was above the lower bound SEG of 57,400 fish, but below the 5-, 10-, and 20-year escapement averages (Table 11).

Harvest Information

Commercial salmon harvest information for 2012 was organized into four categories. The first category included salmon that were commercially harvested but retained for private use (home pack). The second category included salmon that were harvested and sold as part of the department's test fishery program. The third category included sockeye salmon commercially harvested within the CMA. The final category included sockeye salmon commercially harvested under the Cape Igvak and SEDM management plans; for allocative purposes, the Board of Fisheries has determined that specific portions of these harvests were considered bound for the Chignik River.

Salmon harvested under subsistence regulations or the department's Chignik Lagoon test fishery were not included in any of the harvest allocations. Similarly, home pack fish were not included in the Cape Igvak and SEDM allocations. All harvest information in this report was calculated from the ADF&G fish ticket database and supersedes any previously published data. A complete summary of 2012 commercial salmon harvest and effort is found in Appendix D.

Chinook Salmon

A total of 3,687 Chinook salmon were harvested from the CMA in 2012, which was similar to the 10-year average and below 5- and 20-year average Chinook salmon harvests (Table 12). No Chinook salmon were harvested during the department's test fishery program and 51 fish were retained as home pack (Table 13). Most of the CMA Chinook salmon harvest in 2012 came from the Central and Western districts (1,740 and 1,284 fish respectively; Table 14). In 2012, Chinook salmon were primarily harvested from late June through the end of July (Table 15).

Sockeye Salmon

A total of 1,800,121 sockeye salmon were harvested in the CMA during 2012, which was above the 5-, 10-, and 20-year average sockeye salmon harvests (Tables 12 and 16). The department's test fishery program harvested 2,089 of these salmon and a total of 513 fish were reported as retained for home pack (Table 16). The vast majority of the CMA sockeye salmon harvest in 2012 occurred in the Chignik Bay District, although a substantial portion of the catch came from the Central District (Table 17). Most sockeye salmon were harvested from early June through mid-July (Table 18).

An additional 450,978 sockeye salmon allocatively considered Chignik-bound were harvested from June 1 through July 25 as part of the SEDM and Cape Igvak fisheries during 2012 (Table 16). The Chignik-bound component of the SEDM harvest was 126,083 fish and totaled 7.69 percent of the total CMA harvest (allocation 7.6 percent; Tables 16 and 19). The Chignik-bound portion of the Cape Igvak harvest was 324,895 fish and totaled 15.53 percent of the total Chignik-bound harvest (allocation 15.0 percent; Tables 16 and 19).

The 2012 Chignik River early-run sockeye salmon harvest of 1,284,066 was above the 5-, 10-, and 20-year average harvests (Table 20; Figure 10). The 2012 late-run harvest of 967,281 sockeye salmon was above the 5-, 10-, and 20-year average harvests (Table 20; Figure 11). The 2012 total Chignik-bound commercial sockeye salmon harvest was 2,251,347 fish for a total run estimate (harvest + escapement) of 2,963,736 sockeye salmon which was above the 5-, 10-, and 20-year average (Table 20; Figure 12).

In 2012, the Chignik early run was 31% above the forecast while the late run was 14% above the forecast (Table 21).

Coho Salmon

A total of 33,316 coho salmon were harvested in the CMA during 2012, which was well below the 5-, 10-, and 20-year average harvests (Tables 12 and 22). All commercially harvested coho salmon were sold to processors by fishermen in 2012 (Table 22). The majority of the 2012 coho salmon harvest occurred in the Western District during July and August (Tables 23 and 24).

Pink Salmon

A total of 137,706 pink salmon were harvested during 2012, which was well below the 5-, 10-, and 20-year average harvests (Tables 12 and 25). Nearly all of the commercially harvested pink salmon were sold to processors by fishermen (Table 25). The majority of pink salmon harvest occurred in the Western and Central districts during the month of August (Table 26 and 27).

Chum Salmon

A total of 171,112 chum salmon were harvested from the CMA during the 2012 season, which was similar to the 10- and 20-year average harvests, but below the 5-year average harvest (Tables 12 and 28). Nearly all of the commercially harvested chum salmon were sold to processors by fishermen (Table 28). The majority of the 2012 chum salmon harvest occurred in the Central, Eastern, and Western districts from mid-June until early-August (Tables 29 and 30).

Economic Value

In recent years, the number of active permits in the CMA has steadily increased. In 2012, 69 CMA permit holders (77% of CMA permits) made deliveries (Table 31). The exvessel value of the 2012 CMA salmon harvest was about \$13.7 million, or approximately \$198,975 per active permit holder, which was above the 5-, 10-, and 20-year average exvessel values (Table 31; Figure 13). The vast majority (90%) of exvessel revenue was from the sale of sockeye salmon (\$185,558 per active permit holder). The 2012 Chinook, coho, pink, and chum salmon harvest provided \$690, \$1,412, \$2,116, and \$9,199, respectively, per active permit holder (Table 31).

CHIGNIK LAGOON TEST FISHERY

The department conducts test fisheries in Chignik Lagoon for multiple purposes. Early-season test fisheries are used to determine buildup of salmon prior to the first commercial fishery and to generate revenue to pay for the vessels chartered to conduct the test fisheries. Subsequent test fisheries are conducted to assess salmon abundance in Chignik Lagoon during fishery closures, and offset the costs of operations at the Chignik weir (Anderson 2013).

The department conducted two test fisheries during 2012 with a total harvest of 2,089 sockeye salmon (Table 16). The first test fishery occurred on June 4, when 547 sockeye salmon were harvested. A subsequent test fishery conducted on June 7 harvested 1,542 sockeye salmon.

GENETIC STOCK IDENTIFICATION

As part of an Alaska Sustainable Salmon Fund project, sockeye salmon genetic samples were collected at the Chignik River weir from 2010 to 2012. Annually, a total of 11 strata samples of approximately 190 fish with increased sampling intensity during the overlap period (late June to mid July) were collected and used to quantify the contribution of both Black and Chignik lakes sockeye salmon stocks to Chignik River escapement estimates. The genetic tissue (axillary process) was clipped from each salmon and placed in ethanol in an individually labeled cyrotube associated with sex and length. Samples were sent to ADF&G's Gene Conservation Lab where genomic DNA was extracted and assayed for 96 sockeye salmon single nucleotide polymorphisms. Genotypes were entered into the Gene Conservation Lab Oracle database LOKI.

While the results from 2010 and 2011 were analyzed in 2012, the 2012 samples were analyzed inseason and available within 30–48 hours after the samples were taken. Results for all years are tabulated in Table 32 and depicted in Figure 14. By using the genetics proportions, Black and Chignik lakes run timing was modeled using methods similar to SPA modeling (Witteveen and Botz 2004). In 2010 the halfway point between the runs was July 10, in 2011 the date was July 8 and in 2012 the date was estimated to be July 3. The three years of data do not indicate the July 4 cutoff date between runs is flawed. It does demonstrate variability in the cutoff date and suggests that inseason genetics would provide data for adaptive inseason management to assure the escapement goals (especially the tight range of the early run) are met.

CHIGNIK AREA SUBSISTENCE SALMON FISHERIES

The 2011 and 2012 Chignik Management Area subsistence harvest will not be available until after subsistence permits are returned and tabulated in spring 2013. Historical subsistence harvests can be found in Table 33.

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TABLES AND FIGURES

Table 1.–List of Chignik Management Area herring management units.

Area	Stat. Area(s)
Chignik Lagoon and Bay	271-10 to 272-40
Kujulik	272-50
Big River	272-60 to 272-70
Cape Kumlik	272-62 to 272-64
Yantarni	272-72 to 272-80
Chiginagak	272-90
Agripina	272-92 to 272-96
Mitrofania	273-70 to 273-74
Dorner Bay	273-82 to 273-84
Castle Cape	273-90 to 273-94
Perryville	275-60
Humpback Bay	275-50
Ivanof Bay	275-40

Table 2.—Chignik Management Area commercial herring harvest, 1980 through 2012.

Year	Harvest (tons)
1980	587
1981	441
1982	190
1983	88
1984	66
1985	0
1986	11
1987	75
1988	59
1989	66
1990	0
1991	0
1992	0
1993	0
1994	0
1995	77
1996	6
1997	0
1998	0
1999	0
2000	0
2001	0
2002	0
2003	0
2004	0
2005	0
2006	0
2007	0
2008	0
2009	0
2010	0
2011	0
2012	0

Table 3.-Chignik River sockeye salmon escapement objectives, 2012.

	Escapement		Escapement
Date	Lower Upper	Date	Lower Upper
June 2	1,200 - 1,400	August 3	172,500 - 295,700
June 4	4,000 - 4,500	August 6	178,700 - 306,300
June 6	9,800 - 11,200	August 9	184,600 - 316,300
June 8	17,900 - 20,400	August 12	190,600 - 326,600
June 10	29,500 - 33,700	August 15	196,200 - 336,200
June 12	51,200 - 58,500	August 18	201,900 - 346,000
June 14	83,000 - 94,800	August 21	207,400 - 355,400
June 16	116,000 - 132,600	August 24	213,300 - 365,600
June 18	145,300 - 166,100	August 27	218,800 - 374,900
June 20	170,900 - 195,400	August 31	225,000 - 385,700
June 22	202,100 - 231,000		
June 25	248,900 - 284,600	September 3	228,000 - 391,100
June 28	282,900 - 323,300	September 5	231,000 - 393,000
July 1	323,600 - 369,900	September 7	235,000 - 395,000
July 4	350,000 - 400,000 ^a	September 9	239,000 - 396,800
		September 11	243,000 - 398,100
July 6	7,000 - 11,900	September 13	247,000 - 399,000
July 8	19,900 - 34,100	September 15	250,000 - 400,000
July 10	32,600 - 56,000		
July 12	44,400 - 76,100	<u>Escap</u>	ement Objectives
July 14	58,900 - 101,000		
July 16	76,400 - 131,000	Through July 4:	350,000 - 400,000
July 19	96,600 - 165,700		
July 23	122,200 - 209,500	July 5 - September 15:	250,000 - 400,000 b
July 26	141,800 - 243,100		
July 29	158,200 - 271,100		
July 31	165,500 - 283,700		

July 4 is historically the date on which the cumulative inseason escapement most closely approximated the early-run escapement as estimated by postseason scale pattern analysis.

The late-run escapement objective (July 5–September 15) includes the late-run sockeye salmon sustainable escapement goal (SEG; 200,000–400,000), plus an additional 50,000 sockeye salmon inriver run goal (25,000 in August and 25,000 in September) to meet late season subsistence needs.

Table 4.–Estimated Chignik River sockeye salmon escapement, by day and management objective period, 2012.

	Early Run Late Run							
	Through July	y 4	J	uly 5–July	31		August	
Date	Daily	Total	Date	Daily	Total	Date	Daily	Total
5/30 ^a	1,213	1,213	7/5	4,243	4,243	8/1	2,797	2,797
5/31 ^a	4,325	5,538	7/6	8,236	12,479	8/2	2,217	5,014
6/1 ^a	718	6,256	7/7	5,186	17,665	8/3	4,679	9,693
6/2	1,213	7,469	7/8	1,853	19,518	8/4	7,224	16,917
6/3	2,852	10,321	7/9	4,961	24,479	8/5	4,015	20,932
6/4	2,095	12,416	7/10	1,369	25,848	8/6	1,842	22,774
6/5	5,680	18,096	7/11	2,697	28,545	8/7	2,213	24,987
6/6	11,481	29,577	7/12	17,847	46,392	8/8	2,354	27,341
6/7	7,222	36,799	7/13	25,760	72,152	8/9	1,015	28,356
6/8	13,772	50,571	7/14	10,512	82,664	8/10	1,243	29,599
6/9	16,867	67,438	7/15	13,070	95,734	8/11	1,642	31,241
6/10	16,762	84,200	7/16	11,332	107,066	8/12	1,685	32,926
6/11	21,100	105,300	7/17	13,270	120,336	8/13	2,856	35,782
6/12	13,756	119,056	7/18	10,216	130,552	8/14	3,770	39,552
6/13	10,122	129,178	7/19	7,577	138,129	8/15	9,268	48,820
6/14	4,330	133,508	7/20	2,504	140,633	8/16	3,423	52,243
6/15	3,672	137,180	7/21	1,700	142,333	8/17	1,892	54,135
6/16	14,897	152,077	7/22	1,299	143,632	8/18	3,882	58,017
6/17	24,965	177,042	7/23	1,152	144,784	8/19	2,418	60,435
6/18	12,649	189,691	7/24	3,496	148,280	8/20	1,850	62,285
6/19	17,791	207,482	7/25	1,982	150,262	8/21	4,138	66,423
6/20	14,048	221,530	7/26	9,023	159,285	8/22	1,408	67,831
6/21	19,366	240,896	7/27	14,910	174,195	8/23	2,804	70,635
6/22	11,293	252,189	7/28	9,965	184,160	8/24	4,207	74,842
6/23	10,207	262,396	7/29	12,595	196,755	8/25	3,634	78,476
6/24	8,218	270,614	7/30	11,727	208,482	8/26	2,365	80,841
6/25	10,505	281,119	7/31	5,171	213,653	8/27	3,483	84,324
6/26	7,266	288,385	July 5-31 t	otal:	213,653	8/28	5,030	89,354
6/27	10,057	298,442				8/29 ^b	3,123	92,477
6/28	8,351	306,793				August total		92,477
6/29	8,826	315,619				C		•
6/30	13,010	328,629						
7/1	11,758	340,387					September	
7/2	5,087	345,474				Date		Total
7/3	5,209	350,683			8/30-	-9/15 estimate	37,275	37,275
7/4	2,758	353,441				-9/30 estimate	15,543	52,818
	-July 4 total						,	, -

May 27-July 4 total: 353,441

Early run total:	353,441
Late run total:	358,948
Season total:	712,389

^a DIDSON sonar estimated escapement.

b The weir was removed after the completion of the 8/29 count.

Table 5.–Estimated Chignik River Chinook, coho, pink, and chum salmon, and Dolly Varden escapement, by day, 2012.

-	Cł	ninook	Col	10	Pi	nk	Chum		Dolly Varden		
Date	Daily	Cumulative	Daily Cu	mulative	Daily C	umulative	Daily C	umulative	Daily	Cumulative	
5/31	0	0	0	0	0	0	0	0	0	0	
6/1	0	0	0	0	0	0	0	0	0	0	
6/2	0	0	0	0	0	0	0	0	0	0	
6/3	0	0	0	0	0	0	0	0	18	18	
6/4	0	0	0	0	0	0	0	0	0	18	
6/5	0	0	0	0	0	0	0	0	6	24	
6/6	0	0	0	0	0	0	0	0	0	24	
6/7	0	0	0	0	0	0	0	0	24	48	
6/8	0	0	0	0	0	0	0	0	6	54	
6/9	0	0	0	0	0	0	0	0	18	72	
6/10	0	0	0	0	0	0	0	0	0	72	
6/11	0	0	0	0	0	0	0	0	12	84	
6/12	0	0	0	0	0	0	0	0	6	90	
6/13	0	0	0	0	0	0	0	0	12	102	
6/14	0	0	0	0	0	0	0	0	6	108	
6/15	0	0	0	0	0	0	0	0	12	120	
6/16	0	0	0	0	0	0	0	0	0	120	
6/17	0	0	0	0	0	0	0	0	12	132	
6/18	0	0	0	0	0	0	0	0	0	132	
6/19	0	0	0	0	0	0	0	0	0	132	
6/20	0	0	0	0	0	0	0	0	12	144	
6/21	0	0	0	0	0	0	0	0	0	144	
6/22	6	6	0	0	0	0	0	0	6	150	
6/23	6	12	0	0	0	0	0	0	12	162	
6/24	0	12	0	0	0	0	0	0	120	282	
6/25	0	12	0	0	0	0	0	0	366	648	
6/26	6	18	0	0	0	0	0	0	390	1,038	
6/27	0	18	0	0	0	0	0	0	384	1,422	
6/28	0	18	0	0	0	0	0	0	510	1,932	
6/29	0	18	0	0	0	0	0	0	480	2,412	
6/30	12	30	0	0	0	0	0	0	810	3,222	
7/1	18	48	0	0	0	0	0	0	1,702	4,924	
7/2	7	55	0	0	0	0	0	0	857	5,781	
7/3	13	68	0	0	0	0	0	0	602	6,383	
7/4	18	86	0	0	0	0	0	0	768	7,151	
7/5	8	94	0	0	0	0	0	0	868	8,019	
7/6	24	118	0	0	0	0	0	0	1,902	9,921	
7/7	38	156	0	0	0	0	0	0	839	10,760	
7/8	25	181	0	0	0	0	0	0	409	11,169	
7/9	30	211	0	0	0	0	0	0	576	11,745	
7/10	30	241	0	0	0	0	0	0	922	12,667	
7/11	57	298	0	0	0	0	0	0	661	13,328	
7/12	54	352	0	0	0	0	0	0	780	14,108	
7/13	126	478	0	0	24	24	6	6	690	14,798	
7/14	54	532	0	0	0	24	0	6	276	15,074	
7/15	102	634	0	0	6	30	6	12	316	15,390	

-continued-

Table 5.–Page 2 of 2.

	Ch	inook	С	oho	P	ink	Chum		Dolly Varden	
Date	Daily	Cumulative	Daily (Cumulative	Daily (Cumulative	Daily Cu	ımulative	Daily (Cumulative
7/16	18	652	0	0	6	36	0	12	326	15,716
7/17	84	736	0	0	18	54	0	12	250	15,966
7/18	102	838	0	0	12	66	0	12	274	16,240
7/19	73	911	0	0	6	72	0	12	216	16,456
7/20	18	929	0	0	0	72	0	12	54	16,510
7/21	40	969	0	0	0	72	0	12	66	16,576
7/22	48	1,017	0	0	0	72	0	12	60	16,636
7/23	36	1,053	0	0	0	72	0	12	18	16,654
7/24	12	1,065	0	0	0	72	0	12	66	16,720
7/25	48	1,113	0	0	0	72	0	12	72	16,792
7/26	20	1,133	0	0	6	78	0	12	24	16,816
7/27	18	1,151	0	0	42	120	0	12	150	16,966
7/28	49	1,200	0	0	18	138	0	12	50	17,016
7/29	36	1,236	0	0	12	150	6	18	84	17,100
7/30	25	1,261	0	0	81	231	6	24	65	17,165
7/31	0	1,261	0	0	24	255	0	24	96	17,261
8/1	12	1,273	0	0	6	261	0	24	54	17,315
8/2	36	1,309	6	6	7	268	0	24	54	17,369
8/3	0	1,309	6	12	12	280	0	24	68	17,437
8/4	12	1,321	12	24	10	290	0	24	24	17,461
8/5	12	1,333	6	30	30	320	0	24	42	17,503
8/6	13	1,346	6	36	7	327	1	25	15	17,518
8/7	6	1,352	6	42	24	351	6	31	12	17,530
8/8	12	1,364	12	54	6	357	6	37	6	17,536
8/9	12	1,376	6	60	12	369	6	43	25	17,561
8/10	6	1,382	0	60	6	375	0	43	0	17,561
8/11	12	1,394	0	60	13	388	0	43	20	17,581
8/12	6	1,400	0	60	49	437	0	43	12	17,593
8/13	0	1,400	6	66	156	593	6	49	48	17,641
8/14	12	1,412	0	66	369	962	6	55	61	17,702
8/15	0	1,412	0	66	240	1,202	0	55	72	17,774
8/16	6	1,418	0	66	96	1,298	0	55	48	17,822
8/17	6	1,424	0	66	24	1,322	0	55	24	17,846
8/18	0	1,424	1	67	64	1,386	0	55	12	17,858
8/19	0	1,424	18	85	48	1,434	0	55	12	17,870
8/20	0	1,424	26	111	31	1,465	0	55	24	17,894
8/21	6	1,430	97	208	102	1,567	0	55	12	17,906
8/22	0	1,430	85	293	72	1,639	6	61	6	17,912
8/23	13	1,443	184	477	185	1,824	6	67	18	17,930
8/24	6	1,449	206	683	162	1,986	0	67	24	17,954
8/25	0	1,449	180	863	216	2,202	0	67	6	17,960
8/26	0	1,449	122	985	136	2,338	6	73	0	17,960
8/27	0	1,449	173	1,158	175	2,513	0	73	12	17,972
8/28	0	1,449	551	1,709	240	2,753	0	73	18	17,990
8/29	0	1,449	954	2,663	96	2,849	0	73	42	18,032
Total		1,449		2,663		2,849		73		18,032

Table 6.–Estimated Chignik River Chinook, coho, pink, and chum salmon, and Dolly Varden escapement, 1980 through 2012.

	Escapement ^a									
Year	Chinook b	Coho ^c	Pink ^c	Chum ^c	Dolly Varden ^c					
1980	876	ND	ND	ND	ND					
1981	1,603	ND	ND	ND	ND					
1982	2,412	ND	ND	ND	ND					
1983	1,943	ND	ND	ND	ND					
1984	5,806	ND	ND	ND	ND					
1985	3,144	ND	ND	ND	ND					
1986	3,612	ND	ND	ND	ND					
1987	2,624	ND	ND	ND	ND					
1988	4,868	ND	ND	ND	ND					
1989	3,316	ND	ND	ND	ND					
1990	4,364	ND	ND	ND	ND					
1991	4,531	ND	ND	ND	ND					
1992	3,806	ND	ND	ND	ND					
1993	1,946	ND	ND	ND	ND					
1994	2,963	ND	ND	ND	ND					
1995	4,288	ND	ND	ND	ND					
1996	3,488	16,843	6,030	136	54,726					
1997	3,824	10,810	4,880	483	26,657					
1998	3,075	14,124	11,490	156	15,235					
1999	3,728	2,414	2,524	48	15,025					
2000	4,285	7,062	4,284	48	ND					
2001	3,028	103	1,464	66	6,416					
2002	3,541	9,262	3,417	67	8,179					
2003	6,412	7,635	1,897	68	36,397					
2004	7,840	18,810	2,243	276	20,086					
2005	6,486	18,206	13,637	408	13,940					
2006	3,535	37,113	18,401	99	2,031					
2007	2,000	10,299	20,464	118	6,993					
2008	1,730	13,958	22,341	124	14,776					
2009	1,680	7,670	12,873	109	8,618					
2010	3,679	5,152	3,670	95	17,578					
2011	2,728	5,293	16,298	145	14,133					
2012	1,449	2,663	2,849	73	18,032					
Averages										
1992–11	3,703	-	-	-	-					
2002-11	3,963	13,340	11,524	151	14,273					
2007-11	2,363	8,474	15,129	118	12,420					

^a A video monitoring system was installed at the Chignik weir in 1994.

b No escapement adjustments are made for Chinook salmon that spawn below the weir, or those removed by the sport fishery. Only Chinook salmon larger than approximately 650 mm were enumerated for escapement estimates from 1980 to 1993.

No reliable escapement estimates were generated for pink, chum, or coho salmon or Dolly Varden from 1980 to 1996. No post-weir estimates are reported here for these species.

Table 7.–Total Chignik River sockeye salmon escapement and escapement goals, based on post-season analysis, by run, 1980 through 2012.

Year	Early Run	Late Run	Total
1980	311,332	352,729	664,061
1981	438,540	392,909	831,449
1982	616,117	221,601	837,718
1983	426,177	409,458	835,635
1984	597,712	267,862	865,574
1985	376,576	369,262	745,838
1986	566,088	207,231	773,319
1987	589,291	214,452	803,743
1988	420,577	255,180	675,757
1989	384,004	557,171	941,175
1990	434,543	335,867	770,410
1991	672,871	367,227	1,040,098
1992	360,681	405,922	766,603
1993	364,261	333,116	697,377
1994	769,462	197,447	966,909
1995	366,163	373,757	739,920
1996	464,461	284,676	749,137
1997	396,667	378,951	775,618
1998	410,659	290,469	701,128
1999	457,429	258,537	715,966
2000	536,141	269,084	805,225
2001	744,013	392,905	1,136,918
2002	380,701	343,616	724,317
2003	350,004	334,119	684,123
2004	363,800	214,459	578,259
2005	355,091	225,366	580,457
2006	366,497	368,996	735,493
2007	361,091	293,883	654,974
2008	377,579	328,479	706,058
2009	391,476	328,586	720,062
2010	432,535	311,291	743,826
2011	488,930	264,887	753,817
2012	353,441	358,948	712,389
Year	Early Run	Late Run	Total
SEG	350,000-400,000	250,000-400,000	600,000-800,000
Averages			
1992-11	436,882	309,927	746,809
2002-11	386,770	301,368	688,139
2007-11	410,322	305,425	715,747

Table 8.—Peak sockeye salmon aerial survey escapement estimates for Black Lake tributaries, 1980 through 2012.

