Kodiak Management Area Harvest Strategy for the 2023 Commercial Salmon Fishery

by James Jackson Amanda E. Dorner and Brad A. Fuerst

March 2023

Alaska Department of Fish and Game



Division Commercial Fisheries

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

REGIONAL INFORMATION REPORT NO. 4K23-01

KODIAK MANAGEMENT AREA HARVEST STRATEGY FOR THE 2023 COMMERCIAL SALMON FISHERY

by

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> > March 2023

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This document should be cited as follows:

Jackson, J., A. E. Dorner, and B. A. Fuerst. 2023. Kodiak management area harvest strategy for the 2023 commercial salmon fishery. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 4K23-01, Kodiak.

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TABLE OF CONTENTS

	Page
LIST OF TABLES	
LIST OF FIGURES	
LIST OF APPENDICES	ii
ABSTRACT	1
INTRODUCTION	1
RELEASE OF LARGE CHINOOK (KING) SALMON BY PURSE SEINE PERMIT HOLDERS	2
HARVEST PROJECTIONS	2
FISHING PERIODS	
Advance Notice	3
Fishery Opening Times	3
Timing and Length of Initial Fishing Periods	
Inperiod Closures	9
INSEASON FISHERY ANNOUNCEMENTS	
ADF&G STAFF CONTACT NUMBERS	11
Statistical Areas	11
Use of Net Pens	11
Waste of Salmon	11
Personal Use of Commercially Taken Salmon (Home Pack)	11
Direct Marketing	
Fish Transporters	
FISH TICKETS/HARVEST REPORTS	
Processors/Tenders	
Purse Seine Permit Holders	13
Set Gillnet Permit Holders	13
REFERENCES CITED	14
TABLES	15
FIGURES	21
APPENDIX A: CHARTS OF AVERAGE RUN TIMING RELATIVE TO CURRENT ESCAPEMENT FOR SELECT STREAMS AND SPECIES	
APPENDIX B: SALMON MANAGEMENT BASIS	

LIST OF TABLES

Table		Page
1.	Alaska Board of Fisheries approved fishery management plans for the Kodiak Management Area,	
	2021	16
	Forecasted and actual 2022, and forecasted 2023 commercial salmon harvest, by species and fishery, for the Kodiak Management Area.	
	for the Routak Management / frea.	1 /

LIST OF FIGURES

Figure

Figure	6	Page
1.	Map of the commercial salmon fishing districts in the Kodiak Management Area.	
2.	Map of the Mainland District identifying commercial salmon fishing sections and statistical areas	23
3.	Map of the Alitak District identifying commercial salmon fishing sections and statistical areas	24
4.	Map of the Southwest Kodiak District identifying commercial salmon fishing sections and statistical areas.	25
5.	Map of the Afognak District identifying commercial salmon fishing sections and statistical areas	26
6.	Map of the Northwest Kodiak District identifying commercial salmon fishing sections and statistical areas.	27
7.	Map of the Eastside Kodiak District identifying commercial salmon fishing sections and statistical areas.	
8.	Map of the Northeast Kodiak District identifying commercial salmon fishing sections and statistical areas.	29
9.	Map of the Dog Salmon Flats Section of the Alitak District and Horse Marine closed water area	30
10.	Commercial salmon fishery chronology by species for the Kodiak Management Area	31
11.	Map of management units of the North Shelikof Strait Sockeye Salmon Management Plan	32
12.	Map of Cape Hepburn portion of the Alitak District.	33

LIST OF APPENDICES

Appendix

Page

I - I		8-
A1.	Average run timing relative to lower and upper escapement goals for Chinook salmon into the Karluk system.	36
A2.	Average run timing relative to lower and upper escapement goals for early-run sockeye salmon into the	
		37
A3.	Average run timing relative to lower and upper escapement goals for late-run sockeye salmon into the	
	Karluk system	38
A4.	Average run timing relative to lower and upper escapement goals for Chinook salmon into the	
	Ayakulik system.	39
A5.	Average run timing relative to lower and upper escapement goals for early-run sockeye salmon into the	10
	Ayakulik system Average run timing relative to lower and upper escapement goals for late-run sockeye salmon into the	40
A6.		11
A7.	Ayakulik system Average run timing relative to optimum and upper escapement goals for early-run sockeye salmon into	41
Δ/.	the Upper Station system	42
A8.	Average run timing relative to lower and upper escapement goals for late-run sockeye salmon into the	12
-	Upper Station system.	43
A9.	Average run timing relative to lower and upper escapement goals for sockeye salmon into the Frazer	
	system through the Dog Salmon River weir.	44
A10.	Average run timing relative to lower and upper escapement goals for sockeye salmon into the Litnik	
		45
A11.	Average run timing relative to lower and upper escapement goals for sockeye salmon into the Buskin	
	system.	46

LIST OF APPENDICES (Continued)

Apper	ndix	Page
A12.	Average run timing relative to lower and upper escapement goals for sockeye salmon into the Saltery	Y
	system.	47
B1.	The Westside Kodiak fishery salmon management basis	49
B2.	The Alitak fishery salmon management basis.	51
B3.	Eastside Kodiak fishery salmon management basis	52
B4.	Eastside Afognak fishery salmon management basis	53
B5.	North Afognak/Shuyak Island fishery salmon management basis	54
B6.	Mainland District fishery salmon management basis	

ABSTRACT

The Alaska Department of Fish and Game (ADF&G) will manage the commercial salmon fisheries in the Kodiak Management Area (KMA) to promote maximum sustained yield for future KMA salmon returns by achieving salmon escapement goals and providing opportunity to harvest salmon in excess of those goals. ADF&G will attempt to provide for orderly fisheries while maximizing harvest opportunities on the highest quality salmon. ADF&G will adhere to the biological and allocative requirements of the management plans adopted by the Alaska Board of Fisheries for the KMA. Management of the fisheries follows a general chronology based on the run timing of 4 commercially targeted salmon species: sockeye *Oncorhynchus nerka*, coho *O. kisutch*, pink *O. gorbuscha*, and chum salmon *O. keta*.

The 2023 preseason forecasts a harvest of approximately 1,790,000 sockeye, 379,700 coho, 26,200,000 pink, and 456,800 chum salmon. Additionally, about 8,000 Chinook salmon *O. tshawytscha* could be harvested incidentally in fisheries targeting other salmon species. All fishing periods are established by emergency order. The initial sockeye salmon commercial test fishing period for the west side of Kodiak Island is tentatively scheduled for June 9 but may occur as early as June 1. A June 9 fishery opening is also planned for the Duck Bay, Izhut Bay, Inner Kitoi Bay, Outer Kitoi Bay Sections, and the Foul Bay and Waterfall Bay Special Harvest Areas. The initial commercial test fishing period in the Alitak District will be determined based on inseason indicators of run strength. On July 6, the initial weekly fishing period targeting pink salmon will be 105 hours ($\sim 4\frac{1}{2}$ days) in length for Kodiak Archipelago sections, and the Mainland District fishing periods will be 57 hours ($\sim 2\frac{1}{2}$ days) in length.

Keywords: Alaska Department of Fish and Game, Kodiak, Afognak, Karluk, Ayakulik, Frazer, Upper Station, Alitak, Cape Igvak, North Shelikof, commercial fishery, salmon, management plan, purse seine, set gillnet, KMA, Chinook salmon, Oncorhynchus tshawytscha, sockeye salmon, O. nerka, coho salmon, O. kisutch, pink salmon, O. gorbuscha, chum salmon, O. keta

INTRODUCTION

The Kodiak Management Area (KMA; Figure 1) 2023 commercial salmon fishery harvest strategy emphasizes the following 3 criteria:

- (1) Promote maximum sustained yield for future KMA salmon returns by ensuring salmon escapements of sufficient magnitude and distribution.
- (2) Provide for orderly fisheries while maximizing harvest opportunities on the highest quality salmon.
- (3) Adhere to the biological and allocative requirements of all management plans adopted by the Alaska Board of Fisheries (BOF) for the KMA salmon fishery.

There are 10 salmon management plans that direct Alaska Department of Fish and Game (ADF&G) management activities for specific portions and time periods of the KMA (Table 1; Appendices B1–B6). Within the KMA there are 7 districts, which are further broken down into sections and statistical areas (Figures 2–9). All salmon fishing districts within the KMA are managed by regulatory plans for the entire season. Proper implementation of these plans requires good communication between ADF&G and fishing industry personnel.

Salmon run timing within the KMA follows a general chronology by species (Figure 10). Commercial fisheries management is based on the run timing of 4 targeted salmon species: sockeye *Oncorhynchus nerka*, coho *O. kisutch*, pink *O. gorbuscha*, and chum salmon *O. keta*. Inseason adjustment in areas open to fishing and fishing time are dictated by escapement goals (McKinley et al. 2019).

The KMA salmon fisheries are managed with data that are compiled and evaluated daily. These data include escapement information from weir counts, aerial, boat and foot surveys, and total catch and fishery performance trends over time.

Management of major sockeye salmon runs is based on escapement and utilizes daily escapement information from salmon counting weirs on several of the larger streams (Appendices A1–A12). Due to inadequate funding for aerial surveys, escapement data for many small streams will be obtained much later in the season. Because of this lag in timing, ADF&G will employ a more conservative management approach which includes increased closed water areas and reduced fishing time. These management actions will probably occur for systems that have the potential to be overharvested or have shown signs of overharvest in previous years.

The length of the initial fishing periods for pink salmon are determined preseason based on the magnitude of the wild stock pink salmon forecast. Adjustments in weekly fishing time and areas open to fishing will occur as the actual run strength becomes apparent through assessment of harvest and escapement estimates.

Initially, chum and coho salmon are incidentally harvested in fisheries directed at sockeye or pink salmon. Terminal or near-terminal fisheries targeting chum or coho salmon will be managed based on an assessment of actual run strength and current harvest information.

Commercial fisheries are not currently directed toward surplus Chinook salmon *O. tshawytscha*. Incidental harvests of Chinook salmon occur during directed sockeye and pink salmon fisheries.

RELEASE OF LARGE CHINOOK (KING) SALMON BY PURSE SEINE PERMIT HOLDERS

Non-retention of Chinook salmon 28 inches or greater in the commercial salmon seine fishery from June 1 through July 5 is required (5 AAC 18.395(c)). In addition, commercial seine permit holders will be required to release large Chinook salmon (greater than 28 inches in length) from their catch from July 6 through July 30 if ADF&G determines that the Karluk or Ayakulik Chinook salmon runs will probably not meet seasonal escapement goals. This would occur in the Southwest Kodiak District and that portion of the Northwest Kodiak District south of the latitude of Cape Kuliuk

(5 AAC 18.395(a-b)).

HARVEST PROJECTIONS

Based on preseason projections, a total of approximately 8,000 Chinook, 1,790,000 sockeye 379,700 coho, 26,200,000 pink, and 456,800 chum salmon are predicted to be available for harvest throughout the KMA in 2021 (Table 2).

Of this total, the Kodiak Regional Aquaculture Association (KRAA) has forecasted the harvest of salmon returning to the Kitoi Bay Hatchery to be approximately 10,800 sockeye, 5,300,000 pink (including cost recovery), 60,000 chum, and 126,000 coho salmon (Table 2). Additional enhanced salmon production, from projects conducted by KRAA, are expected to produce about 126,000 sockeye salmon for harvest (e.g., Spiridon Lake, Hidden Lake, Waterfall Lake, and Ouzinkie Harbor; Table 2).

FISHING PERIODS

All fishing periods will be established by emergency order.

ADVANCE NOTICE

For the initial sockeye salmon fisheries from June 1 through June 14, there will be at least 42 hours advance notice. All subsequent fishing periods will have at least 18 hours advance notice. There will be at least 24 hours advance notice for openings of the Cape Igvak Section (Figure 2) fishery. For the openings in the Inner or Outer Akalura, Inner or Outer Upper Station, or Dog Salmon Flats Sections (Figure 3), there will be at least 24 hours advance notice. For adjustments to closed waters (decrease), there will be at least 18 hours advance notice.

