Fishery Management Report No. 10-06

Post-June Salmon Management Plan for the South Alaska Peninsula, 2010

by

Matthew D. Keyse

March 2010

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

Symbols and Abbreviations

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Weights and measures (metric)

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

Weights and measures (English)

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

Time and temperature

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

Physics and chemistry

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

General

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

Measures (fisheries)

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

Mathematics, statistics

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

FISHERY MANAGEMENT REPORT NO. 10-06

POST-JUNE SALMON MANAGEMENT PLAN FOR THE SOUTH ALASKA PENINSULA, 2010

by
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March 2010

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This document should be cited as:
Keyse M. D. 2010. Post-June salmon management plan for the South Alaska Peninsula, 2010. Alaska Department of Fish and Game, Fishery Management Report No. 10-06, Anchorage.

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ABSTRACT

The 2010 South Alaska Peninsula Post-June commercial salmon fishery is scheduled to occur from July 6 through October 31. This document describes how the fishery will be managed, the requirements for industry to participate in the fishery, and how to contact and relay information to the Alaska Department of Fish and Game (ADF&G). This document is intended as a general guide to stakeholders interested in commercial salmon fisheries in the South Alaska Peninsula Management Area (Area M). Specific information regarding commercial salmon fishing regulations should be obtained from the ADF&G prior to fishing in the area.

Key words: Alaska Peninsula, Post-June commercial salmon fishery, salmon management plan, sockeye salmon *Oncorhynchus nerka*, chum salmon *O. keta*, pink salmon *O. gorbuscha*, Area M

INTRODUCTION

This document is intended to provide commercial salmon harvesters and processors with a description of how the Alaska Department of Fish and Game (ADF&G) will manage the 2010 South Alaska Peninsula Post-June salmon fishery from July 6 through October 31. This document also outlines the requirements for the industry to participate in the fishery, as well as how to contact and relay information to the department.

The South Alaska Peninsula Salmon Management Area (Area M) consists of Pacific Ocean state waters from Kupreanof Point west to Scotch Cap on Unimak Island and includes the Southeastern, South Central, Southwestern, and Unimak districts (Figure 1).

ALASKA BOARD OF FISHERIES REGULATION CHANGES FROM THE FEBRUARY 2010 MEETING

During the February 2010 meeting, the Alaska Board of Fisheries (BOF) made the following minor changes to the *Post-June Salmon Management Plan for the South Alaska Peninsula* (5 AAC 09.366):

- Extended the salmon fishing season through October 31.
- Increase in the length of seine lead that can be used with set gillnet gear from 10 fathoms to 25 fathoms (5 AAC 09.331 (b)(5)). This gear modification will be in effect for the entire salmon fishing season in waters within the South Alaska Peninsula management area.
- Reduced the minimum mesh size of set gillnet gear to four and one half inches in the Shumagin Islands after July 31, and in the Southeastern District Mainland (SEDM) after July 25 (5 AAC 09.331 (b)(3)).

GPS COORDINATES AND ENFORCEMENT

The ADF&G and the Alaska Department of Public Safety use global positioning system (GPS) technology to identify latitude and longitude coordinates of districts, sections, closed waters and regulatory fishing coordinates published in regulations or emergency orders in Area M (5 AAC 09.206). GPS is based on the North American 1983 datum.

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 2010 season, inseason harvest reports and fishery announcements will be available at the Commercial Fisheries website: http//:www.cf.adfg.state.ak.us/region4/rgn4home.php.

HARVEST REPORTING

As required by 5 AAC 39.130 (c), buyers, transporters, and catcher/processors must report their daily salmon purchases/harvest 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 9:30 AM the day following the delivery. Earlier reporting is appreciated and helps to manage an orderly fishery. The ADF&G offices can be contacted on VHF channels 6 and 73, and SSB radio frequency 3.230 MHz. Buyers may also phone, e-mail, or fax their harvest information to the ADF&G offices in Cold Bay or Sand Point.

Cold Bay	Tel: 907-532-2419	e-mail: matthew.keyse@alaska.gov	Fax: 907-532-2470
Sand Point	Tel: 907-383-2066	e-mail: aaron.poetter@alaska.gov or e-mail: alex.bernard@alaska.gov	Fax: 907-383-2606

Fish tickets must be received in the ADF&G office in Sand Point or Cold Bay (listed below) within seven days of the purchase date (5 AAC 39.130(c)).

Alaska Department of Fish & Game P.O. Box 50 Cold Bay, AK 99571	Alaska Department of Fish & Game P.O. Box 129 Sand Point, AK 99661

CURRENT MANAGEMENT PLAN

In order to reduce the incidental harvest of immature salmon, the ADFG will conduct a purse seine test fishery in the Shumagin Islands Section in early July to assess abundance of immature salmon. Test fishery results from the Shumagin Islands are an indicator of the presence of immature salmon in the Southeastern, South Central, Southwestern, and Unimak districts of the Alaska Peninsula Management Area (McCullough and Shaul 1992). For the purpose of this management plan, "immature salmon, per set, are present" is defined as the number of Chinook *Oncorhynchus tshawytscha*, sockeye *O. nerka*, coho *O. kisutch*, and chum *O. keta* salmon that are observed to be gilled in the seine web (5 AAC 09.366 (i)). 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 the department (5 AAC 09.366 (i)). The fishery will reopen once the abundance of immature salmon harvested during the test fishery is determined to be below the threshold of 100 immature salmon per seine set. Gillnet gear is permitted to fish in these areas during the presence of immature salmon because the larger mesh size permits immature salmon to pass through the nets.

