

# **South Alaska Peninsula Salmon Management Strategy, 2024**

**by**

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**May 2024**

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**Alaska Department of Fish and Game**

**Division of Commercial Fisheries**



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

***REGIONAL INFORMATION REPORT NO. 4K24-05***

**SOUTH ALASKA PENINSULA SALMON MANAGEMENT STRATEGY,  
2024**

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# ABSTRACT

The South Alaska Peninsula Management Area (Area M) commercial salmon fisheries are regulated by three management plans. The South Unimak and Shumagin Islands June fisheries occur from June 6 through June 28 and target sockeye salmon *Oncorhynchus nerka*. The June fisheries is in affect from June 6 through June 28. Set gillnet gear is the only gear type to begin on the first commercial opening beginning on June 6, then the remaining openings commence according to two schedules, one for purse seine gear and one for drift gillnet and set gillnet gear. The post-June fishery may occur from July 6 through October 31 and is guided by the results of an immature salmon test fishery and the strength of local sockeye, chum *O. keta*, pink *O. gorbuscha*, and coho salmon *O. kisutch* returns. The Southeastern District Mainland (SEDM) is managed independently from the remainder of the South Alaska Peninsula fisheries from June 1 through July 25 A sockeye salmon allocation plan exists between the Chignik Management Area (CMA) and the SEDM where 7.6% of the sockeye salmon harvested in the CMA may be harvested in the SEDM. Of the sockeye salmon harvested in the SEDM during the allocation timeframe (June 1 through July 25, excluding the Northwest Stepovak Section from July 1 through July 25), 80% are attributed to the allocation. After July 25, the SEDM is managed strictly on local stocks with the remainder of the South Alaska Peninsula. This document summarizes the management strategy of the South Alaska Peninsula fisheries and outlines the requirements for industry participation in 2024.

**Keywords:** Alaska Peninsula, Area M, Shumagin Islands, South Unimak, June fishery, post-June, Southeastern District Mainland, SEDM, commercial salmon fisheries, sockeye salmon, *Oncorhynchus nerka*, chum salmon, *O. keta*, pink salmon, *O. gorbuscha*, coho salmon, *O. kisutch*, management plan, Alaska Department of Fish and Game, Regional Information Report, CMA, Chignik, forecasts

# INTRODUCTION

The South Alaska Peninsula salmon management area consists of those waters south of the Alaska Peninsula bounded on the west by Scotch Cap and on the east by Kupreanof Point (Figure 1). Three management plans guide the Alaska Department of Fish and Game's (ADF&G) approach to managing salmon fisheries in this area annually; they are the *South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365), the *Post-June Salmon Management Plan for the South Alaska Peninsula* (5 AAC 09.366), and the *Southeastern District Mainland Salmon Management Plan* (5 AAC 09.360). Three gear types are fished in the South Alaska Peninsula fisheries: purse seine, set gillnet, and drift gillnet (Figures 2 and 3).

The South Unimak and Shumagin Islands June commercial salmon fisheries target sockeye salmon *Oncorhynchus nerka* and are in effect from June 6 through June 28. The South Unimak June fishery occurs in the Unimak and Southwestern Districts, a portion of the South Central District, and the Bechevin Bay Section of the Northwestern District (Figures 2 and 3). The Shumagin Islands June fishery includes the Shumagin Islands Section of the Southeastern District (Figure 2).

The *Post-June Salmon Management Plan for the South Alaska Peninsula* covers all waters of the South Alaska Peninsula management area (except the Southeastern District Mainland) from July 6 through October 31 (Figure 4).

The Southeastern District Mainland (SEDM) fishery occurs in the northern portion of the Southeastern District between McGinty Point in the west and Kupreanof Point in the east (Figures 5 and 6). The SEDM is further subdivided into 6 Sections: Beaver Bay, Balboa Bay, Southwest Stepovak, Northwest Stepovak, East Stepovak, and Stepovak Flats Sections (Figure 6). ADF&G will manage the SEDM fishery according to three distinct conditions and timeframes: 1) the strength of Chignik sockeye salmon stocks, 2) the strength of Orzinski Lake sockeye salmon escapement in the Northwest Stepovak Section (NWSS) from July 1 through July 25, and 3) abundance of local coho *O. kisutch*, pink *O. gorbuscha*, and chum salmon *O. keta* stocks after July 25. From June 1 through July 25 (June 1 through June 30 in the NWSS), the SEDM fishery is

allocated 7.6% of the total Chignik Management Area (CMA) sockeye salmon harvest. From July 1 through July 25, the NWSS is managed based on the strength of sockeye salmon returning to Orzinski Lake.

This document provides commercial fishermen and processors with the ADF&G harvest strategy for the South Alaska Peninsula salmon fisheries. It also outlines the requirements of the industry to participate in these fisheries as well as how to provide information to ADF&G.

## ANNOUNCEMENTS

Inseason announcements will be broadcast on radio station KSDP AM 830 KHZ in Sand Point and rebroadcast over K201DA FM 88.1 MHz in King Cove, as well as on marine VHF channels 6 and 73 daily at 9:30 AM and 5:00 PM. Recorded information may also be obtained by calling the ADF&G recorder phone in Sand Point at (907) 383-2334 (383-ADFG). During the 2024 season, inseason harvest reports and fishery announcements will be available at the Commercial Fisheries website:

<http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareaakpeninsula.salmon>.

## HARVEST REPORTING

As required by 5 AAC 39.130(c), buyers, transporters, and catcher/processors must report their daily salmon harvest/purchases by species (in both numbers of fish and pounds), statistical area, and number of deliveries by gear type to the ADF&G office in Sand Point or Cold Bay by 10:00 AM the day following the delivery. **New for the 2024 Season, daily harvest reports should be sent to DFG.DCF.SouthAKPenmgmt@alaska.gov.** Timely and accurate reporting helps to manage an orderly fishery. Buyers may contact ADF&G offices in Cold Bay or Sand Point with their harvest information by phone, email, fax, and VHF channels 6 and 73. Additional contacts for South Alaska Peninsula Area biologists is listed below:

Sand Point	Phone: 907-383-2066	Fax: 907-383-2606
Matt Keyse	E-mail: <a href="mailto:matthew.keyse@alaska.gov">matthew.keyse@alaska.gov</a>	
Geoff Spalinger	E-mail: <a href="mailto:geoff.spalinger@alaska.gov">geoff.spalinger@alaska.gov</a>	
Cold Bay	Phone: 907-532-2419	
Annie Brewster	E-mail: <a href="mailto:annie.brewster@alaska.gov">annie.brewster@alaska.gov</a>	

Fish tickets must be received in the ADF&G office in Sand Point or Cold Bay (listed below) within 7 days of the purchase date (5 AAC 39.130(c)). **Beginning in 2024, SIGNED fish tickets can also be sent electronically to DFG.DCF.SouthAKPenmgmt@alaska.gov. If fish tickets are sent electronically, paper copies will not be required to be mailed.** Properly filled out fish tickets are essential to the management of these fisheries. An informational packet containing detailed instructions for filling out and submitting fish tickets is available to all fish transporters, tender operators, and processor/buyers at ADF&G offices in Sand Point and Cold Bay.

Alaska Department of Fish and Game  
P.O. Box 129  
Sand Point, AK 99661

Alaska Department of Fish and Game  
P.O. Box 50  
Cold Bay, AK 99571

## ALASKA BOARD OF FISHERIES REGULATION CHANGES FROM THE FEBRUARY 2023 MEETING

During the February 2023 Alaska Peninsula, Aleutian Islands, and Chignik meeting, the Alaska Board of Fisheries (board) made changes to the *South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365) by amending subsection (2)(a) that establishes the June fishing schedule for seine gear. The first commercial fishing period for seine gear will begin June 10 at 6:00 a.m. and run for 68 hours, closing at 2:00 a.m.; the second commercial fishing period will begin 76 hours later at 6:00 a.m. and close after 66 hours at 11:59 p.m.; the third commercial fishing period will begin 32 hours later at 8:00 a.m. and close after 88 hours at 11:59 p.m.; the final commercial fishing period in June will begin 32 hours later at 8:00 a.m. and close after 88 hours at 11:59 p.m.

Additionally, the board added a new subsection (h) to the *South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365) stating if chum salmon harvest equals or exceeds 300,000 fish by June 18, based on fish ticket information, the commissioner shall reduce commercial fishing time in the South Unimak and Shumagin Islands by 44 hours during each of the remaining fishing periods in June for purse seine gear. If chum salmon harvest equals or exceeds 450,000 fish by June 23, based on fish ticket information, the commissioner shall close the South Unimak and Shumagin Islands June commercial salmon fishery for the remainder of June for purse seine gear.

The board amended 5 AAC 09.330. *Gear*, subsection (c) to close the Sanak Island Section of the Unimak District to commercial salmon fishing for all gear types from June 1 through June 30 (Figures 1 through 3).

The board also amended 5 AAC 09.331. *Gillnet specifications and operations* for the Unimak, Southwestern, South Central and Southeastern Districts such that 25 fathoms of seine webbing may be used on the shoreward end of a set gillnet. The lead must be retrieved when the set gillnet is hauled out of the water. A lead is no longer required to be attached to the beach above low tide; instead, it may be anchored on the shoreward end of the set gillnet. Adoption of this proposal allows the use of a lead with set gillnet gear anywhere in Registration Area M that allows set gillnet gear, regardless of the ocean depth.

In October 2020, an interdivisional team, including staff from the Division of Commercial Fisheries and the Division of Sport Fish, was formed to review Pacific salmon *Oncorhynchus spp.* escapement goals of Alaska Peninsula and Aleutian Islands Management Areas (Area M; Finkle et al. 2022). This review was based on the Policy for the Management of Sustainable Salmon Fisheries (5 AAC 39.222) and the Policy for Statewide Salmon Escapement Goals (5 AAC 39.223). Of the 22 existing Area M salmon escapement goals evaluated, the team recommended revising 10 goals and leaving the remaining 12 goals unchanged. In 2022, after a comprehensive review of the available data, the team determined no changes were warranted for South Peninsula pink salmon (*O. gorbuscha*), or the current aggregate district SEGs for chum salmon (*O. keta*) in the Southeastern, South Central, and Southwestern Districts. The team determined revisions were warranted and revised goals for three South Peninsula sockeye salmon (*O. nerka*) systems (Orzinski Lake SEG 14,000–28,000, Mortensen Lagoon SEG 1,400–5,700, and Thin Point Lake SEG 9,000–19,000).

At the April 2022 board meeting, the board designated Chignik River early-run sockeye salmon as a stock of management concern. In turn, at the February 2023 board meeting, the board unanimously consented to management action #1; to maintain the status quo of following the guidelines of Record Copy 104 from the April 2022 board meeting. Record Copy 104 states that:

Based on early run sockeye salmon escapement at the Chignik weir, fishing time for purse seine gear, during the second fishing period, under the *Shumagin Islands June Sockeye Salmon Management Plan* would be reduced by 50%, in the Shumagin Islands Section, in order to achieve the lower bound of the Chignik River early-run sockeye salmon escapement goal. Fishing time for purse seine gear under the *South Unimak and Shumagin Islands June Sockeye Salmon Management Plan* would continue being reduced during subsequent fishing periods to meet the lower bound of the Chignik River early run sockeye salmon escapement goal. If the lower bound of the Chignik River early run sockeye salmon escapement goal is projected to be met, restrictions in the South Alaska Peninsula fishery would be lifted and commercial salmon fishing periods in the Chignik Management Area may be warranted.

