Regional Information Report 4K22-03

Kodiak Management Area Harvest Strategy for the 2022 Commercial Salmon Fishery

by

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and

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March 2022

Alaska Department of Fish and Game **Division of Commercial Fisheries**

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Weights and measures (metric)

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

Weights and measures (English)

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

Time and temperature

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

Physics and chemistry

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

General

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

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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The Regional Information Report Series was established in 1987 and was redefined in 2007 to meet the Division of Commercial Fisheries regional need for publishing and archiving information such as area management plans, budgetary information, staff comments and opinions to Alaska Board of Fisheries proposals, interim or preliminary data and grant agency reports, special meeting or minor workshop results and other regional information not generally reported elsewhere. Reports in this series may contain raw data and preliminary results. Reports in this series receive varying degrees of regional, biometric and editorial review; information in this series may be subsequently finalized and published in a different department reporting series or in the formal literature. Please contact the author or the Division of Commercial Fisheries if in doubt of the level of review or preliminary nature of the data reported. Regional Information Reports are available through the Alaska State Library and on the Internet at: http://www.adfg.alaska.gov/sf/publications/.

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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 2022 preseason forecasts project a harvest of approximately 3,254,800 sockeye, 453,300 coho, 19,437,600 pink, and 751,300 chum salmon. Additionally, about 7,150 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 81 hours (~3½ days) in length for Kodiak Archipelago sections, and the Mainland District fishing periods will be 57 hours (~2½ days) in length.

Key Words: 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) 2022 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 and/or aerial, boat and foot surveys, and total catch and fishery performance trends over time.

Management of major sockeye salmon runs are based on escapement and utilize daily escapement information from salmon counting weirs on several of the larger streams (Appendices A1–A11). 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.

ALASKA BOARD OF FISHERIES REGULATION CHANGES FROM THE JANUARY 2020 MEETING

The BOF met in Kodiak during January of 2020 to discuss Kodiak salmon fishery regulations. A synopsis of several important regulations and regulation changes are detailed below, but all participants in the Kodiak commercial salmon fishery are urged to make themselves aware of all applicable regulations. Copies of the KMA commercial salmon fishery regulations and the most recent Kodiak Area Salmon Statistical Chart (revised April 2020) are available at the Kodiak ADF&G office.

CAPE IGVAK SALMON MANAGEMENT PLAN

There were several changes to the Cape Igvak Management Plan (5 AAC 18.360) including:

- **The management plan's sockeye salmon allocation timeframe was shortened to June 1 through July 5.** Previously the allocation timeframe was June 1 through July 25.
- **The sockeye salmon allocation was reduced to 7.5% of the total Chignik sockeye salmon harvest.** Previously the allocation was 15% of the total Chignik Sockeye salmon harvest.
- **The Chignik sockeye salmon harvest assurance was increased to 600,000 fish through July 5.** Previously the Chignik sockeye salmon harvest assurance was 300,000 fish through July 8, and 600,000 fish through July 25.
- **The overlap period dates (or period of time when the Cape Igvak fishery is disallowed or severely restricted) was changed to June 26 through July 5.** Previously the dates were June 26 through July 8.
- **The board provided guidance to the department allowing for a less restrictive interpretation of the commercial salmon fishery during the overlap period.** Previously the department almost always closed the Cape Igvak Section during the overlap period.

MAINLAND DISTRICT SALMON MANAGEMENT PLAN

There were several changes to the Mainland District Salmon Management Plan (5 AAC 18.369) including:

- **The Wide Bay Section of the Mainland District is now closed through July 5.** Previously the Wide Bay Section was closed through July 25.
- **From July 6 through August 26, the Cape Igvak and Wide Bay sections are now managed based on local and mixed pink and chum salmon.** Previously the Wide Bay Section was closed to commercial salmon fishing through July 25, and the Cape Igvak Section was managed under the Cape Igvak Salmon Management Plan and openings were based on an allocation of 15% of the total Chignik Sockeye salmon harvest through July 25.
- **Fishing periods on the Mainland District (except the Wide Bay Section) shall not exceed 57 hours from July 6 through August 1.** Previously, this area was only restricted to 57-hour weekly fishing periods between July 6 and July 25 in the Dakavak Bay, Outer Kukak Bay, Inner Kukak Bay, Hallo Bay, and Big River sections of the Mainland District.

NORTH SHELIKOF STRAIT SOCKEYE SALMON MANAGEMENT PLAN

There were several changes to the North Shelikof Strait Sockeye Salmon Management Plan (NSSSSMP) (5 AAC 18.363) including:

- **The Cape Igvak Section of the Mainland District was added to the NSSSSMP between the timeframe of July 6 and August 1.** Previously the Cape Igvak Section was managed under the Cape Igvak Salmon Management Plan and openings were based on an allocation of 15% of the total Chignik Sockeye salmon harvest through July 25.
- **Between July 6 and August 1, when the harvest of sockeye salmon exceeds 20,000 fish in the Cape Igvak Section, the fishery will be restricted west of a line from 57° 39.51' N. lat., 155° 35.74' W. long., to Cape Unalishagvak at 57° 32.64' N. lat., 155° 43.87' W. long., to Cape Igvak at 57° 26.04' N. lat., 156° 01.43' W. long., to Kilokak Rocks at 57° 10.34' N. lat., 156° 20.22' W. long (Figure 11).**
- **The Katmai and Alinchak Bay Sections of the Mainland District were added to the North Shelikof Management Unit.** Previously, the North Shelikof Management Unit only included the Dakavak Bay, Inner Kukak Bay, Outer Kukak Bay, Hallo Bay, Big River, Shuyak Island, and Northwest Afognak sections.
- **The North Shelikof management unit timeframe was extended to July 6 through August 1.** Previously, the North Shelikof Management Unit timeframe was July 6 through July 25.
- **The North Shelikof management unit harvest trigger was increased to 20,000 sockeye salmon.** Previously, the North Shelikof management unit harvest trigger was 15,000 sockeye salmon.

WESTSIDE KODIAK SALMON MANAGEMENT PLAN

There were several changes to the Westside Kodiak Salmon Management Plan (WKSMP) (5 AAC 18.362) including:

- **The Central Section of the Northwest Kodiak District can now be managed between August 1 through August 16 based both pink salmon returning to the major systems**

of the Northwest Kodiak District or pink salmon returning to the Karluk System. Previously, between July 6 and August 16, the Central Section of the Northwest Kodiak District was managed only on pink salmon returning to the major systems of the Northwest Kodiak District.

- **From June 1 through approximately July 15, the Inner Ayakulik Section can only open if the upper bound of the sockeye salmon escapement goal will be achieved.**

GEAR

- **In a set gillnet, in the Kodiak Area, gillnet web may be single filament.** Previously, gillnet web had to contain either 30 filaments of equal diameter or at least 6 filaments 0.20 millimeter in diameter.
- **Regulations adopted at the 2017 board meeting allowing set gillnet gear to be fished in the Humpy-Deadman and Cape Alitak Sections north of a line from Cape Trinity at 56° 44.80′ N lat, 154° 08.90′ W long, to Cape Alitak at 56° 50.58′ N lat, 154° 18.50′ W long after September 4 were placed into permanent regulation**.
- **Set gillnet gear is a legal gear type in that portion of the Humpy-Deadman Section, from Cape Hepburn south of 56° 58.80' N. lat., north of 56° 56.83' N. lat., and east of 153° 53.30' W long. if the Cape Alitak, Alitak Bay, Moser Bay, and Olga Bay Sections are closed and the Humpy-Deadman Section is open (Figure 12).**

RELEASE OF LARGE CHINOOK (KING) SALMON BY PURSE SEINE FISHERMEN

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 fishermen 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 not likely 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 7,150 Chinook, 3,290,981 sockeye 453,300 coho, 19,437,600 pink, and 751,300 chum salmon are predicted to be available for harvest throughout the KMA in 2022 (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 15,200 sockeye, 4,500,000 pink, 96,300 chum, and 148,900 coho salmon (Table 2). Additional enhanced salmon production, from projects conducted by KRAA, are expected to produce about 200,700 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 in-period 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 NOON 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 NOON and may be of short 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 NOON 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).	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).
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).	These sections could open June 1 but are likely to open at NOON 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).
The Foul Bay and Waterfall Bay Special Harvest Areas of the Afognak District (Figure 5).	These fisheries could open as early as NOON June 1 and remain open until further notice (5 AAC 18.365).
Inner and Outer Ayakulik Sections of the Southwest Kodiak District (Figure 4) and the Southeast Afognak Section of the Afognak District (Figure 5).	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) systems, respectively (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).	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).
Duck Bay, Izhut Bay, Inner Kitoi Bay, and Outer Kitoi Bay Sections (Figure 5).	These fisheries could open June 1 but are likely to open at NOON on June 9. Once open, the fishing period is likely to be open until further notice. The fishery for the Kitoi Bay Hatchery early chum salmon runs may extend through late June (5 AAC 18.365).
Alitak District Traditional Fishing Areas: Cape Alitak, Humpy-Deadman, Alitak Bay, Moser Bay, and the Olga Bay Sections of the Alitak District (Figure 3).	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 strong, and a June 9 test fishing period in the traditional fishing areas may not occur (5 AAC 18.361).
Dog Salmon Flats Section of the Alitak District (Figure 3)	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).	For these sections, a 33-hour commercial test fishing period may occur from NOON 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.
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).	These sections may open at NOON on June 14 as a 33-hour commercial test fishing period.
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).	Commercial salmon fishing will open at NOON 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 *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.
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). In order 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 towards 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 2022 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*:** 81 hours – from NOON Wednesday, July 6, through 9:00 PM Saturday, July 9. 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 NOON Wednesday, July 6, through 9:00 PM Friday, July 8.

Second Period: 81 hours – from NOON Wednesday, July 13, through 9:00 PM Saturday, July 16. 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 NOON Wednesday, July 13, through 9:00 PM Friday, July 15.

Third Period: 81 hours – from NOON Wednesday, July 20, through 9:00 PM Saturday, July 23. The previous closures will likely 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/or 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 NOON Wednesday, July 20, through 9:00 PM Friday, July 22, but no extensions may occur until after August 1.

Fourth Period: 81 hours – from NOON Wednesday, July 27, through 9:00 PM Saturday, July 30. During this period, the run strength should be evident by the end of the period. The pink salmon harvest has traditionally increased 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 NOON Wednesday, July 27, through 9:00 PM Friday, July 29, but no extensions may occur until after August 1.

Subsequent fishing periods will likely follow the same 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 returns to individual systems. Differential fishing time, by management unit, may occur as stronger production areas are targeted, while 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 average in 2022 (Table 2).

With the exception of chum salmon returning to the Kitoi Bay Hatchery, a major portion of the 2022 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, NOON, 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 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 http://www.adfg.alaska.gov/index.cfm?adfg=CommercialByAreaKodiak.salmon.

(3) The AA will be recorded on a 24-hour recorded message phone (907-486-4559).

(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 be found online using the search function at http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.main.

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 e-mail addresses are as follows:

General Information - 486-1830

Matrix Dispatch - 7410

Record-a-Phone - 486-4559

Email - dfg.dcf.kodiaksalmon@alaska.gov

James Jackson: 486-1808
Area Management Biologist
After Hours: 907-942-2097

Todd Anderson: 486-1807
Assistant Area Management Biologist
After Hours: 701-214-7667

Geoff Spalinger: 486-1804
Assistant Area Management Biologist
After Hours: 952-567-1420

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, fishermen 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 fishermen 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 fishermen 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 fishermen may market their own lawfully-taken commercial catch (direct marketing). If fish are to be sold later, the commercial fishermen must be properly registered and licensed. There are several ways to legally market your own 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 fisherman to a buyer or buyers. A fisherman or group of fishermen 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 commercial fisherman 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 commercial fishermen, 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/or 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. Fishermen 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 pick-up, 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 FISHERMEN

Purse seine fishermen should be certain that their fish tickets show the number of fish of each species and/or 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 FISHERMEN

Set gillnet fishermen 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. In the event that a gillnet is moved into a new statistical area, fishermen 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

Table 1.–Alaska Board of Fisheries approved fishery management plans for the Kodiak management area, 2022.

Management plan	Year initiated	Management units affected	Dates in 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 2.–Forecasted and actual 2021, and forecasted 2022 commercial salmon harvest, by species and fishery, for the Kodiak management area.

	Chinook	Sockeye	Coho	Pink	Chum	Total
Forecasted Harvest 2021[a]	6,800	2,023,100	426,000	22,500,000	777,100	25,733,000
Actual Harvest 2021[a]	9,065	3,290,981	306,329	26,180,495	409,339	30,196,209
Forecasted Harvest 2022	7,150	3,254,800	453,300	19,437,600	751,300	23,904,150

	2021 Harvest		2022 Harvest
FISHERY	Forecast[b]	Actual[c]	Projection[b]
Early Sockeye Salmon Fisheries (6/1-7/15)			
Kitoi Bay Hatchery[d]	6,600	2,203	4,000
Cape Igvak[e]	0	0	0
Karluk[f]	42,000	58,059	51,000
Ayakulik[g]	176,000	697,819	354,500
Alitak District	26,000	249,744	191,000
Minor Enhancement[h]	13,900	7,717	6,500
Spiridon Common Property[i]	60.000	47,074	51,600
Spiridon Cost Recovery[i]	20,000	45,346	34,400
KMA Undetermined/Other[j]	273,000	75,368	348,000
Subtotal	617,500	1,183,330	1,041,000
Late Sockeye Salmon Fisheries (7/16-10/31)			
Kitoi Bay Hatchery[d]	8,100	20,936	11,200
Karluk[f]	414,000	773,508	602,000
Ayakulik[g]	325,000	647,892	415,500
Alitak District	152,000	403,044	459,000
Minor Enhancement[h]	0	0	2,200
Spiridon Common Property[i]	72,500	150,414	72,900
Spiridon Cost Recovery[i]	24,500	7,651	33,100
KMA Undetermined/Other[j]	409,500	104,206	617,900
Subtotal	1,405,600	2,107,651	2,213,800
Total sockeye	2,023,100	3,290,981	3,254,800
Pink Salmon Fisheries			
Kitoi Bay Hatchery Common Property[d]	8,618,000	7,636,311	3,680,000
Kitoi Bay Hatchery Cost Recovery[d]	2,282,000	2,844,575	820,000
Afognak Wild[k]	1,167,000	695,162	2,504,600
Westside Kodiak[l]	5,513,000	5,820,076	8,585,900
Alitak District	1,615,000	3,065,084	2,069,800
Eastside/Northend Kodiak[m]	2,614,000	5,975,344	1,333,200
Mainland District	691,000	143,943	444,100
Subtotal	22,500,000	26,180,495	19,437,600

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Table 2.–Page 2 of 3.