From July 6 through October 31, the South Alaska Peninsula commercial salmon fishery will be managed according to the *Post-June Salmon Management Plan for the South Alaska Peninsula* in the Unimak District, Southwestern District, South Central District, and the Shumagin Islands Section of the Southeastern District (5 AAC 09.366). The plan was adopted by the BOF in 1991 and most recently amended in February 2010 (Appendix A1). Under the current management plan, commercial salmon fishing is permitted in both terminal and non-terminal areas during the scheduled openings for the month of July in the Shumagin Islands Section of the Southeastern

District, South Central District, Southwestern District, and Unimak District. A calendar depicting a schedule of the maximum allowable fishing periods that the ADF&G can provide during the month of July can be found in Figure 2 of this document.

Additional fishing time in terminal harvest areas may also be provided during the 48-hour closures (Figures 3 through 6) 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, and Morzhovoi Bay sections and the East and West Pavlof Bay sections north of the latitude of Black Point (Figure 6). Terminal areas during the July 22 through 31 time period include those areas specified for the July 6 through 21 period, as well as the Deer Island, Belkofski Bay, Mino Creek-Little Coal Bay sections, Stepovak Flats Section from July 26 through July 28, and the area near Suzy Creek (ADF&G statistical area 281-65) after July 25 (Figures 7 and 8).

HARVEST STRATEGIES AFTER JULY

Fishing periods in August, September, and October may be established by emergency order based on local salmon stock strength and announced via departmental news releases.

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

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. ADF&G will not attempt to have concurrent openings between the Southeastern District and the remainder of the South Peninsula after September 1.

In an effort to allow enforcement activities during daylight hours, and reduce impact to legal fishing activities, fishing periods in August will open at 8:00 AM and close at 9:00 PM, and fishing periods in September and October will open at 9:00 AM and close at 8:00 PM.

SALMON ESCAPEMENT GOALS

ADF&G will conduct aerial surveys 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 Poetter et al. (2009).

Pink and chum salmon escapements are estimated using an indexed total escapement method, while sockeye salmon systems are estimated using peak escapements beginning in mid-July through mid-September. Due to the late timing of coho salmon, limited survey data is gathered and no indexed total escapement can be calculated. The 2010 pink and chum salmon escapement goals for the South Alaska Peninsula range from 1,864,600 to 3,729,300 pink salmon, and 330,400 to 659,200 chum salmon respectively (Table 1; Witteveen et al. 2009). The Thin Point Lake sockeye salmon sustainable escapement goal (SEG) range is 14,000 to 28,000 fish (Witteveen et al. 2009).

REFERENCES CITED

McCullough, J. N. and A. N. Shaul. 1992. The incidence of immature salmon in South Peninsula purse seine fisheries, 1963-91. Alaska Department of Fish and Game, Regional Information Report 4K92-17, Kodiak.

Poetter, A. D., M. D Keyse., and A. C. Bernard. 2009. South Alaska Peninsula salmon annual management report, 2009. Alaska Department of Fish and Game, Fishery Management Report No. 09-57, Anchorage.

Witteveen, M., H. Finkle, M. Loewen, M. B. Foster, and J. W. Erickson. 2009. Review of salmon escapement goals in the Alaska Peninsula and Aleutian Islands Management Areas; A Report to the Alaska Board of Fisheries, 2010. Alaska Department of Fish and Game, Division of Commercial Fisheries, Fishery Manuscript No. 09-09, Anchorage.

TABLES AND FIGURES

Table 1.–South Alaska Peninsula pink and chum salmon escapement goals for 2010.

Pink Salmon Sustainable Escapement Goal (SEG) (even year)			
		Range	
South Peninsula Total	1,864,600	to	3,729,300

Chum Salmon Sustainable Escapement Goal (SEG)			
		Range	
Southeastern District	106,400	to	212,800
South Central District	89,800	to	179,600
Southwestern District	133,400	to	266,800
Unimak District	800		NA
South Peninsula Total	330,400	to	659,200

