# **Chignik Management Area Salmon and Herring Annual Management Report, 2006**

by

Mark A. Stichert

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

## FISHERY MANAGEMENT REPORT NO. 07-56

# CHIGNIK MANAGEMENT AREA SALMON AND HERRING ANNUAL MANAGEMENT REPORT, 2006

by

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> > December 2007

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# TABLE OF CONTENTS

Page

	I ugu
LIST OF TABLES	ii
LIST OF FIGURES	iii
LIST OF APPENDICES	iii
ABSTRACT	1
INTRODUCTION	1
COMMERCIAL HERRING	2
Herring Management Overview	
Historical Data	
2006 Herring Fishery	
COMMERCIAL SALMON	
Overview of Management Plans	
Chignik Salmon Management Plan	
Cape Igvak Salmon Management Plan	
Southeastern District Mainland Salmon Management Plan	
2006 Salmon Management	4
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 Goal Review	
Chinook Salmon	
Sockeye Salmon	
Coho Salmon	
Pink Salmon	
Chum Salmon	8
Harvest Information	8
Chinook Salmon Sockeye Salmon	
Coho Salmon	
Pink Salmon	
Chum Salmon	
Economic Value	9
Chignik Lagoon Test Fisheries	10
CHIGNIK AREA SALMON SUBSISTENCE FISHERIES	10
REFERENCES CITED	11
TABLES AND FIGURES	13
APPENDIX A. MEMORANDUM RECOMMENDING TARGETING THE LOWER BOUNDS OCHIGNIK SOCKEYE SALMON ESCAPEMENT GOALS DURING THE 2006 SEASON.	
APPENDIX B. SUMMARY OF 2006 EMERGENCY ORDERS	
APPENDIX C. COMMERCIAL SALMON FISHERY CATCH AND EFFORT, BY DAY	

## LIST OF TABLES

Table	Pa	age
1.	List of Chignik Management Area herring management units	
2.	Chignik Management Area commercial herring harvest, 1980 through 2006	15
3.	Chignik River sockeye salmon interim escapement objectives, 2006.	
4.	Estimated Chignik River Chinook, coho, pink, and chum salmon and Dolly Varden escapement, by day, 2006	
5.	Estimated Chignik River Chinook, coho, pink, and chum salmon and Dolly Varden escapement, 1970 through 2006.	
6.	Estimated Chignik River sockeye salmon escapement, by day, and management objective period, 2006.	
7.	Total Chignik River sockeye salmon escapement and escapement goals, based on postseason analysis, by run, 1970 through 2006.	
8.	Peak sockeye salmon aerial survey escapement estimates for Black Lake tributaries, 1960 through 2006.	
9.	Peak sockeye salmon aerial survey escapement estimates for Chignik Lake and Black River tributaries, 1960 through 2006.	
10.	Estimated pink salmon escapement and objectives in the Chignik Management Area, by district and year, 1970 through 2006	
11.	Estimated chum salmon escapement and objectives in the Chignik Management Area, by district and year, 1970 through 2006	
12.	Total commercial salmon harvests, including home pack and the department's test fishery harvests, from the Chignik Management Area by species and year, 1970 through 2006	
13.	Annual Chignik Management Area Chinook salmon harvest, 1970 through 2006.	
14.	Chignik Management Area Chinook salmon harvest by district and year, 1970 through 2006.	
15.	Chignik Management Area Chinook salmon harvest by district and day, 2006	
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, 1978 through 2006	
17.	Total annual Chignik Management Area sockeye salmon harvest by district, 1970 through 2006	
18.	Chignik Management Area sockeye salmon harvest by district and day, 2006.	
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 to July 25, 1978 through	
	2006	36
20.	Chignik sockeye salmon escapement, total harvest considered Chignik-bound, and total run, 1970 through 2006.	38
21.	Chignik sockeye salmon forecasts and actual runs, by run and year, 1993 through 2006	
22.	Chignik Management Area coho salmon harvest, by year, 1970 through 2006.	40
23.	Chignik Management Area coho salmon harvestby district and year, 1970 through 2006.	
24.	Chignik Management Area coho salmon harvest by district and day, 2006	42
25.	Chignik Management Area pink salmon harvest, by year, 1970 through 2006	
26.	Chignik Management Area pink salmon harvest by district and year, 1970 through 2006	
27.	Chignik Management Area pink salmon harvest by district and day, 2006.	46
28.	Chignik Management Area chum salmon harvest, by year, 1970 through 2006	
29.	Chignik Management Area chum salmon harvest by district and year, 1970 through 2006	
30.	Chignik Management Area chum salmon harvest by district and day, 2006.	
31.	Value of the commercial salmon harvest, by species, and average value per active permit, in dollars, in the Chignik Management Area, 1970 through 2006.	
32.	Number of subsistence permits issued and returned and estimated salmon subsistence harvest, by	
	species and year, 1980 through 2006.	54

## LIST OF FIGURES

Figure	e P	Page
1.	Map of the Alaska Peninsula illustrating the relative locations of the Chignik, Kodiak, and Alaska	
	Peninsula and Aleutians Islands Management Areas.	
2.	Map of the Chignik Management Area illustrating district and section boundaries and statistical areas	56
3.	Representation of days open to commercial salmon fishing, by district and month, 2006	66
4.	Map of upper Chignik Lagoon showing the location of the Pillar Rock, Mensis Point, and Humes Point marker	•
	locations	67
5.	Chignik River estimated daily (bars) and cumulative (line) Chinook salmon escapement, 2006	59
6.	Chignik River Chinook salmon escapement by year, 1970 through 2006, as compared to the 2006	
	escapement goal.	60
7.	Chignik River sockeye salmon daily (bars) and cumulative (line) escapement, 2006	61
8.	Chignik River sockeye salmon early, late, and combined run escapements 1970 through 2006,	
	compared to 2006 sustainable escapement goal (SEG).	62
9.	Chignik-bound sockeye salmon early-run harvest, 1970 through 2006.	63
10.	Chignik-bound sockeye salmon late-run harvest, 1970 through 2006.	64
11.	Total sockeye salmon escapement (solid bars) and catch (striped bars) considered Chignik-bound	
	including home pack, the ADF&G's test fishery harvest, and Cape Igvak and SEDM allocations, by	
	year and run, 1970 through 2006	
12.	Average exvessel value (\$) per permit (bars) and total permits (line) fished by year 1970 through 2006.	66

## LIST OF APPENDICES

Apper	ndix	Page
Ā1.	Memorandum recommending targeting the lower bounds of the Chignik sockeye salmon escapemen goals during the 2006 season.	
B1.	Summary of the 2006 Chignik Management Area Emergency Orders.	76
C1.	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, 2006	

### ABSTRACT

This report summarizes the 2006 commercial Pacific herring *Clupea pallasi* and Pacific salmon *Oncorhynchus sp.* 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 2006. All five species of Pacific salmon were commercially harvested in the CMA: Chinook *O. tschawytscha*, sockeye *O. nerka*, coho *O. kisutch*, pink *O. gorbuscha*, and chum *O. keta* salmon. In 2006, the Chinook salmon escapement of 3,535 to the Chignik River was below recent averages but exceeded the escapement goal range of 1,300 to 2,700 fish. The 2006 Chignik River early-run sockeye salmon escapement of 366,497 was within the early-run escapement goal range of 350,000 to 400,000 fish. The late-run sockeye salmon escapement of 368,996 exceeded the late-run escapement goal range of 200,000 to 250,000 fish. The early run was below and the late run was above recent 5-, 10-, and 20-year escapement averages. A total of 49 Chignik Commercial Fisheries Entry Commission (CFEC) permit holders made deliveries in 2006. The majority of the fishing effort in the 2006 season occurred in the Chignik Bay District. The 2006 total (including Alaska Department of Fish and Game (ADF&G) test fishery harvests and fish retained as home pack) Chignik-bound sockeye salmon harvest of 1,006,553 fish was less than recent 5-, 10-, and 20-year average harvests.

Key words: Chignik Management Area (CMA), Pacific salmon, Oncorhynchus tschawytscha, Oncorhynchus nerka, Oncorhynchus kisutch, Oncorhynchus gorbuscha, Oncorhynchus keta, herring, Clupea pallasi, Alaska Board of Fisheries (BOF), 2006 commercial fisheries management, harvest statistics, escapement statistics, final management report.

### INTRODUCTION

The Alaska Department of Fish and Game (ADF&G) manages all Pacific herring *Clupea pallasi* and commercial salmon *Oncorhynchus sp.* 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 from east to west 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 Pacific salmon are commercially harvested in the CMA: Chinook *Oncorhynchus 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. The ADF&G manages all CMA commercial salmon resources by emergency order (EO) 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 (Anchorage Bay), Chignik Lagoon, Chignik Lake, Perryville, and Ivanof Bay (Figure 1). The majority of salmon harvested in the CMA are delivered to shore-based processing facilities located near the village of Chignik Bay.

This report provides a summary of commercial herring and salmon management plans, fishing activity, harvests, and escapements in the CMA. This report also provides a brief summary of subsistence fisheries as well as a chronology of significant regulatory changes that influenced the 2006 commercial salmon season. Most tables in this report have been verified against the Westward Region electronic fish ticket and escapement databases which contain historical data from 1970 to the present. The salmon harvest estimates reported in this document were summarized from the fish ticket database on January 2, 2007. 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 27.565).

There are several distinct locations within the CMA where herring are managed as separate stocks (Table 1). Each individual location is managed on a maximum exploitation rate of 20%, given 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 fisheries occurred, herring harvests ranged from a minimum of 6 tons in 1996 to a maximum of 587 tons in 1980 (Table 2). Due to poor market conditions, there has been limited interest in CMA herring fisheries in recent years. The last herring biomass survey and commercial fishery occurred in 1996 (Table 2; Stichert 2007).

#### **2006 Herring Fishery**

There was no 2006 herring fishery in the CMA; no guideline harvest levels were set due to the lack of industry interest.

### **COMMERCIAL SALMON**

#### **OVERVIEW OF MANAGEMENT PLANS**

The 2006 Chignik 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). The Chignik Area Cooperative Purse Seine Salmon Fishery Management Plan (5 AAC 15.359) was repealed prior to the start of the 2006 commercial salmon season.

#### Chignik Area Cooperative Purse Seine Salmon Management Plan

The Chignik Area Cooperative Purse Seine Salmon Fishery Management Plan was legally scrutinized since its adoption by the Alaska Board of Fisheries (BOF) in January 2002. Once in regulation, the BOF recognized the potential for conflict under this management strategy and reviewed the cooperative management plan after the 2002, 2003, and 2004 commercial salmon seasons. Commercial, subsistence, and other stakeholder concerns were addressed by the BOF at these meetings through regulatory changes and commissioner's permits.

Prior to the start of the fourth cooperative commercial salmon season (March 2005), the Alaska Supreme Court ruled the original regulation (5 AAC 15.359) contradicted the intent of the Limited Entry Act and repealed the cooperative management plan. In May of that year, the BOF re-established the cooperative management plan by emergency regulation (5 AAC 15.358) and required all active cooperative members to physically participate in the fishery to gain economic benefits. This action was subsequently challenged in the Anchorage Superior Court, where the trial court judge ruled the emergency regulation still violated the spirit and purposes of the Limited Entry Act, as described in the Alaska Supreme Court decision. However, the state appealed the Anchorage Superior Court decision to the Alaska Supreme Court and was granted a stay of decision until after completion of the 2005 season. Before the stay of decision expired, the BOF met again in November of 2005 and adopted the emergency management plan (with some modification) into regulation. This action was challenged in February of 2006, and the Alaska Supreme Court ruled the emergency regulation, and therefore the newly adopted cooperative management plan, was again, not legal and repealed the plan. Since the time of that decision, only a State of Alaska legislative action can establish a cooperative salmon fishery in the Chignik Management Area. No legislative action occurred prior to the start of the 2006 season thus, the 2006 commercial salmon season was not managed as a cooperative fishery.

#### 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 sustainable escapement goals (SEGs) for both early-run (Black Lake), and late-run (Chignik Lake) sockeye salmon. Purse seines and hand purse seines were 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. To assist management efforts, the management plan was organized into districts or groups of districts: the Chignik Bay and Central districts, the Eastern District, and the Western and Perryville districts.

#### **Cape Igvak Salmon Management Plan**

The 2006 CMA salmon fishery was also influenced by the Cape Igvak Salmon Management Plan (5 AAC 18.360). Cape Igvak is the westernmost component of the Kodiak Management Area (Area K), located directly to the east of the CMA (Figure 1). If the harvestable surplus of sockeye salmon in the CMA was above or expected to be above certain thresholds (5 AAC 18.360 (a-c)), then 15 percent of the total Chignik sockeye salmon harvest (including sockeye salmon caught at Cape Igvak and within certain portions of SEDM) was allocated to Area K fishermen. Based on this management plan, 90 percent of the sockeye salmon harvested within the Cape Igvak Section were considered to be Chignik-bound. This management plan was in effect from the beginning of the fishing season through July 25. After July 25, there were no allocative ties between the CMA and Area K.

#### Southeastern District Mainland Salmon Management Plan

Certain sockeye salmon harvested by Area M fishermen under the Southeastern District Mainland (SEDM) Salmon Management Plan (5 AAC 09.360) were also allocatively considered Chignik-bound. The SEDM is composed of a group of sections at the eastern end of Area M, located directly southwest of the CMA (Figure 1). The allocation was similar to the Cape Igvak plan; if the harvestable surplus of sockeye salmon in the CMA was expected to exceed certain thresholds (5 AAC 09.360 (a-g)), then six percent of the total Chignik sockeye salmon harvest

(including sockeye salmon caught at Cape Igvak and sockeye salmon caught within certain portions of the SEDM during specific times) were allocated to SEDM fishermen. Based on this management plan, 80 percent of the sockeye salmon harvested within certain SEDM sections during specific times were considered to be Chignik-bound. This management plan was in effect from the beginning of the fishing season through July 25. After July 25, there were no allocative ties between the CMA and Area M.

### 2006 SALMON MANAGEMENT

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

Out of 96 total Chignik CFEC permits issued, 48 permit holders participated in the 2006 commercial salmon season. Although there was no cooperative fishery, a portion of the commercial salmon fleet choose to harvest fish cooperatively. There were no harvest allocations, commissioner's permits, or special provisions for either fleet. The first commercial fishing period began on June 13, and the last commercial fishing period ended on August 31 (Figure 3). Commercial salmon fishing periods were open for 67 days during 2006.

All CMA salmon were delivered to one processor in 2006. Trident Seafoods located in Anchorage Bay generally filleted or headed and gutted (H&G) the majority of Chignik salmon. Trident Seafoods processed salmon from the start of the commercial salmon season until August 30.

### CHIGNIK BAY AND CENTRAL DISTRICTS COMMERCIAL SALMON FISHERY

After conducting department test fisheries in Chignik Lagoon and assessing sockeye salmon run strength at the Chignik River weir, the 2006 commercial salmon fishery began in the Chignik Bay and Central districts on June 13 (Figures 2 and 3). The first fishing period lasted 72 hours until June 17 then closed for approximately seven days to achieve interim sockeye salmon escapement objectives. After this period, sockeye salmon escapement into the Chignik River watershed remained relatively consistent throughout the remaining commercial salmon season. As a result, the Chignik Bay and Central districts reopened on June 25 and largely remained open until the end of the commercial salmon season on August 31. The fishery was only closed for three separate days during July and four days during August to meet escapement objectives. In total, the Chignik Bay and Central districts were open for 65 days during 2006.

The Chignik Lagoon markers alternated between Humes Point and Mensis Point during the 2006 salmon season (Figure 4). Generally, the Humes Point markers were used for the first 24 to 48 hours of a commercial fishing period to allow the salmon above these markers to escape the fishery. The Humes Point markers were also used when sockeye salmon escapement was at or just above interim escapement objectives. This increased escapement into the Chignik River and also allowed the ADF&G to assess the magnitude of salmon entering the lagoon by concentrating the effort in the lower lagoon. During periods of high sockeye salmon abundance or limited fleet capacity, the closed waters in Chignik Lagoon were reduced to Mensis Point to control escapement and provide additional harvest opportunities.

The local processor closed for the season on August 30. No additional commercial salmon periods occurred in the CMA after this date. A summary of emergency orders outlining the commercial salmon fisheries in the Chignik Bay and Central districts is found in Appendix B.

### 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 in June (Figures 2 and 3). The Eastern District was also opened concurrently with the Chignik Bay and Central districts through July 6. With a few exceptions, the fishing schedule for the remainder of the season in the Eastern District was similar to the Chignik Bay and Central districts. In total, the Eastern District was open to commercial salmon fishing for 52 days during 2006 (Figure 3).

There was limited effort in the Eastern District during June and early July. Fishing effort, primarily targeting pink salmon, increased slightly during late July and mid August. 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

By regulation the Western and Perryville districts are closed to commercial salmon fishing in June (5 AAC 15.357 (d)). Beginning approximately July 6, these districts can be opened to target migrating pink and chum salmon based on the department's evaluation of Chignik bound sockeye salmon. Once pink and chum salmon enter local streams, management shifts to an escapement-based strategy.

The first commercial fishing period in the Western and Perryville districts occurred on July 10 and was extended through July 16 (Figures 2 and 3). Both districts reopened to commercial fishing from July 20 through July 31. The last fishing period occurred from August 6 to August 31 in the Western District and from August 5 to August 19 in the Perryville District (Figure 3). In total, the Western and Perryville districts were open for 45 and 33 days, respectively. Despite ample fishing opportunity, there was no documented participation in the Perryville District during 2006. Commercial fishermen in the Western District primarily targeted pink, chum, and coho salmon. 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. Prior to 2004, scale pattern analysis (SPA) was used to differentiate stock composition during this time, and the fishery was managed based on the results of this analysis. This program was discontinued prior to the 2004 season due to funding limitations. However, SPA found 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 2006 fishery was managed based on this date such that through July 4, fishing periods were based on achieving interim early-run escapement objectives and beginning July 5, fishing periods were based on achieving interim late-run escapement objectives (Table 3).

#### **Escapement Goal Review**

In June 2004, 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. The team recommended the Chignik River watershed sockeye salmon escapement goal ranges for the early (350,000 to 400,000) and late runs (200,000 to 250,000) should not be changed. However, the team felt scientifically defensible estimates of maximum sustainable yield were no longer possible due to the lack of significant spawner-recruit relationships. Thus, the team recommended Chignik River sockeye salmon escapement goals (BEGs). Despite this change, the team noted past run data have indicated that sustained Chignik River sockeye salmon yields have occurred in excess of the 5 to 10 year period specified for SEGs.

The team also recommended establishing two (even and odd-year) pink salmon aggregate BEGs to replace the five previous district-wide pink salmon SEGs. The team similarly recommended establishing one area-wide chum salmon SEG to replace the five previous district-wide chum salmon SEGs. The BOF adopted all escapement goal recommendations into regulation in November 2005. A summary and comprehensive results of this review can be found in Witteveen et al. (2005).

#### 2006 Salmon Escapement

During 2006, 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 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, then multiplied by six to obtain hourly escapement estimates. Hourly estimates were then summed to provide an estimate of daily fish passage. Camera 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 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 2006 season was on May 30, and the last full count of the season was on September 4 after which the weir was removed.