If the lower bound of the Chignik River sockeye salmon run escapement goal is not projected to be met by July 1, a mixture of restrictions, including a 50% reduction in fishing time for purse seine gear during the first commercial salmon fishing period in July in the Shumagin Islands Section, would be applied to fishing opportunity in the South Alaska Peninsula Area under the *Post-June Salmon Management Plan for the South Alaska Peninsula* and in the Chignik Management Area.

Additionally, the board instated an optimal escapement goal of 300–400 thousand fish for the Chignik River early sockeye salmon run, and 240–360 thousand fish for the late sockeye salmon run.

The next scheduled regulatory meeting will be in 2026.

## **2024 MANAGEMENT PLANS**

### **JUNE SALMON FISHERY**

The *South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365) is in effect from June 6 through June 28. Complete details can be found in the Alaska Peninsula commercial salmon fishing regulations (5 AAC 09.365) available at ADF&G offices.

The South Unimak June fishery includes the following locations (Figures 1 through 3):

- a. Unimak District as described in 5 AAC 09.200(c),
- b. Bechevin Bay Section as described in 5 AAC 09.200(b)(2),
- c. Southwestern District as described in 5 AAC 09.200(d), and
- d. West Pavlof Bay and East Pavlof Bay Sections of the South Central District as described in 5 AAC 09.200(e)(1) and (2).

The Shumagin Islands fishery includes the Shumagin Islands Section of the Southeastern District (Figures 1 and 2) as described in 5 AAC 09.200(f)(3).

Fishing periods for the 2024 June fishery will be as follows (Figure 7):

<u>Dates and Times</u>	<u>Duration</u>
<b>Set gillnet gear only:</b>	
6:00 AM, June 6 until 10:00 PM, June 8	64 hours
<b>Set gillnet and drift gillnet gear:</b>	
6:00 AM, June 10 until 10:00 PM, June 13	88 hours
6:00 AM, June 15 until 10:00 PM, June 18	88 hours
6:00 AM, June 20 until 10:00 PM, June 23	88 hours
6:00 AM, June 25 until 10:00 PM, June 28	88 hours
<b>Seine gear:</b>	
6:00 AM, June 10 until 2:00 AM, June 13	68 hours
6:00 AM, June 16 until 11:59 PM, June 18	66 hours
8:00 AM, June 20 until 11:59 PM, June 23 <sup>a</sup>	88 hours
8:00 AM, June 25 until 11:59 PM, June 28 <sup>a,b</sup>	88 hours

<sup>a</sup> If the June 18 trigger of 300,000 chum salmon is reached, remaining periods will be reduced to 44 hours.

<sup>b</sup> If the June 23 trigger of 450,000 chum salmon is reached, this period will be closed.

In addition to the scheduled fishing periods during the month of June, the harvest of sockeye salmon in the Western Alaska Salmon Stock Identification Program (WASSIP) described “Dolgoi Island area” will be monitored through fish ticket information. Once the harvest of sockeye salmon reaches 191,000 fish, the waters of the West Pavlof Bay Section south of Black Point and the waters of the Volcano Bay Section will close to commercial salmon fishing for the remainder of the June fisheries (Figures 8 and 9). Commercial fishermen operating in the South Central and Southwestern Districts during June are advised that short-notice closure of the designated “Dolgoi Island area” will occur in the event the harvest of sockeye salmon approaches the 191,000 fish. The department will, to the extent practical, give a minimum six hours of notice of closure to all gear types.

Fishermen should be aware that waters closed to commercial salmon fishing, as specified under 5 AAC 09.350, are in effect during June.

Latitude and longitude coordinates in the Alaska Peninsula Management Area will be determined and enforced using the Global Positioning System (GPS; North American Datum of 1983).

## **POST-JUNE SALMON FISHERY**

### **Immature Salmon Test Fishery**

In order to assess the abundance of immature salmon and reduce incidental harvest, ADF&G will conduct a purse seine test fishery in the Shumagin Islands Section in early July before the post-June fishery begins. If 100 or more immature salmon, per set, are present, the commercial fishery will be closed to purse seine gear in an area to be determined by ADF&G (5 AAC 09.366(i)). For the purpose of this management plan, “immature salmon, per set, are present” is defined as the number of Chinook *O. tshawytscha*, sockeye, coho, and chum salmon that are observed to be gilled in the seine web (5 AAC 09.366(i)). Test fishing is standardized to purse seine gear conducting two 20-minute sets at Popof Head, Middle Set, and Red Bluff located on Popof Island. The

commercial fishery may be constrained based on the abundance of immature salmon observed during the test fishery. Gillnet gear is permitted to fish in these areas during the presence of immature salmon because the larger mesh size facilitates passage of immature salmon through the nets.

## Harvest Strategy for July

Commercial salmon fishing opportunities during the month of July will consist of one 33-hour fishing period, followed by a 63-hour closure, followed by six 36-hour fishing periods, separated by 60-hour closures (5 AAC 09.366(d)). The first post-June fishing period will be on July 6, pending the results from the immature salmon test fishery. July fishing periods begin at 6:00 AM on July 6, and end on July 31 at 6:00 PM (5 AAC 09.366(d); 9).

The July fishing schedule for the post-June fishery will be as follows (Figure 10):

<u>Dates and Times</u>	<u>Duration</u>
<b>All gear types:</b>	
6:00 AM, July 6 until 3:00 PM, July 7	33 hours
6:00 AM, July 10 until 6:00 PM, July 11	36 hours
6:00 AM, July 14 until 6:00 PM, July 15	36 hours
6:00 AM, July 18 until 6:00 PM, July 19	36 hours
6:00 AM, July 22 until 6:00 PM, July 23	36 hours
6:00 AM, July 26 until 6:00 PM, July 27	36 hours
6:00 AM, July 30 until 6:00 PM, July 31	36 hours

Under the current management plan, commercial salmon fishing is permitted to occur concurrently in both terminal and non-terminal areas during the scheduled openings for the month of July in all areas of the South Alaska Peninsula. Terminal harvest areas are depicted in Figures 11 through 15.

Additional fishing time in terminal harvest areas may also be provided during closures in the July fishing schedule based on local salmon stock strength which is evaluated from harvest data, escapement counts, and aerial surveys. From July 6 through July 21, terminal harvest areas are: Zachary Bay, Canoe Bay, Cold Bay, Thin Point, Morzhovoi Bay, and the East and West Pavlof Bay Sections north of the latitude of Black Point (Figures 11 through 14). Terminal harvest areas during the July 22 through July 31 time period include those areas specified for the July 6 through July 21 period, as well as the Deer Island, Belkofski Bay, and Mino Creek-Little Coal Bay Sections (Figure 15).

In addition to the scheduled fishing periods during the month of July, the harvest of sockeye salmon in the “Dolgoi Island area” will be monitored through fish ticket information from the opening of the commercial salmon season through July 25 (Figures 8 and 9). Once the harvest of sockeye salmon reaches 191,000 fish, based on fish tickets, the waters of the West Pavlof Bay Section south of Black Point and the waters of the Volcano Bay Section will close until July 26. However, the portion of the West Pavlof Bay Section south of Black Point will reopen to commercial salmon fishing on July 17 consistent with scheduled fishing periods during the post-June fishery. Commercial fishers operating in the South Central and Southwestern Districts prior

to July 25 are advised that short-notice closure of the designated “Dolgoi Island area” will occur in the event the harvest of sockeye salmon approaches 191,000 fish (Figures 8 and 9). The department will, to the extent practical, give six hours of notice of closure to all gear types.

### **Harvest Strategies after July**

From August 1 through August 31, fishing periods in the South Alaska Peninsula will be based on the strength of local sockeye, coho, pink, and chum salmon runs.

From September 1 through October 31, fishing periods will be based primarily on coho salmon abundance, although late pink and chum salmon run strength may be considered when determining fishing time. Fishing effort typically declines during the fall fishery.

In an effort to allow enforcement activities during daylight hours, with minimum impact to legal fishing activities, fishing periods in August will open at 8:00 AM and close at 9:00 PM (5 AAC 09.366(c)(2)), and fishing periods in September and October will open at 9:00 AM and close at 8:00 PM (5 AAC 09.366(c)(3)).

### **Salmon Escapement Goals**

Aerial surveys will be conducted by ADF&G staff to estimate the escapement of sockeye, coho, pink, and chum salmon on the South Alaska Peninsula. Information from these surveys will be used for inseason management of the South Alaska Peninsula commercial salmon fishery. Aerial survey methods can be found in Keyse et al. (2024).

Pink and chum salmon escapements will be estimated with the indexed total escapement method, and sockeye salmon escapements will be estimated using peak escapement observations beginning in mid-July through mid-September. Due to the late run timing of coho salmon, limited survey data is gathered, and no indexed total escapement can be calculated. There are three sockeye salmon SEGs in the South Alaska Peninsula: 14,000 to 28,000 fish at Orzinski Lake, 1,400 to 5,700 fish at Mortensen’s Lagoon, and 9,000 to 19,000 fish at Thin Point Lake (Finkle et al. 2022). The 2024 pink salmon SEG range for the South Alaska Peninsula is 1,750,000 to 4,000,000 fish.

SEGs for chum salmon are established for each district utilizing specific index streams in a district, rather than all streams in a district, and the single peak aerial survey method, rather than the indexed total escapement method (incorporates 21-day stream life, carcasses, mouth counts; Keyse et al. 2024) to estimate escapement (Finkle et al. 2022). Using the Southeastern District’s 26 index streams, the SEG is 62,500 to 151,900 fish. Using the South Central District’s 10 index streams, the SEG is 68,900 to 99,200 fish. Using the Southwestern District’s 19 index streams, the SEG is 86,900 to 159,500 fish.

### **SOUTHEASTERN DISTRICT MAINLAND SALMON FISHERY**

Under the current *SEDM Salmon Management Plan* (5 AAC 09.360):

- 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) From June 1 through July 25, 80% of the sockeye salmon caught in the SEDM are considered to be Chignik-bound salmon, excluding the NWSS after July 1.
- 3) Beginning July 1, sockeye salmon caught in the NWSS will not be counted toward the Chignik allocation. Fishing periods in the NWSS after June 30 will be based on sockeye salmon

escapement into Orzinski Lake, and there may not be more than 96 hours of fishing time during a 7-day period.

- a) If the department determines that the sockeye salmon escapement goal objectives are being met or exceeded then the waters of Orzinski Bay may be open to commercial salmon fishing continuously to set gillnet gear only through July 10, and both set gillnet gear and purse seine gear from July 11 through July 25.
- 4) If the Orzinski Lake escapement meets or exceeds 28,000 sockeye salmon, the NWSS and Orzinski Bay may be opened as follows:
  - a) set gillnet gear may be operated continuously until midnight July 25;
  - b) purse seine and hand purse seine gear may not be operated for more than 96 hours during a 7-day period.
- 5) The board established a closed waters area encompassing Kupreanof Point from July 6 through August 31 (Figure 16, 5 AAC 09.350(37)). ADF&G may extend the Kupreanof Point closed waters area through the end of the season by emergency order when the waters specified in 5 AAC 15.350(20) are closed to conserve coho salmon.
6. From July 26 through October 31, the fishery is managed for local pink, chum, and coho salmon stocks.
7. From July 26 through October 31, the fishery will be closed for at least one 36-hour period within a 7-day period, excluding Orzinski Bay when the department is managing for local sockeye salmon.

### **Northwest Stepovak Section**

The Orzinski Lake sockeye salmon SEG range is 14,000 to 28,000 fish (Finkle et al. 2022; Figure 17). ADF&G has operated a weir on the Orzinski Lake system annually since 1990 and plans to do so again in 2024.

### **Stepovak Flats Section**

The Stepovak Flats Section is open to commercial salmon fishing concurrently with the rest of SEDM (Figure 6). Of the sockeye salmon harvested in the Stepovak Flats Section prior to July 26, 80% are assigned to the 7.6% allocation criteria stated in the current *SEDM Salmon Management Plan*. The Stepovak Flats Section is closed to all commercial fishing from July 29 through October 31 to protect schooling chum salmon.