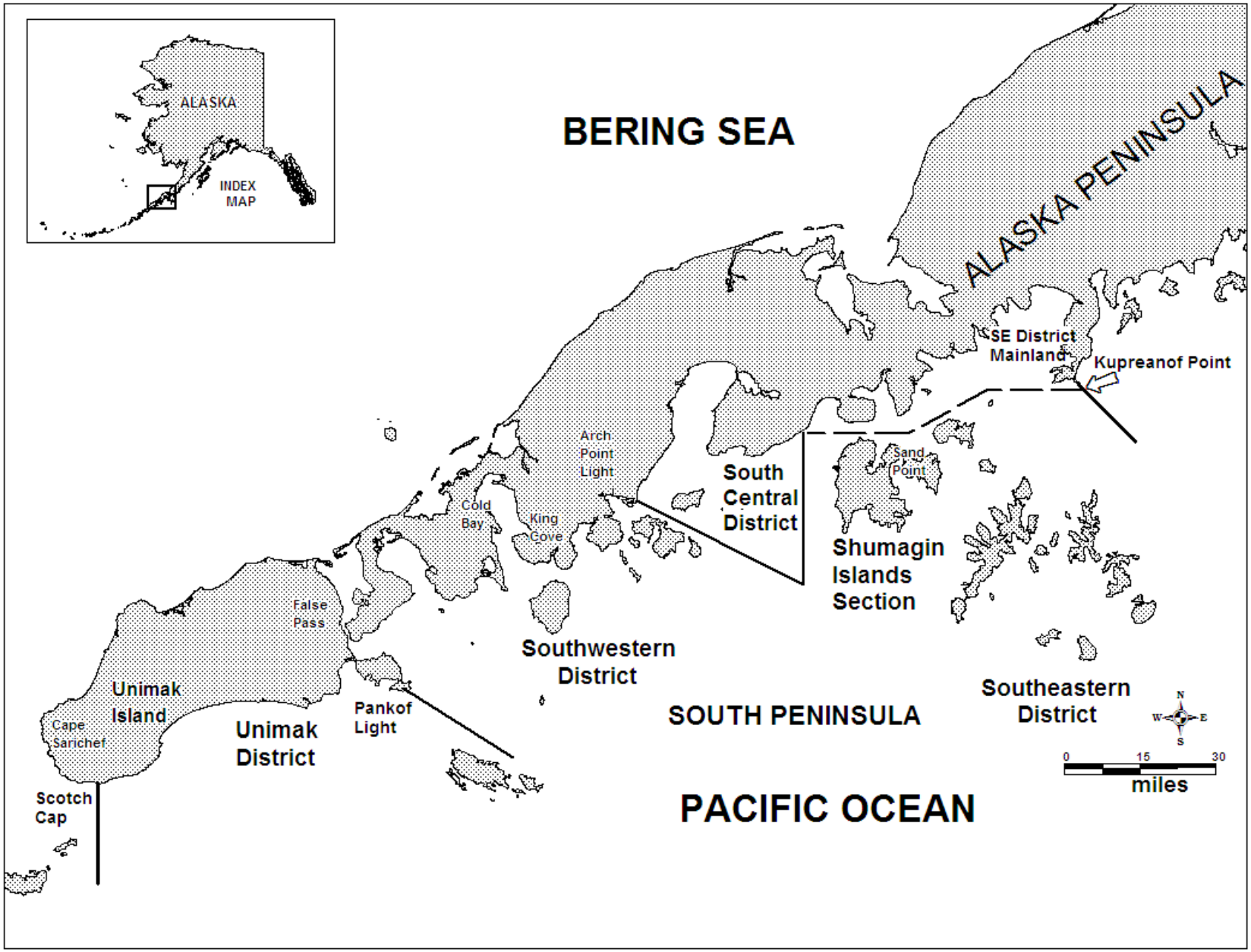

Figure 1.–South Alaska Peninsula salmon fishing districts.

July 2010

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
Notes: July 6 through July 21: six 24-hour fishing periods interspersed with 48-hour closures. July 22 through July 31: three 36-hour fishing periods interspersed with 48-hour closures. Actual fishing time may deviate from this schedule for conservation purposes.						
4	5	6	7	8	9	10
		12:01 AM 21 Hours 9:00 PM		9:00 PM	24 Hours 9:00 PM	
11	12	13	14	15	16	17
9:00 PM	24 Hours 9:00 PM		9:00 PM	24 Hours 9:00 PM		9:00 PM
18	19	20	21	22	23	24
24 Hours 9:00 PM		9:00 PM	24 Hours 9:00 PM		12:00 PM	36 Hours
25	26	27	28	29	30	31
		12:01 AM 36 Hours	12:00 PM		12:00 PM	36 Hours 12:00 Midnight

Figure 2.–South Alaska Peninsula July fishing schedule for non-terminal locations based on the Post-June salmon management plan (5 AAC 09.366).