FISHERY	2021 Harvest Projection[b]	2021 Harvest Actual[c]	2022 Harvest Projection[b]
Chum Salmon Fisheries			
Kitoi Bay Hatchery[d]	128,100	40,493	96.300
Afognak (Wild)[k]	19,000	11,873	17,000
Westside Kodiak[l]	227,000	196,923	233,000
Alitak District	40,000	21,581	42,000
Eastside/Northend Kodiak[m]	244,000	124,036	256,000
Mainland District	119,000	14,433	107,000
Subtotal	777,100	409,339	751,300
Coho Salmon Fisheries			
Kitoi Bay Hatchery[d]	123,600	101,969	148,900
Afognak[k]	38,400	9,698	32,500
Westside Kodiak[l]	147,000	100,332	147,500
Alitak District	19,400	24,007	22,600
Eastside/Northend Kodiak[m]	66,800	66,237	73,900
Mainland District	30,800	4,086	27,900
Subtotal	426,000	306,329	453,300
Grand Total[n]	25,733,000	30,196,209	23,904,150

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. Early run is from the beginning of season through June 26. Late run is from July 8 through 25.

[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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[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.

[l] 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 2021 harvest of 6,800 Chinook salmon, the actual 2021 harvest of 9,065 Chinook salmon, and a projected 2022 harvest of 7,150 Chinook salmon.

FIGURES

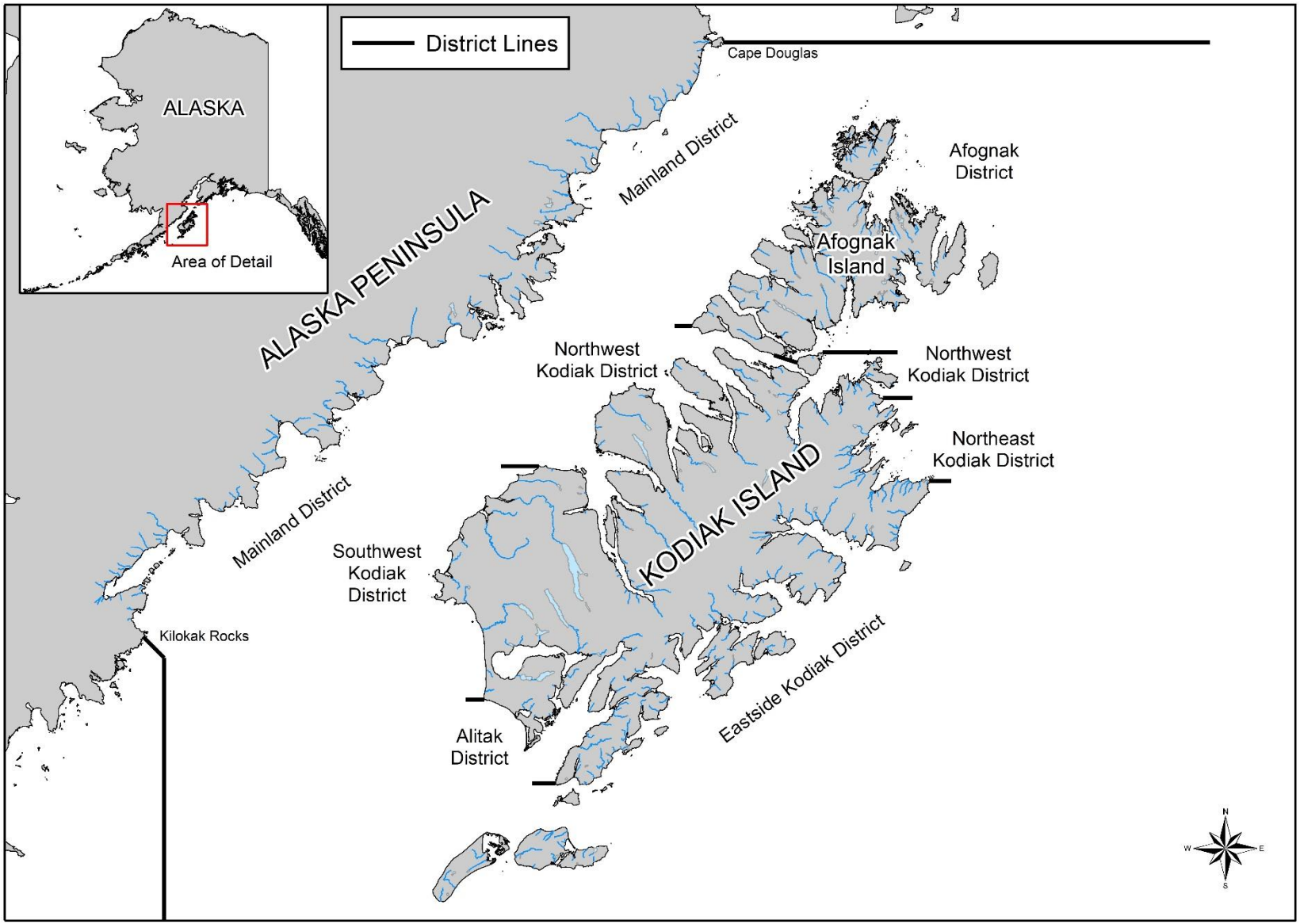


Figure 1.–Map of the commercial salmon fishing districts in the Kodiak management area.

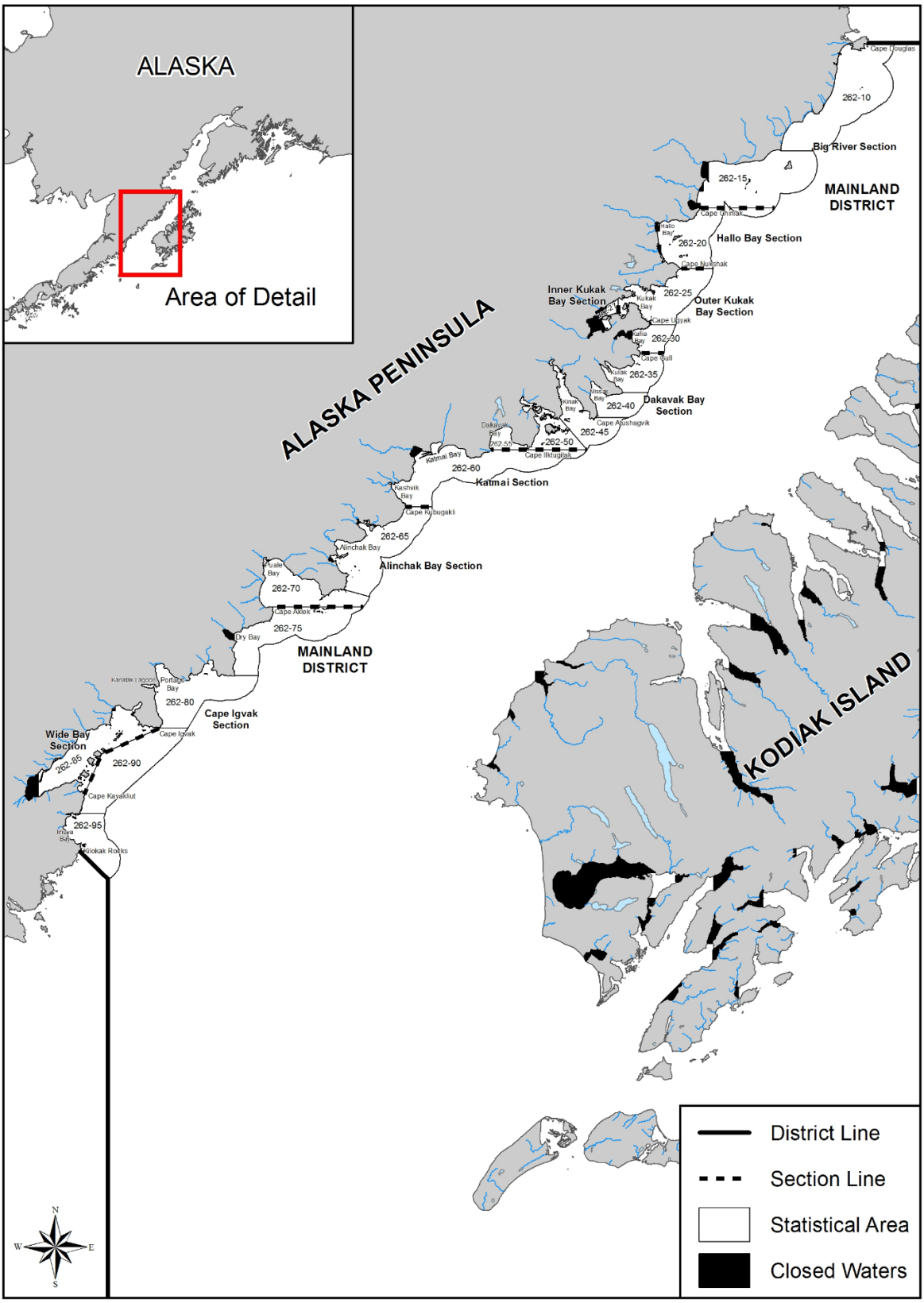


Figure 2.–Map of the Mainland District identifying commercial salmon fishing sections and statistical areas.

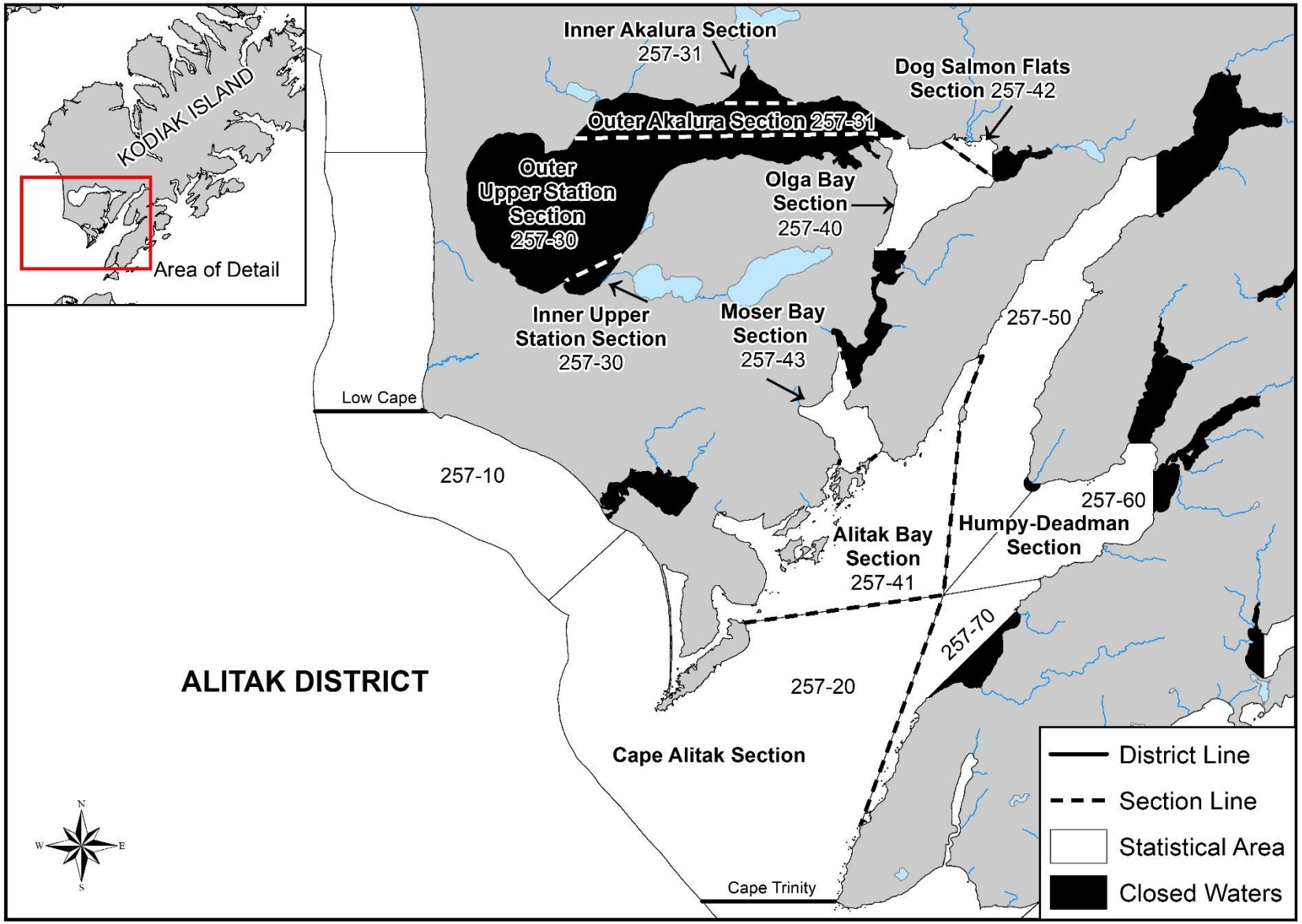


Figure 3.–Map of the Alitak District identifying commercial salmon fishing sections and statistical areas.