## **FORECAST AND ALLOCATION**

### **SOUTH ALASKA PENINSULA PINK SALMON FORECAST**

The 2024 South Alaska Peninsula post-June harvest estimate is 5.3 million pink salmon, and the total run estimate is 7.6 million fish (Appendix A1). ADF&G will manage the commercial fishery according to the June and post-June schedules through July 31, after which time the commercial salmon fishing periods will be based upon strength of local pink and chum salmon stocks.

### **CHIGNIK RIVER SOCKEYE SALMON FORECAST AND SEDM ALLOCATION**

The 2024 forecast for the estimated total harvest of Chignik River sockeye salmon is 2,080,000 fish (Appendix A2). ADF&G will manage the fisheries so that the number of sockeye salmon

harvested in CMA, for both runs combined, will be at least 600,000 fish and the harvest of sockeye salmon considered to be Chignik bound in the SEDM will approach, as near as possible, 7.6% of the total CMA sockeye salmon harvest through July 25.

If the Chignik River early run fails to develop as predicted, the department will curtail fishing in the SEDM, excluding Orzinski Bay, until at least 300,000 sockeye salmon have been harvested in the CMA through July 8. From approximately June 26 through July 8, the strength of the Chignik River sockeye salmon late run cannot be accurately evaluated due to the mixing of early- and late-run stocks. During this transition period, ADF&G may close or restrict commercial salmon fishing in SEDM until the strength of the late run has been determined. After July 8, if at least 300,000 sockeye salmon have been harvested in the CMA and escapement objectives are being met for the Chignik late run, the department will manage the fishery so that the number of sockeye salmon harvested in the CMA is at least 600,000. The number of sockeye salmon harvested in the SEDM before July 25 (before July 1 in the NWSS) will be managed so that 7.6% of the total harvest of Chignik River sockeye salmon is taken in the SEDM. However, the harvest in SEDM at any time before July 25 may be permitted to fluctuate above or below 7.6% of the Chignik Area harvest (5 AAC 09.360(g)).

## REFERENCES CITED

- Finkle, H., K. L. Schaberg, M. B. Foster, M. L. Wattum, and T. Polum. 2022. Review of salmon escapement goals in the Alaska Peninsula and Aleutian Islands Management Areas, 2020. Alaska Department of Fish and Game, Fishery Manuscript No. 22-06, Anchorage.
- Keyse, M. D., G. Spalinger, and A. L. Brewster. *In prep.* 2023 South Alaska Peninsula salmon annual management report and 2022 subsistence fisheries in the Alaska Peninsula, Aleutian Islands, and Atka-Amlia Islands management areas. Alaska Department of Fish and Game, Division of Commercial Fisheries, Fishery Management Report, Anchorage.

## **FIGURES**

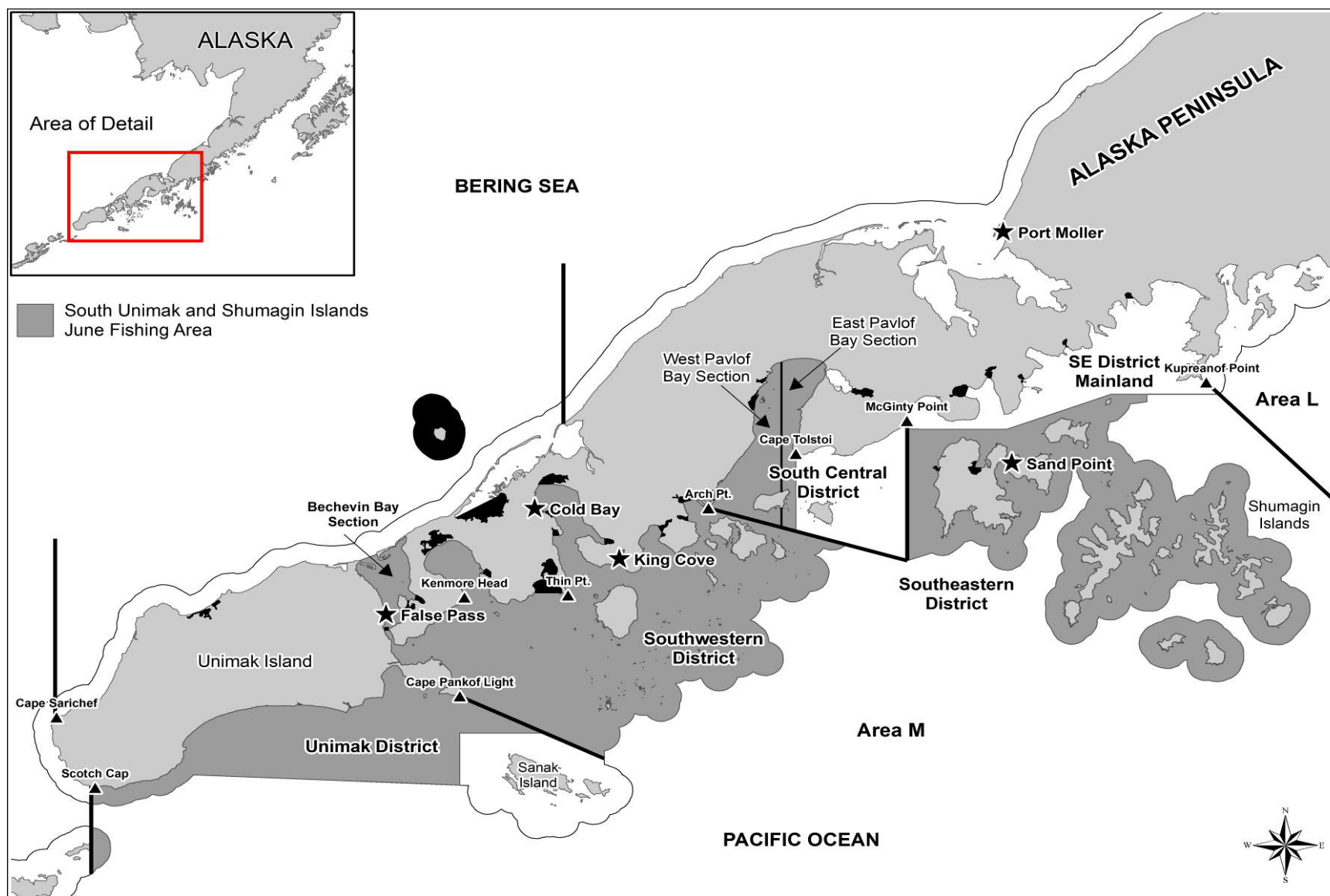


Figure 1.—Map of the South Alaska Peninsula Management Area and the locations of the South Unimak and Shumagin Islands June fisheries.

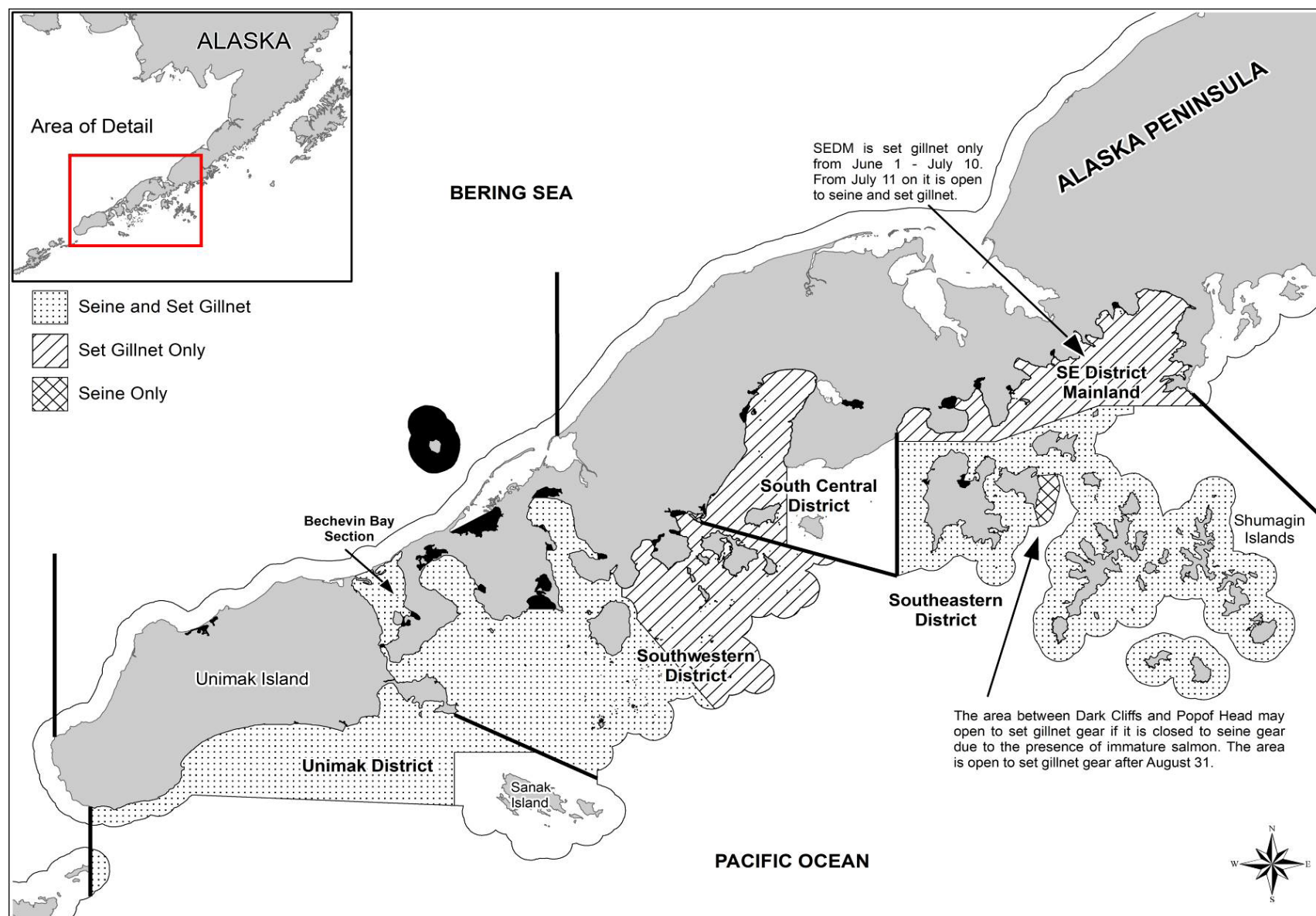


Figure 2.—Map depicting the locations of June South Alaska Peninsula fisheries for purse seine and set gillnet gear.