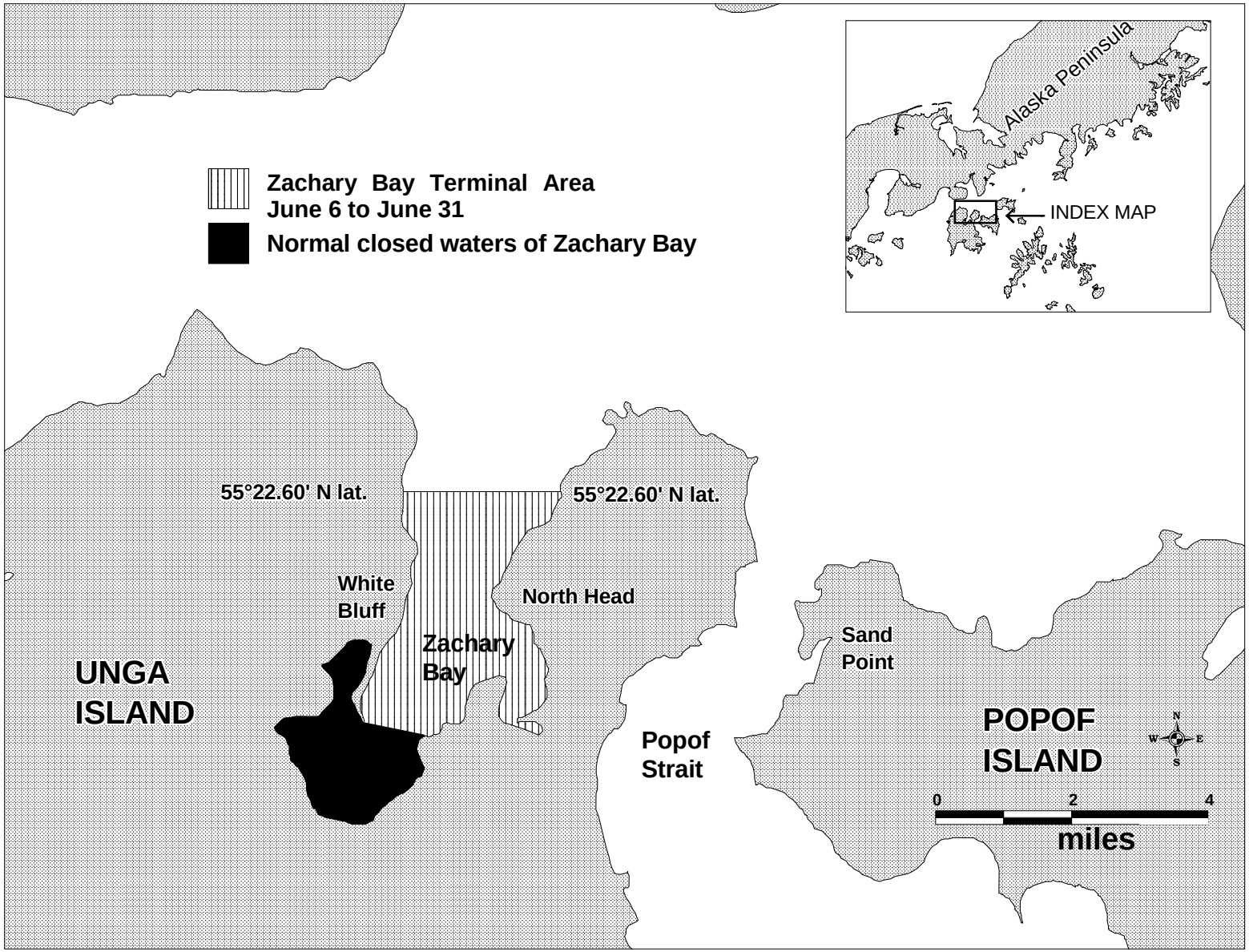

Figure 3.–Zachary Bay closed waters and Post-June terminal fishing area.