Salmon escapements to other CMA streams were monitored and estimated via aerial survey throughout the season. Aerial surveys were additionally flown on the spawning grounds of the Chignik River watershed to assess sockeye salmon spawning escapement levels and distribution.

#### **Chinook Salmon**

Chinook salmon began entering the Chignik River during mid-June. The run peaked by mid July, and was over by late August (Table 4; Figure 5). The 2006 Chignik River Chinook salmon escapement of 3,535 was below recent 5, 10, and 20-year average escapements (Table 5) but exceeded the Chignik River Chinook BEG range of 1,300 to 2,700 fish (Figure 6; Witteveen et al. 2005). The Chignik River is the only stream with substantial Chinook salmon production within the CMA.

#### Sockeye Salmon

Chignik River sockeye salmon are managed based on interim escapement objectives, by run (Witteveen et al. 2005). The late-run objectives included an additional 50,000 sockeye salmon above the late-run SEG (25,000 fish in August and 25,000 fish in September) to meet late-season subsistence needs (Table 3).

The Chignik River sockeye salmon early-run peaked in late June while the late-run peaked during mid July (Table 6; Figure 7). The 2006 estimated escapement for both Chignik River sockeye salmon runs was 735,493 fish, which was similar to the 5 and 10-year escapement averages and approximately 45,000 below the 20-year escapement average (Table 7; Figure 8). The early run was estimated at 366,497 sockeye salmon, which was within the early-run SEG range of 350,000 to 400,000 fish (Table 7; Figure 8). The late run was estimated at 368,996 sockeye salmon, which exceed both the late-run SEG range (200,000 to 250,000) and late-run interim escapement objectives (250,000 to 300,000) (Tables 3 and 7; Figure 8). Since 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 reported grouped into periods from September 5 to 15 and September 16 to 30 and included in the late-run total (Table 6; Figure 7). The early run was below, and the late run was above the 5, 10, and 20-year average escapements (Table 7; Figure 8).

Peak aerial survey counts of spawning sockeye salmon in the Chignik River watershed were lower than the 5, 10, and 20-year averages (Tables 8 and 9). However, aerial surveys of these streams were not flown as often or as thoroughly compared to past years, and the actual peaks may not have been documented.

Sockeye salmon escapements were documented, via aerial survey, in low numbers (generally less than 5,000 fish) in several other CMA streams. Due to small run sizes and limited effort, escapement goals for these streams have not been established (Nelson and Lloyd 2001).

#### **Coho Salmon**

Coho salmon enter CMA drainages in mid-August and generally continue past November. The 2006 Chignik River coho salmon escapement estimate through September 4 (weir removed September 5) was 37,113 (Table 4), which was the largest documented escapement on record and approximately 26,000 more coho salmon than the recent 5- and 10-year average escapements (Table 5). The coho salmon run was still building when the weir was removed, thus the coho salmon counts were considered incomplete and it was not possible to estimate post-weir coho salmon escapement. Coho salmon escapements were monitored, via aerial survey, in low numbers (generally less than 2,000 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. 2005).

#### Pink Salmon

During 2006, pink salmon began entering the Chignik River during late July and peaked in mid August with a total escapement of 18,401 salmon (Table 4). The 2006 pink salmon escapement into the Chignik River was the largest documented escapement on record with approximately 13,000 more salmon than recent 5 and 10-year average escapements (Table 5).

Escapements into other CMA streams were monitored via aerial survey, summed for each district, and compared to district management objectives and the areawide even-year aggregate BEG for pink salmon (Witteveen et al. 2005). The management objectives for the Eastern, Chignik Bay, Western, and Perryville districts were met or exceeded in 2006 (Table 10). The pink salmon management objective for the Central District was not achieved; however, the overall combined escapement of approximately 374,826 pink salmon exceeded the area wide aggregate even-year BEG range of 327,000 to 737,000 fish (Table 10).

#### **Chum Salmon**

A limited number of chum salmon return to the Chignik River, mainly in August (Table 4). The 2006 Chignik River chum salmon escapement was 99 fish, which was below recent 5 and 10-year average escapements (Table 5).

Escapements into other CMA streams were monitored via aerial survey, summed for each district, and compared to district management objectives and the area-wide SEG for chum salmon (Witteveen et al. 2005). The management objectives for the Eastern, Chignik Bay, Western, and Perryville districts were met or exceeded in 2006 (Table 11). The chum salmon management objective for the Central District was not achieved, however; the overall combined escapement of approximately 93,489 chum salmon exceeded the area wide aggregate SEG range of 50,400 fish (Table 11).

#### **Harvest Information**

Commercial salmon harvest information for 2006 was organized into four categories. The first category included fish 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 ADF&G 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 BOF has determined that specific portions of these harvests were considered bound for the Chignik River.

Salmon harvested under subsistence regulations or the ADF&G Chignik test fishery were not included in any of the current harvest allocations. 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 on January 2, 2007 and supersedes any previously published data. A complete summary of 2006 commercial salmon harvest and effort is found in Appendix C.

#### **Chinook Salmon**

A total of 2,256 Chinook salmon were harvested from the CMA in 2006, which was less than the recent 5, 10, and 20-year average Chinook salmon harvests (Table 12). One Chinook salmon was harvested as part of the department's test fishery program, and 68 fish were retained as home pack (Table 13). The majority of the CMA Chinook salmon harvest in 2006 occurred in the Chignik Bay District (Table 14), and most Chinook salmon were harvested from late June through mid-July (Table 15).

#### Sockeye Salmon

A total of 902,709 sockeye salmon were harvested in the CMA during 2006, which was less than the 5, 10, and 20-year average harvests (Tables 12 and 16). The department's test fishery program harvested 6,641 of these salmon and an additional 267 fish were retained as home pack

(Table 16). The vast majority of the CMA sockeye salmon harvest in 2006 occurred in the Chignik Bay District (Table 17), and most sockeye salmon were harvested from mid-June through the end of July (Table 18).

An additional 103,844 sockeye salmon (41,834 Cape Igvak + 62,010 SEDM) allocatively considered Chignik-bound were harvested as part of the SEDM and Cape Igvak fisheries during 2006 (Table 16). The Chignik-bound component of the SEDM harvest was 62,010 fish and totaled 7.3 percent of the total Chignik-bound harvest (allocation 6.0 percent; Tables 16 and 19). The Chignik-bound portion of the Cape Igvak harvest was 41,834 fish and totaled 4.9 percent of the total Chignik-bound harvest (allocation 15.0 percent; Tables 16 and 19).

The Chignik River early-run harvest of 436,028 sockeye salmon was approximately 500,000 fish less the 10 and 20-year early-run harvest averages and approximately 300,000 fish less than the recent 5-year average harvest (Table 20; Figure 9). The 2006 late-run harvest of 570,525 sockeye salmon was also below prior harvest averages although to a lesser extent (Table 20; Figure 10). The 2006 total Chignik-bound sockeye salmon harvest was 1,006,553 fish for a total run estimate (harvest + escapement) of 1,742,046 sockeye salmon (Table 20; Figure 11).

The early run was below the 2006 forecast by approximately 34 percent while the late run was approximately 236 percent above the projected forecast (Table 21). For both runs combined, the 2006 forecast was less accurate than the 5 and 10-year average forecasts (Table 21).

#### **Coho Salmon**

A total of 39,221 coho salmon were harvested in the CMA during 2006 which was considerably less than the prior 5, 10 and 20-year average harvests (Tables 12 and 22). Nearly all coho salmon were sold to processors by fishermen (Table 22). The majority of the 2006 coho salmon harvest occurred in the Chignik Bay and Western districts during July and August (Tables 23 and 24).

#### Pink Salmon

A total of 383,574 pink salmon were harvested in the CMA during 2006, which was below the 5, 10, and 20-year average harvests (Tables 12 and 25). All commercially harvested pink salmon were sold to processors by fishermen (Table 25). The majority of pink salmon harvest occurred in the Western District although notable harvests also occurred in the Chignik Bay, Central, and Eastern districts (Table 26). Most pink salmon were harvested between mid July and mid August (Tables 27).

### Chum Salmon

A total of 61,630 chum salmon were harvested from the CMA during 2006, which was similar to the recent 5-year harvest average but below the 10 and 20-year harvest averages (Tables 12 and 28). All chum salmon were sold to processors by fishermen (Table 28). The majority of the 2005 chum salmon harvest occurred in the Western District during July (Tables 29 and 30).

### **Economic Value**

A total of 48 CMA permit holders (96 issued) made deliveries during 2006 which was approximately half the historic average (Table 31). The exvessel value of the 2006 CMA salmon harvest was about \$5.04 million, or approximately \$105,058 per permit holder, which was above recent 5 and 10-year exvessel value averages, but below the 20-year exvessel value average of approximately \$133,819 (Table 31; Figure 12). The vast majority (93%) of exvessel revenue (\$97,986) was from the sale of sockeye salmon. The harvest of pink salmon provided about

\$2,631 per permit holder while, coho, chum and Chinook salmon provided \$2,190, \$1,690, and \$560 each, respectively, per permit holder (Table 31).

### CHIGNIK LAGOON TEST FISHERIES

The ADF&G 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, to collect sockeye salmon scale samples to determine age composition, 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 operational costs associated with the scale sampling program.

ADF&G conducted five test fisheries during 2006 for a total harvest of 6,641 salmon. The first test fishery occurred on June 8, when 499 sockeye salmon and one Chinook salmon were harvested. Three additional test fisheries were conducted prior to the first commercial fishing period in the CMA. The second, third, and fourth test fisheries occurred on June 10, June 11, and June 12. A total of 3,876 sockeye salmon were harvested during these fisheries. The final test fishery occurred on June 19 following the closure of the first commercial salmon fishing period. A total of 2,266 sockeye salmon were harvested during this fishery.

## CHIGNIK AREA SALMON SUBSISTENCE FISHERIES

In recent years, large pulses of salmon did not build in Chignik Lagoon or pass through the weir. Thus, early-season subsistence fishing opportunities were limited by the slow movement of fish. Consequently, several subsistence users reported they had a difficult time harvesting enough salmon to meet their needs.

In response to these concerns, the BOF (November 2004) increased subsistence fishing opportunities in the CMA. The Chignik River was historically closed to salmon subsistence fishing by regulation (5 AAC 01.475). However, beginning in 2005 the BOF opened the Chignik River to subsistence salmon fishing with some restrictions, excluding the area 300 feet upstream and downstream of the Chignik River weir. The section of Chignik River starting 300 feet below the weir was open to subsistence fishing year-round. The section from 300 feet above the weir to the outlet of Chignik Lake was open year-round, except from July 1 through August 31 to protect spawning Chinook salmon.

Historically, CMA commercial fishing license holders were not allowed to subsistence fish for salmon from 48 hours before the first commercial salmon fishing period through September 30. This regulation was relaxed via provisions of the subsistence fishing permit to allow fishermen to harvest subsistence fish during the commercial fishing season in 2003 and 2004. Beginning in 2005, the BOF adopted formal regulations that allowed commercial salmon fishing license holders to, with certain restrictions (5 AAC 01.485), harvest subsistence salmon during the commercial season.

The BOF also directed ADF&G to manage the August commercial salmon fishery to allow for an additional 25,000 (75,000 total) sockeye salmon to escape into the Chignik River to facilitate additional late-season harvest opportunities.

In 2006, the ADF&G issued 113 subsistence fishing permits in the CMA. Based on the 79 permits returned to the ADF&G Division of Subsistence, the estimated subsistence harvest totaled 11,187 salmon. This harvest was below recent 5, and 10-year subsistence harvest averages (Table 32). Sockeye salmon comprised the vast majority of the 2006 subsistence harvest.

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## **TABLES AND FIGURES**

Location	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 1.-List of Chignik Management Area herring management units.

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

**Table 2.**-Chignik Management Areacommercial herring harvest, 1980 through2006.

	Escape	ment		Escapem	ent
Date	Lower	Upper	Date	Lower	Upper
June 2	500 -	1,000	August 3	4,500 -	10,500
June 4	2,000 -	3,000	August 6	8,250 -	21,750
June 6	5,000 -	7,000	August 9	15,000 -	30,000
June 8	10,000 -	14,000	August 12	22,500 -	37,500
June 10	20,000 -	25,000	August 15	30,000 -	45,000
June 12	30,000 -	40,000	August 18	37,500 -	52,500
June 14	50,000 -	70,000	August 21	45,000 -	60,000
June 16	75,000 -	110,000	August 24	53,250 -	66,750
June 18	125,000 -	160,000	August 27	64,500 -	70,500
June 20	175,000 -	220,000	August 31	75,000 -	75,000
June 22	225,000 -	275,000			
June 25	275,000 -	325,000	September 3	3,000 -	4,000
June 28	300,000 -	350,000	September 5	6,000 -	8,000
July 1	325,000 -	375,000	September 7	10,000 -	12,000
July 4	350,000 -	400,000	September 9	14,000 -	16,000
			September 11	18,000 -	20,000
July 6	5,000 -	10,000	September 13	22,000 -	23,000
July 8	15,000 -	20,000	September 15	25,000 -	25,000
July 10	30,000 -	40,000			
July 12	45,000 -	60,000	Escape	ment Objectiv	es <sup>a,b</sup>
July 14	56,000 -	75,000			
July 16	67,000 -	90,000	Through July 4:	350,000 - 4	00,000
July 19	86,000 -	115,000			
July 21	101,000 -	135,000	July 5 - September 15:	250,000 - 3	00,000
July 23	120,000 -	160,000			
July 26	135,000 -	180,000			
July 29	146,000 -	195,000			
July 31	150,000 -	200,000			

Table 3.-Chignik River sockeye salmon interim escapement objectives, 2006.

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<sup>a</sup> On average, based on historical scale pattern analysis data, the number of late-run sockeye salmon that pass the weir before July 4 equal the number of early-run sockeye salmon that pass the weir after July 4. Therefore, ADF&G targets the early-run escapement goal through July 4.

<sup>b</sup> Post July 4 late-run escapement objectives include 50,000 fish in addition to the laterun SEG (200,000 to 250,000) for freshwater subsistence purposes.

Chinook			Coho		Pink		Chum	Doll	y Varden	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulativ
5/30	0	0	0	0	0	0	0	0	0	
5/31	0	0	0	0	0	0	0	0	0	(
6/1	0	0	0	0	0	0	0	0	0	
6/2	0	0	0	0	0	0	0	0	0	
6/3	0	0	0	0	0	0	0	0	0	
6/4	0	0	0	0	0	0	0	0	0	
6/5	0	0	0	0	0	0	0	0	0	
6/6	0	0	0	0	0	0	0	0	0	
6/7	0	0	0	0	0	0	0	0	0	
6/8	0	0	0	0	0	0	0	0	0	
6/9	0	0	0	0	0	0	0	0	0	
6/10	0	0	0	0	0	0	0	0	0	
6/11	0	0	0	0	0	0	0	0	0	
6/12	0	0	0	0	0	0	0	0	12	1
6/13	0	0	0	0	0	0	0	0	264	27
6/14	0	0	0	0	0	0	0	0	0	27
6/15	0	0	0	0	0	0	0	0	204	48
6/16	0	0	0	0	0	0	0	0	78	55
6/17	18	18	0	0	0	0	0	0	54	61
6/18	0	18	0	0	0	0	0	0	18	63
6/19	6	24	0	0	0	0	0	0	0	63
6/20	0	24	0	0	12	12	0	0	0	63
6/21	0	24	0	0	12	24	6	6	0	63
6/22	0	24	0	0	0	24	0	6	7	63
6/23	6	30	0	0	0	24	0	6	0	63
6/24	12	42	0	0	0	24	0	6	0	63
6/25	30	72	0	0	60	84	6	12	12	64
6/26	12	84	0	0	6	90	0	12	30	67
6/27	54	138	0	0	18	108	0	12	13	69
6/28	12	150	0	0	36	144	0	12	1	69
6/29	12	162	0	0	0	144	0	12	13	70
6/30	0	162	0	0	0	144	0	12	21	72
7/1	18	180	0	0	0	144	0	12	66	79
7/2	42	222	0	0	0	144	0	12	36	82
7/3	24	246	0	0	0	144	0	12	36	86
7/4	42	288	0	0	0	144	0	12	24	88
7/5	36	324	0	0	0	144	0	12	48	93
7/6	72	396	0	0	0	144	0	12	60	99
7/7	178	574	0	0	0	144	0	12	120	1,11
7/8	171	745	0	0	0	144	0	12	36	1,15
7/9	119	864	0	0	0	144	0	12	36	1,18
7/10	57	921	0	0	0	144	0	12	0	1,18
7/11	59	980	0	0	0	144	0	12	66	1,25
7/12	54	1,034	0	0	0	144	0	12	31	1,28
7/13	166	1,200	0	0	0	144	0	12	71	1,35
7/14	188	1,388	0	0	0	144	0	12	71	1,32
7/15	60	1,448	0	0	0	144	0	12	0	1,42
7/16	92	1,540	0	0	0	144	0	12	6	1,43
7/17	128	1,668	0	0	0	144	0	12	0	1,43
7/18	52	1,720	0	0	0	144	0	12	0	1,43

Table 4.–Estimated Chignik River Chinook, coho, pink, and chum salmon and Dolly Varden escapement, by day, 2006.

