STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES

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November 30, 2005

Re: FMR 05-57 Appendix Corrections

Errors were found in Appendix B1 and Appendix B2 of *Chignik Management Area Salmon Fisheries and Stock Status with Particular Reference to the Cooperative Fishery Management Plan- A Report to the Alaska Board of Fisheries, November, 2005* (FMR 05-57).

The graphical presentation of several years' delivery per permit data for the competitive and cooperative fleets and the combined data from both fleets in Appendix B1, and the total number of active permit holders reported in 2004 for the competitive fleet in Appendix B2, was in error in the original report.

The bin ranges were incorrectly labeled on the majority of the graphs in Appendix B1. Also, in Appendix B1 of the original report, 2004 data were incorrectly graphed for the 2002 and 2003 competitive fleet deliveries. With the exception of the 2002 and 2003 competitive data, the distributions remain the same on all of the graphs as in the originally published appendix. Attached is a corrected version of Appendix B1 to replace page 66 of FMR 05-57.

Also, the total number of active competitive Chignik CFEC permit holders in 2004 was incorrectly reported as 20 in Appendix B.2, instead of the true number of 12. Therefore, the total number of permit holders making deliveries in 2004 was 32, instead of the incorrectly reported 40 permit holders. Attached is a corrected version of Appendix B2 to replace the top table on page 67 of FMR 05-57.

The errors occurred while plotting the data. Therefore, the mean numbers of deliveries per Chignik CFEC permit holder, by fleet, as reported in Appendix B.3 of the original report, were correct. The text in FMR 05-57 does not reference the data in these appendices, thus no changes to the text in the original report are required.

Attachments: (2)

Fishery Management Report No. 05-57

Chignik Management Area Salmon Fisheries and Stock Status with Particular Reference to the Cooperative Fishery Management Plan

A Report to the Alaska Board of Fisheries, November 2005

Addendum

12/02/2005

Errors were found in Appendix B1 and Appendix B2, which are corrected by this addendum. The listings below are linked to the display the changes made to the original publication.

- See Cover letter for explanation of the changes made.
- Revised Appendix B1.
- Revised Appendix B2

by

Kenneth A. Bouwens

October 2005

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

Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

Weights and measures (metric)

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

Weights and measures (English)

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

Time and temperature

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

Physics and chemistry

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

General

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

Measures (fisheries)

fork length	FL
mideye-to-fork	MEF
mideye-to-tail-fork	METF
standard length	SL
total length	TL

Mathematics, statistics

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

FISHERY MANAGEMENT REPORT NO. 05-57

CHIGNIK MANAGEMENT AREA SALMON FISHERIES AND STOCK STATUS WITH PARTICULAR REFERENCE TO THE COOPERATIVE FISHERY MANAGEMENT PLAN

A REPORT TO THE ALASKA BOARD OF FISHERIES, NOVEMBER 2005

by

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Division of Commercial Fisheries

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Division of Sport Fish, Research and Technical Services
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October 2005

The Division of Sport Fish Fishery Management Reports series was established in 1989 for the publication of an overview of Division of Sport Fish management activities and goals in a specific geographic area. Since 2004, the Division of Commercial Fisheries has also used the Fishery Management Report series. Fishery Management Reports are intended for fishery and other technical professionals, as well as lay persons. Fishery Management Reports are available through the Alaska State Library and on the Internet: http://www.sf.adfg.state.ak.us/statewide/divreports/html/intersearch.cfm. This publication has undergone regional peer review.

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ABSTRACT

All five species of Pacific salmon are commercially harvested in the Chignik Management Area (CMA): Chinook *Oncorhynchus tshawytscha*, sockeye *O. nerka*, coho *O. kisutch*, pink *O. gorbuscha*, and chum *O. keta* salmon. As many as 101 Commercial Fisheries Entry Commission (CFEC) salmon permits have been fished annually within the last 10 years. The Chignik commercial salmon fishery is managed based on two management plans. The Chignik Salmon Management Plan was designed to allow for the harvest of surplus salmon within the CMA while achieving sufficient salmon escapement to area streams and also provides the overall framework for Chignik salmon management. Sockeye salmon bound for the Chignik River are allocated in two additional management plans.

The Chignik Area Cooperative Purse Seine Salmon Fishery Management Plan was designed in 2002 to allow an orderly cooperative salmon fishery within the Chignik Management Area. It provided an allocation of sockeye salmon between the cooperative fleet and the CFEC permit holders who choose to continue to fish competitively. It has been modified several times since 2002. In the spring of 2005 it was deemed invalid by the Alaska Supreme Court because it was not in compliance with state law. In early May, the Alaska Board of Fisheries (BOF) subsequently modified the plan to bring it into compliance with the ruling of the court and readopted it as an emergency regulation; however, in May of 2005 the Alaska Superior Court ruled that the emergency regulation was also not legal. The Alaska Supreme Court stayed the lower court's decision pending an appeal scheduled for the winter of 2005-2006.

A total of 76 Chignik CFEC permit holders chose to join the cooperative fleet in 2005, while 23 permit holders remained eligible to fish independently. The cooperative fleet harvested a total of 782,206 sockeye salmon, or 68.4 percent (allocation = 68.4 percent) of the CMA sockeye salmon harvest. The competitive fleet harvested a total of 361,178 sockeye salmon, or 31.6 percent (allocation = 31.6 percent) of the CMA sockeye salmon harvest. The harvest of other salmon species was minimal, despite high pink and chum salmon abundance in the CMA during 2005.

Key words: Chignik, salmon, sockeye salmon, Alaska Board of Fisheries, 2005 commercial fisheries management, harvest statistics, escapement statistics, Chignik cooperative.

INTRODUCTION

The Alaska Department of Fish and Game (ADF&G) manages all commercial salmon 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). The CMA is divided into five fishing districts: Eastern, Central, Chignik Bay, Western, and Perryville Districts (Figure 2). These districts are further broken down into sections and statistical reporting areas (Figure 2). Commercial salmon fishing within the CMA is the economic mainstay for five villages: Chignik Bay, Chignik Lagoon, Chignik Lake, Perryville, and Ivanof Bay (Figure 1). Although shoreside-processing capacity is centered in Anchorage Bay, permit holders and crewmembers reside in all five villages. These villages historically have derived very little income from sport fisheries and sport fish harvests have been relatively low, although guided sport fishing operations have been increasing in recent years.

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. As many as 101 Commercial Fisheries Entry Commission (CFEC) permits have been fished annually within the last 10 years. The ADF&G manages the salmon fisheries within the CMA to achieve escapement goals.

A cooperative salmon fishery was proposed by several Chignik salmon permit holders, and was adopted by the Alaska Board of Fisheries (BOF) in January 2002. Proponents of the cooperative fishery maintained that a cooperative-style fishery would reduce overhead, increase product quality, and allow commercial salmon fishermen to compete in a global market. Opponents to a

cooperative fishery argued for a traditional, competitive fishery. The Chignik Seafood Producers Alliance (CSPA) formed to operate the Chignik cooperative fishery.

This report provides a history of the Chignik salmon cooperative fishery. Historic commercial catch and escapement data will be presented and compared to the 2005 season. The 2005 catch and escapement harvest numbers contained in this report are preliminary. The 2005 salmon harvest estimates reported in this document were summarized from the Westward Region fish ticket database on August 24, 2005. Finalized data will be available in the 2005 Chignik Management Area Annual Management Report (AMR).

LEGAL HISTORY OF THE CHIGNIK COOPERATIVE

After the BOF adopted, the Chignik Area Cooperative Purse Seine Salmon Fishery Management Plan (5 AAC 15.359), at its January 2002 meeting, two commercial fishermen (Dean Anderson and Michael Grunert) filed a lawsuit in the Juneau Superior Court challenging the regulation for being inconsistent with statutory authority and the Alaska Constitution. At the trial court level, the state prevailed on all claims. On appeal, however, the Alaska Supreme Court, in an opinion issued on March 17, 2005, held that the original 2002 regulation (1) illegally allocated within a single fishery, and, (2) fundamentally contradicted the spirit and intent of the Limited Entry Act by allowing permit holders who were not fishing to benefit from the fishery resource. On the allocation issue, the court noted that it would be moot if there was a substantive difference between co-op fishery gear and open fishery gear. The court ruled that the regulation was not inconsistent with the Alaska Cooperative Corporation Act, and that the regulation pursued permissible fishery development objectives. The court declined to rule on the constitutional issues. The court denied a petition for rehearing and a motion to stay the effect of its decision until after the 2005 season.

On May 4, 2005, the BOF adopted an emergency regulation (5 AAC 15.358) that reestablished the Chignik cooperative fishery, but required the active participation by permit holders by mandating that each cooperative member must make at least 10 deliveries to receive any economic benefit from the fishery.

The emergency regulation was challenged in the Anchorage Superior Court. The trial court judge ruled that, while the BOF's finding of emergency was valid and the allocation was not within a single fishery (the cooperative fishery's use of leads, etc. made it a distinct fishery). However, the court ruled that the emergency regulation still violated the spirit and purposes of the Limited Entry Act (as set out in the *Grunert* decision) even with the active participation requirements in place, primarily because it conflicts with the historic model for commercial salmon fisheries.

The state appealed the Superior Court decision to the Alaska Supreme Court and moved for a stay of the decision until after expiration of the emergency regulation and the 2005 season. The Supreme Court granted the motion, and the emergency regulation remained in place for the 2005 season. The court has expedited the appeal, and a briefing will be completed by November 22, 2005. A Supreme Court decision is expected no later than the end of February 2006.

OVERVIEW OF MANAGEMENT PLANS

The Chignik commercial salmon fishery is managed based on two management plans: the Chignik Salmon Management Plan, (5 AAC 15.357) and the Chignik Area Cooperative Purse Seine Salmon Fishery Management Plan, (5 AAC 15.358). Sockeye salmon bound for the

Chignik watershed are allocated in two additional management plans: the Cape Igvak Salmon Management Plan (5 AAC 18.360), and the Southeastern District Mainland (SEDM) Salmon Management Plan (5 AAC 09.360).

CHIGNIK SALMON MANAGEMENT PLAN

The Chignik Salmon Management Plan (5 AAC 15.357) was originally adopted in 1996. The goal of the plan is to allow traditional salmon fisheries in the CMA while achieving the escapement goals for both the early (Black Lake) and late (Chignik Lake) runs of sockeye salmon that spawn in the Chignik River watershed while also achieving pink, chum, and Chinook salmon escapement goals (SEG) in area streams (Witteveen et al. 2005). Purse seines and hand purse seines are the only legal commercial salmon fishing gear within the CMA. Under the Chignik Salmon Management Plan, legal seine gear may be between 100-125 fathoms in length in the Chignik Bay District and 100-225 fathoms in length in all other districts. Leads, up to 75 fathoms in length, may be used. Closed water areas applicable to this year's commercial salmon fishing season are described in the Chignik Regulatory Section of the 2005-2008 Chignik, Kodiak, and Cook Inlet Areas Commercial Fishing Regulations booklet (ADF&G 2005). The management plan is organized by district or groups of districts: the Chignik Bay and Central Districts, the Eastern District, and the Western and Perryville Districts (Figure 2).

CHIGNIK AREA COOPERATIVE PURSE SEINE SALMON FISHERY MANAGEMENT PLAN

The Chignik Area Cooperative Purse Seine Salmon Fishery Management Plan, (5 AAC 15.359) was adopted in the spring of 2002, and amended in the fall of 2002, 2003, and 2004. It was repealed in the spring of 2005, and an amended emergency plan (5 AAC 15.358) was adopted by the BOF in the spring of 2005. This plan expired at the end of the 2005 salmon season. The purpose of this management plan was to establish the criteria and management measures for the CMA cooperative salmon fishery. A chronology of the regulatory changes to the plan is presented below.

January 2002

In January 2002 several Chignik CFEC salmon permit holders presented a proposal to the BOF to form a cooperative fishery within the CMA, which was adopted as the Chignik Area Cooperative Purse Seine Salmon Fishery Management Plan, (5 AAC 15.359). The plan contained several components:

Conditions Required to Form a Cooperative

At least 51 Chignik Area CFEC permit holders had to apply, together, to the commissioner of ADF&G by April 1 in 2002 to fish as a cooperative. Other Chignik CFEC permit holders were given until April 15 in 2002 to join this cooperative group. Those who elected to join the cooperative after the April 1 deadline were, by regulation, given the same terms as those who applied prior to April 1. In the years after 2002, the deadlines were moved to March 1 and March 15. The CFEC permit holders that elected to join the cooperative are only allowed to participate in the Chignik cooperative fishery, and may not participate in any other salmon fishery statewide from June 1 to August 31 of that season.

Allocation Criteria

The BOF determined that an allocation between the cooperative and competitive fleets was necessary for the cooperative fishery to achieve their goals of reducing overhead expenses associated with commercial fishing and increasing product quality. The Chignik Area CFEC permit holders were allocated a percentage of the annual Chignik Area commercial sockeye salmon harvestable surplus, by fleet, based on the number of permit holders participating in the cooperative as follows:

- If participation in the cooperative was less than 85 percent of the registered Chignik Area CFEC purse seine permit holders, the allocation to the annual cooperative fishery would be nine-tenths of one percent of the harvestable surplus for each participant in the cooperative.
- If participation in the cooperative was 85 percent or more of the registered Chignik Area CFEC purse seine permit holders, the allocation to the annual cooperative fishery would be one prorated share of the harvestable surplus for each participant in the cooperative.

Management of Allocation

The Chignik Area Cooperative Purse Seine Fishery Management Plan gave the ADF&G the charge of managing the fishery so that the two fleets would achieve their sockeye salmon harvest allocations as closely as possible. It was noted that the allocations were secondary to escapement and overall harvest objectives.

Review of Management Plan

The BOF recognized that there was the potential for unforeseen problems when this management plan was implemented. Therefore, it was stated in the management plan that the BOF would consider proposals regarding the Chignik Area Cooperative Purse Seine Fishery Management Plan at its first meeting in the fall of each year, until the next regular-cycle meeting in 2004.

December 2002

The cooperative plan was first reviewed in December of 2002. A summary of the first cooperative season was presented to the BOF (Pappas 2002). Fifteen proposals regarding the cooperative were reviewed by the BOF. Some proposals requested the removal of the cooperative plan or the removal of the allocation between the fleets. One proposal asked for multiple cooperatives and allocations based on historic catch. Another proposal asked for a stipulation requiring all Chignik CFEC permit holders to participate in the cooperative. These proposals either failed or no action was taken on them by the BOF.

One proposal called for changes in the escapement requirements for the first June fishery. At that time 5 AAC 15.357, the Chignik Area Management Plan, required a minimum escapement of 40,000 sockeye salmon past the Chignik River weir and a significant buildup of salmon in Chignik Lagoon for the first fishery to commence. There was a desire by the ADF&G and industry to remove the escapement and lagoon build-up criteria for opening the initial fishery in the Chignik Bay and Central Districts because there was concern that the harvesting power of the smaller fleets might not be able to stop a large run. Language was added to the cooperative plan that amended the escapement and buildup requirements in the Chignik Area Management Plan (5 AAC 15.357 (b)(1)) in years when there is a cooperative fishery.

Proposals by CSPA sought to modify gear and fish ticket requirements to increase their efficiency. The BOF did not desire to make any changes concerning gear types or reporting

requirements in regulation. Instead, the board delegated the authority to the ADF&G to draft Commissioner's permits to allow fixed leads in Chignik Lagoon, to relax fish ticketing practices to reduce paperwork, and to allow the use of net pens to facilitate the delivery of live salmon to the processor. A copy of the permits issued during the 2003 season can be found in Pappas and Clark (2003).

The BOF also directed the ADF&G to increase subsistence fishing opportunity for commercial salmon fishermen. In response, through special provisions of the subsistence permit, the CMA was opened to subsistence salmon fishing for commercial fishing license holders during the commercial salmon season. All commercial fishing license holders who participated in the subsistence salmon fishery were required to register with the ADF&G Chignik office prior to harvesting fish. These provisions are detailed in Pappas and Clark (2003).

November 2003

The BOF reviewed the Chignik cooperative plan again in November 2003. A summary of the second cooperative season was presented Pappas and Clark (2003). A summary of a project conducted by the ADF&G designed to monitor the biological impacts of the fixed leads was presented by Clark and Bouwens (2003). It was determined that the fixed leads did not create substantial biological impacts on the area during the 2003 fishing season, and the monitoring project was discontinued.

The BOF reviewed six proposals during the 2003 meeting. Four of the proposals asked to either eliminate the allocation between fleets or modify the calculation of the allocation. One proposal asked to eliminate the use of fixed leads, and the other was written by the cooperative to use longer seine gear within the Chignik Bay District. The only change the BOF made to the cooperative plan during this meeting was to adjust the allocation calculations between the cooperative and competitive fleets. This change was made to smooth the transition in the allocation depending on the number of cooperative members:

- If participation in the cooperative was less than 80 percent of the registered Chignik Area CFEC purse seine permit holders, the allocation to the annual cooperative fishery would be nine-tenths of one percent of the harvestable surplus for each participant in the cooperative
- If participation in the cooperative was at least 80 percent but less than 85 percent of the registered Chignik Area CFEC purse seine permit holders, the allocation to the annual cooperative fishery would be ninety five hundredths of one percent of the harvestable surplus for each participant in the cooperative
- If participation in the cooperative was 85 percent or more of the registered Chignik Area CFEC purse seine permit holders, the allocation to the annual cooperative fishery would be one prorated share of the harvestable surplus for each participant in the cooperative

In addition, the BOF directed the ADF&G to issue a Commissioner's permit to allow the use of 225 fathom seines within certain portions of the Chignik Bay District. A copy of this permit can be found in Bouwens (2004).

November 2004

The next regular-cycle Chignik BOF meeting since the creation of the cooperative fishery took place in November of 2004. A summary of the third cooperative season was compared to historical data and was presented to the BOF (Bouwens 2004). The BOF addressed 14 proposals specific to the cooperative management plan, and several more proposals for the Chignik Salmon

Management Plan or to the Chignik subsistence salmon regulations that had to do, at least in part, with cooperative issues.

The Chignik subsistence finfish fishing regulations (5 AAC 01.485) were modified to allow commercial salmon fishing license holders to subsistence fish for salmon during the commercial salmon fishing season. This schedule has been practiced since the beginning of the 2003 season as a provision of the subsistence salmon fishing permit. Active commercial salmon fishing license holders in the open fishery were allowed subsistence fish for salmon during a fishing period for the cooperative fishery, and active commercial salmon fishing license holders in the cooperative fishery were allowed to subsistence fish for salmon during a fishing period for the open fishery. Also, commercial salmon fishing license holders registered with the ADF&G as a member of the cooperative fishery, but not registered with the ADF&G to actively commercial fish, were allowed to subsistence fish for salmon using gillnet gear during any open commercial fishing period.

The Chignik are commercial salmon fishing closed waters (5 AAC 15.350(l)) were modified to place several regulatory markers, including the Pillar Rock markers that define the area where the fixed leads were used by the cooperative fleet, into regulation (Figure 3). Many of these markers had been established and used to manage the commercial salmon fishery via emergency order for several years.

The criteria to open the first fishery of the year was modified in response to concerns by subsistence users that they were unable to harvest enough subsistence salmon early in the season since the 40,000 sockeye salmon escapement trigger was removed. The BOF modified the language of the Chignik Area Salmon Management Plan to begin commercial salmon fishing when the ADF&G determines that a strong buildup of sockeye salmon exists in Chignik Lagoon and when 20,000 sockeye salmon have escaped into the Chignik River, regardless of whether a cooperative fishery exists. The BOF also directed the ADF&G to increase the escapement objective in August from 50,000 to 75,000 sockeye salmon to provide increased late-season opportunity for subsistence users.

The Chignik Area Cooperative Purse Seine Salmon Fishery Management Plan (5 AAC 15.359) was also modified. It was clarified in regulation that cooperative members must have validated their CFEC permits for the season before they could legally join the cooperative. It was also clarified in regulation that the ADF&G had the authority to place both fleets in the water at the same time if necessary to control the Chignik River escapement.

The BOF formalized in regulation, under the conditions set forth by Commissioner’s permits, the use of fixed leads, the ability to carry both a seine and fixed leads on board a commercial fishing vessel, and the use of net pens to hold live salmon. The BOF also authorized a vessel attached to a fixed lead or to a seine attached to a fixed lead to go dry or be anchored without the vessel engine running in the waters of the Chignik Bay District from Mensis Point to Pillar Rock, as long as the lead and seine are not configured to form a fish trap.

The BOF also allowed, in the cooperative fishery, multiple deliveries from an individual catcher vessel to a single tender on the same day to be recorded on an individual fish ticket with the estimated pounds and number of fish by species listed. The CFEC permit holder must report to the ADF&G, by 12:00 noon the day following the delivery date, the total pounds and number of fish by species from the catcher vessel's harvest. Finally, the BOF repealed the requirement to revisit the cooperative management plan at its first fall meeting of each year.

