

KODIAK MANAGEMENT AREA
HARVEST STRATEGY
FOR THE 2002
COMMERCIAL SALMON FISHERY

By

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ABSTRACT

Management of the commercial salmon fisheries in the Kodiak Management Area (KMA) will promote maximum production opportunities for future KMA salmon returns by achieving salmon escapement goals. In addition, management will attempt to provide for orderly fisheries while maximizing harvest opportunities on the highest quality salmon, and will adhere to the biological and allocative requirements of the ten (10) Management Plans adopted by the Alaska Board of Fisheries (BOF) for the KMA. Management follows a general chronology based on the run timing of the four targeted salmon species: sockeye *Oncorhynchus nerka*, pink *O. gorbuscha*, chum *O. keta*, and coho *O. kisutch* salmon.

Preseason forecasts for 2002 call for a projected harvest of approximately 2,202,000 sockeye, 11,000,000 pink, 778,000 chum and 367,000 coho salmon. Additionally, about 20,000 chinook salmon *O. tshawytscha* could be harvested incidentally in fisheries targeting other species. Fishing periods are established by emergency order (EO). The initial sockeye "commercial test-fisheries" are scheduled for June 9 and 14, and beginning July 6 weekly fishing periods targeting pink salmon will be 3 ½ days per week.

INTRODUCTION

The Alaska Department of Fish and Game (ADF&G) Division of Commercial Fisheries will manage the 2002 Kodiak Management Area (KMA) commercial salmon fisheries (Appendices A.1 to A.7) according to a harvest strategy that emphasizes three criteria:

- (1) **Promote maximum production opportunities 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.**

Salmon run timing within the KMA follows a general chronology, by species (Figure 1). Commercial fisheries management is based on the run timing of the four targeted salmon species: sockeye *Oncorhynchus nerka*, pink *O. gorbuscha*, chum *O. keta*, and coho *O. kisutch* salmon. Early-run sockeye salmon are targeted from June through mid-July, and late-run sockeye salmon from mid-July through September. Pink and chum salmon are available from July through August. Coho salmon are generally present from August through October. Commercial salmon fisheries are structured around the seasonal abundance of salmon. The management chronology can be used as a guide; inseason adjustment in fishing time and areas open to fishing are dictated by escapement requirements for the targeted salmon species.

Salmon counting weirs are an essential component of the escapement-based management program that the ADF&G has implemented for regulating the KMA commercial salmon harvest. Salmon escapement weirs are operated annually on up to 15 river systems.

Management of major sockeye salmon runs utilizes daily escapement information from salmon counting weirs. This escapement information is used to regulate fishing time and areas open to fishing. Establishing fishing time for sockeye salmon based solely on preseason harvest forecasts is not an acceptable method of managing KMA's wild sockeye salmon stocks. Management of smaller sockeye salmon runs also utilizes escapement information from salmon counting weirs when available and/or other indications of run strength, such as aerial or foot surveys.

In contrast to sockeye management, the initial fishing periods for pink salmon are set preseason and are dependent on the magnitude of the forecasted pink salmon harvest. This has been a major factor in contributing to the successful management program for KMA's relatively large pink salmon runs, and can occur without unduly jeopardizing escapement requirements. Adjustments in fishing time and areas open to fishing occur as the actual run strength becomes apparent, through assessment of escapement (aerial and skiff surveys, and weir counts) and harvest rates.

Chum and coho salmon management requires a blend of these two approaches. Both species are initially harvested in directed pink or sockeye salmon fisheries. Terminal or near-terminal fisheries

targeting chum or coho salmon require an assessment of actual run strength, using escapement counts from weirs or aerial surveys and current harvest information.

Specific fisheries are not directed toward chinook salmon *O. tshawytscha*. Minor harvests of chinook salmon occur during fisheries that are directed toward sockeye and/or pink salmon.

HARVEST PROJECTIONS

Based on preseason harvest projections, a total of approximately 20,000 chinook, 2,202,000 sockeye, 11,000,000 pink, 778,000 chum, and 367,000 coho salmon should be available for harvesting throughout the KMA in 2002 (Table 1).

Of this total, the Kodiak Regional Aquaculture Association (KRAA) has forecast the harvest of salmon returning to the Kitoi Bay Hatchery as approximately 8,000 sockeye, 5,000,000 pink, 78,000 chum, and 127,000 coho salmon. Additional enhanced salmon production, from projects conducted by KRAA and ADF&G, should contribute about 303,000 sockeye salmon to the common property fisheries (Table 2).

Projected harvest graphs illustrate the timing and magnitude of salmon harvests (Appendix B.1 - B.5.). A curve can be calculated, based on the historic cumulative average salmon catch by date, and scaled to the current preseason harvest projection. By keeping track of the actual salmon harvest by date and plotting this on the graphs, a comparison of expected and actual harvests can be made.

FISHING PERIODS

All fishing periods will be established by Emergency Order (EO). The approximate initial opening dates for 2002 fisheries are listed in Table 3.

Timing and Length of Initial Fishing Periods

Sockeye Salmon

By regulation, the KMA commercial salmon fishery may begin as early as June 5. In practice, the initial fishing period, targeting sockeye and early chum salmon does not occur prior to June 9. In early June, sockeye runs are just beginning and escapements are not yet indicative of run strength. Extended commercial fisheries in early June on migrating mixed stocks of sockeye salmon could jeopardize achievement of escapement requirements. The initial June 9 fishing period is considered a commercial test-fishery, used to help gauge the strength of the sockeye salmon runs. This opening date has been used in the KMA since the mid 1980s, and is a key component of early-run sockeye salmon management.

The timing of initial commercial fisheries in the **Cape Igvak Section** (Appendix A.7) depends on evaluation of the Chignik system sockeye salmon run strength. From June 5 through July 25, Chignik sockeye salmon are considered to be the principal stock harvested in the Cape Igvak Section. Fishing periods, when they occur, in the Cape Igvak Section will usually be in 24-hour increments, beginning at 12:01 AM. 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 initial fishing period in the **Inner and Outer Ayakulik Sections** (Appendix A.4) of the Southwest Kodiak District is solely dependent on Ayakulik (Red River) weir sockeye salmon escapements. Directed commercial fisheries within the **Inner and Outer Karluk Sections** (Appendix A.4) are solely dependent on Karluk River weir sockeye salmon escapements, and are only expected to occur if it appears that the Karluk sockeye salmon upper escapement goal will be exceeded.

June 9 Commercial Fisheries. Commercial salmon fishing will begin at NOON Sunday, June 9, in the following areas:

- **Alitak Bay District** (Appendix A.5)
- **Northwest Kodiak District** (except for the Inner Uganik and Kizhuyak Bay Sections; Appendix A.3)

For these districts, this will be a **33-hour fishing period** only, from 12:00 NOON Sunday, June 9 through 9:00 PM Monday, June 10. **There will be no extensions.** The commercial catch from this period will be used to assess the strength of the sockeye runs to the Karluk, Frazer (Dog Salmon), and Upper Station systems. The **Inner Uganik Bay and Kizhuyak Bay Sections** of the Northwest Kodiak District **will remain closed** to afford additional protection to local sockeye salmon systems.

- **Foul Bay Terminal Harvest Area** (Figure 2)
- **Waterfall Bay Terminal Harvest Areas** (Figure 3)
- **Duck Bay, Izhut Bay, Inner and Outer Kitoi Bay Sections** (Appendix A.2)

These fisheries will be open continuously, beginning at 12:00 NOON Sunday, June 9, and will run **24 hours per day**, for as long as there are harvestable surpluses and orderly fisheries are occurring. Commercial fisheries in these management units target enhanced sockeye and chum salmon production. Fisheries on enhanced sockeye runs to Foul and Waterfall Bays may extend through early July. The fishery for the Kitoi Bay Hatchery early sockeye and chum salmon runs may extend through late June, depending on chum salmon broodstock requirements.

