Fishery Management Report No. 13-16

North Alaska Peninsula Salmon Management Plan, 2013

by

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and

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

Symbols and Abbreviations

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

Weights and measures (metric)

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

Weights and measures (English)

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

Time and temperature

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

Physics and chemistry

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

General

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

Mathematics, statistics

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

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ABSTRACT

The purpose of this document is to provide commercial salmon fishermen and buyers with information and guidelines used by the Alaska Department of Fish and Game to manage the commercial salmon fisheries of the North Alaska Peninsula during 2013.

The 2013 projected North Alaska Peninsula salmon harvest is 2,069,000 fish, comprised of 2,000 Chinook salmon *Oncorhynchus tshawytscha*, 1,672,000 sockeye salmon *O. nerka*, 62,000 coho salmon *O. kisutch*, 109,000 pink salmon *O. gorbuscha*, and 224,000 chum salmon *O. keta*. The bulk of the salmon harvest is projected to occur in the Northern District between the Nelson Lagoon and Outer Port Heiden sections. The predominant gear type used in the North Alaska Peninsula is drift gillnet and set gillnet, though purse seine is a legal gear type in some areas. In 2013, salmon enumeration weirs on the Nelson, Bear, Sandy, and Ilnik rivers will be used to facilitate inseason escapement assessment and management.

Key words: Area M, North Alaska Peninsula, Nelson Lagoon, Bear River, Three Hills, Ilnik, Port Heiden, salmon, commercial fisheries, management plan, management plan, Chinook salmon, *Oncorhynchus tshawytscha*, sockeye salmon, *O. nerka*, coho salmon, *O. kisutch*, pink salmon, *O. gorbuscha*, chum salmon, *O. keta*, drift gillnet, set gillnet, purse seine.

INTRODUCTION

The North Alaska Peninsula, a portion of the Alaska Peninsula Management Area (Area M), consists of the Northern and Northwestern districts and encompasses Bering Sea coastal waters from Cape Menshikof to Cape Sarichef (Figure 1). The Northern District includes all state waters between Cape Menshikof and Moffet Point. The Northwestern District includes all state waters between Moffet Point and Cape Sarichef on Unimak Island. Five species of salmon are commercially harvested in North Alaska Peninsula waters: Chinook *Oncorhynchus tshawytscha*, sockeye *O. nerka*, coho *O. kisutch*, pink *O. gorbuscha*, and chum *O. keta* salmon.

The Cinder River Section, Inner Port Heiden Section, and Ilnik Lagoon comprise an overlap area described under 5 AAC 39.120 (d) where both Area M and Area T (Bristol Bay) permit holders may fish under certain conditions (Figure 2; ADF&G *in prep*). Area M permit holders may fish during open fishing periods in all of the above locations. In 2013 the Alaska Board of Fisheries (board) allowed Area T permit holders to fish in the inner portion of the Cinder River and Inner Port Heiden sections during all months when open fishing periods occur. Area T permit holders may also fish in Ilnik Lagoon beginning August 1 during open fishing periods. The Outer Port Heiden Section is not part of the overlap area (Figure 3).

The 2013 North Alaska Peninsula projected commercial salmon harvest is not a formal forecast and is based on a 5-year average of recent harvests and general trends. The 2013 North Alaska Peninsula commercial salmon harvest is projected to be 2,069,000 fish, of which 2,000 are expected to be Chinook salmon, 1,672,000 sockeye salmon, 62,000 coho salmon, 109,000 pink salmon, and 224,000 chum salmon. The 2013 projected sockeye salmon harvest is about 900,000 fish more than the 2012 actual harvest of 764,000 fish. The actual harvest of other species is directly related to market conditions and tends to vary annually. For example, there is often a harvestable surplus of coho salmon available in the fall; however, the lack of processor interest or other viable marketing avenues in some locations frequently preclude a directed harvest on some coho salmon stocks.

Formal forecasts are prepared for the Nelson Lagoon and late Bear River sockeye salmon runs. The 2013 Nelson River total sockeye salmon run is forecasted to be 327,000 fish (range 179,000 to 474,000 fish) with a harvest of 227,000 sockeye salmon (Eggers et al. 2013). The 2013 Nelson River sockeye salmon run is expected to be 115,000 fish more than the actual 2012 run of about

200,000 fish. The late Bear River (post July 31) total sockeye salmon run is forecasted to be 328,000 fish (range 66,000 to 591,000 fish) with a forecasted harvest of 172,000 sockeye salmon (Eggers et al. 2013). The 2013 Bear Lake late-run forecast of 328,000 sockeye salmon is about 212,000 fish more than the actual 2012 run of almost 116,000 fish.

GPS COORDINATES AND ENFORCEMENT

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

FISHERY ANNOUNCEMENTS

The Northern District will be managed from the Port Moller ADF&G office, while the Northwestern District will be managed from the Cold Bay ADF&G office. Management staff can be reached by SSB 3.230 MHz or over VHF channel 72 in Port Moller or by SSB 3.230 MHz or over VHF channel 6 in Cold Bay and through the following contacts:

Port Moller:
Alaska Dept. of Fish & Game
Phone (907) 375-2716
Fax (907) 375-2715
SSB 3.230 MHz
robert.murphy@alaska.gov
dawn.wilburn@alaska.gov

Cold Bay:
Alaska Dept. of Fish & Game
Phone (907) 532-2419
Fax (907) 532-2470
SSB 3.230 or 3.260 MHz
nathaniel. nichols@alaska.gov

Inseason EOs and news releases will be made available to the industry and the public by one or more of the following methods:

- Communicated directly to the local buyers/processors and fishermen via fax, email, or verbally.
- Transmitted over one or more of the following radio frequencies: SSB 3.230 MHz and VHF 72 in Port Moller or VHF 6 in Cold Bay.
- News releases will be displayed at several places in Port Moller and at ADF&G offices in Port Moller, Cold Bay and Sand Point.
- In Port Moller and Cold Bay after business hours at the phone number listed above using recorded messages.

EOs, new releases, and catch reports will also be updated on the Westward Region web site located at:

http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareaakpeninsula.salmon (Accessed April 2013)

When possible, ADF&G will give a minimum of 6 hours advance notice of commercial fishing openings when established by EO. However, there may be times when less than 6 hours notice is given for a commercial fishery opening, closure, or extension.

CATCH REPORTING

Buyers and processors must report their salmon purchases by location, species (in both numbers of fish and pounds; 5 AAC 39.130), and number of deliveries by 8:30 AM the day after delivery. Reports are made to the ADF&G in Port Moller for harvests in the Northern District, and to ADF&G in Cold Bay for harvests in the Northwestern District. According to 5 AAC 39.010, a person engaged in commercial fishing may retain finfish from lawfully taken commercial catch for that person's own use, including for the use as bait in a commercial fishery. Finfish retained under this section may not be sold or bartered and must be reported as personal use on a fish ticket.

When purchasing salmon, the buyer must complete fish tickets showing the statistical area where the fish were harvested. The harvest location may be different than the area where the delivery occurred. Fish tickets must be sent to the appropriate ADF&G office in Port Moller or Cold Bay within seven days of the delivery (5 AAC 39.130 (c)). The following addresses should be used:

Port Moller:
Alaska Dept. of Fish & Game
P.O. Box 163
Port Moller, AK 99571-8999

Cold Bay:
Alaska Dept. of Fish & Game
P.O. Box 50
Cold Bay, AK 99571

RECENT REGULATION CHANGES

At the February/March 2013 board meeting, new regulations were adopted for 2013. The changes that occurred are described below.