May 2005

The BOF held two emergency teleconferences in May of 2005. The first was held on May 2. That meeting addressed an emergency petition filed by CSPA in response to 5 AAC 15.359 being deemed invalid by the Alaska Supreme Court. The BOF took no action on the petition under 5 AAC 96.625 (f). Instead, it addressed the issue and found an emergency under AS 44.62.25(f). The BOF began deliberations on a proposal submitted by the Alaska Department of Law to revamp the Chignik Area Cooperative Purse Seine Salmon Fishery Management Plan to address the Alaska Supreme Court ruling that all cooperative members must physically participate in the fishery to gain economic benefits from the fishery. The BOF then scheduled another teleconference on May 4 to further address the proposal. The BOF added the following stipulations to the management plan and readopted the plan as 5 AAC 15.358:

- In 2005 only, CFEC permit holders who joined the 2005 cooperative were eligible to participate under the new regulation, and those wishing to opt out of the cooperative were allowed to do so prior to 5:00 PM on May 16, 2005.
- Each member of the cooperative must actively participate by being on-grounds and making at least 10 deliveries during the season. It was specifically stated that each member did not have to be on the fishing grounds for the entire season and that every boat registered in the Chignik fishery did not have to be utilized.
- All fish from each delivery must be reported on a single fish ticket to a single CFEC permit holder (i.e. no split deliveries were allowed).

This emergency regulation expired at the end of the 2005 salmon season.

2005 SALMON MANAGEMENT

The ADF&G targeted the lower bounds of the escapement objectives and overall goals during the 2005 season (Table 1). Limnology data from 2000 through 2004 suggested that the forage base for sockeye salmon has been depressed in Chignik Lake (Bouwens and Finkle 2003a,b; Finkle *In prep*; Finkle 2005; Finkle and Bouwens 2001). The ADF&G recommended targeting the lower bounds of the escapement objectives during 2002 through 2005 to relieve grazing pressure on the zooplankton in Chignik Lake in hopes of improving juvenile sockeye salmon production.

A total of 76 Chignik CFEC permit holders chose to join the cooperative fleet in 2005, which left 23 permit holders to fish independently (Table 2). Of the harvestable surplus of sockeye salmon, 68.4 percent was allocated to the cooperative fleet, and 31.6 percent was allocated to the competitive fleet (Table 2). The first commercial fishing period began on June 5, and the last commercial fishing period ended on August 15. Commercial salmon fishing was allowed during 61 days in 2005 (Figure 4).

Three processing facilities processed Chignik salmon in 2005: Norquest Seafoods, Island Seafoods, and True Word Seafoods. Norquest generally filleted or headed and gutted (H&G) the majority of the fish. Some fish purchased by Norquest were transported out of the area for processing during times when catches were expected to exceed local plant capacity. Norquest also operated a live fish program where fish were held in pens until processed. Island Seafoods and True World Seafoods, shore-based processors located in Kodiak, each bought small amounts of Chignik sockeye salmon.

The Chignik Area Salmon Management Task Force (CHASM; established in 2002) is an informal group of stakeholders representing fishermen from both fleets, the processors, and the ADF&G. It provides a mechanism for the ADF&G to discuss management options with the stakeholders. A CHASM meeting was convened on June 2. The ADF&G discussed managing for the lower end of the escapement goal ranges and the rationale for doing so, and provided an update on the ongoing smolt enumeration project. The date of the first fishing period was also discussed.

COOPERATIVE FLEET

Commissioner's permits were written to authorize the cooperative and to allow the cooperative fleet to use fixed-leads in the area of Pillar Rock, which is located upstream from the traditional upper markers in Chignik Lagoon (Appendix A1 and A2; Figure 3). The leads acted to concentrate returning salmon and allowed the cooperative fleet to make fewer sets to harvest the fish that were allocated to them. The leads also allowed the fleet to greatly increase their harvesting ability at a relatively low cost. It was possible for cooperative fleet to increase their harvest efficiency with the leads in times when escapements were above interim objectives. It was also a common practice for the ADF&G to require the cooperative fleet to tie the leads up to the cork lines to allow more escapement to pass into the Chignik River.

Commissioner's permits were issued to allow the cooperative fleet and the processors to hold fish alive in net pens for up to three days pending processing (Appendix A3). Holding the fish alive was a component of the cooperative's strategy to increase product quality.

The majority of the fishing effort in the 2005 season was by the cooperative fleet. Commercial salmon fishing began for the cooperative fleet on June 5 and ended for the season on August 15 (Figure 4), allowing them to fish for at least portions of 54 days.

It was necessary to place the cooperative fleet on harvest limits on 10 separate days over the season. The daily limits ranged from a low of 5,000 sockeye salmon to a high of 25,000 sockeye salmon. The cooperative fleet remained under the harvest limits reasonably well. Some days the harvest was substantially over or under the limit, but over the season the cooperative harvest was 7.6 percent less than the sum of the harvest limits (Table 3).

The cooperative fleet employed the fixed-leads during June and July (Figure 5). Generally, the leads were attached to the shore and installed perpendicular to the flow of the stream for about half of their length. An anchor was set at the point near mid-channel, and the remainder of the net was stretched downstream parallel to the shore, and then hooked back upstream in a "J" shape. At or near high tide, a seine vessel made a "round haul" downstream of the leads to harvest the fish that had accumulated behind the leads.

A large portion of the salmon harvested by the cooperative fleet in 2005 was delivered alive to the processors. The fish were either brailed or transferred alive with a fish pump from the seine into the tanks of a tender vessel. These tenders were equipped with oxygenation units to maintain water quality in the tanks. The fish were delivered alive to the holding pens located at the processor in Anchorage Bay.

In the cases when dead salmon were to be delivered to the processor (traditional delivery method), the salmon were brailed directly from the seines of the catcher boats into tenders equipped with refrigerated seawater (RSW) holds. This eliminated two handling steps in the delivery process; once from the seine to the hold of the catcher boat and once from the hold of

the catcher boat to the hold of a tender. After processing, the actual catch numbers and weights, by species, were assigned back to the fish tickets that contributed to each tender load. The cooperative fleet utilized 225-fathom seines within the Chignik Bay District on several occasions. Reports indicate that the use of these seines increased the efficiency of the cooperative.

All 2005 cooperative fleet members made at least 10 deliveries during the 2005 salmon season. An analysis of the 2005 and historic delivery patterns is presented in Appendix B.

COMPETITIVE FLEET

A total of 21 competitive fishermen made deliveries in 2005. Two Chignik CFEC permit holders did not make any deliveries in 2005, nor did they join the cooperative. Commercial salmon fishing began for the competitive fleet on June 9 and ended for the season on August 15 (Figure 4), allowing them the opportunity to fish for at least portions of 22 days.

The competitive fleet delivered all of their fish to one processor. Salmon were caught and transferred into the holds of the seine vessels and then transferred to tenders in the traditional manner. The competitive fleet did not deliver any live fish to the processor.

CHIGNIK BAY AND CENTRAL DISTRICTS COMMERCIAL SALMON FISHERY

The commercial salmon fishery began in the Chignik Bay and Central Districts on June 5 (Figures 2 and 4). The Chignik Lagoon markers were placed at Humes Point for the first 24 hours of this fishing period, after which they were moved to Pillar Rock (Figure 3). Generally, the Humes Point markers were used for the first 24 hours of a commercial fishing period after an extended closure to commercial salmon fishing to allow the salmon above these markers to escape the fishery. Sockeye salmon occasionally spent a considerable amount of time in Chignik Lagoon, which degraded the quality of the fish caught in the upper lagoon. Using the Humes Point markers allowed these older fish to escape the fishery. The Humes Point markers were also used on several occasions to increase escapement, especially when it was suspected that fish were holding in the lagoon. This also allowed the ADF&G to assess the magnitude of ‘new fish’ entering the lagoon by concentrating the effort in the lower lagoon.

The Chignik Bay and Central Districts were open to commercial salmon fishing through June 25 (Figure 4). The cooperative fleet fished for the majority of this period; however, the competitive fleet fished for 48 hours beginning June 9, for 33 hours beginning June 15, and for 24 hours beginning June 24 (Figure 4). Generally, the upper lagoon markers were located at Pillar Rock for the cooperative fleet and at Mensis point for the competitive fleet (Figure 3). The cooperative fleet was allowed to harvest fish only in the area between Mensis Point and Pillar Rock from June 9 to June 11, when fishing was open in the rest of the Chignik Bay and Central Districts to the competitive fleet. The cooperative fleet was allowed to use the leads until June 16, when they were instructed to tie the lead lines to the cork lines to allow additional escapement. On June 21 the cooperative was placed on a 25,000 sockeye salmon limit. On June 22 and 23 limits were also imposed (Table 3), although the cooperative fleet was allowed to use one lead to harvest the fish; they were required to tie the lead line to the cork line on the lead when they harvested the fish for the day. They were then allowed to drop the lead again at 12:01 AM the next day. The commercial salmon fishery was then closed beginning June 26 to allow additional escapement (Figure 4).

The Chignik Bay and Central Districts again reopened for the cooperative fleet from June 28 to July 4, with the Chignik Lagoon markers located at Pillar Rock (Figures 2 through 4). Harvest limits were imposed on June 28, July 2, and again on July 3 (Table 3). Both leads were allowed through July 1, only the Mensis lead was allowed on July 2, and the lead lines were required to be tied to the cork lines on the leads on July 3 and July 4 (Figure 5).

The Chignik Lagoon markers were moved to Mensis Point and the commercial fishery was opened for the competitive fleet in the Chignik Bay and Central Districts for 24 hours on July 4 and July 5 (Figures 2 through 4). Commercial salmon fishing reopened for the cooperative fleet in the Chignik Bay and Central Districts on July 5 and remained open through July 15. Harvest limits were imposed during July 7 through July 9 and on July 12 (Table 3), and the leads were used for most of this time (Figure 5). The Chignik Lagoon markers were moved to Mensis Point and commercial salmon fishing was again opened in the Chignik Bay and Central Districts for the competitive fleet for 24 hours on July 15 and 16. Commercial salmon fishing continued for the cooperative fleet from July 17 through July 24, with the markers located at Pillar Rock. No harvest limits were imposed during this period, although the use of leads was restricted at times (Table 3, Figure 5). Because the processor was full to capacity, the cooperative fleet did not harvest many fish on July 17; instead, they held the fish behind the leads until the processor was able to catch up with their processing. The competitive fleet fished again for 24 hours on July 25 and 26, and the Chignik Bay and Central Districts were opened again for the cooperative fleet through July 31 (Figure 4). No harvest limits or lead restrictions were placed on the cooperative fleet during late July (Figure 5). There were no more cooperative fishing periods in the Chignik Bay and Central Districts during 2005.

Commercial salmon fishing was opened for the competitive fleet on August 1 and 2. Catches during this period were low, and the fishery was allowed to close to obtain additional escapement. The competitive fleet did not achieve their allocation during this period, so the fishery was reopened for them from August 4 to August 6. There was very little effort, and there were no further commercial fishing periods for the competitive fleet in the Chignik Bay and Central Districts during 2005 (Figure 4).

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 4). The Eastern District was also opened concurrently with the Chignik Bay and Central Districts through July 4. There was no effort in the Eastern District in June and early July.

Local markets were generally not interested in purchasing pink and chum salmon from the outside (Western, Perryville, and Eastern) districts (Figure 2). On July 18, the ADF&G issued a news release stating that there was an available surplus of pink and chum salmon in areas of the outside districts, and fishermen should contact the ADF&G if they were able to secure a market for these fish. At that point, a localized bay would be opened based on aerial survey escapement data. The ADF&G did not want to open the capes because of sockeye salmon escapement concerns. The fishing periods were opened for both fleets concurrently. There were requests for these fishing periods in the Eastern District on four occasions (Figure 4), although only during one occasion was there any participation.

WESTERN AND PERRYVILLE DISTRICTS COMMERCIAL SALMON FISHERY

Regulation requires the closure of the Western and Perryville Districts in June (5 AAC 15.357 (d)). Beginning approximately July 6, these districts can be opened on a commercial test fishery basis targeting migrating pink and chum salmon. Once these fish begin entering local streams, management of these stocks shifts to an escapement-based strategy.

Two 48-hour commercial salmon fishing periods were opened for both fleets beginning July 6 and July 15 (Figure 4). Only competitive fleet members participated in these commercial salmon fishing periods.

ESCAPEMENT INFORMATION

Salmon escapement to the Chignik River is measured through the use of a weir. There are two gates in the weir, which are generally always open. Underwater video equipment is utilized to count the fish through the weir. Continuous video recordings of the escapement are made 24 hours a day and archived. The number of fish passing the weir, by species, are counted for the first 10 minutes of each hour, and these counts are multiplied by six to obtain the hourly counts. These hourly counts are summed to provide an estimate of daily fish passage. The first count of the 2005 season was on June 1, and the last count of the season was on September 3 (Table 4). The majority of the Chinook, sockeye, pink, and chum salmon escapements were counted through the weir. A post-weir sockeye salmon escapement estimate was produced for the September 3-15 and the September 16-30 periods (Table 4). The coho salmon run is generally still building when the weir is removed, and therefore the coho salmon counts are considered incomplete and it was not possible to estimate the post-weir coho salmon escapement.

Escapements to other CMA streams were estimated via aerial survey. The method for assessing pink and chum salmon escapements was changed from area-under the curve estimates of total escapement (Johnson and Barrett 1988) to assessment of peak counts (Witteveen et al. 2005).

Chinook Salmon

The Chinook salmon run began entering the Chignik River in mid-June, peaked in mid-July, and was over by late-August (Table 4; Figure 6). The 2005 Chignik River Chinook salmon escapement (Table 5; Figure 7) exceeding the Chignik River Chinook escapement goal of 1,300 to 2,700 (Hasbrouck and Clark *In prep*). 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 (Table 1; Witteveen et al. 2005). The objectives include an additional 50,000 sockeye salmon above the late-run SEG (25,000 fish in August and 25,000 fish in September; Bouwens 2005) to meet the late-season subsistence needs. The interim objectives are summarized by time periods that generally are about a month in duration. These interim objectives were met in June and July, but escapements fell below interim objectives in late August and September (Table 6; Figures 8 and 9).

The early-run SEG of 350,000 to 400,000 sockeye salmon through July 4 was achieved with an estimated escapement of 355,091 (Tables 1 and 6; Figure 10). The late-run (July 5 through the end of the season) SEG of 200,000 to 250,000 sockeye salmon was met with an estimated escapement of 225,366 (Tables 1 and 6; Figure 10; Witteveen et al. 2005).

Sockeye salmon escapements into other CMA streams were relatively minor. These escapements were monitored via aerial survey, and were entered into the Westward Region Stream Survey Database.

Coho Salmon

Coho salmon begin to enter CMA drainages in mid-August and continue through November. Coho salmon escapement estimates are incomplete because ADF&G staff removes the weir in early-September and the Chignik office closes in mid-September. Therefore, there are no coho salmon escapement goals established for the CMA (Witteveen et al. 2005). The 2005 Chignik River coho salmon escapement estimate through September 3 was 18,206 (Table 4). Coho salmon escapements to other CMA streams were monitored via aerial survey, and were documented in the Westward Region Stream Survey Database.

Pink Salmon

The 2005 Chignik River pink salmon escapement was 13,637 salmon (Table 4). The 2005 Chignik River pink salmon escapement was the largest since records have been kept in the ADF&G's databases (Table 5).

Pink salmon escapement to other CMA streams are estimated via aerial survey. There is an overall odd-year pink salmon peak count biological escapement goal (BEG) for the CMA of 541,000 to 1,177,000, which is divided into management objectives organized by district. The odd-year pink salmon peak count management objectives, by district are: Chignik Bay (8,000 to 17,000); Central (87,000 to 197,000); Eastern (276,000 to 601,000); Western (65,000 to 141,000) and Perryville (105,000 to 228,000; Witteveen et al. 2005). The management objectives in all districts, as well as the overall BEG, were met or exceeded in 2005 (Table 7).

Chum Salmon

The 2005 Chignik River chum salmon escapement was 408 salmon (Table 4). The 2005 Chignik River chum salmon escapement was the largest since records have been kept in the ADF&G's databases (Table 5).

Chum salmon escapement to other CMA streams are estimated via aerial survey. There is an overall chum salmon peak count SEG threshold for the CMA of 50,400, which is divided into management objectives organized by district. The chum salmon peak count objectives, by district, are: Chignik Bay (200); Central (6,700); Eastern (25,200); Western (5,400) and Perryville (12,800 Witteveen et al. 2005). The 2005 chum salmon escapement, despite being measured as peak counts, were the highest on record, and all of the district objectives and the overall SEG were met or exceeded in 2005 (Table 8).

HARVEST INFORMATION

The harvest data associated with Chignik can be somewhat confusing because there are several categories of commercial harvests for each species. Home pack fish are salmon caught during commercial fishing activities and are not sold but retained for personal consumption; these salmon are categorized as "personal use" on ADF&G fish tickets. The ADF&G also harvests and sells salmon as part of a test fishery program. The SEDM and Cape Igvak management plans specify that specific portions of the sockeye salmon commercially harvested under those management plans are also bound for the CMA. All of these categories are considered commercially caught salmon. Subsistence salmon harvests are not reported here and are not included in any of the allocations. Home pack fish are included in the within-CMA allocation

scheme, but are not included in the SEDM and Cape Igvak allocations. The test fishery harvests are also not considered part of any allocation.

The total 2005 CMA harvest, including home pack and the ADF&G's test fisheries harvests, (but not the Cape Igvak and SEDM harvests), are listed in Table 9. The 2005 CMA harvest of all species was greater than the 2002-2004 average (the cooperative management plan years), but less than the prior 10-and 20-year averages (Table 9; Figures 11 and 12). The majority of the 2005 CMA salmon harvest took place in June and July (Tables 10 and 11). The Chinook salmon harvest was higher than the harvest of the prior three years under the cooperative management plan, but less than the prior 10- and 20- year averages (Table 9). The 2005 coho salmon harvest was weak because there was no commercial salmon fishing effort in mid- to late-August (Tables 9 through 11). Despite low directed effort, the pink salmon harvest was slightly above recent averages, because of high pink salmon abundance in the CMA in 2005; chum salmon harvests, however, were below recent averages (Table 9). Harvests, by district, are listed in Appendix C.

The cooperative fleet harvested a total (including home pack) of 782,206 sockeye salmon, or 68.4 percent of the CMA sockeye salmon harvest. The competitive fleet harvested a total (including home pack) of 361,178 sockeye salmon, or 31.6 percent of the CMA sockeye salmon harvest. The competitive fleet was under their allocation by only 131 sockeye salmon (Table 12).

TOTAL RUN

From 1983 to 2003 the ADF&G used Scale Pattern Analysis (SPA) inseason to apportion the catch and escapement to the early or late run (Witteveen and Botz 2004). Beginning in 2004, budgetary constraints precluded the use of SPA. After an exhaustive analysis, it was determined that using a fixed date (through July 4) to separate the runs was an acceptable proxy to SPA (Witteveen *personal communication*). After the 2005 season, an alternative stock separation model was explored. This forward-reconstruction model (Chasco 2004) was utilized as a comparative tool to provide post-season estimates of the two Chignik River watershed sockeye salmon stocks. The stock proportions obtained using the Chasco (2004) model were similar to those obtained using the July 4 method; however, further trials of this model are necessary to determine its applicability as a stock separation tool.

The 2005 early run was greater than the average of the prior cooperative years, but slightly less than the prior 10-and 20-year averages (Table 13). The late run was larger than the late run in 2004, but smaller than the average of the prior cooperative years and the 10- and 20- year averages (Table 13).

ECONOMIC VALUE

The economic value of the 2005 CMA salmon harvest was about $6.4 million (about $66 thousand per permit holder), which was higher than the average of the cooperative years, but substantially less than the prior 10- and 20- year averages. The vast majority of the value was from the sale of sockeye salmon (Table 14).

DEPARTMENT TEST FISHERIES

The ADF&G conducted test fisheries on two occasions in 2005 and this information was used to plan subsequent commercial fishing activity and to generate revenue to support the management of the Chignik commercial salmon fishery. The first test fishery took place on June 3, which was conducted in the traditional manner (sets were made at specific historic locations) to assess the

buildup of sockeye salmon in Chignik Lagoon. Subsequent test fisheries took place on June 21 and 29, which were conducted by the cooperative. A total of 7,952 sockeye salmon were harvested in the 2005 test fisheries.

SUBSISTENCE SALMON FISHERIES

The BOF increased subsistence fishing opportunities during the fall 2004 BOF meeting. The Chignik River used to be closed to subsistence salmon fishing by regulation (5 AAC 01.475). However, beginning in 2005 the BOF opened the Chignik River to subsistence salmon fishing, excluding the area 300 feet upstream and downstream of the Chignik weir, for a portion of the season. The reach of the Chignik River up to 300 feet below the weir is open to subsistence fishing year-round. The reach from 300 feet above the weir to the outlet of Chignik Lake is open year round, except it is closed from July 1 through August 31 to protect spawning Chinook salmon.

Historically, 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 in the CMA. 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. During the 2004 BOF meeting the BOF adopted regulations that allow commercial salmon fishing license holders to, with certain restrictions, harvest subsistence salmon during the commercial salmon fishing season.

The BOF also directed the ADF&G to manage the August commercial salmon fishery to allow 75,000 (instead of 50,000) sockeye salmon to escape into the Chignik River to facilitate additional late-season harvest opportunity. Despite limited commercial salmon fishing in August, this objective was not achieved in 2005.