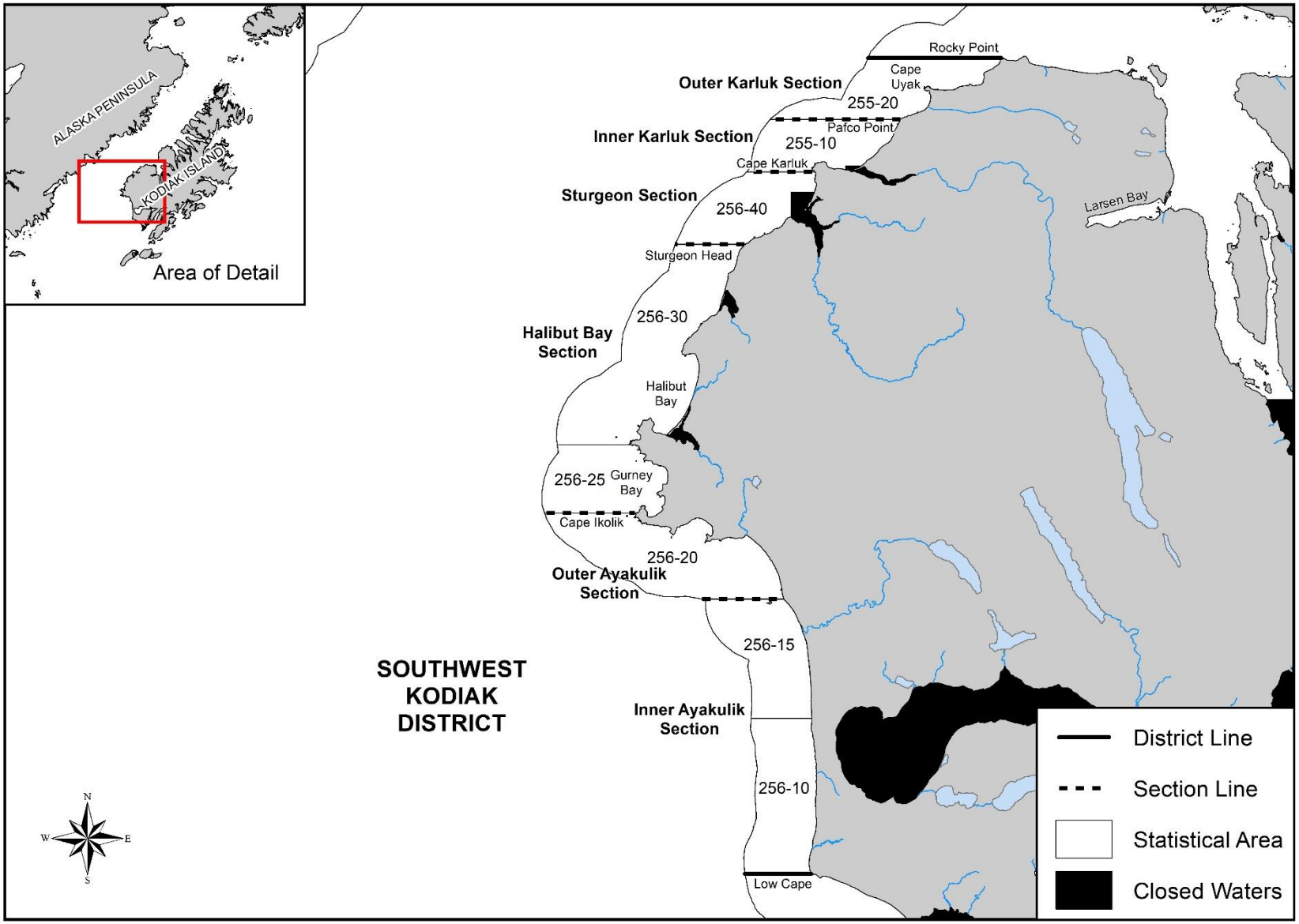


Figure 4.–Map of the Southwest Kodiak District identifying commercial salmon fishing sections and statistical areas.

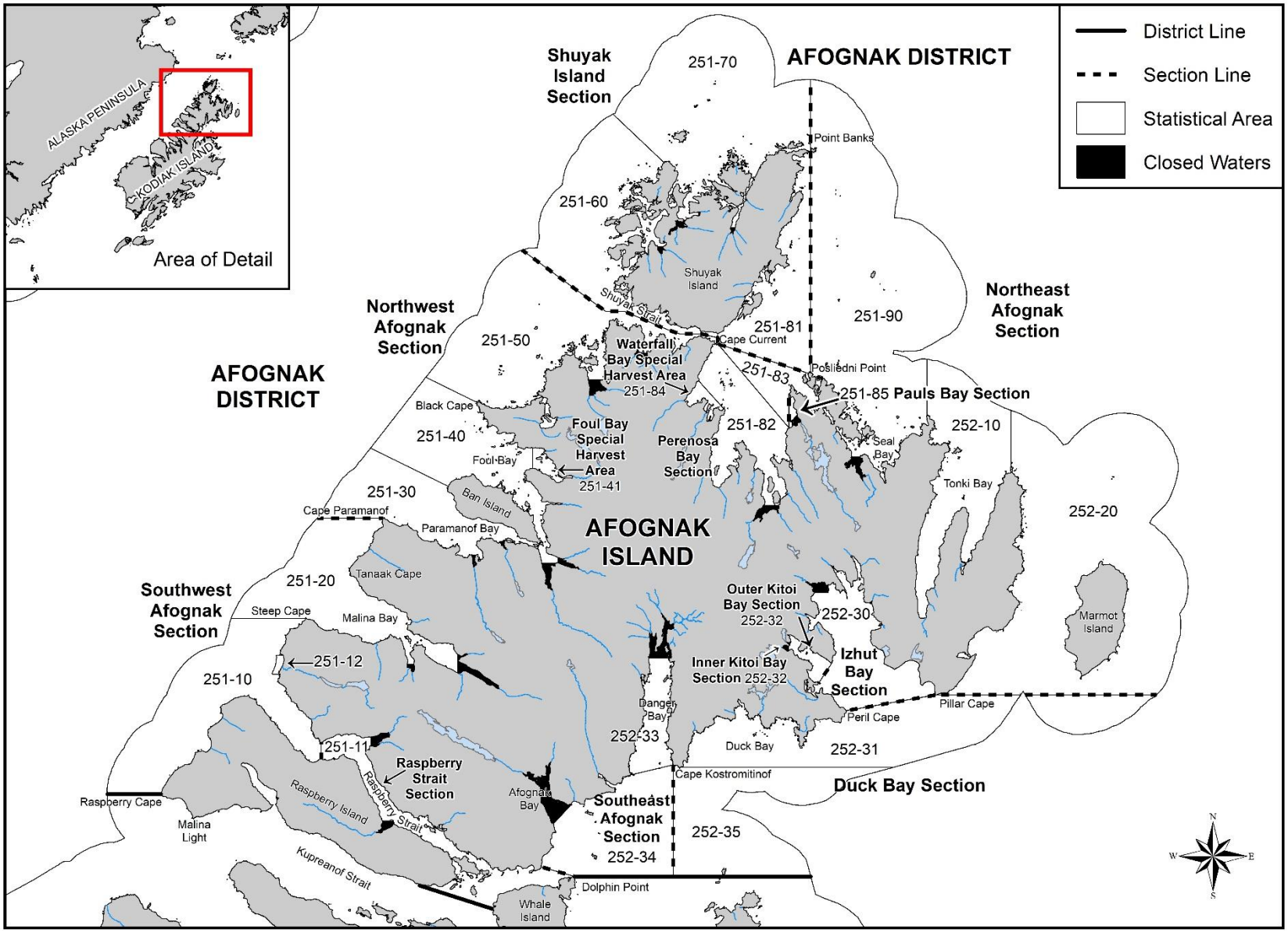


Figure 5.–Map of the Afognak District identifying commercial salmon fishing sections and statistical areas.

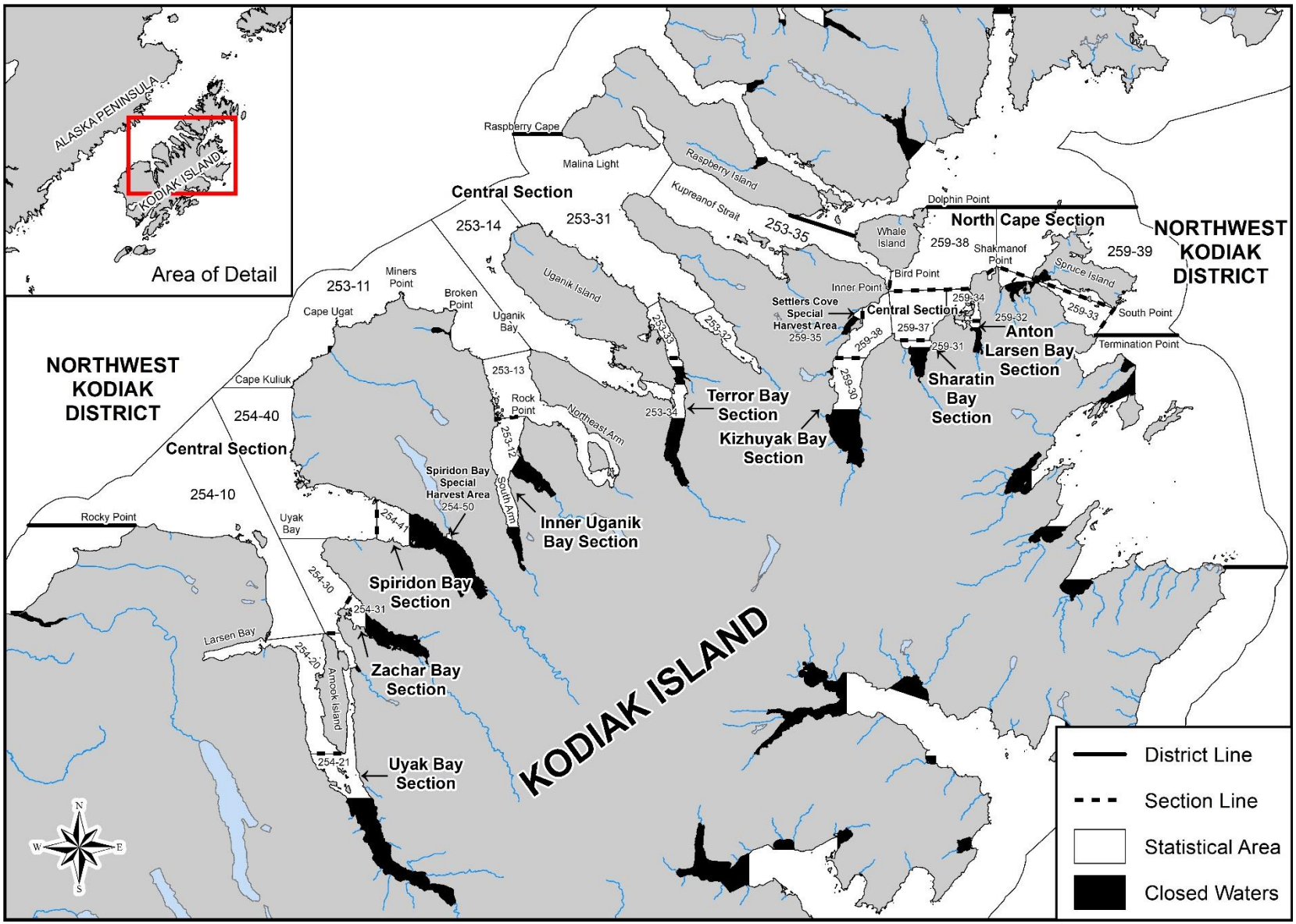


Figure 6.–Map of the Northwest Kodiak District identifying commercial salmon fishing sections and statistical areas.

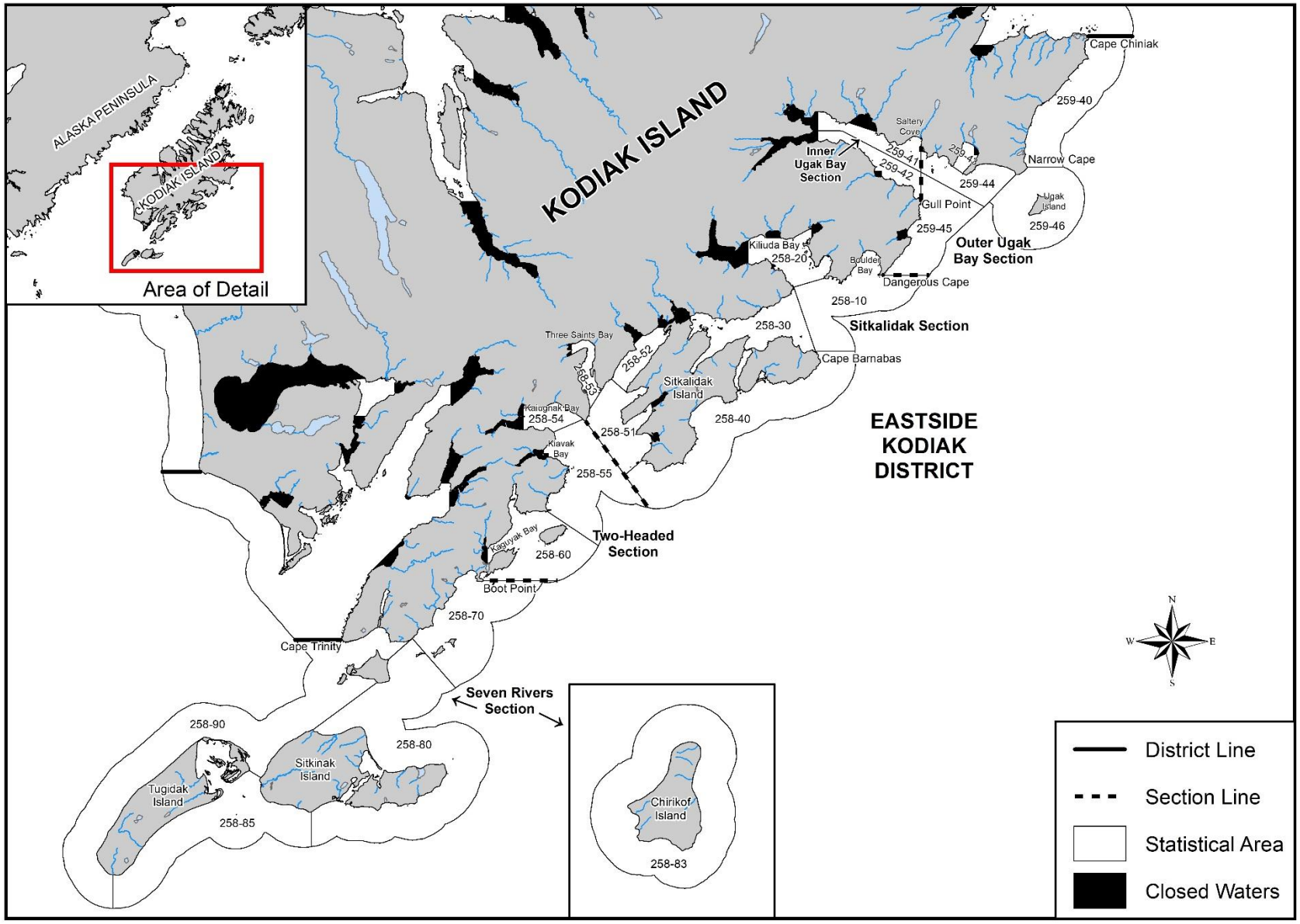


Figure 7.–Map of the Eastside Kodiak District identifying commercial salmon fishing sections and statistical areas.

