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Chignik Management Area Salmon Annual Management Report, 2015

by

Dawn M. Wilburn

and

Lucas K. Stumpf

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

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	*e*
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	*E*
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$\log_2$, etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

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Alaska Department of Fish and Game
Division of Sport Fish, Research and Technical Services
333 Raspberry Road, Anchorage, Alaska, 99518-1565

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The Fishery Management Reports series was established in 1989 by the Division of Sport Fish for the publication of an overview of management activities and goals in a specific geographic area, and became a joint divisional series in 2004 with the Division of Commercial Fisheries. 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.adfg.alaska.gov/sf/publications/. This publication has undergone regional peer review.

Dawn M. Wilburn and Lucas K. Stumpf
Alaska Department of Fish and Game, Division of Commercial Fisheries
351 Research Court, Kodiak, AK, 99615 USA

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ABSTRACT

This report summarizes the 2015 commercial Pacific salmon *Oncorhynchus* spp. fisheries within the Chignik Management Area (CMA; Area L). The CMA encompasses all coastal waters and inland drainages of the northwest Gulf of Alaska between Kilokak Rocks and Kupreanof Point. All 5 species of North American Pacific salmon were commercially harvested in the CMA: Chinook *O. tshawytscha*, sockeye *O. nerka*, coho *O. kisutch*, pink *O. gorbuscha*, and chum *O. keta* salmon. In 2015, the Chignik River Chinook salmon escapement of 2,054 fish was within the escapement goal range of 1,300 to 2,700 fish. The 2015 Chignik River early-run sockeye salmon escapement of 534,088 fish exceeded the early-run escapement goal range of 350,000 to 450,000 fish. The late-run sockeye salmon escapement of 589,810 fish also exceeded the late-run escapement goal range of 250,000 to 400,000 fish. Both early- and late-run escapements were above the recent 5-, 10-, and 20-year averages. The 2015 CMA sockeye salmon harvest of 1,552,495 fish was below the most recent 5-year average and above the recent 10- and 20-year averages. The CMA coho salmon harvest of 82,054 fish was below recent 5- and 20-year average harvests, and similar to the recent 10-year average. The 2015 area wide pink salmon peak escapement estimate of 1,132,529 fish exceeded the odd-year sustainable escapement goal (SEG) range of 500,000 to 800,000 fish. Estimated 2015 peak pink salmon escapement in the CMA was slightly above the recent 5- and 10-odd year averages yet below the recent 20-odd year average. The CMA harvest of 1,978,211 pink salmon was above recent 5-, 10-, and 20-year average harvests. The areawide chum salmon peak escapement estimate of 238,214 fish exceeded the lower bound SEG of 57,400 fish. In 2015, 101,017 chum salmon were harvested which was below recent 5-, 10-, and 20-year average harvests. A total of 71 CMA permit holders made deliveries in 2015. The exvessel value for commercial salmon harvest in the CMA for 2015 totaled approximately $7.88 million.

Key words: Chignik Management Area (CMA), Chignik River, *Oncorhynchus*, salmon, Alaska Board of Fisheries, 2015 commercial fisheries management, Chignik Salmon Management Plan, harvest, escapement

INTRODUCTION

The Alaska Department of Fish and Game (ADF&G) manages all commercial Pacific salmon *Oncorhynchus* spp. fisheries within the Chignik Management Area (CMA; Area L). The CMA encompasses all coastal waters and inland drainages of the northwest Gulf of Alaska between Kilokak Rocks and Kupreanof Point (Figure 1). For management purposes, these waters are divided into 5 fishing districts: Eastern, Central, Chignik Bay, Western, and Perryville districts. Each district is further broken down into sections and statistical reporting areas (Figure 2).

There are 5 species of Pacific salmon that are commercially harvested in the CMA: Chinook *Oncorhynchus tschawytscha*, sockeye *O. nerka*, coho *O. kisutch*, pink *O. gorbuscha*, and chum *O. keta* salmon. Sockeye salmon are the primary species targeted and the most important commercial and subsistence salmon species in the CMA. ADF&G manages all CMA commercial salmon resources by emergency order based on inseason evaluation of local stock abundance and escapement objectives. The majority of fishing effort is concentrated on salmon returning to the Chignik River watershed. Commercial salmon fishing is the economic mainstay for 5 villages: Chignik Bay, Chignik Lagoon, Chignik Lake, Perryville, and Ivanof Bay (Figure 1).

This report provides a summary of the 2015 commercial salmon management plan, fishing activity, escapements, and harvests in the CMA. Most tables in this report have been verified against the Westward Region electronic fish ticket (1970 to present) and historical escapement databases (1960 to present). The salmon harvest estimates reported in this document were summarized from the fish ticket database on November 1, 2015. Data published in this report supersede any data previously published.

COMMERCIAL SALMON

OVERVIEW OF MANAGEMENT PLANS

Several management plans have been used to manage the CMA commercial salmon fishery in the last decade. The 2015 CMA commercial salmon fishery was managed based on the *Chignik Salmon Management Plan* (5 AAC 15.357). Sockeye salmon bound for the Chignik River watershed were also allocated under 2 additional management plans: the *Cape Igvak Salmon Management Plan* (5 AAC 18.360) in the Kodiak Management Area (Area K) and the *Southeastern District Mainland (SEDM) Salmon Management Plan* (5 AAC 09.360) in the Alaska Peninsula Management Area (Area M; Figure 1).

Chignik Salmon Management Plan

The *Chignik Salmon Management Plan* (5 AAC 15.357) was originally adopted in 1999. The goal of this plan is to allow traditional salmon fisheries in the CMA while achieving the established escapement goals for both early-run (Black Lake) and late-run (Chignik Lake) sockeye salmon as well as local stocks of Chinook, pink, coho, and chum salmon. Purse seines and hand purse seines are the only legal commercial salmon fishing gear within the CMA. Legal seine gear ranges from 100 to 125 fathoms in length in the Chignik Bay District and from 100 to 225 fathoms in length in all other districts (5 AAC 15.332). To assist management efforts, the management plan is organized into districts or groups of districts: the Chignik Bay and Central districts, the Eastern District, and the Western and Perryville districts (Figure 2).

Cape Igvak Salmon Management Plan

The *Cape Igvak Salmon Management Plan* (5 AAC 18.360) was officially adopted in 1978 and has since undergone several amendments to change allocation criteria in the plan (Jackson et al. 2015). The Cape Igvak Section is the westernmost section of Area K, located directly northeast of the CMA (Figure 1). Under the current plan criteria, from June 1 through July 25, 90% of the sockeye salmon harvested within the Cape Igvak Section are allocatively considered to be Chignik-bound (5 AAC 18.360(d)). If the harvestable surplus of sockeye salmon in the CMA is above or expected to be above certain thresholds (5 AAC 18.360 (a-c)), then 15% of the total Chignik sockeye salmon harvest (total includes sockeye salmon caught at Cape Igvak and within certain portions of SEDM) is allocated to Area K fishermen. After July 25, there are no allocative ties between the CMA and Area K.

Southeastern District Mainland Salmon Management Plan

The *Southeastern District Mainland Salmon Management Plan* (5 AAC 09.360) was formally adopted in 1980 and has undergone several amendments, mostly to allocation criteria (Poetter and Nichols 2014). The SEDM is composed of a group of sections at the eastern end of Area M, located directly southwest of the CMA (Figure 1). Under the current plan criteria, from June 1 through July 25, 80% of the sockeye salmon harvested within certain SEDM sections during specific times are allocatively considered to be Chignik-bound. If the harvestable surplus of sockeye salmon in the CMA is above or expected to be above certain thresholds (5 AAC 09.360 (a–g)), then 7.6% of the total estimated CMA sockeye salmon harvest is allocated to SEDM fishermen. After July 25, there are no allocative ties between the CMA and Area M.

2015 CHIGNIK SALMON MANAGEMENT

Limnology data beginning in 2000 suggested the forage base for juvenile sockeye salmon was depressed in Chignik Lake (Bouwens and Finkle 2003a-b; Finkle 2005; Finkle 2006a-b; Finkle and Bouwens 2001). As a result, ADF&G targeted the lower range of the sockeye salmon escapement goals from 2002–2009 to improve juvenile sockeye salmon production by relieving grazing pressure on zooplankton in Chignik Lake (Bouwens and Finkle 2003b). In 2010–2014, the lower to middle of the late-run escapement goal was targeted. In 2015, the upper mid-range of the early-run escapement goal and the lower third of the late-run escapement goal were targeted (Table 1). This strategy was based on the fact that the zooplankton forage base has improved in the Chignik Lakes over recent years and also because the low 2014 early-run escapement should result in fewer than average juveniles rearing in Chignik Lake in 2015–2016.

The first commercial salmon fishing period began on June 24, and the last commercial fishing period ended on September 14. The commercial salmon fishery was open for approximately 64 days during 2015 (Figure 3). A total of 71 CMA commercial salmon permit holders (excluding the ADF&G test fishery permit) participated in the 2015 commercial salmon season (Table 2).

Salmon were delivered to 3 locations in 2015: a floating processor operated by Trident Seafoods located in Chignik Bay, Trident Seafoods shore based processor in Sand Point, and International Seafoods of Alaska in Kodiak. Processors filleted or headed and gutted the majority of Chignik salmon.

Chignik Bay and Central Districts Commercial Salmon Fishery

The Chignik weir was completed on May 18 at approximately 6:00 PM, with the first full day of escapement enumeration on May 19. Sockeye salmon escapement into the Chignik River in early to mid-June was below average and began tracking near the upper mid-range of the escapement goal around June 20 (Tables 1, 3, and 4). Results from 4 test fisheries conducted on June 12, 14, 17, and 19 in Chignik Lagoon also indicated that there was no buildup of sockeye salmon in the lagoon. Fish harvested in the test fish were predominately males and smaller than average. Based on the test fisheries results and that escapement numbers were not increasing as anticipated, the Chignik Bay and Central districts remained closed to commercial salmon fishing during most of June. After several days of strong escapement, the Chignik Bay and Central districts opened to commercial salmon fishing on June 24 at 9:30 AM for 48 hours. In addition, an increase in the female proportion of the run was observed from escapement samples taken at the weir. This initial fishing period was extended an additional 72 hours and then closed for 48 hours to allow additional escapement into the Chignik River.

Several fishing periods occurred in the Chignik Bay and Central districts throughout July. These fishing periods were interspersed by closures ranging from 36 hours to 84 hours. Genetic samples were collected at the weir beginning June 27 to apportion the early and late runs during the peak overlap period, which typically occurs late-June through mid-July. The results of each genetic sampling period were usually available within 36–48 hours of the sampling date and provided crucial information for inseason management decisions in 2015. The first several 2015 genetic sample results revealed low proportions of late-run sockeye salmon so the fourth scheduled sampling period was pushed back several days. This adjustment was made to help ensure that the shift from the early run to late run was represented in the remaining 3 sampling periods. According to the fourth genetic sample, collected on July 12, approximately 89% of fish

passing the weir were still early-run fish (Table 5). By this time, early-run sockeye salmon escapement had exceeded the upper bound of the escapement goal. Based on the fact that the peak of the early run was late (like many sockeye salmon runs in Alaska in 2015), it was likely that the late run was later than average as well. Therefore, the fishery reopened on July 14 to allow harvest opportunity on surplus early-run fish until genetic sampling indicated that the late run was beginning to arrive. The fifth genetic sample, collected July 18, indicated this shift was beginning to occur (approximately 36% early-run and 64% late-run fish) and confirmed suspicions that the late run was later than average. Two additional 48-hour fishing periods occurred in late July in the Chignik Bay and Central districts to provide some harvest opportunity on the early portion of the late run while continuing to work towards a well-distributed temporal escapement of the run.

After a 3.5-day closure at the beginning of August, commercial salmon fishing reopened in the Chignik Bay and Central districts and remained open through September 14. Throughout August, the 2 processors in the area imposed harvest limits on the fishing fleet due to processing capacity issues. The last active day of commercial fishing occurred on August 20 when the last processor ceased operations for the season. In total, the Chignik Bay and Central districts were open for 64 days during 2015 (Figure 3).

The Chignik Lagoon closed waters markers alternated between Humes Point and Mensis Point during the 2015 salmon season (Figure 4). Several fishing periods opened with the closed waters markers established at Mensis Point, usually when escapement was near its targeted range and large pulses of fish had occurred in the days prior to the opening. The Humes Point markers were used primarily in the end of July when sockeye salmon management began to focus on the late run. Establishing closed waters markers at Humes Point concentrated fishing effort in the lower lagoon while allowing the department to assess the magnitude of salmon entering the lagoon. A summary of emergency orders outlining the commercial salmon fisheries in the Chignik Bay and Central districts is located in Appendix A.

Eastern District Commercial Salmon Fishery

The Eastern District, by regulation (5 AAC 15.357 (c)(1)), opened concurrently with the Chignik Bay and Central districts during June (Figures 2 and 3). In 2015, the Eastern District remained closed early through mid-July due to low numbers of pink and chum salmon observed entering streams. After Eastern District aerial surveys were cancelled several days in a row due to inclement weather in mid-July, one 48-hour fishing period was conducted in order to assess run strength using harvest and effort information. However, no effort occurred in the Eastern District during this fishing period and the district closed. Several days later, an aerial survey conducted in the Eastern District showed that adequate numbers of pink and chum salmon were entering local streams and escapement goals would be met. Therefore, the Eastern District reopened to commercial salmon fishing on August 4 and remained opened until September 14.

In total, the Eastern District was open to commercial salmon fishing for 50 days during 2015 (Figure 3). A summary of emergency orders outlining the commercial salmon fisheries in the Eastern District is found in Appendix A.

Western and Perryville Districts Commercial Salmon Fishery

By regulation, the Inner Castle Cape Subsection of the Western District opened concurrently with the Chignik Bay and Central districts throughout the commercial fishing season (5 AAC

15.357 (b); Figures 2, 3, and 5). Also by regulation (5 AAC 15.357 (e)), the Western District, excluding the Inner Castle Cape Subsection, opened to commercial salmon fishing for two 48-hour periods with a mandatory minimum 48-hour closure between fishing periods through July 5. The first 48-hour fishing period began on June 24 and the second fishing period began on July 1. Both of these fishing periods were opened concurrently with the Chignik Bay and Central districts.

Excluding the Inner Castle Cape Subsection of the Western District, and the two 48-hour fishing periods, the Western and Perryville districts are closed to commercial salmon fishing through July 5 (5 AAC 15.357 (d)). Beginning July 6, these districts are managed based on the run strength of late-run sockeye salmon until the end of the transition period which occurs in mid-July. Once the transition period ends these districts are managed based on local pink and chum salmon escapements, as well as late-run sockeye salmon escapement into the Chignik River.

Four 48-hour commercial salmon fishing periods occurred in the Western and Perryville districts from mid-July through the end of the month. At that time, aerial surveys and harvest information indicated that local pink and chum salmon were arriving in the CMA. Short fishing periods were conducted to allow harvest opportunity of pink and chum salmon while still allowing escapement into streams. In August, the Western and Perryville districts were open to commercial salmon fishing with the exception of one closure (August 1–August 3; Figure 3), until the districts closed for the season on September 14.

In total, the Western District was open to commercial salmon fishing for 50 days, and the Perryville District 46 days during 2015 (Figure 3). A summary of emergency orders outlining the commercial salmon fisheries in the Western and Perryville districts is found in Appendix A.

ESCAPEMENT AND HARVEST DATA

Stock Separation Techniques and Genetic Stock Identification

There are 2 genetically distinct sockeye salmon runs (an early and late run) that enter the Chignik River watershed and temporally overlap during late June and early July (Templin et al. 1999). Prior to 2004, scale pattern analysis (SPA) was used to differentiate stock composition during this time, and the fishery was managed inseason based on the results of this analysis (Witteveen and Botz 2004). The Chignik SPA program was discontinued prior to the 2004 season due to funding limitations. However, examination of SPA data revealed that, on average, the number of early-run sockeye salmon that passed the Chignik River weir after July 4 was approximately equal to the number of late-run sockeye salmon that passed the weir prior to July 4. From 2004 to 2013, the fishery was managed based on this date, so that through July 4, fishing periods were based on achieving early-run escapement objectives, and beginning July 5, fishing periods were based on achieving late-run escapement objectives.

From 2010 through 2012, as part of an Alaska Sustainable Salmon Fund (AKSSF) project, sockeye salmon genetic samples were collected at the Chignik River weir approximately every 4–6 days before, during, and after the overlap period. Genetic tissue (axillary process) was clipped from approximately 190 sockeye salmon each sampling event and, along with age, length, and sex data, was sent to ADF&G's Gene Conservation Lab where genomic DNA was extracted and assayed for 96 sockeye salmon single nucleotide polymorphisms from each fish. The goal was to provide quantifiable inseason estimates of the contribution of both Black (early run) and Chignik (late run) lakes sockeye salmon stocks to Chignik River escapement estimates

(Russell and Foster 2014). During the 2013–2015 salmon seasons, sampling intensity was reduced to 6 samples per season, with effort focused during the critical overlap period. In 2013 and 2014, funding was jointly provided by Chignik Regional Aquaculture Association (CRAA) and ADF&G. The 2015 Chignik River sockeye salmon genetic sampling was again funded by the AKSSF.

The 2015 samples were analyzed inseason and typically available within 36–48 hours after samples were taken. Stock proportions obtained from genetic sampling were used inseason by ADF&G to attribute escapement simultaneously to the early- and late-run sockeye salmon escapement objectives instead of the July 4 date (Table 4). Using the genetics proportions, Black and Chignik lakes run timing was modeled using methods similar to SPA modeling (Witteveen and Botz 2004). The 2015 logistic model estimates show run timing of the late-run to be later than all previous years of genetic sampling for this project (2010–2014; Figure 6). The 6 years of genetic stock proportions (Table 5; Figure 6) highlight the variable nature of the timing of entry for both stocks into Chignik River and suggest that any set cutoff date (i.e., July 4) may not promote biologically sound management (Anderson et al. 2013).

To estimate the total sockeye salmon run size after the season, daily commercial catch information was adjusted to the date when the harvested fish would have passed the weir and the appropriate stock composition estimate was applied to harvested fish. Stock-specific harvest estimates were added to daily escapement to create total daily run size estimates. The early- and late-run sockeye salmon escapement and harvest results can be found in the *2015 Escapement Information* and *2015 Harvest Information* sections of this document.

Escapement Goals

In 2013, a salmon escapement goal review team, including staff from the Division of Commercial Fisheries and the Sport Fish Division, was formed to review salmon escapement goals in the CMA (Sagalkin et al. 2013). The team recommended changing the Chignik River sockeye salmon early-run sustainable escapement goal (SEG) of 350,000–400,000 fish to a biological escapement goal (BEG) of 350,000–450,000 fish (Table 1). There were no changes recommended to any of the other established CMA salmon escapement goals, which remained as follows: the Chignik River Chinook salmon BEG range of 1,300–2,700 fish; the late-run sockeye salmon SEG of 250,000–400,000 fish, which includes an inriver run goal of 50,000 fish added to the lower bound of the late-run sockeye salmon SEG range of 200,000–400,000 fish for late season subsistence needs; the pink salmon even-year SEG range of 200,000–600,000 fish; the odd-year pink salmon SEG range of 500,000–800,000 fish; and the areawide aggregate chum salmon lower bound SEG of 57,400 fish.

2015 Escapement Information

In 2015, the majority of salmon escapements to the Chignik River were enumerated through the use of a weir. There were 2 gates in the weir, which were generally always open to allow for unrestricted fish passage. Underwater video equipment was used to count fish passing through the weir gates. At night, lights allowed fish to be counted. The number of fish passing the weir, by species, were counted for the first 10 minutes of each hour, and then multiplied by 6 to obtain hourly escapement estimates. Hourly estimates were summed to provide an estimate of daily fish passage. Video footage from each 10-minute escapement count was recorded and archived.

The majority of the Chignik River Chinook, sockeye, pink, and chum salmon escapements were counted through the weir. Since Dolly Varden *Salvelinus malma* were not commercially

harvested or actively managed in the CMA, their escapements are noted in the tables of this document for historical comparisons but not discussed in detail in the escapement section below. The first count of the 2015 season was on May 19, and the last full count of the season was on August 20, after which the weir was removed (Tables 3 and 6). A post-weir sockeye and coho salmon estimate was produced using data collected with Dual-frequency Identification Sonar (DIDSON) from August 21 through September 23. Species apportionment was applied based on fish caught in the lagoon by the crew using a variable mesh gillnet and reports of subsistence catch by local users. These post-weir results were grouped into 3 reporting periods: August 21 through August 31, September 1 through September 15, and September 16 to September 23 (Appendix B).

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

Chinook Salmon

The Chignik River is the only stream with substantial Chinook salmon escapement within the CMA. Chinook salmon began entering the Chignik River in early June. The run peaked by mid-July and was over by mid-August (Table 6; Figure 7). The 2015 Chignik River Chinook salmon escapement of 2,054 fish was below the recent 5-, 10-, and 20-year average escapements (Table 7). Chinook salmon escapement in 2015 was within the BEG range of 1,300–2,700 fish (Figure 8; Sagalkin et al. 2013).

Sockeye Salmon

Chignik River watershed sockeye salmon are managed based on daily escapement objectives by run (Table 1). The Chignik River sockeye salmon early-run peaked in early July and the late run peaked in early August (Table 4; Figure 9). Run timing for both the early and late runs was at least a week later than recent years. The early portion of the run was noticeably smaller and composed of mostly males. The size of the fish increased throughout the season; however, the overall size was much smaller than previous years. This trend was also observed throughout the state. Males typically compose more of the early period of sockeye salmon runs and in 2015 may have been more noticeable in the Chignik River due to the late run timing. The proportion of males to females for the Chignik River was monitored throughout the season and gradually increased as was expected.

The 2015 estimated total Chignik River watershed sockeye salmon escapement of 1,123,898 fish was well above the recent 5-, 10-, and 20-year average escapements (Table 8). The early-run escapement was estimated at 534,088 sockeye salmon, which was above the early-run SEG range of 350,000–450,000 fish (Table 8; Figure 10). The late-run escapement was estimated at 589,810 sockeye salmon, above the late-run escapement goal range of 250,000–400,000 fish (Table 8; Figure 10). Because the weir was removed before the late run was complete, a post-weir sockeye salmon escapement estimate was produced from DIDSON based counts. These results were grouped into 3 reporting periods, August 21 to August 31 (121,857 fish), September 1 to September 15 (131,985 fish), and September 16 to September 23 (49,415 fish), which are included in the late-run estimate of total escapement (Table 3; Appendix B).

Total peak aerial survey counts of spawning sockeye salmon in Black Lake tributaries were similar to the recent 5-year average, above the 10-year average and below the 20-year average

(Table 9). Total peak aerial survey counts of spawning sockeye salmon in the Chignik Lake and its tributaries were below the 5-, 10-, and 20-year averages (Table 10).

Sockeye salmon escapements were documented, via aerial survey, in low numbers (generally fewer than 3,000 fish) in several other CMA streams. Due to small run sizes and limited effort, escapement goals for these streams have not been established (Sagalkin et al. 2013).

Coho Salmon

Coho salmon enter CMA drainages in mid-August and generally continue through November. The 2015 Chignik River coho salmon escapement estimate through August 20, when the weir was removed, was 126 fish (Table 6). Two DIDSON units were installed upstream of the weir site to estimate sockeye and coho salmon escapements after the weir was removed. The 2015 post weir estimate of coho salmon escapement from August 21 through September 23 was 60,083 fish, for a total estimated escapement of 60,209 coho salmon (Table 7). Coho salmon runs in other CMA streams had not begun by the time of the final 2015 aerial survey. Due to late season run timing and limited directed effort, escapement goals for coho salmon have not been established in the CMA (Sagalkin et al. 2013).

Pink Salmon

In 2015, pink salmon began entering the Chignik River in mid-July and peaked in mid-August with a total escapement of 4,269 fish (Table 6). The 2015 pink salmon escapement into the Chignik River was well below the 5-, 10-, and 20-year average escapements (Table 7).

Escapements into other CMA streams were monitored via aerial surveys. Peak aerial survey escapement estimates for all streams were summed and compared to the area wide odd-year aggregate SEG for pink salmon. The 2015 overall combined peak escapement estimates for the CMA was approximately 1,132,529 pink salmon, which exceeded the area wide aggregate odd-year SEG range of 500,000–800,000 fish. The total estimated pink salmon escapement was below the 20-odd year average escapement and similar to the most recent 5- and 10-odd year average escapement estimates (Table 11).

Chum Salmon

A limited number of chum salmon return to the Chignik River, mainly in late-July and August (Table 6). The 2015 Chignik River chum salmon escapement was 54 fish, which was below the recent 5-, 10-, and 20-year average escapements (Table 7).

Escapements into other CMA streams were monitored via aerial surveys. The peak aerial surveys were summed and compared to the areawide aggregate SEG for chum salmon (Sagalkin et al. 2013). The total 2015 CMA chum salmon escapement estimate of 238,214 fish was above the lower bound SEG of 57,400 fish. Chum salmon escapement in 2015 was similar to the most recent 5- and 10-year average escapements and below the recent 20-year average escapement (Table 12).

2015 Harvest Information

Commercial salmon harvest information for 2015 was organized into 4 categories. The first category included salmon that were commercially harvested but retained for private use (home pack). The second category included salmon that were harvested and sold as part of ADF&G's test fishery program. The third category included sockeye salmon commercially harvested within the CMA. The final category included sockeye salmon commercially harvested under the Cape

Igvak and SEDM management plans; for allocative purposes, the Board of Fisheries has determined that specific portions of these harvests are considered bound for the Chignik River.

Salmon harvested under subsistence regulations or ADF&G's Chignik Lagoon test fishery were not included in any of the harvest allocations. Similarly, home pack fish were not included in the Cape Igvak and SEDM allocations. All harvest information in this report was calculated from the ADF&G fish ticket database and supersedes any previously published data. A complete summary of 2015 commercial salmon harvest and effort can be found in Table 2.

Chinook Salmon

A total of 9,204 Chinook salmon were harvested from the CMA in 2015, which was well above the 5-, 10-, and 20-year average Chinook salmon harvests (Table 13). A total of 15 Chinook salmon were harvested in the ADF&G's test fishery program and 84 fish were retained as home pack from the commercial fishery (Table 14). Most of the CMA Chinook salmon harvest occurred in the Central and Western districts (3,172 and 4,249 fish respectively; Table 15). In 2015, Chinook salmon were primarily harvested from late-June through July (Table 16).

Sockeye Salmon

A total of 1,552,495 sockeye salmon were harvested in the CMA during 2015, which was below the 5-year average harvest and above the 10- and 20-year average sockeye salmon harvests (Tables 13 and 17). ADF&G's test fishery program harvested 12,107 of these salmon, and a total of 78 fish were reported as retained for home pack from the commercial fishery (Table 17). Most of the CMA sockeye salmon harvest in 2015 occurred in the Chignik Bay, Central, and Western districts (Table 18). Sockeye salmon were harvested from late-June through August 20 (Table 19).

An additional 104,409 sockeye salmon allocatively considered Chignik-bound were harvested in the Cape Igvak and SEDM fisheries during 2015 (Table 20). The Chignik-bound component of the SEDM harvest was 98,473 fish and totaled 9.6 percent of the total Chignik-bound harvest (allocation 7.6 percent). The Chignik-bound portion of the Cape Igvak harvest was 5,936 fish and totaled 0.5 percent of the Chignik-bound harvest (allocation 15.0 percent).

The 2015 Chignik River early-run sockeye salmon harvest of 627,827 fish was below the 5-, 10-, and 20-year average harvests (Table 21; Figure 11) while the late-run harvest of 1,029,077 sockeye salmon was above recent average harvests (Table 21; Figure 12). The total Chignik-bound commercial sockeye salmon harvest was 1,656,904 fish for a total run estimate (harvest plus escapement) of 2,780,802 sockeye salmon. The 2015 total harvest was similar to 10- and 20-year average harvest and well below the recent 5-year average harvest (Table 21; Figure 13).