	Fan	Milk	Boulevard	Alec	Conglomerate	Broad	
Year	Creek	Creek	Creek	River	Creek	Creek	Total
1980	127,000	16,000	75,000	70,500	1,500	68,000	358,000
1981	93,000	4,700	59,000	76,500	20,000	27,000	280,200
1982	50,000	5,500	60,000	43,000	20,000	32,000	210,500
1983	ND	ND	ND	ND	ND	ND	-
1984	50,000	22,200	70,000	30,500	31,000	36,000	239,700
1985	28,000	5,500	36,000	65,000	5,500	17,000	157,000
1986	60,000	15,300	47,000	76,000	39,000	27,000	264,300
1987	52,000	12,200	133,000	88,400	45,900	32,500	364,000
1988	54,000	71,000	83,700	106,500	2,300	26,500	344,000
1989	19,300	21,000	64,000	133,000	1,000	7,500	245,800
1990	32,600	7,400	35,900	49,800	2,200	18,000	145,900
1991	14,600	19,500	48,000	ND	2,000	13,000	97,100
1992	ND	ND	ND	392,000	ND	ND	392,000
1993	40,900	12,600	97,600	8,000	77,000	18,200	254,300
1994	70,000	25,000	125,000	350,000	20,000	51,000	641,000
1995	23,000	10,000	60,000	200,000	40,000	60,000	393,000
1996	40,000	24,000	51,000	100,000	50,000	45,000	310,000
1997	60,000	5,000	48,000	166,000	8,000	20,000	307,000
1998	90,000	14,000	100,000	50,000	9,000	62,000	325,000
1999	70,000	8,100	50,000	226,000	1,000	22,000	377,100
2000	41,000	29,000	126,000	210,000	26,000	93,000	525,000
2001	77,000	19,000	265,000	207,000	4,000	89,000	661,000
2002	43,000	ND	20,000	21,000	11,000	7,000	102,000
2003	17,600	400	2,500	188,000	ND	1,000	209,500
2004	4,290	1,490	15,560	137,700	200	ND	159,240
2005	4,300	ND	ND	ND	7,700	ND	12,000
2006	16,000	500	15,500	46,700	2,500	19,800	101,000
2007	40,200	8,800	23,600	199,000	4,000	1,000	276,600
2008	44,000	7,600	34,800	208,000	6,600	3,200	304,200
2009	34,500	11,500	40,500	182,500	5,000	2,100	276,100
2010	10,000	1,700	24,000	100,000	2,100	7,000	144,800
2011	45,000	5,000	65,000	215,000	12,000	ND	342,000
2012	47,000	4,000	55,000	80,000	5,000	5,000	196,000
Averages							
1992-11	40,568	10,805	64,670	168,784	15,894	31,331	305,642
2002-11	25,889	4,624	26,829	144,211	5,678	5,871	192,744
2007-11	34,740	6,920	37,580	180,900	5,940	3,325	268,740

Table 9.–Peak sockeye salmon aerial survey escapement estimates for Chignik Lake and Black River tributaries, 1980 through 2012.

	Black River					Chignik Lake			
	Bearskin	West	Chiaktuak		Clark	Home	Hatchery		
Year	Creek	Fork	Creek	Total	River	Creek	Beach	Total	
1980	3,600	33,000	40,400	77,000	ND	ND	ND	_	
1981	950	1,500	18,700	21,150	ND	ND	ND	-	
1982	1,066	10,791	5,000	16,857	ND	ND	ND	_	
1983	ND	ND	6,000	6,000	ND	ND	ND	-	
1984	ND	ND	8,200	8,200	ND	ND	ND	_	
1985	350	450	1,200	2,000	ND	ND	ND	-	
1986	ND	ND	8,300	8,300	ND	ND	ND	-	
1987	ND	ND	1,000	1,000	ND	ND	ND	-	
1988	ND	ND	4,600	4,600	ND	ND	ND	-	
1989	ND	ND	2,100	2,100	ND	ND	ND	-	
1990	300	0	50	350	ND	ND	ND	-	
1991	ND	ND	ND	-	ND	ND	ND	-	
1992	ND	ND	ND	-	ND	ND	ND	-	
1993	ND	ND	16,000	16,000	ND	ND	ND	-	
1994	5,000	ND	31,000	36,000	18,000	9,200	ND	27,200	
1995	7,100	18,000	31,000	56,100	13,000	6,000	150,000	169,000	
1996	1,800	22,000	22,000	45,800	13,000	5,500	70,000	88,500	
1997	9,000	9,000	23,500	41,500	25,000	8,000	35,000	68,000	
1998	4,700	71,000	27,500	103,200	21,000	6,000	62,000	89,000	
1999	8,300	17,500	13,000	38,800	8,500	1,620	15,000	25,120	
2000	2,600	3,700	10,600	16,900	18,000	19,700	2,000	39,700	
2001	ND	ND	9,500	9,500	23,000	11,000	25,000	59,000	
2002	ND	15,000	2,300	17,300	ND	ND	ND	-	
2003	ND	ND	2,000	2,000	ND	ND	ND	-	
2004	100	600	750	1,450	2,500	2,000	ND	4,500	
2005	900	900	5,100	6,900	ND	ND	ND	-	
2006	1,400	3,500	6,200	11,100	13,500	3,000	3,000	19,500	
2007	400	14,500	30,300	45,200	59,000	9,800	65,000	133,800	
2008	13,500	18,000	39,600	71,100	39,500	12,300	106,000	157,800	
2009	600	11,100	21,800	33,500	13,000	3,500	ND	16,500	
2010	1,700	3,500	5,800	11,000	7,600	0	31,000	38,600	
2011	1,000	11,000	11,000	23,000	35,000	2,000	28,000	65,000	
2012	150	750	7,500	8,400	57,000	2,500	170,000	229,500	
Averages		-				-		-	
1992–11	3,873	14,620	16,261	30,861	20,640	6,641	49,333	66,748	
2002-11	2,450	8,678	12,485	22,255	24,300	4,657	46,600	62,243	
2007-11	3,440	11,620	21,700	36,760	30,820	5,520	57,500	82,340	

Table 10.–Estimated pink salmon escapement and objectives in the Chignik Management Area, by district and year, 1980 through 2012.

			District ^b							
Year ^a	Chignik Bay	Central	Eastern	Western	Perryville	Total				
1980	3,000	99,400	425,500	139,500	74,800	742,200				
1981	1,400	76,500	154,700	249,300	116,000	597,900				
1982	2,400	26,100	301,500	45,900	13,400	389,300				
1983	1,000	11,000	46,300	36,000	64,500	158,800				
1984	123,200	94,000	486,500	188,000	109,800	1,001,500				
1985	ND	7,400	212,100	67,500	235,200	522,200				
1986	ND	121,900	580,700	43,800	180,500	926,900				
1987	ND	65,700	215,600	38,300	65,700	385,300				
1988	22,400	216,400	1,005,400	232,400	181,300	1,657,900				
1989	13,500	215,000	881,000	57,900	267,400	1,434,800				
1990	6,000	131,900	811,400	44,300	88,400	1,082,000				
1991	12,200	201,100	125,000	96,800	343,500	778,600				
1992	55,800	223,800	1,318,100	38,800	190,400	1,826,900				
1993	2,000	160,900	524,700	45,800	448,400	1,181,800				
1994	75,800	178,900	863,300	111,600	153,900	1,383,500				
1995	180,500	715,500	1,399,300	554,700	582,100	3,432,100				
1996	43,100	237,100	1,059,600	220,800	395,700	1,956,300				
1997	59,400	594,600	1,287,700	306,300	221,500	2,469,500				
1998	24,400	210,900	1,273,200	150,400	222,800	1,881,700				
1999	37,300	374,300	615,100	137,900	179,700	1,344,300				
2000	27,400	146,100	810,700	130,100	98,700	1,213,000				
2001	19,700	460,400	1,470,200	263,000	150,200	2,363,500				
2002	16,917	85,755	777,710	85,501	62,170	1,028,053				
2003	143,897	576,510	1,408,060	117,650	99,500	2,345,617				
2004	27,300	257,000	601,900	94,340	134,320	1,114,860				
2005	160,000	473,400	512,350	257,500	188,600	1,591,850				
2006	27,401	36,175	195,950	31,800	83,500	374,826				
2007	62,464	291,800	565,800	113,000	184,000	1,217,064				
2008	69,841	117,650	402,880	99,460	173,200	863,031				
2009	28,973	130,700	462,840	130,100	116,450	869,063				
2010	8,020	52,650	228,500	22,000	19,400	330,570				
2011	32,348	223,500	504,000	86,650	139,750	986,248				
2012	11,849	63,950	155,500	35,700	35,700	302,699				
Even Year SE	G					200,000 to 600,000				
Averages						,				
1992–11	55,128	277,382	814,095	149,870	192,215	1,488,689				
2002–11	57,716	224,514	565,999	103,800	120,089	1,072,118				
2007–11	40,329	163,260	432,804	90,242	126,560	853,195				
	Even Year Averages									
1992–10	37,598	154,603	753,184	98,480	153,409	1,197,274				
2002-10	29,896	109,846	441,388	66,620	94,518	742,268				
2006-10	35,087	68,825	275,777	51,087	92,033	522,809				

^a From 1984 to 2003 aerial survey escapement estimates were computed by area-under-the-curve methods using a 15.0-day average stream life (Johnson and Barrett 1988). Starting in 2004, estimates were computed using peak counts (Witteveen et al. 2005).

b All estimates were via aerial survey, with the exception of Chignik River, which was included in the Chignik Bay District estimate.

Table 11.—Estimated chum salmon escapement and objectives in the Chignik Management Area, by district and year, 1980 through 2012.

			District ^b			
Year ^a	Chignik Bay	Central	Eastern	Western	Perryville	Total
1980	300	34,200	107,000	56,500	29,100	227,100
1981	500	26,100	126,000	70,300	19,300	242,200
1982	1,400	49,400	145,400	35,400	23,600	255,200
1983	100	17,000	50,200	20,100	8,200	95,600
1984	300	35,400	214,700	73,800	46,000	370,200
1985	0	9,600	4,900	34,600	12,900	62,000
1986	0	31,000	8,500	5,300	7,700	52,500
1987	100	17,500	38,300	19,700	9,800	85,400
1988	15,300	55,800	221,900	27,400	41,400	361,800
1989	4,200	34,700	74,300	7,400	15,900	136,500
1990	1,500	28,000	139,700	28,800	55,800	253,800
1991	0	18,000	70,400	38,100	343,200	469,700
1992	100	173,100	306,900	53,300	40,300	573,700
1993	300	39,400	135,200	14,000	66,800	255,700
1994	1,500	102,600	129,200	23,000	126,000	382,300
1995	10,300	44,500	112,800	45,700	134,600	347,900
1996	16,400	45,100	130,500	44,500	132,000	368,500
1997	18,500	65,700	290,000	60,500	152,800	587,500
1998	4,500	32,000	97,700	30,600	214,500	379,300
1999	2,300	32,400	167,100	16,300	117,300	335,400
2000	100	22,700	216,000	12,700	51,900	303,400
2001	4,100	36,500	406,900	35,500	67,800	550,800
2002	67	11,615	174,850	17,082	32,020	235,634
2003	899	43,191	152,854	39,050	64,331	300,325
2004	376	30,310	277,240	3,100	38,492	349,518
2005	30,000	159,100	36,350	22,000	61,250	308,700
2006	1,099	3,450	53,940	6,000	29,000	93,489
2007	6,118	25,200	58,000	26,500	122,280	238,098
2008	17,624	17,850	57,120	21,240	83,425	197,259
2009	10,809	20,550	138,900	9,200	35,500	214,959
2010	1,095	17,000	60,525	19,400	79,200	177,220
2011	4,145	32,500	177,000	9,000	55,500	278,145
2012	1,173	35,000	103,000	25,500	46,300	210,973
Area Manag		·	·	,	,	57,400
Averages						
1992–11	6,517	47,738	158,954	25,434	85,250	323,892
2002-11	7,223	36,077	118,678	17,257	60,100	239,335
2007-11	7,958	22,620	98,309	17,068	75,181	221,136

^a From 1984 to 2003 aerial survey escapement estimates were computed by area-under-the-curve methods using a 15.0-day average stream life (Johnson and Barrett 1988). Starting in 2004, estimates were computed using peak counts (Witteveen et al. 2005).

^b All estimates were via aerial survey, with the exception of Chignik River, which was included in the Chignik Bay District estimate.

Table 12.—Total commercial salmon harvests, including home pack and the department's test fishery harvests, from the Chignik Management Area by species and year, 1980 through 2012.

	Permits Making	<u>_</u>	Chignik Management Area Harvest					
Year	Deliveries	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1980	104	3,134	2,344	859,966	119,573	1,093,184	252,521	2,327,588
1981	105	4,222	2,694	1,839,469	78,805	1,162,613	580,332	3,663,913
1982	103	3,606	5,236	1,521,686	300,273	873,384	390,096	3,090,675
1983	102	4,357	5,488	1,824,175	61,927	321,178	159,412	2,372,180
1984	100	3,927	4,318	2,660,619	110,128	444,804	63,303	3,283,172
1985	107	3,392	1,887	921,502	191,162	160,128	22,805	1,297,484
1986	102	4,178	3,037	1,645,834	116,633	647,125	176,640	2,589,269
1987	104	3,856	2,651	1,898,838	150,414	246,775	127,261	2,425,939
1988	102	3,895	7,296	795,841	370,420	2,997,159	267,775	4,438,491
1989	101	3,183	3,542	1,159,287	68,233	27,712	1,624	1,260,398
1990	102	5,405	9,901	2,093,650	130,131	550,008	270,004	3,053,694
1991	103	3,856	3,157	1,895,665	165,625	1,169,248	261,096	3,494,791
1992	102	4,172	10,832	1,277,449	310,943	1,554,073	222,134	3,375,431
1993	103	4,241	19,515	1,697,351	229,459	1,648,377	122,360	3,717,062
1994	100	3,707	3,919	1,618,973	237,204	431,063	227,276	2,518,435
1995	101	5,113	5,493	1,724,045	281,518	2,057,998	380,954	4,450,008
1996	101	4,565	3,145	1,958,393	193,246	189,068	120,891	2,464,743
1997	100	3,394	3,120	770,347	90,908	844,431	155,905	1,864,711
1998	86	3,348	4,503	1,054,439	129,539	776,988	128,996	2,094,465
1999	91	4,382	3,507	3,116,527	89,610	1,698,651	140,597	5,048,892
2000	100	3,268	2,612	1,775,225	123,222	428,064	120,957	2,450,080
2001	93	2,906	2,939	1,511,587	131,448	1,281,767	199,003	3,126,744
2002	42	2,432	1,521	1,050,553	49,372	66,050	54,559	1,222,055
2003	44	2,073	3,068	1,100,297	103,896	502,638	64,044	1,773,943
2004	33	1,346	2,520	704,652	37	2,380	505	710,094
2005	97	1,669	3,408	1,152,133	6,956	194,045	8,821	1,365,363
2006	49	2,066	2,256	902,709	39,221	383,574	61,630	1,389,390
2007	56	2,101	1,773	834,547	73,277	2,019,748	78,553	3,007,898
2008	55	2,217	970	687,270	161,536	2,389,958	209,325	3,449,059
2009	56	2,172	3,319	1,198,105	110,373	1,408,339	256,425	2,976,561
2010	66	2,532	10,380	1,379,785	159,198	489,781	581,329	2,620,473
2011	65	2,617	6,586	2,497,004	76,792	905,166	269,503	3,755,051
2012	71	2,915	3,687	1,800,121	33,316	137,706	171,112	2,145,942
Averages								
1992–11	77	3,016	4,769	1,400,570	129,888	963,608	170,188	2,669,023
2002-11	56	2,123	3,580	1,150,706	78,066	836,168	158,469	2,226,989
2007-11	60	2,328	4,606	1,319,342	116,235	1,442,598	279,027	3,161,808

	Test Fish		Commercial Catch		Home Pack		Total	
Year	Number	Pounds	Number	Pounds	Number	Pounds ^a	Number	Pounds
1980	ND	ND	2,344	32,255	ND	ND	2,344	32,255
1981	ND	ND	2,694	50,832	ND	ND	2,694	50,832
1982	ND	ND	5,236	59,753	ND	ND	5,236	59,753
1983	ND	ND	5,488	96,159	ND	ND	5,488	96,159
1984	ND	ND	4,318	99,567	ND	ND	4,318	99,567
1985	10	249	1,877	44,625	ND	ND	1,887	44,874
1986	ND	ND	3,037	66,772	ND	ND	3,037	66,772
1987	0	0	2,651	49,482	ND	ND	2,651	49,482
1988	0	0	7,296	128,880	ND	ND	7,296	128,880
1989	0	0	3,542	76,698	ND	ND	3,542	76,698
1990	0	0	9,901	134,265	ND	ND	9,901	134,265
1991	3	37	3,154	66,666	ND	ND	3,157	66,703
1992	2	8	10,830	138,082	ND	ND	10,832	138,090
1993	14	65	19,501	234,188	ND	ND	19,515	234,253
1994	16	245	3,903	71,620	ND	ND	3,919	71,865
1995	0	0	5,261	111,187	232	4,903	5,493	116,090
1996	0	0	3,105	62,603	40	806	3,145	63,409
1997	7	149	3,025	47,075	88	1,369	3,120	48,593
1998	21	450	4,374	66,080	108	1,632	4,503	68,162
1999	0	0	3,296	56,706	211	3,630	3,507	60,336
2000	0	0	2,592	34,757	20	268	2,612	35,025
2001	4	120	2,845	39,252	90	1,242	2,939	40,614
2002	3	25	1,441	13,725	77	733	1,521	14,483
2003	2	13	2,757	39,716	309	4,451	3,068	44,180
2004	4	57	2,337	43,652	179	3,343	2,520	47,052
2005	1	23	3,137	55,638	271	6,157	3,409	61,818
2006	1	21	2,187	38,015	68	1,536	2,256	39,572
2007	11	228	1,746	29,745	16	308	1,773	30,281
2008	0	0	955	14,463	15	227	970	14,690
2009	0	0	3,244	30,791	75	1,166	3,319	31,957
2010	0	0	10,262	102,684	118	1,708	10,380	104,392
2011	4	45	6,440	72,305	142	2,486	6,586	74,836
2012	0	0	3,636	48,850	51	1,053	3,687	49,903
Averages								
1992-11	5	72	4,662	65,114	121	2,116	4,769	66,985
2002-11	3	41	3,451	44,073	127	2,212	3,580	46,326
2007-11	3	55	4,529	49,998	73	1,179	4,606	51,231

Weights of home pack fish are not reported on fish tickets; therefore, they were calculated from the average weight of the commercial harvest.

Table 14.-Chignik Management Area Chinook salmon harvest (including home pack and the department's test fishery catches), by district and year, 1980 through 2012.

			District			
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total
1980	929	148	169	739	359	2,344
1981	2,006	302	188	99	99	2,694
1982	3,269	41	38	1,354	534	5,236
1983	3,560	161	260	1,390	117	5,488
1984	3,696	63	72	487	0	4,318
1985	1,809	50	7	21	0	1,887
1986	2,592	58	14	350	23	3,037
1987	1,931	60	6	512	142	2,651
1988	4,331	1,094	190	1,216	465	7,296
1989	3,532	9	1	0	0	3,542
1990	3,719	2,175	175	3,190	642	9,901
1991	1,996	775	165	197	24	3,157
1992	3,181	2,010	181	4,300	1,160	10,832
1993	5,240	6,865	2,568	3,113	1,729	19,515
1994	1,808	1,303	43	452	313	3,919
1995	3,219	845	108	897	424	5,493
1996	1,590	1,022	263	162	108	3,145
1997	1,384	1,609	60	60	7	3,120
1998	1,805	1,798	79	567	254	4,503
1999	2,270	852	147	216	22	3,507
2000	598	530	53	1,421	10	2,612
2001	1,235	770	302	627	5	2,939
2002	920	17	0	584	0	1,521
2003	2,834	189	0	45	0	3,068
2004	2,520	0	0	0	0	2,520
2005	2,714	391	0	297	6	3,408
2006	2,009	165	3	79	0	2,256
2007	667	421	152	532	1	1,773
2008	219	195	16	503	37	970
2009	552	552	199	1,987	29	3,319
2010	1,564	2,420	834	5,476	86	10,380
2011	1,462	2,154	639	2,118	213	6,586
2012	330	1,878	185	1,284	10	3,687
Averages						
1992–11	1,890	1,205	282	1,172	220	4,769
2002-11	1,546	650	184	1,162	37	3,580
2007-11	893	1,148	368	2,123	73	4,606

Table 15.–Chignik Management Area Chinook salmon harvest (including home pack and the department's test fishery catches), by district and day, 2012.

Doto	Chianile Day	Control	District	Wastam	Down 2222110	T-4-1
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
6/4	0	Closed	Closed	Closed	Closed	0
6/5	Closed	Closed	Closed	Closed	Closed	Closed
6/6	Closed	Closed	Closed	Closed	Closed	Closed
6/7	0	Closed	Closed	Closed	Closed	0
6/8	0	2	0	Closed	Closed	2
6/9	0	19	5	Closed	Closed	24
6/10	1	18	0	Closed	Closed	19
6/11	18	0	7	Closed	Closed	25
6/12	2	10	0	172	Closed	184
6/13	0	2	0	52	Closed	54
6/14	21	82	30	63	Closed	196
6/15	Closed	Closed	Closed	Closed	Closed	Closed
6/16	0	38	6	Closed	Closed	44
6/17	0	57	10	Closed	Closed	67
6/18	2	68	5	Closed	Closed	75
6/19	0	34	35	23	Closed	92
6/20	0	14	8	67	Closed	89
6/21	0	49	6	160	Closed	215
6/22	2	57	0	34	Closed	93
6/23	0	39	0	Closed	Closed	39
6/24	0	26	0	Closed	Closed	26
6/25	1	8	11	10	Closed	30
6/26	1	35	0	Closed	Closed	36
6/27	2	25	2	Closed	Closed	29
6/28	8	35	0	Closed	Closed	43
6/29	5	19	10	Closed	Closed	34
6/30	7	15	Closed	Closed	Closed	22
7/1	8	35	Closed	Closed	Closed	43
7/2	9	0	Closed	Closed	Closed	ç
7/3	4	40	Closed	Closed	Closed	44
7/4	3	25	Closed	Closed	Closed	28
7/5	4	59	Closed	Closed	Closed	63
7/6	17	36	Closed	Closed	Closed	53
7/7	14	26	Closed	Closed	Closed	40
7/8	10	16	Closed	Closed	Closed	26
7/9	43	18	Closed	Closed	Closed	61
7/10	7	6	Closed	Closed	Closed	13
7/11	Closed	Closed	Closed	Closed	Closed	Closed
7/12	Closed	Closed	Closed	Closed	Closed	Closed
7/13	15	65	0	31	0	111
7/14	15	10	4	0	0	29
7/15	14	109	0	67	0	190
7/16	Closed	Closed	Closed	Closed	Closed	Closed

Table 15.–Page 2 of 3.