For extension of a previously announced fishing period, or for inperiod closure of an announced fishing period, there will be at least 3 hours advance notice.

FISHERY OPENING TIMES

Most fishing periods from June 1 through August 15 open at 12:00 PM and close at 9:00 PM. Beginning on August 16, most fishing periods will close at 6:00 PM instead of 9:00 PM.

There are several exceptions to this opening/closure schedule:

- The Cape Igvak fishery opens at 12:01 AM and closes at 12:01 AM from June 1 through July 5. The 12:01 AM opening and closure time allows for more orderly fisheries due to the possibility of relatively short notice given for extensions of fishing periods.
- The Inner Ayakulik Section (Figure 4) usually opens at 12:00 PM and may be short in duration. If possible, the opening time for the Outer Ayakulik Section may be adjusted to coincide with an opening in the Inner Ayakulik Section.
- The Inner Kitoi Bay Section (Figure 5) common property fishery will usually begin between 12:00 PM and 12:30 PM when a flare is launched by hatchery staff within the Inner Kitoi Bay Section.

TIMING AND LENGTH OF INITIAL FISHING PERIODS

Sockeye Salmon

Initial Commercial Fisheries-June 1 to June 9

The Central and North Cape Sections of the Northwest Kodiak District (Figures 6).

Anton Larsen, Sharatin Bay, Terror Bay, Inner Uganik Bay, Spiridon Bay, Zachar Bay, Kizhuyak, and Uyak Bay Sections of the Northwest Kodiak District (Figure 6).

The Foul Bay and Waterfall Bay Special Harvest Areas of the Afognak District (Figure 5).

Inner and Outer Ayakulik Sections of the Southwest Kodiak District (Figure 4) and the Southeast Afognak Section of the Afognak District (Figure 5). For these sections, a 33-hour commercial test fishing period may be conducted between June 1 and June 9. An extension of this period will depend on escapement buildups in Karluk Lagoon (Appendix B1). The commercial catch from this period will be used to assess the strength of the sockeye salmon run to the Karluk system, with consideration of the Ayakulik, Frazer (Dog Salmon), and Upper Station sockeye salmon runs (5 AAC 18.362; Appendix B1).

These sections could open June 1 but will probably open at 12:00 PM on June 9, for a 33-hour commercial test fishing period. Management of these sections is based on local chum or sockeye salmon runs (Appendix B1).

These fisheries could open as early as 12:00 PM June 1 and remain open until further notice (5 AAC 18.365).

The initial fishing period in the Inner and Outer Ayakulik sections, and the Southeast Afognak Section, is solely dependent on sockeye salmon escapement to the Ayakulik (Red River; Appendix B1) or Afognak (Litnik; Appendix B4) system (5 AAC 18.362). Because both systems have early runs that are expected to be average, fishing periods could occur as early as June 1. Cape Igvak Section of the Mainland District (Figure 2).

Duck Bay, Izhut Bay, Inner Kitoi Bay, and Outer Kitoi Bay Sections (Figure 5).

Alitak District Traditional Fishing Areas: Cape Alitak, Humpy-Deadman, Alitak Bay, Moser Bay, and the Olga Bay Sections of the Alitak District (Figure 3).

Dog Salmon Flats Section of the Alitak District (Figure 3)

Chignik sockeye salmon are considered, by regulation, the principal stock harvested in the Cape Igvak Section from June 1 to July 5. The timing of initial commercial fisheries in the Cape Igvak Section depends on the evaluation of the Chignik sockeye salmon run strength (Appendix B6). The first Cape Igvak fishery may occur beginning June 1. Fishing periods in the Cape Igvak Section will be in 24-hour increments, beginning at 12:01 AM (5 AAC 18.360).

These fisheries could open June 1 but will probably open at 12:00 PM on June 9. Once open, the fishing period will probably open until further notice. The fishery for the Kitoi Bay Hatchery early chum salmon runs may extend through late June (5 AAC 18.365).

Depending on early indications of sockeye salmon run strength to Frazer and Upper Station, these sections may open at NOON on June 9 for a 33-hour commercial test fishing period (Appendix B2). Upper Station Early-Run is expected to be average, and a June 9 test fishing period in the traditional fishing areas may not occur (5 AAC 18.361).

This small terminal section may open with the *traditional fishing areas* of the Alitak District depending on the Frazer sockeye salmon run strength. Conversely, this section may also open independent of the *traditional Alitak District fishing areas* if the early indications of sockeye salmon run strength to Upper Station are weak and a fishery is necessary to control Frazer sockeye salmon escapement (5 AAC 18.361).

June 14 to June 21 Commercial Fisheries

Commercial fisheries in the following management units may also occur on or after June 14, if escapement objectives are met or exceeded.

The Central and North Cape Sections of the Northwest Kodiak District and the Southwest Afognak Section of the Afognak District (Figure 4, 5, and 6).

Anton Larsen Bay, Sharatin Bay, Terror Bay, Inner Uganik Bay, Spiridon Bay, Zachar Bay, Kizhuyak and Uyak Bay Sections of the Northwest Kodiak District (Figure 6).

Perenosa Bay, Pauls Bay, and Northwest Afognak Sections of the Afognak District (Figure 5), Eastside Kodiak District (Figure 7), and Big River and Outer Kukak Bay Sections of the Mainland District (Figure 2). For these sections, a 33-hour commercial test fishing period may occur from 12:00 PM June 14 through 9:00 PM June 15. An extension of this period will depend on escapement through the weir and buildup in Karluk Lagoon (Appendix B1). The commercial catch from this period will be used to assess the strength of the sockeye salmon run to the Karluk system.

These sections may open at 12:00 PM on June 14 as a 33-hour commercial test fishing period.

Commercial salmon fishing will open at 12:00 PM on June 14 for a 33-hour fishing period. This initial fishing period targets early-run sockeye salmon bound for Pauls, Portage, Thorsheim, Long Lagoon, Saltery, Miam, Pasagshak, Ocean Beach, Swikshak, and Kaflia systems (Appendices B3, B5, and B6). A second fishing period for minor sockeye salmon systems should occur on June 21 (5 AAC 18.362; 5 AAC 18.367; 5 AAC 18.368; 5 AAC 18.369).

Alitak District Traditional Fishing Areas: Cape Alitak, Humpy-Deadman, Alitak Bay, Moser Bay, and Olga Bay Sections of the Alitak District (Figure 3).	Commercial fishing in these areas will depend on early indications of sockeye salmon run strength to Frazer and Upper Station systems. Both of these runs are expected to be weak, but fishing periods in the traditional fishing areas could occur.
Dog Salmon Flats Section of the Alitak District (Figure 3)	This small terminal section may open with the <i>traditional fishing areas</i> of the Alitak District depending on the Frazer sockeye salmon run strength.
	Conversely, this section may also open independent of the <i>traditional Alitak</i> <i>District fishing areas</i> if the early indications of sockeye salmon run strength to Upper Station are weak and a fishery is necessary to control Frazer sockeye salmon escapement.
Spiridon Bay Special Harvest Area (Telrod Cove; Figure 6).	The initial commercial salmon fishing period targeting enhanced sockeye salmon returning to Telrod Cove will depend on the salmon buildups in Telrod Cove, ADF&G's ability to monitor the commercial fisheries (5 AAC 18.366), and the progress of the cost-recovery harvest.

Additional fishing time from mid-June to early July will be based on sockeye salmon run strength as determined by salmon escapement counts, salmon buildups, and fishery performance (Appendix B1–B6). To maintain sockeye salmon escapements within established goal ranges, commercial fishing may be extended or curtailed.

For most late-run sockeye salmon stocks, a portion of the harvestable surplus is taken during fishing periods targeting pink salmon. Consequently, a blended management strategy is needed to ensure that escapements for each species are achieved. Commercial fisheries targeting Upper Station late-run sockeye salmon begins August 10 (5 AAC 18.361; Appendix B2), and fisheries targeting Karluk late-run sockeye salmon may begin August 16 (5 AAC 18.362; Appendix B1).

Alitak District Salmon Management Plan

In addition to the management strategy described in the *Alitak District Salmon Management Plan*, there is the potential for large numbers of jack sockeye salmon (jacks) to return the Frazer system. Jacks will be counted at both the Dog Salmon weir and Frazer Lake fish pass. If jacks counted through the Dog Salmon weir exceed 10% of the total overall cumulative sockeye salmon escapement, then those jacks in excess of the 10% will not be considered toward inseason management objectives.

Pink Salmon

In addition to the three management criteria identified in the introduction of this document, the KMA harvest strategy for pink salmon also utilizes:

- a fixed opening date (July 6),
- wild stock pink salmon forecasts to set the length of the initial fishing periods, and
- coordination of multiple fisheries, whenever possible, to disperse the purse seine fleet.

The following schedule of pink salmon fishing periods for the 2023 season is provided for industry planning purposes. Changes to the following schedule should be expected if the perceived pink salmon run strength is weaker or stronger than forecasted. Extensions are not expected during the first 4 periods. Extensions to later fishing periods may occur depending on run strength.

First Period: 105 hours – from 12:00 PM Thursday, July 6, through 9:00 PM Monday, July 10. Harvests during this initial period provide important data to assess run strength of KMA pink and chum salmon stocks. In the Mainland District, this period will be 57 hours, from 12:00 PM Thursday, July 6, through 9:00 PM Saturday, July 8.

Second Period: 105 hours – from 12:00 PM Thursday, July 13, through 9:00 PM Monday, July 17. During the second period, run strength for both pink and chum salmon will again be assessed from harvest data. In the Mainland District, this period will be 57 hours, from 12:00 PM Thursday, July 13, through 9:00 PM Saturday, July 15.

Third Period: 105 hours – from 12:00 PM Thursday, July 20, through 9:00 PM Monday, July 24. The previous closures will probably allow an influx of pink and chum salmon into closed water areas, resulting in early escapement. At this time, a combination of harvest and early escapement and buildup information should provide an indication of the actual run strength for major pink salmon stocks. If the pink salmon run is above average, extensions in fishing time may occur. In the Mainland District this period will be 57 hours, from 12:00 PM Thursday, July 20, through 9:00 PM Saturday, July 22, but no extensions may occur until after August 1.

Fourth Period: 105 hours – from 12:00 PM Thursday, July 27, through 9:00 PM Monday, July 31. During this period, the run strength should be evident by the end of the period. The pink salmon harvest has traditionally increased significantly during this period. If the pink salmon run is strong, extensions in fishing time may occur. In the Mainland District this period will be 57 hours, from 12:00 PM Thursday, July 27, through 9:00 PM Saturday, July 29, but no extensions may occur until after August 1.

Subsequent fishing periods will probably follow a similar weekly pattern through August, unless escapement information indicates that an extension or reduction of fishing time is necessary. Fishing time will be based on pink salmon escapement to individual systems. Differential fishing time, by management unit, may occur as stronger production areas are targeted, whereas moderate or lower production areas are provided additional protection. There may be changes in closed water sanctuaries to increase escapement levels or to harvest surplus salmon.

Chum Salmon

The supplemental Kitoi Bay Hatchery chum salmon run is projected to be slightly below average in 2023 (Table 2).