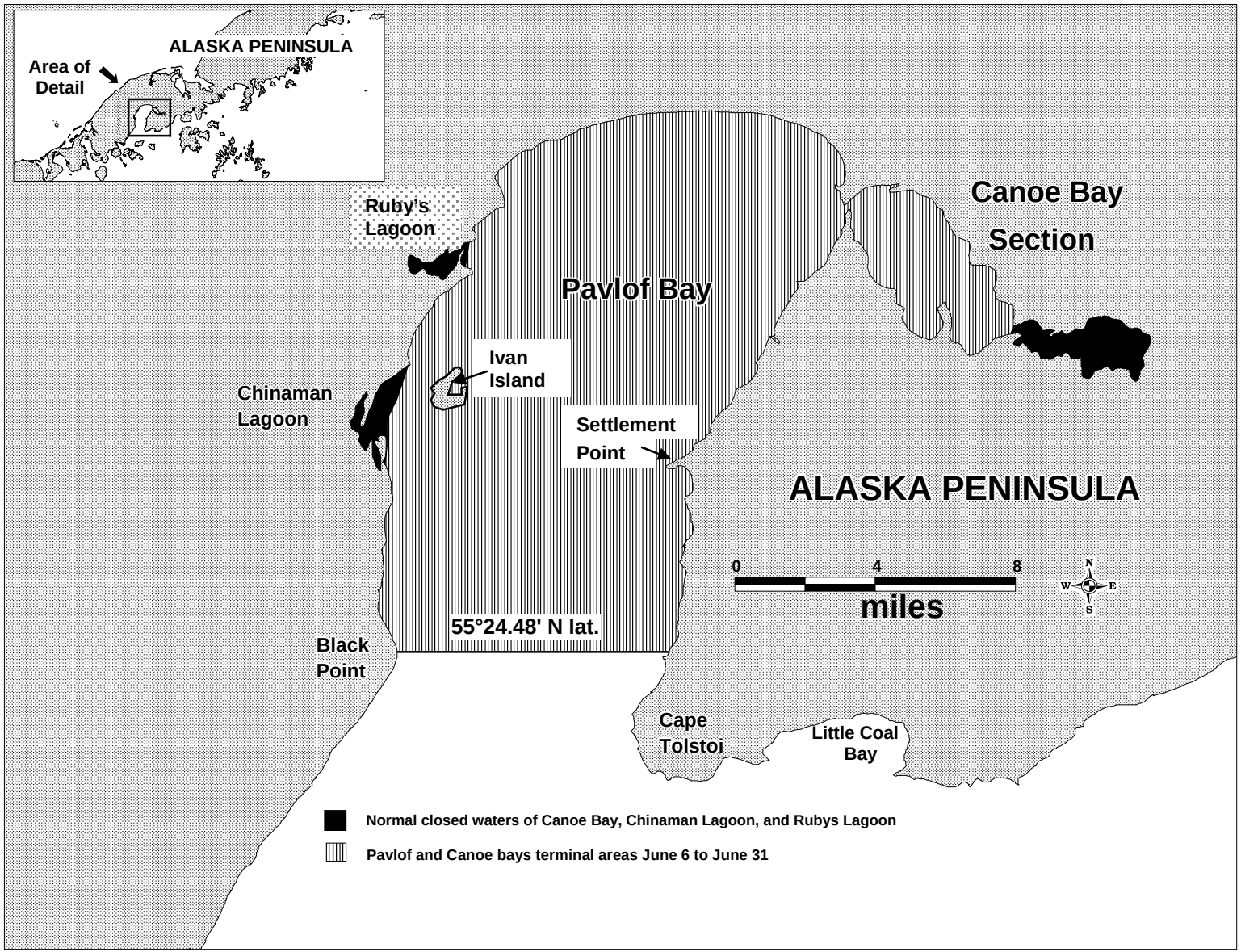

Figure 4.–Canoe Bay Section and Upper Pavlof Bay closed waters and Post-June terminal fishing areas.

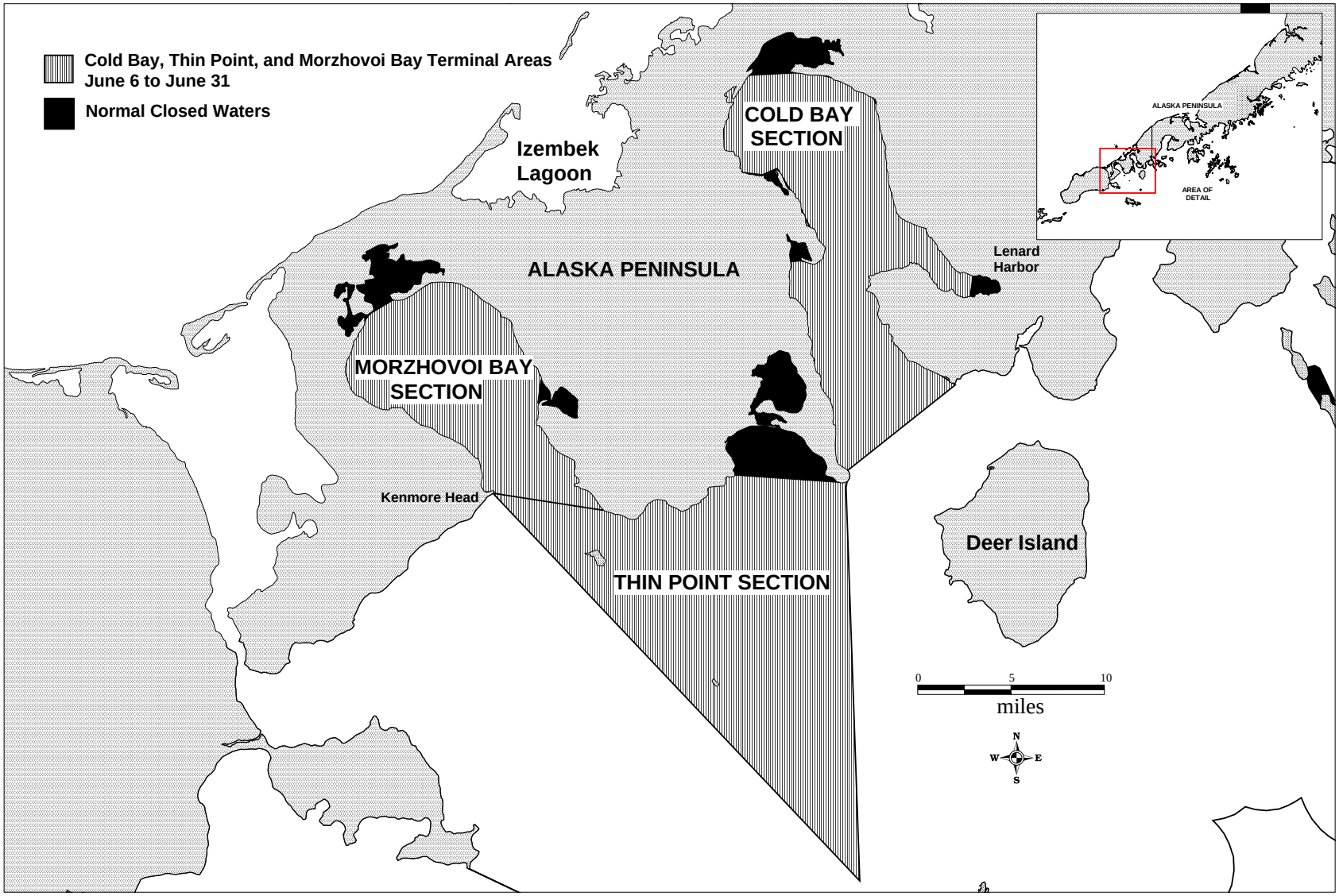

Figure 5.–Cold Bay, Thin Point and Morzhovoi Bay sections closed waters and Post-June terminal fishing areas.