			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
7/17	12	113	Closed	Closed	Closed	125
7/18	14	30	Closed	Closed	Closed	44
7/19	8	240	Closed	Closed	Closed	248
7/20	5	88	Closed	Closed	Closed	93
7/21	11	95	Closed	Closed	Closed	106
7/22	16	41	Closed	Closed	Closed	57
7/23	5	24	0	141	0	170
7/24	10	41	37	60	0	148
7/25	Closed	Closed	Closed	Closed	Closed	Closed
7/26	Closed	Closed	Closed	Closed	Closed	Closed
7/27	Closed	Closed	Closed	Closed	Closed	Closed
7/28	Closed	Closed	Closed	Closed	Closed	Closed
7/29	5	14	Closed	Closed	Closed	19
7/30	1	20	0	40	0	61
7/31	2	6	7	0	0	15
8/1	1	10	2	90	0	103
8/2	Closed	Closed	Closed	Closed	Closed	Closed
8/3	1	0	Closed	0	0	1
8/4	0	8	Closed	8	0	16
8/5	1	2	Closed	2	0	5
8/6	0	0	Closed	Closed	Closed	0
8/7	0	0	Closed	35	Closed	35
8/8	0	20	Closed	5	0	25
8/9	1	6	Closed	28	0	35
8/10	0	10	Closed	20	0	30
8/11	3	10	Closed	6	0	19
8/12	0	0	Closed	1	0	1
8/13	0	0	Closed	69	0	69
8/14	0	0	Closed	0	0	0
8/15	0	0	Closed	57	0	57
8/16	1	0	Closed	13	0	14
8/17	0	3	Closed	23	0	26
8/18	0	0	Closed	0	10	10
8/19	0	0	Closed	7	0	7
8/20	0	0	Closed	0	0	0
8/21	0	0	Closed	0	0	0
8/22	0	0	Closed	0	0	0
8/23	0	0	Closed	0	0	0
8/24	0	0	Closed	0	0	0
8/25	0	0	Closed	0	0	0
8/26	0	0	Closed	0	0	0
8/27	0	0	Closed	0	0	0
8/28	0	0	Closed	0	0	0

Table 15.–Page 3 of 3.

			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
8/29	0	0	Closed	0	0	0
8/30	0	0	Closed	0	0	0
8/31	0	0	Closed	0	0	0
9/1	0	0	Closed	0	0	0
9/2	0	0	Closed	0	0	0
9/3	0	0	Closed	0	0	0
9/4	0	0	Closed	0	0	0
9/5	0	0	Closed	0	0	0
9/6	0	0	Closed	0	0	0
9/7						
Total	330	1,878	185	1,284	10	3,687

Table 16.—Total harvest of sockeye salmon considered by regulation to be Chignik-bound in the Chignik, Cape Igvak, and Southeastern District Mainland commercial salmon fisheries, 1970 through 2012.

	Test	fish	Commerc	cial Catch	Home	e Pack	Total CM.	A Harvest	Cape	Igvak ^a	SEI	OM ^b	Total Chig	gnik-Bound
Year	Number	Pounds	Number	Pounds	Number	Pounds c	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
1970	ND	ND	1,325,734	9,210,127	ND	ND	1,325,734	9,210,127	ND	ND	ND	ND	1,325,734	9,210,127
1971	ND	ND	1,016,136	7,534,367	ND	ND	1,016,136	7,534,367	ND	ND	ND	ND	1,016,136	7,534,367
1972	ND	ND	378,218	2,863,742	ND	ND	378,218	2,863,742	ND	ND	ND	ND	378,218	2,863,742
1973	ND	ND	870,354	7,023,294	ND	ND	870,354	7,023,294	ND	ND	ND	ND	870,354	7,023,294
1974	ND	ND	662,905	4,756,653	ND	ND	662,905	4,756,653	ND	ND	ND	ND	662,905	4,756,653
1975	ND	ND	399,593	2,773,725	ND	ND	399,593	2,773,725	ND	ND	ND	ND	399,593	2,773,725
1976	ND	ND	1,163,728	8,562,989	ND	ND	1,163,728	8,562,989	ND	ND	ND	ND	1,163,728	8,562,989
1977	ND	ND	1,972,207	17,247,659	ND	ND	1,972,207	17,247,659	ND	ND	ND	ND	1,972,207	17,247,659
1978	ND	ND	1,576,283	12,451,982	ND	ND	1,576,283	12,451,982	225,078	1,583,809	ND	ND	1,801,361	14,035,791
1979	ND	ND	1,049,691	7,862,600	ND	ND	1,049,691	7,862,600	13,950	96,507	ND	ND	1,063,641	7,959,107
1980	ND	ND	859,966	5,795,098	ND	ND	859,966	5,795,098	32	147	63,724	442,601	923,722	6,237,846
1981	ND	ND	1,839,469	13,486,031	ND	ND	1,839,469	13,486,031	282,727	1,876,246	122,198	888,410	2,244,394	16,250,687
1982	ND	ND	1,521,686	11,340,439	ND	ND	1,521,686	11,340,439	166,756	1,162,053	62,789	463,729	1,751,231	12,966,221
1983	ND	ND	1,824,175	11,926,829	ND	ND	1,824,175	11,926,829	318,048	1,926,770	227,392	1,631,668	2,369,615	15,485,267
1984	ND	ND	2,660,619	18,536,287	ND	ND	2,660,619	18,536,287	449,372	2,820,646	423,292	3,053,430	3,533,283	24,410,363
1985	4,875	30,480	916,627	5,415,817	ND	ND	921,502	5,446,297	123,627	637,207	51,421	337,919	1,096,550	6,421,423
1986	ND	ND	1,645,834	11,254,860	ND	ND	1,645,834	11,254,860	188,017	1,153,092	118,006	841,446	1,951,857	13,249,398
1987	679	4,637	1,898,159	13,997,077	ND	ND	1,898,838	14,001,714	321,506	2,146,841	146,886	1,121,094	2,367,230	17,269,649
1988	3,425	24,287	792,416	5,690,165	ND	ND	795,841	5,714,452	10,520	63,641	19,320	140,708	825,681	5,918,801
1989	6,433	46,532	1,152,854	7,922,748	ND	ND	1,159,287	7,969,280	0	0	4,485	32,262	1,163,772	8,001,542
1990	5,522	33,915	2,088,128	13,775,854	ND	ND	2,093,650	13,809,769	107,706	665,309	117,065	783,670	2,318,421	15,258,748
1991	8,106	54,892	1,887,559	12,889,560	ND	ND	1,895,665	12,944,452	324,195	1,886,494	152,714	1,037,726	2,372,574	15,868,672
1992	12,423	80,326	1,265,026	8,292,576	ND	ND	1,277,449	8,372,902	150,434	896,108	93,845	608,765	1,521,728	9,877,775
1993	5,444	34,231	1,691,907	10,228,401	ND	ND	1,697,351	10,262,632	300,055	1,639,082	128,608	847,879	2,126,014	12,749,593
1994	9,139	54,433	1,609,834	10,091,402	ND	ND	1,618,973	10,145,835	250,230	1,423,150	142,350	934,493	2,011,553	12,503,478
1995	9,023	57,674	1,715,022	11,464,647	0	0	1,724,045	11,522,321	169,530	899,572	89,086	547,563	1,982,661	12,969,456
1996	4,317	36,511	1,954,036	14,866,234	40	304	1,958,393	14,903,049	308,327	1,954,430	127,201	884,305	2,393,921	17,741,784
1997	11,299	77,874	758,384	4,782,715	664	4,187	770,347	4,864,776	0	0	0	0	770,347	4,864,776
1998	12,374	66,040	1,041,798	6,372,010	267	1,633	1,054,439	6,439,683	8,813	39,133	66,893	408,902	1,130,145	6,887,718
1999	5,994	42,216	3,110,507	20,527,837	26	172	3,116,527	20,570,225	456,039	2,469,213	173,621	1,086,186	3,746,187	24,125,624
2000	11,604	88,790	1,763,621	13,577,434	0	0	1,775,225	13,666,224	271,344	1,703,875	103,419	737,462	2,149,988	16,107,561

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Table 16.—Page 2 of 2.

-	Test	fish	Commerc	ial Catch	Home	e Pack	Total CM A	Harvest	Cap	e Igva	ak ^a	SEDI	M ^b	Total Chigni	k-Bound
Year	Number	Pounds	Number	Pounds	Number	Pounds c	Number	Pounds	Nun	nber	Pounds	Number	Pounds	Number	Pounds
2001 ^d	14,011	98,197	1,497,359	10,972,234	217	1,590	1,511,587	11,072,021	215	,214	1,287,154	51,141	368,970	1,777,942	12,728,145
2002	9,101	61,656	1,040,081	7,176,261	1,371	9,460	1,050,553	7,247,377	136	,488	727,894	63,026	502,353	1,250,067	8,477,624
2003	5,582	36,334	1,092,304	7,137,591	2,411	15,755	1,100,297	7,189,680	121	,887	599,342	70,044	466,153	1,292,228	8,255,175
2004	5,919	38,317	697,043	4,460,437	1,690	10,998	704,652	4,509,752	160	,665	781,265	55,123	355,703	920,440	5,291,017
2005	7,076	43,988	1,143,693	7,468,609	1,364	8,702	1,152,133	7,521,299	274	,328	1,681,630	170,662	1,088,207	1,597,123	10,291,136
2006	6,641	42,420	895,801	5,804,939	267	1,625	902,709	5,848,984	41	,834	266,483	62,010	398,724	1,006,553	6,514,191
2007	5,152	38,112	829,110	5,769,736	285	1,346	834,547	5,809,194	52	,527	325,619	0	0	887,074	6,134,813
2008	5,166	35,271	682,104	4,734,436	0	0	687,270	4,769,707		0	0	0	0	687,270	4,769,707
2009	1,687	12,833	1,196,325	8,248,669	93	631	1,198,105	8,262,133	126	,968	811,617	48,322	314,210	1,373,395	9,387,960
2010	6,545	34,237	1,372,267	8,940,207	973	6,490	1,379,785	8,980,934	185	,193	1,035,324	85,267	559,226	1,650,245	10,575,484
2011	6,556	48,184	2,490,125	17,841,056	323	1,977	2,497,004	17,891,217	494	,538	3,224,966	156,637	1,123,768	3,148,179	22,239,951
2012	2,089	15,102	1,797,519	12,247,564	513	3,564	1,800,121	12,266,230	324	,895	1,884,391	126,083	838,838	2,251,099	14,989,459
Averages															
1992-11	7,753	51,382	1,392,317	9,437,872	-	-	1,400,570	9,492,497	186	,221	1,088,293	84,363	561,643	1,671,153	11,124,648
2002-11	5,943	39,135	1,143,885	7,758,194	878	5,698	1,150,706	7,803,028	159	,443	945,414	71,109	480,834	1,381,257	9,193,706
2007-11	5,021	33,727	1,313,986	9,106,821	335	2,089	1,319,342	9,142,637	171	,845	1,079,505	58,045	399,441	1,549,233	10,621,583

^a The Cape Igvak allocation began in 1978. From 1978 to 2002, 80% of the Cape Igvak sockeye salmon harvest was considered Chignik River-bound. Beginning in 2002, that percentage was changed to 90%.

^b Beginning in 1980, 80% of the SEDM harvest in specific areas during specific times was considered Chignik River-bound.

^c Weights of home pack are not reported on fish tickets; therefore, the weights were calculated from the average weight of the commercial harvest for that year.

^d Due to a strike by Alaska Peninsula fishermen, foregone harvest of 27,896 sockeye salmon was added to the SEDM catch for management purposes; this foregone harvest is not included in this table.

Table 17.—Total annual Chignik Management Area sockeye salmon harvest (including home pack and the department's test fishery catches), by district, 1980 through 2012.

			District			
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total
1980	708,828	74,628	60,947	9,227	6,336	859,966
1981	1,355,524	426,159	36,618	14,751	6,417	1,839,469
1982	1,413,806	66,278	10,209	30,279	1,114	1,521,686
1983	1,597,059	123,590	73,824	25,246	4,456	1,824,175
1984	1,942,822	517,653	184,495	15,470	179	2,660,619
1985	811,956	77,314	18,720	13,175	337	921,502
1986	1,389,172	182,884	6,424	44,362	22,992	1,645,834
1987	1,559,757	255,118	14,498	56,524	12,941	1,898,838
1988	529,540	124,103	25,699	93,070	23,429	795,841
1989	1,156,782	2,473	32	0	0	1,159,287
1990	1,400,069	566,601	51,443	53,192	22,345	2,093,650
1991	1,487,421	315,570	59,751	19,766	13,157	1,895,665
1992	792,889	332,860	12,327	30,004	109,369	1,277,449
1993	762,730	557,020	186,364	54,051	137,186	1,697,351
1994	908,042	573,484	20,041	64,325	53,081	1,618,973
1995	1,083,707	415,436	48,842	79,874	96,186	1,724,045
1996	1,003,683	743,658	145,668	47,529	17,855	1,958,393
1997	407,427	295,084	20,650	44,768	2,418	770,347
1998	622,005	286,643	30,555	87,940	27,296	1,054,439
1999	2,356,146	612,589	79,717	57,859	10,216	3,116,527
2000	1,327,249	358,985	71,572	15,034	2,385	1,775,225
2001	1,082,291	382,172	28,377	17,673	1,074	1,511,587
2002	993,756	44,368	2,835	9,425	169	1,050,553
2003	1,000,247	64,440	1,701	29,069	4,840	1,100,297
2004	704,471	181	0	0	0	704,652
2005	1,039,076	84,879	2	27,927	249	1,152,133
2006	726,749	103,272	3,118	69,570	0	902,709
2007	545,438	138,922	29,882	119,489	816	834,547
2008	527,026	83,111	2,279	68,257	6,597	687,270
2009	869,906	191,611	29,900	102,803	3,885	1,198,105
2010	846,823	371,090	102,587	56,736	2,549	1,379,785
2011	1,649,846	670,348	113,760	40,252	22,798	2,497,004
2012	1,122,595	522,184	61,922	93,270	150	1,800,121
Averages						
1992–11	962,475	315,508	46,509	51,129	24,948	1,400,570
2002-11	890,334	175,222	28,606	52,353	4,190	1,150,706
2007-11	887,808	291,016	55,682	77,507	7,329	1,319,342

Table 18.—Chignik Management Area sockeye salmon harvest (including home pack and the department's test fishery catches), by district and day, 2012.

	•	•				
			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
6/4	547	Closed	Closed	Closed	Closed	547
6/5	Closed	Closed	Closed	Closed	Closed	Closed
6/6	Closed	Closed	Closed	Closed	Closed	Closed
6/7	1,542	Closed	Closed	Closed	Closed	1,542
6/8	12,879	1,001	0	Closed	Closed	13,880
6/9	14,586	8,230	673	Closed	Closed	23,489
6/10	20,924	5,238	0	Closed	Closed	26,162
6/11	12,765	0	1,287	Closed	Closed	14,052
6/12	8,406	1,796	0	10,980	Closed	21,182
6/13	10,856	731	0	1,036	Closed	12,623
6/14	13,431	6,994	1,614	2,725	Closed	24,764
6/15	Closed	Closed	Closed	Closed	Closed	Closed
6/16	37,524	19,425	2,051	Closed	Closed	59,000
6/17	32,924	18,496	6,094	Closed	Closed	57,514
6/18	34,545	29,191	1,968	Closed	Closed	65,704
6/19	35,808	13,838	12,672	6,370	Closed	68,688
6/20	34,435	7,907	7,089	20,958	Closed	70,389
6/21	28,303	7,453	1,906	31,309	Closed	68,971
6/22	51,447	11,394	0	5,537	Closed	68,378
6/23	26,170	15,311	0	Closed	Closed	41,481
6/24	21,152	11,169	0	Closed	Closed	32,321
6/25	12,017	5,981	3,411	749	Closed	22,158
6/26	11,124	9,849	0	Closed	Closed	20,973
6/27	10,972	9,477	4,630	Closed	Closed	25,079
6/28	11,449	7,398	2,288	Closed	Closed	21,135
6/29	13,043	11,053	13,911	Closed	Closed	38,007
6/30	23,885	10,987	Closed	Closed	Closed	34,872
7/1	19,677	26,398	Closed	Closed	Closed	46,075
7/2	20,042	4,242	Closed	Closed	Closed	24,284
7/3	24,766	17,727	Closed	Closed	Closed	42,493
7/4	20,484	23,830	Closed	Closed	Closed	44,314
7/5	22,058	12,743	Closed	Closed	Closed	34,801
7/6	26,245	16,545	Closed	Closed	Closed	42,790
7/7	25,201	11,366	Closed	Closed	Closed	36,567
7/8	26,827	19,566	Closed	Closed	Closed	46,393
7/9	29,124	12,771	Closed	Closed	Closed	41,895
7/10	24,033	13,684	Closed	Closed	Closed	37,717
7/11	Closed	Closed	Closed	Closed	Closed	Closed
7/12	Closed	Closed	Closed	Closed	Closed	Closed
7/13	45,222	10,959	0	2,935	0	59,116
7/14	24,395	3,826	1,163	0	0	29,384
7/15	32,036	26,287	0	1,236	0	59,559
7/16	Closed	Closed	Closed	Closed	Closed	Closed

Table 18.–Page 2 of 3.

			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
7/17	40,047	27,108	Closed	Closed	Closed	67,155
7/18	29,299	8,458	Closed	Closed	Closed	37,757
7/19	18,310	18,911	Closed	Closed	Closed	37,221
7/20	20,870	12,586	Closed	Closed	Closed	33,456
7/21	19,943	9,728	Closed	Closed	Closed	29,671
7/22	15,307	8,858	Closed	Closed	Closed	24,165
7/23	11,558	2,949	0	719	0	15,226
7/24	13,208	4,185	866	1,610	0	19,869
7/25	Closed	Closed	Closed	Closed	Closed	Closed
7/26	Closed	Closed	Closed	Closed	Closed	Closed
7/27	Closed	Closed	Closed	Closed	Closed	Closed
7/28	Closed	Closed	Closed	Closed	Closed	Closed
7/29	15,346	613	Closed	Closed	Closed	15,959
7/30	10,234	6,466	25	1,337	0	18,062
7/31	8,290	3,451	0	0	0	11,741
8/1	4,870	2,179	274	332	68	7,723
8/2	Closed	Closed	Closed	Closed	Closed	Closed
8/3	4,833	0	Closed	0	0	4,833
8/4	6,270	1,983	Closed	500	0	8,753
8/5	5,637	281	Closed	241	0	6,159
8/6	6,217	0	Closed	Closed	Closed	6,217
8/7	5,952	0	Closed	196	Closed	6,148
8/8	6,534	308	Closed	321	0	7,163
8/9	4,287	680	Closed	776	0	5,743
8/10	2,955	154	Closed	621	0	3,730
8/11	3,772	353	Closed	807	0	4,932
8/12	2,321	0	Closed	91	0	2,412
8/13	2,486	0	Closed	440	0	2,926
8/14	1,490	0	Closed	0	0	1,490
8/15	2,480	0	Closed	615	0	3,095
8/16	5,333	0	Closed	94	0	5,427
8/17	4,080	51	Closed	470	0	4,601
8/18	3,428	0	Closed	0	82	3,510
8/19	2,029	0	Closed	247	0	2,276
8/20	3,099	19	Closed	18	0	3,136
8/21	2,317	0	Closed	0	0	2,317
8/22	1,575	0	Closed	0	0	1,575
8/23	2,990	0	Closed	0	0	2,990
8/24	0	0	Closed	0	0	_,,,,(
8/25	1,703	0	Closed	0	0	1,703
8/26	0	0	Closed	0	0	1,700
8/27	2,005	0	Closed	0	0	2,005
8/28	1,934	0	Closed	0	0	1,934

Table 18.–Page 3 of 3.

			District					
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total		
8/29	2,958	0	Closed	0	0	2,958		
8/30	658	0	Closed	0	0	658		
8/31	1,346	0	Closed	0	0	1,346		
9/1	0	0	Closed	0	0	0		
9/2	2,569	0	Closed	0	0	2,569		
9/3	0	0	Closed	0	0	0		
9/4	0	0	Closed	0	0	0		
9/5	0	0	Closed	0	0	0		
9/6	1,211	0	Closed	0	0	1,211		
9/7		- Processors Closed for Season -						
Total	1,122,595	522,184	61,922	93,270	150	1,800,121		

Table 19.—Harvest of sockeye salmon considered by regulation to be Chignik-bound in the Chignik, Cape Igvak, and Southeastern District Mainland commercial salmon fisheries from June 1 through July 25, 1978–2012.

	Chignik	1	Cape Igva	ık ^a	Southeastern Mainland		
Year	Catch b	Percent	Catch b	Percent	Catch ^c	Percent	Total
1978	1,454,389	86.6	225,078	13.4	ND	ND	1,679,467
1979	794,504	98.3	13,950	1.7	ND	ND	808,454
1980	670,001	91.3	32	0.0	63,724	8.7	733,757
1981	1,606,300	79.9	282,727	14.1	122,198	6.1	2,011,225
1982	1,250,768	84.5	166,756	11.3	62,789	4.2	1,480,313
1983	1,450,832	72.7	318,048	15.9	227,392	11.4	1,996,272
1984	2,474,405	73.9	449,372	13.4	423,292	12.6	3,347,069
1985	690,698	79.8	123,627	14.3	51,421	5.9	865,746
1986	1,456,729	82.6	188,017	10.7	118,006	6.7	1,762,752
1987	1,659,236	78.0	321,506	15.1	146,886	6.9	2,127,628
1988	675,487	95.8	10,520	1.5	19,320	2.7	705,327
1989	496,044	99.1	0	0.0	4,485	0.9	500,529
1990	1,205,575	84.3	107,706	7.5	117,065	8.2	1,430,346
1991 ^d	1,962,583	80.5	324,195	13.3	152,714	6.3	2,439,492
1992	1,054,309	81.2	150,434	11.6	93,845	7.2	1,298,588
1993	1,495,098	77.7	300,055	15.6	128,608	6.7	1,923,761
1994 ^e	1,632,435	80.6	250,230	12.4	142,350	7.0	2,025,015
1995	1,024,785	79.8	169,530	13.2	89,086	6.9	1,283,401
1996	1,710,249	79.7	308,327	14.4	127,201	5.9	2,145,777
1997	443,892	100.0	0	0.0	0	0.0	443,892
1998 ^f	786,466	91.2	8,813	1.0	66,893	7.8	862,172
1999	2,326,811	78.7	456,039	15.4	173,621	5.9	2,956,471
2000	1,509,652	80.1	271,344	14.4	103,419	5.5	1,884,415
2001 ^g	1,134,991	79.4	215,214	15.1	79,037	5.5	1,429,242
2002	849,980	81.0	136,488	13.0	63,026	6.0	1,049,494
2003	855,179	81.7	121,887	11.6	70,044	6.7	1,047,110
2004	681,120	75.9	160,665	17.9	55,123	6.1	896,908
2005	1,098,718	70.8	274,328	17.7	177,906	11.5	1,550,952
2006	741,887	87.7	41,834	4.9	62,010	7.3	845,731
2007	601,213	92.0	52,527	8.0	0	0.0	653,740
2008	445,199	100.0	0	0.0	0	0.0	445,199
2009	871,890	83.3	126,968	12.1	48,322	5.5	1,047,180
2010	1,125,135	80.6	185,193	13.3	85,267	7.6	1,395,595

Table 19.–Page 2 of 2.

	Southeastern District						
	Chignik ^a		Cape Igva	ık ^a	Mainland	l ^a	
Year	Catch ^b	Percent	Catch b	Percent	Catch c	Percent	Total
2011	2,277,681	77.8	494,538	16.9	156,637	6.9	2,928,856
2012	1,640,517	78.4	324,895	15.5	126,083	7.7	2,091,495
Averages							
1992-11	1,133,335	83.0	186,221	11.4	86,120	5.8	1,405,675
2002-11	954,800	83.1	159,443	11.5	71,834	6	1,186,077
2007-11	1,064,224	87	171,845	10	58,045	4	1,294,114

Through 2001, the Cape Igvak and Southeastern District Mainland figures represent 80% of the total sockeye salmon catch for those areas through July 25, based on the regulations in effect during those years. In 2002 the Alaska Board of Fisheries increased the percentage of sockeye salmon harvest considered Chignik-bound from 80% to 90% in the Cape Igvak fishery. The figures reported in this table are the portion of the catches considered Chignik-bound. These figures do not include Chignik test fishery harvests or fish retained for home pack as they are not included in the allocation scheme.