1. The Inner portion of the Cinder River Section as well as the Inner Port Heiden Section is open to Area T permit holders during open fishing periods during all months (Figure 2).
2. The Outer Port Heiden Section is only open to commercial salmon fishing 1.5 nmi from the baseline and no longer open from 1.5 nmi to 3 nmi. This is for the entire commercial salmon fishing season in the Outer Port Heiden Section from June 20 to July 31 and weekly fishing periods are expected to be 2 ½ days per week (Figure 3).
3. From June 20 through July 31, the department shall manage the Bear River, Three Hills, and Ilnik sections to conserve Bear and Nelson River sockeye salmon stocks by allowing the passage of sockeye salmon from the northeast to the southwest of the Northern District as described in this subsection. From June 20 through July 31 established fishing periods for five areas which include two areas in the Bear River Section; 1) from Cape Seniavin to Cape Kutuzof (160°19.64′ W long); and 2) from Cape Kutuzof to Wolf Point (160°48.47′ W long) and 3) the Three Hills Section, and two areas in the Ilnik Section; 4) from that portion of the Ilnik Section between the longitude of Strogonof Point at 159° 50.45' W. long. and the longitude of Unangashak Bluffs at 159°10.25' W long and; 5) that portion of the Ilnik Section between the longitude of Unangashak Bluffs and the longitude of Three Hills at 159°49.45'W long, during which the waters that are between the three-mile seaward boundary line, described in 5 AAC 09.301, and a line that is 1.5 nmi shoreward of the three-mile seaward boundary are closed for one 24-hour period during a seven-day period (Figure 4). The waters located to the southwest of the open waters where a 24-hour closure has occurred will have sequential closures that allow

fishing in the waters only out to the one and one-half mile line described in this subsection for the first 24 hours of an open fishing period.

4. In the Swanson Lagoon Section, fishing periods will be established by the department using EO authority.
5. In Christianson Lagoon, located in the Urilia Bay Section, fishing is not permitted within 500 yards of the exit channel of the stream terminus at the ocean shoreline.

NORTH ALASKA PENINSULA MANAGEMENT STRATEGY

The North Alaska Peninsula salmon fisheries will be managed on the basis of catch-per-unit-effort (CPUE) abundance indicators, salmon abundance determined during the ADF&G test fisheries, and escapement estimated by aerial surveys and weir counts. Scheduled weekly fishing periods during the open season are listed in Appendix A1 and in the 2013–2016 Commercial Finfish Regulations. When possible, the management of North Alaska Peninsula salmon fisheries will take into account processing requirements while allowing harvest opportunity and ensuring escapement requirements.

NORTHWESTERN DISTRICT

Dublin Bay Section

Commercial salmon fishing periods in the Dublin Bay Section (Figure 5) will be open to commercial salmon fishing from July 10 to August 31 with weekly fishing periods from 6:00 AM Monday to 6:00 PM Thursday, and from September 1 through September 30 by emergency order only as summarized in Appendix A1.

Urilia Bay Section

Commercial salmon fishing periods in the Urilia Bay Section (Figure 5) may open by emergency order if the sockeye salmon sustainable escapement goal (SEG) in Christianson Lagoon is likely to be met (25,000 to 50,000 fish; Sagalkin and Erikson 2013). Christianson Lagoon will be managed through July 31 based on sockeye salmon abundance and Peterson Lagoon will be managed through August 31 based on chum salmon abundance. The Urilia Bay Section will also be managed based on coho salmon abundance in August and September.

Swanson Lagoon Section

Sockeye and chum salmon stocks in the Swanson Lagoon Section (Figure 5) will be managed by EO through August based on abundance estimates in Swanson Lagoon. The SEG for Swanson Lagoon is 6,000 to 16,000 sockeye salmon (Sagalkin and Erikson 2013). The section will be managed by EO in September based on local coho salmon abundance determined from aerial surveys and commercial CPUE data.

Bechevin Bay Section

In June, the Bechevin Bay Section (Figure 5) will open concurrently with the Ikatan Bay Section (part of the South Peninsula) according to the South Unimak and Shumagin Islands June Salmon Management Plan (5 AAC 09.365 (b)). Post June, the Bechevin Bay Section will be managed based on the strength of local chum and pink salmon stocks. Fishing periods throughout the Bechevin Bay Section will be established by EO after June 30.

Izembek-Moffet Bay Section

Through August, chum salmon are the most abundant species found in the Izembek-Moffet Bay Section (Figure 5) and openings will be scheduled from 6:00 AM Monday to 6:00 PM Thursday. From September 1 to September 30, coho salmon become the predominant species and openings will be established by EO. Management decisions will be based on aerial escapement surveys and CPUE data. If there is little or no market for chum salmon, and fishermen target local sockeye salmon producing systems, management decisions will be based on the sockeye salmon run strength to these systems.

NORTHERN DISTRICT

Black Hills Section

During June, the Black Hills Section (Figure 5) will be managed based on the strength of local Chinook and sockeye salmon stocks. Management during July and early August will be based on the abundance of local sockeye and chum salmon runs in the Black Hills Section. North Creek is the dominant sockeye salmon producing system in the Black Hills Section and has an SEG of 4,400 to 8,800 fish (Sagalkin and Erikson 2013). If substantial effort occurs in the Black Hills Section and the effort targets chum salmon bound for Moffet Lagoon, management actions in the Black Hills Section will consider the strength of the chum salmon runs into Moffet Lagoon. During late August and September, the Black Hills Section will be managed based on local coho salmon abundance and harvest effort.

Nelson Lagoon Section

The Nelson River biological escapement goal (BEG) is 97,000 to 219,000 sockeye salmon (Table 1; Figure 5; Sagalkin and Erikson 2013). The Nelson Lagoon fishery will be managed based on interim escapement objectives at the Nelson River weir (Figure 6). Commercial salmon fishery harvests will also be used to evaluate run strength. Escapements objectives may be increased if escapement quality is poor due to a high percentage of net-marked fish, high percentage of jack salmon (length ≤400 mm from mideye to fork of tail, or age-.1), or a low female to male sex ratio. The estimated number of female sockeye salmon in the escapement should comprise half the total escapement goal range by July 25 (50,000 to 110,000 female sockeye salmon).

Table 1.–Nelson River sockeye salmon escapement interim objectives.

Date	Escapement for period	Cumulative Escapement
30-Jun	30,000 - 60,000	30,000 - 60,000
5-Jul	20,000 - 45,000	50,000 - 105,000
10-Jul	20,000 - 50,000	70,000 - 155,000
15-Jul	15,000 - 30,000	85,000 - 185,000
20-Jul	10,000 - 25,000	95,000 - 210,000
25-Jul	2,000 - 9,000	97,000 - 219,000
Total	97,000 - 219,000	

The BEG range for Chinook salmon in the Nelson River system is 2,400 to 4,400 fish (Sagalkin and Erikson 2013). To provide adequate escapement for Chinook salmon in Nelson Lagoon, weekly fishing periods through June 15 are limited in duration from 6:00 AM Monday to midnight Wednesday (Appendix A1). From June 16 to August 15, four fishing days per week may be allowed. Additional fishing time may be allowed if daily sockeye salmon catches are large or cumulative weir counts exceed interim objectives. However, if it is evident in June that the Chinook or sockeye salmon runs are weak, the number of fishing days will be reduced. The amount of effort directed at harvesting Chinook salmon in the fishery (e.g., mesh size of fishing gear used) will be considered when evaluating sockeye salmon escapement strategy.