In 2015, the Chignik early-run was approximately 160,000 sockeye salmon below the forecast, while the late-run was approximately 400,000 fish over the forecast (Table 22).

Coho Salmon

A total of 82,054 coho salmon were harvested in the CMA during 2015, which was similar the 5- and 10-year average harvests, and below the 20-year average harvests (Tables 13 and 23). In 2015, five of the commercially-harvested coho salmon were retained for home pack while the remaining fish were sold to processors (Table 23). The majority of the 2015 coho salmon harvest occurred in the Central and Western districts from late-June through August (Tables 24 and 25).

Pink Salmon

A total of 1,978,211 pink salmon were harvested during 2015, which was well above the 5-, 10-, and 20-year average harvests (Tables 13 and 26). All commercially-harvested pink salmon were sold to processors by fishermen, which includes 77 salmon harvested during ADF&G's Chignik Lagoon test fishery (Table 26). The majority of the 2015 pink salmon harvest occurred in the Western and Central districts in July and August (Table 27 and 28).

Chum Salmon

A total of 101,017 chum salmon were harvested from the CMA during the 2015 season, which was well below the 5-, 10-, and 20-year average harvests (Tables 13 and 29). All of the commercially-harvested chum salmon were sold to processors by fishermen, including 16 salmon harvested during ADF&G's Chignik Lagoon test fishery (Table 29). The 2015 chum salmon harvest occurred mostly in the Central and Western districts from late-June through August (Tables 30 and 31).

Economic Value

In 2015, 71 CMA permit holders (78% of CMA permits) made deliveries (Table 32). The exvessel value of the 2015 CMA salmon harvest was about $7.8 million, or approximately $110,900 per active permit holder, which was well below the 5-, 10-, and 20-year average exvessel values (Table 32; Figure 14). The vast majority (84%) of exvessel revenue was from the sale of sockeye salmon ($93,048 per active permit holder). The 2015 Chinook, coho, pink, and chum salmon harvest provided $1,020, $1,401, $13,169, and $2,310, respectively, per active permit holder (Table 32).

CHIGNIK LAGOON TEST FISHERY

ADF&G conducts test fisheries in Chignik Lagoon for multiple purposes. Early-season test fisheries are used to determine buildup of salmon prior to the first commercial fishery and to generate revenue to pay for the vessels chartered to conduct the test fisheries. Subsequent test fisheries are conducted to assess salmon abundance in Chignik Lagoon during fishery closures and offset the costs of operations at the Chignik weir (Wilburn 2015).

ADF&G conducted 6 test fisheries during 2015, with a total harvest of 12,107 sockeye salmon (Table 17). The first test fishery occurred on June 12, when 1,248 sockeye salmon were harvested (Table 19). Subsequent test fisheries were conducted on June 14, June 17, June 19, July 13 and July 22.

CHIGNIK AREA SUBSISTENCE SALMON FISHERIES

The 2015 CMA subsistence harvest will not be available until after subsistence permits are returned and tabulated in the spring of 2016. Historical subsistence harvests can be found in Table 33.

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TABLES AND FIGURES

Table 1.–Chignik River sockeye salmon escapement objectives, 2015.

	Black Lake		Chignik Lake			Chignik Lake	
Date[a]	Lower	Upper	Lower	Upper	Date	Lower	Upper
June 2	2,000	3,500			August 1	160,000	297,000
June 4	7,000	9,000			August 3	167,000	306,000
June 6	14,000	19,000			August 5	173,000	314,000
June 8	25,000	33,000			August 7	179,000	321,000
June 10	40,000	51,000			August 9	184,000	327,000
June 12	54,000	70,000			August 11	189,000	332,000
June 14	71,000	92,000			August 13	194,000	337,000
June 16	97,000	124,000			August 15	199,000	343,000
June 18	126,000	162,000			August 17	204,000	348,000
June 20	155,000	200,000	1,000	2,000	August 19	207,000	350,000
June 22	183,000	235,000	1,500	3,500	August 21	211,000	358,000
June 24	209,000	268,000	3,000	6,000	August 23	214,000	362,000
June 26	242,000	311,000	5,500	10,000	August 25	217,000	366,000
June 28	268,000	344,000	8,000	16,000	August 27	220,000	369,000
June 30	285,000	365,000	11,500	22,000	August 29	223,000	373,000
July 2	300,000	385,000	16,000	30,000	August 31	225,000	375,000
July 4	312,000	401,000	21,000	40,000			
July 6	321,000	413,000	27,000	51,000	September 3	228,000	378,000
July 8	329,000	422,000	34,000	65,000	September 5	231,000	381,000
July 10	334,000	430,000	43,000	81,000	September 7	235,000	385,000
July 12	340,000	436,000	53,000	98,000	September 9	239,000	389,000
July 14	343,000	440,000	63,000	118,000	September 11	243,000	393,000
July 16	345,000	443,000	75,000	142,000	September 13	247,000	397,000
July 18	347,000	446,000	88,000	168,000	September 15	250,000	400,000
July 20	348,000	448,000	100,000	192,000			
July 22	349,000	449,000	113,000	212,000	Escapement Goals		
July 24	349,000	449,000	123,000	230,000			
July 26	349,000	449,000	134,000	251,000	Black Lake	350,000	450,000
July 28	349,000	449,000	143,000	269,000	Chignik Lake	250,000	400,000[a]
July 30	350,000	450,000	151,000	284,000			

Note: Historically, the estimate of the total escapement for early run sockeye salmon was based on Chignik River weir counts through July 4, based on scale pattern analysis studies. After July 4, sockeye salmon through the weir was considered late-run escapement. Beginning in 2014, inseason genetic samples were used to determine the apportionment of the 2 runs during late June and mid-July when the runs overlap instead of the July 4 date. New interim escapement objectives were also stablished for both runs.

[a] The late-run escapement objective (June 20–September 15) includes the late-run sockeye salmon sustainable escapement goal (SEG; 200,000–400,000), plus an additional 50,000 sockeye salmon inriver run goal (25,000 in August and 25,000 from September 1–15) to meet late season subsistence needs.

Table 2.–Commercial salmon fishing effort and harvest (including home pack but not including the department's test fishery harvest), by day in the Chignik Management Area, 2015.

	Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
Date	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
24-Jun	58	60	2,427	12,077	42,462	221,811	2,605	13,527	8,635	25,553	11,330	64,503	67,459	337,471
25-Jun	56	62	564	4,442	39,519	199,082	1,270	7,618	1,836	4,559	3,124	22,289	46,313	237,990
26-Jun	58	66	704	5,850	36,142	184,481	1,333	7,277	1,619	4,302	2,173	15,094	41,971	217,004
27-Jun	55	61	684	5,925	21,180	109,053	1,432	9,673	1,886	4,684	1,384	9,320	26,566	138,655
28-Jun	49	54	772	5,859	20,162	105,094	1,226	6,372	809	2,583	1,324	7,161	24,293	127,069
29-Jun	37	40	126	1,302	6,954	33,996	296	1,663	146	595	181	1,136	7,703	38,692
30-Jun							Fishery Closed							
1-Jul	63	72	775	5,440	39,661	211,404	7,610	41,878	56,481	180,332	4,294	25,325	108,821	464,379
2-Jul	64	68	477	4,320	31,897	168,878	10,081	66,802	54,112	148,000	3,260	22,726	99,827	410,726
3-Jul							Fishery Closed							
4-Jul							Fishery Closed							
5-Jul							Fishery Closed							
6-Jul							Fishery Closed							
7-Jul	62	65	703	6,926	37,133	194,677	1,961	12,905	25,737	66,851	1,925	12,447	67,459	293,806
8-Jul	57	62	159	1,958	42,598	229,810	1,508	8,963	18,514	70,613	2,588	10,325	65,367	321,669
9-Jul	62	68	275	2,644	48,666	263,082	1,494	9,003	47,096	134,405	2,022	12,810	99,553	421,944
10-Jul	53	60	169	2,004	59,852	326,900	1,010	6,139	31,426	103,560	1,424	9,109	93,881	447,712
11-Jul	54	55	335	3,089	41,487	218,744	738	4,217	17,777	53,618	1,272	7,547	61,609	287,215
12-Jul							Fishery Closed							
13-Jul							Fishery Closed							
14-Jul	61	71	100	1,353	116,132	626,110	4,350	27,956	36,939	108,536	2,090	13,900	159,611	777,855
15-Jul	49	54	37	423	43,424	235,763	582	3,645	17,308	50,829	800	4,975	62,151	295,635
16-Jul	51	53	71	1,023	40,078	227,541	895	6,081	19,283	56,895	954	6,511	61,281	298,051
17-Jul	51	54	85	1,075	33,968	182,242	1,685	10,360	29,315	89,000	1,952	12,055	67,005	294,732
18-Jul	50	53	126	1,287	28,161	152,012	2,121	13,331	35,343	111,886	1,893	11,898	67,644	290,414
19-Jul	59	63	61	618	62,792	363,151	3,149	20,896	51,670	137,602	2,744	19,669	120,416	541,936
20-Jul	53	56	33	369	71,109	387,644	1,801	13,195	39,167	92,619	2,408	18,520	114,518	512,347
21-Jul	39	39	124	900	36,892	221,762	1,949	13,541	15,092	44,246	2,591	11,012	56,648	291,461
22-Jul							Fishery Closed							
23-Jul	51	53	66	642	30,740	173,444	2,388	16,830	30,570	75,698	2,876	23,620	66,640	290,234
24-Jul	53	64	34	475	62,720	349,840	3,739	25,505	48,648	131,416	3,738	27,908	118,879	535,144

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	Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
Date	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
25-Jul	31	31	26	260	20,871	124,579	1,675	11,028	9,299	33,393	1,669	11,068	33,540	180,328
26-Jul							Fishery Closed							
27-Jul							Fishery Closed							
28-Jul							Fishery Closed							
29-Jul	48	50	16	271	33,032	177,163	1,622	10,462	65,238	160,614	2,040	15,755	101,948	364,265
30-Jul	54	59	22	240	95,232	527,721	3,854	23,595	106,777	321,762	3,854	25,363	209,739	898,681
31-Jul	60	63	7	94	50,454	295,706	1,985	13,088	54,068	161,287	2,010	14,861	108,524	485,036
1-Aug							Fishery Closed							
2-Aug							Fishery Closed							
3-Aug							Fishery Closed							
4-Aug	44	51	6	61	32,793	184,176	3,118	20,908	150,732	438,766	5,451	37,698	192,100	681,609
5-Aug	34	34	10	51	15,665	86,365	1,005	5,716	49,355	158,622	3,298	21,869	69,333	272,623
6-Aug	51	52	10	115	33,002	188,262	1,799	12,485	112,486	303,392	2,582	16,829	149,879	521,083
7-Aug	13	13	2	41	9,799	53,930	288	2,108	17,581	53,376	412	2,985	28,082	112,440
8-Aug	54	57	36	327	44,300	252,545	1,634	11,759	71,151	198,297	3,011	20,916	120,132	483,844
9-Aug	30	32	3	44	10,964	59,518	33	194	4,857	15,996	373	2,271	16,230	78,023
10-Aug	53	53	43	385	23,411	127,057	1,163	7,703	62,129	172,918	1,667	12,143	88,413	320,206
11-Aug	53	60	21	232	34,851	208,429	1,495	10,920	99,503	300,264	2,031	14,428	137,901	534,273
12-Aug	49	52	21	173	23,601	132,733	1,115	6,443	73,450	226,169	2,176	13,083	100,363	378,601
13-Aug	54	56	18	157	17,923	101,885	1,194	7,271	75,519	263,025	2,334	13,275	96,988	385,613
14-Aug	18	19			9,466	50,581	13	77	3,673	11,406	164	961	13,316	63,025
15-Aug	44	49	2	23	20,670	119,571	1,259	8,818	105,443	318,640	2,507	17,363	129,881	464,415
16-Aug	50	56	3	49	24,451	139,390	990	7,761	107,665	293,121	1,844	14,073	134,953	454,394
17-Aug	21	21	1	14	8,452	49,454	129	904	10,684	32,307	300	1,957	19,566	84,636
18-Aug	36	36	24	158	12,614	69,018	999	5,634	77,607	240,074	1,886	10,847	93,130	325,731
19-Aug	36	37	1	14	13,447	73,366	769	5,198	82,133	268,691	1,653	10,467	98,003	357,736
20-Aug	35	36	10	57	11,661	62,206	692	4,101	49,375	173,068	1,392	7,975	63,130	247,407
21-Aug							Processors closed for season							
Total	71	2,270	9,189	72,767	1,540,388	8,470,176	82,054	523,550	1,978,134	5,843,570	101,001	656,047	3,710,766	15,566,110

Table 3.–Estimated Chignik River sockeye salmon escapement, by day and management objective period, 2015.

May–June			July			August		
Date	Daily	Total	Date	Daily	Total	Date	Daily	Total
5/19	0	0	7/1	10,783	10,783	8/1	7,364	7,364
5/20	12	12	7/2	2,946	13,729	8/2	10,594	17,958
5/21	12	24	7/3	912	14,641	8/3	9,250	27,208
5/22	24	48	7/4	5,132	19,773	8/4	23,332	50,540
5/23	48	96	7/5	14,937	34,710	8/5	18,561	69,101
5/24	121	217	7/6	30,225	64,935	8/6	6,123	75,224
5/25	66	283	7/7	11,651	76,586	8/7	7,733	82,957
5/26	78	361	7/8	4,375	80,961	8/8	6,840	89,797
5/27	216	577	7/9	1,852	82,813	8/9	2,765	92,562
5/28	182	759	7/10	2,062	84,875	8/10	2,029	94,591
5/29	205	964	7/11	1,578	86,453	8/11	2,803	97,394
5/30	394	1,358	7/12	30,079	116,532	8/12	2,923	100,317
5/31	266	1,624	7/13	56,244	172,776	8/13	2,822	103,139
6/1	396	2,020	7/14	22,021	194,797	8/14	3,294	106,433
6/2	862	2,882	7/15	4,906	199,703	8/15	5,123	111,556
6/3	1,414	4,296	7/16	6,470	206,173	8/16	3,312	114,868
6/4	1,614	5,910	7/17	4,978	211,151	8/17	3,134	118,002
6/5	2,016	7,926	7/18	2,021	213,172	8/18	4,832	122,834
6/6	2,284	10,210	7/19	5,279	218,451	8/19	3,294	126,128
6/7	3,694	13,904	7/20	2,517	220,968	8/20[a]	3,417	129,545
6/8	3,099	17,003	7/21	5,553	226,521	8/21	2,471	132,016
6/9	5,915	22,918	7/22	3,617	230,138	8/22	7,809	139,825
6/10	8,067	30,985	7/23	22,139	252,277	8/23	11,880	151,705
6/11	7,964	38,949	7/24	6,762	259,039	8/24	11,838	163,543
6/12	12,015	50,964	7/25	2,390	261,429	8/25	12,803	176,346
6/13	16,094	67,058	7/26	16,675	278,104	8/26	9,436	185,782
6/14	13,106	80,164	7/27	23,208	301,312	8/27	11,923	197,705
6/15	16,120	96,284	7/28	20,805	322,117	8/28	15,786	213,491
6/16	15,850	112,134	7/29	18,939	341,056	8/29	14,807	228,298
6/17	18,280	130,414	7/30	5,994	347,050	8/30	9,907	238,205
6/18	22,874	153,288	7/31	2,651	349,701	8/31	13,197	251,402
6/19	25,107	178,395	July total:		349,701	August total:		251,402
6/20	15,183	193,578						
6/21	20,042	213,620						
6/22	32,401	246,021						
6/23	39,503	285,524						
6/24	36,124	321,648						
6/25	5,443	327,091						
6/26	2,610	329,701						
6/27	1,411	331,112						
6/28	2,108	333,220						
6/29	2,204	335,424						
6/30	5,971	341,395						
May 19–June 30 total: 341,395								

September	
Date	Total
9/1–9/15 estimate	131,985
9/16–9/23 estimate	49,415
September total:	181,400
Early run total:[b]	534,088
Late run total:[b]	589,810
Season total:	1,123,898

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Table 3.–Page 2 of 2.

[a] The weir was removed after the completion of the 8/20 count. DIDSON (Dual-frequency Identification Sonar) was used for enumeration estimates from 8/21–9/23.

[b] Historically, the estimate of the total escapement for early run sockeye salmon was based on Chignik River weir counts through July 4, based on scale pattern analysis studies. After July 4, sockeye salmon through the weir were considered late-run escapement. Beginning in 2014, inseason genetic samples were used to determine the apportionment of the 2 runs during late-June and mid-July when the runs overlap instead of the July 4 date.

Table 4.–Genetic stock proportions of estimated Chignik River sockeye salmon escapement by day, 2015.

Date	Daily escapement	Cumulative escapement	% Late run	Early run	Late run
5/19	0	0	0.00%	0	0
5/20	12	12	0.00%	12	0
5/21	12	24	0.00%	12	0
5/22	24	48	0.00%	24	0
5/23	48	96	0.00%	48	0
5/24	121	217	0.00%	121	0
5/25	66	283	0.00%	66	0
5/26	78	361	0.00%	78	0
5/27	216	577	0.00%	216	0
5/28	182	759	0.00%	182	0
5/29	205	964	0.00%	205	0
5/30	394	1,358	0.00%	394	0
5/31	266	1,624	0.01%	266	0
6/1	396	2,020	0.01%	396	0
6/2	862	2,882	0.01%	862	0
6/3	1,414	4,296	0.01%	1,414	0
6/4	1,614	5,910	0.01%	1,614	0
6/5	2,016	7,926	0.02%	2,016	0
6/6	2,284	10,210	0.02%	2,284	0
6/7	3,694	13,904	0.02%	3,693	1
6/8	3,099	17,003	0.03%	3,098	1
6/9	5,915	22,918	0.04%	5,913	2
6/10	8,067	30,985	0.04%	8,063	4
6/11	7,964	38,949	0.05%	7,960	4
6/12	12,015	50,964	0.07%	12,007	8
6/13	16,094	67,058	0.08%	16,081	13
6/14	13,106	80,164	0.10%	13,093	13
6/15	16,120	96,284	0.12%	16,100	20
6/16	15,850	112,134	0.15%	15,826	24
6/17	18,280	130,414	0.19%	18,246	34
6/18	22,874	153,288	0.23%	22,822	52
6/19	25,107	178,395	0.28%	25,037	70
6/20	15,183	193,578	0.34%	15,131	52
6/21	20,042	213,620	0.42%	19,958	84
6/22	32,401	246,021	0.51%	32,235	166
6/23	39,503	285,524	0.63%	39,255	248
6/24	36,124	321,648	0.77%	35,846	278
6/25	5,443	327,091	0.94%	5,392	51

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Table 4.–Page 2 of 4.

Date	Daily escapement	Cumulative escapement	% Late run	Early run	Late run
6/26	2,610	329,701	1.15%	2,580	30
6/27	1,411	331,112	1.41%	1,391	20
6/28	2,108	333,220	1.72%	2,072	36
6/29	2,204	335,424	2.10%	2,158	46
6/30	5,971	341,395	2.56%	5,818	153
7/1	10,783	352,178	3.12%	10,446	337
7/2	2,946	355,124	3.80%	2,834	112
7/3	912	356,036	4.62%	870	42
7/4	5,132	361,168	5.60%	4,844	288
7/5	14,937	376,105	6.79%	13,923	1,014
7/6	30,225	406,330	8.19%	27,749	2,476
7/7	11,651	417,981	9.86%	10,502	1,149
7/8	4,375	422,356	11.83%	3,858	517
7/9	1,852	424,208	14.12%	1,590	262
7/10	2,062	426,270	16.78%	1,716	346
7/11	1,578	427,848	19.82%	1,265	313
7/12	30,079	457,927	23.25%	23,085	6,994
7/13	56,244	514,171	27.08%	41,012	15,232
7/14	22,021	536,192	31.29%	15,131	6,890
7/15	4,906	541,098	35.82%	3,149	1,757
7/16	6,470	547,568	40.63%	3,841	2,629
7/17	4,978	552,546	45.62%	2,707	2,271
7/18	2,021	554,567	50.70%	996	1,025
7/19	5,279	559,846	55.77%	2,335	2,944
7/20	2,517	562,363	60.72%	989	1,528
7/21	5,553	567,916	65.46%	1,918	3,635
7/22	3,617	571,533	69.91%	1,088	2,529
7/23	22,139	593,672	74.01%	5,753	16,386
7/24	6,762	600,434	77.74%	1,505	5,257
7/25	2,390	602,824	81.06%	453	1,937
7/26	16,675	619,499	83.99%	2,669	14,006
7/27	23,208	642,707	86.55%	3,122	20,086
7/28	20,805	663,512	88.75%	2,341	18,464
7/29	18,939	682,451	90.63%	1,775	17,164
7/30	5,994	688,445	92.22%	466	5,528
7/31	2,651	691,096	93.56%	171	2,480
8/1	7,364	698,460	100.00%	0	7,364
8/2	10,594	709,054	100.00%	0	10,594

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Table 4.–Page 3 of 4.

Date	Daily escapement	Cumulative escapement	% Late run	Early run	Late run
8/3	9,250	718,304	100.00%	0	9,250
8/4	23,332	741,636	100.00%	0	23,332
8/5	18,561	760,197	100.00%	0	18,561
8/6	6,123	766,320	100.00%	0	6,123
8/7	7,733	774,053	100.00%	0	7,733
8/8	6,840	780,893	100.00%	0	6,840
8/9	2,765	783,658	100.00%	0	2,765
8/10	2,029	785,687	100.00%	0	2,029
8/11	2,803	788,490	100.00%	0	2,803
8/12	2,923	791,413	100.00%	0	2,923
8/13	2,822	794,235	100.00%	0	2,822
8/14	3,294	797,529	100.00%	0	3,294
8/15	5,123	802,652	100.00%	0	5,123
8/16	3,312	805,964	100.00%	0	3,312
8/17	3,134	809,098	100.00%	0	3,134
8/18	4,832	813,930	100.00%	0	4,832
8/19	3,294	817,224	100.00%	0	3,294
8/20	3,417	820,641	100.00%	0	3,417
8/21	2,471	823,112	100.00%	0	2,471
8/22	7,809	830,921	100.00%	0	7,809
8/23	11,880	842,801	100.00%	0	11,880
8/24	11,838	854,639	100.00%	0	11,838
8/25	12,803	867,442	100.00%	0	12,803
8/26	9,436	876,878	100.00%	0	9,436
8/27	11,923	888,801	100.00%	0	11,923
8/28	15,786	904,587	100.00%	0	15,786
8/29	14,807	919,394	100.00%	0	14,807
8/30	9,907	929,301	100.00%	0	9,907
8/31	13,197	942,498	100.00%	0	13,197
9/1	9,949	952,447	100.00%	0	9,949
9/2	15,006	967,453	100.00%	0	15,006
9/3	14,943	982,396	100.00%	0	14,943
9/4	11,646	994,042	100.00%	0	11,646
9/5	12,875	1,006,917	100.00%	0	12,875
9/6	7,656	1,014,573	100.00%	0	7,656
9/7	9,504	1,024,077	100.00%	0	9,504
9/8	9,122	1,033,199	100.00%	0	9,122

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Table 4.–Page 4 of 4.

Date	Daily escapement	Cumulative escapement	% Late run	Early run	Late run
9/9	9,498	1,042,697	100.00%	0	9,498
9/10	8,382	1,051,079	100.00%	0	8,382
9/11	5,628	1,056,707	100.00%	0	5,628
9/12	5,404	1,062,111	100.00%	0	5,404
9/13	4,698	1,066,809	100.00%	0	4,698
9/14	4,379	1,071,188	100.00%	0	4,379
9/15	3,295	1,074,483	100.00%	0	3,295
9/16	7,231	1,081,714	100.00%	0	7,231
9/17	10,374	1,092,088	100.00%	0	10,374
9/18	10,119	1,102,207	100.00%	0	10,119
9/19	7,004	1,109,211	100.00%	0	7,004
9/20	5,912	1,115,123	100.00%	0	5,912
9/21	4,543	1,119,666	100.00%	0	4,543
9/22	2,370	1,122,036	100.00%	0	2,370
9/23	1,862	1,123,898	100.00%	0	1,862

Table 5.–Estimates of stock composition, with upper and lower 90% credibility intervals, and standard deviations for escapement through the Chignik River weir, by sample date, 2010–2015, using the program BAYES with a sequential prior.

			Black Lake				Chignik Lake			
Year	Sample date	Sample size	Proportion	Lower	Upper	SD	Proportion	Lower	Upper	SD
	14-Jun	190	0.959	0.894	1.000	0.036	0.041	0.000	0.106	0.036
	21-Jun	189	0.995	0.966	1.000	0.014	0.005	0.000	0.034	0.014
	27-Jun	189	0.924	0.794	1.000	0.075	0.076	0.000	0.206	0.075
	1-Jul	189	0.823	0.724	0.912	0.057	0.177	0.088	0.276	0.057
	5-Jul	190	0.788	0.699	0.871	0.052	0.212	0.129	0.301	0.052
2010	July 8-9	190	0.784	0.687	0.870	0.056	0.216	0.13	0.313	0.056
	11-Jul	190	0.519	0.409	0.625	0.066	0.481	0.375	0.591	0.066
	14-Jul	188	0.227	0.154	0.306	0.046	0.773	0.694	0.846	0.046
	July 18-19	188	0.293	0.214	0.377	0.05	0.707	0.623	0.786	0.05
	23-Jul	186	0.108	0.052	0.173	0.037	0.892	0.827	0.948	0.037
	30-Jul	190	0.013	0.000	0.062	0.022	0.987	0.938	1.000	0.022
	10-Jun	188	0.998	0.988	1.000	0.005	0.002	0.000	0.012	0.005
	17-Jun	188	1.000	1.000	1.000	0.002	0.000	0.000	0.000	0.002
	24-Jun	188	0.976	0.888	1.000	0.040	0.024	0.000	0.112	0.04
	28-Jun	190	0.832	0.744	0.918	0.054	0.168	0.082	0.256	0.054
	2-Jul	190	0.953	0.886	1.000	0.036	0.047	0.000	0.114	0.036
2011	5-Jul	190	0.785	0.696	0.866	0.052	0.215	0.134	0.304	0.052
	July 9-10	187	0.719	0.625	0.807	0.055	0.281	0.193	0.375	0.055
	July 12-13	190	0.297	0.214	0.384	0.052	0.703	0.616	0.786	0.052
	14-Jul	190	0.308	0.217	0.402	0.056	0.692	0.598	0.783	0.056
	21-Jul	186	0.123	0.062	0.192	0.039	0.877	0.808	0.938	0.039
	28-Jul	189	0.036	0.000	0.088	0.029	0.964	0.912	1.000	0.029
	11-Jun	188	0.976	0.904	1.000	0.034	0.024	0.000	0.096	0.034
	18-Jun	190	0.964	0.882	1.000	0.042	0.036	0.000	0.118	0.042
	25-Jun	189	0.993	0.955	1.000	0.017	0.007	0.000	0.045	0.017
	1-Jul	190	0.644	0.544	0.733	0.058	0.356	0.267	0.456	0.058
	5-Jul	187	0.485	0.396	0.574	0.054	0.515	0.426	0.604	0.054
2012	July 8-9[a]	187	0.099	0.005	0.235	0.071	0.901	0.765	0.995	0.071
	11-Jul	189	0.225	0.147	0.306	0.048	0.775	0.694	0.853	0.048
	14-Jul	190	0.070	0.011	0.132	0.036	0.930	0.868	0.989	0.036
	17-Jul	189	0.003	0.000	0.020	0.009	0.997	0.980	1.000	0.009
	21-Jul	190	0.006	0.000	0.049	0.018	0.994	0.951	1.000	0.018
	28-Jul	170	0.000	0.000	0.000	0.001	1.000	1.000	1.000	0.001

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Table 5.–Page 2 of 2.

