

## **Fishery Management Report No. 17-33**

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# **South Alaska Peninsula Salmon Annual Management Report, 2016**

by

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and

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August 2017

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Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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

***FISHERY MANAGEMENT REPORT NO. 17-33***

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REPORT, 2016**

by  
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# ABSTRACT

This report summarizes the 2016 season and historical information regarding commercial salmon fisheries of the South Alaska Peninsula Management Area (Area M).

The total commercial salmon harvest, excluding department test fishery harvest, in Area M was 13,449 Chinook salmon *Oncorhynchus tshawytscha*, 2,477,821 sockeye salmon *O. nerka*, 185,104 coho salmon *O. kisutch*, 2,871,303 pink salmon *O. gorbuscha*, and 424,444 chum salmon *O. keta*. Harvest of Chinook, sockeye, and pink salmon were above recent 10-year averages (2006–2015). Harvest of chum and coho salmon was below recent 10-year averages. A total of 236 permit holders participated in the fishery. The June commercial salmon harvest included 6,113 Chinook, 1,292,860 sockeye, 1,716 coho, 2,510,048 pink, and 270,614 chum salmon. Harvest in the South Unimak fishery was 1,860 Chinook, 876,963 sockeye, 1,528 coho, 1,836,319 pink, and 148,850 chum salmon, whereas the Shumagin Islands accounted for 4,253 Chinook, 415,897 sockeye, 188 coho, 673,729 pink, and 121,764 chum salmon.

There were a total of 3 commercial salmon fisheries in the Southeastern District Mainland (SEDM) during the allocation period, June 1 through July 25. The total commercial harvest in the SEDM in 2016 was 532 Chinook, 376,155 sockeye, 6,550 coho, 21,391 pink, and 14,311 chum salmon. The total commercial harvest for the Northwest Stepovak Section, from July 1 through July 25, was 193 Chinook, 257,667 sockeye, 2,773 coho, 12,201 pink, and 9,655 chum salmon. The South Alaska Peninsula Post-June salmon harvest from July 1 through October 31 (minus the SEDM fishery July 1–25) was 6,804 Chinook, 808,806 sockeye, 176,838 coho, 339,864 pink, and 139,519 chum salmon.

In 2016, the sockeye salmon sustainable escapement goal (SEG) for Orzinski Lake (15,000–20,000 sockeye salmon) was exceeded with an escapement of 21,019 sockeye salmon. Total escapement of pink salmon (1,038,160 fish) was below the South Alaska Peninsula SEG range of 1,750,000–4,000,000 fish. In the Southeastern district, chum salmon escapement was estimated at 150,456 fish, within the SEG of 106,400–212,800 fish. In the Southwestern district, chum salmon escapement was estimated at 220,060 fish, within the SEG of 133,400–266,800 fish. In the South Central district, chum salmon escapement was estimated at 248,360 fish, which exceeded the SEG of 89,800–179,600 fish. Limited coho salmon surveys were conducted due to late season run timing.

Key words: South Alaska Peninsula, commercial salmon fishery, South Unimak, Shumagin Islands, salmon harvest, salmon escapement, Alaska Board of Fisheries, board, salmon, *Oncorhynchus*, management plan, Chinook *O. tshawytscha*, sockeye *O. nerka*, coho *O. kisutch*, pink *O. gorbuscha*, chum *O. keta*, AMR

# INTRODUCTION

The Alaska Peninsula Salmon Management Area is that portion of Area M including waters of the North Alaska Peninsula from Cape Menshikof west to Cape Sarichef, and waters of the South Alaska Peninsula from Kupreanof Point west to Scotch Cap on Unimak Island (Appendix A1). This report describes commercial salmon fisheries located in South Alaska Peninsula waters, further divided into 4 districts: (1) Southeastern District, consisting of waters between Kupreanof Point and McGinty Point; (2) South Central District, consisting of waters between McGinty Point and Arch Point Light; (3) Southwestern District, consisting of waters between Arch Point Light, False Pass, and Cape Pankof Light; and (4) Unimak District, consisting of waters between Cape Pankof Light and Scotch Cap, including Sanak Island (Appendices A2–A6). The Southeastern District is further subdivided into 2 areas with different management plans: (1) the Shumagin Islands Section, consisting of the Shumagin Islands archipelago; and (2) the Southeastern District Mainland (SEDM), consisting of Stepovak, Balboa, and Beaver bays (Appendix A3). Data within this report supersedes data published in previous reports by the Alaska Department of Fish and Game (ADF&G).

For convenience, information summarizing the South Alaska Peninsula commercial fisheries is divided into three different appendices. Appendix A summarizes the South Unimak and

Shumagin Islands June Fisheries, Appendix B Summarizes the Southeastern District Mainland Fisheries, and Appendix C summarizes the South Alaska Peninsula Post-June Fisheries. Appendix D summarizes indexed escapement totals and methods used to tabulate totals, and provides figures and graphs allowing perspective when comparing 2016 indexed escapements totals to historical values.

Legal gear types in South Alaska Peninsula waters include purse seine, drift gillnet, and set gillnet (Appendix A7–A8). In 2016, 49 of 121 purse seine permits, 119 of 162 drift gillnet permits, and 68 of 116 set gillnet permits reported landings in South Alaska Peninsula waters (Appendix A9). Most of the purse seine and set gillnet permit holders fished South Alaska Peninsula waters throughout the season, whereas most of the drift gillnet permit holders fished South Unimak waters during June and North Alaska Peninsula waters from July into September.

## **SOUTH ALASKA PENINSULA AREAWIDE INFORMATION**

There are 5 species of Pacific salmon commercially harvested in the South Alaska Peninsula Salmon Management Area: Chinook salmon *Oncorhynchus tshawytscha*, sockeye salmon *O. nerka*, coho salmon *O. kisutch*, pink salmon *O. gorbuscha*, and chum salmon *O. keta*. Although commercial salmon fisheries in South Peninsula waters date back to at least 1888, when canneries were operated at Orzinski Bay and Thin Point Cove, catch records are only available since 1908 (Appendix A10). Fish ticket information starting in 1970 is stored in the ADF&G database.

### **HISTORICAL SALMON PRODUCTION, 1908–2016**

Historically, South Alaska Peninsula salmon production has fluctuated dramatically. Harvests are typically dominated by pink and chum salmon. Since 1962, annual pink salmon total run (catch and escapement and excluding June harvest, which are not considered local stocks for management purposes) ranged from 149,421 fish in 1973 to 23,931,288 fish in 2015 (Appendix A11). Since 1962, annual chum salmon total run (excluding June harvests) ranged from 223,228 fish in 1975 to 2,175,347 fish in 1994 (Appendix A12).

From 1947 to 1977, South Alaska Peninsula annual harvest (including June harvest) averaged 2,896,285 salmon, including an average of 1,523,900 pink and 751,226 chum salmon (Appendix A10). From 1978 to 1999, South Alaska Peninsula annual harvest averaged 10,667,191 salmon, including an average of 6,813,576 pink and 1,328,786 chum salmon (Appendix A10). From 2000-2005, the average annual harvest included 4,786 Chinook, 1,541,130 sockeye, 197,406 coho, 5,015,821 pink, and 830,929 chum salmon. More recently, in the last 10 years from 2006 through 2015, South Alaska Peninsula annual harvest averaged 9,504,709 salmon and was composed of 10,874 Chinook, 2,033,159 sockeye, 206,111 coho, 6,368,621 pink, and 885,944 chum salmon (Appendix A10).

### **COMMERCIAL SALMON HARVESTS FOR THE 2016 SEASON**

The first South Alaska Peninsula commercial salmon landing in 2016 occurred on June 7 and the last landing occurred on September 8 (Appendix A13). Commercial harvest (including harvest from the test fishery) of 6,021,637 salmon was composed of 15,275 Chinook, 2,491,351 sockeye, 190,896 coho, 2,894,412 pink, and 429,703 chum salmon (Appendix A13). The Southeastern District had the largest commercial salmon harvest in the South Alaska Peninsula, with a harvest

of 2,602,329 fish (43.6%; Appendix A14 and A15). South Central, Unimak, and Southwestern districts had harvests of 404,586 (6.8%), 1,714,391 (28.7%), and 1,250,815 (20.9%) fish respectively (Appendix A14 and A15). By gear type, seine permit holders accounted for 72.8% of the harvest while drift gillnet permit holders accounted for 9.2%, and set gillnet permit holders accounted for 18.1% of the harvest (Appendix A15). Specific management actions for the South Alaska Peninsula Management Area, as directed by emergency order (EO), are summarized in Appendix A16.

## **SOUTH UNIMAK AND SHUMAGIN ISLANDS JUNE FISHERIES**

### **HISTORICAL PERSPECTIVE**

The first documented commercial harvests from the South Unimak and Shumagin Islands June fisheries occurred in 1911. During the early to mid-1960s, the South Unimak and Shumagin Islands fisheries were open to commercial salmon fishing 5 days per week. From 1967–1970, fishing occurred 7 days per week. Special regulatory meetings were held annually and resulted in different regulations every year from 1971–1974.

In 1975, the Alaska Board of Fisheries (BOF) implemented an allocation plan in which the South Unimak and Shumagin Islands June fisheries were granted an annual guideline harvest level (GHL) relative to the projected Bristol Bay inshore sockeye salmon harvest (Appendix B1). Based on historical catch data, 6.8% of the forecasted inshore Bristol Bay harvest was allocated to the South Unimak June fishery and 1.5% was allocated to the Shumagin Islands June fishery. Portions of the GHL were assigned to discrete time periods so the harvest would be spread throughout June. Concerns over large harvests of chum salmon in the early 1980s, combined with a weak Yukon River fall chum salmon run, resulted in a chum salmon cap that, if reached, would result in closure of the fishery for the remainder of June. Between 1986 and 2000, the chum salmon cap was as high as 700,000 fish (1992–1997) and as low as 350,000 fish (1998–2000; Appendix B1).

In January 2001, the BOF modified the South Unimak and Shumagin Islands June salmon fishery management plan. These modifications were in effect through the 2003 season and included eliminating the sockeye salmon GHL and the chum salmon cap. From June 10 through June 24, fishing time for any gear group was limited to 16 hours per day. Gear type constraints were also imposed on the number of consecutive fishing days allowed within a 7-day period (Appendix B1). After June 24, in either the South Unimak or Shumagin Islands fisheries, if the sockeye-to-chum salmon ratio for all gear types was 2:1 or less on any day, the next fishing period was 6 hours in duration for all gear groups in that fishery. If the sockeye-to-chum salmon ratio was 2:1 or less for 2 consecutive fishing periods in either fishery, the season was closed for the remainder of June for all gear types. If the sockeye-to-chum salmon ratio was greater than 2:1, a 6-hour fishing period could be extended to a maximum of 16 hours.

In February 2004, the board modified the *South Unimak and Shumagin Islands June Fisheries Management Plan* (5 AAC 09.365, 2005) by establishing a fishing schedule that began at 6:00 AM on June 7 and ended at 10:00 PM on June 29. Fishing periods were 88 hours in duration interspersed by 32-hour closures, except for the final fishing period of 64 hours. This schedule provided 416 hours of concurrent opportunity for all gear types. In addition, the South Unimak

fishery was expanded to include the entire Southwestern District and the West and East Pavlof Bay sections of the South Central District (Appendix B1 and B2).

In 2013, the BOF discussed proposed changes to the regulations involved with the June Management Plan. The BOF modified the June schedule for seine and drift gillnet gear by delaying the start date to June 10, which reduced fishing time by 64 hours. The June fishing schedule for set gillnet gear remained unchanged (Appendix B1).

## **2016 JUNE MANAGEMENT PLAN**

During the February 2016 Alaska Peninsula, Aleutian Islands, and Chignik meeting, the BOF made changes to the *South Unimak and Shumagin Islands June Salmon Management Plan* (5AAC 09.365<sup>1</sup>) and the *Post-June Salmon Management Plan for the South Alaska Peninsula* (5AAC 09.366<sup>1</sup>) by adopting regulation to limit the number of sockeye salmon harvested in the Western Alaska Salmon Stock Identification Program (WASSIP) described “Dolgoi Island Area” (statistical areas 283-15 through 283-26 and 284-36 through 284-42; Appendix B3). From June 1 through July 25, a harvest limit of 191,000 sockeye salmon, based on fish ticket information, was created. Once this harvest limit is reached, the portion of the West Pavlof Bay Section south of Black Point (statistical area 283-26) and waters of the Volcano Bay Section (statistical areas 284-37 through 284-39) will be closed to commercial salmon fishing through July 25 (Appendix B3). However, the portion of West Pavlof Bay Section south of Black Point (statistical area 283-26) may reopen to commercial salmon fishing on July 17 (Appendix B3). All other statistical areas are managed in accordance with each prescribed management plan.

## **2016 JUNE SEASON SUMMARY**

The 2016 South Unimak and Shumagin Islands June fishing schedule began at 6:00 AM on June 7 for set gillnet gear and at 6:00 AM on June 10 for seine and drift gillnet gear. A total of 223 permit holders harvested 6,113 Chinook, 1,292,860 sockeye, 1,716 coho, 2,510,048 pink, and 270,614 chum salmon during the 2016 June fisheries (Appendices B4 and B5).

During the 2016 South Unimak June fishery, 166 permit holders harvested 1,860 Chinook, 876,963 sockeye, 1,528 coho, 1,836,319 pink, and 148,850 chum salmon (Appendices B6 and B7). In the South Unimak June fishery, 25 purse seine permit holders harvested 1,271 Chinook 353,779 sockeye, 1,417 coho, 1,695,105 pink, and 105,807 chum salmon (Appendix B8); 119 drift gillnet permit holders harvested 484 Chinook, 349,938 sockeye, 108 coho, 139,596 pink, and 42,393 chum salmon (Appendix B9); and 22 set gillnet permit holders harvested 105 Chinook, 172,599 sockeye, 0 coho, 1,285 pink, and 642 chum salmon (Appendix B10).

During the 2016 Shumagin Islands June fishery, 74 permit holders harvested 4,253 Chinook, 415,897 sockeye, 188 coho, 673,729 pink, and 121,764 chum salmon (Appendices B11 and B12). Landings by 32 purse seine permit holders accounted for 4,165 Chinook, 240,789 sockeye, 183 coho, 659,750 pink, and 109,321 chum salmon (Appendix B13); and 42 set gillnet permit holders harvested 88 Chinook, 175,108 sockeye, 5 coho, 13,979 pink, and 12,443 chum salmon (Appendix B14).

Purse seine permit holders harvested 40.3% of sockeye and 71.1% of chum salmon in the South Unimak June fishery (Appendix B15 and B16) and 57.9% of sockeye and 89.8% of chum

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<sup>1</sup> ADF&G. 2016. 2016-2019 Alaska Peninsula, Atka-Amlia, and Aleutian Islands areas commercial fishing regulations, 2016 edition. Alaska Department of Fish and Game, Juneau.



salmon in the Shumagin Islands fishery (Appendix B17 and B18). Drift gillnet permit holders harvested 40.0% of sockeye and 28.5% of chum salmon in the South Unimak fishery (Appendices B15 and B16). Set gillnet permit holders harvested 19.7% of sockeye and 0.4% of chum salmon in the South Unimak fishery (Appendix B15 and B16), and 42.1% of sockeye and 10.2% of chum salmon in the Shumagin Islands June fishery (Appendices B17 and B18).

On June 21, the harvest limit of 191,000 sockeye salmon, based on fish ticket information, was reached in the “Dolgoi Island Area”. After a 12-hour notice was given to the fleet, the portion of West Pavlof Bay Section south of Black Point and waters of the Volcano Bay Section closed to commercial salmon fishing through July 25 (Appendix A16 and B3). The portion of West Pavlof Bay Section south of Black Point reopened to commercial salmon fishing on July 17 (Appendix A16).

## **SOUTHEASTERN DISTRICT MAINLAND FISHERIES**

The SEDM commercial salmon fishery occurs in South Alaska Peninsula mainland waters from Kupreanof Point in the east, to McGinty Point in the west (Appendix C1). The SEDM is subdivided into East Stepovak, Stepovak Flats, Northwest Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay sections (Appendix C2).

The *Southeastern District Management Plan* (5 AAC 09.360<sup>2</sup>) was formally adopted in 1980. Although it closely followed similar management guidelines as previous seasons, it established that 80% of sockeye salmon harvested are considered destined for Chignik River. In 1985, June 1 through July 25 sockeye salmon harvest allocation criteria were added to the management plan. Harvest allocation has fluctuated between 6.0% and 7.6% of the total Chignik harvest since it was introduced (Appendix C3). Currently, SEDM is managed on a 7.6% allocation of sockeye salmon harvested in the Chignik Management Area (CMA) through July 25.

Since 1985, when allocation criteria were put in place, SEDM harvest of Chignik River bound sockeye salmon has ranged from 0.9% (in 1989) to 11.5% (in 2005) of sockeye salmon harvested in the CMA (Appendix C4). In 1997, 2007, 2008, and 2014, there was no fishery due to a weak sockeye salmon return to Chignik River. The recent 10-year (2006–2015) SEDM sockeye salmon harvest averaged 106,546 fish or 7.5% of sockeye salmon harvested in the CMA (Appendices C4 and C5).

The current management plan stipulates that 80% of sockeye salmon harvested in SEDM before July 1 are considered Chignik-bound. Beginning July 1, sockeye salmon harvested in Northwest Stepovak Section (NWSS) are considered 100% local fish and NWSS is managed on the Orzinski Lake sockeye salmon run. After July 25, all SEDM commercial fishery openings are based on the strength of local pink, chum, and coho salmon stocks.

## **HISTORICAL EFFORT**

In 1972, the State of Alaska adopted limited entry management. With limited entry, a fixed number of permits were created and only people with these new permits were allowed to fish. However, because many South Alaska Peninsula fishermen participated in both set gillnet and purse seine fisheries prior to limited entry, they received a permit card for each gear type. Many dual permit holders sold or transferred their set gillnet permits and retained their purse seine

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<sup>2</sup> ADF&G. 2016. 2016-2019 Alaska Peninsula, Atka-Amlia, and Aleutian Islands areas commercial fishing regulations, 2016 edition. Alaska Department of Fish and Game, Juneau.

permits. Sold or transferred permits increased effort in the SEDM fishery (Appendices C6 and C7) because many set gillnet permits that were previously used part-time were then fished full-time. This increase of participation was reflected in both the number of set gillnet permits fished and the number of landings. The number of set gillnet permits fished has ranged from a low of 7 permits in 1975 to a high of 64 permits in 1993, 1996, and 2000 (Appendix C7). The number of set gillnet landings from SEDM has ranged from a low of 14 in 1975 to a high of 1,657 in 1984 (Appendix C7), with similar high numbers of landings (>1,000) between 2011–2013. Between 2006 and 2015, an average of 40 set gillnet permits fished in the SEDM with an average of 802 total landings (years without a fishery are not included in this average; Appendix C7).

The number of purse seine permits fished has fluctuated since 1974, from 6 in 1975, 1987, and 1992, to 69 in 1990. In the most recent 10 years (2006–2015) an average of 17 purse seine permits have been fished annually (Appendix C8). Purse seine landings in SEDM have fluctuated between 9 and 145 since 1985 but have averaged 34 landings annually over the most recent 10 years (2006–2015; Appendix C8).

## **LOCAL STOCK FISHERIES**

### **Northwest Stepovak Section**

Prior to July 1, 80% of sockeye salmon harvested in NWSS are attributed to the Chignik-bound sockeye salmon allocation (5 AAC 09.360<sup>3</sup> (f)). After July 1, sockeye salmon caught within the NWSS are considered Orzinski Lake-bound. Orzinski Lake sockeye salmon escapements are assessed using a weir, with an escapement goal developed from historical aerial surveys and weir counts. The sockeye salmon sustainable escapement goal for Orzinski Lake is 15,000–20,000 fish (Schaberg et al 2015).

### **Stepovak Flats Section**

Prior to July 26, Stepovak Flats may open to commercial salmon fishing concurrently with the rest of the SEDM. Eighty percent of sockeye salmon harvested in the Stepovak Flats Section are considered Chignik-bound and assigned to the 7.6% allocation criteria stated in the SEDM salmon management plan. From July 26 to July 28, commercial salmon fishing is managed based on run strength of pink and chum salmon returning to Stepovak Flats streams. The entire section is closed from July 29 through September 30 to protect schooling chum salmon. A more detailed regulatory history can be found in Appendix C3.

## **2016 SOUTHEASTERN DISTRICT MAINLAND MANAGEMENT PLAN**

Under the current SEDM management plan (5 AAC 09.360<sup>4</sup>):

1. The percentage of Chignik-bound sockeye salmon allocated to the SEDM fishery is 7.6% of the total number of sockeye salmon harvested in the CMA through July 25.
2. Prior to July 26, 80% of sockeye salmon caught in the SEDM are considered to be Chignik-bound salmon.
3. Beginning July 1, sockeye salmon caught in the NWSS (Appendix C2) are considered 100% local fish and not counted toward the Chignik allocation. Fishing time in NWSS beginning

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<sup>3</sup> ADF&G. 2016. 2016-2019 Alaska Peninsula, Atka-Amlia, and Aleutian Islands areas commercial fishing regulations, 2016 edition. Alaska Department of Fish and Game, Juneau.

on July 1, excluding Orzinski Bay, may not be open for more than an aggregate of 96 hours during a 7-day period. Fishing time in Orzinski Bay, after June 30, is based on sockeye salmon escapement into Orzinski Lake.

4. If Orzinski Lake escapement meets or exceeds 25,000 sockeye salmon, NWSS and Orzinski Bay may open concurrently as follows:
  - (A) set gillnet gear may be operated continuously until midnight July 25, and
  - (B) purse seine and hand purse seine gear may be operated for no more than an aggregate of 96 hours during a 7-day period.
5. A limited portion of Orzinski Bay may open to purse seine gear prior to July 11 if the department determines the interim escapement objectives have been exceeded.
6. The Stepovak Flats Section is managed for chum salmon returning to Stepovak Flats streams for the entire season. However, 80% of the sockeye salmon caught in this section through July 25 are considered Chignik-bound fish.
7. The area encompassing Kupreanof Point is closed to commercial salmon fishing from July 6 through August 31. The department may extend the Kupreanof Point closed waters area through the end of the season by emergency order.
8. From July 26 through October 31, the fishery is managed for local sockeye, pink, chum, and coho salmon stocks.
9. From July 26 through October 31, the fishery is closed for at least one 36-hour period within a 7-day period.

## **2016 SEASON SUMMARY**

The 2016 forecast for the total run estimate of Chignik-bound sockeye salmon was 1,807,000 fish for early run (Black Lake) and 1,108,000 fish for late run (Chignik Lake) (Brenner and Munro 2016). Due to the early run timing of sockeye salmon returns to Chignik River in 2016, the Chignik Management Area (CMA) opened to commercial salmon fishing on June 4. On June 7, the first commercial fishing period was prosecuted, for both set gillnet and seine gear, within the SEDM. Sockeye salmon harvest in the SEDM, of fish considered to be Chignik bound, was 94,790 fish and represented 8.1% of the total sockeye salmon harvest in the CMA (Appendices C4 and C9). A total of 532 Chinook, 376,155 sockeye, 6,550 coho, 21,391 pink salmon and 14,311 chum salmon were harvested in the SEDM during the June 1–July 25 timeframe (Appendices C6 and C10).

In 2016, Orzinski Lake weir was operated from June 19 through July 30 and passed 21,019 sockeye salmon (Appendix E8). Aerial surveys were conducted after the weir was removed and additional sockeye salmon were observed in Orzinski Lake. Due to strong Orzinski Lake sockeye salmon escapement, commercial fishing was permitted in the Northwest Stepovak Section with the first opening on July 1 (Appendix C11). There were three 96-hour fishing periods and one 48-hour fishing period in the NWSS prior to July 26. Due to high escapement levels, Orzinski Bay was open continuously from July 26 through the end of the season (Appendix A16). The total harvest in the NWSS from July 1 through July 25 was 193 Chinook, 257,667 sockeye, 2,773 coho, 12,201 pink, and 9,655 chum salmon (Appendix C11).

Between July 26 and August 31, SEDM is managed on the abundance of local pink, chum, and coho salmon. Due to weak returns of pink salmon into SEDM streams, limited fishing opportunity was provided (Appendix A16). The total harvest in SEDM for the 2016 season was 544 Chinook, 425,968 sockeye, 9,826 coho, 27,721 pink, and 17,872 chum salmon (Appendix C10).

## **SOUTH ALASKA PENINSULA POST-JUNE FISHERIES**

The South Alaska Peninsula Post-June salmon fishery takes place in Southeastern (excluding SEDM prior to July 26), South Central, Southwestern, and Unimak districts from July 1 through the end of the season (Appendices D1 and D2).

The *Post-June Salmon Management Plan* (5 AAC 09.366<sup>4</sup>) was formally adopted in 1991. Before 1991, the Post-June fishery was divided into 3 time frames: July 6 to approximately July 18, July 18 to approximately August 20, and from September 1 until the end of the season. These date ranges were based on run strengths of local chum, pink, and coho salmon respectively (Appendix D3).

In 1991, after the management plan was put into place by the BOF, commercial fishing was restricted to terminal areas from July 6 to July 19. These terminal areas included Zachary Bay, the northern portion of Pavlof Bay and Cold Bay, Thin Point, Canoe Bay, and Morzhovoi Bay sections (Appendix D2). From July 20 until the close of the season, the entire South Peninsula could be opened to commercial salmon fishing by EO based on local run strength (except in the SEDM through July 25).

Since 1991, the BOF has made multiple adjustments to the management plan. The opening date allowing fishing in non-terminal areas was moved from July 20 to July 6. Also, time periods for Post-June fisheries were changed to July 6–July 21 and July 22–July 31, each with distinct fishing periods, specific closures in non-terminal areas, and additional terminal areas in the latter period. In 2010, the BOF extended the fishing season through October 31 (Appendix D3).

During the February 2016 BOF meeting the management plan was revised to limit the number of sockeye salmon harvest in the “Dolgoi Islands Area” to 191,000 sockeye salmon as reported on fish tickets. When the harvest limit of sockeye salmon is reached, the portion of the West Pavlof Bay Section south of Black Point (statistical area 283-26) and waters of the Volcano Bay Section (statistical areas 284-37 through 284-39) will be closed to commercial salmon fishing through July 25 (Appendix B3). However, the portion of West Pavlof Bay Section south of Black Point (statistical area 283-26) may reopen to commercial salmon fishing on July 17 (Appendix B3 and D3). In addition to the changes made in the “Dolgoi Islands Area”, BOF also repealed the minimum mesh size of a drift gillnet during the post-June fisheries. There is now no minimum mesh size in Area M for drift gillnet gear (Appendix D3).

## **IMMATURE SALMON CONCERNS**

The 1991 BOF decision to allow commercial salmon fishing in limited areas within South Peninsula waters was made partially due to concerns for immature Chinook, sockeye, and chum salmon that were inadvertently gilled during purse seine gear fishing operations (McCullough and Shaul 1992). The presence of immature salmon in South Peninsula waters, which the

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<sup>4</sup> ADF&G. 2016. 2016-2019 Alaska Peninsula, Atka-Amlia, and Aleutian Islands areas commercial fishing regulations, 2016 edition. Alaska Department of Fish and Game, Juneau.

department first became aware of in 1962, has warranted restrictions to commercial fishing in some years. These restrictions were applied to all gear types in affected areas from late June into July in 1963, 1968, 1969, 1974, and 1979, and for purse seine fishing only during the 1989–1992, 1999, 2001, 2003, 2008, 2015, and 2016 seasons (Keyse et al 2016; Wilburn and Keyse 2015, Appendix A16).

In the Shumagin Islands Section, there is concern regarding catching a high incidence of immature salmon in purse seine gear. Under current regulations, seine mesh size may not exceed 3½ inches except for the first 25 meshes above the lead line, which may not exceed 7 inches (5 AAC 09.332(a)<sup>5</sup>). Set gillnet gear has larger mesh size (minimum of 5¼ inches; 5 AAC 09.331(b)(3)<sup>6</sup>), which allows immature salmon to pass through the gear. Immature salmon usually migrate out of the area by July 23, although in 1992 closures were necessary until July 29.

In 1990, the department test fishing program was instituted in the Shumagin Islands to determine presence and abundance of immature salmon in South Peninsula waters prior to July commercial fishing periods. In the Shumagin Islands Section, most purse seine fishing effort has occurred in the nearshore waters of Popof Island from Popof Head to Red Bluff, and thus test fishing sites were established in those areas (Appendix D4).

In 2001, the BOF adopted a regulation that defined immature salmon and required the department to conduct an immature salmon test fishery in July (5 AAC 09.366(i), Appendix D3).

## **2016 POST-JUNE MANAGEMENT PLAN**

The *Post-June Salmon Management Plan* (5 AAC 09.366<sup>6</sup>) has 3 major components:

1. From July 6 through July 21, there is one 33-hour fishing period followed by a 63-hour closure. After the first fishing period, there are four 36-hour fishing periods interspersed by 60-hour closures in the Shumagin Islands Section of the Southeastern District, and the South Central, Southwestern, and Unimak districts (Appendix D1 and D2). Additional fishing time may be allowed in terminal fishing areas based on local salmon run strength. During July 6 through July 21, terminal areas included the northern portion of Pavlof Bay (north of the latitude of Black Point; Appendix A4), the southern portion of Zachary Bay (statistical area 282-35), and the Canoe Bay, Cold Bay, Morzhovoi Bay, and Thin Point sections (Appendix D1).
2. From July 22 through July 31, there are three 36-hour fishing periods interspersed by 60-hour closures. In addition to those terminal areas identified for the time frame of July 6 through July 21, the Deer Island, Belkofski Bay, and Mino Creek–Little Coal Bay sections are added (Appendices D1 and D2).
3. From August 1 through August 31, fishing periods are based on abundance of local sockeye, coho, pink, and chum salmon stocks. From September 1 through October 31, fishing periods are based on abundance of coho salmon stocks, although the department may consider abundance of late pink and chum salmon stocks.

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<sup>5</sup> ADF&G. 2016. 2016-2019 Alaska Peninsula, Atka-Amlia, and Aleutian Islands areas commercial fishing regulations, 2016 edition. Alaska Department of Fish and Game, Juneau.

## 2016 SEASON SUMMARY

The test fishery was conducted on 5 days: July 2, 3, 5, 8, and 9. Test fishery results for July 2 and July 3 showed numbers of immature salmon below the regulatory threshold (100 per set; Appendix D5). Test fishery results on July 5 and July 8 showed numbers of immature salmon above the regulatory threshold (100 per set). Because numbers of immature salmon were above the regulatory threshold, purse seine gear was restricted from fishing within the Shumagin Islands Section of the Southeastern District during the 33-hour fishing period July 6. On July 9, test fishery results indicated the numbers of immature salmon had dropped below the regulatory threshold and the Shumagin Islands Section of the Southeastern District was reopened to purse seine gear during subsequent fishing periods (Appendix D5).

In 2016, the July 6–21 commercial salmon harvest from South Peninsula non-terminal areas was composed of 4,318 Chinook, 508,197 sockeye, 88,729 coho, 105,323 pink, and 61,395 chum salmon (Appendix D6). Terminal area harvests during this time frame totaled 22 Chinook, 11,716 sockeye, 6 coho, 178 pink, and 9,638 chum salmon (Appendix D6). The July 22–31 commercial salmon harvest from South Peninsula non-terminal areas (including SEDM after July 25) was 2,449 Chinook, 223,998 sockeye, 80,359 coho, 184,301 pink, and 54,369 chum salmon (Appendix D7). Terminal area harvests during this time frame totaled 11 Chinook, 32,470 sockeye, 1,001 coho, 46,084 pink, and 5,253 chum salmon (Appendix D7).

Beginning August 1, commercial salmon fishing opportunity is provided at the discretion of the department based on escapement, run timing, and commercial harvest. Weak returns of pink salmon across the South Alaska Peninsula prompted the department to offer only limited fishing opportunity through August 9. No commercial salmon harvest was reported August 10–31. The commercial salmon harvest during August consisted of 2 Chinook, 19,153 sockeye, 31 coho, 3,825 pink, and 1,208 chum salmon (Appendix D8).

In September, continued low abundance of pink salmon and low coho harvest numbers prompted limited fishing opportunity. During September, 2 Chinook, 13,272 sockeye, 6,712 coho, 153 pink, and 7,656 chum salmon were harvested. There was no harvest in October (Appendix D9).

The 2016 South Alaska Peninsula Post-June total commercial salmon harvest (excluding the SEDM July 1–25 harvest) was 6,804 Chinook, 808,806 sockeye, 176,838 coho, 339,864 pink, and 139,519 chum salmon (Appendix D10). In 2016, 123 permit holders fished in the South Peninsula Post-June fishery (Appendix D11), with a total Post-June commercial salmon harvest (including the SEDM harvest) of 7,305 Chinook, 1,102,997 sockeye, 183,388 coho, 360,487 pink, and 153,044 chum salmon (Appendix D11).

In 2016, purse seine, drift gillnet, and set gillnet gear commercially harvested Chinook, sockeye, coho, pink, and chum salmon in the South Peninsula during the Post-June fishery (including the SEDM fishery). Chinook salmon were caught incidentally by all 3 gear groups during the 2016 Post-June fishery with 7,024 (96.2%) caught by purse seine, 4 (0.1%) caught by drift gillnet, and 277 (3.8%) caught by set gillnet for a total of 7,305 fish (Appendix D12). A total of 1,102,997 sockeye salmon were harvested, of which 562,059 (51.0 %) were caught by purse seine, 7,067 (0.6%) were caught by drift gillnet, and 533,871 (48.4%) were caught by set gillnet (Appendix D13). Coho salmon were harvested by all gear groups with 171,562 (93.6%) caught by purse seine, 3,100 (1.7%) by drift gillnet, and 8,726 (4.8%) by set gillnet for a total of 183,388 fish (Appendix D14). A total of 360,487 pink salmon were harvested, of which 314,855 (87.3%) were caught by purse seine, 2,464 (0.7%) were caught by drift gillnet, and 43,168

(12.0%) were caught set gillnet (Appendix D15). Chum salmon were harvested by all 3 gear groups with 118,596 (77.5%) caught by purse seine, 950 (0.6%) by drift gillnet, and 33,498 (21.9%) by set gillnet for a total of 153,044 fish (Appendix D16).

The 2016 harvests of Chinook and sockeye salmon were above the recent 10-year averages for the Post-June commercial salmon fishery (Appendices D12 and D13). The harvest of coho, pink, and chum salmon were below the recent 10-year averages for the Post-June commercial salmon fishery (Appendices D14–D16).

## **SALMON ESCAPEMENTS**

The South Alaska Peninsula has approximately 224 salmon streams, with sockeye salmon found in 37, pink salmon in at least 204, chum salmon in 136, and coho salmon in 81 streams (McCullough 2001). In 2016, most salmon escapements were monitored by aerial surveys using small fixed-wing aircraft. The Orzinski Lake system was monitored with a fixed picket salmon weir operated by the department. Pink and chum salmon escapements were estimated with the indexed total escapement method, and sockeye salmon escapements were estimated using peak escapement observations (Appendix E1).

Alaska salmon production was low during the 1960s and early 1970s. The Alaska salmon runs began to rebuild in the mid-1970s, and most Alaska Peninsula salmon stocks recovered by 1977. There are no known Chinook salmon spawning streams along South Alaska Peninsula waters, and coho salmon escapement data is inconsistent.

It is beyond the scope of this report to publish detailed escapement goals for each species by location and the methodologies used in their development. Additional information on escapement goals and escapements by stream or district used in the following discussion can be found in Schaberg et al. (2015).

### **2016 ESCAPEMENT BY SPECIES**

#### **Sockeye Salmon**

The total 2016 indexed South Alaska Peninsula sockeye salmon escapement of 120,170 fish was above the recent 10-year average of 70,644 fish (Appendices E2–E4). The escapement into Mortensen Lagoon of 13,000 fish exceeded the sustainable escapement goal (SEG) range of 3,200–6,400 fish. Survey conditions are typically poor and estimation is difficult, but subsistence harvest combined with the duration of the sockeye salmon run indicated that the escapement was larger than could be verified by aerial surveys. The escapement into Thin Point Lagoon 36,400 fish exceeded the SEG range of 14,000–28,000 fish. The Orzinski Lake sockeye salmon escapement for 2016 was 21,019 fish through July 31, which exceeded the SEG range of 15,000–20,000 (Appendices E7 and E8).

#### **Coho Salmon**

The total indexed coho salmon escapement for 2016 was 2 fish (Appendix E2 and E3). Many streams were not surveyed, surveyed once, or not surveyed during times of peak abundance. The coho salmon escapement goal for Thin Point Lake was eliminated at the 2013 board meeting (Sagalkin and Erickson 2013).

## **Pink Salmon**

The total 2016 indexed South Alaska Peninsula pink salmon escapement of 1,038,160 fish was below the recent 10-year average of 2,714,658 fish, and also below the South Peninsula annual pink salmon SEG range of 1,750,000–4,000,000 fish (Appendices E2, E3, and E5). The area-wide pink salmon SEG was modified during the 2016 BOF meeting from individual even/odd year SEGs to an aggregate annual SEG (Schaberg et al. 2015).

## **Chum Salmon**

The total 2016 indexed South Alaska Peninsula chum salmon escapement of 626,776 fish was above the recent 10-year average of 531,311 fish (Appendices E2, E3, and E6). Escapement of 150,456 chum salmon into the Southeastern district was within the SEG of 106,400–212,800 fish.

Escapement of 220,060 chum salmon into the Southwestern district was within the SEG of 133,400–266,800, and escapement of 248,360 chum salmon into the South Central district exceeded the SEG range of 89,800–179,600 fish (Appendix E3, Schaberg et al. 2015).

## **ACKNOWLEDGMENTS**

The authors would like to thank Kirsten Woodard and Kaarle Strailey for their work at the Orzinski Weir; our pilots, Mark Patterson and Paul Horn, for aerial logistics and survey support; and the crew of the R/V *Resolution* for providing logistical support. The authors also thank Amanda Dorner, Ric Shepard, Neil Moomey, Doug Dorner, and Darren Asuncion for their technical support. Special thanks go to Geoff Spalinger, Dawn Wilburn, Reid Johnson, Jeff Wadle, and Kevin Schaberg for editing this publication.