With the exception of chum salmon returning to the Kitoi Bay Hatchery, a major portion of the 2023 chum salmon harvest will occur in non-terminal locations during directed sockeye and pink salmon fisheries. The initial fishing periods targeting chum salmon will begin on July 6 and will follow the same opening dates and times as those for pink salmon. System-specific chum salmon fisheries that occur during the pink salmon fishery may result in some management units (such as the Kizhuyak Bay, Terror Bay, Uganik River, Uyak River, Sturgeon, Spiridon Bay, Zachar Bay, Deadman Bay, Portage Bay, Wide Bay, Inner or Outer Kukak Bay, Barling Bay, Sitkalidak Straits, Kiliuda Bay, or Ugak Bay Sections) having more or less fishing time than those targeting primarily pink salmon stocks (Appendices B1, B3, and B6). Additional fishing time after August 1 for the Mainland District will depend on assessment of local pink, chum, and coho salmon runs. Chum salmon run strength will be assessed primarily from aerial surveys.

Coho Salmon

Initially, coho salmon harvests will occur in non-terminal locations during directed pink salmon fisheries. System-specific coho salmon fisheries may occur during the pink salmon fishery and may result in some management units having more or less fishing time than those primarily targeting pink salmon stocks (such as the Pauls Bay, Perenosa Bay, or Inner Ayakulik and Inner Karluk Sections; Appendices B1 and B5). Coho salmon run strength will be assessed from weir escapements, aerial surveys, and foot surveys.

Directed coho salmon fisheries may begin on August 1 in both the Pauls Bay and Shuyak Island Sections (Appendix B5). The supplemental Kitoi Bay Hatchery coho salmon run is projected to be strong this season (Table 2). Additional fishing time in the vicinity of the hatchery may occur in early September after pink salmon broodstock requirements are ensured (Appendix B4).

INPERIOD CLOSURES

From July 6 through August 1, there are limits on the number of sockeye salmon that may be harvested in areas bordering the North Shelikof Strait (5 AAC 18.363). Purse seine permit holders operating in the North Shelikof Strait from July 6 to August 1 are advised that inperiod closures of designated Seaward Zones will occur in the likely event the harvest of sockeye salmon approach these limits (Figure 5; 5 AAC 18.363). Since the plan went into effect in 1990, Seaward Zone closures have occurred nearly every year.

Seaward Zone closures, if required, will be announced on VHF 6 from the *R/V K-Hi-C* on the fishing grounds. Inperiod Seaward Zone closures announcement times will be 8:30 AM, 10:00 AM, 12:00 PM, 2:00 PM, 5:00 PM, or 8:00 PM. There will be at least 3-hours advance notice given for Seaward Zone closures.

INSEASON FISHERY ANNOUNCEMENTS

After enough information has been collected to determine an appropriate amount of fishing time to harvest surplus fish, a fishery announcement or Advisory Announcement (AA) will be issued as follows:

- (1) The AA will include:
 - (a) the date, time, and number of the emergency order announcement,
 - (b) the length of the fishing period,
 - (c) the opening and closing times and dates of the fishing period,
 - (d) the areas opening to fishing,
 - (e) the areas closing to fishing,
 - (f) the location of closed water adjustments (if any), and
 - (g) a list of any previous AA information that is still pertinent.
- (2) The AA will be posted at the main entrance of the Kodiak ADF&G office at 351 Research Court. Copies of the AA will be available outside the main entrance, in the Kodiak ADF&G office during regular office hours (Monday through Friday, 8:00 AM to 4:30 PM), and posted at the Region IV commercial salmon fishery web site at <u>http://www.adfg.alaska.gov/index.cfm?adfg=CommercialByAreaKodiak.salmon</u>.
- (3) The AA will be recorded on a 24-hour recorded message phone (486-4559).
- (4) The AA will be made available to local radio stations (KVOK 560 AM, KRXX 101.1 FM and KMXT 100.1 FM).
- (5) The Kodiak ADF&G management staff will monitor satellite Matrix dispatch number 7410 during regular office hours and will reply to public and industry inquiries when available.
- (6) The AA will be distributed to all registered processors by email, telephone, hand delivery, or through the ADF&G recorded message phone.
- (7) Copies of Emergency Orders (EOs), which detail specific regulation changes and justifications, will be available upon request.

AAs are generally very detailed and complicated. It is advised that tender operators and permit holders obtain a written copy, or use a tape recorder to document the exact wording of each announcement as it is broadcasted. AAs can also be found online using the search function at <u>http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.main.</u>

ADF&G STAFF CONTACT NUMBERS

ADF&G Kodiak management staff is available to answer questions regarding commercial salmon fishery regulations, openings, closures, and harvests. Contact phone numbers and email addresses are as follows:

General Information - 486-1830	James Jackson: 486-1808 Area Management Biologist After Hours: 907-942-2097
<u>Matrix Dispatch</u> - 7410	<u>Todd Anderson:</u> 486-1807 Assistant Area Management Biologist After Hours: 701-214-7667
<u>Record-a-Phone</u> - 486-4559	<u>Geoff Spalinger:</u> 486-1804 Assistant Area Management Biologist After Hours: 952-567-1420
<u>Email</u> - <u>dfg.dcf.kodiaksalmon@alaska.gov</u>	Brad Fuerst: 486-1810 Fishery Biologist After Hours: 907-539-9033

STATISTICAL AREAS

It is important that permit holders have the most recent statistical chart (April 2020).

USE OF NET PENS

Floating net pens may be used in the KMA to hold live, commercially caught salmon prior to processing. However, permit holders that choose to use a net pen to hold live salmon must obtain a permit at the Kodiak ADF&G office (5 AAC 18.392). The permit will outline restrictions, conditions, and reporting requirements. It is the responsibility of the permit holder to obtain any additional licenses or permits that may be required. Any permit holders that wish to use a net pen should contact salmon management staff at the Kodiak Fish and Game office.

WASTE OF SALMON

Waste of salmon will not be tolerated and may result in fishing period closures (AS 16.05.831 and 5 AAC 93.310). Unless prohibited by law, salmon taken commercially may be used or sold as bait (5 AAC 93.350).

PERSONAL USE OF COMMERCIALLY TAKEN SALMON (HOME PACK)

Commercial permit holders may keep salmon legally taken in their commercial gear during open commercial fishing periods for their own use (home pack). However, the number of fish harvested and kept for home pack **must** be reported on a fish ticket. These fish may not be sold or bartered (5 AAC 39.010).

At the time of delivery, record the number of each species of salmon caught but not sold in the lower right-hand corner of the fish ticket, in the space designated for that purpose.

DIRECT MARKETING

Kodiak commercial salmon permit holders may market their own lawfully-taken commercial catch (direct marketing). If fish are to be sold later, the CFEC permit holder must be properly registered and licensed. There are several ways to legally market fish, but some require special registration and licensing. Registration and licensing ensures accurate reporting of harvests, which is essential for sound management of commercial fisheries.

Direct marketers are responsible for filing their own fish tickets with ADF&G and will be required to complete a Commercial Operators Annual Report. Direct marketers must also register with the ADF&G salmon management office in Kodiak.

FISH TRANSPORTERS

A fish transporter differs from a tender. A tender acts as the agent of a processor or buyer and is the first point of sale of fish from the Commercial Fisheries Entry Commission (CFEC) permit holder to a processor or buyer. A fish transporter is an agent of the CFEC permit holder(s) and is authorized to take legally harvested fish from one or more commercial salmon permit holders to a buyer or buyers. A permit holder or group of permit holders may hire a fish transporter, who may then legally take their fish to the first point of sale.

A fish transporter must be in possession of a Fish Transporter Permit during the transport and sale of fish. The ADF&G Division of Commercial Fisheries in Juneau issues Fish Transporter Permits. All fish transporters who plan to transport salmon within the KMA must also be registered with the ADF&G Kodiak commercial salmon fishery management staff. The transporting vessel used must be licensed as a commercial fishing vessel and all people working aboard the vessel must have crewmember licenses.

Fish transporters are required to report their activities to ADF&G and to fill out a fish ticket for all fish taken aboard their vessel. The CFEC permit holder who caught the salmon is required to provide the fish transporter with fish ticket information such as the CFEC permit number, the area of harvest, catch dates, and catcher vessel ADF&G number, and must sign the fish ticket. The number of fish by species and the weight of the fish by species must be estimated and recorded on the fish ticket. Final weights and fish counts will be verified upon delivery of the fish to the buyer or processor. The buyer or processor submits the finalized fish ticket to ADF&G. Additional information and Fish Transporter Permit applications are available from the ADF&G Kodiak staff.

FISH TICKETS/HARVEST REPORTS

It is the legal responsibility of CFEC permit holders, tenders or transporters, and processors and buyers to ensure that all information on a fish ticket is complete and correct. Prior to completing and signing fish tickets, permit holders, tender operators, and processing personnel should make sure that the proper statistical area with the correct harvest information has been entered and the fish ticket is complete, legible, and accurate. Permit holders are reminded that 5AAC 39.130 (c)(9) requires completed fish tickets to include the CFEC permit number of the operator of the unit of gear with which the fish were taken, imprinted on the fish ticket from the valid permit card.

PROCESSORS/TENDERS

Management of the KMA commercial salmon fisheries requires timely, accurate harvest reporting. Without accurate information, a more conservative harvest strategy will be adopted, and less fishing time will be allowed. Processors and buyers are required to accurately report catches daily to ADF&G (5 AAC 39.130). In order to process the harvest information and use it for management decisions, catch reports must include the estimated **number** and total pounds of salmon harvested by species, for each gear type, from each major catch area (by statistical area, or by geographic area such as a bay, cape, or headland). ADF&G management staff will contact processors to arrange the daily reporting times and format. Daily reports can be made verbally, by fax, or by email. Email is the preferred method. Processors should obtain correct, up-to-date information from tender operators prior to providing daily reports to ADF&G.

Each day, tender operators must provide their processing companies with an accurate count of deliveries and number of salmon delivered by species and catch area. Alternately, tender operators may report the total number of pounds and the average weight by species by catch area.

Statistical area numbers are used to record harvest location(s) on fish tickets. Tender operators should ensure that the location of the catch, rather than the location of the tender pickup, is recorded on the fish ticket.

The correct harvest location and number of fish harvested by species must be recorded on each fish ticket. This information is extremely important in evaluating inseason harvests, stock contribution, and effort distribution. In order to provide maximum allowable fishing time, especially in areas such as the Cape Igvak Section and North Shelikof Strait, it is imperative that the correct statistical areas and numbers of fish by species are reported on the fish ticket at the time of delivery.

PURSE SEINE PERMIT HOLDERS

Purse seiners should be certain that their fish tickets show the number of fish of each species and the total weight and average by species for each delivery. Purse seine permit holders must, at a minimum, provide estimates of harvest by statistical area to tender operators. For example, "1/3 of my sockeye were from Cape Alitak (257-20) and 2/3 were from Outer Ayakulik (256-20). The rest of my fish were 1/2 and 1/2 from each of those two areas." The location of the tender where the fish were delivered should not be used as the harvest location.

SET GILLNET PERMIT HOLDERS

Set gillnetters should make sure their fish tickets show the number of fish of each species, or the total and average weight by species for each delivery. Because of the fixed nature of set gillnet gear, each permit holder's reporting area (statistical area) is usually consistent between landings. If a gillnet is moved into a new statistical area, permit holders should make sure that the tender operator is provided with that information.

REFERENCES CITED

McKinley, T. R, K. L. Schaberg, M. J. Witteveen, M. B. Foster, M. L. Wattum, and T. L. Vincent. 2019. Review of salmon escapement goals in the Kodiak Management Area, 2019. Alaska Department of Fish and Game, Fishery Manuscript Series No. 19-07, Anchorage.