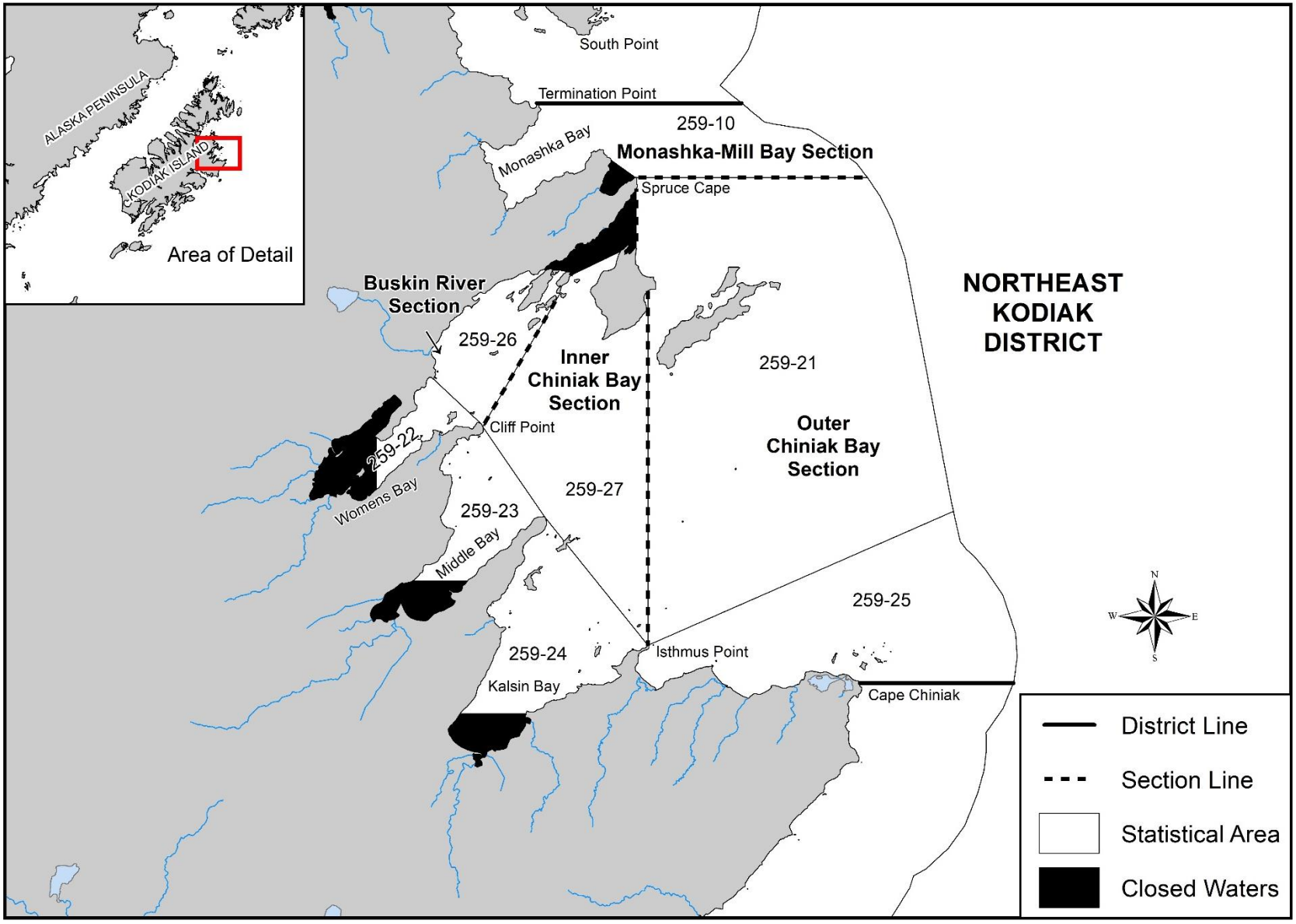


Figure 8.–Map of the Northeast Kodiak District identifying commercial salmon fishing sections and statistical areas.

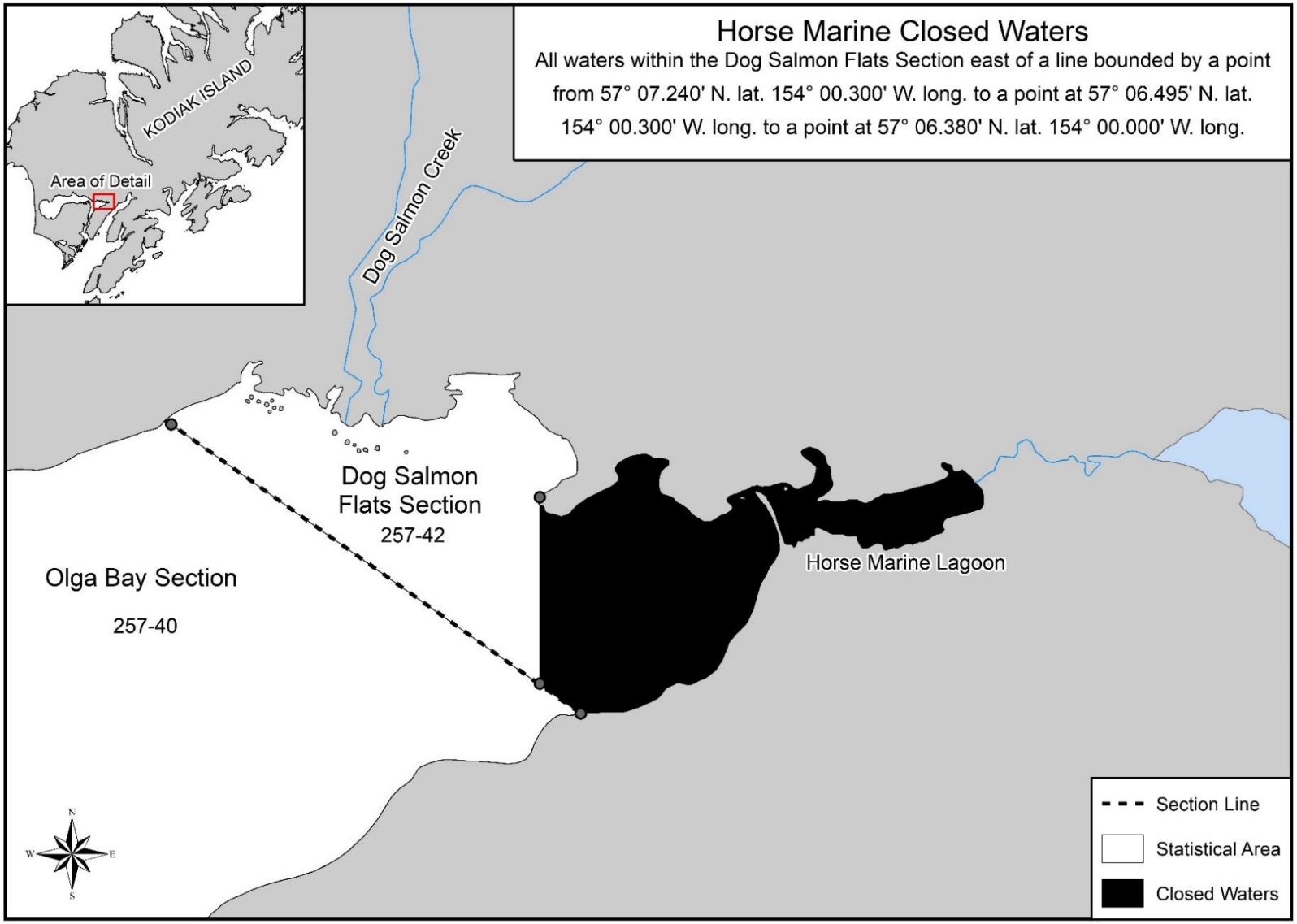


Figure 9.–Map of the Dog Salmon Flats Section of the Alitak District and Horse Marine closed water area.

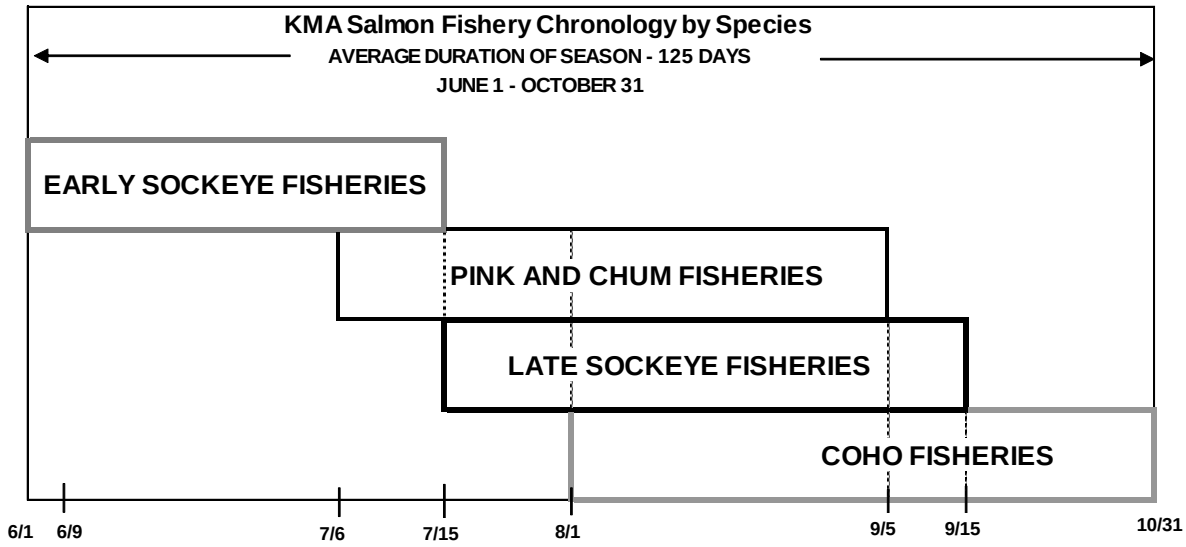


Figure 10.–Commercial salmon fishery chronology by species for the Kodiak management area.

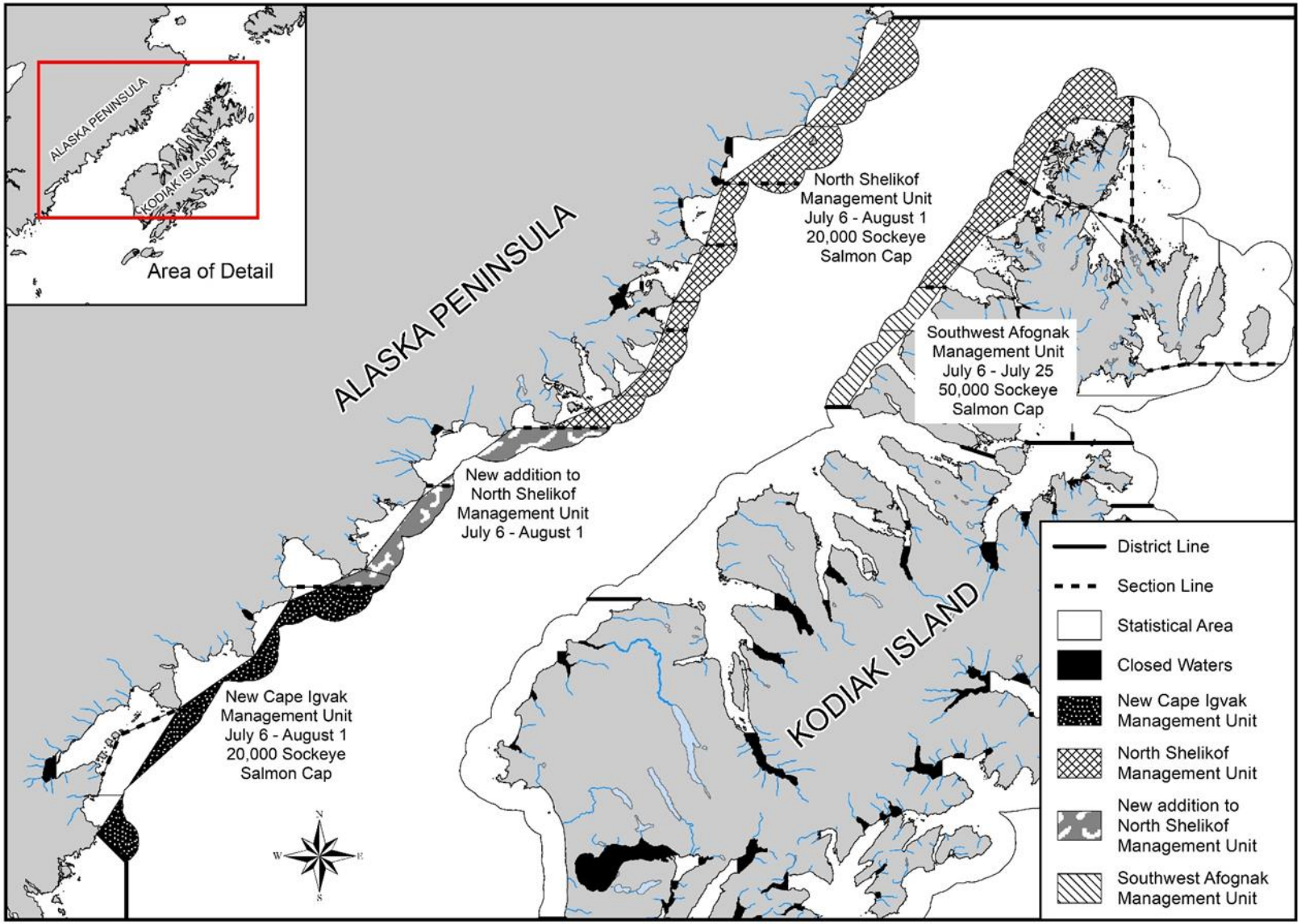


Figure 11.–Map of management units of the North Shelikof Strait sockeye salmon management plan.