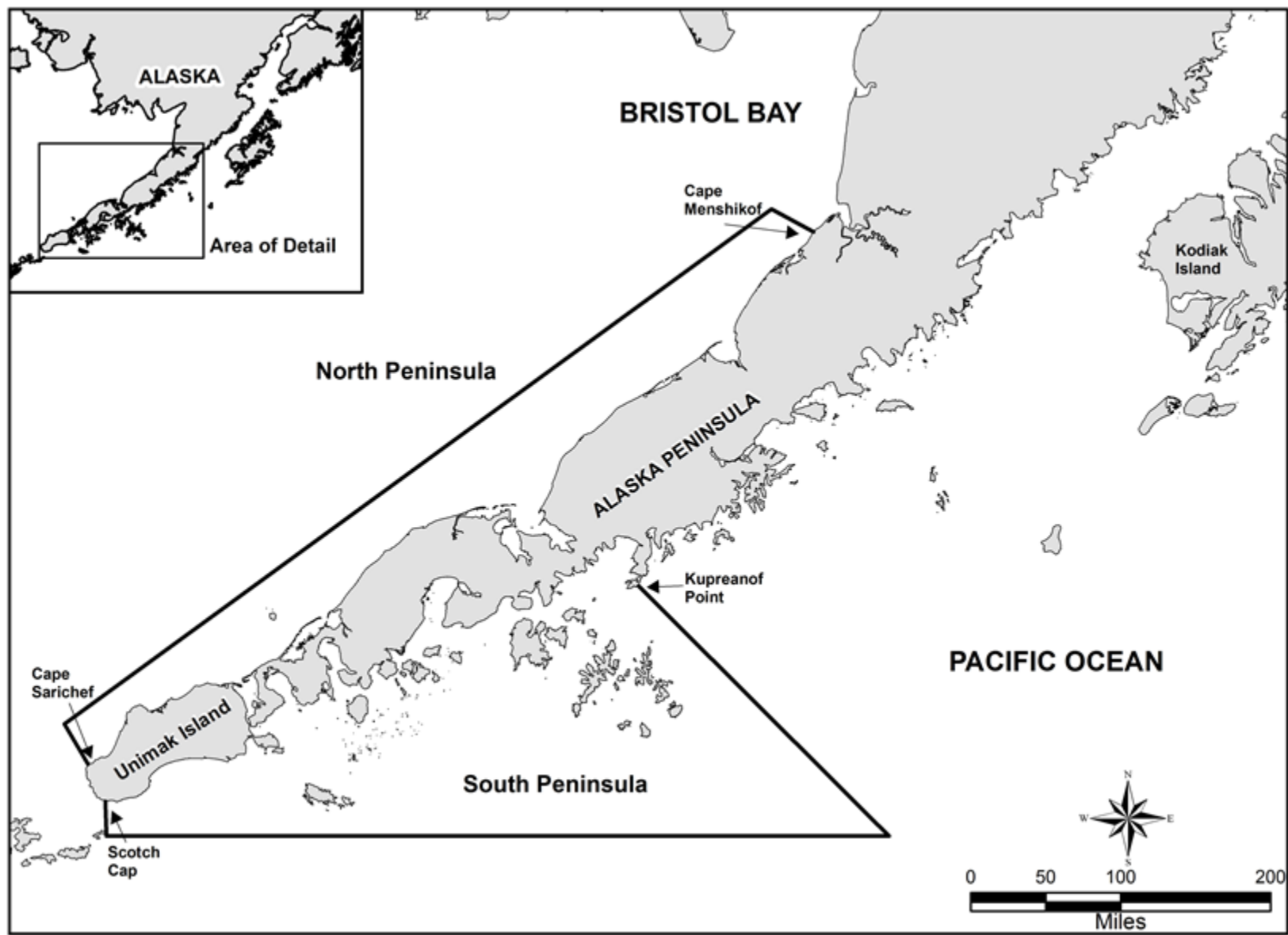
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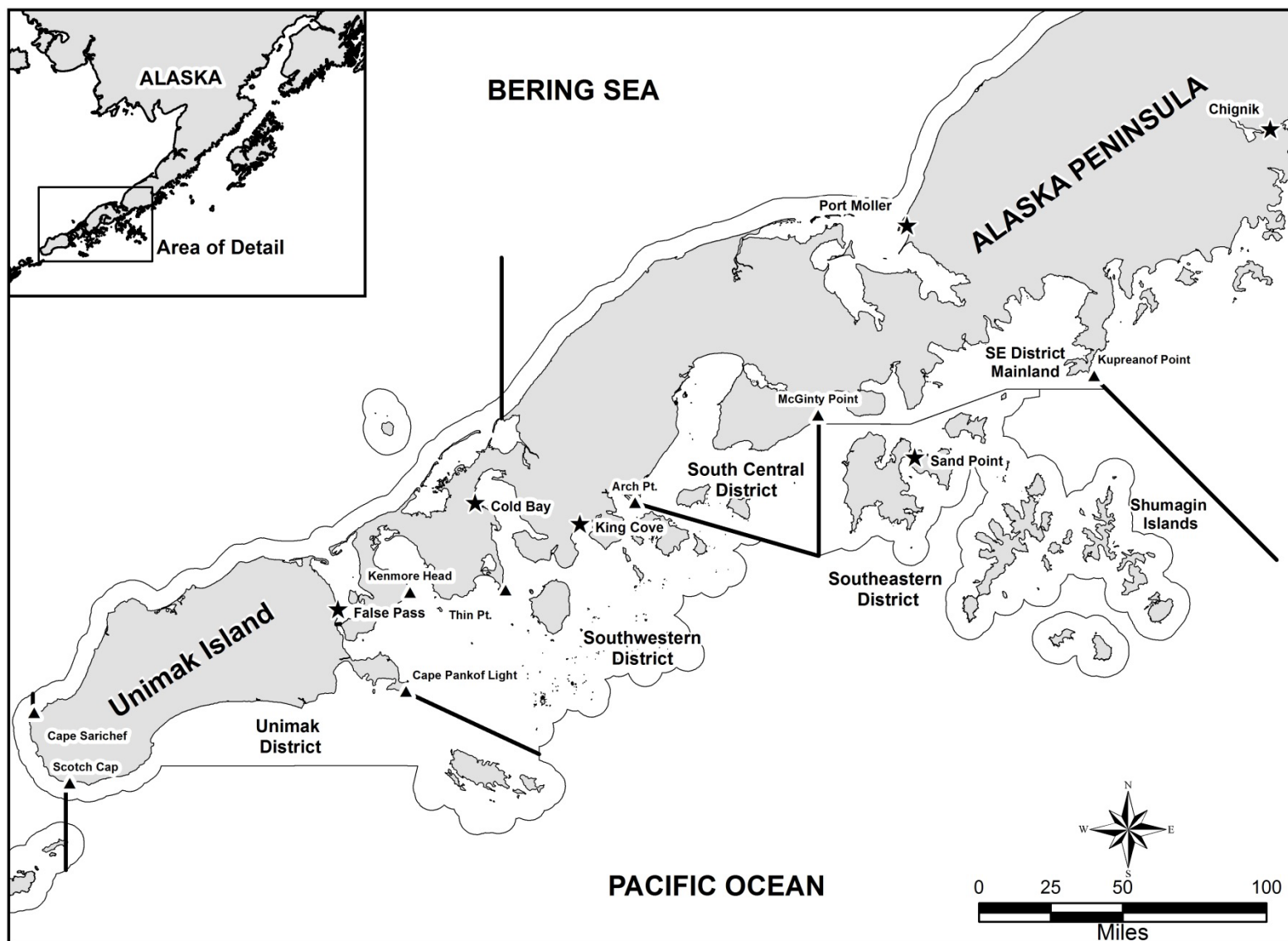


## **APPENDIX A. AREAWIDE INFORMATION**

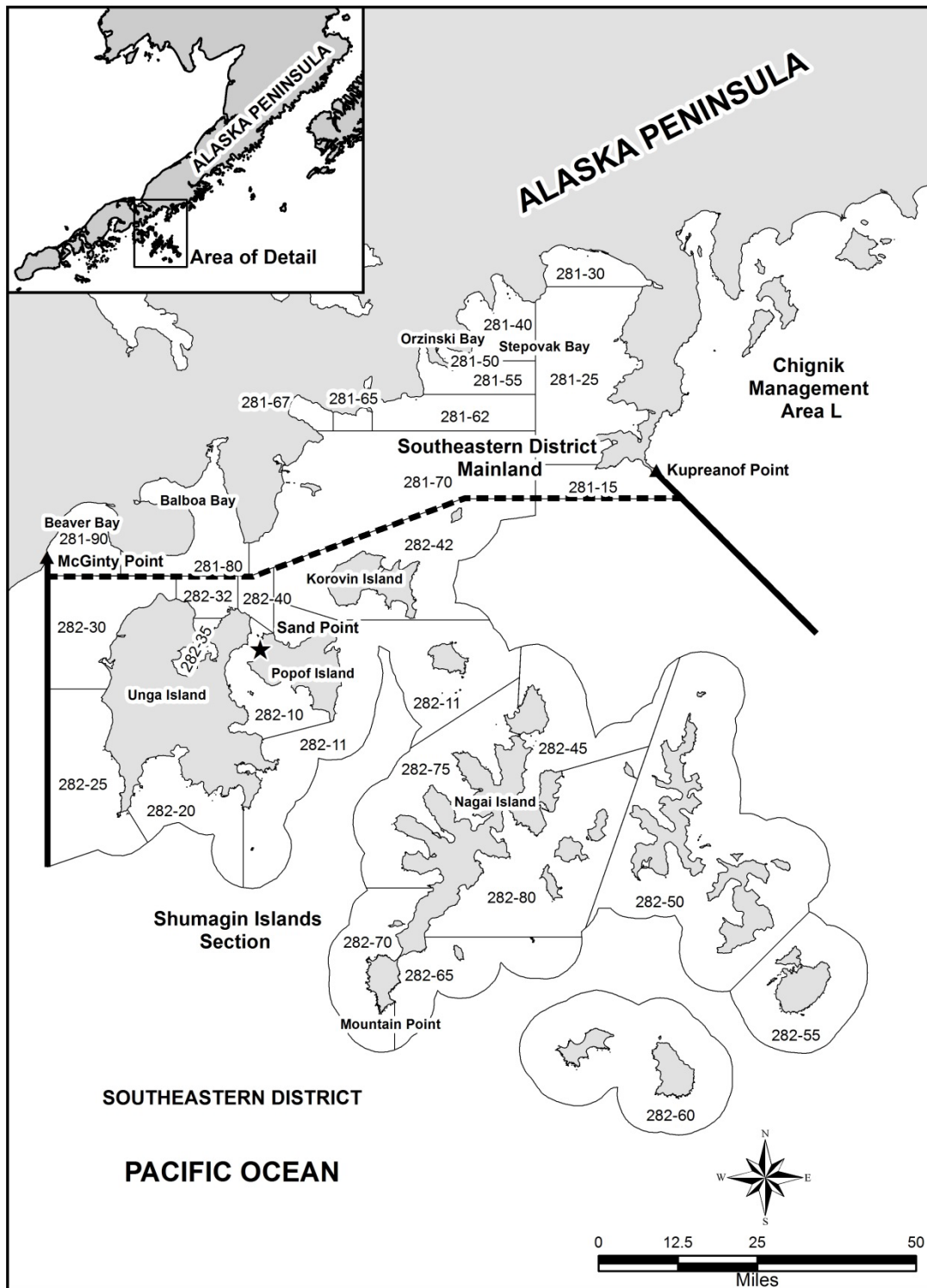
Appendix A1.—Map of Alaska Peninsula Management Area with the North and South Peninsula defined.



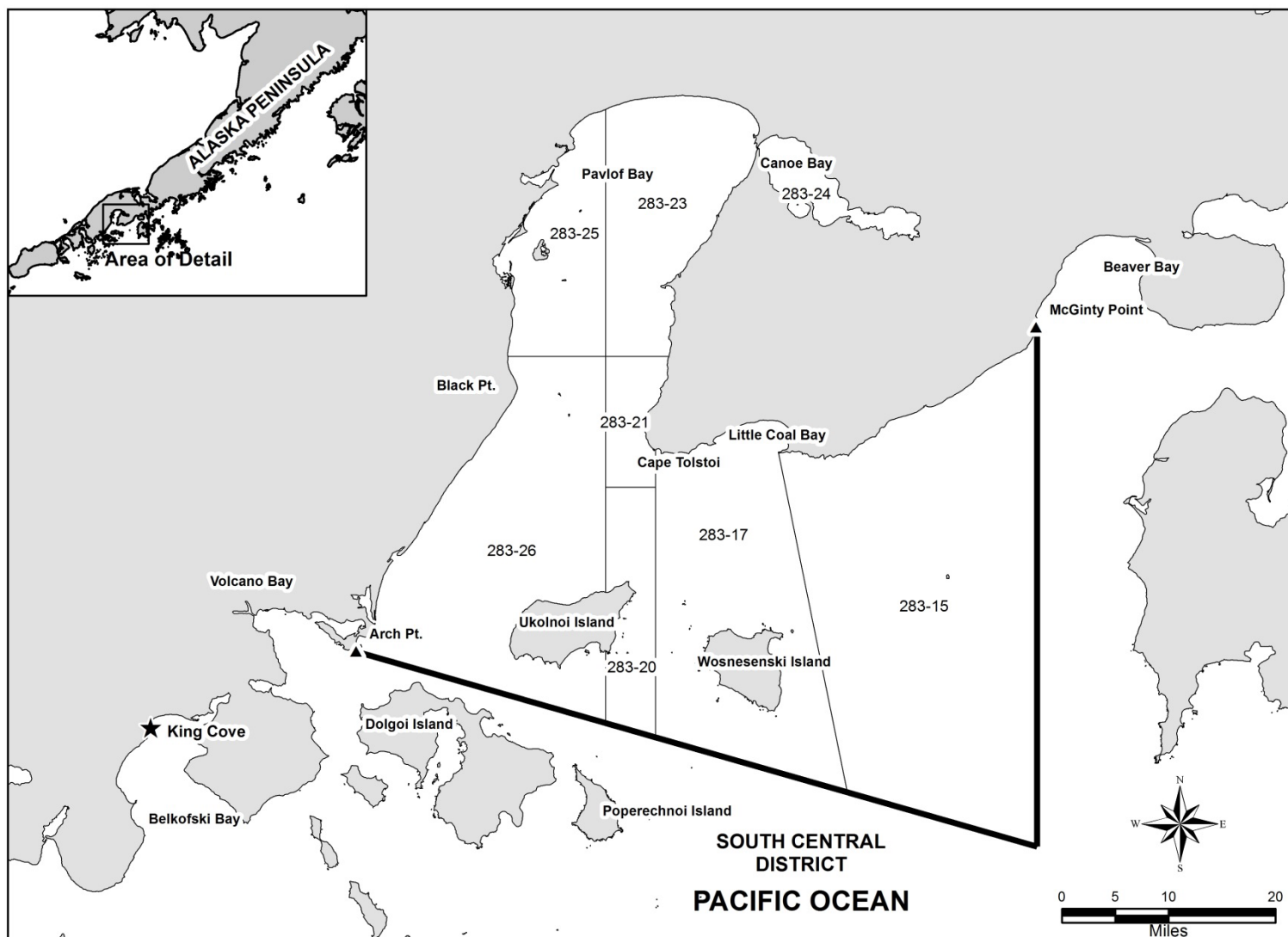
Appendix A2.—Map of Alaska Peninsula Management Area from Kupreanof Point to Scotch Cap with South Peninsula salmon fishing districts defined.



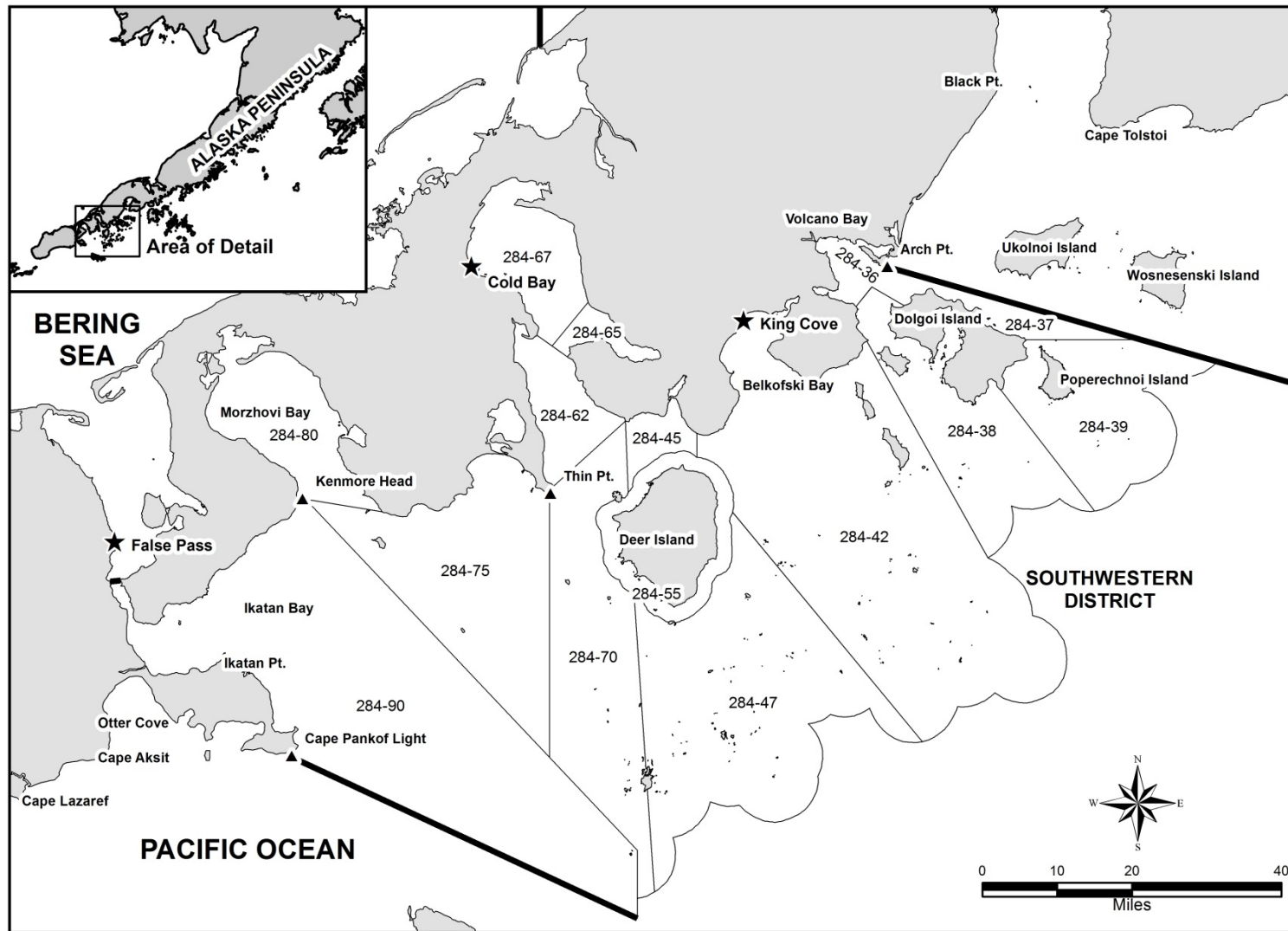
Appendix A3.—Map of Alaska Peninsula Area from Kupreanof Point to McGinty Point (Southeastern District) with statistical salmon fishing areas shown.



Appendix A4.—Map of Alaska Peninsula Area from McGinty Point to Arch Point (South Central District) with statistical salmon fishing areas shown.

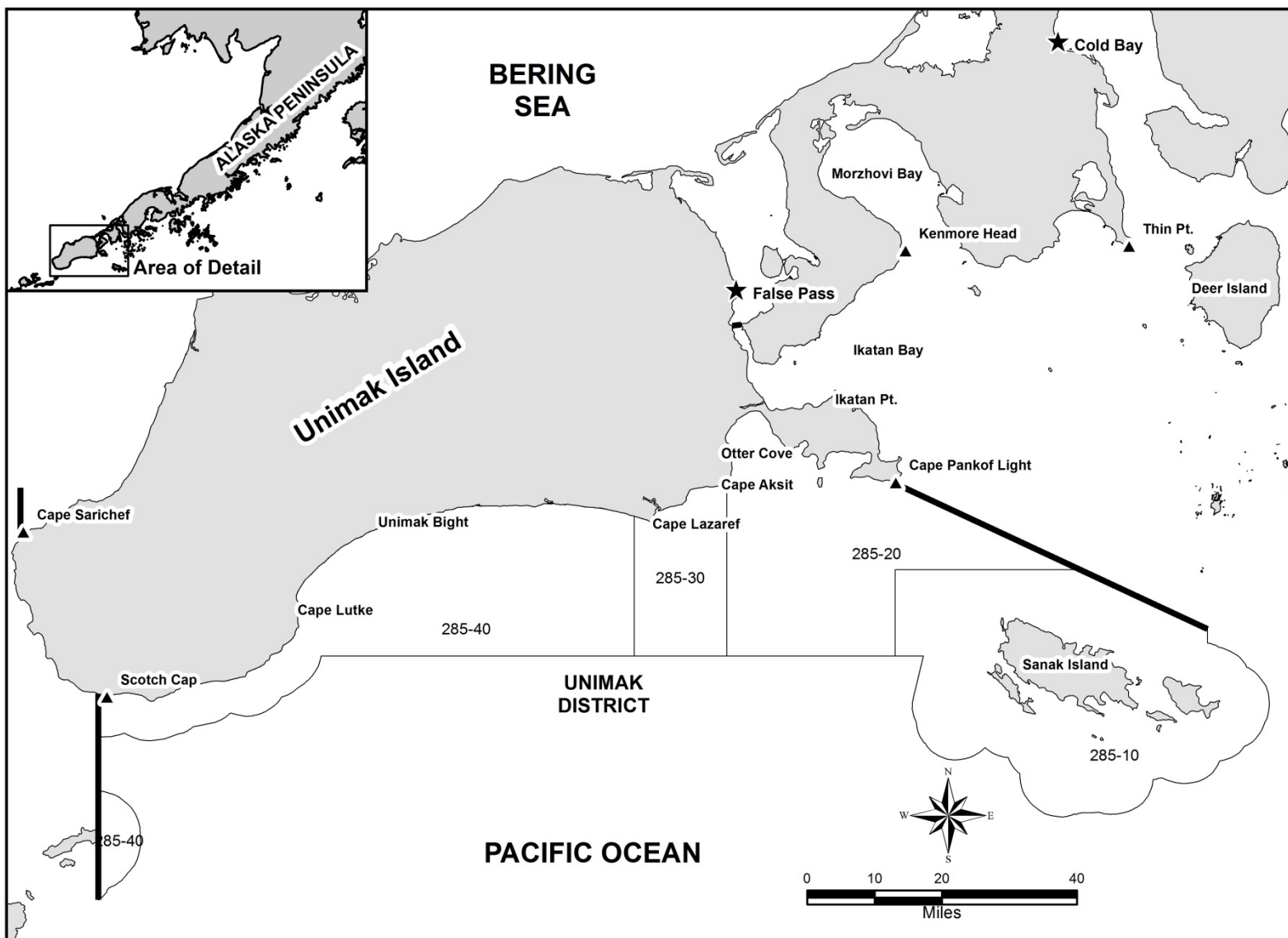


Appendix A5.—Map of Alaska Peninsula Area from Arch Point to Cape Pankof Light (Southwestern District) with statistical salmon fishing areas shown.

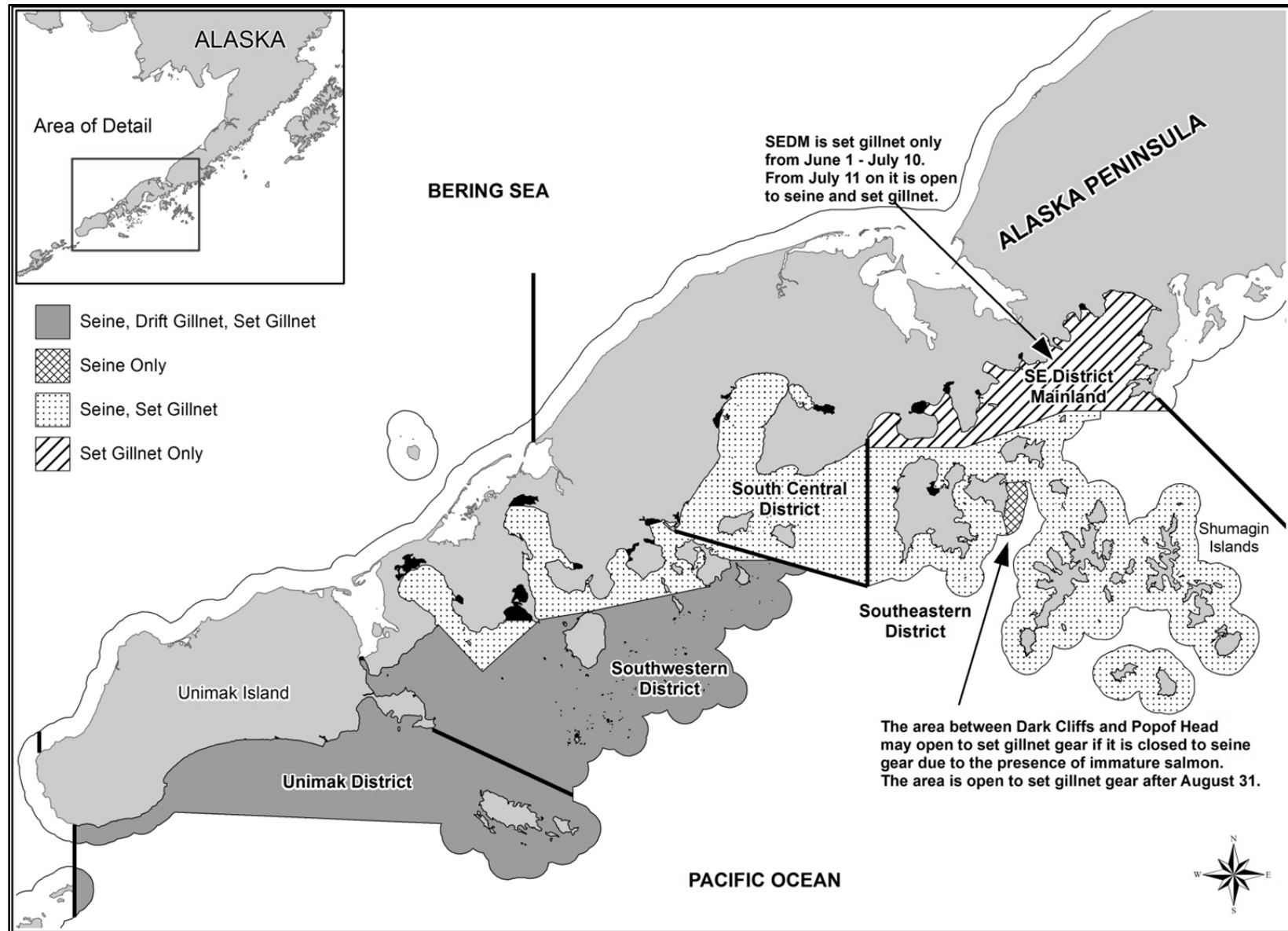




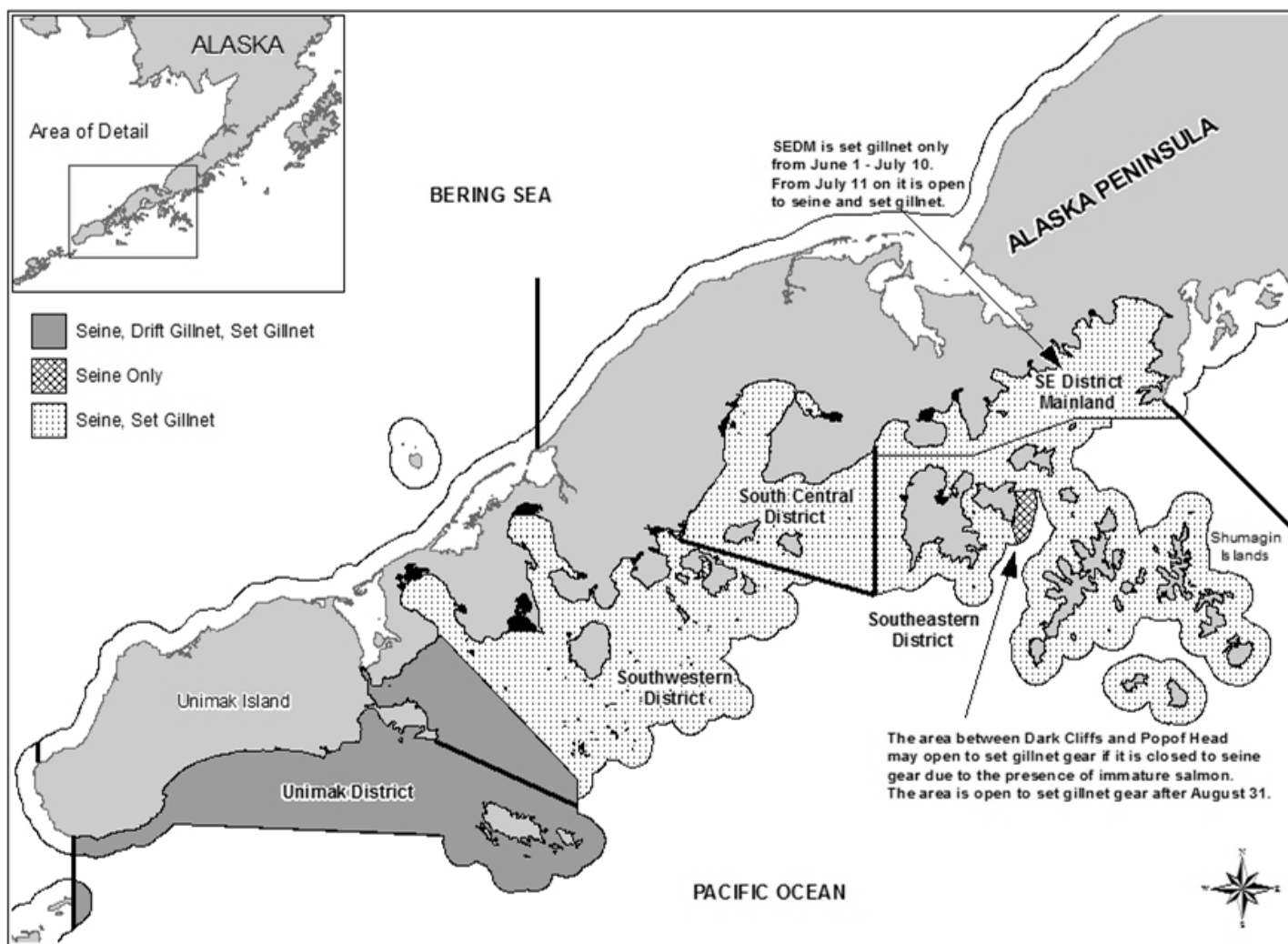
Appendix A6.—Map of Alaska Peninsula Area from Cape Pankof Light to Scotch Cap (Unimak District) with statistical salmon fishing areas shown.



Appendix A7.—Map of Alaska Peninsula Management Area from Kupreanof Point to Scotch Cap with legal gear types shown during June.



Appendix A8.—Map of Alaska Peninsula Management Area from Kupreanof Point to Scotch Cap with legal gear types shown from July 1 through October 31.



Appendix A9.—Number of actively fished limited entry (CFEC) permits in the South Alaska Peninsula, 1977–2016.

Year	Purse seine	Drift gillnet	Set gillnet	
1977	84	101	26	211
1978	101	120	30	251
1979	123	137	46	306
1980	114	129	45	288
1981	116	135	53	304
1982	115	138	52	305
1983	118	147	59	324
1984	121	147	66	334
1985	122	150	64	336
1986	119	156	60	335
1987	113	145	69	327
1988	112	148	70	330
1989	117	147	76	340
1990	118	154	81	353
1991	119	157	78	354
1992	119	142	79	340
1993	122	144	86	352
1994	118	145	79	342
1995	118	151	82	351
1996	102	147	82	331
1997	82	142	82	306
1998	79	145	86	310
1999	74	153	82	309
2000	76	149	84	309
2001	64	99	78	241
2002	42	86	70	198
2003	46	84	64	194
2004	42	95	65	202
2005	45	94	69	208
2006	43	85	75	203
2007	46	87	71	204
2008	55	111	64	230
2009	53	118	67	238
2010	62	119	64	245
2011	58	121	69	248
2012	55	123	70	248
2013	60	122	66	248
2014	49	127	65	241
2015	57	119	68	244
2016	49	119	68	236
Average 2006–2015	54	113	68	235

Appendix A10.—South Alaska Peninsula salmon harvest (number of fish), all gear combined, by species and year, 1908–2016 (excluding test fishery harvest).

Year <sup>a</sup>	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1908	—	—	0	69,400	0	0	0	69,400
1909	—	—	0	108,400	7,200	0	0	115,600
1910	—	—	0	46,300	5,500	0	0	51,800
1911	—	—	0	240,800	12,400	25,200	83,000	361,400
1912	—	—	0	334,400	27,000	40,400	195,000	596,800
1913	—	—	1,800	299,700	0	0	7,000	308,500
1914	—	—	600	628,900	0	311,000	221,100	1,161,600
1915	—	—	4,800	367,900	16,200	120,100	333,100	842,100
1916	—	—	6,800	730,900	34,100	576,100	508,900	1,856,800
1917	—	—	6,400	1,486,100	4,600	72,100	415,500	1,984,700
1918	—	—	8,700	1,014,100	16,300	2,150,000	1,501,000	4,690,100
1919	—	—	9,600	619,100	56,100	80,200	921,400	1,686,400
1920	—	—	7,800	1,142,300	47,700	2,109,800	934,000	4,241,600
1921	—	—	700	830,700	1,500	47,300	84,600	964,800
1922	—	—	6,900	3,376,800	2,200	756,700	349,300	4,491,900
1923	—	—	4,100	1,827,200	75,300	143,600	538,900	2,589,100
1924	—	—	3,900	1,352,000	127,300	3,931,300	1,330,700	6,745,200
1925	—	—	10,700	820,500	127,100	382,100	1,116,800	2,457,200
1926	—	—	9,500	3,071,500	193,800	3,719,700	1,179,800	8,174,300
1927	—	—	9,600	714,700	125,300	1,455,500	1,299,700	3,604,800
1928	—	—	7,700	971,500	96,600	900,900	2,416,300	4,393,000
1929	—	—	10,500	935,800	84,500	1,793,500	2,429,000	5,253,300
1930	—	—	10,900	935,200	161,100	6,094,800	1,278,100	8,480,100
1931	—	—	11,000	1,863,200	128,700	997,900	1,216,000	4,216,800
1932	—	—	17,400	2,977,300	112,300	3,604,800	817,300	7,529,100
1933	—	—	12,600	1,996,700	190,000	3,109,200	1,173,900	6,482,400
1934	—	—	17,600	1,372,400	247,100	6,538,500	1,940,300	10,115,900
1935	—	—	13,900	978,400	117,200	5,386,200	2,003,100	8,498,800
1936	—	—	14,400	3,662,600	284,600	9,471,000	2,310,900	15,743,500
1937	—	—	9,300	1,558,000	73,900	9,302,000	1,506,700	12,449,900
1938	—	—	6,400	772,100	220,700	7,169,100	1,476,600	9,644,900
1939	—	—	16,500	1,881,700	98,900	6,005,300	1,440,600	9,443,000
1940	—	—	9,100	1,040,300	184,200	7,182,800	2,326,300	10,742,700
1941	—	—	13,000	1,072,000	183,000	5,347,000	1,542,000	8,157,000
1942	—	—	4,800	810,100	123,000	6,762,600	1,321,100	9,021,600
1943	—	—	21,700	2,397,700	90,600	4,360,200	924,500	7,794,700
1944	—	—	9,900	538,600	238,700	2,653,800	985,600	4,426,600
1945	—	—	21,400	813,400	116,100	3,639,600	948,900	5,539,400
1946	—	—	6,100	752,300	151,400	1,964,000	1,219,900	4,093,700
1947	—	—	3,400	1,137,100	55,800	2,319,600	1,219,200	4,735,100
1948	—	—	1,200	285,900	39,200	1,683,700	1,139,600	3,149,600
1949	—	—	3,800	637,500	19,500	1,544,000	560,900	2,765,700
1950	—	—	4,000	1,745,300	70,700	1,613,700	562,500	3,996,200

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Year <sup>a</sup>	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1951	–	–	1,500	264,200	55,700	2,844,800	683,100	3,849,300
1952	–	–	9,200	894,500	39,200	908,500	1,040,800	2,892,200
1953	–	–	7,200	1,039,200	47,900	2,743,900	1,464,600	5,302,800
1954	–	–	4,200	636,300	49,400	2,033,300	1,413,400	4,136,600
1955	–	–	5,400	550,100	44,800	2,529,200	688,200	3,817,700
1956	–	–	4,800	641,400	61,900	2,740,700	1,618,700	5,067,500
1957	–	–	5,800	341,900	49,900	913,100	1,281,400	2,592,100
1958	–	–	800	186,100	70,600	1,385,200	841,000	2,483,700
1959	–	–	900	217,500	8,500	915,600	711,700	1,854,200
1960	–	–	1,700	379,000	1,800	1,197,500	904,400	2,484,400
1961	–	–	900	456,800	10,400	1,727,800	748,600	2,944,500
1962	–	–	3,300	420,000	12,500	1,965,500	824,800	3,226,100
1963	–	–	1,900	204,400	16,500	2,367,700	461,300	3,051,800
1964	–	–	2,000	370,800	13,600	2,740,400	751,000	3,877,800
1965	–	–	2,100	915,700	34,200	2,884,100	556,400	4,392,500
1966	–	–	1,400	606,200	6,300	302,300	494,400	1,410,600
1967	–	–	1,600	294,100	2,900	77,800	245,200	621,600
1968	–	–	1,400	699,800	31,100	1,287,100	325,300	2,344,700
1969	–	–	1,900	912,800	10,900	1,219,400	389,200	2,534,200
1970	295	4,679	1,806	1,779,525	32,571	1,737,985	993,349	4,545,236
1971	259	4,444	2,174	716,087	16,907	1,445,031	1,365,957	3,546,156
1972	266	3,124	1,332	557,422	8,021	78,221	731,814	1,376,810
1973	202	1,795	415	330,091	6,599	58,051	292,943	688,099
1974	134	853	581	197,153	9,366	100,601	71,826	379,527
1975	145	600	117	243,548	67	60,642	130,750	435,124
1976	221	2,705	2,196	375,027	216	2,366,833	532,503	3,276,775
1977	211	2,168	559	311,722	2,108	1,448,648	243,167	2,006,204
1978	251	3,860	773	579,411	60,774	5,590,145	546,182	6,777,285
1979	306	4,476	2,141	1,149,927	356,867	6,564,914	482,930	8,556,779
1980	288	5,107	4,794	3,613,025	274,181	7,861,470	1,353,112	13,106,582
1981	304	5,617	11,182	2,241,513	162,223	5,033,028	1,768,475	9,216,421
1982	305	6,286	9,845	2,345,981	256,046	6,734,905	2,272,495	11,619,272
1983	324	5,241	26,571	2,556,557	127,657	2,827,622	1,704,072	7,242,479
1984	334	6,378	9,198	2,318,028	310,950	11,589,258	1,654,622	15,882,056
1985	336	5,325	6,642	2,144,416	172,514	4,431,016	1,348,726	8,103,314
1986	335	5,137	5,589	1,223,565	235,854	4,031,487	1,749,811	7,246,306
1987	327	5,256	9,174	1,449,747	225,117	1,208,556	1,376,040	4,268,634
1988	330	6,476	11,075	1,473,611	505,531	7,044,824	1,908,507	10,943,548
1989	341	5,592	7,065	2,660,597	443,839	7,292,658	994,229	11,398,388
1990	354	6,401	16,522	2,386,370	307,184	2,865,864	1,237,935	6,813,875
1991	355	6,440	7,975	2,319,957	317,129	10,616,756	1,588,791	14,850,608
1992	341	6,511	8,026	3,445,854	418,204	9,770,386	1,316,709	14,959,179
1993	353	6,201	14,413	3,689,004	220,107	9,928,107	1,048,256	14,899,887
1994	343	6,750	10,002	2,107,233	255,905	9,179,853	2,192,079	13,745,072
1995	352	8,186	17,453	3,015,319	264,236	16,311,942	1,728,321	21,337,271
1996	331	5,865	5,520	1,541,734	293,258	2,207,503	794,642	4,842,657

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Year <sup>a</sup>	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1997	306	5,724	7,161	2,243,409	111,894	2,303,926	606,254	5,272,644
1998	311	8,008	4,919	2,181,961	154,128	8,047,998	721,063	11,110,069
1999	310	7,021	5,074	2,991,819	192,503	8,456,449	840,030	12,485,875
2000	311	7,110	5,445	2,006,487	257,245	3,562,866	1,066,653	6,898,696
2001	242	3,277	2,620	614,080	214,252	4,021,381	933,014	5,785,347
2002	198	3,879	6,399	1,035,181	202,717	2,170,376	819,030	4,233,703
2003	194	3,899	2,712	1,053,603	131,007	4,258,274	637,305	6,082,901
2004	202	4,662	7,050	2,200,331	235,600	6,665,831	790,109	9,898,921
2005	208	4,944	4,487	2,337,097	143,617	9,416,197	739,460	12,640,858
2006	203	4,918	5,412	1,850,029	169,620	4,261,824	1,177,806	7,464,691
2007	204	5,298	5,312	2,438,672	150,955	7,299,330	679,787	10,574,056
2008	230	5,546	4,366	2,239,210	225,659	12,710,050	802,404	15,981,689
2009	238	5,820	5,847	1,724,029	248,552	7,900,018	1,680,719	11,559,165
2010	245	4,255	7,848	1,274,112	164,640	833,788	790,131	3,070,519
2011	248	5,609	7,207	1,916,839	153,433	4,992,228	977,755	8,047,462
2012	248	5,327	7,693	2,015,016	91,918	490,334	622,775	3,227,736
2013	248	6,842	6,701	2,239,939	293,865	7,793,830	950,528	11,284,863
2014	241	4,399	7,280	1,426,380	296,819	721,209	501,927	2,953,615
2015	244	6,094	51,077	3,207,360	265,652	16,683,602	675,603	20,883,294
2016 <sup>c</sup>	236	4,487	13,449	2,477,821	185,104	2,871,303	424,444	5,972,121
Averages								
1918–1929 <sup>b</sup>			7,475	1,389,683	79,475	1,455,883	1,175,125	4,107,642
1930–1946 <sup>b</sup>			12,706	1,495,412	160,088	5,269,929	1,437,165	8,375,300
1947–1977 <sup>b</sup>	217	2,546	2,567	591,844	26,747	1,523,900	751,226	2,896,285
1978–1999 <sup>b</sup>	324	5,994	9,142	2,258,138	257,550	6,813,576	1,328,786	10,667,191
2000–2005 <sup>b</sup>	226	4,629	4,786	1,541,130	197,406	5,015,821	830,929	7,590,071
2006–2015 <sup>b</sup>	235	5,411	10,874	2,033,159	206,111	6,368,621	885,944	9,504,709

Note: Permit and landing numbers are only available from 1970 through present.

<sup>a</sup> From 1928 through 1950, commercial salmon catches in the Aleutian Islands and the South Peninsula were combined. Aleutian Islands catches are generally much smaller than South Peninsula harvests. South Peninsula harvests were generally dominated by pink salmon. The 1978–1999 Aleutian Islands average salmon harvest was 510,317 fish, whereas the 1978–1999 average harvest for the South Peninsula was 10,671,164 salmon.

<sup>b</sup> These historical averages are intended to illustrate how salmon harvests have fluctuated in the South Peninsula.

<sup>c</sup> “Dolgoi Island Area” sockeye salmon harvest limit of 191,000 fish reached and commercial fishing was restricted through July 25.

Appendix A11.—South Alaska Peninsula pink salmon catch and escapement by year, 1962–2016.