Commercial fisheries in the following management units may also occur as early as June 9, if escapements are meeting or exceeding the desired levels:

- **Malina Creek Terminal Harvest Area** (Figure 4) For the Malina Lakes system, a terminal harvest area has been designated, comprising all marine waters within one-half nautical mile of the beach, near the terminus of Malina Creek, between 58° 10.00' N lat. and 58° 11.00' N lat.

June 14 Commercial Fisheries. Commercial salmon fishing will begin at NOON Friday, June 14, in the following management units:

- **Northwest Kodiak District** (except for the Inner Uganik and Kizhuyak Bay Sections; Appendix A.3) In these two management units, a second 33-hour commercial test fishery will occur from 12:00 NOON Friday, June 14 through 9:00 PM Saturday, June 15. **Extensions of fishing time are possible**, if escapements are meeting or exceeding the desired levels at Karluk and local early-run sockeye and chum systems.
- **Southwest Afognak Section** (Appendix A.2)
- **Eastside Kodiak District** (Appendix A.6) This fishing period for select **minor sockeye salmon systems** will also be 33 hours long, from 12:00 NOON Friday, June 14 through 9:00 PM Saturday, June 15, with no extensions possible. Early sockeye runs to Saltery, Ocean Beach, Thorsheim, Long Lagoon, Swikshak, and Kafliia Creeks are targeted.
- **Northwest Afognak Section** (Appendix A.2)
- **Big River and Outer Kukak Bay Sections** (Appendix A.7)

Commercial fisheries in the following management units may also occur on June 14, if escapements are meeting or exceeding the desired levels:

- **Alitak Bay District** (Appendix A.5) The second fishing period in the Alitak Bay District (Appendix A.5) will not occur prior to June 14. Fishing time on or after June 14 will depend on the salmon buildups and escapements through weirs at Dog Salmon (Frazer) and Upper Station, the results of the June 9 commercial test fishery, and the sockeye catch level from the ADF&G Chip Cove test fish research project.

- **Inner Uganik Bay Section** (Appendix A.3)
- **Southeast Afognak Section** (Appendix A.2)
- **Perenosa and Pauls Bay Sections** (Appendix A.2)

Commercial salmon fishing may begin in these sections on June 14, again dependent on salmon buildups and escapements. This initial fishing period targets early-run sockeye bound for the Uganik, Litnik (Afognak), Pauls, and Perenosa systems.

Additional fishing time from mid-June to early-July will be based entirely on sockeye salmon run strength for major and minor systems, dependent on weir escapements, salmon buildups, and fishery performance. A second 33-hour fishing period for minor sockeye systems, such as Uganik, Litnik (Afognak), Pauls, Portage, Thorsheim, Long Lagoon, Saltery, Ocean Beach, Swikshak, and/or Kafliia Creeks, will occur on Friday, June 21, dependent on salmon buildups and escapements.

The initial commercial salmon fishing period in the **Spiridon Bay Terminal Harvest Area** (Figure 5), targeting enhanced sockeye salmon returning to **Telrod Cove**, is not expected to occur prior to **June 25**. The actual starting date will depend on the salmon buildups and ADF&G's ability to monitor the commercial fisheries.

For most late-run sockeye salmon stocks, a portion of the harvestable surplus is taken during fishing periods for pink salmon. Consequently, a blended management strategy is needed to ensure escapements are achieved by species. Commercial fisheries targeting Upper Station late-run sockeye may begin July 16, and fisheries targeting Karluk late-run sockeye may begin August 16.

Pink Salmon

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

- 1) A fixed opening date of July 6th ;
- 2) A pink salmon forecasting program to set the length of the initial fishing periods; and
- 3) Coordination of multiple fisheries whenever possible, to disperse the purse seine fleet.

The initial fishing periods will be 81 hours in length, except for Mainland District fisheries. From July 6 to July 25, fishing time for that portion of the Mainland District north of Cape Aklek will not exceed 57 hours per week (this does not include the Cape Igvak or Wide Bay Sections, which are managed in accordance with a separate management plan). During the peak harvest period, from late-July to mid-August, fishing periods may be adjusted to match the actual strength of the run. Below is a schedule of pink salmon fishing periods for the 2002 season, and is provided for planning purposes for industry and ADF&G, especially for the first three fishing periods.

Changes to this schedule should be expected if the actual overall pink salmon run is weaker than forecast.

First Period. 81 hours - 12:00 NOON July 6 through 9:00 PM July 9. Harvests during this period provide important data to help assess early run strength of KMA pink and chum salmon stocks.

There will be no extensions in fishing time during this period. *In the Mainland District north of Cape Aklek this period will only be 57 hours, from 12:00 NOON July 6 through 9:00 PM July 8.*

Second Period. 81 hours - 12:00 NOON July 14 through 9:00 PM July 17. During the second period run strength for both pink and chum salmon will again be assessed from harvest data. No extensions in fishing time will occur during this period. *In the Mainland District north of Cape Aklek this period will only be 57 hours, from 12:00 NOON July 14 through 9:00 PM July 16.*

Third Period. 81 hours - 12:00 NOON July 22 through 9:00 PM July 25. The previous 4½-day closure will likely allow an influx of pink and chum salmon into terminal areas, resulting in the build-up of potential escapement. At this time, a combination of harvest and early escapement or build-up information should provide an indication of the actual run strength for major pink salmon stocks. No extensions in fishing time will occur during this period. *In the Mainland District north of Cape Aklek this period will only be 57 hours, from 12:00 NOON July 22 through 9:00 PM July 24.*

Fourth Period. 81 hours - 12:00 NOON July 29 through 9:00 PM August 1. The fourth period is critical, since the harvests should increase. A fairly realistic assessment of total run strength should be evident by the end of the period. If the pink salmon run is strong, extensions in fishing time could occur. The initial pink salmon opening for the Kitoi Bay Section may occur at the beginning of this fishing period.

Fifth Period. 81 hours - 12:00 NOON August 5 through 9:00 PM August 8. This fifth period should yield the peak harvest day and period, provided that normal run timing occurs. The first significant announcement of differential fishing time by management unit may occur as stronger production areas are targeted, while moderate or lower production areas are provided additional protection.

Sixth Period. 78 hours - 12:00 NOON August 12 through 6:00 PM August 15. This period should be the first post-peak period. The strength of the return to major late-production systems should become evident. There may be increases in closed water sanctuaries to enhance escapement levels. Evaluation of run strength is used to determine if reductions in fishing time are needed for the remaining periods to ensure adequate escapement.

Seventh Period. 78 hours - 12:00 NOON August 19 through 6:00 PM August 22. During this period, a blended, multi-species management approach is used for those sections where pink salmon were the targeted species for the previous six periods. Emphasis will still be on achieving escapement goals and harvesting excess, good quality pink salmon. However, major concern will be directed toward the run strength of late-run Karluk and Upper Station sockeye and late chum salmon.

Eighth Period. 78 hours - 12:00 NOON August 26 through 6:00 PM August 29. This period is primarily utilized as a cleanup period for late pink salmon stocks. Escapement requirements should be assured at this point. Excess pink salmon of acceptable quality should be available for harvest in near terminal areas. This period also will require a major emphasis on multi-species management. It is a critical management period for late-run sockeye and chum salmon stocks, as well as the early portion of the coho salmon return.