TABLES

	Year		Dates in
Management plan	initiated	Management units affected	effect
Cape Igvak Salmon Management Plan (5 AAC 18.360)	1978	Cape Igvak Section Wide Bay Section	6/1-7/5
Alitak District Salmon Management Plan (5 AAC 18.361)	1987	Alitak District	6/1-10/31
Westside Kodiak Management Plan (5 AAC 18.362)	1990	NW Kodiak District SW Kodiak District SW Afognak Section	6/1-10/31
North Shelikof Strait Sockeye Salmon Management Plan [5 AAC 18.363]	1990	Mainland District Shuyak Island Section Northwest Afognak Section Southwest Afognak Section	7/6-8/1
Crescent Lake Coho Salmon Management Plan (5 AAC 18.364)	1990	Settler Cove Special Harvest Area in the Central Section near Port Lions	7/15-10/31
Eastside Afognak Management Plan (5 AAC 18.365)	1993	Southeast Afognak Section Raspberry Strait Section Inner and Outer Kitoi Bay sections Duck Bay Section Izhut Bay Section	6/1-10/31
Spiridon Lake Sockeye Salmon Management Plan (5 AAC 18.366)	1993	Spiridon Bay Special Harvest Area in Spiridon Bay Section	6/1-10/31
Eastside Kodiak Salmon Management Plan (5 AAC 18.367)	1995	Eastside Kodiak District NE Kodiak District	6/14–10/31
North Afognak/Shuyak Island Salmon Management Plan (5 AAC 18.368)	1995	NE Afognak Section Perenosa Bay Section Pauls Bay Section Shuyak Island Section NW Afognak Section	6/1-10/31
Mainland District Salmon Management Plan (5 AAC 18.369)	1999	Mainland District	6/14-10/31

Table 1.–Alaska Board of Fisheries approved fishery management plans for the Kodiak Management Area, 2021.

	Chinook	Sockeye	Coho	Pink	Chum	Total
Forecasted Harvest 2022 ^a	7,150	3,254,800		19,434,600	751,300	23,901,150
Actual Harvest 2022 ^a	11,409	2,365,236	88,293	15,221,647	550,409	18,236,994
Forecasted Harvest 2023	8,000	1,790,000	379,700	26,200,000	456,800	28,834,500
	_	20)22 Harve	st	2	2023 Harvest
FISHERY		Forecast ^b		Actual ^c		Projection ^b
Early Sockeye Salmon Fisheries (6/1-7/15)						
Kitoi Bay Hatchery ^d		4,000		5,807		2,500
Cape Igvak ^e		0		0		0
Karluk ^f		51,000		257,483		63,000
Ayakulik ^g		354,500		293,542		129,000
Alitak District		191,000		170,888		114,000
Minor Enhancementh		8,700		1,672		900
Spiridon Common Property ⁱ		51,600		78,067		26,600
Spiridon Cost Recovery ⁱ		34,400		38,455		29,000
KMA Undetermined/Other ^j		348,000		195,372		239,000
Subtotal	-	1,043,200	-	1,041,286	_	603,400
Late Sockeye Salmon Fisheries (7/16-10/31)						
Kitoi Bay Hatchery ^d		11,200		18,879		8,300
Karluk ^f		602,000		630,088		489,000
Ayakulik ^g		415,500		254,909		145,000
Alitak District		459,000		153,392		160,800
Minor Enhancement ^h		2,200		0		500
Spiridon Common Property ⁱ		72,900		122,341		71,000
Spiridon Cost Recovery ⁱ		33,100		28,268		0
KMA Undetermined/Other ^j		617,900		116,198		312,000
Subtotal	-	2,211,600	-	1,324,075	_	1,186,600
Total sockeye		3,252,600		2,365,236		1,790,000
Pink Salmon Fisheries						
Kitoi Bay Hatchery Common Prope	-	3,680,000		2,749,936		4,325,000
Kitoi Bay Hatchery Cost Recovery	1	820,000		952,476		975,000
Afognak Wild ^k		2,504,600		1,006,606		1,700,000
Westside Kodiak ¹		8,585,900		6,315,645		9,100,000
Alitak District		2,069,800		1,112,933		3,200,000
Eastside/Northend Kodiak ^m		1,333,200		2,873,034		6,100,000
Mainland District	-	441,100	-	211,017	_	800,000
Subtotal		19,434,600		15,221,647		26,200,000

Table 2.-Forecasted and actual 2022, and forecasted 2023 commercial salmon harvest, by species and fishery, for the Kodiak Management Area.

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Table 2.–Page 2 of 3.

		2022 H	2023 Harvest Projection ^b	
FISHERY		Projection ^b		
Chum Salmon Fisheries				
Kitoi Bay H	Iatchery ^d	96,300	116,395	60,000
Afognak (V	Vild) ^k	17,000	24,456	15,500
Westside K	odiak ^l	233,000	174,315	183,100
Alitak Dist	rict	42,000	11,372	21,000
Eastside/No	orthend Kodiak ^m	256,000	180,360	134,400
Mainland D	District	107,000	43,511	42,800
Subtotal		751,300	550,409	456,800
Coho Salmon Fisheries				
Kitoi Bay H	Iatchery ^d	148,900	9,353	126,000
Afognak ^k		32,500	7,723	29,800
Westside K	odiak ¹	147,500	51,755	119,800
Alitak Distr	rict	22,600	3,096	19,800
Eastside/No	orthend Kodiak ^m	73,900	15,929	62,700
Mainland D	District	27,900	437	21,600
Subtotal	—	453,300	88,293	379,700
Grand Tota	lu	23,901,150	18,236,994	28,834,500

Note: Harvest forecasts presented in this table represent formal forecasts as well as projections based on past fishery performance.

- ^a Includes commercial harvest, test fisheries, and cost-recovery harvests, but does not include subsistence, sport, or personal use fisheries. Measured in number of fish.
- ^b Forecasted harvests for enhanced and major sockeye systems are based on formal forecasts for those individual stocks (total run minus escapement); the projected harvest from minor sockeye systems and other salmon species are based on less formal escapement-to-return relationships, environmental factors, and interspecies competition.
- ^c Actual harvest is the number taken in a particular geographic area, not the catch assigned to an individual salmon stock.
- ^d From the Duck Bay, Izhut Bay, and Inner and Outer Kitoi Bay Sections only (excludes 425,000 pink salmon and 40,000 chum salmon collected by KRAA for broodstock).
- ^e From the Cape Igvak Section is from the beginning of season through July 5.
- ^f From the Southwest Afognak Section, Northwest Kodiak District (except for Spiridon Bay and Settler Cove Special Harvest areas), Inner and Outer Karluk Sections, plus 50% of Halibut Bay Section from June 21 through July 15 and 100% after July 31 minus the estimated contribution from the Spiridon SHA. Includes the majority of the Karluk sockeye salmon harvest.
- ^g From the Outer and Inner Ayakulik Sections, plus 50% of Halibut Bay Section from June 21 through July 15 and 100% from July 16 through 31.
- ^h From the Foul Bay, Waterfall Bay, and Settler Cove Special Harvest areas.
- ⁱ From the Spiridon Lake Special Harvest Area (Telrod Cove), plus an estimate of Spiridon-bound sockeye taken in adjacent areas.

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Table 2.–Page 3 of 3.

- ^j From minor systems at Inner and Outer Ugak Bay (Saltery), Buskin River, Perenosa Bay (Portage), Northwest Afognak (Thorsheim & Long Lagoon), Big River (Swikshak), and Outer Kukak Bay (Kaflia & Kuliuk) Sections and migrating fish of undetermined origin.
- ^k From the Afognak District except for the Duck, Izhut, and Inner and Outer Kitoi Bay Sections.
- ¹ From the Southwest Kodiak District (255s and 256s) and the Northwest Kodiak District (253s and 254s) except for the North Cape, Anton Larson, Sharatin, and Kizhuyak Sections, and part of the Central Section (259-30 to 259-39).
- ^m From the Eastside Kodiak District (258-, and 259-40 to 259-42), Northeast Kodiak District (259-21 to 259-27, 259-10), and the North Cape, Anton Larson, Sharatin, and Kizhuyak Sections, plus part of the Central Section (259-30 to 259-39).
- ⁿ Includes the projected 2022 harvest of 7,150 Chinook salmon, the actual 2022 harvest of 11,404 Chinook salmon, and a projected 2023 harvest of 8,000 Chinook salmon.

FIGURES

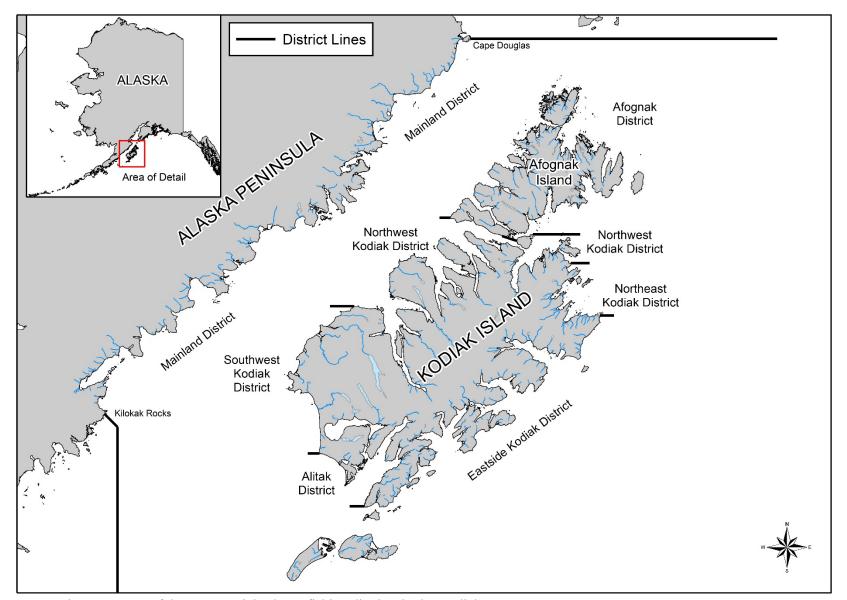


Figure 1.-Map of the commercial salmon fishing districts in the Kodiak Management Area.

22

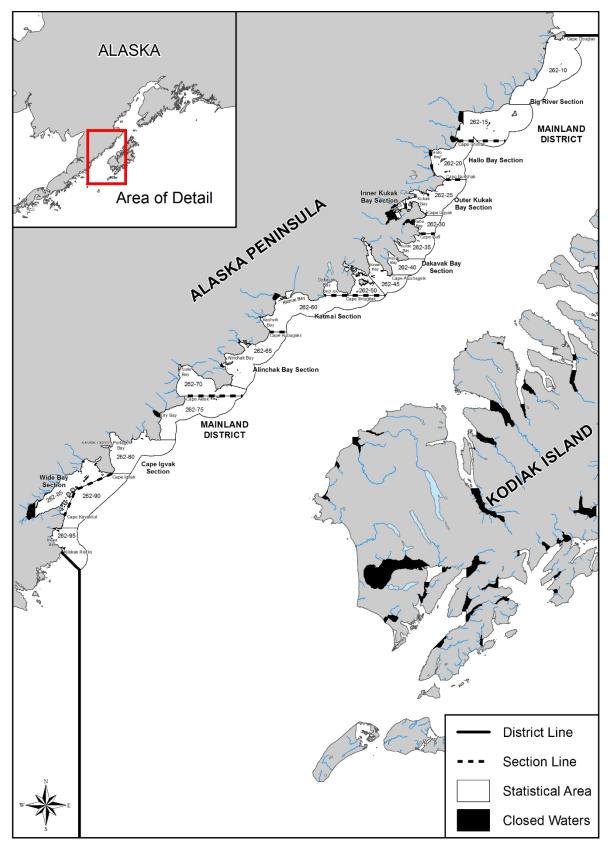


Figure 2.-Map of the Mainland District identifying commercial salmon fishing sections and statistical areas.