Year		Post June harvest			June harvest		Total June harvest
		Southeastern <sup>a</sup> & South Central districts	Southwestern & Unimak districts	South <sup>b</sup> Peninsula totals	South Unimak	Shumagin Islands	
1962	Catch	922,100	977,300	1,899,400	42,000	24,000	66,000
	Escapement	826,100	772,700	1,598,800	—	—	—
	Total	1,748,200	1,750,000	3,498,200	—	—	—
1963	Catch	1,733,900	590,800	2,324,700	14,000	29,000	43,000
	Escapement	886,500	431,400	1,317,900	—	—	—
	Total	2,620,400	1,022,200	3,642,600	—	—	—
1964	Catch	1,514,600	1,190,700	2,705,300	18,000	17,000	35,000
	Escapement	902,400	534,000	1,436,400	—	—	—
	Total	2,417,000	1,724,700	4,141,700	—	—	—
1965	Catch	2,331,400	474,700	2,806,100	43,000	35,000	78,000
	Escapement	789,900	245,500	1,035,400	—	—	—
	Total	3,121,300	720,200	3,841,500	—	—	—
1966	Catch	220,300	68,500	288,800	15,000	2,000	17,000
	Escapement	627,400	92,000	719,400	—	—	—
	Total	847,700	160,500	1,008,200	—	—	—
1967	Catch	53,100	4,200	57,300	11,000	10,000	21,000
	Escapement	327,300	118,200	445,500	—	—	—
	Total	380,400	122,400	502,800	—	—	—
1968	Catch	863,300	277,800	1,141,100	34,000	112,000	146,000
	Escapement	528,100	295,200	823,300	—	—	—
	Total	1,391,400	573,000	1,964,400	—	—	—
1969	Catch	862,800	265,300	1,128,100	68,000	23,000	91,000
	Escapement	1,906,200	568,700	2,474,900	—	—	—
	Total	2,769,000	834,000	3,603,000	—	—	—
1970	Catch	1,378,510	252,030	1,630,540	83,325	19,728	103,053
	Escapement	1,007,900	291,000	1,298,900	—	—	—
	Total	2,386,410	543,030	2,929,440	—	—	—
1971	Catch	1,211,982	213,809	1,425,791	11,608	7,632	19,240
	Escapement	488,000	214,700	702,700	—	—	—
	Total	1,699,982	428,509	2,128,491	—	—	—
1972	Catch	53,339	6,958	60,297	11,906	6,018	17,924
	Escapement	81,800	29,600	111,400	—	—	—
	Total	135,139	36,558	171,697	—	—	—
1973	Catch	36,548	2,073	38,621	11,152	8,278	19,430
	Escapement	85,700	25,100	110,800	—	—	—
	Total	122,248	27,173	149,421	—	—	—

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Year		Post June harvest			June harvest		
		Southeastern <sup>a</sup> & South Central districts	Southwestern & Unimak districts	South <sup>b</sup> Peninsula totals	South Unimak	Shumagin Islands	Total June harvest
1974	Catch	95,951	4,650	100,601	0	0	0
	Escapement	238,600	45,800	284,400	–	–	–
	Total	334,551	50,450	385,001	–	–	–
1975	Catch	30,052	25,343	55,395	3,205	2,042	5,247
	Escapement	357,800	194,300	552,100	–	–	–
	Total	387,852	219,643	607,495	–	–	–
1976	Catch	2,036,223	306,786	2,343,009	18,181	5,643	23,824
	Escapement	1,084,000	372,400	1,456,400	–	–	–
	Total	3,120,223	679,186	3,799,409	–	–	–
1977	Catch	1,163,505	279,745	1,443,250	3,397	2,001	5,398
	Escapement	2,168,500	509,300	2,677,800	–	–	–
	Total	3,332,005	789,045	4,121,050	–	–	–
1978	Catch	4,167,878	1,332,325	5,500,203	47,380	42,562	89,942
	Escapement	1,966,300	892,400	2,858,700	–	–	–
	Total	6,134,178	2,224,725	8,358,903	–	–	–
1979	Catch	4,839,548	1,570,553	6,410,101	49,000	105,813	154,813
	Escapement	2,125,100	504,400	2,629,500	–	–	–
	Total	6,964,648	2,074,953	9,039,601	–	–	–
1980	Catch	2,519,576	3,815,588	6,335,164	1,140,611	385,695	1,526,306
	Escapement	1,410,400	1,231,200	2,641,600	–	–	–
	Total	3,929,976	5,046,788	8,976,764	–	–	–
1981	Catch	4,196,419	385,359	4,581,778	325,002	126,248	451,250
	Escapement	1,875,000	431,800	2,306,800	–	–	–
	Total	6,071,419	817,159	6,888,578	–	–	–
1982	Catch	4,104,949	911,131	5,016,080	1,032,154	686,671	1,718,825
	Escapement	1,533,200	759,800	2,293,000	–	–	–
	Total	5,638,149	1,670,931	7,309,080	–	–	–
1983	Catch	2,245,432	526,315	2,771,747	40,441	15,434	489,629
	Escapement	639,200	212,000	851,200	–	–	–
	Total	2,884,632	738,315	3,622,947	–	–	–
1984	Catch	6,533,147	4,136,235	10,669,382	470,688	449,188	919,876
	Escapement	2,526,700	1,824,900	4,351,600	–	–	–
	Total	9,059,847	5,961,135	15,020,982	–	–	–
1985	Catch	3,324,051	1,000,350	4,324,401	69,811	36,804	106,615
	Escapement	1,229,300	384,500	1,613,800	–	–	–
	Total	4,553,351	1,384,850	5,938,201	–	–	–

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Year		Post June harvest			June harvest		
		Southeastern <sup>a</sup> & South Central districts	Southwestern & Unimak districts	South <sup>b</sup> Peninsula totals	South Unimak	Shumagin Islands	Total June harvest
1986	Catch	3,066,631	672,867	3,739,498	150,674	141,315	291,989
	Escapement	1,185,500	531,200	1,716,700	–	–	–
	Total	4,252,131	1,204,067	5,456,198	–	–	–
1987	Catch	1,143,436	48,138	1,191,574	11,342	5,640	16,982
	Escapement	1,304,400	236,100	1,540,500	–	–	–
	Total	2,447,836	284,238	2,732,074	–	–	–
1988	Catch	4,700,486	2,164,114	6,864,600	86,678	93,546	180,224
	Escapement	1,636,500	1,203,100	2,839,600	–	–	–
	Total	6,336,986	3,367,214	9,704,200	–	–	–
1989	Catch	6,989,038	104,385	7,093,423	154,168	45,067	199,235
	Escapement	1,179,300	691,600	1,870,900	–	–	–
	Total	8,168,338	795,985	8,964,323	–	–	–
1990	Catch	2,291,028	59,539	2,350,567	443,913	71,384	515,297
	Escapement	1,018,200	580,200	1,598,400	–	–	–
	Total	3,309,228	639,739	3,948,967	–	–	–
1991	Catch	7,549,853	2,446,759	9,996,612	500,922	119,222	620,144
	Escapement	2,268,400	678,400	2,946,800	–	–	–
	Total	9,818,253	3,125,159	12,943,412	–	–	–
1992	Catch	4,860,628	4,266,322	9,126,950	501,127	142,282	643,409
	Escapement	1,781,000	1,053,400	2,834,400	–	–	–
	Total	6,641,628	5,319,722	11,961,350	–	–	–
1993	Catch	7,493,472	2,353,434	9,846,906	33,684	43,466	77,150
	Escapement	2,232,200	757,900	2,990,100	–	–	–
	Total	9,725,672	3,111,334	12,837,006	–	–	–
1994	Catch	3,143,952	3,507,237	6,651,189	1,708,320	723,384	2,431,704
	Escapement	1,700,525	1,371,200	3,071,725	–	–	–
	Total	4,844,477	4,878,437	9,722,914	–	–	–
1995	Catch	11,371,145	4,761,044	16,132,189	111,592	51,021	162,613
	Escapement	4,404,450	2,001,850	6,406,300	–	–	–
	Total	15,775,595	6,762,894	22,538,489	–	–	–
1996	Catch	1,519,483	296,875	1,816,358	150,461	215,029	365,490
	Escapement	2,668,950	978,600	3,647,550	–	–	–
	Total	4,188,433	1,275,475	5,463,908	–	–	–
1997	Catch	828,392	869,597	1,697,989	312,332	273,675	586,007
	Escapement	4,021,375	1,221,900	5,243,275	–	–	–
	Total	4,849,767	2,091,497	6,941,264	–	–	–

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Year		Post June harvest			June harvest		
		Southeastern <sup>a</sup> & South Central districts	Southwestern & Unimak districts	South <sup>b</sup> Peninsula totals	South Unimak	Shumagin Islands	Total June harvest
1998	Catch	5,566,826	2,000,702	7,567,528	107,352	295,526	402,878
	Escapement	2,856,255	1,811,810	4,668,065	–	–	–
	Total	8,423,081	3,812,512	12,235,593	–	–	–
1999	Catch	6,914,669	1,510,422	8,425,091	20,363	10,995	31,358
	Escapement	3,363,080	1,652,230	5,015,310	–	–	–
	Total	10,277,749	3,162,652	13,440,401	–	–	–
2000	Catch	2,347,491	844,970	3,192,461	206,606	151,948	358,554
	Escapement	1,688,785	1,104,200	2,792,985	–	–	–
	Total	4,036,276	1,949,170	5,985,446	–	–	–
2001	Catch	2,754,832	1,227,298	3,982,130	16,216	7,439	23,655
	Escapement	2,040,120	925,016	2,965,136	–	–	–
	Total	4,794,952	2,152,314	6,947,266	–	–	–
2002	Catch	1,466,031	627,220	2,093,251	33,789	43,336	77,125
	Escapement	2,108,450	1,654,350	3,762,800	–	–	–
	Total	3,574,481	2,281,570	5,856,051	–	–	–
2003	Catch	2,968,706	1,071,240	4,039,946	90,161	128,167	218,328
	Escapement	3,674,120	1,837,100	5,511,220	–	–	–
	Total	6,642,826	2,908,340	9,551,166	–	–	–
2004	Catch	5,106,414	1,199,426	6,305,840	77,074	277,598	354,672
	Escapement	5,969,710	2,341,700	8,311,410	–	–	–
	Total	11,076,124	3,541,126	14,617,250	–	–	–
2005	Catch	5,636,397	2,118,418	7,754,815	390,421	1,197,682	1,588,103
	Escapement	4,271,270	1,894,364	6,165,634	–	–	–
	Total	9,907,667	4,012,782	13,920,449	–	–	–
2006	Catch	2,333,207	596,298	2,929,505	169,652	1,136,800	1,306,452
	Escapement	1,648,365	1,213,885	2,862,250	–	–	–
	Total	3,981,572	1,810,183	5,791,755	–	–	–
2007	Catch	4,962,730	2,069,072	7,031,802	54,348	185,683	240,031
	Escapement	1,805,873	874,340	2,680,213	–	–	–
	Total	6,768,603	2,943,412	9,712,015	–	–	–
2008	Catch	6,988,887	3,749,895	10,738,782	750,159	1,082,214	1,832,373
	Escapement	2,332,920	1,005,450	3,338,370	–	–	–
	Total	9,321,807	4,755,345	14,077,152	–	–	–
2009	Catch	3,712,146	1,939,317	5,651,463	722,339	1,148,427	1,870,766
	Escapement	1,669,900	1,397,100	3,067,000	–	–	–
	Total	5,382,046	3,336,417	8,718,463	–	–	–

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Year		Post June harvest			June harvest		
		Southeastern <sup>a</sup> & South Central districts	Southwestern & Unimak districts	South <sup>b</sup> Peninsula totals	South Unimak	Shumagin Islands	Total June harvest
2010	Catch	456,053	45,289	501,342	169,798	133,645	303,443
	Escapement	396,962	345,950	742,912	–	–	–
	Total	853,015	391,239	1,244,254	–	–	–
2011	Catch	4,035,389	233,540	4,268,929	475,128	244,124	719,252
	Escapement	1,709,900	785,050	2,494,950	–	–	–
	Total	5,745,289	1,018,590	6,763,879	–	–	–
2012	Catch	191,172	37,359	228,531	164,493	87,018	251,511
	Escapement	94,340	384,570	478,910	–	–	–
	Total	285,512	421,929	707,441	–	–	–
2013	Catch	7,039,922	449,278	7,489,200	130,934	173,431	304,365
	Escapement	1,803,000	517,790	2,320,790	–	–	–
	Total	8,842,922	967,068	9,809,990	–	–	–
2014	Catch	343,828	197,121	540,949	126,831	53,189	180,020
	Escapement	616,130	724,250	1,340,380	–	–	–
	Total	959,958	921,371	1,881,329	–	–	–
2015	Catch	12,518,604	3,591,884	16,110,488	57,802	514,924	572,726
	Escapement	5,945,150	1,875,650	7,820,800	–	–	–
	Total	18,463,754	5,467,534	23,931,288	–	–	–
2016	Catch	304,694	55,793	360,487	1,831,771	678,532	2,510,303
	Escapement	153,040	885,120	1,038,160	–	–	–
	Total	457,734	940,913	1,398,647	–	–	–

*Note:* Harvest of pink salmon during June is not considered local stock, and pink salmon escapement does not begin until July.

<sup>a</sup> Catch includes any salmon (usually very few) caught in Southeastern District Mainland in June, which are considered local.

<sup>b</sup> Catch numbers do not include test fish and subsistence harvests.

Appendix A12.—South Alaska Peninsula chum salmon catch and escapement by year, 1962–2016.

Year		Post June harvest			June harvest		Total June harvest
		Southeastern <sup>a</sup> & South Central districts	Southwestern & Unimak districts	South <sup>b</sup> Peninsula totals	South Unimak	Shumagin Islands	
1962	Catch	409,500	155,300	564,800	199,000	61,000	260,000
	Escapement	238,600	160,800	399,400	—	—	—
	Total	648,100	316,100	964,200	—	—	—
1963	Catch	278,000	80,300	358,300	67,000	36,000	103,000
	Escapement	263,000	183,700	446,700	—	—	—
	Total	541,000	264,000	805,000	—	—	—
1964	Catch	378,800	153,300	532,100	153,000	67,000	220,000
	Escapement	160,800	294,000	454,800	—	—	—
	Total	539,600	447,300	986,900	—	—	—
1965	Catch	221,700	150,700	372,400	139,000	45,000	184,000
	Escapement	203,300	24,200	227,500	—	—	—
	Total	425,000	174,900	599,900	—	—	—
1966	Catch	221,400	36,000	257,400	220,000	17,000	237,000
	Escapement	354,800	67,200	422,000	—	—	—
	Total	576,200	103,200	679,400	—	—	—
1967	Catch	118,700	4,500	123,200	71,000	51,000	122,000
	Escapement	132,800	50,100	182,900	—	—	—
	Total	251,500	54,600	306,100	—	—	—
1968	Catch	121,400	47,600	169,000	105,000	51,000	156,000
	Escapement	191,700	87,400	279,100	—	—	—
	Total	313,100	135,000	448,100	—	—	—
1969	Catch	95,100	43,300	138,400	238,000	13,000	251,000
	Escapement	96,900	37,700	134,600	—	—	—
	Total	192,000	81,000	273,000	—	—	—
1970	Catch	486,183	65,254	551,437	391,568	44,909	436,477
	Escapement	171,700	108,800	280,500	—	—	—
	Total	657,883	174,054	831,937	—	—	—
1971	Catch	647,092	209,668	856,760	405,311	103,886	509,197
	Escapement	199,100	144,100	343,200	—	—	—
	Total	846,192	353,768	1,199,960	—	—	—
1972	Catch	151,283	61,721	213,004	411,000	107,810	518,810
	Escapement	145,000	109,500	254,500	—	—	—
	Total	296,283	171,221	467,504	—	—	—
1973	Catch	79,872	12,441	92,313	177,720	22,910	200,630
	Escapement	130,900	81,600	212,500	—	—	—
	Total	210,772	94,041	304,813	—	—	—

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Year		Post June harvest			June harvest		
		Southeastern <sup>a</sup> & South Central districts	Southwestern & Unimak districts	South <sup>b</sup> Peninsula totals	South Unimak	Shumagin Islands	Total June harvest
1974	Catch	56,509	15,317	71,826	0	0	0
	Escapement	169,800	87,500	257,300	–	–	–
	Total	226,309	102,817	329,126	–	–	–
1975	Catch	29,419	509	29,928	65,279	35,543	100,822
	Escapement	160,200	33,100	193,300	–	–	–
	Total	189,619	33,609	223,228	–	–	–
1976	Catch	107,319	14,914	122,233	336,161	74,109	410,270
	Escapement	225,300	101,900	327,200	–	–	–
	Total	332,619	116,814	449,433	–	–	–
1977	Catch	109,541	17,630	127,171	94,097	21,899	115,996
	Escapement	500,900	274,000	774,900	–	–	–
	Total	610,441	291,630	902,071	–	–	–
1978	Catch	341,077	83,213	424,290	103,413	18,479	121,892
	Escapement	386,200	214,300	600,500	–	–	–
	Total	727,277	297,513	1,024,790	–	–	–
1979	Catch	280,401	98,426	378,827	63,150	40,953	104,103
	Escapement	302,700	108,400	411,100	–	–	–
	Total	583,101	206,826	789,927	–	–	–
1980	Catch	675,106	169,141	844,247	458,499	50,366	508,865
	Escapement	241,600	120,800	362,400	–	–	–
	Total	916,706	289,941	1,206,647	–	–	–
1981	Catch	964,530	239,998	1,204,528	509,876	54,071	563,947
	Escapement	234,500	146,800	381,300	–	–	–
	Total	1,199,030	386,798	1,585,828	–	–	–
1982	Catch	921,790	255,661	1,177,451	933,728	161,316	1,095,044
	Escapement	203,000	183,900	386,900	–	–	–
	Total	1,124,790	439,561	1,564,351	–	–	–
1983	Catch	597,295	321,145	918,440	616,354	169,277	785,631
	Escapement	328,900	117,600	446,500	–	–	–
	Total	926,195	438,745	1,364,940	–	–	–
1984	Catch	832,872	484,630	1,317,502	227,913	109,207	337,120
	Escapement	446,000	253,700	699,700	–	–	–
	Total	1,278,872	738,330	2,017,202	–	–	–
1985	Catch	539,065	375,832	914,897	324,825	109,004	433,829
	Escapement	284,700	218,800	503,500	–	–	–
	Total	823,765	594,632	1,418,397	–	–	–

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Year		Post June harvest			June harvest		
		Southeastern <sup>a</sup> & South Central districts	Southwestern & Unimak districts	South <sup>b</sup> Peninsula totals	South Unimak	Shumagin Islands	Total June harvest
1986	Catch	981,185	416,697	1,397,882	252,721	99,048	351,769
	Escapement	239,600	305,000	544,600	–	–	–
	Total	1,220,785	721,697	1,942,482	–	–	–
1987	Catch	753,246	179,500	932,746	405,955	37,064	443,019
	Escapement	329,200	291,500	620,700	–	–	–
	Total	1,082,446	471,000	1,553,446	–	–	–
1988	Catch	829,518	552,278	1,381,796	464,765	61,946	526,711
	Escapement	269,100	227,300	496,400	–	–	–
	Total	1,098,618	779,578	1,878,196	–	–	–
1989	Catch	466,728	72,188	538,916	407,635	47,680	455,315
	Escapement	189,200	121,300	310,500	–	–	–
	Total	655,928	193,488	849,416	–	–	–
1990	Catch	664,339	54,851	719,190	445,670	73,085	518,755
	Escapement	210,900	143,800	354,700	–	–	–
	Total	875,239	198,651	1,073,890	–	–	–
1991	Catch	571,802	237,695	809,497	670,409	108,885	779,294
	Escapement	345,400	242,200	587,600	–	–	–
	Total	917,202	479,895	1,397,097	–	–	–
1992	Catch	592,893	291,612	884,505	323,891	107,402	431,293
	Escapement	194,100	141,400	335,500	–	–	–
	Total	786,993	433,012	1,220,005	–	–	–
1993	Catch	331,003	183,403	514,406	372,961	151,910	524,871
	Escapement	172,400	224,630	397,030	–	–	–
	Total	503,403	408,033	911,436	–	–	–
1994	Catch	690,666	905,581	1,596,247	362,875	184,485	547,360
	Escapement	211,700	367,400	579,100	–	–	–
	Total	902,366	1,272,981	2,175,347	–	–	–
1995	Catch	664,266	511,290	1,175,556	333,887	191,697	525,584
	Escapement	324,750	401,650	726,400	–	–	–
	Total	989,016	912,940	1,901,956	–	–	–
1996	Catch	285,399	128,126	413,525	122,278	228,634	350,912
	Escapement	307,400	302,900	610,300	–	–	–
	Total	592,799	431,026	1,023,825	–	–	–
1997	Catch	101,370	182,559	283,929	192,289	126,309	318,598
	Escapement	542,050	267,000	809,050	–	–	–
	Total	643,420	449,559	1,092,979	–	–	–

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Year		Post June harvest			June harvest		
		Southeastern <sup>a</sup> & South Central districts	Southwestern & Unimak districts	South <sup>b</sup> Peninsula totals	South Unimak	Shumagin Islands	Total June harvest
1998	Catch	293,345	173,045	466,390	184,369	46,351	230,720
	Escapement	390,325	351,910	742,235	–	–	–
	Total	683,670	524,955	1,208,625	–	–	–
1999	Catch	397,380	175,229	572,609	190,142	77,279	267,421
	Escapement	336,050	389,130	725,180	–	–	–
	Total	733,430	564,359	1,297,789	–	–	–
2000	Catch	438,642	377,454	816,096	159,147	76,122	235,269
	Escapement	264,050	258,025	522,075	–	–	–
	Total	702,692	635,479	1,338,171	–	–	–
2001	Catch	452,394	432,199	884,593	29,079	12,322	41,401
	Escapement	473,800	277,421	751,221	–	–	–
	Total	926,194	709,620	1,635,814	–	–	–
2002	Catch	206,587	230,946	437,533	201,211	180,286	381,497
	Escapement	333,550	269,200	602,750	–	–	–
	Total	540,137	500,146	1,040,283	–	–	–
2003	Catch	124,578	229,126	353,704	121,169	162,432	283,601
	Escapement	297,810	193,230	491,040	–	–	–
	Total	422,388	422,356	844,744	–	–	–
2004	Catch	244,638	62,174	306,812	129,449	348,849	478,298
	Escapement	552,000	180,400	732,400	–	–	–
	Total	796,638	242,574	1,039,212	–	–	–
2005	Catch	224,093	85,458	309,551	143,179	280,358	423,537
	Escapement	648,200	322,110	970,310	–	–	–
	Total	872,293	407,568	1,279,861	–	–	–
2006	Catch	567,641	310,338	877,979	92,737	199,687	292,424
	Escapement	524,900	239,850	764,750	–	–	–
	Total	1,092,541	550,188	1,642,729	–	–	–
2007	Catch	250,104	132,144	382,248	152,432	131,650	284,082
	Escapement	327,451	399,210	726,661	–	–	–
	Total	577,555	531,354	1,108,909	–	–	–
2008	Catch	281,940	109,532	391,472	274,872	118,636	393,508
	Escapement	417,900	174,050	591,950	–	–	–
	Total	699,840	283,582	983,422	–	–	–

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Year		Post June harvest			June harvest		
		Southeastern <sup>a</sup> & South Central districts	Southwestern & Unimak districts	South <sup>b</sup> Peninsula totals	South Unimak	Shumagin Islands	Total June harvest
2009	Catch	445,088	538,856	983,944	183,793	478,147	661,940
	Escapement	125,100	387,130	512,230	–	–	–
	Total	570,188	925,986	1,496,174	–	–	–
2010	Catch	400,599	114,661	515,260	96,552	168,710	265,262
	Escapement	147,912	143,700	291,612	–	–	–
	Total	548,511	258,361	806,872	–	–	–
2011	Catch	399,514	142,271	541,785	230,794	200,783	431,577
	Escapement	314,300	183,425	497,725	–	–	–
	Total	713,814	325,696	1,039,510	–	–	–
2012	Catch	143,025	83,227	226,252	206,002	177,786	383,788
	Escapement	117,262	87,980	205,242	–	–	–
	Total	260,287	171,207	431,494	–	–	–
2013	Catch	370,043	179,492	549,535	188,888	211,583	400,471
	Escapement	339,400	163,200	502,600	–	–	–
	Total	709,443	342,692	1,052,135	–	–	–
2014	Catch	65,095	46,693	111,788	216,193	169,605	385,798
	Escapement	177,370	136,175	313,545	–	–	–
	Total	242,465	182,868	425,333	–	–	–
2015	Catch	298,824	198,055	496,879	40,664	137,101	177,765
	Escapement	549,270	357,150	906,420	–	–	–
	Total	848,094	555,205	1,403,299	–	–	–
2016	Catch	118,933	34,111	153,044	147,390	123,105	270,495
	Escapement	398,816	227,960	626,776	–	–	–
	Total	517,749	262,071	779,820	–	–	–

*Note:* Harvest of chum salmon during June is not considered local stock, and chum salmon escapement does not begin until July.

<sup>a</sup> Catch includes any salmon (usually very few) caught in the Southeastern District Mainland in June, which are considered local.

<sup>b</sup> Catch numbers do not include test fish or subsistence harvests.

Appendix A13.—South Alaska Peninsula commercial salmon harvest, all gear combined, by species and day, 2016.

Date	Permits	Landings	Number of salmon <sup>a</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun	37	61	22	20,923	0	52	125	21,122
8-Jun	40	71	27	26,624	0	70	273	26,994
9-Jun	37	44	5	17,852	0	26	275	18,158
10-Jun	126	172	636	86,802	91	88,717	16,621	192,867
11-Jun	88	92	552	67,076	169	32,321	22,784	122,902
12-Jun	121	174	441	89,266	1,117	80,134	17,334	188,292
13-Jun	131	170	293	96,278	67	95,062	14,198	205,898
14-Jun	50	89	7	35,528	0	1,238	933	37,706
15-Jun	177	234	626	129,836	22	259,809	30,583	420,876
16-Jun	91	104	129	39,298	67	42,893	6,208	88,595
17-Jun	167	241	811	118,948	1	153,639	16,504	289,903
18-Jun	117	139	135	46,156	0	22,960	3,164	72,415
19-Jun	38	56	15	22,693	0	1,719	930	25,357
20-Jun	156	237	403	112,640	23	205,432	11,019	329,517
21-Jun <sup>d</sup>	86	102	303	89,839	0	225,952	6,955	323,049
22-Jun	86	110	198	46,189	7	159,625	15,896	221,915
23-Jun	66	81	256	42,442	0	111,924	8,610	163,232
24-Jun	36	52	9	19,421	0	681	509	20,620
25-Jun	88	118	627	74,342	7	331,156	19,578	425,710
26-Jun	62	74	202	60,358	4	276,847	20,754	358,165
27-Jun	69	89	319	62,598	60	227,230	38,358	328,565
28-Jun	78	123	118	57,204	81	192,816	18,884	269,103
29-Jun	27	41	10	12,511	0	513	905	13,939
30-Jun <sup>b</sup>	—	—	—	—	—	—	—	—
1-Jul	25	42	2	18,381	0	60	102	18,545
2-Jul <sup>c</sup>	24	38	300	12,907	32	1,166	280	14,685
3-Jul <sup>c</sup>	31	67	149	30,576	44	1,124	437	32,330
4-Jul	23	40	28	13,436	3	27	187	13,681
5-Jul <sup>c</sup>	14	17	565	6,465	104	1,519	395	9,048
6-Jul	55	90	118	64,893	1,733	21,799	13,321	101,864
7-Jul	22	32	9	15,752	619	6,201	3,186	25,767
8-Jul <sup>c</sup>	32	56	504	24,702	1,610	2,754	804	30,374
9-Jul <sup>c</sup>	24	44	285	12,128	1,022	1,085	734	15,254
10-Jul	63	93	1,564	74,091	31,173	19,731	19,030	145,589
11-Jul	56	82	354	82,121	23,567	12,578	5,758	124,378
12-Jul	12	14	6	8,105	124	328	185	8,748
13-Jul <sup>b</sup>	—	—	—	—	—	—	—	—
14-Jul	38	46	268	104,136	4,167	11,804	8,749	129,124
15-Jul	42	58	279	69,758	6,501	8,323	7,757	92,618

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Date	Permits	Landings	Number of salmon <sup>a</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
16-Jul	20	28	3	14,031	170	497	606	15,307
17-Jul	20	30	10	8,897	6	447	517	9,877
18-Jul	74	128	1,258	105,417	15,394	19,297	11,180	152,546
19-Jul	56	71	549	70,724	6,198	7,813	4,583	89,867
20-Jul <sup>b</sup>	—	—	—	—	—	—	—	—
21-Jul <sup>b</sup>	—	—	—	—	—	—	—	—
22-Jul	77	126	645	100,366	27,675	37,471	12,729	178,886
23-Jul	42	63	38	38,854	2,649	6,669	2,661	50,871
24-Jul <sup>c</sup>	28	70	13	21,754	543	3,751	2,284	28,345
25-Jul <sup>b</sup>	—	—	—	—	—	—	—	—
26-Jul	77	111	1,450	62,748	25,771	59,121	17,240	166,330
27-Jul	47	73	366	37,349	13,279	25,168	8,439	84,601
28-Jul <sup>c</sup>	9	20	17	10,112	1,239	6,465	1,996	19,829
29-Jul	9	18	1	4,367	3	436	210	5,017
30-Jul	72	105	249	41,695	14,116	81,813	17,746	155,619
31-Jul	42	60	57	26,228	2,905	32,531	6,432	68,153
1-Aug <sup>c</sup>	12	22	14	3,710	373	3,396	517	8,010
2-Aug	11	26	1	3,101	3	422	184	3,711
3-Aug <sup>c</sup>	9	20	8	4,461	829	4,976	799	11,073
4-Aug <sup>c</sup>	9	9	18	3,984	606	3,000	1,014	8,622
5-Aug	9	11	1	2,080	1	442	201	2,725
6-Aug	9	15	0	2,104	2	616	115	2,837
7-Aug	9	9	0	1,575	3	307	123	2,008
8-Aug	9	14	0	1,880	4	290	135	2,309
9-Aug	5	5	0	367	0	16	11	394
10-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
11-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
12-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
13-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
14-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
15-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
16-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
17-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
18-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
19-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
20-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
21-Aug <sup>b</sup>	—	—	—	—	—	—	—	—

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Date	Permits	Landings	Number of salmon <sup>a</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
22-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
23-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
24-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
25-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
26-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
27-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
28-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
29-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
30-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
31-Aug <sup>b</sup>	—	—	—	—	—	—	—	—
1-Sep	15	19	1	4,326	2,321	14	1,102	7,764
2-Sep	18	23	0	5,284	1,995	131	6,283	13,693
3-Sep <sup>b</sup>	—	—	—	—	—	—	—	—
4-Sep <sup>b</sup>	—	—	—	—	—	—	—	—
5-Sep <sup>b</sup>	—	—	—	—	—	—	—	—
6-Sep <sup>b</sup>	—	—	—	—	—	—	—	—
7-Sep	15	17	1	2,357	1,877	8	223	4,466
8-Sep	10	10	0	1,305	519	0	48	1,872
Total	236	4,496	15,275	2,491,351	190,896	2,894,412	429,703	6,021,637

<sup>a</sup> Harvest information includes commercial and test fishery harvest but excludes personal use harvest.

<sup>b</sup> Fishery closed.

<sup>c</sup> Department's test fishery.

<sup>d</sup> "Dolgoi Island Area" sockeye salmon harvest limit of 191,000 fish reached and commercial fishing was restricted through July 25.

Appendix A14.—South Alaska Peninsula commercial salmon harvest by species, statistical area, section, and district, 2016.

Statistical area	Section	Number of salmon					
		Chinook	Sockeye	Coho	Pink	Chum	Total
Southeastern District							
281-15	Kupreanof Point	2	479	0	0	12	493
281-25	Island/ Fox Bay	184	56,804	1,634	2,025	2,946	63,593
East Stepovak Section Total		186	57,283	1,634	2,025	2,958	64,086
281-30	Stepovak Flats Section	0	0	0	0	0	0
281-40	Grub Gulch/Clark Bay	71	89,700	235	1,940	1,901	93,847
281-50	Orzinski Bay	21	58,287	138	6,778	2,559	67,783
281-55	American Bay	41	57,150	455	2,098	2,410	62,154
281-62	Chichagof Bay	25	50,816	1,265	4,700	2,250	59,056
281-65	Suzy Creek/West Cove	5	26,627	34	351	629	27,646
281-67	Dorenoi Bay	41	42,375	1,137	2,657	2,206	48,416
Northwest Stepovak Section Total		204	324,955	3,264	18,524	11,955	358,902
281-70	Southwest Stepovak Section	145	25,550	3,715	6,770	1,639	37,819
281-80	Balboa Bay Section	9	18,180	1,213	402	1,320	21,124
281-90	Beaver Bay Section	0	0	0	0	0	0
282-10	Popof Strait/Squaw Harbor	1,338	104,692	34,831	134,826	26,821	302,508
282-11	Unga Cape/East Popof	5,327	172,388	64,421	578,094	99,172	919,402
282-20	Acheredin Bay	379	84,496	2,802	16,552	10,123	114,352
282-25	West Unga Island	2,435	228,882	18,210	54,556	32,485	336,568
282-30	Bay Point	42	17,552	665	1,107	577	19,943
282-32	Outer Zachary Bay	0	0	0	0	0	0
282-35	Zachary Bay	5	487	35	31,171	10,096	41,794
282-40	East Head/West Head	11	3,458	176	5,788	1,116	10,549
282-42	Korovin Island	518	82,384	616	50,284	12,353	146,155
282-45	Northeast Nagai Island	0	1,059	0	61	64	1,184
282-50	Koniuju Islands	0	349	0	0	0	349
282-65	Southeast Nagai Island	201	57,433	4,774	32,684	7,977	103,069
282-70	Southwest Nagai Island	241	52,339	5,048	16,011	6,016	79,655
282-75	Cape Horn/Porpoise Rocks	12	27,566	254	1,409	2,136	31,377
282-80	East Nagai Straits	2	12,635	25	615	216	13,493
Shumagin Islands Section Total		10,511	845,720	131,857	923,158	209,152	2,120,398
Southeastern District total		11,055	1,271,688	141,683	950,879	227,024	2,602,329
Percent of total South Peninsula salmon harvest							43.6%

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Statistical area	Section	Number of salmon					
		Chinook	Sockeye	Coho	Pink	Chum	Total
South Central District <sup>a</sup>							
283-15	Mino Creek	66	57,163	669	9,987	3,338	71,223
283-17	Little Coal Bay	52	29,405	632	7,685	3,360	41,134
Mino Cr. - Little Coal B. Section		118	86,568	1,301	17,672	6,698	112,357
283-20	Ukolnoi Island	0	8,161	52	572	726	9,511
283-21	Northside Cape Tolstoi	90	65,935	77	3,847	1,345	71,294
283-23	Eastside Pavlof Bay	11	27,825	125	470	467	28,898
East Pavlof Bay Section Total		101	101,921	254	4,889	2,538	109,703
283-24	Canoe Bay Section	0	0	0	0	0	0
283-25	Northwest Pavlof Bay	22	27,054	3	1,481	372	28,932
283-26	Long Beach/Ukolnoi	350	136,220	1,920	8,808	6,296	153,594
West Pavlof Bay Section Total		372	163,274	1,923	10,289	6,668	182,526
South Central District total		591	351,763	3,478	32,850	15,904	404,586
Percent of total South Peninsula salmon harvest							6.8%
Southwestern District							
284-36	Volcano Bay <sup>a</sup>	8	2,153	86	179	6,137	8,563
284-37	Northside Dolgoi Island <sup>a</sup>	449	156,564	2,413	38,812	24,126	222,364
284-38	South Dolgoi/Moss Cape <sup>a</sup>	6	3,976	423	675	1,431	6,511
284-39	Poperechnoi <sup>a</sup>	22	14,063	169	7,298	3,706	25,258
Volcano Bay Section Total		485	176,756	3,091	46,964	35,400	262,696
284-42	Belkofski Bay <sup>a</sup>	15	12,879	108	1,542	423	14,967
284-45	King Cove	29	65,278	987	6,874	4,174	77,342
284-47	General Section	2	9,545		616	151	10,314
Belkofski Bay Section Total		46	87,702	1,095	9,032	4,748	102,623
284-55	Deer Island Section	73	130,110	50	13,574	2,484	146,291
284-62	Outer Cold Bay	0	166	0	0	0	166
284-65	Lenard Harbor	0	0	0	0	0	0
284-67	Upper Cold Bay	0	173	0	0	0	173
Cold Bay Section Total		0	339	0	0	0	339

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Statistical area	Section	Number of salmon					Total
		Chinook	Sockeye	Coho	Pink	Chum	
284-70	General Section	0	816	0	0	0	816
284-75	Thin Point Section	0	0	0	0	0	0
284-80	Morzhovoi Bay Section	0	2,762	0	23	0	2,785
284-90	Ikatan Bay Section	343	172,957	4,864	528,850	28,251	735,265
Southwestern District total		947	571,442	9,100	598,443	70,883	1,250,815
Percent of total South Peninsula salmon harvest							20.9%
Unimak District							
285-10	Sanak Island Section	0	1,466	0	980	2	2,448
285-20	Otter Cove	50	18,218		46,521	7,217	72,006
285-30	Cape Lazaref	32	28,414	28	87,231	6,216	121,921
Otter Cove Section Total		82	46,632	28	133,752	13,433	193,927
285-40	Cape Lutke Section	774	234,830	30,815	1,154,399	97,198	1,518,016
Unimak District total		856	282,928	30,843	1,289,131	110,633	1,714,391
Percent of total South Peninsula salmon harvest							28.7%
South Peninsula total		13,449	2,477,821	185,104	2,871,303	424,444	5,972,121

<sup>a</sup> “Dolgoi Island Area” sockeye salmon harvest limit of 191,000 fish reached and commercial fishing was restricted through July 25.

Appendix A15.—South Alaska Peninsula commercial salmon harvest by species, district, and gear, 2016.

	Number of salmon						Percent
	Chinook	Sockeye	Coho	Pink	Chum	Total	of harvest
Southeastern District							
Seine	10,748	542,722	133,454	897,106	187,576	1,771,606	68.1
Set gillnet	307	728,966	8,229	53,773	39,448	830,723	31.9
Total	11,055	1,271,688	141,683	950,879	227,024	2,602,329	100.0
South Central District <sup>a</sup>							
Seine	489	246,814	3,054	31,537	12,729	294,623	72.8
Drift gillnet	0	0	0	0	0	0	0.0
Set gillnet	102	104,949	424	1,313	3,175	109,963	27.2
Total	591	351,763	3,478	32,850	15,904	404,586	100.0
Southwestern District <sup>a</sup>							
Seine	724	236,784	5,878	509,509	47,137	800,032	64.0
Drift gillnet	131	205,031	3,144	84,820	19,000	312,126	25.0
Set gillnet	92	129,627	78	4,114	4,746	138,657	11.1
Total	947	571,442	9,100	598,443	70,883	1,250,815	100.0
Unimak District							
Seine	499	130,307	30,776	1,231,558	86,282	1,479,422	86.3
Drift gillnet	357	152,621	67	57,573	24,351	234,969	13.7
Set gillnet	0	0	0	0	0	0	0.0
Total	856	282,928	30,843	1,289,131	110,633	1,714,391	100.0
South Peninsula total							
Seine	12,460	1,156,627	173,162	2,669,710	333,724	4,345,683	72.8
Drift gillnet	488	357,652	3,211	142,393	43,351	547,095	9.2
Set gillnet	501	963,542	8,731	59,200	47,369	1,079,343	18.1
Total	13,449	2,477,821	185,104	2,871,303	424,444	5,972,121	100.0

<sup>a</sup> “Dolgoi Island Area” sockeye salmon harvest limit of 191,000 fish reached and commercial fishing was restricted through July 25.



Appendix A16.–South Peninsula emergency order summary, 2016.

E.O.#	Issued	Effective	Action Taken
SP-01	12:00 PM 6/1/16	6:00 AM 6/7/16	<u>Allows</u> four 88-hour and one 64-hour fishing periods for set gillnet gear and four 88-hour commercial salmon fishing periods for drift gillnet and seine gear in the South Unimak and Shumagin Islands June fisheries.
SP-02	9:30 AM 6/6/16	12:00 PM 6/7/16	<u>Allows</u> a 48-hour commercial salmon fishing period from 12:00 PM Tuesday, June 7 until 12:00 PM Thursday, June 9 in Beaver Bay, Balboa Bay, Southwest Stepovak, Stepovak Flats, and East Stepovak sections of the Southeastern District.
SP-03	9:00 AM 6/21/16	10:00 PM 6/21/16	<u>Closes</u> the waters of the Volcano Bay Section of the Southwestern District south and east of a line from Arch Point at 55° 12.30' N lat, 161° 54.30' W long to a point on Belkofski Peninsula at 55° 09.50' N lat, 161° 57.80' W long and the portion of the West Pavlof Bay Section of the Southcentral District south of Black Point (55° 24.48' N lat) to commercial salmon fishing on Tuesday, June 21 at 10:00 PM.
SP-04	4:00 PM 6/22/16	12:00 PM 6/24/16	<u>Allows</u> a 48-hour commercial salmon fishing period in Beaver Bay, Balboa Bay, Southwest Stepovak, Stepovak Flats, and East Stepovak sections of the Southeastern District from 12:00 PM Friday, June 24 until 12:00 PM. Sunday, June 26.
SP-05	10:00 AM 6/30/16	12:00 PM 7/1/16	<u>Allows</u> a 48-hour commercial salmon fishing period in the Northwest Stepovak Section of the Southeastern District from 12:00 p.m. Friday, July 1 until 12:00 p.m. Sunday, July 3.
SP-06	10:00 AM 7/2/16	12:00 PM 7/3/16	<u>Extends</u> the commercial salmon fishing period for 48 hours from 12:00 p.m. Sunday, July 3 until 12:00 p.m. Tuesday, July 5 in the Northwest Stepovak Section of the Southeastern District.
SP-07	4:00 PM 7/5/16	6:00 AM 7/6/16	<u>Allows</u> a 33-hour commercial salmon fishing period for set gillnet gear and seine gear from 6:00 a.m. Wednesday, July 6 until 3:00 p.m. Thursday, July 7, 2016 in the Unimak District, the Southwestern District, excluding the waters of the Volcano Bay Section of the Southwestern District south and east of a line from Arch to a point on Belkofski Peninsula, the South Central District, excluding the portion of the West Pavlof Bay Section of the Southcentral District south of Black Point, and the Shumagin Islands Section of the Southeastern. <u>Allows</u> a concurrent 33-hour commercial salmon fishing by drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District.
SP-08	10:00 AM 7/7/16	12:00 PM 7/8/16	<u>Allows</u> a 48-hour commercial fishing period in the Northwest Stepovak Section of the Southeastern District from 12:00 p.m. Friday, July 8 until 12:00 p.m. Sunday, July 10.

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E.O.#	Issued	Effective	Action Taken
SP-09	4:00 PM 7/9/16	6:00 AM 7/10/16	<u>Allows</u> a 33-hour commercial salmon fishing period for set gillnet gear and seine gear from 6:00 a.m. Sunday, July 10 until 6:00 p.m. Monday, July 11 in the Unimak District, the Southwestern District, excluding the waters of the Volcano Bay Section of the Southwestern District south and east of a line from Arch to a point on Belkofski Peninsula, the South Central District, excluding the portion of the West Pavlof Bay Section of the Southcentral District south of Black Point, and the Shumagin Islands Section of the Southeastern. <u>Allows</u> a concurrent 33-hour commercial salmon fishing by drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District
SP-10	5:00 PM 7/9/16	12:00 PM 7/10/16	<u>Extends</u> the commercial salmon fishing period for 48 hours in the Northwest Stepovak Section of the Southeastern District from 12:00 p.m. Sunday, July 10 until 12:00 p.m. Tuesday, July 12.
SP-11	11:30 AM 7/13/16	6:00 AM 7/14/16	<u>Allows</u> a 36-hour commercial salmon fishing period for set gillnet and seine gear from 6:00 a.m. Thursday, July 14 until 6:00 p.m. Friday, July 15 in the Unimak District, the Southwestern District, excluding the waters of the Volcano Bay Section of the Southwestern District south and east of a line from Arch Point to a point on Belkofski Peninsula, the South Central District, excluding the portion of the West Pavlof Bay Section of the Southcentral District south of Black Point, and the Shumagin Islands Section of the Southeastern District. <u>Allows</u> a concurrent 36-hour commercial salmon fishing by drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District
SP-12	9:00 AM 7/14/16	12:00 PM 7/15/16	<u>Allows</u> a 48-hour commercial salmon fishing period in the Northwest Stepovak Section of the Southeastern District from 12:00 p.m. Friday, July 15 until 12:00 p.m. Sunday, July 17.
SP-13	12:00 PM 7/16/16	12:00 PM 7/17/16	<u>Extends</u> the commercial salmon fishing period in the Northwest Stepovak Section of the Southeastern District for 48 hours from 12:00 p.m. Sunday, July 17 until 12:00 p.m. Tuesday, July 19.
SP-14	4:30 PM 7/16/16	6:00 AM 7/18/16	<u>Allows</u> a 36-hour commercial salmon fishing period for set gillnet and seine gear from 6:00 a.m. Monday, July 18 until 6:00 p.m. Tuesday, July 19 in the Unimak District, the Southwestern District, excluding the waters of the Volcano Bay Section of the Southwestern District south and east of a line from Arch Point to a point on Belkofski Peninsula, the South Central District, excluding the portion of the West Pavlof Bay Section of the Southcentral District south of Black Point, and the Shumagin Islands Section of the Southeastern District. <u>Allows</u> a concurrent 36-hour commercial salmon fishing by drift gillnet gear in the Unimak District and the Ikatan Bay Section.