Chum Salmon

With the exception of chum salmon returning to the Kitoi Bay Hatchery, a major portion of the 2002 chum harvest will occur in non-terminal locations during directed sockeye and pink fisheries. The initial opening that chum salmon may be targeted will begin on July 6, and will follow the opening dates and times set for pink salmon. System-specific chum salmon fisheries, which occur during the pink salmon fishery, will commonly result in some management units having less fishing time than those targeting primarily pink salmon stocks. Again, from July 6 to July 25, fishing time for that portion of the Mainland District north of Cape Aklek will not exceed 57 hours per week. Additional fishing time after July 25 for that portion of the Mainland District north of Dakavak Bay will be dependent on aerial assessment of those chum salmon runs.

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 less fishing time than those primarily targeting pink salmon stocks. This system-specific coho management may utilize more terminally located management units for targeted coho fisheries (such as the Zachar Bay Section, the Kizhuyak Bay Section, etc.). Coho salmon run strength will be assessed from weir escapements, aerial surveys, and harvest data. The enhanced coho salmon runs to the Kitoi Bay Hatchery have been successful over the past several years, and are projected to be good again this season. Additional fishing time in the vicinity of the hatchery should be expected in late August and early September once pink salmon broodstock requirements are assured. After September 10, coho salmon fishing may be allowed in the Settler Cove Terminal Harvest Area (Figure 6) if at least 500 coho salmon are available for harvest.

Opening Times

All regular fishing periods will begin at 12:00 NOON and end at 9:00 PM, except:

- **Cape Igvak fisheries will open at 12:01 AM and close at 12:01 AM from June 5 through July 25.**
- **Inner Ayakulik Section fisheries usually begin near low tide. These will be daylight openings, and will be initiated by ADF&G personnel with a flare launch. Fishing will begin when ADF&G personnel, located on the bluff northeast of the Ayakulik River mouth, launch a flare. When such openings occur, the opening time for the Outer Ayakulik Section may be adjusted to coincide with the Inner Ayakulik Section.**
- **Inner Kitoi Bay Section fisheries will usually begin between 12:00 NOON and 12:30 PM, when a flare will be launched by hatchery staff from a skiff within inner Kitoi Bay.**

Beginning on August 16, all fishing periods will end at 6:00 PM instead of 9:00 PM.

Advance Notice

- For any opening of the **Cape Igvak fishery**, there will be at least **24 hours** advance notice.
- For the **June 9 and June 14 sockeye fisheries**, including fisheries in the Alitak Bay, Afognak, Eastside Kodiak, and Northwest Kodiak Districts, there will be at least **42 hours** advance notice.
- All subsequent fishing periods will have at least **18 hours** advance notice.
- For **all extensions** of a previously announced fishing period, there will be at least **3 hours** advance notice.
- For any openings in the **Inner and Outer Akalura, Inner and Outer Upper Station, and the Dog Salmon Flats Sections**, there will be at least **24 hours** advance notice.

Inperiod Closures

From July 6 through July 25 there are limits on the number of sockeye salmon that may be harvested in areas bordering the North Shelikof Strait. **Purse seine permit holders operating in the North Shelikof Strait from July 6 to 25, are advised that inperiod closures of designated Seaward Zones are very likely to occur** (Figure 7), in accordance with the North Shelikof Strait Sockeye Salmon Management Plan, 5AAC 18.363. Seaward Zone closures have occurred every year since the plan was put in effect, except in 1991 and 2000.

Seaward Zone closures will be announced on SSB frequency 4.125 MHz. Initial announcement times will be 8:30 AM, 10:00 AM, 2:00 PM, or 5:00 PM. The actual time of the closure will be at least **3 hours** after the initial announcement.

INSEASON EMERGENCY ORDER (EO) ANNOUNCEMENTS

The KMA salmon fisheries are managed using data compiled and evaluated daily. Data used to make fishery decisions include: (1) escapement levels from weir counts and/or aerial surveys, (2) harvest trends (total catch and fishery performance), and (3) information on fish buildups near spawning streams.

After enough information has been collected to determine the fishing time needed to harvest surplus fish, an EO and a fishery announcement are issued in the following manner:

- 1) A News Release is issued, which details:
 - 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)
- 2) The News Release is posted at the main entrance of the Kodiak ADF&G office at 211 Mission Road. Copies of the News Release are available outside by the main entrance, and in the Kodiak ADF&G office during regular office hours (Monday through Friday, 8:00 AM to 5:00 PM).
 - 3) The News Release (fishery announcement) is recorded on a 24-hour recorded message phone (Number **486-4559**).
 - 4) The News Release is made available to local radio stations (KVOK-AM / KRXX-FM and KMXT-FM).
 - 5) The Kodiak ADF&G management staff monitors single side band (SSB) radio channel **4.125 MHz, (call sign WHM 29)**, and SSB channel **3.230 MHz, (call sign WON 32)**, during regular office hours, and will reply to inquiries about the latest fishery announcement.
 - 6) The News Release is distributed to all registered processors by fax, email, telephone, hand delivery, or through the ADF&G recorded message phone.
 - 7) Copies of Emergency Orders, which detail specific regulation changes and justifications, are mailed to a current listing of required and interested recipients.

ADF&G Kodiak management staff contact telephone numbers:

Kevin Brennan – 486-1808 (office)

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Fishery announcements 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 broadcast.

REGULATIONS

Regulations and Statistical Charts

At their January 2002 meeting, the Alaska Board of Fisheries (BOF) made several changes to the Kodiak Area commercial salmon fishery regulations. Subsequently, several changes were also made to the Kodiak Area Salmon Statistical Chart. Copies of the Kodiak Area commercial salmon fishery regulations and the new statistical area chart are available at the Kodiak ADF&G Office. A synopsis of the regulation changes are listed below. All regulations pertaining to KMA salmon fisheries will soon be available in a new 2002-2004 Cook Inlet, Kodiak, and Chignik Areas Commercial Fishing

Regulations Booklet. Please note: All longitude and latitude coordinates in Kodiak Area regulations have been converted to decimal minutes and are based on the North American Datum of 1983.

Regulation Changes for 2002

Gillnet Specifications. The BOF clarified the definition of gillnet leads allowable in the KMA salmon fishery. Previously, there was no clear definition of the size or type of web allowed in a gillnet lead. The definition of a legal gillnet lead now specifies that either seine webbing with a mesh size of 3.75 inches or less, or polypropylene webbing of 3 millimeters or greater diameter (no mesh size restriction), may be used. See 5 AAC 18.331.

Cape Igvak. The method used to calculate the number of Chignik-bound sockeye salmon caught in the Cape Igvak Section was changed. The BOF specified that 90% of all sockeye salmon caught in the Cape Igvak Section between June 5 and July 25 are to be considered Chignik-bound (previously 80% were considered Chignik-bound). See 5 AAC 18.360.

Alitak Bay. The BOF revised the regulations in an attempt to achieve specific allocation objectives for the sockeye salmon harvest of four distinct groups: Cape Alitak seiners and gillnet fishers in Alitak Bay, Moser Bay, and Olga Bay. The gillnet-only Moser-Olga Bay Section was split into three separate sections; Alitak Bay, Moser Bay, and Olga Bay. Each section was given a discrete statistical area number (Appendix A.5). Commercial fisheries in the Cape Alitak Section and the new Alitak Bay, Moser Bay, and Olga Bay Sections will begin at different times, to provide more fishing time for the Olga Bay fishers. See 5 AAC 18.200, 5 AAC 18.330, 5 AAC 18.331, and 5 AAC 18.361.