^b Beginning in 1978 the *Cape Igvak Salmon Management Plan* allocated up to 15% of the total catch of Chignik-bound sockeye salmon to the Cape Igvak fishery.

^c Beginning in 1985 the Southeastern District Mainland was allowed an allocation of 6.2% of the total harvest of Chignik-bound sockeye salmon through July 25. Certain areas (which changed frequently) were excluded from the allocation and managed for local (Orzinski Lake) stocks (see regulations from the individual years). After July 25 the entire Southeast District Mainland was managed based on local stock abundance. The allocation level changed to 6.0% beginning in 1988. Beginning in 1992, the allocation of Chignik-bound sockeye to the Southeastern District Mainland fishery was increased to 7.0%. Prior to the 1996 season, the Alaska Board of Fisheries decreased the allocation from 7.0% to 6.0%. The allocation was increased from 6.0% to 7.6% prior to the 2007 season.

d Includes a foregone harvest of 278,305 sockeye salmon during a Chignik area strike (June 23–July 4).

e Includes a foregone harvest of 208,921 sockeye salmon during a Chignik area strike (June 2–June 25).

f Includes a foregone harvest of 52,131 sockeye salmon during a Chignik area strike (June 16–June 29).

Includes a foregone harvest of 389,887 sockeye salmon in Chignik during a Chignik area strike (June 16–29), and foregone harvest of 27,896 sockeye salmon in the SEDM during a strike on the South Peninsula (June 14–July 2).

Table 20.—Chignik sockeye salmon escapement, total harvest considered Chignik-bound, and total run, 1970 through 2012.

_		Early Run			Late Run			Total Run a,b,c	
Year	Esc.	Harvest	Run	Esc.	Harvest	Run	Esc.	Harvest	Run
1970	536,257	1,566,065	2,102,322	119,952	262,244	382,196	656,209	1,828,309	2,484,518
1971	671,668	555,832	1,227,500	232,501	709,190	941,691	904,169	1,265,022	2,169,191
1972	326,320	43,220	369,540	231,270	386,615	617,885	557,590	429,835	987,425
1973	533,047	610,488	1,143,535	249,144	355,195	604,339	782,191	965,683	1,747,874
1974	351,701	204,722	556,423	326,245	648,283	974,528	677,946	853,005	1,530,951
1975	308,914	7,873	316,787	268,734	417,560	686,294	577,648	425,433	1,003,081
1976	551,254	599,341	1,150,595	279,509	727,043	1,006,552	830,763	1,326,384	2,157,147
1977	482,247	534,198	1,016,445	251,753	1,602,363	1,854,116	734,000	2,136,561	2,870,561
1978	458,660	940,188	1,398,848	223,887	885,173	1,109,060	682,547	1,825,361	2,507,908
1979	385,694	186,537	572,231	352,122	933,788	1,285,910	737,816	1,120,325	1,858,141
1980	311,332	73,742	385,074	352,729	849,980	1,202,709	664,061	923,722	1,587,783
1981	438,540	800,364	1,238,904	392,909	1,444,030	1,836,939	831,449	2,244,394	3,075,843
1982	616,117	1,324,396	1,940,513	221,601	426,835	648,436	837,718	1,751,231	2,588,949
1983	426,177	1,128,246	1,554,423	409,458	1,241,369	1,650,827	835,635	2,369,615	3,205,250
1984	597,712	2,919,984	3,517,696	267,862	613,299	881,161	865,574	3,533,283	4,398,857
1985	376,576	654,431	1,031,007	369,262	442,119	811,381	745,838	1,096,550	1,842,388
1986	566,088	1,364,295	1,930,383	207,231	587,562	794,793	773,319	1,951,857	2,725,176
1987	589,291	1,947,088	2,536,379	214,452	420,142	634,594	803,743	2,367,230	3,170,973
1988	420,577	271,377	691,954	255,180	554,304	809,484	675,757	825,681	1,501,438
1989	384,004	234,237	618,241	557,171	929,535	1,486,706	941,175	1,163,772	2,104,947
1990	434,543	582,520	1,017,063	335,867	1,735,901	2,071,768	770,410	2,318,421	3,088,831
1991	657,511	1,711,549	2,384,420	382,587	661,025	1,028,252	1,040,098	2,372,574	3,412,672
1992	360,681	744,417	1,105,098	405,922	777,311	1,183,233	766,603	1,521,728	2,288,331
1993	364,261	926,892	1,291,153	333,116	1,199,122	1,532,238	697,377	2,126,014	2,823,391
1994	769,462	1,595,176	2,364,638	197,447	416,377	613,824	966,909	2,011,553	2,978,462
1995	366,163	666,799	1,032,962	373,757	1,315,862	1,689,619	739,920	1,982,661	2,722,581
1996	464,461	1,688,264	2,152,725	284,676	705,657	990,333	749,137	2,393,921	3,143,058
1997	396,667	234,824	631,491	378,951	535,523	914,474	775,618	770,347	1,545,965
1998	410,659	313,158	723,817	290,469	816,987	1,107,456	701,128	1,130,145	1,831,273
1999	457,429	2,022,272	2,479,701	258,537	1,723,915	1,982,452	715,966	3,746,187	4,462,153
2000	536,141	1,574,391	2,110,532	269,084	575,597	844,681	805,225	2,149,988	2,955,213
2001	744,013	563,539	1,307,552	392,905	1,214,403	1,607,308	1,136,918	1,777,942	2,914,860
2002	380,701	684,728	1,065,428	343,616	565,339	908,955	724,317	1,250,067	1,974,383
2003	350,004	640,084	990,088	334,119	652,144	986,263	684,123	1,292,228	1,976,351
2004	363,800	727,975	1,091,775	214,459	192,465	406,924	578,259	920,440	1,498,700
2005	355,091	1,109,881	1,464,972	225,366	487,242	712,608	580,457	1,597,123	2,177,580
2006	366,497	436,028	802,525	368,996	570,525	939,521	735,493	1,006,553	1,742,046
2007	361,091	267,805	628,896	293,883	619,269	913,152	654,974	887,074	1,542,048
2008	377,579	253,490	631,069	328,479	433,780	762,259	706,058	687,270	1,393,328
2009	391,476	520,630	912,106	328,586	852,765	1,181,351	720,062	1,373,395	2,093,457
2010	432,535	833,713	1,266,248	311,291	816,532	1,127,823	743,826	1,650,245	2,394,071
2011	488,930	2,594,291	3,083,221	264,887	553,888	818,775	753,817	3,148,179	3,901,996
2012	353,441	1,284,066	1,637,507	358,948	967,281	1,326,229	712,389	2,251,347	2,963,736
Averages									
1992-11	436,882	919,918	1,356,800	309,927	751,235	1,061,162	746,809	1,671,153	2,417,962
2002-11	386,770	806,863	1,193,633	301,368	574,395	875,763	688,139	1,381,257	2,069,396
2007-11	410,322	893,986	1,304,308	305,425	655,247	960,672	715,747	1,549,233	2,264,980

^a Includes Cape Igvak and SEDM harvests considered Chignik-bound as defined in regulation. However, portions of the harvests from Cape Igvak and SEDM from 1970 to 1979 were not considered Chignik-bound by regulation, but were included in this table for comparison purposes.

^b Does not include subsistence-caught fish.

c Includes harvests from the Chignik Lagoon test fishery and fish retained for home pack.

Table 21.–Chignik sockeye salmon forecasts and actual runs, by run and year, 1994 through 2012, in millions of fish.

	E	arly Run]	Late Run		Γ	Total Run		
Year	Forecast	Actual	% Error	Forecast	Actual	% Error	Forecast	Actual	% Error	
1994	1.80	2.36	-23.88	1.30	0.61	111.79	3.10	2.98	4.08	
1995	1.90	1.03	83.88	0.90	1.69	-46.72	2.80	2.72	2.84	
1996	1.40	2.15	-34.97	1.60	0.99	61.61	3.00	3.14	-4.55	
1997	1.00	0.63	58.44	1.60	0.91	75.03	2.60	1.55	68.25	
1998	0.90	0.72	24.36	1.10	1.11	-0.66	2.00	1.83	9.23	
1999	1.05	2.48	-57.66	1.29	1.98	-34.93	2.34	4.46	-47.56	
2000	3.90	2.11	84.66	1.09	0.84	29.04	4.99	2.96	68.77	
2001	1.00	1.31	-23.49	0.91	1.61	-43.38	1.91	2.91	-34.46	
2002	1.03	1.06	-3.24	1.09	0.91	19.85	2.12	1.97	7.40	
2003	1.64	0.99	65.62	1.19	1.00	19.00	2.83	1.99	42.20	
2004	1.26	1.09	15.60	1.08	0.41	163.41	2.34	1.50	56.00	
2005	1.84	1.46	26.03	0.55	0.71	-22.54	2.39	2.17	10.14	
2006	1.21	0.78	55.13	0.28	0.96	-70.83	1.49	1.74	-14.37	
2007	1.02	0.60	71.14	0.90	0.95	-5.24	1.92	1.55	24.21	
2008	1.07	0.60	78.33	0.65	0.79	-17.97	1.72	1.39	23.60	
2009	0.85	0.87	-2.30	0.54	1.23	-56.10	1.39	2.10	-33.81	
2010	1.08	1.20	-10.00	1.11	1.19	-6.72	2.19	2.39	-8.37	
2011	1.30	3.08	-57.82	1.02	0.82	24.39	2.32	3.90	-40.54	
2012	1.08	1.57	-31.21	1.20	1.39	-13.67	2.28	2.96	-22.97	
Averages										
2002-11	1.23	1.17	23.85	0.84	0.90	4.72	2.07	2.07	6.65	
2007-11	1.06	1.27	15.87	0.84	1.00	-12.33	1.91	2.27	-6.98	

Table 22.-Chignik Management Area coho salmon harvest, by year, 1980 through 2012.

	Test	fish	Commerc	ial Catch	Home	Pack	Tot	al
Year	Number	Pounds	Number	Pounds	Number	Pounds ^a	Number	Pounds
1980	ND	ND	119,573	771,392	ND	ND	119,573	771,392
1981	ND	ND	78,805	602,603	ND	ND	78,805	602,603
1982	ND	ND	300,273	2,373,268	ND	ND	300,273	2,373,268
1983	ND	ND	61,927	488,203	ND	ND	61,927	488,203
1984	ND	ND	110,128	949,965	ND	ND	110,128	949,965
1985	0	0	191,162	1,709,637	ND	ND	191,162	1,709,637
1986	ND	ND	116,633	867,195	ND	ND	116,633	867,195
1987	0	0	150,414	1,189,803	ND	ND	150,414	1,189,803
1988	0	0	370,420	2,889,427	ND	ND	370,420	2,889,427
1989	0	0	68,233	559,140	ND	ND	68,233	559,140
1990	0	0	130,131	933,745	ND	ND	130,131	933,745
1991	42	253	165,583	1,182,704	ND	ND	165,625	1,182,957
1992	1	8	310,942	2,362,683	ND	ND	310,943	2,362,691
1993	356	2,024	229,103	1,459,220	ND	ND	229,459	1,461,244
1994	103	506	237,101	1,996,320	ND	ND	237,204	1,996,826
1995	0	0	280,605	2,062,086	913	6,709	281,518	2,068,795
1996	0	0	193,226	1,485,947	20	154	193,246	1,486,101
1997	0	0	90,908	756,509	0	0	90,908	756,509
1998	0	0	129,512	1,045,823	27	218	129,539	1,046,041
1999	0	0	89,410	617,320	200	1,381	89,610	618,701
2000	0	0	123,222	943,536	0	0	123,222	943,536
2001	0	0	131,441	1,012,153	7	54	131,448	1,012,207
2002	0	0	49,208	360,781	164	1,202	49,372	361,983
2003	44	287	103,778	857,097	74	611	103,896	857,995
2004	0	0	37	283	0	0	37	283
2005	0	0	6,951	46,970	5	30	6,956	47,000
2006	0	0	39,046	290,720	175	1,312	39,221	292,032
2007	0	0	73,221	543,761	56	416	73,277	544,177
2008	0	0	161,536	1,290,277	0	0	161,536	1,290,277
2009	0	0	110,373	732,346	0	0	110,373	732,346
2010	0	0	159,198	1,137,878	0	0	159,198	1,137,878
2011	0	0	76,776	519,422	16	147	76,792	519,569
2012	0	0	33,316	225,799	0	0	33,316	225,799
Averages								
1992-11	25	141	129,780	976,057	97	720	129,888	976,810
2002-11	4	29	78,012	577,954	49	372	78,066	578,354
2007-11	0	0	116,221	844,737	14	113	116,235	844,849

^a Weights of home pack fish are not reported on fish tickets; therefore, the weights were calculated from the average weight of the commercial harvest for that year.

Table 23.—Chignik Management Area coho salmon harvest (including home pack and the department's test fishery catches), by district and year, 1980 through 2012.

			District			
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total
1980	49,784	7,167	13,872	34,631	14,119	119,573
1981	35,578	8,693	6,222	22,047	6,265	78,805
1982	132,262	6,564	31,476	122,707	7,264	300,273
1983	29,519	330	441	27,173	4,464	61,927
1984	72,722	1,705	403	33,263	2,035	110,128
1985	156,553	7,111	3,203	23,357	938	191,162
1986	60,197	3,027	1,033	33,726	18,650	116,633
1987	77,333	3,806	7	58,688	10,580	150,414
1988	94,292	21,628	6,167	207,086	41,247	370,420
1989	68,231	2	0	0	0	68,233
1990	61,260	27,659	32	23,422	17,758	130,131
1991	56,574	9,294	1,187	57,373	41,197	165,625
1992	80,946	19,612	4,260	140,560	65,565	310,943
1993	48,808	36,421	4,240	84,056	55,934	229,459
1994	70,541	19,794	176	110,476	36,217	237,204
1995	54,646	46,975	458	88,116	91,323	281,518
1996	45,361	35,440	33	91,587	20,825	193,246
1997	32,847	45,878	1,801	9,139	1,243	90,908
1998	23,070	32,743	1,227	55,359	17,140	129,539
1999	23,144	24,308	3,095	36,405	2,658	89,610
2000	11,620	37,943	2,555	69,599	1,505	123,222
2001	10,007	31,062	2,303	86,580	1,496	131,448
2002	8,461	4,442	0	36,283	186	49,372
2003	37,800	7,632	0	55,225	3,239	103,896
2004	37	0	0	0	0	37
2005	510	730	12	5,045	659	6,956
2006	7,057	2,170	1	29,993	0	39,221
2007	11,790	12,830	420	47,525	712	73,277
2008	46,400	7,647	1,052	97,153	9,284	161,536
2009	9,570	13,276	2,888	80,395	4,244	110,373
2010	17,469	27,982	3,109	104,886	5,752	159,198
2011	1,801	12,915	354	50,504	11,218	76,792
2012	6,545	4,667	36	22,037	31	33,316
Averages						
1992–11	27,094	20,990	1,399	63,944	16,460	129,888
2002-11	14,090	8,962	784	50,701	3,529	78,066
2007–11	17,406	14,930	1,565	76,093	6,242	116,235

Table 24.—Chignik Management Area coho salmon harvest (including home pack and the department's test fishery catches), by district and day, 2012.

			District			
Total	Perryville	Western	Eastern	Central	Chignik Bay	Date
0	Closed	Closed	Closed	Closed	0	6/4
Closed	Closed	Closed	Closed	Closed	Closed	6/5
Closed	Closed	Closed	Closed	Closed	Closed	6/6
0	Closed	Closed	Closed	Closed	0	6/7
0	Closed	Closed	0	0	0	6/8
3	Closed	Closed	0	3	0	6/9
0	Closed	Closed	0	0	0	6/10
0	Closed	Closed	0	0	0	6/11
0	Closed	0	0	0	0	6/12
0	Closed	0	0	0	0	6/13
1	Closed	0	0	0	1	6/14
Closed	Closed	Closed	Closed	Closed	Closed	6/15
0	Closed	Closed	0	0	0	6/16
0	Closed	Closed	0	0	0	6/17
0	Closed	Closed	0	0	0	6/18
1	Closed	0	0	1	0	6/19
0	Closed	0	0	0	0	6/20
0	Closed	0	0	0	0	6/21
0	Closed	0	0	0	0	6/22
0	Closed	Closed	0	0	0	6/23
0	Closed	Closed	0	0	0	6/24
0	Closed	Closed	0	0	0	6/25
0	Closed	Closed	0	0	0	6/26
0	Closed	Closed	0	0	0	6/27
0	Closed	Closed	0	0	0	6/28
0	Closed	Closed	0	0	0	6/29
0	Closed	Closed	0	0	0	6/30
1	Closed	Closed	Closed	1	0	7/1
2	Closed	Closed	Closed	2	0	7/2
22	Closed	Closed	Closed	22	0	7/3
20	Closed	Closed	Closed	20	0	7/4
58	Closed	Closed	Closed	58	0	7/5
18	Closed	Closed	Closed	18	0	7/6
7	Closed	Closed	Closed	7	0	7/7
15	Closed	Closed	Closed	15	0	7/8
8	Closed	Closed	Closed	8	0	7/9
21	Closed	Closed	Closed	20	1	7/10
Closed	Closed	Closed	Closed	Closed	Closed	7/11
Closed	Closed	Closed	Closed	Closed	Closed	7/12
415	0	343	0	67	5	7/13
3	0	0	0	0	3	7/14
1,693	0	1,359	0	329	5	7/15
Closed	Closed	Closed	Closed	Closed	Closed	7/16

Table 24.–Page 2 of 3.

ъ.		G . 1	District	***	D '''	
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
7/17	2	165	Closed	Closed	Closed	167
7/18	0	3	Closed	Closed	Closed	3
7/19	4	606	Closed	Closed	Closed	610
7/20	1	148	Closed	Closed	Closed	149
7/21	3	156	Closed	Closed	Closed	159
7/22	1	501	Closed	Closed	Closed	502
7/23	1	70	0	1,752	0	1,823
7/24	11	369	36	1,615	0	2,031
7/25	Closed	Closed	Closed	Closed	Closed	Closed
7/26	Closed	Closed	Closed	Closed	Closed	Closed
7/27	Closed	Closed	Closed	Closed	Closed	Closed
7/28	Closed	Closed	Closed	Closed	Closed	Closed
7/29	7	2	Closed	Closed	Closed	9
7/30	15	332	0	1,203	0	1,550
7/31	10	62	0	0	0	72
8/1	6	65	0	1,082	16	1,169
8/2	Closed	Closed	Closed	Closed	Closed	Closed
8/3	4	0	Closed	0	0	4
8/4	5	113	Closed	1,217	0	1,335
8/5	54	1	Closed	885	0	940
8/6	6	0	Closed	Closed	Closed	6
8/7	32	0	Closed	760	Closed	792
8/8	6	165	Closed	384	0	555
8/9	12	349	Closed	1,707	0	2,068
8/10	31	471	Closed	2,073	0	2,575
8/11	63	254	Closed	519	0	836
8/12	5	0	Closed	268	0	273
8/13	6	0	Closed	1,033	0	1,039
8/14	3	0	Closed	0	0	3
8/15	13	0	Closed	1,007	0	1,020
8/16	52	0	Closed	1,280	0	1,332
8/17	66	243	Closed	1,993	0	2,302
8/18	229	0	Closed	121	15	365
8/19	31	0	Closed	1,416	0	1,447
8/20	125	21	Closed	20	0	166
8/21	120	0	Closed	0	0	120
8/22	101	0	Closed	0	0	101
8/23	221	0	Closed	0	0	221
8/24	0	0	Closed	0	0	0
8/25	161	0	Closed	0	0	161
8/26	0	0	Closed	0	0	0
8/27	198	0	Closed	0	0	198
8/28	458	0	Closed	0	0	458

Table 24.–Page 3 of 3.

			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
8/29	660	0	Closed	0	0	660
8/30	223	0	Closed	0	0	223
8/31	480	0	Closed	0	0	480
9/1	0	0	Closed	0	0	0
9/2	1,786	0	Closed	0	0	1,786
9/3	0	0	Closed	0	0	0
9/4	0	0	Closed	0	0	0
9/5	0	0	Closed	0	0	0
9/6	1,318	0	Closed	0	0	1,318
9/7		-				
Total	6,545	4,667	36	22,037	31	33,316

Table 25.-Chignik Management Area pink salmon harvest, by year, 1980 through 2012.

	Testfi	ish	Commerc	ial Catch	Home 1	Pack	Tot	al
Year	Number	Pounds	Number	Pounds	Number	Pounds ^a	Number	Pounds
1980	ND	ND	1,093,184	3,635,145	ND	ND	1,093,184	3,635,145
1981	ND	ND	1,162,613	4,479,368	ND	ND	1,162,613	4,479,368
1982	ND	ND	873,384	2,916,671	ND	ND	873,384	2,916,671
1983	ND	ND	321,178	1,200,888	ND	ND	321,178	1,200,888
1984	ND	ND	444,804	1,651,249	ND	ND	444,804	1,651,249
1985	0	0	160,128	643,731	ND	ND	160,128	643,731
1986	ND	ND	647,125	2,374,311	ND	ND	647,125	2,374,311
1987	0	0	246,775	899,560	ND	ND	246,775	899,560
1988	0	0	2,997,159	10,723,505	ND	ND	2,997,159	10,723,505
1989	0	0	27,712	94,269	ND	ND	27,712	94,269
1990	0	0	550,008	1,675,644	ND	ND	550,008	1,675,644
1991	2,660	9,237	1,166,588	3,348,394	ND	ND	1,169,248	3,357,631
1992	114	536	1,553,959	5,798,623	ND	ND	1,554,073	5,799,159
1993	1,826	5,539	1,646,551	5,308,258	ND	ND	1,648,377	5,313,797
1994	14	55	431,049	1,494,604	ND	ND	431,063	1,494,659
1995	0	0	2,057,998	7,350,386	0	0	2,057,998	7,350,386
1996	0	0	183,806	536,218	5,262	15,351	189,068	551,569
1997	0	0	844,431	2,784,333	0	0	844,431	2,784,333
1998	0	0	776,988	2,586,026	0	0	776,988	2,586,026
1999	0	0	1,698,651	4,845,435	0	0	1,698,651	4,845,435
2000	0	0	428,064	1,183,004	0	0	428,064	1,183,004
2001	0	0	1,281,760	4,077,814	7	22	1,281,767	4,077,836
2002	66	276	65,984	206,385	0	0	66,050	206,661
2003	570	2,167	501,661	1,951,928	407	1,584	502,638	1,955,679
2004	0	0	2,380	7,589	0	0	2,380	7,589
2005	8	48	193,803	611,023	234	813	194,045	611,884
2006	0	0	383,574	1,403,428	0	0	383,574	1,403,428
2007	0	0	2,019,748	7,388,012	0	0	2,019,748	7,388,012
2008	0	0	2,389,958	8,192,350	0	0	2,389,958	8,192,350
2009	0	0	1,408,339	4,502,661	0	0	1,408,339	4,502,661
2010	0	0	489,774	1,663,961	7	24	489,781	1,663,985
2011	58	154	905,108	2,882,546	0	0	905,166	2,882,700
2012	0	0	137,684	452,160	22	65	137,706	452,225
Averages								
1992-11	133	439	963,179	3,238,729	348	1,047	963,608	3,240,058
2002-11	70	265	836,033	2,880,988	65	242	836,168	2,881,495
2007-11	12	31	1,442,585	4,925,906	1	5	1,442,598	4,925,942

^a Weights of home pack fish are not reported on fish tickets; therefore, they were calculated from the average weight of the commercial harvest.

Table 26.—Chignik Management Area pink salmon harvest (including home pack and the department's test fishery catches), by district and year, 1980 through 2012.