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E.O.#	Issued	Effective	Action Taken
SP-15	8:30 AM 7/21/16	6:00 AM 7/22/16	<p><u>Allows</u> a 36-hour commercial salmon fishing period for set gillnet and seine gear from 6:00 a.m. Friday, July 22 until 6:00 p.m. Saturday, July 23 in the Unimak District, the Southwestern District, excluding the waters of the Volcano Bay Section of the Southwestern District south and east of a line from Arch Point to a point on Belkofski Peninsula, the South Central District, and the Shumagin Islands Section of the Southeastern District.</p> <p><u>Allows</u> a concurrent 36-hour commercial salmon fishing by drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District.</p> <p><u>Allows</u> a 24-hour commercial fishing period in Beaver Bay, Balboa Bay, Southwest Stepovak, Stepovak Flats, and East Stepovak sections of the Southeastern District from 12:00 p.m. Friday, July 22 until 12:00 p.m. Saturday, July 23.</p> <p><u>Allows</u> a 48-hour commercial fishing period in the Northwest Stepovak Section of the Southeastern District from 12:00 p.m. Friday, July 22 until 12:00 p.m. Sunday, July 24.</p>
SP-17	5:30 PM 7/24/16	6:00 AM 7/26/16	<p><u>Allows</u> a 36-hour commercial salmon fishing period for set gillnet and seine gear from 6:00 a.m. Tuesday, July 26 until 6:00 p.m. Wednesday, July 27 in the Unimak District, the Southwestern District, the South Central District, and the Shumagin Islands Section of the Southeastern District.</p> <p><u>Allows</u> a concurrent 36-hour commercial salmon fishing by drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District.</p>
SP-18	4:00 PM 7/25/16	12:00 PM 7/26/16	<u>Extends</u> the current commercial salmon fishing period in Orzinski Bay only from 12:00 p.m. Tuesday, July 26 until further notice.
SP-19	8:30 AM 7/29/16	6:00 AM 7/30/16	<p><u>Allows</u> a 36-hour commercial salmon fishing period for set gillnet and seine gear from 6:00 a.m. Saturday, July 30 until 6:00 p.m. Sunday, July 31 in the Unimak District, the Southwestern District, the South Central District, and the Shumagin Islands Section of the Southeastern District.</p> <p><u>Allows</u> a concurrent 36-hour commercial salmon fishing period by drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District.</p>
SP-20	8:00 AM 8/8/16	12:00 PM 8/9/16	<u>Closes</u> the commercial salmon fishing period in Orzinski Bay from 12:00 p.m. Tuesday, August 9 until further notice.
SP-21	7:00 PM 8/30/16	9:00 AM 9/1/16	<u>Allows</u> a commercial salmon fishing period in the Unimak, Southwestern, South Central, and Southeastern districts from 9:00 a.m. Thursday, September 1, until 8:00 p.m. Friday, September 2.
SP-22	9:00 AM 9/2/16	9:00 AM 9/3/16	<u>Allows</u> a commercial salmon fishing period in the Izembek-Moffet Bay Section of the Northwestern District from 9:00 a.m. Saturday, September 3 until 8:00 p.m. Monday, September 5.

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E.O.#	Issued	Effective	Action Taken
SP-23	10:00 AM 9/5/16	9:00 AM 9/7/16	<u>Allows</u> a commercial salmon fishing period in the Unimak, Southwestern, South Central, and Southeastern districts from 9:00 a.m. Wednesday, September 7, until 8:00 p.m. Thursday, September 8.

**APPENDIX B. SOUTH UNIMAK AND SHUMAGIN  
ISLANDS JUNE FISHERIES**

Prior to 1973, fishing time was liberal and was not based on the strength of the forecasted Bristol Bay sockeye salmon run (Shaul and Dinnocenzo 2000). During the late 1960s and early 1970s, controversy arose between Alaska Peninsula–Aleutians Islands and Bristol Bay fishermen concerning the South Unimak and Shumagin Islands June fisheries.

Beginning in 1975, the Alaska Board of Fisheries (board) established guideline harvest levels (GHLs) based on average historic catches. The GHL for the Shumagin Islands was 1.5% of the latest inshore Bristol Bay projected sockeye salmon harvest, whereas the South Unimak fishery was allocated 6.8% of the Bristol Bay inshore projected sockeye salmon harvest. The total GHLs for each fishery were further broken down into 4 time period GHLs, to distribute the catches throughout the month of June (Shaul and Dinnocenzo 2000).

Although chum salmon have always been caught during the June fisheries, the unusually large chum salmon catches in 1982 and 1983 caused concern by fishermen in the Arctic-Yukon-Kuskokwim (AYK) Region. Beginning with the 1984 season, the board placed a limit on fishing time, not to exceed 96 hours per week and not more than 72 consecutive hours in order to allow “escapement windows.” The purpose of the “windows” was to limit the chum salmon harvest. Due to the high sockeye salmon catch rate (and low chum-to-sockeye catch ratios) during 1984 and 1985; these restrictions were not implemented because the GHLs were easily met (Shaul and Dinnocenzo 2000).

In 1986, the board placed a 400,000 chum salmon catch ceiling on both fisheries combined, eliminated fishing during the first 10 days of June, and eliminated fishing during the last GHL time period, June 26–30 (along with the sockeye salmon allocation for that period). These restrictions applied to the 1986 season only. Additional restrictions during 1986 were the primary reasons for less than half of the combined South Unimak–Shumagin Islands sockeye salmon allocation being harvested in that year (Poetter 2007).

The regulations for the 1987 season were the same as those used in 1985. However, during 1988 and 1989 the board placed an annual 500,000 chum salmon catch ceiling on both fisheries combined.

In 1988, the abundance of chum salmon was about equal to sockeye salmon at South Unimak. This resulted in less than 40% of the South Unimak sockeye salmon allocation being harvested before the chum salmon ceiling was reached. Sockeye salmon abundance was higher in the Shumagin Islands and that fishery was able to harvest its allocation (Poetter 2007).

In 1989, sockeye salmon abundance was very high and sockeye salmon allocations were exceeded with relatively little fishing time. The Shumagin Islands sockeye salmon catch was 396,958 fish with an allocation of 264,000 fish, whereas 1,347,547 sockeye salmon were harvested at South Unimak with an allocation of 1,199,000 fish (Poetter 2007). A total of only 72 hours fishing time was allowed in the Shumagin Islands during 4 days. At South Unimak, 84 hours of fishing time was allowed with openings occurring during 5 separate days. The 1989 chum salmon catch was 47,528 fish in the Shumagin Islands and 407,635 fish at South Unimak for a total of 455,163 fish. The ratio of sockeye to chum salmon was low during the early part of the fishery and became high towards

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the end (Shaul et al. 1990).

After the 1989 season, the board made the following changes in regards to the South Unimak and Shumagin Islands June fisheries:

- (1) The starting date of the fishery was delayed until June 13 because the sockeye salmon to chum salmon ratio is normally lower during early June.
- (2) The chum salmon ceiling for both fisheries combined was raised from 500,000 fish to 600,000 fish.
- (3) The “window regulations” were eliminated because there did not seem to be a need for both a chum salmon ceiling and windows.
- (4) The sockeye salmon allocation periods and allocations were changed. The percent of the total allocation by period were the same for each fishery.

<u>Period</u>	<u>Allocation</u>
June 13–18	35%
June 19–25	45%
<u>June 26–30</u>	<u>20%</u>
<u>Total</u>	<u>100%</u>

If catches in either fishery fell below the guidelines in the June 13–18 period, those unharvested sockeye salmon, up to a maximum of 5% of the total allocation for that fishery, could be harvested during the June 19–25 period. The June 26–30 period could not be used to make up for under-harvest during the first 2 periods. A 1987 salmon tagging study showed that sockeye salmon stock composition between the first 2 periods was very similar; however, the June 26–30 stock composition at South Unimak–Shumagin Islands could be dominated by fewer and later stocks (Eggers et al. 1991).

- (5) Unlimited seine leads were eliminated at South Unimak and leads of no more than 150 fathoms were determined to be the only legal lengths for the entire Alaska Peninsula.
- (6) For the first time, maximum depth restrictions were placed on seine and gillnet gear. For the entire Alaska Peninsula Area, seine gear could not exceed 375 meshes in depth. Seine mesh size could not exceed 3-1/2 inches except the first 25 meshes above the lead line could not be more than 7 inches (5 AAC 09.332(a)<sup>6</sup>). No gillnet gear used along the South Peninsula could exceed 90 meshes in depth (5 AAC 09.331)(b)(1)(C)<sup>7</sup>.

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<sup>6</sup> ADF&G. 2016. 2016-2019 Alaska Peninsula, Atka-Amlia, and Aleutian Islands areas commercial fishing regulations, 2016 edition. Alaska Department of Fish and Game, Juneau.

- (7) The area making up the South Unimak fishery was expanded to include the following portions of Southwestern District located outside the Ikatan Bay Section:
  - (a) all waters north and west of a line from Cape Pankof Light to Thin Point.
  - (b) all waters enclosed by a line from Thin Point to Stag Point on Deer Island to Dolgoi Cape and from Bluff Point on Dolgoi Island to Arch Point.

In 1990, sockeye salmon were not available in large numbers in the Shumagin Islands or at South Unimak despite the fact that Bristol Bay experienced one of its largest runs on record (Shaul et al. 1991). If the Bristol Bay run had been forecasted correctly, the sockeye salmon GHL for the Shumagin Islands and South Unimak would have been 497,000 and 2,255,000 respectively (Shaul et al. 1991). Windy weather plagued fishing operations but fish abundance also seemed low, especially in view of the huge run that arrived in Bristol Bay.

Harvesting the total sockeye salmon allocations in the South Unimak and Shumagin Islands June fisheries with a chum salmon cap in place was often difficult and sometimes impossible, especially when sockeye salmon allocations were large. At the fall 1991 board meeting, the chum salmon cap was changed to 40% of the combined South Unimak and Shumagin Islands sockeye salmon allocation, not to exceed 900,000 fish (Shaul and Dinnocenzo 2000). This change generated much controversy from fishermen in the AYK Region because the chum salmon cap was likely to be 900,000 fish in 1992–1994, based on initial long-range Bristol Bay sockeye salmon projections. The board addressed the chum salmon cap issue again at their spring 1992 meeting and changed the cap to 700,000 chum salmon, regardless of the sockeye salmon allocation. The board also stipulated that unless the chum salmon cap was in danger of being exceeded, set gillnet fishing periods would not be less than 16 hours even if it was necessary to restrict seine and drift gillnet gear periods to less than 16 hours due to chum salmon conservation. This was due to set gillnet gear selectivity favoring sockeye salmon. Regardless of gear selectivity, the board directed the department to manage the fishery so that the cap would not be exceeded.

In 1992, the respective sockeye salmon allocations were 1,959,000 and 432,000 fish for the South Unimak and Shumagin Islands fisheries (Poetter 2007). The fishery was delayed until June 15 because of the high number of chum salmon caught in the Shumagin Islands test fishery. From June 15 until the end of the fishery on June 26, sockeye to chum salmon ratios were very high (Poetter 2007). A total of 2,046,022 sockeye salmon were harvested at South Unimak, whereas the Shumagin Islands sockeye salmon harvest was 411,834 fish. The chum salmon harvest from both fisheries combined was 426,203 fish.

In 1993, South Unimak and Shumagin Islands sockeye salmon allocations were 2,375,000 and 524,000 fish, respectively (Poetter 2007). Test fishing in the Shumagin Islands during June 7–11 indicated sockeye to chum salmon ratios greater than 2.0. Consequently, fishing began on June 13, the earliest date allowed by the *South Unimak and Shumagin Islands June Management Plan*.

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In 1993, AYK chum salmon stocks were at low levels, resulting in very little commercial fishing targeting chum salmon (Francisco et al. 1994). Subsistence fishing for AYK chum salmon was not allowed in some locations. Consequently, during 1993 and 1994, the board conducted 2 out-of-cycle meetings devoted to the South Unimak–Shumagin Islands June fishery. The first meeting was non-regulatory but resulted in the second meeting in which regulatory changes were made.

During its spring 1994 meeting, the board allowed the department to open the South Unimak–Shumagin Islands fisheries prior to June 13 if sockeye to chum salmon ratios were greater than 2.0, and eliminated the time period allocations. Elimination of time period allocations would have resulted in a substantially lower harvest of chum salmon in 1993 (McCullough and Pengilly 1994).

The 1994 sockeye salmon allocations were a record high, totaling 2,938,000 fish at South Unimak and 648,000 fish in the Shumagin Islands (Poetter 2007). Test fishing in the Shumagin Islands indicated that sockeye to chum salmon ratios were low and no fishing was allowed in the Shumagin Islands until June 18. Test fishing indicated that sockeye to chum salmon ratios at South Unimak on June 15 and 16 were higher than those in the Shumagin Islands, and fishing started on June 17.

The 1994 fishery was characterized by low catch rates of sockeye and chum salmon but record June pink salmon catches (Appendix B4). Sockeye to chum ratios were slightly better than 2 to 1 during most of the fishery and were lower at the end of June (Poetter 2007). Total sockeye salmon harvest was very disappointing to industry in the Alaska Peninsula Area. At South Unimak, 1,001,250 sockeye salmon (34% of allocation) were harvested. In the Shumagin Islands, 460,013 sockeye salmon (71% of allocation) were harvested. The combined chum salmon catch was 582,165 fish.

The 1994 Bristol Bay sockeye salmon run was below forecast but still a very strong run and produced an inshore harvest of over 35 million fish. However, sockeye salmon were not available in large numbers in the South Unimak and Shumagin Islands fisheries. Fishermen reported a drastic change in currents and colder inshore water temperatures, which they believe may have affected the migratory pattern of sockeye salmon.

Large numbers of chum salmon were reported to be in the South Unimak fishery throughout June but fishermen avoided areas with high chum salmon concentrations. These tactics apparently not only decreased the chum salmon catch but reduced the fleets' ability to harvest sockeye salmon because the 2 species were reported to be traveling together in large numbers at some locations.

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Following the 1994 season, the board implemented the following changes to the management plan.

1. June fishery cannot begin prior to June 11.
2. After June 24, in either the South Unimak or Shumagin Islands fisheries, if the sockeye salmon guideline harvest level and the maximum allowable harvest of chum salmon have not been attained, and if the ratio of sockeye to chum salmon is 2:1 or less on any day, the next daily fishing period for seine and drift gillnet gear shall be of 6-hour duration in that fishery. After June 24, the South Unimak or Shumagin Islands fishery shall close for all gear types if the ratio of sockeye to chum salmon is 2:1 or less for any 3 aggregate days.
3. The board stated its intent that keeping the chum salmon harvest below the cap supersedes any attempt to reach the sockeye salmon GHLS.
4. The board eliminated minimum mesh size requirements for gillnets during the June fisheries.

In 1995, the sockeye salmon GHL was 2,987,000 fish allocated to South Unimak and 659,000 fish to Shumagin Islands for a total of 3,646,000 fish (Poetter 2007). Test fishing in the Shumagin Islands and at South Unimak indicated that sockeye to chum salmon ratios were slightly higher than in 1994. Consequently, both fisheries opened on June 13. However, the sockeye salmon harvest rates were again low. Virtually continuous fishing was allowed in both fisheries, through June 30 at South Unimak, and through June 29 in the Shumagin Islands where the sockeye salmon allocation was achieved. The 1995 South Unimak harvest was 1,451,490 sockeye salmon and 342,307 chum salmon; the fishery was about 1,536,000 fish under the sockeye salmon GHL. Shumagin Islands catch totaled 653,831 sockeye and 195,126 chum salmon and was only 5,000 fish under the sockeye salmon GHL. The combined harvest of both fisheries was 2,105,321 sockeye and 537,433 chum salmon, which was 1,541,000 sockeye salmon less than the GHL (Poetter 2007) and about 163,000 chum salmon less than the 700,000 cap. The combined sockeye salmon GHL was not achieved because sockeye salmon were not available in large numbers at South Unimak. The actual Bristol Bay sockeye salmon harvest was slightly larger than the forecast.

The 1996 South Unimak sockeye salmon GHL was 2,564,000 fish while that of the Shumagin Islands was 566,000 fish (Poetter 2007). Based on test fishing results, the South Unimak fishery did not begin until June 15 and the Shumagin Islands did not open until June 18. The purpose of test fishing was to determine the sockeye to chum salmon ratio as an indication of when the sockeye salmon harvest could be maximized without reaching the chum salmon cap. Salmon harvest rates were extremely low in both South Unimak and Shumagin Islands fisheries and almost continuous fishing was allowed. At South Unimak, despite continuous fishing from June 18 through June 30, only 572,495 sockeye salmon (23.3% of the allocation) were harvested. In the Shumagin Islands 456,475 sockeye salmon were caught, bringing the combined South Unimak–Shumagin Islands sockeye salmon harvest to 1,028,970 (33% of the allocation). A total of 359,820 chum salmon were harvested (129,889 at South Unimak and 229,931 in the Shumagin Islands), about 340,000 fish below the 700,000 cap.

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In 1997, the South Unimak fishery opened on June 13. Because of a price dispute, fishing effort ranged from 58 to 97 drift gillnet permit holders from June 13 through June 17. The dispute was settled on June 18, and continuous fishing was allowed through June 30. The sockeye salmon harvest was 1,179,179 fish, 36% below the 1,840,000 GHL. The 1997 Shumagin Islands fishery opened on June 19, and fishing was allowed daily until June 26 when the sockeye salmon GHL of 406,000 was exceeded (Poetter 2007). Shumagin Islands harvest was 449,002 sockeye salmon. A total of 322,325 chum salmon were harvested (196,016 at South Unimak and 126,309 in the Shumagin Islands), 377,675 fish below the 700,000 cap.

After the 1997 season, the board lowered the chum salmon cap from 700,000 fish to a “floating cap” that could range from 350,000 to 650,000 depending on the projected strength of harvests of summer chum salmon in AYK Area in relation to the 1970–1997 average. If the projected AYK chum salmon harvest was less than 33% of the average catches, the South Peninsula cap would be 350,000 to 450,000 fish. If the projected AYK summer run chum salmon harvest was between 33% and 67% of the 1970–1997 average, the South Peninsula cap would be between 450,001 and 550,000 chum salmon. If the AYK summer chum salmon harvest exceeded 67% of the 1970–1997 average, the South Peninsula chum salmon cap would be 550,001 to 650,000 fish. If the department identified a summer chum salmon stock of concern, the upper end of the cap would be reduced by 50,000 fish. The earliest opening date was changed from June 11 to June 10. In the Unimak District, the shoreward end of a set gillnet had to be within one half-mile of shore. All salmon caught had to be retained and reported. The use of aircraft to locate salmon was prohibited for the entire Alaska Peninsula Area for the entire season.

In 1998, the South Unimak and Shumagin Islands fisheries both opened to commercial salmon fishing on June 13. However, the entire seine fleet and approximately 80% of the set gillnet fleet did not fish because of a dispute over salmon prices. The drift gillnet fleet at South Unimak started fishing on June 13. As the fishery progressed more set gillnet permit holders participated and on June 17 the purse seine fleet and the balance of the set gillnet fleet went fishing. The 1998 sockeye salmon harvest rates were low in both South Unimak and Shumagin Islands fisheries. Despite continuous fishing from June 13 through June 30, only 974,628 sockeye (63.7% of the allocation) and 195,454 chum salmon were harvested at South Unimak. A total of 314,097 sockeye salmon (93.5% of the allocation) and 50,165 chum salmon were harvested in Shumagin Islands.

In 1999, the South Unimak fishery was opened for 16 hours on June 11, reopened on June 13, and was repeatedly extended until June 21 when the sockeye salmon GHL was reached. The Shumagin Islands fishery opened on June 13 and was repeatedly extended until June 18 when the GHL was reached (Shaul and Dinnocenzo 2000). The 1999 sockeye salmon daily harvest rates were higher than in the past 3 years in both South Unimak and Shumagin Islands fisheries. After nearly continuous fishing from June 11 through June 21, 1,106,208 sockeye (8.0% over the allocation) and 186,886 chum salmon were harvested at South Unimak. A total of 269,191 sockeye (19.1% over the allocation) and 58,420 chum salmon were harvested in the 1999 Shumagin Islands fishery.

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Based on the Bristol Bay forecast, the respective 2000 June GHLS were 1,650,000 and 363,000 sockeye salmon for South Unimak and Shumagin Islands fisheries (Poetter 2007). Test fishing results in the Shumagin Islands indicated that a fishing period could be allowed on June 11. However, no commercial fishing occurred during June 11 and June 12 because of a price dispute between fishermen and processors, and test fishing continued (Shaul and Dinnocenzo 2000). The South Unimak test fish sockeye to chum salmon ratio was less than the 2 to 1 needed to justify a fishery on June 11. After the announced Shumagin Islands opening for June 11, all 3 of the South Unimak test fish boats quit test fishing and departed for the Shumagin Islands commercial fishery. A price settlement was reached on June 13 and commercial fishing began. After June 13, sockeye to chum salmon ratios were high and both fisheries were repeatedly extended. The South Unimak fishery remained open through June 30. Shumagin Islands closed on June 18 when it was estimated that the sockeye salmon GHL would be reached. The 2000 South Unimak harvest was 892,016 sockeye salmon (54.1% of the GHL) and 168,888 chum salmon. The Shumagin Islands harvest was 359,212 sockeye salmon (99.0% of the allocation) and 70,469 chum salmon. The combined South Unimak-Shumagin Islands chum salmon harvest in 2000 was 239,357 fish, well below the chum salmon GHL of 350,000 to 400,000 (Shaul and Dinnocenzo 2000).

The fishing power of the fleet participating in the South Unimak and Shumagin Islands June fishery appeared to be substantially lower for all species during recent years (2005–2014) than it was during the 1980s due to the following factors:

1. The gear depth restrictions implemented in 1990.
2. Cape Lutke was no longer as productive an area for the purse seine and drift gillnet fleets, and the prices paid for salmon were low. The purse seine fleet was substantially smaller than the 1982–1996 fleet (Appendix A9).
3. Because of low salmon prices, the drift gillnet fleet decreased from 157 permit holders in 1991 to about 85 permit holders participating in 2006.
4. Salmon may have changed their migration routes and/or timing because of oceanographic or climatic factors, and may not be as abundant in areas where the June fisheries occur.

From 1990 through 2003, drift gillnet permit holders generally had higher sockeye to chum salmon ratios than seine permit holders in South Unimak. Prior to 1990, the seine fleet had higher ratios than the drift gillnet fleet.

There have been substantial shifts in the percentage of catches taken by various gear types over the years. The amount of set gillnet gear and percentages of the harvests taken by set gillnets have increased since the 1970s in both fisheries. Drift gillnet gear dominated the South Unimak catches during the 1970s. Purse seiners dominated the South Unimak harvests during most years between 1979 and 1994. Since 1995, drift gillnetters have again dominated the South Unimak fishery.

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At its 2001 board meeting, major changes were made to the *South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365<sup>7</sup>). These changes included the following:

1. Elimination of the sockeye salmon guideline harvest levels;
2. Elimination of the chum salmon guideline harvest levels;
3. Limiting fishing time to no more than 16 hours per day by any gear group;
4. Limiting total fishing time by seine and drift gillnet gear to no more than 48 hours in a floating 7-day period with no more than two 16-hour periods on consecutive days in any 7-day period;
5. From June 10 through June 24 in the South Unimak and/or Shumagin Islands fisheries, set gillnet gear may fish on consecutive days for 16-hour periods as long as the set gillnet sockeye to chum salmon ratios in that fishery are equal to or greater than the recent 10-year average for that fishery. If the set gillnet sockeye to chum salmon ratio falls below the recent 10-year average in either fishery, that fishery will be closed for one period. From June 10 through June 24, daily fishing periods for set gillnet gear will be from 6:00 AM until 10:00 PM;
6. Purse seine and drift gillnet fishing periods through June 24 will occur at the same time in the South Unimak and Shumagin Islands fisheries; and
7. After June 24, in either the South Unimak or Shumagin Islands fishery, if the ratio of sockeye to chum salmon by all gear combined is less than 2.0 on any day, the next fishing period shall be of 6 hours duration for all gear in that fishery. If the sockeye to chum salmon ratio is 2.0 or greater, a 6-hour fishing period can be extended to a maximum of 16 hours. The South Unimak or Shumagin Islands fishery shall close for all gear groups if the ratio of sockeye to chum salmon is less than 2.0 for 2 consecutive fishing periods.

During its 2004 board meeting, the board agreed that actions restricting the June fishery taken during the 2001 board cycle were unnecessary and caused undue hardship on the fishermen of the Area M. Changes to the *South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365<sup>8</sup>) were adopted. These changes included the following:

1. Fishery to begin at 6:00 AM on June 7;
2. Fishing periods are 88 hours in length separated by 32-hour closures. The fishery closes at 10:00 PM. on June 29. The last fishing period is 64 hours in duration;
3. Concurrent fishing time for all gear types;
4. Area open to fishing expanded to include the entire Unimak and Southwestern districts, East and West Pavlof Bay, and Bechevin Bay and Shumagin Islands sections; and

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<sup>7</sup> ADF&G. 2016. 2016-2019 Alaska Peninsula, Atka-Amlia, and Aleutian Islands areas commercial fishing regulations, 2016 edition. Alaska Department of Fish and Game, Juneau.

5. Eliminated all sockeye to chum salmon harvest ratio requirements.

In February 2007, the board made modifications to the *June Fishery Management Plan* including:

1. Changing the description of the Sanak Island Section;
2. Expanding the use of drift gillnets to the following portion of the Southwestern District; south and east of a line from Cape Pankof Light (54°39.60' N lat, 163°03.70' W long) to Thin Point (54°57.32' N lat, 162°33.50' W long); south of a line from Thin Point (54°57.32' N lat, 162°33.50' W long) to the northernmost tip of Stag Point (54°59.10' N lat, 162°18.10' W long) on Deer Island to the southernmost tip of Dolgoi Cape (55°03.15' N lat, 161°44.35' W long) on Dolgoi Island and south of the latitude of the northeastern tip of Dolgoi Island (55°07.50' N lat, 161°38.30' W long) (Appendix B1);
3. Allowing the use of salmon net pens; and
4. Allowing 2 Commercial Fisheries Entry Commission (CFEC) set gillnet permit holders aboard a registered set gillnet fishing vessel, to tow a second registered CFEC set gillnet vessel that has a second aggregate of set gillnet gear onboard.

In February 2013, the board made changes to the June fishing schedule. The fishing schedule for set gillnet gear did not change (beginning 6:00 AM June 7; four 88-hour fishing periods interspersed with 32-hour closures with a final 64-hour fishing period that closes at 10:00 PM on June 29). The June schedule for seine and drift gillnet gear was reduced by 64 hours with the initial opening delayed until June 10 (beginning 6:00 AM June 10; four 88-hour fishing periods interspersed with 32-hour closures).

In February 2016, the board made changes to the *South Unimak and Shumagin Islands June Salmon Management Plan* (5AAC 09.365<sup>8</sup>) and the *Post-June Salmon Management Plan for the South Alaska Peninsula* (5AAC 09.366<sup>9</sup>) by adopting regulation to limit the number of sockeye salmon harvested in the Western Alaska Salmon Stock Identification Program (WASSIP) described “Dolgoi Island Area” (statistical areas 283-15 through 283-26 and 284-36 through 284-42). From June 1 through July 25, there is a harvest limit of 191,000 sockeye salmon that can be harvested in these areas, based on fish ticket information. Once this harvest limit is reached, the portion of the West Pavlof Bay Section south of Black Point (statistical area 283-26) and waters of the Volcano Bay Section (statistical areas 284-37 through 284-39) will be closed to commercial salmon fishing through July 25. However, the portion of West Pavlof Bay Section south of Black Point (statistical area 283-26) may reopen to commercial salmon fishing on July 17.

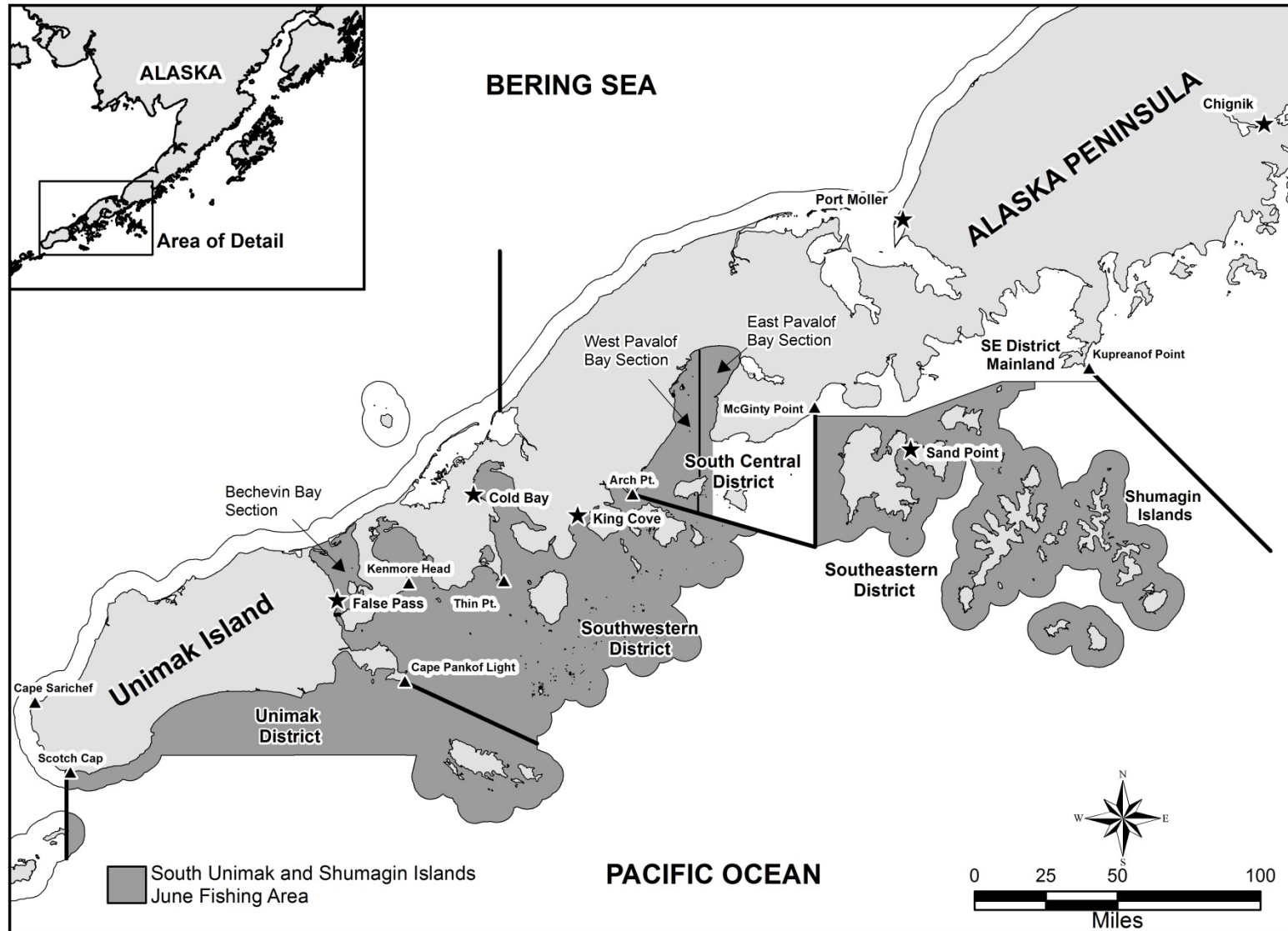
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<sup>8</sup> ADF&G. 2016. 2016-2019 Alaska Peninsula, Atka-Amlia, and Aleutian Islands areas commercial fishing regulations, 2016 edition. Alaska Department of Fish and Game, Juneau.

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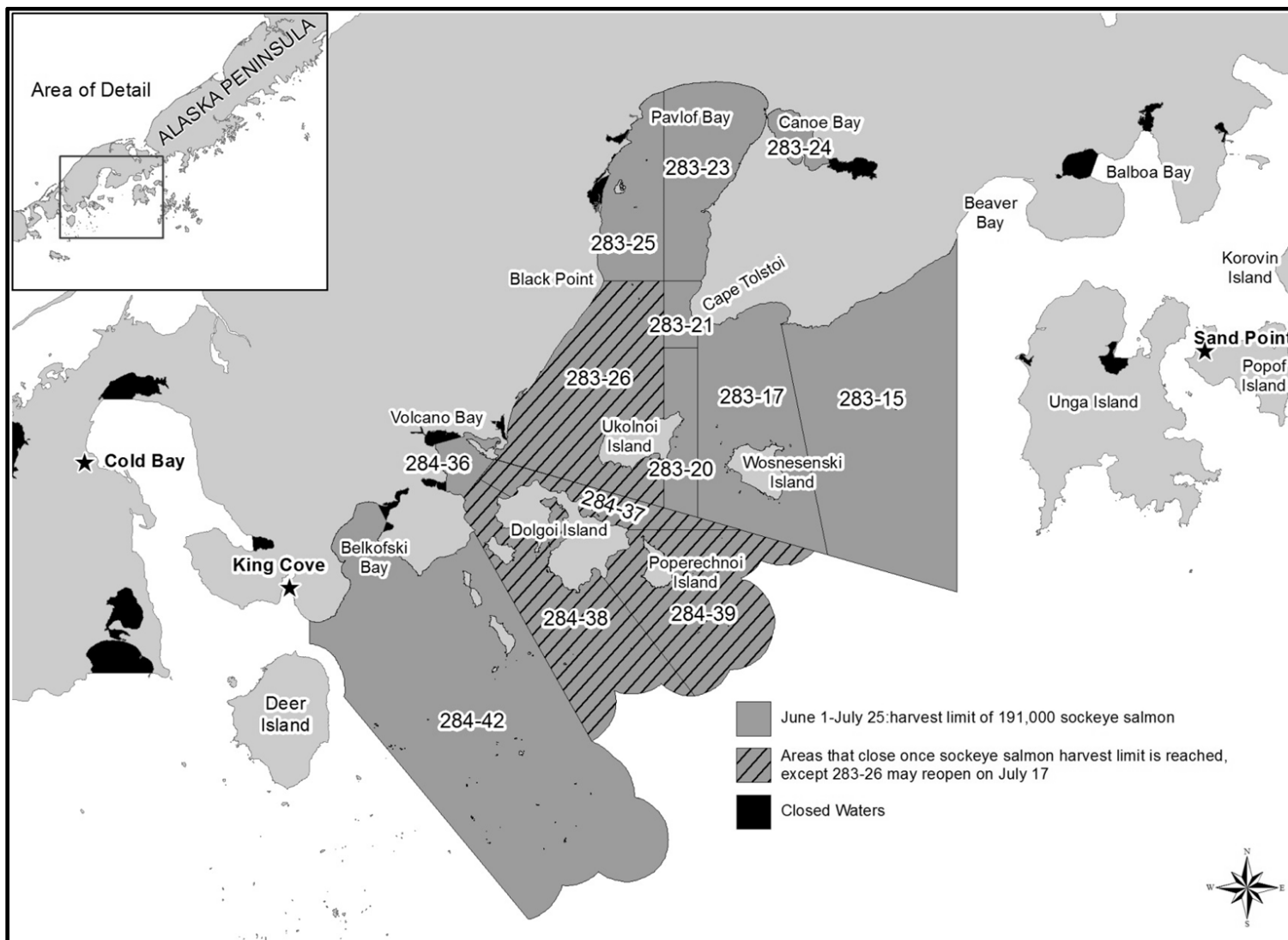
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Appendix B2.—Map of South Unimak and Shumagin Islands June fisheries with areas open to fishing defined.





Appendix B3.—Map depicting the statistical areas (283-15 through 283-26 and 284-36 through 284-42) that contribute to the sockeye salmon harvest cap of 191,000 fish for the Post-June Management Plan.



Appendix B4.–South Unimak and Shumagin Islands June commercial salmon harvest by species and year, 1977–2016.

Year	Permits	Landings	Number of salmon <sup>a</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1977	130	817	521	240,719	0	5,398	115,996	362,634
1978	159	1,569	534	486,811	3	89,942	121,892	699,182
1979	196	1,695	1,050	851,351	290	154,813	104,103	1,111,607
1980	225	2,044	3,193	3,206,275	853	1,526,306	508,865	5,245,492
1981	243	2,400	5,672	1,820,965	320	451,250	563,947	2,842,154
1982	251	2,612	7,131	2,118,701	1,241	1,718,825	1,095,044	4,940,942
1983	281	1,721	13,456	1,961,569	4	55,875	785,631	2,816,535
1984	280	1,117	3,854	1,388,203	14	919,876	337,120	2,649,067
1985	305	2,120	5,777	1,791,400	2,468	106,615	433,829	2,340,089
1986	298	1,486	1,895	471,397	2	291,989	351,769	1,117,052
1987	290	2,019	5,163	792,964	380	16,982	443,019	1,258,508
1988	301	1,777	4,064	756,687	255	180,224	526,711	1,467,941
1989	305	1,350	2,758	1,744,505	0	199,235	455,163	2,401,661
1990	320	2,718	10,332	1,344,529	1	515,047	518,545	2,388,454
1991	334	2,025	4,473	1,548,930	12	619,137	772,705	2,945,257
1992	321	1,925	3,760	2,457,856	4	642,090	426,203	3,529,913
1993	327	2,262	9,466	2,973,744	1,233	81,136	532,247	3,597,826
1994	324	2,751	7,590	1,461,263	1,579	2,492,514	582,165	4,545,111
1995	332	3,635	14,747	2,105,321	6,042	178,635	537,433	2,842,178
1996	313	2,676	2,845	1,028,970	13,219	377,684	359,820	1,782,538
1997	292	3,174	5,811	1,628,181	560	605,937	322,325	2,562,814
1998	283	3,657	2,696	1,288,725	476	474,340	245,619	2,011,856
1999	277	2,114	3,051	1,375,399	2	30,539	245,306	1,654,297
2000	278	3,001	2,849	1,251,228	304	360,029	239,357	1,853,767
2001	128	270	345	150,632	2	39,251	48,350	238,580
2002	181	1,301	2,443	591,106	4	76,251	378,817	1,048,621
2003	177	1,170	1,323	453,147	153	217,900	282,438	954,961
2004	190	2,260	4,423	1,348,460	621	359,916	482,310	2,195,730
2005	190	2,344	3,055	1,004,395	1,919	1,654,959	427,830	3,092,158
2006	188	2,412	4,497	932,291	2,629	1,332,319	299,827	2,571,563
2007	185	2,650	4,636	1,589,840	1,633	267,528	297,539	2,161,176
2008	196	2,591	2,957	1,713,575	178	1,971,268	410,932	4,098,910
2009	216	2,852	3,836	1,167,918	203	2,248,555	696,775	4,117,287
2010	225	2,162	3,118	818,865	27	332,435	271,700	1,426,145
2011	211	2,279	3,464	1,359,441	124	723,135	423,335	2,509,499
2012	227	3,092	6,371	1,528,033	12	259,612	392,305	2,186,333
2013	219	2,564	2,214	1,556,887	299	302,247	396,998	2,258,645
2014	228	2,586	2,289	659,070	2,478	180,207	386,657	1,230,701
2015	227	2,636	44,389	1,115,504	20,193	573,104	178,715	1,931,905
2016	223	2,493	6,113	1,292,860	1,716	2,510,048	270,614	4,081,351
1996–2015 Average								
	222	2,390	5,331	1,128,083	2,252	619,361	339,348	2,139,888
2006–2015 Average								
	212	2,582	7,777	1,244,142	2,778	819,041	375,478	2,565,242

<sup>a</sup> Does not include test fish harvests or personal use.

Appendix B5.—Number and type of commercial salmon permits fished in the South Unimak and Shumagin Islands June fisheries, and number and type of commercial salmon permits issued in Area M, by year, 1977–2016.

Year	Permits							
	Purse seine		Drift gillnet		Set gillnet		Total	
	Fished	Issued	Fished	Issued	Fished	Issued	Fished	Issued
1977	17	113	101	156	12	109	130	378
1978	23	123	120	158	16	114	159	395
1979	40	123	132	161	26	115	198	399
1980	68	125	129	163	29	115	226	403
1981	83	127	135	164	25	117	243	408
1982	90	127	138	164	23	117	251	408
1983	101	127	146	166	34	116	281	409
1984	101	126	147	165	32	115	280	406
1985	107	127	150	165	48	115	305	407
1986	99	125	156	165	43	116	298	406
1987	86	125	144	165	60	116	290	406
1988	90	124	148	163	63	116	301	403
1989	99	126	145	164	61	116	305	406
1990	109	126	153	164	58	116	320	406
1991	112	126	157	164	65	116	334	406
1992	112	125	141	164	68	116	321	405
1993	116	125	140	164	72	116	328	405
1994	114	124	145	164	65	116	324	404
1995	112	124	151	164	69	116	332	404
1996	99	124	147	164	67	116	313	404
1997	81	122	142	164	69	116	292	402
1998	64	122	145	164	74	115	283	401
1999	61	121	152	164	64	115	277	400
2000	70	121	149	161	59	115	278	397
2001	25	121	85	160	18	115	128	396
2002	36	122	86	160	59	115	181	397
2003	40	120	84	160	53	115	177	395
2004	38	122	95	161	57	115	190	398
2005	40	121	94	162	56	115	190	398
2006	36	121	85	162	67	116	188	399
2007	37	121	87	162	61	116	185	399
2008	38	121	109	162	49	116	196	399
2009	42	121	116	162	58	116	216	399
2010	52	121	117	162	56	116	225	399
2011	46	121	116	162	49	116	211	399
2012	45	121	121	162	61	116	227	399
2013	45	121	120	162	54	116	219	399
2014	46	121	125	162	58	116	229	399
2015	47	121	117	162	63	116	227	399
2016	44	121	119	162	60	116	223	399
1996–2015 Average								
	49	121	115	162	58	116	222	399
2006–2015 Average								
	43	121	111	162	58	116	212	399

<sup>a</sup> Issued permit information is from the Commercial Fisheries Entry Commission.

Appendix B6.—South Unimak June commercial salmon harvest by species and year, 1977–2016.