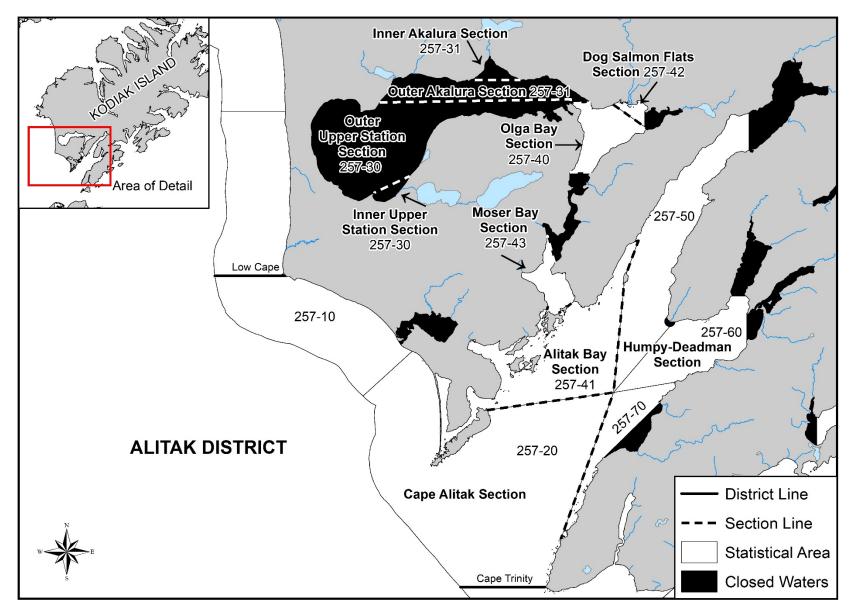


Figure 3.-Map of the Alitak District identifying commercial salmon fishing sections and statistical areas.

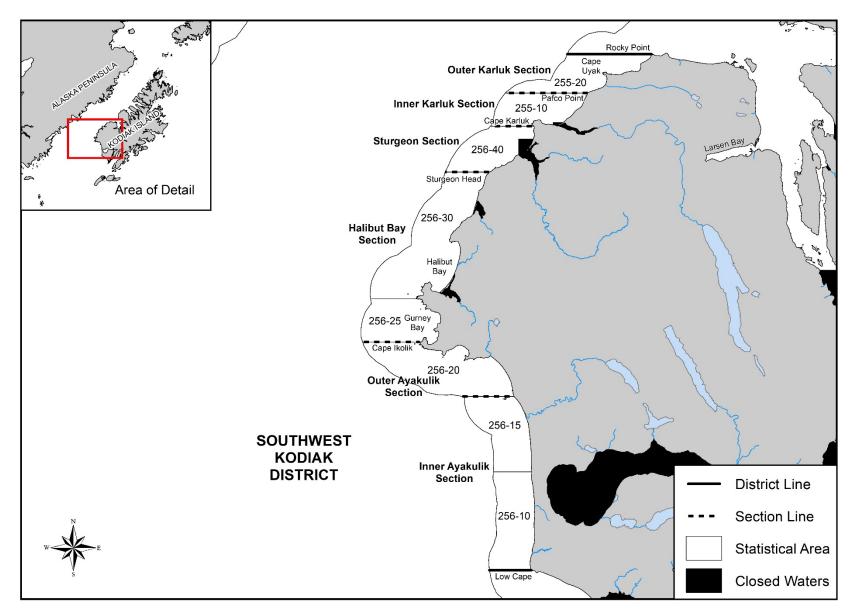


Figure 4.-Map of the Southwest Kodiak District identifying commercial salmon fishing sections and statistical areas.

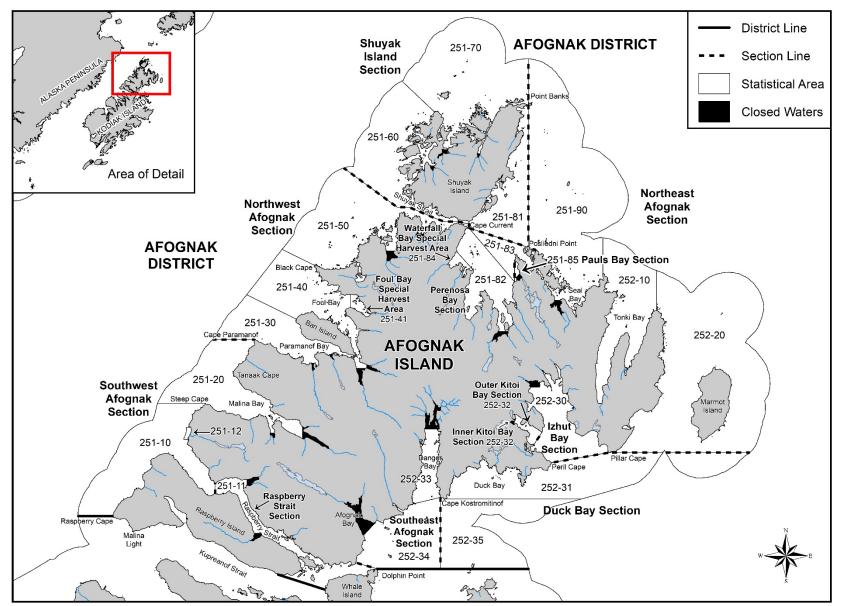


Figure 5.-Map of the Afognak District identifying commercial salmon fishing sections and statistical areas.

26

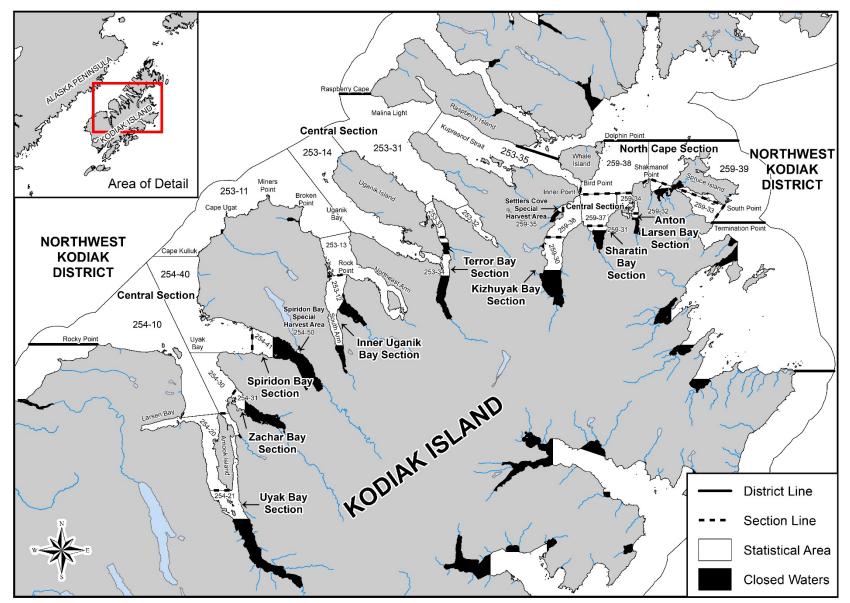


Figure 6.-Map of the Northwest Kodiak District identifying commercial salmon fishing sections and statistical areas.

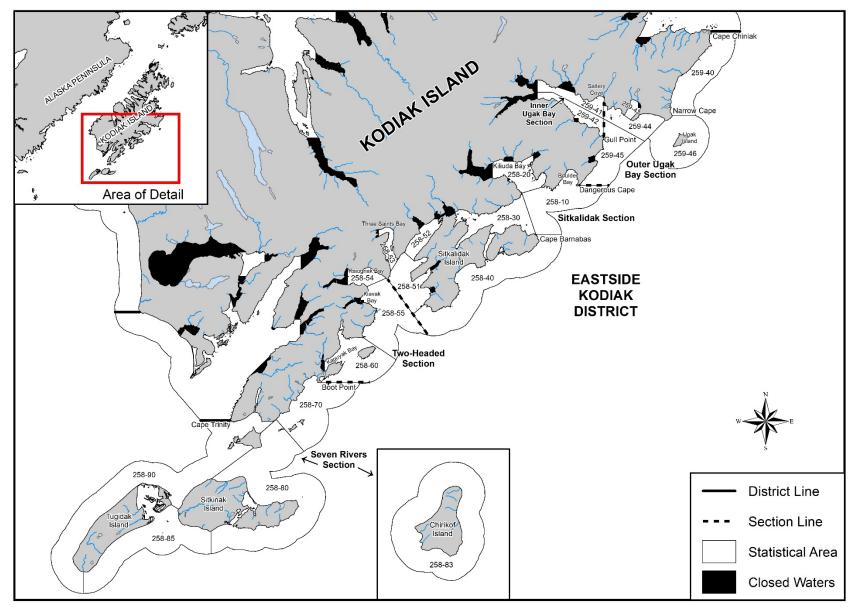


Figure 7.-Map of the Eastside Kodiak District identifying commercial salmon fishing sections and statistical areas.

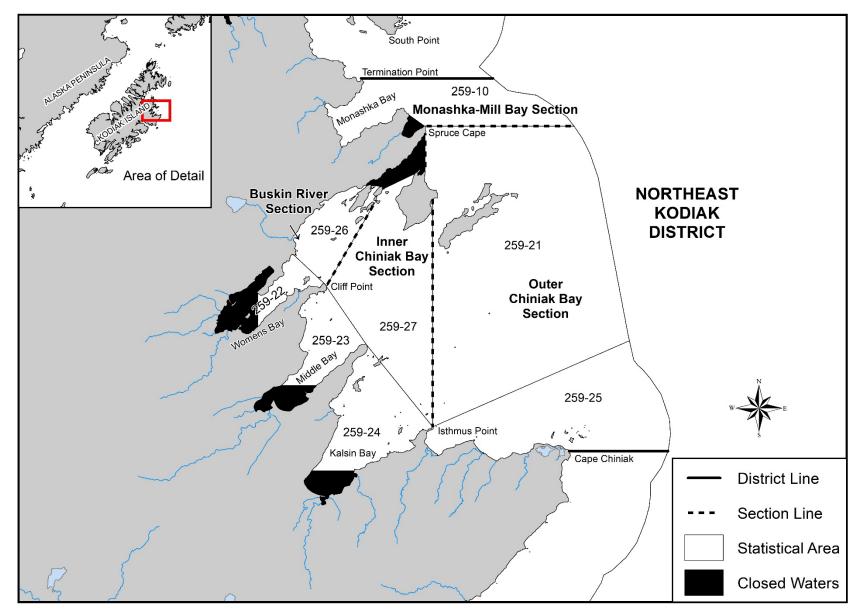


Figure 8.-Map of the Northeast Kodiak District identifying commercial salmon fishing sections and statistical areas.

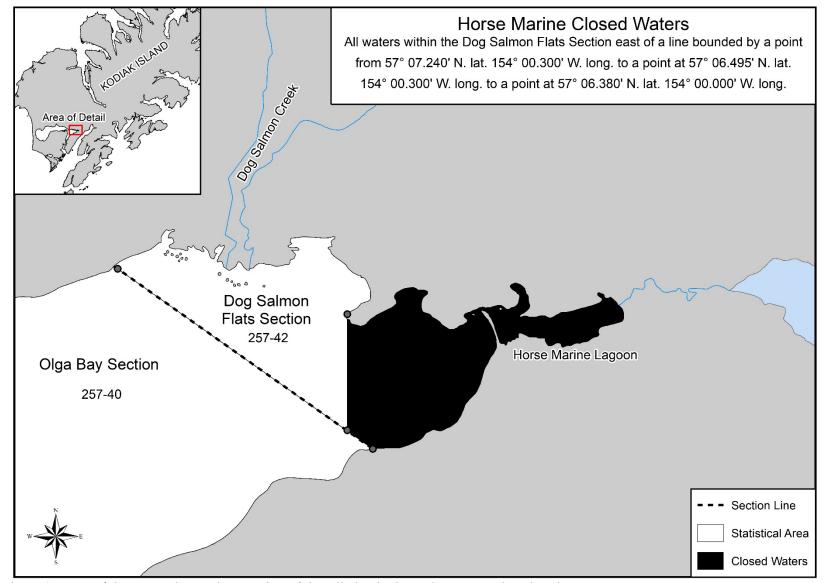


Figure 9.-Map of the Dog Salmon Flats Section of the Alitak District and Horse Marine closed water area.