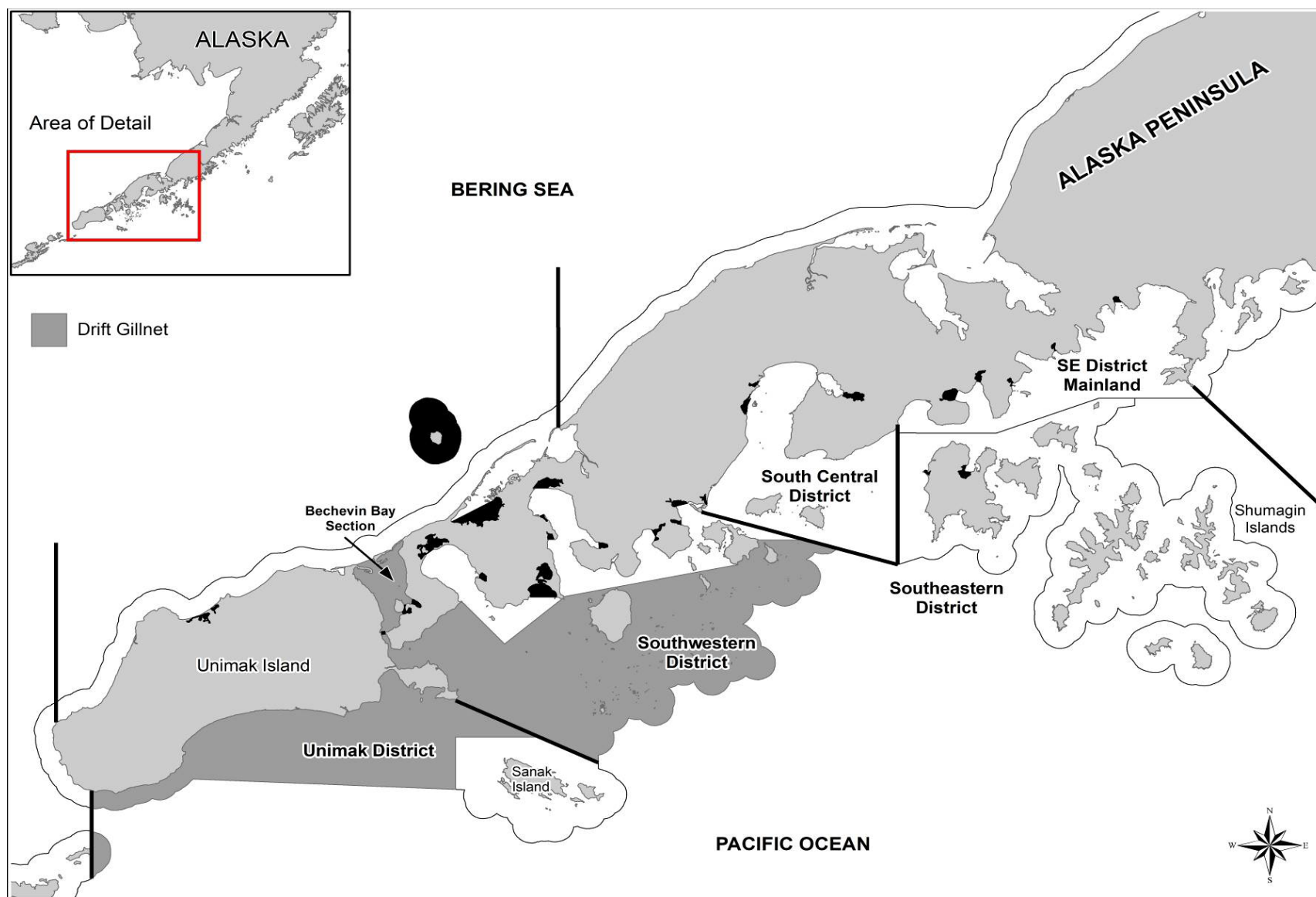


Figure 3.—Map depicting the locations of June South Alaska Peninsula fishery for drift gillnet gear.

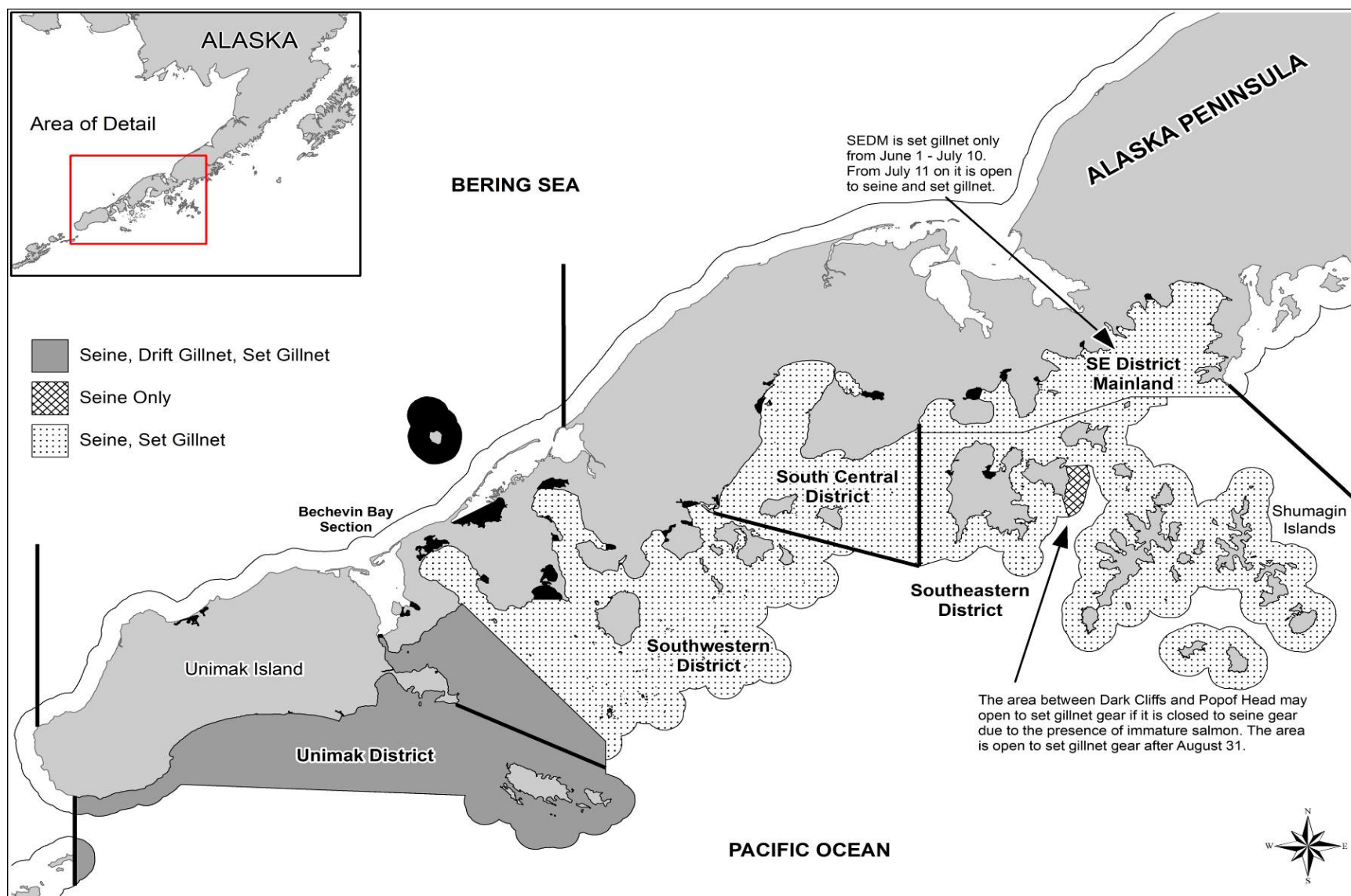


Figure 4.—Map depicting the locations of post-June South Alaska Peninsula fisheries and permitted gear types.

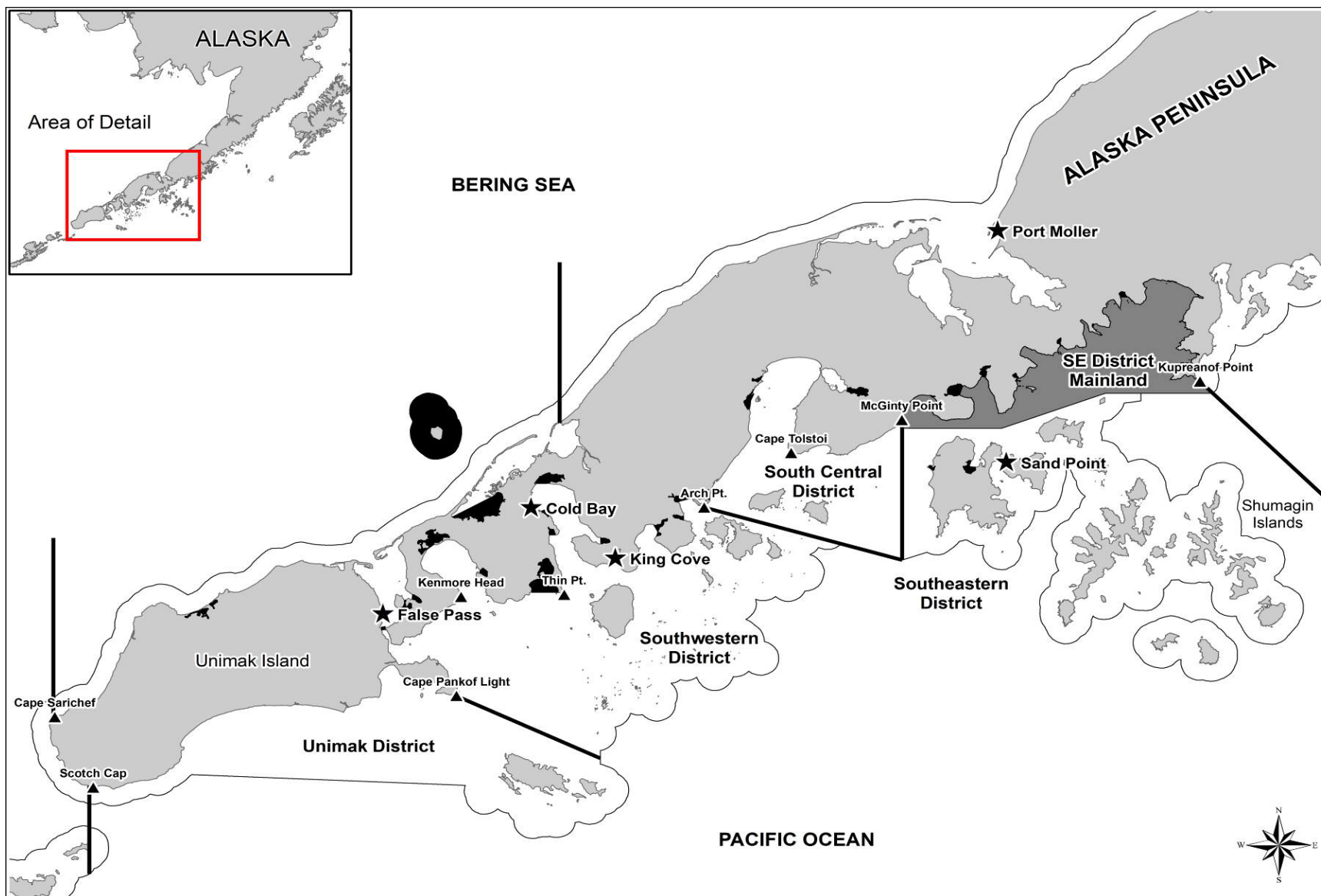


Figure 5.—Map of the South Alaska Peninsula Management Area with the Southeastern District Mainland defined.