Year	Permits	Landings	Number of salmon <sup>a</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1977	118	740	393	194,807	0	3,397	94,097	292,694
1978	140	1,337	267	418,935	3	47,380	103,413	569,998
1979	156	1,303	575	672,212	38	49,000	63,150	784,975
1980	188	1,666	2,927	2,731,148	853	1,140,611	458,499	4,334,038
1981	225	2,096	4,455	1,470,393	83	325,002	509,876	2,309,809
1982	225	2,313	5,577	1,668,153	1,241	1,032,154	933,728	3,640,853
1983	253	1,410	8,179	1,545,075	1	40,441	616,354	2,210,050
1984	226	814	2,024	1,131,365	0	470,688	227,913	1,831,990
1985	255	1,596	4,101	1,454,969	2	69,811	324,825	1,853,708
1986	236	1,093	1,363	315,370	1	150,674	252,721	720,129
1987	229	1,738	4,017	652,397	380	11,342	405,955	1,074,091
1988	211	1,144	2,125	474,457	11	86,678	464,765	1,028,036
1989	266	1,035	2,263	1,347,547	0	154,168	407,635	1,911,613
1990	266	2,133	8,464	1,088,944	1	444,249	455,044	1,996,702
1991	267	1,628	3,066	1,215,658	5	500,922	670,103	2,389,754
1992	273	1,597	2,373	2,046,022	3	501,127	323,891	2,873,416
1993	245	1,681	4,587	2,366,573	506	37,735	381,941	2,791,342
1994	265	1,927	4,468	1,001,250	1,271	1,731,741	374,409	3,113,139
1995	241	2,575	7,850	1,451,490	5,102	119,094	342,307	1,925,843
1996	230	1,797	1,228	572,495	11,730	146,799	129,889	862,141
1997	225	2,299	3,041	1,179,179	501	332,262	196,016	1,710,999
1998	196	2,432	1,259	974,628	312	125,906	195,454	1,297,559
1999	224	1,741	2,258	1,106,208	1	20,302	186,886	1,315,655
2000	242	2,587	2,064	892,016	303	210,521	168,888	1,273,792
2001	105	243	134	121,547	2	31,812	36,099	189,594
2002	119	783	433	356,157	3	33,789	201,211	591,593
2003	116	720	373	335,903	14	90,161	121,169	547,620
2004 <sup>b</sup>	126	1,325	670	531,955	159	78,808	130,626	742,218
2005	123	1,190	790	437,443	56	403,815	143,799	985,903
2006	121	1,239	1,472	491,053	432	186,096	96,016	775,069
2007 <sup>c</sup>	126	1,513	976	737,642	151	57,032	153,334	949,135
2008	139	1,871	1,317	1,064,570	152	800,265	284,449	2,150,753
2009	150	1,627	1,394	595,221	6	946,823	200,783	1,744,227
2010	152	1,394	1,474	487,880	1	190,649	100,427	780,431
2011	155	1,602	2,257	937,168	17	475,289	231,081	1,645,812
2012	156	2,253	4,554	899,710	10	169,896	211,700	1,285,870
2013	153	1,811	1,063	1,049,336	143	130,987	188,952	1,370,481
2014	168	1,538	1,021	419,731	2,056	127,390	220,436	770,634
2015	163	1,299	6,643	618,485	740	67,604	42,306	735,778
2016	166	1,559	1,860	876,963	1,528	1,836,319	148,850	2,865,520
1996–2015 average								
	159	1,563	1,721	690,416	839	231,310	161,976	1,086,263
2006–2015 average								
	148	1,615	2,217	730,080	371	315,203	172,948	1,220,819

<sup>a</sup> Does not include test fish harvests or personal use.<sup>b</sup> In 2004 fishing area was increased in the South Unimak fishery.<sup>c</sup> Starting in 2007 drift gillnet area was increased to include the outside waters of the Southwestern District.

Appendix B7.—South Unimak June commercial salmon harvest, all gear combined, by species and day, 2016.

Date	Permits	Landings	Number of salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun	13	18	14	11,118	0	37	30	11,199
8-Jun	10	15	8	8,076	0	0	3	8,087
9-Jun	9	9	3	4,047	0	6	34	4,090
10-Jun	95	128	123	68,036	59	71,892	6,905	147,015
11-Jun	74	78	127	56,119	169	14,008	10,550	80,973
12-Jun	84	107	236	73,061	1,115	60,680	10,715	145,807
13-Jun	92	114	150	78,208	66	77,237	9,001	164,662
14-Jun	22	33	5	19,696	0	87	150	19,938
15-Jun	133	175	139	103,437	22	210,327	19,109	333,034
16-Jun	85	98	64	34,807	67	21,863	2,857	59,658
17-Jun	120	165	248	76,259	0	79,658	8,946	165,111
18-Jun	90	103	63	35,824	0	20,852	2,313	59,052
19-Jun	11	18	1	8,946	0	54	17	9,018
20-Jun	107	157	69	61,243	0	122,644	2,988	186,944
21-Jun <sup>b</sup>	74	90	136	76,295	0	174,874	3,276	254,581
22-Jun <sup>b</sup>	44	49	17	17,639	0	60,064	1,595	79,315
23-Jun <sup>b</sup>	33	36	42	24,929	0	87,619	2,395	114,985
24-Jun <sup>b</sup>	6	6	0	2,214	0	70	40	2,324
25-Jun <sup>b</sup>	37	39	22	28,116	0	229,443	5,519	263,100
26-Jun <sup>b</sup>	27	32	111	28,515	0	255,917	15,843	300,386
27-Jun <sup>b</sup>	32	36	243	29,915	0	186,092	32,619	248,869
28-Jun <sup>b</sup>	32	45	31	26,373	30	162,885	13,930	203,249
29-Jun <sup>b</sup>	7	8	8	4,090	0	10	15	4,123
30-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
Total	166	1,559	1,860	876,963	1,528	1,836,319	148,850	2,865,520

<sup>a</sup> Closed to commercial salmon fishing.

<sup>b</sup> “Dolgoi Island Area” sockeye salmon harvest limit of 191,000 fish reached and commercial fishing was restricted through July 25, except stat area 283-26, which reopens July 17.

Appendix B8.—South Unimak June commercial purse seine salmon harvest by species and day, 2016.

Date	Permits	Landings	Number of salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
8-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
9-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
10-Jun	8	8	55	15,190	16	68,739	2,200	86,200
11-Jun	9	10	44	25,678	169	10,591	3,927	40,409
12-Jun	10	11	137	24,052	1,115	58,201	5,174	88,679
13-Jun	16	18	110	29,808	66	59,972	2,481	92,437
14-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
15-Jun	15	21	79	34,769	22	187,686	13,138	235,694
16-Jun	7	8	33	4,402	2	12,291	786	17,514
17-Jun	15	21	185	24,290	0	66,840	4,174	95,489
18-Jun	11	11	34	8,342	0	6,108	129	14,613
19-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
20-Jun	12	14	27	15,610	0	103,994	1,867	121,498
21-Jun <sup>b</sup>	18	19	115	64,628	0	159,333	2,026	226,102
22-Jun <sup>b</sup>	9	9	16	6,611	0	49,068	663	56,358
23-Jun <sup>b</sup>	13	13	42	18,676	0	86,002	1,963	106,683
24-Jun <sup>a,b</sup>	—	—	—	—	—	—	—	—
25-Jun <sup>b</sup>	14	14	19	17,270	0	225,232	5,101	247,622
26-Jun <sup>b</sup>	17	22	110	26,764	0	252,882	15,678	295,434
27-Jun <sup>b</sup>	16	16	238	23,601	0	185,614	32,589	242,042
28-Jun <sup>b</sup>	18	18	27	14,088	27	162,552	13,911	190,605
29-Jun <sup>a,b</sup>	—	—	—	—	—	—	—	—
30-Jun <sup>a,b</sup>	—	—	—	—	—	—	—	—
Total	25	233	1,271	353,779	1,417	1,695,105	105,807	2,157,379

<sup>a</sup> Closed to commercial salmon fishing.

<sup>b</sup> “Dolgoi Island Area” sockeye salmon harvest limit of 191,000 fish reached and commercial fishing was restricted through July 25, except stat area 283-26 which reopens July 17.

Appendix B9.—South Unimak June commercial drift gillnet salmon harvest by species and day, 2016.

Date	Permits	Landings	Number of salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
8-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
9-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
10-Jun	76	106	64	43,123	43	3,134	4,668	51,032
11-Jun	65	68	83	30,441	0	3,417	6,623	40,564
12-Jun	61	72	97	33,065	0	2,458	5,489	41,109
13-Jun	66	76	40	37,236	0	17,265	6,508	61,049
14-Jun	5	5	0	2,555	0	48	119	2,722
15-Jun	100	128	54	55,342	0	22,536	5,935	83,867
16-Jun	78	90	31	30,405	65	9,572	2,071	42,144
17-Jun	90	121	59	41,069	0	12,818	4,714	58,660
18-Jun	69	78	14	19,842	0	14,741	2,160	36,757
19-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
20-Jun	81	113	16	29,022	0	18,635	1,073	48,746
21-Jun <sup>b</sup>	56	71	21	11,667	0	15,541	1,250	28,479
22-Jun <sup>b</sup>	27	30	1	7,169	0	10,986	877	19,033
23-Jun <sup>b</sup>	15	15	—	3,553	0	1,593	382	5,528
24-Jun <sup>a,b</sup>	—	—	—	—	—	—	—	—
25-Jun <sup>b</sup>	15	16	3	3,698	0	3,817	359	7,877
26-Jun <sup>b</sup>	10	10	1	1,751	0	3,035	165	4,952
27-Jun <sup>a,b</sup>	—	—	—	—	—	—	—	—
28-Jun <sup>a,b</sup>	—	—	—	—	—	—	—	—
29-Jun <sup>a,b</sup>	—	—	—	—	—	—	—	—
30-Jun <sup>a,b</sup>	—	—	—	—	—	—	—	—
Total	119	999	484	349,938	108	139,596	42,393	532,519

<sup>a</sup> Closed to commercial salmon fishing.

<sup>b</sup> “Dolgoi Island Area” sockeye salmon harvest limit of 191,000 fish reached and commercial fishing was restricted through July 25, except stat area 283-26, which reopens July 17.

Appendix B10.–South Unimak June commercial set gillnet salmon harvest by species and day, 2016.

Date	Permits	Landings	Number of salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun	13	18	14	11,118	0	37	30	11,199
8-Jun	10	15	8	8,076	0	0	3	8,087
9-Jun	9	9	3	4,047	0	6	34	4,090
10-Jun	11	14	4	9,723	0	19	37	9,783
11-Jun <sup>a</sup>	–	–	–	–	–	–	–	–
12-Jun	13	24	2	15,944	0	21	52	16,019
13-Jun	10	20	0	11,164	0	0	12	11,176
14-Jun	17	28	5	17,141	0	39	31	17,216
15-Jun	18	26	6	13,326	0	105	36	13,473
16-Jun <sup>a</sup>	–	–	–	–	–	–	–	–
17-Jun	15	23	4	10,900	0	0	58	10,962
18-Jun	10	14	15	7,640	0	3	24	7,682
19-Jun	11	18	1	8,946	0	54	17	9,018
20-Jun	14	30	26	16,611	0	15	48	16,700
21-Jun	–	–	–	–	–	–	–	–
22-Jun <sup>b</sup>	8	10	0	3,859	0	10	55	3,924
23-Jun <sup>b</sup>	5	8	0	2,700	0	24	50	2,774
24-Jun <sup>b</sup>	6	6	0	2,214	0	70	40	2,324
25-Jun <sup>b</sup>	8	9	0	7,148	0	394	59	7,601
26-Jun <sup>a,b</sup>	–	–	–	–	–	–	–	–
27-Jun <sup>b</sup>	16	20	5	6,314	0	478	30	6,827
28-Jun <sup>b</sup>	12	25	4	11,638	0		11	11,653
29-Jun <sup>b</sup>	7	8	8	4,090	0	10	15	4,123
30-Jun <sup>a,b</sup>	–	–	–	–	–	–	–	–
Total	22	325	105	172,599	0	1,285	642	174,631

<sup>a</sup> Closed to commercial salmon fishing.

<sup>b</sup> “Dolgoi Island Area” sockeye salmon harvest limit of 191,000 fish reached and commercial fishing was restricted through July 25, except stat area 283-26, which reopens July 17.



Appendix B11.–Shumagin Islands June commercial salmon harvest by species and year, 1977–2016.

Year	Permit	Landings	Number of Salmon <sup>a</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1977	25	77	128	45,912	0	2,001	21,899	69,940
1978	30	232	267	67,876	0	42,562	18,479	129,184
1979	48	411	475	182,816	362	107,862	43,133	334,648
1980	54	378	266	475,127	0	385,695	50,366	911,454
1981	43	304	1,217	350,572	237	126,248	54,071	532,345
1982	48	299	1,554	450,548	0	686,671	161,316	1,300,089
1983	69	311	5,277	416,494	3	15,434	169,277	606,485
1984	99	303	1,830	256,838	14	449,188	109,207	817,077
1985	110	524	1,676	336,431	2,466	36,804	109,004	486,381
1986	72	393	532	156,027	1	141,315	99,048	396,923
1987	97	281	1,146	140,567	0	5,640	37,064	184,417
1988	97	633	1,939	282,230	244	93,546	61,946	439,905
1989	104	315	495	396,958	0	45,067	47,528	490,048
1990	95	585	1,868	255,585	0	70,798	63,501	391,752
1991	101	397	1,407	333,272	7	118,215	102,602	555,503
1992	103	328	1,387	411,834	1	140,963	102,312	656,497
1993	106	581	4,879	607,171	727	43,401	150,306	806,484
1994	106	824	3,122	460,013	308	760,773	207,756	1,431,972
1995	102	1,060	6,897	653,831	940	59,541	195,126	916,335
1996	111	879	1,617	456,475	1,489	230,885	229,931	920,397
1997	99	875	2,770	449,002	59	273,675	126,309	851,815
1998	91	1,225	1,437	314,097	164	348,434	50,165	714,297
1999	86	373	793	269,191	1	10,237	58,420	338,642
2000	86	414	785	359,212	1	149,508	70,469	579,975
2001	23	27	211	29,085	0	7,439	12,251	48,986
2002	64	518	2,010	234,949	1	42,462	177,606	457,028
2003	65	450	950	117,244	139	127,739	161,269	407,341
2004	67	935	3,753	816,118	462	281,108	351,683	1,453,124
2005	69	1,154	2,265	566,952	1,863	1,251,144	284,031	2,106,255
2006	69	1,173	3,025	441,238	2,197	1,146,223	203,811	1,796,494
2007	73	1,137	3,660	852,198	1,482	210,496	144,205	1,212,041
2008	64	720	1,640	649,005	26	1,171,003	126,483	1,948,157
2009	69	1,225	2,442	572,697	197	1,301,732	495,992	2,373,060
2010	77	768	1,644	330,985	26	141,786	171,273	645,714
2011	65	677	1,207	422,273	107	247,846	192,254	863,687
2012	76	839	1,817	628,308	2	89,716	180,605	900,448
2013	78	753	1,151	507,551	156	171,260	208,046	888,164
2014	79	1,050	1,269	239,482	422	52,870	169,703	463,746
2015	88	1,339	37,746	497,019	19,453	505,500	136,409	1,196,127
2016	74	935	4,253	415,897	188	673,729	121,764	1,215,831
1996–2015 average								
	75	827	3,610	437,654	1,412	388,053	177,546	1,008,275
2006–2015 average								
	74	968	5,560	514,076	2,407	503,843	202,878	1,228,764

<sup>a</sup> Does not include test fish harvests or personal use.

Appendix B12.—Shumagin Islands June commercial salmon harvest, all gear combined, by species and day, 2016.

Date	Permits	Landings	Number of salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun	8	17	0	2,827	0	11	53	2,891
8-Jun	10	19	5	4,425	0	70	197	4,697
9-Jun	11	18	0	5,075	0	18	98	5,191
10-Jun	31	44	513	18,766	32	16,825	9,716	45,852
11-Jun	14	14	425	10,957	0	18,313	12,234	41,929
12-Jun	37	67	205	16,205	2	19,454	6,619	42,485
13-Jun	39	56	143	18,070	1	17,825	5,197	41,236
14-Jun	28	56	2	15,832	0	1,151	783	17,768
15-Jun	45	60	487	26,399	0	49,482	11,474	87,842
16-Jun	6	6	65	4,491	0	21,030	3,351	28,937
17-Jun	47	76	563	42,689	1	73,981	7,558	124,792
18-Jun	27	36	72	10,332	0	2,108	851	13,363
19-Jun	27	38	14	13,747	0	1,665	913	16,339
20-Jun	49	80	334	51,397	23	82,788	8,031	142,573
21-Jun	12	12	167	13,544	0	51,078	3,679	68,468
22-Jun	43	61	181	28,550	7	99,561	14,301	142,600
23-Jun	33	45	214	17,513	0	24,305	6,215	48,247
24-Jun	14	14	7	4,946	0	451	402	5,806
25-Jun	28	34	601	20,591	7	101,472	13,715	136,386
26-Jun	16	18	90	17,606	4	20,569	4,794	43,063
27-Jun	37	53	76	32,683	60	41,138	5,739	79,696
28-Jun	46	78	87	30,831	51	29,931	4,954	65,854
29-Jun	20	33	2	8,421	—	503	890	9,816
30-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
Total	74	935	4,253	415,897	188	673,729	121,764	1,215,831

<sup>a</sup> Closed to commercial salmon fishing.

Appendix B13.–Shumagin Islands June commercial purse seine salmon harvest by species and day, 2016.

Date	Permits	Landings	Number of salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun <sup>a</sup>	–	–	–	–	–	–	–	–
8-Jun <sup>a</sup>	–	–	–	–	–	–	–	–
9-Jun <sup>a</sup>	–	–	–	–	–	–	–	–
10-Jun	16	18	511	13,553	32	16,747	9,307	40,150
11-Jun	14	14	425	10,957	0	18,313	12,234	41,929
12-Jun	12	12	180	3,634	1	18,185	4,824	26,824
13-Jun	10	10	127	3,172	0	17,512	4,132	24,943
14-Jun <sup>a</sup>	–	–	–	–	–	–	–	–
15-Jun	21	21	487	18,740	0	49,162	11,024	79,413
16-Jun	6	6	65	4,491	0	21,030	3,351	28,937
17-Jun	20	23	563	29,809	1	73,593	6,922	110,888
18-Jun	5	5	70	2,167	0	1,481	480	4,198
19-Jun <sup>a</sup>	–	–	–	–	–	–	–	–
20-Jun	20	22	331	35,580	23	81,974	7,182	125,090
21-Jun	12	12	167	13,544	0	51,078	3,679	68,468
22-Jun	19	20	176	18,829	7	98,047	13,562	130,621
23-Jun	12	12	214	8,622	0	22,442	5,349	36,627
24-Jun <sup>a</sup>	–	–	–	–	–	–	–	–
25-Jun	20	22	600	15,546	7	101,360	13,438	130,951
26-Jun	16	18	90	17,606	4	20,569	4,794	43,063
27-Jun	14	15	75	25,350	57	39,789	5,358	70,629
28-Jun	15	16	84	19,189	51	28,468	3,685	51,477
29-Jun <sup>a</sup>	–	–	–	–	–	–	–	–
30-Jun <sup>a</sup>	–	–	–	–	–	–	–	–
Total	32	246	4,165	240,789	183	659,750	109,321	1,014,208

<sup>a</sup> Closed to commercial salmon fishing.

Appendix B14.—Shumagin Islands June commercial set gillnet salmon harvest by species and day, 2016.

Date	Permits	Landings	Number of salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun	8	17	0	2,827	0	11	53	2,891
8-Jun	10	19	5	4,425	0	70	197	4,697
9-Jun	11	18	0	5,075	0	18	98	5,191
10-Jun	15	26	2	5,213	0	78	409	5,702
11-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
12-Jun	25	55	25	12,571	1	1,269	1,795	15,661
13-Jun	29	46	16	14,898	1	313	1,065	16,293
14-Jun	28	56	2	15,832	0	1,151	783	17,768
15-Jun	24	39	0	7,659	0	320	450	8,429
16-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
17-Jun	27	53	0	12,880	0	388	636	13,904
18-Jun	22	31	2	8,165	0	627	371	9,165
19-Jun	27	38	14	13,747	0	1,665	913	16,339
20-Jun	29	58	3	15,817	0	814	849	17,483
21-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
22-Jun	24	41	5	9,721	0	1,514	739	11,979
23-Jun	21	33	0	8,891	0	1,863	866	11,620
24-Jun	14	14	7	4,946	0	451	402	5,806
25-Jun	8	12	1	5,045	0	112	277	5,435
26-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
27-Jun	23	38	1	7,333	3	1,349	381	9,067
28-Jun	31	62	3	11,642	0	1,463	1,269	14,377
29-Jun	20	33	2	8,421	0	503	890	9,816
30-Jun <sup>a</sup>	—	—	—	—	—	—	—	—
Total	42	689	88	175,108	5	13,979	12,443	201,623

<sup>a</sup> Closed to commercial salmon fishing.

Appendix B15.—South Unimak June fishery commercial sockeye salmon harvests in number of fish and percent by gear type and year, 1977–2016.

Year	Purse seine <sup>a</sup>		Drift gillnet <sup>a</sup>		Set gillnet <sup>a</sup>		Total
	Number	Percent	Number	Percent	Number	Percent	
1977	29,698	15.2	164,165	84.3	944	0.5	194,807
1978	77,221	18.4	339,295	81.0	2,419	0.6	418,935
1979	474,381	70.6	196,482	29.2	1,349	0.2	672,212
1980	2,086,038	76.4	631,975	23.1	13,135	0.5	2,731,148
1981	745,747	50.7	693,166	47.1	31,480	2.1	1,470,393
1982	902,804	54.1	745,616	44.7	19,733	1.2	1,668,153
1983	935,003	60.5	599,152	38.8	10,920	0.7	1,545,075
1984	716,685	63.3	403,582	35.7	11,098	1.0	1,131,365
1985	891,775	61.3	553,558	38.0	9,636	0.7	1,454,969
1986	147,380	46.7	162,950	51.7	5,040	1.6	315,370
1987	238,193	36.5	401,215	61.5	12,989	2.0	652,397
1988	141,410	29.8	317,818	67.0	15,229	3.2	474,457
1989	800,949	59.4	512,522	38.0	34,076	2.5	1,347,547
1990 <sup>b</sup>	619,391	56.9	452,484	41.6	17,069	1.6	1,088,944
1991	650,461	53.5	539,490	44.4	25,707	2.1	1,215,658
1992	1,192,202	58.3	765,752	37.4	88,068	4.3	2,046,022
1993	1,397,481	59.1	902,788	38.1	66,304	2.8	2,366,573
1994	573,247	57.3	371,103	37.1	56,900	5.7	1,001,250
1995	611,453	42.1	792,940	54.6	47,097	3.2	1,451,490
1996	127,366	22.2	421,882	73.7	23,247	4.1	572,495
1997	174,536	14.8	896,638	76.0	108,005	9.2	1,179,179
1998	70,263	7.2	856,265	87.9	48,100	4.9	974,628
1999	232,779	21.0	836,876	75.7	36,553	3.3	1,106,208
2000	114,831	12.9	722,855	81.0	54,330	6.1	892,016
2001	17,159	14.1	95,547	78.6	8,841	7.3	121,547
2002	72,569	20.4	254,657	71.5	28,931	8.1	356,157
2003	58,813	17.5	245,657	73.1	31,433	9.4	335,903
2004	90,465	17.0	369,011	69.4	72,479	13.6	531,955
2005	89,607	20.5	227,206	51.9	120,630	27.6	437,443
2006	114,760	23.4	228,924	46.6	147,369	30.0	491,053
2007	108,659	14.7	560,544	76.0	68,439	9.3	737,642
2008	256,971	24.1	762,898	71.7	44,701	4.2	1,064,570
2009	174,467	29.3	350,382	58.9	70,372	11.8	595,221
2010	171,300	35.1	285,070	58.4	31,510	6.5	487,880
2011	358,476	38.3	542,148	57.8	36,544	3.9	937,168
2012	175,964	19.6	683,836	76.0	39,910	4.4	899,710
2013	206,923	19.7	796,574	75.9	45,839	4.4	1,049,336
2014	86,550	20.6	251,114	59.8	82,067	19.6	419,731
2015	305,014	49.3	130,580	21.1	182,891	29.6	618,485
2016	353,779	40.3	350,585	40.0	172,599	19.7	876,963
1996–2015 average							
	150,374	22.1	475,933	67.1	64,110	10.9	690,416
2006–2015 average							
	195,908	27.4	459,207	60.2	74,964	12.4	730,080

<sup>a</sup> Does not include test fish harvests or personal use fish.

<sup>b</sup> Gear depth limitations in effect beginning in 1990.

Appendix B16.–South Unimak June fishery commercial chum salmon harvests in number of fish and percent by gear type and year, 1977–2016.

Year	Purse seine <sup>a</sup>		Drift gillnet <sup>a</sup>		Set gillnet <sup>a</sup>		Total
	Number	Percent	Number	Percent	Number	Percent	
1977	9,852	10.5	84,052	89.3	193	0.2	94,097
1978	10,210	9.9	93,115	90.0	88	0.1	103,413
1979	19,007	30.1	44,051	69.8	92	0.1	63,150
1980	363,360	79.2	94,900	20.7	239	0.1	458,499
1981	323,817	63.5	184,586	36.2	1,473	0.3	509,876
1982	430,661	46.1	501,282	53.7	1,785	0.2	933,728
1983	405,903	65.9	209,600	34.0	851	0.1	616,354
1984	137,110	60.2	90,498	39.7	305	0.1	227,913
1985	125,813	38.7	198,361	61.1	651	0.2	324,825
1986	110,666	43.8	141,299	55.9	756	0.3	252,721
1987	155,447	38.3	247,934	61.1	2,574	0.6	405,955
1988	155,895	33.5	305,967	65.8	2,903	0.6	464,765
1989	212,310	52.1	192,650	47.3	2,675	0.7	407,635
1990 <sup>b</sup>	263,532	57.9	190,002	41.8	1,510	0.3	455,044
1991	410,034	61.2	256,132	38.2	3,937	0.6	670,103
1992	204,717	63.2	115,401	35.6	3,773	1.2	323,891
1993	252,798	66.2	120,820	31.6	8,323	2.2	381,941
1994	239,286	63.9	129,530	34.6	5,593	1.5	374,409
1995	161,199	47.1	172,715	50.5	8,393	2.5	342,307
1996	41,516	32.0	86,103	66.3	2,270	1.7	129,889
1997	58,999	30.1	127,646	65.1	9,371	4.8	196,016
1998	26,777	13.7	162,566	83.2	6,111	3.1	195,454
1999	52,314	28.0	128,723	68.9	5,849	3.1	186,886
2000	46,728	27.7	114,812	68.0	7,348	4.4	168,888
2001	5,701	15.8	28,651	79.4	1,747	4.8	36,099
2002	46,036	22.9	145,079	72.1	10,096	5.0	201,211
2003	23,435	19.3	92,730	76.5	5,004	4.1	121,169
2004	18,142	13.9	109,227	83.6	3,257	2.5	130,626
2005	26,253	18.3	112,144	78.0	5,402	3.8	143,799
2006	7,479	7.8	83,752	87.2	4,785	5.0	96,016
2007	34,534	22.5	115,461	75.3	3,339	2.2	153,334
2008	96,576	34.0	181,758	63.9	6,115	2.1	284,449
2009	85,945	42.8	105,764	52.7	9,074	4.5	200,783
2010	25,144	25.0	70,358	70.1	4,925	4.9	100,427
2011	142,028	61.5	74,990	32.5	14,063	6.1	231,081
2012	75,087	35.5	134,350	63.5	2,263	1.1	211,700
2013	83,100	44.0	103,912	55.0	1,940	1.0	188,952
2014	113,157	51.3	99,003	44.9	8,276	3.8	220,436
2015	6,038	14.3	35,285	83.4	983	2.3	42,306
2016	105,807	71.1	42,401	28.5	642	0.4	148,850
1996–2015 average							
	50,749	28.0	105,616	68.5	5,611	3.5	161,976
2006–2015 average							
	66,909	33.9	100,463	62.9	5,576	3.3	172,948

<sup>a</sup> Does not include test fish or personal use harvests.

<sup>b</sup> Gear depth limitations in effect beginning in 1990.

Appendix B17.—Shumagin Islands June fishery commercial sockeye salmon harvests in number of fish and percent by gear type and year, 1977–2016.

Year	Purse seine <sup>a</sup>		Set gillnet <sup>a</sup>		Total
	Number	Percent	Number	Percent	
1977	43,579	94.9	2,333	5.1	45,912
1978	65,826	97.0	2,050	3.0	67,876
1979	165,605	92.4	13,534	7.6	179,139
1980	458,069	96.4	17,058	3.6	475,127
1981	332,300	94.8	18,272	5.2	350,572
1982	438,420	97.3	12,128	2.7	450,548
1983	405,757	97.4	10,737	2.6	416,494
1984	243,136	94.7	13,702	5.3	256,838
1985	318,878	94.8	17,553	5.2	336,431
1986	132,580	85.0	23,447	15.0	156,027
1987	106,799	76.0	33,768	24.0	140,567
1988	203,391	72.1	78,839	27.9	282,230
1989	360,860	90.9	36,098	9.1	396,958
1990 <sup>b</sup>	217,968	85.3	37,617	14.7	255,585
1991	268,539	80.6	64,733	19.4	333,272
1992	374,258	90.9	37,576	9.1	411,834
1993	531,258	87.5	75,913	12.5	607,171
1994	346,923	75.4	113,090	24.6	460,013
1995	532,952	81.5	120,879	18.5	653,831
1996	342,317	75.0	114,158	25.0	456,475
1997	338,803	75.5	110,199	24.5	449,002
1998	155,216	49.4	158,881	50.6	314,097
1999	200,108	74.3	69,083	25.7	269,191
2000	277,974	77.4	81,238	22.6	359,212
2001	24,705	84.9	4,380	15.1	29,085
2002	180,135	76.7	54,814	23.3	234,949
2003	82,608	70.5	34,636	29.5	117,244
2004	608,775	74.6	207,343	25.4	816,118
2005	347,114	61.2	219,838	38.8	566,952
2006	302,729	68.6	138,509	31.4	441,238
2007	707,696	83.0	144,502	17.0	852,198
2008	556,696	85.8	92,309	14.2	649,005
2009	423,423	73.9	149,274	26.1	572,697
2010	268,986	81.3	61,999	18.7	330,985
2011	358,698	84.9	63,575	15.1	422,273
2012	551,760	87.8	76,548	12.2	628,308
2013	437,689	86.2	69,862	13.8	507,551
2014	133,462	55.7	106,020	44.3	239,482
2015	282,466	56.8	214,553	43.2	497,019
2016	240,789	57.9	175,108	42.1	415,897
1996–2015 average					
	329,068	74.2	108,586	25.8	437,654
2006–2015 average					
	402,361	76.4	111,715	23.6	514,076

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> Gear depth limitations in effect beginning in 1990.

Appendix B18.—Shumagin Islands June fishery commercial chum salmon harvests in number of fish and percent by gear type and year, 1977–2016.

Year	Purse seine <sup>a</sup>		Set gillnet <sup>a</sup>		Total
	Number	Percent	Number	Percent	
1977	21,678	99.0	221	1.0	21,899
1978	17,793	96.3	686	3.7	18,479
1979	39,196	95.7	1,757	4.3	40,953
1980	48,990	97.3	1,376	2.7	50,366
1981	53,351	98.7	720	1.3	54,071
1982	159,518	98.9	1,798	1.1	161,316
1983	168,618	99.6	659	0.4	169,277
1984	108,495	99.3	712	0.7	109,207
1985	104,619	96.0	4,385	4.0	109,004
1986	94,080	95.0	4,968	5.0	99,048
1987	34,617	93.4	2,447	6.6	37,064
1988	51,154	82.6	10,792	17.4	61,946
1989	44,498	93.6	3,030	6.4	47,528
1990 <sup>b</sup>	59,111	93.1	4,390	6.9	63,501
1991	95,756	93.3	6,846	6.7	102,602
1992	98,509	96.3	3,803	3.7	102,312
1993	147,160	97.9	3,146	2.1	150,306
1994	200,577	96.5	7,179	3.5	207,756
1995	182,894	93.7	12,232	6.3	195,126
1996	220,449	95.9	9,482	4.1	229,931
1997	118,418	93.8	7,891	6.2	126,309
1998	39,464	78.7	10,701	21.3	50,165
1999	54,439	93.2	3,981	6.8	58,420
2000	66,580	94.5	3,889	5.5	70,469
2001	11,402	93.1	849	6.9	12,251
2002	168,405	94.8	9,201	5.2	177,606
2003	154,445	95.8	6,824	4.2	161,269
2004	336,753	95.8	14,930	4.2	351,683
2005	261,261	92.0	22,770	8.0	284,031
2006	183,192	89.9	20,619	10.1	203,811
2007	133,379	92.5	10,826	7.5	144,205
2008	112,924	89.3	13,559	10.7	126,483
2009	451,820	91.1	44,172	8.9	495,992
2010	159,153	92.9	12,120	7.1	171,273
2011	181,291	94.3	10,963	5.7	192,254
2012	169,989	94.1	10,616	5.9	180,605
2013	197,600	95.0	10,446	5.0	208,046
2014	147,710	87.0	21,993	13.0	169,703
2015	126,339	92.6	10,070	7.4	136,409
2016	109,321	89.8	12,443	10.2	121,764
1996–2015 average					
	164,751	92.3	12,795	7.7	177,546
2006–2015 average					
	186,340	91.9	16,538	8.1	202,878

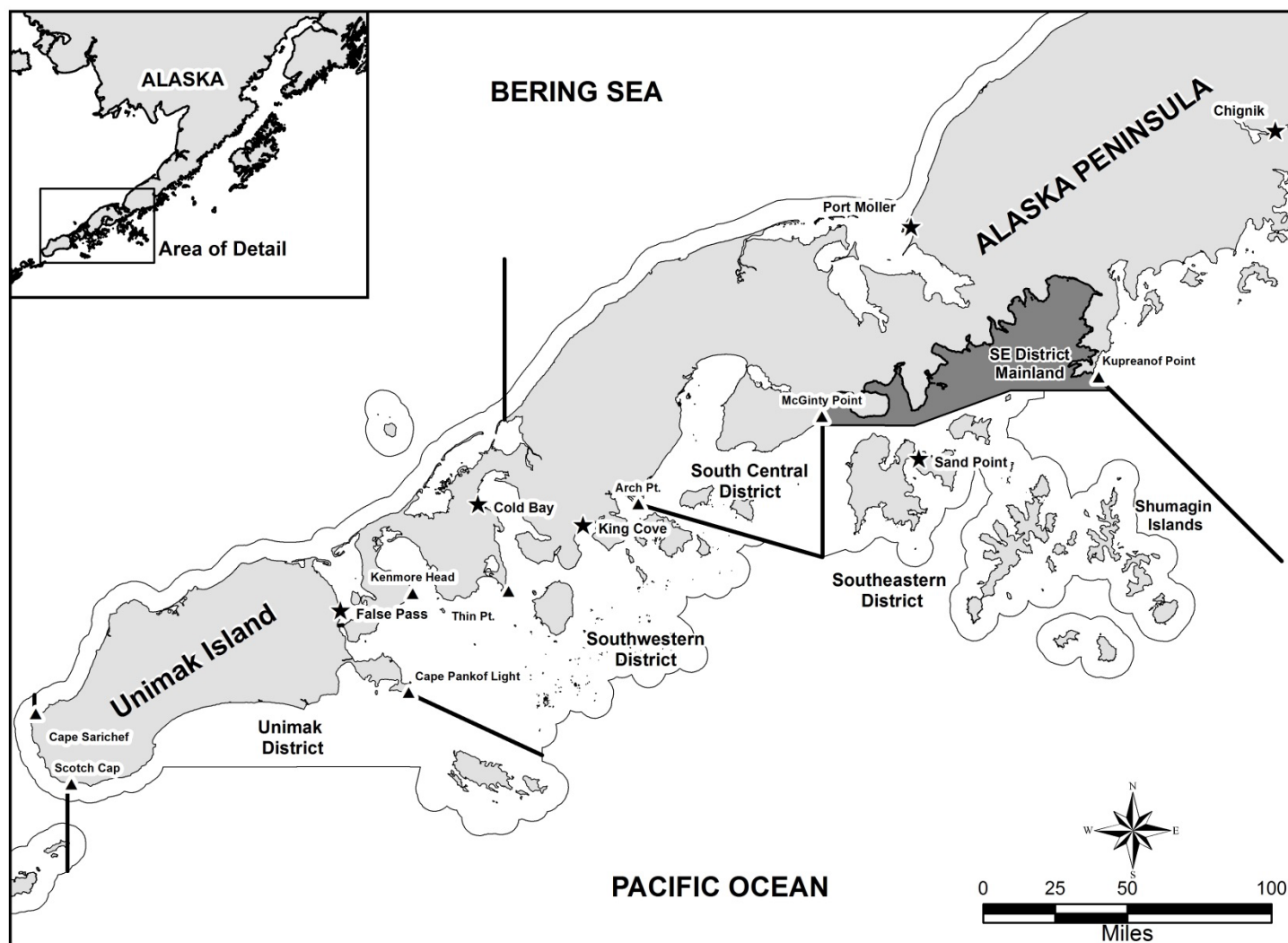
<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> Gear depth limitations in effect beginning in 1990.

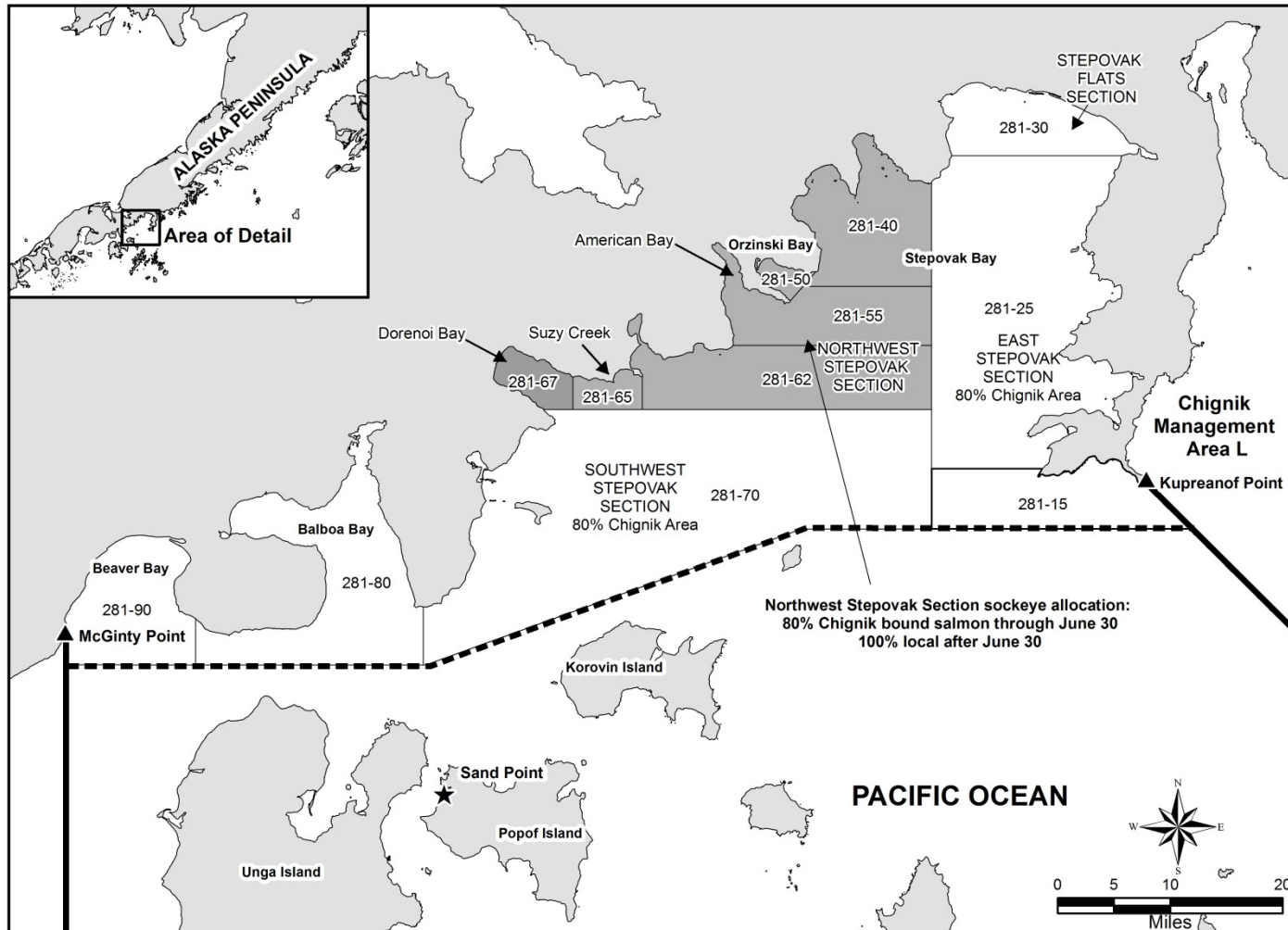


## **APPENDIX C. SOUTHEASTERN DISTRICT MAINLAND FISHERIES**

Appendix C1.—Map of South Alaska Peninsula Management Area from Kupreanof Point to Scotch Cap with Southeastern District Mainland highlighted.



Appendix C2.—Map of Southeastern District Mainland (SEDM) fishery from Kupreanof Point to McGinty Point with salmon fishing sections defined.



### **1974–1978**

Prior to 1974, the Southeastern District Mainland (SEDM) fishery was regulated by set weekly fishing periods, which were generally 5 days per week. From 1974 through 1977, the fishery was open on a day per day basis with Chignik Lagoon. In 1978, the Alaska Board of Fisheries (board) restricted fishing time to 3 days per week for set gillnet gear only through July 10. Since 1978, set gillnets have been the only legal gear through July 10 in the SEDM (Jackson and Poetter 2006). During 1978, harvest rates were low despite strong Chignik runs, resulting in a SEDM catch of only 31,197 sockeye salmon, of which 22,064 sockeye were considered Chignik-bound, 1.3% of the total Chignik harvest. From 1973 to 1978, an average of 20 set gillnet and 17 purse seine fishermen participated in this fishery.

### **1979–1984**

Beginning with the 1979 season, the board increased fishing time from 3 days to 5 days per week but specified that not more than 60,000 Chignik-bound sockeye salmon could be harvested through July 10 in the SEDM. The board stipulated that the SEDM fishery would be closed if it became apparent that the Chignik escapement requirements were not ensured. The board also stated that if Chignik Management Area (CMA) catch exceeded 1,000,000 sockeye salmon before July 10, the SEDM fishery could continue beyond the 60,000 sockeye salmon ceiling. This management plan remained in effect until 1985.

From 1979 to 1982, the annual SEDM harvest averaged 118,429 sockeye salmon; 76,476 sockeye salmon were considered to be Chignik-bound (6.4% of the total Chignik-bound sockeye harvest). These harvests were achieved in spite of numerous fishery closures imposed by the department because of poor Chignik sockeye salmon escapements. Set gillnet fishing activity increased from 23 permits in 1978 to 37 permits in 1982 (Appendix C8).

In 1983, an estimated 227,392 Chignik-bound sockeye salmon were harvested in the SEDM fishery. Most of the sockeye salmon (76%) were harvested after July 10.

In 1984, set gillnet effort increased to 54 permits, of which 5 were operated by fishermen who were also purse seine permit holders (Appendix C8). Because of an exceptionally strong early Chignik run and the large number of fish available in the SEDM, only 6 fishing days were required to harvest an estimated 60,000 Chignik-bound sockeye salmon. The SEDM fishery was closed for only 3 days and was reopened on June 14 when the Chignik sockeye salmon harvest reached 1,000,000 fish. In 1984, the late Chignik sockeye salmon run was weaker than predicted, and the second run escapement goal was reached only after considerable curtailment of the SEDM, Chignik, and Cape Igyak (Kodiak Management Area) fisheries during mid-July. Total 1984 SEDM harvest of Chignik-bound sockeye salmon was 423,068 sockeye, or 12.6 percent of the total Chignik-bound sockeye salmon harvest.

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### **1985–1991**

For the 1985 season, the board modified the *SEDM Management Plan* based on the *Cape Igvak Salmon Management Plan* from the Kodiak Management Area, instead of using a set fishing schedule. The board plan directed the department to manage the fishery so that the number of sockeye salmon taken in the SEDM fishery (exclusive of the Northwest Stepovak Section) approached as near as possible to 6.2% of the total Chignik-bound sockeye salmon harvest, June 1 through July 25. In the fall of 1987, the department re-evaluated the data used to calculate the allocation and determined that 6.0% was appropriate. The board changed the allocation, based on the re-evaluated data, beginning with the 1988 season.