During July, fishing time will be dependent upon sockeye salmon escapements and daily catches. If escapement data from the Nelson River weir cannot be determined due to high water events, then daily catch rates (primarily) and daily catch per boat (secondarily) will be used to evaluate run strength.

Beginning August 16, the Nelson Lagoon fishery is managed on coho salmon run strength. No more than three fishing days will be allowed per week unless coho salmon escapement in the Nelson River is expected to exceed the SEG lower bound of 18,000 fish (Sagalkin and Erikson 2013), or if the fishing effort has minimal impact on achieving adequate escapement.

Herendeen-Moller Bay Section

Prior to July 20, the Herendeen-Moller Bay Section (Figure 5) will be managed on a weekly fishing schedule based on the abundance of chum and pink salmon stocks. Herendeen Bay chum and pink salmon (especially during even-numbered years for pink salmon) will be harvested by EO after July 20. Management will be based on in-season abundance determined by aerial surveys and catch information.

Port Moller Bight Section

The Port Moller Bight Section (Figure 5) will be managed based on the status of sockeye salmon escapement at the Bear River weir (Figure 6). Fishery openings and closures will be concurrent with the Bear River Section.

Bear River and Three Hills Sections

The Bear River Section will be managed for each interim escapement objective and the season-ending escapement goal at Bear and Sandy rivers, while the Three Hills Section will be managed based on escapement at Bear, Sandy and Ilnik rivers (Table 2-4; Figures 4 and 5). The Bear River sockeye salmon escapement objective is divided into historic proportions of the early and late runs to account for both components of the Bear River run. The combined early- and late-run Bear River escapement goal, including a post-weir estimate, is an SEG of 293,000 to 488,000 sockeye salmon by September 15 (Table 2; Sagalkin and Erikson 2009). The SEG range for the early run, from June 1 through July 31, is 176,000 to 293,000 sockeye salmon (Table 2). The escapement goal range for the late run, from August 1 through August 25 (when the weir is removed) is 87,000 to 165,000 sockeye salmon (Table 2). The post-weir objective of 30,000 sockeye salmon is included in the Bear River late-run SEG of 117,000 to 195,000 fish (Table 2).

Table 2.–Bear River sockeye salmon escapement interim objectives.

Date	Escapement for period			Cumulative escapement		
Early-run component:						
15-Jun	4,000	-	8,000	4,000	-	8,000
20-Jun	11,000	-	22,000	15,000	-	30,000
25-Jun	15,000	-	25,000	30,000	-	55,000
30-Jun	30,000	-	60,000	60,000	-	115,000
5-Jul	30,000	-	50,000	90,000	-	165,000
10-Jul	25,000	-	35,000	115,000	-	200,000
15-Jul	15,000	-	30,000	130,000	-	230,000
20-Jul	10,000	-	20,000	140,000	-	250,000
25-Jul	20,000	-	20,000	160,000	-	270,000
31-Jul	16,000	-	23,000	176,000	-	293,000
Total early-run goal	176,000	-	293,000			
Late-run component:						
5-Aug	15,000	-	30,000	15,000	-	30,000
10-Aug	20,000	-	35,000	35,000	-	65,000
15-Aug	17,000	-	35,000	52,000	-	100,000
20-Aug	15,000	-	30,000	67,000	-	130,000
25-Aug	20,000	-	35,000	87,000	-	165,000
Total late-run objective	87,000	-	165,000			
Post-weir objective	30,000					
Total late-run goal	117,000	-	195,000			
Total escapement goal	293,000	-	488,000			

If one of the interim escapement objectives (Table 2) is not achieved, fishing in the Bear River and Three Hills sections will be curtailed until cumulative escapement objectives are reached. Sockeye salmon escapement during the July 26 to 31 period in excess of the 23,000 fish upper escapement objective will be applied to the first interim objective of the late-run escapement (August 1–5). However, no more than 15,000 fish from the early run shall be applied to the late-run escapement objective. This will aid the ADF&G in managing the late Bear River sockeye salmon run more effectively when the run is earlier than expected, or when the early run is large and the early run exceeds escapement objectives.

The number of jack (length ≤400 mm mid eye to fork of tail or age-.1) and net-marked sockeye salmon in the Bear River escapement is important when evaluating escapement quality. In normal years, the number of jack salmon is less than 10% of the total run. If the daily proportion of jack sockeye salmon exceeds 10%, the escapement objective may be increased to compensate for the reduction in reproductive potential. If the number of net-marked salmon becomes excessive (>10%), the escapement objectives may be increased to preserve escapement quality.

The Sandy River sockeye salmon SEG is 34,000 to 74,000 fish (Table 3; Figure 6; Sagalkin and Erikson 2013). If weir counts at Sandy River are unavailable due to difficulties with the weir such as a high water event, aerial survey data will be used to estimate the escapement and manage the fisheries.

Table 3.–Sandy River sockeye salmon escapement interim objectives.

Date	Escapement for period	Cumulative escapement
20-Jun	2,000 - 3,000	2,000 - 3,000
25-Jun	4,000 - 8,000	6,000 - 11,000
30-Jun	7,000 - 17,000	13,000 - 28,000
5-Jul	8,000 - 19,000	21,000 - 47,000
10-Jul	5,000 - 13,000	26,000 - 60,000
15-Jul	3,000 - 7,000	29,000 - 67,000
20-Jul	3,000 - 4,000	32,000 - 71,000
25-Jul	2,000 - 3,000	34,000 - 74,000
Total	34,000 - 74,000	

Prior to July 21, the Three Hills Section will be managed based on Bear River, Sandy River, and Ilnik River sockeye salmon abundance (Table 4; Figures 5 and 6). If escapement objectives in the Bear or Sandy rivers are not being met, a portion of the Bear River Section may be closed while the Three Hills Section may remain open. This strategy has been used successfully in the past to achieve escapement objectives while providing fishing opportunity and avoiding surplus escapement. If escapement into Ilnik or Ocean River (if Ocean River flows directly into the Bering Sea) is inadequate, and area closures in the Ilnik Section are not an effective conservation action, the fishery in the eastern portion of the Three Hills Section may be closed to provide additional protection for fish needed for escapement.

Table 4.–Sockeye salmon stocks used to manage five sections in the Northern District.

	Sockeye Salmon Stocks	
Section	Through July 20	After July 20
Nelson Lagoon	Nelson R.	Nelson R.
Bear River	Bear R., Sandy R.	Bear R., Sandy R.
Three Hills	Bear R., Sandy R., Ilnik R.	Bear R., Sandy R.
Ilnik		
SW of Unangashak Bluffs	Ilnik R., Ugashik R.	Bear R.
NE of Unangashak Bluffs	Ilnik R., Meshik R., Ugashik R.	Bear R.
Outer Port Heiden	Meshik R., Ugashik R.	Meshik R. (through July 31)

Note: Nelson and Bear rivers will be managed in the Ilnik, Three Hills, and Bear River sections from June 20 to July 31 as per 5 AAC 09.369 (n) to allow passage of sockeye salmon from the northeast to southwest as described in *Recent Regulation Changes* previously stated in this report.