-continued-

**Table 4.**–Page 2 of 2.

	Chinook		(	Coho		Pink		Chum	Dolly Varden	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7/19	324	2,044	0	0	12	156	0	12	0	1,434
7/20	182	2,226	0	0	0	156	0	12	0	1,434
7/21	84	2,310	0	0	0	156	0	12	0	1,434
7/22	114	2,424	0	0	0	156	0	12	0	1,434
7/23	84	2,508	0	0	0	156	0	12	0	1,434
7/24	186	2,694	0	0	12	168	0	12	30	1,464
7/25	101	2,795	0	0	24	192	0	12	24	1,488
7/26	76	2,871	0	0	6	198	0	12	7	1,495
7/27	46	2,917	0	0	31	229	0	12	48	1,543
7/28	74	2,991	0	0	1	230	0	12	31	1,574
7/29	67	3,058	0	0	42	272	0	12	14	1,588
7/30	47	3,105	0	0	6	278	0	12	18	1,606
7/31	54	3,159	0	0	25	303	7	19	6	1,612
8/1	43	3,202	0	0	42	345	0	19	12	1,624
8/2	6	3,208	0	0	55	400	0	19	3	1,627
8/3	72	3,280	0	0	84	484	0	19	19	1,646
8/4	25	3,305	0	0	174	658	0	19	12	1,658
8/5	24	3,329	0	0	71	729	6	25	19	1,677
8/6	24	3,353	0	0	69	798	0	25	0	1,677
8/7	12	3,365	0	0	24	822	0	25	6	1,683
8/8	25	3,390	0	0	33	855	0	25	6	1,689
8/9	18	3,408	0	0	67	922	0	25	0	1,689
8/10	6	3,414	0	0	25	947	0	25	0	1,689
8/11	36	3,450	0	0	186	1,133	0	25	0	1,689
8/12	18	3,468	0	0	379	1,512	0	25	10	1,699
8/13	6	3,474	0	0	94	1,606	0	25	0	1,699
8/14	19	3,493	0	0	363	1,969	0	25	0	1,699
8/15	12	3,505	0	0	238	2,207	0	25	0	1,699
8/16	6	3,511	33	33	131	2,338	6	31	1	1,700
8/17	6	3,517	628	661	961	3,299	0	31	19	1,719
8/18	0	3,517	165	826	780	4,079	0	31	0	1,719
8/19	0	3,517	261	1,087	783	4,862	7	38	24	1,743
8/20	12	3,529	384	1,471	2,524	7,386	30	68	18	1,761
8/21	0	3,529	228	1,699	1,140	8,526	6	74	12	1,773
8/22	6	3,535	378	2,077	972	9,498	6	80	6	1,779
8/23	0	3,535	279	2,356	224	9,722	6	86	12	1,791
8/24	0	3,535	1,250	3,606	3,272	12,994	0	86	0	1,791
8/25	0	3,535	738	4,344	422	13,416	0	86	0	1,791
8/26	0	3,535	2,196	6,540	1,079	14,495	0	86	0	1,791
8/27	0	3,535	1,945	8,485	514	15,009	0	86	0	1,791
8/28	0	3,535	1,536	10,021	307	15,316	0	86	0	1,791
8/29	0	3,535	2,008	12,029	384	15,700	0	86	24	1,815
8/30	0	3,535	2,688	14,717	586	16,286	0	86	102	1,917
8/31	0	3,535	3,740	18,457	567	16,853	1	87	0	1,917
9/1	0	3,535	4,631	23,088	629	17,482	6	93	12	1,929
9/2	0	3,535	4,321	27,409	231	17,713	0	93	0	1,929
9/3	0	3,535	5,909	33,318	384	18,097	0	93	6	1,935
9/4	0	3,535	3,795	37,113	304	18,401	6	99	96	2,031

	Escapement <sup>a</sup>								
Year	Chinook <sup>b</sup>	Coho <sup>c</sup>	Pink <sup>c</sup>	Chum <sup>c</sup>	Dolly Varden				
1970	2,500	ND	ND	ND	ND				
1971	2,000	ND	ND	ND	ND				
1972	1,500	ND	ND	ND	ND				
1973	822	ND	ND	ND	ND				
1974	672	ND	ND	ND	ND				
1975	877	ND	ND	ND	ND				
1976	700	ND	ND	ND	ND				
1977	798	ND	ND	ND	ND				
1978	1,197	ND	ND	ND	ND				
1979	1,050	ND	ND	ND	ND				
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				
2005	3,535	37,113	18,401	99	2,031				
Averages	5,555	57,115	10,101	,,	2,001				
1986-05	4,101	-	-	-	-				
1996-05	4,571	10,527	5,187	176	21,851				
2001-05	5,461	10,803	4,532	170	17,004				

Table 5.–Estimated Chignik River Chinook, coho, pink, and chum salmon and Dolly Varden escapement, 1970 through 2006.

<sup>a</sup> A video monitoring system was installed at the Chignik weir in 1994.

<sup>b</sup> No escapement adjustments are made for Chinook salmon that spawn below the weir, or those removed by the sport fishery. Only large fish enumerated for escapement estimates from 1970 to 1993.

<sup>c</sup> No reliable escapement estimates were generated for pink, chum, or coho salmon or Dolly Varden from 1970 to 1996. No post-weir estimates are reported here for these species.

	Early Run						Late Run			
Т	Through July 4	ļ		July 5-July 31			August		September 1-1.	5
Date	Daily	Total	Date	Daily	Total	Date	Daily	Total	Date Daily	Total
5/30	30	30	7/5	1,622	1,622	8/1	3,051	3,051	9/1 4,906	4,906
5/31	71	101	7/6	3,687	5,309	8/2	6,119	9,170	9/2 3,234	8,140
6/1	548	649	7/7	5,817	11,126	8/3	13,198	22,368	9/3 3,230	11,370
6/2	619	1,268	7/8	15,047	26,173	8/4	16,323	38,691	9/4 3,098	14,468
6/3	413	1,681	7/9	6,625	32,798	8/5	5,306	43,997	9/5-9/15 estimate 25,679	40,147
6/4	359	2,040	7/10	2,592	35,390	8/6	2,459	46,456	9/16-9/30 estimate 18,795	58,942
6/5	609	2,649	7/11	11,963	47,353	8/7	1,256	47,712	September total:	58,942
6/6	900	3,549	7/12	7,554	54,907	8/8	1,930	49,642		
6/7	923	4,472	7/13	12,172	67,079	8/9	2,045	51,687		
6/8	192	4,664	7/14	9,599	76,678	8/10	1,515	53,202		
6/9	11,942	16,606	7/15	2,268	78,946	8/11	3,653	56,855		
6/10	4,919	21,525	7/16	937	79,883	8/12	3,061	59,916	Early run total:	366,497
6/11	3,768	25,293	7/17	707	80,590	8/13	2,366	62,282		
6/12	9,384	34,677	7/18	257	80,847	8/14	5,729	68,011		
6/13	16,596	51,273	7/19	18,888	99,735	8/15	2,730	70,741	Late run total:	368,996
6/14	21,840	73,113	7/20	15,273	115,008	8/16	1,385	72,126		
6/15	13,296	86,409	7/21	18,217	133,225	8/17	3,871	75,997		
6/16	10,342	96,751	7/22	10,603	143,828	8/18	2,861	78,858	Season total:	735,493
6/17	8,892	105,643	7/23	6,410	150,238	8/19	2,590	81,448		
6/18	5,304	110,947	7/24	4,814	155,052	8/20	3,465	84,913		
6/19	16,734	127,681	7/25	5,030	160,082	8/21	2,247	87,160		
6/20	25,434	153,115	7/26	3,347	163,429	8/22	2,470	89,630		
6/21	21,828	174,943	7/27	4,181	167,610	8/23	1,159	90,789		
6/22	31,673	206,616	7/28	5,237	172,847	8/24	4,662	95,451		
6/23	35,787	242,403	7/29	6,588	179,435	8/25	1,629	97,080		
6/24	41,921	284,324	7/30	11,732	191,167	8/26	3,538	100,618		
6/25	27,164	311,488	7/31	7,013	198,180	8/27	2,661	103,279		
6/26	7,999	319,487	July	5-31 total:	198,180	8/28	1,856	105,135		
6/27	5,064	324,551	·		, ,	8/29	1,193	106,328		
6/28	5,803	330,354				8/30	2,357	108,685		
6/29	2,646	333,000				8/31	3,189	111,874		
6/30	4,137	337,137					igust total:	111,874		
7/1	12,197	349,334					0	,		
7/2	10,751	360,085								
7/3	3,595	363,680								
7/4	2,817	366,497								
	run total:	366,497								

Table 6.-Estimated Chignik River sockeye salmon escapement, by day, and management objective period, 2006.<sup>a</sup>

<sup>a</sup> The weir was removed after the completion of the 9/4 count.

Year	Early Run	Late Run	Total
1970	536,257	119,952	656,209
1971	671,668	232,501	904,169
1972	326,320	231,270	557,590
1973	533,047	249,144	782,191
1974	351,701	326,245	677,946
1975	308,914	268,734	577,648
1976	551,254	279,509	830,763
1977	482,247	251,753	734,000
1978	458,660	223,887	682,547
1979	385,694	352,122	737,816
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
SEG	350,000-400,000	200,000-250,000	550,000-650,000
Averages			
1986-05	469,345	311,978	781,323
1996-05	445,897	299,218	745,115
2001-05	438,722	302,093	740,815
	,	,	, -

**Table 7.**–Total Chignik River sockeye salmon escapement and escapement goals, based on postseason analysis, by run, 1970 through 2006.

	Fan	Milk	Boulevard	Alec	Conglomerate	Broad	
Year	Creek	Creek	Creek	River	Creek	Creek	Total
1960	38,500	8,000	40,000	30,000	3,000	30,000	149,500
1961	27,000	5,000	28,700	25,000	800	17,000	103,500
1962	18,000	7,000	13,000	60,000	200	15,000	113,200
1963	39,000	ND	36,000	85,000	1,000	61,000	222,000
1964	19,500	3,050	23,850	17,900	9,300	9,500	83,100
1967	20,000	1,000	9,000	156,000	10,000	10,000	206,000
1968	32,000	2,400	20,000	60,000	2,000	4,100	120,500
1969	103,000	2,100	33,000	50,000	4,000	5,000	197,100
1970	146,000	9,000	55,500	198,000	5,000	ND	413,500
1971	105,000	14,000	85,000	158,000	0	ND	362,000
1972	18,000	3,500	19,000	74,000	400	ND	114,900
1973	115,000	4,000	76,000	74,000	5,000	ND	274,000
1974	90,000	5,000	50,000	93,000	5,000	ND	243,000
1975	40,000	4,500	25,000	87,000	0	ND	156,500
1976	78,000	8,900	100,000	119,000	2,000	ND	307,900
1977	88,000	20,000	127,000	133,000	1,000	ND	369,000
1978	114,000	3,300	74,000	83,300	500	ND	275,100
1979	37,000	11,800	32,000	105,100	400	26,100	212,400
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	210,200
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	40,000 ND	392,000	2,000 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
1990	40,000 60,000	5,000	48,000	166,000	8,000	20,000	310,000
1997	90,000 90,000	14,000	100,000	50,000	9,000	20,000 62,000	307,000
1998	70,000	8,100	50,000	226,000	1,000	22,000	323,000
2000	41,000	29,000	126,000	220,000	26,000	22,000 93,000	
2000	41,000 77,000		265,000	210,000	4,000	93,000 89,000	525,000
2001	43,000	19,000 ND	203,000	207,000	11,000	7,000	661,000 102,000
2003	17,600	400	2,500 15,560	188,000	ND 200	1,000 ND	209,500
2004	4,290	1,490	15,560 ND	137,700 ND	200	ND ND	159,240
2005 2006	4,300	ND	ND	ND	7,700	ND	12,000
2006	16,000	500	15,500	46,700	2,500	19,800	101,000
Averages	40.001	17.250	76 007	150 500	10.020	24.965	206 462
1986-05	42,821	17,352	76,237	150,522	19,239	34,865	306,462
1996-05	44,719	12,624	75,340	145,078	12,989	42,375	298,784
2001-05	29,238	6,963	75,765	138,425	5,725	32,333	228,748

**Table 8.**-Peak sockeye salmon aerial survey escapement estimates for Black Lake tributaries,1960 through 2006.

	Bearskin	West	Chiaktuak		Clark	Home	Hatchery	
Year	Creek	Fork	Creek	Total	River	Creek	Beach	Total
1960	11,600	23,000	19,000	53,600	ND	ND	ND	-
1961	2,500	17,100	20,700	40,300	ND	ND	ND	-
1962	3,000	13,000	24,000	40,000	ND	ND	ND	-
1963	900	5,000	9,000	14,900	ND	ND	ND	-
1964	500	4,500	7,000	12,000	ND	ND	ND	-
1967	10,000	25,000	31,000	66,000	ND	ND	ND	-
1968	1,200	10,500	10,000	21,700	ND	ND	ND	-
1969	50	800	1,500	2,350	ND	ND	ND	-
1970	450	4,000	4,000	8,450	ND	ND	ND	-
1971	3,500	5,500	47,000	56,000	ND	ND	ND	-
1972	1,400	4,300	23,000	28,700	ND	ND	ND	-
1973	13	4,100	1,500	5,613	ND	ND	ND	-
1974	450	8,000	7,000	15,450	ND	ND	ND	-
1975	65	2,500	2,500	5,065	ND	ND	ND	-
1976	2,650	23,700	7,700	34,050	ND	ND	ND	-
1977	200	13,600	6,900	20,700	ND	ND	ND	-
1978	410	9,600	8,500	18,510	ND	ND	ND	-
1979	918	7,610	29,000	37,528	ND	ND	ND	-
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	0,000 ND	8,200	ND	ND	ND	
1985	350	450	1,200	2,000	ND	ND	ND	
1986	ND	ND	8,300	2,000 8,300	ND	ND	ND	
1980	ND	ND	1,000	1,000	ND	ND	ND ND	-
1987	ND	ND	4,600	4,600	ND	ND	ND ND	-
1988	ND	ND	2,100	2,100	ND	ND	ND ND	-
1989	300	0	2,100 50	350	ND	ND	ND ND	-
1990	ND	ND	ND	ND	ND	ND	ND ND	-
1991	ND	ND	ND	ND	ND	ND	ND ND	-
1992	ND	ND	16,000	16,000	ND	ND	ND ND	-
1993	5,000	ND	31,000	36,000	18,000	9,200	ND ND	27,200
1994	7,100	18,000	31,000	56,100	13,000	9,200 6,000	150,000	169,000
1995	1,800	22,000	22,000	45,800	13,000	5,500	70,000	88,500
1990	9,000	9,000	22,000	41,500	25,000	8,000	35,000	68,000
1997	9,000 4,700	71,000	23,500	103,200	23,000 21,000	6,000	62,000	89,000
1999	4,700 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
2000	2,000 ND	3,700 ND	9,500	9,500	23,000	19,700	2,000	
2001 2002	ND	15,000	9,300 2,300	9,300 17,300	25,000 ND	11,000 ND	23,000 ND	59,000
2002 2003	ND	13,000 ND	2,300 2,000	2000	ND	ND ND	ND ND	-
2003	100	600	2,000	2000 1,450	2,500	2,000	ND ND	4,500
2004 2005	900	900	5,100	1,430 6,900	2,500 ND	2,000 ND	ND ND	4,300
2005	900 1,400	900 3,500	5,100 6,200	6,900 11,100	13,500	3,000	3,000	- 16,500
	1,400	5,500	0,200	11,100	15,500	5,000	5,000	10,300
Averages	2 090	15 770	11 692	22 656	15 779	7 660	51 296	62 224
1986-05 1996-05	3,980 3,014	15,770	11,683	22,656	15,778	7,669 7,680	51,286	63,336
	3,914	17,463	11,625	28,335	15,857	7,689 6 500	34,833	53,403
2001-05	500	5,500	3,930	7,430	12,750	6,500	25,000	31,750

**Table 9.**-Peak sockeye salmon aerial survey escapement estimates for Chignik Lake and Black River tributaries, 1960 through 2006.

			District <sup>b</sup>			
Tota	Perryville	Western	Eastern	Central	Chignik Bay	Year <sup>a</sup>
580,600	72,600	202,000	201,700	60,700	43,600	1970
417,100	45,000	268,800	23,000	74,800	5,500	1971
41,200	7,800	8,600	15,900	3,100	5,800	1972
159,100	31,500	62,400	12,800	50,200	2,200	1973
227,600	60,200	77,400	76,200	9,800	4,000	1974
238,100	45,300	141,700	23,500	26,400	1,200	1975
510,600	89,300	114,200	228,800	66,000	12,300	1976
749,800	115,400	355,500	76,000	199,900	3,000	1977
912,100	157,500	333,400	309,300	101,200	10,700	1978
858,800	181,300	185,000	194,300	297,000	1,200	1979
742,200	74,800	139,500	425,500	99,400	3,000	1980
597,900	116,000	249,300	154,700	76,500	1,400	1981
389,300	13,400	45,900	301,500	26,100	2,400	1982
158,800	64,500	36,000	46,300	11,000	1,000	1983
1,001,500	109,800	188,000	486,500	94,000	123,200	1984
522,200	235,200	67,500	212,100	7,400	ND	1985
926,900	180,500	43,800	580,700	121,900	ND	1986
385,300	65,700	38,300	215,600	65,700	ND	1987
1,657,900	181,300	232,400	1,005,400	216,400	22,400	1988
1,434,800	267,400	57,900	881,000	215,000	13,500	1989
1,082,000	88,400	44,300	811,400	131,900	6,000	1990
778,600	343,500	96,800	125,000	201,100	12,200	1990
	190,400	90,800 38,800		201,100	55,800	1991 1992
1,826,900		38,800 45,800	1,318,100			
1,181,800	448,400		524,700	160,900	2,000	1993
1,383,500	153,900	111,600	863,300	178,900	75,800	1994
3,432,100	582,100	554,700	1,399,300	715,500	180,500	1995
1,956,300	395,700	220,800	1,059,600	237,100	43,100	1996
2,469,500	221,500	306,300	1,287,700	594,600	59,400	1997
1,881,700	222,800	150,400	1,273,200	210,900	24,400	1998
1,344,300	179,700	137,900	615,100	374,300	37,300	1999
1,213,000	98,700	130,100	810,700	146,100	27,400	2000
2,363,500	150,200	263,000	1,470,200	460,400	19,700	2001
1,028,053	62,170	85,501	777,710	85,755	16,917	2002
2,345,617	99,500	117,650	1,408,060	576,510	143,897	2003
1,114,860	134,320	94,340	601,900	257,000	27,300	2004
1,591,850	188,600	257,500	512,350	473,400	160,000	2005
374,826	83,500	31,800	195,950	36,175	27,401	2006
327,000 to	45,000 to	31,000 to	186,000 to	62,000 to	3,000 to	Management
737,000	102,000	69,000	418,000	140,000	7,000	Objective
						Averages
1,569,924	212,740	151,395	877,051	282,358	51,534	1986-05
1,730,868	175,319	176,349	981,652	341,607	55,941	1996-05
1,688,776	126,958	163,598	954,044	370,613	73,563	2001-05

**Table 10.**–Estimated pink salmon escapement and objectives in the Chignik Management Area, by district and year, 1970 through 2006.

<sup>a</sup> 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 2004, estimates were computed using peak counts (Witteveen et al. 2005).

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

	_		District <sup>b</sup>			
Year <sup>a</sup>	Chignik Bay	Central	Eastern	Western	Perryville	Total
1970	21,000	23,400	126,000	49,700	13,000	233,100
1971	7,100	29,100	219,200	184,100	30,000	469,500
1972	3,300	14,200	107,400	59,000	11,500	195,400
1973	700	12,200	59,100	35,600	9,300	116,900
1974	2,100	18,100	76,300	39,400	12,500	148,400
1975	2,100	18,800	41,300	43,400	20,500	126,100
1976	2,400	17,800	122,300	55,000	8,900	206,400
1977	2,000	9,300	54,500	70,400	15,400	151,600
1978	2,100	13,800	55,800	27,300	5,300	104,300
1979	1,600	44,800	79,500	42,500	12,800	181,200
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
1994	10,300	44,500	112,800	45,700	120,000	347,900
1995	16,400	45,100	130,500	44,500	132,000	368,500
1990	18,500	65,700	290,000	60,500	152,800	587,500
1997	4,500	32,000	97,700	30,600	214,500	379,300
1998 1999			167,100		117,300	
2000	2,300 100	32,400 22,700		16,300 12,700		335,400
2000	4,100	36,500	216,000 406,900	12,700 35,500	51,900 67,800	303,400
2001 2002	4,100					550,800
	899	11,615	174,850 152,854	17,082	32,020	235,634
2003		43,191	<i>'</i>	39,050	64,331	300,325
2004	376	30,310	277,240	3,100	38,492	349,518
2005 2006	30,000 1,099	159,100 3,450	36,350 53,940	22,000 6,000	61,250 29,000	308,700 93,489
Management	-,	-,		.,		
Objective	200	6,700	25,200	5,400	12,800	50,400
Averages						
1986-05	5,527	51,161	159,335	27,202	88,695	331,919
1996-05	7,724	47,862	194,949	28,133	93,239	371,908
2001-05	7,088	56,143	209,639	23,346	52,779	348,995

**Table 11.**–Estimated chum salmon escapement and objectives in the Chignik Management Area, by district and year, 1970 through 2006.