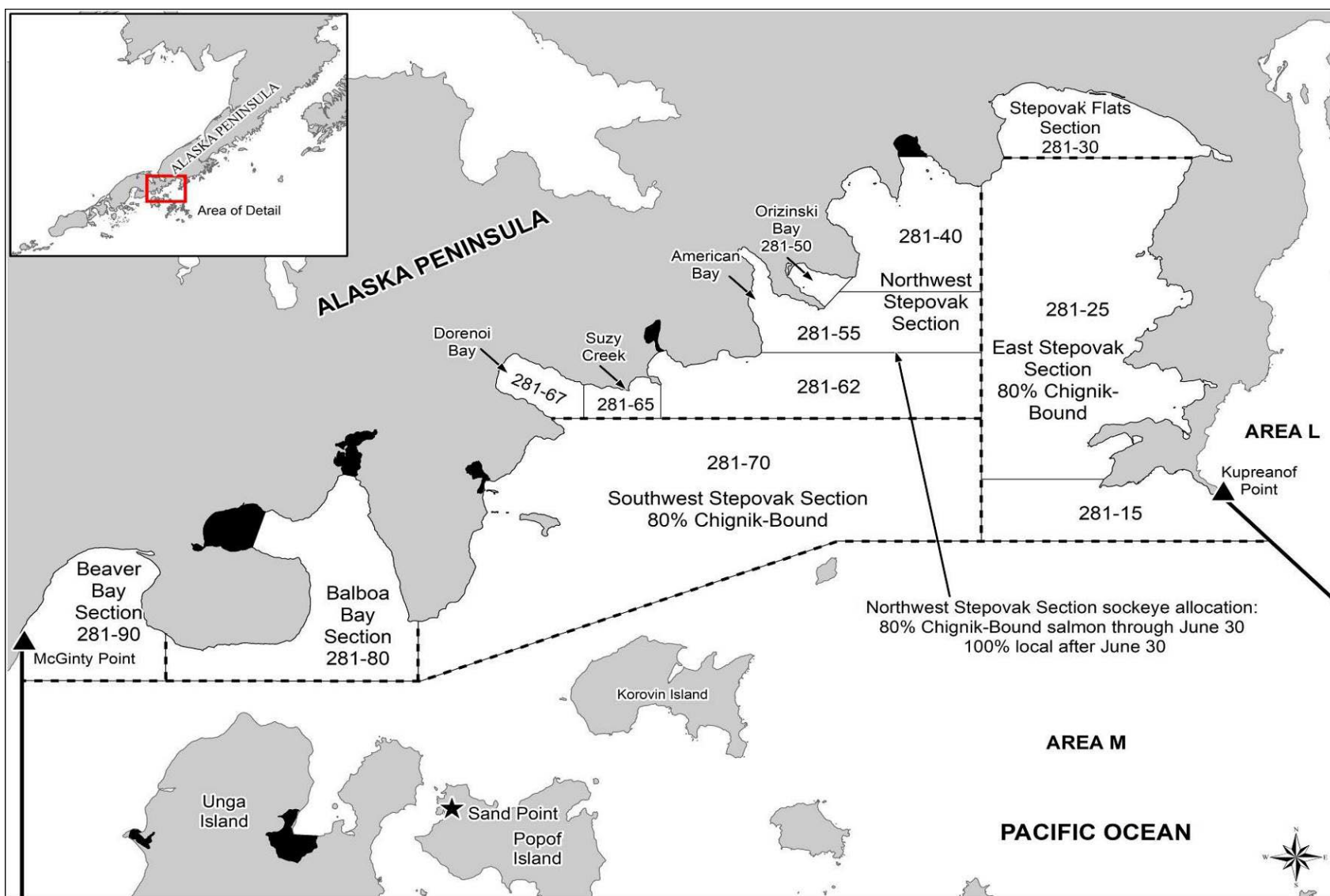


Figure 6.—Map of the Southeastern District Mainland from Kupreanof Point to McGinty Point with the commercial salmon fishery sections defined.

## June 2024 Gear Types Schedule

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
	Seine gear fishing periods					
	Set and drift gillnet gear fishing periods					
2	3	4	5	6	7	8
				6 a.m.	Open 64 hours (Set Gillnet Gear Only)10 p.m.	
9	10	11	12	13	14	15
	6 a.m.	Open 68 hours2 a.m.			76 hr closure	
	6 a.m.	Open 88 hours10 p.m.			32 hr closure	6 a.m.
16	17	18	19	20	21	22
6 a.m.	Open 66 hours11:59 p.m.		32 hr closure	8 a.m.	Open 88 hours	
Open 88 hours10 p.m.			300,000 chum trigger evaluation point	6 a.m.	Open 88 hours	
23	24	25	26	27	28	29
	11:59 p.m.	32 hr closure	8 a.m.	Open 88 hours11:59 p.m.		
	10 p.m.	450,000 chum trigger evaluation point	6 a.m.	Open 88 hours10 p.m.		
30						

Figure 7.–All gear types fishing periods in the South Unimak and Shumagin Islands June fisheries, 2024.

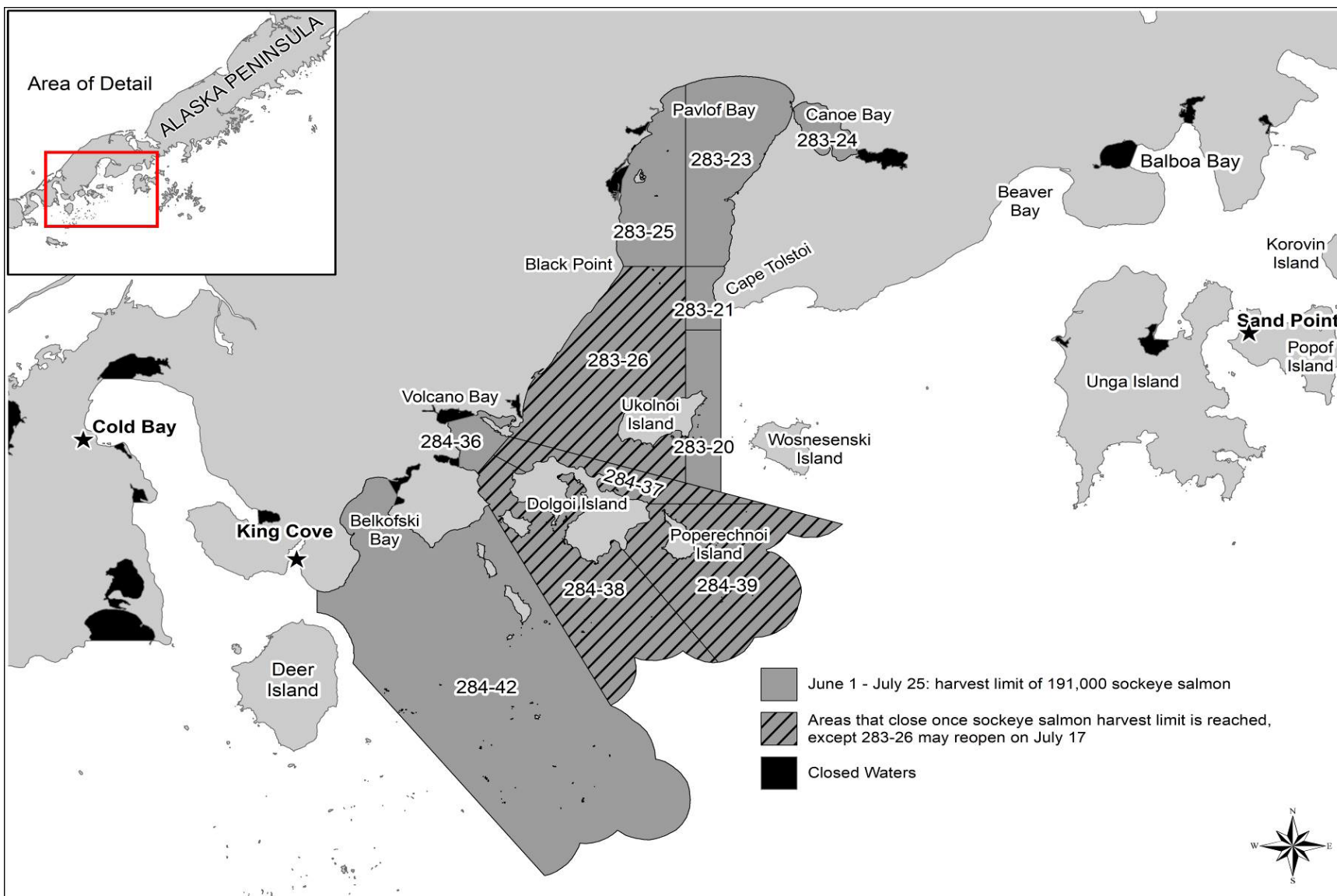


Figure 8.—Map depicting the statistical areas (283-20 through 283-26 and 284-36 through 284-42) that contribute to the “Dolgoi Island area” sockeye salmon harvest for the June Management Plan, and the areas that will close once 191,000 sockeye salmon have been harvested.

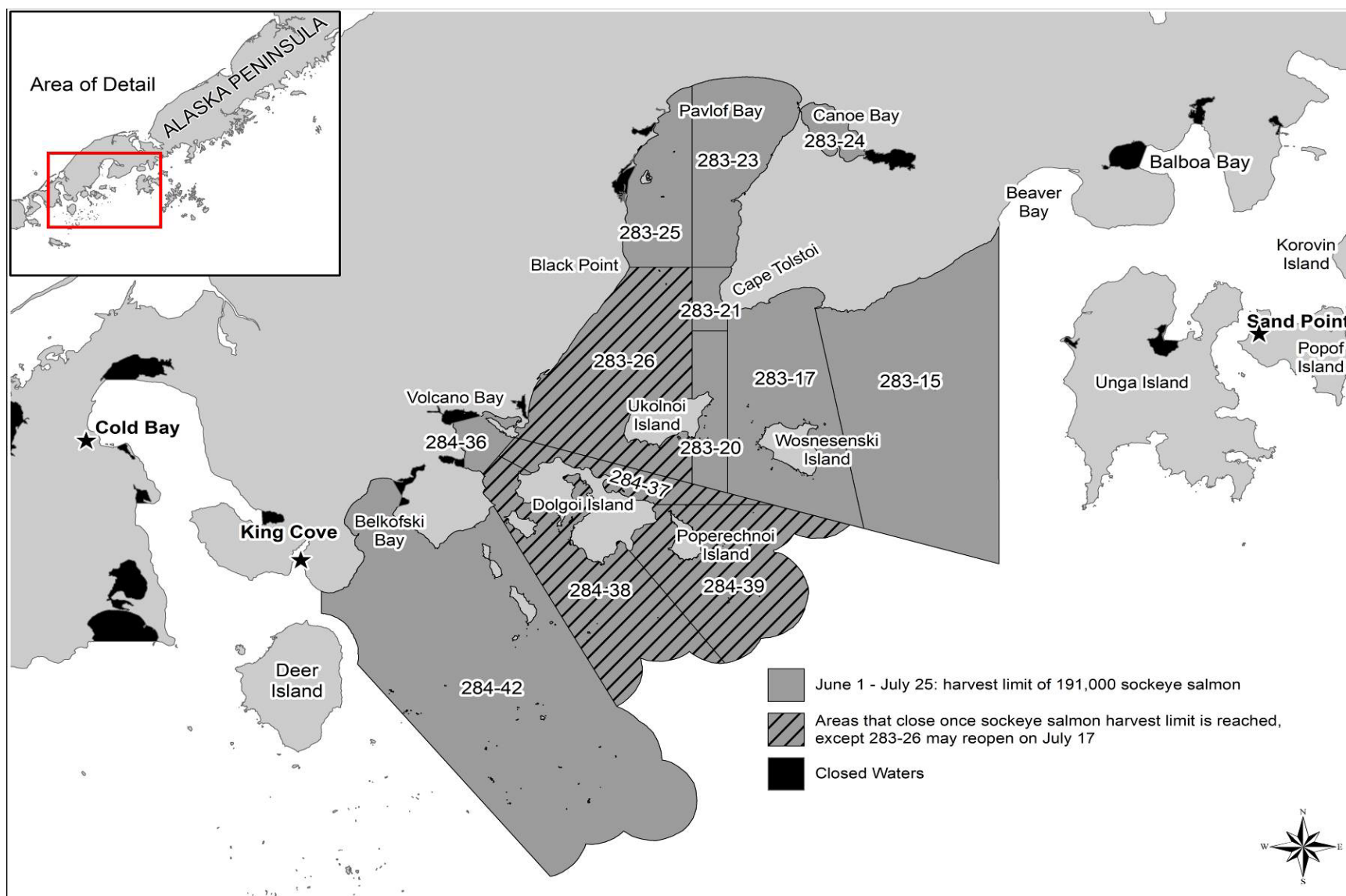


Figure 9.—Map depicting the statistical areas (283-15 through 283-26 and 284-36 through 284-42) that contribute to the “Dolgoi Island area” sockeye salmon harvest for the post-June Management Plan, and the areas that will close once 191,000 sockeye salmon have been harvested.