			District			
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total
1980	180,912	108,682	472,510	216,460	114,620	1,093,184
1981	121,380	210,023	173,293	433,605	224,312	1,162,613
1982	82,973	80,606	89,074	602,408	18,323	873,384
1983	27,284	7,861	7,817	164,338	113,878	321,178
1984	165,178	47,250	57,715	173,820	841	444,804
1985	14,429	16,087	6,570	80,577	42,465	160,128
1986	191,264	44,127	49,635	200,793	161,306	647,125
1987	13,887	7,769	2,079	187,701	35,339	246,775
1988	119,794	318,370	1,006,366	1,141,382	411,247	2,997,159
1989	27,691	21	0	0	0	27,712
1990	94,528	233,677	40,574	135,810	45,419	550,008
1991	76,163	173,967	27,979	419,264	471,875	1,169,248
1992	178,105	205,750	183,119	628,900	358,199	1,554,073
1993	55,909	205,037	52,755	685,605	649,071	1,648,377
1994	59,425	99,149	12,952	174,641	84,896	431,063
1995	106,939	469,745	8,572	791,718	681,024	2,057,998
1996	1,804	20,717	7,201	100,871	58,475	189,068
1997	39,461	603,575	72,347	118,003	11,045	844,431
1998	26,054	233,732	66,725	343,187	107,290	776,988
1999	59,001	664,208	40,571	771,411	163,460	1,698,651
2000	28,067	271,417	10,500	106,147	11,933	428,064
2001	75,142	641,438	97,438	424,537	43,212	1,281,767
2002	10,253	17,580	0	36,918	1,299	66,050
2003	56,042	88,736	267	326,239	31,354	502,638
2004	2,378	2	0	0	0	2,380
2005	71,438	99,491	21	20,952	2,143	194,045
2006	62,419	79,726	79,465	161,964	0	383,574
2007	187,670	612,921	43,379	1,152,331	23,447	2,019,748
2008	232,444	369,298	416,520	1,062,482	309,214	2,389,958
2009	77,569	317,085	275,791	711,890	26,004	1,408,339
2010	30,683	183,008	43,264	225,716	7,110	489,781
2011	30,707	225,307	54,288	368,351	226,513	905,166
2012	10,096	55,030	4,946	67,523	111	137,706
Averages	·	·		·		
1992–11	69,576	270,396	73,259	410,593	139,784	963,608
2002-11	76,160	199,315	91,300	406,684	62,708	836,168
2007-11	111,815	341,524	166,648	704,154	118,458	1,442,598

Table 27.—Chignik Management Area pink salmon harvest (including home pack and the department's test fishery catches), by district and day, 2012.

			District			
Total	Perryville	Western	District Eastern	Central	Chignik Bay	Date
Closed	Closed	Closed	Closed	Closed	0	6/4
Closed	Closed	Closed	Closed	Closed	Closed	6/5
Closed	Closed	Closed	Closed	Closed	Closed	6/6
Closed	Closed	Closed	Closed	Closed	0	6/7
0	Closed	Closed	0	0	0	6/8
94	Closed	Closed	20	74	0	6/9
72	Closed	Closed	0	72	0	6/10
73	Closed	Closed	34	0	39	6/11
1,545	Closed	1,510	0	35	0	6/12
117	Closed	112	0	5	0	6/13
1,098	Closed	454	0	466	178	6/14
Closed	Closed	Closed	Closed	Closed	Closed	6/15
380	Closed	Closed	50	330	0	6/16
2,070	Closed	Closed	66	2,004	0	6/17
964	Closed	Closed	53	897	14	6/18
1,105	Closed	346	344	415	0	6/19
1,899	Closed	1,343	421	133	2	6/20
4,238	Closed	3,756	137	345	0	6/21
1,522	Closed	626	0	893	3	6/22
1,605	Closed	Closed	0	1,605	0	6/23
1,347	Closed	Closed	0	1,347	0	6/24
497	Closed	82	115	300	0	6/25
1,585	Closed	Closed	0	1,585	0	6/26
1,293	Closed	Closed	253	1,039	1	6/27
1,676	Closed	Closed	120	1,429	127	6/28
2,162	Closed	Closed	1,825	335	2	6/29
1,270	Closed	Closed	Closed	1,195	75	6/30
2,134	Closed	Closed	Closed	2,014	120	7/1
324	Closed	Closed	Closed	319	5	7/2
1,305	Closed	Closed	Closed	1,304	1	7/3
767	Closed	Closed	Closed	767	0	7/4
982	Closed	Closed	Closed	982	0	7/5
485	Closed	Closed	Closed	485	0	7/6
509	Closed	Closed	Closed	509	0	7/7
783	0	Closed	Closed	783	0	7/8
465	0	Closed	Closed	335	130	7/9
509	0	Closed	Closed	504	5	7/10
Closed	Closed	Closed	Closed	Closed	Closed	7/11
Closed	Closed	Closed	Closed	Closed	Closed	7/12
917	0	615	0	279	23	7/13
523	0	0	61	439	23	7/14
2,545	0	866	0	1,656	23	7/15
Closed	Closed	Closed	Closed	Closed	Closed	7/16

Table 27.–Page 2 of 3.

			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
7/17	36	1,237	Closed	Closed	Closed	1,273
7/18	12	511	Closed	Closed	Closed	523
7/19	25	2,281	Closed	Closed	Closed	2,306
7/20	26	1,240	Closed	Closed	Closed	1,266
7/21	210	1,099	Closed	Closed	Closed	1,309
7/22	58	1,751	Closed	Closed	Closed	1,809
7/23	44	529	22	1,528	0	2,123
7/24	337	1,358	246	3,084	0	5,025
7/25	Closed	Closed	Closed	Closed	Closed	Closed
7/26	Closed	Closed	Closed	Closed	Closed	Closed
7/27	Closed	Closed	Closed	Closed	Closed	Closed
7/28	Closed	Closed	Closed	Closed	Closed	Closed
7/29	278	101	Closed	Closed	Closed	379
7/30	240	2,612	20	1,380	0	4,252
7/31	287	1,739	65	0	0	2,091
8/1	178	1,602	1,094	1,792	70	4,736
8/2	Closed	Closed	Closed	Closed	Closed	Closed
8/3	194	0	Closed	0	0	194
8/4	331	3,997	Closed	3,475	0	7,803
8/5	446	542	Closed	1,265	0	2,253
8/6	378	0	Closed	Closed	Closed	378
8/7	459	0	Closed	3,069	Closed	3,528
8/8	315	637	Closed	3,530	0	4,482
8/9	247	2,449	Closed	9,983	0	12,679
8/10	169	2,506	Closed	12,226	0	14,901
8/11	278	1,972	Closed	2,865	0	5,115
8/12	206	0	Closed	738	0	944
8/13	182	0	Closed	3,389	0	3,571
8/14	262	0	Closed	0	0	262
8/15	224	0	Closed	1,894	0	2,118
8/16	565	0	Closed	1,900	0	2,465
8/17	363	1,950	Closed	2,919	0	5,232
8/18	510	0	Closed	0	41	551
8/19	285	0	Closed	2,740	0	3,025
8/20	390	37	Closed	36	0	463
8/21	320	0	Closed	0	0	320
8/22	119	0	Closed	0	0	119
8/23	320	0	Closed	0	0	320
8/24	0	0	Closed	0	0	0
8/25	184	0	Closed	0	0	184
8/26	0	0	Closed	0	0	0
8/27	112	0	Closed	0	0	112
8/28	151	0	Closed	0	0	151

Table 27.–Page 3 of 3.

			District					
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total		
8/29	230	0	Closed	0	0	230		
8/30	33	0	Closed	0	0	33		
8/31	71	0	Closed	0	0	71		
9/1	0	0	Closed	0	0	0		
9/2	215	0	Closed	0	0	215		
9/3	0	0	Closed	0	0	0		
9/4	0	0	Closed	0	0	0		
9/5	0	0	Closed	0	0	0		
9/6	35	0	Closed	0	0	35		
9/7	- Processors Closed for Season -							
Total	10,096	55,030	4,946	67,523	111	137,706		

Table 28.—Chignik Management Area chum salmon harvest, by year, 1980 through 2012.

	Testfi	ish	Commerci	al Catch	Home	Pack	Tot	al
Year	Number	Pounds	Number	Pounds	Number	Pounds ^a	Number	Pounds
1980	ND	ND	252,521	1,765,287	ND	ND	252,521	1,765,287
1981	ND	ND	580,332	4,502,632	ND	ND	580,332	4,502,632
1982	ND	ND	390,096	3,231,403	ND	ND	390,096	3,231,403
1983	ND	ND	159,412	1,205,266	ND	ND	159,412	1,205,266
1984	ND	ND	63,303	485,967	ND	ND	63,303	485,967
1985	0	0	22,805	145,276	ND	ND	22,805	145,276
1986	ND	ND	176,640	1,304,418	ND	ND	176,640	1,304,418
1987	0	0	127,261	943,941	ND	ND	127,261	943,941
1988	0	0	267,775	2,196,377	ND	ND	267,775	2,196,377
1989	0	0	1,624	11,888	ND	ND	1,624	11,888
1990	0	0	270,004	1,757,019	ND	ND	270,004	1,757,019
1991	607	4,260	260,489	1,671,939	ND	ND	261,096	1,676,199
1992	16	140	222,118	1,592,186	ND	ND	222,134	1,592,326
1993	57	300	122,303	735,747	ND	ND	122,360	736,047
1994	521	3,437	226,755	1,627,574	ND	ND	227,276	1,631,011
1995	0	0	380,949	2,814,987	5	37	380,954	2,815,024
1996	0	0	99,791	779,840	21,100	164,891	120,891	944,731
1997	0	0	155,905	1,196,999	0	0	155,905	1,196,999
1998	0	0	128,841	917,648	155	1,104	128,996	918,752
1999	0	0	140,594	1,064,433	3	0	140,597	1,064,433
2000	0	0	120,957	1,033,665	0	0	120,957	1,033,665
2001	0	0	198,874	1,609,533	129	1,044	199,003	1,610,577
2002	46	334	54,513	406,382	0	0	54,559	406,716
2003	137	1,394	63,907	447,921	0	0	64,044	449,315
2004	0	0	505	3,803	0	0	505	3,803
2005	2	15	8,704	63,379	115	825	8,821	64,219
2006	0	0	61,630	450,686	0	0	61,630	450,686
2007	0	0	78,552	648,355	1	8	78,553	648,363
2008	0	0	209,325	1,726,108	0	0	209,325	1,726,108
2009	0	0	256,424	1,922,522	1	9	256,425	1,922,531
2010	0	0	581,329	4,437,042	0	0	581,329	4,437,042
2011	11	91	269,492	1,857,512	0	0	269,503	1,857,603
2012	0	0	170,872	1,533,079	240	1,780	171,112	1,534,859
Averages								
1992-11	40	286	169,073	1,266,816	1,265	9,878	170,188	1,275,498
2002-11	20	183	158,438	1,196,371	12	84	158,469	1,196,639
2007-11	2	18	279,024	2,118,308	0	3	279,027	2,118,329

^a Weights of home pack fish are not reported on fish tickets; therefore, they were calculated from the average weight of the commercial harvest.

Table 29.–Chignik Management Area chum salmon harvest (including home pack and the department's test fishery catches), by district and year, 1980 through 2012.

	District							
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total		
1980	19,944	38,902	56,805	91,868	45,002	252,521		
1981	38,061	160,730	108,668	221,579	51,294	580,332		
1982	16,034	33,669	64,513	253,299	22,581	390,096		
1983	16,747	9,815	8,250	101,959	22,641	159,412		
1984	8,173	8,150	21,134	25,364	482	63,303		
1985	4,905	5,242	864	10,704	1,090	22,805		
1986	18,167	29,502	17,880	74,070	37,021	176,640		
1987	5,163	9,437	8,890	86,898	16,873	127,261		
1988	7,013	39,316	77,511	102,730	41,205	267,775		
1989	1,587	34	3	0	0	1,624		
1990	11,460	113,741	27,463	91,603	25,737	270,004		
1991	17,545	51,429	4,925	98,603	88,594	261,096		
1992	12,711	45,569	61,209	65,466	37,179	222,134		
1993	8,116	43,306	21,157	25,045	24,736	122,360		
1994	25,250	69,552	4,333	94,116	34,025	227,276		
1995	14,588	107,066	8,074	158,273	92,953	380,954		
1996	782	46,993	19,837	36,303	16,976	120,891		
1997	20,978	104,259	11,397	16,280	2,991	155,905		
1998	7,352	43,191	5,180	41,425	31,848	128,996		
1999	12,150	75,495	11,332	37,089	4,531	140,597		
2000	8,389	66,904	8,045	34,823	2,796	120,957		
2001	11,534	84,132	50,911	37,466	14,960	199,003		
2002	3,949	9,643	513	40,337	117	54,559		
2003	10,891	11,304	50	39,883	1,916	64,044		
2004	499	6	0	0	0	505		
2005	2,370	5,329	2	1,054	66	8,821		
2006	2,303	9,455	776	49,096	0	61,630		
2007	3,829	19,595	7,851	46,943	335	78,553		
2008	13,453	40,130	58,925	88,078	8,739	209,325		
2009	14,553	62,149	59,800	116,231	3,692	256,425		
2010	27,388	226,501	116,336	204,911	6,193	581,329		
2011	9,077	116,580	51,989	75,363	16,494	269,503		
2012	5,523	88,120	21,227	56,125	117	171,112		
Averages								
1992–11	10,932	56,100	22,533	61,571	18,632	169,768		
2002-11	9,077	46,824	29,516	62,400	3,602	151,419		
2007-11	13,660	92,991	58,980	106,305	7,091	279,027		

Table 30.—Chignik Management Area chum salmon harvest (including home pack and the department's test fishery catches), by district and day, 2012.

			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
6/4	0	Closed	Closed	Closed	Closed	Closed
6/5	Closed	Closed	Closed	Closed	Closed	Closed
6/6	Closed	Closed	Closed	Closed	Closed	Closed
6/7	0	Closed	Closed	Closed	Closed	Closed
6/8	0	0	0	Closed	Closed	0
6/9	0	117	244	Closed	Closed	361
6/10	0	150	0	Closed	Closed	150
6/11	40	0	398	Closed	Closed	438
6/12	0	36	0	11,670	Closed	11,706
6/13	0	68	0	636	Closed	704
6/14	294	1,517	271	1,855	Closed	3,937
6/15	Closed	Closed	Closed	Closed	Closed	Closed
6/16	0	1,281	515	Closed	Closed	1,796
6/17	0	3,348	954	Closed	Closed	4,302
6/18	5	1,459	203	Closed	Closed	1,667
6/19	0	1,270	1,150	131	Closed	2,551
6/20	0	491	653	2,336	Closed	3,480
6/21	0	1,239	325	2,560	Closed	4,124
6/22	2	685	0	283	Closed	970
6/23	0	2,478	0	Closed	Closed	2,478
6/24	0	2,185	0	Closed	Closed	2,185
6/25	2	288	425	47	Closed	762
6/26	0	2,320	0	Closed	Closed	2,320
6/27	0	756	370	Closed	Closed	1,126
6/28	25	1,224	168	Closed	Closed	1,417
6/29	2	779	2,324	Closed	Closed	3,105
6/30	84	1,380	Closed	Closed	Closed	1,464
7/1	65	3,348	Closed	Closed	Closed	3,413
7/2	5	775	Closed	Closed	Closed	780
7/3	1	3,346	Closed	Closed	Closed	3,347
7/4	1	5,062	Closed	Closed	Closed	5,063
7/5	6	1,902	Closed	Closed	Closed	1,908
7/6	2	2,152	Closed	Closed	Closed	2,154
7/7	5	1,376	Closed	Closed	Closed	1,381
7/8	2	2,743	Closed	Closed	0	2,745
7/9	138	1,812	Closed	Closed	0	1,950
7/10	11	3,073	Closed	Closed	0	3,084
7/11	Closed	Closed	Closed	Closed	Closed	Closed
7/12	Closed	Closed	Closed	Closed	Closed	Closed
7/13	30	1,344	0	1,230	0	2,604
7/14	39	1,451	243	0	0	1,733
7/15	64	4,110	0	1,559	0	5,733
7/16	Closed	Closed	Closed	Closed	Closed	Closed

Table 30.–Page 2 of 3.

Date	Chignik Bay	Central	District Eastern	Western	Perryville	Total
7/17	33	5,970	Closed	Closed	Closed	6,003
7/18	25	2,008	Closed	Closed	Closed	2,033
7/19	14	3,749	Closed	Closed	Closed	3,763
7/20	25	2,569	Closed	Closed	Closed	2,594
7/21	79	2,006	Closed	Closed	Closed	2,085
7/22	40	1,681	Closed	Closed	Closed	1,721
7/23	68	1,063	2,221	2,427	0	5,779
7/24	365	3,265	3,607	4,794	0	12,031
7/25	Closed	Closed	Closed	Closed	Closed	Closed
7/26	Closed	Closed	Closed	Closed	Closed	Closed
7/27	Closed	Closed	Closed	Closed	Closed	Closed
7/28	Closed	Closed	Closed	Closed	Closed	Closed
7/29	104	69	Closed	Closed	Closed	173
7/30	209	2,443	1,607	1,473	0	5,732
7/31	239	1,027	3,237	0	0	4,503
8/1	141	889	2,312	5,625	72	9,039
8/2	Closed	Closed	Closed	Closed	Closed	Closed
8/3	102	0	Closed	0	0	102
8/4	179	2,600	Closed	3,338	0	6,117
8/5	759	465	Closed	1,531	0	2,755
8/6	351	0	Closed	Closed	Closed	351
8/7	171	0	Closed	1,590	Closed	1,761
8/8	165	1,039	Closed	2,112	0	3,316
8/9	104	832	Closed	3,855	0	4,791
8/10	125	455	Closed	2,010	0	2,590
8/11	280	370	Closed	900	0	1,550
8/12	137	0	Closed	315	0	452
8/13	83	0	Closed	1,205	0	1,288
8/14	51	0	Closed	0	0	51
8/15	58	0	Closed	706	0	764
8/16	100	0	Closed	446	0	546
8/17	115	40	Closed	789	0	944
8/18	130	0	Closed	0	45	175
8/19	32	0	Closed	688	0	720
8/20	78	15	Closed	14	0	107
8/21	94	0	Closed	0	0	94
8/22	50	0	Closed	0	0	50
8/23	46	0	Closed	0	0	46
8/24	0	0	Closed	0	0	0
8/25	14	0	Closed	0	0	14
8/26	0	0	Closed	0	0	0
8/27	11	0	Closed	0	0	11
8/28	21	0	Closed	0	0	21

Table 30.–Page 3 of 3.

			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
8/29	43	0	Closed	0	0	43
8/30	8	0	Closed	0	0	8
8/31	18	0	Closed	0	0	18
9/1	0	0	Closed	0	0	0
9/2	28	0	Closed	0	0	28
9/3	0	0	Closed	0	0	0
9/4	0	0	Closed	0	0	0
9/5	0	0	Closed	0	0	0
9/6	5	0	Closed	0	0	5
9/7		- Proc	cessors Close	ed for Season	-	
Total	5,523	88,120	21,227	56,125	117	171,112

Table 31.–Value of the commercial salmon harvest, by species, and average value per active permit, in dollars, in the Chignik Management Area, 1970 through 2012.

,	Chi	nook	Socke	eye	Co	ho	Pin	k	Chu	ım		Number of	Value Per
Year	Total ^a	Average ^b	Total Value	Permits ^c	Permit								
1970	6,129	77	2,190,272	27,378	18,397	230	635,673	7,946	376,025	4,700	3,226,496	80	40,331
1971	6,472	84	2,034,279	26,419	23,240	302	366,693	4,762	326,760	4,244	2,757,444	77	35,811
1972	2,028	25	825,498	10,319	35,699	446	48,401	605	87,759	1,097	999,385	80	12,492
1973	5,255	67	3,030,057	38,355	73,663	932	20,610	261	10,180	129	3,139,765	79	39,744
1974	2,941	31	3,618,781	38,498	31,933	340	64,069	682	51,125	544	3,768,849	94	40,094
1975	6,561	76	1,384,271	16,096	213,539	2,483	104,115	1,211	61,704	717	1,770,190	86	20,584
1976	13,800	179	4,751,000	61,701	138,000	1,792	568,300	7,381	183,600	2,384	5,654,700	77	73,438
1977	18,828	214	14,553,720	165,383	104,819	1,191	920,881	10,465	368,066	4,183	15,966,314	88	181,435
1978	56,700	597	15,653,500	164,774	116,400	1,225	1,131,500	11,911	404,500	4,258	17,362,600	95	182,764
1979	32,050	311	11,345,503	110,151	710,192	6,895	2,622,269	25,459	126,866	1,232	14,836,880	103	144,047
1980	67,657	651	5,532,290	53,195	520,655	5,006	1,477,060	14,203	1,061,963	10,211	8,659,625	104	83,266
1981	75,231	716	17,262,119	164,401	439,900	4,190	1,881,334	17,917	2,431,421	23,156	22,090,005	105	210,381
1982	75,276	731	13,038,510	126,587	1,782,027	17,301	578,184	5,613	1,356,597	13,171	16,830,594	103	163,404
1983	96,159	943	10,728,088	105,177	219,650	2,153	240,171	2,355	421,713	4,134	11,705,781	102	114,763
1984	114,502	1,145	20,402,076	204,021	759,972	7,600	330,916	3,309	146,024	1,460	21,753,490	100	217,535
1985	67,088	633	7,997,834	75,451	1,471,418	13,881	140,076	1,321	59,475	561	8,735,891	106	82,414
1986	84,800	831	16,882,290	165,513	667,740	6,546	356,147	3,492	456,546	4,476	18,447,523	102	180,858
1987	72,739	706	24,783,033	240,612	1,035,129	10,050	269,868	2,620	339,819	3,299	26,500,588	103	257,287
1988	286,740	2,839	14,350,354	142,083	4,153,424	41,123	6,771,266	67,042	2,189,293	21,676	27,751,077	101	274,763
1989	78,999	790	13,047,378	130,474	436,892	4,369	32,994	330	4,745	47	13,601,008	100	136,010
1990	185,256	1,834	22,509,923	222,871	700,309	6,934	502,693	4,977	878,510	8,698	24,776,691	101	245,314
1991	50,027	490	11,002,784	107,870	650,626	6,379	402,916	3,950	502,860	4,930	12,609,213	102	123,620
1992	193,326	1,914	12,552,025	124,277	1,323,107	13,100	811,882	8,038	414,005	4,099	15,294,345	101	151,429
1993	175,690	1,722	8,210,106	80,491	730,622	7,163	637,666	6,252	184,012	1,804	9,938,096	102	97,432
1994	38,096	385	10,046,245	101,477	1,094,415	11,055	226,504	2,288	430,888	4,352	11,836,148	99	119,557
1995	60,174	602	11,969,210	119,692	834,337	8,343	977,811	9,778	634,780	6,348	14,476,312	100	144,763
1996	25,041	250	12,640,560	126,406	447,228	4,472	24,827	248	32,279	323	13,169,935	100	131,699
1997	20,642	211	4,860,589	49,598	453,905	4,632	348,042	3,551	239,400	2,443	5,922,577	98	60,434
1998	31,934	376	6,631,192	78,014	397,413	4,675	310,323	3,651	137,647	1,619	7,508,509	85	88,335
1999	27,212	302	21,132,550	234,806	170,931	1,899	578,861	6,432	118,547	1,317	22,028,101	90	244,757

58

Table 31.—Page 2 of 2.