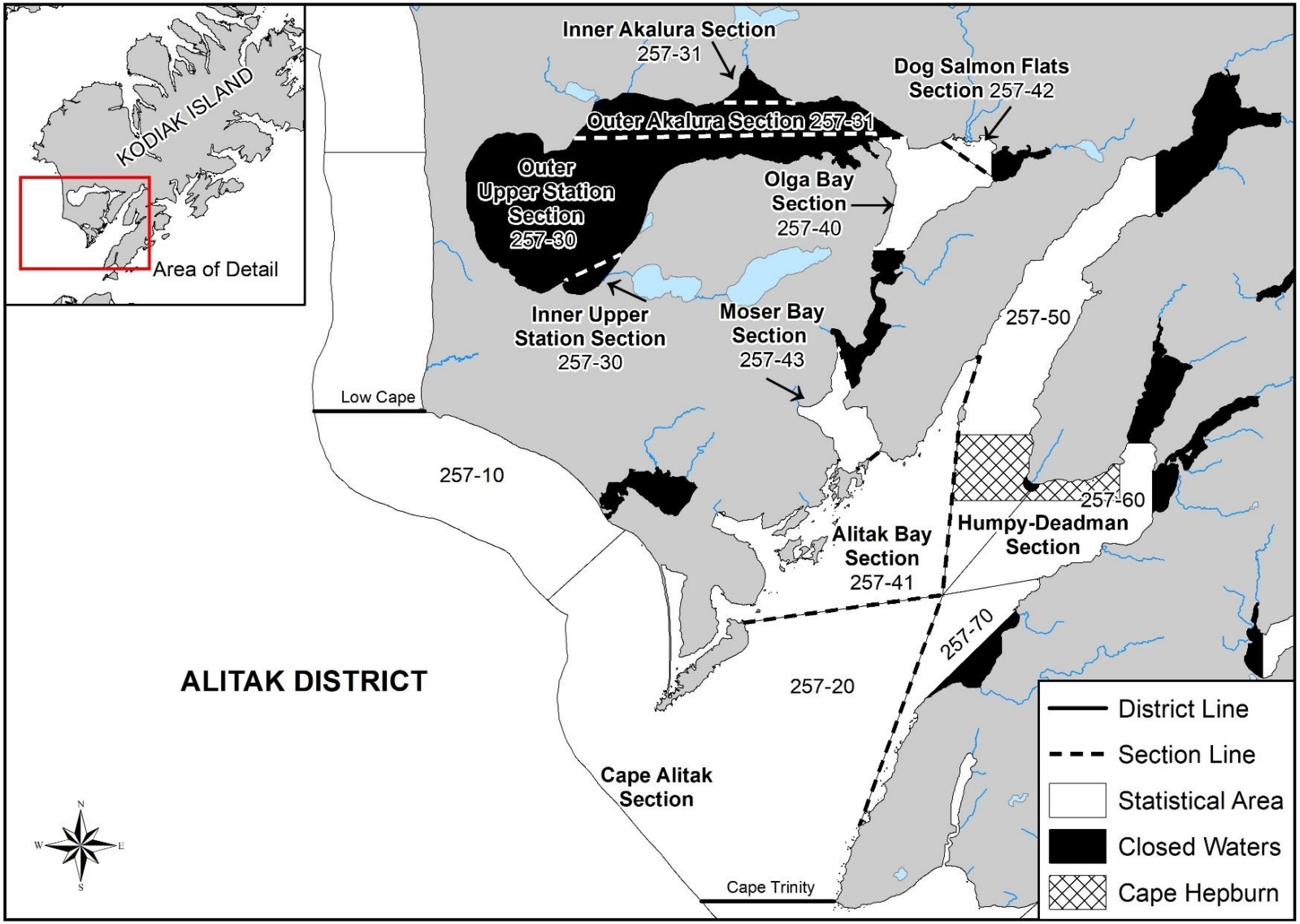
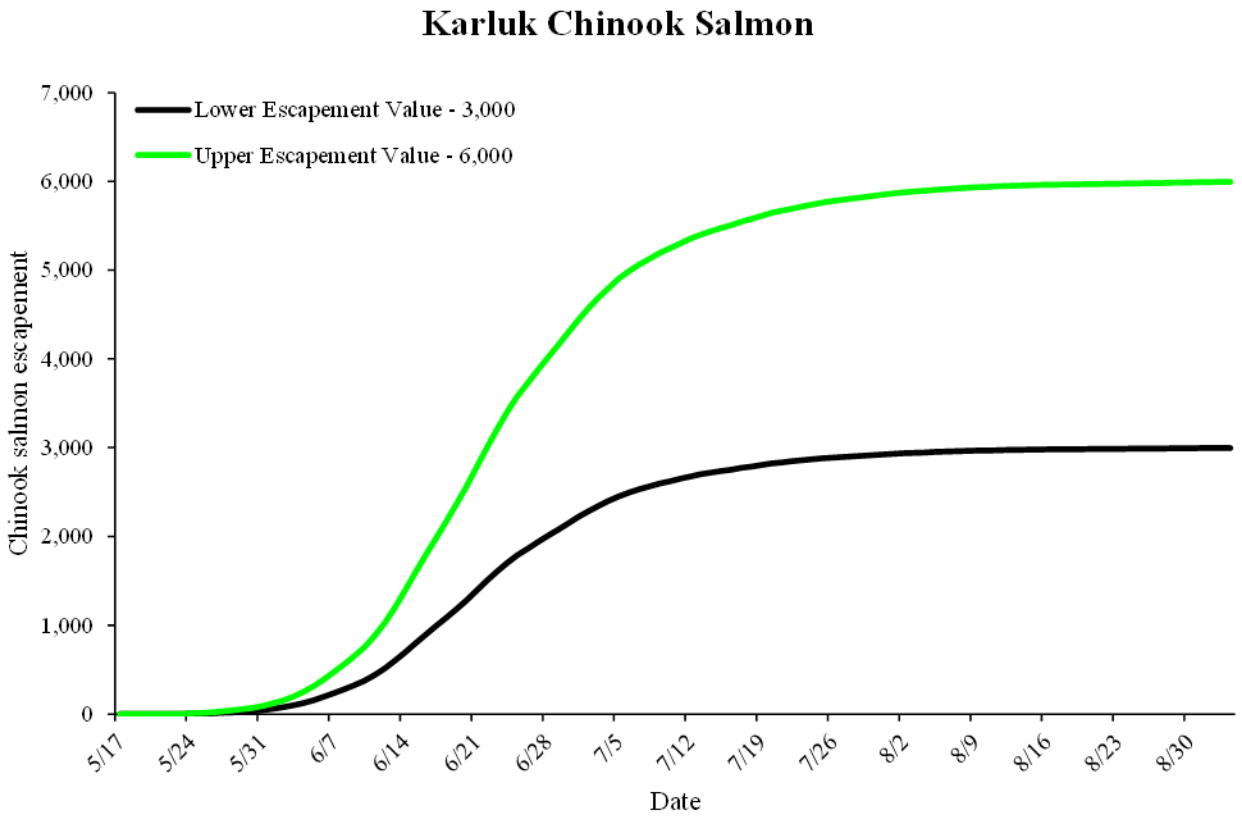


Figure 12.–Map of Cape Hepburn portion of the Alitak District.

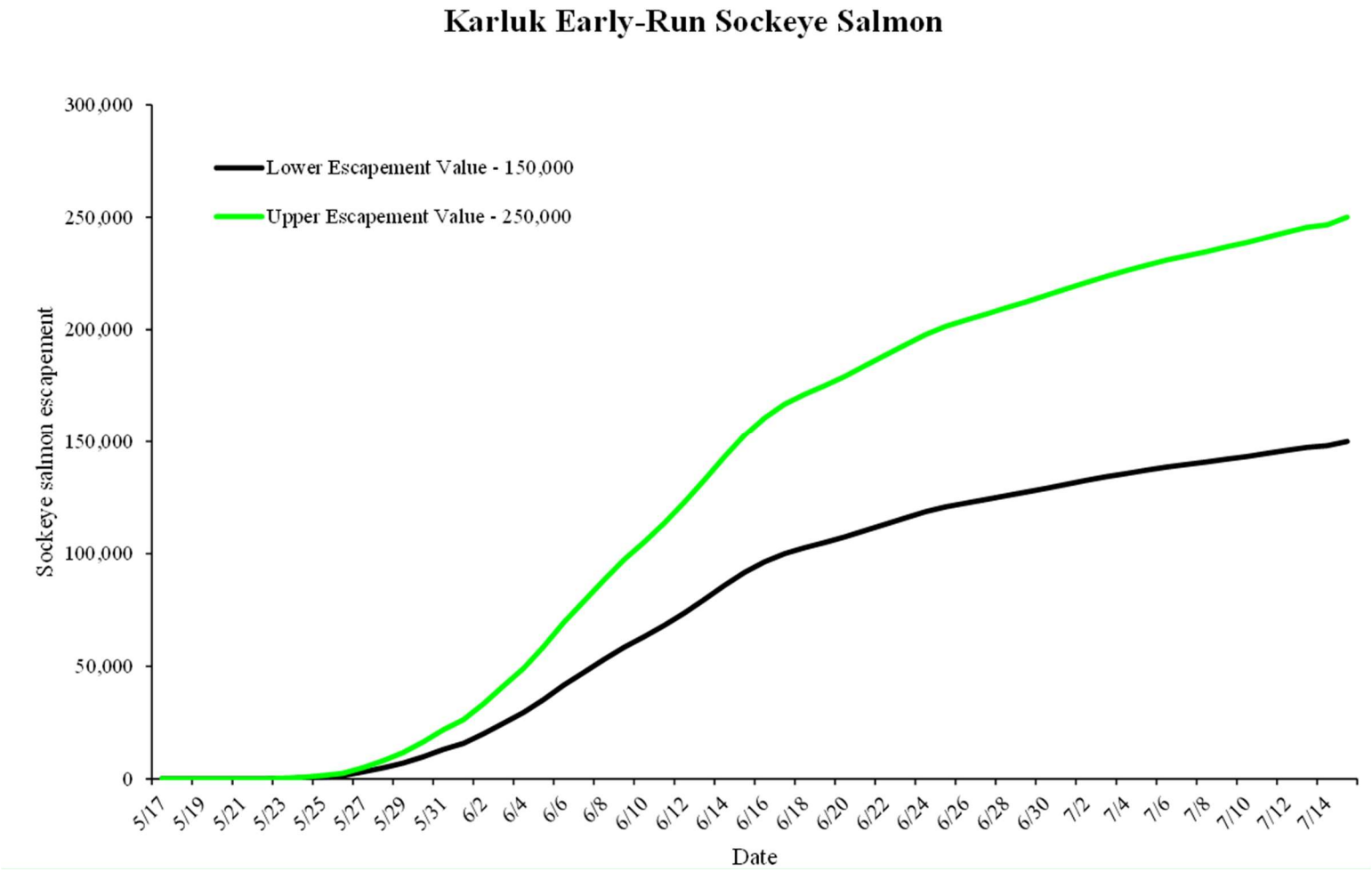
APPENDIX A. CHARTS OF AVERAGE RUN TIMING RELATIVE TO CURRENT ESCAPEMENT GOALS FOR SELECT STREAMS AND SPECIES

Appendix A1.–Average run timing relative to lower and upper escapement goals for Chinook salmon into the Karluk system.



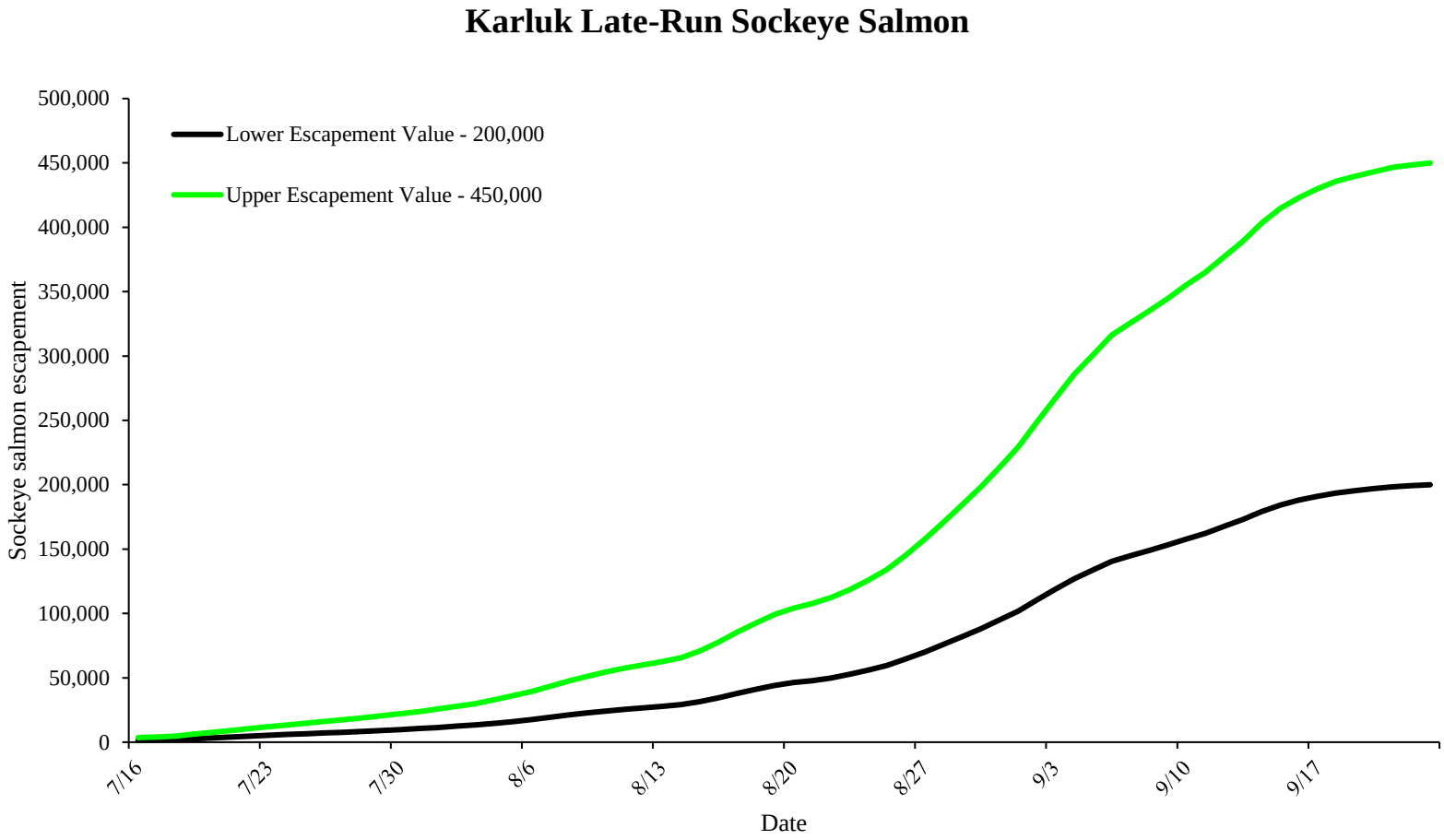
Note: This chart does not represent interim escapement goals.