During June, management decisions regarding sockeye salmon may be conservative in the Bear River Section to protect Chinook salmon stocks in the King Salmon, Bear, and Sandy rivers. In August and September, management decisions in the Three Hills Section will consider the strength of Ilnik Lagoon coho salmon runs.

Ilnik Section

That portion of the Ilnik Section outside of the Ilnik Lagoon and southwest of Unangashak Bluffs will be managed based on Ilnik River sockeye salmon run strength through July 20 unless a management concern exists for Ugashik River sockeye salmon (Table 5; Figure 5). The portion of the Ilnik Section northeast of Unangashak Bluffs to Strogonof Point will be managed based on Ilnik and Meshik River sockeye salmon run strength unless a management concern exists for Ilnik or Ugashik River sockeye salmon. Aerial surveys will be used to determine escapement into the Meshik River. Between July 20 and August 15, fishing time in the entire Ilnik Section will be based on Bear River sockeye salmon run strength. After August 15, local coho salmon run strength based on CPUE will determine fishing time in the Ilnik Section unless a concern exists for Bear River late-run sockeye salmon.

Table 5.–Ilnik River sockeye salmon interim escapement objectives if Ocean River flows into Ilnik River.

Date	Escapement for period	Cumulative escapement
20-Jun	5,000 - 8,000	5,000 - 8,000
25-Jun	5,000 - 7,000	10,000 - 15,000
30-Jun	5,000 - 10,000	15,000 - 25,000
5-Jul	5,000 - 10,000	20,000 - 35,000
10-Jul	10,000	30,000 - 45,000
15-Jul	5,000	35,000 - 50,000
20-Jul	3,000 - 7,000	38,000 - 57,000
25-Jul	2,000 - 3,000	40,000 - 60,000
Total	40,000 - 60,000	

The sockeye salmon management objective for the Ocean River (Table 6) is based on aerial surveys when the river flows directly into the Bering Sea (not into the Ilnik River) as in 1972 to 1975, 1986 to 1987, 2005 to 2010 and 2012. When this occurs, many of the fish bound for Ocean River do not pass through the Ilnik River, and therefore do not pass the weir. For the years noted above, an average of about 20% of the total Ilnik River watershed escapement spawned in Ocean River. If the Ocean River were to flow directly into the Bering Sea during 2013, the Ocean River escapement objective would be subtracted from the Ilnik River escapement goal (Table 7). Because of the proximity of the Ocean River terminus to the Three Hills Section, management actions may be taken in the Three Hills Section to meet escapement objectives in Ocean River.

Table 6.–Ocean River sockeye salmon aerial survey interim escapement objectives if Ocean River flows directly into the Bering Sea.

Date	Cumulative escapement
15-Jun	1,000 - 1,600
20-Jun	2,000 - 3,000
25-Jun	3,000 - 5,000
5-Jul	6,000 - 9,000
10-Jul	7,000 - 10,000
15-Jul	7,600 - 11,400
20-Jul	8,000 - 12,000
Total	8,000 - 12,000

Table 7.–Ilnik River sockeye salmon interim escapement objectives if Ocean River flows directly into the Bering Sea.

Date	Escapement for period	Cumulative escapement
20-Jun	4,000 - 6,400	4,000 - 6,400
25-Jun	4,000 - 5,600	8,000 - 12,000
30-Jun	4,000 - 8,000	12,000 - 20,000
5-Jul	4,000 - 8,000	16,000 - 28,000
10-Jul	8,000	24,000 - 36,000
15-Jul	4,000	28,000 - 40,000
20-Jul	3,000 - 5,600	30,400 - 45,600
25-Jul	2,000 - 3,000	32,000 - 48,000
Total	32,000 - 48,000	

Inner Port Heiden and Cinder River Sections

The Inner Port Heiden and Cinder River sections (Figure 5) will be managed on the basis of Chinook salmon abundance during May through mid-June. The weekly fishing periods established in regulation may be adjusted in the Inner Port Heiden and Cinder River sections prior to June 20 to accommodate local markets (Appendix A1). Sockeye salmon abundance from mid-June through July and coho salmon abundance after July will dictate fishing time in these sections. Area M and T permit holders may fish in the open waters of the Cinder River and Inner Port Heiden sections, and Area T permit holders are also allowed, along with Area M permit holders to fish after July 31 in that portion of the Ilnik section within Ilnik Lagoon (5 AAC 39.120 (d)). The fishing season in that portion of the Cinder River Section outside of Shagong Lagoon (Cinder River Lagoon) cannot open earlier than August 1 (5 AAC 09.310 (a)(1)(B); Figure 4). Fishermen in the Cinder River Section are reminded that the following waters are closed to commercial salmon fishing under 5 AAC 09.350 (1) and (2):

<u>Cape Menshikof:</u> all waters of the Cinder River Section located north and east of a line extending 304° from a point on the shore at 57°24.40'N lat 158°03.00'W long.

Cinder River Lagoon: all waters enclosed by a line from 57°20.00'N lat, 158°08.02'W long, to 57°21.30'N lat, 158°02.63'W long.

The weekly fishing period in the Cinder River Section is 6:00 AM Thursday to 6:00 PM Saturday. Also, in the Cinder River Section set gillnet gear may not be placed further than one-half mile from the mean high tide mark. Beginning June 20, fishing time permitted in the portion of the Ilnik Section located northeast of Unangashak Bluffs (Figure 2) will be concurrent with fishing time in the Inner Port Heiden Section unless management concern exists for Ilnik or Ugashik River sockeye salmon and either interim or season total escapement goals appear likely not to be met. Depending on effort levels in the Inner Port Heiden Section fishing time may be concurrent with openings in the Outer Port Heiden Section since both areas will be managed on the basis of Meshik River salmon runs.

Outer Port Heiden Section

In the Outer Port Heiden Section fishing is permitted west of a line from 57°05.52' N lat, 158°34.45'W long to 57°08.85'N lat, 158°37.50' W long between June 20 and July 31 (5 AAC 09.310 (a)(2)(B) and 5 AAC 09.350 (3)) and only out to 1.5 nmi from land (Figure 3). Fishing time in the Outer Port Heiden Section will be based on Meshik River sockeye salmon abundance unless management actions are taken for the conservation of Ugashik River sockeye salmon in the Egegik District. Weekly fishing periods in the Outer Port Heiden Section are scheduled to be 2.5 days per week (Appendix A1).

BEAR RIVER TEST FISHERY

During the 2013 season, the ADF&G may conduct a test fishery near the mouth of Bear River (Figures 5 and 6) to gauge the local marine abundance of sockeye salmon. The main objective of the test fishery is to decrease the likelihood of exceeding the Bear River escapement goal and to maximize the harvest opportunity on the Bear River sockeye salmon stock. The test fishery will occur during commercial fishing closures after build-ups of fish are expected (usually 3 to 5 days after a closure). The ADF&G management staff in Port Moller will assess the sockeye salmon abundance after each test fishery. Management decisions will incorporate all information available, including daily catch rates prior to the fishery closure, aerial survey estimates, daily escapement counts, and test fishery results. If salmon build-ups occur in the test fishery area, management actions may include opening the commercial fishery to provide harvest opportunities while providing a closed water area to protect milling Bear River bound sockeye salmon. As in the past, the ADF&G may close areas around Bear River to ensure escapement requirements are achieved while providing a harvest opportunity outside the closed area.