However, before the SEDM fishery could open, certain criteria had to be met. In years when a harvestable surplus for the early and late runs of Chignik River system sockeye salmon was expected to be less than 600,000 fish, no commercial salmon fishery targeting Chignik-bound sockeye salmon would be allowed in the SEDM fishery until a harvest of 300,000 sockeye salmon was achieved in the CMA. After July 8, fishing in the SEDM might occur provided at least 300,000 sockeye salmon had been harvested in the CMA, escapement objectives were being met, and the Chignik Area harvest was anticipated to total at least 600,000 sockeye salmon. In addition, the number of sockeye salmon taken in the SEDM fishery needed to be as near as possible to 6.0% of the total Chignik-bound sockeye salmon harvest from June 1 through July 25.

From 1985 through 1991, the harvest of Chignik-bound sockeye salmon in the SEDM averaged 88,776 salmon, 5.5% of the total Chignik-bound sockeye salmon harvest, and ranged from 4,485 fish in 1989 to 152,714 fish in 1991.

### **1992–1995**

The board revised the *SEDM Management Plan* prior to the 1992 season. The revised plan was in effect from 1992 through 1995, and included 2 significant changes:

1. The Northwest Stepovak Section (NWSS) to be managed on a local stock basis was reduced to include only waters of Orzinski Bay; the Stepovak Flats Section would continue to be managed on the basis of Stepovak River chum salmon stock.
2. The allowable harvest of Chignik-bound sockeye salmon in the SEDM fishery (exclusive of Orzinski Bay) was increased from 6.0% to 7.0% of the total Chignik-bound sockeye salmon catch.

From 1992 to 1995, the harvest of Chignik-bound sockeye in the SEDM averaged 113,258 salmon and 7.0% of the total Chignik-bound sockeye salmon harvest.

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### 1996–1997

In January 1996, the board made the following changes to the *SEDM Management Plan*:

1. The area to be managed for local Orzinski Lake sockeye salmon increased to include Orzinski Bay and the entire NWSS. Prior to July 1, the entire Northwest Stepovak Section was managed on an allocation based on the strength of the Chignik sockeye salmon runs as described in 5 AAC 09.360(a)(1)<sup>9</sup> and (b)–(h)<sup>9</sup>. Beginning July 1, the NWSS would be managed entirely on local stocks. Stepovak Flats would continue to be managed on the basis of the Stepovak River chum salmon stocks.
2. The percentage of Chignik-bound sockeye salmon allocated to the SEDM fishery was decreased from 7.0% to 6.0% of the total Chignik-bound sockeye salmon harvest from June 1 through July 25. This board action was taken in an attempt to maintain traditional harvest levels of Chignik-bound sockeye salmon in the SEDM fishery and to compensate for the increased area managed for local Orzinski Lake sockeye salmon.
3. The board established a closed waters area encompassing Kupreanof Point, as described in 5 AAC 09.350(37)<sup>9</sup>, from July 6 through at least August 31 (Jackson and Poetter 2006).

### 1998–2006

In January 1998, the board made the following changes to the *SEDM Management Plan*:

1. Prior to July 1, the SEDM (Appendix C2) is managed on an allocation based on the strength of the CMA sockeye salmon runs as described in 5 AAC 09.360<sup>9</sup> and 80% of the sockeye salmon caught are considered Chignik-bound. However, beginning July 1, all sockeye salmon caught in NWSS are considered local fish and are not counted toward the allocation. The NWSS, outside Orzinski Bay, may open to commercial salmon fishing during July 1–July 25 if Orzinski Lake sockeye salmon interim escapement objectives are being met and the CMA sockeye salmon harvest is expected to be more than 600,000 fish through July 25. The board mandated fishing schedule for NWSS, excluding Orzinski Bay from July 1–July 25, cannot exceed 4 days during a 7-day period. The maximum number of consecutive fishing days allowed is 2 (Figure 8 in Jackson and Poetter 2006).
2. Beginning July 1, the NWSS is managed entirely on local stocks. All sockeye salmon harvested in the NWSS after July 1 are considered to be from Orzinski Lake stocks. The Stepovak Flats Section is managed for chum salmon returning to local streams throughout the entire season. However, 80% of the sockeye salmon caught in the Stepovak Flats Section through July 25 are considered Chignik-bound fish (Jackson and Poetter 2006).
3. The board allocated 6% of the total Chignik-bound sockeye salmon harvest from June 1 through July 25 to the SEDM fishery.

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<sup>9</sup> 2016-2019 Alaska Peninsula, Atka-Amlia, and Aleutian Islands areas commercial fishing regulations, 2016 edition. Alaska Department of Fish and Game, Juneau.

1. The board directed the department to consider an extension of the Kupreanof Point closed waters area, as described in 5 AAC 09.350(37)<sup>10</sup>, by emergency order (Figure 7 in Jackson and Poetter 2006). The Kupreanof Point closed waters extension remains in effect through October 31 if waters specified in 5 AAC 15.350(20) are closed to conserve coho salmon in the CMA.
2. Orzinski Bay may open to purse seine gear prior to July 11 if the department determines the interim escapement objectives have been exceeded (Appendix C13).

The total Chignik-bound sockeye salmon harvest from June 1 through July 25 is calculated by adding 100% of CMA sockeye salmon harvest, 90% of Cape Igvak Section (KMA), and 80% of SEDM sockeye salmon harvests from June 1–July 25, excluding 100% of the sockeye salmon caught within the NWSS from July 1–25.

### **2007–Present**

In January 2007, the board made the following changes to the *SEDM Management Plan* (5 AAC 09.360<sup>10</sup>):

1. The percentage of Chignik-bound sockeye salmon allocated to the SEDM fishery was changed from 6% to 7.6% of the total number of sockeye salmon harvested in the CMA from June 1 through July 25, and Cape Igvak is no longer contributing to the allocation.
2. If the Orzinski Lake escapement met or exceeded 25,000 sockeye salmon, the NWSS and Orzinski Bay may be opened concurrently as follows:
  - (A) set gillnet gear may be operated continuously until midnight July 25, and
  - (B) purse seine and hand purse seine gear will be operated as specified in 5 AAC 09.360(e)(1)<sup>10</sup>.
3. From July 26 through October 31, the fishery is managed for local pink, chum, and coho salmon stocks.
4. From July 26 through October 31, the fishery will be closed for at least one 36-hour period within a 7-day period.

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<sup>10</sup> 2016-2019 Alaska Peninsula, Atka-Amlia, and Aleutian Islands areas commercial fishing regulations, 2016 edition. Alaska Department of Fish and Game, Juneau.

## **REFERENCES CITED**

Jackson, J. V., and A. D. Poetter. 2006. The Southeastern District Mainland salmon fishery of Area M, Report to the Alaska Board of Fisheries, 2007. Alaska Department of Fish and Game, Fishery Management Report No. 06-76, Anchorage.



Appendix C4.–Harvest of sockeye salmon, in number of fish and percent, considered to be Chignik-bound by regulation in the Chignik, Cape Igvak, and Southeastern District Mainland (SEDM) areas from 1974–2016.

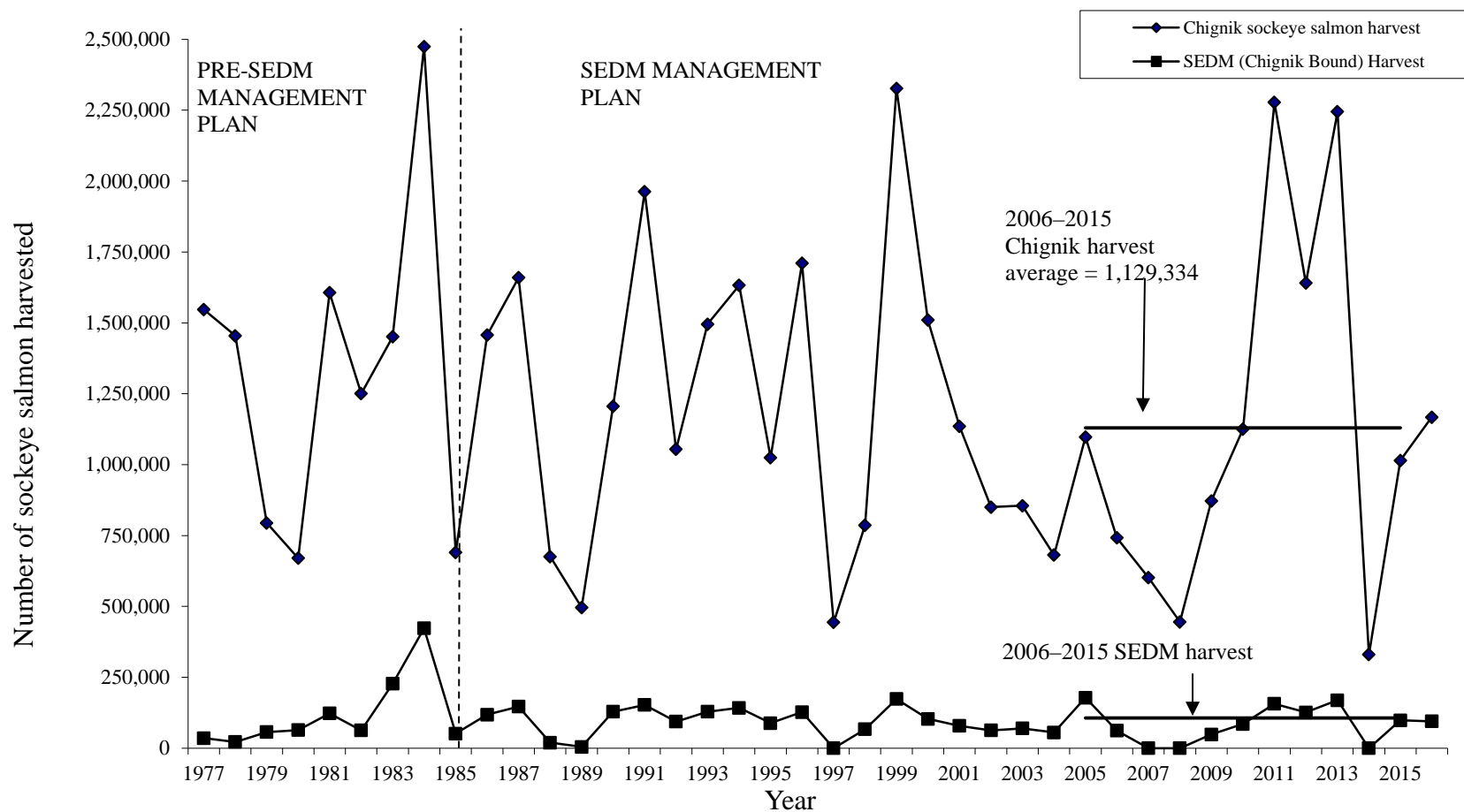
Year	Chignik area <sup>a</sup>		Cape Igvak <sup>a</sup>		SEDM		Total
	Harvest	Percent	Harvest	Percent	Harvest	Percent	
1977 <sup>b</sup>	1,547,285	90.4	128,852	7.5	35,502	2.1	1,711,639
1978 <sup>c,d</sup>	1,454,389	85.5	225,014	13.2	22,064	1.3	1,701,467
1979 <sup>e</sup>	794,504	91.8	13,950	1.6	56,878	6.6	865,332
1980	670,001	91.3	32	0.0	63,724	8.7	733,757
1981	1,606,300	79.9	282,727	14.1	122,533	6.1	2,011,560
1982	1,250,768	84.5	166,756	11.3	62,767	4.2	1,480,291
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	423,068	12.6	3,346,845
1985 <sup>f</sup>	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	83.6	107,706	7.5	128,599	8.9	1,441,880
1991 <sup>g</sup>	1,962,583	80.4	324,329	13.3	152,714	6.3	2,439,626
1992 <sup>h</sup>	1,054,309	81.2	150,343	11.6	93,845	7.2	1,298,497
1993	1,495,098	77.7	300,055	15.6	128,536	6.7	1,923,689
1994 <sup>i</sup>	1,632,435	80.6	250,230	12.4	142,350	7.0	2,025,015
1995	1,024,785	79.9	169,530	13.2	88,302	6.9	1,282,617
1996 <sup>j</sup>	1,710,249	79.7	308,327	14.4	127,201	5.9	2,145,777
1997	443,892	100.0	–	–	–	–	443,892
1998 <sup>k,l</sup>	786,446	91.2	8,813	1.0	66,893	7.8	862,152
1999	2,326,811	78.7	456,039	15.4	173,621	5.9	2,956,471
2000	1,509,652	80.1	271,344	14.4	103,419	5.5	1,884,415
2001 <sup>m</sup>	1,134,991	79.4	215,214	15.1	79,037	5.5	1,429,242
2002 <sup>n</sup>	849,980	81.0	136,448	13.0	63,026	6.0	1,049,454
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	55,355	6.2	897,141
2005	1,097,405	70.8	274,328	17.7	177,906	11.5	1,549,639
2006	741,887	87.7	41,834	4.9	62,010	7.3	845,731
2007 <sup>o</sup>	601,213	92.0	52,527	8.0	–	–	653,740
2008	445,199	100.0	–	–	–	–	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
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	2,244,918	81.1	354,179	12.8	169,029	7.5	2,768,126
2014	330,302	100.0	–	–	–	–	330,302
2015	1,014,600	90.7	5,936	0.5	98,473	9.7	1,119,009
2016	1,167,326	74.8	298,470	19.1	94,790	8.1	1,560,586
2005-2016 average							
	1,129,334	87.2	198,259	10.5	106,546	7.5	1,362,523

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*Note:* In 1997, 2008, and 2014, harvest opportunity was not provided in Cape Igvak and SEDM. In 2007, no harvest opportunity was provided in SEDM. In these years, zero harvest is not included in averages.

- <sup>a</sup> Before 2002, Cape Igvak and Southeastern District Mainland (SEDM) figures represent 80% of the total sockeye salmon catches for those areas based on the premise that 80% of the sockeye salmon caught in the Cape Igvak Section and the SEDM (excluding sockeye salmon caught in Northwest Stepovak Section from 1964–1991 and 1996–2005 and in Orzinski Bay only from 1992–1995) are bound for the Chignik Management Area (CMA).
- <sup>b</sup> During 1974–1977 all 3 fisheries were managed on a day-by-day basis.
- <sup>c</sup> Beginning in 1978, the Alaska Board of Fisheries (board) allocated 15 percent of the total sockeye salmon catch destined for Chignik to the Cape Igvak fishery.
- <sup>d</sup> Beginning in 1978, seining prior to July 11 was disallowed in SEDM. Set gillnet fishermen were allowed to fish 3 days per week through July 10, after which the fishery was managed on the basis of local stocks.
- <sup>e</sup> During 1979–1984 and prior to July 11, fishing was allowed 5 days per week in the Southeastern District Mainland Area with a maximum harvest of an estimated 60,000 sockeye destined for Chignik. If the Chignik Area sockeye catch was 1,000,000 or more before July 11, the 60,000 maximum harvest was to be dropped.
- <sup>f</sup> Beginning in 1985, SEDM was placed on an allocation of 6.2 percent of the total estimated Chignik sockeye catch through July 25. After July 25, the SEDM was managed on a local stock basis. The allocation changed to 6.0 percent beginning in 1988. Seining is still not allowed prior to July 11.
- <sup>g</sup> CMA harvest includes over escapement of 278,305 sockeye counted past the weir during the Chignik Area seiners' price dispute (June 23–July 4, 1991).
- <sup>h</sup> Review of Orzinski Lake historical and current escapement records led the board to redefine the SEDM Management Plan. Beginning in 1992, the SEDM fishery (excluding Orzinski Bay) was placed on an allocation of 7.0% of the total estimated Chignik sockeye salmon catch through July 25.
- <sup>i</sup> CMA harvest includes over escapement of 208,921 sockeye counted past the weir during the Chignik Area seiners' price dispute (June 22–June 25, 1994).
- <sup>j</sup> In 1996, the area managed for local Orzinski Lake sockeye salmon was increased from only Orzinski Bay to the entire Northwest Stepovak Section. Prior to July 1, the entire Northwest Stepovak Section will be managed on an allocation based on the strength of Chignik sockeye salmon runs. Beginning July 1, Northwest Stepovak will be managed entirely on local stocks. The board also decreased the percentage of sockeye salmon allocated to the SEDM fishery from 7% to 6% to attempt to maintain traditional harvest levels of Chignik-bound sockeye salmon harvest in the SEDM fishery.
- <sup>k</sup> In 1998, the area managed entirely for local Orzinski Lake sockeye salmon was reduced from the entire Northwest Stepovak Section to only Orzinski Bay. All sockeye salmon caught in the Northwest Stepovak Section beginning July 1 would still be considered 100% local fish and not counted toward the 6% allocation. The remainder of SEDM sockeye salmon harvest allocated as 80% Chignik-bound fish. Assures minimum harvest of 600,000 sockeye salmon in Chignik through July 25.
- <sup>l</sup> CMA harvest includes 7,714 sockeye salmon caught by the Chignik Seiners Association (CSA), and an over-escapement of 52,131 sockeye salmon counted past the weir during the CSA boycott (June 16–29, 1998).
- <sup>m</sup> CMA harvest includes a foregone harvest of 398,887 sockeye salmon that escaped past the weir as a result of the fishermen's strike (in the CMA). SEDM harvest includes a foregone harvest of 27,896 sockeye salmon that escaped past the Orzinski weir as a result of the fishermen's strike (in SEDM).
- <sup>n</sup> Beginning in 2002, the percent of sockeye salmon harvested in Cape Igvak Section considered to be Chignik-bound was increased from 80% to 90%.
- <sup>o</sup> Beginning in 2007, the percent sockeye salmon harvested in SEDM was considered independent of the Igvak fishery and based solely on 7.6% of CMA harvest.

Appendix C5.—Harvest comparison of Chignik-bound sockeye salmon June 1 through July 25, 1974–2016.



Appendix C6.—Southeastern District Mainland salmon harvest by species, all gear combined, June 1–July 25, 1975–2016.

Year	Number of salmon							Total
	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	
1975	13	25	0	3,156	63	3,020	770	7,009
1976	41	221	58	59,844	37	20,059	6,759	86,757
1977	52	266	33	48,589	940	43,301	11,454	104,317
1978	42	213	39	31,197	354	33,140	16,104	80,834
1979	42	344	119	90,658	5,857	45,582	7,561	149,777
1980	36	420	79	96,665	1,608	40,779	59,441	198,572
1981	69	718	1,320	202,540	3,058	17,347	172,340	396,605
1982	67	893	401	86,793	1,920	209,898	134,473	433,485
1983	78	852	1,387	302,387	3,222	11,295	101,873	420,164
1984	87	1,736	1,054	595,044	4,414	199,990	141,452	941,954
1985	72	418	177	80,957	909	74,592	87,116	243,751
1986	60	645	219	206,532	770	40,771	51,003	299,295
1987	59	537	130	244,895	197	2,363	21,332	268,917
1988	57	345	214	81,160	2,318	97,534	74,743	255,969
1989	67	248	145	89,224	1,226	210,017	6,570	307,182
1990	115	408	694	166,322	16,809	48,999	43,479	276,303
1991	98	818	614	289,727	1,386	24,788	12,113	328,628
1992	65	664	170	215,444	135	15,939	20,629	252,317
1993	117	845	1,093	210,927	4,207	78,278	9,266	303,771
1994	56	678	242	221,657	1,041	11,158	5,651	239,749
1995	84	718	321	159,381	2,286	52,772	21,809	236,569
1996	89	1,210	325	284,076	3,846	71,856	36,478	396,581
1997	69	1,194	146	304,629	1,380	16,613	6,368	329,136
1998	65	365	307	117,131	2,959	125,030	9,929	255,356
1999	90	679	184	217,026	898	42,905	8,390	269,403
2000	90	1,194	174	202,435	6,968	57,176	27,261	294,014
2001	67	571	177	106,607	1,314	42,220	50,211	200,529
2002	65	1,026	545	153,469	5,390	143,365	18,752	321,521
2003	59	1,055	309	222,651	2,234	129,458	12,272	366,924
2004	44	773	389	210,545	4,536	57,617	5,827	278,914
2005	64	510	97	245,153	6,030	312,207	9,633	573,120
2006	37	117	29	77,513	2,805	77,685	13,259	171,291
2007 <sup>a</sup>	—	—	—	—	—	—	—	—
2008	28	299	29	31,669	505	34,137	6,139	72,479
2009	61	742	120	151,765	1,999	59,799	15,630	229,313
2010	61	938	882	167,756	2,915	14,605	74,186	260,344
2011	66	1,516	395	222,515	2,300	47,178	51,496	323,884
2012	65	1,105	99	219,132	1,287	42,503	31,835	294,856
2013	70	1,592	697	241,031	17,681	326,858	41,359	627,626
2014 <sup>a</sup>	—	—	—	—	—	—	—	—
2015	52	344	231	233,618	7,813	78,212	12,244	332,118
2016	55	867	532	376,155	6,550	21,391	14,311	418,939
2006–2015 average								
	55	832	310	168,125	4,663	85,122	30,769	288,989

<sup>a</sup> No commercial fishing opportunity provided; zero harvest not included in 10-year averages.

Appendix C7.—Southeastern District Mainland salmon harvest by species, set gillnet gear, June 1–July 25, 1975–2016.

Year	Permits	Landings	Number of Salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1975	7	14	0	1,807	29	960	592	3,388
1976	19	167	51	54,120	0	5,147	2,154	61,472
1977	22	158	20	33,943	0	5,791	5,041	44,795
1978	23	189	28	29,070	33	1,785	5,733	36,649
1979	29	318	100	79,432	3,036	11,245	5,881	99,694
1980	24	384	75	89,769	597	5,972	28,894	125,307
1981	32	604	1,203	182,527	333	4,339	22,121	210,523
1982	37	753	273	79,442	947	19,204	32,729	132,595
1983	36	707	365	215,280	1,030	1,840	14,718	233,233
1984	54	1,657	708	567,043	1,481	45,542	32,007	646,781
1985	49	367	157	78,347	184	8,075	9,579	96,342
1986	42	616	177	196,545	449	9,540	20,350	227,061
1987	53	528	111	244,413	102	1,555	12,944	259,125
1988	41	300	84	77,204	731	16,595	11,532	106,146
1989	42	194	87	46,977	105	11,100	1,449	59,718
1990	46	277	191	85,368	829	1,465	9,064	96,917
1991	59	747	439	275,768	857	6,128	7,733	290,925
1992	59	650	166	214,638	115	11,129	5,797	231,845
1993	64	763	557	186,656	664	14,757	3,416	206,050
1994	56	678	242	221,657	1,041	11,158	5,651	239,749
1995	58	688	268	139,515	182	13,097	8,184	161,246
1996	64	1,164	252	276,212	2,869	52,785	31,859	363,977
1997	57	1,171	102	293,750	889	12,288	5,874	312,903
1998	45	340	97	74,069	1,439	33,880	3,413	112,898
1999	63	649	164	205,706	351	8,495	6,772	221,488
2000	64	1,163	160	199,605	5,612	42,700	24,572	272,649
2001	51	551	113	102,213	1,146	27,790	43,962	175,224
2002	53	1,001	476	145,656	1,127	82,515	14,660	244,434
2003	48	1,035	268	211,069	1,574	76,530	10,570	300,011
2004	42	763	389	206,316	4,397	55,202	5,827	272,131
2005	43	474	58	152,978	1,003	30,855	4,440	189,334
2006	24	102	4	39,849	339	7,910	4,701	52,803
2007 <sup>a</sup>	—	—	—	—	—	—	—	—
2008	27	299	29	30,861	505	28,566	6,072	66,033
2009	44	701	64	133,526	1,134	22,826	11,151	168,701
2010	45	906	46	161,675	1,534	7,607	27,466	198,328
2011	52	1,498	266	214,853	849	8,008	34,283	258,259
2012	48	1,070	69	190,596	450	9,192	13,050	213,357
2013	46	1,531	344	219,365	9,677	53,505	15,468	298,359
2014 <sup>a</sup>	—	—	—	—	—	—	—	—
2015	31	306	37	130,527	1,613	3,531	4,570	140,278
2016	44	846	177	356,668	2,075	11,306	10,615	380,841
2006-2015 average								
	40	802	107	140,157	2,013	17,643	14,595	174,515

<sup>a</sup> No commercial fishing opportunity provided; zero harvest not included in 2006-2015 average.

Appendix C8.—Southeastern District Mainland salmon harvest by species, purse seine gear, June 1–July 25, 1975–2016.

Year	Permits	Landings	Number of salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1975	6	11	0	1,349	34	2,060	178	3,621
1976	22	54	7	5,724	37	14,912	4,605	25,285
1977	30	108	13	14,646	940	37,510	6,413	59,522
1978	19	24	11	2,267	321	31,355	10,371	44,325
1979	12	23	19	11,159	2,821	34,331	1,676	50,006
1980	12	36	4	6,896	1,011	34,807	30,547	73,265
1981	35	112	117	19,883	2,725	12,984	149,523	185,232
1982	30	140	128	7,351	973	190,694	101,744	300,890
1983	42	145	1,022	87,107	2,192	9,455	87,155	186,931
1984	33	79	346	28,001	2,933	154,448	109,445	295,173
1985	23	51	20	2,610	725	66,517	77,537	147,409
1986	18	29	42	9,987	321	31,231	30,653	72,234
1987	6	9	19	482	95	808	8,388	9,792
1988	16	45	130	3,956	1,587	80,939	63,211	149,823
1989	25	54	58	42,247	1,121	198,917	5,121	247,464
1990	69	131	503	80,954	15,980	47,534	34,415	179,386
1991	39	71	175	13,959	529	18,660	4,380	37,703
1992	6	14	4	806	20	4,810	14,832	20,472
1993	53	82	536	24,271	3,543	63,521	5,850	97,721
1994 <sup>a</sup>	—	—	—	—	—	—	—	—
1995	26	30	53	19,866	2,104	39,677	13,625	75,325
1996	25	46	73	7,864	977	19,071	4,619	32,604
1997	12	23	44	11,115	491	4,325	494	16,469
1998	20	25	210	43,062	1,520	91,150	6,516	142,458
1999	27	30	20	11,320	547	34,410	1,618	47,915
2000	26	31	14	2,830	1,356	14,476	2,689	21,365
2001	16	20	64	4,394	168	14,430	6,249	25,305
2002	12	25	69	7,813	4,263	60,850	4,092	77,087
2003	11	20	41	11,582	660	52,928	1,702	66,913
2004 <sup>b</sup>	—	—	—	—	—	—	—	—
2005	21	36	39	92,175	5,027	281,352	5,193	383,786
2006	13	15	25	37,664	2,466	69,775	8,558	118,488
2007 <sup>a</sup>	—	—	—	—	—	—	—	—
2008 <sup>b</sup>	—	—	—	—	—	—	—	—
2009	17	41	13	18,239	865	36,973	4,479	60,569
2010	16	32	836	6,081	1,381	6,998	46,720	62,016
2011	14	18	96	7,662	1,451	39,170	17,213	65,592
2012	17	35	30	28,536	837	33,311	18,785	81,499
2013	24	61	353	21,666	8,004	273,353	25,891	329,267
2014 <sup>a</sup>	—	—	—	—	—	—	—	—
2015	21	38	194	103,091	6,200	71,681	7,674	188,840
2016	11	21	355	19,487	4,475	10,085	3,696	38,098
2006–2015 Average								
	17	34	221	31,848	3,029	75,894	18,474	129,467

<sup>a</sup> No commercial fishing opportunity provided; zero harvest not included in 2006–2015 averages.

<sup>b</sup> Numbers may not be released due to state confidentiality requirements.

Appendix C9.–Southeastern District Mainland commercial fishing effort and assignment of sockeye salmon harvests (number of fish) June 1 through July 25, 1985–2016.

Year	Effort				SEDM minus								Catch
	Set gillnet		Seine		Northwest Stepovak			Northwest Stepovak		SEDM			
	Permits	Landings	Permits	Landings	Total	"Local"	"Non-local"	"Local"	"Non-local"	"Local"	"Non-local"		
1985 <sup>a</sup>	49	367	23	51	16,681	16,681	0	12,855	51,421	29,536	51,421	80,957	
1986	42	616	18	29	59,025	59,025	0	29,501	118,006	88,526	118,006	206,532	
1987	53	528	6	9	61,287	61,287	0	36,722	146,886	98,009	146,886	244,895	
1988	41	300	16	45	57,010	57,010	0	4,830	19,320	61,840	19,320	81,160	
1989	42	248	25	54	83,618	83,618	0	1,121	4,485	84,739	4,485	89,224	
1990	46	277	69	131	3,279	3,279	0	32,609	128,599	35,888	128,599	164,487	
1991	59	747	39	71	98,834	98,834	0	38,179	152,714	137,013	152,714	289,727	
1992 <sup>b</sup>	59	650	6	14	113,430	101,198	12,232	20,403	81,613	121,599	93,845	215,444	
1993	64	763	53	82	73,747	54,955	18,792	27,436	109,744	82,391	128,536	210,927	
1994	56	678	0	0	89,522	52,880	36,642	26,427	105,708	79,307	142,350	221,657	
1995	58	718	26	30	62,598	51,723	10,875	19,357	77,426	71,079	88,301	159,380	
1996 <sup>c</sup>	64	1,164	25	46	137,925	127,645	10,280	29,230	116,921	156,875	127,201	284,076	
1997	57	1,173	12	23	304,865	304,865	0	0	0	304,865	0	304,865	
1998	45	340	18	23	33,515	33,515	0	16,723	66,893	50,238	66,893	117,131	
1999	63	649	27	30	32,884	6,577	26,307	36,828	147,313	43,405	173,620	217,025	
2000	64	1,163	26	31	89,857	76,500	13,357	22,516	90,062	99,016	103,419	202,435	
2001	51	551	16	20	42,681	42,681	0	12,785	51,141	55,466	51,141	106,607	
2002	53	1,001	12	25	85,086	76,767	8,319	13,677	54,706	90,444	63,025	153,469	
2003	48	1,035	11	20	142,410	136,391	6,019	16,006	64,025	152,397	70,044	222,441	
2004	42	763	2	10	150,399	143,161	7,238	12,029	48,117	155,190	55,355	210,545	
2005	43	474	21	30	58,243	29,865	28,378	37,382	149,528	67,247	177,906	245,153	
2006	24	102	13	15	0	0	0	15,503	62,010	15,503	62,010	77,513	
2007 <sup>d</sup>	–	–	–	–	–	–	–	–	–	–	–	–	
2008	27	299	1	3	31,669	31,669	0	0	0	31,669	0	31,669	
2009	44	701	17	41	91,363	91,363	0	12,080	48,322	103,443	48,322	151,765	

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Year	Effort				SEDM minus							
	Set gillnet		Seine		Northwest Stepovak			Northwest Stepovak		SEDM		Catch
	Permits	Landings	Permits	Landings	Total	"Local"	"Non-local"	"Local"	"Non-local"	"Local"	"Non-local"	
2010	45	906	16	32	70,202	62,964	7,238	19,525	78,100	82,489	85,338	167,827
2011	52	1,498	14	18	52,695	31,914	20,781	33,964	135,856	65,878	156,637	222,515
2012	48	1,065	17	35	78,251	64,448	13,803	28,070	112,280	92,518	126,083	218,601
2013	46	1,531	24	61	62,573	36,311	26,262	35,692	142,767	72,003	169,029	241,032
2014 <sup>d</sup>	—	—	—	—	—	—	—	—	—	—	—	—
2015	31	306	21	38	110,527	110,527	0	24,618	98,473	135,145	98,473	233,618
2016	44	846	11	21	284,557	263,045	21,512	18,320	73,278	281,365	94,790	376,155
	41	869	14	28	83,914	76,916	11,200	20,863	81,577	97,779	93,409	191,188

<sup>a</sup> From 1970 through 1991, the Chignik contribution was 80% of the sockeye salmon harvested in the Beaver Bay, Balboa Bay, Southwest Stepovak, Stepovak Flats, and East Stepovak sections.

<sup>b</sup> From 1992 through 1995, the Chignik contribution was 80% of the sockeye salmon harvested in the Southeastern District Mainland (SEDM) fishery, except Orzinski Bay where 100% of the sockeye salmon were considered local production.

<sup>c</sup> Since 1996, the Chignik contribution is 80% of the sockeye salmon harvested in the SEDM fishery, except beginning July 1 in the Northwest Stepovak Section where 100% of the sockeye salmon are considered local production.

<sup>d</sup> No fishery.



Appendix C10.–Southeastern District Mainland commercial salmon harvest, all gear combined, by species and day, 2016.

Date	Permits	Landings	Number of salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun	17	26	8	6,978	0	4	42	7,032
8-Jun	20	37	14	14,123	0	0	73	14,210
9-Jun	17	17	2	8,730	0	2	143	8,877
10-June–23-June <sup>a</sup>	–	–	–	–	–	–	–	–
24-Jun	20	32	2	12,261	0	160	67	12,490
25-Jun	23	45	4	25,635	0	241	344	26,224
26-Jun	19	24	1	14,237	0	361	117	14,716
27-June–30-June <sup>a</sup>	–	–	–	–	–	–	–	–
1-Jul	25	42	2	18,381	0	60	102	18,545
2-Jul	23	37	7	12,750	1	31	150	12,939
3-Jul	30	66	13	30,447	0	55	280	30,795
4-Jul	23	40	28	13,436	3	27	187	13,681
5-Jul	13	16	0	6,158	0	17	84	6,259
6-Jul	–	–	–	–	–	–	–	–
7-Jul	–	–	–	–	–	–	–	–
8-Jul	31	55	12	23,232	29	151	325	23,749
9-Jul	23	43	2	11,190	17	56	351	11,616
10-Jul	8	11	4	3,130	0	67	45	3,246
11-Jul	19	41	31	27,543	543	646	677	29,440
12-Jul	12	14	6	8,105	124	328	185	8,748
13-Jul	–	–	–	–	–	–	–	–
14-Jul	–	–	–	–	–	–	–	–
15-Jul	17	26	15	10,851	28	650	813	12,357
16-Jul	20	28	3	14,031	170	497	606	15,307
17-Jul	20	30	10	8,897	6	447	517	9,877
18-Jul	19	36	6	14,829	20	417	582	15,854
19-Jul	14	20	3	10,626	26	265	414	11,334
20-Jul	–	–	–	–	–	–	–	–
21-Jul	–	–	–	–	–	–	–	–
22-Jul	38	68	329	41,947	3,852	9,403	4,658	60,189
23-Jul	25	43	17	16,884	1,188	3,755	1,265	23,109
24-Jul	28	70	13	21,754	543	3,751	2,284	28,345
25-Jul	–	–	–	–	–	–	–	–
26-Jul	11	17	0	3,700	2	278	147	4,127
27-Jul	8	17	4	2,568	6	305	80	2,963
28-Jul	8	19	0	3,692	2	334	88	4,116
29-Jul	9	18	1	4,367	3	436	210	5,017
30-Jul	9	18	2	2,388	2	378	79	2,849
31-Jul	11	22	1	3,367	4	757	264	4,393
1-Aug	11	21	0	2,831	0	661	136	3,628
2-Aug	11	26	1	3,101	3	422	184	3,711
3-Aug	8	19	0	3,138	13	645	110	3,906
4-Aug	8	8	0	2,077	5	426	193	2,701
5-Aug	9	11	1	2,080	1	442	201	2,725
6-Aug	9	15	0	2,104	2	616	115	2,837

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Date	Permits	Landings	Number of salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Aug	9	9	0	1,575	3	307	123	2,008
8-Aug	9	14	0	1,880	4	290	135	2,309
9-Aug	5	5	0	367	0	16	11	394
10-Aug–31-Aug <sup>a</sup>	–	–	–	–	–	–	–	–
1-Sep	13	17	1	3,357	960	14	691	5,023
2-Sep	15	20	0	4,249	851	1	586	5,687
3-Sep–6-Sep <sup>a</sup>	–	–	–	–	–	–	–	–
7-Sep	11	13	1	1,667	896	2	160	2,726
8-Sep	10	10	0	1,305	519	0	48	1,872
Subtotal June 1–July 25	55	867	532	376,155	6,550	21,391	14,311	418,939
Subtotal July 26–August 31	15	239	10	39,235	50	6,313	2,076	47,684
Subtotal September 1–October 31	18	60	2	10,578	3,226	17	1,485	15,308
Season total	55	1,166	544	425,968	9,826	27,721	17,872	481,931

<sup>a</sup> Fishery closed.

Appendix C11.—Northwest Stepovak Section commercial salmon harvest, all gear combined, by species and day, July 1 through July 25, 2016.

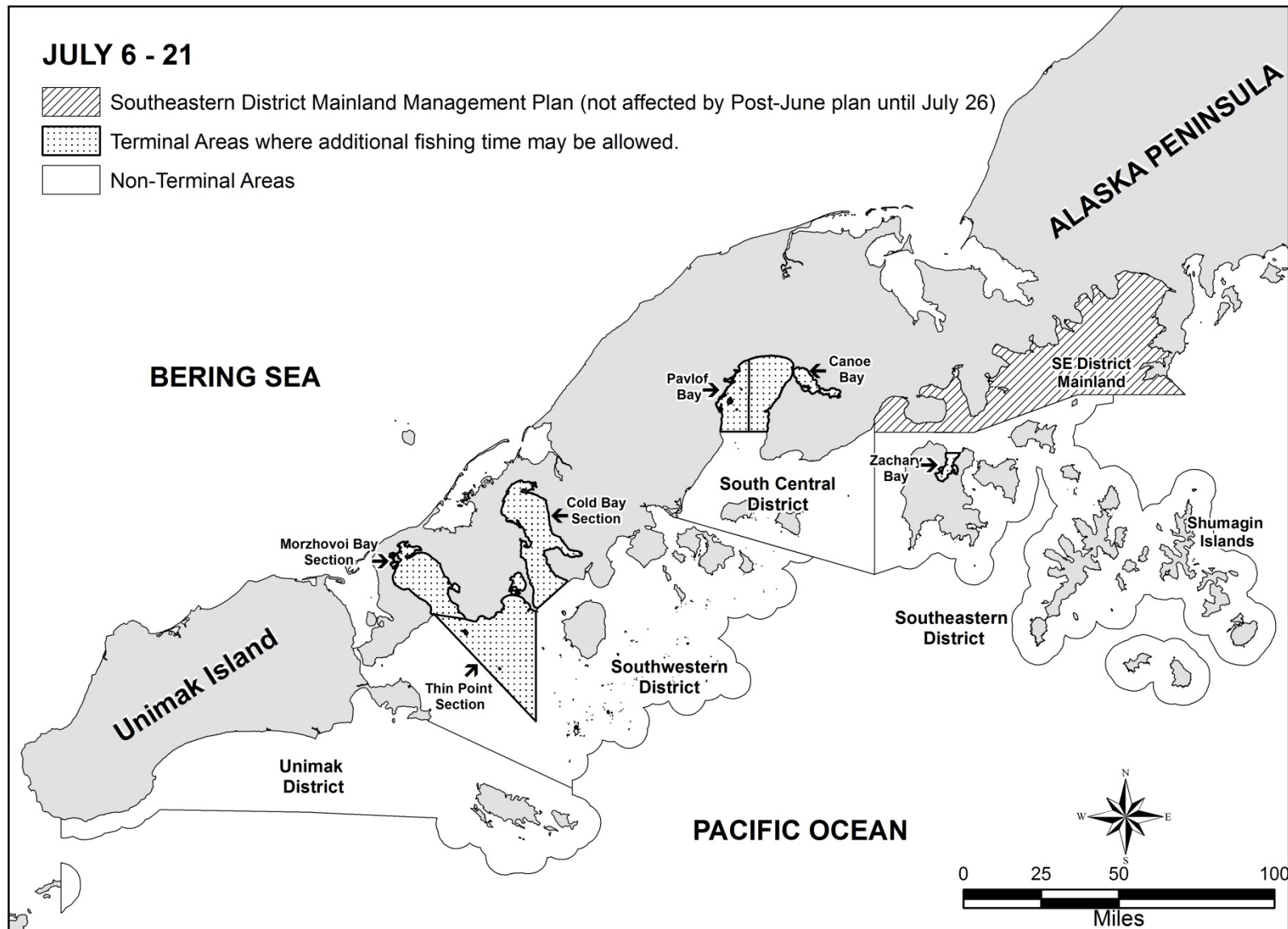
Date	Permits	Landings	Number of salmon				
			Chinook	Sockeye	Coho	Pink	Chum
1-Jul	25	42	2	18,381	0	60	102
2-Jul	23	37	7	12,750	1	31	150
3-Jul	38	66	13	30,447	0	55	280
4-Jul	27	40	28	13,436	3	27	187
5-Jul	13	16		6,158	0	17	84
6-Jul <sup>a</sup>	—	—	—	—	—	—	—
7-Jul <sup>a</sup>	—	—	—	—	—	—	—
8-Jul	35	55	12	23,232	29	151	325
9-Jul	24	43	2	11,190	17	56	351
10-Jul	8	11	4	3,130	0	67	45
11-Jul	22	41	31	27,543	543	646	677
12-Jul	13	14	6	8,105	124	328	185
13-Jul <sup>a</sup>	—	—	—	—	—	—	—
14-Jul <sup>a</sup>	—	—	—	—	—	—	—
15-Jul	18	26	15	10,851	28	650	813
16-Jul	23	28	3	14,031	170	497	606
17-Jul	21	30	10	8,897	6	447	517
18-Jul	23	36	6	14,829	20	417	582
19-Jul	18	20	3	10,626	26	265	414
20-Jul <sup>a</sup>	—	—	—	—	—	—	—
21-Jul <sup>a</sup>	—	—	—	—	—	—	—
22-Jul	13	20	22	8,335	125	1,129	883
23-Jul	23	36	16	13,972	1,138	3,607	1,170
24-Jul	34	70	13	21,754	543	3,751	2,284
25-Jul <sup>a</sup>	—	—	—	—	—	—	—
Total	48	631	193	257,667	2,773	12,201	9,655

<sup>a</sup> Fishery closed.