	Chi	nook	Soci	keye	Coh	О	Pin	ık	Ch	um		Number of	Value Per
Year	Total ^a	Average ^b	Total Value	Permits ^c	Permit								
2000	16,336	165	11,812,368	119,317	283,061	2,859	106,470	1,075	93,030	940	12,311,264	99	124,356
2001	12,205	133	7,419,339	80,645	263,160	2,860	366,714	3,986	209,239	2,274	8,270,657	92	89,898
2002	3,516	36	4,564,214	46,103	36,078	364	10,333	104	40,671	411	4,654,812	99	47,018
2003	20,212	202	5,283,962	52,840	173,625	1,736	182,100	1,821	71,140	711	5,731,039	100	57,310
2004	26,191	262	3,568,350	35,684	59	1	835	8	647	6	3,596,082	100	35,961
2005	36,060	377	6,314,036	64,429	11,280	115	55,070	562	10,917	111	6,427,363	98	65,585
2006	26,895	560	4,703,317	97,986	105,132	2,190	126,309	2,631	81,123	1,690	5,042,776	48	105,058
2007	26,176	476	4,154,210	75,531	195,754	3,559	1,034,322	18,806	162,089	2,947	5,572,550	55	101,319
2008	15,249	282	4,121,611	76,326	778,282	14,413	1,810,965	33,536	533,358	9,877	7,259,465	54	134,435
2009	30,714	558	7,058,058	128,328	220,824	4,015	800,530	14,555	520,791	9,469	8,630,917	55	156,926
2010	160,076	2,463	9,549,462	146,915	566,191	8,711	565,941	8,707	1,774,763	27,304	12,616,433	65	194,099
2011	57,524	899	21,469,153	335,456	278,391	4,350	1,040,264	16,254	919,586	14,369	23,764,918	64	371,327
2012 ^d	47,612	690	12,803,505	185,558	97,430	1,412	146,011	2,116	634,705	9,199	13,729,262	69	198,975
Averages													
1992-2011	50,163	609	8,903,028	108,716	418,190	5,026	500,788	7,114	330,446	4,621	10,202,615	85	126,085
2002-2011	40,261	612	7,078,637	105,960	236,562	3,945	562,667	9,699	411,508	6,690	8,329,635	74	126,904
2007-2011	57,948	936	9,270,499	152,511	407,888	7,009	1,050,404	18,372	782,117	12,793	11,568,857	59	191,621

^a Total value of commercial catch in dollars, by species. Total value does not include home pack or department test fishery.

^b Average value of commercial catch in dollars, by species. Average value does not include home pack or department test fishery.

^c Includes the number of commercial permits that received income from the harvest. These figures do not include department test fishery harvests.

Values represent the initial price paid, and do not include any postseason adjustments by any processor. The average 2012 exvessel prices per pound were: Chinook – \$0.97, sockeye – \$1.05, coho – \$0.43, pink – \$0.32, chum – \$0.41.

Table 32.—Sampling dates, final sample sizes, estimates of stock composition, upper and lower 90% credibility intervals, and standard deviations for samples of the escapement through the Chignik River weir in 11 strata in 2010, 2011, and 2012 using the program BAYES with a sequential prior.

				Black L	ake			hignik I	Lake	
Year	Stratum	n	Proportion	Lower	Upper	SD	Proportion	Lower	Upper	SD
	June 14	190	0.959	0.894	1.000	0.036	0.041	0.000	0.106	0.036
	June 21	189	0.995	0.966	1.000	0.014	0.005	0.000	0.034	0.014
	June 27	189	0.924	0.794	1.000	0.075	0.076	0.000	0.206	0.075
	July 1	189	0.823	0.724	0.912	0.057	0.177	0.088	0.276	0.057
	July 5	190	0.788	0.699	0.871	0.052	0.212	0.129	0.301	0.052
2010	July 8–9	190	0.784	0.687	0.870	0.056	0.216	0.130	0.313	0.056
	July 11	190	0.519	0.409	0.625	0.066	0.481	0.375	0.591	0.066
	July 14	188	0.227	0.154	0.306	0.046	0.773	0.694	0.846	0.046
	July 18–19	188	0.293	0.214	0.377	0.050	0.707	0.623	0.786	0.050
	July 23	186	0.108	0.052	0.173	0.037	0.892	0.827	0.948	0.037
	July 30	190	0.013	0.000	0.062	0.022	0.987	0.938	1.000	0.022
	June 10	188	0.998	0.988	1.000	0.005	0.002	0.000	0.012	0.005
	June 17	188	1.000	1.000	1.000	0.002	0.000	0.000	0.000	0.002
	June 24	188	0.976	0.888	1.000	0.040	0.024	0.000	0.112	0.040
	June 28	190	0.832	0.744	0.918	0.054	0.168	0.082	0.256	0.054
	July 2	190	0.953	0.886	1.000	0.036	0.047	0.000	0.114	0.036
2011	July 5	190	0.785	0.696	0.866	0.052	0.215	0.134	0.304	0.052
	July 9-10	187	0.719	0.625	0.807	0.055	0.281	0.193	0.375	0.055
	July 12-13	190	0.297	0.214	0.384	0.052	0.703	0.616	0.786	0.052
	July 14	190	0.308	0.217	0.402	0.056	0.692	0.598	0.783	0.056
	July 21	186	0.123	0.062	0.192	0.039	0.877	0.808	0.938	0.039
	July 28	189	0.036	0.000	0.088	0.029	0.964	0.912	1.000	0.029
	June 11	188	0.976	0.904	1.000	0.034	0.024	0.000	0.096	0.034
	June 18	190	0.964	0.882	1.000	0.042	0.036	0.000	0.118	0.042
	June 25	189	0.993	0.955	1.000	0.017	0.007	0.000	0.045	0.017
	July 1	190	0.644	0.544	0.733	0.058	0.356	0.267	0.456	0.058
2012	July 5	187	0.485	0.396	0.574	0.054	0.515	0.426	0.604	0.054
	July 8–9 ^a	187	0.099	0.005	0.235	0.071	0.901	0.765	0.995	0.071
	July 11	189	0.225	0.147	0.306	0.048	0.775		0.853	0.048
	July 14	190	0.070	0.011	0.132	0.036	0.930	0.868	0.989	0.036
	July 17	189	0.003	0.000	0.020	0.009	0.997	0.980	1.000	0.009
	July 21	190	0.006	0.000	0.049	0.018	0.994		1.000	0.018
	July 28	170	0.000	0.000	0.000	0.001	1.000		1.000	0.001

^a Note these estimates were associated with a Gelman-Rubin shrink factor of 1.4.

Table 33.–Historical number of subsistence permits issued and returned and estimated subsistence salmon harvest, by species and year, 1980 through 2010.

	Pei	rmits		Estimated Salmon Harvest								
Year	Issued	Returned	Chinook	Sockeye	Coho	Chum	Pink	Total				
1980	82	37	6	12,475	32	169	478	13,160				
1981	29	7	0	2,049	0	0	0	2,049				
1982	59	15	3	8,532	12	0	2	8,549				
1983	32	21	0	3,078	1,319	850	1,250	6,497				
1984	77	64	23	8,747	464	204	330	9,768				
1985	59	48	1	7,177	50	25	26	7,279				
1986	74	38	4	10,347	205	77	98	10,731				
1987	2	1	0	400	0	0	0	400				
1988	80	34	9	9,073	1,455	142	54	10,733				
1989	68	23	24	7,551	384	147	81	8,187				
1990	72	23	103	8,099	210	115	470	8,997				
1991	95	58	42	11,483	13	81	275	11,894				
1992	98	19	55	8,648	709	145	305	9,862				
1993	201	141	122	14,710	3,765	642	1,265	20,504				
1994	219	122	165	13,978	4,055	382	1,720	20,300				
1995	111	95	98	9,563	1,191	150	723	11,725				
1996	119	104	48	7,357	2,126	355	2,204	12,090				
1997	126	103	28	13,442	2,678	840	2,035	19,023				
1998	104	72	91	7,750	1,390	186	1,007	10,424				
1999	106	88	243	9,040	1,679	136	1,191	12,289				
2000	130	112	163	9,561	1,802	517	1,185	13,228				
2001	135	122	171	8,633	1,859	213	2,787	13,663				
2002	120	86	74	10,092	1,401	23	390	11,980				
2003	146	127	267	10,989	2,256	286	1,597	15,395				
2004	104	57	88	7,029	1,981	202	1,047	10,357				
2005	119	100	224	8,171	2,112	353	730	11,590				
2006	113	79	258	8,079	1,539	275	1,035	11,186				
2007	128	83	84	10,191	1,936	165	996	13,372				
2008	89	69	41	7,189	877	57	619	8,783				
2009 ^a	95	82	104	6,785	1,174	137	707	8,907				
2010 ^a	124	90	188	8,148	1,820	222	656	11,034				
Averages												
1990-09	122	87	123	9,539	1,738	263	1,114	12,778				
2000-09	118	92	147	8,672	1,694	223	1,109	11,846				
2005-09	109	83	142	8,083	1,528	197	817	10,768				

Source: Alaska Department of Fish and Game, Division of Subsistence, Alaska Subsistence Fisheries Database.

^a From 1993 through 2008, postseason household surveys were conducted to supplement harvest data collected through returned permits. Limited budgets prevented administering the surveys for 2009 and 2010, likely resulting in an underestimate of subsistence harvests since not all subsistence fishing households obtained a permit. To compensate for this underestimate, the average annual harvest for the period 1999–2008 reported during postseason surveys was added to harvests from returned permits to estimate the total subsistence harvest for 2009 and 2010.

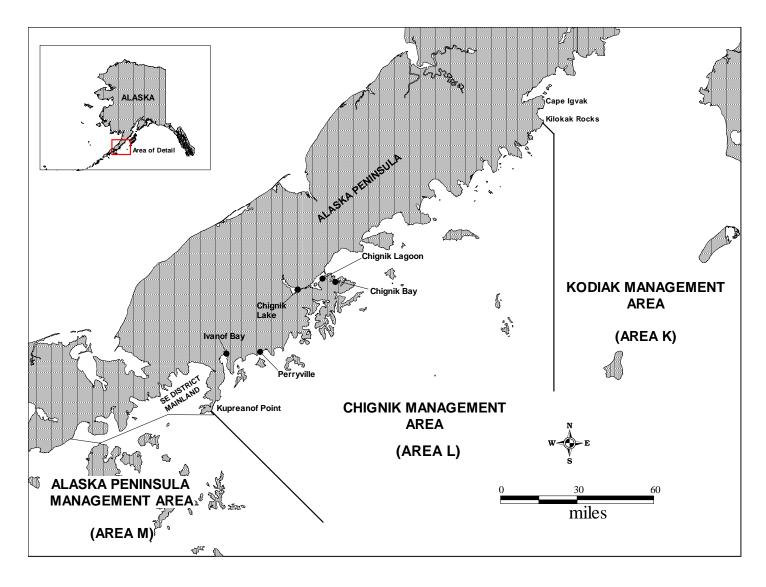


Figure 1.–Map of the Alaska Peninsula illustrating the relative locations of the Chignik, Kodiak, and Alaska Peninsula management areas.

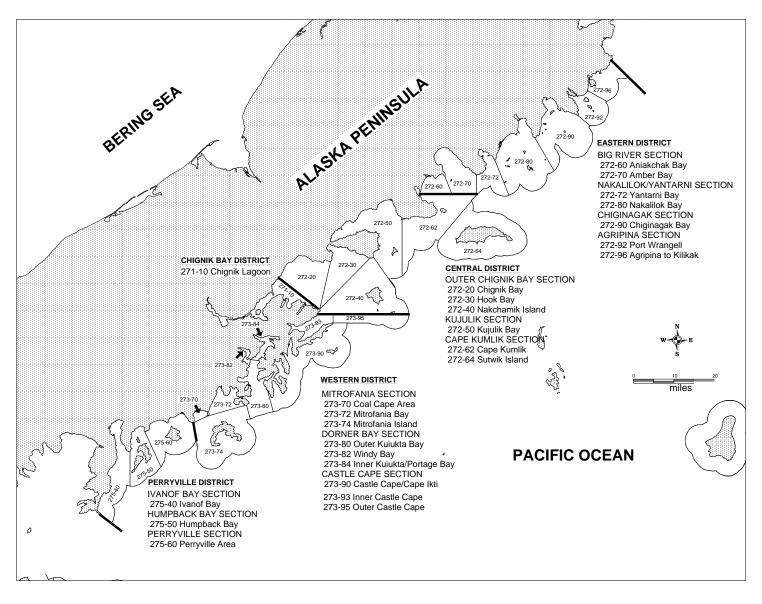


Figure 2.—Map of the Chignik Management Area illustrating district and section boundaries and statistical areas.

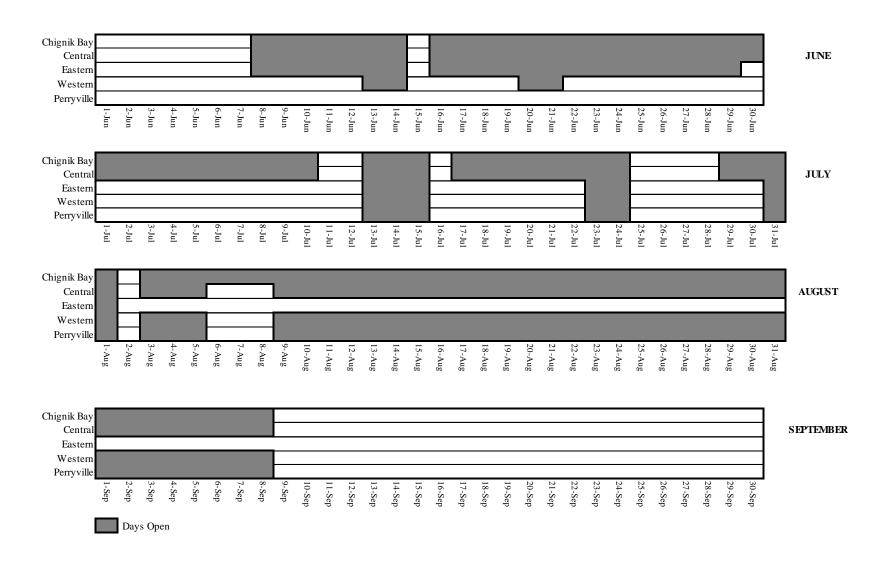


Figure 3.–Representation of days open to commercial salmon fishing, by district and month, 2012.

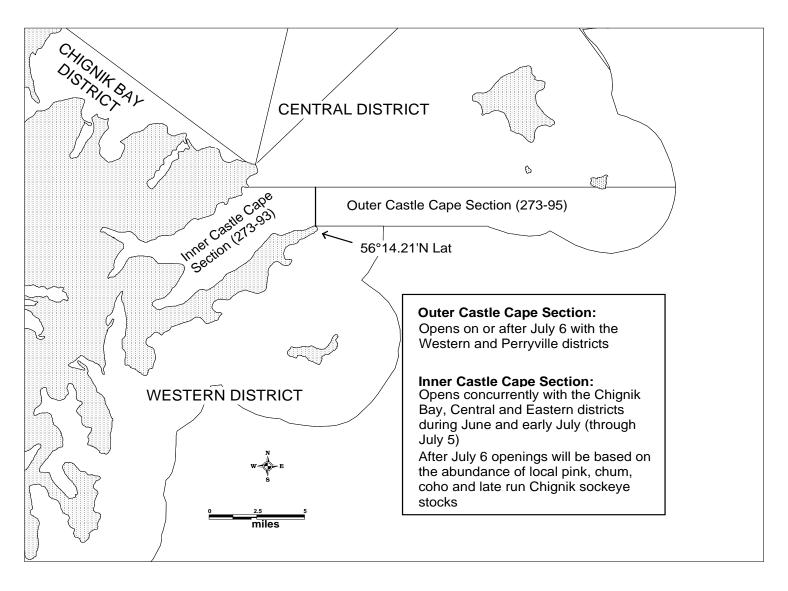


Figure 4.–Map depicting the Inner (273-93), and Outer (273-95) Castle Cape Sections of the Western District.

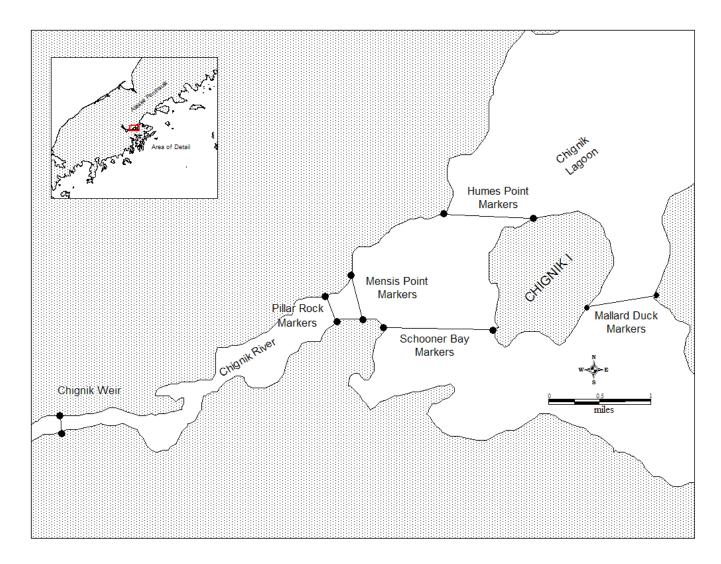


Figure 5.—Map of upper Chignik Lagoon showing the location of the Pillar Rock, Mensis Point, Humes Point, Mallard Duck, and Schooner Bay marker locations.

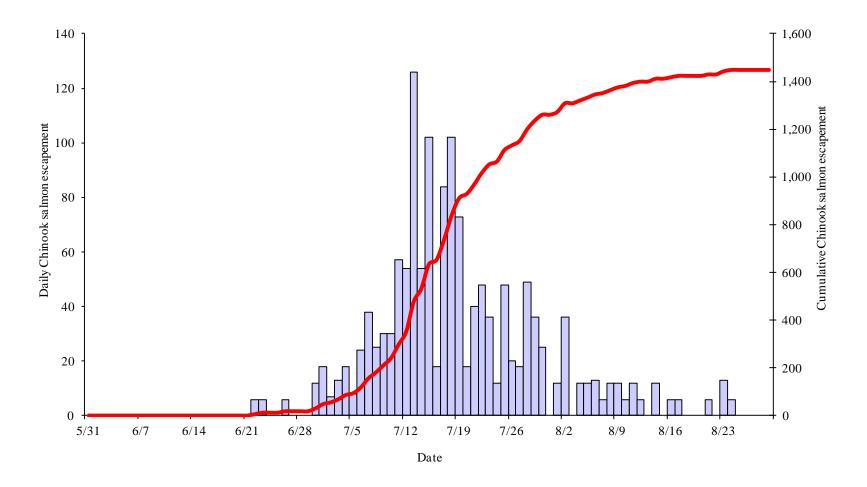


Figure 6.-Chignik River estimated daily and cumulative Chinook salmon escapement, 2012.

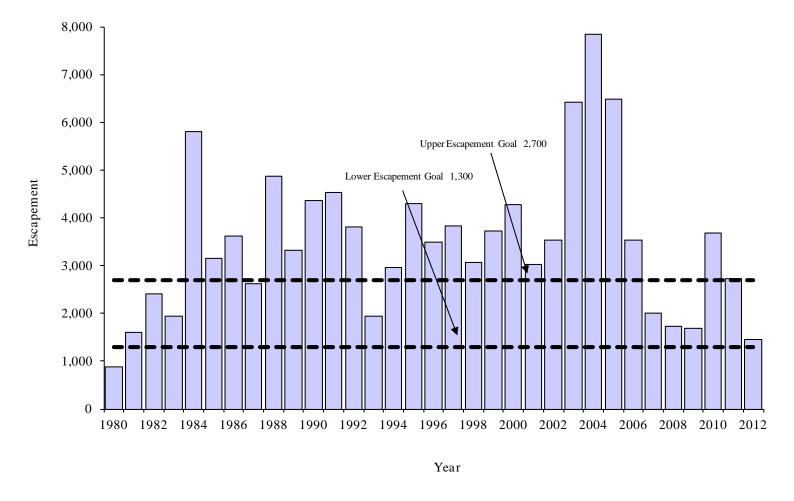


Figure 7.–Chignik River Chinook salmon escapement as compared to the current escapement goal range, by year, 1980 through 2012.

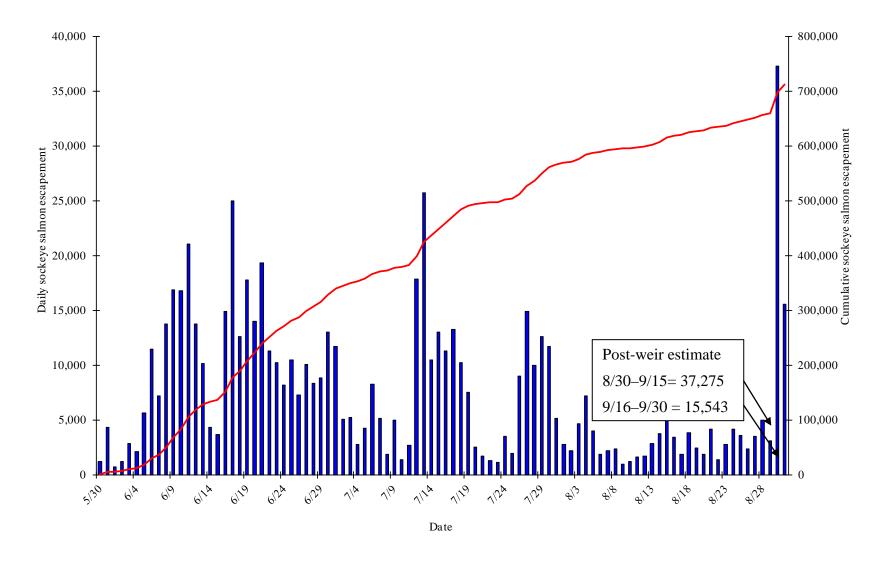
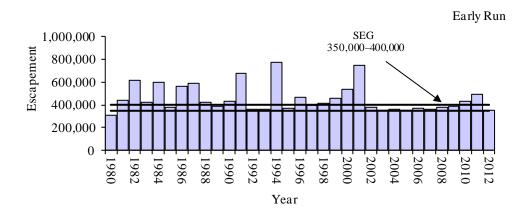
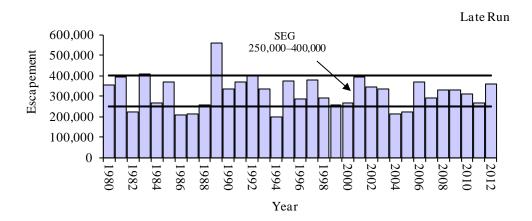


Figure 8.-Chignik River sockeye salmon daily and cumulative escapement, 2012.





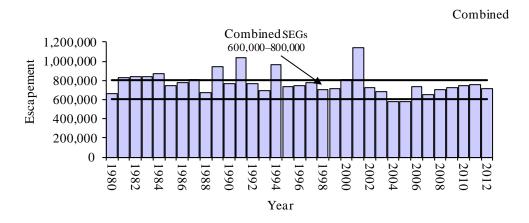


Figure 9.—Chignik River sockeye salmon early, late, and combined run escapements 1970 through 2012, compared to the 2012 sustainable escapement goals (including a late run IRRG of 50,000).

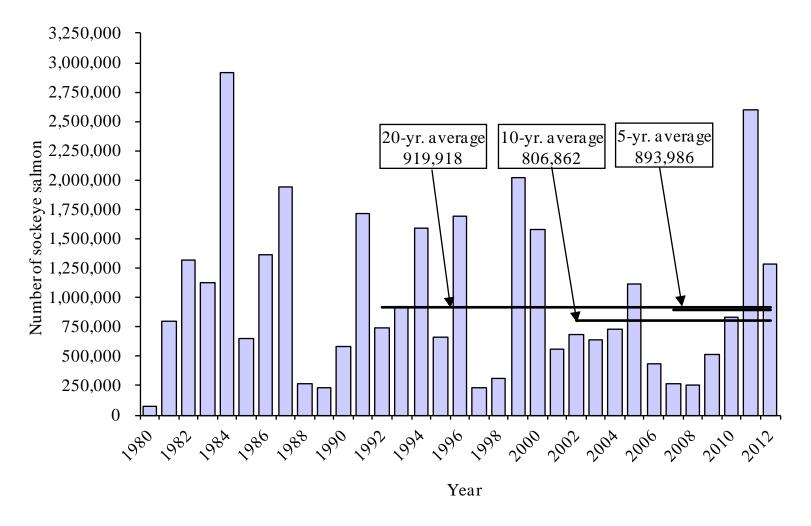


Figure 10.—Chignik-bound sockeye salmon early-run harvest, 1980 through 2012.