Malina Creek. The Malina lakes system (stream #251-105) has been the site of salmon rehabilitation efforts and, for the past two years, directed fisheries have been required here in order to harvest surplus sockeye salmon. A Terminal Harvest Area (THA) was defined at the mouth of Malina Creek (all waters within 1/2 nautical mile of the beach between 58° 10.00' N lat. and 58° 11.00' N lat.; Figure 4). Also, modifications were made to the Westside Kodiak Management Plan to allow additional fishing time within the new Malina THA. See 5 AAC 18.362 and 5 AAC 18.378.

East Afognak. The former Kitoi Bay Section was divided (at the jaws) into two sections, the Inner Kitoi Bay and Outer Kitoi Bay Sections, and closed waters near the hatchery were redefined (Figure 8). This change will simplify fishery announcements. The inseason management of the areas around the Kitoi Bay hatchery is not expected to change. See 5 AAC 18.200 and 5 AAC 18.365.

Pauls Bay. A new section line was drawn to create a separate Pauls Bay Section (east of 152° 21.67' W long.; Figure 9). Modifications were made to the management plan to allow directed coho salmon commercial fisheries within the new Pauls Bay Section beginning on August 1 (formerly August 21). A larger closed water sanctuary was also defined. If coho salmon escapements are in excess of interim goals, the closed water markers may only be moved from the normal 1/2 mile line to those waters east of a line from 58° 23.70' N lat., 152° 20.80' W long. to 58° 23.29' N lat., 152° 21.09' W long. See 5 AAC 18.200 and 5 AAC 18.368.

Terminal Harvest Areas

Terminal Harvest Areas (THAs) are used to concentrate fishing effort in a very specific location, to harvest a particular salmon run (Figures 2 - 6). THAs are usually associated with rehabilitated or enhanced salmon runs. They are used to maximize harvest opportunities on specific salmon runs while minimizing the harvest of other salmon stocks. There are usually substantial reductions in normally closed waters that are located within the terminal harvest area boundaries. There are many times during the season when a district or section containing a THA is open to fishing without the THA being specifically open to fishing by EO. When a district or section is open by EO without specifically mentioning the THA, all waters of the THA except for the normally closed waters are also open to fishing.

Closed Waters

All freshwater streams and rivers of the KMA are closed to commercial salmon fishing. Additionally, adjacent to streams and rivers, all saltwater within 500 yards of the seaward extremities of the exposed tideland banks is closed to commercial salmon fishing, unless:

- 1) Alternatives are specifically listed in the regulation book (see 5 AAC 18.350. CLOSED WATERS.); or
- 2) The stream number is circled on the most recent version of the Kodiak Area Salmon Statistical Chart, issued annually by ADF&G (for these circled streams, commercial salmon fishing is allowed to the stream terminus, by emergency order); or
- 3) Specifically reduced or increased inseason by emergency order at a particular stream or bay (announced by News Release); or
- 4) "Closed Waters" markers are in place. The intent is to maintain a 500 yard closed water area off the stream terminus, at all stages of the tide, unless the area is made larger or smaller by regulation or emergency order (for example, the closed water area at the mouth of the Pasagshak River is 1000 yards, by regulation). If closed waters markers are in place, the closure line may be a straight line or may be an arc, as follows:
 - a) The closure line is a straight line between two regulatory markers if specifically stated in regulation or emergency order, or if, at all stages of the tide, the markers are farther than 500 yards from the seaward extremities of the exposed tideland banks of the salmon streams located inside the markers.
 - b) The closed waters line will be an arc if necessary to maintain the 500 yard distance from the seaward extremities of the exposed tideland banks of the salmon stream at any stage of the tide. Then, waters closed to salmon fishing will be a line arcing from the markers to a point 500 yards directly off the seaward extremities of the exposed tideland banks that designates the stream mouth. The actual shape of the closed water area will change as the tide ebbs and floods.

There will be no inseason adjustments of markers unless ADF&G personnel are available to remove the normal markers, install new markers, and subsequently reinstall the normal markers.

Closed Water Adjustments

Adjustments to closed waters listed in 5 AAC 18.350 may be made by emergency order, and announced by News Release. There will be at least **18 hours** advance notice prior to adjusting closed waters.

In the **Pauls Bay Section** (Figure 9), after August 1 if interim escapement goals are being exceeded, closed waters may be reduced only to a line from 58° 23.70' N lat., 152° 20.80' W long. to 58° 23.29' N lat., 152° 21.09' W long.

Additional Closed Water Sanctuaries

In addition to the closed water areas listed in the regulation 5 AAC 18.350, the following two closed water sanctuaries will also be in effect for the 2002 season:

Buskin River Closed Water Sanctuary

The stream mouth of the Buskin River (stream #259-211) moves considerably from year to year. The north shore marker has been placed further up the beach and an offshore point has been designated to aid in triangulation of the closed water area. The offshore point is at the reef directly east of the spit, and may be marked with a buoy (Figure 10). This closed waters area is in effect for subsistence and commercial fisheries. The location of the closed waters will be described in the first salmon EO, as follows:

5 AAC 18.350 CLOSED WATERS (a)(6) Northeast Kodiak District

(E) Buskin River: all waters inside of a line running from a marker on the bluff north of the mouth of the Buskin River at approximately 57° 45.80' N lat., 152° 28.38' W long. to a point offshore at 57° 45.35' N lat., 152° 28.15' W long., to a marker located onshore south of the river mouth at approximately 57° 45.15' N lat., 152° 28.65' W long.

Ayakulik River Closed Water Sanctuary

ADF&G regulatory markers will be placed in such a manner as to better define the stream terminus of the Ayakulik River (Figure 11). Two markers shall be placed on each side of the river mouth. The closed water area can be triangulated by aligning the front marker with the back marker on each side. The intent of this closed water sanctuary is to prevent seines from being set to completely block access to the river for migrating fish.

Waste of Salmon

Waste of salmon will not be tolerated and may result in fishing period closures (see Alaska Statute 16.05.831).

Purse Seine Leads

The minimum mesh size that can be used in purse seine leads is seven (7) inches. A double panel of web overlapped in the lead of a purse seine is **not** legal.

Set Gillnets - Operation of Gear

Seine webbing used as a lead for set gillnets is not intended to gill salmon. Set gillnet leads that have similar mesh size and web construction to the actual set gillnet gear are **not** legal. In January 2002 the BOF passed a new regulation, defining gillnet leads for the Kodiak Area: **seine webbing no greater than 3.75 inch mesh size, or polypropylene webbing 3 millimeters or greater in diameter, may be used on the shoreward end of a set gillnet (5 AAC 18.331 (b)).**

Set gillnets must be operated in substantially a straight line, except that no more than **25 fathoms of a set gillnet may be used as a hook**. A hook may be used in any configuration. When a set gillnet is being operated primarily as a hook it will be considered **illegal to actively operate that gillnet as a purse or beach seine ('round hauling')**.

FISH TICKETS / HARVEST REPORTS

Processors / Tenders

Management of the KMA commercial salmon fishery requires timely, accurate harvest reporting. **Processors and buyers are required to accurately report catches DAILY to ADF&G (5 AAC 39.130 (a)(3)).**

Catch reports must include the estimated number of salmon harvested by 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. Processors should obtain correct, up to date information from tender operators prior to providing daily reports to ADF&G. Without good information, a more conservative harvest strategy will be adopted, and less fishing time will be allowed.