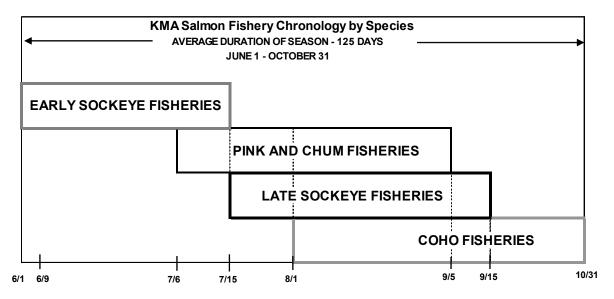


Figure 10.-Commercial salmon fishery chronology by species for the Kodiak Management Area.

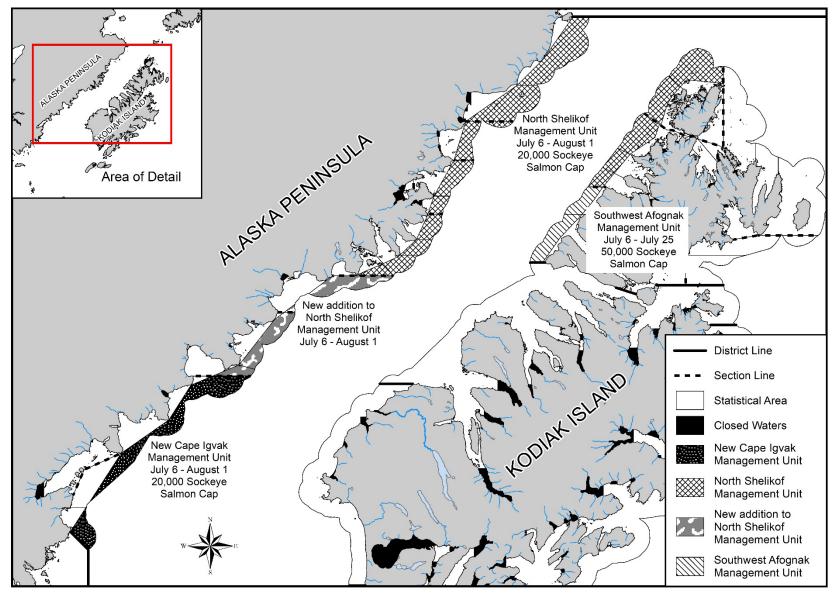


Figure 11.-Map of management units of the North Shelikof Strait Sockeye Salmon Management Plan.

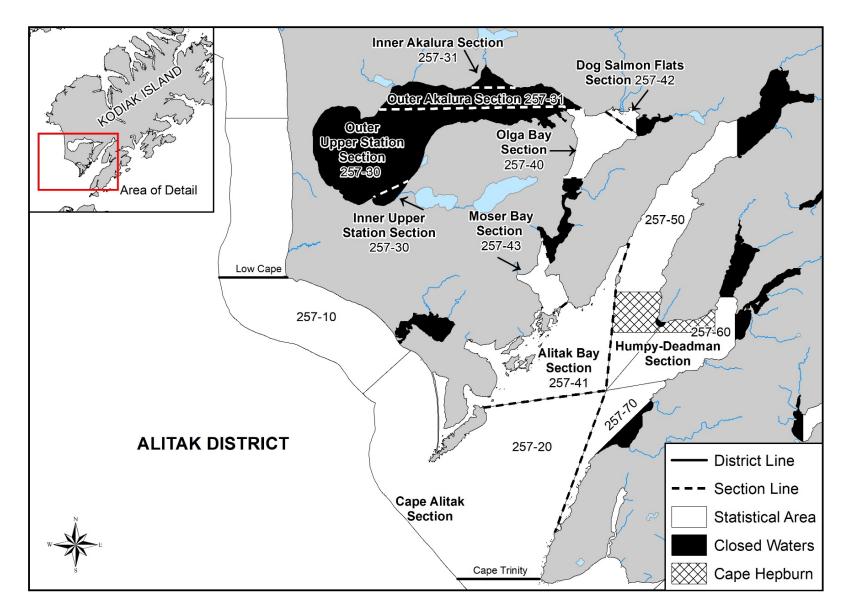
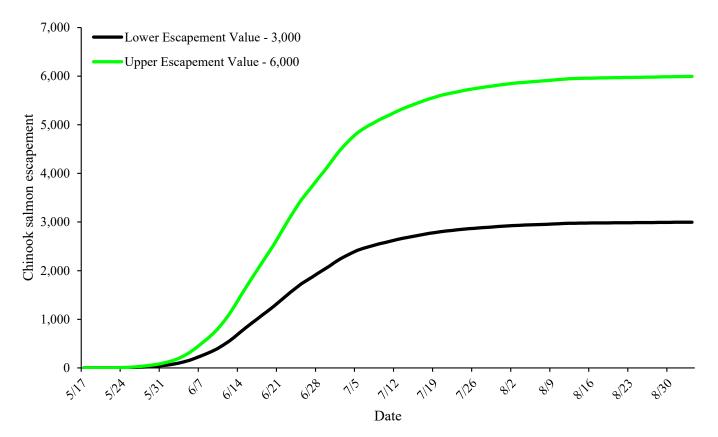


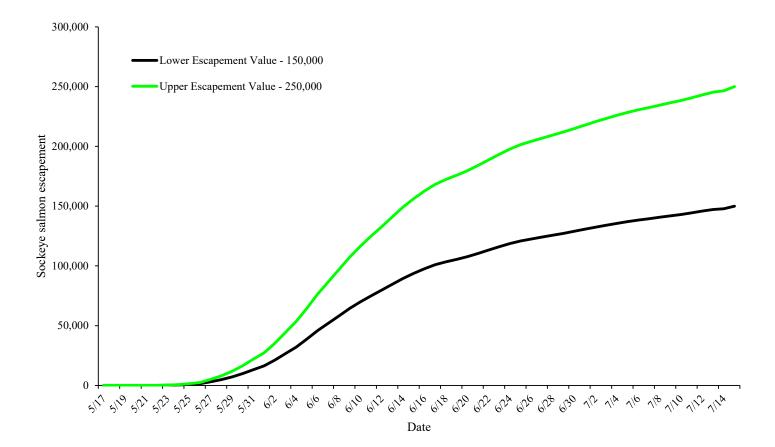
Figure 12.-Map of Cape Hepburn portion of the Alitak District.

APPENDIX A: CHARTS OF AVERAGE RUN TIMING RELATIVE TO CURRENT ESCAPEMENT GOALS FOR SELECT STREAMS AND SPECIES



Karluk Chinook Salmon

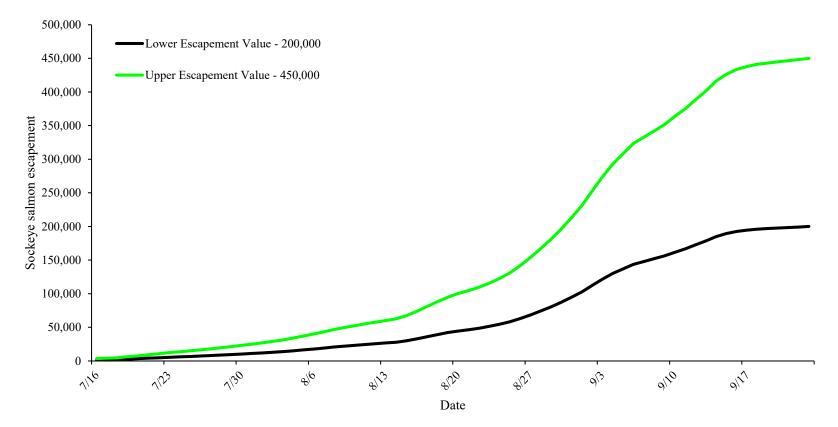
Note: This chart does not represent interim escapement goals.



Karluk Early-Run Sockeye Salmon

Note: This chart does not represent interim escapement goals.

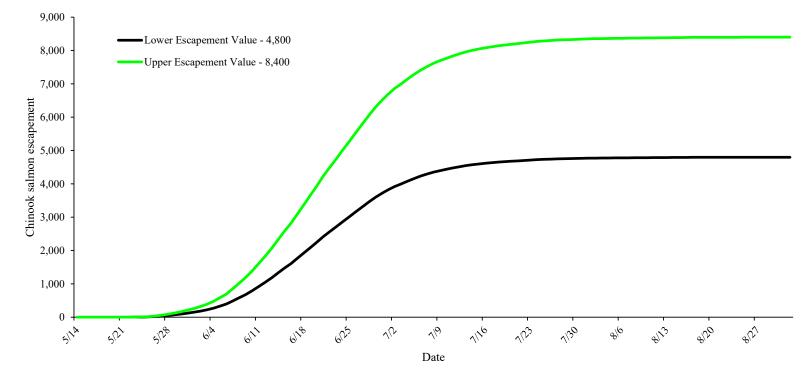
Appendix A3.–Average run timing relative to lower and upper escapement goals for late-run sockeye salmon into the Karluk system.



Karluk Late-Run Sockeye Salmon

Note: This chart does not represent interim escapement goals.

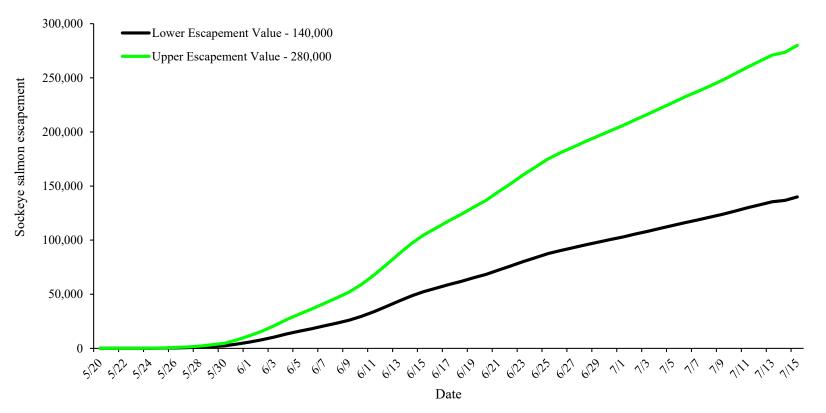
Appendix A4.-Average run timing relative to lower and upper escapement goals for Chinook salmon into the Ayakulik system.



Ayakulik Chinook Salmon

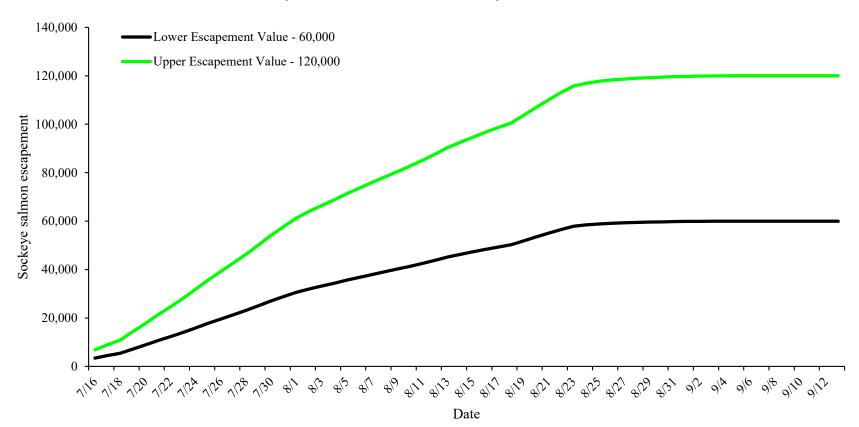
Note: This chart does not represent interim escapement goals.