<sup>a</sup> 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 2004, estimates were computed using peak counts (Witteveen et al. 2005).

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

	Permits Making			Chig	nik Managem	ent Area Harv	vest	
Year	Deliveries	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1970	80	2,343	1,226	1,325,734	15,348	1,157,172	437,252	2,936,732
1971	77	2,383	2,010	1,016,136	14,557	612,290	353,952	1,998,945
1972	80	1,626	464	378,218	19,615	72,161	78,298	548,756
1973	80	2,187	525	870,354	22,322	25,472	8,717	927,390
1974	94	2,286	255	662,905	12,245	69,515	34,312	779,232
1975	86	1,844	549	399,593	53,283	66,165	25,161	544,751
1976	77	2,407	2,290	1,163,728	35,167	395,287	81,403	1,677,875
1977	88	2,426	710	1,972,207	17,430	604,806	110,452	2,705,605
1978	95	3,005	1,603	1,576,283	20,212	985,114	120,889	2,704,101
1979	103	3,009	1,253	1,049,691	99,129	1,905,198	188,907	3,244,178
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	711,473
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
Averages								
1986-05	90	3,549	4,984	1,500,054	148,941	865,681	152,570	2,672,299
1996-05	79	2,938	3,034	1,419,415	91,823	598,408	99,428	2,212,247
2001-05	62	2,085	2,691	1,103,844	58,342	409,376	65,386	1,639,916

**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, 1970 through 2006.

	Test	fish	Commerc	cial Catch	Home	Pack	Total	
Year	Number	Pounds	Number	Pounds	Number	Pounds <sup>a</sup>	Number	Pounds
1970	ND	ND	1,226	28,507	ND	ND	1,226	28,507
1971	ND	ND	2,010	25,887	ND	ND	2,010	25,887
1972	ND	ND	464	8,091	ND	ND	464	8,091
1973	ND	ND	525	17,001	ND	ND	525	17,001
1974	ND	ND	255	5,997	ND	ND	255	5,997
1975	ND	ND	549	14,108	ND	ND	549	14,108
1976	ND	ND	2,290	29,229	ND	ND	2,290	29,229
1977	ND	ND	710	21,176	ND	ND	710	21,176
1978	ND	ND	1,603	42,439	ND	ND	1,603	42,439
1979	ND	ND	1,253	18,998	ND	ND	1,253	18,998
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
Averages								
1986-05	4	63	4,899	76,852	148	2,594	4,984	78,339
1996-05	4	84	2,891	45,920	139	2,363	3,034	48,367
2001-05	3	48	2,503	38,397	185	3,185	2,691	41,629

 Table 13.–Annual Chignik Management Area Chinook salmon harvest, 1970 through 2006.

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

District								
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total		
1970	867	5	55	230	69	1,226		
1971	656	23	134	266	931	2,010		
1972	226	0	24	72	142	464		
1973	520	0	5	0	0	525		
1974	200	27	0	28	0	255		
1975	542	7	0	0	0	549		
1976	2,135	15	3	60	77	2,290		
1977	692	12	0	1	5	710		
1978	1,386	49	19	130	19	1,603		
1979	856	101	6	181	109	1,253		
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		
Averages								
1986-05	2,471	1,119	218	910	267	4,984		
1996-05	1,787	718	90	398	41	3,034		
2001-05	2,045	273	60	311	2	2,691		

**Table 14.**–Chignik Management Area Chinook salmon harvest (including home pack and the department's test fishery catches), by district and year, 1970 through 2006.

District										
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total				
6/8	1	0	0	Closed	Closed	1				
6/9	0	0	0	Closed	Closed	0				
6/10	0	0	0	Closed	Closed	0				
6/11	0	0	0	Closed	Closed	0				
6/12	0	0	0	Closed	Closed	0				
6/13	0	0	0	Closed	Closed	0				
6/14	0	0	0	Closed	Closed	0				
6/15	3	0	0	Closed	Closed	3				
6/16	2	4	0	Closed	Closed	6				
6/17	0	2	0	Closed	Closed	2				
6/18	Closed	Closed	Closed	Closed	Closed	0				
6/19	Closed	Closed	Closed	Closed	Closed	0				
6/20	Closed	Closed	Closed	Closed	Closed	0				
6/21	Closed	Closed	Closed	Closed	Closed	0				
6/22	Closed	Closed	Closed	Closed	Closed	0				
6/23	Closed	Closed	Closed	Closed	Closed	0				
6/24	Closed	Closed	Closed	Closed	Closed	0				
6/25	15	0	1	Closed	Closed	16				
6/26	26	7	0	Closed	Closed	33				
6/27	29	1	0	Closed	Closed	30				
6/28	12	8	0	Closed	Closed	20				
6/29	30	13	0	Closed	Closed	43				
6/30	36	12	0	Closed	Closed	48				
7/1	0		0	Closed	Closed	0				
7/2	44	7	0	Closed	Closed	51				
7/3	111	11	0	Closed	Closed	122				
7/4	129		0	Closed	Closed	129				
7/5	120	16	0	Closed	Closed	136				
7/6	102	32	2	Closed	Closed	136				
7/7	Closed	Closed	Closed	Closed	Closed	0				
7/8	42	1	0	Closed	Closed	43				
7/9	84	8	0	Closed	Closed	92				
7/10	6	0	0	0	0	6				
7/11	28	9	Closed	11	0	48				
7/12	Closed	Closed	Closed	23	0	23				
7/13	19	0	Closed	0	0	19				
7/14	89	2	Closed	4	0	95				
7/15	84	0	Closed	3	0	87				
7/16	76	5	Closed	0	0	81				
7/17	743	0	Closed	Closed	Closed	743				
7/18	3	0	Closed	Closed	Closed	3				
7/19	0	0	Closed	Closed	Closed	0				
7/20	Closed	Closed	Closed	l l	0	1				
7/21	6	0	Closed	6	0	12				
7/22	37	0	Closed	6	0	43				
7/23	20	9	Closed	4	0	43 33				
1123	20	フ	Ciuseu	4	U	55				

**Table 15.**–Chignik Management Area Chinook salmon harvest (including home pack and the department's test fishery catches), by district and day, 2006.

			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
7/24	57	3	Closed	6	0	66
7/25	5	9	0	0	0	14
7/26	14	0	0	0	0	14
7/27	14	1	0	6	0	21
7/28	7	0	0	1	0	8
7/29	2	0	0	0	0	2
7/30	0	0	0	0	0	0
7/31	0	0	0	0	0	0
8/1	Closed	Closed	Closed	Closed	Closed	0
8/2	Closed	Closed	Closed	Closed	Closed	0
8/3	Closed	Closed	Closed	Closed	Closed	0
8/4	Closed	Closed	Closed	Closed	Closed	0
8/5	7	1	0	Closed	Closed	8
8/6	1	0	0	0	0	1
8/7	0	0	0	1	0	1
8/8	0	0	0	0	0	0
8/9	1	0	0	0	0	1
8/10	0	0	0	0	0	0
8/11	0	0	0	0	0	0
8/12	0	0	0	7	0	7
8/13	0	1	0	0	0	1
8/14	0	1	0	0	0	1
8/15	0	0	0	0	0	0
8/16	0	2	0	0	0	2
8/17	1	0	0	0	0	1
8/18	0	0	0	0	0	0
8/19	0	0	0	0	0	0
8/20	0	0	0	0	Closed	0
8/21	1	0	0	0	Closed	1
8/22	0	0	0	0	Closed	0
8/23	0	0	0	0	Closed	0
8/24	0	0	0	0	Closed	0
8/25	1	0	0	0	Closed	1
8/26	0	0	0	0	Closed	0
8/27	1	0	0	0	Closed	1
8/28	0	0	0	0	Closed	0
8/29	0	0	0	0	Closed	0
8/30	0	0	0	0	Closed	0
8/31	0	0	0	0	Closed	0
9/1		- Processor	Closed for Seaso	on -		
Total	2,009	165	3	79	0	2,256

**Table 15**.–Page 2 of 2.

	Test	fish	Commer	cial Catch	Home	e Pack	Total CM	IA Harvest	Cape	Igvak <sup>a</sup>	SE	DM <sup>b</sup>	Total Chig	gnik-Bound
Year	Number	Pounds	Number	Pounds	Number	Pounds <sup>c</sup>	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

**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, 1978 through 2006.

**Table 16.**–Page 2 of 2.

	Test	fish	Commer	cial Catch	Home	e Pack	Total CM	al CMA Harvest Cape Igvak <sup>a</sup> SEDM <sup>b</sup> Total Chi		Total Chig	gnik-Bound			
Year	Number	Pounds	Number	Pounds	Number	Pounds <sup>c</sup>	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
2001 <sup>d</sup>	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
Averages														
1986-05	7,762	51,624	1,492,278	10,147,433	-	-	1,500,054	10,199,115	188,765	1,100,861	94,675	639,692	1,783,494	11,921,884
1996-05	8,728	58,992	1,409,883	9,734,136	805	5,280	1,419,415	9,798,409	195,311	1,124,394	88,113	589,824	1,702,839	11,477,056
2001-05	8,338	55,698	1,094,096	7,443,026	1,411	9,301	1,103,844	7,508,026	181,716	1,015,457	81,999	556,277	1,367,560	9,008,619

<sup>a</sup> 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%.

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

<sup>c</sup> 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.

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

			District			
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total
1970	1,122,993	10,252	187,210	3,751	1,528	1,325,734
1971	885,632	41,958	81,155	6,403	988	1,016,136
1972	354,912	2,429	15,985	4,734	158	378,218
1973	845,079	8,039	17,234	2	0	870,354
1974	539,196	120,412	199	3,098	0	662,905
1975	387,128	12,448	0	17	0	399,593
1976	1,112,533	48,327	1,254	425	1,189	1,163,728
1977	1,851,733	119,484	0	909	81	1,972,207
1978	1,474,673	89,826	7,161	4,482	141	1,576,283
1979	909,056	104,892	12,558	20,319	2,866	1,049,691
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
Averages		·	·			
1986-05	1,080,323	309,927	40,325	41,620	27,859	1,500,054
1996-05	1,053,635	287,300	38,108	33,722	6,650	1,419,415
2001-05	963,968	115,208	6,583	16,819	1,266	1,103,844

**Table 17.**–Total annual Chignik Management Area sockeye salmon harvest (including home pack and the department's test fishery catches), by district, 1970 through 2006.

Ð			District		D 111	-
Date	Chignik Bay	Central	Eastern	Western	Perryville	Tota
6/8	499	0	0	Closed	Closed	499
6/9	0	0	0	Closed	Closed	(
6/10	572	0	0	Closed	Closed	572
6/11	0	0	0	Closed	Closed	(
6/12	1,400	0	0	Closed	Closed	1,40
6/13	1,904	0	0	Closed	Closed	1,904
6/14	16,456	0	0	Closed	Closed	16,45
6/15	33,597	0	379	Closed	Closed	33,97
6/16	22,738	661	544	Closed	Closed	23,94
6/17	25,574	3,461	0	Closed	Closed	29,03
6/18	Closed	Closed	Closed	Closed	Closed	(
6/19	2,266	Closed	Closed	Closed	Closed	2,26
6/20	Closed	Closed	Closed	Closed	Closed	(
6/21	Closed	Closed	Closed	Closed	Closed	
6/22	Closed	Closed	Closed	Closed	Closed	
6/23	Closed	Closed	Closed	Closed	Closed	
6/24	Closed	Closed	Closed	Closed	Closed	
6/25	50,926	0	1,855	Closed	Closed	52,78
6/26	31,236	5,772	0	Closed	Closed	37,00
6/27	27,241	1,383	0	Closed	Closed	28,62
6/28	22,775	12,413	0	Closed	Closed	35,18
6/29	27,471	8,591	0	Closed	Closed	36,06
6/30	30,007	13,829	0	Closed	Closed	43,83
7/1	5,248	0	0	Closed	Closed	5,24
7/2	21,892	4,382	0	Closed	Closed	26,27
7/3	16,233	4,509	0	Closed	Closed	20,74
7/4	15,389	1,778	0	Closed	Closed	17,16
7/5	15,718	6,049	0	Closed	Closed	21,76
7/6	14,083	5,090	340	Closed	Closed	19,51
7/7	Closed	Closed	Closed	Closed	Closed	17,51
7/8	9,884	833	0	Closed	Closed	10,71
7/9	18,182	2,625	0	Closed	Closed	20,80
7/10	4,525	2,023	0	0	0	4,52
7/11	4,525 9,661	1,341	Closed		0	
7/12				4,083		15,08
	Closed	Closed	Closed	11,896	0	11,89
7/13	15,075	2,055	Closed	0	0	17,13
7/14	14,200	738	Closed	4,250	0	19,18
7/15	16,576	890	Closed	4,352	0	21,81
7/16	15,169	4,844	Closed	5,451	0	25,46
7/17	10,305	1,130	Closed	Closed	Closed	11,43
7/18	6,236	0	Closed	Closed	Closed	6,23
7/19	69	0	Closed	Closed	Closed	6
7/20	Closed	Closed	Closed	10,395	0	10,39
7/21	19,244	1,802	Closed	11,130	0	32,17
7/22	26,068	28	Closed	3,244	0	29,34
7/23	19,309	4,093	Closed	1,165	0	24,56

**Table 18.**—Chignik Management Area sockeye salmon harvest (including home pack and the department's test fishery catches), by district and day, 2006.

34

			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
7/24	16,903	2,690	Closed	434	0	20,027
7/25	11,296	2,100	0	0	0	13,396
7/26	20,084	1,961	0	1,314	0	23,359
7/27	19,751	997	0	2,586	0	23,334
7/28	14,070	1,793	0	2,079	0	17,942
7/29	9,340	0	0	0	0	9,340
7/30	0	0	0	0	0	0
7/31	0	0	0	0	0	0
8/1	Closed	Closed	Closed	Closed	Closed	0
8/2	Closed	Closed	Closed	Closed	Closed	0
8/3	Closed	Closed	Closed	Closed	Closed	0
8/4	Closed	Closed	Closed	Closed	Closed	0
8/5	9,158	670	0	Closed	Closed	9,828
8/6	5,196	519	0	3,945	0	9,660
8/7	6,114	353	0	2,156	0	8,623
8/8	3,701	0	0	399	0	4,100
8/9	4,107	0	0	247	0	4,354
8/10	5,273	736	0	167	0	6,176
8/11	2,849	923	0	0	0	3,772
8/12	1,427	0	0	277	0	1,704
8/13	1,280	320	0	0	0	1,600
8/14	2,129	495	0	0	0	2,624
8/15	2,458		0	0	0	2,458
8/16	2,602	1,165	0	0	0	3,767
8/17	1,984	0	0	0	0	1,984
8/18	1,124	0	0	0	0	1,124
8/19	1,913	0	0	0	0	1,913
8/20	1,174	0	0	0	Closed	1,174
8/21	1,473	0	0	0	Closed	1,473
8/22	2,641	0	0	0	Closed	2,641
8/23	1,585	0	0	0	Closed	1,585
8/24	1,472	253	0	0	Closed	1,725
8/25	1,344	0	0	0	Closed	1,344
8/26	592	0	0	0	Closed	592
8/27	2,503	0	0	0	Closed	2,503
8/28	1,120	0	0	0	Closed	1,120
8/29	2,222	0	0	0	Closed	2,222
8/30	0	0	0	0	Closed	0
8/31	136	0	0	0	Closed	136
9/1			Closed for Se	eason -		
Total	726,749	103,272	3,118	69,570	0	902,709

Table	<b>18.</b> –Page 2 of 2.
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	CI · · ·	a	с I	1 8	Southeastern		
	Chigni		Cape Igv		Mainlar		
Year	Catch <sup>b</sup>	Percent	Catch <sup>b</sup>	Percent	Catch <sup>c</sup>	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 <sup>d</sup>	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 <sup>e</sup>	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 <sup>f</sup>	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 <sup>g</sup>	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
Averages							
1986-05	1,202,967	83	188,765	11	96,432	6	1,488,164
1996-05	1,139,706	82	195,311	12	91,627	6	1,426,643
2001-05	923,998	78	181,716	15	89,027	7	1,194,741

**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 to July 25, 1978 through 2006.

<sup>a</sup> 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 BOF 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.

<sup>b</sup> Beginning in 1978 the Cape Igvak Salmon Management Plan allocated up to 15% of the total catch of Chignikbound sockeye salmon to the Cape Igvak fishery.

## Table 19.–Page 2 of 2.

- <sup>c</sup> 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 BOF decreased the allocation from 7.0% to 6.0%.
- <sup>d</sup> Includes a forgone harvest of 278,305 sockeye salmon during a Chignik area strike (June 23 to July 4).
- <sup>e</sup> Includes a forgone harvest of 208,921 sockeye salmon during a Chignik area strike (June 2 to June 25).
- <sup>f</sup> Includes a forgone harvest of 52,131 sockeye salmon during a Chignik area strike (June 16 to June 29).
- <sup>g</sup> Includes a forgone harvest of 389,887 sockeye salmon in Chignik during a Chignik area strike (June 16 to 29), and foregone harvest of 27,896 sockeye salmon in the SEDM during a strike on the South Peninsula (June 14 to July 2).

	-	Early Run			Late Run			Total Run <sup>a,b,c</sup>	;
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
Averages									
1986-05	468,577	980,173	1,449,519	312,746	803,321	1,115,298	781,323	1,783,494	2,564,817
1996-05	445,897	955,912	1,401,808	299,218	746,927	1,046,145	745,115	1,702,839	2,447,954
2001-05	438,722	745,241	1,183,963	302,093	622,319	924,412	740,815	1,367,560	2,108,375

Table 20.-Chignik sockeye salmon escapement, total harvest considered Chignik-bound, and total run, 1970 through 2006.

<sup>a</sup> 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.

<sup>b</sup> Does not include subsistence-caught fish.

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

	Early R	un (millions	)	Late Ru	un (millior	ns)	Total R	un (milli	ions)
Year	Forecast	Actual 9	6 Error	Forecast	Actual	% Error	Forecast	Actual	% Error
1993	1.60	1.29	19	0.95	1.53	-61	2.55	2.82	-11
1994	1.80	2.36	-31	1.30	0.61	53	3.10	2.98	4
1995	1.90	1.03	46	0.90	1.69	-88	2.80	2.72	3
1996	1.40	2.15	-54	1.60	0.99	38	3.00	3.14	-5
1997	1.00	0.63	37	1.60	0.91	43	2.60	1.55	41
1998	0.90	0.72	20	1.10	1.11	-1	2.00	1.83	8
1999	1.05	2.48	-136	1.29	1.98	-54	2.34	4.46	-91
2000	3.90	2.11	46	1.09	0.84	23	4.99	2.96	41
2001	1.00	1.31	-31	0.91	1.61	-77	1.91	2.91	-53
2002	1.03	1.07	-4	1.09	0.91	17	2.12	1.98	7
2003	1.64	0.99	40	1.19	0.99	17	2.83	1.98	30
2004	1.26	1.09	13	1.08	0.41	62	2.34	1.50	36
2005	1.84	1.46	21	0.55	0.71	-29	2.39	2.18	9
2006	1.21	0.80	34	0.28	0.94	-236	1.49	1.74	-17
Averages									
1996-05	1.50	1.40	-5	1.15	1.05	4	2.65	2.45	2
2001-05	1.35	1.18	8	0.96	0.93	-2	2.32	2.11	6

Table 21.-Chignik sockeye salmon forecasts and actual runs, by run and year, 1993 through 2006.