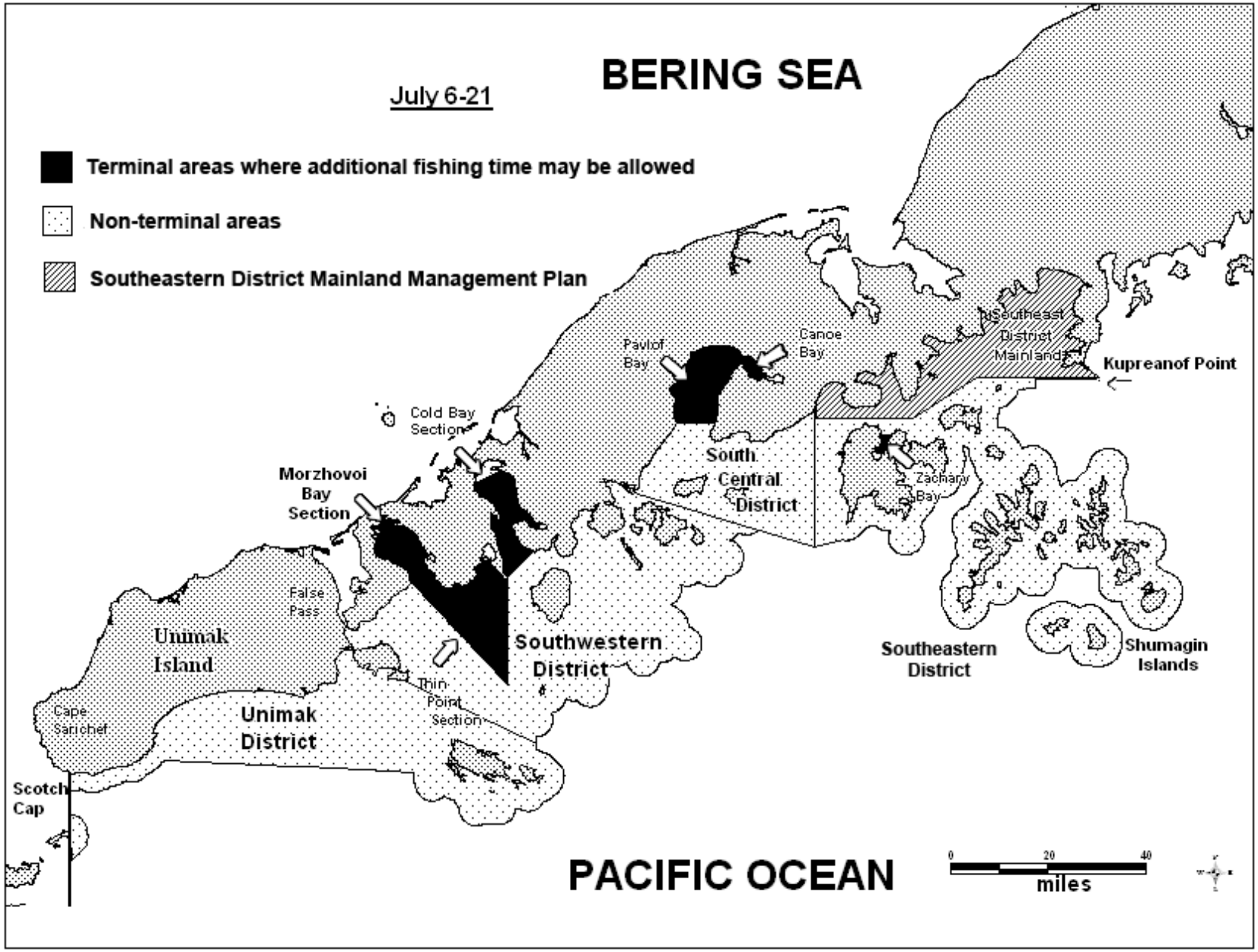

Figure 6.–South Alaska Peninsula Post-June terminal fishing areas from July 6 through July 21.