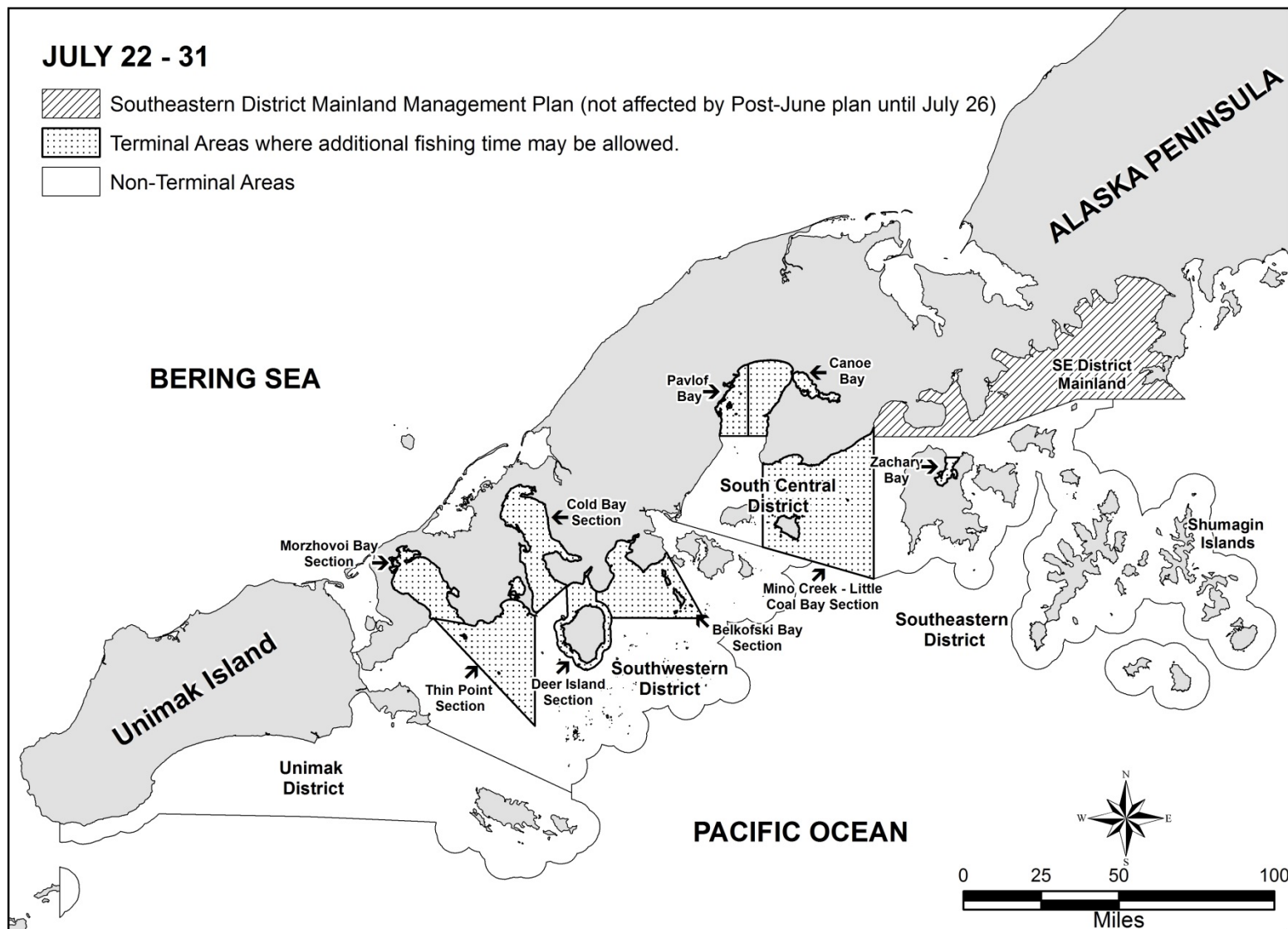


## **APPENDIX D. SOUTH ALASKA PENINSULA POST-JUNE FISHERIES**

Appendix D1.—Map of the South Peninsula Post-June fishery with terminal areas defined during July 6–21.



Appendix D2.—Map of the South Peninsula Post-June fishery with terminal areas defined during July 22–31.



Before 1974, post-June South Alaska Peninsula fisheries were generally open 5 days per week, with a total season closure on August 10 to provide adequate local escapement and maintain product quality (McCullough 1995). During 1974 and 1975, the fishery was severely restricted to rebuild pink salmon runs. From about 1976 to 1991, the salmon fishery was managed by emergency order based on local stock run strength. Fishing periods from July 6 to about July 18 were based on chum salmon run strength, and from July 18 to about August 20 on pink salmon run strength. Fishing continued into late August during years of strong pink or chum salmon runs. Before 1992, South Alaska Peninsula waters east of the Cape Lutke Section (Appendix A6) were opened to commercial salmon fishing about July 6, except in the SEDM fishery. Prior to July 26, SEDM is managed on a separate management plan (5 AAC 09.360 *Southeastern District Mainland Salmon Management Plan*). Beginning September 1, fishing periods were established by emergency order and based on local coho salmon run strength and, to a lesser degree, on chum salmon runs.

In November 1991, the board established the *Post-June Salmon Management Plan* for the South Alaska Peninsula (5 AAC 09.366). This plan allowed the harvest of local stocks through July 19 in terminal fishing areas only, which included Zachary Bay, northern portion of Pavlof Bay, and Canoe Bay, Cold Bay, Thin Point, and Morzhovoi Bay sections, closing the remainder of the South Alaska Peninsula formerly opened in July. The board decision was partially based on allowing the harvest of local pink and chum salmon stocks to be caught in terminal areas early in the season without sacrificing product quality, while simultaneously allowing non-local salmon to pass through South Alaska Peninsula waters. After July 19, the board concluded that South Alaska Peninsula fishermen needed to harvest pink salmon in their traditional cape fishing areas to maintain product quality and to better accommodate the available processing capacity. Under this plan, commercial salmon fishing from July 6–19 was restricted to terminal fishing areas opened by emergency order, and was based on local stock run strength as determined by harvests and escapements. From July 20, through the remainder of the commercial salmon season, the entire South Alaska Peninsula could be opened to commercial salmon fishing by emergency order if warranted by local run stock strength (except in the SEDM fishery through July 25; 5 AAC 09.366)

The Stepovak-Shumagin Setnet Association sued the board in early 1992, to stop the implementation of the *Post-June Salmon Management Plan* for the South Alaska Peninsula (5 AAC 09.366). On July 10, 1992, Alaska State Superior Court Judge Hopwood (Third Judicial District, Kodiak) granted an injunction staying the implementation of the new management plan. On July 13, traditional commercial salmon fishing periods resumed, and additional fishing time was provided as conditions warranted (Shaul et al. 1993).

In March 1993, the Alaska State Superior Court reconsidered the 1992 injunction. After reconsideration, the court agreed with the board and the *Post-June Salmon Management Plan* was reinstated. The *Post-June South Alaska Peninsula Management Plan* was in effect from 1993 to 1997.



The board made the following changes affecting the *Post-June Management Plan* during the January 1998 meeting:

1. For the period July 6–21, the board increased non-terminal area fishing opportunities in early July. Fishing periods were limited to a maximum of 24 hours followed by a closure of at least 48 hours. Additional fishing time could be permitted in designated terminal harvest areas if escapements warranted; and
2. For the period July 22–31, the board restricted continuous fishing in late July in non-terminal areas. Fishing periods in non-terminal areas were limited to 36 hours during July 22–31. Each open fishing period was followed by minimum closure of 48 hours. The board also established a 60,000 coho salmon cap in non-terminal areas during July 22–31. Additional fishing time could be permitted in designated terminal harvest areas if escapements warranted.

During the 2001 meeting, the board made only minor changes to the *Post-June Salmon Management Plan* for the South Alaska Peninsula. These changes included modifying terminal harvest area boundaries and clarifying the definition of immature salmon during the department's July test fishery. For purposes of the test fishery, immature salmon were defined as those Chinook, sockeye, coho, and chum salmon that were gilled in the seine web during the test fishery.

In 2004, the board adopted few changes to the *Post-June Salmon Management Plan* for the South Alaska Peninsula. The 60,000 coho salmon cap, enacted in 1998 for non-terminal areas from July 22 through July 31, was rescinded. The board also determined that the global positioning system (GPS) would be used to determine latitude and longitude coordinates throughout all salmon fisheries in Area M. In 2007, the board did not make any changes to the *Post-June Salmon Management Plan* for the South Alaska Peninsula.

During the 2010 Board of Fisheries meeting, the board adopted a few changes to the *Post-June Salmon Management Plan* for the South Alaska Peninsula. The commercial salmon season was extended through October 31. The board increased the length of seine lead used by set gillnet gear from 10 fathoms to 25 fathoms. There was also a reduction in the minimum mesh size of set gillnet gear to 4½ inches in the Shumagin Islands after July 31, and in the Southeastern District Mainland after July 25.

During the 2013 the BOF made a few changes to the schedule of the *Post-June Salmon Management Plan* for the South Alaska Peninsula. The first fishing period would begin at 6:00 a.m. on July 6 for 33 hours, followed by a 63-hour closure. After the initial fishing period, there would be six 36-hour fishing periods that would begin at 6:00 a.m. and be interspersed by 60-hour closures. All other components of the *Post-June Salmon Management Plan* for the South Alaska Peninsula would remain unchanged.

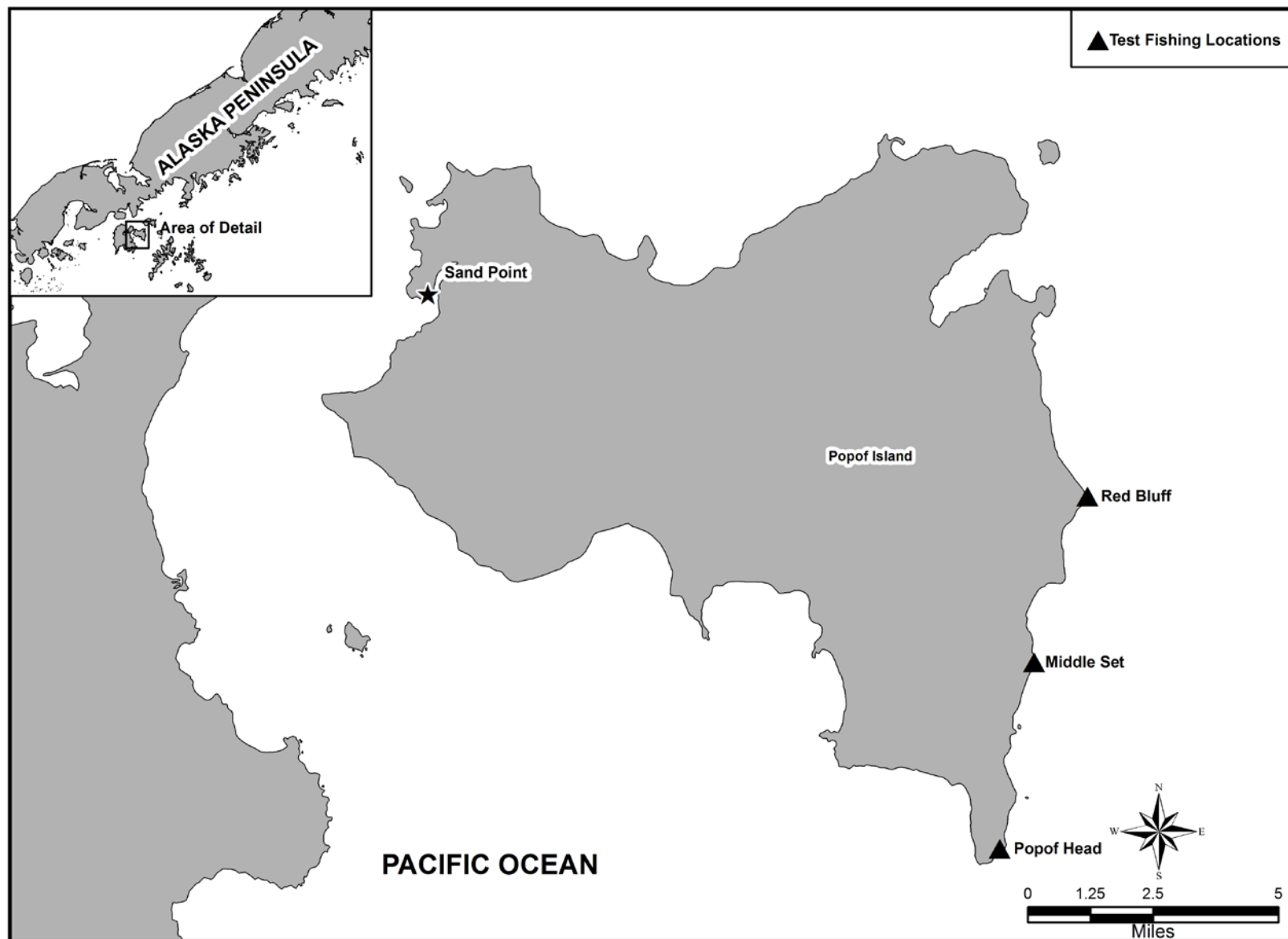
During the February 2016 the BOF made changes to the *Post-June Salmon Management Plan* for the South Alaska Peninsula by adopting regulation to limit the number of sockeye salmon harvested in the WASSIP described “Dolgoi Island Area” (statistical areas 283-15 through

283-26 and 284-36 through 284-42). From June 1 through July 25, a harvest limit of 191,000 sockeye salmon, based on fish ticket information, was created. Once this harvest limit is reached, the portion of the West Pavlof Bay Section south of Black Point (statistical area 283-26) and waters of the Volcano Bay Section (statistical areas 284-37 through 284-39) will be closed to commercial salmon fishing through July 25. However, the portion of West Pavlof Bay Section south of Black Point (statistical area 283-26) may reopen to commercial salmon fishing on July 17. All other statistical areas are managed in accordance with each prescribed management plan. In addition to the changes made in the “Dolgoi Islands Area”, BOF also repealed the minimum mesh size of a drift gillnet during the post-June fisheries. There is now no minimum mesh size in Area M for drift gillnet gear.

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- Shaul, A. R., and J. J. Dinnocenzo. 2000. Aleutian Islands and Atka-Amlia Islands management areas salmon management report, 1999. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K00-18, Kodiak.

Appendix D4.—Map of Popof Island with test fishing sites defined.



Appendix D5.–Summary of the Shumagin Islands July salmon test fishery, 2016.

Date	Number of sets <sup>a</sup>	Number of immature salmon <sup>b</sup>							
		Chinook	Avg/Set	Sockeye	Avg/Set	Chum	Avg/Set	Total	Avg/Set
2-Jul	6	496	82.7	38	6.3	0	0.0	623	104
3-Jul	6	279	46.5	27	4.5	0	0.0	357	60
5-Jul	6	658	109.7	117	19.5	9	1.5	913	152
8-Jul	6	683	113.8	185	30.8	4	0.7	1,017	169
9-Jul	6	135	22.5	34	5.7	14	2.3	211	35
Total	24	2,251		401		27		3,121	

<sup>a</sup> Test fishing is standardized to purse seine gear, conducting 20-minute sets at Popof Head, Middle Set, and Red Bluff located on Popof Island.

<sup>b</sup> No immature coho salmon were observed in any set.

Appendix D6.—South Alaska Peninsula Post-June commercial salmon harvest, all gear combined, by species, and by day, July 6–July 21, 2016.

Date	Number of salmon <sup>a</sup>					Total
	Chinook	Sockeye	Coho	Pink	Chum	
6-Jul	102	59,899	1,730	21,699	13,206	96,636
7-Jul	9	15,544	619	6,201	3,186	25,559
8-Jul <sup>b</sup>	—	—	—	—	—	—
9-Jul <sup>b</sup>	—	—	—	—	—	—
10-Jul	1,555	68,633	31,170	19,586	9,544	130,488
11-Jul	322	52,718	23,024	11,932	4,999	92,995
12-Jul <sup>b</sup>	—	—	—	—	—	—
13-Jul <sup>b</sup>	—	—	—	—	—	—
14-Jul	268	104,136	4,167	11,804	8,749	129,124
15-Jul	264	56,920	6,473	7,673	6,944	78,274
16-Jul <sup>b</sup>	—	—	—	—	—	—
17-Jul <sup>b</sup>	—	—	—	—	—	—
18-Jul	1,252	90,588	15,374	18,880	10,598	136,692
19-Jul	546	59,759	6,172	7,548	4,169	78,194
20-Jul <sup>b</sup>	—	—	—	—	—	—
21-Jul <sup>b</sup>	—	—	—	—	—	—
Non-terminal Total	4,318	508,197	88,729	105,323	61,395	767,962
6-Jul	16	4,994	3	100	115	5,228
7-Jul	0	208	0	0	0	208
8-Jul <sup>b</sup>	—	—	—	—	—	—
9-Jul <sup>b</sup>	—	—	—	—	—	—
10-Jul	5	2,328	3	78	9,441	11,855
11-Jul	1	1,860	0	0	82	1,943
12-Jul <sup>b</sup>	—	—	—	—	—	—
13-Jul <sup>b</sup>	—	—	—	—	—	—
14-Jul	0	0	0	0	0	0
15-Jul	0	1,987	0	0	0	1,987
16-Jul <sup>b</sup>	—	—	—	—	—	—
17-Jul <sup>b</sup>	—	—	—	—	—	—
18-Jul	0	0	0	0	0	0
19-Jul	0	339	0	0	0	339
20-Jul <sup>b</sup>	—	—	—	—	—	—
21-Jul <sup>b</sup>	—	—	—	—	—	—
Terminal area total	22	11,716	6	178	9,638	21,560
Total Harvest Jul 6–Jul 21	4,340	519,913	88,735	105,501	71,033	789,522

Note: “Dolgoi Island Area” sockeye salmon harvest limit of 191,000 fish reached June 21 and commercial fishing was restricted through July 25, except stat area 283-26, which reopens July 17.

<sup>a</sup> Does not include test fishery harvests.

<sup>b</sup> Fishery closed.

Appendix D7.—South Alaska Peninsula Post-June commercial salmon harvest, all gear combined, by species, and by day, July 22–July 31, 2016.

Date	Number of salmon <sup>a</sup>					Total
	Chinook	Sockeye	Coho	Pink	Chum	
22-Jul	316	58,419	23,823	28,068	8,071	118,697
23-Jul	20	15,228	1,336	2,515	1,167	20,266
24-Jul <sup>b</sup>	—	—	—	—	—	—
25-Jul <sup>b</sup>	—	—	—	—	—	—
26-Jul	1450	60,445	25,599	58,004	16,629	162,127
27-Jul	358	34,842	13,105	23,983	8,071	80,359
28-Jul		3,692	2	334	88	4,116
29-Jul	1	4,367	3	436	210	5,017
30-Jul	249	35,301	13,913	52,148	15,724	117,335
31-Jul	55	11,704	2,578	18,813	4,409	37,559
Non-terminal total	2,449	223,998	80,359	184,301	54,369	545,476
22-Jul	—	—	—	—	—	—
23-Jul	1	6,742	125	399	229	7,496
24-Jul <sup>b</sup>	—	—	—	—	—	—
25-Jul <sup>b</sup>	—	—	—	—	—	—
26-Jul	0	2,303	172	1,117	611	4,203
27-Jul	8	2,507	174	1,185	368	4,242
28-Jul <sup>b</sup>	—	—	—	—	—	—
29-Jul <sup>b</sup>	—	—	—	—	—	—
30-Jul	0	6,394	203	29,665	2,022	38,284
31-Jul	2	14,524	327	13,718	2,023	30,594
Terminal area total	11	32,470	1,001	46,084	5,253	84,819
Total harvest Jul 22–Jul 31	2,460	256,468	81,360	230,385	59,622	630,295

<sup>a</sup> Does not include test fishery harvests.

<sup>b</sup> Fishery closed.

Appendix D8.—South Alaska Peninsula Post-June commercial salmon harvest (including SEDM), all gear combined, by species, by day, August 1–August 31, 2016.

Date	Number of salmon <sup>a</sup>					Total
	Chinook	Sockeye	Coho	Pink	Chum	
1-Aug	0	2,831	0	661	136	3,628
2-Aug	1	3,101	3	422	184	3,711
3-Aug	0	3,138	13	645	110	3,906
4-Aug	0	2,077	5	426	193	2,701
5-Aug	1	2,080	1	442	201	2,725
6-Aug	0	2,104	2	616	115	2,837
7-Aug	0	1,575	3	307	123	2,008
8-Aug	0	1,880	4	290	135	2,309
9-Aug	0	367	0	16	11	394
10-Aug–31-Aug <sup>b</sup>	–	–	–	–	–	–
Total	2	19,153	31	3,825	1,208	24,219

<sup>a</sup> Does not include test fishery harvests.

<sup>b</sup> Fishery closed.

Appendix D9.—South Alaska Peninsula fall fishery (September 1–October 31) commercial salmon harvest, by species and year, 1977–2016.

Year	Permits	Landings	Number of salmon <sup>a, b</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1977	9	23	0	2,465	635	0	528	3,628
1978	21	51	0	808	4,651	0	5,726	11,185
1979	25	60	0	2,375	17,468	54	5,307	25,204
1980	29	139	0	6,513	30,390	154	4,166	41,223
1981	31	115	0	10,004	21,016	0	220	31,240
1982	29	213	2	24,471	10,742	0	3,407	38,622
1983	48	334	35	25,493	14,945	1,254	2,958	44,685
1984	52	269	10	13,351	10,526	458	1,789	26,134
1985	55	182	5	4,002	14,725	290	6,960	25,982
1986	46	146	2	3,459	6,318	518	2,519	12,816
1987	65	323	12	23,332	22,040	1,499	52,079	98,962
1988	68	328	4	24,635	26,497	62,290	19,345	132,771
1989	60	363	12	34,932	15,724	281	10,058	61,007
1990	66	426	7	67,142	23,318	584	73,195	164,246
1991	52	273	2	20,056	20,337	0	16,183	56,578
1992	53	333	58	13,115	35,323	1,525	3,486	53,507
1993	50	248	31	16,386	16,965	515	2,918	36,815
1994	75	373	18	25,481	36,563	294	214,174	276,530
1995	55	473	3	110,657	26,083	1,710	9,860	148,313
1996	57	364	5	26,301	26,525	136	2,910	55,877
1997	51	513	30	76,965	36,447	3,568	6,199	123,209
1998	67	430	25	44,775	20,838	1,818	10,382	77,838
1999	58	503	12	118,064	17,622	12,353	3,668	151,719
2000	71	444	11	47,160	25,039	3,963	83,701	159,874
2001	34	382	16	97,717	17,317	1,824	2,894	119,768
2002	26	244	0	19,341	8,034	217	7,776	35,368
2003	23	257	8	57,641	27,891	0	559	86,099
2004	22	169	8	13,763	12,126	496	1,794	28,187
2005	13	58	0	5,581	9,580	0	306	15,467
2006	32	247	27	49,620	19,172	1,096	24,168	94,083
2007	28	136	2	22,523	5,657	11,130	17,984	57,296
2008	29	188	5	20,651	24,125	194,421	13,510	252,712
2009	36	164	4	9,301	14,876	38,195	84,834	147,210
2010	13	50	5	4,367	2,111	0	149	6,632
2011	16	60	3	5,511	6,192	1,374	25,141	38,221
2012	-	-	-	-	-	-	-	-
2013	22	78	8	10,114	5,043	821	1,668	17,654
2014	31	245	5	32,000	26,070	19	425	58,519
2015	16	107	0	13,554	3,036	944,181	29,238	990,009
2016	24	69	2	13,272	6,712	153	7,656	27,795
Average								
2006–2015	25	142	7	18,627	11,809	132,360	21,902	184,704

Note: Average does not include years where no commercial fishing opportunity was provided (as in 2012).

<sup>a</sup> Does not include test fishery harvests.

<sup>b</sup> Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited fishing periods in October.



Appendix D10.—South Alaska Peninsula Post-June (July 1–October 31) commercial salmon harvest (excluding SEDM harvest, July 1–July 25), all gear combined, by species and year, 1977–2016.

Year	Permits	Landings	Number of salmon <sup>a,b</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1977	103	1,131	7	26,545	1,168	1,425,107	119,646	1,572,473
1978	123	2,081	203	61,379	60,417	5,467,134	408,544	5,997,677
1979	165	2,446	972	209,755	350,770	6,365,911	371,358	7,298,766
1980	152	2,646	1,522	310,278	271,738	6,295,345	785,026	7,663,909
1981	167	2,502	4,190	218,667	158,846	4,564,926	1,033,055	5,979,684
1982	182	2,781	2,313	140,487	252,885	4,806,182	1,042,978	6,244,845
1983	201	2,667	11,726	292,536	124,431	2,760,452	816,567	4,005,712
1984	217	3,525	4,290	334,781	306,522	10,469,392	1,176,050	12,291,035
1985	213	2,787	688	272,059	169,137	4,249,809	827,781	5,519,474
1986	202	3,001	3,475	545,160	235,082	3,698,727	1,346,879	5,829,323
1987	233	2,692	3,881	410,755	224,543	1,189,211	911,414	2,739,804
1988	243	4,356	6,797	635,804	502,960	6,767,066	1,307,053	9,219,680
1989	274	3,993	4,106	825,372	440,171	6,879,878	531,759	8,681,286
1990	261	3,257	5,480	875,237	288,728	2,299,161	672,937	4,141,543
1991	234	3,573	2,423	465,874	311,825	9,952,671	788,955	11,521,748
1992	234	3,919	4,096	767,735	418,065	9,111,099	867,944	11,168,939
1993	221	3,089	3,768	499,624	214,667	9,768,653	505,720	10,992,432
1994	214	3,309	1,741	409,303	253,285	6,648,561	1,593,751	8,906,641
1995	207	3,823	2,128	734,744	255,908	16,079,640	1,158,417	18,230,837
1996	178	1,962	2,075	216,234	276,193	1,744,707	381,522	2,620,731
1997	165	1,355	1,204	310,481	109,950	1,681,374	277,559	2,380,568
1998	210	3,971	1,793	763,810	150,693	7,442,498	456,456	8,815,250
1999	185	4,211	1,612	1,368,315	191,603	8,382,239	567,950	10,511,719
2000	180	2,897	2,088	532,467	249,973	3,135,286	790,817	4,710,631
2001	175	2,436	2,098	356,841	212,936	3,939,910	834,453	5,346,238
2002	112	1,556	3,411	290,606	197,323	1,950,760	421,461	2,863,561
2003	102	1,673	1,079	377,805	128,620	3,910,916	342,595	4,761,015
2004	103	1,629	2,238	641,326	230,443	6,248,298	301,972	7,424,277
2005	111	2,090	1,335	1,087,549	135,668	7,449,031	301,997	8,975,580
2006	116	2,392	886	840,225	164,186	2,851,820	864,720	4,721,837
2007	116	2,648	676	848,832	149,322	7,031,802	382,248	8,412,880
2008	134	2,653	1,380	493,966	224,976	10,704,645	385,333	11,810,300
2009	124	2,228	1,891	404,346	246,350	5,591,664	968,314	7,212,565
2010	139	1,165	3,848	287,491	161,698	486,748	444,245	1,384,030
2011	167	1,823	3,348	334,883	151,009	4,221,915	502,924	5,214,079
2012	181	1,113	1,197	253,841	90,619	186,045	195,880	727,582
2013	198	2,685	3,767	436,059	275,885	7,162,950	510,111	8,388,772
2014	156	1,811	4,990	767,167	294,341	540,949	111,788	1,719,235
2015	155	3,115	6,457	1,858,238	237,646	16,032,286	484,644	18,619,271
2016	118	1,127	6,804	808,806	176,838	339,864	139,519	1,471,831
Average								
2006–2015	149	2,163	2,844	652,505	199,603	5,481,082	485,021	6,821,055

<sup>a</sup> Does not include test fishery harvests.

<sup>b</sup> Harvest from 1987–1990, 1992, 1993, 1995, and 2002–2003 include catch from limited fishing periods in October.

Appendix D11.—South Alaska Peninsula Post-June (July 1–October 31) commercial salmon harvest (including SEDM harvest), all gear combined, by species and year, 1977–2016.

Year	Permits	Landings	Number of salmon <sup>a,b</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1977	103	1,315	35	60,669	2,108	1,443,245	126,762	1,632,819
1978	123	2,187	222	74,839	60,771	5,500,177	423,532	6,059,541
1979	165	2,699	1,049	283,352	356,562	6,409,584	378,712	7,429,259
1980	152	2,948	1,569	371,638	273,328	6,335,159	843,988	7,825,682
1981	168	2,940	4,415	316,945	161,899	4,581,643	1,201,454	6,266,356
1982	183	3,361	2,566	177,160	254,798	5,016,065	1,171,508	6,622,097
1983	210	3,210	12,833	522,913	127,157	2,771,744	917,198	4,351,845
1984	217	4,251	4,913	525,275	310,910	10,668,889	1,312,347	12,822,334
1985	213	2,970	724	294,782	170,046	4,323,885	912,580	5,702,017
1986	202	3,444	3,586	687,525	235,852	3,739,423	1,394,332	6,060,718
1987	233	2,926	3,935	463,090	224,740	1,191,512	929,782	2,813,059
1988	243	4,701	7,011	716,964	505,278	6,864,600	1,381,796	9,475,649
1989	274	4,185	4,225	909,393	441,397	7,089,895	538,177	8,983,087
1990	261	3,663	6,164	1,039,265	305,509	2,346,043	715,940	4,412,921
1991	234	3,889	2,807	570,688	313,210	9,977,423	797,890	11,662,018
1992	234	4,329	4,133	872,847	418,189	9,126,950	884,505	11,306,624
1993	222	3,686	4,545	641,103	218,871	9,846,906	514,405	11,225,830
1994	214	3,745	1,825	542,322	254,298	6,657,000	1,596,247	9,051,692
1995	208	4,227	2,197	827,772	258,131	16,132,189	1,175,556	18,395,845
1996	180	2,821	2,285	392,551	280,033	1,816,358	413,525	2,904,752
1997	168	2,550	1,350	615,228	111,334	1,697,989	283,929	2,709,830
1998	210	4,336	2,100	880,941	153,652	7,567,528	466,385	9,070,606
1999	186	4,357	1,651	1,415,509	192,498	8,425,091	572,609	10,607,358
2000	180	3,805	2,183	656,086	256,940	3,192,461	816,096	4,923,766
2001	178	3,006	2,275	461,136	214,250	3,982,130	884,593	5,544,384
2002	116	2,321	3,724	407,582	202,712	2,093,251	437,533	3,144,802
2003	106	2,492	1,289	553,301	130,852	4,039,946	353,704	5,079,092
2004	108	2,229	2,507	804,977	234,971	6,305,840	306,812	7,655,107
2005	111	2,253	1,379	1,244,326	141,692	7,754,815	309,551	9,451,763
2006	116	2,506	915	917,738	166,991	2,929,505	877,979	4,893,128
2007	116	2,648	676	848,832	149,322	7,031,802	382,248	8,412,880
2008	135	2,955	1,409	525,635	225,481	10,738,782	391,472	11,882,779
2009	127	2,968	2,011	556,111	248,349	5,651,463	983,944	7,441,878
2010	142	1,886	4,712	417,791	164,610	501,342	515,260	1,603,715
2011	175	2,589	3,595	452,133	153,291	4,268,929	541,785	5,419,733
2012	193	1,847	1,247	409,338	91,906	228,531	226,252	957,274
2013	206	3,670	4,372	572,909	293,524	7,489,200	549,535	8,909,540
2014	156	1,811	4,990	767,167	294,341	540,949	111,788	1,719,235
2015	158	3,458	6,688	2,091,856	245,459	16,110,498	496,888	18,951,389
2016	123	1,813	7,305	1,102,997	183,388	360,487	153,044	1,807,221
Average								
2006–2015	152	2,634	3,062	755,951	203,327	5,549,100	507,715	7,019,155

<sup>a</sup> Does not include test fishery harvests.

<sup>b</sup> Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

Appendix D12.—South Alaska Peninsula Post-June (July 1–October 31) commercial Chinook salmon harvest (including SEDM harvest) by gear and year, 1977–2016.

Year <sup>a</sup>	Purse seine		Drift gillnet		Set gillnet		Total
	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	
1977	18	51.4	0	0.0	17	48.6	35
1978	204	91.9	0	0.0	18	8.1	222
1979	981	93.5	2	0.2	66	6.3	1,049
1980	1,495	95.3	0	0.0	74	4.7	1,569
1981	4,280	96.9	0	0.0	135	3.1	4,415
1982	2,294	89.4	90	3.5	182	7.1	2,566
1983	12,552	97.8	78	0.6	203	1.6	12,833
1984	4,338	88.3	161	3.3	414	8.4	4,913
1985	625	86.3	24	3.3	75	10.4	724
1986	3,395	94.7	24	0.7	167	4.7	3,586
1987	3,700	94.0	64	1.6	171	4.3	3,935
1988	6,586	93.9	142	2.0	283	4.0	7,011
1989	3,584	84.8	295	7.0	346	8.2	4,225
1990	5,605	90.9	122	2.0	437	7.1	6,164
1991	2,085	74.3	62	2.2	660	23.5	2,807
1992	3,724	92.2	47	1.2	269	6.7	4,040
1993	3,666	85.2	111	2.6	524	12.2	4,301
1994	1,321	76.5	25	1.4	380	22.0	1,726
1995	1,556	74.8	34	1.6	489	23.5	2,079
1996	1,839	86.6	28	1.3	257	12.1	2,124
1997	1,161	86.0	18	1.3	171	12.7	1,350
1998	1,768	84.2	18	0.9	314	15.0	2,100
1999	1,367	84.4	15	0.9	237	14.6	1,619
2000	1,983	91.1	19	0.9	174	8.0	2,176
2001	1,732	88.5	19	1.0	206	10.5	1,957
2002	3,245	87.1	2	0.1	477	12.8	3,724
2003	961	74.6	7	0.5	321	24.9	1,289
2004	2,088	83.3	1	0.0	418	16.7	2,507
2005	1,296	94.0	2	0.1	81	5.9	1,379
2006	674	73.7	1	0.1	240	26.2	915
2007	570	84.3	1	0.1	105	15.5	676
2008	1,236	87.7	15	1.1	158	11.2	1,409
2009	1,819	90.5	11	0.5	181	9.0	2,011
2010	4,571	97.0	31	0.7	110	2.3	4,712
2011	3,158	87.8	123	3.4	314	8.7	3,595
2012	1,002	80.4	206	16.5	39	3.1	1,247
2013	3,665	83.8	343	7.8	364	8.3	4,372
2014	4,924	98.7	34	0.7	32	0.6	4,990
2015	6,541	97.8	26	0.4	121	1.8	6,688
2016	7,024	96.2	4	0.1	277	3.8	7,305
Average 2006–2015	2,816	88.2	79	3.1	166	8.7	3,062

<sup>a</sup> Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

<sup>b</sup> Does not include test fishery harvest.

Appendix D13.—South Alaska Peninsula Post-June (July 1–October 31) commercial sockeye salmon harvest (including SEDM harvest) by gear and year, 1977–2016.

Year <sup>a</sup>	Purse seine		Drift gillnet		Set gillnet		Total
	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	
1977	32,051	52.8	0	0.0	28,618	47.2	60,669
1978	57,448	76.8	0	0.0	17,391	23.2	74,839
1979	193,629	68.3	1,097	0.4	88,626	31.3	283,352
1980	260,433	70.1	398	0.1	110,807	29.8	371,638
1981	171,658	54.2	1,388	0.4	143,899	45.4	316,945
1982	92,784	52.4	13,472	7.6	70,904	40.0	177,160
1983	258,763	49.5	19,005	3.6	245,145	46.9	522,913
1984	240,959	45.9	26,698	5.1	257,618	49.0	525,275
1985	178,953	60.7	18,441	6.3	97,388	33.0	294,782
1986	412,251	60.0	30,261	4.4	245,013	35.6	687,525
1987	238,678	51.5	39,360	8.5	185,052	40.0	463,090
1988	423,852	59.1	44,657	6.2	248,455	34.7	716,964
1989	470,465	51.7	86,343	9.5	352,585	38.8	909,393
1990	524,630	50.5	132,907	12.8	381,728	36.7	1,039,265
1991	232,338	40.7	21,721	3.8	316,629	55.5	570,688
1992	443,201	50.9	44,935	5.2	382,491	43.9	870,627
1993	288,648	45.1	23,421	3.7	327,273	51.2	639,342
1994	147,337	27.2	18,134	3.4	375,637	69.4	541,108
1995	368,688	44.8	21,505	2.6	433,594	52.6	823,787
1996	80,819	20.7	5,776	1.5	304,043	77.8	390,638
1997	123,940	20.1	24,278	3.9	467,010	75.9	615,228
1998	381,734	43.4	35,569	4.0	462,960	52.6	880,263
1999	680,344	48.5	35,100	2.5	687,592	49.0	1,403,036
2000	212,658	32.5	20,587	3.1	421,287	64.4	654,532
2001	96,249	21.2	28,932	6.4	329,631	72.5	454,812
2002	118,441	29.1	15,783	3.9	273,358	67.1	407,582
2003	162,365	29.3	16,093	2.9	374,843	67.7	553,301
2004	400,982	49.8	21,452	2.7	382,543	47.5	804,977
2005	657,543	52.8	8,492	0.7	578,291	46.5	1,244,326
2006	414,302	45.1	2,702	0.3	500,734	54.6	917,738
2007	477,594	56.3	6,626	0.8	364,612	43.0	848,832
2008	321,396	61.1	12,629	2.4	191,610	36.5	525,635
2009	248,639	44.7	7,800	1.4	299,672	53.9	556,111
2010	175,804	42.1	13,877	3.3	228,110	54.6	417,791
2011	210,003	46.4	23,941	5.3	218,189	48.3	452,133
2012	168,419	41.1	56,039	13.7	184,880	45.2	409,338
2013	297,320	51.9	51,316	9.0	224,273	39.1	572,909
2014	415,107	54.1	60,662	7.9	291,398	38.0	767,167
2015	1,234,053	59.0	56,789	2.7	801,014	38.3	2,091,856
2016	562,059	51.0	7,067	0.6	533,871	48.4	1,102,997
Average							
2006–2015	396,264	50.2	29,238	4.7	330,449	45.2	755,951

<sup>a</sup> Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

<sup>b</sup> Does not include test fishery harvest.

Appendix D14.—South Alaska Peninsula Post-June (July 1–October 31) commercial coho salmon harvest (including SEDM harvest), by gear and year, 1977–2016.

Year <sup>a</sup>	Purse seine		Drift gillnet		Set gillnet		Total
	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	
1977	1,034	49.1	0	0.0	1,074	50.9	2,108
1978	57,842	95.2	0	0.0	2,929	4.8	60,771
1979	346,021	97.0	33	0.0	10,508	2.9	356,562
1980	249,602	91.3	0	0.0	23,726	8.7	273,328
1981	155,653	96.1	10	0.0	6,236	3.9	161,899
1982	219,462	86.1	19,202	7.5	16,134	6.3	254,798
1983	109,822	86.4	3,658	2.9	13,677	10.8	127,157
1984	247,342	79.6	37,805	12.2	25,763	8.3	310,910
1985	128,931	75.8	18,033	10.6	23,082	13.6	170,046
1986	203,505	86.3	18,901	8.0	13,446	5.7	235,852
1987	169,763	75.5	30,445	13.5	24,532	10.9	224,740
1988	389,723	77.1	75,445	14.9	40,110	7.9	505,278
1989	305,558	69.2	88,376	20.0	47,463	10.8	441,397
1990	224,354	73.4	42,659	14.0	38,496	12.6	305,509
1991	199,104	63.6	51,215	16.4	62,891	20.1	313,210
1992	294,100	70.9	58,621	14.1	62,184	15.0	414,905
1993	148,565	69.4	26,364	12.3	39,050	18.2	213,979
1994	161,903	64.7	24,980	10.0	63,196	25.3	250,079
1995	185,974	73.1	26,020	10.2	42,477	16.7	254,471
1996	197,800	74.0	22,561	8.4	47,017	17.6	267,378
1997	47,254	42.4	19,855	17.8	44,225	39.7	111,334
1998	83,205	54.2	30,219	19.7	40,204	26.2	153,628
1999	143,560	74.6	11,734	6.1	37,186	19.3	192,480
2000	180,030	70.1	33,632	13.1	43,179	16.8	256,841
2001	149,064	70.7	30,125	14.3	31,708	15.0	210,897
2002	165,305	81.5	11,567	5.7	25,840	12.7	202,712
2003	74,947	57.3	11,253	8.6	44,652	34.1	130,852
2004	174,961	74.5	9,115	3.9	50,895	21.7	234,971
2005	105,844	74.7	3,829	2.7	32,019	22.6	141,692
2006	120,089	71.9	2,353	1.4	44,549	26.7	166,991
2007	120,881	81.0	4,126	2.8	24,315	16.3	149,322
2008	166,130	73.7	21,815	9.7	37,536	16.6	225,481
2009	213,281	85.9	10,549	4.2	24,519	9.9	248,349
2010	143,675	87.3	10,552	6.4	10,383	6.3	164,610
2011	110,317	72.0	20,241	13.2	22,733	14.8	153,291
2012	52,121	56.7	36,106	39.3	3,679	4.0	91,906
2013	158,785	54.1	108,273	36.9	26,466	9.0	293,524
2014	195,597	66.5	59,795	20.3	38,949	13.2	294,341
2015	196,071	80.0	17,492	7.2	31,673	12.9	245,236
2016	171,562	93.6	3,100	1.7	8,726	4.8	183,388
Average							
2006–2015	147,695	72.9	29,130	14.1	26,480	13.0	203,305

<sup>a</sup> Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

<sup>b</sup> Does not include test fishery harvest.

Appendix D15.—South Alaska Peninsula Post-June (July 1–October 31) commercial pink salmon harvest (including SEDM harvest), by gear and year, 1977–2016.

Year <sup>a</sup>	Purse seine		Drift gillnet		Set gillnet		Total
	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	
1977	1,427,176	98.9	0	0.0	16,069	1.1	1,443,245
1978	5,470,855	99.5	0	0.0	29,322	0.5	5,500,177
1979	6,310,680	98.5	12,365	0.2	86,539	1.4	6,409,584
1980	6,236,027	98.4	12	0.0	99,120	1.6	6,335,159
1981	4,461,903	97.4	7,176	0.2	112,564	2.5	4,581,643
1982	4,852,553	96.7	50,748	1.0	112,764	2.2	5,016,065
1983	2,688,187	97.0	5,586	0.2	77,971	2.8	2,771,744
1984	10,324,380	96.8	78,575	0.7	265,934	2.5	10,668,889
1985	4,096,285	94.7	21,803	0.5	205,797	4.8	4,323,885
1986	3,602,769	96.3	27,772	0.7	108,882	2.9	3,739,423
1987	1,135,252	95.3	3,025	0.3	53,235	4.5	1,191,512
1988	6,427,823	93.6	145,106	2.1	291,671	4.2	6,864,600
1989	6,641,815	93.7	85,946	1.2	362,134	5.1	7,089,895
1990	2,256,837	96.2	32,089	1.4	57,117	2.4	2,346,043
1991	9,614,533	96.4	26,740	0.3	336,150	3.4	9,977,423
1992	8,616,933	94.5	91,106	1.0	409,440	4.5	9,117,479
1993	9,494,663	96.5	12,037	0.1	337,262	3.4	9,843,962
1994	6,317,708	95.0	53,701	0.8	277,061	4.2	6,648,470
1995	15,404,768	95.5	41,868	0.3	677,097	4.2	16,123,733
1996	1,523,636	84.1	17,593	1.0	269,395	14.9	1,810,624
1997	1,627,495	95.8	14,435	0.9	56,059	3.3	1,697,989
1998	6,803,002	89.9	192,352	2.5	570,987	7.5	7,566,341
1999	8,016,735	95.3	12,045	0.1	383,971	4.6	8,412,751
2000	2,871,880	90.0	15,979	0.5	301,656	9.5	3,189,515
2001	3,629,078	91.3	20,999	0.5	322,729	8.1	3,972,806
2002	1,831,099	87.5	9,664	0.5	252,488	12.1	2,093,251
2003	3,679,093	91.1	13,377	0.3	347,476	8.6	4,039,946
2004	6,051,523	96.0	24,360	0.4	229,957	3.6	6,305,840
2005	7,386,836	95.3	6,258	0.1	361,721	4.7	7,754,815
2006	2,629,811	89.8	5,520	0.2	294,174	10.0	2,929,505
2007	6,485,719	92.2	5,134	0.1	540,949	7.7	7,031,802
2008	10,056,235	93.6	83,287	0.8	599,260	5.6	10,738,782
2009	5,350,718	94.7	47,711	0.8	253,034	4.5	5,651,463
2010	443,498	88.5	4,823	1.0	53,021	10.6	501,342
2011	4,013,553	94.0	33,045	0.8	222,331	5.2	4,268,929
2012	187,337	82.0	13,546	5.9	27,648	12.1	228,531
2013	7,192,644	96.0	81,475	1.1	215,081	2.9	7,489,200
2014	439,352	81.2	38,880	7.2	62,717	11.6	540,949
2015	15,553,122	96.5	231,350	1.4	326,026	2.0	16,110,498
2016	314,855	87.3	2,464	0.7	43,168	12.0	360,487
Average (even years)							
2006–2015	5,235,199	87.0	29,211	3.0	207,364	10.0	2,987,822

<sup>a</sup> Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

<sup>b</sup> Does not include test fishery harvest.