The ADF&G office in Port Moller will establish and maintain a list of permit holders willing to participate in the test fishery program. Enrollment will begin on May 15 and will continue until the first test fishing date. Enrollment can be completed in person, by phone, or over the radio. The permit holder must have at least five seasons of experience drift gillnet salmon fishing in the vicinity of Bear River, and each vessel must be able to chill the catch using refrigerated sea water. Each vessel must meet requirements specified by ADF&G as stated in the North Alaska Peninsula Sockeye Salmon Test Fishery Operational Plan 2013 (Murphy and Wilburn *in prep*).

All eligible names will be randomly chosen and a sequential list of charter vessels will be announced over the VHF radio and kept available at the ADF&G office in Port Moller. The sequential list will be maintained throughout the season. If the permit holder is unavailable to participate in the test fishery (permit holder cannot be contacted prior to 8:00 PM the day before the test fishery), the vessel will be moved to the bottom of the list and the next vessel on the list will be announced. Additional permit holders may enroll once the list is established; however, these vessels will be placed at the end of the established list, in the order in which their enrollments are received.

Two chartered vessels will depart Port Moller on the morning of each test fishing day, and the vessel skippers will supply all necessary gear to make four sets at designated locations in the vicinity of Bear River. One vessel will fish north of the river mouth, and the other south of the river mouth. One ADF&G observer will be on board each vessel. The ADF&G will pay $1,200 per day to charter each vessel. Proceeds from the sale of fish harvested in the ADF&G test fishery will be deposited in the ADF&G test fish fund to cover test fish expenses, including ADF&G personnel and equipment costs for salmon age, length, and sex data collection.

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FIGURES

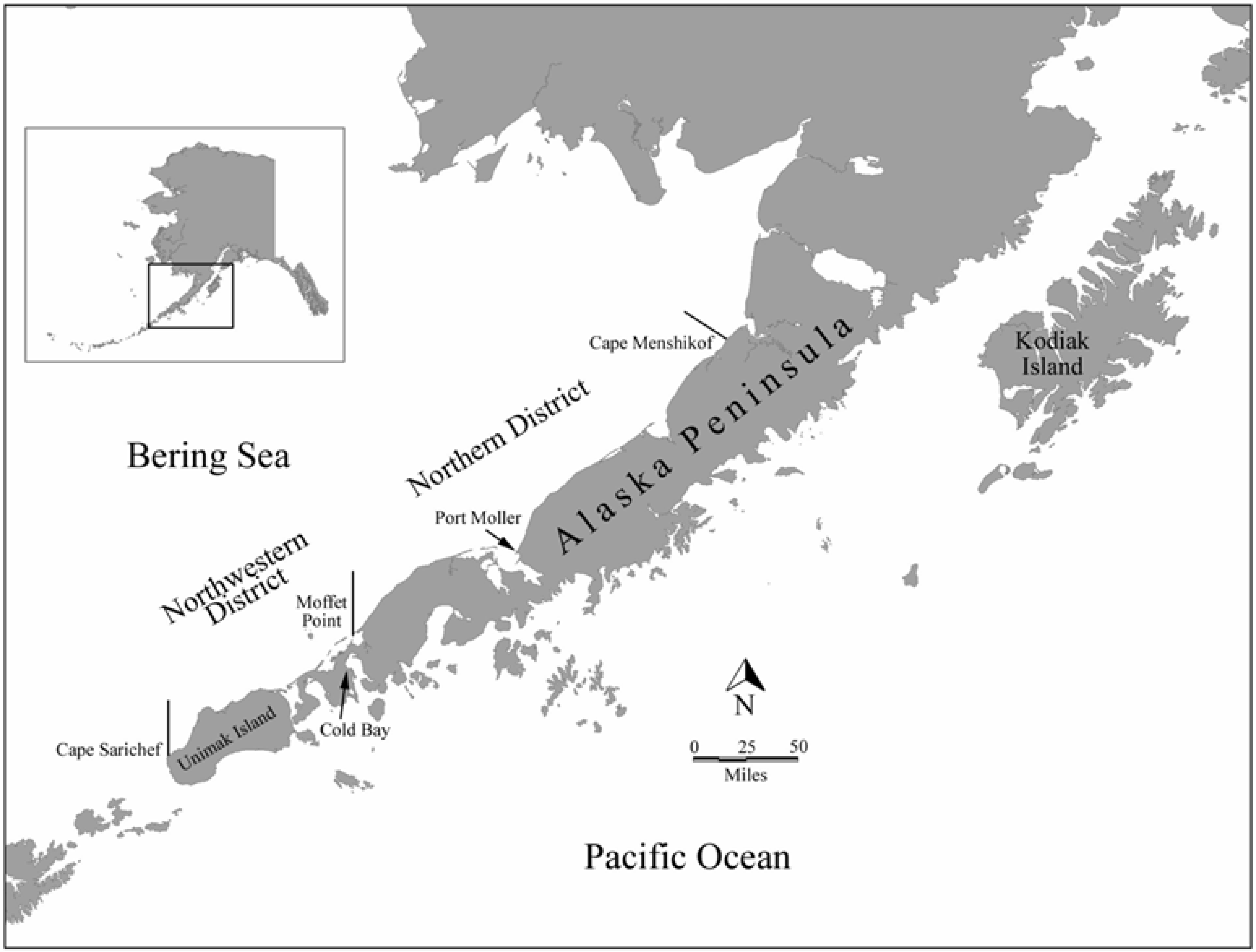

Figure 1.–Map of the Alaska Peninsula with North Alaska Peninsula commercial salmon fishing districts.