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

Statistical area numbers are used to record harvest location(s) on fish tickets. Be sure that the location of the catch, **not** 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 harvest levels,

stock contribution, and effort distribution. In order to provide maximum allowable fishing time, especially in areas such as the Cape Igvak Section and the north Shelikof Strait, it is imperative that the correct statistical areas and numbers of fish be reported on the fish ticket at the time of delivery.

Personal Use of Salmon

Personal use of salmon caught in commercial gear during open commercial fishing periods is legal. However, the number of fish harvested and kept for personal use must be reported on a fish ticket. At the time of next 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.

Seiners

Seiners must 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."* Do not record the location of the tender as the harvest location.

Prior to signing your tickets, make sure that the proper harvest information by STATISTICAL AREA has been entered.

Gillnetters

Because of the fixed nature of gillnet gear, each permit holder's reporting area (statistical area) is usually consistent between landings. In the event that you move a gillnet into a new statistical area, make sure the tender operator is provided with that information.

Prior to signing your tickets, make sure that the proper harvest information by STATISTICAL AREA has been entered.

MANAGEMENT PLANS

There are 10 management plans, approved by the BOF, that direct management activities for specific portions of the KMA (Table 4). Every section within the KMA is covered by a season-long regulatory management plan. Proper implementation of these plans requires a major effort in communication between ADF&G and industry personnel.

Cape Igvak

By regulation, fishing time in the Cape Igvak Section of the Mainland District can begin as early as June 5. From June 5 through July 25, Chignik sockeye salmon are considered by regulation to be the

principal stock harvested in the Cape Igvak Section. The opening time and date of the initial fishing period will depend on preliminary evaluations of the actual Chignik system sockeye salmon run strength.

The Cape Igvak Management Plan covers the time period from June 5 through July 25, for salmon fishing in the Cape Igvak Section (Table 5). This plan has been in effect since 1978 and allocates, as near as possible, 15% of the available Chignik sockeye salmon to Kodiak permit holders if specific biological and allocative harvest criteria are met in the Chignik Management Area. There are distinct early and late components to the Chignik sockeye runs. From June 26 through July 8, since the strength of the second run is not known, commercial fishing in the Cape Igvak Section is severely restricted or disallowed.

The 2002 forecast for Chignik sockeye salmon is for **below average** runs. The Black Lake early-run forecast calls for a harvestable surplus of 630,000 sockeye salmon and the Chignik Lake late-run forecast calls for a harvestable surplus of 840,000 sockeye salmon. If these forecasts prove accurate, only 105,000 early-run (pre-June 25) and 105,000 late-run (post-July 8) sockeye salmon are expected to be harvested in Cape Igvak fisheries, which is less than the actual harvest in 2001. Fishing time after July 25 in the Cape Igvak Section will be based on pink, chum, and coho salmon bound to spawning streams in the Cape Igvak and Wide Bay Sections.

There will be at least 24 hours advance notice prior to any opening of the Cape Igvak fishery. Through July 25, Cape Igvak fisheries will open and close at 12:01 AM (24-hour increments). The 12:01 AM closure time allows for more orderly fisheries due to the possibility of relatively short notice given for extensions of fishing periods.

The Cape Igvak Salmon Management Plan appears in the Commercial Salmon Fishing Regulation Book under 5 AAC 18.360.

Alitak Bay District

The Alitak Bay District Salmon Management Plan covers the entire commercial salmon fishing season, and identifies the primary species by management unit throughout the season (Table 6). The management chronology for the Alitak Bay District identifies the targeted stocks by approximate time period. The plan affects the sockeye salmon stocks returning to the Frazer (Dog Salmon), Upper Station, and Akalura systems, and the pink, chum, and coho salmon stocks returning to Dog Salmon, Upper Station, Akalura, Horse Marine, Silver Salmon, Portage, Sulua, Humpy Cove, Deadman, and other local systems. In situations where two or more targeted stocks overlap in run timing a blended management approach will occur. Fishing time will be regulated in an attempt to ensure that the upper escapement goals are not exceeded for the dominant stock(s), while at least the lower escapement goals for the non-dominant stock(s) are achieved.

This management plan has been in effect since 1988 and was most recently revised by the BOF in 2002. Allocation objectives were determined for Cape Alitak Section seine fishers, and for gillnet fishers in Olga Bay, Moser Bay and Alitak Bay. To accomplish these objectives, the BOF divided the former Moser-Olga Bay Section into three separate sections; Olga Bay, Moser Bay, and Alitak Bay. Each was given a distinct statistical area number. The initial commercial fishing period will be

a 33-hour, commercial test fishery beginning at NOON, June 9, for the entire district. However, through September 15, all subsequent commercial fisheries in the Cape Alitak Section and the new Alitak Bay, Moser Bay, and Olga Bay Sections will begin at different times, as follows:

- (1) In the Olga Bay Section, fishing periods shall open at 6:00 AM.
- (2) In the Moser Bay Section, fishing periods shall open at 6:00 PM of the same day as the fishery opening in the Olga Bay Section.
- (3) In the Alitak Bay Section, fishing periods shall open at 6:00 AM of the day following the fishery opening in the Olga Bay and Moser Bay Sections.
- (4) In the Cape Alitak Section, fishing periods shall open on a rotating basis as follows:
 - (a) The first fishing period shall open concurrently with the opening of the first fishing period in the Alitak Bay Section.
 - (b) The second fishing period shall open concurrently with the opening of the second fishing period in the Moser Bay Section.
 - (c) The third fishing period shall open concurrently with the opening of the third fishing period in the Olga Bay Section.
 - (d) Subsequent fishing periods in the Cape Alitak Section will open on a rotating basis, in the same order and at the same time of day as specified in (a) – (c).

Through July 15, fisheries in the Humpy-Deadman Section will occur concurrently with the Cape Alitak Section. After July 15, fisheries in the Humpy-Deadman Section may occur independent of fisheries in other sections.

ADF&G will attempt to manage the Alitak Bay District salmon stocks to contain the harvest to these 'traditional' sections, minimizing the need for terminal area mop-up fisheries in normally closed waters.

Through July 15, in the Cape Alitak, Humpy-Deadman, Alitak Bay, Moser Bay, and Olga Bay Sections, there must be a minimum closure of 63 consecutive hours (2.6 days) in every 10-day period, unless the sockeye salmon escapement goals have been achieved for the Frazer and early Upper Station sockeye runs.

The 2002 forecast calls for a harvestable surplus of 325,000 early (pre-July 15) Frazer and 64,000 early-run Upper Station sockeye salmon. Combined, this forecast is **below average**, but is slightly more than the actual pre-July 15 harvest last year.

The initial fishing period will be a 33-hour commercial test fishery from 12:00 NOON June 9 to 9:00 PM June 10. Additional fishing time will depend on the results of the June 9 commercial test fishery, salmon buildups and escapements through weirs at Dog Salmon (Frazer) and Upper Station, and the sockeye catch level from the ADF&G Chip Cove test fish research project. Additional fishing time will not occur prior to June 14.

The lower end of the biological escapement goal range for Frazer sockeye salmon (140,000) will be targeted. This equates to an estimated early goal of 120,000 sockeye by July 15. In recent years, the

actual end-of-season sockeye escapements into Frazer Lake have averaged over 200,000 fish. Limnology data indicates declining salmon forage (zooplankton) in Frazer Lake, perhaps from over-grazing. There will be at least 24 hours advance notice prior to any openings in the normally closed waters of the Dog Salmon Flats Section.