Appendix A2.–Average run timing relative to lower and upper escapement goals for early-run sockeye salmon into the Karluk system.



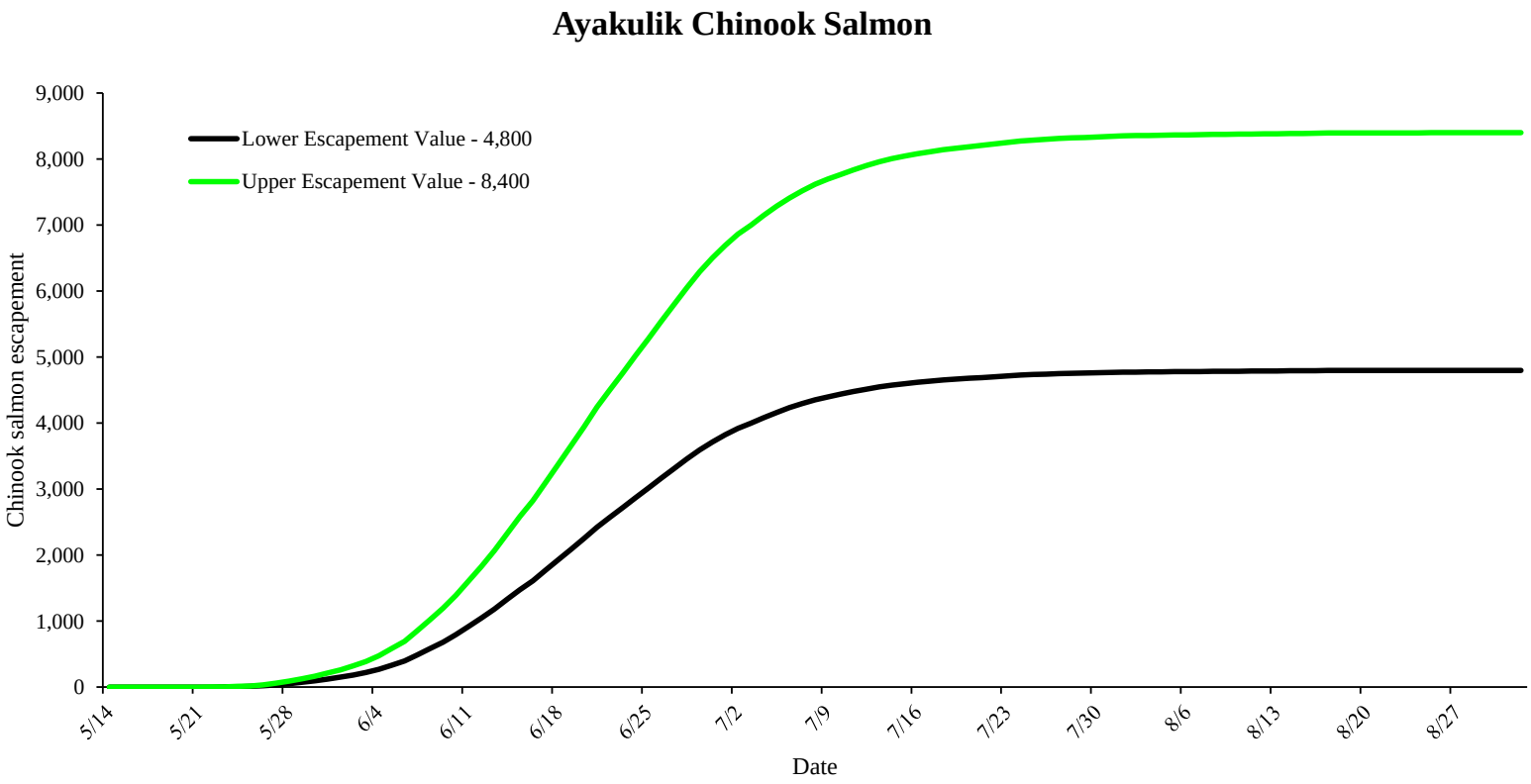
Note: This chart does not represent interim escapement goals.

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



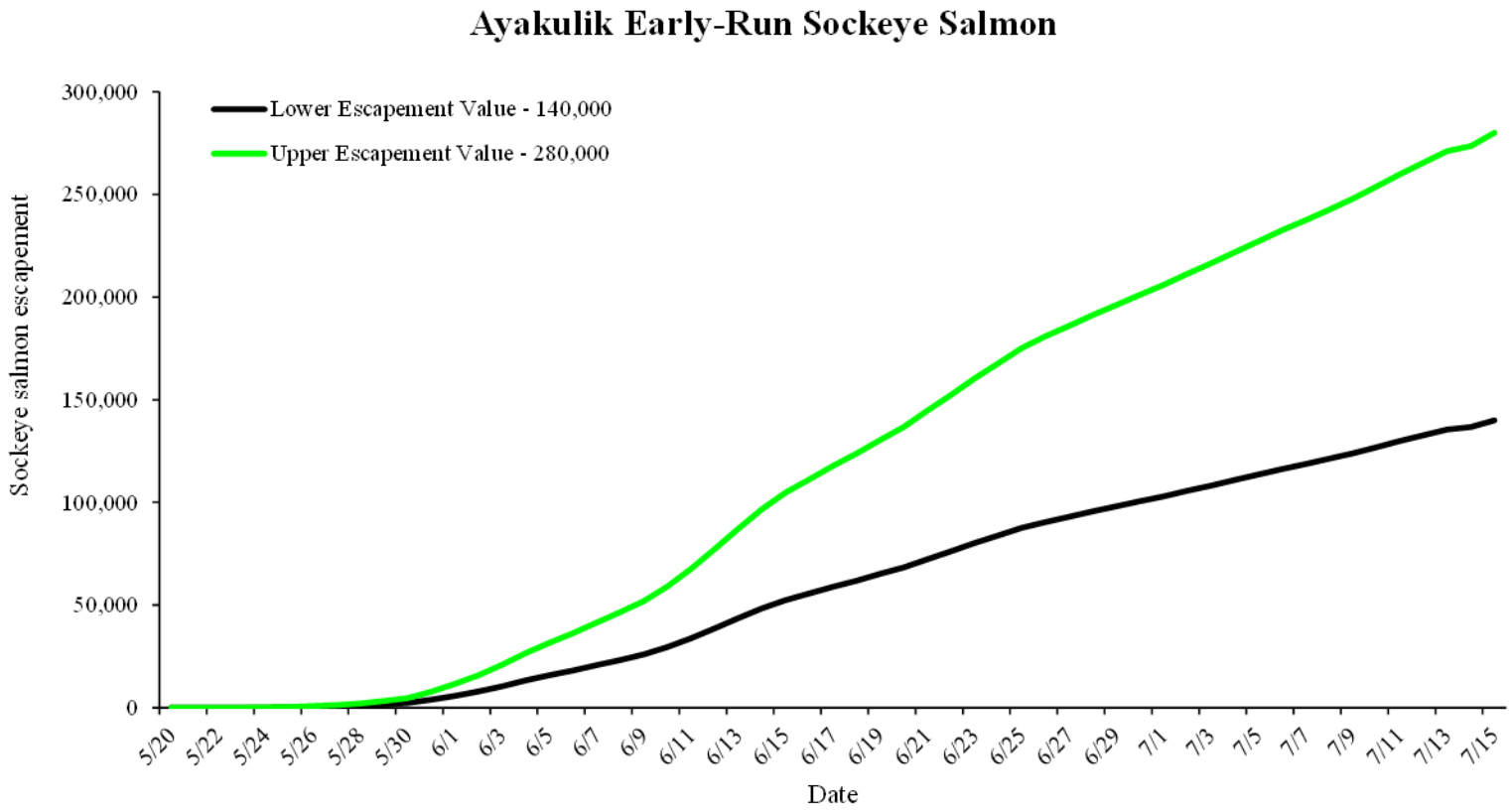
Note: This chart does not represent interim escapement goals.

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



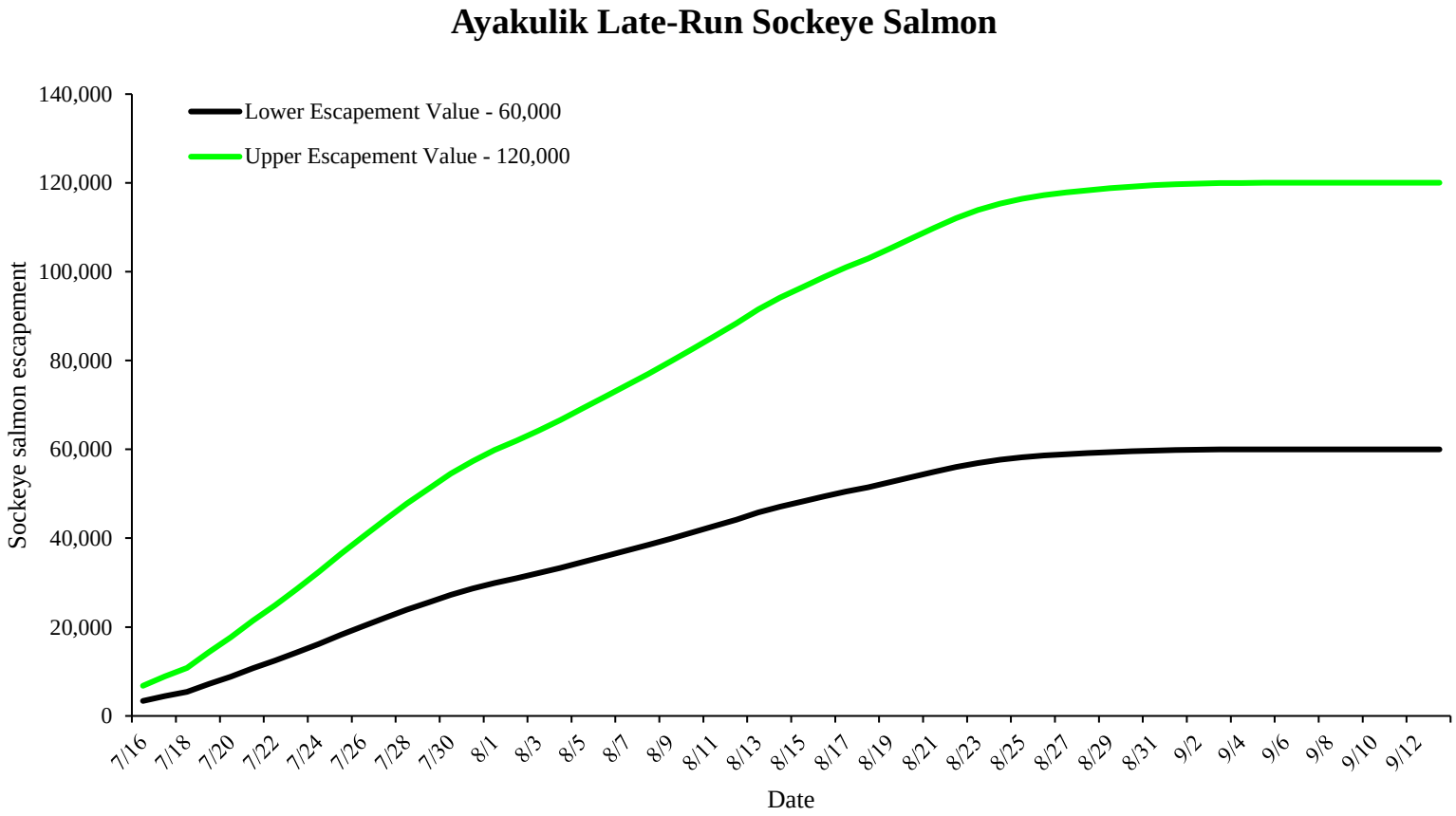
Note: This chart does not represent interim escapement goals.

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



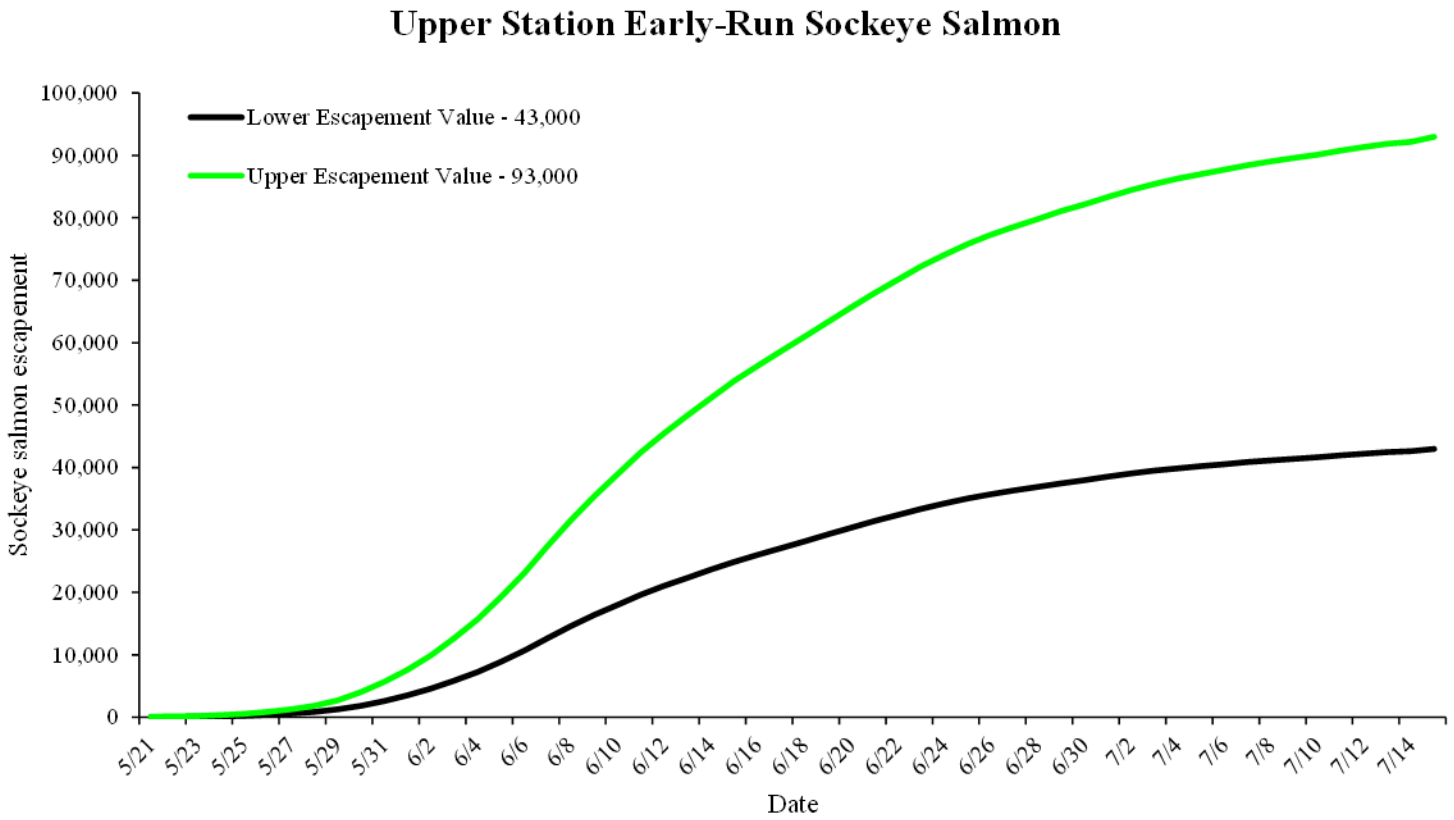
Note: This chart does not represent interim escapement goals.