2006 HARVEST PROJECTIONS

The 2006 harvest projections are not available at the time of this writing. In past years, Chinook, coho, pink and chum harvest projections have been based on average harvests. These species have been harvested only incidentally to sockeye salmon since the inception of the cooperative fishery. It is expected that the harvest of these species will continue to be small. Historical Chignik sockeye salmon forecast forecasts, as compared to the actual returns, are listed in Appendix D.

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TABLES AND FIGURES

Table 1.–Sockeye salmon interim escapement objectives for the Chignik River, 2005.

	Escapement				Escapement		
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 [a]	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	**Objectives through**			
July 14	56,000	-	75,000	**July 4:**	**350,000**	**-**	**400,000**
July 16	67,000	-	95,000				
July 19	86,000	-	115,000	**July 5 through Sept.**			
July 21	101,000	-	135,000	**15 Objectives:**	**250,000**	**-**	**300,000**
July 23	120,000	-	160,000				
July 26	135,000	-	180,000				
July 29	146,000	-	195,000				
July 31	150,000	-	200,000				

[a] Through July 4 is historically the date on which the inseason escapement most closely approximated the early-run escapement as estimated by post-season scale pattern analysis.

Table 2.–Fleet membership and allocations, 2002 through 2005.

	Number of CFEC permit holders			Allocation (Percent)	
Year	Cooperative	Competitive	Total	Cooperative	Competitive
2002	77	22	99	69.3	30.7
2003	77	24	101	69.3	30.7
2004	87	13	100	87.0	13.0
2005	76	23	99	68.4	31.6

Table 3.–Cooperative sockeye salmon harvest limits, actual catch, difference, and percent difference, by day, 2005.

Day	Limit	Actual Catch	Difference	% Difference
6/21	25,000	21,891	-3,109	-12.4
6/22	10,000	12,102	2,102	21.0
6/23	5,000	6,267	1,267	25.3
6/28	7,500	6,805	-695	-9.3
7/2	10,000	8,187	-1,813	-18.1
7/3	5,000	4,361	-639	-12.8
7/7	7,500	7,525	25	0.3
7/8	10,000	8,461	-1,539	-15.4
7/9	10,000	7,505	-2,495	-25.0
7/12	10,000	9,308	-692	-6.9
	100,000	92,412	-7,588	-7.6

Table 4.–Estimated Chinook, coho, pink, and chum salmon escapement to the Chignik River, by day, 2005.

	Chinook		Pink		Chum		Coho	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
6/1[a]	0	0	0	0	0	0	0	0
6/2	0	0	0	0	0	0	0	0
6/3	0	0	0	0	0	0	0	0
6/4	0	0	0	0	0	0	0	0
6/5	0	0	0	0	0	0	0	0
6/6	0	0	0	0	0	0	0	0
6/7	0	0	0	0	0	0	0	0
6/8	0	0	0	0	0	0	0	0
6/9	0	0	0	0	0	0	0	0
6/10	0	0	0	0	0	0	0	0
6/11	0	0	0	0	0	0	0	0
6/12	0	0	0	0	0	0	0	0
6/13	0	0	0	0	0	0	0	0
6/14	0	0	0	0	0	0	0	0
6/15	0	0	0	0	0	0	0	0
6/16	0	0	0	0	0	0	0	0
6/17	0	0	0	0	0	0	0	0
6/18	0	0	0	0	0	0	0	0
6/19	0	0	6	6	0	0	0	0
6/20	6	6	0	6	0	0	0	0
6/21	78	84	0	6	0	0	0	0
6/22	33	117	0	6	0	0	0	0
6/23	79	196	1	7	0	0	0	0
6/24	66	262	0	7	0	0	0	0
6/25	30	292	0	7	0	0	0	0
6/26	178	470	0	7	0	0	0	0
6/27	145	615	0	7	0	0	0	0
6/28	114	729	0	7	0	0	0	0
6/29	180	909	0	7	0	0	0	0
6/30	156	1,065	1	8	0	0	0	0
7/1	158	1,223	24	32	0	0	0	0
7/2	122	1,345	36	68	0	0	0	0
7/3	234	1,579	37	105	0	0	0	0
7/4	403	1,982	120	225	0	0	0	0
7/5	162	2,144	66	291	0	0	0	0
7/6	194	2,338	12	303	0	0	0	0
7/7	231	2,569	84	387	0	0	0	0
7/8	325	2,894	78	465	0	0	0	0
7/9	558	3,452	132	597	0	0	0	0
7/10	290	3,742	36	633	0	0	0	0
7/11	133	3,875	12	645	0	0	0	0
7/12	180	4,055	144	789	0	0	0	0

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Table 4.–(page 2 of 3)

	Chinook		Pink		Chum		Coho	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7/13	156	4,211	162	951	0	0	0	0
7/14	147	4,358	6	957	6	6	0	0
7/15	103	4,461	60	1,017	0	6	0	0
7/16	148	4,609	48	1,065	0	6	0	0
7/17	185	4,794	250	1,315	0	6	0	0
7/18	138	4,932	114	1,429	0	6	0	0
7/19	174	5,106	84	1,513	0	6	0	0
7/20	98	5,204	48	1,561	0	6	0	0
7/21	133	5,337	178	1,739	0	6	0	0
7/22	176	5,513	336	2,075	0	6	0	0
7/23	109	5,622	300	2,375	6	12	0	0
7/24	282	5,904	180	2,555	0	12	0	0
7/25	72	5,976	198	2,753	42	54	0	0
7/26	24	6,000	180	2,933	6	60	0	0
7/27	99	6,099	166	3,099	1	61	0	0
7/28	48	6,147	199	3,298	48	109	0	0
7/29	49	6,196	120	3,418	36	145	0	0
7/30	6	6,202	216	3,634	6	151	0	0
7/31	12	6,214	163	3,797	12	163	0	0
8/1	12	6,226	246	4,043	12	175	0	0
8/2	6	6,232	138	4,181	30	205	0	0
8/3	21	6,253	262	4,443	0	205	0	0
8/4	20	6,273	237	4,680	30	235	3	3
8/5	0	6,273	216	4,896	0	235	42	45
8/6	18	6,291	282	5,178	12	247	0	45
8/7	30	6,321	150	5,328	6	253	0	45
8/8	30	6,351	203	5,531	6	259	0	45
8/9	0	6,351	162	5,693	6	265	0	45
8/10	1	6,352	2	5,695	0	265	1	46
8/11	2	6,354	221	5,916	0	265	0	46
8/12	12	6,366	330	6,246	30	295	6	52
8/13	8	6,374	448	6,694	18	313	6	58
8/14	24	6,398	811	7,505	42	355	0	58
8/15	30	6,428	760	8,265	3	358	0	58
8/16	18	6,446	738	9,003	0	358	1	59
8/17	12	6,458	690	9,693	6	364	0	59
8/18	6	6,464	57	9,750	0	364	2	61
8/19	4	6,468	244	9,994	0	364	25	86
8/20	0	6,468	386	10,380	0	364	259	345
8/21	6	6,474	312	10,692	12	376	310	655
8/22	6	6,480	366	11,058	0	376	294	949
8/23	6	6,486	396	11,454	12	388	385	1,334
8/24	0	6,486	120	11,574	0	388	80	1,414
8/25	0	6,486	4	11,578	2	390	21	1,435
8/26	0	6,486	243	11,821	6	396	282	1,717
8/27	0	6,486	208	12,029	6	402	478	2,195

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Table 4.–(page 3 of 3)

	Chinook		Pink		Chum		Coho	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
8/28	0	6,486	234	12,263	0	402	293	2,488
8/29	0	6,486	144	12,407	0	402	642	3,130
8/30	0	6,486	324	12,731	0	402	1,385	4,515
8/31	0	6,486	358	13,089	0	402	2,147	6,662
9/1	0	6,486	246	13,335	6	408	4,336	10,998
9/2	0	6,486	146	13,481	0	408	2,523	13,521
9/3	0	6,486	156	13,637	0	408	4,685	18,206
Totals	6,486		13,637		408		18,206	

[a] Weir installed June 1.

[b] Weir removed September 3.

Table 5.–Estimated Chinook, pink, and chum salmon escapement to the Chignik River, 1970 through 2005.

	Escapement		
Year	Chinook [a]	Pink [b]	Chum [b]
1970	2,500	N/A	N/A
1971	2,000	N/A	N/A
1972	1,500	N/A	N/A
1973	822	N/A	N/A
1974	672	N/A	N/A
1975	877	N/A	N/A
1976	700	N/A	N/A
1977	798	N/A	N/A
1978	1,197	N/A	N/A
1979	1,050	N/A	N/A
1980	876	N/A	N/A
1981	1,603	N/A	N/A
1982	2,412	N/A	N/A
1983	1,943	N/A	N/A
1984	5,806	N/A	N/A
1985	3,144	N/A	N/A
1986	3,612	N/A	N/A
1987	2,624	N/A	N/A
1988	4,868	N/A	N/A
1989	3,316	N/A	N/A
1990	4,364	N/A	N/A
1991	4,531	N/A	N/A
1992	3,806	N/A	N/A
1993	1,946	N/A	N/A
1994	2,963	N/A	N/A
1995	4,288	N/A	N/A
1996	3,488	6,030	136
1997	3,824	4,880	483
1998	3,075	11,490	156
1999	3,728	2,524	48
2000	4,285	4,284	48
2001	3,028	1,464	66
2002	3,541	3,417	67
2003	6,412	1,897	68
2004	7,840	2,243	276
2005	6,486	13,637	408
Averages			
1982-01	3,553		
1992-01	3,443	5,112	156
2002-04	5,931	2,519	137

[a] 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 1996.

[b] No reliable escapement estimates were generated for pink and chum salmon from 1970 to 1996 when a video monitoring system was installed at the Chignik weir.

Table 6.–Estimated Chignik River sockeye salmon escapement, by day and management objective period, 2005.

Early Run			Late Run								
Through July 4			July 5-July 31			August			September 1-15		
Date	Daily	Total	Date	Daily	Total	Date	Daily	Total	Date	Daily	Total
6/1	2,196	2,196	7/5	3,648	3,648	8/1	4,035	4,035	9/1	1,009	1,009
6/2	4,093	6,289	7/6	1,983	5,631	8/2	3,073	7,108	9/2	449	1,458
6/3	3,768	10,057	7/7	5,322	10,953	8/3	2,186	9,294	9/3	432	1,890
6/4	10,023	20,080	7/8	6,876	17,829	8/4	2,857	12,151			
6/5	17,015	37,095	7/9	10,837	28,666	8/5	2,692	14,843	9/4-9/15 estimate	5,443	7,333
6/6	19,086	56,181	7/10	7,196	35,862	8/6	3,599	18,442	9/16-9/30 estimate	1,670	9,003
6/7	16,354	72,535	7/11	3,029	38,891	8/7	2,088	20,530			
6/8	11,511	84,046	7/12	8,431	47,322	8/8	2,436	22,966			
6/9	5,168	89,214	7/13	18,271	65,593	8/9	1,328	24,294			
6/10	16,893	106,107	7/14	1,938	67,531	8/10	267	24,561			
6/11	6,179	112,286	7/15	4,447	71,978	8/11	2,119	26,680			
6/12	5,295	117,581	7/16	3,921	75,899	8/12	1,554	28,234			
6/13	4,794	122,375	7/17	2,777	78,676	8/13	1,135	29,369			
6/14	5,085	127,460	7/18	4,764	83,440	8/14	1,797	31,166			
6/15	11,189	138,649	7/19	4,312	87,752	8/15	1,510	32,676			
6/16	6,136	144,785	7/20	6,208	93,960	8/16	1,659	34,335			
6/17	4,452	149,237	7/21	10,030	103,990	8/17	1,960	36,295			
6/18	10,944	160,181	7/22	6,489	110,479	8/18	440	36,735			
6/19	14,921	175,102	7/23	11,216	121,695	8/19	1,948	38,683			
6/20	14,937	190,039	7/24	12,870	134,565	8/20	1,715	40,398			
6/21	12,468	202,507	7/25	9,085	143,650	8/21	1,375	41,773			
6/22	13,021	215,528	7/26	3,258	146,908	8/22	1,308	43,081			
6/23	19,718	235,246	7/27	2,400	149,308	8/23	1,329	44,410			
6/24	19,752	254,998	7/28	3,168	152,476	8/24	511	44,921			
6/25	4,969	259,967	7/29	3,918	156,394	8/25	273	45,194			
6/26	10,722	270,689	7/30	4,302	160,696	8/26	1,526	46,720			
6/27	24,205	294,894	7/31	2,087	162,783	8/27	2,016	48,736			
6/28	16,300	311,194				8/28	1,002	49,738			
6/29	7,248	318,442				8/29	1,308	51,046	**late run total through 9/15:**		**60,913**
6/30	6,196	324,638				8/30	1,584	52,630			
7/1	3,103	327,741				8/31	950	53,580			
7/2	5,490	333,231	**July 5-31 total:**		**162,783**	**August total:**		**53,580**	**late run total through 9/30:**		**225,366**
7/3	10,235	343,466									
7/4	11,625	355,091	**Late run total through 7/31 :**		**162,783**	**Late run total through 8/31 :**		**216,363**	**Season total through 9/15:**		**416,004**
Early run total:		**355,091**									
Season total through 7/31:		**355,091**	**Season total through 7/31:**		**517,874**	**Season total through 8/31:**		**571,454**	**Season total through 9/30:**		**580,457**

Table 7.–Estimated pink salmon escapement in the Chignik Management Area, by district and year, 1960 through 2005.

	District					
Year [a]	Chignik Bay	Central	Eastern	Western	Perryville	Total
1960	N/A	28,000	130,000	48,600	123,800	330,400
1961	N/A	4,650	9,500	60,100	34,750	109,000
1962	30,000	83,900	401,700	242,000	155,500	913,100
1963	20,700	92,600	126,200	305,000	162,000	706,500
1964	20,000	131,100	605,700	165,000	72,000	993,800
1965	11,000	65,800	64,800	152,000	82,000	375,600
1966	71,300	62,600	302,200	179,300	90,000	705,400
1967	5,700	18,500	56,100	104,400	155,300	340,000
1968	81,400	66,100	390,300	151,300	128,700	817,800
1969	11,700	69,600	46,000	422,000	218,600	767,900
1970	43,600	60,700	201,700	202,000	72,600	580,600
1971	5,500	74,800	23,000	268,800	45,000	417,100
1972	5,800	3,100	15,900	8,600	7,800	41,200
1973	2,200	50,200	12,800	62,400	31,500	159,100
1974	4,000	9,800	76,200	77,400	60,200	227,600
1975	1,200	26,400	23,500	141,700	45,300	238,100
1976	12,300	66,000	228,800	114,200	89,300	510,600
1977	3,000	199,900	76,000	355,500	115,400	749,800
1978	10,700	101,200	309,300	333,400	157,500	912,100
1979	1,200	297,000	194,300	185,000	181,300	858,800
1980	3,000	99,400	425,500	139,500	74,800	742,200
1981	1,400	76,500	154,700	249,300	116,000	597,900
1982	2,400	26,100	301,500	45,900	13,400	389,300
1983	1,000	11,000	46,300	36,000	64,500	158,800
1984	123,200	94,000	486,500	188,000	109,800	1,001,500
1985	N/A	7,400	212,100	67,500	235,200	522,200
1986	N/A	121,900	580,700	43,800	180,500	926,900
1987	N/A	65,700	215,600	38,300	65,700	385,300
1988	22,400	216,400	1,005,400	232,400	181,300	1,657,900
1989	13,500	215,000	881,000	57,900	267,400	1,434,800
1990	6,000	131,900	811,400	44,300	88,400	1,082,000
1991	12,200	201,100	125,000	96,800	343,500	778,600
1992	55,800	223,800	1,318,100	38,800	190,400	1,826,900
1993	2,000	160,900	524,700	45,800	448,400	1,181,800
1994	75,800	178,900	863,300	111,600	153,900	1,383,500
1995	180,500	715,500	1,399,300	554,700	582,100	3,432,100
1996	43,100	237,100	1,059,600	220,800	395,700	1,956,300
1997	59,400	594,600	1,287,700	306,300	221,500	2,469,500
1998	24,400	210,900	1,273,200	150,400	222,800	1,881,700
1999	37,300	374,300	615,100	137,900	179,700	1,344,300
2000	27,400	146,100	810,700	130,100	98,700	1,213,000
2001	19,700	460,400	1,470,200	263,000	150,200	2,363,500

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Table 7.–(page 2 of 2)

	District					
Year [a]	Chignik Bay	Central	Eastern	Western	Perryville	Total
2002	16,917	85,755	777,710	85,501	62,170	1,028,053
2003	143,897	576,510	1,408,060	117,650	99,500	2,345,617
2004	27,300	257,000	601,900	94,340	134,320	1,114,860
2005	160,000	473,400	512,350	257,500	188,600	1,591,850
Averages						
1982-01	41,535	219,650	764,370	140,515	209,655	1,369,495
1992-01	52,540	330,250	1,062,190	195,940	264,340	1,905,260
2002-04	62,705	306,422	929,223	99,164	98,663	1,496,177

[a] From 1984 through 2004 escapement estimates computed by area-under-the-curve methods using a 15.0 day average stream life (Johnson and Barrett 1988). Beginning in 2005 all pink salmon escapements goals and escapements are measured and reported as peak counts (Witteveen et al. 2005).

Table 8.–Estimated chum salmon escapement in the Chignik Management Area, by district and year, 1960 through 2005.

	District					
Year [a]	Chignik Bay	Central	Eastern	Western	Perryville	Total
1960	2,210	28,120	41,100	20,900	25,900	118,230
1961	20	0	8,380	2,000	0	10,400
1962	6,700	40,400	79,600	83,100	10,500	220,300
1963	800	34,000	55,200	10,000	7,000	107,000
1964	2,500	24,200	165,400	37,000	26,000	255,100
1965	3,000	19,200	58,000	25,000	7,000	112,200
1966	4,500	10,000	58,000	12,000	20,400	104,900
1967	4,000	17,200	89,800	24,000	5,700	140,700
1968	1,000	14,500	63,000	9,600	1,800	89,900
1969	1,500	6,500	66,500	27,600	1,000	103,100
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
1995	10,300	44,500	112,800	45,700	134,600	347,900
1996	16,400	45,100	130,500	44,500	132,000	368,500
1997	18,500	65,700	290,000	60,500	152,800	587,500
1998	4,500	32,000	97,700	30,600	214,500	379,300
1999	2,300	32,400	167,100	16,300	117,300	335,400
2000	100	22,700	216,000	12,700	51,900	303,400
2001	4,100	36,500	406,900	35,500	67,800	550,800

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Table 8.–(page 2 of 2)

	District					
Year [a]	Chignik Bay	Central	Eastern	Western	Perryville	Total
2002	67	11,615	174,850	17,082	32,020	235,634
2003	899	43,191	152,854	39,050	64,331	300,325
2004	376	30,310	277,240	3,100	38,492	349,518
2005	30,000	159,100	36,350	22,000	61,250	308,700
Averages						
1982-01	1,840	33,230	99,850	39,215	36,895	211,030
1992-01	2,160	42,010	112,980	30,850	58,120	246,120
2002-04	447	28,372	201,648	19,744	44,948	295,159

[a] From 1984 to 2004 escapement estimates computed by area-under-the-curve methods using a 15.0 day average stream life (Johnson and Barrett 1988). Beginning in 2005 all pink salmon escapements goals and escapements are measured and reported as peak counts (Witteveen et al. 2005).

Table 9.–Total commercial salmon harvest, including home pack, from the Chignik Management Area by species and year, 1970 through 2005.

	Active		Number of Salmon					
Year	Permits	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	110	3,392	1,888	922,151	191,188	160,128	22,806	1,298,161
1986	102	4,178	3,037	1,645,834	116,633	647,125	176,640	2,589,269
1987	105	3,862	2,651	1,898,838	150,414	246,775	127,261	2,425,939
1988	102	3,895	7,296	795,841	370,420	2,997,159	267,775	4,438,491
1989	101	3,183	3,542	1,159,287	68,233	27,712	1,624	1,260,398
1990	102	5,405	9,901	2,093,650	130,131	550,008	270,004	3,053,694
1991	103	3,856	3,157	1,895,665	165,625	1,169,248	261,096	3,494,791
1992	102	4,172	10,832	1,277,449	310,943	1,554,073	222,134	3,375,431
1993	103	4,241	19,515	1,697,351	229,459	1,648,377	122,360	3,717,062
1994	100	3,707	3,919	1,618,973	237,204	431,063	227,276	2,518,435
1995	101	5,113	5,493	1,724,045	281,518	2,057,998	380,954	4,450,008
1996	101	4,565	3,145	1,958,393	193,246	189,068	120,891	2,464,743
1997	100	3,394	3,120	770,347	90,908	844,431	155,905	1,864,711
1998	86	3,348	4,503	1,054,439	129,539	776,988	128,996	2,094,465
1999	91	4,382	3,507	3,116,527	89,610	1,698,651	140,597	5,048,892
2000	100	3,268	2,612	1,775,225	123,222	428,064	120,957	2,450,080
2001	93	2,906	2,939	1,511,587	131,448	1,281,767	199,003	3,126,744
2002	42	2,432	1,521	1,050,553	49,372	66,050	54,559	1,222,055
2003	44	2,073	3,068	1,100,297	103,896	502,638	64,044	1,773,943
2004	33	1,346	2,520	704,652	37	2,380	505	710,094
2005	97	1,669	3,376	1,143,384	6,956	194,037	8,819	1,356,572
Averages								
1982-01	100	3,938	5,305	1,646,104	174,103	917,400	177,955	2,920,867
1992-01	98	3,910	5,959	1,650,434	181,710	1,091,048	181,907	3,111,057
2002-04	40	1,950	2,370	951,834	51,102	190,356	39,703	1,235,364

Table 10.–Cooperative commercial salmon fishing effort and catch day in the Chignik Management Area, 2005. These data include fish retained for home pack but do not include the ADF&G's test fishery harvest.

	Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
Date	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
6/5	5	8	0	0	5,895	35,131	0	0	0	0	0	0	5,895	35,131
6/6	9	23	1	11	22,116	134,986	0	0	0	0	0	0	22,117	134,997
6/7	12	23	1	9	20,844	126,156	0	0	0	0	0	0	20,845	126,165
6/8	16	30	0	0	24,920	151,727	0	0	0	0	0	0	24,920	151,727
6/9	19	40	0	0	33,981	215,778	0	0	0	0	0	0	33,981	215,778
6/10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/12	19	48	2	29	43,136	281,611	0	0	0	0	0	0	43,138	281,640
6/13	23	48	3	49	52,182	352,248	0	0	0	0	0	0	52,185	352,297
6/14	24	61	0	0	73,934	480,488	0	0	0	0	0	0	73,934	480,488
6/15	17	27	2	48	26,944	165,655	0	0	0	0	0	0	26,946	165,703
6/16	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/17	18	34	6	97	21,031	130,097	0	0	35	222	14	90	21,086	130,506
6/18	22	39	2	48	20,366	125,489	0	0	0	0	0	0	20,368	125,537
6/19	21	42	9	140	23,449	152,271	0	0	13	84	4	29	23,475	152,524
6/20	21	48	6	96	39,346	259,221	0	0	84	571	31	208	39,467	260,096
6/21	20	33	28	528	21,891	135,825	0	0	34	213	3	23	21,956	136,589
6/22	12	16	6	138	12,102	80,619	0	0	5	35	3	22	12,116	80,814
6/23	5	10	2	57	6,267	41,141	0	0	15	100	0	0	6,284	41,298
6/24	Competitive												0	0
6/25	Competitive												0	0
6/26	Closed												0	0
6/27	Closed												0	0
6/28	5	21	9	185	6,805	39,969	0	0	30	177	3	18	6,847	40,349
6/29	9	27	156	3,304	9,097	57,493	0	0	92	558	4	27	9,349	61,382
6/30	18	57	207	3,251	13,165	84,742	0	0	485	3,132	16	108	13,873	91,233
7/1	17	54	143	3,600	11,261	74,756	3	19	668	4,562	31	208	12,106	83,145
7/2	9	19	339	3,636	8,187	52,349	1	6	313	1,570	385	2,487	9,225	60,048
7/3	4	15	4	73	4,361	27,773	1	8	122	612	12	90	4,500	28,556
Early-run total[a]			926	15,299	501,280	3,205,525	5	33	1,896	11,836	506	3,310	504,613	3,236,003

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Table 10.–(page 2 of 3)

	Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
Date	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
7/4	7	14	70	1,563	4,313	26,427	0	0	118	588	9	67	4,510	28,645
7/5	Competitive												0	0
7/6	16	35	96	2,124	7,495	47,982	5	28	394	2,094	68	502	8,058	52,730
7/7	14	19	90	1,913	7,525	49,261	0	0	127	637	10	72	7,752	51,883
7/8	7	36	124	2,499	8,461	56,095	4	28	414	2,072	29	212	9,032	60,906
7/9	8	30	98	2,132	7,505	52,140	0	0	286	1,092	8	59	7,897	55,423
7/10	18	51	116	2,546	21,024	140,776	0	0	1,110	3,888	55	413	22,305	147,623
7/11	16	35	132	2,936	14,392	98,955	0	0	550	1,931	9	70	15,083	103,892
7/12	10	15	41	958	9,308	64,595	0	0	377	1,320	9	71	9,735	66,944
7/13	17	45	183	4,179	27,769	198,689	0	0	478	1,674	62	463	28,492	205,005
7/14	16	32	90	1,804	27,650	184,349	2	12	1,487	5,205	32	245	29,261	191,615
7/15	11	11	27	727	3,657	24,954	0	0	442	1,549	4	31	4,130	27,261
7/16	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/17	4	4	0	0	1,622	10,671	0	0	48	169	0	0	1,670	10,840
7/18	11	33	180	4,280	30,434	211,909	0	0	2,148	7,519	67	494	32,829	224,202
7/19	18	30	93	2,337	17,731	121,050	0	0	1,455	5,090	19	143	19,298	128,620
7/20	16	19	6	131	8,884	60,133	0	0	1,036	3,622	26	186	9,952	64,072
7/21	6	28	17	373	12,727	81,591	15	91	2,336	8,175	24	181	15,119	90,411
7/22	6	20	18	399	11,148	70,104	6	34	3,233	11,317	87	656	14,492	82,510
7/23	5	14	19	397	10,436	66,255	0	0	2,161	7,563	120	757	12,736	74,972
7/24	9	12	17	328	11,198	72,541	0	0	1,446	5,062	87	580	12,748	78,511
7/25	Competitive												0	0
7/26	11	23	1	28	4,417	27,760	0	0	2,008	7,028	82	617	6,508	35,433
7/27	11	25	25	500	5,599	35,342	8	45	3,788	13,269	67	437	9,487	49,593
7/28	8	19	13	195	4,944	31,874	5	31	2,843	9,950	67	502	7,872	42,552
7/29	6	19	41	835	9,700	60,865	0	0	4,755	16,641	101	762	14,597	79,103
7/30	6	12	7	158	8,082	50,230	37	223	4,563	15,970	73	541	12,762	67,122
7/31	7	8	46	869	4,903	29,099	94	563	5,497	19,238	97	728	10,637	50,497
8/1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/2	Competitive												0	0

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Table 10.–(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
8/3	Closed												0	0
8/4	Competitive												0	0
8/5	Competitive												0	0
8/6	Competitive												0	0
8/7	Closed												0	0
8/8	Closed												0	0
8/9	Closed												0	0
8/10	Closed												0	0
8/11	Closed												0	0
8/12	Closed												0	0
8/13	Closed												0	0
8/14	Closed												0	0
8/15	1	2	0	0	2	10	12	79	21	78	2	7	37	174
Late-run Total			1,550	34,211	280,926	1,873,657	188	1,134	43,121	152,741	1,214	8,796	326,999	2,070,539
Season Total			**2,476**	**49,510**	**782,206**	**5,079,182**	**193**	**1,167**	**45,017**	**164,577**	**1,720**	**12,106**	**831,612**	**5,306,542**

[a] Sockeye salmon harvested through July 3 are considered early-run because of an estimated one-day travel time between the commercial fishery in Chignik Lagoon and the Chignik weir. Sockeye salmon escapements through July 4 are considered early-run.

Table 11.–Competitive commercial salmon fishing effort and catch day in the Chignik Management Area, 2005. These data include fish retained for home pack but do not include the ADF&G's test fishery harvest.

	Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
Date	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
6/5	Cooperative												0	0
6/6	Cooperative												0	0
6/7	Cooperative												0	0
6/8	Cooperative												0	0
6/9	13	14	0	0	13,073	85,852	0	0	0	0	0	0	13,073	85,852
6/10	21	31	5	87	59,760	395,451	0	0	640	2,026	69	486	60,474	398,050
6/11	20	28	0	0	51,784	345,992	0	0	0	0	0	0	51,784	345,992
6/12	Cooperative												0	0
6/13	Cooperative												0	0
6/14	Cooperative												0	0
6/15	18	19	12	220	29,870	198,428	0	0	2,172	5,434	69	494	32,123	204,576
6/16	21	32	24	407	53,527	348,207	0	0	1,577	3,202	93	655	55,221	352,471
6/17	Cooperative												0	0
6/18	Cooperative												0	0
6/19	Cooperative												0	0
6/20	Cooperative												0	0
6/21	Cooperative												0	0
6/22	Cooperative												0	0
6/23	Cooperative												0	0
6/24	17	23	45	748	24,721	161,358	0	0	1,819	4,588	767	5,356	27,352	172,050
6/25	15	18	10	151	7,329	48,011	0	0	1,007	2,512	195	1,370	8,541	52,044
6/26	Closed												0	0
6/27	Closed												0	0
6/28	Cooperative												0	0
6/29	Cooperative												0	0
6/30	Cooperative												0	0
7/1	Cooperative												0	0
7/2	Cooperative												0	0
7/3	Cooperative												0	0
Early-run total[a]			96	1,613	240,064	1,583,299	0	0	7,215	17,762	1,193	8,361	248,568	1,611,035

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Table 11.–(page 2 of 3)

	Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
Date	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
7/4	16	17	62	1,093	7,321	48,265	8	49	1,244	3,605	124	870	8,759	53,882
7/5	21	21	329	3,839	12,477	78,249	203	1,214	12,197	24,880	1,730	12,120	26,936	120,302
7/6	13	13	84	811	11,823	77,353	3,343	22,451	10,847	26,002	479	3,355	26,576	129,972
7/7	8	8	31	359	10,113	68,286	959	6,027	5,015	15,062	151	1,064	16,269	90,798
7/8	11	11	191	1,435	6,259	42,052	1,624	11,324	7,373	18,612	509	3,578	15,956	77,001
7/9	Cooperative												0	0
7/10	Cooperative												0	0
7/11	Cooperative												0	0
7/12	Cooperative												0	0
7/13	Cooperative												0	0
7/14	Cooperative												0	0
7/15	20	21	52	1,228	26,778	175,877	188	1,484	30,412	93,599	971	7,761	58,401	279,949
7/16	21	28	35	705	27,963	192,338	136	1,018	20,286	66,507	548	4,222	48,968	264,790
7/17	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/18	Cooperative												0	0
7/19	Cooperative												0	0
7/20	Cooperative												0	0
7/21	Cooperative												0	0
7/22	Cooperative												0	0
7/23	Cooperative												0	0
7/24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/25	21	23	12	331	10,663	71,757	158	1,191	29,473	92,360	744	5,807	41,050	171,446
7/26	10	10	0	0	1,017	6,629	0	0	940	2,794	7	54	1,964	9,477
7/27	Cooperative												0	0
7/28	Cooperative												0	0
7/29	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/31	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/1	12	12	2	55	1,437	9,423	11	65	5,657	21,777	52	293	7,159	31,613
8/2	19	22	6	116	4,426	29,083	133	1,010	17,563	61,268	559	4,389	22,687	95,866

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Table 11.–(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
8/3													0	0
8/4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/6	4	4	0	0	837	5,144	0	0	792	3,014	33	230	1,662	8,388
8/7	Closed												0	0
8/8	Closed												0	0
8/9	Closed												0	0
8/10	Closed												0	0
8/11	Closed												0	0
8/12	Closed												0	0
8/13	Closed												0	0
8/14	Closed												0	0
8/15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Late-run Total			804	9,972	121,114	804,456	6,763	45,833	141,799	429,480	5,907	43,743	276,387	1,333,484
Season Total			**900**	**11,585**	**361,178**	**2,387,755**	**6,763**	**45,833**	**149,014**	**447,242**	**7,100**	**52,104**	**524,955**	**2,944,519**

[a] Sockeye salmon harvested through July 3 are considered early-run because of an estimated one-day travel time between the commercial fishery in Chignik Lagoon and the Chignik weir. Sockeye salmon escapements through July 4 are considered early-run.

Table 12.–Chignik sockeye salmon allocations and actual harvests, by fleet, 2002 through 2005.

		Percentage			Number of Sockeye Salmon		
Year	Fleet	Allocation	Actual	Difference	Allocation	Actual	Difference
2002	Cooperative	69.3	69.3	-0.03	721,726	721,428	-298
	Competitive	30.7	30.7	0.03	319,726	320,024	298
	Total	100.0	100.0		1,041,452	1,041,452	
2003	Cooperative	69.3	69.4	0.09	756,967	757,974	1,007
	Competitive	30.7	30.6	-0.09	335,337	334,330	-1,007
	Total	100.0	100.0		1,092,304	1,092,304	
2004	Cooperative	87.0	86.6	-0.37	607,898	605,288	-2,610
	Competitive	13.0	13.4	0.37	90,835	93,445	2,610
	Total	100.0	100.0		698,733	698,733	
2005	Cooperative	68.4	68.4	0.01	782,075	782,206	131
	Competitive	31.6	31.6	-0.01	361,309	361,178	-131
	Total	100.0	100.0		1,143,384	1,143,384	

Table 13.–Chignik total run data, including commercial harvest, home pack, the ADF&G's test fisheries harvests, the Cape Igvak and the SEDM allocated harvests, by run, 1960 through 2005.

	Early Run			Late Run			Total Run [abc]		
Year	Esc.	Catch	Run	Esc.	Catch	Run	Esc.	Catch	Run
1960	251,567	274,048	525,615	357,230	418,356	775,586	608,797	692,404	1,301,201
1961	140,714	53,852	194,566	254,970	278,609	533,579	395,684	332,461	728,145
1962	167,602	71,562	239,164	324,860	292,528	617,388	492,462	364,090	856,552
1963	332,536	80,258	412,794	200,314	323,080	523,394	532,850	403,338	936,188
1964	137,073	142,380	279,453	166,625	472,510	639,135	303,698	614,890	918,588
1965	307,192	497,018	804,210	163,151	169,576	332,727	470,343	666,594	1,136,937
1966	383,545	87,169	470,714	183,525	162,638	346,163	567,070	249,807	816,877
1967	328,000	154,134	482,134	189,000	350,901	539,901	517,000	505,035	1,022,035
1968	342,343	542,598	884,941	244,836	641,693	886,529	587,179	1,184,291	1,771,470
1969	366,589	263,170	629,759	132,055	235,960	368,015	498,644	499,130	997,774
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	[d] 538,462	610,488	1,148,950	243,729	355,195	598,924	782,191	965,683	1,747,874
1974	364,603	204,722	569,325	313,343	648,283	961,626	677,946	853,005	1,530,951
1975	319,890	7,873	327,763	257,508	417,560	675,068	577,398	425,433	1,002,831
1976	548,953	599,341	1,148,293	281,810	727,043	1,008,854	830,763	1,326,384	2,157,147
1977	364,557	534,198	898,755	328,916	1,602,363	1,931,278	693,473	2,136,561	2,830,034
1978	419,732	940,188	1,359,919	262,815	885,173	1,147,988	682,547	1,825,361	2,507,908
1979	491,467	186,537	678,004	246,349	933,788	1,180,137	737,816	1,120,325	1,858,141
1980	369,580	73,742	443,322	294,481	849,980	1,144,461	664,061	923,722	1,587,783
1981	570,210	800,364	1,370,573	261,239	1,444,365	1,705,605	831,449	2,244,729	3,076,178
1982	616,117	1,325,041	1,941,158	305,193	451,789	756,982	921,310	1,776,830	2,698,140
1983	426,178	1,128,246	1,554,423	428,034	1,241,369	1,669,404	854,212	2,369,615	3,223,827
1984	597,713	2,919,984	3,517,697	267,861	613,075	880,936	865,574	3,533,059	4,398,633
1985	373,040	654,756	1,027,796	372,798	442,443	815,241	745,838	1,097,199	1,843,037
1986	557,772	1,364,295	1,922,067	215,547	587,561	803,108	773,319	1,951,856	2,725,175
1987	589,299	1,946,938	2,536,237	214,444	419,992	634,436	803,743	2,366,931	3,170,674
1988	420,580	272,074	692,654	255,177	554,304	809,481	675,757	826,379	1,502,136
1989	384,001	234,237	618,238	557,174	929,535	1,486,709	941,175	1,163,772	2,104,947
1990	434,550	582,520	1,017,070	335,860	1,747,435	2,083,295	770,410	2,329,955	3,100,365
1991	662,660	1,711,683	2,374,343	377,438	661,025	1,038,463	1,040,098	2,372,708	3,412,806
1992	360,681	746,341	1,107,022	403,755	777,311	1,181,066	764,436	1,523,652	2,288,088
1993	364,261	926,892	1,291,154	333,116	1,199,050	1,532,166	697,377	2,125,942	2,823,319
1994	769,465	1,595,176	2,364,641	197,444	416,377	613,821	966,909	2,011,553	2,978,462
1995	366,495	666,800	1,033,295	373,425	1,315,862	1,689,287	739,920	1,982,662	2,722,582
1996	464,748	1,688,224	2,152,972	284,389	705,657	990,046	749,137	2,393,881	3,143,018
1997	396,668	234,492	631,160	378,950	535,191	914,141	775,618	769,683	1,545,301
1998	410,659	313,027	723,686	290,469	816,851	1,107,320	701,128	1,129,878	1,831,006
1999	457,424	2,022,354	2,479,777	258,542	1,723,915	1,982,458	715,966	3,746,269	4,462,235
2000	[e] 536,141	1,575,855	2,111,996	269,084	575,597	844,681	805,225	2,151,452	2,956,677
2001	744,013	563,076	1,307,089	392,905	1,214,403	1,607,308	1,136,918	1,777,479	2,914,397

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Table 13.-(page 2 of 2)

	Early Run			Late Run			Total Run [abc]		
Year	Esc.	Catch	Run	Esc.	Catch	Run	Esc.	Catch	Run
2002	380,701	684,715	1,065,416	344,502	565,339	909,841	725,203	1,250,054	1,975,257
2003	349,673	640,048	989,721	262,316	652,107	914,423	611,989	1,292,155	1,904,144
2004	363,800	727,975	1,091,775	214,459	192,465	406,924	578,259	920,441	1,498,700
2005	355,091	1,109,881	1,464,972	226,291	486,450	712,741	581,382	1,596,331	2,177,713
Averages									
1982-01	496,623	1,123,601	1,620,224	325,580	846,437	1,172,017	822,204	1,970,038	2,792,241
1992-01	487,055	1,033,224	1,520,279	318,208	928,021	1,246,229	805,263	1,961,245	2,766,508
2002-04	364,725	684,246	1,048,971	273,759	469,970	743,729	638,484	1,154,217	1,792,700

[a] Includes 80% of the catches for the entire season from Cape Igvak and SEDM for years between 1954-1972 and 1982. From 1973 to 2001, includes 80% of the catch from Cape Igvak and most of SEDM through July 25. In 2002 includes 90% of catch from Cape Igvak and 80% of most of the SEDM through July 25.

[b] Does not include subsistence-caught fish. Does not include fish retained for personal use prior to 2002.

[c] Includes catches from the Chignik Lagoon test fishery.

[d] Escapement, catch, and total run for Black Lake and Chignik Lake were recalculated in 2001 for all years between 1973-1999, excluding 1982, where stock separation data were not available. The 2001 recalculations used stock separation percentages, daily weir counts, and updated fish ticket catch information, including 80% of the Cape Igvak and most of SEDM harvest through July 25. These numbers supersede any previously published numbers. Numbers could not be recalculated for years prior to 1973 because data were not available.

[e] Approximately 200,000 additional sockeye salmon were observed during aerial surveys of Black Lake tributaries. These fish were not included in these estimates.

Table 14.–Value, by species, and average value per active permit, in dollars, in the Chignik Management Area, 1970 through 2005.