July 2024 All Gear Types Schedule						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
Note: All fishing periods start at 6:00 AM. All fishing periods are for all gear types.						6:00 AM 33 Hours
7	8	9	10	11	12	13
3:00 PM			6:00 AM 36 Hours 6:00 PM			
14	15	16	17	18	19	20
6:00 AM 36 Hours 6:00 PM				6:00 AM 36 Hours 6:00 PM		
21	22	23	24	25	26	27
	6:00 AM 36 Hours 6:00 PM				6:00 AM 36 Hours 6:00 PM	
28	29	30	31			
		6:00 AM 36 Hours 6:00 PM				

Figure 10.—All gear types fishing periods in the South Unimak and Shumagin Islands post-June fisheries, 2024.

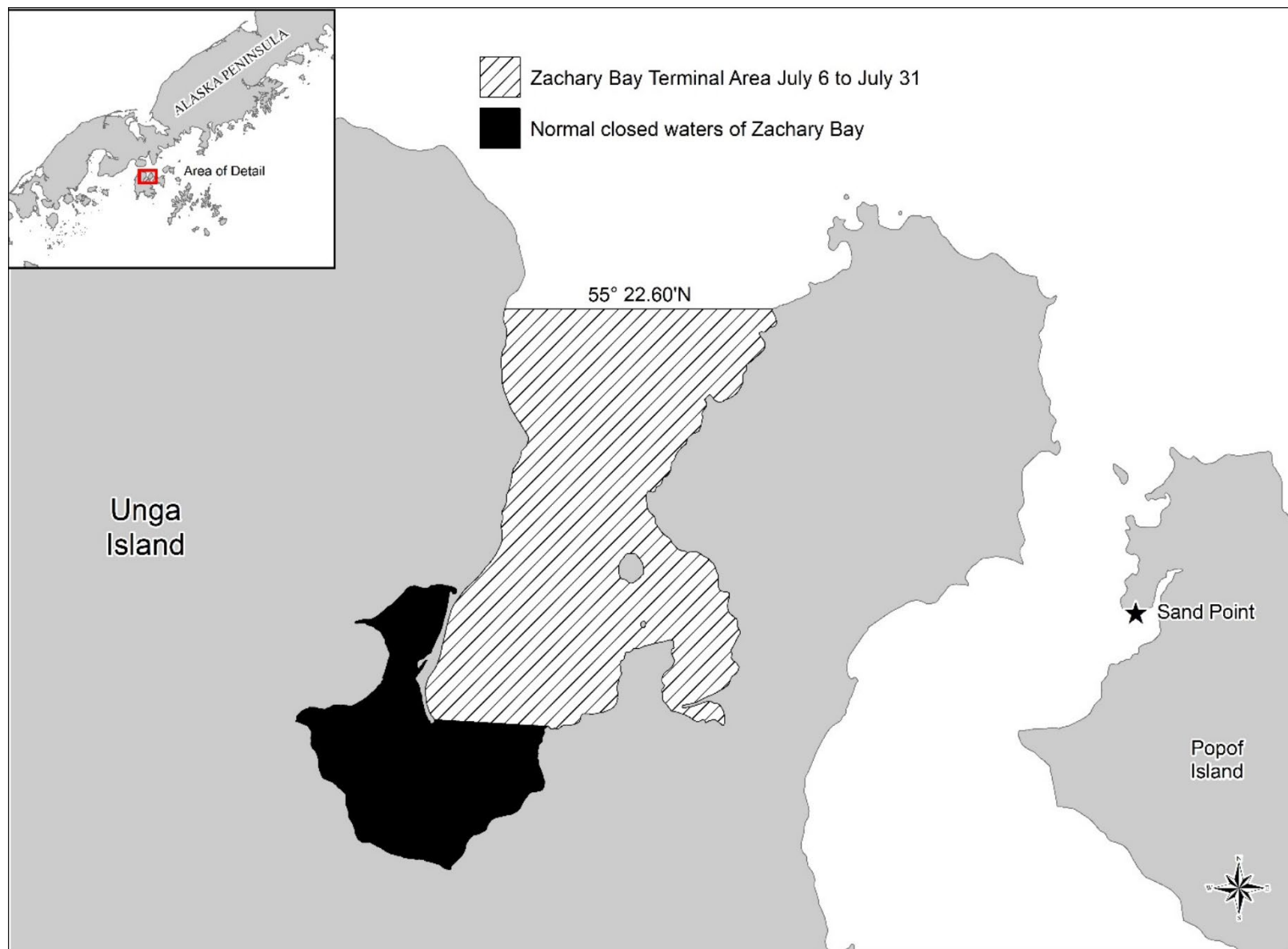


Figure 11.—Zachary Bay closed waters and post-June terminal fishing area.

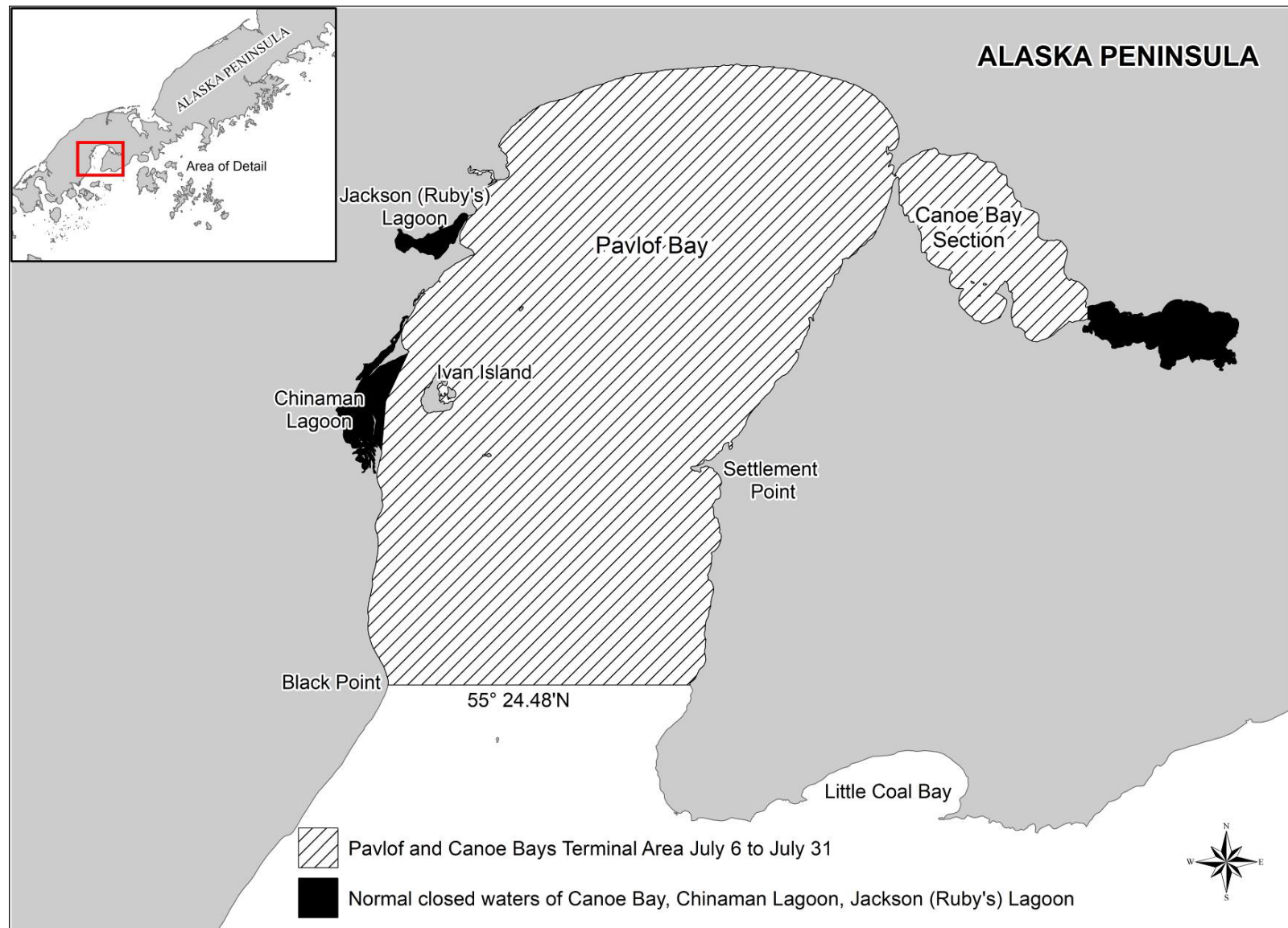


Figure 12.—Canoe Bay Section and Upper Pavlof Bay closed waters and post-June terminal fishing areas.

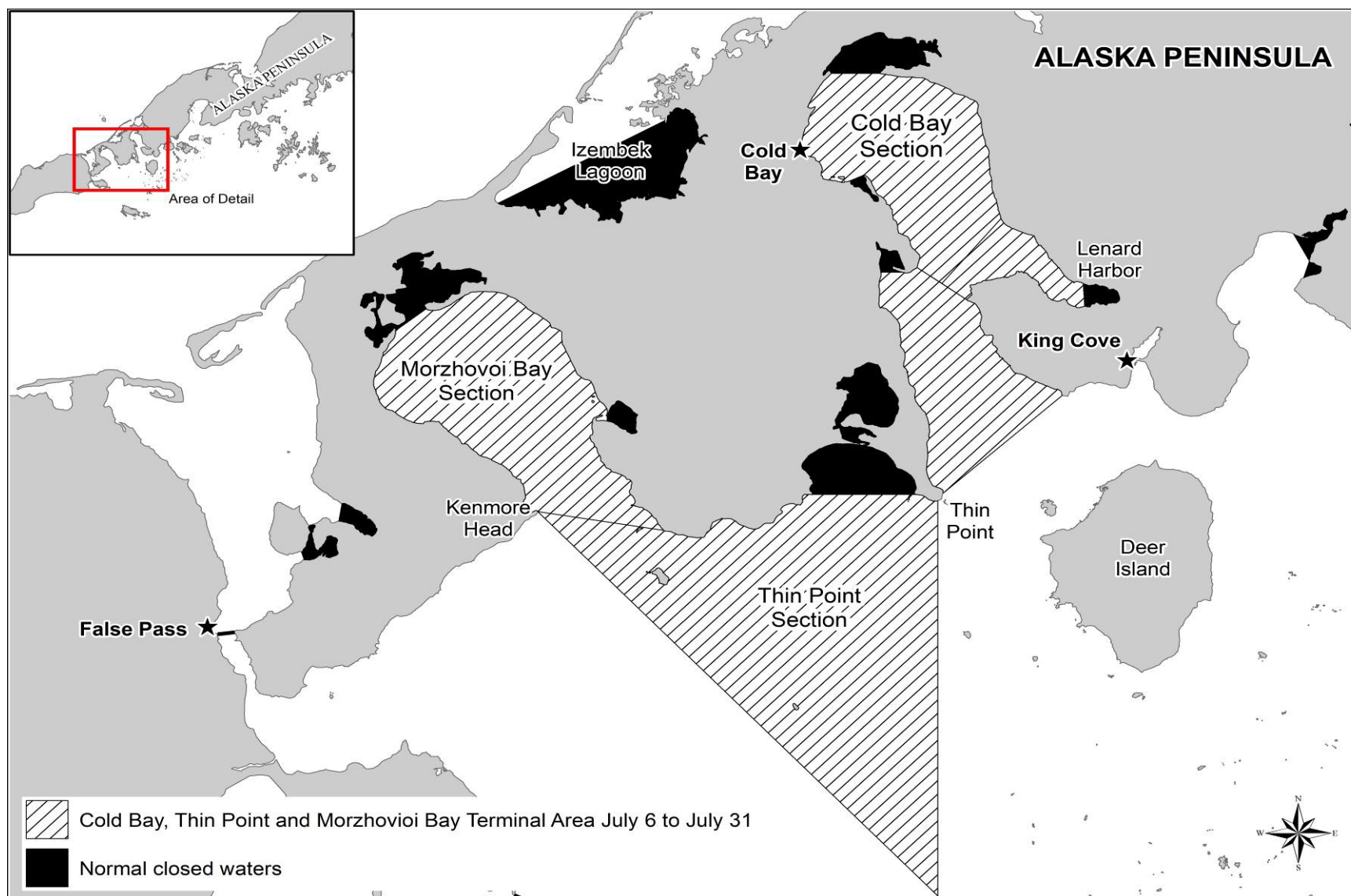


Figure 13.—Cold Bay, Thin Point, and Morzhovoi Bay Sections closed waters and post-June terminal fishing areas.