Appendix A6.–Average run timing relative to lower and upper escapement goals for late-run sockeye salmon into the Ayakulik system.



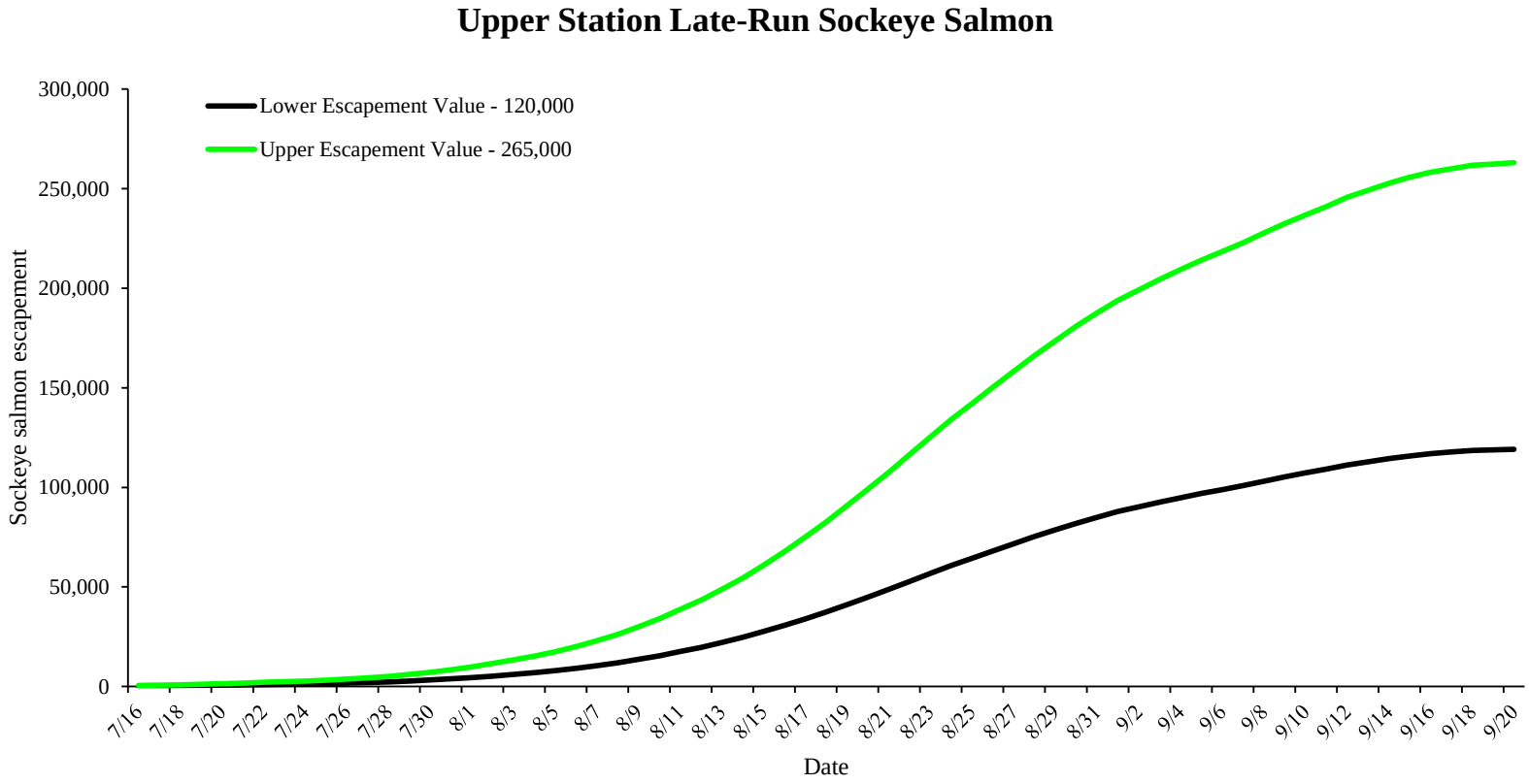
Note: This chart does not represent interim escapement goals.

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



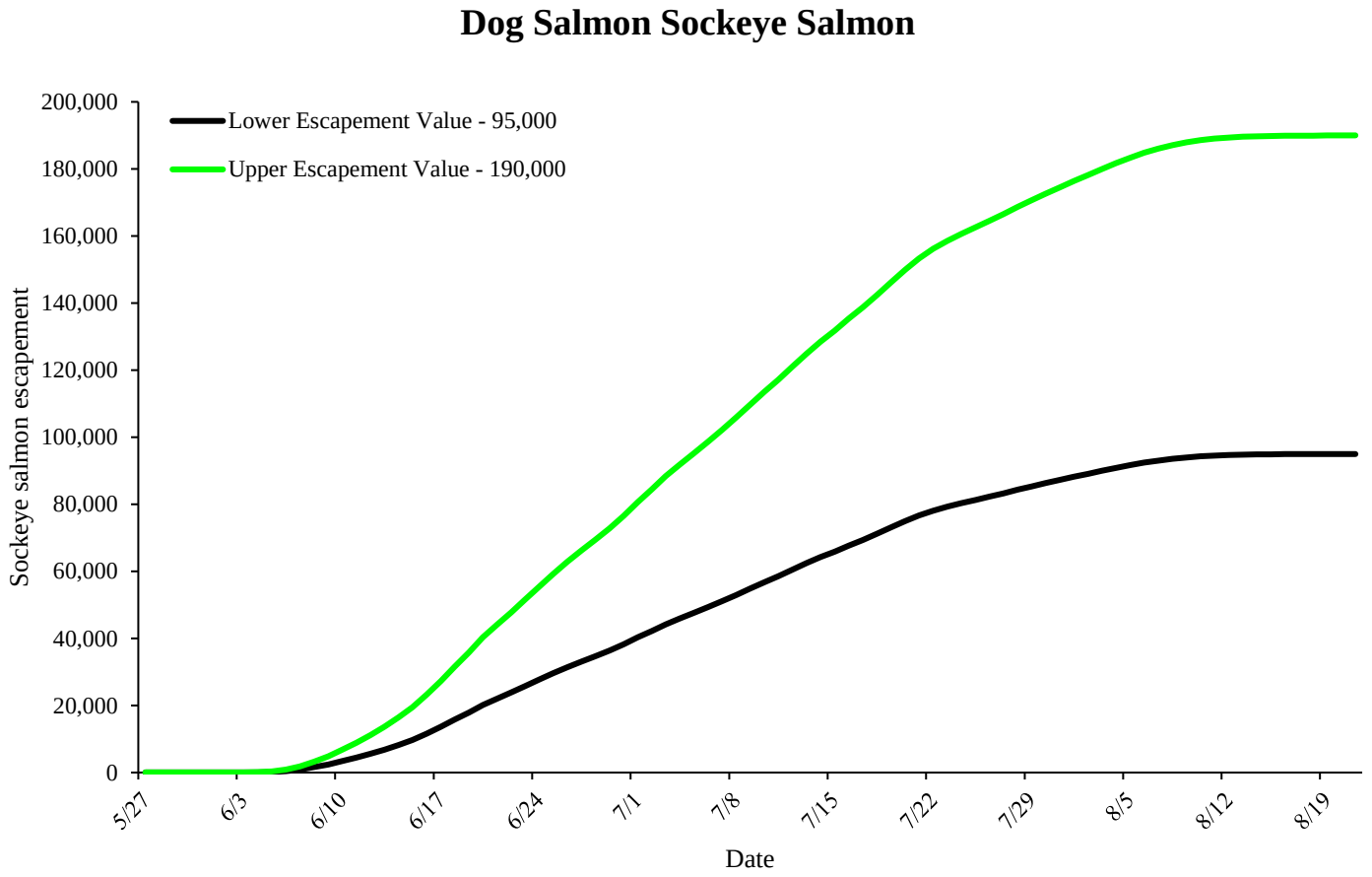
Note: This chart does not represent interim escapement goals.

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



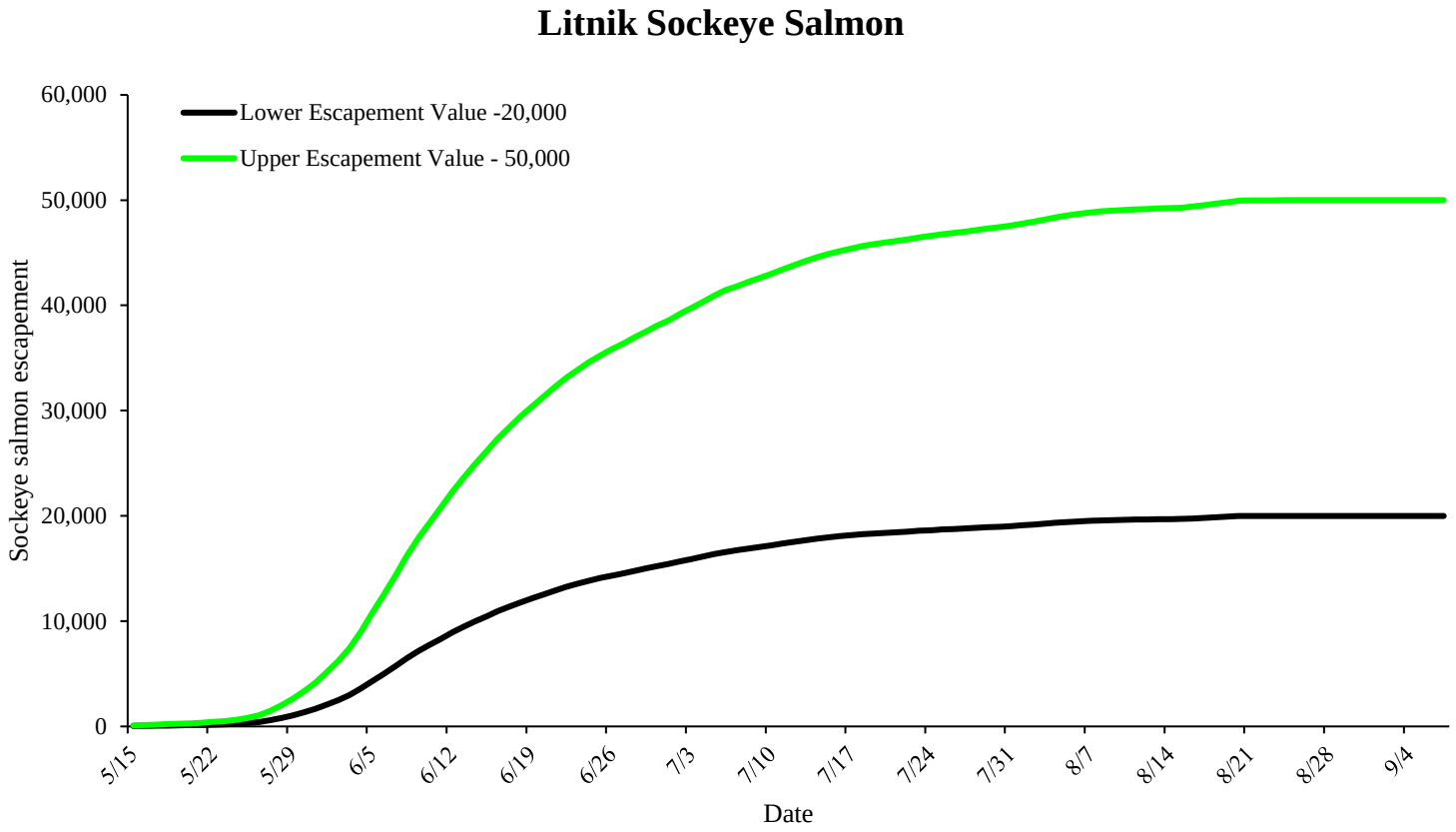
Note: This chart does not represent interim escapement goals.

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.