			Black Lake				Chignik Lake			
Year	Sample Date	Sample Size	Proportion	Lower	Upper	SD	Proportion	Lower	Upper	SD
2013	27-Jun	188	0.911	0.838	1.000	0.045	0.089	0.000	0.162	0.024
	1-Jul	189	0.858	0.761	0.942	0.055	0.142	0.058	0.239	0.055
	5-Jul	169	0.612	0.515	0.705	0.058	0.388	0.295	0.485	0.058
	July 8-9	187	0.429	0.338	0.519	0.055	0.571	0.481	0.662	0.055
	14-Jul	190	0.288	0.196	0.384	0.057	0.712	0.616	0.804	0.057
2014	28-Jun	189	0.825	0.745	0.896	0.046	0.175	0.104	0.255	0.046
	2-Jul	189	0.785	0.690	0.874	0.056	0.215	0.126	0.310	0.056
	6-Jul	189	0.618	0.519	0.714	0.059	0.382	0.286	0.481	0.059
	10-Jul	188	0.357	0.258	0.460	0.062	0.643	0.540	0.742	0.062
	14-Jul	188	0.220	0.139	0.307	0.051	0.780	0.693	0.861	0.051
	18-Jul	189	0.143	0.064	0.227	0.050	0.857	0.773	0.936	0.05
2015	June 27	190	0.905	0.815	1.000	0.054	0.095	0.000	0.185	0.054
	July 1	188	0.932	0.856	0.996	0.042	0.068	0.004	0.144	0.042
	July 5	187	0.864	0.775	0.944	0.051	0.136	0.056	0.225	0.051
	July 12	190	0.894	0.790	0.995	0.061	0.106	0.005	0.210	0.061
	July 18	182	0.363	0.253	0.476	0.068	0.637	0.524	0.747	0.068
	July 25	187	0.383	0.284	0.485	0.061	0.617	0.515	0.716	0.061

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

Table 6.–Estimated Chignik River Chinook, coho, pink, and chum salmon, and Dolly Varden escapement, by day, 2015.

	Chinook		Coho		Pink		Chum		Dolly Varden	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
5/19	0	0	0	0	0	0	0	0	0	0
5/20	0	0	0	0	0	0	0	0	42	42
5/21	0	0	0	0	0	0	0	0	0	42
5/22	0	0	0	0	0	0	0	0	0	42
5/23	0	0	0	0	0	0	0	0	18	60
5/24	0	0	0	0	0	0	0	0	54	114
5/25	0	0	0	0	0	0	0	0	0	114
5/26	0	0	0	0	0	0	0	0	6	120
5/27	0	0	0	0	0	0	0	0	6	126
5/28	0	0	0	0	0	0	0	0	0	126
5/29	0	0	0	0	0	0	0	0	0	126
5/30	0	0	0	0	0	0	0	0	0	126
5/31	0	0	0	0	0	0	0	0	0	126
6/1	0	0	0	0	0	0	0	0	0	126
6/2	0	0	0	0	0	0	0	0	6	132
6/3	0	0	0	0	0	0	0	0	8	140
6/4	0	0	0	0	0	0	0	0	0	140
6/5	0	0	0	0	0	0	0	0	0	140
6/6	6	6	0	0	0	0	0	0	29	169
6/7	6	12	0	0	0	0	0	0	0	169
6/8	0	12	0	0	0	0	0	0	0	169
6/9	0	12	0	0	0	0	0	0	13	182
6/10	0	12	0	0	0	0	0	0	54	236
6/11	0	12	0	0	0	0	0	0	54	290
6/12	6	18	0	0	0	0	0	0	18	308
6/13	0	18	0	0	0	0	0	0	66	374
6/14	0	18	0	0	0	0	0	0	103	477
6/15	6	24	0	0	0	0	0	0	108	585
6/16	0	24	0	0	0	0	0	0	120	705
6/17	18	42	0	0	0	0	0	0	240	945
6/18	18	60	0	0	0	0	0	0	114	1,059
6/19	0	60	0	0	0	0	0	0	184	1,243
6/20	18	78	0	0	0	0	0	0	262	1,505
6/21	6	84	0	0	0	0	0	0	308	1,813
6/22	0	84	0	0	0	0	0	0	763	2,576
6/23	0	84	0	0	0	0	0	0	538	3,114
6/24	12	96	0	0	0	0	0	0	421	3,535
6/25	18	114	0	0	0	0	0	0	271	3,806
6/26	12	126	0	0	0	0	0	0	174	3,980
6/27	20	146	0	0	0	0	0	0	287	4,267
6/28	66	212	0	0	0	0	0	0	345	4,612
6/29	0	212	0	0	0	0	0	0	204	4,816
6/30	48	260	0	0	0	0	0	0	222	5,038
7/1	24	284	0	0	0	0	0	0	178	5,216

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Table 6.–Page 2 of 3.

	Chinook		Coho		Pink		Chum		Dolly Varden	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7/2	42	326	0	0	0	0	0	0	880	6,096
7/3	49	375	0	0	0	0	0	0	597	6,693
7/4	25	400	0	0	0	0	0	0	1,504	8,197
7/5	105	505	0	0	0	0	0	0	1,822	10,019
7/6	116	621	0	0	0	0	0	0	1,659	11,678
7/7	138	759	0	0	0	0	0	0	709	12,387
7/8	72	831	0	0	12	12	0	0	264	12,651
7/9	73	904	0	0	0	12	0	0	240	12,891
7/10	48	952	0	0	0	12	0	0	331	13,222
7/11	48	1,000	0	0	0	12	0	0	197	13,419
7/12	144	1,144	0	0	6	18	0	0	208	13,627
7/13	72	1,216	0	0	36	54	0	0	534	14,161
7/14	78	1,294	0	0	0	54	0	0	261	14,422
7/15	44	1,338	0	0	0	54	0	0	53	14,475
7/16	42	1,380	0	0	0	54	0	0	178	14,653
7/17	30	1,410	0	0	0	54	0	0	139	14,792
7/18	7	1,417	0	0	0	54	0	0	85	14,877
7/19	31	1,448	0	0	6	60	0	0	174	15,051
7/20	12	1,460	0	0	0	60	0	0	30	15,081
7/21	7	1,467	0	0	0	60	0	0	146	15,227
7/22	6	1,473	0	0	0	60	0	0	12	15,239
7/23	61	1,534	0	0	12	72	0	0	150	15,389
7/24	42	1,576	0	0	6	78	12	12	102	15,491
7/25	25	1,601	0	0	0	78	0	12	19	15,510
7/26	60	1,661	0	0	67	145	0	12	90	15,600
7/27	24	1,685	0	0	42	187	0	12	48	15,648
7/28	55	1,740	0	0	77	264	6	18	49	15,697
7/29	18	1,758	0	0	119	383	12	30	24	15,721
7/30	6	1,764	0	0	49	432	6	36	120	15,841
7/31	24	1,788	0	0	30	462	0	36	42	15,883
8/1	26	1,814	6	6	108	570	6	42	18	15,901
8/2	30	1,844	6	12	151	721	0	42	6	15,907
8/3	12	1,856	0	12	114	835	0	42	12	15,919
8/4	30	1,886	0	12	534	1,369	6	48	54	15,973
8/5	18	1,904	6	18	150	1,519	0	48	18	15,991
8/6	25	1,929	12	30	150	1,669	0	48	36	16,027
8/7	12	1,941	0	30	217	1,886	0	48	72	16,099
8/8	30	1,971	0	30	300	2,186	0	48	30	16,129
8/9	12	1,983	0	30	224	2,410	0	48	13	16,142
8/10	24	2,007	18	48	144	2,554	6	54	12	16,154
8/11	12	2,019	6	54	180	2,734	0	54	24	16,178
8/12	0	2,019	6	60	288	3,022	0	54	6	16,184
8/13	5	2,024	12	72	116	3,138	0	54	0	16,184

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Table 6.–Page 3 of 3.

	Chinook		Coho		Pink		Chum		Dolly Varden	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
8/14	0	2,024	0	72	150	3,288	0	54	72	16,256
8/15	6	2,030	18	90	240	3,528	0	54	0	16,256
8/16	6	2,036	6	96	194	3,722	0	54	12	16,268
8/17	6	2,042	12	108	246	3,968	0	54	12	16,280
8/18	12	2,054	12	120	121	4,089	0	54	30	16,310
8/19	0	2,054	0	120	84	4,173	0	54	6	16,316
8/20	0	2,054	6	126	96	4,269	0	54	30	16,346
8/21–8/31[a]	0	2,054	2,053	2,179	0	4,269	0	54	0	16,346
9/1–9/15[a]	0	2,054	21,464	23,643	0	4,269	0	54	0	16,346
9/16–9/23[a]	0	2,054	36,566	60,209	0	4,269	0	54	0	16,346
Total		2,054		60,209		4,269		54		16,346

[a] A post weir estimate for coho salmon from 8/21–9/23 was done using DIDSON sonar.

Table 7.–Estimated Chignik River Chinook, coho, pink, and chum salmon, and Dolly Varden escapement, 1980 through 2015.

	Escapement[a]				
Year	Chinook[b]	Coho[c]	Pink[d]	Chum[d]	Dolly Varden[d]
1980	876	ND	ND	ND	ND
1981	1,603	ND	ND	ND	ND
1982	2,412	ND	ND	ND	ND
1983	1,943	ND	ND	ND	ND
1984	5,806	ND	ND	ND	ND
1985	3,144	ND	ND	ND	ND
1986	3,612	ND	ND	ND	ND
1987	2,624	ND	ND	ND	ND
1988	4,868	ND	ND	ND	ND
1989	3,316	ND	ND	ND	ND
1990	4,364	ND	ND	ND	ND
1991	4,531	ND	ND	ND	ND
1992	3,806	ND	ND	ND	ND
1993	1,946	ND	ND	ND	ND
1994	2,963	ND	ND	ND	ND
1995	4,288	ND	ND	ND	ND
1996	3,488	16,843	6,030	136	54,726
1997	3,824	10,810	4,880	483	26,657
1998	3,075	14,124	11,490	156	15,235
1999	3,728	2,414	2,524	48	15,025
2000	4,285	7,062	4,284	48	ND
2001	3,028	103	1,464	66	6,416
2002	3,541	9,262	3,417	67	8,179
2003	6,412	7,635	1,897	68	36,397
2004	7,840	18,810	2,243	276	20,086
2005	6,486	18,206	13,637	408	13,940
2006	3,535	37,113	18,401	99	2,031
2007	2,000	10,299	20,464	118	6,993
2008	1,730	13,958	22,341	124	14,776
2009	1,680	7,670	12,873	109	8,618
2010	3,679	5,152	3,670	95	17,578
2011	2,728	5,293	16,298	145	14,133
2012	1,449	2,663	2,849	73	18,032
2013	1,253	16,783	7,231	72	17,230
2014	2,895	108,955	3,171	58	44,899
2015	2,054	60,209	4,269	54	16,346
Averages					
1995–2014	3,547	16,482	8,377	139	18,942
2005–2014	2,744	22,609	12,094	130	15,823
2010–2014	2,401	27,769	6,644	89	22,374

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

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

[c] Coho escapements beginning in 2014 include a post-weir estimate from DIDSON based counts. Escapements prior to 2014 do not include a post weir estimate.

[d] No reliable escapement (ND) estimates were generated for pink, chum, or coho salmon or Dolly Varden from 1980 to 1996. No post-weir estimates are reported here for pink and chum salmon or Dolly Varden.

Table 8.–Total Chignik River sockeye salmon escapement and escapement goals, based on post-season analysis, by run, 1980 through 2015.

Year	Early run	Late run	Total
1980	311,332	352,729	664,061
1981	438,540	392,909	831,449
1982	616,117	221,601	837,718
1983	426,177	409,458	835,635
1984	597,712	267,862	865,574
1985	376,576	369,262	745,838
1986	566,088	207,231	773,319
1987	589,291	214,452	803,743
1988	420,577	255,180	675,757
1989	384,004	557,171	941,175
1990	434,543	335,867	770,410
1991	672,871	367,227	1,040,098
1992	360,681	405,922	766,603
1993	364,261	333,116	697,377
1994	769,462	197,447	966,909
1995	366,163	373,757	739,920
1996	464,461	284,676	749,137
1997	396,667	378,951	775,618
1998	410,659	290,469	701,128
1999	457,429	258,537	715,966
2000	536,141	269,084	805,225
2001	744,013	392,905	1,136,918
2002	380,701	343,616	724,317
2003	350,004	334,119	684,123
2004	363,800	214,459	578,259
2005	355,091	225,366	580,457
2006	366,497	368,996	735,493
2007	361,091	293,883	654,974
2008	377,579	328,479	706,058
2009	391,476	328,586	720,062
2010	432,535	311,291	743,826
2011	488,930	264,887	753,817
2012	353,441	358,948	712,389
2013	386,782	369,319	756,101
2014	360,381	291,228	651,609
2015	534,088	589,810	1,123,898
Year	Early run	Late run	Total
Esc. Goal	350,000–450,000	250,000–400,000	600,000–850,000
Averages			
1995–2014	417,192	314,078	731,270
2005–2014	387,380	314,098	701,479
2010–2014	404,414	319,135	723,548

Table 9.–Peak sockeye salmon aerial survey escapement estimates for Black Lake tributaries, 1980 through 2015.

Year	Fan Creek	Milk Creek	Boulevard Creek	Alec River	Conglomerate Creek	Broad Creek	Total
1980	127,000	16,000	75,000	70,500	1,500	68,000	358,000
1981	93,000	4,700	59,000	76,500	20,000	27,000	280,200
1982	50,000	5,500	60,000	43,000	20,000	32,000	210,500
1983	ND	ND	ND	ND	ND	ND	-
1984	50,000	22,200	70,000	30,500	31,000	36,000	239,700
1985	28,000	5,500	36,000	65,000	5,500	17,000	157,000
1986	60,000	15,300	47,000	76,000	39,000	27,000	264,300
1987	52,000	12,200	133,000	88,400	45,900	32,500	364,000
1988	54,000	71,000	83,700	106,500	2,300	26,500	344,000
1989	19,300	21,000	64,000	133,000	1,000	7,500	245,800
1990	32,600	7,400	35,900	49,800	2,200	18,000	145,900
1991	14,600	19,500	48,000	ND	2,000	13,000	97,100
1992	ND	ND	ND	392,000	ND	ND	392,000
1993	40,900	12,600	97,600	8,000	77,000	18,200	254,300
1994	70,000	25,000	125,000	350,000	20,000	51,000	641,000
1995	23,000	10,000	60,000	200,000	40,000	60,000	393,000
1996	40,000	24,000	51,000	100,000	50,000	45,000	310,000
1997	60,000	5,000	48,000	166,000	8,000	20,000	307,000
1998	90,000	14,000	100,000	50,000	9,000	62,000	325,000
1999	70,000	8,100	50,000	226,000	1,000	22,000	377,100
2000	41,000	29,000	126,000	210,000	26,000	93,000	525,000
2001	77,000	19,000	265,000	207,000	4,000	89,000	661,000
2002	43,000	ND	20,000	21,000	11,000	7,000	102,000
2003	17,600	400	2,500	188,000	ND	1,000	209,500
2004	4,290	1,490	15,560	137,700	200	ND	159,240
2005	4,300	ND	ND	ND	7,700	ND	12,000
2006	16,000	500	15,500	46,700	2,500	19,800	101,000
2007	40,200	8,800	23,600	199,000	4,000	1,000	276,600
2008	44,000	7,600	34,800	208,000	6,600	3,200	304,200
2009	34,500	11,500	40,500	182,500	5,000	2,100	276,100
2010	10,000	1,700	24,000	100,000	2,100	7,000	144,800
2011	45,000	5,000	65,000	215,000	12,000	ND	342,000
2012	47,000	4,000	55,000	80,000	5,000	5,000	196,000
2013	25,000	ND	3,000	250,000	0	0	278,000
2014	28,400	ND	41,000	210,000	6,600	41,000	327,000
2015	23,100	ND	39,400	185,700	4,600	5,000	257,800
Averages							
1995–2014	38,015	9,381	54,761	157,732	10,563	28,124	281,327
2005–2014	29,440	5,586	33,600	165,689	5,150	9,888	225,770
2010–2014	31,080	3,567	37,600	171,000	5,140	13,250	257,560

Note: No reliable escapement estimates (ND) were available for some years or streams within a year.

Table 10.–Peak sockeye salmon aerial survey escapement estimates for Chignik Lake and Black River tributaries, 1980 through 2015.

	Black River				Chignik Lake			
Year	Bearskin Creek	West Fork	Chiaktuak Creek	Total	Clark River	Home Creek	Hatchery Beach	Total
1980	3,600	33,000	40,400	77,000	ND	ND	ND	-
1981	950	1,500	18,700	21,150	ND	ND	ND	-
1982	1,066	10,791	5,000	16,857	ND	ND	ND	-
1983	ND	ND	6,000	6,000	ND	ND	ND	-
1984	ND	ND	8,200	8,200	ND	ND	ND	-
1985	350	450	1,200	2,000	ND	ND	ND	-
1986	ND	ND	8,300	8,300	ND	ND	ND	-
1987	ND	ND	1,000	1,000	ND	ND	ND	-
1988	ND	ND	4,600	4,600	ND	ND	ND	-
1989	ND	ND	2,100	2,100	ND	ND	ND	-
1990	300	0	50	350	ND	ND	ND	-
1991	ND	ND	ND	-	ND	ND	ND	-
1992	ND	ND	ND	-	ND	ND	ND	-
1993	ND	ND	16,000	16,000	ND	ND	ND	-
1994	5,000	ND	31,000	36,000	18,000	9,200	ND	27,200
1995	7,100	18,000	31,000	56,100	13,000	6,000	150,000	169,000
1996	1,800	22,000	22,000	45,800	13,000	5,500	70,000	88,500
1997	9,000	9,000	23,500	41,500	25,000	8,000	35,000	68,000
1998	4,700	71,000	27,500	103,200	21,000	6,000	62,000	89,000
1999	8,300	17,500	13,000	38,800	8,500	1,620	15,000	25,120
2000	2,600	3,700	10,600	16,900	18,000	19,700	2,000	39,700
2001	ND	ND	9,500	9,500	23,000	11,000	25,000	59,000
2002	ND	15,000	2,300	17,300	ND	ND	ND	-
2003	ND	ND	2,000	2,000	ND	ND	ND	-
2004	100	600	750	1,450	2,500	2,000	ND	4,500
2005	900	900	5,100	6,900	ND	ND	ND	-
2006	1,400	3,500	6,200	11,100	13,500	3,000	3,000	19,500
2007	400	14,500	30,300	45,200	59,000	9,800	65,000	133,800
2008	13,500	18,000	39,600	71,100	39,500	12,300	106,000	157,800
2009	600	11,100	21,800	33,500	13,000	3,500	ND	16,500
2010	1,700	3,500	5,800	11,000	7,600	0	31,000	38,600
2011	1,000	11,000	11,000	23,000	35,000	2,000	28,000	65,000
2012	150	750	7,500	8,400	57,000	2,500	170,000	229,500
2013	100	1,100	15,000	18,213	55,800	2,300	30,000	88,100
2014	3,100	12,400	41,200	56,700	24,900	3,800	102,000	130,700
2015	2,600	24,800	16,150	43,550	14,120	1,260	47,000	62,380
Averages								
1995–2014	3,321	12,975	16,283	30,883	25,253	5,825	59,600	83,666
2005–2014	2,285	7,675	18,350	28,511	33,922	4,356	66,875	97,722
2010–2014	1,210	5,750	16,100	23,463	36,060	2,120	72,200	110,380

Note: No reliable escapement estimates (ND) were available for some years or streams within a year.

Table 11.–Estimated peak pink salmon escapement and objectives in the Chignik Management Area, by district and year, 1980 through 2015.

	District[b]					
Year[a]	Chignik Bay	Central	Eastern	Western	Perryville	Total
1980	3,000	99,400	425,500	139,500	74,800	742,200
1981	1,400	76,500	154,700	249,300	116,000	597,900
1982	2,400	26,100	301,500	45,900	13,400	389,300
1983	1,000	11,000	46,300	36,000	64,500	158,800
1984	123,200	94,000	486,500	188,000	109,800	1,001,500
1985	ND	7,400	212,100	67,500	235,200	522,200
1986	ND	121,900	580,700	43,800	180,500	926,900
1987	ND	65,700	215,600	38,300	65,700	385,300
1988	22,400	216,400	1,005,400	232,400	181,300	1,657,900
1989	13,500	215,000	881,000	57,900	267,400	1,434,800
1990	6,000	131,900	811,400	44,300	88,400	1,082,000
1991	12,200	201,100	125,000	96,800	343,500	778,600
1992	55,800	223,800	1,318,100	38,800	190,400	1,826,900
1993	2,000	160,900	524,700	45,800	448,400	1,181,800
1994	75,800	178,900	863,300	111,600	153,900	1,383,500
1995	180,500	715,500	1,399,300	554,700	582,100	3,432,100
1996	43,100	237,100	1,059,600	220,800	395,700	1,956,300
1997	59,400	594,600	1,287,700	306,300	221,500	2,469,500
1998	24,400	210,900	1,273,200	150,400	222,800	1,881,700
1999	37,300	374,300	615,100	137,900	179,700	1,344,300
2000	27,400	146,100	810,700	130,100	98,700	1,213,000
2001	19,700	460,400	1,470,200	263,000	150,200	2,363,500
2002	16,917	85,755	777,710	85,501	62,170	1,028,053
2003	143,897	576,510	1,408,060	117,650	99,500	2,345,617
2004	27,300	257,000	601,900	94,340	134,320	1,114,860
2005	160,000	473,400	512,350	257,500	188,600	1,591,850
2006	27,401	36,175	195,950	31,800	83,500	374,826
2007	62,464	291,800	565,800	113,000	184,000	1,217,064
2008	69,841	117,650	402,880	99,460	173,200	863,031
2009	28,973	130,700	462,840	130,100	116,450	869,063
2010	8,020	52,650	228,500	22,000	19,400	330,570

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	District[b]					
Year[a]	Chignik Bay	Central	Eastern	Western	Perryville	Total
2011	32,348	223,500	504,000	86,650	139,750	986,248
2012	11,849	63,950	155,500	35,700	35,700	302,699
2013	24,131	223,900	411,060	63,200	141,700	863,991
2014	7,669	30,500	132,050	46,850	18,090	235,159
2015	11,329	232,650	702,400	80,200	105,950	1,132,529
Odd Year SEG						500,000– 800,000
Averages						
1995–2014	50,631	265,120	713,720	147,348	162,354	1,339,172
2005–2014	43,270	164,423	357,093	88,626	110,039	763,450
2010–2014	16,803	118,900	286,222	50,880	70,928	543,733
Odd Year Averages						
1995–2013	74,871	406,461	863,641	203,000	200,350	1,748,323
2005–2013	61,583	268,660	491,210	130,090	154,100	1,105,643
2009–2013	24,217	195,617	556,413	98,983	120,717	995,947

Note: No reliable escapement estimates (ND) were available for some years or streams within a year.

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

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

Table 12.–Estimated peak chum salmon escapement and objectives in the Chignik Management Area, by district and year, 1980 through 2015.

	District[a]					
Year[b]	Chignik Bay	Central	Eastern	Western	Perryville	Total
1980	300	34,200	107,000	56,500	29,100	227,100
1981	500	26,100	126,000	70,300	19,300	242,200
1982	1,400	49,400	145,400	35,400	23,600	255,200
1983	100	17,000	50,200	20,100	8,200	95,600
1984	300	35,400	214,700	73,800	46,000	370,200
1985	0	9,600	4,900	34,600	12,900	62,000
1986	0	31,000	8,500	5,300	7,700	52,500
1987	100	17,500	38,300	19,700	9,800	85,400
1988	15,300	55,800	221,900	27,400	41,400	361,800
1989	4,200	34,700	74,300	7,400	15,900	136,500
1990	1,500	28,000	139,700	28,800	55,800	253,800
1991	0	18,000	70,400	38,100	343,200	469,700
1992	100	173,100	306,900	53,300	40,300	573,700
1993	300	39,400	135,200	14,000	66,800	255,700
1994	1,500	102,600	129,200	23,000	126,000	382,300
1995	10,300	44,500	112,800	45,700	134,600	347,900
1996	16,400	45,100	130,500	44,500	132,000	368,500
1997	18,500	65,700	290,000	60,500	152,800	587,500
1998	4,500	32,000	97,700	30,600	214,500	379,300
1999	2,300	32,400	167,100	16,300	117,300	335,400
2000	100	22,700	216,000	12,700	51,900	303,400
2001	4,100	36,500	406,900	35,500	67,800	550,800
2002	67	11,615	174,850	17,082	32,020	235,634
2003	899	43,191	152,854	39,050	64,331	300,325
2004	376	30,310	277,240	3,100	38,492	349,518
2005	30,000	159,100	36,350	22,000	61,250	308,700
2006	1,099	3,450	53,940	6,000	29,000	93,489
2007	6,118	25,200	58,000	26,500	122,280	238,098
2008	17,624	17,850	57,120	21,240	83,425	197,259
2009	10,809	23,750	138,900	9,200	35,500	218,159
2010	1,095	17,000	60,525	19,400	79,200	177,220
2011	4,145	32,500	177,000	9,000	55,500	278,145

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	District[a]					
Year[b]	Chignik Bay	Central	Eastern	Western	Perryville	Total
2012	1,173	35,000	103,000	25,500	46,300	210,973
2013	672	53,600	63,935	20,200	197,500	335,907
2014	658	21,100	27,620	11,800	40,200	101,378
2015	554	28,700	152,800	13,810	42,350	238,214
Area Management Goal						57,400
Averages						
1995–2014	6,547	37,628	140,117	23,794	87,795	295,880
2005–2014	7,339	38,855	77,639	17,084	75,016	215,933
2010–2014	1,549	31,840	86,416	17,180	83,740	220,725

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

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

Table 13.–Total commercial salmon harvests (including home pack and the department's test fishery harvests) from the Chignik Management Area by species and year, 1980 through 2015.