Appendix A5.-Average run timing relative to lower and upper escapement goals for early-run sockeye salmon into the Ayakulik system.



Ayakulik Early-Run Sockeye Salmon

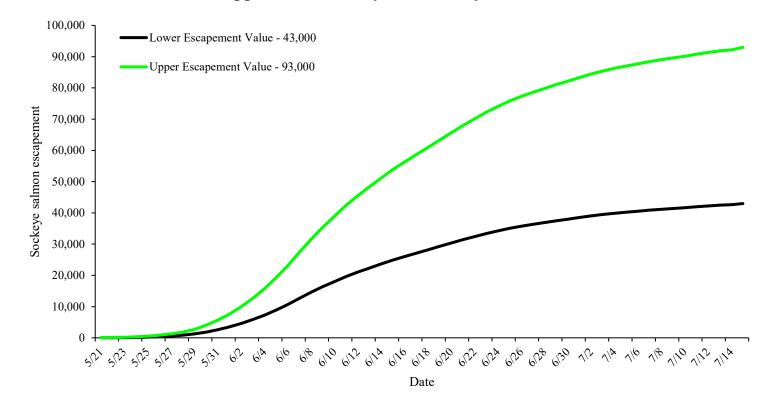
Note: This chart does not represent interim escapement goals.



Ayakulik Late-Run Sockeye Salmon

Note: This chart does not represent interim escapement goals.

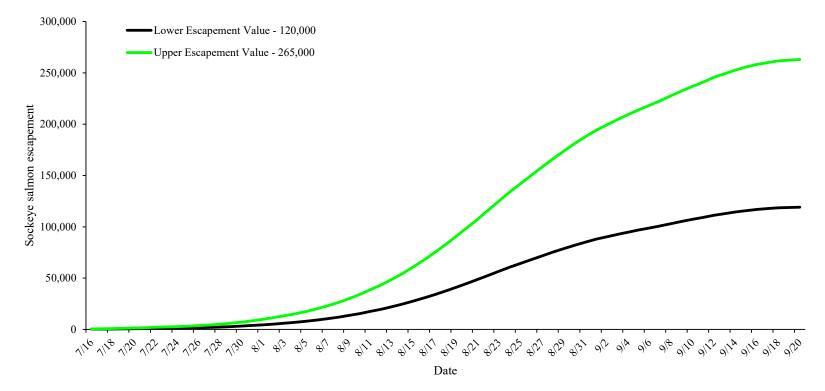
Appendix A7.-Average run timing relative to optimum and upper escapement goals for early-run sockeye salmon into the Upper Station system.



Upper Station Early-Run Sockeye Salmon

Note: This chart does not represent interim escapement goals.

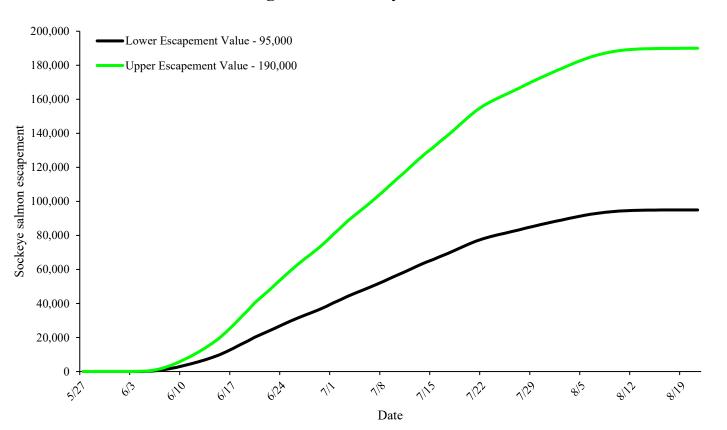
Appendix A8.–Average run timing relative to lower and upper escapement goals for late-run sockeye salmon into the Upper Station system.



Upper Station Late-Run Sockeye Salmon

Note: This chart does not represent interim escapement goals.

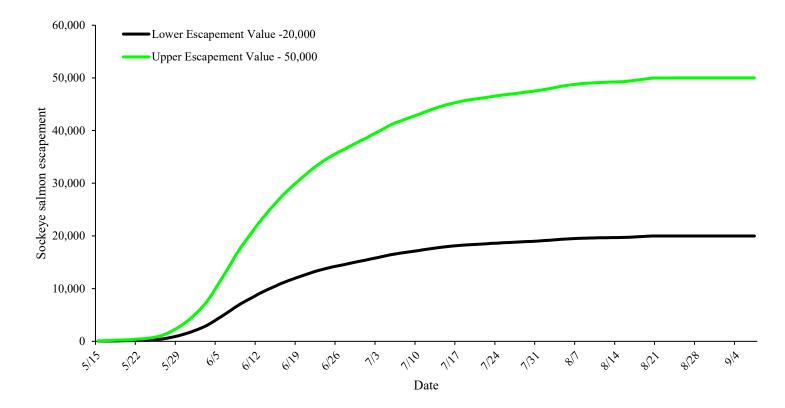
Appendix A9.-Average run timing relative to lower and upper escapement goals for sockeye salmon into the Frazer system through the Dog Salmon River weir.

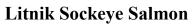


Dog Salmon Sockeye Salmon

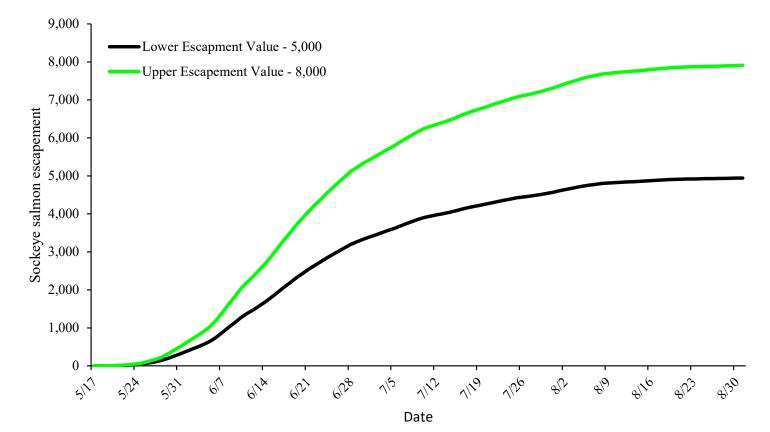
Note: This chart does not represent interim escapement goals.

Appendix A10.–Average run timing relative to lower and upper escapement goals for sockeye salmon into the Litnik system.





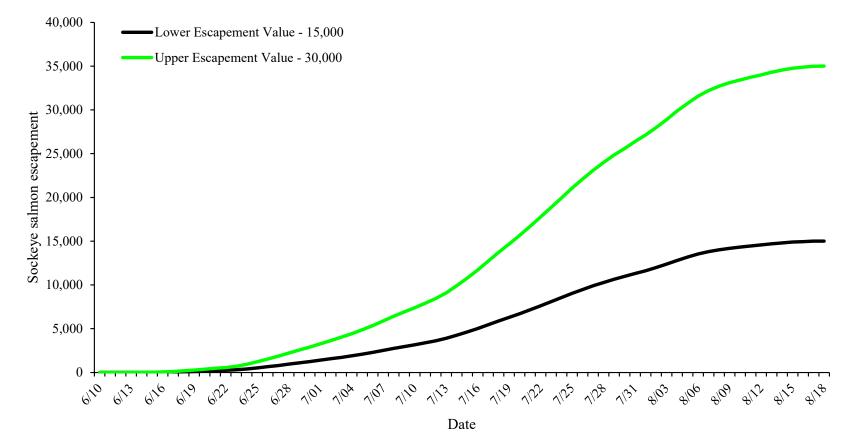
Note: This chart does not represent interim escapement goals.



Buskin Sockeye Salmon

Note: This chart does not represent interim escapement goals.

Saltery Sockeye Salmon



Note: This chart does not represent interim escapement goals.

APPENDIX B: SALMON MANAGEMENT BASIS

	The Westside Kodiak Salmon Management Basis									
June			e	July	l l	August		September		
Afognak District	Southwest Afognak Section	June 1 through June 15, based on sockeye salmon returning to Karluk, Ayakulik, and Olga Bay systems. There will be at least one 33-hour commercial test fishing period.	June 16 through July 5, base on early-run sockeye salmor returning to the Karluk system.	the major systems in the Southwest Af	hrough August 15, based on pink salmon returning to or systems in the Southwest Afognak Section and the Northwest Kodiak District.		August 25 through September 5, based on late- run sockeye salmon returning to the Karluk system.	September 5 through the end of the season, based on coho salmon returning to the Southwest Afognak Section.		
ak District	Central and North Cape sections	June 1 through June 15, based on sockeye salmon returning to Karluk, Ayakulik, and Olga Bay systems. There will be at least two 33-hour commercial test fishing periods.	June 16 through July 5, based on early-run sockeye salmon returning to the Karlu system.	the major systems in the Northwest Ko	A July 6 through August 15, based on pink salmon returning to the major systems in the Northwest Kodiak District and pink salmon returning to the Karluk system.			After September 5, based on late run sockeye salmon returning to the Karluk system and coho salmon returning to the Northwest Kodiak District.		
Northwest Kodiak	Anton Larsen, Sheratin, Kizhuyak, Terror, Inner Uganik, Spiridon, Zachar, Inner Uyak sections	June 1 through June 15, based on local sockeye and early-run chum salmon returning to the major systems in each section. There will be at least two 33-hour commercial salmon fishing periods at the same time as those in the Central and North Cape sections.	June 16 through July 5, base on local sockeye and early- run chum salmon returning to the major systems in each section.	sockeye, pink, and early-run chum pink and late-run chu		ust 24, based on local n salmon returning to s in each section.	August 25 through September 5, based on local pink, late-run chum, and coho salmon returning to the major salmon systems in each section.	After September 5, based on coho salmon returning to the major systems in each section.		

Appendix B1.-The Westside Kodiak fishery salmon management basis.

-continued-

Appendix B1.–Page 2 of 2.

	Inner and Outer Karluk sections	periods in the Inner Karluk determines that the midpoir From June 16 through July 15	on Karluk early-run sockeye, however fishing Section may open only if the department It early-run escapement goal range will be exceeded. 5, the Outer Karluk Section shall open at the 1g periods in the Central Section.		i August 24 in odd years, based on late-run salmon returning to the Karluk system.	August 25 through September 5, based on late- run sockeye salmon returning to the Karluk system.	After September 5, based on late-run sockeye and coho salmon returning to the Karluk system.	
Southwest Kodiak District	Sturgeon Section	June 1 through June 22, closed.	June 23 through July 15, based on early-run sockeye salmon returning to Ayakulik and Karluk systems, and early-run chum salmon returning to the Sturgeon Section.	, 0	August 24 in odd years, based on late-run almon returning to the Karluk System.	August 25 through September 5, based on late- run sockeye salmon returning to the Karluk system.	After September 5, based on coho salmon returning to local systems.	
Southwest	Halibut Bay Section	June 1 through June 22, closed.	June 23 through July 15, based on early-run sockeye salmon returning to Ayakulik and Karluk systems, and early-run chum salmon returning to the Sturgeon Section.	July 16 through July 31 in odd years, based on late-run sockeye salmon returning to the Ayakulik system. July 31 in odd August 1 through August 24 in odd years, based on late-run sockeye salmon returning to the Karluk system.		August 25 through September 5, based on late- run sockeye salmon returning to the Karluk system.	After September 5, based on coho salmon returning to local systems.	
	Inner and Outer Ayakulik sections	0, 1, 1	on early-run sockeye salmon returning to the yakulik system.		August 24 in odd years, based on late-run almon returning to the Ayakulik system.	After August 25, based on coho salmon returning to the Ayakulik system.		