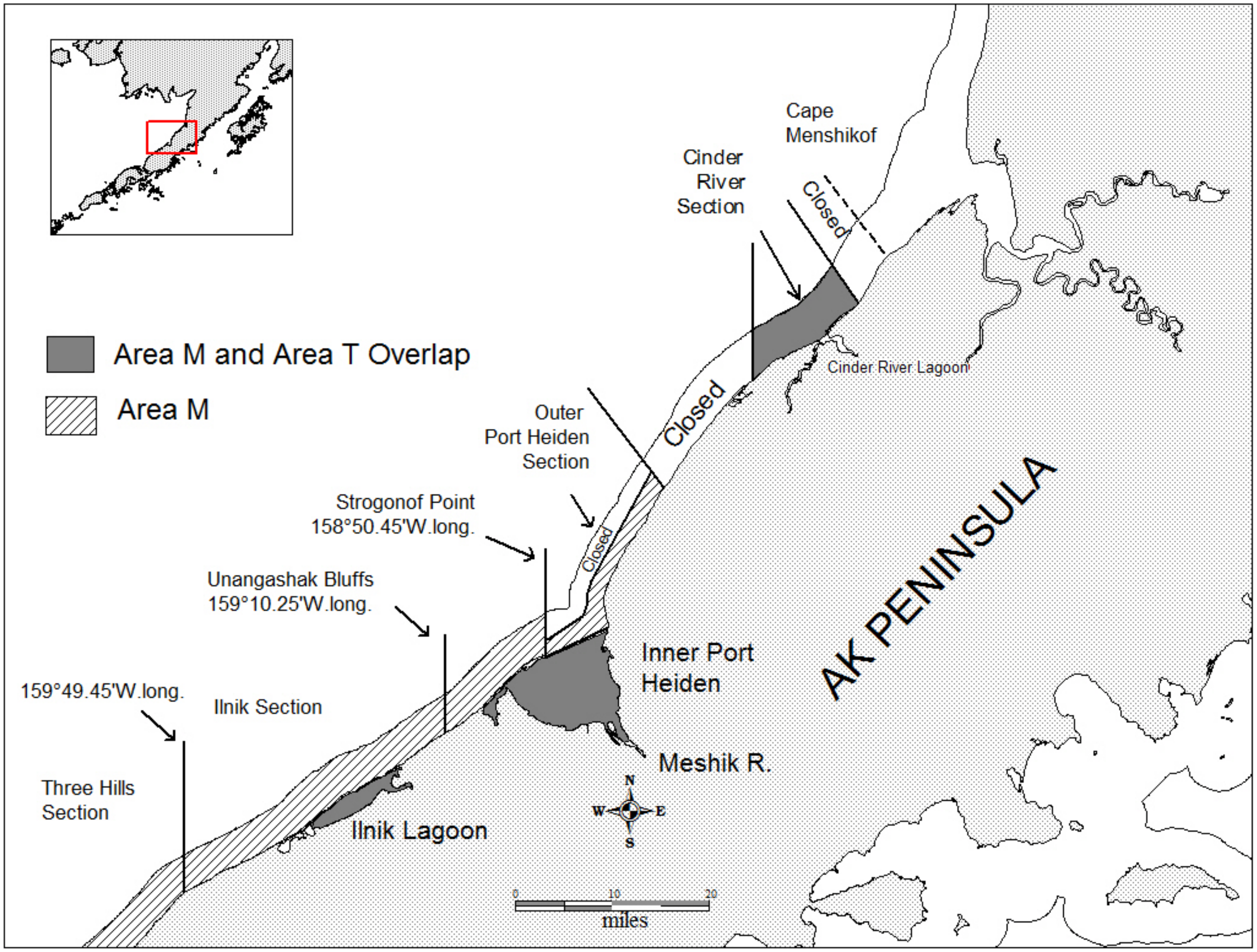

Figure 2.–Map of the Area M and Area T overlap area (Ilnik Lagoon, Inner Port Heiden, and Cinder River Section) with the portion of the Outer Port Heiden Section opened to commercial salmon fishing.

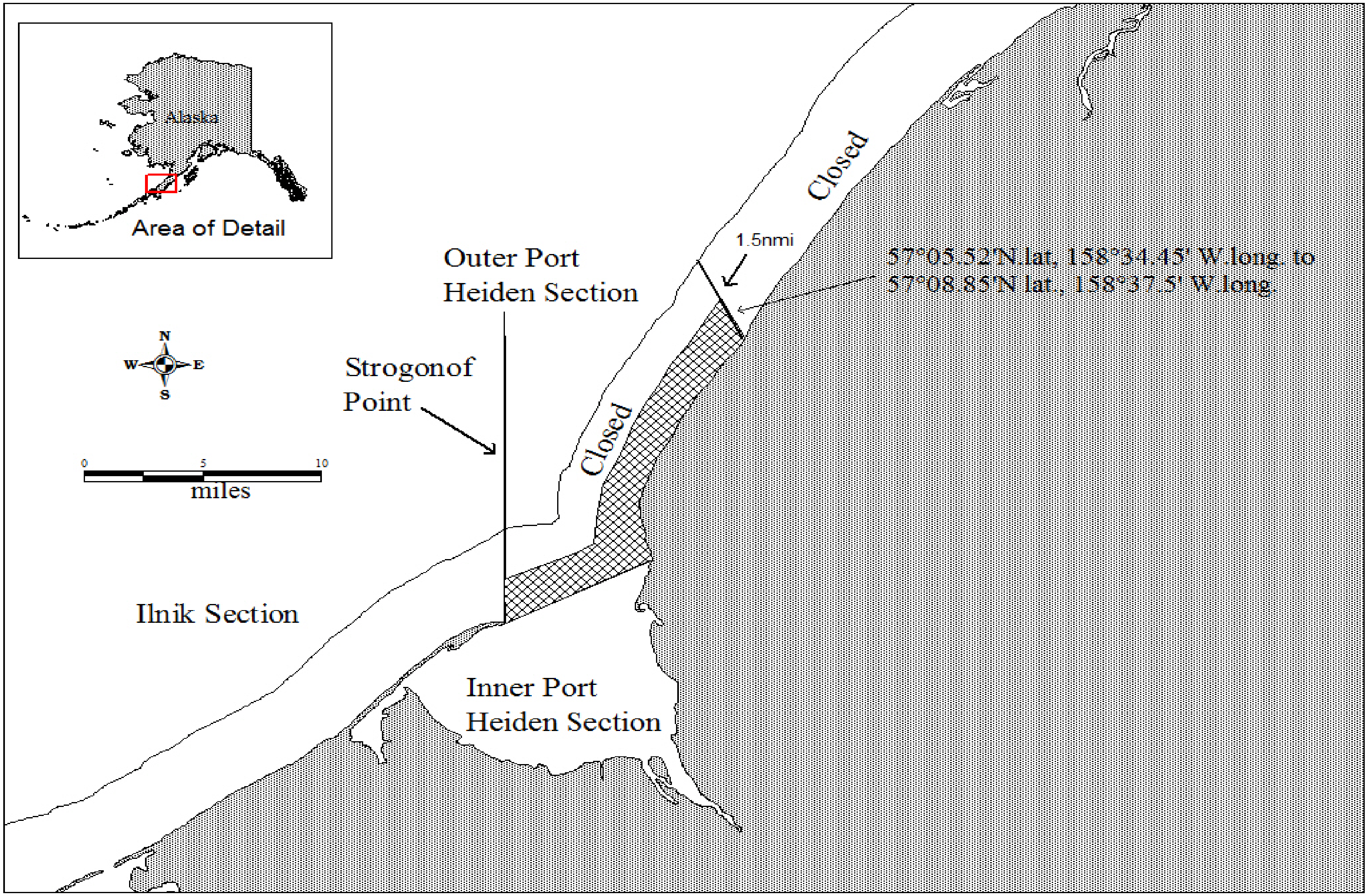

Figure 3.–Map of Outer Port Heiden Section showing the boundary line and the area closed to commercial salmon fishing.