The Alitak Bay District fishery will be managed so that early-run sockeye salmon escapement into Upper Station will meet or exceed the Optimal Escapement Goal (OEG) of 25,000 fish. No fisheries will occur in the normally closed Inner Upper Station or Outer Upper Station Sections unless the upper end of the Sustainable Escapement Goal (SEG) range (75,000) is likely to be exceeded.

From July 16 through September 15, there will be a minimum closure of 63 consecutive hours (2.6 days) in every 10-day period in the Cape Alitak, Alitak Bay, Moser Bay, and Olga Bay Sections.

The 2002 late-run sockeye forecasts call for harvestable surplus of 57,000 late Frazer and 202,000 late-run Upper Station sockeye salmon. If realized, this harvest would be **below average**, but above the 2001 harvest.

Pink salmon runs to Alitak streams are mainly odd-year dominant. Parent-year escapements (2000) were below average, though within the established goals. A **below average** pink salmon harvest of approximately 600,000 fish is predicted.

The Alitak Bay District Salmon Management Plan appears in the Commercial Salmon Fishing Regulation Book under 5AAC 18.361. The dates listed in this plan are approximate and may vary with changes in run timing.

Westside Kodiak

The BOF adopted the Westside Kodiak Management Plan into regulation in 1989. This plan specifies a management chronology for the major salmon stocks of the Northwest Kodiak and Southwest Kodiak Districts (Table 7). The goal of this management plan is to achieve escapement and harvest objectives of sockeye salmon returning to the Karluk, Ayakulik, and minor Westside systems. Further, it details the management of pink, chum, and coho salmon returning to systems in the Southwest Afognak, Central, North Cape, Anton Larsen Bay, Sheratin Bay, Kizhuyak Bay, Terror Bay, Inner Uganik Bay, Spiridon Bay, Zachar Bay, Uyak Bay, Outer and Inner Karluk, Sturgeon Bay, Halibut Bay, and Outer and Inner Ayakulik Sections.

The intent of the plan is to ensure that escapement goals for salmon bound to these systems are achieved and surplus fish are harvested, to the extent possible, by the 'traditional' fisheries located in all 17 sections. The plan directs ADF&G to manage the Northwest Kodiak and Southwest Kodiak Districts and the Southwest Afognak Section in accordance with the guidelines set out in this plan. This plan reflects long-term management goals and practices, initially implemented in 1971. The basis for these goals and practices primarily was to rebuild depressed Karluk and Ayakulik sockeye salmon stocks. This plan provides a predictable management framework for these rebuilt stocks, as well as major pink, chum, and coho salmon stocks of westside Kodiak Island and

southwest Afognak Island. It also helps to stabilize fishing opportunities between the three gear types on the highest quality fish in these districts and sections.

The 2002 forecast for Karluk predicts a harvest of approximately 273,000 early-run Karluk sockeye salmon. This is **below average**, and below the 2001 early-run harvest. The initial fishing period in the Northwest Kodiak District will be a 33-hour commercial test fishery, from NOON June 9 to 9:00 PM June 10. Another test fishery will begin at NOON June 14, with extensions possible if sockeye escapement through the Karluk weir is meeting or exceeding interim goals. Over the past 10 years, strong early runs of Karluk sockeye have allowed near continuous fishing along the westside from mid-June to early July. If the forecast is realized, there will likely be intermittent closures of westside fisheries to allow for adequate escapement. Sockeye salmon returning to Karluk Lake will be managed so that an escapement of 200,000 sockeye is attained for the early run.

The 2002 forecast for Ayakulik calls for a harvestable surplus of approximately 255,000 early (pre-July 15) sockeye salmon; this is also **below average**. The initial fishing period in the Inner and Outer Ayakulik Sections of the Southwest Kodiak District is dependent on Ayakulik (Red River) weir sockeye salmon escapements. Inner Ayakulik Section fisheries will usually begin near low tide. These will be daylight openings, and will be initiated by ADF&G with a flare launch. Fishing will begin when ADF&G personnel, located on the bluff northeast of the Ayakulik River mouth, launch a flare. When such openings occur, the opening time for the Outer Ayakulik Section may be adjusted to coincide with the Inner Ayakulik Section. Sockeye returning to the Ayakulik system will be managed so that an escapement of 200,000 sockeye salmon is attained by July 15.

The 2002 forecast for Ayakulik calls for a harvestable surplus of approximately 49,000 late (post-July 15) sockeye salmon. If realized, this harvest would be **below average**. An escapement of approximately 100,000 late sockeye salmon is desired.

The 2002 forecast for Karluk predicts a harvest of approximately 235,000 late-run Karluk sockeye salmon. Again, this level of late-run harvest is **well below average**. Commercial fisheries in the Northwest Kodiak District will be managed to achieve a late-run Karluk escapement of 400,000 sockeye salmon.

The Ayakulik and Karluk Rivers are even-year dominant pink salmon systems. For the Northwest and Southwest Kodiak Districts, the parent-year escapements were, overall, near average and within established district-wide goals. However, escapement to the Ayakulik River were very weak. The 2002 forecast calls for a westside harvest of approximately 4,000,000 pink salmon, **below average** for recent even-year harvests.

The Westside Kodiak Management Plan appears in the Commercial Salmon Fishing Regulation Book under 5 AAC 18.362.

North Shelikof Strait Sockeye Salmon

In December 1989 the BOF created the North Shelikof Strait Sockeye Salmon Management Plan. There was concern that recent fisheries in the north Shelikof Strait, from Dakavak Bay to Cape Douglas in the Mainland District and from Raspberry Cape to Shuyak Island in the Afognak District

(Figure 7), represented the expansion of a fishery targeting Cook Inlet bound sockeye salmon. This plan attempts to contain the harvest of Cook Inlet bound sockeye salmon by restricting purse seine fishing opportunities along the capes and in offshore waters. When specific harvest levels are met, fisheries are closed in outside “Seaward Zones”, but may continue inshore to provide for traditional opportunities to harvest high quality local pink and chum salmon stocks (Table 8).

The plan is in effect from **July 6 through July 25**. Two specific management units are defined, with separate sockeye harvest caps that, if achieved, trigger closure of the adjacent Seaward Zone. These management units are:

1. **The Southwest Afognak Unit**, encompassing the entire Southwest Afognak Section;
2. **The North Shelikof Unit**, comprised of the Dakavak Bay, Outer Kukak Bay, Hallo Bay, and Big River Sections of the Mainland District, plus the Shuyak Island and Northwest Afognak Sections of the Afognak District.

By regulation, the Seaward Zone of the North Shelikof Unit consists of all waters seaward of a baseline drawn from cape to cape (Figure 7). The Seaward Zone of the Southwest Afognak Unit consists of all waters seaward of a baseline drawn ½ mile offshore of the cape to cape line (this creates a nearshore corridor in which fishing is still allowed). If a Seaward Zone closure occurs, only the inshore Shoreward Zone (all waters inside the baseline) will remain open to commercial fishing during normal fishing periods.

- **The Seaward Zone of the Southwest Afognak Unit will close to fishing if more than 50,000 sockeye salmon are harvested between July 6 through July 25.**
- **The Seaward Zone of the North Shelikof Unit will close to fishing if more than 15,000 sockeye salmon are harvested between July 6 through July 25.**

Inperiod closures of the Seaward Zones may occur. The ADF&G research vessel K-Hi-C will be on the fishing grounds monitoring harvest levels. In order to provide for an orderly fishery, at least **three hours advance notice** will be given. Several possible announcement times will be employed; permit holders fishing in the North Shelikof and Southwest Afognak Units are encouraged to listen for closure announcements at these times. Inperiod closures will be announced on SSB channel 4.125 MHz and VHF channel 6, at **8:30 AM, 10:00 AM, 2:00 PM, or 5:00 PM daily**, with the effective closure time occurring as little as three hours following the initial announcement.