	Chinook		Sockeye		Coho		Pink		Chum			Number of	Value per
Year	Total	Average	Total	Average	Total	Average	Total	Average	Total	Average	Total Value	Permits	Permit
1970	6,129	89	2,190,272	31,743	18,397	267	635,673	9,213	376,025	5,450	3,226,496	69	46,761
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	28	825,498	11,308	35,699	489	48,401	663	87,759	1,202	999,385	79	12,650
1973	5,255	72	3,030,057	41,508	73,663	1,009	20,610	282	10,180	139	3,139,765	77	40,776
1974	2,941	32	3,618,781	39,767	31,933	351	64,069	704	51,125	562	3,768,849	94	40,094
1975	6,561	76	1,384,271	16,240	213,539	2,581	104,115	12,211	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	212	14,553,720	163,525	104,819	1,178	920,881	10,347	368,066	4,136	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	317	11,345,503	112,332	710,192	7,031	2,622,269	25,963	126,866	1,256	14,836,880	101	146,900
1980	67,657	670	5,532,290	54,775	520,655	5,155	1,477,060	14,624	1,061,963	10,514	8,659,625	101	85,739
1981	75,231	730	17,262,119	167,593	439,900	4,271	1,881,334	18,265	2,431,421	23,606	22,090,005	103	214,466
1982	75,276	717	13,038,510	124,176	1,782,027	16,972	578,184	5,506	1,356,597	12,920	16,830,594	105	160,291
1983	96,159	962	10,728,088	107,281	219,650	2,197	240,171	2,402	421,713	4,217	11,705,781	100	117,058
1984	114,502	1,134	20,402,076	202,000	759,972	7,525	330,916	3,276	146,024	1,446	21,753,490	101	215,381
1985	67,088	664	7,997,834	79,186	1,471,418	14,568	140,076	1,387	59,475	589	8,735,891	101	86,494
1986	84,800	848	16,882,290	168,823	667,740	6,677	356,147	3,562	456,546	4,565	18,447,523	100	184,475
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	102	259,810
1988	286,740	2,811	14,350,354	140,690	4,153,424	40,720	6,771,266	66,385	2,189,293	21,464	27,751,077	102	272,069
1989	78,999	790	13,047,378	130,474	436,892	4,369	32,994	3,299	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	486	11,002,784	106,823	650,626	6,317	402,916	3,912	502,860	4,882	12,609,213	101	124,844
1992	193,326	1,858	12,552,025	120,693	1,323,107	12,722	811,882	7,807	414,005	3,981	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	2,208	430,888	4,352	11,836,148	99	119,557
1995	60,174	602	11,969,210	119,692	834,337	8,343	977,811	9,778	634,780	6,348	14,476,312	100	144,763
1996	25,041	250	12,640,560	126,406	447,228	4,472	24,827	248	32,279	323	13,169,935	100	131,699
1997	20,642	211	4,860,589	49,598	453,905	4,632	348,042	3,551	239,400	2,443	5,922,577	98	60,434
1998	31,934	376	6,631,192	78,014	397,413	4,675	310,323	3,651	137,647	1,619	7,508,509	85	88,335
1999	27,212	299	21,132,550	232,226	170,931	1,878	578,861	6,361	118,547	1,303	22,028,101	91	242,067

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Table 14.-(page 2 of 2)

Year	Chinook Total	Chinook Average	Sockeye Total	Sockeye Average	Coho Total	Coho Average	Pink Total	Pink Average	Chum Total	Chum Average	Total Value	Number of Permits	Value per Permit
2000	16,336	165	11,812,368	119,317	283,061	2,859	106,470	1,075	93,030	940	12,311,264	99	124,356
2001	12,205	133	7,419,339	80,645	263,160	2,860	366,714	3,986	209,239	2,274	8,270,657	92	89,898
2002	3,516	36	4,564,214	46,103	36,078	364	10,333	104	40,671	411	4,654,812	99	47,018
2003	25,291	250	5,365,014	53,119	128,663	1,274	156,285	1,547	62,709	621	5,737,962	101	56,812
2004	26,191	262	3,568,350	35,684	59	1	835	8	647	6	3,596,082	100	35,961
2005	36,060	377	6,314,036	64,429	11,280	115	55,070	562	10,917	111	6,427,363	98	65,585
Averages													
1982-91	111,159	1,095	15,474,227	152,294	1,187,719	11,633	962,523	9,733	635,558	6,213	18,271,186	101	180,175
1992-01	60,066	600	10,727,418	110,856	599,818	6,066	438,910	4,492	249,383	2,539	12,075,594	97	124,997
2002-04	18,333	183	4,499,193	44,969	54,933	546	55,818	553	34,676	346	4,662,952	100	46,597

These values incorporate the initial average price paid, and do not include any post-season adjustments by any processor. The 2005 average exvessel prices per pound were:

Chinook	$0.62
Sockeye	$0.88
Coho	$0.21
Pink	$0.11
Chum	$0.18

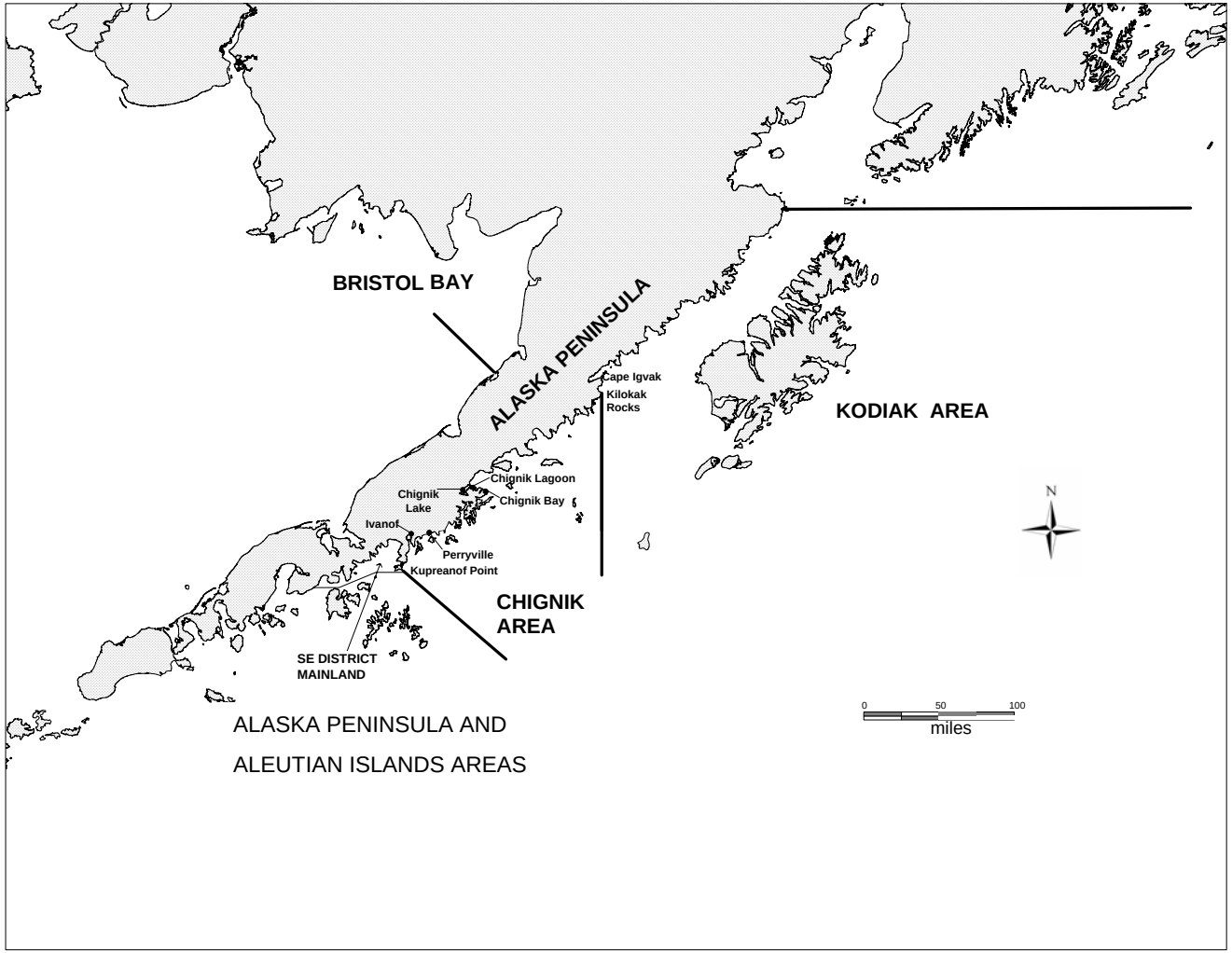

Figure 1.–Map of the Alaska Peninsula illustrating the relative locations of the Chignik, Kodiak, and Alaska Peninsula and Aleutian Islands Management Areas.

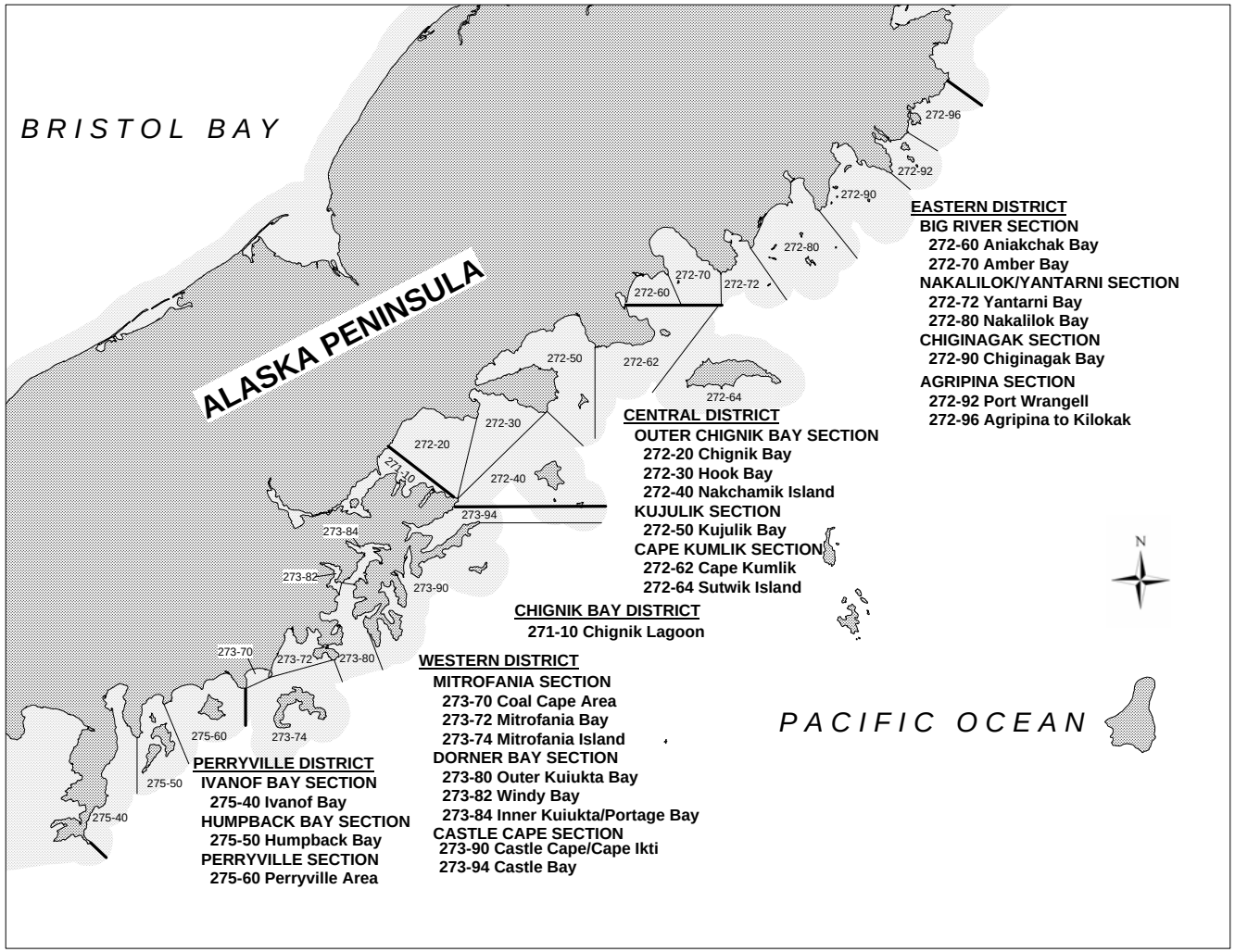

Figure 2.–Map of the Chignik Management Area illustrating district boundaries and statistical areas.

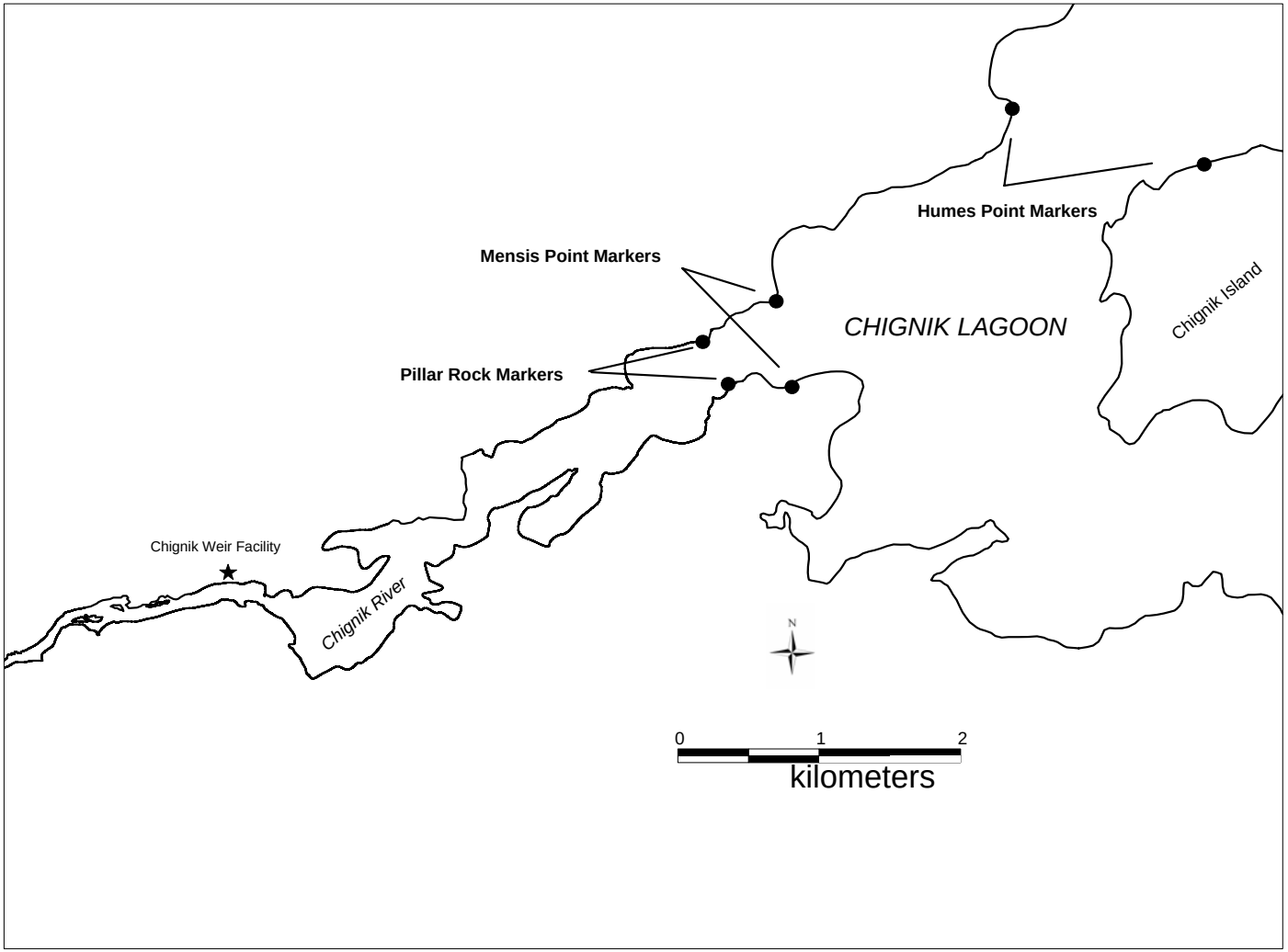

Figure 3.–Map of upper Chignik Lagoon showing the location of the Pillar Rock, Mensis Point, and Humes Point marker locations.

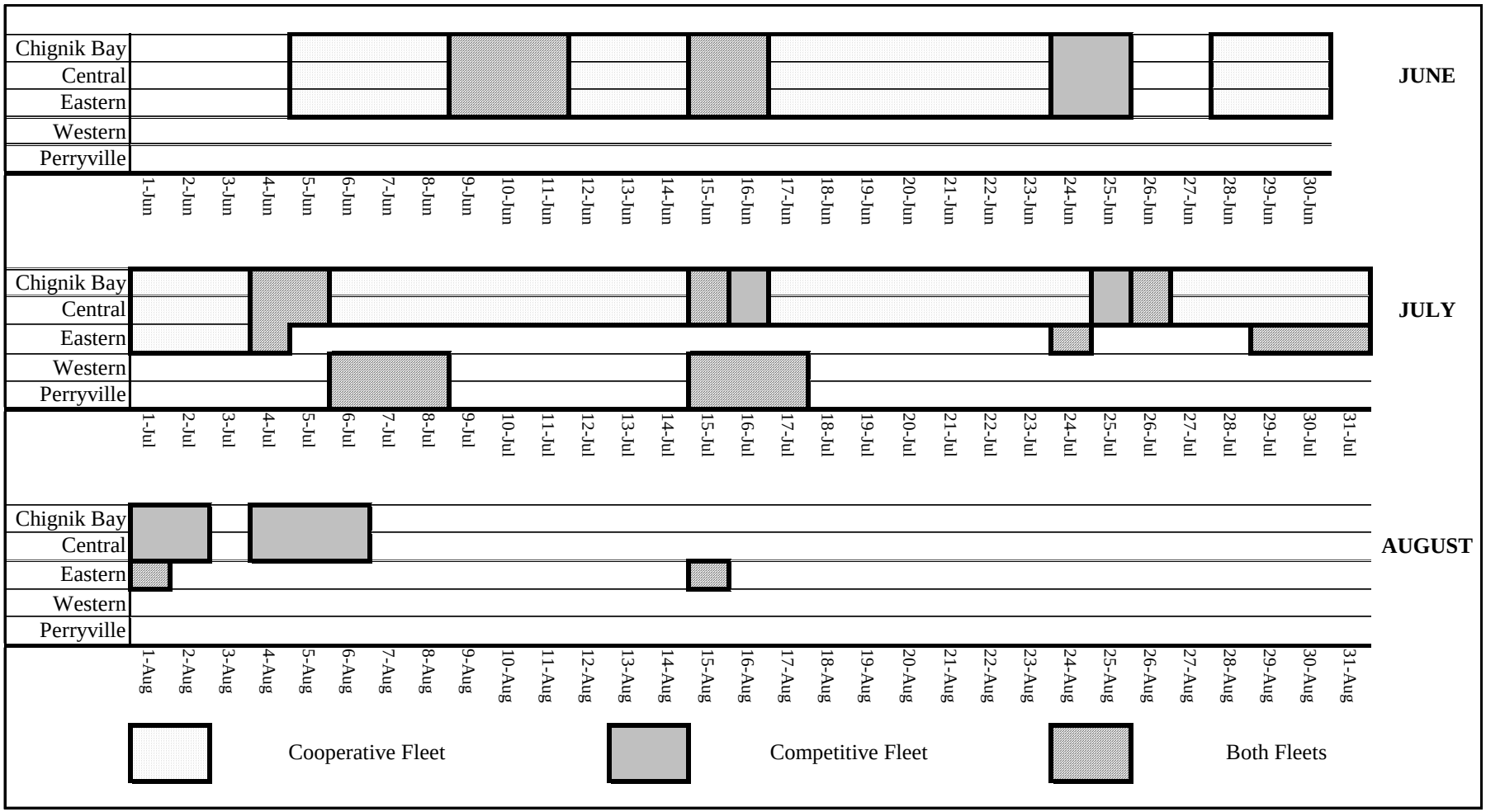

Figure 4.–Representation of days open to commercial salmon fishing, by district and fleet, for June, July, and August, 2005.

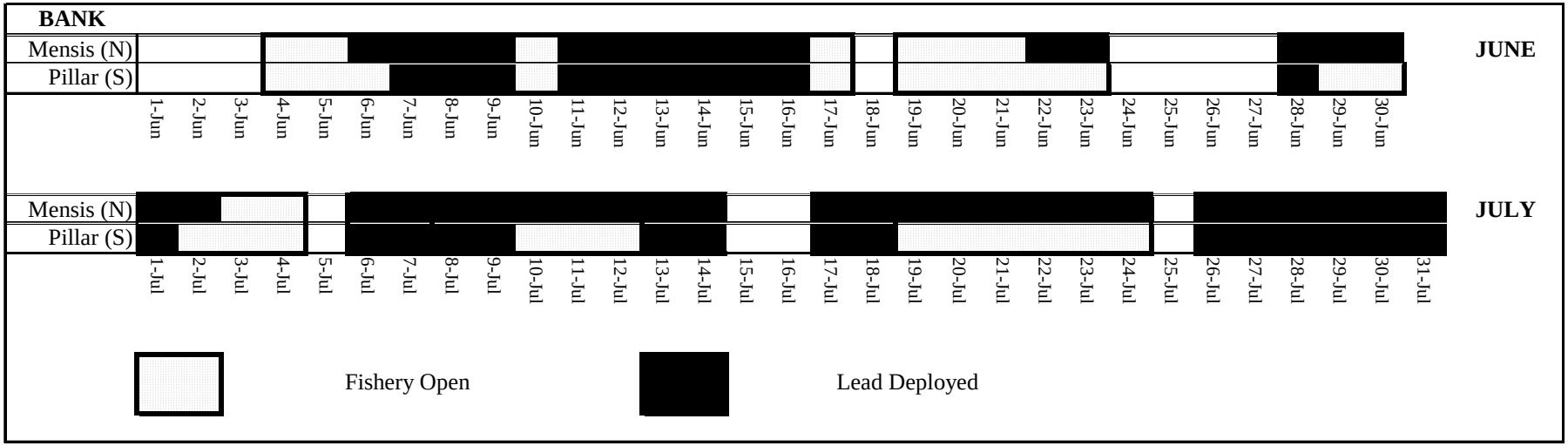

Figure 5.–Representation of fixed-leads use by the cooperative fleet, by day, during June and July, 2005. The cooperative fleet was not allowed any commercial salmon fishing time in the Chignik Bay District in August.