Year	Permits making deliveries	Landings	Chignik Management Area harvest					
			Chinook	Sockeye	Coho	Pink	Chum	Total
1980	104	3,134	2,344	859,966	119,573	1,093,184	252,521	2,327,588
1981	105	4,222	2,694	1,839,469	78,805	1,162,613	580,332	3,663,913
1982	103	3,606	5,236	1,521,686	300,273	873,384	390,096	3,090,675
1983	102	4,357	5,488	1,824,175	61,927	321,178	159,412	2,372,180
1984	100	3,927	4,318	2,660,619	110,128	444,804	63,303	3,283,172
1985	107	3,392	1,887	921,502	191,162	160,128	22,805	1,297,484
1986	102	4,178	3,037	1,645,834	116,633	647,125	176,640	2,589,269
1987	104	3,856	2,651	1,898,838	150,414	246,775	127,261	2,425,939
1988	102	3,895	7,296	795,841	370,420	2,997,159	267,775	4,438,491
1989	101	3,183	3,542	1,159,287	68,233	27,712	1,624	1,260,398
1990	102	5,405	9,901	2,093,650	130,131	550,008	270,004	3,053,694
1991	103	3,856	3,157	1,895,665	165,625	1,169,248	261,096	3,494,791
1992	102	4,172	10,832	1,277,449	310,943	1,554,073	222,134	3,375,431
1993	103	4,241	19,515	1,697,351	229,459	1,648,377	122,360	3,717,062
1994	100	3,707	3,919	1,618,973	237,204	431,063	227,276	2,518,435
1995	101	5,113	5,493	1,724,045	281,518	2,057,998	380,954	4,450,008
1996	101	4,565	3,145	1,958,393	193,246	189,068	120,891	2,464,743
1997	100	3,394	3,120	770,347	90,908	844,431	155,905	1,864,711
1998	86	3,348	4,503	1,054,439	129,539	776,988	128,996	2,094,465
1999	91	4,382	3,507	3,116,527	89,610	1,698,651	140,597	5,048,892
2000	100	3,268	2,612	1,775,225	123,222	428,064	120,957	2,450,080
2001	93	2,906	2,939	1,511,587	131,448	1,281,767	199,003	3,126,744
2002	42	2,432	1,521	1,050,553	49,372	66,050	54,559	1,222,055
2003	44	2,073	3,068	1,100,297	103,896	502,638	64,044	1,773,943
2004	33	1,346	2,520	704,652	37	2,380	505	710,094
2005	97	1,669	3,408	1,152,133	6,956	194,045	8,821	1,365,363
2006	49	2,066	2,256	902,709	39,221	383,574	61,630	1,389,390
2007	56	2,101	1,773	834,547	73,277	2,019,748	78,553	3,007,898
2008	55	2,217	970	687,270	161,536	2,389,958	209,325	3,449,059
2009	56	2,172	3,319	1,198,105	110,373	1,408,339	256,425	2,976,561
2010	66	2,532	10,380	1,379,785	159,198	489,781	581,329	2,620,473
2011	65	2,617	6,586	2,497,004	76,792	905,166	269,503	3,755,051
2012	70	2,915	3,687	1,800,121	33,316	137,706	171,112	2,145,942
2013	77	3,144	2,959	2,405,151	32,312	871,871	154,965	3,467,258
2014	71	1,521	8,846	620,339	132,459	352,115	55,152	1,168,911
2015	72	2,276	9,204	1,552,495	82,054	1,978,211	101,017	3,722,981
Averages								
1995–2014	73	2,789	3,831	1,412,161	100,912	850,017	160,661	2,527,582
2005–2014	66	2,295	4,418	1,347,716	82,544	915,230	184,682	2,534,591
2010–2014	70	2,546	6,492	1,740,480	86,815	551,328	246,412	2,631,527

Table 14.–Annual Chignik Management Area Chinook salmon harvest, 1980 through 2015.

	Test fish		Commercial catch		Home pack		Total	
Year	Number	Pounds	Number	Pounds	Number	Pounds[a]	Number	Pounds
1980	ND	ND	2,344	32,255	ND	ND	2,344	32,255
1981	ND	ND	2,694	50,832	ND	ND	2,694	50,832
1982	ND	ND	5,236	59,753	ND	ND	5,236	59,753
1983	ND	ND	5,488	96,159	ND	ND	5,488	96,159
1984	ND	ND	4,318	99,567	ND	ND	4,318	99,567
1985	10	249	1,877	44,625	ND	ND	1,887	44,874
1986	ND	ND	3,037	66,772	ND	ND	3,037	66,772
1987	0	0	2,651	49,482	ND	ND	2,651	49,482
1988	0	0	7,296	128,880	ND	ND	7,296	128,880
1989	0	0	3,542	76,698	ND	ND	3,542	76,698
1990	0	0	9,901	134,265	ND	ND	9,901	134,265
1991	3	37	3,154	66,666	ND	ND	3,157	66,703
1992	2	8	10,830	138,082	ND	ND	10,832	138,090
1993	14	65	19,501	234,188	ND	ND	19,515	234,253
1994	16	245	3,903	71,620	ND	ND	3,919	71,865
1995	0	0	5,261	111,187	232	4,903	5,493	116,090
1996	0	0	3,105	62,603	40	806	3,145	63,409
1997	7	149	3,025	47,075	88	1,369	3,120	48,593
1998	21	450	4,374	66,080	108	1,632	4,503	68,162
1999	0	0	3,296	56,706	211	3,630	3,507	60,336
2000	0	0	2,592	34,757	20	268	2,612	35,025
2001	4	120	2,845	39,252	90	1,242	2,939	40,614
2002	3	25	1,441	13,725	77	733	1,521	14,483
2003	2	13	2,757	39,716	309	4,451	3,068	44,180
2004	4	57	2,337	43,652	179	3,343	2,520	47,052
2005	1	23	3,136	55,638	271	6,157	3,408	61,818
2006	1	21	2,187	38,015	68	1,536	2,256	39,572
2007	11	228	1,746	29,745	16	308	1,773	30,281
2008	0	0	955	14,463	15	227	970	14,690
2009	0	0	3,244	30,791	75	1,166	3,319	31,957
2010	0	0	10,262	102,684	118	1,708	10,380	104,392
2011	4	45	6,440	72,305	142	2,486	6,586	74,836
2012	0	0	3,636	48,850	51	1,053	3,687	49,903
2013	2	25	2,872	35,587	85	1,644	2,959	37,256
2014	2	6	8,809	75,747	35	417	8,846	76,170
2015	15	160	9,105	71,722	84	1,045	9,204	72,927
Averages								
1995–2014	3	58	3,716	50,929	112	1,954	3,831	52,941
2005–2014	2	35	4,329	50,383	88	1,670	4,418	52,088
2010–2014	2	15	6,404	67,035	86	1,462	6,492	68,511

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

Table 15.–Chignik Management Area Chinook salmon harvest (including home pack and the department's test fishery catches), by district and year, 1980 through 2015.

	District					
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total
1980	929	148	169	739	359	2,344
1981	2,006	302	188	99	99	2,694
1982	3,269	41	38	1,354	534	5,236
1983	3,560	161	260	1,390	117	5,488
1984	3,696	63	72	487	0	4,318
1985	1,809	50	7	21	0	1,887
1986	2,592	58	14	350	23	3,037
1987	1,931	60	6	512	142	2,651
1988	4,331	1,094	190	1,216	465	7,296
1989	3,532	9	1	0	0	3,542
1990	3,719	2,175	175	3,190	642	9,901
1991	1,996	775	165	197	24	3,157
1992	3,181	2,010	181	4,300	1,160	10,832
1993	5,240	6,865	2,568	3,113	1,729	19,515
1994	1,808	1,303	43	452	313	3,919
1995	3,219	845	108	897	424	5,493
1996	1,590	1,022	263	162	108	3,145
1997	1,384	1,609	60	60	7	3,120
1998	1,805	1,798	79	567	254	4,503
1999	2,270	852	147	216	22	3,507
2000	598	530	53	1,421	10	2,612
2001	1,235	770	302	627	5	2,939
2002	920	17	0	584	0	1,521
2003	2,834	189	0	45	0	3,068
2004	2,520	0	0	0	0	2,520
2005	2,714	391	0	297	6	3,408
2006	2,009	165	3	79	0	2,256
2007	667	421	152	532	1	1,773
2008	219	195	16	503	37	970
2009	552	552	199	1,987	29	3,319
2010	1,564	2,420	834	5,476	86	10,380
2011	1,462	2,154	639	2,118	213	6,586
2012	330	1,878	185	1,284	10	3,687
2013	592	1,249	398	668	52	2,959
2014	363	4,302	75	4,054	52	8,846
2015	1,648	3,172	115	4,249	20	9,204
Averages						
1995–2014	1,442	1,068	176	1,079	66	3,831
2005–2014	1,047	1,373	250	1,700	49	4,418
2010–2014	862	2,401	426	2,720	83	6,492

Table 16.–Chignik Management Area Chinook salmon harvest (including home pack and the department's test fishery catches), by district and day, 2015.

Date	Number of Permits	District					Total
		Chignik Bay	Central	Eastern	Western	Perryville	
6/12[a]	1	4	Closed	Closed	Closed	Closed	4
6/13		Closed	Closed	Closed	Closed	Closed	0
6/14[a]	1	0	Closed	Closed	Closed	Closed	0
6/15		Closed	Closed	Closed	Closed	Closed	0
6/16		Closed	Closed	Closed	Closed	Closed	0
6/17[a]	1	6	Closed	Closed	Closed	Closed	6
6/18		Closed	Closed	Closed	Closed	Closed	0
6/19[a]	1	5	Closed	Closed	Closed	Closed	5
6/20		Closed	Closed	Closed	Closed	Closed	0
6/21		Closed	Closed	Closed	Closed	Closed	0
6/22		Closed	Closed	Closed	Closed	Closed	0
6/23		Closed	Closed	Closed	Closed	Closed	0
6/24	58	67	[b]	11	2,191	Closed	[b]
6/25	56	67	0	0	197	Closed	564
6/26	58	55	[b]	3	303	Closed	[b]
6/27	55	248	[b]	31	320	Closed	[b]
6/28	49	162	[b]	1	0	Closed	[b]
6/29	37	73	0	0	[b]	Closed	[b]
6/30		Closed	Closed	Closed	Closed	Closed	0
7/1	63	188	[b]	44	372	Closed	[b]
7/2	64	138	[b]	25	141	Closed	[b]
7/3		0	0	0	0	Closed	0
7/4		Closed	Closed	Closed	Closed	Closed	0
7/5		Closed	Closed	Closed	Closed	Closed	0
7/6		Closed	Closed	Closed	Closed	Closed	0
7/7	62	148	314	Closed	[b]	Closed	[b]
7/8	57	69	90	Closed	0	Closed	159
7/9	62	71	204	Closed	0	Closed	275
7/10	53	58	111	Closed	0	Closed	169
7/11	54	12	323	Closed	0	Closed	335
7/12		Closed	Closed	Closed	Closed	Closed	0
7/13[a]	1	0	Closed	Closed	Closed	Closed	0
7/14	61	39	40	Closed	21	0	100
7/15	49	24	13	Closed	0	0	37
7/16	51	40	31	Closed	0	0	71
7/17	51	22	63	Closed	0	Closed	85
7/18	50	48	78	Closed	0	Closed	126
7/19	59	14	6	0	41	0	61
7/20	53	14	5	0	14	0	33
7/21	39	6	2	0	116	0	124
7/22[a]	1	0	Closed	Closed	Closed	Closed	0

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Table 16.–Page 2 of 2.

Date	Number of Permits	District					
		Chignik Bay	Central	Eastern	Western	Perryville	Total
7/23	51	19	4	0	43	0	66
7/24	53	8	7	0	18	1	34
7/25	31	7	0	0	19	0	26
7/26		Closed	Closed	Closed	Closed	Closed	0
7/27		Closed	Closed	Closed	Closed	Closed	0
7/28		Closed	Closed	Closed	Closed	Closed	0
7/29	48	5	6	Closed	2	3	16
7/30	54	8	1	Closed	10	3	22
7/31	60	3	1	Closed	3	0	7
8/1		Closed	Closed	Closed	Closed	Closed	0
8/2		Closed	Closed	Closed	Closed	Closed	0
8/3		Closed	Closed	Closed	Closed	Closed	0
8/4	44	0	0	0	4	2	6
8/5	34	1	[b]	0	0	8	[b]
8/6	51	1	0	0	9	0	10
8/7	13	0	0	0	2	0	2
8/8	54	5	8	0	23	0	36
8/9	30	3	0	0	0	0	3
8/10	53	5	19	0	19	0	43
8/11	53	1	0	0	18	2	21
8/12	49	0	2	0	19	0	21
8/13	54	0	0	0	17	1	18
8/14	18	0	0	0	0	0	0
8/15	44	2	0	0	0	0	2
8/16	50	0	1	0	2	0	3
8/17	21	1	0	0	0	0	1
8/18	36	0	1	0	23	0	24
8/19	36	1	0	0	0	0	1
8/20	35	0	2	0	8	0	10
8/21		Processors Closed for Season					
Total[c]	72	1,648	3,172	115	4,249	20	9,204

[a] ADF&G test fishery.

[b] Confidentiality requirements prevent the release of this information.

[c] Totals include information not provided by individual date due to confidentiality requirements.

Table 17.–Total harvest of sockeye salmon considered by regulation to be Chignik-bound in the Chignik, Cape Igvak, and Southeastern District Mainland commercial salmon fisheries, 1970 through 2015.

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

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Table 17.–Page 2 of 2.

	Testfish		Commercial Catch		Home Pack		Total CMA Harvest		Cape Igvak[a]		SEDM[b]		Total Chignik-Bound	
Year	Number	Pounds	Number	Pounds	Number	Pounds[c]	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
2001[d]	14,011	98,197	1,497,359	10,972,234	217	1,590	1,511,587	11,072,021	215,214	1,287,154	51,141	368,970	1,777,942	12,728,145
2002	9,101	61,656	1,040,081	7,176,261	1,371	9,460	1,050,553	7,247,377	136,488	727,894	63,026	502,353	1,250,067	8,477,624
2003	5,582	36,334	1,092,304	7,137,591	2,411	15,755	1,100,297	7,189,680	121,887	599,342	70,044	466,153	1,292,228	8,255,175
2004	5,919	38,317	697,043	4,460,437	1,690	10,998	704,652	4,509,752	160,665	781,265	55,123	355,703	920,440	5,291,017
2005	7,076	43,988	1,143,693	7,468,609	1,364	8,702	1,152,133	7,521,299	274,328	1,681,630	170,662	1,088,207	1,597,123	10,291,136
2006	6,641	42,420	895,801	5,804,939	267	1,625	902,709	5,848,984	41,834	266,483	62,010	398,724	1,006,553	6,514,191
2007	5,152	38,112	829,110	5,769,736	285	1,346	834,547	5,809,194	52,527	325,619	0	0	887,074	6,134,813
2008	5,166	35,271	682,104	4,734,436	0	0	687,270	4,769,707	0	0	0	0	687,270	4,769,707
2009	1,687	12,833	1,196,325	8,248,669	93	631	1,198,105	8,262,133	126,968	811,617	48,322	314,210	1,373,395	9,387,960
2010	6,545	34,237	1,372,267	8,940,207	973	6,490	1,379,785	8,980,934	185,193	1,035,324	85,267	559,226	1,650,245	10,575,484
2011	6,556	48,184	2,490,125	17,841,056	323	1,977	2,497,004	17,891,217	494,538	3,224,966	156,637	1,123,768	3,148,179	22,239,951
2012	2,089	15,102	1,797,519	12,247,564	513	3,564	1,800,121	12,266,230	324,895	1,884,391	126,083	838,838	2,251,099	14,989,459
2013	4,970	35,474	2,399,594	17,070,111	587	3,928	2,398,066	17,055,904	354,179	2,326,956	169,029	1,109,867	2,921,274	20,492,727
2014	3,454	20,637	616,879	4,120,133	6	40	620,339	4,140,810	0	0	0	0	620,339	4,140,810
2015	12,107	59,336	1,540,310	8,469,717	78	459	1,552,495	8,529,512	5,936	31,568	98,473	559,063	1,656,904	9,120,143
Averages														
1995–2014	6,928	46,493	1,404,679	9,679,143	555	3,620	1,412,161	9,726,576	185,138	1,100,943	80,878	539,522	1,678,178	11,351,936
2005–2014	4,934	32,626	1,342,342	9,224,546	441	2,830	1,347,716	9,254,641	185,446	1,155,699	81,801	543,284	1,614,964	10,958,985
2010–2014	4,723	30,727	1,735,277	12,034,814	480	3,200	1,740,480	12,067,019	271,761	1,694,327	107,403	726,340	2,119,644	14,498,408

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

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

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

[d] Due to a strike by Alaska Peninsula fishermen, foregone harvest of 27,896 sockeye salmon harvested in 2001 was added to the SEDM catch for management purposes; this foregone harvest is not included in this table.

Table 18.–Total annual Chignik Management Area sockeye salmon harvest (including home pack and the department's test fishery catches), by district, 1980 through 2015.

	District					
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total
1980	708,828	74,628	60,947	9,227	6,336	859,966
1981	1,355,524	426,159	36,618	14,751	6,417	1,839,469
1982	1,413,806	66,278	10,209	30,279	1,114	1,521,686
1983	1,597,059	123,590	73,824	25,246	4,456	1,824,175
1984	1,942,822	517,653	184,495	15,470	179	2,660,619
1985	811,956	77,314	18,720	13,175	337	921,502
1986	1,389,172	182,884	6,424	44,362	22,992	1,645,834
1987	1,559,757	255,118	14,498	56,524	12,941	1,898,838
1988	529,540	124,103	25,699	93,070	23,429	795,841
1989	1,156,782	2,473	32	0	0	1,159,287
1990	1,400,069	566,601	51,443	53,192	22,345	2,093,650
1991	1,487,421	315,570	59,751	19,766	13,157	1,895,665
1992	792,889	332,860	12,327	30,004	109,369	1,277,449
1993	762,730	557,020	186,364	54,051	137,186	1,697,351
1994	908,042	573,484	20,041	64,325	53,081	1,618,973
1995	1,083,707	415,436	48,842	79,874	96,186	1,724,045
1996	1,003,683	743,658	145,668	47,529	17,855	1,958,393
1997	407,427	295,084	20,650	44,768	2,418	770,347
1998	622,005	286,643	30,555	87,940	27,296	1,054,439
1999	2,356,146	612,589	79,717	57,859	10,216	3,116,527
2000	1,327,249	358,985	71,572	15,034	2,385	1,775,225
2001	1,082,291	382,172	28,377	17,673	1,074	1,511,587
2002	993,756	44,368	2,835	9,425	169	1,050,553
2003	1,000,247	64,440	1,701	29,069	4,840	1,100,297
2004	704,471	181	0	0	0	704,652
2005	1,039,076	84,879	2	27,927	249	1,152,133
2006	726,749	103,272	3,118	69,570	0	902,709
2007	545,438	138,922	29,882	119,489	816	834,547
2008	527,026	83,111	2,279	68,257	6,597	687,270
2009	869,906	191,611	29,900	102,803	3,885	1,198,105
2010	846,823	371,090	102,587	56,736	2,549	1,379,785
2011	1,649,846	670,348	113,760	40,252	22,798	2,497,004
2012	1,122,595	522,184	61,922	93,270	150	1,800,121
2013	1,607,269	584,848	150,560	56,248	6,226	2,405,151
2014	208,056	100,375	86	302,614	9,208	620,339
2015	702,707	364,934	5,542	433,221	46,091	1,552,495
Averages						
1995–2014	986,188	302,710	46,201	66,317	10,746	1,412,161
2005–2014	914,278	285,064	49,410	93,717	5,248	1,347,716
2010–2014	1,086,918	449,769	85,783	109,824	8,186	1,740,480

Table 19.–Chignik Management Area sockeye salmon harvest (including home pack and the department's test fishery catches), by district and day, 2015.

Date	Number of Permits	District					Total
		Chignik Bay	Central	Eastern	Western	Perryville	
6/12[a]	1	1,248	Closed	Closed	Closed	Closed	1,248
6/13		Closed	Closed	Closed	Closed	Closed	0
6/14[a]	1	781	Closed	Closed	Closed	Closed	781
6/15		Closed	Closed	Closed	Closed	Closed	0
6/16		Closed	Closed	Closed	Closed	Closed	0
6/17[a]	1	1,956	Closed	Closed	Closed	Closed	1,956
6/18		Closed	Closed	Closed	Closed	Closed	0
6/19[a]	1	2,320	Closed	Closed	Closed	Closed	2,320
6/20		Closed	Closed	Closed	Closed	Closed	0
6/21		Closed	Closed	Closed	Closed	Closed	0
6/22		Closed	Closed	Closed	Closed	Closed	0
6/23		Closed	Closed	Closed	Closed	Closed	0
6/24	58	27,778	2,881	[b]	10,266	Closed	[b]
6/25	56	19,588	7,405	0	12,526	Closed	39,519
6/26	58	25,984	7,319	[b]	2,461	Closed	[b]
6/27	55	16,350	3,763	[b]	512	Closed	[b]
6/28	49	15,303	4,789	[b]	0	Closed	[b]
6/29	37	6,810	[b]	0	[b]	Closed	[b]
6/30		Closed	Closed	Closed	Closed	Closed	0
7/1	63	23,528	4,797	[b]	9,354	Closed	[b]
7/2	64	15,622	6,081	[b]	9,534	Closed	[b]
7/3		0	0	0	0	Closed	0
7/4		Closed	Closed	Closed	Closed	Closed	0
7/5		Closed	Closed	Closed	Closed	Closed	0
7/6		Closed	Closed	Closed	Closed	Closed	0
7/7	62	19,542	17,155	Closed	[b]	Closed	[b]
7/8	57	17,493	25,105	Closed	0	Closed	42,598
7/9	62	19,047	29,619	Closed	0	Closed	48,666
7/10	53	26,699	33,153	Closed	0	Closed	59,852
7/11	54	15,625	25,862	Closed	0	Closed	41,487
7/12		Closed	Closed	Closed	Closed	Closed	0
7/13[a]	1	5,255	Closed	Closed	Closed	Closed	5,255
7/14	61	56,265	46,939	Closed	12,928	0	116,132
7/15	49	27,837	13,328	Closed	[b]	0	[b]
7/16	51	21,784	18,294	Closed	0	0	40,078
7/17	51	15,928	18,040	Closed	0	Closed	33,968
7/18	50	13,835	14,326	Closed	0	Closed	28,161
7/19	59	23,304	8,294	0	31,194	0	62,792
7/20	53	21,219	10,130	0	39,760	0	71,109
7/21	39	7,974	1,386	0	27,532	0	36,892
7/22[a]	1	547	Closed	Closed	Closed	Closed	547

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Table 19.–Page 2 of 2.

Date	Number of Permits	District					Total
		Chignik Bay	Central	Eastern	Western	Perryville	
7/23	51	17,889	3,468	0	9,383	0	30,740
7/24	53	28,661	8,093	0	20,421	5,545	62,720
7/25	31	8,113	[b]	0	11,461	[b]	[b]
7/26		Closed	Closed	Closed	Closed	Closed	0
7/27		Closed	Closed	Closed	Closed	Closed	0
7/28		Closed	Closed	Closed	Closed	Closed	0
7/29	48	9,301	5,761	Closed	14,163	0	29,225
7/30	54	17,534	7,170	Closed	57,708	12,820	95,232
7/31	60	9,609	10,042	Closed	26,293	4,510	50,454
8/1		Closed	Closed	Closed	Closed	Closed	0
8/2		Closed	Closed	Closed	Closed	Closed	0
8/3		Closed	Closed	Closed	Closed	Closed	0
8/4	44	6,972	0	0	21,076	4,745	32,793
8/5	34	8,125	[b]	[b]	6,315	1,137	[b]
8/6	51	15,807	[b]	0	17,096	0	[b]
8/7	13	6,070	0	0	3,729	0	9,799
8/8	54	14,793	3,210	[b]	21,895	4,078	[b]
8/9	30	10,488	[b]	0	0	0	[b]
8/10	53	8,887	1,319	0	11,517	1,688	23,411
8/11	53	16,445	1,627	0	11,356	5,423	34,851
8/12	49	14,044	3,930	0	5,627	0	23,601
8/13	54	7,646	3,940	0	5,072	1,265	17,923
8/14	18	9,366	[b]	0	0	0	[b]
8/15	44	8,706	4,526	0	7,438	0	20,670
8/16	50	10,466	4,080	0	9,423	[b]	[b]
8/17	21	7,707	[b]	0	0	0	[b]
8/18	36	6,970	1,728	0	3,597	[b]	[b]
8/19	36	5,784	2,288	0	5,375	0	13,447
8/20	35	3,702	2,230	0	5,457	[b]	[b]
8/21		- Processors Closed for Season -					
Total[c]	72	702,707	364,934	5,542	433,221	46,091	1,552,495

[a] ADF&G test fishery.
[b] Confidentiality requirements prevent the release of this information.
[c] Totals include information not provided by individual date due to confidentiality requirements.

Table 20.–Harvest of sockeye salmon considered by regulation to be Chignik-bound in the Chignik, Cape Igvak, and Southeastern District Mainland (SEDM) commercial salmon fisheries from June 1 through July 25, 1978–2015.

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

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Table 20.–Page 2 of 2.

Year	Chignik[a] Catch	Chignik[a] Percent	Cape Igvak[a] Catch[b]	Cape Igvak[a] Percent	SEDM[a] Catch[c]	SEDM[a] Percent	Total
2011	2,277,681	77.8	494,538	16.9	156,637	6.9	2,928,856
2012	1,640,517	78.4	324,895	15.5	126,083	7.7	2,091,495
2013	2,246,339	81.1	354,179	12.8	169,029	7.5	2,769,547
2014	330,302	100.0	0	0.0	0	0.0	330,302
2015	1,026,707	90.8	5,936	0.5	98,473	9.6	1,131,116
Averages[h]							
1995–2014	1,135,100	81.1	217,810	12.8	97,218	6.5	1,578,711
2005–2014	1,137,888	81.5	231,808	12.7	103,157	6.8	1,660,387
2010–2014	1,523,995	79.5	339,701	14.6	134,254	7.4	2,296,373

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

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

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

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

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

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

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

[h] Recent averages (excluding Chignik catch) do not include years in which the Cape Igvak and SEDM remained closed.

Table 21.–Chignik sockeye salmon escapement, total harvest considered Chignik-bound, and total run, 1970 through 2015.

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

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Table 21.–Page 2 of 2.

Year	Early run			Late run			Total run [a,b,c]		
	Esc.	Harvest	Run	Esc.	Harvest	Run	Esc.	Harvest	Run
2011	488,930	2,594,291	3,083,221	264,887	553,888	818,775	753,817	3,148,179	3,901,996
2012	353,441	1,283,858	1,637,299	358,948	967,241	1,326,189	712,389	2,251,099	2,963,488
2013	386,782	2,030,579	2,417,361	369,319	890,695	1,260,014	756,101	2,921,274	3,677,375
2014[d]	360,381	49,753	410,134	291,228	570,586	861,814	651,609	620,339	1,271,948
2015	534,088	627,827	1,161,915	589,810	1,029,077	1,618,887	1,123,898	1,656,904	2,780,802
Averages									
1995–2014	417,192	924,803	1,341,995	314,078	753,021	1,067,099	731,270	1,677,824	2,409,094
2005–2014	387,380	938,003	1,325,383	314,098	676,252	990,351	701,479	1,614,255	2,315,734
2010–2014	404,414	1,358,439	1,762,853	319,135	759,788	1,078,923	723,548	2,118,227	2,841,776

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

[b] Does not include subsistence-caught fish.

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

[d] Beginning in 2014, information from in-season genetic samples taken from the escapement at Chignik weir were used to determine the apportionment of the 2 runs during late-June and mid-July for escapement and harvest instead of using the traditional July 4 cutoff date.

Table 22.–Chignik sockeye salmon forecasts and actual runs, by run and year, 1994 through 2015, in millions of fish.

	Early run			Late run			Total run		
Year	Forecast	Actual	Difference	Forecast	Actual	Difference	Forecast	Actual	Difference
1994	1.80	2.36	0.56	1.30	0.61	-0.69	3.10	2.98	-0.12
1995	1.90	1.03	-0.87	0.90	1.69	0.79	2.80	2.72	-0.08
1996	1.40	2.15	0.75	1.60	0.99	-0.61	3.00	3.14	0.14
1997	1.00	0.63	-0.37	1.60	0.91	-0.69	2.60	1.55	-1.05
1998	0.90	0.72	-0.18	1.10	1.11	0.01	2.00	1.83	-0.17
1999	1.05	2.48	1.43	1.29	1.98	0.69	2.34	4.46	2.12
2000	3.90	2.11	-1.79	1.09	0.84	-0.25	4.99	2.96	-2.03
2001	1.00	1.31	0.31	0.91	1.61	0.70	1.91	2.91	1.00
2002	1.03	1.06	0.03	1.09	0.91	-0.18	2.12	1.97	-0.15
2003	1.64	0.99	-0.65	1.19	1.00	-0.19	2.83	1.99	-0.84
2004	1.26	1.09	-0.17	1.08	0.41	-0.67	2.34	1.50	-0.84
2005	1.84	1.46	-0.38	0.55	0.71	0.16	2.39	2.17	-0.22
2006	1.21	0.78	-0.43	0.28	0.96	0.68	1.49	1.74	0.25
2007	1.02	0.60	-0.42	0.90	0.95	0.05	1.92	1.55	-0.37
2008	1.07	0.60	-0.47	0.65	0.79	0.14	1.72	1.39	-0.33
2009	0.85	0.87	0.02	0.54	1.23	0.69	1.39	2.10	0.71
2010	1.08	1.20	0.12	1.11	1.19	0.08	2.19	2.39	0.20
2011	1.30	3.08	1.78	1.02	0.82	-0.20	2.32	3.90	1.58
2012	1.08	1.64	0.56	1.20	1.33	0.13	2.28	2.96	0.68
2013	2.77	2.42	-0.35	1.05	1.26	0.21	3.82	3.68	-0.14
2014	0.79	0.41	-0.38	0.91	0.86	-0.05	1.70	1.27	-0.43
2015	1.32	1.16	-0.16	1.22	1.62	0.40	2.54	2.78	0.24
Averages									
2005–2014	1.30	1.31	0.00	0.82	1.01	0.19	2.12	2.31	0.19
2010–2014	1.40	1.75	0.35	1.06	1.09	0.03	2.46	2.84	0.38

Table 23.–Chignik Management Area coho salmon harvest, by year, 1980 through 2015.