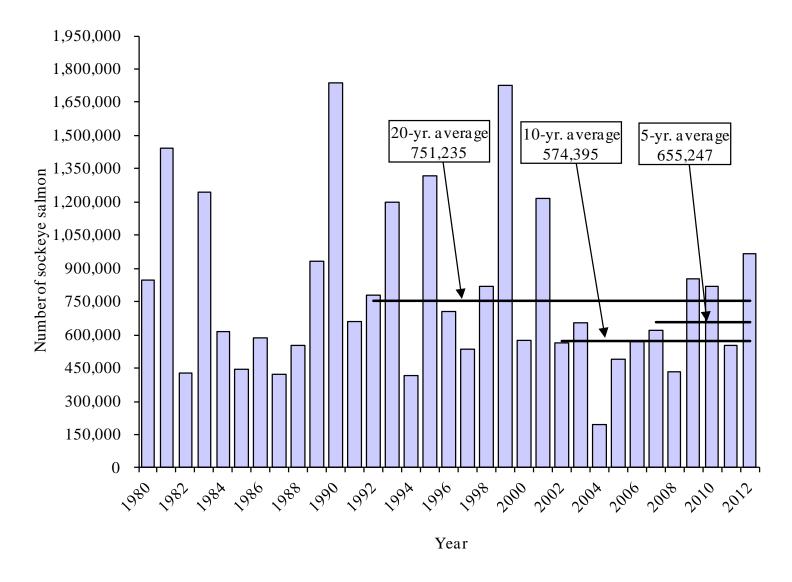


Figure 11.—Chignik-bound sockeye salmon late-run harvest, 1980 through 2012.

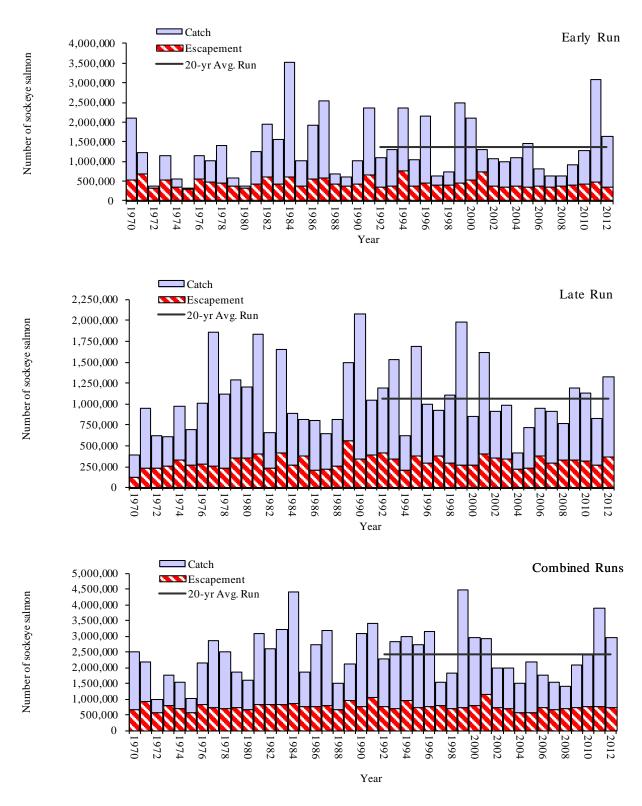


Figure 12.—Total sockeye salmon escapement and catch considered Chignik-bound including home pack, the department's test fishery harvest, and Cape Igvak and SEDM allocations, by year and run, 1970 through 2012.

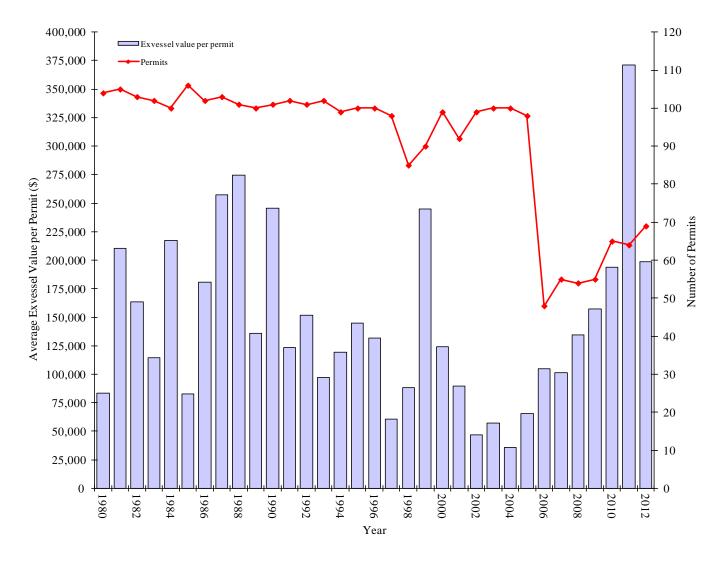


Figure 13.–Average exvessel value, in dollars, per permit and total permits fished by year 1980 through 2012.

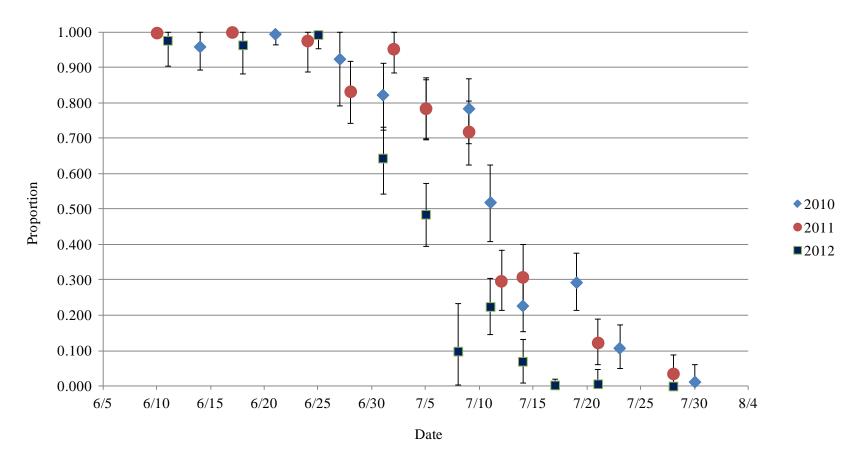


Figure 14.—Proportional genetic estimates of Black Lake stock composition with upper and lower 90% credibility intervals for samples of the escapement through Chignik weir 2010, 2011, and 2012 using the program BAYES with a sequential prior.

APPENDI	X A. SUMM	ARY OF 2	012 EMER	GENCY O	RDERS

Appendix A1.—Summary of the 2012 Chignik Management Area Emergency Orders.

E.O. Number	Issued	Effective	Action taken
4-FS-L-01-12	6:30 PM		Opens the Chignik Bay, Central, and Eastern districts as well as the Inner
4-1'3-L-01-12	6/6/2012	6/8/2012	
			Closed Waters Effective 7:00 AM Friday, June 8 salmon may only be taken northeast of Humes Point.
4-FS-L-02-12	6:30 PM 6/9/2012	12:00 PM 6/10/2012	Extends the current commercial salmon fishing period in the Chignik Bay, Central, and Eastern districts as well as the Inner Castle Cape Subsection of the Western District for 24 hours from 12:00 PM Sunday, June 10 to 12:00 PM Monday, June 11.
4-FS-L-03-12	6:15 PM 6/10/2012		Extends the current commercial salmon fishing period in the Chignik Bay, Central, and Eastern districts as well as the Inner Castle Cape Subsection of the Western District for 24 hours from 12:00 PM Monday, June 11 to 12:00 PM Tuesday, June 12.
4-FS-L-04-12	4:30 PM 6/11/2012	12:00 PM 6/12/2012	Extends the current commercial salmon fishing period in the Chignik Bay, Central, and Eastern districts as well as the Inner Castle Cape Subsection of the Western District for 54 hours from 12:00 PM Tuesday, June 12 to 6:00 PM Thursday, June 14.
			Opens the Western District, excluding the Inner Castle Cape Subsection, for 48 hours from 6:00 PM Tuesday, June 12 to 6:00 PM Thursday, June 14.
4-FS-L-05-12	12:00 PM	12:01 AM	Opens the Chignik Bay, Central, and Eastern districts as well as the Inner
	6/14/2012	6/16/2012	Castle Cape Subsection of the Western District for 72 hours from 12:01 AM Saturday, June 16 to 11:59 PM Monday, June 18.
4-FS-L-06-12	9:15 AM 6/18/2012		Extends the current commercial salmon fishing period in the Chignik Bay, Central, and Eastern districts as well as the Inner Castle Cape Subsection of the Western District for 72 hours from 11:59 PM Monday, June 18 to 11:59 PM Thursday, June 21.
			Opens the Western District, excluding the Inner Castle Cape Subsection, for 48 hours from 12:01 AM Wednesday, June 20 to 11:59 PM Thursday, June 21. Closed Waters Effective 5:00 PM Monday, June 18 salmon may only be taken northeast of Mensis Point.
4-FS-L-07-12	12:00 PM 6/21/2012		Extends the current commercial salmon fishing period in the Chignik Bay, Central, and Eastern districts as well as the Inner Castle Cape Subsection of the Western District for 72 hours from 11:59 PM Thursday, June 21 to 11:59 PM Sunday, June 24.
4-FS-L-08-12	6:15 PM	11:59 PM	Extends the current commercial salmon fishing period in the Chignik Bay,
	6/24/2012	6/24/2012	Central, and Eastern districts as well as the Inner Castle Cape Subsection of the Western District for 48 hours from 11:59 PM Sunday, June 24 to 11:59 PM Tuesday, June 26.
			Closed Waters Effective 11:59 PM Sunday, June 24 salmon may only be taken northeast of Humes Point.
4-FS-L-09-12	3:00 PM 6/26/2012	11:59 PM 6/26/2012	Extends the current commercial salmon fishing period in the Chignik Bay, Central, and Eastern districts as well as the Inner Castle Cape Subsection of the Western District for 48 hours from 11:59 PM Tuesday, June 26 to 11:59 PM Thursday, June 28.

Appendix A1.–Page 2 of 3.

E.O. Number	Issued	Effective	Action taken
4-FS-L-10-12	3:00 PM 6/28/2012	2:00 PM 6/29/2012	Subsection of the Western District for 58 hours from 2:00 PM Friday, June 29 until 11:59 PM Sunday, July 1.
			Opens the Eastern District for 24 hours from 2:00 PM Friday June 29 to 2:00 PM Saturday, June 30.
			Closed Waters Effective 2:00 PM Friday, June 29 salmon may only be taken northeast of Humes Point.
4-FS-L-11-12	6:15 PM 7/1/2012	6:15 PM 7/1/2012	Extends the current commercial salmon fishing period until further notice in the Chignik Bay and Central districts as well as the Inner Castle Cape Subsection of the Western District.
			Closed Waters Effective 4:30 PM Monday, July 2 salmon may only be taken northeast of Mensis Point.
4-FS-L-12-12	2:00 PM 7/9/2012		Closes the current commercial salmon fishing period in the Chignik Bay and Central districts as well as the Inner Castle Cape Subsection of the Western District at 10:00 PM, Tuesday, July 10.
4-FS-L-13-12	11:30 AM 7/12/2012		Opens the Chignik Bay, Central, Western, and Perryville districts, for 72 hours from 11:30 PM Thursday, July 12 until 11:30 PM Sunday, July 15. Closed Waters Effective 11:30 PM Thursday, July 12 salmon may only be taken northeast of Humes Point.
4-FS-L-14-12	3:15 PM 7/14/2012		Closed Waters Effective 11:00 PM Saturday, July 14 salmon may only be taken northeast of Mensis Point.
4-FS-L-15-12	3:00 PM 7/16/2012		Opens the Chignik Bay and Central districts as well as the Inner Castle Cape Subsection of the Western District from 3:00 AM Tuesday, July 17 until 11:59 PM Tuesday, July 24.
			Closed Waters Effective 3:00 AM Tuesday July, 17 salmon may only be taken northeast of Humes Point until 4:30 PM Tuesday, July 17 at which time, salmon may only be taken northeast of Mensis Point.
4-FS-L-16-12	6:30 PM 7/21/2012	11:59 PM 7/22/2012	Opens the Eastern, Western and Perryville districts, excluding the Inner Castle Cape Subsection of the Western District, for 48 hours from 11:59 PM Sunday, July 22 to 11:59 PM Tuesday, July 24.
4-FS-L-17-12	11:30 AM 7/28/2012		Opens the Chignik Bay and Central districts as well as the Inner Castle Cape Subsection of the Western district for 72 hours from 2:00 PM Sunday, July 29 until 2:00 PM Wednesday, August 1.
			Opens the Eastern, Western, and Perryville districts, excluding the Inner Castle Cape Subsection of the Western District, for 48 hours from 2:00 PM Monday, July 30 until 2:00 PM Wednesday, August 1.
			Closed Waters Effective 2:00 PM Sunday, July 29 salmon may only be taken northeast of Humes Point.
4-FS-L-18-12	9:15 AM 7/31/2012	4:00 PM 7/31/2012	Closed Waters Effective 4:00 PM Sunday, July 31 salmon may only be taken northeast of Mensis Point.

Appendix A1.–Page 3 of 3.

E.O. Number	Issued	Effective	Action taken
4-FS-L-19-12	9:00 PM	5:00 PM	Opens the Chignik Bay Districts as well as the Inner Castle Cape Subsection of
	7/31/2012	8/3/2012	the Western District from 5:00 PM Friday, August 3 until further notice. Opens the Central, Western, and Perryville districts, excluding the Inner Castle
			Cape Subsection of the Western District, for 55 hours from 5:00 PM Friday, August 3 until 11:59 PM Sunday, August 5.
			Closed Waters Effective 5:00 PM Friday, August 3 salmon may only be taken northeast of Mensis Point.
4-FS-L-20-12	8:00 PM	8:00 PM	Opens the Jack's Box portion of the Central District at 8:00 PM Sunday, August
	8/5/2012	8/5/2012	5 until further notice.
4-FS-L-21-12	3:30 PM	3:00 PM	Opens the Central, Western, and Perryville districts, from 3:00 PM Wednesday,
	8/7/2012	8/8/2012	August 8 until further notice.
4-FS-L-22-12	5:00 PM	11:59 PM	Closes the current commercial salmon fishing period in the Chignik Bay,
	9/8/2012	9/8/2012	Central, Western, and Perryville districts at 11:59 PM Saturday, September 8.

APPENDIX E	B. CHIGNIK S	SALMON R	EGULATIO	ONS, 2012.

CHAPTER 15. CHIGNIK AREA.

PLEASE NOTE THAT AS OF 1999 ALL LONGITUDE AND LATITUDE COORDINATES IN THE CHIGNIK AREA HAVE BEEN CONVERTED TO DECIMAL MINUTES AND ARE BASED ON THE WGS 1984.

ARTICLE 1. DESCRIPTION OF AREA.

5 AAC 15.001. APPLICATION OF THIS CHAPTER. Requirements set out in this chapter apply to commercial fishing only, unless otherwise specified. Subsistence, personal use, and sport fishing regulations affecting commercial fishing vessels or affecting any other commercial fishing activity are set out in the subsistence fishing regulations in 5 AAC 01 and 5 AAC 02, personal use fishing regulations in 5 AAC 77, and sport fishing regulations in 5 AAC 65 and 5 AAC 75.

5 AAC 15.100. DESCRIPTION OF AREA.

The Chignik Area includes all waters of Alaska on the south side of the Alaska Peninsula bounded by a line extending 135° southeast for three miles from a point near Kilokak Rocks at 57° 10.34' N. lat., 156° 20.22' W. long., (the longitude of the southern entrance to Imuya Bay) then due south, and a line extending 135° southeast from Kupreanof Point at 55° 33.98' N. lat., 159° 35.88' W. long.

ARTICLE 2. FISHING DISTRICTS, SECTIONS, AND SUBSECTIONS.

- **5 AAC 15.200. FISHING DISTRICTS, SECTIONS, AND SUBSECTIONS.** (a) The Eastern District includes all waters from the latitude of the southernmost ADF&G regulatory marker 500 yards from the mouth of Aniakchak Lagoon to the eastern boundary of the Chignik Area.
- (1) Agripina Section: all waters bounded by the eastern boundary of the Chignik Area described in 5 AAC 15.100 and a line extending 130° from Cape Providence at 56° 58.67' N. lat., 156° 33.47' W. long.;
- (2) Chiginagak Section: all waters bounded by a line extending 130° from Cape Providence at 56° 58.67' N. lat., 156° 33.47' W. long., and a line extending 150° from Cape Kuyuyukak at 56° 53.85' N. lat., 156° 49.72' W. long.;
- (3) Nakalilok-Yantarni Section: all waters bounded by a line extending 150° from Cape Kuyuyukak at 56° 53.85' N. lat., 156° 49.72' W. long., the longitude of Cape Kunmik at 56° 45.88' N. lat., 157° 12.05' W. long. and the southern boundary of the Eastern District;
- (4) Big River Section: all waters of Amber and Aniakchak Bays bounded by 157° 12.05' W. long., and the latitude of the southernmost ADF&G regulatory marker 500 yards from the mouth of Aniakchak Lagoon.
- (b) The Chignik Bay District includes all waters of Chignik Bay and Lagoon west of a line from a point near Jack Bay at 56° 17.60' N. lat., 158° 12.80' W. long., to the creek at 56° 24.12' N. lat., 158° 27.73' W. long.
- (c) The Western District includes all waters south of the latitude of a point southwest of Jack Point at 56° 16.40' N. lat., 158° 12.50' W. long., excluding the waters of Chignik Lagoon, and north and east of a line extending 170° from Coal Cape at 55° 53.42' N. lat., 159° 00.45' W. long.
 - (1) Castle Cape Section: all waters bounded by the latitude of a point southwest of

Jack Point at 56° 16.40' N. lat., 158° 12.50' W. long., and a line extending 165° from a point northwest of Cape Ikti at 56° 00.32' N. lat., 158° 32.02' W. long.;

- (A) Inner Castle Cape Subsection: all waters of the Castle Cape Section within and adjacent to Castle Bay enclosed by the northern boundary line of the Castle Cape Section and 56° 14.61' N. lat.;
- (B) Outer Castle Cape Subsection: all waters of the Castle Cape Section, excluding the waters of the Inner Castle Cape Subsection;
- (2) Dorner Bay Section: all waters bounded by a line extending 165° from a point northwest of Cape Ikti at 56° 00.32' N. lat., 158° 32.02' W. long., and a line extending 165° from a point on the west side of Dorner (Kuiukta) Bay's entrance at 55° 57.00' N. lat., 158° 40.00' W. long.;
- (3) Mitrofania Section: all waters, including Mitrofania Island, bounded by a line extending 165° from a point on the west side of Dorner (Kuiukta) Bay's entrance at 55° 57.00' N. lat., 158° 40.00' W. long., and a line extending 170° from Coal Cape at 55° 53.42' N. lat., 159° 00.45' W. long.;
 - (4) Repealed 5/29/99.
- (d) The Perryville District includes all waters bounded by a line extending 170° from Coal Cape at 55° 53.42' N. lat., 159° 00.45' W. long., and a line extending 135° southeast from Kupreanof Point at 55° 33.98' N. lat., 159° 35.88' W. long.
- (1) Perryville Section: all waters, including the Chiachi Islands, bounded by a line extending 170° from Coal Cape at 55° 53.42' N. lat., 159° 00.45' W. long., and a line extending 155° from Coal Point at 55° 51.47' N. lat., 159° 18.95' W. long.;
- (2) Humpback Bay Section: all waters, including Paul and Jacob Islands, bounded by a line extending 155° from Coal Point at 55° 51.47' N. lat., 159° 18.95' W. long., and the longitude of Alexander Point at 55° 47.32' N. lat., 159° 24.68' W. long.:
- (3) Ivanof Bay Section: all waters bounded by the longitude of Alexander Point at 55° 47.32' N. lat., 159° 24.68' W. long., and a line extending 135° southeast from Kupreanof Point at 55° 33.98' N. lat., 159° 35.88' W. long.
- (e) The Central District includes all waters, excluding the waters of the Chignik Bay District, bounded by the latitude of a point southwest of Jack Point at 56° 16.40' N. lat., 158° 12.50' W. long., and the latitude of the southernmost ADF&G regulatory marker 500 yards from the mouth of Aniakchak Lagoon.
- (1) Cape Kumlik Section: all waters, including Sutwik Island, bounded by the latitude of the southernmost ADF&G regulatory marker 500 yards from the mouth of Aniakchak Lagoon and the longitude of a point on the southwest side of Cape Kumlik at 56° 36.48' N. lat., 157° 40.53' W. long.
- (2) Kujulik Section: all waters bounded by the longitude of a point on the southwest side of Cape Kumlik at 56° 36.48' N. lat., 157° 40.53' W. long., and a line extending 145° from a point on Cape Kumliun at 56° 28.58' N. lat., 157° 51.55' W. long.;
- (3) Outer Chignik Bay Section: all waters, including Nakchamik Island, bounded by a line extending 145° from a point on Cape Kumliun at 56° 28.58' N. lat., 157° 51.55' W. long., and the latitude of a point southwest of Jack Point at 56° 16.40' N. lat., 158° 12.50' W. long., excluding the waters of the Chignik Bay District.

5AAC 15.026. USE OF GLOBAL POSITIONING SYSTEM (GPS). In the Chignik Area, boundaries, lines, and coordinates are identified with the global positioning system (GPS). If the global positioning system is not operating, the boundaries, lines, and coordinates are as identified by ADF&G regulatory markers.

ARTICLE 3. SALMON FISHERY.