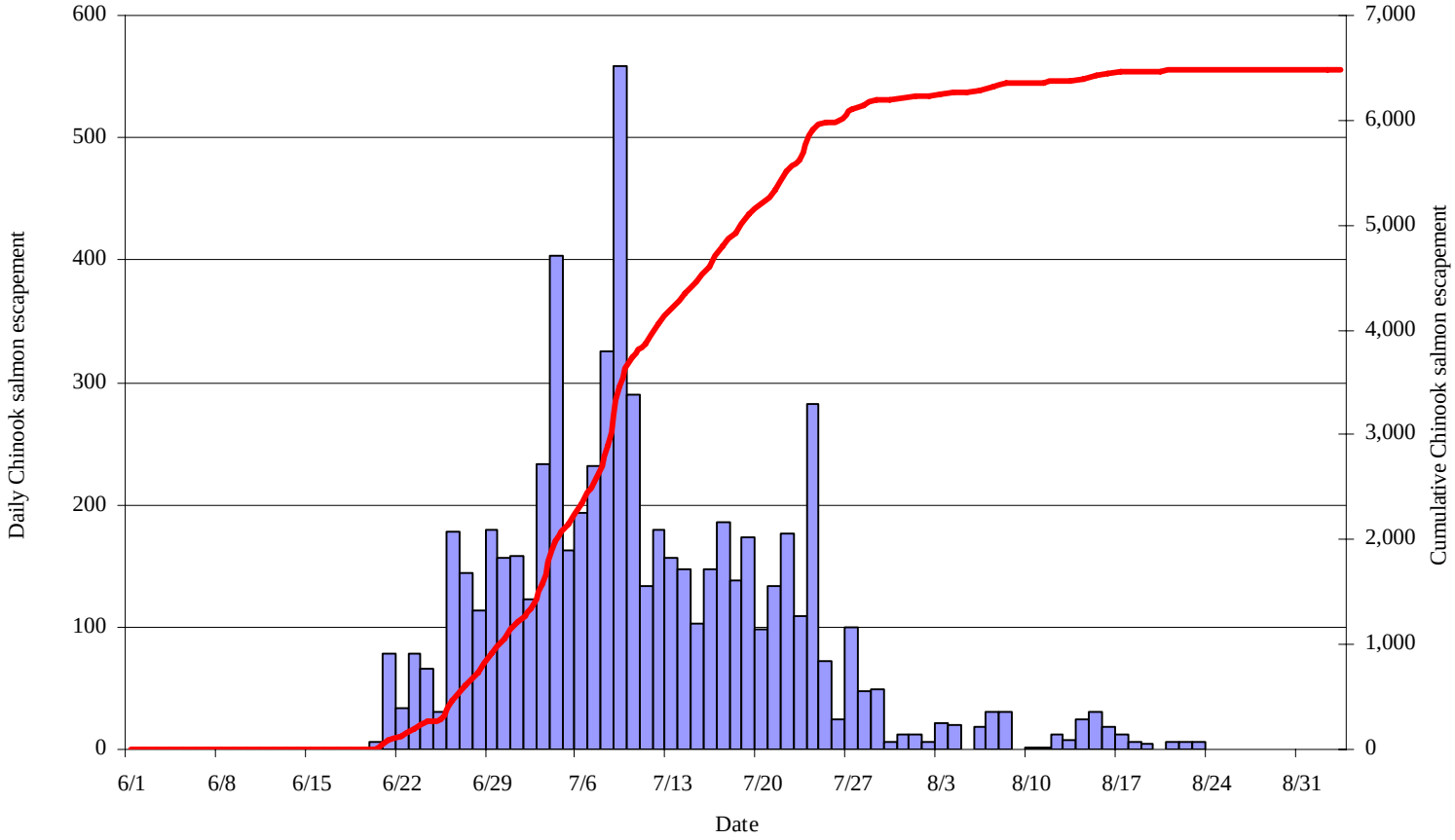

Figure 6.–Chignik River estimated daily and cumulative Chinook salmon escapement, 2005.

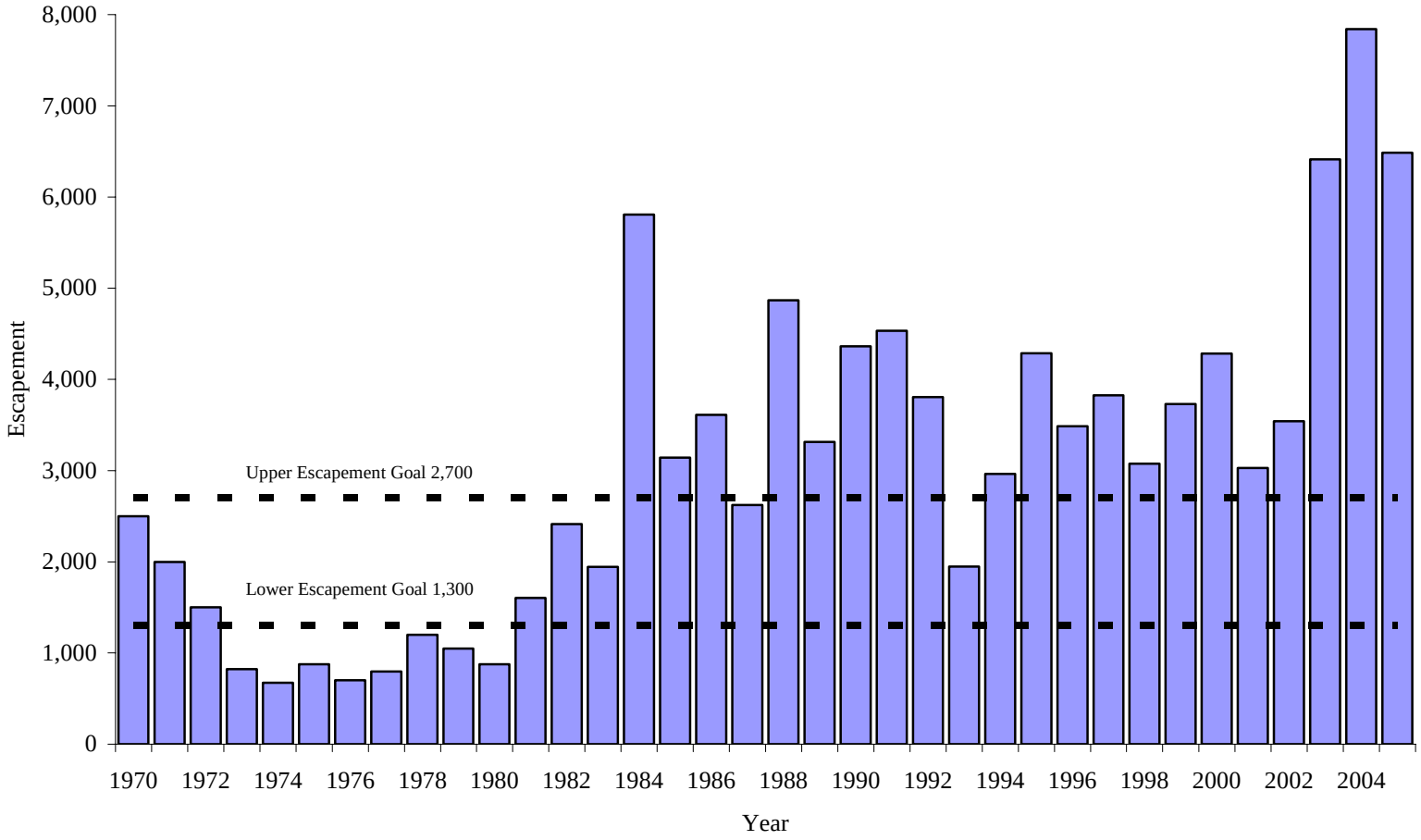

Figure 7.–Chignik River Chinook salmon escapement, by year, 1970 through 2005.

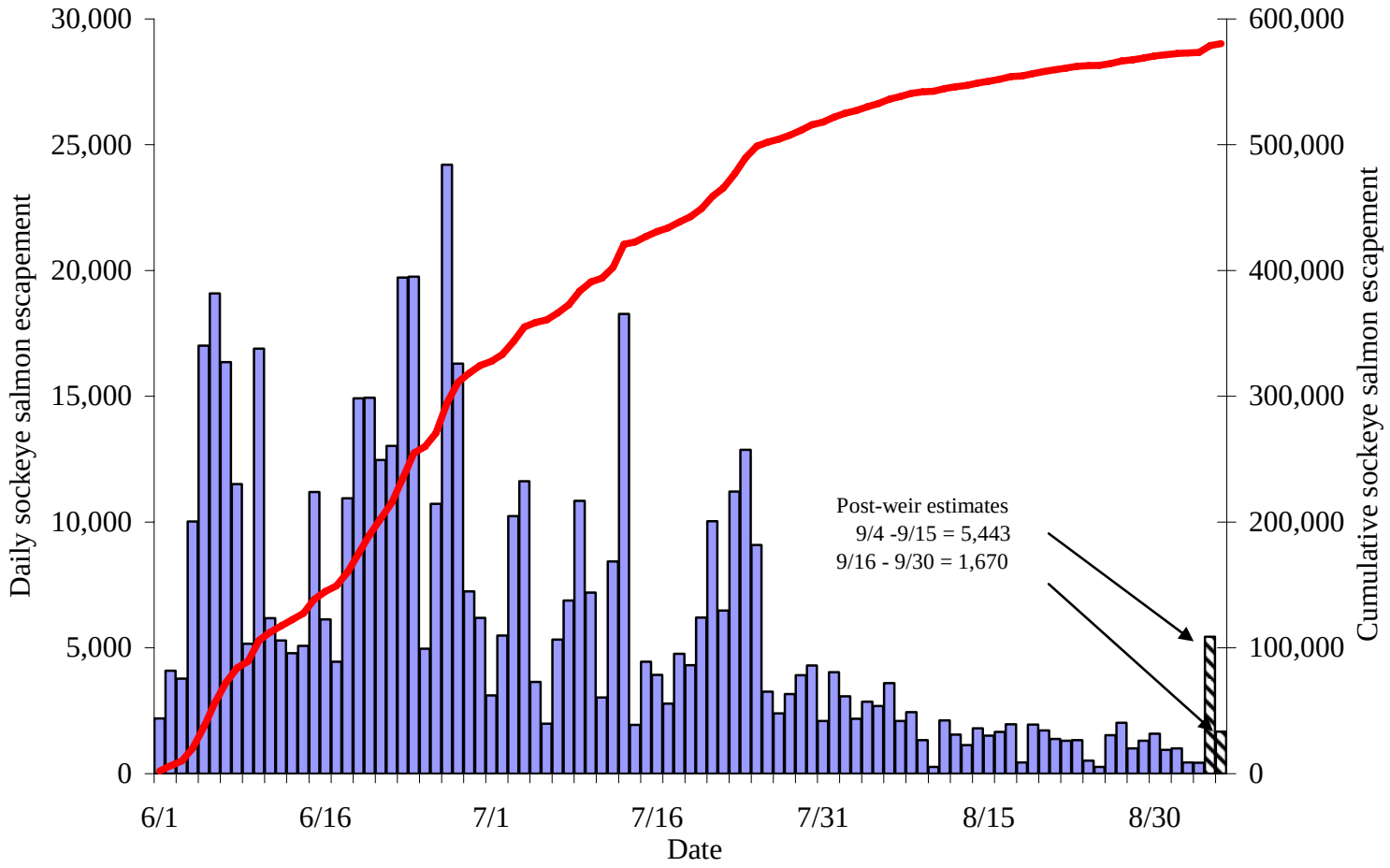

Figure 8.–Chignik River sockeye salmon daily and cumulative escapement, including post-weir estimates, 2005.

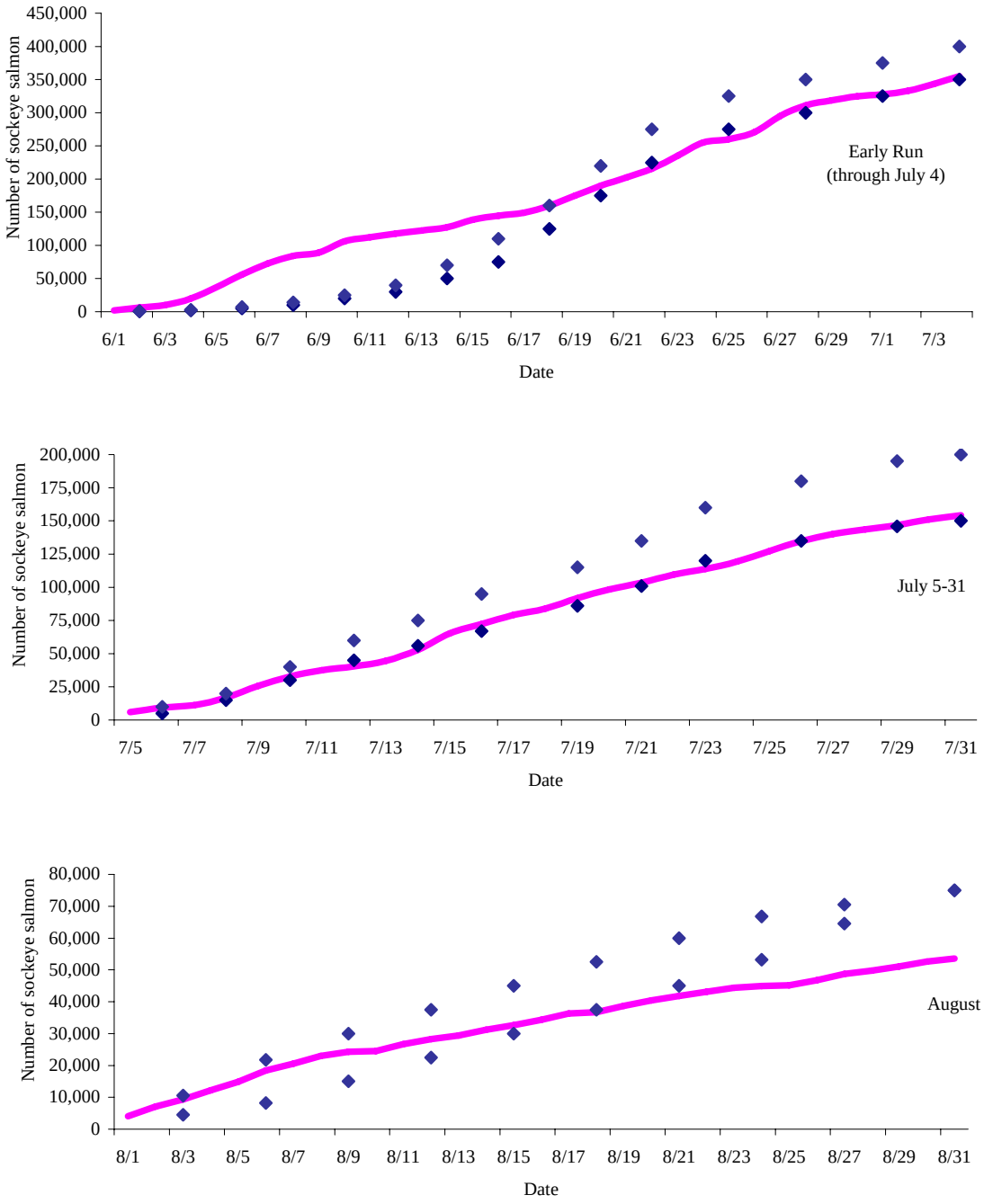

Figure 9.–Cumulative Chignik River sockeye salmon escapement, by day (solid lines), as compared to interim escapement objectives (points), 2005.

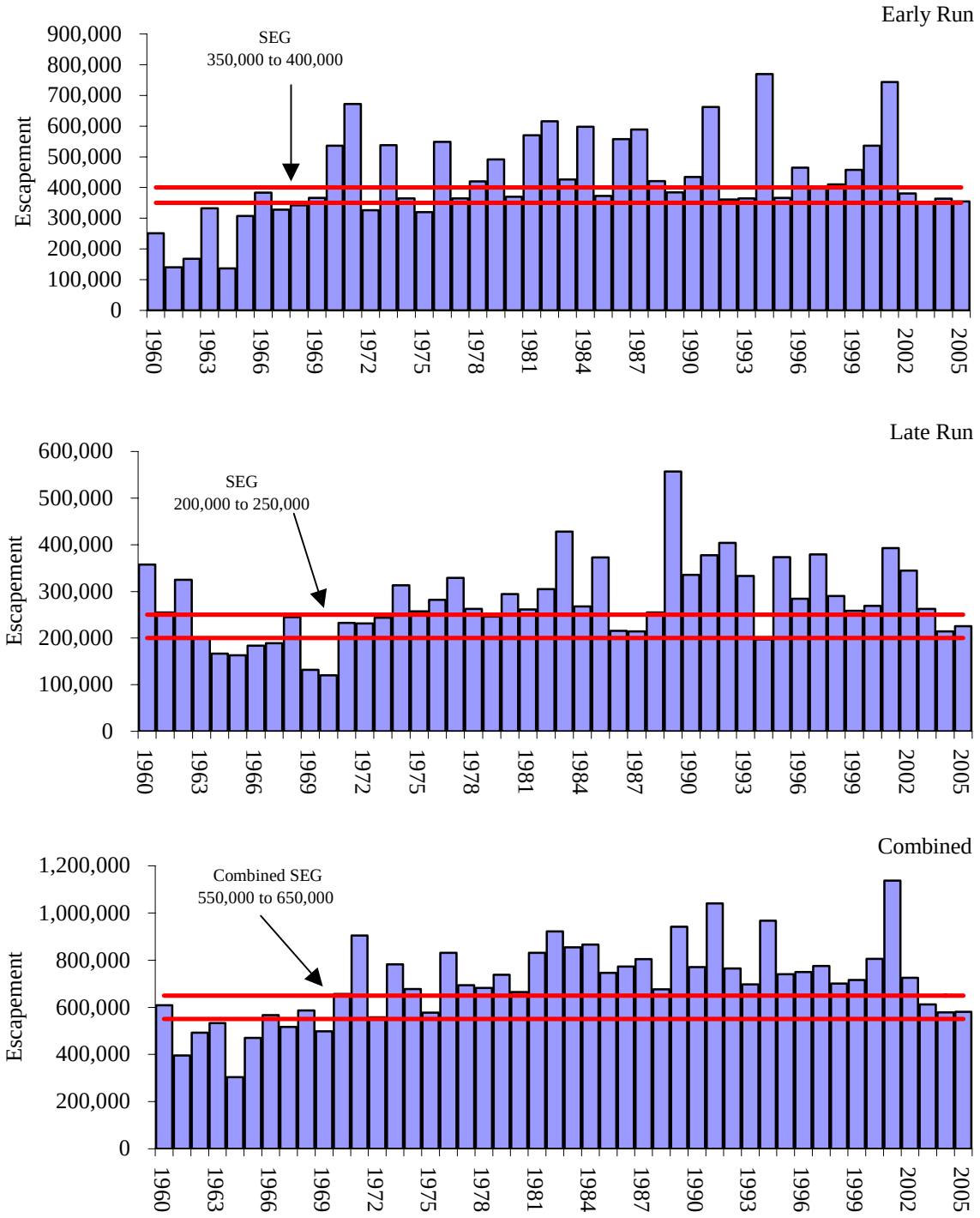

Figure 10.–Chignik River early run, late run, and combined run sockeye salmon escapements , as compared to current SEGs, 1960 through 2005.

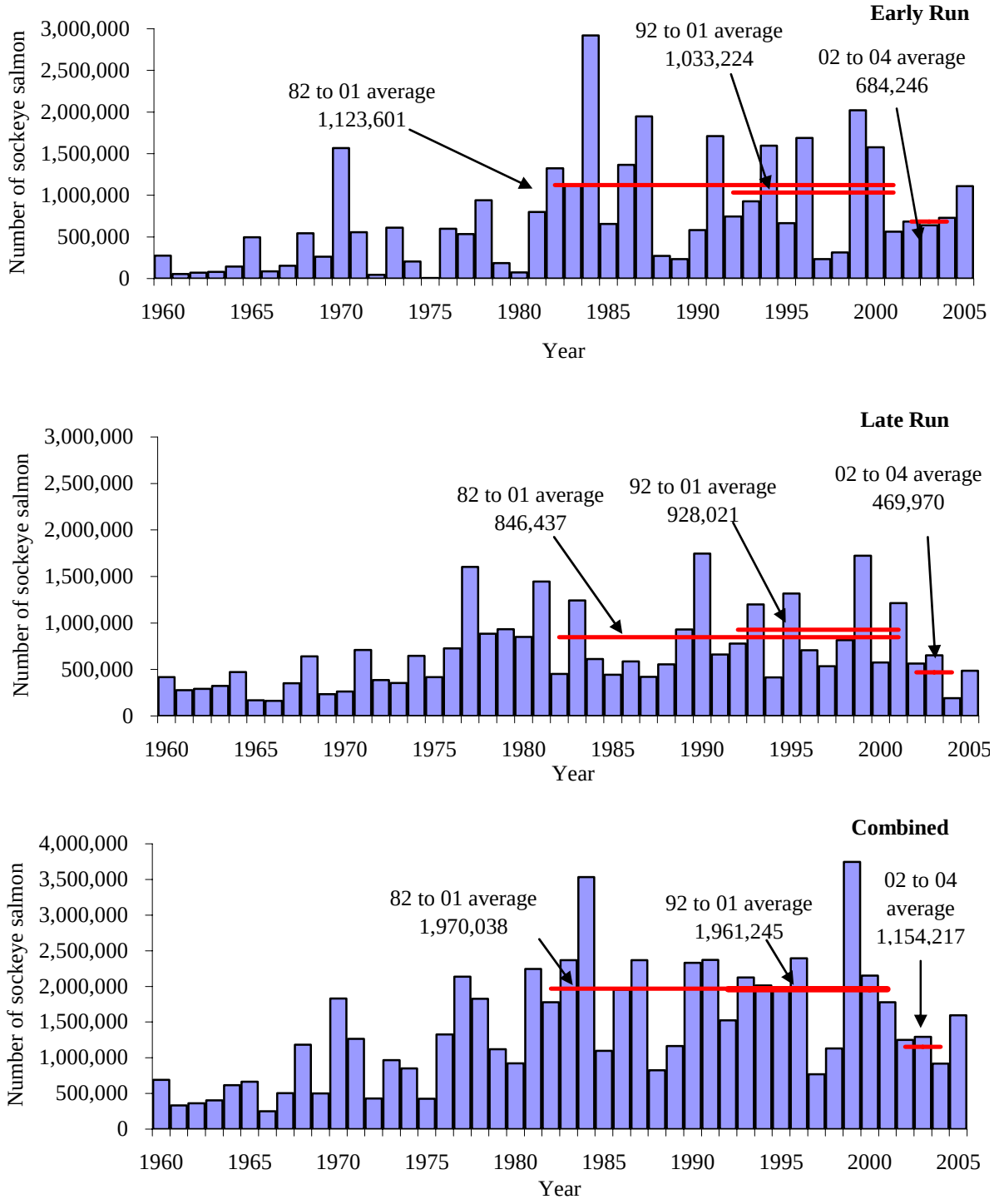

Figure 11.–Total sockeye salmon catch considered Chignik-bound including home pack, the ADF&G's test fishery harvest, and Cape Igvak and SEDM allocations, by year and run, 1960 through 2005.