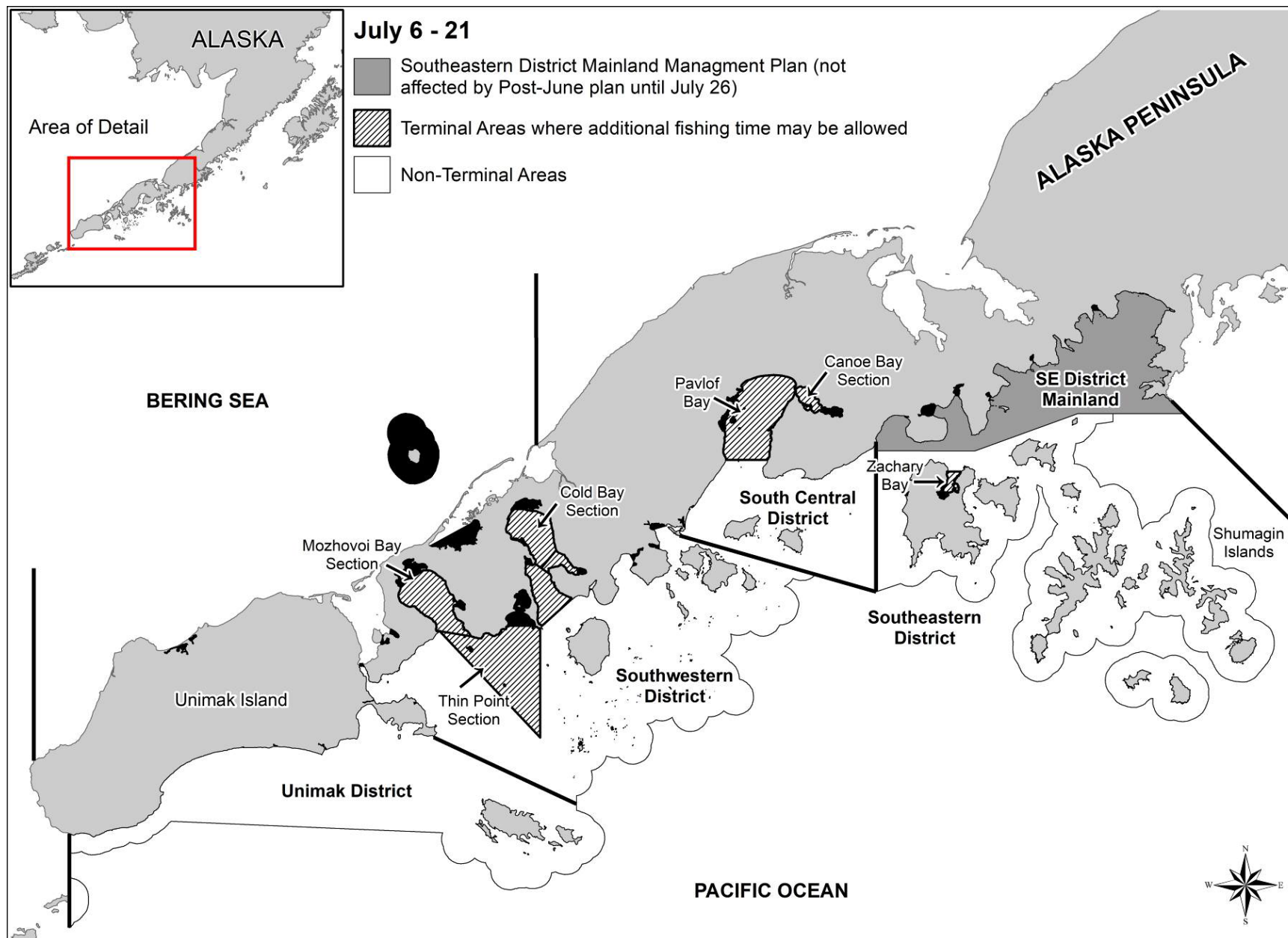


Figure 14.—South Alaska Peninsula post-June terminal fishing areas from July 6 through July 21.

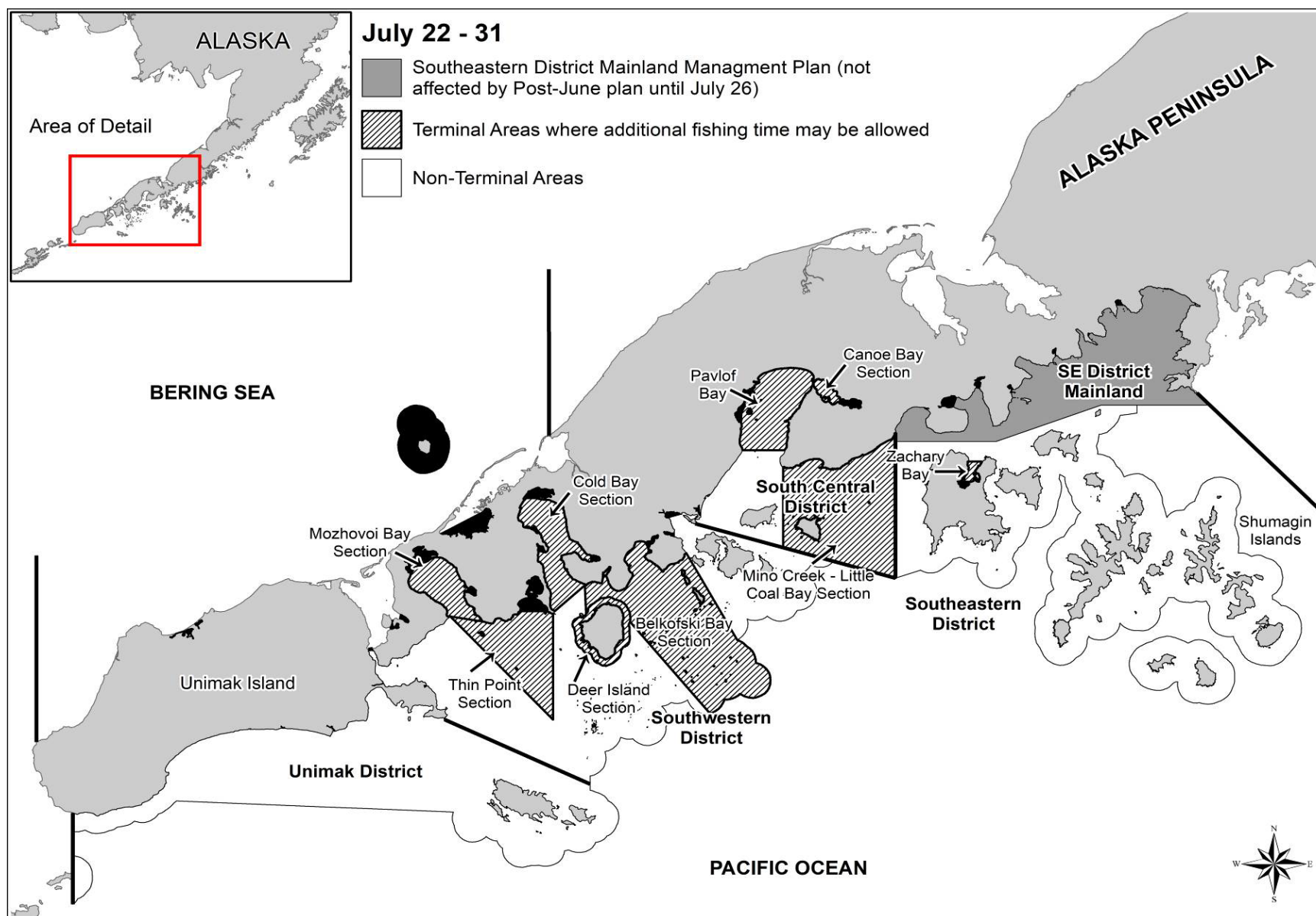


Figure 15.—South Alaska Peninsula post-June terminal fishing areas from July 22 through July 31.

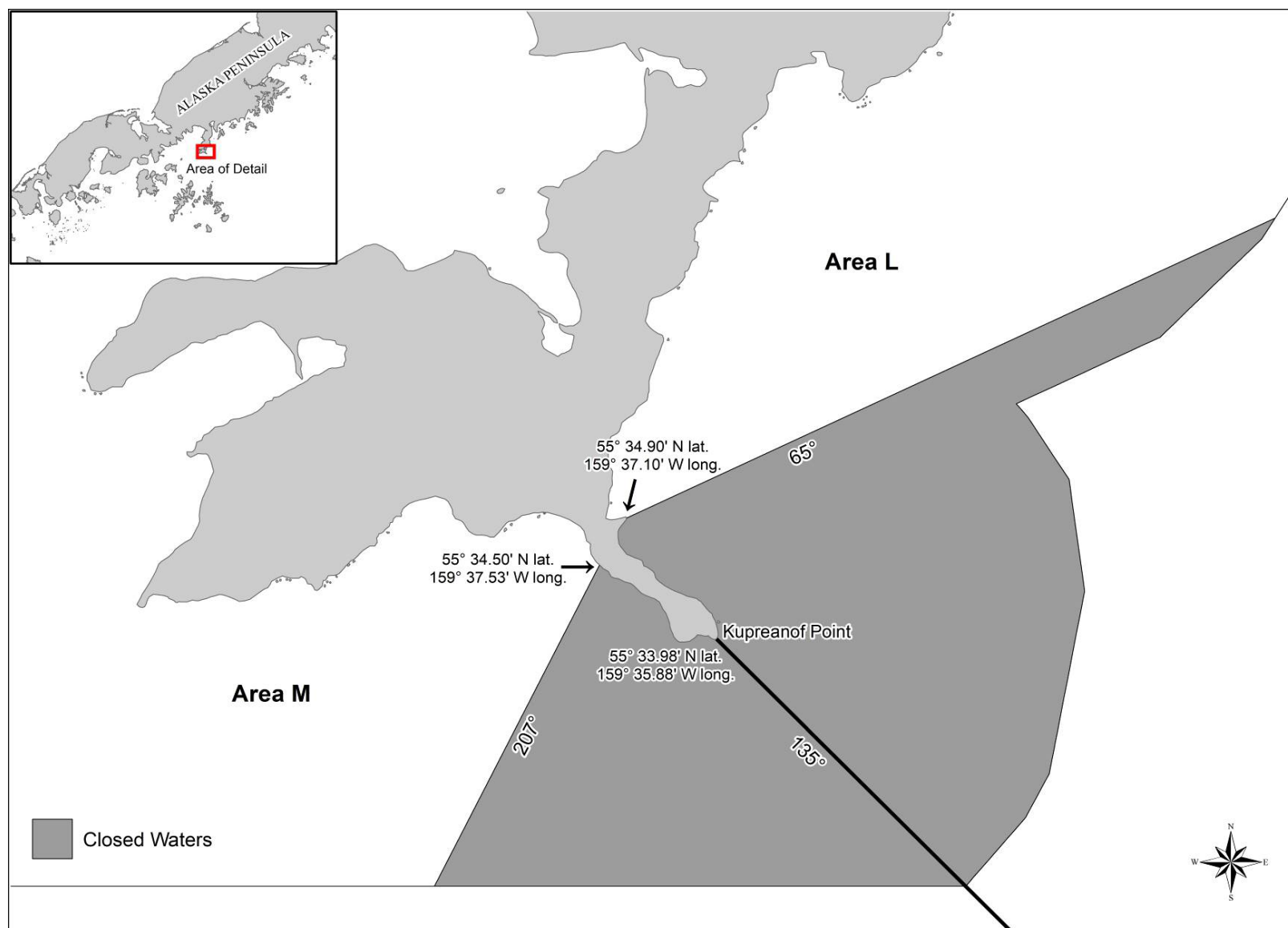


Figure 16.—Map of Kupreanof Point area closed waters.