	Test	fish	Commer	cial Catch	Home	Pack	Tot	tal
Year	Number	Pounds	Number	Pounds	Number	Pounds <sup>a</sup>	Number	Pounds
1970	ND	ND	15,348	103,879	ND	ND	15,348	103,879
1971	ND	ND	14,557	96,832	ND	ND	14,557	96,832
1972	ND	ND	19,615	138,345	ND	ND	19,615	138,345
1973	ND	ND	22,322	172,190	ND	ND	22,322	172,190
1974	ND	ND	12,245	97,037	ND	ND	12,245	97,037
1975	ND	ND	53,283	467,912	ND	ND	53,283	467,912
1976	ND	ND	35,167	294,954	ND	ND	35,167	294,954
1977	ND	ND	17,430	156,418	ND	ND	17,430	156,418
1978	ND	ND	20,212	158,270	ND	ND	20,212	158,270
1979	ND	ND	99,129	725,035	ND	ND	99,129	725,035
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
Averages								
1986-05	29	162		1,131,437	128	942	148,941	1,132,109
1996-05	4	29	91,769	712,642	50	365	91,823	713,036
2001-05	9	57	58,283	455,457	50	379	58,342	455,894

Table 22.-Chignik Management Area coho salmon harvest, by year, 1970 through 2006.

<sup>a</sup> 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.

			District			
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total
1970	4,578	62	399	9,745	564	15,348
1971	10,928	62	301	2,297	969	14,557
1972	17,692	2	160	1,579	182	19,615
1973	22,304	6	12	0	0	22,322
1974	11,056	414	0	775	0	12,245
1975	52,407	260	0	0	616	53,283
1976	34,426	173	109	32	427	35,167
1977	16,810	189	7	378	46	17,430
1978	14,467	24	21	3,848	1,852	20,212
1979	52,966	3,556	3,869	31,300	7,438	99,129
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
Averages	,	,		/		<u> </u>
1986-05	43,284	20,420	1,429	62,436	21,371	148,941
1996-05	19,286	22,018	1,103	44,522	4,895	91,823
2001-05	11,363	8,773	463	36,627	1,116	58,342

**Table 23.**–Chignik Management Area coho salmon harvest (including home pack and the department's test fishery catches), by district and year, 1970 through 2006.

			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
6/8	0	0	0	Closed	Closed	0
6/9	0	0	0	Closed	Closed	0
6/10	0	0	0	Closed	Closed	0
6/11	0	0	0	Closed	Closed	0
6/12	0	0	0	Closed	Closed	0
6/13	0	0	0	Closed	Closed	0
6/14	0	0	0	Closed	Closed	0
6/15	0	0	0	Closed	Closed	0
6/16	0	0	0	Closed	Closed	0
6/17	0	0	0	Closed	Closed	0
6/18	Closed	Closed	Closed	Closed	Closed	0
6/19	Closed	Closed	Closed	Closed	Closed	0
6/20	Closed	Closed	Closed	Closed	Closed	0
6/21	Closed	Closed	Closed	Closed	Closed	0
6/22	Closed	Closed	Closed	Closed	Closed	0
6/23	Closed	Closed	Closed	Closed	Closed	0
6/24	Closed	Closed	Closed	Closed	Closed	0
6/25	0	0	0	Closed	Closed	0
6/26	0	4	0	Closed	Closed	4
6/27	0	0	0	Closed	Closed	0
6/28	0	0	0	Closed	Closed	0
6/29	2	0	0	Closed	Closed	2
6/30	0	0	0	Closed	Closed	0
7/1	0	0	0	Closed	Closed	0
7/2	0	8	0	Closed	Closed	8
7/3	0	0	0	Closed	Closed	0
7/4	0	0	0	Closed	Closed	0
7/5	0	0	0	Closed	Closed	0
7/6	0	2	1	Closed	Closed	3
7/7	Closed	Closed	Closed	Closed	Closed	0
7/8	0	0	0	Closed	Closed	0
7/9	0	0	0	Closed	Closed	0
7/10	0	0	0	0	0	0
7/11	0	157	Closed	332	0	489
7/12	Closed	Closed	Closed	822	0	822
7/13	299	18	Closed	022	0	317
7/14	15	39	Closed	6,910	0	6,964
7/15	15	0	Closed	73	0	74
7/16	1	187	Closed	898	0	1,086
7/17	0	32	Closed	Closed	Closed	32
7/18	0	0	Closed	Closed	Closed	32 0
7/19	0	0	Closed	Closed	Closed	0
7/20	Closed	Closed	Closed	554	0	554
7/20	0	Closed 0	Closed	584	0	584
7/21	0	0		584 689	0	584 689
		0 19	Closed			236
7/23	0	-conti	Closed	217	0	230

**Table 24.**–Chignik Management Area coho salmon harvest (including home pack and the department's test fishery catches), by district and day, 2006.

			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
7/25	0	73	0	0	0	73
7/26	0	59	0	1,762	0	1,821
7/27	1	33	0	456	0	490
7/28	0	42	0	591	0	633
7/29	0	0	0	0	0	0
7/30	0	0	0	0	0	0
7/31	1	0	0	0	0	1
8/1	Closed	Closed	Closed	Closed	Closed	0
8/2	Closed	Closed	Closed	Closed	Closed	0
8/3	Closed	Closed	Closed	Closed	Closed	0
8/4	Closed	Closed	Closed	Closed	Closed	0
8/5	3	16	0	Closed	Closed	19
8/6	5	93	0	3,258	0	3,356
8/7	2	90	0	1,752	0	1,844
8/8	1	0	0	4,363	0	4,364
8/9	255	0	0	1,470	0	1,725
8/10	9	106	0	2,603	0	2,718
8/11	10	211	0	0	0	221
8/12	26	0	0	384	0	410
8/13	2	127	0	0	0	129
8/14	594	155	0	0	0	749
8/15	41	0	0	0	0	41
8/16	86	295	0	0	0	381
8/17	155	0	0	0	0	155
8/18	120	0	0	0	0	120
8/19	239	0	0	0	0	239
8/20	164	0	0	0	Closed	164
8/21	170	0	0	0	Closed	170
8/22	444	0	0	0	Closed	444
8/23	374	0	0	0	Closed	374
8/24	372	334	0	0	Closed	706
8/25	504	0	0	0	Closed	504
8/26	214	0	0	0	Closed	214
8/27	952	0	0	0	Closed	952
8/28	387	0	0	0	Closed	387
8/29	1,471	0	0	0	Closed	1,471
8/30	0	0	0	0	Closed	0
8/31	135	0	0	0	Closed	135
9/1		- Processor	Closed for Se	eason -		
Total	7,055	2,100	1	27,718	0	36,874

**Table 24.**–Page 2 of 2.

	Testfi	sh	Commerc	ial Catch	Home I	Pack	Tot	tal
Year	Number	Pounds	Number	Pounds	Number	Pounds <sup>a</sup>	Number	Pounds
1970	ND	ND	1,157,172	4,104,927	ND	ND	1,157,172	4,104,927
1971	ND	ND	612,290	2,291,832	ND	ND	612,290	2,291,832
1972	ND	ND	72,161	278,778	ND	ND	72,161	278,778
1973	ND	ND	25,444	104,457	ND	ND	25,444	104,457
1974	ND	ND	69,515	290,712	ND	ND	69,515	290,712
1975	ND	ND	66,165	260,631	ND	ND	66,165	260,631
1976	ND	ND	395,287	1,749,923	ND	ND	395,287	1,749,923
1977	ND	ND	604,806	2,435,862	ND	ND	604,806	2,435,862
1978	ND	ND	985,114	3,454,877	ND	ND	985,114	3,454,877
1979	ND	ND	1,905,198	7,154,954	ND	ND	1,905,198	7,154,954
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
Averages								
1986-05	277	940	865,123	2,892,865	537	1,615	865,681	2,894,647
1996-05	64	249	597,753	1,878,976	591	1,777	598,408	1,881,002
2001-05	129	498	409,118	1,370,948	130	484	409,376	1,371,930

Table 25.-Chignik Management Area pink salmon harvest, by year, 1970 through 2006.

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

			District			
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total
1970	46,297	27,919	268,857	442,684	371,415	1,157,172
1971	65,281	20,518	28,959	285,447	212,085	612,290
1972	31,606	766	12,928	14,880	11,981	72,161
1973	22,674	293	2,477	28	0	25,472
1974	33,484	22,084	568	13,379	0	69,515
1975	27,377	31,342	0	7,446	0	66,165
1976	108,827	16,583	28,828	135,803	105,246	395,287
1977	60,932	120,018	239	379,038	44,579	604,806
1978	137,074	61,224	86,778	419,280	280,758	985,114
1979	312,406	284,414	292,364	744,613	271,401	1,905,198
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
Averages						
1986-05	64,667	219,925	83,955	330,704	166,429	865,681
1996-05	36,964	264,090	29,507	224,827	43,021	598,408
2001-05	43,051	169,449	19,545	161,729	15,602	409,376

**Table 26.**–Chignik Management Area pink salmon harvest (including home pack and the department's test fishery catches), by district and year, 1970 through 2006.

			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
6/8	0	0	0	Closed	Closed	0
6/9	0	0	0	Closed	Closed	0
6/10	0	0	0	Closed	Closed	0
6/11	0	0	0	Closed	Closed	0
6/12	0	0	0	Closed	Closed	0
6/13	0	0	0	Closed	Closed	0
6/14	0	0	0	Closed	Closed	0
6/15	0	0	263	Closed	Closed	263
6/16	0	6	490	Closed	Closed	496
6/17	1	19	0	Closed	Closed	20
6/18	Closed	Closed	Closed	Closed	Closed	0
6/19	Closed	Closed	Closed	Closed	Closed	0
6/20	Closed	Closed	Closed	Closed	Closed	0
6/21	Closed	Closed	Closed	Closed	Closed	0
6/22	Closed	Closed	Closed	Closed	Closed	0
6/23	Closed	Closed	Closed	Closed	Closed	0
6/24	Closed	Closed	Closed	Closed	Closed	0
6/25	2	0	3303	Closed	Closed	3,305
6/26	2	410	0	Closed	Closed	412
6/27	0	300	0	Closed	Closed	300
6/28	0	925	0	Closed	Closed	925
6/29	0	135	0	Closed	Closed	135
6/30	0	313	0	Closed	Closed	313
7/1	0	0	0	Closed	Closed	0
7/2	0	626	$\overset{\circ}{0}$	Closed	Closed	626
7/3	19	145	0	Closed	Closed	164
7/4	21	70	$\overset{\circ}{0}$	Closed	Closed	91
7/5	8	810	0	Closed	Closed	818
7/6	0	166	83	Closed	Closed	249
7/7	Closed	Closed	0	Closed	Closed	0
7/8	14	36	0	Closed	Closed	50
7/9	148	387	0	Closed	Closed	535
7/10	0	0	0	0	0	0
7/11	71	598	Closed	912	0	1,581
7/12	Closed	Closed	Closed	5,663	0	5,663
7/12	648	636	Closed	5,005 0	0	1,284
7/13	255	030 549	Closed	4,437	0	5,241
7/14	419	210	Closed	1,913	0	2,542
7/16	319	1,407	Closed		0	
				1,434		3,160
7/17	130	709	Closed	Closed	Closed	839 512
7/18	376	137	Closed	Closed	Closed	513
7/19	0 Closed	0 Closed	Closed	Closed	Closed	0
7/20	Closed	Closed	Closed	4,842	0	4,842
7/21	575	502	Closed	21,439	0	22,516
7/22	881	23	Closed	4,567	0	5,471
7/23	902	1,670	Closed	4,710	0	7,282

**Table 27.**–Chignik Management Area pink salmon harvest (including home pack and the department's test fishery catches), by district and day, 2006.

			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
7/24	1,309	1,524	Closed	4,408	0	7,241
7/25	397	7,389	0	0	0	7,786
7/26	2,039	1,506	0	6,205	0	9,750
7/27	1,441	12,062	0	4,911	0	18,414
7/28	1,105	5,918	0	3,451	0	10,474
7/29	0	0	0	0	0	0
7/30	0	0	0	0	0	0
7/31	1,683	0	0	0	0	1,683
8/1	Closed	Closed	Closed	Closed	Closed	0
8/2	Closed	Closed	Closed	Closed	Closed	0
8/3	Closed	Closed	Closed	Closed	Closed	0
8/4	Closed	Closed	Closed	Closed	Closed	0
8/5	5,823	6,917	0	Closed	Closed	12,740
8/6	3,414	4,179	0	25,123	0	32,716
8/7	4,023	4,168	0	21,896	0	30,087
8/8	2,327	0	0	22,196	0	24,523
8/9	3,746	0	0	4,227	0	7,973
8/10	3,287	4,238	0	11,418	0	18,943
8/11	2,427	8,521	0	0	0	10,948
8/12	1,162	0	0	8,212	0	9,374
8/13	4,230	4,114	0	0	0	8,344
8/14	4,648	3,340	28,484	0	0	36,472
8/15	1,838	0	35,841	0	0	37,679
8/16	1,988	4,481	11,001	0	0	17,470
8/17	1,385	0	0	0	0	1,385
8/18	796	0	0	0	0	796
8/19	1,525	0	0	0	0	1,525
8/20	580	0	0	0	Closed	580
8/21	816	0	0	0	Closed	816
8/22	1,244	0	0	0	Closed	1,244
8/23	808	0	0	0	Closed	808
8/24	594	580	0	0	Closed	1,174
8/25	624	0	0	0	Closed	624
8/26	251	0	0	0	Closed	251
8/27	848	0	0	0	Closed	848
8/28	396	0	0	0	Closed	396
8/29	874	0	0	0	Closed	874
8/30	0	0	0	0	Closed	0
8/31	0	0	0	0	Closed	0
9/1		- Processor	Closed for Se	ason -		
Total	62,419	79,726	79,465	161,964	0	383,574

**Table 27.**–Page 2 of 2.

	Testfi	sh	Commerc	ial Catch	Home F	Pack	Tot	tal
Year	Number	Pounds	Number	Pounds	Number	Pounds <sup>a</sup>	Number	Pounds
1970	ND	ND	437,252	3,004,113	ND	ND	437,252	3,004,113
1971	ND	ND	353,952	2,420,446	ND	ND	353,952	2,420,446
1972	ND	ND	78,298	603,726	ND	ND	78,298	603,726
1973	ND	ND	8,701	67,812	ND	ND	8,701	67,812
1974	ND	ND	34,312	246,288	ND	ND	34,312	246,288
1975	ND	ND	25,161	176,046	ND	ND	25,161	176,046
1976	ND	ND	81,403	678,545	ND	ND	81,403	678,545
1977	ND	ND	110,452	937,365	ND	ND	110,452	937,365
1978	ND	ND	120,889	984,141	ND	ND	120,889	984,141
1979	ND	ND	188,907	1,378,938	ND	ND	188,907	1,378,938
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	380,949	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	2,380	7,589	0	0	2,380	7,589
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
Averages								
1986-05	73	520	151,519	1,109,173	1,955	15,264	152,664	1,118,062
1996-05	19	174	97,447	752,739	2,150	16,786	99,615	769,700
2001-05	37	349	65,676	506,961	49	374	65,761	507,683

Table 28.-Chignik Management Area chum salmon harvest, by year, 1970 through 2006.

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

			District			
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total
1970	1,660	28,628	241,108	139,551	26,305	437,252
1971	19,449	13,723	102,344	177,534	40,902	353,952
1972	18,178	1,566	27,723	18,535	12,296	78,298
1973	7,254	229	1,218	16	0	8,717
1974	17,317	13,516	255	3,224	0	34,312
1975	21,137	3,225	0	799	0	25,161
1976	19,237	3,358	10,020	33,051	15,737	81,403
1977	8,621	8,888	1,507	88,027	3,409	110,452
1978	15,020	10,317	17,451	45,991	32,110	120,889
1979	32,176	11,427	36,090	82,326	26,888	188,907
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
Averages	,	*		*		
1986-05	10,025	47,810	16,936	54,073	23,726	152,570
1996-05	7,889	44,726	10,727	28,466	7,620	99,428
2001-05	5,849	22,083	10,295	23,748	3,412	65,386

Table 29.–Chignik Management Area chum salmon harvest (including home pack and the department's test fishery catches), by district and year, 1970 through 2006.

		District									
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total					
6/8	0	0	0	Closed	Closed	0					
6/9	0	0	0	Closed	Closed	0					
6/10	0	0	0	Closed	Closed	0					
6/11	0	0	0	Closed	Closed	0					
6/12	0	0	0	Closed	Closed	0					
6/13	0	0	0	Closed	Closed	0					
6/14	0	0	0	Closed	Closed	0					
6/15	0	0	211	Closed	Closed	211					
6/16	0	79	141	Closed	Closed	220					
6/17	0	204	0	Closed	Closed	204					
6/18	Closed	Closed	Closed	Closed	Closed	0					
6/19	Closed	Closed	Closed	Closed	Closed	0					
6/20	Closed	Closed	Closed	Closed	Closed	0					
6/21	Closed	Closed	Closed	Closed	Closed	0					
6/22	Closed	Closed	Closed	Closed	Closed	0					
6/23	Closed	Closed	Closed	Closed	Closed	0					
6/24	Closed	Closed	Closed	Closed	Closed	0					
6/25	1	0	422	Closed	Closed	423					
6/26	0	263	0	Closed	Closed	263					
6/27	1	42	0	Closed	Closed	43					
6/28	0	674	0	Closed	Closed	674					
6/29	1	567	0	Closed	Closed	568					
6/30	5	795	0	Closed	Closed	800					
7/1	0	0	0	Closed	Closed	0					
7/2	2	165	0	Closed	Closed	167					
7/3	2	263	0	Closed	Closed	265					
7/4	19	67	0	Closed	Closed	86					
7/5	2	326	0	Closed	Closed	328					
7/6	0	215	2	Closed	Closed	217					
7/7	Closed	Closed	Closed	Closed	Closed	0					
7/8	8	45	0	Closed	Closed	53					
7/9	41	232	0	Closed	Closed	273					
7/10	0	0	0	0	0	0					
7/11	33	465	Closed	703	0	1,201					
7/12	Closed	Closed	Closed	2,339	0	2,339					
7/13	403	1,173	Closed	25,283	0	26,859					
7/14	69	242	Closed	706	0	1,017					
7/15	39	263	Closed	1,809	0	2,111					
7/16	68	605	Closed	0	0	673					
7/17	13	214	Closed	Closed	Closed	227					
7/18	56	346	Closed	Closed	Closed	402					
7/19	0	0	Closed	Closed	Closed	0					
7/20	Closed	Closed	Closed	1,028	0	1,028					
7/21	70	75	Closed	2,746	0	2,891					
7/22	77	25	Closed	2,034	0	2,136					
7/23	102	208	Closed	445	0	755					

**Table 30.**–Chignik Management Area chum salmon harvest (including home pack and the department's test fishery catches), by district and day, 2006.