	Testfish		Commercial catch		Home pack		Total	
Year	Number	Pounds	Number	Pounds	Number	Pounds[a]	Number	Pounds
1980	ND	ND	119,573	771,392	ND	ND	119,573	771,392
1981	ND	ND	78,805	602,603	ND	ND	78,805	602,603
1982	ND	ND	300,273	2,373,268	ND	ND	300,273	2,373,268
1983	ND	ND	61,927	488,203	ND	ND	61,927	488,203
1984	ND	ND	110,128	949,965	ND	ND	110,128	949,965
1985	0	0	191,162	1,709,637	ND	ND	191,162	1,709,637
1986	ND	ND	116,633	867,195	ND	ND	116,633	867,195
1987	0	0	150,414	1,189,803	ND	ND	150,414	1,189,803
1988	0	0	370,420	2,889,427	ND	ND	370,420	2,889,427
1989	0	0	68,233	559,140	ND	ND	68,233	559,140
1990	0	0	130,131	933,745	ND	ND	130,131	933,745
1991	42	253	165,583	1,182,704	ND	ND	165,625	1,182,957
1992	1	8	310,942	2,362,683	ND	ND	310,943	2,362,691
1993	356	2,024	229,103	1,459,220	ND	ND	229,459	1,461,244
1994	103	506	237,101	1,996,320	ND	ND	237,204	1,996,826
1995	0	0	280,605	2,062,086	913	6,709	281,518	2,068,795
1996	0	0	193,226	1,485,947	20	154	193,246	1,486,101
1997	0	0	90,908	756,509	0	0	90,908	756,509
1998	0	0	129,512	1,045,823	27	218	129,539	1,046,041
1999	0	0	89,410	617,320	200	1,381	89,610	618,701
2000	0	0	123,222	943,536	0	0	123,222	943,536
2001	0	0	131,441	1,012,153	7	54	131,448	1,012,207
2002	0	0	49,208	360,781	164	1,202	49,372	361,983
2003	44	287	103,778	857,097	74	611	103,896	857,995
2004	0	0	37	283	0	0	37	283
2005	0	0	6,951	46,970	5	30	6,956	47,000
2006	0	0	39,046	290,720	175	1,312	39,221	292,032
2007	0	0	73,221	543,761	56	416	73,277	544,177
2008	0	0	161,536	1,290,277	0	0	161,536	1,290,277
2009	0	0	110,373	732,346	0	0	110,373	732,346
2010	0	0	159,198	1,137,878	0	0	159,198	1,137,878
2011	0	0	76,776	519,422	16	147	76,792	519,569
2012	0	0	33,316	225,799	0	0	33,316	225,799
2013	0	0	32,284	226,235	28	277	32,312	226,512
2014	0	0	132,459	1,091,310	0	0	132,459	1,091,310
2015	0	0	82,049	523,519	5	31	82,054	523,550
Averages								
1995–2014	2	14	100,825	762,313	84	626	100,912	762,953
2005–2014	0	0	82,516	610,472	28	218	82,544	610,690
2010–2014	0	0	86,807	640,129	9	85	86,815	640,214

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

Table 24.–Chignik Management Area coho salmon harvest (including home pack and the department's test fishery catches), by district and year, 1980 through 2015.

	District					
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total
1980	49,784	7,167	13,872	34,631	14,119	119,573
1981	35,578	8,693	6,222	22,047	6,265	78,805
1982	132,262	6,564	31,476	122,707	7,264	300,273
1983	29,519	330	441	27,173	4,464	61,927
1984	72,722	1,705	403	33,263	2,035	110,128
1985	156,553	7,111	3,203	23,357	938	191,162
1986	60,197	3,027	1,033	33,726	18,650	116,633
1987	77,333	3,806	7	58,688	10,580	150,414
1988	94,292	21,628	6,167	207,086	41,247	370,420
1989	68,231	2	0	0	0	68,233
1990	61,260	27,659	32	23,422	17,758	130,131
1991	56,574	9,294	1,187	57,373	41,197	165,625
1992	80,946	19,612	4,260	140,560	65,565	310,943
1993	48,808	36,421	4,240	84,056	55,934	229,459
1994	70,541	19,794	176	110,476	36,217	237,204
1995	54,646	46,975	458	88,116	91,323	281,518
1996	45,361	35,440	33	91,587	20,825	193,246
1997	32,847	45,878	1,801	9,139	1,243	90,908
1998	23,070	32,743	1,227	55,359	17,140	129,539
1999	23,144	24,308	3,095	36,405	2,658	89,610
2000	11,620	37,943	2,555	69,599	1,505	123,222
2001	10,007	31,062	2,303	86,580	1,496	131,448
2002	8,461	4,442	0	36,283	186	49,372
2003	37,800	7,632	0	55,225	3,239	103,896
2004	37	0	0	0	0	37
2005	510	730	12	5,045	659	6,956
2006	7,057	2,170	1	29,993	0	39,221
2007	11,790	12,830	420	47,525	712	73,277
2008	46,400	7,647	1,052	97,153	9,284	161,536
2009	9,570	13,276	2,888	80,395	4,244	110,373
2010	17,469	27,982	3,109	104,886	5,752	159,198
2011	1,801	12,915	354	50,504	11,218	76,792
2012	6,545	4,667	36	22,037	31	33,316
2013	4,146	8,238	521	16,770	2,637	32,312
2014	6,550	17,584	653	98,345	9,327	132,459
2015	712	27,257	454	48,950	4,681	82,054
Averages						
1995–2014	17,942	18,723	1,026	54,047	9,174	100,912
2005–2014	11,184	10,804	905	55,265	4,386	82,544
2010–2014	7,302	14,277	935	58,508	5,793	86,815

Table 25.–Chignik Management Area coho salmon harvest (including home pack and the department's test fishery catches), by district and day, 2015.

Date	Number of permits	District					Total
		Chignik Bay	Central	Eastern	Western	Perryville	
6/12[a]	1	0	Closed	Closed	Closed	Closed	0
6/13		Closed	Closed	Closed	Closed	Closed	0
6/14[a]	1	0	Closed	Closed	Closed	Closed	0
6/15		Closed	Closed	Closed	Closed	Closed	0
6/16		Closed	Closed	Closed	Closed	Closed	0
6/17[a]	1	0	Closed	Closed	Closed	Closed	0
6/18		Closed	Closed	Closed	Closed	Closed	0
6/19[a]	1	0	Closed	Closed	Closed	Closed	0
6/20		Closed	Closed	Closed	Closed	Closed	0
6/21		Closed	Closed	Closed	Closed	Closed	0
6/22		Closed	Closed	Closed	Closed	Closed	0
6/23		Closed	Closed	Closed	Closed	Closed	0
6/24	58	0	99	[b]	2,476	Closed	[b]
6/25	56	0	479	[b]	791	Closed	[b]
6/26	58	15	972	[b]	284	Closed	[b]
6/27	55	36	896	[b]	462	Closed	[b]
6/28	49	0	1,226	0	0	Closed	1,226
6/29	37	0	[b]	0	[b]	Closed	[b]
6/30		Closed	Closed	Closed	Closed	Closed	0
7/1	63	16	1,234	[b]	6,164	Closed	[b]
7/2	64	16	1,796	[b]	8,176	Closed	[b]
7/3		0	0	0	0	Closed	0
7/4		Closed	Closed	Closed	Closed	Closed	0
7/5		Closed	Closed	Closed	Closed	Closed	0
7/6		Closed	Closed	Closed	Closed	Closed	0
7/7	62	10	1,176	Closed	[b]	Closed	[b]
7/8	57	74	1,434	Closed	0	Closed	1,508
7/9	62	0	1,494	Closed	0	Closed	1,494
7/10	53	0	1,010	Closed	0	Closed	1,010
7/11	54	11	727	Closed	0	Closed	738
7/12		Closed	Closed	Closed	Closed	Closed	0
7/13[a]	1	0	Closed	Closed	Closed	Closed	0
7/14	61	13	2,891	Closed	1,446	0	4,350
7/15	49	58	332	Closed	[b]	0	[b]
7/16	51	7	888	Closed	0	0	895
7/17	51	7	1,678	Closed	0	Closed	1,685
7/18	50	4	2,117	Closed	0	Closed	2,121
7/19	59	55	912	0	2,182	0	3,149
7/20	53	18	557	0	1,226	0	1,801
7/21	39	2	18	0	1,929	0	1,949
7/22[a]	1	0	Closed	Closed	Closed	Closed	0

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Table 25.–Page 2 of 2.

Date	Number of permits	District					Total
		Chignik Bay	Central	Eastern	Western	Perryville	
7/23	51	4	365	0	2,019	0	2,388
7/24	53	8	1,021	0	1,478	1,232	3,739
7/25	31	0	[b]	0	1,583	0	[b]
7/26		Closed	Closed	Closed	Closed	Closed	0
7/27		Closed	Closed	Closed	Closed	Closed	0
7/28		Closed	Closed	Closed	Closed	Closed	0
7/29	48	17	775	Closed	724	106	1,622
7/30	54	94	438	Closed	2,681	641	3,854
7/31	60	15	376	Closed	1,205	389	1,985
8/1		Closed	Closed	Closed	Closed	Closed	0
8/2		Closed	Closed	Closed	Closed	Closed	0
8/3		Closed	Closed	Closed	Closed	Closed	0
8/4	44	3	0	0	1,597	1,518	3,118
8/5	34	4	[b]	[b]	653	323	[b]
8/6	51	14	[b]	0	1,770	0	[b]
8/7	13	1	0	0	287	0	288
8/8	54	17	167	[b]	1,429	0	[b]
8/9	30	3	[b]	0	0	0	[b]
8/10	53	15	108	0	988	52	1,163
8/11	53	19	148	0	1,153	175	1,495
8/12	49	11	256	0	848	0	1,115
8/13	54	6	312	0	764	112	1,194
8/14	18	13	0	0	0	0	13
8/15	44	12	403	0	844	0	1,259
8/16	50	15	201	0	729	[b]	[b]
8/17	21	5	[b]	0	0	0	[b]
8/18	36	24	141	0	790	[b]	[b]
8/19	36	46	173	0	550	0	769
8/20	35	24	161	0	463	[b]	[b]
8/21		- Processors Closed for Season -					
Total[c]	72	712	27,257	454	48,950	4,681	82,054

[a] ADF&G test fishery.

[b] Confidentiality requirements prevent the release of this information.

[c] Totals include information not provided by individual date due to confidentiality requirements.

Table 26.–Chignik Management Area pink salmon harvest, by year, 1980 through 2015.

	Testfish		Commercial catch		Home pack		Total	
Year	Number	Pounds	Number	Pounds	Number	Pounds[a]	Number	Pounds
1980	ND	ND	1,093,184	3,635,145	ND	ND	1,093,184	3,635,145
1981	ND	ND	1,162,613	4,479,368	ND	ND	1,162,613	4,479,368
1982	ND	ND	873,384	2,916,671	ND	ND	873,384	2,916,671
1983	ND	ND	321,178	1,200,888	ND	ND	321,178	1,200,888
1984	ND	ND	444,804	1,651,249	ND	ND	444,804	1,651,249
1985	0	0	160,128	643,731	ND	ND	160,128	643,731
1986	ND	ND	647,125	2,374,311	ND	ND	647,125	2,374,311
1987	0	0	246,775	899,560	ND	ND	246,775	899,560
1988	0	0	2,997,159	10,723,505	ND	ND	2,997,159	10,723,505
1989	0	0	27,712	94,269	ND	ND	27,712	94,269
1990	0	0	550,008	1,675,644	ND	ND	550,008	1,675,644
1991	2,660	9,237	1,166,588	3,348,394	ND	ND	1,169,248	3,357,631
1992	114	536	1,553,959	5,798,623	ND	ND	1,554,073	5,799,159
1993	1,826	5,539	1,646,551	5,308,258	ND	ND	1,648,377	5,313,797
1994	14	55	431,049	1,494,604	ND	ND	431,063	1,494,659
1995	0	0	2,057,998	7,350,386	0	0	2,057,998	7,350,386
1996	0	0	183,806	536,218	5,262	15,351	189,068	551,569
1997	0	0	844,431	2,784,333	0	0	844,431	2,784,333
1998	0	0	776,988	2,586,026	0	0	776,988	2,586,026
1999	0	0	1,698,651	4,845,435	0	0	1,698,651	4,845,435
2000	0	0	428,064	1,183,004	0	0	428,064	1,183,004
2001	0	0	1,281,760	4,077,814	7	22	1,281,767	4,077,836
2002	66	276	65,984	206,385	0	0	66,050	206,661
2003	570	2,167	501,661	1,951,928	407	1,584	502,638	1,955,679
2004	0	0	2,380	7,589	0	0	2,380	7,589
2005	8	48	193,803	611,023	234	813	194,045	611,884
2006	0	0	383,574	1,403,428	0	0	383,574	1,403,428
2007	0	0	2,019,748	7,388,012	0	0	2,019,748	7,388,012
2008	0	0	2,389,958	8,192,350	0	0	2,389,958	8,192,350
2009	0	0	1,408,339	4,502,661	0	0	1,408,339	4,502,661
2010	0	0	489,774	1,663,961	7	24	489,781	1,663,985
2011	58	154	905,108	2,882,546	0	0	905,166	2,882,700
2012	0	0	137,684	452,160	22	65	137,706	452,225
2013	3	6	871,594	2,610,076	0	0	871,597	2,610,082
2014	16	60	352,099	1,138,241	0	0	352,115	1,138,301
2015	77	195	1,978,134	5,843,570	0	0	1,978,211	5,843,765
Averages								
1995–2014	36	136	849,684	2,818,679	297	893	850,017	2,819,747
2005–2014	9	27	915,196	3,084,526	26	90	915,230	3,084,643
2010–2014	15	44	551,307	1,749,558	6	18	551,328	1,749,619

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

Table 27.–Chignik Management Area pink salmon harvest (including home pack and the department's test fishery catches), by district and year, 1980 through 2015.

	District					
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total
1980	180,912	108,682	472,510	216,460	114,620	1,093,184
1981	121,380	210,023	173,293	433,605	224,312	1,162,613
1982	82,973	80,606	89,074	602,408	18,323	873,384
1983	27,284	7,861	7,817	164,338	113,878	321,178
1984	165,178	47,250	57,715	173,820	841	444,804
1985	14,429	16,087	6,570	80,577	42,465	160,128
1986	191,264	44,127	49,635	200,793	161,306	647,125
1987	13,887	7,769	2,079	187,701	35,339	246,775
1988	119,794	318,370	1,006,366	1,141,382	411,247	2,997,159
1989	27,691	21	0	0	0	27,712
1990	94,528	233,677	40,574	135,810	45,419	550,008
1991	76,163	173,967	27,979	419,264	471,875	1,169,248
1992	178,105	205,750	183,119	628,900	358,199	1,554,073
1993	55,909	205,037	52,755	685,605	649,071	1,648,377
1994	59,425	99,149	12,952	174,641	84,896	431,063
1995	106,939	469,745	8,572	791,718	681,024	2,057,998
1996	1,804	20,717	7,201	100,871	58,475	189,068
1997	39,461	603,575	72,347	118,003	11,045	844,431
1998	26,054	233,732	66,725	343,187	107,290	776,988
1999	59,001	664,208	40,571	771,411	163,460	1,698,651
2000	28,067	271,417	10,500	106,147	11,933	428,064
2001	75,142	641,438	97,438	424,537	43,212	1,281,767
2002	10,253	17,580	0	36,918	1,299	66,050
2003	56,042	88,736	267	326,239	31,354	502,638
2004	2,378	2	0	0	0	2,380
2005	71,438	99,491	21	20,952	2,143	194,045
2006	62,419	79,726	79,465	161,964	0	383,574
2007	187,670	612,921	43,379	1,152,331	23,447	2,019,748
2008	232,444	369,298	416,520	1,062,482	309,214	2,389,958
2009	77,569	317,085	275,791	711,890	26,004	1,408,339
2010	30,683	183,008	43,264	225,716	7,110	489,781
2011	30,707	225,307	54,288	368,351	226,513	905,166
2012	10,096	55,030	4,946	67,523	111	137,706
2013	76,473	218,685	197,293	192,861	186,559	871,871
2014	11,663	98,984	2,964	226,008	12,496	352,115
2015	81,541	686,374	13,783	993,349	203,164	1,978,211
Averages						
1995–2014	59,815	263,534	71,078	360,455	95,134	850,017
2005–2014	79,116	225,954	111,793	419,008	79,360	915,230
2010–2014	31,924	156,203	60,551	216,092	86,558	551,328

Table 28.–Chignik Management Area pink salmon harvest (including home pack and the department's test fishery catches), by district and day, 2015.

Date	Number of Permits	District					Total
		Chignik Bay	Central	Eastern	Western	Perryville	
6/12[a]	1	2	Closed	Closed	Closed	Closed	2
6/13		Closed	Closed	Closed	Closed	Closed	0
6/14[a]	1	1	Closed	Closed	Closed	Closed	1
6/15		Closed	Closed	Closed	Closed	Closed	0
6/16		Closed	Closed	Closed	Closed	Closed	0
6/17[a]	1	5	Closed	Closed	Closed	Closed	5
6/18		Closed	Closed	Closed	Closed	Closed	0
6/19[a]	1	0	Closed	Closed	Closed	Closed	0
6/20		Closed	Closed	Closed	Closed	Closed	0
6/21		Closed	Closed	Closed	Closed	Closed	0
6/22		Closed	Closed	Closed	Closed	Closed	0
6/23		Closed	Closed	Closed	Closed	Closed	0
6/24	58	0	124	[b]	7,247	Closed	[b]
6/25	56	5	1,173	0	658	Closed	1,836
6/26	58	11	808	[b]	550	Closed	[b]
6/27	55	57	1,425	[b]	219	Closed	[b]
6/28	49	8	801	0	0	Closed	809
6/29	37	0	[b]	0	[b]	Closed	[b]
6/30		Closed	Closed	Closed	Closed	Closed	0
7/1	63	26	6,642	[b]	49,416	Closed	[b]
7/2	64	83	6,475	[b]	47,474	Closed	[b]
7/3		0	0	0	0	Closed	0
7/4		Closed	Closed	Closed	Closed	Closed	0
7/5		Closed	Closed	Closed	Closed	Closed	0
7/6		Closed	Closed	Closed	Closed	Closed	0
7/7	62	278	20,276	Closed	[b]	Closed	[b]
7/8	57	610	17,904	Closed	0	Closed	18,514
7/9	62	528	46,568	Closed	0	Closed	47,096
7/10	53	695	30,731	Closed	0	Closed	31,426
7/11	54	1,168	16,609	Closed	0	Closed	17,777
7/12		Closed	Closed	Closed	Closed	Closed	0
7/13[a]	1	16	Closed	Closed	Closed	Closed	16
7/14	61	1,085	17,285	Closed	18,569	0	36,939
7/15	49	1,627	12,704	Closed	[b]	0	[b]
7/16	51	671	18,612	Closed	0	0	19,283
7/17	51	722	28,593	Closed	0	Closed	29,315
7/18	50	908	34,435	Closed	0	Closed	35,343
7/19	59	2,009	28,617	0	21,044	0	51,670
7/20	53	2,024	31,565	0	5,578	0	39,167
7/21	39	475	6,438	0	8,179	0	15,092
7/22[a]	1	53	Closed	Closed	Closed	Closed	53

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Table 28.–Page 2 of 2.

Date	Number of Permits	District					Total
		Chignik Bay	Central	Eastern	Western	Perryville	
7/23	51	1,146	15,014	0	14,410	0	30,570
7/24	53	1,996	28,081	0	9,611	8,960	48,648
7/25	31	252	[b]	0	7,333	0	[b]
7/26		Closed	Closed	Closed	Closed	Closed	0
7/27		Closed	Closed	Closed	Closed	Closed	0
7/28		Closed	Closed	Closed	Closed	Closed	0
7/29	48	2,429	27,931	Closed	32,903	1,975	65,238
7/30	54	3,510	13,915	Closed	70,420	18,932	106,777
7/31	60	1,908	18,956	Closed	16,806	16,398	54,068
8/1		Closed	Closed	Closed	Closed	Closed	0
8/2		Closed	Closed	Closed	Closed	Closed	0
8/3		Closed	Closed	Closed	Closed	Closed	0
8/4	44	2,325	0	0	77,747	70,660	150,732
8/5	34	2,513	[b]	[b]	18,912	18,205	[b]
8/6	51	3,641	[b]	0	107,134	0	[b]
8/7	13	1,255	0	0	16,326	0	17,581
8/8	54	5,243	16,909	[b]	42,448	3,221	[b]
8/9	30	2,364	[b]	0	0	0	[b]
8/10	53	3,330	10,523	0	43,048	5,228	62,129
8/11	53	4,102	14,349	0	56,732	24,320	99,503
8/12	49	3,303	30,648	0	39,499	0	73,450
8/13	54	2,312	30,234	0	29,040	13,933	75,519
8/14	18	2,879	[b]	0	0	0	[b]
8/15	44	4,859	39,951	0	60,633	0	105,443
8/16	50	3,993	33,073	0	61,674	[b]	[b]
8/17	21	3,442	[b]	0	0	0	[b]
8/18	36	4,297	22,125	0	43,644	[b]	[b]
8/19	36	4,447	23,305	0	54,381	0	82,133
8/20	35	2,928	18,172	0	23,409	[b]	[b]
8/21		- Processors Closed for Season -					
Total	72	81,541	670,971	0	985,044	181,832	1,316,135

[a] ADF&G test fishery.

[b] Confidentiality requirements prevent the release of this information.

[c] Totals include information not provided by individual date due to confidentiality requirements.

Table 29.–Chignik Management Area chum salmon harvest, by year, 1980 through 2015.

	Testfish		Commercial catch		Home pack		Total	
Year	Number	Pounds	Number	Pounds	Number	Pounds[a]	Number	Pounds
1980	ND	ND	252,521	1,765,287	ND	ND	252,521	1,765,287
1981	ND	ND	580,332	4,502,632	ND	ND	580,332	4,502,632
1982	ND	ND	390,096	3,231,403	ND	ND	390,096	3,231,403
1983	ND	ND	159,412	1,205,266	ND	ND	159,412	1,205,266
1984	ND	ND	63,303	485,967	ND	ND	63,303	485,967
1985	0	0	22,805	145,276	ND	ND	22,805	145,276
1986	ND	ND	176,640	1,304,418	ND	ND	176,640	1,304,418
1987	0	0	127,261	943,941	ND	ND	127,261	943,941
1988	0	0	267,775	2,196,377	ND	ND	267,775	2,196,377
1989	0	0	1,624	11,888	ND	ND	1,624	11,888
1990	0	0	270,004	1,757,019	ND	ND	270,004	1,757,019
1991	607	4,260	260,489	1,671,939	ND	ND	261,096	1,676,199
1992	16	140	222,118	1,592,186	ND	ND	222,134	1,592,326
1993	57	300	122,303	735,747	ND	ND	122,360	736,047
1994	521	3,437	226,755	1,627,574	ND	ND	227,276	1,631,011
1995	0	0	380,949	2,814,987	5	37	380,954	2,815,024
1996	0	0	99,791	779,840	21,100	164,891	120,891	944,731
1997	0	0	155,905	1,196,999	0	0	155,905	1,196,999
1998	0	0	128,841	917,648	155	1,104	128,996	918,752
1999	0	0	140,594	1,064,433	3	0	140,597	1,064,433
2000	0	0	120,957	1,033,665	0	0	120,957	1,033,665
2001	0	0	198,874	1,609,533	129	1,044	199,003	1,610,577
2002	46	334	54,513	406,382	0	0	54,559	406,716
2003	137	1,394	63,907	447,921	0	0	64,044	449,315
2004	0	0	505	3,803	0	0	505	3,803
2005	2	15	8,704	63,379	115	825	8,821	64,219
2006	0	0	61,630	450,686	0	0	61,630	450,686
2007	0	0	78,552	648,355	1	8	78,553	648,363
2008	0	0	209,325	1,726,108	0	0	209,325	1,726,108
2009	0	0	256,424	1,922,522	1	9	256,425	1,922,531
2010	0	0	581,329	4,437,042	0	0	581,329	4,437,042
2011	11	91	269,492	1,857,512	0	0	269,503	1,857,603
2012	0	0	170,872	1,533,079	240	1,780	171,112	1,534,859
2013	0	0	154,965	1,196,565	0	0	154,965	1,196,565
2014	3	24	55,149	458,475	0	0	55,152	458,499
2015	16	113	101,001	656,047	0	0	101,017	656,160
Averages								
1995–2014	10	93	159,564	1,228,447	1,087	8,485	160,661	1,237,024
2005–2014	2	13	184,644	1,429,372	36	262	184,682	1,429,648
2010–2014	3	23	246,361	1,896,535	48	356	246,412	1,896,914

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

Table 30.–Chignik Management Area chum salmon harvest (including home pack and the department's test fishery catches), by district and year, 1980 through 2015.

	District					
Year	Chignik Bay	Central	Eastern	Western	Perryville	Total
1980	19,944	38,902	56,805	91,868	45,002	252,521
1981	38,061	160,730	108,668	221,579	51,294	580,332
1982	16,034	33,669	64,513	253,299	22,581	390,096
1983	16,747	9,815	8,250	101,959	22,641	159,412
1984	8,173	8,150	21,134	25,364	482	63,303
1985	4,905	5,242	864	10,704	1,090	22,805
1986	18,167	29,502	17,880	74,070	37,021	176,640
1987	5,163	9,437	8,890	86,898	16,873	127,261
1988	7,013	39,316	77,511	102,730	41,205	267,775
1989	1,587	34	3	0	0	1,624
1990	11,460	113,741	27,463	91,603	25,737	270,004
1991	17,545	51,429	4,925	98,603	88,594	261,096
1992	12,711	45,569	61,209	65,466	37,179	222,134
1993	8,116	43,306	21,157	25,045	24,736	122,360
1994	25,250	69,552	4,333	94,116	34,025	227,276
1995	14,588	107,066	8,074	158,273	92,953	380,954
1996	782	46,993	19,837	36,303	16,976	120,891
1997	20,978	104,259	11,397	16,280	2,991	155,905
1998	7,352	43,191	5,180	41,425	31,848	128,996
1999	12,150	75,495	11,332	37,089	4,531	140,597
2000	8,389	66,904	8,045	34,823	2,796	120,957
2001	11,534	84,132	50,911	37,466	14,960	199,003
2002	3,949	9,643	513	40,337	117	54,559
2003	10,891	11,304	50	39,883	1,916	64,044
2004	499	6	0	0	0	505
2005	2,370	5,329	2	1,054	66	8,821
2006	2,303	9,455	776	49,096	0	61,630
2007	3,829	19,595	7,851	46,943	335	78,553
2008	13,453	40,130	58,925	88,078	8,739	209,325
2009	14,553	62,149	59,800	116,231	3,692	256,425
2010	27,388	226,501	116,336	204,911	6,193	581,329
2011	9,077	116,580	51,989	75,363	16,494	269,503
2012	5,523	88,120	21,227	56,125	117	171,112
2013	9,202	57,356	45,268	38,237	4,902	154,965
2014	4,329	20,750	610	26,578	2,885	55,152
2015	5,683	39,373	2,768	48,080	5,113	101,017
Averages						
1995–2014	9,157	59,748	23,906	57,225	10,626	160,661
2005–2014	9,203	64,597	36,278	70,262	4,342	184,682
2010–2014	11,104	101,861	47,086	80,243	6,118	246,412

Table 31.–Chignik Management Area chum salmon harvest (including home pack and the department's test fishery catches), by district and day, 2015.