Appendix D16.—South Alaska Peninsula Post-June (July 1–October 31) commercial chum salmon harvest (including SEDM harvest), by gear and year, 1977–2016.

Year <sup>a</sup>	Purse seine		Drift gillnet		Set gillnet		Total
	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	
1977	114,058	90.0	0	0.0	12,704	10.0	126,762
1978	403,352	95.2	0	0.0	20,180	4.8	423,532
1979	346,006	91.4	2,834	0.7	29,872	7.9	378,712
1980	758,344	89.9	8	0.0	85,636	10.1	843,988
1981	1,105,265	92.0	4,125	0.3	92,064	7.7	1,201,454
1982	1,060,812	90.6	15,587	1.3	95,109	8.1	1,171,508
1983	829,281	90.4	19,913	2.2	68,004	7.4	917,198
1984	1,186,753	90.4	30,941	2.4	94,653	7.2	1,312,347
1985	828,645	90.8	18,521	2.0	65,414	7.2	912,580
1986	1,300,638	93.3	22,294	1.6	71,400	5.1	1,394,332
1987	811,464	87.3	43,115	4.6	75,203	8.1	929,782
1988	1,228,987	88.9	68,066	4.9	84,743	6.1	1,381,796
1989	417,978	77.7	44,605	8.3	75,594	14.0	538,177
1990	600,040	83.8	46,700	6.5	69,200	9.7	715,940
1991	635,031	79.6	25,465	3.2	137,394	17.2	797,890
1992	776,939	88.3	29,252	3.3	73,875	8.4	880,066
1993	448,204	87.3	17,871	3.5	47,503	9.2	513,578
1994	1,458,898	91.5	26,262	1.6	108,430	6.8	1,593,590
1995	1,039,506	88.6	22,517	1.9	110,941	9.5	1,172,964
1996	315,357	76.6	14,306	3.5	81,918	19.9	411,581
1997	239,619	84.4	13,278	4.7	31,032	10.9	283,929
1998	333,693	71.6	35,723	7.7	96,486	20.7	465,902
1999	427,414	75.3	21,247	3.7	119,268	21.0	567,929
2000	653,132	80.2	26,134	3.2	134,711	16.5	813,977
2001	696,166	79.7	25,762	2.9	151,637	17.4	873,565
2002	381,423	87.2	12,325	2.8	43,785	10.0	437,533
2003	287,757	81.4	11,867	3.4	54,080	15.3	353,704
2004	254,545	83.0	6,655	2.2	45,612	14.9	306,812
2005	260,703	84.2	1,818	0.6	47,030	15.2	309,551
2006	777,244	88.5	1,561	0.2	99,174	11.3	877,979
2007	327,484	85.7	2,059	0.5	52,705	13.8	382,248
2008	316,076	80.7	13,457	3.4	61,939	15.8	391,472
2009	851,190	86.5	19,509	2.0	113,245	11.5	983,944
2010	418,693	81.3	19,051	3.7	77,516	15.0	515,260
2011	416,883	76.9	44,251	8.2	80,651	14.9	541,785
2012	162,178	71.7	37,558	16.6	26,516	11.7	226,252
2013	405,997	73.9	84,073	15.3	59,465	10.8	549,535
2014	78,642	70.3	15,790	14.1	17,356	15.5	111,788
2015	394,706	79.4	29,117	5.9	73,065	14.7	496,888
2016	118,596	77.5	950	0.6	33,498	21.9	153,044
Average							
2006–2015	414,909	79.5	26,643	7.0	66,163	13.5	507,715

<sup>a</sup> Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

<sup>b</sup> Does not include test fishery harvest.





## **APPENDIX E. SALMON ESCAPEMENT DATA**

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Appendix E1.—Method for calculating indexed total escapement.

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Aerial surveys have inherently high variability and are influenced by many factors including inclement weather, lighting, timing of peak surveys, and inconsistency between surveyors. Surveys are conducted between 3-5 times per stream in any given season. Multiple surveys over the course of the salmon return allows department staff to identify peak abundance and relative run timing.

**Pink and Chum salmon:** These species of salmon have a relatively short stream life when compared to other Pacific salmon species. To account for new fish entering the system and post-spawn fish flushing out of the system between surveys, a 21-day stream life is used to calculate the indexed total escapement. If there are any stream counts 21 or more days prior to the peak count, the number of fish in the stream and the carcasses are added to the total count. Likewise, if there are any counts 21 or more days after the peak count, those live fish found at both the mouth and in the stream are added to the total count.

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**EXAMPLE**

Fictional Stream 281-##						
Survey Date	Pinks at Mouth	Pinks in Stream	Pink Carcasses	Chums at Mouth	Chums in Stream	Chum Carcasses
10-Jul	5,000	<b>1,000</b>	<b>5,000</b>	0	0	0
17-Jul	15,000	25,000	5,000	0	0	0
1-Aug	10,000	<b>150,000</b>	10,000	0	0	0
15-Aug	3,000	100,000	25,000	500	1,000	0
1-Sep	<b>12,000</b>	<b>50,000</b>	55,000	<b>2,000</b>	<b>5,000</b>	<b>500</b>
Sub total	12,000	201,000	5,000	2,000	5,000	500
Total	218,000 Pink			7,500 Chum		

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The indexed total escapement is calculated by adding the figures in **bold**.

The estimate of 21 days stream life was used because significant numbers of carcasses begin to appear about three weeks after adult pinks and chums first appear in Alaska Peninsula streams. It is recognized that stream life can vary; however, this method is easily duplicated and is comparable from year to year. Variation in stream life is likely a much smaller factor than variation between observers.

**Chinook, Sockeye, and Coho salmon:** These species of salmon generally have a much longer stream life than pink and chum salmon. Therefore, the indexed total escapement is the peak escapement count of live fish and carcasses. The peak escapement count is the highest single survey estimate on a single system for an individual species. However, it is recognized that there are problems with this method in large and complex systems. The issues that arise while surveying these systems is the duration, expense, fuel capacity, and variable environmental conditions within the system that restrict the ability to conduct a thorough and consistent set of surveys.

Appendix E2.–South Peninsula total indexed salmon escapements by species and year, 1977–2016.

Year	Sockeye	Coho <sup>a</sup>	Pink	Chum	Total
1977	64,900	-	2,677,800	774,900	3,517,600
1978	64,800	-	2,858,700	600,500	3,524,000
1979	53,300	-	2,629,500	411,100	3,093,900
1980	45,900	-	2,641,600	362,400	3,049,900
1981	45,700	-	2,307,500	381,300	2,734,500
1982	39,200	-	2,293,000	386,900	2,719,100
1983	59,200	-	851,200	446,500	1,356,900
1984	54,800	-	3,811,600	699,700	4,566,100
1985	49,900	-	1,614,100	503,500	2,167,500
1986	48,000	-	1,716,700	544,600	2,309,300
1987	44,600	-	1,540,500	620,700	2,205,800
1988	74,100	-	2,839,600	496,400	3,410,100
1989	78,100	-	1,870,900	310,500	2,259,500
1990	95,300	87,500 <sup>b,c</sup>	1,598,400	354,700	2,048,400
1991	124,900	-	2,946,800	587,600	3,659,300
1992	97,600	-	2,834,400	335,500	3,267,500
1993	100,341	-	2,990,140	397,030	3,487,511
1994	120,255	-	3,071,725	579,100	3,771,080
1995	129,110	-	6,406,300	726,400	7,261,810
1996	72,950	-	3,647,550	610,300	4,330,800
1997	104,440	-	5,243,275	809,050	6,156,765
1998	85,440	-	4,668,065	742,235	5,495,740
1999	97,000	-	5,015,000	725,000	5,837,000
2000	69,530	-	2,792,985	522,075	3,384,590
2001	161,630	-	2,965,136	751,221	3,877,987
2002	192,749	-	3,762,800	602,750	4,558,299
2003	198,192	-	5,511,220	476,540	6,185,952
2004	220,861	-	8,311,410	732,400	9,264,671
2005	123,964	-	6,165,634	970,310	7,259,908
2006	88,148	-	2,862,250	764,750	3,715,148
2007	69,013	-	2,680,213	726,661	3,475,887
2008	95,859	-	3,338,370	591,950	4,026,179
2009	128,117	-	3,067,000	512,230	3,707,347
2010	38,039	-	742,912	291,912	1,072,863
2011	59,794	-	2,494,950	497,725	3,052,469
2012	56,300	-	478,910	205,242	740,452
2013	37,386	-	2,320,790	502,600	2,860,776
2014	37,670	-	1,340,380	313,615	1,691,665
2015	96,110	-	7,820,800	906,420	8,823,330
2016	120,170	-	1,038,160	626,776	1,785,108
Average 2006–2015	70,644		2,714,658	531,311	3,316,612

<sup>a</sup> Coho salmon surveys are conducted for presence/absence information only during pink and chum surveys. Surveys are not flown during peak coho salmon abundance.

<sup>b</sup> In 1990, excellent survey conditions and additional funding allowed coho surveys during mid- and late September. These coho numbers are not included in the total escapement.

Appendix E3.—South Peninsula total indexed salmon escapements by species, district, section, and stream, 2016.

		Number of salmon			
Stream number	Stream name	Sockeye	Coho <sup>a</sup>	Pink	Chum
Southeastern District					
East Stepovak Section					
281-35.07	Near Bluff	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
281-35.06	Boulder Bay	0	0	500	40
281-35.05	Fox Bay	10	0	400	0
281-35.04	Fox Bay	0	0	40	0
281-35.02	Fox Bay	0	0	360	0
281-35.01	Fox Bay	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
281-34.08	Island Bay	0	0	0	0
281-34.07	Island Bay	0	0	0	5,000
281-34.05 & .06	Island Bay	0	0	5,000	0
281-34.04	Island Bay	0	0	0	0
281-34.03	Stonehouse Creek	0	0	3,000	0
281-34.02	Osterback's Creek	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
Total East Stepovak Section		10	0	9,300	5,040
Stepovak Flats Section					
281-34.01	Granville's	0	0	0	16,000
281-33.06	Granville Portage	0	0	0	0
281-33.05	Stepovak River	0	0	0	0
281-33.04	Big River	0	0	0	11,570
281-33.03	Louis' Corner	0	0	0	3,700
281-33.01 & .02	Ramsey Bay	0	0	0	6,500
Total Stepovak Flats Section		0	0	0	37,770
Northwest Stepovak Section					
281-32.07	Grub Gulch	0	0	0	5,700
281-32.06	Clark Bay	0	0	0	0
281-32.05	Clark Bay	0	0	0	24,000
281-31.04	Little Norway	700	0	800	7,200
281-31.03	Orzinski	48,000	0	0	0
281-20.04	Windbound Bay	0	0	0	700
281-20.02 & .03	Chichagof Lagoon	0	0	2,500	4,600
281-20.01	Chichagof	0	0	1,500	1,670
281-10.04	West Cove	0	0	0	0
281-10.03	Suzy Creek	0	0	14,600	9,001
281-10.02	Dorenoi, Minor	0	0	40	180
281-10.01	Dorenoi, Major	0	0	3,000	1,600
Total Northwest Stepovak Section		48,700	0	22,440	54,651

-continued-

Appendix E3.–Page 2 of 7.

Stream number	Stream name	Number of salmon			
		Sockeye	Coho <sup>a</sup>	Pink	Chum
Southwest Stepovak Section					
281-90.03 & .04	San Diego	0	0	0	7,800
281-90.02	Rough Beach	0	0	2,200	9,400
281-90.01	Swedania Point	0	0	2,100	0
Total Southwest Stepovak Section		0	0	4,300	17,200
Balboa Bay Section					
281-80.17	Lefty Creek	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
281-80.16	Near Ballast Island	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
281-80.15	Coleman Creek	0	0	6,600	5,900
281-80.14	Johnson Creek	0	0	3,100	7,000
281-80.12	Foster's Camp	0	0	0	0
281-80.11	Monolith Point Creek	0	0	0	800
281-80.09	Foster Creek	0	0	5,200	5,400
281-80.08	Lefthand River	210	0	0	2,130
281-80.06	Cape Aliaksin, East	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
281-80.05	Cape Aliaksin, Center	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
281-80.04	Cape Aliaksin, West	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
Total Balboa Bay Section		210	0	14,900	21,230
Beaver Bay Section					
281-70.03	McGinty Point Creek	0	0	5,400	0
281-70.06	Kagayan Flats	0	0	0	0
281-70.05	Beaver River	0	0	0	5,200
281-70.04	Not Smilies	0	0	0	65
Total Beaver Bay Section		0	0	5,400	5,265

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Stream number	Stream name	Number of salmon			
		Sockeye	Coho <sup>a</sup>	Pink	Chum
Shumagin Islands Section					
282-11.06	Korvin Lake	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-11.05	West Korovin	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-11.03	Foxhole	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-11.01	Salmon Ranch	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-10.18	Humbolt Creek	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-10.19	Simeon's Bight	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-10.20	Red Cove Lake	0	0	0	0
282-12.10	Zachary Bay	0	0	0	0
282-12.09	Zachary Bay	0	0	0	0
282-12.08	Zachary Bay	0	0	0	200
282-12.07 & .06	Zachary Bay	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-12.05 & .04	Zachary Bay	0	0	0	500
282-12.03	Zachary Bay	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-12.02	Zachary Bay	0	0	0	300
282-12.01	Zachary Bay	0	0	0	0
282-13.01	Unga Spit	0	0	2,000	200
282-13.02	Dry Lagoon	0	0	9,700	0
282-13.03	Bay Point	0	0	0	8,100
282-13.04	Pinnacle Point	0	0	0	0
282-13.05	2nd Stream S. of Pinn Point	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-13.06	3rd Stream S. of Pinn Point	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-10.02	Little Apollo	0	0	0	0
282-10.03	Big Apollo	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-10.04	Acheredin	700	0	0	0
282-10.12	Unga Cape	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-10.10	Delarof Harbor	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-10.11	Apollo Gold Mine Creek	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-10.13	John Nelson	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-10.14	Squaw Harbor, Minor	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-10.15	Squaw Harbor, Major	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-10.16	Farm	0	0	0	0
282-20.01	Porpoise Rocks	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-20.02	Porpoise Harbor	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-20.03	Sanborn Lagoon-Lake	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-20.04	Sanborn Harbor	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-20.xx	Falmouth Harbor	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-20.06	Falmouth Harbor	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-20.08	East Bight	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
282-20.09	West Bight	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
Total Shumagin Islands Section		700	0	11,700	9,300
Southeastern District total		49,620	0	68,040	150,456

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Stream number	Stream name	Number of salmon			
		Sockeye	Coho <sup>a</sup>	Pink	Chum
South Central District					
Mino Creek-Little Coal Bay Section					
283-70.02	East of Mino Creek	0	0	500	60
283-70.01	Mino's Creek	2,500	0	17,500	38,500
283-62.06	Wosnesenski Lake	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
283-62.05	Coal Bay, Main	0	0	1,700	1,600
283-62.04	Coal Bay, #2	0	0	200	0
283-62.03	Coal Bay, #3	0	0	0	0
283-62.02	Coal Bay, #4	0	0	0	0
283-62.01	Cape Tolstoi Creek	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
	Total Mino Creek-Little Coal Bay Section	2,500	0	19,900	40,160
East Pavlof Bay Section					
283-63.16	Settlement Point Creek	700	0	30,100	19,700
283-63.15	Middle Creek	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
	Total East Pavlof Bay Section	700	0	30,100	19,700
Canoe Bay Section					
283-64.10	Ness Creek	0	0	0	1,000
283-64.09	Inner Canoe Bay, South side	0	0	0	1,000
283-64.08	Entrance Creek	0	0	0	1,500
283-64.07	Wolverine Gulch	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
283-64.06	Canoe Bay River	3,500	0	19,400	110,200
283-64.05	Bluff Point Creek	0	0	0	20,800
	Total Canoe Bay Section	3,500	0	19,400	134,500
West Pavlof Bay Section					
283-63.14	Dry Lagoon	0	0	0	0
283-63.13	Ruby's Lagoon	0	0	800	16,000
283-63.11	Chinaman Lagoon, North	0	0	4,000	0
283-63.10	Chinaman Lagoon, Main	0	0	1,000	11,000
283-63.09	Chinaman Lagoon 6309	0	0	2,500	0
283-63.05 & .06	Chinaman Lagoon, South	0	0	5,800	15,100
283-63.04	Stream S. of Chinaman Lagoon	600	0	0	200
283-61.05	Long John Lagoon, East	0	0	0	0
283-61.04	Long John Lagoon, Spring Fed Lakes	0	2	1,500	4,800
283-61.03	Long John Lagoon, 2 South	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
283-61.02	Long John Lagoon, Southwest	500	0	0	6,900
	Total West Pavlof Bay Section	1,100	2	15,600	54,000
South Central District total		7,800	2	85,000	248,360

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Appendix E3.–Page 5 of 7.

Stream number	Stream name	Number of salmon			
		Sockeye	Coho <sup>a</sup>	Pink	Chum
Southwestern District					
Volcano Bay Section					
284-52.10	Dushkin Lagoon	0	0	600	0
284-52.08	Volcano River	1,000	0	18,600	8,400
284-52.07	Volcano Bay Center Sloughs	0	0	14,100	200
284-52.06	Volcano Bay West Spring Holes	0	0	300	500
284-52.05	Streamguard Creek	0	0	4,500	0
284-52.04	Stub Creek	0	0	1,500	0
284-52.03	Little Bear Bay	0	0	0	0
284-52.01	Nikolaski	0	0	0	0
284-52.00	Little Nikolaski	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
284-51.03	Dolgoi Harbor, North	0	0	0	0
284-51.04	Dolgoi Harbor, Northeast	0	0	0	0
284-51.05	Dolgoi Harbor, East	0	0	0	0
284-51.06	Dolgoi Harbor, South	0	0	0	0
Total Volcano Bay Section		1,000	0	39,600	9,100
Belkofski Bay Section					
284-41.01	Belkofski Village Creek	0	0	33,000	3,600
284-42.12	Rocky River	0	0	4,100	0
284-42.10	Kitchen Anchorage	0	0	3,000	0
284-42.09	Captain's Harbor	0	0	2,400	0
284-42.07	Belkofski River	2,500	0	23,500	57,300
284-42.06	Belkofski Beach	0	0	600	0
284-42.05	Belkofski Bay, West	0	0	3,700	4,500
284-42.04	Belkofski Bay 4204	0	0	0	0
284-42.03	Indian Head Creek	0	0	2,600	0
284-33.05	Rams Creek	0	0	34,000	0
284-33.04	King Cove Lagoon, North	0	0	3,800	0
284-33.03	King Cove Lagoon, West	0	0	800	0
Total Belkofski Bay Section		2,500	0	111,500	65,400
Deer Island Section					
284-31.01	Deer Island, North	0	0	215,200	0
284-31.02	Fox Island Anchorage Center	0	0	12,800	0
284-31.03	Fox Island Anchorage	0	0	54,170	0
284-31.05	Paw Cape	0	0	50	250
284-31.06	Southern Creek	0	0	341,000	0
284-31.010	Eastern Creek	0	0	74,000	0
Total Deer Island Section		0	0	697,220	250

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Stream number	Stream name	Number of salmon			
		Sockeye	Coho <sup>a</sup>	Pink	Chum
Cold Bay Section					
284-34.11	Outer Lenard Harbor	0	0	800	0
284-34.13		— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
284-34.12		0	0	0	0
284-34.10	Delta Creek	0	0	0	3,400
284-34.09	Barney’s Creek	0	0	4,700	0
284-34.07	Kinzarof Lagoon, East	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
284-34.06	Kinzarof Lagoon, Center	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
284-34.05	Kinzarof Lagoon, West	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
284-34.03	Trout Creek	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
284-34.02	Russel Creek	0	0	0	113,000
284-34.01	Mortensen Lagoon <sup>c</sup>	13,000	0	0	0
284-32.01	Old Man Lagoon	5,500	0	0	0
Total Cold Bay Section		18,500	0	5,500	116,400
Thin Point Section					
284-20.06	Thin Point Lagoon	18,000	0	0	10
284-20.07	Thin Point Lagoon SW	3,000	0	1,000	0
284-20.08	Thin Point West	2,500	0	4,800	0
284-20.10	Thin Point Lake	5,000	0	0	0
284-20.09	Thin Point Stream	7,900	0	0	0
284-20.04	Southwest Bight	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
284-20.03	McGinty’s Creek	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
284-20.01	Sandy Cove	0	0	0	10,100
Total Thin Point Section		36,400	0	5,800	10,110
Morzhovoi Bay Section					
284-11.01	Near Egg Island	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
284-12.13	Little John Lagoon	0	0	14,000	9,000
284-12.12	Little John Sandpit	0	0	0	0
284-12.10	Little John Rock	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
284-12.11	Cannery Creek	0	0	0	0
284-12.05	Middle Lagoon	0	0	3,500	2,000
284-12.01	Hansen's Creek	3,000	0	1,500	0
Total Morzhovoi Bay Section		3,000	0	19,000	11,000

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Appendix E3.—Page 7 of 7.

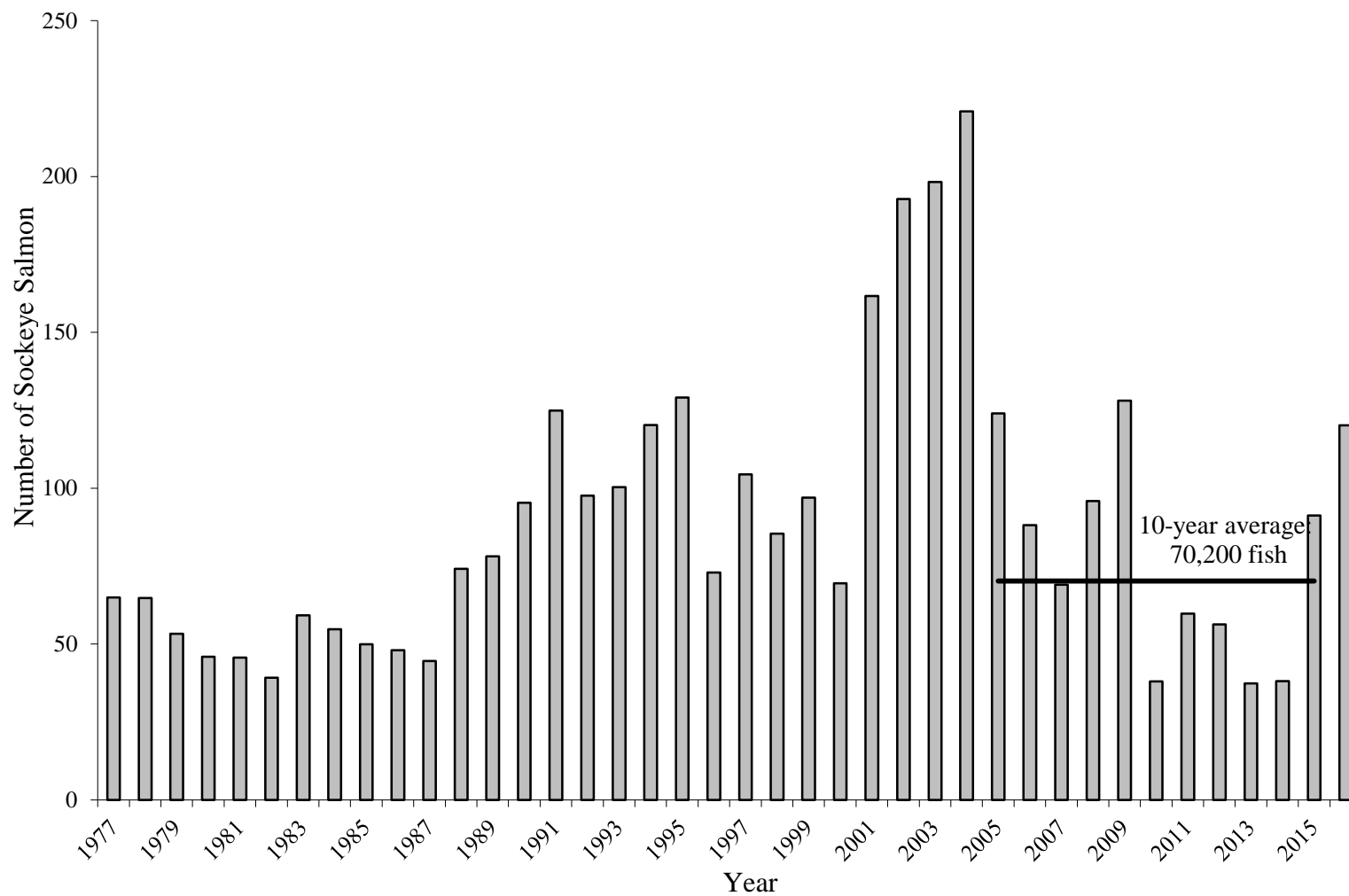
Stream number	Stream name	Number of salmon			
		Sockeye	Coho <sup>a</sup>	Pink	Chum
Ikatan Bay Section					
284-60.08	Deadman’s Cove	0	0	2,000	0
284-60.07	Whalebone Bay	1,350	0	800	0
284-60.06	Sankin Bay	0	0	0	0
284-60.05	Whirl Point	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
284-60.04	Ikatan River	0	0	0	0
284-60.03	Swede's Lake	0	0	0	0
284-60.01	Ikatan Point	0	0	2,300	7,800
Total Ikatan Bay Section		1,350	0	5,100	7,800
Southwestern District total		62,750	0	883,720	220,060
Unimak District					
Otter Cove Section					
285-50.00	Dora Harbor	0	0	0	0
285-40.09	Otter Cove, East	0	0	1,000	6,800
285-40.08	Otter Cove, West	0	0	400	1,100
285-30.07	Conocal Red Hill Stream	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
285-40.05	Lazaref River	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
Total Otter Cove Section		0	0	1,400	7,900
Sanak Island Section					
285-10.02	Pauloff Harbor	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
285-10.03	Johnson Bay	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
285-10.04	Unimak Cove	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
285-10.10	Salmon Bay	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
285-10.09	Sandy Bay	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
285-10.05	Dodd’s Bay, East	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
285-10.08	Wahwoman Creek	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
285-10.07	West Sanak Island, Trinity	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
285-10.06	Near Sanak Village	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
Total Sanak Island Section		0	0	0	0
Unimak District total		0	0	1,400	7,900
South Peninsula total		120,170	2	1,038,160	626,776

<sup>a</sup> Coho surveys are conducted for presence information only. Surveys are not flown for peak abundance estimates.

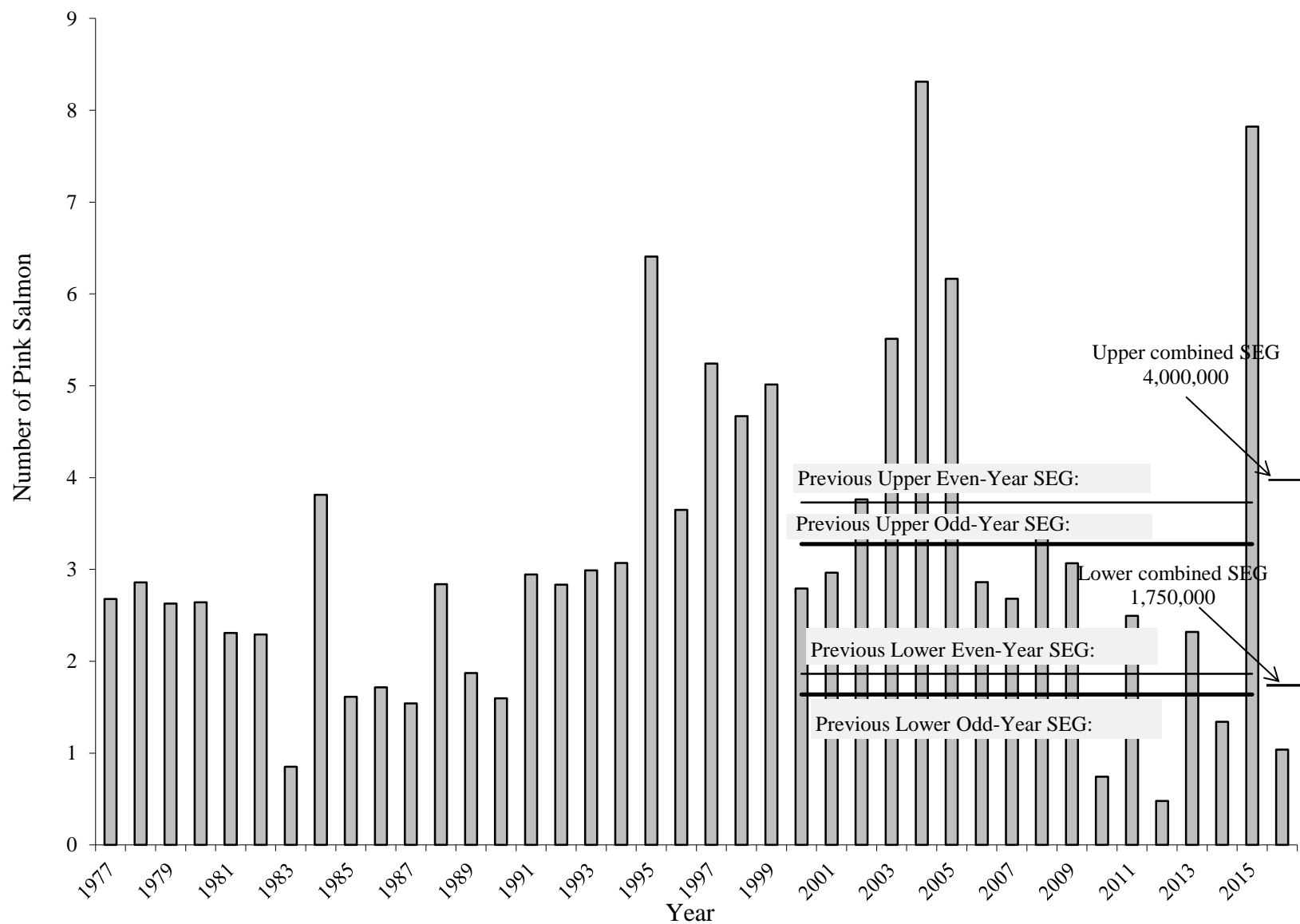
<sup>b</sup> Aerial survey not conducted on stream.

<sup>c</sup> Mortensen Lagoon estimate of sockeye salmon is an underestimate due to poor aerial survey conditions.

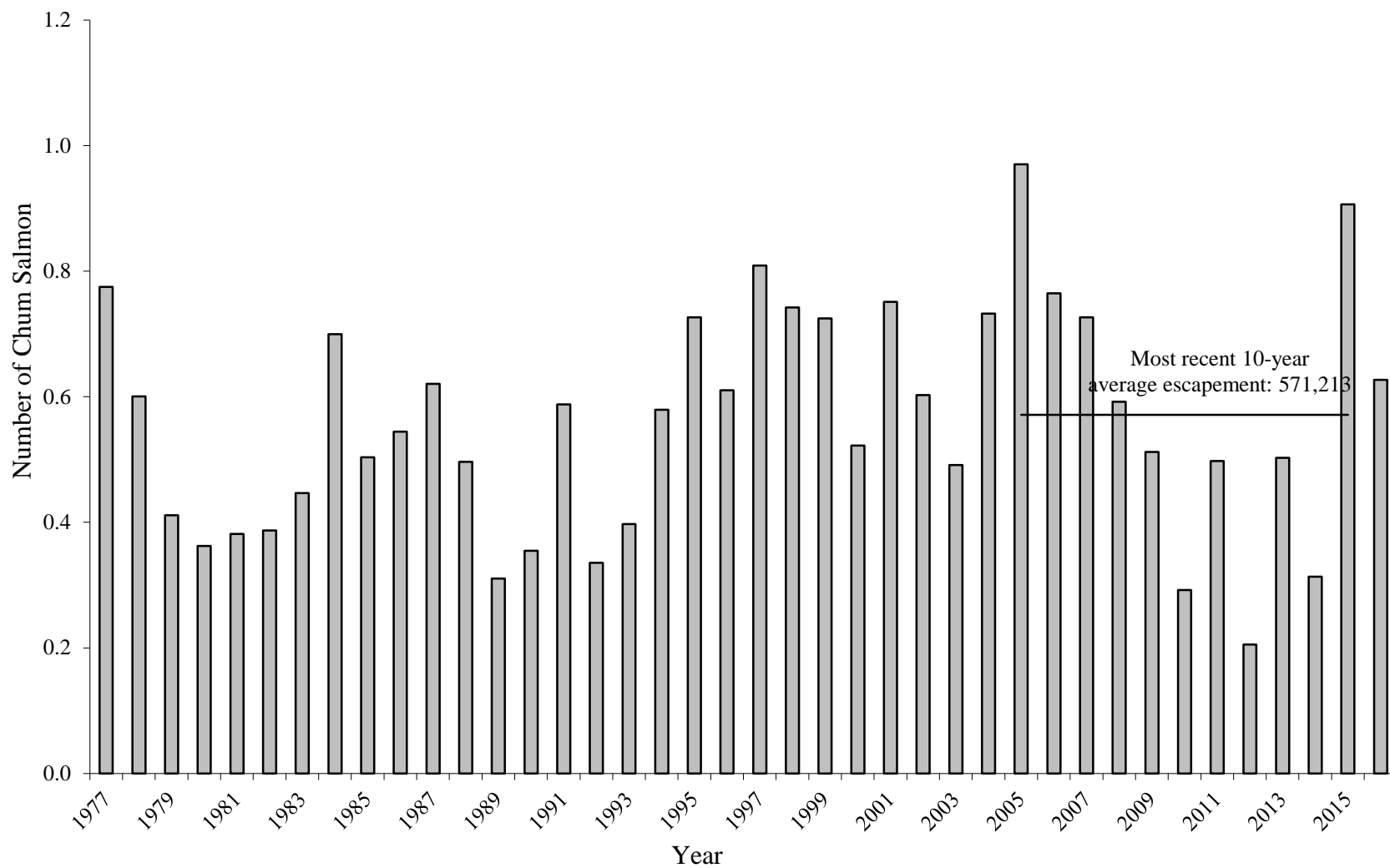
Appendix E4.—South Peninsula total indexed sockeye salmon escapement by year, 1977–2016.



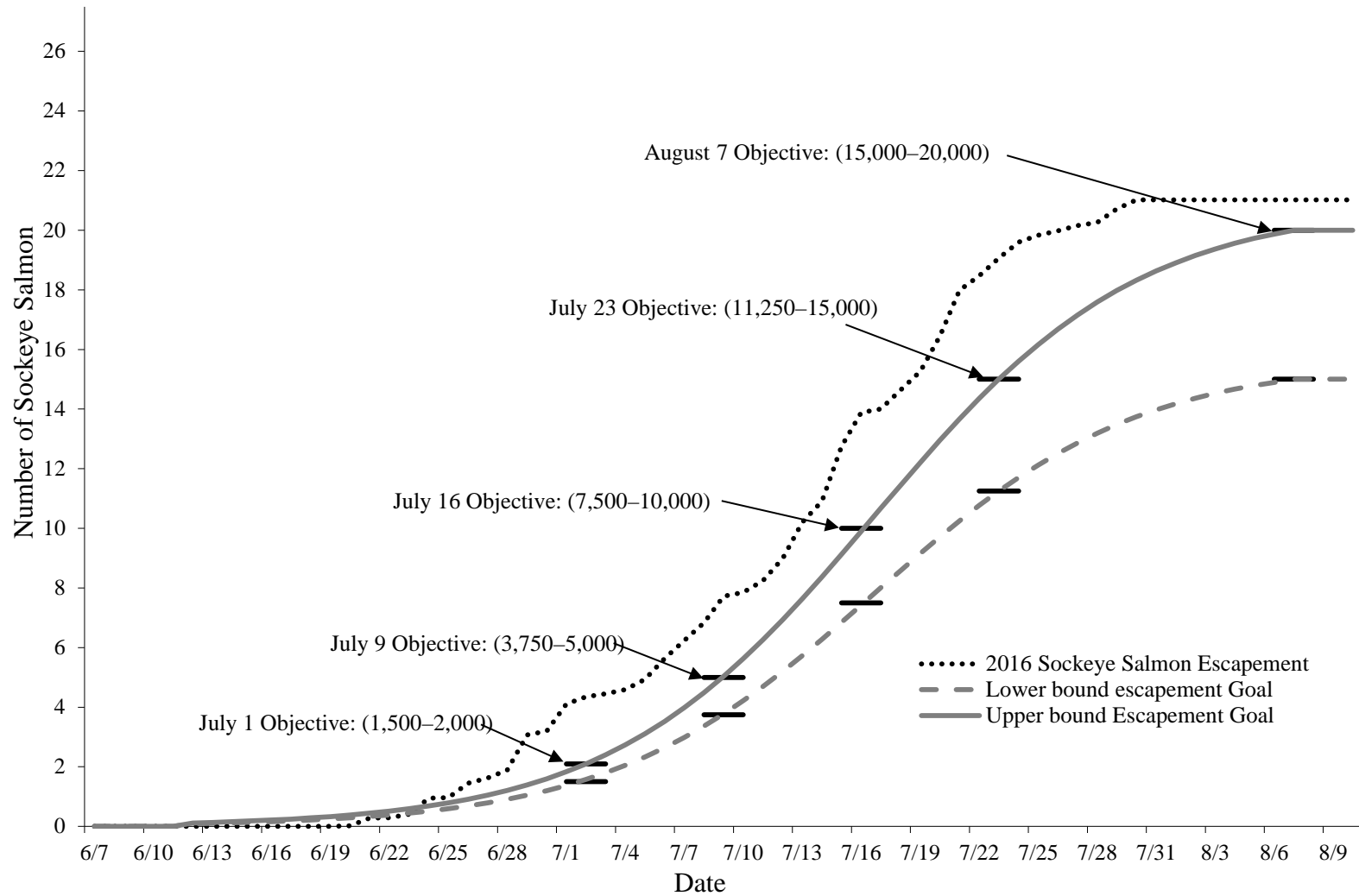
Appendix E5.—South Peninsula total indexed pink salmon escapement by year, 1977–2016.



Appendix E6.—South Peninsula total indexed chum salmon escapement by year, 1977–2016.



Appendix E7.—2016 Sockeye salmon cumulative escapement counts through the Orzinski Lake weir, with upper and lower escapement goals defined.



Appendix E8.—Sockeye, pink, and chum salmon daily and cumulative escapement counts through the Orzinski Lake weir, 2016.

Date	Sockeye				Pink		Chum	
	Adults	Jacks	Total	Cumulative	Daily	Cumulative	Daily	Cumulative
19-Jun <sup>a</sup>	Weir Installed							
20-Jun	24	1	25	25	0	0	0	0
21-Jun	239	12	251	276	0	0	0	0
22-Jun	15	1	16	292	0	0	0	0
23-Jun	119	2	121	413	0	0	0	0
24-Jun	522	13	535	948	0	0	0	0
25-Jun	18	0	18	966	0	0	0	0
26-Jun	461	23	484	1,450	0	0	0	0
27-Jun	170	8	178	1,628	0	0	0	0
28-Jun	257	12	269	1,897	0	0	1	1
29-Jun	1,138	31	1,169	3,066	0	0	0	1
30-Jun <sup>b</sup>			129	3,195	0	0	0	1
1-Jul <sup>b</sup>			911	4,106	0	0	0	1
2-Jul	233	5	238	4,344	0	0	0	1
3-Jul	100	6	106	4,450	1	1	0	1
4-Jul	135	3	138	4,588	1	2	0	1
5-Jul	334	13	347	4,935	1	3	0	1
6-Jul	694	11	705	5,640	2	5	0	1
7-Jul <sup>b</sup>			601	6,241	0	5	0	1
8-Jul	576	17	593	6,834	3	8	0	1
9-Jul	865	24	889	7,723	2	10	0	1
10-Jul <sup>b</sup>			130	7,853	0	10	0	1
11-Jul	377	8	385	8,238	0	10	0	1
12-Jul	739	17	756	8,994	3	13	0	1
13-Jul	1,192	21	1,213	10,207	0	13	0	1
14-Jul	693	8	701	10,908	1	14	0	1
15-Jul	1,829	14	1,843	12,751	7	21	1	2
16-Jul	1,120	9	1,129	13,880	2	23	0	2
17-Jul	120	0	120	14,000	0	23	0	2
18-Jul	628	11	639	14,639	1	24	0	2
19-Jul	611	14	625	15,264	0	24	0	2
20-Jul	1,166	18	1,184	16,448	3	27	0	2
21-Jul	1,524	15	1,539	17,987	9	36	0	2
22-Jul	476	4	480	18,467	3	39	0	2
23-Jul	590	8	598	19,065	10	49	0	2
24-Jul	528	9	537	19,602	4	53	1	3
25-Jul <sup>b</sup>			228	19,830	0	53	0	3

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Date	Sockeye				Pink		Chum	
	Adults	Jacks	Total	Cumulative	Daily	Cumulative	Daily	Cumulative
26-Jul	149	2	151	19,981	0	53	0	3
27-Jul <sup>b</sup>			179	20,160	0	53	0	3
28-Jul	94	1	95	20,255	0	53	0	3
29-Jul	450	10	460	20,715	0	53	0	3
30-Jul	301	3	304	21,019	0	53	0	3
31-Jul	Weir pulled							
Total	18,487	354		21,019		53		3

<sup>a</sup> Weir fish tight on June 20.

<sup>b</sup> Adults and Jacks not differentiated during count.