- **5 AAC 15.310. FISHING SEASONS.** (a) In the Chignik Bay District, salmon may be taken only from June 1 through October 31.
 - (b) The Perryville, Western, Central and Eastern Districts are opened by emergency order.
- **5 AAC 15.320. WEEKLY FISHING PERIODS.** (a) Salmon fishing periods shall be established by emergency order.
 - (b) Repealed 3/13/75.
- **5 AAC 15.330. GEAR**. (a) Salmon may be taken only by purse seine and hand purse seine.
 - (b) Repealed 4/24/80.
- **5 AAC 15.332. SEINE SPECIFICATIONS AND OPERATIONS.** (a) In the Eastern, Central, Western and Perryville Districts no purse seine less than 100 fathoms or more than 225 fathoms in length may be used.
- (b) In the Eastern, Central, Western and Perryville Districts no hand purse seine less than 100 fathoms or more than 225 fathoms in length may be used.
- (c) In the Chignik Bay District, purse seines and hand purse seines may not be less than 100 fathoms or more than 125 fathoms in length.
- (d) No seine may be less than three fathoms nor more than 375 meshes in depth; in addition, up to twenty-five meshes of chafing gear with a maximum mesh size of seven inches may be used.
- (e) No lead may be more than 75 fathoms in length. The aggregate length of seine and lead may not be more than 225 fathoms in the Eastern, Central, Western and Perryville Districts.
- (f) When a purse seine or hand purse seine is in the water for the purpose of taking fish, the seine shall be attached to the licensed vessel operating the gear.
- 5 AAC 15.342. VESSEL IDENTIFICATION. Repealed 4/18/86.
- 5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:
 - (1) Chignik Lagoon:
- (A) Mallard Duck and Schooner Bays: south of line from the tip of Green Point at 56° 16.75' N. lat., 158° 33.90' W. long. to Chignik Island at 56° 16.63' N. lat., 158° 34.90' W. long., and south of a line from 56° 16.53' N. lat., 158° 37.87' W. long. to Chignik Island at 56° 16.35' N. lat., 158° 35.97' W. long.;
- (B) Humes Point: south of a line from the tip of Humes Point at 56° 17.67' N. lat., 158° 36.89' W. long. to Chignik Island at 56° 17.42' N. lat., 158° 35.50' W. long.;
- (C) Mensis Point: southwest of a line from the tip of Mensis Point at 56° 16.90' N. lat., 158° 38.51' W. long. to a point on the south bank of the Chignik River at 56° 16.56' N. lat., 158° 38.40' W. long.;

- (D) Pillar Rock: southwest of a line from the north bank of the Chignik River at 56° 16.74' N. lat., 158° 39.01' W. long. to a point on the south bank of the Chignik River at 56° 16.57' N. lat., 158° 38.84' W. long.;
- (2) Kilokak Rocks Bay: northwest of a line from the southern entrance of the bay at 57° 09.78' N. lat., 156° 20.78' W. long., then to the opposite shore 500 yards northeast of the mouth of Kilokak Rocks Creek at 57° 10.07' N. lat., 156° 20.78' W. long.;
- (3) Agripina River: west of a line from 57° 06.72' N. lat., 156° 28.22' W. long., to 57° 06.44' N. lat., 156° 28.67' W. long.;
- (4) Chiganagak Bay: north of a line from 57° 00.50' N. lat., 156° 45.75' W. long., to 57° 01.68' N. lat., 156° 41.97' W. long.;
 - (5) Nakalilok Lagoon: the lagoon and within 500 yards of the entrance;
 - (6) Yantarni Lagoon: the lagoon and within 500 yards of the entrance;
- (7) Aniakchak River: northwest of a line from approximately 500 yards northeast of the mouth at 56° 45.86' N. lat., 157° 28.88' W. long., to an ADF&G regulatory marker on the southern tip of the island directly off the mouth and then to approximately 1,000 yards southwest of the mouth at 56° 45.28' N. lat., 157° 31.53' W. long.;
 - (8) Aniakchak Lagoon: the lagoon and within 500 yards of the entrance;
- (9) Kujulik Bay: the southwest end of the bay southwest of a line from 56° 35.85' N. lat., 157° 59.12' W. long., to the opposite shore at 56° 34.50' N. lat., 157° 54.63' W. long.;
- (10) Portage Bay: west of a line from 56° 11.68' N. lat., 158° 33.07' W. long., to 56° 10.58' N. lat., 158° 33.07' W. long.;
- (11) Ivan Bay: north of a line from the ADF&G regulatory marker on the northwest shore, 1,000 yards from the stream mouth, to the ADF&G regulatory marker on the southeast shore 750 yards from the stream mouth;
- (12) Humpback Bay: within 1,000 yards of the terminus of Humpback Bay stream at 55° 52.68' N. lat., 159° 20.12' W. long.;
- (13) Ivanof Bay: all waters northwest of a line from a point on the northeast shore at 55° 52.42' N. lat., 159° 28.40' W. long., to a point on the north end of the spit at 55° 50.95' N. lat., 159° 31.02' W. long. (all waters northwest of Road Island are closed);
- (14) Alfred Creek: before August 1, the 500-yard closure at the terminus described in 5 AAC 39.290 does not apply; the 500-yard closure does apply from August 1 to the end of the salmon fishing season;
- (15) Dago Frank Creek: before August 1, the 500-yard closure at the terminus described in 5 AAC 39.290 does not apply; the 500-yard closure does apply from August 1 to the end of the salmon fishing season;
- (16) Hook Bay: southwest of a line from the tip of Hook Bay Spit at 56° 30.07' N. lat., 158° 08.18' W. long., to a point northwest of the spit at 56° 30.61' N. lat., 158° 09.27' W. long.;
- (17) unnamed stream at 55° 48.98' N. lat.; 159° 24.45' W. long.; the 500-yard closure at the terminus described in 5 AAC 39.290 does not apply;
- (18) Lake Bay: all waters southwest of a line drawn at the entrance to Lake Bay at 56° 18.80' N. lat., 158° 17.62' W. long., extending across the entrance to Lake Bay to a

point at 56° 18.32' N. lat., 158° 16.20' W. long.;

- (19) Mud Bay: all waters southwest of a line from 56° 19.42' N. lat., 158° 25.10' W. long., extending across the entrance to Mud Bay;
- (20) from July 6 through August 31, all waters of Alaska in the Ivanof Bay Section, between a line extending 135° from Kupreanof Point at 55° 33.98' N. lat., 159° 35.88' W. long., and a line extending 65° from 55° 34.90' N. lat., 159° 37.10' W. long.
- **5 AAC 15.355. REPORTING REQUIREMENTS.** (a) The operator of a floating salmon processing vessel or tender, or a shorebased processing operation, and a company employing aircraft used for transporting salmon, shall report in person, or by radio or telephone, to a local representative of the department located in the management area of intended operation before the start of processing or buying operations. The report must include the location and the date of intended operation, and identify and describe each vessel or other method of transport employed in hauling or processing salmon.
- (b) A commercial fisherman shall report, on an ADF&G fish ticket at the time of landing, the number of salmon taken but not sold.
- **5 AAC 15.357. CHIGNIK SALMON MANAGEMENT PLAN.** (a) The department shall manage the commercial salmon fishery in the Chignik Area in accordance with the guidelines set out in the management plan under this section. The goal of this management plan is to allow traditional fisheries in the area to be conducted on Chignik Area salmon stocks, and to achieve the department's biological escapement goals for both Black Lake (early-run) and Chignik Lake (late-run) sockeye salmon and local stocks of pink, chum, coho, and king salmon.
- (b) In the Chignik Bay and Central Districts, and the Inner Castle Cape Subsection of the Western District, the commercial salmon fishery shall open concurrently based on escapement objectives for the Chignik Lakes' system sockeye salmon runs, except that
- (1) the commissioner shall open, by emergency order, the commercial salmon fishery when 20,000 sockeye salmon have escaped into the Chignik River; however if the department determines that a strong buildup of sockeye salmon exists in Chignik Lagoon and that 20,000 sockeye salmon will escape into the Chignik River, the commissioner may open, by emergency order, the commercial salmon fishery before 20,000 sockeye salmon have escaped into the Chignik River;
- (2) during the period of transition from the predominance of the early-run sockeye salmon to that of the late-run sockeye salmon, (usually late June through mid-July), the commissioner shall open and close, by emergency order, the fishing periods to harvest surplus early-run sockeye salmon without jeopardizing the late-run sockeye salmon escapement objectives;
- (3) from the end of the transition period, described in (2) of this subsection until September 14, the commissioner shall open and close, by emergency order, fishing periods in the Chignik Bay and Central Districts, and the Inner Castle Cape Subsection of the Western District, based on the Chignik Lakes' system sockeye salmon escapement goals; the commissioner may take additional emergency order actions to protect or harvest local pink, chum, king and coho salmon runs; and
- (4) beginning September 15, fishing periods in the Chignik Bay and Central Districts, and the Inner Castle Cape Subsection of the Western District, may be no more than 48-hours per week, and shall be based on the department's evaluation of the sockeye salmon run

strength and the subsistence needs for Chignik Lake late-season sockeye salmon.

- (c) In the Eastern District,
- (1) during June, the commercial salmon fishery shall open concurrently with the Chignik Bay and Central Districts, and the Inner Castle Cape Subsection of the Western District, and the openings shall be based on achieving the Black Lake sockeye salmon escapement goals;
 - (2) from approximately June 26 through July 8,
- (A) the department shall evaluate the strength of the sockeye salmon late run; and
- (B) in order to continue managing the Black Lake sockeye salmon harvest and escapement, while assessing the Chignik Lake sockeye salmon run strength, commercial salmon fishing in the Eastern District will, in the department's discretion, be disallowed or severely restricted;
- (3) from the end of the transition period, described in (b)(2) of this section, until the end of the fishing season, the department shall manage the commercial salmon fishery based on its evaluation of local pink, chum, and coho salmon runs, and the escapement objectives of the Chignik Lakes' system sockeye salmon.
- (d) In the Western District, excluding the Inner Castle Cape Subsection, and the Perryville District, the department may open the commercial salmon fishery beginning July 6, except that
 - (1) from approximately late June to mid-July (transition period),
- (A) the department shall evaluate the strength of the sockeye salmon late run; and
- (B) in order to allow the department to assess the Chignik Lake run strength, the department may keep closed or severely restrict commercial salmon fishing in the Western District, except the Inner Castle Cape Subsection, and in the Perryville District;
- (2) from the end of the transition period, described in (b)(2) of this section, until approximately August 20, fishing periods shall be based on the department's evaluation of local pink and chum salmon runs, and its evaluation of the Chignik Lake sockeye salmon run from July 22 through July 31,
 - (A) repealed 3/29/2008;
- (B) the commissioner may, by emergency order, open fishing in the following terminal harvest areas:
- (i) those portions of the Western and Perryville Districts north of a line from Cape Ikti at 56° 00.32' N. lat., 158° 32.02' W. long., to Coal Cape at 55° 53.42' N. lat., 159° 00.45' W. long. to Cape Alexander at 55° 47.22' N. lat., 159° 24.57' W. long., and
- (ii) waters in the Ivanof Bay Section of the Perryville District that are north of the latitude from Alexander Point at 55° 47.37' N. lat., 159° 24.37' W. long., to Kupreanof Peninsula; and
- (iii) those portions of the Chignik Bay and Central Districts known locally as Jack's Box, which consists of those waters east of 158° 15.36' W. long., south of 56° 20' N. lat., and west of 158° 10' W. long.;

- (3) from approximately August 20 until the end of the fishing season, fishing periods shall be based on the department's evaluation of local pink, chum, and coho salmon runs, and its evaluation of the Chignik Lake sockeye salmon run.
- (e) Notwithstanding the provisions of (d) of this section, in the Western District, excluding the Inner Castle Cape Subsection, the commercial salmon fishery shall open concurrently with the Chignik Bay and Central Districts, and the Inner Castle Cape Subsection of the Western District, from June 1 through July 5 for no more than two fishing periods up to 48 hours each with a closure for a minimum of 48 hours between the fishing periods.

5AAC 15.359. CHIGNIK AREA COOPERATIVE PURSE SEINE SALMON FISHERY MANAGEMENT PLAN. Repealed.

5 AAC 15.360. EASTERN DISTRICT SALMON MANAGEMENT PLAN. Repealed 5/29/99.

5 AAC 15.362. CHIGNIK AREA COOPERATIVE FISHERY MANAGEMENT PLAN. Repealed 5/26/2006.

APPENDIX C. 2012 CHIGNIK SOCKEYE SALMON POSTWEIR ESCAPEMENT ESTIMATE MEMORANDUM

MEMORANDUM

State of Alaska

Department of Fish and Game Westward Region Office

TO: Nick Sagalkin DATE: October 31, 2012

Regional Finfish Research Coordinator

Commercial Fisheries Division PHONE: (907) 486-1805

Region IV - Kodiak FAX: (907) 486-1841

THRU: M. Birch Foster SUBJECT: 2012 Chignik Post-weir

Finfish Research Biologist Escapement Estimate

Commercial Fisheries Division

Region IV - Kodiak

FROM: Adam St. Saviour AS

Finfish Research Biologist

Commercial Fisheries Division

Region IV - Kodiak

The 2012 Chignik sockeye salmon post-weir escapement was estimated using time series analysis of run data collected between July 18 and the final day of weir operation, August 29 (Figure 1). Inseason stock composition genetics analysis indicated that the run was greater than 99% late run by July 18 (T. Dann ADF&G personal communication). The sockeye salmon run exhibited a declining trend during this period.

Time series analysis estimates the rate of decay in the run and forecasts future escapements after weir removal assuming that the forecast escapement follows the same rate of decay as the run. If fishing occurs during a post-weir period, those harvests must be subtracted from the post-weir estimate of escapement. Taking lag time from management districts into consideration, fishing occurred during the 2012 post-weir period on August 30-31, September 1, 3, and 7. This resulted in a subtraction of 8,742 sockeye salmon from the post-weir escapement estimate.

The Chignik sockeye salmon time series analysis (Figure 2) followed autoregressive one [AR(1)] type decay (Chatfield 1985), which is typical for Chignik sockeye salmon post-weir estimate analyses. The 2012 analysis resulted in an estimated escapement of 37,275 (AICC= 25.88; 95% prediction interval 21,080 to 101,899) sockeye salmon from August 30 through September 15 and 15,543 (95% prediction interval 5,022 to 40,062) September 16 through September 30 (Figure 2). The post-weir total of 52,818 is corroborated by the 2012 DIDSON sockeye salmon estimate of 63,832 during the same period. Since DIDSON estimates are still under evaluation in this system, the time series estimate was selected as the 2012 official post-weir estimate for use in the Chignik Annual Management Report.

Chignik Sockeye Salmon Total Run 120,000 Weir pulled 8/30 100,000 80,000 Daily Run Size 60,000 40,000 20,000 5/24 6/13 7/3 7/23 8/12 9/1 9/21 Date

Figure 1. 2012 Estimated Chignik sockeye salmon run by day.

Chignik Sockeye Salmon Post-Weir Estimate

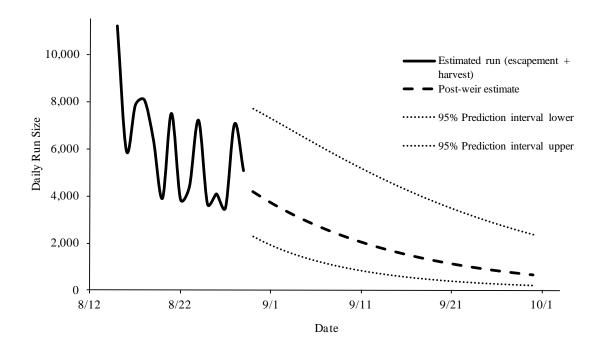


Figure 2. Chignik sockeye salmon run pre-weir removal and post-weir estimate.

Chatfield, C. 1985. The Analysis of Time Series: An Introduction, $3^{\rm rd}$ ed. Chatman and Hall, London.

CC: Anderson, Russell, Wadle, Finkle

APPENDIX D. COMMERCIAL SALMON FISHERY CATCH
AND EFFORT, BY DAY

Appendix D1.—Commercial salmon fishing effort and harvest (including home pack but not including the department's test fishery harvest), by day in the Chignik Management Area, 2012.

_	Eff	ort	Chino	ook	Socke	ye	Coh	.0	Pinl	k	Chu	m	Tota	al
Date	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
8-Jun	33	33	2	38	13,880	98,140	0	0	0	0	0	0	13,882	98,178
9-Jun	47	49	24	439	23,489	160,383	3	17	94	284	361	3,713	23,971	164,836
10-Jun	51	55	19	352	26,162	178,441	0	0	72	234	150	1,252	26,403	180,279
11-Jun	35	44	25	405	14,052	97,585	0	0	73	198	438	3,759	14,588	101,947
12-Jun	49	52	184	3,525	21,182	145,551	0	0	1,545	4,615	11,706	103,057	34,617	256,748
13-Jun	31	35	54	959	12,623	87,672	0	0	117	350	704	5,819	13,498	94,800
14-Jun	49	55	196	3,137	24,764	173,061	1	5	1,098	2,346	3,937	33,549	29,996	212,098
15-Jun							Fishery	Closed						
16-Jun	57	64	44	828	59,000	371,650	0	0	380	1,084	1,796	13,515	61,220	387,077
17-Jun	53	55	67	972	57,514	374,404	0	0	2,070	3,508	4,302	31,516	63,953	410,400
18-Jun	53	64	75	1,329	65,704	417,400	0	0	964	1,569	1,667	14,331	68,410	434,629
19-Jun	54	59	92	1,286	68,688	440,227	1	7	1,105	2,956	2,551	22,498	72,437	466,974
20-Jun	54	64	89	1,530	70,389	458,380	0	0	1,899	7,240	3,480	28,152	75,857	495,302
21-Jun	54	56	215	3,326	68,971	441,074	0	0	4,238	8,511	4,124	32,801	77,548	485,712
22-Jun	54	62	93	1,441	68,378	448,688	0	0	1,522	3,705	970	7,394	70,963	461,228
23-Jun	53	55	39	689	41,481	266,817	0	0	1,605	3,416	2,478	22,869	45,603	293,791
24-Jun	49	50	26	353	32,321	207,677	0	0	1,347	3,613	2,185	15,551	35,879	227,194
25-Jun	46	48	30	447	22,158	147,626	0	0	497	1,501	762	7,095	23,447	156,669
26-Jun	41	41	36	529	20,973	161,084	0	0	1,585	4,196	2,320	22,966	24,914	188,775
27-Jun	44	44	29	493	25,079	167,203	0	0	1,293	3,789	1,126	10,222	27,527	181,707
28-Jun	49	50	43	607	21,135	132,296	0	0	1,676	4,626	1,417	11,160	24,271	148,689
29-Jun	45	48	34	607	38,007	252,761	0	0	2,162	6,134	3,105	23,668	43,308	283,170
30-Jun	51	59	22	390	34,872	223,322	0	0	1,270	3,539	1,464	13,073	37,628	240,324
1-Jul	50	59	43	623	46,075	313,535	1	5	2,134	6,367	3,413	29,444	51,666	349,974
2-Jul	42	44	9	222	24,284	168,358	2	13	324	949	780	6,231	25,399	175,773
3-Jul	59	63	44	725	42,493	304,379	22	172	1,305	3,759	3,347	34,997	47,211	344,032
4-Jul	52	55	28	542	44,314	306,523	20	141	767	2,236	5,063	42,517	50,192	351,959
5-Jul	39	43	63	821	34,801	248,560	58	380	982	2,951	1,908	15,185	37,812	267,897
6-Jul	52	57	53	1,008	42,790	312,763	18	123	485	1,593	2,154	18,614	45,500	334,101
7-Jul	50	54	40	587	36,567	264,952	7	40	509	1,551	1,381	14,442	38,504	281,572
8-Jul	52	55	26	437	46,393	337,272	15	107	783	2,491	2,745	26,183	49,962	366,490

Appendix D1.–Page 2 of 3.

	Eff	ort	Chino	ok	Socke	eye	Coh	0	Pin	k	Chu	m	Tota	al
Date	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
9-Jul	56	58	61	1,221	41,895	310,332	8	54	465	1,399	1,950	19,708	44,379	332,714
10-Jul	56	61	13	245	37,717	285,749	21	115	509	1,640	3,084	29,157	41,344	316,906
11-Jul							Fishery	Closed						
12-Jul							Fishery	Closed						
13-Jul	45	55	111	1,318	59,116	428,631	415	2,659	917	3,572	2,604	24,082	63,163	460,262
14-Jul	39	43	29	454	29,384	211,820	3	18	523	1,643	1,733	14,230	31,672	228,165
15-Jul	56	64	190	2,686	59,559	426,952	1,693	9,540	2,545	9,318	5,733	61,576	69,720	510,072
16-Jul							Fishery	Closed						
17-Jul	57	62	125	1,191	67,155	495,769	167	959	1,273	3,947	6,003	43,845	74,723	545,711
18-Jul	50	58	44	540	37,757	266,669	3	17	523	1,555	2,033	17,296	40,360	286,077
19-Jul	58	58	248	2,243	37,221	252,082	610	3,845	2,306	7,380	3,763	33,277	44,148	298,827
20-Jul	58	60	93	1,187	33,456	232,473	149	856	1,266	4,585	2,594	29,549	37,558	268,650
21-Jul	56	56	106	697	29,671	207,378	159	1,008	1,309	4,632	2,085	24,297	33,330	238,012
22-Jul	50	53	57	694	24,165	161,398	502	2,245	1,809	11,507	1,721	21,186	28,254	197,030
23-Jul	45	45	170	1,465	15,226	103,254	1,823	11,564	2,123	8,769	5,779	55,631	25,121	180,683
24-Jul	56	57	148	1,659	19,869	133,212	2,031	13,348	5,025	19,924	12,031	111,326	39,104	279,469
25-Jul							Fishery	Closed						
26-Jul							Fishery	Closed						
27-Jul							Fishery	Closed						
28-Jul							Fishery	Closed						
29-Jul	36	36	19	185	15,959	104,536	9	54	379	1,398	173	1,372	16,539	107,545
30-Jul	56	57	61	811	18,062	117,820	1,550	9,536	4,252	17,265	5,732	56,674	29,657	202,106
31-Jul	44	45	15	223	11,741	77,727	72	376	2,091	7,166	4,503	44,025	18,422	129,517
1-Aug	43	43	103	862	7,723	49,994	1,169	7,663	4,736	16,830	9,039	73,269	22,770	148,618
2-Aug							Fishery	Closed						
3-Aug	15	15	1	24	4,833	30,994	4	30	194	690	102	732	5,134	32,470
4-Aug	45	48	16	179	8,753	58,277	1,335	10,644	7,803	24,615	6,117	53,880	24,024	147,595
5-Aug	29	29	5	79	6,159	40,027	940	5,740	2,253	6,805	2,755	24,593	12,112	77,244
6-Aug	18	19	0	0	6,217	40,024	6	35	378	1,450	351	2,487	6,952	43,996
7-Aug	31	32	35	341	6,148	40,249	792	4,817	3,528	11,786	1,761	19,741	12,264	76,934
8-Aug	24	24	25	277	7,163	46,999	555	4,257	4,482	13,199	3,316	26,245	15,541	90,977
9-Aug	30	30	35	352	5,743	37,565	2,068	16,016	12,679	44,572	4,791	41,790	25,316	140,295
10-Aug	21	22	30	324	3,730	24,305	2,575	17,942	14,901	53,208	2,590	30,695	23,826	126,474

Appendix D1.–Page 3 of 3.

	Effe	ort	Chino	ok	Socke	eye	Coh	0	Pinl	(Chum		Total	
Date	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
11-Aug	19	20	19	163	4,932	32,234	836	6,137	5,115	17,339	1,550	13,924	12,452	69,797
12-Aug	11	11	1	30	2,412	16,743	273	2,281	944	3,118	452	4,448	4,082	26,620
13-Aug	11	11	69	650	2,926	19,804	1,039	8,285	3,571	10,911	1,288	10,271	8,893	49,921
14-Aug	5	5	0	0	1,490	10,136	3	24	262	798	51	450	1,806	11,408
15-Aug	12	12	57	520	3,095	20,601	1,020	8,059	2,118	7,647	764	6,780	7,054	43,607
16-Aug	20	20	14	216	5,427	35,082	1,332	10,121	2,465	8,247	546	4,750	9,784	58,416
17-Aug	17	17	26	284	4,601	29,975	2,302	17,652	5,232	17,148	944	8,335	13,105	73,394
18-Aug	14	14	10	72	3,510	23,158	365	2,624	551	2,190	175	1,322	4,611	29,366
19-Aug	10	10	7	64	2,276	14,775	1,447	9,385	3,025	7,983	720	5,315	7,475	37,522
20-Aug	11	12	0	0	3,136	20,327	166	1,079	463	1,878	107	698	3,872	23,982
21-Aug	12	12	0	0	2,317	14,969	120	666	320	1,060	94	570	2,851	17,265
22-Aug	5	5	0	0	1,575	10,195	101	537	119	487	50	324	1,845	11,543
23-Aug	7	12	0	0	2,990	19,533	221	1,293	320	1,261	46	381	3,577	22,468
24-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Aug	6	9	0	0	1,703	10,949	161	957	184	660	14	113	2,062	12,679
26-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Aug	6	6	0	0	2,005	12,831	198	1,534	112	499	11	115	2,326	14,979
28-Aug	5	5	0	0	1,934	12,517	458	3,062	151	629	21	139	2,564	16,347
29-Aug	7	11	0	0	2,958	18,696	660	4,338	230	881	43	248	3,891	24,163
30-Aug						(Confidential 1	Information						
31-Aug	6	6	0	0	1,346	8,174	480	3,273	71	431	18	136	1,915	12,014
1-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Sep	7	7	0	0	2,569	16,637	1,786	10,740	215	645	28	222	4,598	28,244
3-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-Sep	4	4	0	0	1,211	7,723	1,318	7,904	35	104	5	31	2,569	0
7-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Sep						- Pro	cessors Clos	ed for Seaso	n -					
Total	69	2,913	3,687	49,903	1,798,032	12,251,128	33,316	225,798	137,706	452,224	171,112	1,534,859	2,143,853	14,513,912