Date	Number of Permits	District					Total
		Chignik Bay	Central	Eastern	Western	Perryville	
6/12[a]	1	0	Closed	Closed	Closed	Closed	0
6/13		Closed	Closed	Closed	Closed	Closed	0
6/14[a]	1	0	Closed	Closed	Closed	Closed	0
6/15		Closed	Closed	Closed	Closed	Closed	0
6/16		Closed	Closed	Closed	Closed	Closed	0
6/17[a]	1	0	Closed	Closed	Closed	Closed	0
6/18		Closed	Closed	Closed	Closed	Closed	0
6/19[a]	1	2	Closed	Closed	Closed	Closed	0
6/20		Closed	Closed	Closed	Closed	Closed	0
6/21		Closed	Closed	Closed	Closed	Closed	0
6/22		Closed	Closed	Closed	Closed	Closed	0
6/23		Closed	Closed	Closed	Closed	Closed	0
6/24	58	3	163	[b]	10,909	Closed	[b]
6/25	56	3	1,954	0	1,167	Closed	3,124
6/26	58	28	1,629	[b]	315	Closed	[b]
6/27	55	86	927	69	302	Closed	1,384
6/28	49	17	1,307	0	0	Closed	1,324
6/29	37	1	[b]	0	151	Closed	[b]
6/30		Closed	Closed	Closed	Closed	Closed	0
7/1	63	33	800	[b]	3,299	Closed	[b]
7/2	64	35	957	[b]	2,039	Closed	[b]
7/3		0	0	0	0	Closed	0
7/4		Closed	Closed	Closed	Closed	Closed	0
7/5		Closed	Closed	Closed	Closed	Closed	0
7/6		Closed	Closed	Closed	Closed	Closed	0
7/7	62	126	1,397	Closed	402	Closed	1,925
7/8	57	89	2,499	Closed	0	Closed	2,588
7/9	62	82	1,940	Closed	0	Closed	2,022
7/10	53	62	1,362	Closed	0	Closed	1,424
7/11	54	50	1,222	Closed	0	Closed	1,272
7/12		Closed	Closed	Closed	Closed	Closed	0
7/13[a]	1	5	Closed	Closed	Closed	Closed	5
7/14	61	64	1,388	Closed	638	0	2,090
7/15	49	98	668	Closed	34	0	800
7/16	51	101	853	Closed	0	0	954
7/17	51	60	1,892	Closed	0	Closed	1,952
7/18	50	68	1,825	Closed	0	Closed	1,893
7/19	59	99	736	0	1,909	0	2,744
7/20	53	87	1,568	0	753	0	2,408
7/21	39	29	321	0	2,241	0	2,591
7/22[a]	1	9	Closed	Closed	Closed	Closed	9

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Date	Number of Permits	District					Total
		Chignik Bay	Central	Eastern	Western	Perryville	
7/23	51	244	1,169	0	1,463	0	2,876
7/24	53	477	1,828	0	1,104	329	3,738
7/25	31	113	[b]	0	1,372	0	[b]
7/26		Closed	Closed	Closed	Closed	Closed	0
7/27		Closed	Closed	Closed	Closed	Closed	0
7/28		Closed	Closed	Closed	Closed	Closed	0
7/29	48	329	980	Closed	639	92	2,040
7/30	54	261	447	Closed	2,424	722	3,854
7/31	60	287	787	Closed	654	282	2,010
8/1		Closed	Closed	Closed	Closed	Closed	0
8/2		Closed	Closed	Closed	Closed	Closed	0
8/3		Closed	Closed	Closed	Closed	Closed	0
8/4	44	175	0	0	3,325	1,951	5,451
8/5	34	256	[b]	[b]	620	588	[b]
8/6	51	242	[b]	0	2,309	0	[b]
8/7	13	50	0	0	362	0	412
8/8	54	373	951	[b]	1,502	148	[b]
8/9	30	155	[b]	0	0	0	[b]
8/10	53	160	359	0	1,062	86	1,667
8/11	53	176	577	0	900	378	2,031
8/12	49	100	983	0	1,093	0	2,176
8/13	54	142	978	0	877	337	2,334
8/14	18	136	[b]	0	0	0	[b]
8/15	44	159	1,324	0	1,024	0	2,507
8/16	50	143	828	0	829	[b]	[b]
8/17	21	135	[b]	0	0	0	[b]
8/18	36	118	690	0	962	[b]	[b]
8/19	36	132	688	0	833	0	1,653
8/20	35	83	702	0	567	[b]	[b]
8/21		- Processors closed for season -					
Total	72	5,683	39,373	2,768	48,080	5,113	101,017

[a] ADF&G test fishery.

[b] Confidentiality requirements prevent the release of this information.

[c] Totals include information not provided by individual date due to confidentiality requirements.

Table 32.–Value of the commercial salmon harvest, by species, and average value per active permit, in dollars, in the Chignik Management Area, 1970 through 2015.

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

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Year	Chinook		Sockeye		Coho		Pink		Chum		Total Value	Number of permits[c]	Value per permit
	Total[a]	Average[b]	Total[a]	Average[b]	Total[a]	Average[b]	Total[a]	Average[b]	Total[a]	Average[b]			
1999	27,212	302	21,132,550	234,806	170,931	1,899	578,861	6,432	118,547	1,317	22,028,101	90	244,757
2000	16,336	165	11,812,368	119,317	283,061	2,859	106,470	1,075	93,030	940	12,311,264	99	124,356
2001	12,205	133	7,419,339	80,645	263,160	2,860	366,714	3,986	209,239	2,274	8,270,657	92	89,898
2002	3,516	36	4,564,214	46,103	36,078	364	10,333	104	40,671	411	4,654,812	99	47,018
2003	20,212	202	5,283,962	52,840	173,625	1,736	182,100	1,821	71,140	711	5,731,039	100	57,310
2004	26,191	262	3,568,350	35,684	59	1	835	8	647	6	3,596,082	100	35,961
2005	36,060	377	6,314,036	64,429	11,280	115	55,070	562	10,917	111	6,427,363	98	65,585
2006	26,895	560	4,703,317	97,986	105,132	2,190	126,309	2,631	81,123	1,690	5,042,776	48	105,058
2007	26,176	476	4,154,210	75,531	195,754	3,559	1,034,322	18,806	162,089	2,947	5,572,550	55	101,319
2008	15,249	282	4,121,611	76,326	778,282	14,413	1,810,965	33,536	533,358	9,877	7,259,465	54	134,435
2009	30,714	558	7,058,058	128,328	220,824	4,015	800,530	14,555	520,791	9,469	8,630,917	55	156,926
2010	160,076	2,463	9,549,462	146,915	566,191	8,711	565,941	8,707	1,774,763	27,304	12,616,433	65	194,099
2011	57,524	899	21,469,153	335,456	278,391	4,350	1,040,264	16,254	919,586	14,369	23,764,918	64	371,327
2012	47,612	690	12,803,505	185,558	97,430	1,412	146,011	2,116	634,705	9,199	13,729,262	69	198,975
2013	37,620	495	21,960,018	288,948	86,953	1,144	868,071	11,422	385,172	5,068	23,337,834	76	307,077
2014[d]	66,875	955	6,040,512	86,293	434,394	6,206	286,942	4,099	185,016	2,643	7,013,739	70	100,196
2015	72,439	1,020	6,606,379	93,048	99,469	1,401	934,971	13,169	164,012	2,310	7,877,270	71	110,947
Averages													
1995-2014	37,413	515	9,402,811	121,444	291,721	3,898	482,037	7,167	339,245	4,953	10,553,227	81	137,976
2005-2014	50,480	776	9,817,388	148,577	277,463	4,611	673,442	11,269	520,752	8,268	11,339,526	65	173,500
2010-2014	73,941	1,100	14,364,530	208,634	292,672	4,364	581,446	8,520	779,848	11,716	16,092,437	69	234,335

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

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

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

[d] Values represent the initial price paid, and do not include any postseason adjustments by any processor. The average 2015 exvessel prices per pound were: Chinook – $1.01, sockeye – $0.78, coho – $0.19, pink – $0.16, chum – $0.25.

Table 33.–Historical number of subsistence permits issued and returned and estimated subsistence salmon harvest, by species and year, 1980 through 2014.

	Permits		Estimated Salmon Harvest					
Year	Issued	Returned	Chinook	Sockeye	Coho	Chum	Pink	Total
1980	82	37	6	12,475	32	169	478	13,160
1981	29	7	0	2,049	0	0	0	2,049
1982	59	15	3	8,532	12	0	2	8,549
1983	32	21	0	3,078	1,319	850	1,250	6,497
1984	77	64	23	8,747	464	204	330	9,768
1985	59	48	1	7,177	50	25	26	7,279
1986	74	38	4	10,347	205	77	98	10,731
1987	2	1	10	7,021	278	204	261	7,774
1988	80	34	9	9,073	1,455	142	54	10,733
1989	68	23	24	7,551	384	147	81	8,187
1990	72	23	103	8,099	210	115	470	8,997
1991	95	58	42	11,483	13	81	275	11,894
1992	98	19	55	8,648	709	145	305	9,862
1993	201	141	122	14,710	3,765	642	1,265	20,504
1994	219	122	165	13,978	4,055	382	1,720	20,300
1995	111	95	98	9,563	1,191	150	723	11,725
1996	119	104	48	7,357	2,126	355	2,204	12,090
1997	126	103	28	13,442	2,678	840	2,035	19,023
1998	104	72	91	7,750	1,390	186	1,007	10,424
1999	106	88	243	9,040	1,679	136	1,191	12,289
2000	130	112	163	9,561	1,802	517	1,185	13,228
2001	135	122	171	8,633	1,859	213	2,787	13,663
2002	120	86	74	10,092	1,401	23	390	11,980
2003	146	127	267	10,989	2,256	286	1,597	15,395
2004	104	57	88	7,029	1,981	202	1,047	10,347
2005	119	100	224	8,171	2,112	353	730	11,590
2006	113	79	258	8,079	1,539	275	1,035	11,186
2007	128	83	84	10,191	1,936	165	996	13,372
2008	89	69	41	7,189	877	57	619	8,783
2009[a]	95	82	104	6,785	1,174	137	707	8,907
2010[a]	124	90	188	8,148	1,820	222	656	11,034
2011	95	76	52	10,578	1,458	355	1,289	13,732
2012[a]	106	87	116	5,607	1,488	220	810	8,241
2013	112	96	102	8,100	991	174	790	10,157
2014[a]	113	101	148	7,855	1,401	207	339	9,950
Averages								
1994–2013	120	93	130	9,014	1,791	262	1,176	12,373
2004–2013	109	82	126	7,988	1,538	216	868	10,735
2009–2013	106	86	112	7,844	1,386	222	850	10,414

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

[a] From 1993–2008 and in 2011, postseason household surveys were conducted to supplement harvest data collected through returned permits. Limited budgets prevented administering the surveys for 2009, 2010, and 2012 likely resulting in an underestimate of subsistence harvests since not all subsistence fishing households obtained a permit. To compensate for this underestimate, the average annual harvest for the period 1999–2008 and 2011 reported during postseason surveys was added to harvests from returned permits to estimate the total subsistence harvest for 2009 and 2010, 2012, 2013, and 2014.

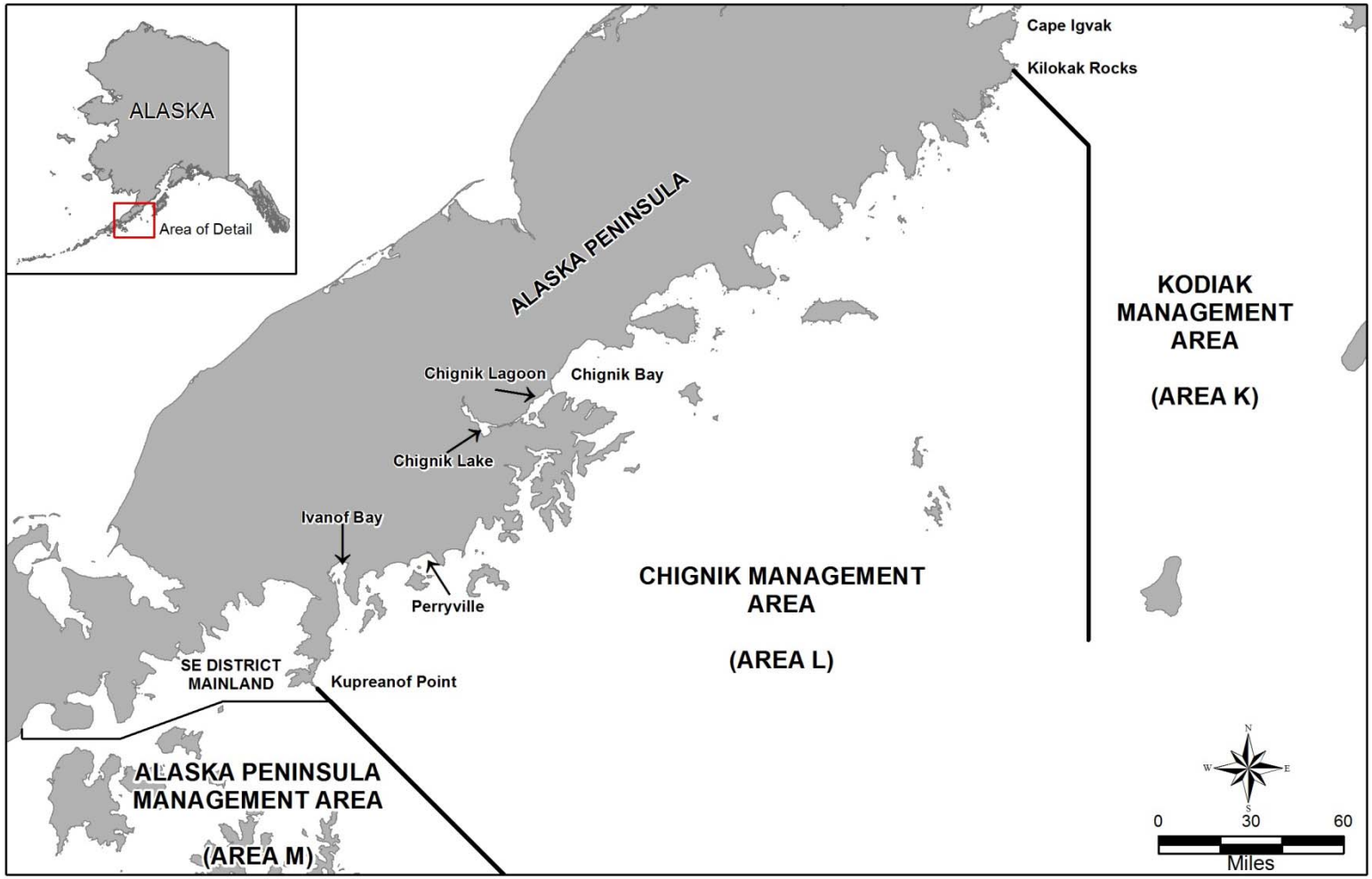

Figure 1.–Map of the Alaska Peninsula illustrating the relative locations of the Chignik, Kodiak, and Alaska Peninsula management areas.

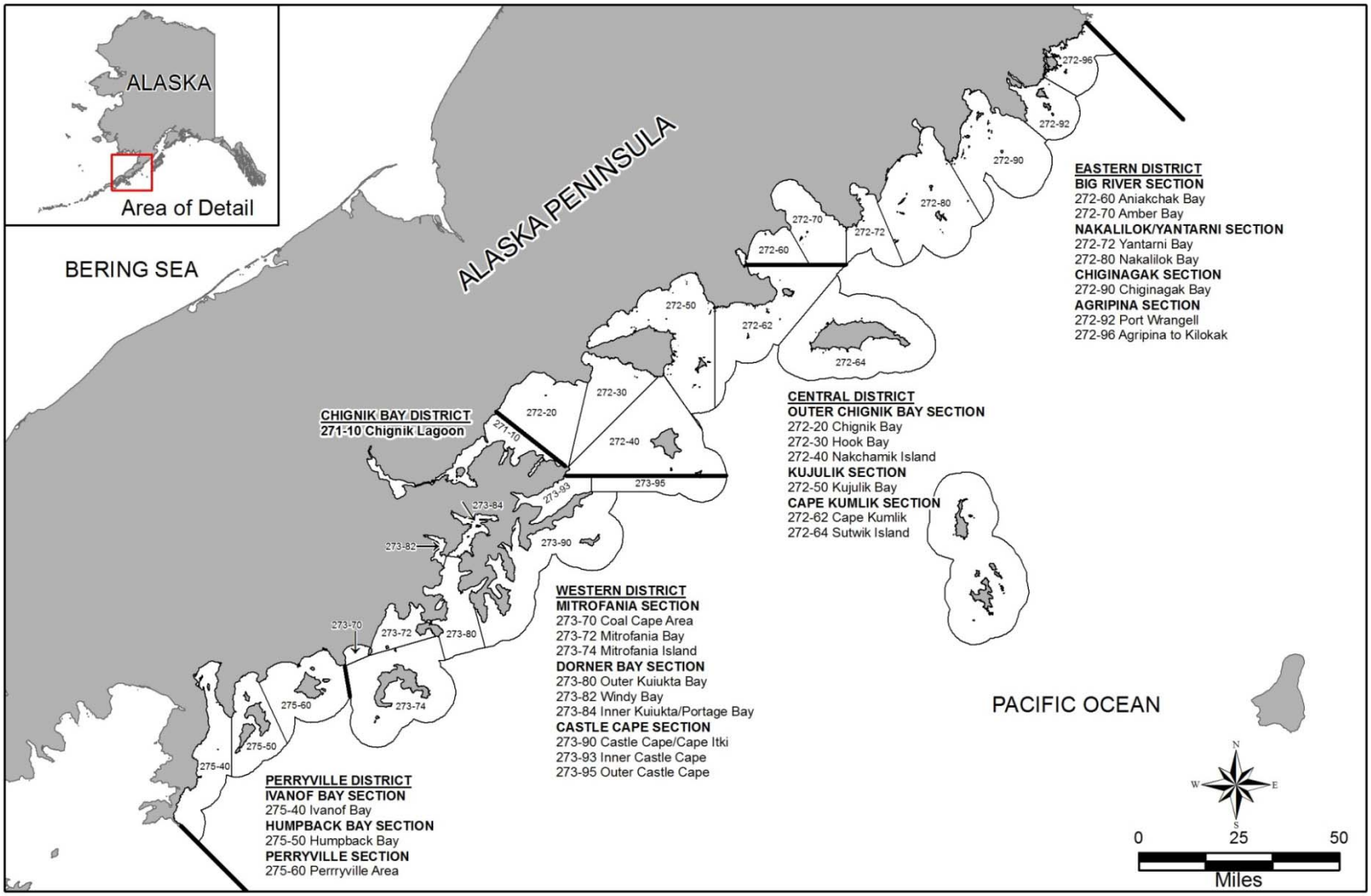

Figure 2.–Map of the Chignik Management Area illustrating district and section boundaries and statistical areas.

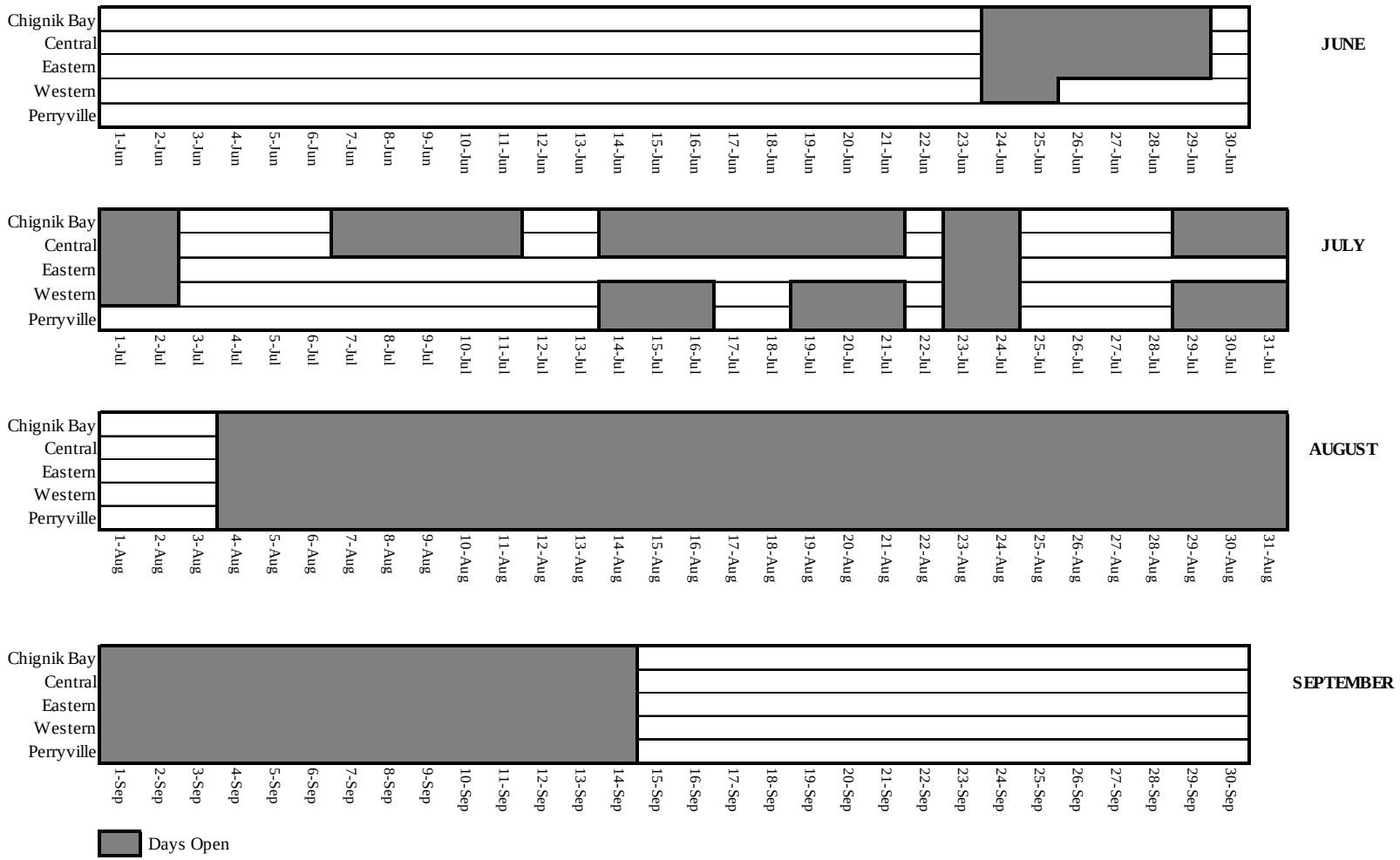

Figure 3.–Representation of days open to commercial salmon fishing, by district and month, 2015.

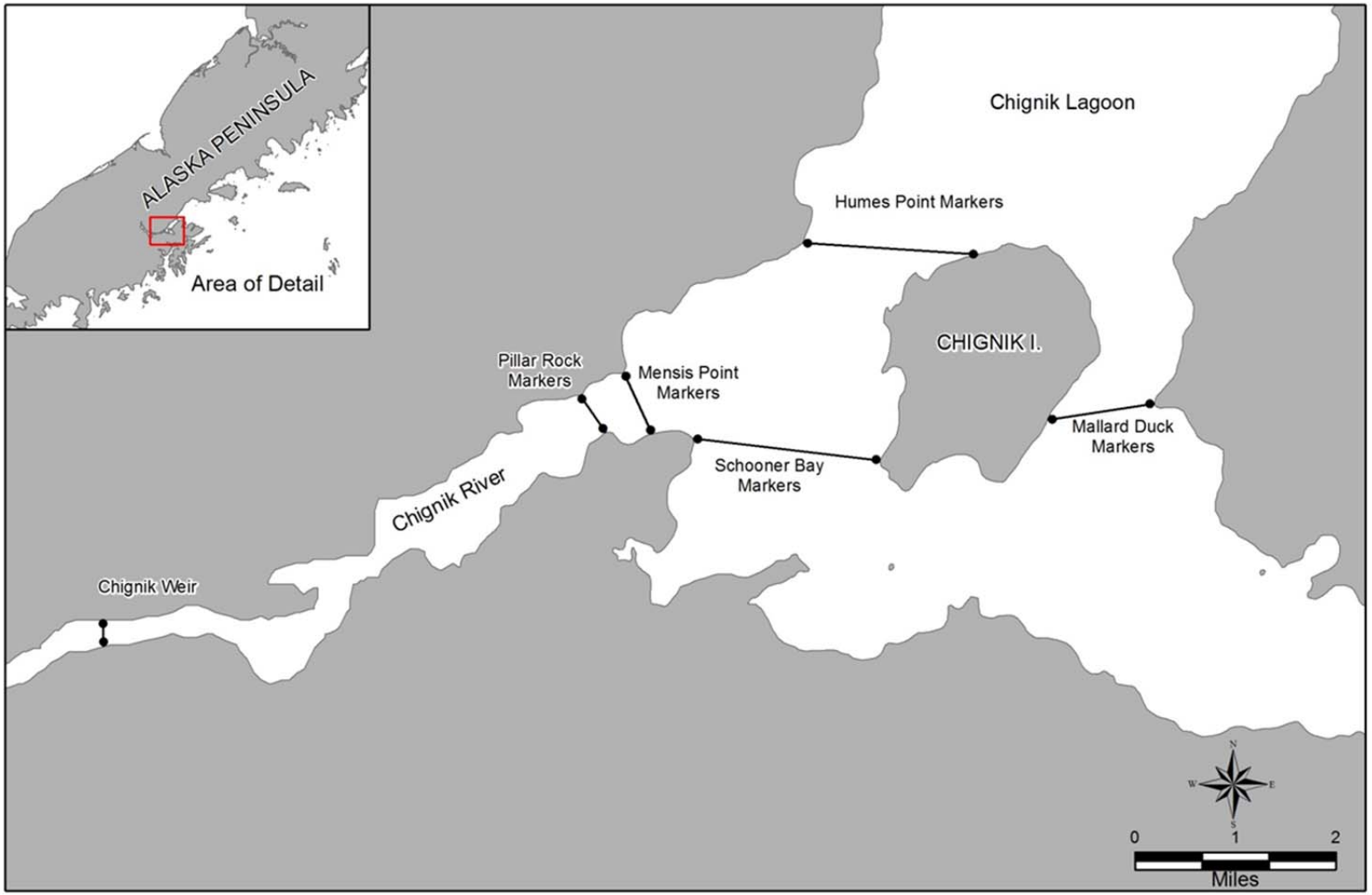

Figure 4.–Map of upper Chignik Lagoon showing the location of the Pillar Rock, Mensis Point, Humes Point, Mallard Duck, and Schooner Bay marker locations.