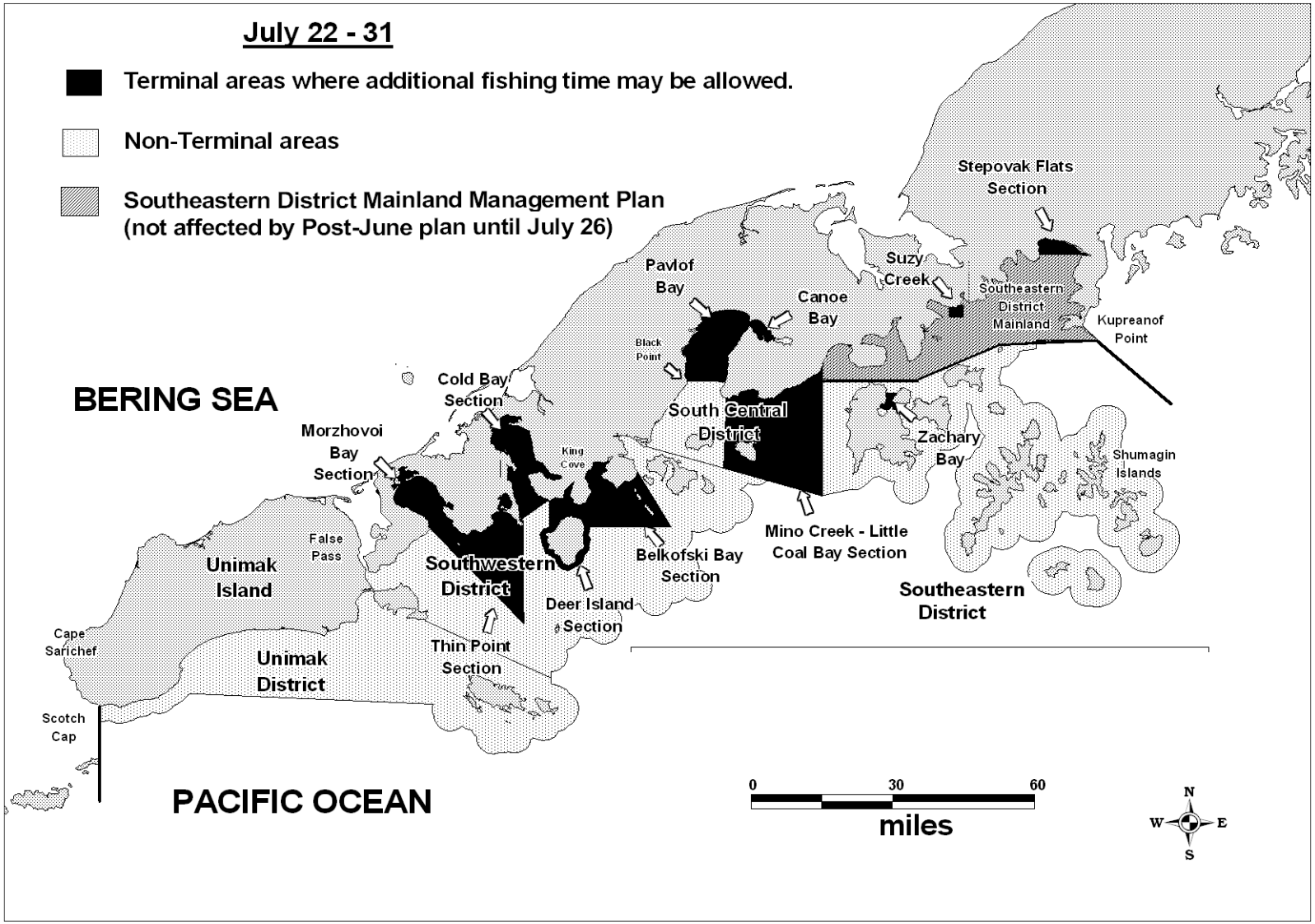

Figure 7.–South Alaska Peninsula Post-June terminal fishing areas from July 22 through July 31.