			District			
Date	Chignik Bay	Central	Eastern	Western	Perryville	Total
7/24	114	140	Closed	2,460	0	2,714
7/25	30	103	0	0	0	133
7/26	87	200	0	3,336	0	3,623
7/27	89	105	0	1,925	0	2,119
7/28	93	238	0	1,130	0	1,461
7/29	1	0	0	0	0	1
7/30	0	0	0	0	0	0
7/31	19	0	0	0	0	19
8/1	Closed	Closed	Closed	Closed	Closed	0
8/2	Closed	Closed	Closed	Closed	Closed	0
8/3	Closed	Closed	Closed	Closed	Closed	0
8/4	Closed	Closed	Closed	Closed	Closed	0
8/5	79	116	0	Closed	Closed	195
8/6	48	29	0	962	0	1,039
8/7	130	134	0	451	0	715
8/8	0	0	0	818	0	818
8/9	61	0	0	74	0	135
8/10	47	110	0	332	0	489
8/11	30	179	0	0	0	209
8/12	17	0	0	515	0	532
8/13	5	192	0	0	0	197
8/14	130	168	0	0	0	298
8/15	30	0	0	0	0	30
8/16	32	143	0	0	0	175
8/17	15	0	0	0	0	15
8/18	9	0	0	0	0	9
8/19	11	0	0	0	0	11
8/20	11	0	0	0	Closed	11
8/21	11	0	0	0	Closed	11
8/22	28	0	0	0	Closed	28
8/23	9	0	0	0	Closed	9
8/24	14	45	0	0	Closed	59
8/25	9	0	0	0	Closed	9
8/26	6	0	0	0	Closed	6
8/27	21	0	0	0	Closed	21
8/28	10	0	0	0	Closed	10
8/29	95	0	0	0	Closed	95
8/30	0	0	0	0	Closed	0
8/31	0	0	0	0	Closed	0
9/1	0		Closed for Se		ciobea	0
Total	2,303	9,455	776	49,096	0	61,630

**Table 30.**–Page 2 of 2.

	Chino	ok	Socke	eye	Coh	0	Pinl	ĸ	Chu	m	Total Value	Number of	Value Per
Year	Total	Average	Total	Average	Total	Average	Total	Average	Total	Average	(\$)	Permits <sup>a</sup>	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

**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 2006.

**Table 31.**–Page 2 of 2.

	Chinc	ook	Socke	eye	Coh	0	Pink	K	Chu	m	Total Value	Number of	Value Per	
Year	Total	Average	Total	Average	Total	Average	Total	Average	Total	Average	(\$)	Permits <sup>a</sup>	Permit (\$)	
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	
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 <sup>a</sup>	26,191	262	3,568,350	35,684	59	1	835	8	647	6	3,596,082	100	35,961	
2005 <sup>a</sup>	36,060	377	6,314,036	64,429	11,280	115	55,070	562	10,917	111	6,427,363	98	65,585	
2006 <sup>b</sup>	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	
Averages														
1986-05	72,260	721	11,479,025	116,160	693,167	6,934	648,666	6,510	349,449	3,494	13,242,567	99	133,819	
1996-05	21,935	231	8,422,716	88,784	223,674	2,361	198,358	2,144	95,352	1,016	8,962,034	96	94,536	
2001-05	19,637	202	5,429,980	55,940	96,840	1,015	123,010	1,296	66,523	703	5,735,991	98	59,155	

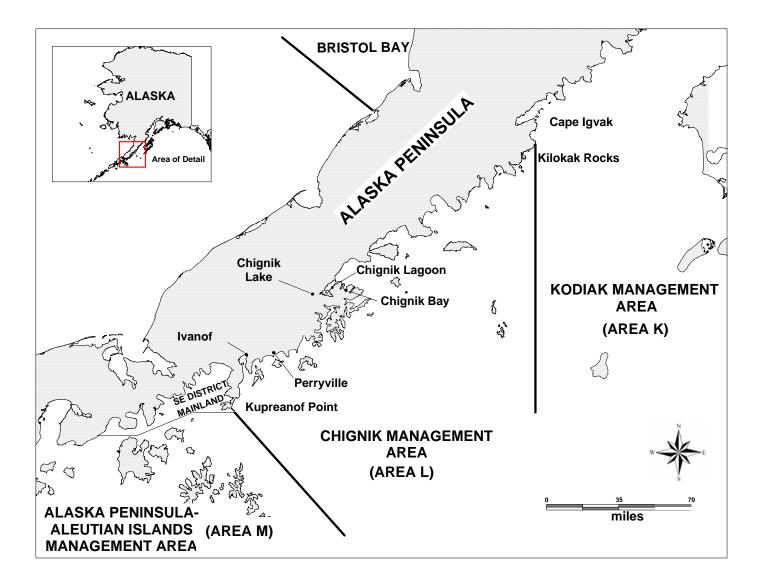
<sup>a</sup> Includes the number of commercial permits that received income from the harvest. These figures do not include the department's test fishery harvests.

<sup>b</sup> The 2006 average exvessel values per pound were: Chinook- \$0.68, sockeye- \$0.81, coho- \$0.36, pink- \$0.09, chum- \$0.18.

	Perm	nits	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	11,187								
Averages																
1986-05	111	76	101	9,296	1,564	250	958	12,169								
1996-05	121	97	140	9,206	1,928	311	1,417	13,004								
2001-05	125	98	165	8,983	1,922	215	1,310	12,597								

Table 32.-Number of subsistence permits issued and returned and estimated salmon subsistence harvest, by species and year, 1980 through 2006.

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



**Figure 1.**–Map of the Alaska Peninsula illustrating the relative locations of the Chignik, Kodiak, and Alaska Peninsula and Aleutians Islands Management Areas.

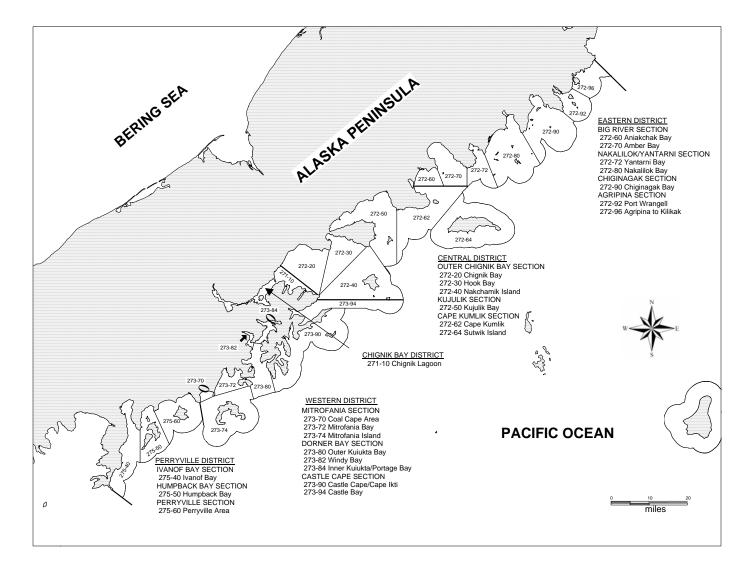


Figure 2.-Map of the Chignik Management Area illustrating district and section boundaries and statistical areas.

Chignik Bay Central															_											_	_	_			JUNE
Eastern																															JUNE
Western																															
Perryville																															
	1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	6-Jun	7-Jun	8-Jun	9-Jun	10-Jun	11-Jun	12-Jun	13-Jun	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun	21-Jun	22-Jun	24-Juli 23-Jun	25-Jun	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun		
Chignik Bay																															
Central																															JULY
Eastern Western																			-												
Perryville																															
i city vinc	1-Jul	2-Jul	3-Jul	4-Jul	5-Jul	6-Jul	7-Jul	8-Jul	9-Jul	10-Jul	11-Jul	12-Jul	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul	20-Jul	21-Jul	22-Jul	24-Jui 23-Ini	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	
Chignik Bay																															
Central																															AUGUST
Eastern																															
Western																															
Perryville																															
	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	16-Aug	17-Aug	18-Aug	19-Aug	20-Aug	21-Aug	22-Aug	24-Aug 23-Ano	25-Aug	26-Aug	27-Aug	28-Aug	29-Aug	30-Aug	31-Aug	
	Day	s Cl	osed	d:		1	Day	/s Oj	pen:																						

Figure 3.–Representation of days open to commercial salmon fishing, by district and month, 2006.

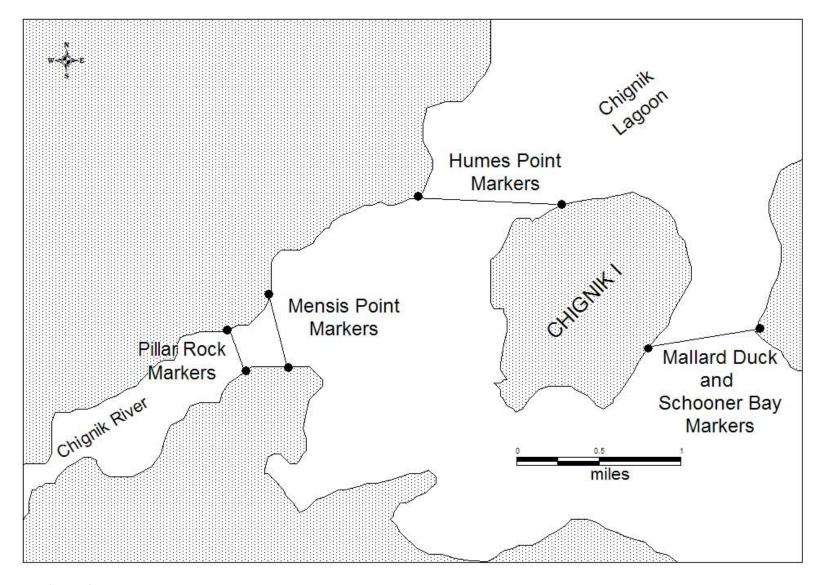


Figure 4.-Map of upper Chignik Lagoon showing the location of the Pillar Rock, Mensis Point, and Humes Point marker locations.

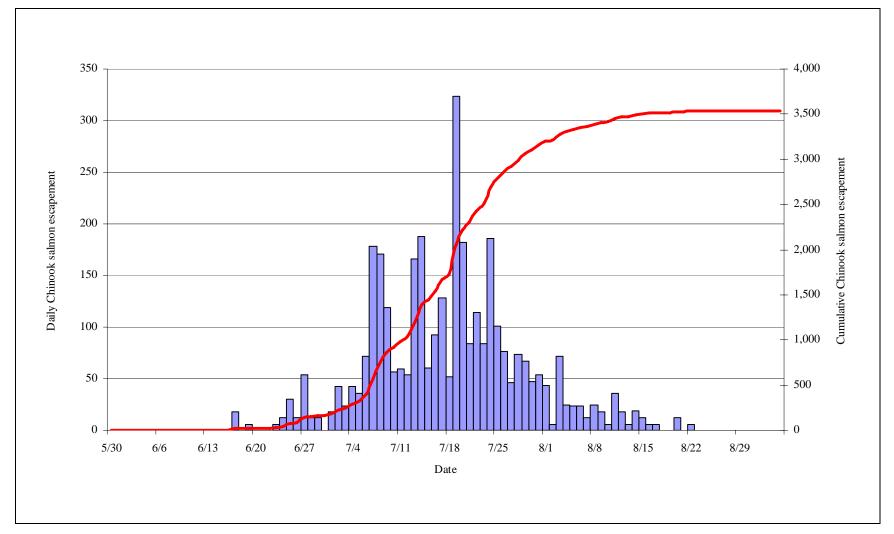


Figure 5.-Chignik River estimated daily (bars) and cumulative (line) Chinook salmon escapement, 2006.

59

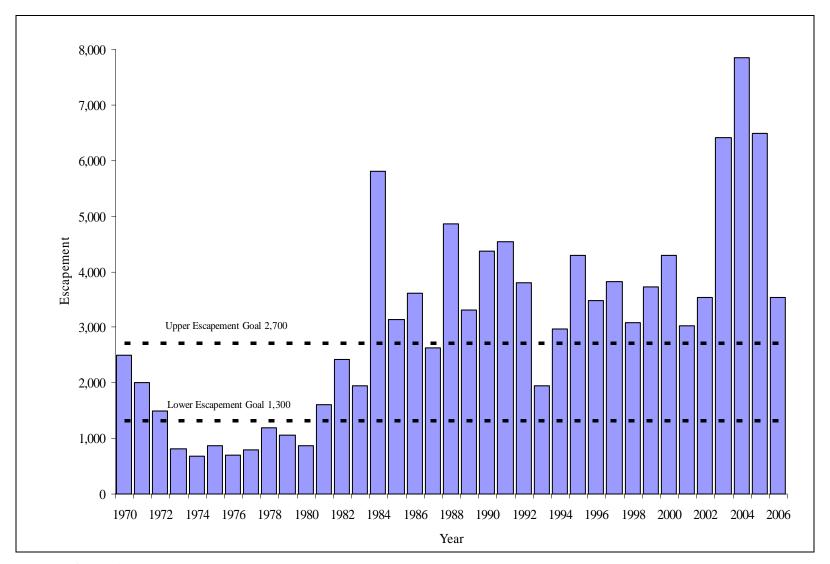


Figure 6.–Chignik River Chinook salmon escapement by year, 1970 through 2006, as compared to the 2006 escapement goal.

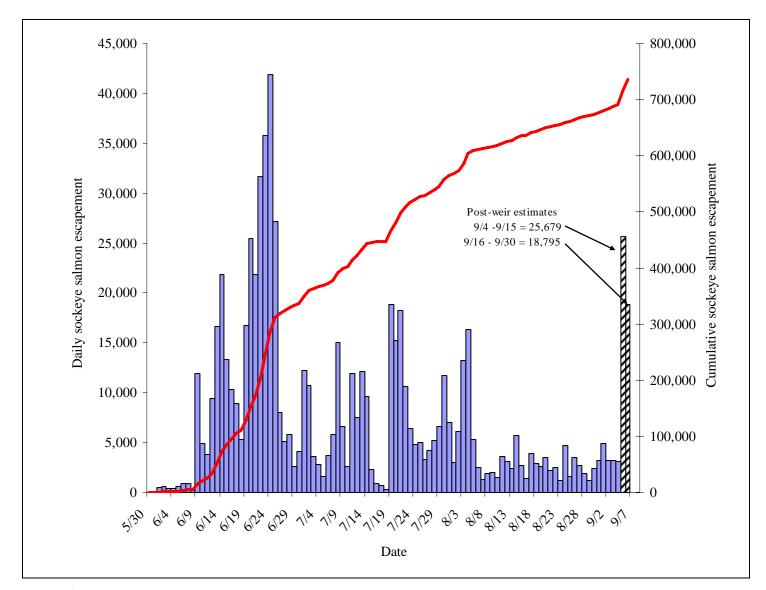
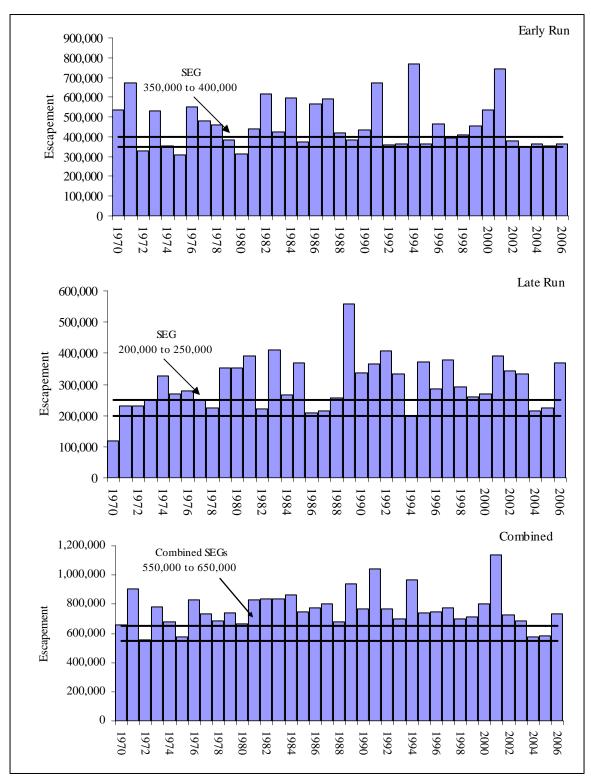


Figure 7.-Chignik River sockeye salmon daily (bars) and cumulative (line) escapement, 2006.



**Figure 8.**–Chignik River sockeye salmon early, late, and combined run escapements 1970 through 2006, compared to 2006 sustainable escapement goal (SEG).

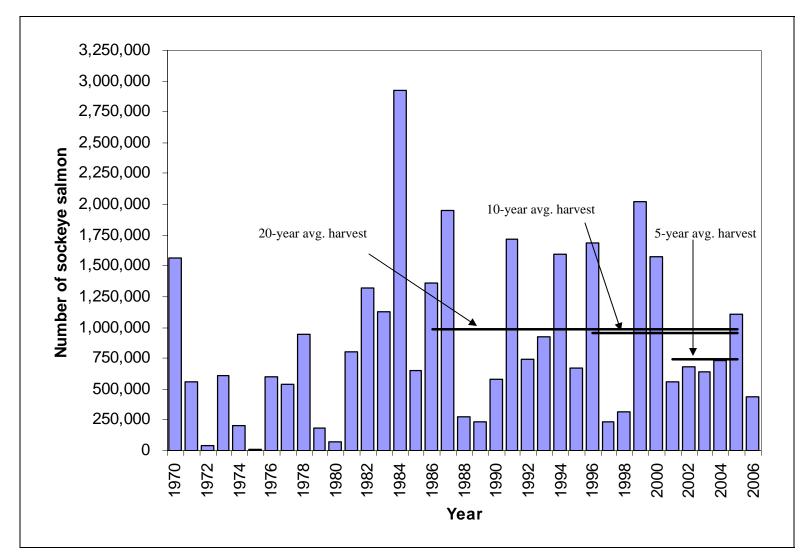


Figure 9.-Chignik-bound sockeye salmon early-run harvest, 1970 through 2006.