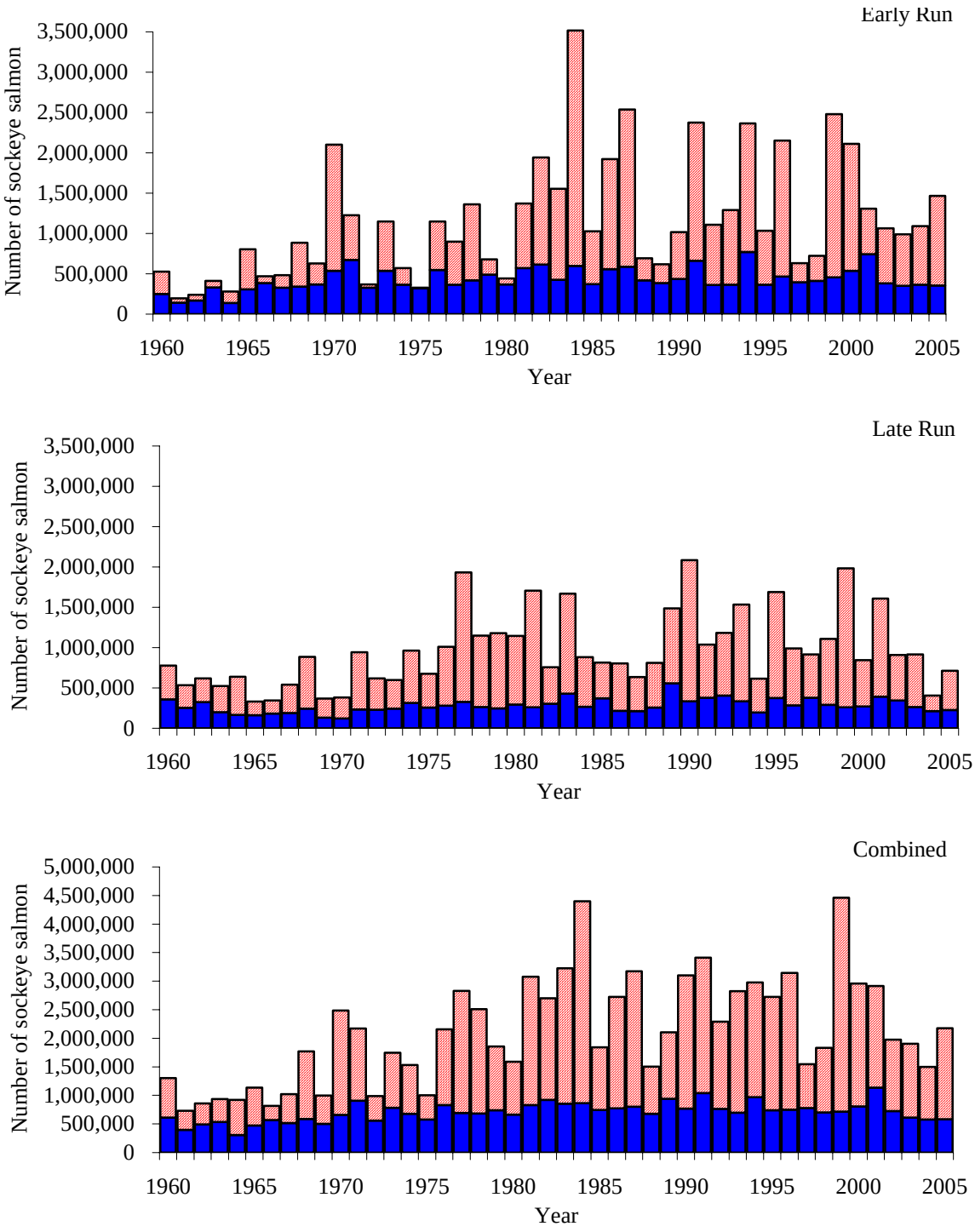

Figure 12.–Total sockeye salmon escapement (solid bars) and catch considered Chignik-bound including home pack, the ADF&G's test fishery harvest, and Cape Igvak and SEDM allocations (striped bars), by year and run, 1960 through 2005.

APPENDIX A: COMMISSIONER'S PERMITS

Appendix A1.-Cooperative Commissioner's permit, 2005.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME
DIVISION OF COMMERCIAL FISHERIES

FRANK MURKOWSKI, GOVERNOR

211 Mission Road
Kodiak, AK 99615
PHONE: (907) 486-1825
FAX: (907) 486-1841
Or
Chignik Weir
PO 40 Chignik Lake, AK 99548
PHONE: (907) 845-2243
FAX: (907) 845-2235

2005 CHIGNIK MANAGEMENT AREA COOPERATIVE SALMON FISHERY PERMIT

In accordance with 5 AAC 15.358, CHIGNIK AREA COOPERATIVE SALMON FISHERY MANAGEMENT PLAN**,** Chignik Management Area CFEC permit holders who intend to form an annual cooperative fishery must apply for a permit issued from the commissioner or the commissioner's designee.

By completing this form, the applicant indicates intent to form and operate a purse seine salmon cooperative fishery in the Chignik Management Area during 2005.

In addition to the provisions of 5 AAC 15.358, and current commercial salmon fishing regulations, the Cooperative agrees to the following permit terms and conditions:

Permit is valid from 12:01 AM June 1, to MIDNIGHT October 31, 2005.

A CFEC permit holder who registers as a member of the 2005 Chignik purse seine salmon cooperative fishery may not participate in any other commercial salmon net registration area as either a permit holder or crew member from June 1, 2005 through August 31, 2005 (5 AAC 15.358 (b)(7)(A)). Multiple salmon-permit holders must register for the Chignik Area (L) as their single area for commercial salmon fishing in 2005 (5 AAC 15.358 (b)(7)(B)).

A CFEC permit holder who registers as a member of the 2005 Chignik purse seine salmon cooperative fishery may only commercially salmon fish as part of the Chignik cooperative fleet and only during commercial fisheries that are open to the Chignik cooperative fleet.

At least one cooperative fleet CFEC permit holder (member) must be on board each purse seine vessel while fishing and delivering fish. Each member who will harvest fish for the cooperative must complete and submit a 2005 Vessel Operator Registration for the Chignik Management Area Cooperative Salmon Fishery.

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This cooperative fishery permit is subject to reconsideration and possible revocation if a distribution/patronage plan other than pro rata shares is adopted by the cooperative. A total of 76 CFEC Chignik Management Area permit holders registered to join the Chignik Area cooperative purse seine fleet for the 2005 season. By regulation (5 AAC 15.358 (d)(1)), each permit will add nine-tenths of one percent of the harvestable sockeye salmon surplus for each participant in the cooperative. The Chignik Area cooperative purse seine fleet will be allocated the harvest opportunity to take 76.77% of the total sockeye salmon harvest (there are a total of 99 Chignik CFEC salmon permits) during the 2005 Chignik Management Area commercial salmon fishing season.

Allocation of fishing opportunity between the cooperative and competitive fleets will be at the discretion of the department and will be secondary to escapement requirements or conservation concerns.

The Chignik Seafood Processors Alliance is responsible for the actions of contractors, agents, or other persons who perform work to accomplish the goals of the Cooperative Fishery Management Plan, 5 AAC 15.358. The permittee shall notify ADF&G, Division of Commercial Fisheries, and obtain written approval in the form of a permit amendment before beginning any activity that significantly deviates from the approved plan and permits. Any action taken by the permittee or an agent of the permittee that increases the permit overall scope or that negates, alters, or minimizes the intent or effectiveness of any stipulation contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of ADF&G. Therefore, it is recommended that ADF&G, Division of Commercial Fisheries, be consulted immediately when a deviation from the approved plan is being considered.

This permit does not relieve the Chignik Seafood Processors Alliance, their contractors, agents, or other persons who perform their work from the responsibility for securing other permits that may be required, including local government, state, or federal permits.

This form must be completed, signed and returned prior to beginning cooperative fishing activities.

The attached list of 76 CFEC Chignik Area salmon permit holders (as of 5:00 PM May 16, 2005) have registered to join and form a cooperative that will participate in the Chignik Area commercial salmon purse seine fishery in 2005.

Cooperative Name: Chignik Seafood Processors Alliance (CSPA)

Cooperative Operator: Axel Kopun, President CSPA

Address:	Summer: P.O. Box 30	Winter: PO Box 773173
	Chignik Bay, AK 99564	Eagle River, AK 99577
	phone: (907) 749-2204	phone: (907) 622-6226

-continued-

CHIGNIK SEAFOOD PRODUCERS ALLIANCE DATE

ADF&G REPRESENTATIVE DATE

Processor(s) the cooperative will sell harvested salmon to (if known):

Return completed form to: Alaska Department of Fish and Game
Division of Commercial Fisheries
Kenneth A. Bouwens
211 Mission Road
Kodiak, AK 99615

CSPA MEMBERSHIP LIST AS OF MAY 16, 2005

Permit Holder Name:	Permit Number:	Interim/Permanent:
1) Christine Alexander	SO1L 59000W	Permanent
2) Aaron Anderson	SO1L 56203U	Permanent
3) David Anderson	SO1L 56415U	Permanent
4) Dean Anderson	SO1L 60114M	Permanent
5) Gene Anderson	SO1L 60601G	Permanent
6) George Anderson	SO1L 57133E	Permanent
7) Gary Anderson	SO1L 57501K	Permanent
8) Julius Anderson Jr	SO1L 55433H	Permanent
9) Malcolm Brown	SO1L 55938M	Permanent
10) Don Bumpus	SO1L 61910L	Permanent
11) Allen Burkhard	SO1L 56935J	Permanent
12) Katie Butler	SO1L 57695S	Permanent
13) Robert Cameron	SO1L 58603C	Permanent
14) Carl Carlson	SO1L 56192Z	Permanent
15) Gene Carlson	SO1L 55520P	Permanent
16) Roderick Carlson	SO1L 57704F	Permanent
17) Johnny Constantine	SO1L 57808I	Permanent
18) Clarence Erickson	SO1L 56512B	Permanent
19) Raymond Erickson	SO1L 62210Z	Permanent
20) Timothy Gervais	SO1L 58077F	Permanent

-continued-

21)	Tony Gregorio	SO1L 58848X	Permanent
22)	Randy Hansen	SO1L 55954N	Permanent
23)	Arne Hatch	SO1L 60183F	Permanent
24)	Raechel Hinderer	SO1L 57376O	Permanent
25)	Wally Hinderer	SO1L 57085S	Permanent
26)	David Horn	SO1L 55399O	Permanent
27)	Archie Kalmakoff	SO1L 55361H	Permanent
28)	Joe Kalmakoff	SO1L 60614G	Permanent
29)	Frank Kashevarof Jr	SO1L 57487N	Permanent
30)	Aloys Kopun Jr	SO1L 57863I	Permanent
31)	Axel Kopun	SO1L 57612J	Permanent
32)	Patrick Kosbruk	SO1L 58206U	Permanent
33)	Harry Kosbruk	SO1L 56726L	Permanent
34)	Ivan Kosbruk	SO1L 50116R	Interim
(emergency transfer from the estate of Ignatius Kosbruk)			
35)	Stephen Kulin	SO1L 60113U	Permanent
36)	Elliot Lind	SO1L 56872O	Permanent
37)	Johnny Lind	SO1L 50223W	Interim
38)	Mitchell Lind	SO1L 57384C	Permanent
39)	Brett Lounsbury	SO1L 58322F	Permanent
40)	Dan Mershon	SO1L 61370V	Permanent
41)	Josh Mershon	SO1L 58818F	Permanent
42)	Kerry Nelson	SO1L 58425P	Permanent
43)	Les Nunn	SO1L 58578P	Permanent
44)	Leonard Ogle	SO1L 55311R	Permanent
45)	Jeff Olsen	SO1L 60115F	Permanent
46)	Knud Olsen	SO1L 56418W	Permanent
47)	George Orloff	SO1L 59308M	Permanent
48)	Alvin Pedersen	SO1L 55953V	Permanent
49)	Hans Pedersen Jr	SO1L 57171K	Permanent
50)	Sharon Pedersen	SO1L 58126H	Permanent
51)	Bruce Petska	SO1L 59794I	Permanent
52)	John Phillips	SO1L 50332L	Interim
(emergency transfer from the estate of Elia Phillips)			
53)	Daryl Rietveld	SO1L 57469C	Permanent
54)	Jamie Ross	SO1L 60106Z	Permanent
55)	Roger Rowland	SO1L 63976A	Permanent
56)	Dennis Shangin	SO1L 58178G	Permanent
57)	Edgar Shangin	SO1L 57003B	Permanent
58)	Russell Shangin	SO1L 52949G	Interim
(emergency transfer from the estate of Peter Phillips)			
59)	Stephen Shangin	SO1L 57296B	Permanent
60)	Norma Shellgren	SO1L 51556R	Interim
(emergency transfer from the estate of Frank Battishill)			
61)	Matt Siemion	SO1L 56992S	Permanent
62)	Ted Siemion	SO1L 56322H	Permanent
63)	Arnold Skonberg	SO1L 55477R	Permanent
64)	Calvin Skonberg	SO1L 56228C	Permanent
65)	Minnie Skonberg	SO1L 58470R	Permanent
66)	Ralph Skonberg	SO1L 50205L	Interim
67)	Tina Skonberg	SO1L 55546P	Permanent
68)	Oleana Stepanoff	SO1L 58308N	Permanent

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69)	Walter Stepanoff Jr	SO1L 57091W	Permanent
70)	Glenn Suydam	SO1L 59615J	Permanent
71)	Lowell Suydam	SO1L 56680K	Permanent
72)	Annette Takak	SO1L 57035F	Permanent
73)	Paul Teuber	SO1L 60121I	Permanent
74)	Dan Veerhusen	SO1L 57662X	Permanent
75)	Tim Wilkie	SO1L 64187U	Permanent
76)	Jerry Yagie	SO1L 56797N	Permanent

-END-

Appendix A2.-Fixed-leads Commissioner's permit, 2005.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME
DIVISION OF COMMERCIAL FISHERIES

FRANK MURKOWSKI, GOVERNOR

211 Mission Road
Kodiak, AK 99615
PHONE: (907) 486-1825
FAX: (907) 486-1841
Or
Chignik Weir
PO 40 Chignik Lake, AK 99548
PHONE: (907) 845-2243
FAX: (907) 845-2235

2005 CHIGNIK MANAGEMENT AREA COMMISSIONER'S PERMIT
COOPERATIVE SALMON FIXED LEADS

NAME: Chignik Seafood Producers Alliance (CSPA) ADF&G # 2005-1

OPERATOR: Axel Kopun, President CSPA

ADDRESS: Summer: P.O. Box 30 Winter: PO Box 773173
Chignik Bay, AK 99564 Eagle River, AK 99577
phone: (907) 749-2204 phone: (907) 622-6226

In addition to current Chignik Management Area salmon commercial fishing regulations, participants agree to the following conditions:

1) Permit is valid from 12:01 AM June 1, to MIDNIGHT October 31, 2005.

2) 5 AAC 15.359 (c) allows, through a commissioner's permit, for CSPA to operate two fixed leads in the Chignik Management Area located in Chignik Lagoon.

3) The area between the Mensis Point (5 AAC 15.350 (1)(C)) and the Pillar Rock (5 AAC 15.350 (1)(D)) markers shall be known as the "Pillar Rock Harvest Area". One lead may be attached to the beach at approximately the high tide mark at approximately 56° 16.74' N. lat., 158° 39.01'W. long., and a second lead may be attached to the beach at approximately the high tide mark at approximately 56° 16.57' N. lat., 158° 38.84' W. long. within the Pillar Rock Harvest Area.

4) (a) The lead attached to the Mensis Point shoreline may be up to 225 fathoms in length and no more than 100 meshes in depth. A purse seine may not be attached to this lead.

(b) The lead attached to the Pillar Rock shoreline may be up to 125 fathoms in length and may be no more than 100 meshes in depth. A purse seine may be attached to this lead.

-continued-

5) Each lead shall be made of seine webbing, with meshes no greater than 4 inches stretch measure.

6) Each lead must have a corkline and a leadline and may be anchored at appropriate intervals for the purpose of holding its position.

7) A distance of at least 100 feet of open space must always be provided for between the leads in the main channel of the river as measured at the upstream-most corners of the leads. There may be less than 100 feet of open space between the leads and purse seine gear provided that access for vessel traffic is maintained.

8) Each lead corkline must have operating white lights at night every ten fathoms along the entire length of the corkline, and have appropriate operating port (red) and starboard (green) lights on the seaward end of the leads to mark the navigable channel between the leads.

9) The ADF&G may verbally request the removal of the leads at any time; upon the removal request by ADF&G, the operator must completely remove the leads from the water within two hours.

10) The leads may be installed in the water at the beginning of each cooperative fishing period. The leadline of each lead shall be raised from the bottom and secured to the corkline in at least five places prior to the closure of each cooperative fishing period.

11) At night when a purse seine is attached to a lead, the vessel must display an appropriate red mast light to indicate fishing or a white light to indicate anchoring and there must be at least two white lights placed along the purse seine between the purse seine vessel and the lead.

12) In the Chignik Management Area, a vessel may have a purse seine or hand purse seine aboard as described in 5 AAC 15.332 and a total of two fixed leads aboard as they are described in this permit.

13) When the ADF&G restricts the salmon catch of the cooperative by imposing a daily harvest limit, the cooperative may fully deploy the leads at 12:01 AM of the harvest limit day. When the ADF&G daily harvest limit has been harvest, the cooperative must minimize impediments to fish migrations by tying the lead leadline to the corkline.

14) An ADF&G observer may sample and measure all catch and bycatch of the leads and the harvesting vessel's seine. The vessel operator and crew must exercise patience and slow the pace of fishing, if required, to accommodate the accurate collection of all data required from the ADF&G observer.

-continued-

15) Participants will notify ADF&G in Chignik daily prior to commencement of lead operation and at the conclusion of lead operation.

16) The Chignik Seafood Producers Alliance will provide ADF&G a logbook for each lead specifying, on a daily basis, the time each lead is fishing, repairs, alterations, maintenance (cleaning), and other data as requested by ADF&G.

17) Vessels must adhere to all commercial fishing and landing requirements.

18) The Chignik Seafood Processors Alliance is responsible for the actions of contractors, agents, or other persons who perform work to accomplish the goals of this permit and the cooperative fishery management plan, 5 AAC 15.359. The permittee shall notify ADF&G, Division of Commercial Fisheries, and obtain written approval in the form of a permit amendment before beginning any activity that significantly deviates from the approved plan and permits. Any action taken by the permittee or an agent of the permittee that increases the permit overall scope or that negates, alters, or minimizes the intent or effectiveness of any stipulation contained in this permit will be deemed a significant deviation from the approved plan. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of ADF&G. Therefore, it is recommended that ADF&G, Division of Commercial Fisheries, be consulted immediately when a deviation from the approved permit is being considered.

19) This permit does not relieve the Chignik Seafood Processors Alliance, their contractors, agents, or other persons who perform their work from the responsibility for securing other permits: state, federal, or local.

20) When the leads are deployed in any manner a cooperative CFEC permit holder must be present at all times within the Pillar Rock Harvest Area.

21) This permit may be modified or voided by the ADF&G at any time.