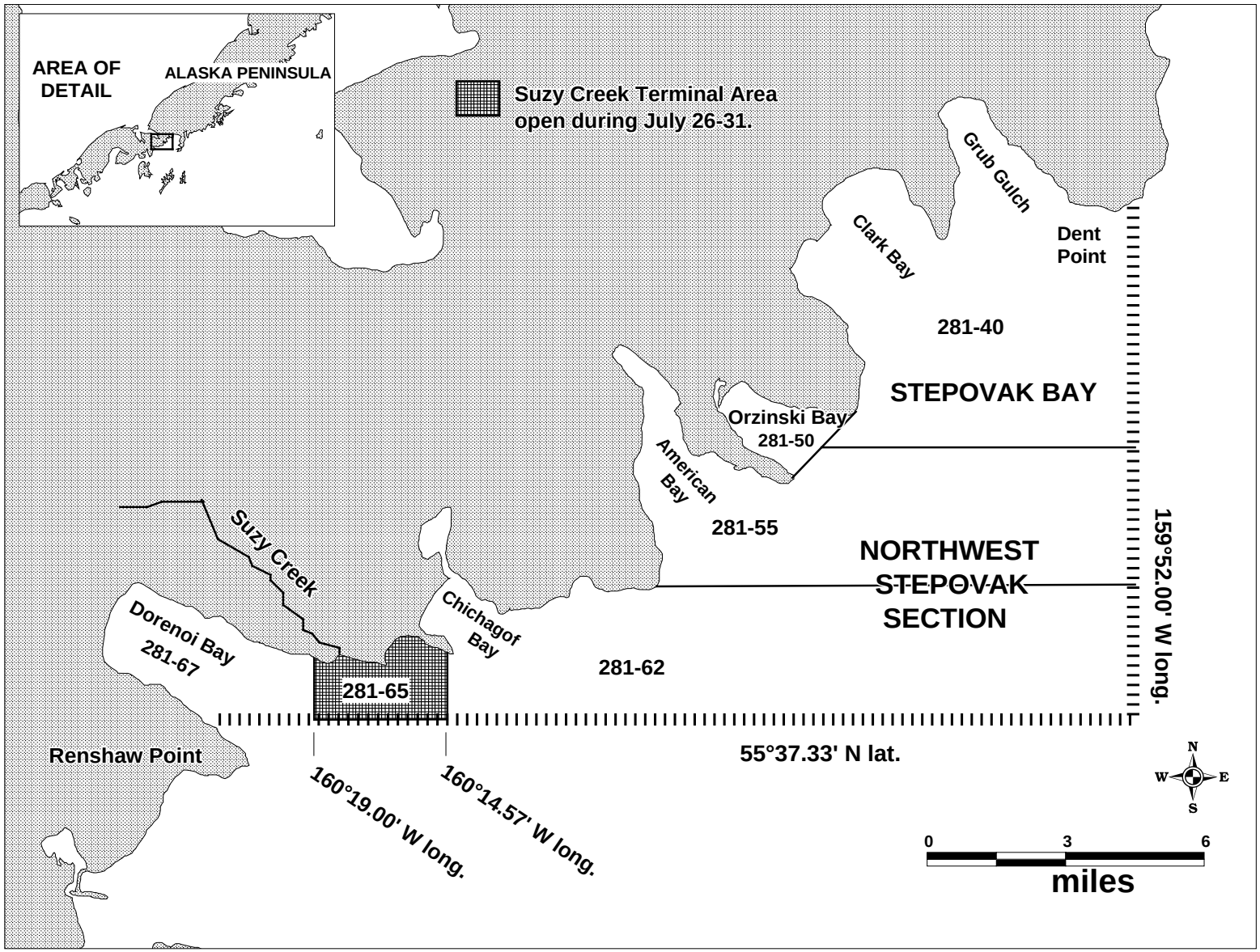

Figure 8.–Northwest Stepovak Section depicting the Suzy Creek Post-June terminal harvest area.

APPENDIX A: POST-JUNE SALMON MANAGEMENT PLAN FOR THE SOUTH ALASKA PENINSULA REGULATIONS

5 AAC 09.366. POST-JUNE SALMON MANAGEMENT PLAN FOR THE SOUTH ALASKA PENINSULA.

(a) The purpose of this management plan is to provide management guidelines to the department for the management of the post-June salmon fisheries along the South Alaska Peninsula, to provide for the harvest of local stocks in terminal harvest areas, and to establish fishing periods for the South Alaska Peninsula salmon fisheries outside of terminal harvest areas.

(b) The commissioner shall establish, to the extent practicable, concurrent fishing periods in the Southeastern, South Central, Southwestern, and Unimak Districts.

(c) Fishing periods may be established under this section only as follows:

(1) except as specified in (d), for July, from 7:00 AM to 9:00 PM;

(2) for August, from 8:00 AM to 9:00 PM;

(3) for September and October, from 9:00 AM to 8:00 PM; and

(d) Notwithstanding (c)(1) of this section, the commissioner may establish, by emergency order, six 24-hour fishing periods interspersed by 48 hour closures from July 6 through July 21, and three 36-hour fishing periods interspersed by 48 hour closures from July 22 through July 31. The first commercial fishing period of the July 22 through July 31 period may not start before NOON on July 23.

(e) Repealed 6/4/2004.

(f) The commissioner may open, by emergency order, the following terminal harvest areas to salmon fishing from July 6 through July 21:

(1) the Shumagin Islands Section of the Southeastern District, waters of Zachary Bay south of the latitude of 55° 22.60' N. lat.; fishing periods shall be established based on the abundance of pink and chum salmon stocks;

(2) the East and West Pavlof Bay Sections of the South Central District, waters north of the latitude of Black Point (55° 24.48' N. lat.); fishing periods shall be established based on the abundance of pink and chum salmon stocks;

(3) the Canoe Bay Section of the South Central District; fishing periods shall be established based on the abundance of pink and chum salmon stocks;

(4) in the Cold Bay, Thin Point, and Morzhovoi Bay Sections of the Southwestern District as follows:

(A) fishing periods in the Cold Bay Section shall be established based on the abundance of sockeye and chum salmon stocks;

(B) fishing periods in Thin Point Cove and Morzhovoi Bay Sections shall be established based on the abundance of sockeye salmon stocks.

(g) In addition to the terminal harvest areas specified in (f) of this section, the commissioner may open, by emergency order, the following terminal harvest areas to salmon fishing from July 22 through July 31:

(1) the Northwest Stepovak Section of the Southeastern District Mainland (near Suzy Creek), after July 25, the waters east of 160° 19.00' W long. (in Dorenoi Bay), west of the cape separating Chichagof Bay and West Cove (160° 14.57' W. long.) and north of 55° 37.33' N. lat.; fishing periods shall be established based on the abundance of local pink salmon stocks;

(2) the Stepovak Flats Section of the Southeastern District Mainland, from July 26 through July 28; fishing periods shall be established based on the abundance of local chum salmon stocks;

-continued-

(3) the Mino Creek-Little Coal Bay and East Pavlof Bay Sections of the South Central District; fishing periods shall be established based on the abundance of local pink and chum salmon stocks;

(4) the Belkofski Bay Section of the Southwestern District; fishing periods shall be established based on the abundance of local pink and chum salmon stocks;

(5) the Deer Island Section of the Southwestern District; fishing periods shall be established based on the abundance of local pink salmon stocks.

(h) The commissioner may open, by emergency order, the commercial salmon fishery in the South Alaska Peninsula as follows:

(1) from August 1 through August 31, fishing periods shall be based on the abundance of local sockeye, coho, pink, and chum salmon stocks;

(2) from September 1 through October 31, fishing periods shall be based on abundance of coho salmon stocks, although the department may consider the abundance of late pink and chum salmon stocks.

(i) The department shall conduct a seine test fishery in the Shumagin Islands Section to assess the presence of immature salmon. If 100 or more immature salmon, per set, are present, the commissioner shall close, by emergency order, the seine fishery in an area to be determined by the department. If the seine fishery is closed in an area under this subsection, the set gillnet fishery shall remain open in that area. For the purposes of this subsection, “immature salmon per set, are present” means the number of immature king, sockeye, coho, and chum salmon observed to be gilled in the seine web.