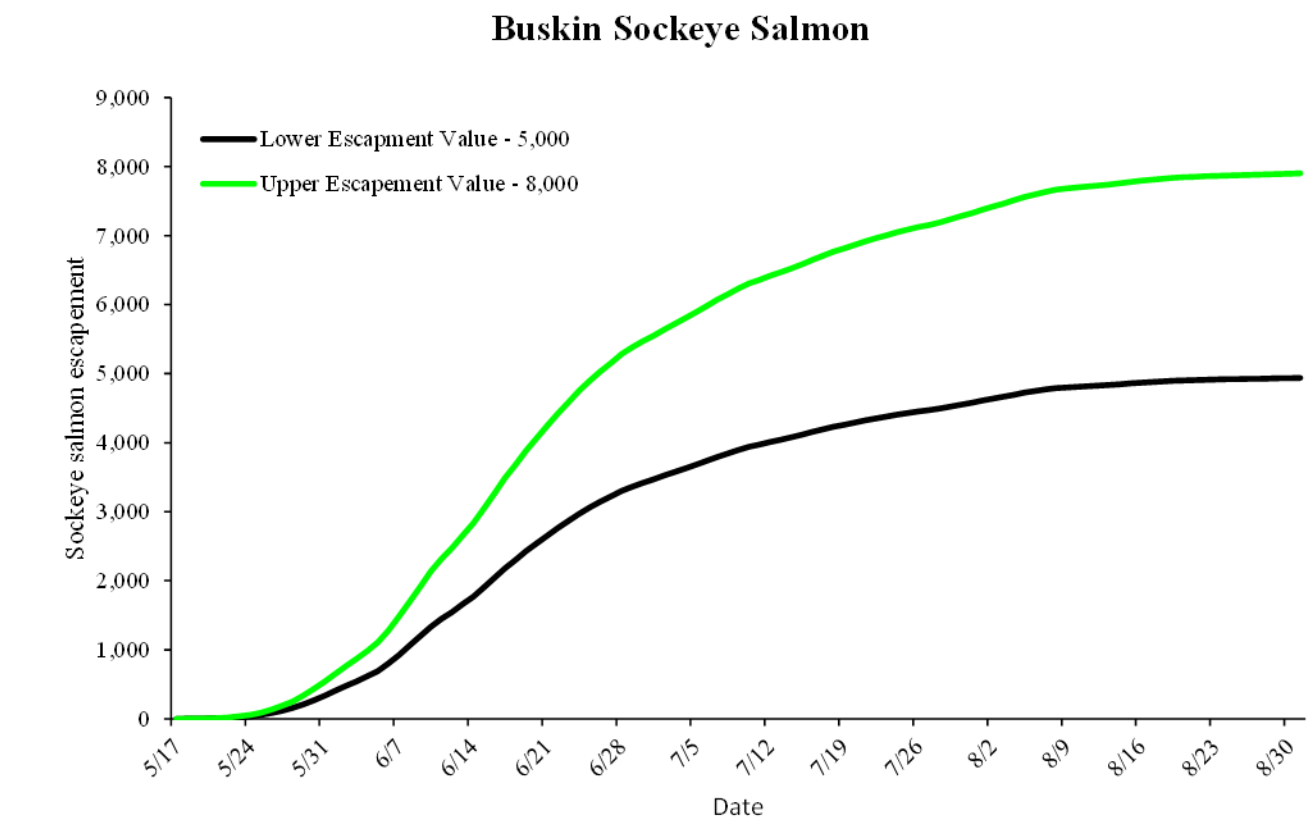
Note: This chart does not represent interim escapement goals.

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



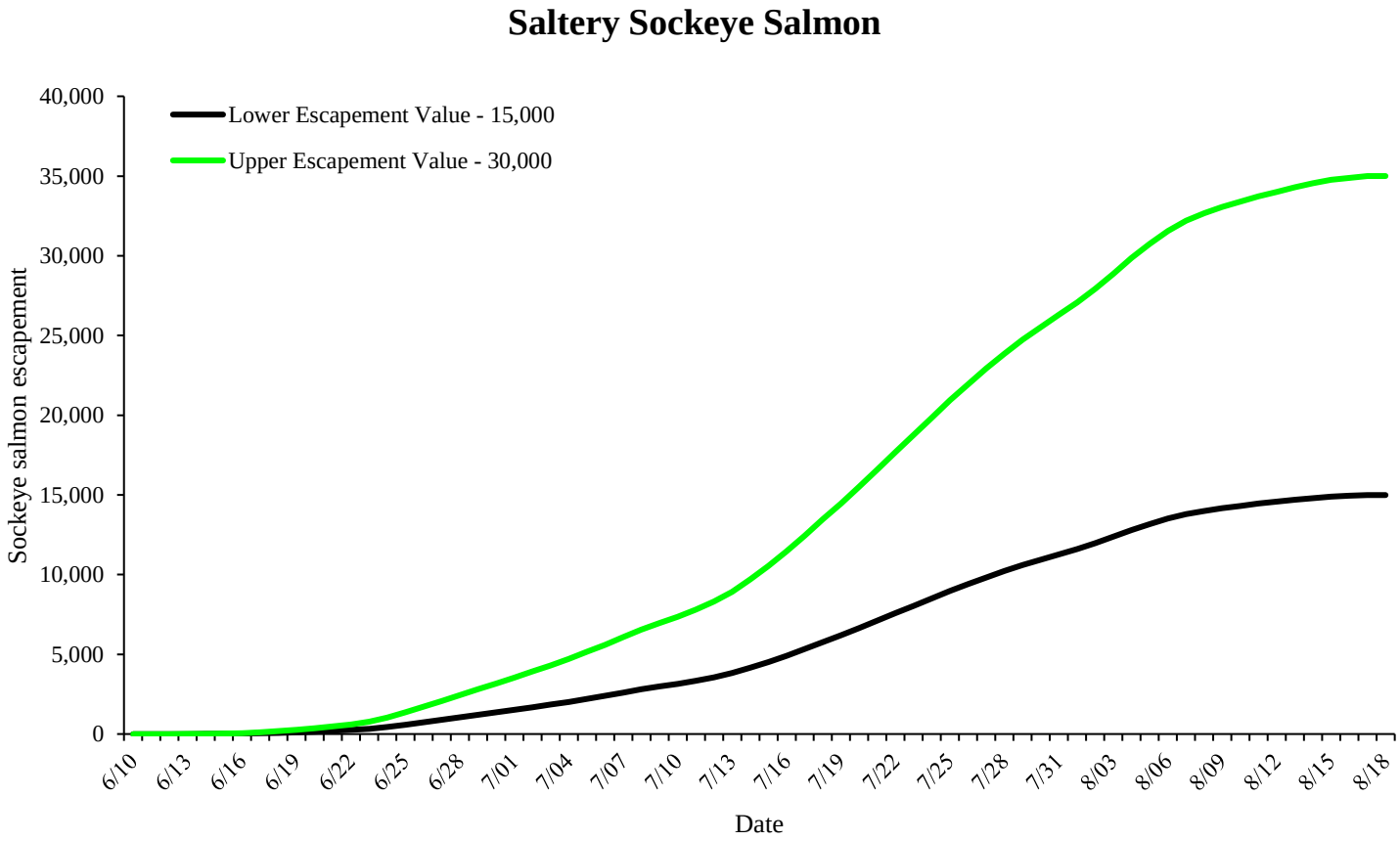
Note: This chart does not represent interim escapement goals.

Appendix A11.–Average run timing relative to lower and upper escapement goals for sockeye salmon into the Buskin system.



Note: This chart does not represent interim escapement goals.

Appendix A12.–Average run timing relative to lower and upper escapement goals for sockeye salmon into the Saltery system.



Note: This chart does not represent interim escapement goals.

APPENDIX B. SALMON MANAGEMENT BASIS

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

The Westside Kodiak Salmon Management Basis								
		June		July	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, based on early-run sockeye salmon returning to the Karluk system.	July 6 through August 15, based on pink salmon returning to the major systems in the Southwest Afognak Section and the Northwest Kodiak District.	August 16 through August 24, based on pink salmon returning to both the SW Afognak Section and NW Kodiak District and 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.	September 5 through the end of the season, based on coho salmon returning to the Southwest Afognak Section.	
Northwest Kodiak 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 Karluk system.	July 6 through August 15, based on pink salmon returning to the major systems in the Northwest Kodiak District oroink salmon returning to the Karluk system.	August 16 through August 24, based on pink salmon returning to the Northwest Kodiak District and 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 late run sockeye salmon returning to the Karluk system and coho salmon returning to the Northwest Kodiak District.	
	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, based on local sockeye and early-run chum salmon returning to the major systems in each section.	July 6 through July 31, based on local sockeye, pink, and early-run chum salmon returning to the major systems in each section.	August 1 through August 24, based on local pink and late-run chum salmon returning to the major systems 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.	

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Southwest Kodiak District	**Inner and Outer Karluk sections**	June 1 through July 15, based on Karluk early-run sockeye, however fishing periods in the Inner Karluk Section may open only if the department determines that the midpoint early-run escapement goal range will be exceeded. From June 16 through July 15, the Outer Karluk Section shall open at the same time as fishing periods in the Central Section.		July 16 through August 24 in even years, based on late-run sockeye and pink 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.
	Sturgeon 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 August 24 in even years, based on late-run sockeye andpink 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.
	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 and pink salmon returning to the Ayakulik system.	August 1 through August 24 in even years, based on late-run sockeye returning to the Karluk system and pink salmon returning to the Ayakulik 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	June 1 through July 15, based on early-run sockeye salmon returning to the Ayakulik system.		July 16 through August 24 in even years, based on late-run sockeye and pink salmon returning to the Ayakulik system.		After August 25, based on coho salmon returning to the Ayakulik system.	

Appendix B2.–The Alitak fishery salmon management basis.

The Alitak Salmon Management Basis						
		June	July		August	September
The Alitak District	**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.	July 16 through August 9, in odd years, based on either sockeye or pink salmon returning to the Frazer system.	August 10 through August 25, in odd years, based on the sockeye salmon returning to Upper Station.	From August 26 through the end of the season, based on the coho and sockeye salmon returns to all Olga 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.	July 16 through August 9, in odd years, based on either sockeye or pink salmon returning to the Frazer system.	August 10 through August 25 in odd years, based on the sockeye salmon returning to Upper Station.	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 equal fishing time with the Cape Alitak Section.	After July 15, based on the strength of salmon returns to systems located within the Humpy-Deadman Section.			
	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 salmon returns to Dog Salmon and Horse Marine systems.	
		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.				
	Inner and Outer Akalura sections	June 1 through August 20, based on sockeye salmon returns to the Akalura system.			August 21 through August 26, based on 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.				After August 26, based on coho and late sockeye salmon returns to the Upper Station system.
		The Inner and Outer Upper Station sections 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.				

Appendix B3.–Eastside Kodiak fishery salmon management basis.

Eastside Kodiak Salmon Management Basis									
		June			July		August		September
Northeast Kodiak 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.
	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.	July 16 through August 24, based on the abundance of local pink 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	**Inner Ugak Section**	June 1 through June 13, closed.	June 14-June 21, based on the abundance of local and mixed sockeye salmon. There may not be more than two 33-hr fishing periods.	June 22 through July 5, based on sockeye salmon bound to Saltery Lake.	July 6 through July 31, based on the abundance of local pink, chum, and Saltery Lake sockeye salmon.		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.
	Outer Ugak Section	June 1 through June 13, closed.	June 14-June 21, based on the abundance of local and mixed sockeye salmon.	June 22 through July 5, based on sockeye salmon bound to Pasagshak River.	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 late-run chum and coho salmon.
	Seven Rivers, Two-Headed, and Sitkalidak sections	June 1 through June 13, closed.	June 14 through July 5, based on the abundance of local and mixed Kodiak sockeye salmon. There may not be more that two 33-hr fishing 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 B4.–Eastside Afognak fishery management basis.

Eastside Afognak Salmon Management Basis					
		June	July	August	September
Afognak District	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.
	Duck Bay Section	June 1 through July 18, based on early chum or sockeye salmon returns to Kitoi Bay hatchery	July 19 through August 24, based on returning mixed wild and hatchery pink salmon.		After August 24, based on local coho salmon runs.
	Izhut Bay Section	June 1 through July 26, based on early chum or sockeye salmon returning to Kitoi Bay hatchery.		July 27 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 sockeye salmon returning to Kitoi Bay hatchery. From June 18 through July 26, fishing opportunities will not occur in the Inner Kitoi Bay Section until chum or sockeye salmon brodstock requirements for the hatchery are assured.		July 27 through August 24, based on pink salmon brood stock requirements. Fishing time may only occur 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 time may be restricted in order to meet cost recovery goals for hatchery-bound chum, sockeye, pink, or coho salmon.			

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

North Afognak/Shuyak Salmon Management Basis					
		June	**July**	**August**	**September**
Afognak District	**Northeast Afognak Section**	June 1 through July 5, closed.	July 6 through August 24, based the abundace of local and mixed pink salmon.	August 25 through September 5, based on local pink and coho salmon.	After September 5, based on the abundance of local coho 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 5, based on the abundance of local pink and coho salmon.	After September 5, based on the abundance of local coho salmon.
	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 on the abundance of Pauls Bay coho salmon.	
	Northwest Afognak Section	June 1 through July 5, base on sockeye salmon 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 Foul Bay Special Harvest Area.	July 6 through August 24, based the abundance of local and mixed pink salmon.	After August 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 on the abundance of local coho salmon.	

Appendix B6.–Mainland District fishery management basis.

Mainland District Salmon Management Basis					
		June	July	August	September
Mainland District	Big River Section	June 1 through July 5, based on sockeye salmon returning 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 chum salmon.		After August 20, based on the return of coho salmon to streams located within the Big River Section.
			July 6 through August 1, weekly fishing periods may not exceed 57 hours.		
	Hallo Bay Section	June 1 through July 5, closed.	July 6 through August 20, based on local and mixed pink and chum salmon.		After August 20, based on the return of coho salmon to streams located within the Hallo Bay Section.
			July 6 through August 1, weekly fishing periods may not exceed 57 hours.		
	Outer Kukak Bay Section	June 1 through July 5, based on sockeye salmon returning to Kaflia Lakes. There may not be more than two 33-hr fishing periods.	July 6 through August 15, based on the return of local and mixed sockeye, pink, and chum salmon.	After August 15, based on late-run chum and coho salmon to streams located in Outer Kukak Section.	
			July 6 through August 1, weekly fishing periods may not exceed 57 hours.		
	Inner Kukak Bay Section	June 1 through July 5, closed.	July 6 through August 15, based on the return of local and mixed sockeye, pink, and chum salmon.	After August 15, based on late-run chum and coho salmon to streams located in Inner Kukak Section.	
			July 6 throughAugust 1, weekly fishing periods may not exceed 57 hours.		
	Dakavak Bay Section	June 1 through July 5, closed.	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 Dakavak Bay Section.
			July 6 through August 1, weekly fishing periods may not exceed 57 hours.		
	Katmai and Alinchak Bay sections	June 1 through July 5, closed.	July 6 through August 25, based on local and mixed pink and chum salmon.		After August 25, based on local late-run pink and coho salmon returning to streams in the Katmai and Alinchak Bay sections.
			July 6 through August 1, weekly fining periods may not exceed 57 hours.		
	Wide Bay Section	June 1 through July 5, closed.	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 the Cape Igvak and Wide Bay sections.
	Cape Igvak Section	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 will manage the fishery so that the number of sockeye salmon taken in the Cape Igvak Section will approach as near as possible 7.5 percent of the total Chignik sockeye salmon catch.	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 the Cape Igvak and Wide Bay sections.
			July 6 through August 1, weekly fishing periods may not exceed 57 hours.		