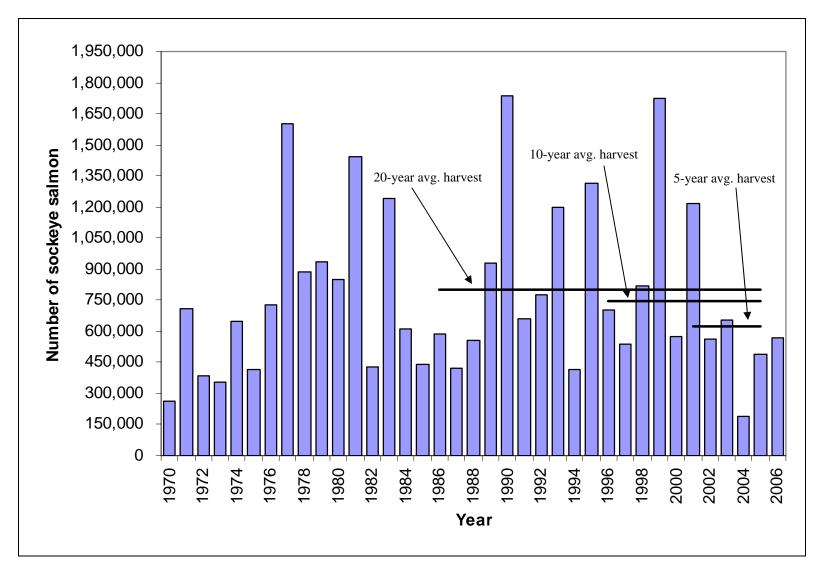
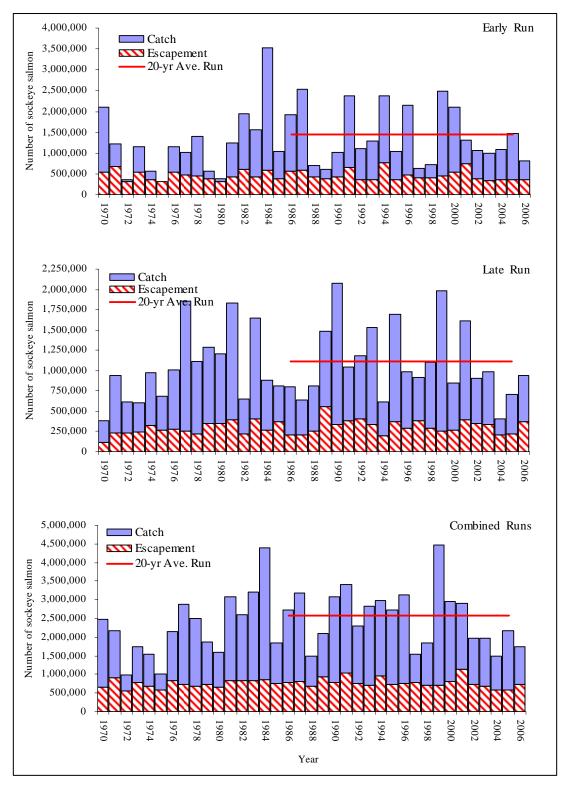


Figure 10.–Chignik-bound sockeye salmon late-run harvest, 1970 through 2006.



**Figure 11.**—Total sockeye salmon escapement (solid bars) and catch (striped bars) considered Chignik-bound including home pack, the ADF&G's test fishery harvest, and Cape Igvak and SEDM allocations, by year and run, 1970 through 2006.

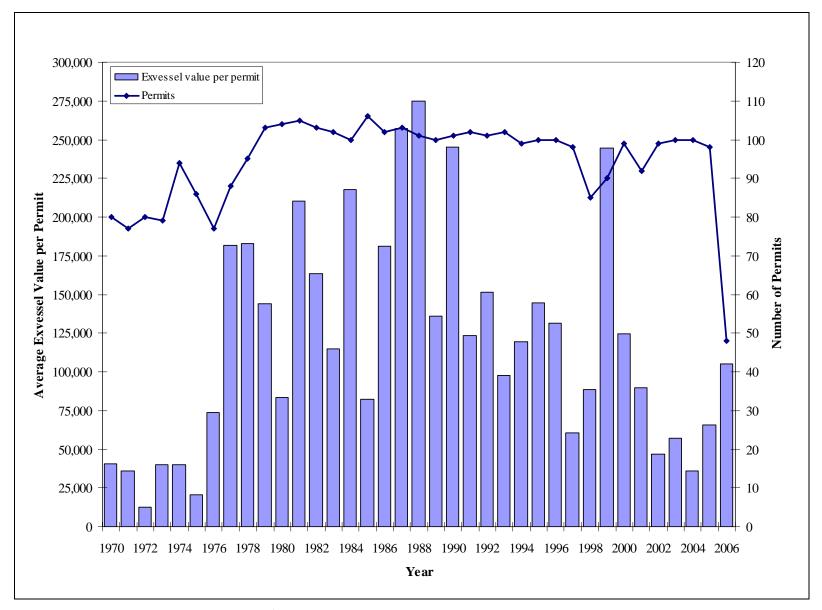
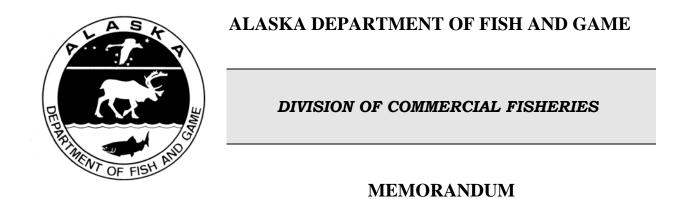


Figure 12.-Average exvessel value (\$) per permit (bars) and total permits (line) fished by year 1970 through 2006.

## APPENDIX A. MEMORANDUM RECOMMENDING TARGETING THE LOWER BOUNDS OF THE CHIGNIK SOCKEYE SALMON ESCAPEMENT GOALS DURING THE 2006 SEASON.

**Appendix A1.**–Memorandum recommending targeting the lower bounds of the Chignik sockeye salmon escapement goals during the 2006 season.



то:	Jim McCullough	DATE:	March 31, 2006
	Regional Supervisor Division of Commercial Fisheries Region IV – Kodiak and Steve Honnold Regional Finfish Research Supervisor Division of Commercial Fisheries Region IV – Kodiak	PHONE: FAX:	(907) 486-1805 (907) 486-1841
THRU:	Mark Witteveen Finfish Research Biologist Division of Commercial Fisheries Region IV – Kodiak and Kenneth Bouwens Chignik Area Management Biologist Division of Commercial Fisheries Region IV – Kodiak		
FROM:	Heather Finkle Finfish Research Biologist Division of Commercial Fisheries Region IV - Kodiak	SUBJECT:	Chignik River Watershed Sustainable Escapement Goal Recommendation

The purpose of this memorandum is to discuss the current escapement goals to the Chignik River watershed in terms of the health of the sockeye salmon rearing habitat in Chignik and Black lakes. This discussion is based on preliminary data from the Chignik Lakes Ecological Assessment Project, the Chignik Smolt Enumeration Project, current management objectives, recent adult return data, and the dissolution of harvest allocations for the Chignik cooperative and competitive fleets.

The current Chignik River watershed sustainable escapement goals (SEGs) and management objectives should be noted first. The November 2004 Board of Fisheries (BOF) meeting left the early run (Black Lake) biological escapement goal (BEG) range between 350,000 and 400,000 fish through July 4 and the late run BEG range between 200,000 and 250,000 fish from July 5 to the end of the run. The November 2004 BOF meeting reclassified the BEGs as SEGs.

Supplemental to the late-run SEG, a September management objective of 25,000 fish (September 1-15), originally established in 1989 (Witteveen et al. 2005), was also unchanged. However, an additional late-run management objective of 25,000 fish was added by the 2004 BOF meeting from August 1 to August 31. This yielded a total late-run (Chignik Lake) escapement and management objective range of 250,000 to 300,000 sockeye salmon.

Respective to the current SEGs (550,000-650,000 fish), total sockeye salmon escapement estimates have been in excess of the SEG ranges for 12 of the past 14 years (1992 – 2005; Table 1). From 1992-2005 the early-run escapements have exceeded the current SEG upper range six times. The late-run escapements have failed to meet the current SEG lower range one time and exceeded the SEG upper range 11 times during the same time period. Since 2002, the lower ranges of the escapement goals were targeted for both early and late runs. Regardless of this effort, the total late-run escapement exceeded the upper range of the goal (250,000 fish) by almost 100,000 sockeye salmon in 2002. In 2003 the early-run escapement estimate barely exceeded the lower range of the goal (350,000 fish) although the late-run escapement exceeded the upper range of its goal (250,000 fish). In 2004, escapements for both runs fell just above the lower ranges of their respective goals, however, the late run did not fulfill its September management objective of 25,000 fish. In 2005, despite meeting its goal, the late run failed to achieve both the August and September management objectives. The total sockeye salmon escapements to the Chignik River watershed in 2004 and 2005 were the lowest since 1992.

	Early Run Escapement	Late Run Escapement	Total Escapement
Escapement Goal	350,000 - 400,000	200,000 - 250,000	550,000 - 650,000
Management Objective Year	0	25,000 – August 25,000-September	50,000
1992	360,681	403,755	764,436
1993	364,263	333,114	697,377
1994	769,464	197,445	966,909
1995	366,163	373,757	739,920
1996	464,750	284,387	749,137
1997	396,668	378,950	775,618
1998	410,659	290,469	701,128
1999	457,425	258,541	715,966
2000	519,661	285,614	805,275
2001	744,013	392,905	1,136,918
2002	380,701	344,519	725,220
2003	350,004	334,119	684,123
2004	363,800	214,459	578,259
2005	355,091	225,366	580,457

Table 1. Sockeye salmon escapements in the ChignikRiver watershed from 1992 to 2005.

### Appendix A1.–Page 3 of 6

Fluctuations in escapement and their subsequent smolt production can greatly affect juvenile fish life history strategies. Zooplankton are the forage base for juvenile sockeye salmon, and a high abundance of juvenile sockeye salmon, resulting from high escapement levels, can negatively impact the juvenile sockeye salmon food supply. The zooplankton community is a complex, dynamic web of different species that are susceptible to different selective pressures. The abundance, species composition, and even the size of the zooplankton can change via either bottom-up pressures such as nutrient limitations and phytoplankton species composition or from top-down pressures from extensive grazing (Kerfoot 1987; Kyle 1996). Preliminary limnology data collected from both Black and Chignik lakes indicated that the forage base was overgrazed from 2000 to 2004 (Finkle and Bouwens 2001; Bouwens and Finkle 2003; Finkle 2006a, Finkle *in prep*). In the Chignik River watershed, top-down pressures appear to be regulating the zooplankton population as evidenced by

- 1) Zooplankton species composition: High grazing pressure on zooplankton can cause a shift in zooplankton abundance and species composition to fewer and less nutritional species of sockeye salmon forage (Kerfoot 1987; Koenings and Burkett 1987). This seems to have occurred in both Black and Chignik lakes between 2000 and 2005 compared to data taken in 1991 (Kyle 1992). From 2000 to 2005, *Bosmina* and *Cyclops* predominated the zooplankton species composition in both lakes. Both of the dominant species are inefficient grazers on phytoplankton, and are poor transmitters of energy and nutrients through the food web (Kerfoot 1987). Although juvenile sockeye salmon do prey upon *Bosmina* and *Cyclops*, they are not preferred sockeye salmon forage. *Daphnia* are the preferred species, which were nearly absent in both lakes from 2000 to 2002, 2004, and 2005. However, *Daphnia* were more abundant in Chignik Lake in 1991 and 2003, which both followed years when total escapements for each run were closer to their BEGs. Although the dominant zooplankton species composition still varied in 2003, the increase in *Daphnia* abundance may also suggest that top-down pressures on the preferred juvenile sockeye salmon forage, and thus the zooplankton community, were reduced. Further, rotifers, a type of smaller zooplankton unavailable as juvenile sockeye salmon forage, have been very abundant in recent years.
- <u>Zooplankton size:</u> The size of individual zooplankton (especially *Bosmina*) can change in response to high grazing pressure. The mean size of the *Bosmina* in both lakes was very small and below the elective feeding size threshold of sockeye salmon from 2000 to 2005. The zooplankton were generally larger, by species, in 1991 (Kyle 1992).

<u>Zooplankton Biomass</u>: The average 2000-2005 weighted mean zooplankton biomass (regardless of species or size) in Chignik Lake was about 490 mg/m2. In 2001, the weighted mean biomass in Chignik Lake was very low (170 mg/m2). In 2005, the Chignik Lake weighted mean zooplankton biomass was 702 mg/m2. For comparison, the weighted mean biomass of Chignik Lake in 1991 was 916 mg/m2. Edmundson and Mazumder (2001) suggested that juvenile sockeye salmon starve when zooplankton biomass levels approach about 100 mg/m2 and are fully satiated at levels above 1,000 mg/m2. The increase in the 2005 mean weighted biomass suggests that top-down pressures have been reduced in Chignik Lake, improving rearing conditions. The 2005 zooplankton biomass increase in Chignik Lake follows a relatively low 2004 late-run escapement. It should be noted that the Black Lake weighted mean zooplankton biomass, however, was 301 mg/m2 in 2005, which is the second lowest weighted zooplankton biomass since 2000.

3) Phytoplankton abundance: Phytoplankton is the forage of zooplankton. Chlorophyll *a* is used as an indicator of phytoplankton production as it is a necessary component of phytoplankton respiration. High chlorophyll-*a* levels and nutrient data indicated that the Chignik River watershed was not limited by nutrient abundance from 2000 to 2005. Chlorophyll-*a* levels were extremely high in both lakes from 2000 to 2002 and in 2004. This indicated that the zooplankton community was unable to transfer the energy and nutrients from the phytoplankton to sockeye salmon, indicating a bottleneck through top-down limitations of zooplankton production (Bouwens and Finkle 2003). Therefore, based on chlorophyll-*a* levels, the primary production of the system was high, but it was not transferred up the food web to juvenile sockeye salmon. In 2003 and 2005, chlorophyll-*a* levels were lower and comparable to other Alaska Peninsula lakes (Finkle *in prep*), which

### Appendix A1.–Page 4 of 6

suggested that phytoplankton were more efficiently consumed by zooplankton. This may also suggest that grazing pressure was less in 2003 and 2005 relative to more recent years (Finkle *in prep*). The high chlorophyll-*a* levels in 2004 suggest that zooplankton were overgrazed in both lakes.

- 4) <u>Stomach content analysis:</u> Preliminary juvenile sockeye salmon stomach content analysis from 2001 and 2002 data suggested that prey items other than zooplankton have been a major portion of the diet of rearing sockeye salmon in Black Lake, Chignik River, and Chignik Lagoon. The alternative prey included insects and amphipods. These prey were consumed less in 2002 (when there was a higher zooplankton abundance and biomass) than in 2001, indicating that they might be chosen secondarily if zooplankton are not available. Stomach content data were not collected from 2003 to 2005.
- 5) Juvenile sockeye salmon catch data: Juvenile sockeye salmon were sampled in Black Lake, Black River, Chignik Lake, Chignik River, and Chignik Lagoon from 2000 to 2003. Juvenile sockeye salmon sampling was reduced to Black Lake, Chignik River, and Chignik Lagoon in 2004 and 2005. These data are not yet fully analyzed, but preliminary analyses indicate that the majority of the young-of-the-year juvenile sockeye salmon emigrate from Black Lake to Chignik Lake during July and August of each year. This has been consistent with findings of studies over 30 years ago by Parr (1972) and Narver (1966) and more recent work by Ruggerone (1994). Therefore, it appears that Chignik Lake is an important rearing area for both stocks. We were unable to derive juvenile sockeye salmon abundance estimates; thus, catch rates were used as an indicator of relative abundance. During years when juvenile sockeye salmon catch rates in Chignik Lake were high (especially 2001) zooplankton biomass was low. Furthermore, the catch rates of juvenile sockeye salmon in Chignik River and Chignik Lagoon were higher than in Chignik Lake in 2001. This suggests that the juvenile sockeye salmon were forced to utilize alternative habitats when the zooplankton population was overtaxed. The 2004 and 2005 Chignik Lagoon catch rates were comparable to 2001 catch rates.

Data from the Chignik Smolt Enumeration Project (Bouwens and Newland 2003; Finkle and Newland 2005, Finkle 2006b) indicated that the number of juvenile sockeye salmon rearing in the freshwater ecosystem may have been too high; about 6.75 million smolt emigrated in 2003, 8.66 million smolt emigrated in 2004, and 4.44 million smolt in 2005. Compared to a 1997-2002 average of 20 million smolt per year, these were three of the four lowest estimates of juvenile sockeye salmon outmigration from the watershed. The proportion of age-2. smolt in the emigration has been relatively low from 2001 to 2004 compared to the prior seven years (1994 and 2000). The smolt that would have emigrated in 2003 as age-2. smolt experienced very poor feeding conditions in 2001 and slightly better conditions in 2002 in Chignik Lake. This is further evidenced by the lack of an age-3. component from 2002 and 2003 smolt trap sample catches. Similar circumstances existed for age-2. smolt rearing in the watershed during 2002 and 2003. The ~10% increase in age-0. fish in the smolt trap catch during 2005 may also indicate a downstream migration to Chignik Lagoon from Chignik Lake to find better rearing conditions. Thus, the freshwater survival of juvenile sockeye salmon may have been low in recent years because of low food availability due to overgrazing.

Recent organizational changes to the commercial fishing fleet must also be considered when targeting escapements for the Chignik sockeye salmon stocks. With the dissolution of the Chignik Cooperative fleet, management will lack the same levels of control over fishing effort, and subsequently escapement. When the fishery was prosecuted with solely a competitive fleet, it was frequently overescaped. Targeting the lower ranges of the SEGs would reduce the risk of overescaping the system and increasing competition in already forage-taxed nursery lakes.

The lower-than-average 2004 and 2005 adult runs were the recruits of overescaped brood years (1998-2000) that were subject to poor zooplankton forage base conditions in 2000 and 2001. The goal of targeting the lower ranges of the escapement objectives was implemented from 2002 to 2005 to relieve the top-down pressure on the zooplankton populations from overescapement to each lake. Subsequently, this recommendation is expected to increase the overall ecological health of the system in terms of sockeye salmon production. The effects of the targeted lower escapement goal ranges in 2003, 2004, and 2005 will not be realized until the young of the year sockeye salmon have reared in the watershed and return as adults starting in 2008. However, to date, the response to this strategy has

#### Appendix A1.–Page 5 of 6

been an increase in the zooplankton forage base in both lakes. This protocol is still relevant because early-run juvenile sockeye salmon, which rear and compete in Chignik Lake, can still deplete the forage base shared by both stocks, let alone in their natal Black Lake. Thus, it is recommended that the lower end of the early-run escapement objective (350,000 fish) be targeted in 2006. However, because of the recent low late-run returns, it is recommended to target the middle of the late-run escapement objective range (275,000 fish). This strategy may provide stronger, future late-run returns while allowing subsistence needs to be met without depleting zooplankton levels in each nursery lake.