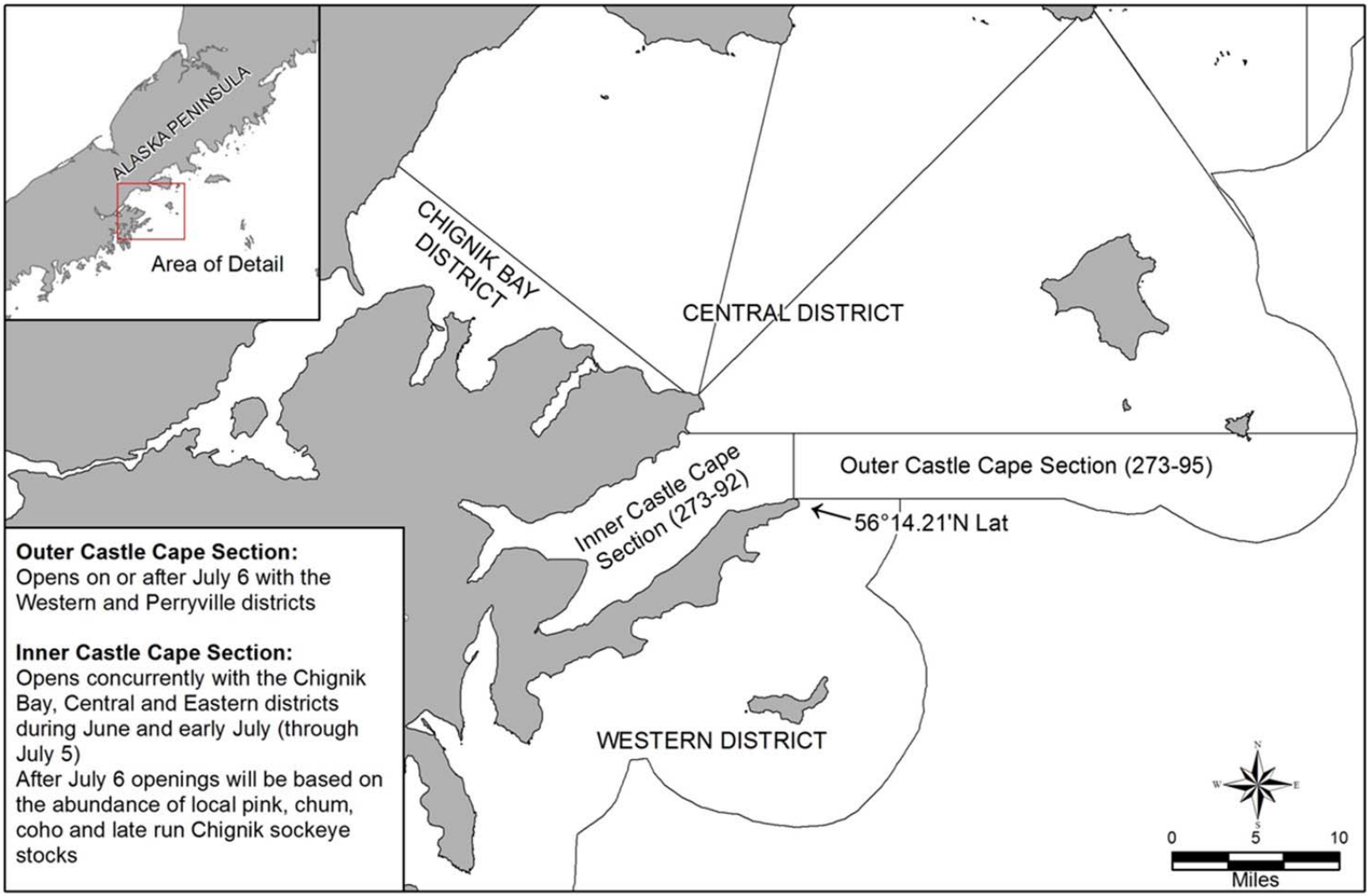

Figure 5.–Map depicting the Inner (273-93), and Outer (273-95) Castle Cape Sections of the Western District.

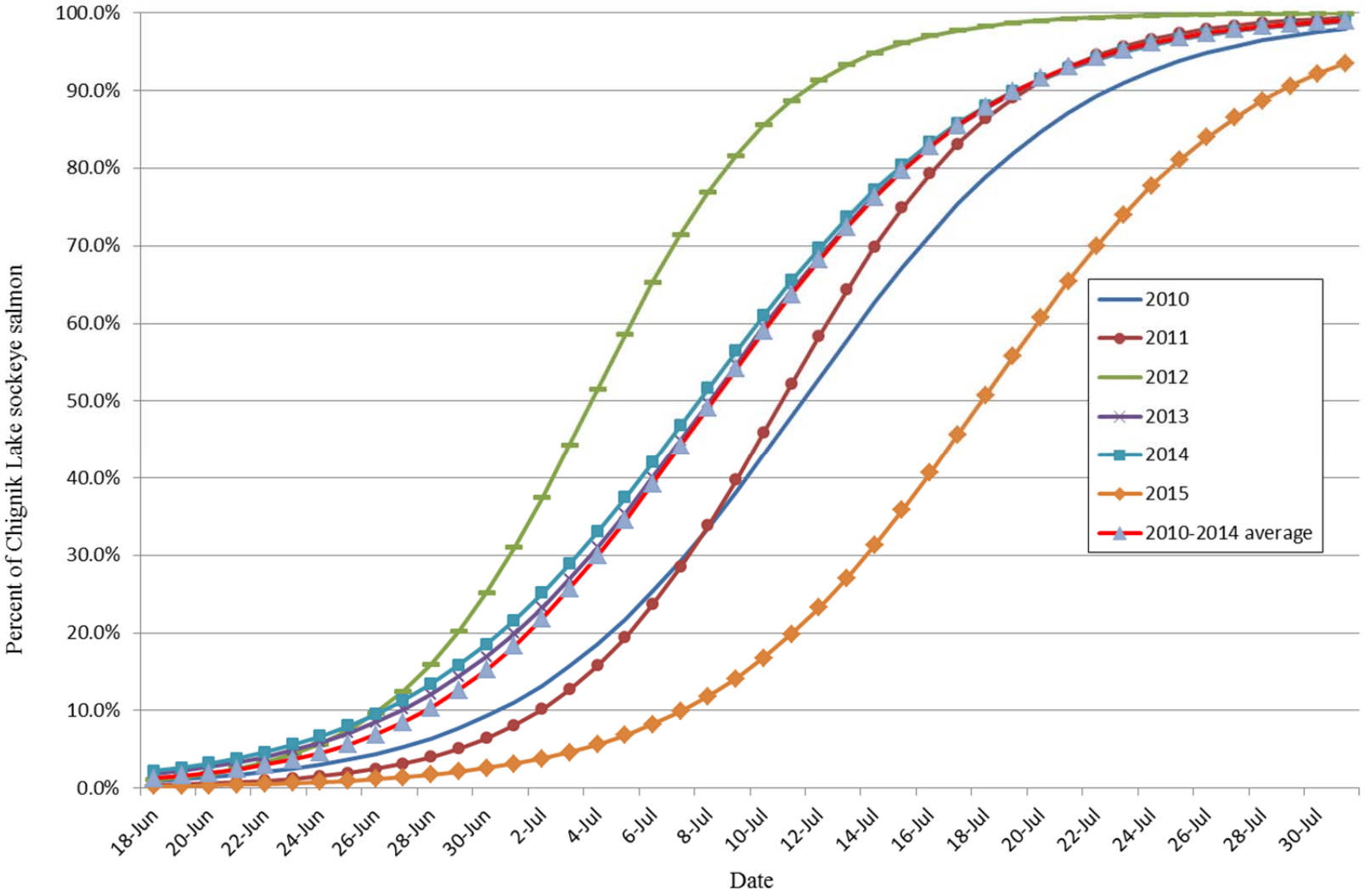

Figure 6.–Estimated proportional escapement of Chignik Lake (late run) sockeye salmon from inseason mixed-stock genetic analysis, 2010–2015.

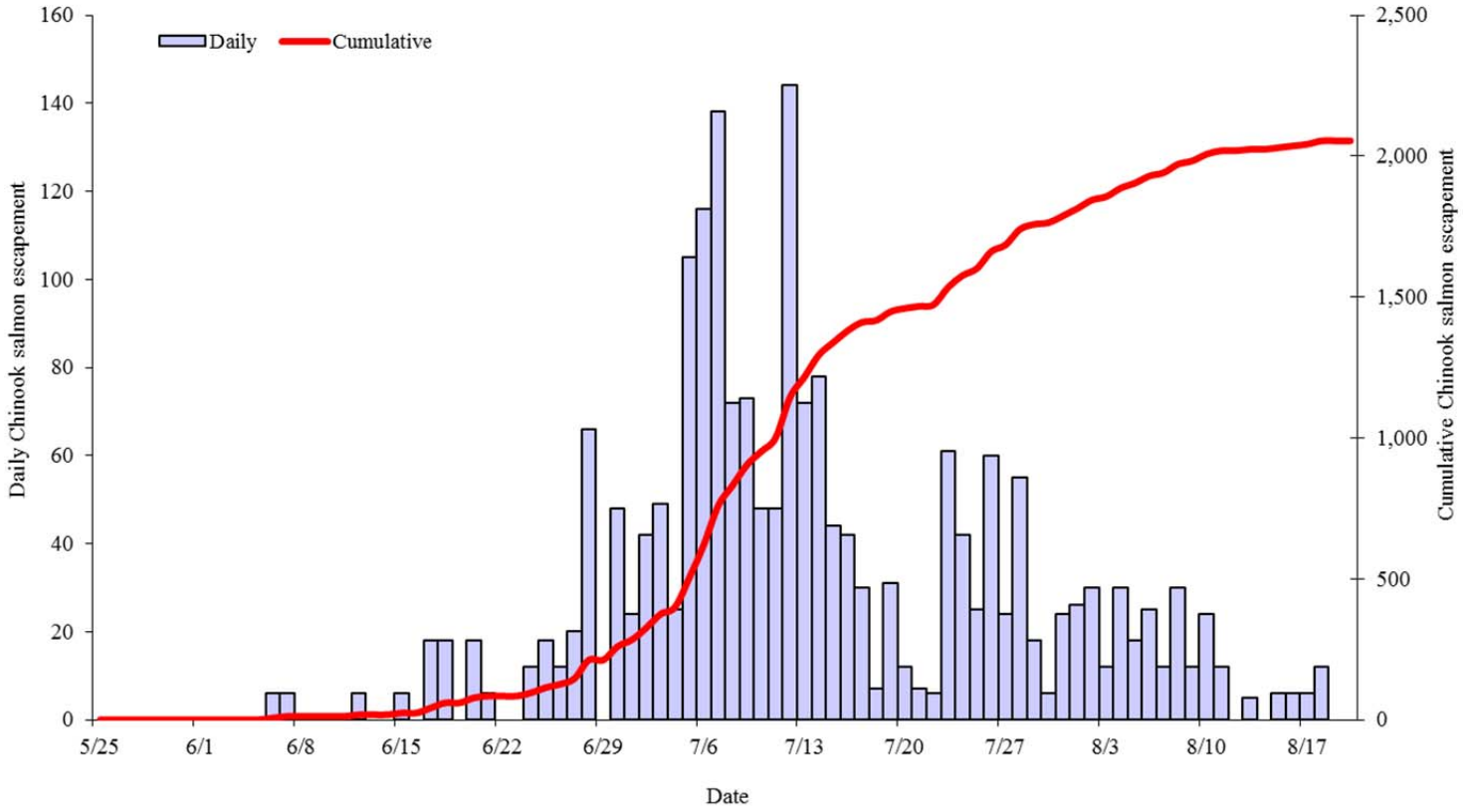

Figure 7.–Chignik River estimated daily and cumulative Chinook salmon escapement, 2015.

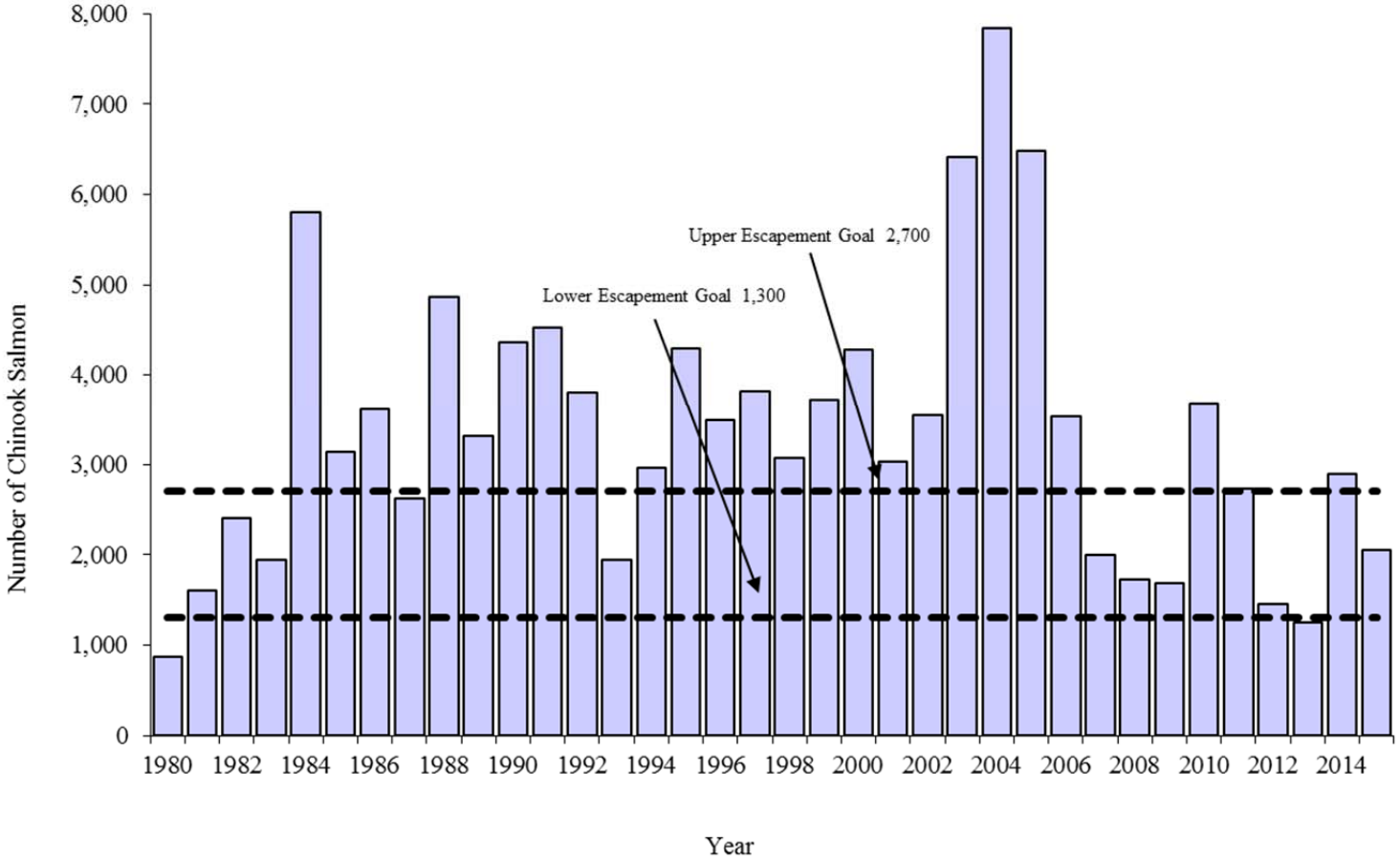

Figure 8.–Chignik River Chinook salmon escapement compared to the current escapement goal range, by year, 1980 through 2015.

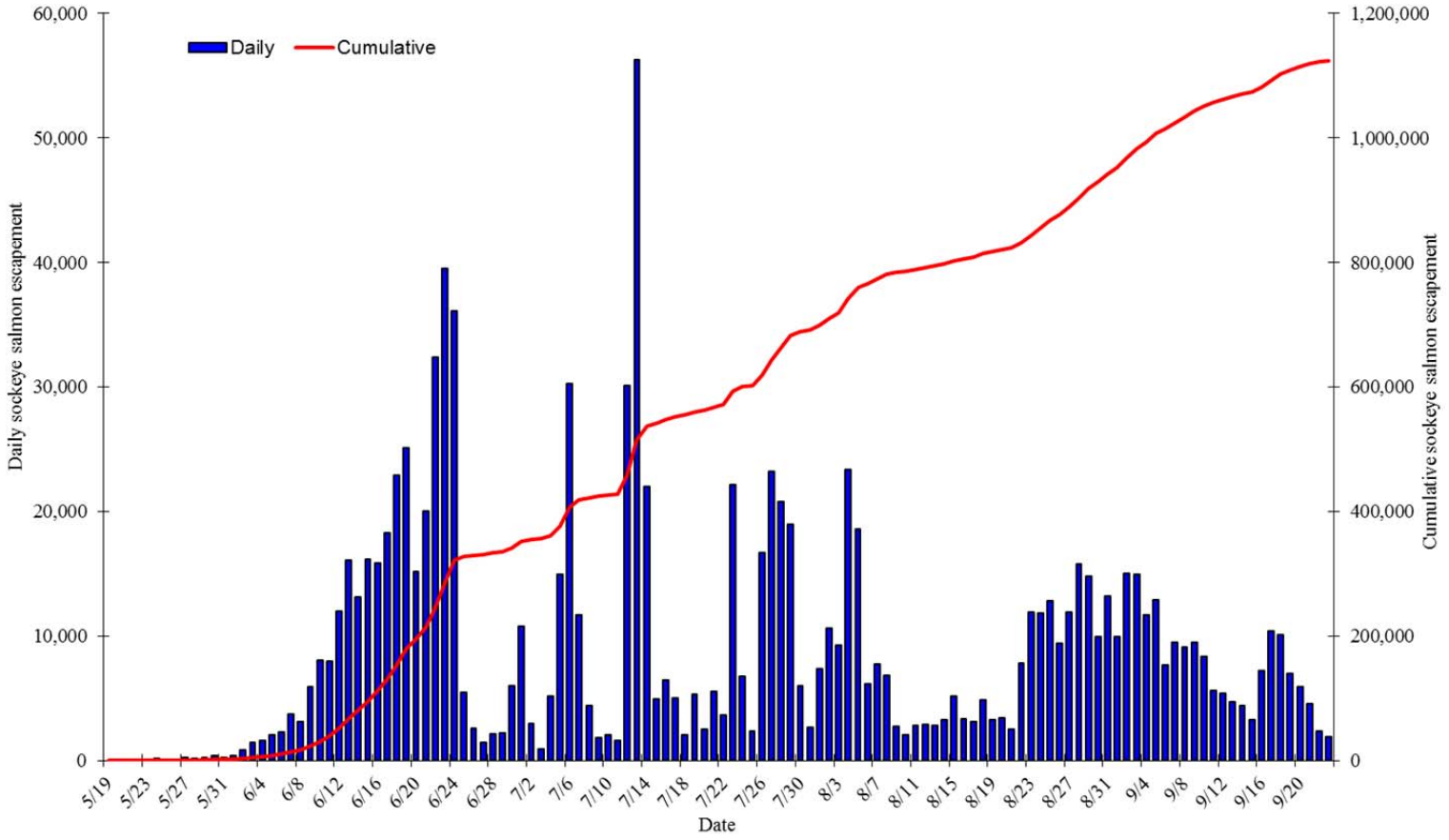

Figure 9.–Chignik River sockeye salmon daily and cumulative escapement including weir enumeration (5/19–8/20) and DIDSON daily estimates (8/21–9/23), 2015.

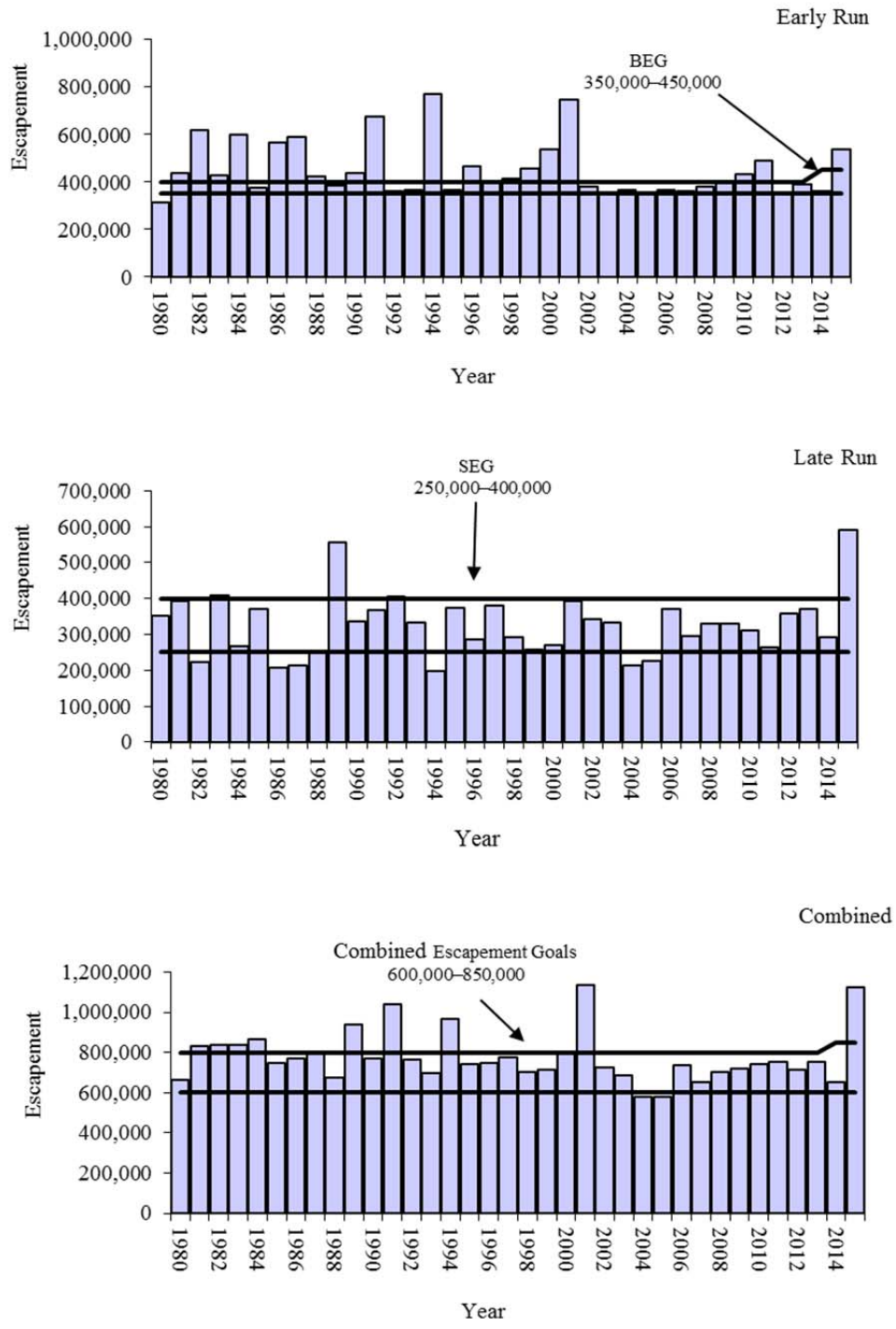

Figure 10.–Chignik River sockeye salmon early, late, and combined run escapements 1980 through 2015, compared to established escapement goals (including a late run inriver run goal of 50,000).

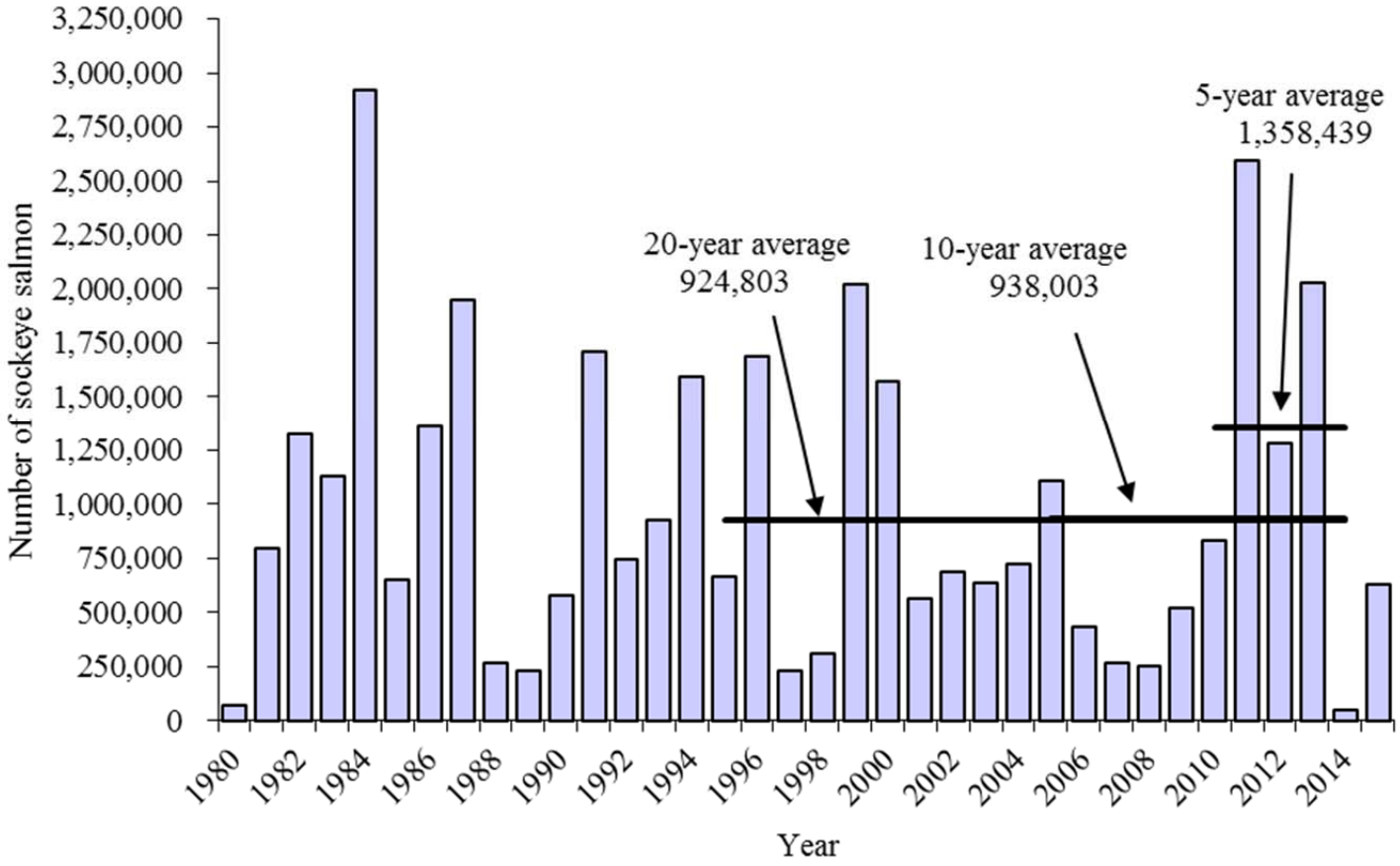

Figure 11.–Chignik-bound sockeye salmon early-run harvest, 1980 through 2015.