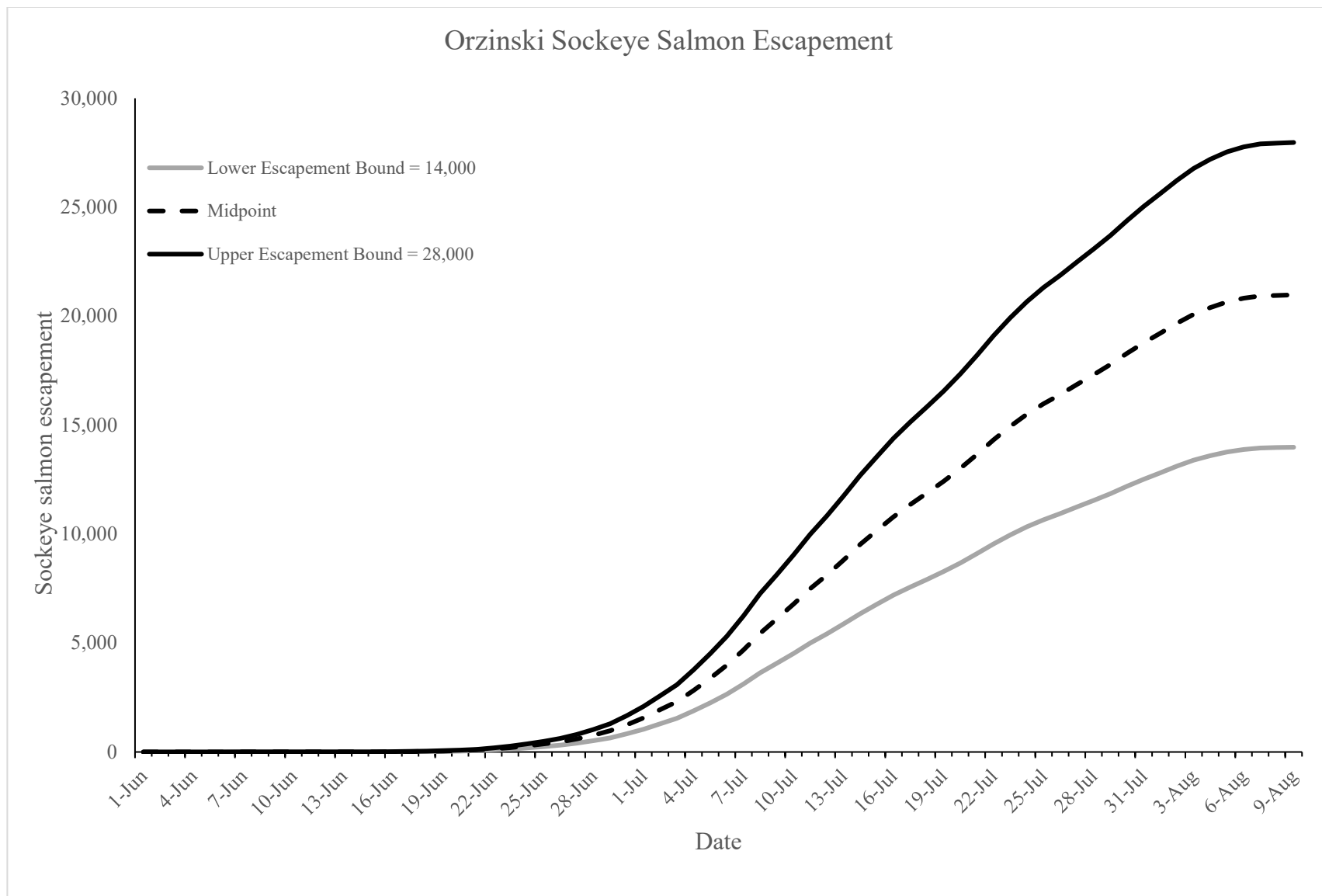


Figure 17.—Average run timing relative to lower and upper escapement goals for sockeye salmon into Orzinski Lake.

## **APPENDIX A. 2024 SALMON FORECASTS**

Appendix A1.–2024 South Alaska Peninsula pink salmon forecast.

The 2024 South Alaska Peninsula predicted pink salmon harvest is expected to be in the *Average* category with a point estimate of 5.3 (0–9.6) million fish. Harvest categories were calculated from the 20th, 40th, 60th, and 80th percentiles of historical post-June commercial harvest on the South Alaska Peninsula from 1984 to 2023.

Table 1.–Preliminary forecast of the 2024 South Alaska Peninsula aggregate pink salmon run.

Total Production	Forecast Estimate	Forecast Range (millions)
Total Run Estimate <sup>a</sup>	7.6	1.5–13.6
Escapement Goal <sup>b</sup>	2.25	1.75–4.0
Post-June Harvest Estimate	5.3	0–9.6

<sup>a</sup> Post-June harvest and escapement.

<sup>b</sup> The escapement estimate is the midpoint of the aggregate goal range (1.75–4.0 million) in 2024.

Table 2.–The 2024 South Alaska Peninsula pink salmon harvest categories, calculated from the 20th, 40th, 60th, and 80th percentiles of historical post-June commercial harvest on the South Alaska Peninsula from 1984 to 2023.

South Peninsula Harvest Category	Range (millions)	Percentile
<i>Poor</i>	Less than 2.0	Less than 20 <sup>th</sup>
<i>Weak</i>	2.0 to 4.2	20 <sup>th</sup> to 40 <sup>th</sup>
<i>Average</i>	4.2 to 7.1	40 <sup>th</sup> to 60 <sup>th</sup>
<i>Strong</i>	7.1 to 10.1	60 <sup>th</sup> to 80 <sup>th</sup>
<i>Excellent</i>	Greater than 10.1	80 <sup>th</sup> to 100 <sup>th</sup>

*Forecast Methods:* The 2024 South Alaska Peninsula pink salmon harvest forecast is derived from a total run forecast minus the midpoint (2.25 million fish) of the annual South Alaska Peninsula escapement goal range. Based on best model fit, the total run was forecasted fitting a Holt model using the South Peninsula even-year run size from 1962 to 2022.

*Forecast Discussion:* June harvest of pink salmon has been omitted from the South Alaska Peninsula aggregate pink salmon forecast due to the variability of pink salmon harvest that occurs during the June fishery and the origin of these fish are unknown. The 5-year even-year average harvest of pink salmon in June is approximately 1.2 million fish, with a range of 0.2–2.5 million fish.

The estimated 2024 South Alaska Peninsula pink salmon total harvest (5.3 million fish) is predicted to be average. Spawning escapement in 2022 was good and there was harvestable surplus. There were favorable fresh water spawning environmental conditions for adults and winter and spring temperature rearing conditions for juvenile pinks were close to the recent 10-year average for even years. Since South Peninsula pink salmon forecasting began in 2011, even-year forecasts have been less accurate than odd years. Accounting for uncertainty surrounding environmental conditions, confidence in the forecast is fair.

Forecast by Lisa Fox, Finfish Research Biologist, Westward Region and  
Heather Finkle, Finfish Research Biologist, Westward Region.

Appendix A2.–2024 Chignik Management Area sockeye salmon forecast.

The 2024 Chignik Management Area predicted sockeye salmon harvest is expected to be in the *Strong* category with a point estimate of 1,582 thousand (Table 1).

Table 1.–Point estimate and ranges (80% prediction intervals) of the 2024 Chignik sockeye salmon forecasts.

Stock	Escapement goal (thousands)	2024 run		Point estimate (thousands)	Range (thousands)
Total Chignik	BEG: 450–800	Total	Run	2,080	873–4,869
		Estimate			
	OEG: 540–760	Escapement goal <sup>a</sup>		650	
		Harvest		1,430	
		CMA harvest <sup>b</sup>		1,582	
		SEDM Area <sup>c</sup>		65	
		Cape Igvak <sup>d</sup>		0	
	Harvest Category		<i>Strong</i>		

<sup>a</sup> The escapement estimate is the midpoint of the combined optimal escapement goals (OEGs) for the early run (300,000 to 400,000) and the late run (240,000 to 360,000).

<sup>b</sup> To approximate for the mixed-stock nature of the CMA fishery, the total Chignik River sockeye salmon harvest is expanded to project the total CMA harvest (20-year average estimate of Chignik-bound sockeye harvest in Chignik area is approximately 90.4%) less the Chignik sockeye harvested at SEDM and Cape Igvak. Of the CMA harvest, 1,365,000 sockeye salmon are estimated to be Chignik bound and 217,000 fish are estimated to be fish harvested while transiting through the CMA.

<sup>c</sup> Based on projected harvest, a commercial fishery is anticipated in the Southeastern District Mainland (SEDM) during the regulatory timeframe through July 25, as outlined in regulation (5 AAC 09.360).

<sup>d</sup> Based on projected harvest, no commercial fishery is anticipated in the Cape Igvak Section during the regulatory timeframe through July 5, as outlined in regulation (5 AAC 18.360).

Harvest categories were delimited from the 20th, 40th, 60th, and 80th percentiles of historical Chignik Management Area commercial harvest 1990 to 2023 (Table 2).

Table 2.–Categorical ranges of total Chignik sockeye salmon harvest and this year’s forecast in bold.

Harvest Category	Range (thousands)	Percentile
<i>Poor</i>	Less than 722	Less than 20 <sup>th</sup>
<i>Weak</i>	722 to 1,064	21 <sup>st</sup> to 40 <sup>th</sup>
<i>Average</i>	1,064 to 1,408	41 <sup>st</sup> to 60 <sup>th</sup>
<i>Strong</i>	1,408 to 1,784	61 <sup>st</sup> to 80 <sup>th</sup>
<i>Excellent</i>	Greater than 1,784	81 <sup>st</sup> to 100 <sup>th</sup>

The Chignik sockeye salmon harvest forecast is derived from a combination of the formal forecasts for the Chignik early and late runs. Harvest estimates are calculated from the total run forecast minus the estimated escapement. The run forecasts are primarily made by investigating simple linear regression models utilizing recent outmigration year age-class relationships and median returns. The mean absolute percent error since 2001 is 43.8% for the total sockeye salmon forecast compared to actual.