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# **APPENDIX B. SUMMARY OF 2006 EMERGENCY ORDERS**

E.O. Number	Issued	Effective	Action taken
4-FS-L-01-06	1:00 PM 6/13/2006		<b>Opens</b> the Chignik Bay, Central, and Eastern districts for 48 hours from 7:30 PM Wednesday, June 13 until 7:30 PM Friday, June 16. <b>Closed Waters</b> Effective 7:30 PM June 13 salmon may only be taken northeast of Humes Point
4-FS-L-02-06	10:00 AM 6/16/2006	7:30 PM 6/16/2006	<b>Extends</b> the current commercial salmon fishing period in the Chignik Bay, Central, and Eastern districts for 24 hours from 7:30 PM Friday, June 16 until 7:30 PM Saturday, June 17.
4-FS-L-03-06	6:00 PM 6/23/2006		<b>Opens</b> the Chignik Bay, Central, and Eastern districts for 24 hours from 4:00 AM Sunday, June 25 until 4:00 AM Monday, June 26. <b>Closed Waters</b> Effective 4:00 AM June 25 salmon may only be taken northeast of Humes Point
4-FS-L-04-06	7:00 AM 6/24/2006	4:00 AM 6/26/2006	<ul> <li>Extends the current commercial salmon fishing period in the Chignik Bay, Central, and Eastern districts for 24 hours from 4:00 AM Monday, June 26 until 4:00 AM Tuesday, June 27.</li> <li>Closed Waters Effective 5:30 PM June 25 the upper Chignik Lagoon markers will move to Mensis Point.</li> </ul>
4-FS-L-05-06	10:00 AM 6/26/2006	4:00 AM 6/27/2006	<b>Extends</b> the current commercial salmon fishing period in the Chignik Bay, Central, and Eastern districts for 64 hours from 4:00 AM Tuesday, June 27 until 8:00 PM Thursday, June 29.
4-FS-L-06-06	2:30 PM 6/28/2006		<b>Extends</b> the current commercial salmon fishing period in the Chignik Bay, Central, and Eastern districts for 24 hours from 8:00 PM Thursday, June 29 until 8:00 PM Friday, June 30.
4-FS-L-07-06	9:00 PM 6/29/2006	9:00 PM 7/1/2006	<b>Opens</b> the Chignik Bay, Central, and Eastern districts for 74 hours from 9:00 PM Saturday, July 1 until 11:00 PM Monday, July 4. <b>Closed Waters</b> Effective 5:30 PM June 25 Salmon may only be taken northeast from Mensis Point.
4-FS-L-08-06	5:00 PM 7/3/2006	11:00 PM 7/4/2006	<b>Extends</b> the Chignik Bay, Central, and Eastern districts for 25 hours from 11:00 PM Tuesday, July 4 until 11:59 PM Wednesday, July 5.
4-FS-L-09-06	10:00 AM 7/5/2006	11:59 PM 7/5/2006	<b>Extends</b> the Chignik Bay, Central, and Eastern districts for 24 hours from 11:59 PM Wednesday, July 5 until 11:59 PM Thursday, July 6.
4-FS-L-10-06	4:00 PM 7/7/2006		<b>Opens</b> the Chignik Bay, Central, and Eastern districts for 24 hours from 4:00 PM Saturday, July 8 until 4:00 PM Sunday, July 9. <b>Opens</b> the Western and Perryville districts and those portions of the Chignik Bay and Central distircts known as Jack's Box for 48 hours from 12:01 AM Monday, July 10 to 11:59 PM Thuesday, July 11 <b>Closed Waters</b> Effective 4:00 PM July 9 salmon may only be taken northeast from Mensis Point.
4-FS-L-11-06	10:00 AM 7/9/2006		<b>Extends</b> the Chignik Bay, Central, and Eastern districts for 25 hours from 4:00 PM Sunday, July 9 until 5:00 PM Monday, July 10. <b>Closed Waters</b> Effective 4:00 PM July 9 salmon may only be taken northeast of Humes Point.

Appendix B1.–Summary of the 2006 Chignik Management Area Emergency Orders.

E.O. Number	Issued	Effective	Action taken
4-FS-L-12-06	1:00 PM 7/10/2006		<b>Extends</b> the Chignik Bay, Central, and Eastern districts for 25 hours from 5:00 PM Monday, July 10 until 6:00 PM Tuesday, July 11.
4-FS-L-13-06	9:00 AM 7/12/2006	6:00 AM	Opens the Chignik Bay, Central, and Eastern districts for 24 hours from 6:00 AM Thursday, July 13 until 6:00 AM Friday, July 14. Closed Waters Effective 4:00 PM July 9 salmon may only be taken northeast of Humes Point.
4-FS-L-14-06	9:00 AM 7/13/2006		<b>Extends</b> the Chignik Bay, Central, and Eastern districts for 50 hours from 6:00 AM Friday, July 14 until 8:00 AM Sunday, July 16. <b>Extends</b> the Western and Perryville distircts for 56 hours 11:59 PM Thursday, July 10 to 8:00 AM Sunday, July 16.
4-FS-L-15-06	9:00 AM 7/14/2006	10:00 AM 7/14/2006	Closed Waters reduced to only those waters southwest of Mensis Point
4-FS-L-16-06	10:00 AM 7/15/2006		<b>Extends</b> the Chignik Bay, Central, Western and Perryville districts for 76 hours from 8:00 AM Sunday, July 16 until 12:00 PM Wednesday, July 19.
4-FS-L-17-06	8:30 AM 7/16/2006		Closes the Western and Perryville districts at 12:00 PM Sunday, July 16.
4-FS-L-18-06	10:00 AM 7/17/2006	10:00 PM 7/17/2006	Closed Waters increased to those waters southwest of Humes Point
4-FS-L-19-06	12:00 PM 7/20/2006		<b>Opens</b> the Western and Perryville districts and those portions of the Chignik Bay and Central districts known as Jack's Box for 48 hours from 12:00 PM Thursday, July 20 to 12:00 PM Saturday, July 22.
4-FS-L-20-06	2:00 PM 7/20/2006	3:00 PM 7/21/2006	<b>Opens</b> the Chignik Bay and Central districts for 48 hours from 3:00 PM Friday, July 21 to 3:00 PM Sunday, July 23. <b>Closed Waters</b> Effective 3:00 PM July 21 salmon may only be taken northeast of Humes Point.
4-FS-L-21-06	12:00 PM 7/21/2006		<b>Extends</b> the Western and Perryville distircts for 48 hours from 12:00 PM Saturday, July 22 until 12:00 PM Monday, July 24.
4-FS-L-22-06	1:00 PM 7/22/2006		<ul> <li>Extends the Chignik Bay and Central districts for 51 hours from 3:00 PM Sunday, July 23 to 6:00 PM Tuesday, July 25.</li> <li>Extends the Western and Perryville districts for 30 hours from 12:00 PM Monday, 24 to 6:00 PM Tuesday, July 25.</li> <li>Closed Waters Effective 3:00 PM July 22 salmon may be taken only northeast of</li> </ul>
4-FS-L-23-06	12:00 PM 7/24/2006	6:00 PM 7/25/2006	Mensis Point <b>Opens</b> the Chignik Bay, Central, Western and Perryville districts for 73 hours from 6:00 PM Tuesday, July 25 until 7:00 PM Friday, July 28.
			<b>Opens</b> the Eastern District for 73 hours from 6:00 PM Tuesday, July 25 to 7:00 PM Friday, July 28. <b>Closed Waters</b> Effective 3:00 PM July 22 salmon may only be taken northeast of Mensis Point.
4-FS-L-24-06	10:00 AM 7/27/2006		<b>Extends</b> the Chignik Bay, Central, Western and Perryville districts for 77 hours from 7:00 PM Friday, July 28 to 11:59 PM Monday, July 31.

## Appendix B1.–Page 3 of 3.

E.O. Number	Issued	Effective	Action taken
4-FS-L-25-06	10:00 AM 8/3/2006		<b>Opens</b> the Chignik Bay and Central districts for 24 hours from 12:01 AM Sunday, August 6 until 11:59 PM Sunday, August 6.
			<b>Opens</b> the Eastern, Western, and Perryville districts for 48 hours from 12:01 AM Sunday, August 6 until 11:59 PM Sunday, August 7.
			<b>Closed Waters</b> Effective 12:01 AM August 6 salmon may only be taken northeast of Humes Point.
4-FS-L-26-06	10:30 AM		Opens the Chignik Bay and Central districts for 48 hours from 12:01 AM Sunday,
	8/4/2006	8/5/2006	August 5 until 11:59 PM Sunday, August 6.
			<b>Opens</b> the Eastern, Western, and Perryville districts for 48 hours from 12:01 AM Sunday, August 6 until 11:59 PM Sunday, August 7.
			<b>Closed Waters</b> Effective 12:01 AM August 5, salmon may only be taken northeast
			of Mensis Point.
4-FS-L-27-06	1:00 PM		Extends the Chignik Bay, Central, Eastern, Western and Perryville districts for 48
	8/6/2006		hours from 11:59 PM Sunday, August 6 until 11:59 PM Tuesday, August 8.
4-FS-L-28-06	4:00 PM		<b>Extends</b> the Chignik Bay, Central, Eastern, Western and Perryville districts for 48
	8/7/2006	8/8/2006	hours from 11:59 PM Tuesday, August 8 until 11:59 PM Thursday, August 10.
4-FS-L-29-06	3:30 PM		<b>Extends</b> the Chignik Bay, Central, Eastern, Western and Perryville districts for 48
	8/9/2006	8/10/2006	hours from 11:59 PM Thursday, August 10 until 11:59 PM Saturday, August 12. <b>Closed Waters</b> Effective 11:59 PM August 10 salmon may only be taken northeast
			of Humes Point.
4-FS-L-30-06	9:30 AM		Extends the Chignik Bay, Central, Eastern, Western and Perryville districts for 48
	8/10/2006	8/12/2006	hours from 11:59 PM Saturday, August 12 until 11:59 PM Monday, August 14.
4-FS-L-31-06	8:00 PM		<b>Extends</b> the Chignik Bay, Central, Eastern, Western and Perryville districts for 48
	8/13/2006	8/14/2006	
			<b>Closed Waters</b> Effective 11:59 PM August 10 salmon may only be taken northeast of Humes Point. After 8:00 AM August 14 salmon may only be taken northeast of Mensis Point.
4-FS-L-32-06	9:00 AM	11:59 PM	<b>Extends</b> the Chignik Bay, Central, Eastern, Western and Perryville districts for 72
	8/16/2006		hours from 11:59 PM Wednesday, August 16 until 11:59 PM Saturday, August 19.
4-FS-L-33-06	1:00 PM		Extends the Chignik Bay, Central, Eastern, and Western districts for 96 hours from
	8/19/2006	8/19/2006	11:59 PM Saturday, August 19 until 11:59 PM Wednesday, August 23.
			<b>Closed Waters</b> Effective 12:01 AM August 19 salmon may only be taken in those portions of Lake Bay southwest of 56° 167.90' N. latitude
4-FS-L-34-06	1:00 PM		Extends the Chignik Bay, Central, Eastern, and Western districts for 96 hours from
	8/21/2006	8/23/2006	11:59 PM Wednesday, August 23 until 11:59 PM Sunday, August 27.
4-FS-L-35-06	4:00 PM		Extends the Chignik Bay, Central, Eastern, and Western districts for 96 hours from
	8/25/2006	8/27/2006	11:59 PM Sunday, August 27 until 11:59 PM Thursday, August 31.

# APPENDIX C. COMMERCIAL SALMON FISHERY CATCH AND EFFORT, BY DAY

	Eff	ort	Chine	ook	Sock	teye	Col	ho	Pir	ık	Chum		Total	
Date	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
12-Jun							Fishery	Closed						
13-Jun							Fishery	Closed						
14-Jun	17	21	0	0	16,456	107,029	0	0	0	0	0	0	16,456	107,029
15-Jun	34	60	3	72	33,976	208,207	0	0	263	789	211	1,480	34,453	210,548
16-Jun	40	53	6	138	23,943	150,793	0	0	496	2,091	220	1,774	24,665	154,796
17-Jun	39	60	2	27	29,035	187,717	0	0	20	78	204	1,935	29,261	189,757
18-Jun							Fishery	Closed						
19-Jun							Fishery	Closed						
20-Jun							Fishery	Closed						
21-Jun							Fishery	Closed						
22-Jun							Fishery	Closed						
23-Jun							Fishery	Closed						
24-Jun							Fishery	Closed						
25-Jun	42	77	16	409	52,781	334,719	0	0	3,305	9,276	423	3,214	56,525	347,618
26-Jun	44	69	33	801	37,008	235,081	4	32	412	1,208	263	2,148	37,720	239,270
27-Jun	38	54	30	790	28,624	184,748	0	0	300	907	43	349	28,997	186,794
28-Jun	40	60	20	446	35,188	230,157	0	0	925	2,427	674	5,798	36,807	238,828
29-Jun	40	62	43	999	36,062	239,161	2	24	135	409	568	4,693	36,810	245,286
30-Jun	43	77	48	1,100	43,836	291,920	0	0	313	955	800	6,583	44,997	300,558
1-Jul	15	20	0	0	5,248	33,265	0	0	0	0	0	0	5,248	33,265
2-Jul	41	59	51	1,088	26,274	174,219	8	57	626	2,645	167	1,634	27,126	179,643
3-Jul	42	57	122	3,032	20,742	132,866	0	0	164	415	265	2,316	21,293	138,629
4-Jul	40	51	129	2,935	17,167	110,082	0	0	91	265	86	789	17,473	114,071
5-Jul	41	54	136	3,314	21,767	143,183	0	0	818	1,764	328	3,064	23,049	151,325
6-Jul	40	54	136	3,217	19,513	127,500	3	19	249	907	217	2,308	20,118	133,951
7-Jul							Fishery	Closed						
8-Jul	31	38	43	988	10,717	69,367	0	0	50	165	53	549	10,863	71,069
9-Jul	38	49	92	2,028	20,807	137	0	0	535	1,527	273	2,842	21,707	6,534
10-Jul	9	9	6	145	4,525	30,086	0	0	0	0	0	0	4,531	30,231
11-Jul	34	37	48	896	15,085	99,512	489	2,518	1,581	5,126	1,201	9,900	18,404	117,952
12-Jul	6	6	23	291	11,896	83,534	822	4,838	5,663	17,924	2,339	19,419	20,743	126,006
13-Jul	32	46	19	489	17,130	113,415	317	2,086	1,284	4,722	1,576	14,533	20,326	135,245

**Appendix C1.**–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, 2006.

Appendix C1.–Page 2 of 3.

	Eff	ort	Chin	ook	Sockeye		Coł	10	Pir	ık	Chum		Tot	al
Date	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
14-Jul	39	54	95	2,167	19,188	124,785	6,964	45,547	5,241	20,924	25,594	160,288	57,082	353,711
15-Jul	33	51	87	2,079	21,818	146,266	74	444	2,542	9,573	1,008	8,124	25,529	166,486
16-Jul	40	54	81	1,646	25,464	164,989	1,086	6,198	3,160	15,996	2,482	19,098	32,273	207,927
17-Jul	26	32	743	5,333	11,435	73,967	32	210	839	2,572	227	1,664	13,276	83,746
18-Jul	17	20	3	49	6,236	40,118	0	0	513	1,551	402	3,155	7,154	44,873
19-Jul						C	Confidential	Informatio	n					
20-Jul	5	5	1	11	10,395	64,809	554	4,319	4,842	23,140	1,028	8,444	16,820	100,723
21-Jul	37	52	12	253	32,176	207,656	584	4,527	22,516	68,353	2,891	22,704	58,179	303,493
22-Jul	37	58	43	1,083	29,340	196,188	689	4,902	5,471	26,879	2,136	16,429	37,679	245,481
23-Jul	35	49	33	694	24,567	163,789	236	1,622	7,282	30,779	755	5,831	32,873	202,715
24-Jul	36	53	66	1,433	20,027	130,834	2,347	16,466	7,241	27,999	2,714	20,673	32,395	197,405
25-Jul	34	43	14	287	13,396	87,641	73	558	7,786	23,409	133	999	21,402	112,894
26-Jul	36	50	14	294	23,359	150,824	1,821	14,583	9,750	34,539	3,623	29,014	38,567	229,254
27-Jul	33	42	21	371	23,334	145,932	490	3,876	18,414	69,038	2,119	16,593	44,378	235,810
28-Jul	33	37	8	148	17,942	116,110	633	4,873	10,474	34,601	1,461	11,604	30,518	167,336
29-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-Jul	28	37	2	20	9,340	60,046	1	3	1,683	5,807	19	136	11,045	66,012
1-Aug							Fishery							
2-Aug							Fishery	Closed						
3-Aug							Fishery	Closed						
4-Aug							Fishery							
5-Aug	31	42	8	164	9,828	61,534	19	111	12,740	49,456	195	1,642	22,790	112,907
6-Aug	32	32	1	13	9,660	63,171	3,356	26,895	32,716	117,817	1,039	8,296	46,772	216,192
7-Aug	31	45	1	54	8,623	54,063	1,844	16,207	30,087	116,714	715	5,410	41,270	192,448
8-Aug	28	32	0	0	4,100	26,373	4,364	34,539	24,523	91,895	818	6,526	33,805	159,333
9-Aug	22	27	1	26	4,354	27,282	1,725	13,329	7,973	32,509	136	1,140	14,189	74,286
10-Aug	19	25	0	0	6,176	38,897	2,718	21,747	18,943	69,476	489	3,768	28,326	133,888
11-Aug	13	16	0	0	3,772	24,356	221	1,773	10,948	37,501	209	1,612	15,150	65,242
12-Aug	9	9	7	94	1,704	10,752	410	3,261	9,374	34,279	532	4,305	12,027	52,691
13-Aug	7	7	1	25	1,600	10,227	129	1,257	8,344	32,169	197	1,540	10,271	45,218
14-Aug	13	13	1	18	2,624	17,584	749	5,192	36,472	138,129	298	2,473	40,144	163,396

Appendix C1.–Page 3 of 3.

_	Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
Date	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
15-Aug	10	10	0	0	2,458	15,437	41	277	37,679	132,587	30	197	40,208	148,498
16-Aug	12	12	2	34	3,767	23,803	381	2,903	17,470	61,021	175	1,364	21,795	89,125
17-Aug	6	6	1	10	1,984	12,487	155	1,127	1,385	5,199	15	149	3,540	18,972
18-Aug	7	7	0	0	1,124	6,963	120	858	796	2,990	9	61	2,049	10,872
19-Aug	6	6	0	0	1,913	11,860	239	1,788	1,525	5,763	11	75	3,688	19,486
20-Aug	5	5	0	0	1,174	7,407	164	1,250	580	2,201	11	80	1,929	10,938
21-Aug	6	6	1	13	1,473	9,090	170	1,209	816	3,064	11	75	2,471	13,451
22-Aug	6	6	0	0	2,641	166,616	444	3,399	1,244	4,715	28	201	4,357	174,931
23-Aug	6	6	0	0	1,585	10,191	374	2,976	808	3,107	9	58	2,776	16,332
24-Aug	9	9	0	0	1,725	10,882	706	5,553	1,174	4,601	59	483	3,664	21,519
25-Aug	8	8	1	13	1,344	8,675	504	3,997	624	2,321	9	65	2,482	15,071
26-Aug	4	4	0	0	592	3,742	214	1,644	251	701	6	44	1,063	6,131
27-Aug	5	8	1	14	2,503	15,564	952	7,764	848	2,772	21	150	4,325	26,264
28-Aug	3	3	0	0	1,120	7,175	387	3,115	396	1,169	10	68	1,913	11,527
29-Aug	5	5	0	0	2,222	13,679	1,471	11,147	874	2,512	95	820	4,662	28,158
30-Aug						Pro	cessor Clos	ed For Sea	son					
Total	1,518	2,060	2,255	39,551	895,932	5,818,909	39,086	291,020	383,574	1,403,428	61,630	450,686	1,382,477 8	3,003,594