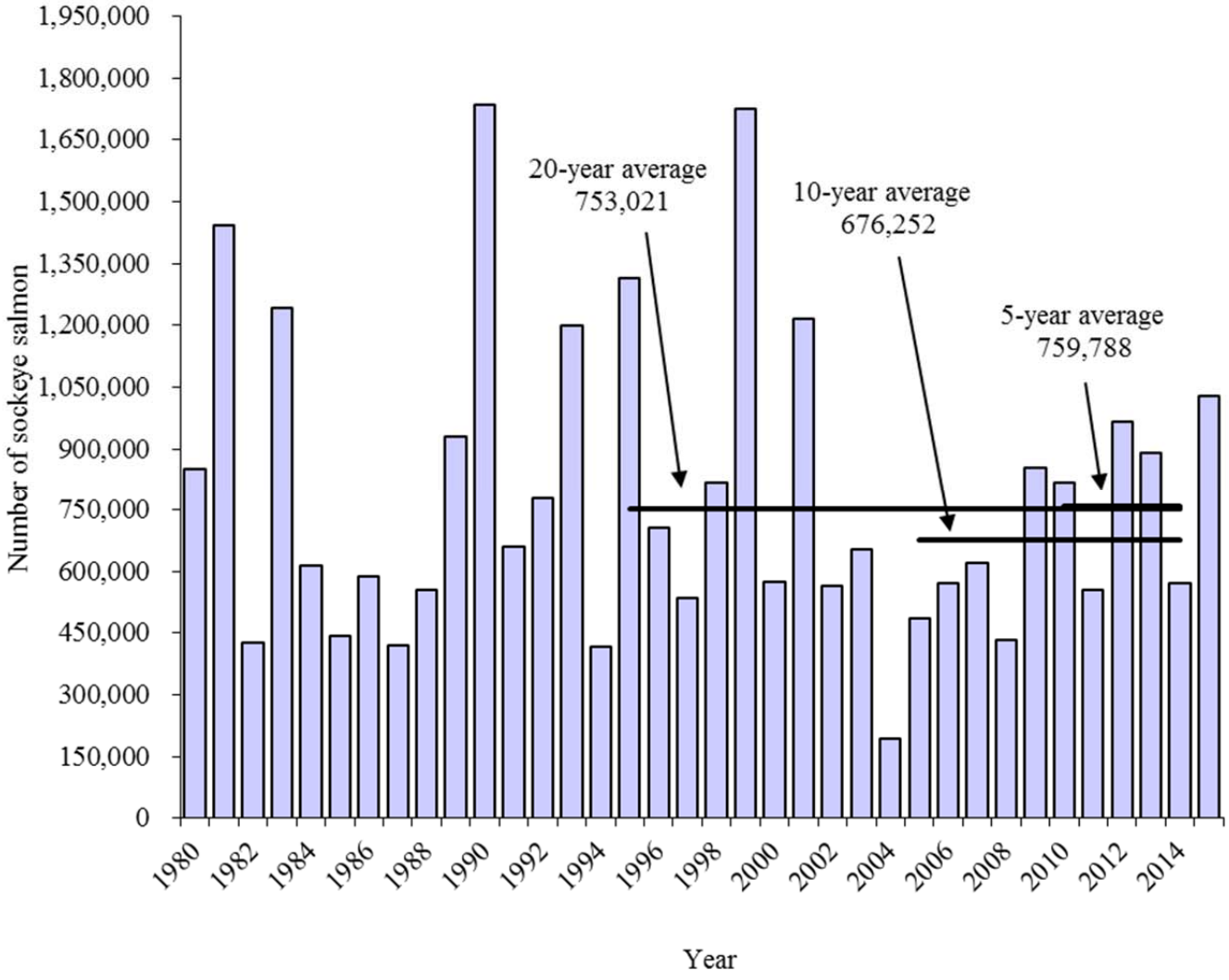

Figure 12.–Chignik-bound sockeye salmon late-run harvest, 1980 through 2015.

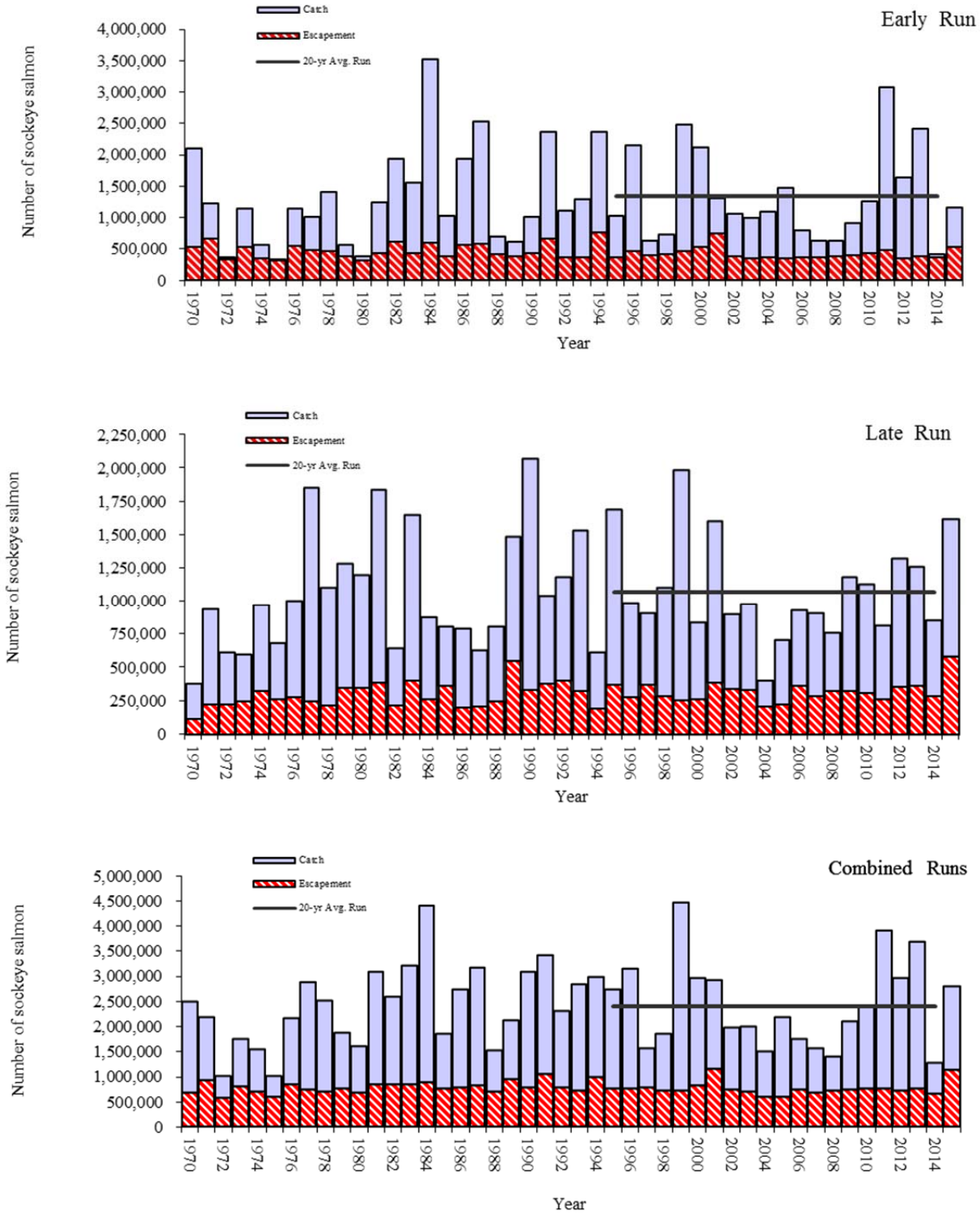

Figure 13.–Total sockeye salmon escapement and catch considered Chignik-bound including home pack, the department's test fishery harvest, and Cape Igvak and SEDM allocations, by year and run, 1970 through 2015.

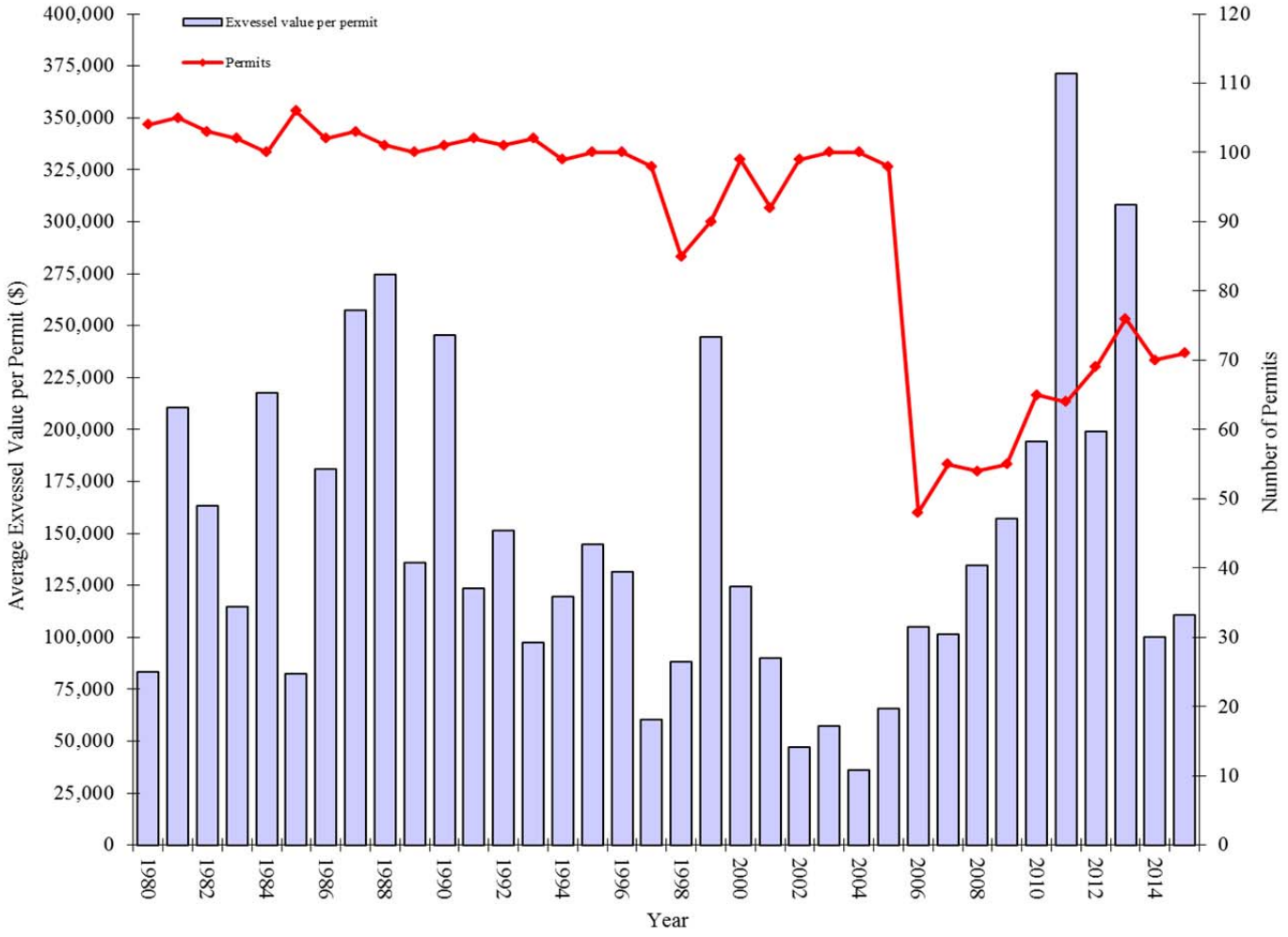

Figure 14.–Average exvessel value, in dollars, per permit and total permits fished by year 1980 through 2015.

APPENDIX A. SUMMARY OF 2015 EMERGENCY ORDERS

Appendix A1.–Summary of the 2015 Chignik Management Area Emergency Orders.

E.O. Number	Issued	Effective	Action taken
4-FS-L-01-15	9:15 AM 6/23/2015	9:30 AM 6/24/2015	**Opens** the Chignik Bay, Central, Eastern, and Western districts for 48 hours from 9:30 AM Wednesday, June 24 until 9:30 AM Friday, June 26. **Closed Waters** Effective 9:30 AM Wednesday, June 24 salmon may only be taken northeast of Humes Point.
4-FS-L-02-15	6:15 PM 6/23/2015	9:30 AM 6/24/2015	**Closed Waters** Effective 9:30 AM Wednesday, June 24 salmon may only be taken northeast of Mensis Point.
4-FS-L-03-15	6:15 PM 6/25/2015	9:30 AM 6/25/2015	**Extends** the current commercial salmon fishing period in the Chignik Bay, Central, and Eastern districts, as well as the Inner Castle Cape subsection of the Western district, for 24 hours from 9:30 AM Friday, June 26 until 9:30 AM Saturday, June 27.
4-FS-L-04-15	6:15 PM 6/24/2015	9:30 AM 6/25/2015	**Extends** the current commercial salmon fishing period in the Chignik Bay, Central, and Eastern districts, as well as the Inner Castle Cape Subsection of the Western district, for 48 hours from 9:30 AM Saturday, June 27 until 9:30 AM Saturday, Monday 29.
4-FS-L-05-15	6:15 PM 6/29/2015	3:00 AM 7/1/2015	**Opens** the Chignik Bay, Central, Eastern and Western districts for 48 hours from 3:00 AM Wednesday, July 1 until 3:00 AM Friday, July 3.
4-FS-L-06-15	9:15 AM 7/6/2015	6:00 AM 7/7/2015	**Opens** the Chignik Bay, and Central districts, as well as the Inner Castle Cape Subsection of the Western district for 52 hours from 6:00 AM Tuesday, July 7 until 10:00 AM Thursday, July 9.
4-FS-L-07-14	6:15 PM 7/6/2015	6:00 AM 7/7/2015	**Closed Waters** Effective 6:00 AM Tuesday, July 7 salmon may only be taken northeast of Mensis Point.
4-FS-L-08-15	6:15 PM 7/8/2015	10:00 AM 7/9/2015	**Extends** the current commercial salmon fishing period in the Chignik Bay and Central districts for 48 hours from 10:00 AM Thursday, July 9 until 10:00 AM Saturday, July 9.
4-FS-L-09-15	6:15 PM 7/12/2015	5:00 AM 7/14/2015	**Opens** the Chignik Bay, Central, Eastern, Western and Perryville districts for 48 hours from 5:00 AM Tuesday, July 14 until 5:00 AM Thursday, July 16.

-continued-

Appendix A1.–Page 2 of 3.

E.O. Number	Issued	Effective	Action taken
4-FS-L-10-15	6:15 PM 7/13/2015	5:00 AM 7/14/2015	**Closed Waters** Effective 5:00 AM Tuesday, July 14 salmon may only be taken northeast of Mensis Point.
4-FS-L-11-15	12:00 PM 7/15/2015	5:00 AM 7/16/2015	**Extends** the current commercial salmon fishing period in the Chignik Bay and Central districts for 61 hours from 5:00 AM Thursday, July 16 until 6:00 PM Saturday, July 18.
4-FS-L-12-15	3:00 PM 7/16/2015	3:00 PM 7/16/2015	**Opens** the Inner Castle Cape Subsection of the Western District for 61 hours from 5:00 AM Thursday, July 16 until 6:00 PM Saturday, July 18. This information was inadvertently left out of the previous emergency order.
4-FS-L-13-15	10:30 AM 7/17/2015	6:00 PM 7/18/2015	**Extends** the commercial salmon fishery period in the Chignik Bay and Central district, as well as the Inner Castle Cape Subsection of the Western district, for 53 hours from 6:00 PM Saturday, July 18 until 11:59 PM Monday, July 20. **Opens** the Eastern, Perryville and Western district, excluding the Inner Castle Cape Subsection of the Western district for 48 hours from 12:01 AM Sunday, July 19 until 11:59 PM Monday, July 20.
4-FS-L-14-15	9:15 AM 9/19/2015	11:59 PM 7/20/2015	**Extends** the current commercial salmon fishing period in the Chignik Bay, Central, Eastern, Western, and Perryville districts for 12 hours from 11:59 PM Monday, July 20 until 11:59 AM Tuesday, July 21.
4-FS-L-15-15	9:15 AM 7/22/2015	9:30 AM 7/23/2015	**Opens** the Chignik Bay, Central, Eastern, Western, and Perryville districts for 48 hours from 9:30 AM Thursday, July 23 until 9:30 AM Saturday, July 25**.**
4-FS-L-16-15	9:15 AM 7/28/2015	3:30 PM 7/29/2015	**Opens** the Chignik Bay, Central, Western, and Perryville districts for 48 hours from 3:30 PM Wednesday, July 29 until 3:30 PM Friday, July 31**.**
4-FS-L-17-15	9:15 AM 8/3/2015	7:00 PM 8/4/2015	**Opens** the commercial salmon fishing period in the Chignik Bay, Central, Eastern, Western, and Perryville districts for 48 hours from 7:00 PM Tuesday, August 4 until 7:00 PM Thursday, August 6. **Closed Waters** the Agripina Section of the Eastern district will remain closed.

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E.O. Number	Issued	Effective	Action taken
4-FS-L-18-15	3:00 PM 8/4/2015	7:00 PM 8/4/2015	**Closed Waters** Effective 7:00 PM Tuesday, August 4 salmon may only be taken northeast of Mensis Point.
4-FS-L-19-15	6:15 PM 8/5/2015	7:00 PM 8/6/2015	**Extends** the current commercial salmon fishing period in the Chignik Bay, Central, Eastern, Western and Perryville districts for 53 hours from 7:00 PM Thursday, August 6 until 11:59 PM Saturday, August 8. **Closed waters** the Agripina Section of the Eastern district will remain closed
4-FS-L-20-15	6:15 PM 8/7/2015	11:59 PM 8/7/2015	**Extends** the current commercial salmon fishing period in the Chignik Bay, Central, Eastern, Western and Perryville districts 11:59 PM Saturday, August 8 until further notice.
4-FS-L-21-15	12:00 PM 9/10/2015	11:59 PM 9/14/2015	**Closed Waters** Effective 11:59 Monday, September 14 the commercial salmon fishing period in the Chignik Bay, Central, Eastern, Western and Perryville districts will close.

APPENDIX B. 2015 CHIGNIK SOCKEYE SALMON POSTWEIR ESCAPEMENT ESTIMATE MEMORANDUM.

MEMORANDUM STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

Division of Commercial Fisheries

TO: M. Birch Foster
Finfish Research Biologist
Commercial Fisheries Division
Region IV - Kodiak

DATE: 11/25/2015

FROM: Mary Loewen
Finfish Research Biologist
Commercial Fisheries Division
Region IV - Kodiak

PHONE: (907) 486-1805

SUBJECT: 2015 Chignik post-weir escapement estimate

The 2015 Chignik sockeye salmon post-weir escapement was estimated using data collected with DIDSON between August 21 and September 23. Species apportionment was applied based on fish caught in the lagoon by the DIDSON crew using a variable mesh gillnet. A total of 18 days of fishing data between August 23 and September 23 were used in species apportionment.

September escapement was also estimated using traditional post-weir time series analysis of escapement data, which estimates the rate of decay in the run and forecasts escapements after weir removal assuming that the forecast escapement follows the same rate of decay as the run. (Figure 1). Total run (catch and escapement) data from July 23 through August 20, the day the weir was removed, were used in that analysis. August 20 was also the last day of commercial fishing in the Chignik Management Area in 2015.

The 2015 DIDSON counts resulted in an estimated escapement of 303,255 sockeye salmon from August 21 through September 23 (95% confidence interval 274,578 to 329,455 fish). Between August 21 and August 30, an estimated 121,857 sockeye salmon (95% CI 110,334–132,385 fish) escaped into the Chignik River. Between September 1 and September 15, an estimated 131,984 sockeye salmon (95% CI 119,503–143,387 fish) escaped into the Chignik River. Between September 15 and September 23, the last day of DIDSON counts, an estimated 49,414 sockeye salmon (95% CI 44,741–53,683 fish) escaped into the Chignik River. (Table 1) The two days of greatest estimated escapement happened three and four days after the weir was removed.

Time series analysis, using July 23–August 20 as the period of decay for forecast, resulted in an estimated

escapement of 85,019 sockeye salmon (95% prediction interval 72,600 to 88,298 fish) between August 21 and August 31, and 15,152 sockeye salmon between September 1 and September 15, **(**95% prediction interval 14,712–16,611 fish; Table 1) The time series estimate of 100,181 sockeye salmon between August 21 and September 15 is 36% of the DIDSON estimate of 277,081 sockeye salmon during the same time period.

-continued-

This is the second year that DIDSON estimates have been used in place of a statistical time series estimate for escapement after the weir is removed. The large difference in estimates can likely be attributed to the rate of decay in escapement on the last day of weir counts. Because time series modelling predicts future values based on previous trends (the decay in escapement), the rate of decay is assumed to be the same throughout the forecast period. DIDSON estimates can capture daily fluctuations in escapement strength, such as the large daily escapements observed on September 17 and 18, which the time series model cannot incorporate. The earlier-than-average removal of the weir in August likely also contributed to the discrepancy in estimates. Several dates were tested for forecasting September escapement, in order to capture different rates of decay throughout the run. However, based on visual observation of fish passage upstream past the DIDSON units, as well as catches in the lagoon by crew and subsistence users, the DIDSON estimate is considered more accurate than the time series estimate for 2015 August and September escapement.

Although all sockeye salmon enumerated in the post-weir estimate are considered as late-run (Chignik Lake stock) escapement, it is possible that some portion of the fish counted in September are actually from other stocks, such as the "late-late" run which is often referenced by local users. Without genetic identification of fish in late August and September to support this idea, all escapement in September is currently considered late-run (Chignik Lake stock). Over the past three years of late season escapement enumeration using DIDSON, an increase in daily sockeye salmon escapement has been observed in the third or fourth week of September, typically lasting four to six days (Figure 2). This mode may be indicative of the entry timing of a "late-late" run, or it may be a pulse of late-run sockeye salmon. Future work to collect tissue samples for genetic identification in late August and September would allow for more fine-scale apportionment of escapement by stock-of-origin and potential refinement of escapement goal targeting.

In 2015, daily estimates of coho salmon escapement were also calculated from DIDSON data. An estimated 60,082 coho salmon were enumerated between August 21 and September 23.

Table 1. Estimates from DIDSON hydroacoustic files and time series analysis

Date	Time series based on run decay from July 23-Aug 20	DIDSON	Difference
Aug 21 – Aug 31	85,019	121,847	51,118
Sept 1 – 15	15,162	131,984	116,822
Aug 21 – Sept 15	100,181	253,841	168,120
Sept 16 – Sept 12[a]		49,414	
Aug 21-Sept 23[a]		303,255	

[a] Data available from DIDSON counts only.

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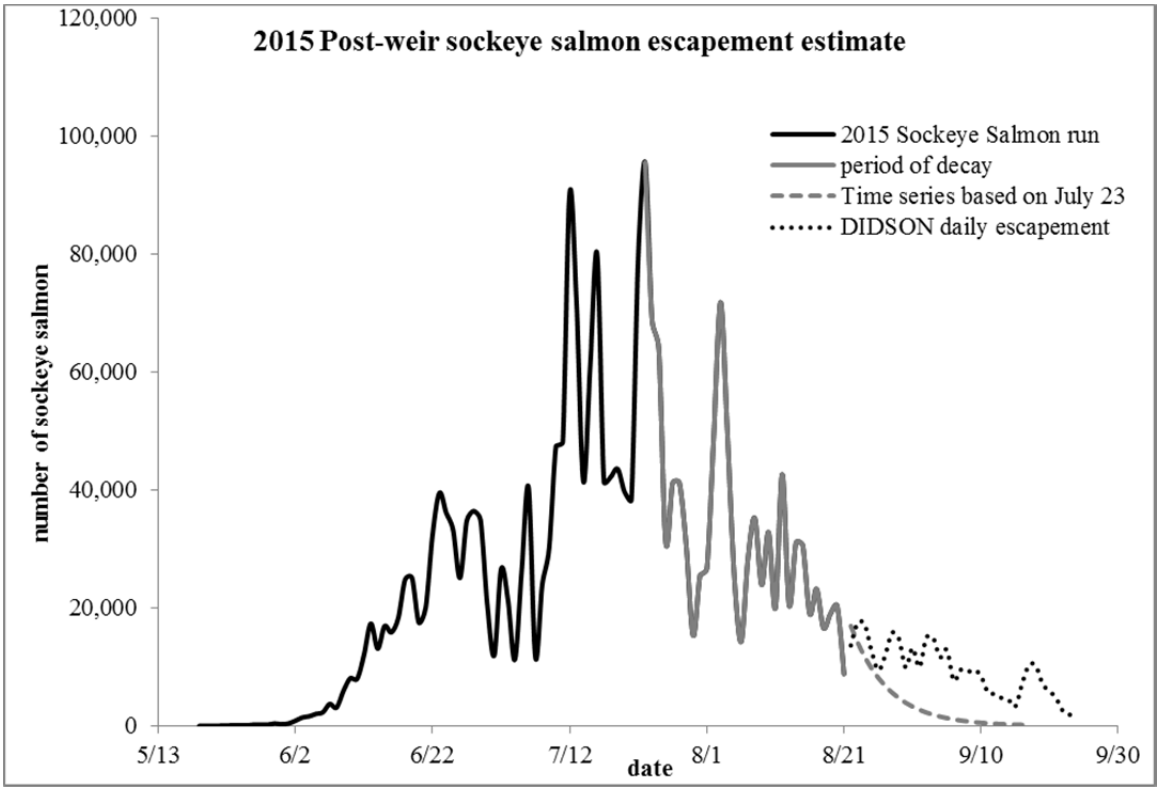

Figure 1.–2015 Estimated Chignik sockeye salmon run by day.

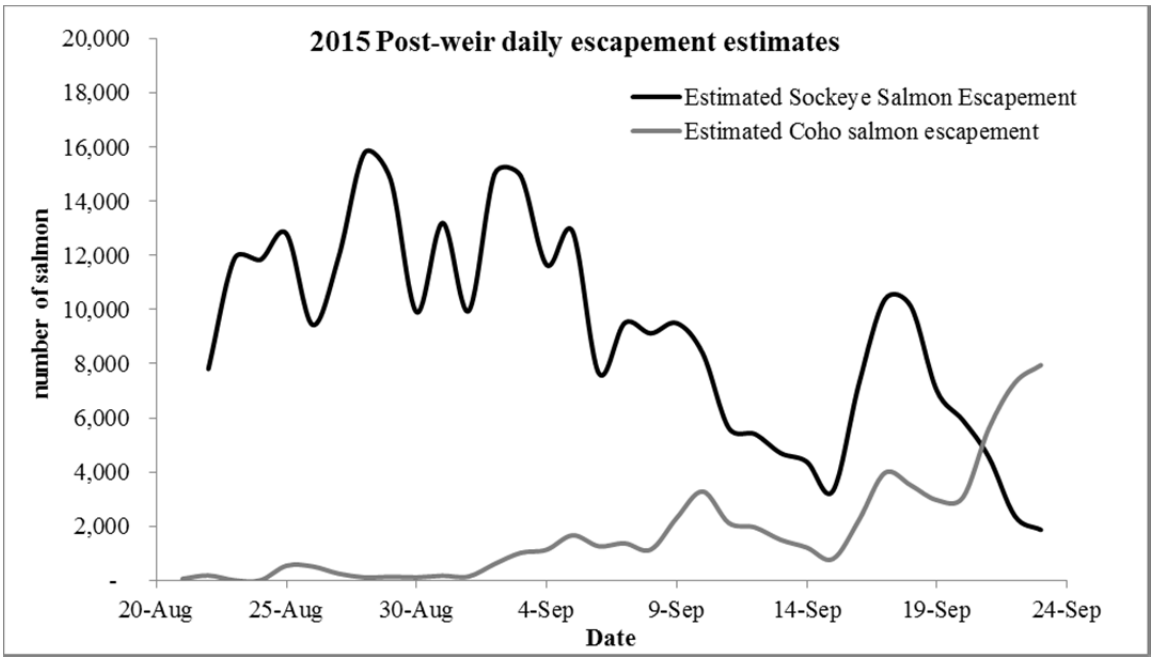

Figure 2.–Post-weir escapement estimate from DIDSON hydroacoustic data.

CC: Wilburn, Stumpf, Wadle, Schaberg