	The Alitak Salmon Management Basis										
		June		July		Aug	ust		September		
	Cape Alitak Section	June 1 through June 30 , based on Frazer and early Upper Station systems sockeye salmon returns.	July 1 through July 15, based on either Frazer or early Upper Station system sockeye salmon returns.	on either Frazer y Upper Station em sockeye July 16 through August 9, in odd years, based on either sockeye or pink salmon returning to the Frazer system. Jupper Station		almon returning to	on the rning to From August 26 through the end of the seas on the coho and sockeye salmon returns to Bay systems				
	Alitak Bay, Moser Bay, and Olga Bay sections	June 1 through June 30, based on Frazer and early Upper Station systems sockeye salmon returns.	July 1 through July 15, based on either Frazer or early Upper Station system sockeye salmon returns.	based on either sockeye	y 16 through August 9, in odd years, ed on either sockeye or pink salmon returning to the Frazer system. August 10 through August 25 i odd years, based on the sockeye salmon returning to Upper Station.		s, based on the almon returning to	From August 26 through the end of the season, based on the coho and sockeye salmon returns to all Olga Bay systems.			
	Humpy- Deadman Section	June 1 through July 15, at the same time and with the Cape Alitak Section		After July 15, based on the strength of salmon returns to systems				s located within the Humpy-Deadman Section.			
The Alitak District	Dog Salmon Flats Section	June 1 through August 20, based on sockeye and pink salmon returns to the Frazer system. From August 21 through the end of the season, based on coho sa to Dog Salmon and Horse Marine systems.					non and Horse Marine systems.				
Lhe		The Dog Salmon Flats Section may be opened to fishing only when the department determines that escapement goals will be exceeded. These openings may not jeopardize achievement of minimum escapement goals for the other salmon species.									
Ē	Inner and Outer Akalura sections	August 21 through August 26, based on coho and sockeye salmon returns to the Akalura system. coho and sockeye salmon returns to Akalura.						After	August 26, based on coho salmon returns to the Akalura system.		
	Inner and Outer Upper Station sections	June 1 through August 25, based on early and late run sockeye salmon returning to Upper Station.							er August 26, based on coho and late sockeye salmon returns to the Upper Station system.		
		The Inner and Outer Upper Station sections ma	ay be opened to fishing	only when the department de minimum escapement goa				ed. The	se openings may not jeopardize achievement of		

Appendix B2.-The Alitak fishery salmon management basis.

51

				E	astside Kodiak	Salmon Managem	nent Basis		
	June			Jul		August	-	September	
iak District	Outer Chiniak, Inner Chiniak, and the Monashka-Mill Bay sections	June 1 through July 5, closed.			July 6 through August 24, based on the abundance of local and mixed pink (and in the Inner Chiniak Section chum) salmon.			August 25 through Sept 5, based on the abundance of local pink and coho salmon.	After Sept 5, based on the abundance of local coho salmon.
Northeast Kodiak District	Buskin River Section	June 1 through July 5, closed.			July 6 through July 15, based on the abundance of local pink salmon and Buskin Lake sockeye salmon.		ust 24, based on the abundance of ink and chum salmon	August 25 through Sept 5, based on the abundance of local pink and coho salmon.	After Sept 5, based on the abundance of local coho salmon.
iak District	Inner Ugak Section	June 1 through June 13, closed.	and mixed sockeye	1, on June 22 al through July 5, based on ye July 6 through July 31, based on the abundance of local pink, chum, and Saltery Lake sockeye salmon. August 1 thr based on the a pin and c ye 1, an Saltery 2 Lake. 1, an 2		August 1 through August 24, based on the abundance of local pin and chum salmon.	August 25 through Sept 5, based on the abundance of local pink and coho salmon.	After Sept 5, based on the abundance of local coho salmon.	
Eastside Kodiak District	Outer Ugak Section	June 1 through June 13, closed.	the abundanc e of local s	June 22 hrough July 5, based on sockeye salmon bound to Pasagshak River.	July 6 through A	ugust 24, based on th pink and churr	ne abundance of local and mixed n salmon.	August 25 through Sept 5, based on the abundance of local pink, chum and coho salmon.	After Sept 5, based on the abundance of late-run chum and coho salmon.
	Seven Rivers, Two-Headed, and Sitkalidak sections	June 1 through June 13, closed.	based on the of local and r sockeye sa may not be r	rough July 5, le abundance mixed Kodiak almon. There more that two ing periods.	July 6 through August 24, based on the abundance of local and mixed pink and chum salmon.			August 25 through Sept 5, based on the abundance of local pink, chum and coho salmon.	After Sept 5, based on the abundance of local coho salmon.

Appendix B3.–Eastside Kodiak fishery salmon management basis.

	Eastside Afognak Salmon Management Basis										
		June	July		August	September					
	Raspberry Strait Section	June 1 through July 5, closed.	July 6 through August 24, based on local and mixed pink salmon runs.			August 25 through the end of the season, based on coho salmon returning to the local systems of Rasberry Strait.					
	Southeast Afognak Section	June 1 through July 5, based on sockeye salmon returning to Afognak Lake (Litnik).	From July 6 through August 24, based on pink salmon returning to the major systems of Afognak, Danger, and Marka bays.		After August 24, based on coho salmon returning to the Southeast Afognak Section.						
ak District	Duck Bay Section	June 1 through July 18, based on early chum or sockeye sa hatchery	almon returns to Kitoi Bay July 19 through August 24, based on returning mixed wild a hatchery pink salmon.			After August 24, based on local coho salmon runs.					
Afognak	Izhut Bay Section	June 1 through July 26, based on early chum or sockey hatchery.	e salmon returning to Kitoi Ba	ay July 27	7 through August 24, based on mixed wild and hatchery pink salmon.	After August 24, based on local coho salmon and hatchery-bound sockeye or coho salmon runs.					
		Throughout the season, fishing time may be restricted in order to meet cost recovery goals for hatchery-bound chum, sockeye, pink, or coho salmon.									
	Inner and Outer Kitoi Bay sections	June 1 through July 26, based on early chum or sockey hatchery. From June 18 through July 26, fishing opportunities will not until chum or sockeye salmon brodstock requirements	occur in the Inner Kitoi Bay S	broc section of	27 through August 24, based on pink salmon od stock requirements. Fishing time may only ccur if the broodstock requirements are not jeopardized.	After August 24, fishing time may be provided to harvest returning late sockeye and coho salmon that exceed broodstock needs.					
		Throughout the season, fishing t	ime may be restricted in orde	er to meet cos	t recovery goals for hatchery-bound chum, sock	eye, pink, or coho salmon.					

Appendix B4.–Eastside Afognak fishery salmon management basis.

		North A	fognak/Shuyak Salı	mon Mana	agement Basis			
		June	July		August		September	
Afognak District	Northeast Afognak June 1 through July 5, closed. Section		July 6 through August 24, based the abundace of local and mixed pink salmon.			August : throug Septeml 5, based local pii and col salmor	h After September 5, based on on the abundance of local coho nk salmon.	
	Perenosa Bay Section	June 1 through July 5, based on sockeye salmon returning to Pauls Bay and Portage Lake. Additional fishing time to harvest sockeye salmon bound to Waterfall Lake will occur in the Waterfall Bay Special Harvest Area only	July 6 through August 20, based on the abundance of local and mixed pink and sockeye salmon bound to Portage Lake and Pauls Bay.	July 21 through August 20, based on the abundance of local and mixed pink salmon.		August 21 through September based on th abundance local pink ar coho salmo	e the abundance of local coho of salmon. nd	
	Pauls Bay Section	June 1 through July 5, based on sockeye salmon returning to Pauls Bay.	July 6 through August 1, based on the abundance of local and mixed pink salmon and sockeye salmon bound for Pauls Bay.		After August 1, based or	n the abundar	nce of Pauls Bay coho salmon.	
	Northwest Afognak Section	June 1 through July 5, base on sockeye salmor bound to Thorsheim and Long Lagoon. There may not be more than two 33-hour fishing periods. Additional fishing time to harvest sockeye salmon bound for Hidden Lake will occur in Fou Bay Special Harvest Area.	July 6 through August 24, based the al mixed pink salmo			d After Au	gust 24, based on the abundance of local coho salmon.	
	Shuyak Island Section	June 1 through July 6, closed.	July 6 through August 1, based on the abundance of local and mixed pink salmon.		After August 1, based	August 1, based on the abundance of local coho salmon.		

Appendix B5.–North Afognak/Shuyak Island fishery salmon management basis.

Appendix B6Mainland District fisher	y salmon management basis.
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			Mainl	and District Salmon Manag	gement Basis				
		June		July	Aug	ust		September	
	Big River Section		1 through July 5, based on sockeye salmon g to Swikshak River. There may not be more than two 33-hr fishing periods.		July 6 through August 20, based on local and mixed pink and chun salmon. July 6 through August 1, weekly fishing periods may not exceed 57				
				hours.					
	Hallo Bay			July 6 through August 20, based on salmo		nd chum			
	Section	June 1 through July 5, closed.		July 6 through August 1, weekly fishing periods may not exceed 57 hours.			After August 20, based on the return of cosalmon to streams located within the Big Risection. After August 20, based on the return of colsalmon to streams located within the Halo Esection. After August 20, based on the return of colsalmon to streams located within the Halo Esection. August 15, based on late-run chum and coho salm streams located in Outer Kukak Section. August 15, based on late-run chum and coho salm streams located in Inner Kukak Section. August 15, based on late-run chum and coho salm streams located in Inner Kukak Section. After August 25, based on late-run pink coho salmon returning to streams in t Dakavak Bay Section. salmon. After August 25, based on local late-run and coho salmon returning to streams in Katmai and Alinchak Bay sections. salmon. After August 25, based on late-run pink coho salmon returning to streams is Katmai and Alinchak Bay sections. salmon. After August 25, based on late-run pink coho salmon returning to streams is Katmai and Alinchak Bay sections. salmon. After August 25, based on late-run pink coho salmon returning to the Cape Igval Wide Bay sections.		
	Outer Kukak	June 1 through July 5, based on sockeye		July 6 through August 15, based on mixed sockeye, pink, and c		After Aug	ıst 15 ba	used on late-run chum and coho salmon to	
	Bay Section	returning to Kaflia Lakes. There may not be more than two 33-hr fishing periods.		July 6 through August 1, weekly fishing periods may not exceed 57 hours.					
ž	Inner Kukak			July 6 through August 15, based on mixed sockeye, pink, and c					
Mainland District	Bay Section	June 1 through July 5, closed.	June 1 through July 5, closed.						
ainlan	Dakavak Bay	Dakavak Bay June 1 through July 5, closed. Section		July 6 through August 25, based on local and mixed pink and chum salmon.				After August 25, based on late-run pink and coho salmon returning to streams in the	
Σ	-			July 6 through August 1, weekly fishing periods may not exceed 57 hours.					
	Katmai and			July 6 through August 25, based on lo	Afte	After August 25, based on local late-run pink			
	Alinchak Bay sections	June 1 through July 5, closed.		July 6 through August 1, weekly fining periods may not exceed 57 hours.		an	and coho salmon returning to streams in the Katmai and Alinchak Bay sections.		
	Wide Bay Section	June 1 through July 5, closed.		July 6 through August 25, based on local and mixed pink and chum salmon.				ter August 25, based on late-run pink and ho salmon returning to the Cape Igvak and Wide Bay sections.	
	Cape Igvak	June 1 through July 5, based on sockeye salmon returning to Chignik River. In years when Chignik sockeye harvest is expected to exceed 600,000 and the runs are as strong as expected, the department		July 6 through August 25, based on local and mixed pink and chum salmon.				After August 25, based on late-run pink and	
	Section	will manage the fishery so that the number of salmon taken in the Cape Igvak Section will as near as possible 7.5 percent of the tota sockeye salmon catch.	approach	July 6 through August 1, weekly fishing periods may not exceed 57 hours.				Cono salmon returning to the Cape igvak ar Wide Bay sections.	