The North Shelikof Strait Sockeye Salmon Management Plan appears in the Commercial Salmon Fishing Regulation Book under 5AAC 18.363.

Crescent Lake Coho Salmon

The Crescent Lake Coho Salmon Management Plan is associated with a relatively small coho salmon enhancement project that could impact the subsistence fishery in the vicinity of Port Lions. This plan clarifies the harvest priorities for coho salmon returning to the Settler Cove area, near Port Lions. This plan was adopted by the BOF in 1990 and was slightly modified in January 1993. The plan is in effect from July 15 through October 31 and allows for the commercial harvest of coho

salmon inside Settler Cove, inside the breakwater at Port Lions, after September 10 if at least 500 coho salmon are present. The Settler Cove Terminal Harvest Area (Figure 6) may be used to harvest sockeye or coho salmon when the Central Section is closed. The regulations guiding this plan are listed in the current Commercial Salmon Fishing Regulation Book under 5AAC 18.364. The Settler Cove Terminal Harvest Area is defined under 5AAC 18.377.

Eastside Afognak

The Kitoi Bay Hatchery, located on the east side of Afognak Island, produces significant runs of pink, chum, and coho salmon, and smaller runs of sockeye salmon. In 1990 the BOF approved a regulatory management plan to govern the fisheries in the vicinity of the hatchery. The basic plan, formulated jointly by KMA commercial fishery and Kitoi Bay Hatchery managers, has been in effect since 1981, and was last modified in 2002. The former Kitoi Bay Section was divided into the Inner and Outer Kitoi Bay Sections, and closed waters within Kitoi Bay were modified. These changes were meant to more closely reflect past management practices, not harbinger a new approach to management. The Eastside Afognak Management Plan covers the Raspberry Straits, Southeast Afognak, Duck Bay, Izhut Bay, and Inner and Outer Kitoi Bay Sections from June 9 through the end of the commercial salmon fishing season. This plan describes the key species and targeted stocks that are managed in each of these sections (Table 9). The Raspberry Strait and Southeast Afognak Sections are managed for local wild stocks, while the Duck Bay, Izhut Bay, and Inner and Outer Kitoi Bay Sections are primarily managed for enhanced production bound for the Kitoi Bay Hatchery. The stated goal of the plan is to achieve escapement and harvest objectives in all six sections, and to achieve hatchery broodstock requirements.

Harvests of hatchery returns occur primarily in the Duck Bay and Izhut Bay Sections and, if necessary, the Outer Kitoi Bay Section (outside of the jaws; Figure 8). Collection of hatchery broodstock commonly requires fishery closures for the Inner Kitoi Bay Section. Additional closures in the Outer Kitoi Bay, Izhut Bay and Duck Bay Sections are dependent on specific run strengths.

If mop-up fisheries become necessary to harvest excess Kitoi Bay Hatchery production, they will occur in the Inner Kitoi Bay Section, inside (west) of the jaws. Hatchery staff will administer a fair start for mop-up fisheries. As in past openings, hatchery personnel will launch a flare, from the hatchery dock or from a skiff in Kitoi Bay. Hatchery personnel will monitor VHF channel 6. Kitoi Bay Hatchery production begins with early-run chum salmon (Sturgeon River origin), which peak in late June. The early chum run has been quite successful, with a harvest last year of almost 216,000. The 2002 chum run is expected to be much less, with a forecasted harvest of 78,000 chum salmon. **The Duck Bay, Izhut Bay, Inner Kitoi Bay, and Outer Kitoi Bay Sections will open June 9**, and will remain open until broodstock collection becomes a priority, approximately June 15. At that time, fishing opportunities will be restricted in the Kitoi Bay Sections, and possibly in the Izhut and Duck Bay Sections. The duration and extent of these closures will depend upon run strength. As chum salmon for broodstock buildup near the hatchery, fishing opportunities on surplus chums will gradually increase, beginning in the Duck Bay Section, then in the Izhut Bay Section. Once chum broodstock is secured, the Outer Kitoi Bay Section may open.

The Kitoi Bay Hatchery also produces sockeye salmon. An early season run, of Little Kitoi Lake origin, is forecast to produce a harvest of only 900 sockeye salmon. A later timed run (peaking in early August), predominantly of Upper Station (Olga Lakes) origin, is expected to produce a harvest of 7,300 sockeye salmon. Sockeye specific mop-up fisheries may occur in the vicinity of Little Kitoi Bay.

The initial openings in July for pink salmon fisheries around the Kitoi Bay area are scheduled to coincide with general KMA pink salmon fisheries. The extent of early July fisheries will be determined by the status of the chum broodstock collection. The 2002 forecast calls for a fairly **strong** run, with 5,000,000 hatchery pink salmon expected to be harvested. The primary harvest area should be the Duck Bay, Izhut Bay, and Outer Kitoi Bay Sections. Restrictions on fishing opportunities, to allow pink salmon broodstock collection, should occur by the second week in August. Time and area closures should be minimal, unless the run is unexpectedly weak and/or harvest rates exceed expectations. Broodstock collection should be completed by the third week in August.

In addition, a harvest of approximately 127,000 hatchery produced coho salmon is projected. Hatchery-bound coho salmon should be harvested incidental to the targeted pink fishery and in directed coho fisheries beginning in late August. Broodstock collection will occur gradually from late August to late September.

Within the Southeast Afognak Section, the Afognak Lake system produces significant runs of sockeye, pink, and coho salmon. This system was fertilized from 1990 through 2000, and through 2000 the sockeye salmon runs to Afognak Lake were relatively strong. The 2001 run was very weak. There is no program to forecast wild stock sockeye salmon production in Afognak Lake. The timing of the initial fishing period will be solely based on the sockeye buildups and escapement through the Afognak River (Litnik) weir. This section is not expected to open prior to June 14; however, escapement information will determine the initial fishery opening in this section.

Fisheries in the Raspberry Strait Section will be restricted in June and late August, to protect minor runs of local sockeye and coho salmon.

The Eastside Afognak Management Plan appears in the Commercial Salmon Fishing Regulation Book under 5AAC 18.365.

Spiridon Lake Sockeye Salmon

The KRAA, in conjunction with ADF&G, has developed a successful enhanced run of sockeye salmon in Spiridon Bay. Sockeye fry are stocked in Spiridon Lake to rear and smolt out-migrate through a pipeline from the lake to Spiridon Bay at Telrod Cove. Because of the steep topography, barrier falls prevent returning adult sockeye salmon from reaching the lake to spawn. All returning sockeye are intended for harvest in common property fisheries. The ADF&G, KRAA, and the U.S. Fish and Wildlife Service (FWS) have developed a management plan that attempts to fully utilize these salmon while protecting local stocks. The Spiridon Lake Sockeye Salmon Management Plan was adopted into regulation by the BOF in 1993 and was slightly modified in 1995. Broodstock for

the 2002 Spiridon sockeye run was predominantly Saltery Lake stock. **The return timing of the 2002 run is expected to be late June through August, peaking in mid to late July.**

The purpose of the plan is to allow for the orderly harvest of sockeye salmon returning to Telrod Cove from the Spiridon Lake enhanced production project while providing adequate protection for local natural salmon stocks returning to other streams of the bay. The majority of the returning sockeye salmon are intended to be harvested in traditional commercial fishing areas of the Northwest Kodiak District during openings directed at Karluk sockeye and westside pink and chum salmon stocks. A small Terminal Harvest Area (THA) is defined in Telrod Cove to allow purse seiners to mop-up Spiridon sockeye that escaped other westside fisheries (Figure 5). Typically, about 60% of the Spiridon Lake enhanced sockeye run is harvested in westside set net and seine fisheries, and 40% is taken from the THA.