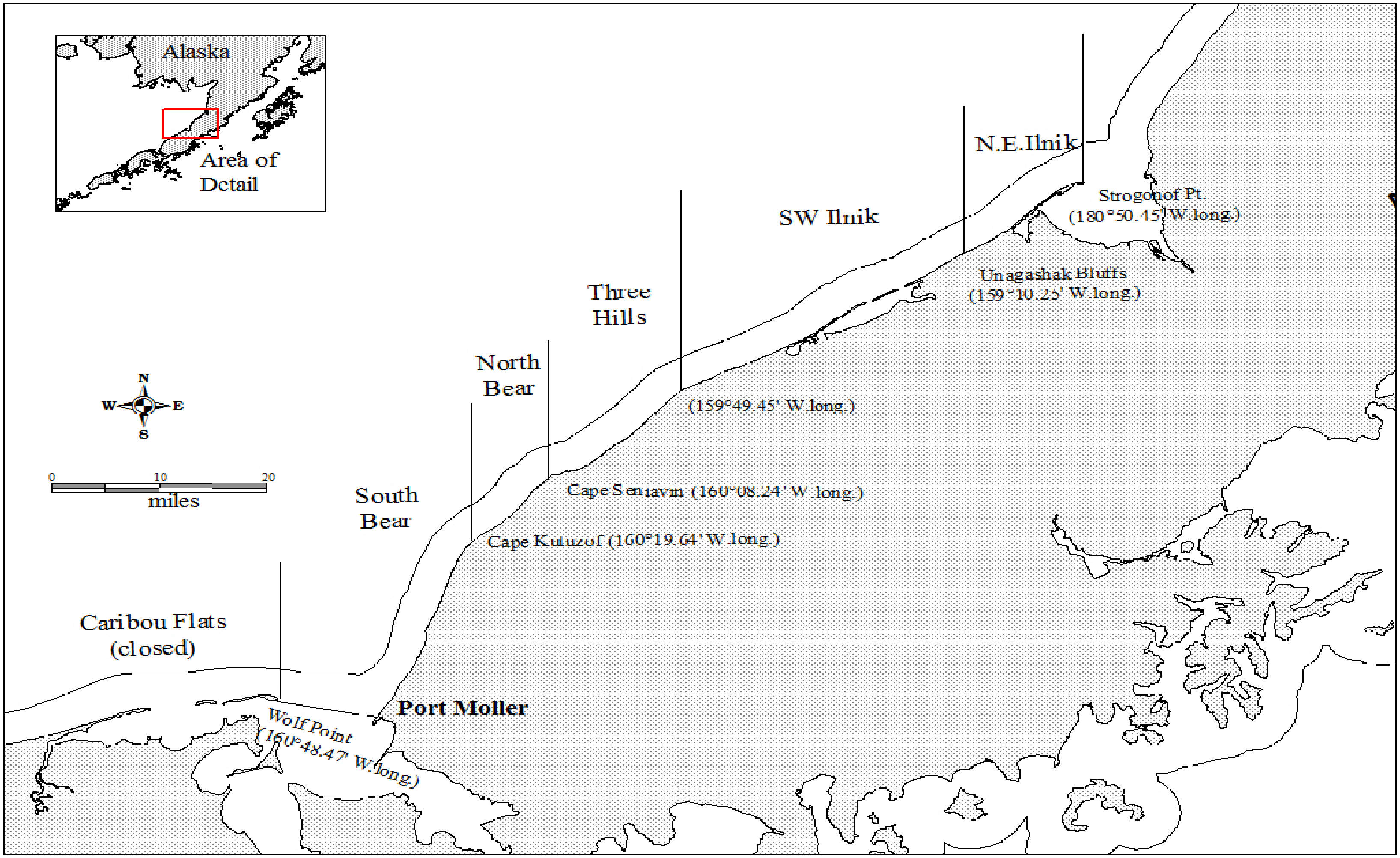

Figure 4.–Map of the five fishing sections with rolling closure restrictions from the 3 mile boundary line shoreward to 1.5 miles from June 20–July 31.

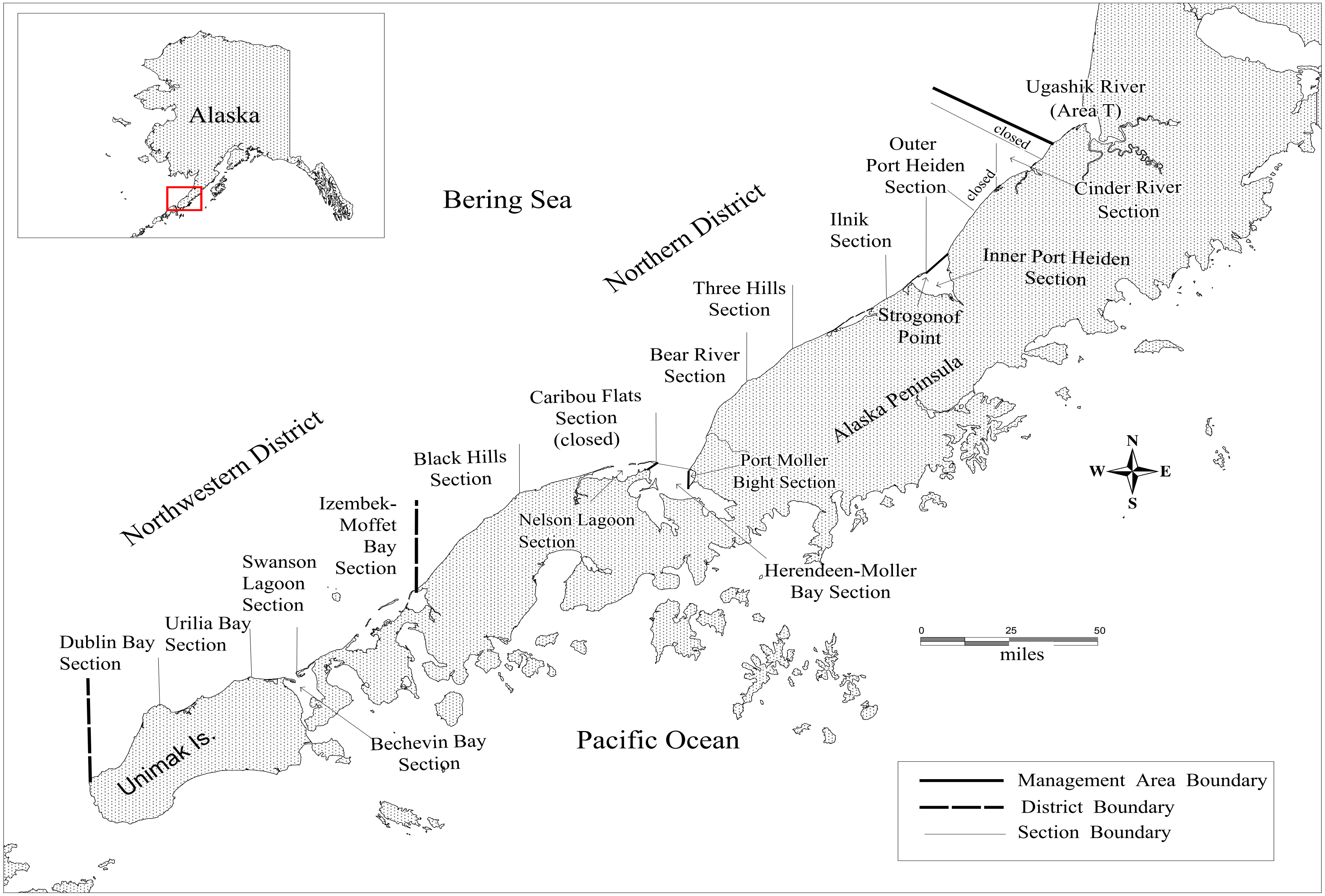

Figure 5.–Map of the Alaska Peninsula with North Alaska Peninsula commercial salmon fishing sections.