I _____, for the Board of Directors of the Chignik Seafood Producers Alliance, hereby authorize the release of confidential fish ticket harvest information that results from my participation in the 2004 Chignik Management Area salmon fishery. I understand this information will be used for reporting of stock condition on Chignik Management Area salmon and any effects the lead may have on the salmon stocks and habitat in Chignik Lagoon. I also agree to abide by all permit terms stated above.

_____ _____

CHIGNIK SEAFOOD PRODUCERS ALLIANCE DATE

_____ _____

ADF&G REPRESENTATIVE DATE

Appendix A3.-Commissioner's permit to authorize the use of net pens by the cooperative fleet, 2005.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME
DIVISION OF COMMERCIAL FISHERIES

FRANK MURKOWSKI, GOVERNOR

211 Mission Road
Kodiak, AK 99615
PHONE: (907) 486-1825
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Or
Chignik Weir
PO 40 Chignik Lake, AK 99548
PHONE: (907) 845-2243
FAX: (907) 845-2235

2005 CHIGNIK MANAGEMENT AREA COMMISSIONER'S PERMIT

COOPERATIVE SALMON NET PEN REQUIREMENTS

NAME: Chignik Seafood Producers Alliance (CSPA) ADF&G # 2005-4

OPERATOR: Axel Kopun, President

ADDRESS: Summer: P.O. Box 30 Winter: PO Box 773173
Chignik, AK 99564 Eagle River, AK
phone (907) 749-2204 phone (907) 622-6226

In addition to current Chignik Management Area salmon commercial fishing regulations, participants agree to the following conditions:

1) Permit is valid from 12:01 AM June 1, to MIDNIGHT October 31, 2005.

2) 5 AAC 15.359 (h) allows, through a commissioner's permit, for the Chignik Seafood Producers Alliance (CSPA) to operate net pens to hold live, commercially captured salmon; thus net pens will only be allowed in Chignik Lagoon under provisions of this permit. Fishing and tendering vessels (i.e., vessels that operate under their own power, that have a licensed skipper aboard, and with fish holds that are not directly open to the sea) may contain live fish, for up to three days after their capture, without the need of a commissioner's permit.

3) The CSPA will notify the Chignik ADF&G when fish pens are deployed in Chignik Lagoon and when they contain fish, except for fish pens that are attached to the Norquest Seafoods Inc., facilities or a mooring owned by Norquest Seafoods Inc., in Anchorage Bay (56° 18'N.lat., 158° 24'W. long), Chignik as permitted under permit ADF&G # 2005-3. CSPA will provide Chignik ADF&G a daily estimate of the number and pounds of salmon, by species, in each fish pen.

-continued-

4) This permit allows the use of fish pens for holding live salmon for up to three days after being captured in the Chignik District commercial salmon fishery. The net pens may be operated and moored in Chignik Lagoon. Towing pens that contain live salmon caught in the Chignik District, within the Chignik District is allowed.

5) A total of up to two fish pens will be allowed within Chignik Lagoon in the Chignik Bay District. Individual fish pens may be up to 40 feet in length, 40 feet in width, and 100 meshes deep. The fish pen mesh size may be no greater than four inches. Lights, decks, fences, and other structural supports may be attached to the fish pens. The fish pens may be attached to each other.

6) An ADF&G observer may sample and measure all catch and bycatch contained in the fish pens. The fish pen operator and crew must exercise patience and slow the pace of processing, if required, to accommodate the accurate collection of all data required from the ADF&G observer.

7) Catcher, tender, and processing vessels must adhere to all other commercial fishing and landing requirements.

8) Fish pens must not interfere with the open fishery as defined in 5 AAC 15.359 (j)(2) or with subsistence fishermen.

9) The Chignik Seafood Processors Alliance is responsible for the actions of contractors, agents, or other persons who perform work to accomplish the goals of this permit. The permittee shall notify ADF&G, Division of Commercial Fisheries, and obtain written approval in the form of a permit amendment before beginning any activity that significantly deviates from the approved plan and permits. Any action taken by the permittee or an agent of the permittee that increases the permit overall scope or that negates, alters, or minimizes the intent or effectiveness of any stipulation contained in this permit will be deemed a significant deviation from the approved permit. The final determination as to the significance of any deviation and the need for a permit amendment is the responsibility of ADF&G. Therefore, it is recommended that ADF&G, Division of Commercial Fisheries, be consulted immediately when a deviation from the approved permit is being considered.

10) This permit does not relieve the Chignik Seafood Processors Alliance their contractors, agents, or other persons who perform their work from the responsibility for securing other permits: state, federal, or local.

11) All fish in a fish pen are considered harvested for all catch reporting and allocative concerns.

-continued-

12) This permit may be modified or voided by the ADF&G at any time.

I _____, for the Board of Directors of the Chignik Seafood Producers Alliance, hereby authorize the release of confidential fish ticket harvest information that results from my participation in the 2005 Chignik Management Area salmon fishery. I understand this information will be used for reporting of stock condition on Chignik Management Area salmon. I also agree to abide by all permit terms stated above.

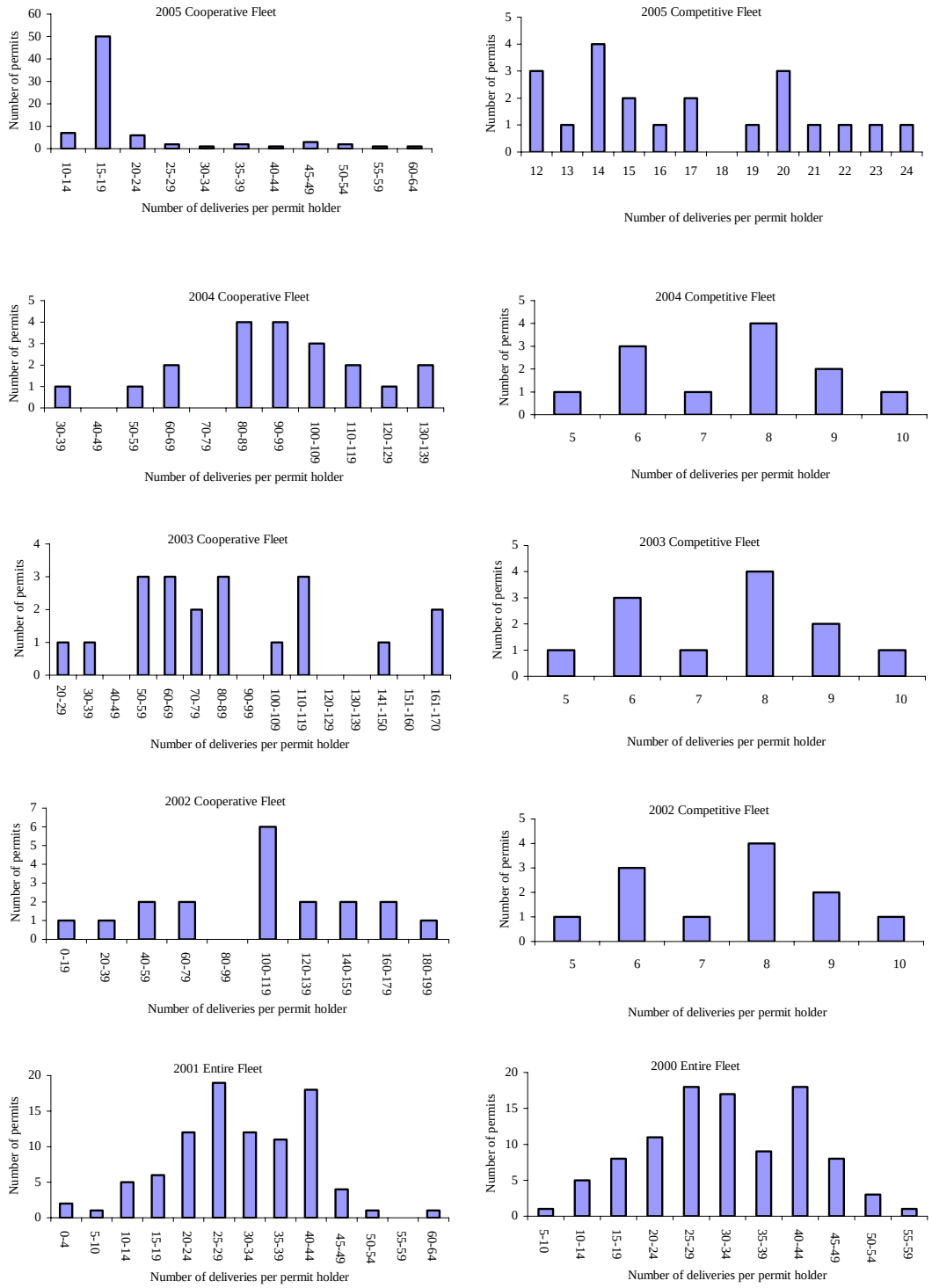
_____ _____

CHIGNIK SEAFOOD PRODUCERS ALLIANCE DATE

_____ _____

ADF&G REPRESENTATIVE DATE

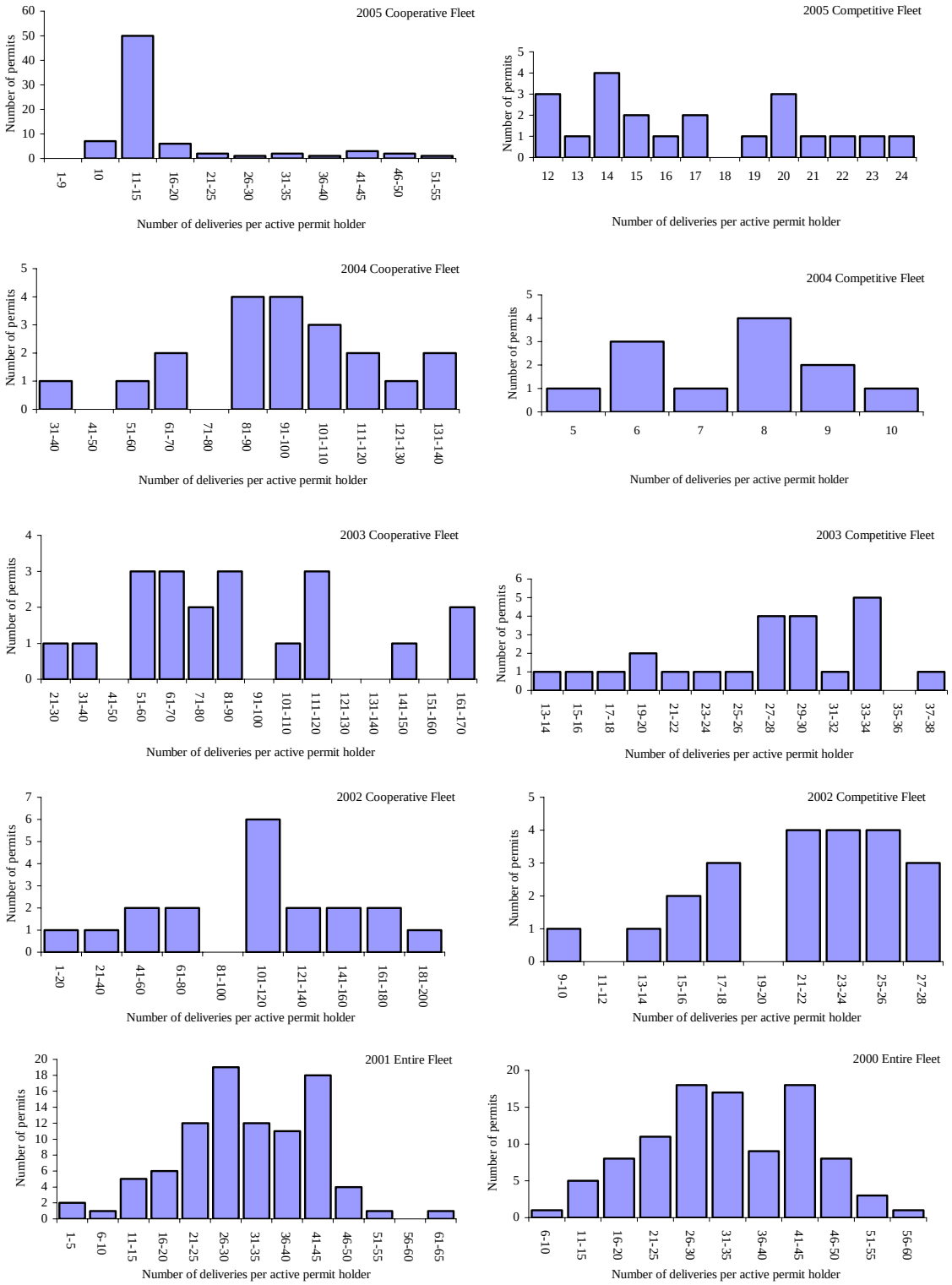
APPENDIX B: ANALYSIS OF CHIGNIK DELIVERIES



Appendix B1.-Frequency histograms of the number of deliveries made per permit holder, by fleet 2002 to 2005, and for the entire fleet in 2000 and 2001.

NOTE:

This appendix has been corrected. Please see following page for corrected appendix B1.



Appendix B1.- (Revised) Frequency histograms of the number of deliveries made per permit holder, by fleet 2002 to 2005, and for the entire fleet in 2000 and 2001.

Appendix B2.-Number of active Chignik CFEC permit holders making deliveries, by fleet, 2002 through 2005 (the cooperative years), and for the entire fleet, 2000 through 2001.

REVISED

Year	Cooperative Fleet	Competitive Fleet	Entire Fleet
2000	n/a	n/a	99
2001	n/a	n/a	90
2002	19	22	41
2003	20	23	43
2004	20	20	40
2005	76	21	97

NOTE:
Appendix B2 has been revised. Please see following table for the correction.

Appendix B2.- (Revised) Number of active Chignik CFEC permit holders making deliveries, by fleet, 2002 through 2005 (the cooperative years), and for the entire fleet, 2000 through 2001.

Year	Cooperative Fleet	Competitive Fleet	Entire Fleet
2000	n/a	n/a	99
2001	n/a	n/a	90
2002	19	22	41
2003	20	23	43
2004	20	12	32
2005	76	21	97

Appendix B3.-Mean number of deliveries made per Chignik CFEC permit holder, by fleet, 2002 through 2005 (the cooperative years), and the entire fleet, 2000 through 2001.

Year	Cooperative Fleet	Competitive Fleet	Entire Fleet
2000	n/a	n/a	33
2001	n/a	n/a	31
2002	106	21	n/a
2003	88	27	n/a
2004	95	8	n/a
2005	17	17	n/a

Appendix B4.-Mean number of days between the first and last delivery of the season per Chignik CFEC permit holder, by fleet, 2002 through 2005 (the cooperative years), and the entire active fleet, 2000 through 2001.

Year	Cooperative Fleet	Competitive Fleet	Entire Fleet
2000	n/a	n/a	69
2001	n/a	n/a	52
2002	62	67	n/a
2003	65	70	n/a
2004	52	28	n/a
2005	19	54	n/a

Appendix B5.-Average number of sockeye salmon per delivery per Chignik CFEC permit holder, by fleet, 2002 to 2005 (the cooperative years), and the entire active fleet, 2000 to 2001.

Year	Cooperative Fleet	Competitive Fleet	Entire Fleet
2000	n/a	n/a	573
2001	n/a	n/a	584
2002	387	659	n/a
2003	441	524	n/a
2004	319	1,064	n/a
2005	515	1,026	n/a

APPENDIX C: HARVESTS, BY DISTRICT, 1960 THROUGH 2005

Appendix C1.-Chinook salmon commercial harvests, by district, in the Chignik Management Area, 1970 to 2005. These data include fish retained for personal use and the department's test fishery harvests.

Year	Chignik	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	1,810	50	7	21	0	1,888
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	1,993	775	165	197	24	3,154
1992	3,179	2,010	181	4,300	1,160	10,830
1993	5,240	6,865	2,568	3,099	1,729	19,501
1994	1,804	1,303	43	440	313	3,903
1995	3,219	845	108	897	424	5,493
1996	1,590	1,022	263	162	108	3,145
1997	1,377	1,609	60	60	7	3,113
1998	1,784	1,798	79	567	254	4,482
1999	2,270	852	147	216	22	3,507
2000	598	530	53	1,421	10	2,612
2001	1,231	770	302	627	5	2,935
2002	917	17	0	584	0	1,518
2003	2,832	189	0	45	0	3,066
2004	2,516	0	0	0	0	2,516
2005	2,683	391	0	297	6	3,377
Averages						
1982-2001	2,636	1,105	237	1,025	299	5,302
1992-2001	2,229	1,760	380	1,179	403	5,952
2002-2004	2,088	69	0	210	0	2,367

Appendix C2.-Sockeye salmon commercial harvests, by district, in the Chignik Management Area, 1970 to 2005. These data include fish retained for personal use and the ADF&G's test fishery harvests.

Year	Chignik	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	812,605	77,314	18,720	13,175	337	922,151
1986	1,389,172	182,884	6,424	44,362	22,992	1,645,834
1987	1,559,457	255,118	14,498	56,524	12,941	1,898,538
1988	526,532	123,686	25,699	93,070	23,429	792,416
1989	1,150,349	2,473	32	0	0	1,152,854
1990	1,394,547	566,601	51,443	53,192	22,345	2,088,128
1991	1,479,389	315,570	59,751	19,766	13,083	1,887,559
1992	780,466	332,860	12,327	30,004	109,369	1,265,026
1993	757,369	557,020	186,364	53,968	137,186	1,691,907
1994	899,043	573,484	20,041	64,185	53,081	1,609,834
1995	1,074,684	415,436	48,842	79,874	96,186	1,715,022
1996	999,366	743,658	145,668	47,529	17,855	1,954,076
1997	396,128	295,084	20,650	44,768	2,418	759,048
1998	609,631	286,643	30,555	87,940	27,296	1,042,065
1999	2,350,152	612,589	79,717	57,859	10,216	3,110,533
2000	1,315,645	358,985	71,572	15,034	2,385	1,763,621
2001	1,068,280	382,172	28,377	17,673	1,074	1,497,576
2002	984,655	44,368	2,835	9,425	169	1,041,452
2003	994,665	64,440	1,701	29,069	4,840	1,094,715
2004	698,552	181	0	0	0	698,733
2005	1,039,952	83,206	2	27,927	249	1,151,336
Averages						
1982-2001	1,175,825	339,455	54,460	42,496	27,897	1,640,133
1992-2001	1,025,076	455,793	64,411	49,883	45,707	1,640,871
2002-2004	892,624	36,330	1,512	12,831	1,670	944,967

Appendix C3.-Pink salmon commercial harvests, by district, in the Chignik Management Area, 1970 through 2005. These data include fish retained for personal use and the ADF&G's test fishery harvests.

Year	Chignik	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	13,877	7,769	2,079	187,701	35,339	246,765
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	76,040	173,967	27,979	419,264	469,338	1,166,588
1992	177,991	205,750	183,119	628,900	358,199	1,553,959
1993	55,909	205,037	52,755	683,779	649,071	1,646,551
1994	59,411	99,149	12,952	174,641	84,896	431,049
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	10,187	17,580	0	36,918	1,299	65,984
2003	55,472	88,736	267	326,239	31,354	502,068
2004	2,378	2	0	0	0	2,380
2005	71,438	99,491	21	20,952	2,143	194,045
Averages						
1982-2001	72,142	217,225	91,999	362,464	173,338	917,169
1992-2001	62,978	341,477	55,218	414,319	216,861	1,090,853
2002-2004	22,679	35,439	89	121,052	10,884	190,144

Appendix C4.-Chum salmon commercial harvests, by district, in the Chignik Management Area, 1970 through 2005. These data include fish retained for personal use and the ADF&G's test fishery harvests.

Year	Chignik	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	4,906	5,242	864	10,704	1,090	22,806
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	17,530	51,429	4,925	98,603	88,002	260,489
1992	12,695	45,569	61,209	65,466	37,179	222,118
1993	8,116	43,306	21,157	24,988	24,736	122,303
1994	25,238	69,552	4,333	93,607	34,025	226,755
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	3,903	9,643	513	40,337	117	54,513
2003	10,754	11,304	50	39,883	1,916	63,907
2004	499	6	0	0	0	505
2005	2,370	5,329	2	1,054	66	8,821
Averages						
1982-2001	11,430	49,340	21,645	69,548	25,931	177,894
1992-2001	12,182	68,647	20,148	54,572	26,300	181,848
2002-2004	5,052	6,984	188	26,740	678	39,642

APPENDIX D: FORECAST AND ACTUAL RUNS

Appendix D1.-Chignik sibling forecasts and actual runs, by run and year, 1994 through 2005.

	Early Run (millions)			Late Run (millions)			Total Run (millions)		
Year	Forecast	Actual	% Error	Forecast	Actual	% Error	Forecast	Actual	% Error
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	1.06	-3	1.09	0.91	17	2.12	1.97	7
2003	1.64	0.99	40	1.19	1.00	16	2.83	1.99	30
2004	1.26	1.08	14	1.08	0.37	66	2.34	1.45	38
2005[a]	1.84	1.46	21	0.55	0.71	-29	2.39	2.18	9
Averages									
2000 to 2004	1.8	1.3	13.1	1.1	0.9	8.8	2.8	2.3	12.6
1995 to 2004	1.5	1.4	-2.2	1.2	1.1	-1.7	2.7	2.5	1.9

[a] 2005 run data is considered preliminary.