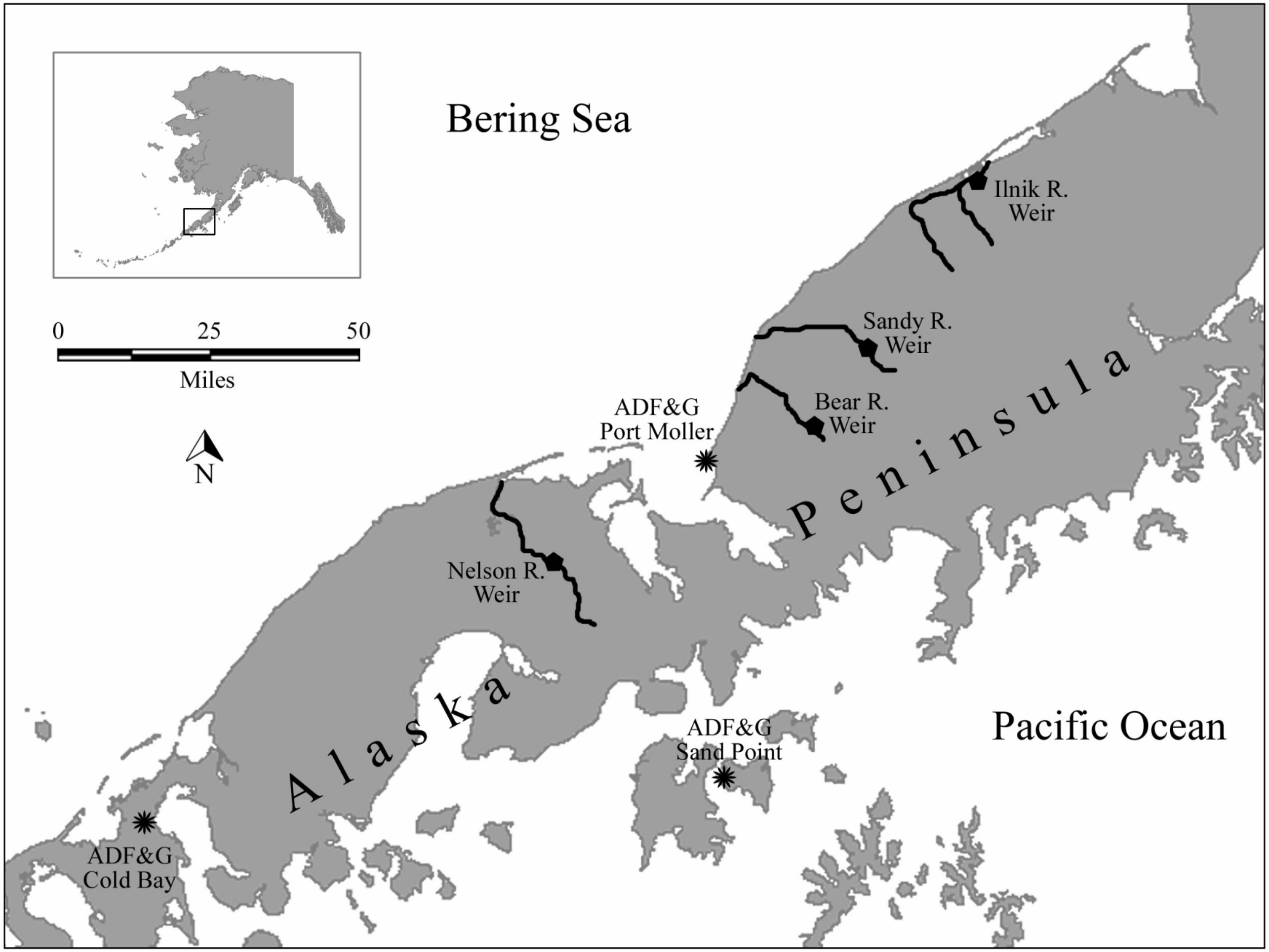

Figure 6.–Map of the Alaska Peninsula regional offices and North Alaska Peninsula weir locations.

APPENDIX A. SCHEDULED NORTH ALASKA PENINSULA FISHING PERIODS

Appendix A1.–Scheduled North Alaska Peninsula fishing periods as described in regulations.

Section	Open season	Scheduled fishing period
Cinder River		
Outside Shagong Lagoon	August 1 - September 30	6:00 AM Thursday to 6:00 PM Saturday
Inside Shagong Lagoon	May 1 - September 30	6:00 AM Thursday to 6:00 PM Saturday
Outer Port Heiden		
(W of 57° 05.52' N. lat., 158° 34.45' W. long. to 57° 08.85' N. lat., 158°37.50' W. long.)	June 20 - July 31	6:00 AM Monday to 6:00 PM Wednesday
(E of 57° 05.52' N. lat., 158° 34.45' W. long. to 57° 08.85' N. lat., 158°37.50' W. long.)	No open season	
Inner Port Heiden	May 1 - September 30	6:00 AM Monday to 6:00 PM Wednesday
Ilnik Section		
Southwest of Unangashak Bluffs (159° 10.25' W. long.) excluding Ilnik Lagoon and within the Seal Islands	June 20 - September 30	6:00 AM Monday to 6:00 PM Wednesday
Between Unangashak Bluffs (159°10.25' W. long.) to Strogonof Point (158° 50.45' W. long.).	June 20 - September 30	6:00 AM Monday to 6:00 PM Wednesday
Inside Ilnik Lagoon and within the Seal Islands	May 1 – June 19	noon Monday to 11:59 PM Wednesday
Inside Ilnik Lagoon and within the Seal Islands	June 20 - September 30	6:00 AM Monday to 6:00 PM Wednesday
Three Hills	June 25 - June 30	6:00 AM Monday to 6:00 PM Wednesday
Three Hills	July 1 - September 30	6:00 AM Monday to 6:00 PM Thursday
Bear River	May 1 - June 30	6:00 AM Monday to 6:00 PM Wednesday
Bear River	July 1 - September 30	6:00 AM Monday to 6:00 PM Thursday

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Appendix A1.–Page 2 of 2.

Section	Open season	Scheduled fishing period
Port Moller Bight	May 1 - September 30	6:00 AM Monday to 6:00 PM Thursday
Herendeen-Moller Bay	May 1 - July 20	6:00 AM Monday to 6:00 PM Thursday
Nelson Lagoon	May 1 - June 15	6:00 AM Monday to MIDNIGHT Wednesday
	June 16 - August 15	6:00 AM Monday to MIDNIGHT Thursday
	August 16 - September 30	6:00 AM Monday to MIDNIGHT Wednesday
Caribou Flats	No open season	
Black Hills	May 1 - June 30	6:00 AM Monday to 6:00 PM Wednesday
	July 1 - September 30	6:00 AM Monday to 6:00 PM Thursday
Izembek-Moffet Bay	June 1 - August 31	6:00 AM Monday to 6:00 PM Thursday
	September 1 - September 30	by emergency order only
Swanson Lagoon	June 1 - August 31	6:00 AM Monday to 6:00 PM Thursday
	September 1 – September 30	by emergency order only
Urilia Bay[a]	June 1 – September 30	by emergency order only
Dublin Bay	July 10 - August 31	6:00 AM Monday to 6:00 PM Thursday
	September 1 – September 30	by emergency order only
Bechevin Bay	June 1 - September 30	by emergency order only

[a] In recent years, the fishing season in the Urilia Bay Section has been delayed until late June to obtain a substantial amount of sockeye salmon escapement before fishing begins.