The 2002 forecast calls for a harvest of approximately 222,000 Spiridon Lake sockeye salmon. If realized, this harvest would be slightly **below average**. After the ADF&G fishery monitoring crew at Telrod Cove documents that excess sockeye salmon are gathering in the cove, commercial fishing will open by EO in the THA and will continue 24 hours per day. **The initial opening is expected to occur approximately June 25.** An earlier opening is possible if westside fisheries are limited in June, allowing fish to reach Telrod Cove prior to that date.

The Spiridon Lake Sockeye Salmon Management Plan appears in the Commercial Salmon Fishing Regulation Book under 5AAC 18.366.

Eastside Kodiak

The Eastside Kodiak Salmon Management Plan describes which species affect fishing time in management units located in the Northeast and Eastside Kodiak Districts throughout the season (Table 10). The BOF adopted this plan into regulation in 1995, though the framework of this plan was based upon historical management activity that has been implemented annually since 1978. The goal of this plan is to achieve escapement and harvest objectives for sockeye, pink, chum, and coho salmon returning to natural spawning systems located in the Northeast and Eastside Kodiak Districts.

To harvest local and mixed Kodiak sockeye salmon, this plan allows for only two 33-hour fishing periods prior to July 6 in most sections of the Eastside Kodiak District. Additional fishing time in June and early July is allowed in the Outer and Inner Ugak Bay Sections if there is surplus production from local sockeye runs to Pasagshak and Saltery Lake. The ADF&G research staff recently conducted a study of the limnology and carrying capacity of Saltery Lake and determined that the recent escapements and the ADF&G biological escapement goals were too high. The escapement goal was lowered to a range of 15,000 to 30,000 sockeye (from 20,000 to 40,000). To help improve the productivity in this lake, fisheries in the Inner Ugak Bay Section will be managed in June and early July to achieve a targeted escapement of 30,000 sockeye salmon through the Saltery weir.

The 2002 forecast for the Northeast and Eastside Kodiak Districts calls for a harvestable surplus of approximately 500,000 pink salmon (near the recent even-year average). The forecast also calls for

a harvest of 165,000 chum and 54,000 coho salmon from eastside fisheries. Pink and chum fisheries in the Northeast and Eastside Kodiak Districts begin July 6, with the opening scheduled as outlined previously.

The Eastside Kodiak Salmon Management Plan appears in the Commercial Salmon Fishing Regulation Book under 5AAC 18.367.

North Afognak and Shuyak Island

The North Afognak and Shuyak Island Salmon Management Plan describes which species affect fishing time in the Northeast Afognak, Perenosa Bay, Pauls Bay, Shuyak Island, and Northwest Afognak Sections of the Afognak District (Table 11). This plan was adopted into regulation by the BOF in November 1995, based upon management activity since 1986. The Pauls Bay Section was established by new BOF regulations in 2002. The goal of this plan is to achieve escapement and harvest objectives of sockeye, pink, and coho salmon returning to spawning systems and sockeye and coho salmon returning to enhancement projects located in the northern portion of the Afognak District.

This plan allows for June sockeye fisheries in the Perenosa Bay, Pauls Bay, and Northwest Afognak Sections and sockeye, pink, and/or coho salmon fisheries after July 5 for all sections covered by this plan. The plan modifications in 2002 also allow the **new Pauls Bay Section to be managed specifically for coho salmon beginning August 1** (Figure 9). This change is intended to provide opportunity for commercial fishers to harvest incoming coho salmon thereby reducing the need for directed mop-up fisheries. If coho salmon escapement is strong and is expected to exceed the end-of-season goal (9,000 coho salmon), the plan specifies a closed waters line for mop-up fisheries, inside of which commercial fishing cannot occur. This was intended to eliminate opening the commercial fishery to the stream mouth and provides a sanctuary area where sport fishers can safely operate.

The North Afognak/Shuyak Island Salmon Management Plan appears in the Commercial Salmon Fishing Regulation Book under 5AAC 18.368.

Mainland District

The Mainland District Salmon Management Plan was adopted into regulation by the BOF in 1999 and was based upon management activities implemented since 1988. This plan specifies which species affect fishing time for each section through out the season (Table 12). The goal of this plan is to achieve escapement and harvest objectives of sockeye, pink, coho, and chum salmon returning to natural spawning systems located on the Alaska Peninsula between Cape Douglas and Kilokak Rocks.

The 2002 forecast for the Mainland District predicts a harvest of approximately 400,000 pink (below average), 175,000 chum (above average), and 16,000 coho salmon (below average).

The Mainland District Salmon Management Plan appears in the Commercial Salmon Fishing Regulation Book under 5AAC 18.369.

SOCKEYE SALMON ESCAPEMENT GOALS FOR KMA MAJOR SYSTEMS

The amount of fishing time for targeted sockeye salmon fisheries depends primarily on escapements to systems with fish counting weirs. These include the Karluk, Ayakulik, Upper Station, and Frazer systems (major systems) and the Afognak (Litnik), Saltery, Buskin, Pauls, Malina, and Akalura systems (minor systems). For sockeye salmon systems without weirs, fishing time is generally conservative, but occurs in proportion to the perceived system-specific run strength, as determined by aerial or foot escapement surveys or recent harvest information.

Upper and lower escapement goals have been identified for many sockeye salmon stocks (Table 13). ADF&G managers attempt to achieve at least the lower escapement goal for stocks exploited by targeted fisheries, even if it means that directed fishing time on those stocks does not occur. If it appears that the upper goal will be exceeded, maximum time will be allowed for these directed fisheries. This may require continuous fishing and reduction of closed waters to the stream terminus. This action would be taken only in extreme cases, and is seldom needed to manage the KMA sockeye salmon runs. The common strategy is to adjust the amount of directed fishing time to harvest surplus sockeye salmon, allowing escapements to come in within desired levels.

Escapement graphs by stream are a good tool for illustrating escapements (Appendix C.1. - C.9.). These curves are calculated based on average cumulative escapement by day, scaled to the upper and lower escapement goal, for each system. Actual escapements can be plotted on these graphs, and compared to the projected cumulative count. Since fishing time is strongly tied to escapement levels, these graphs can be valuable aids in understanding current ADF&G management actions, and in planning for future fisheries.

Actual inseason escapement counts can be heard daily at 8:15 AM on SSB channel 3.230 MHz.

Table 1. Projected versus actual 2001 commercial salmon harvest, by species and fishery, and 2002 harvest projections, for the Kodiak Management Area.

| | Chinook | Sockeye | Coho | Pink | Chum | Total |
|-------------------------------|---------------|------------------|----------------|-------------------|----------------|-------------------|
| Projected Harvest 2001 | 20,000 | 2,170,000 | 348,000 | 12,000,000 | 752,000 | 15,290,000 |
| Actual Harvest 2001 | 23,800 | 2,657,600 | 408,000 | 19,567,100 | 1,053,700 | 23,710,200 |
| Projected Harvest 2002 | 20,000 | 2,202,000 | 367,000 | 11,000,000 | 778,000 | 14,367,000 |

| FISHERY | 2001 Harvest ^a | | 2002 Harvest ^a |
|---|---------------------------|-------------------|---------------------------|
| | Projection | Actual | Projection |
| Early Sockeye Salmon Fisheries (6/9-7/15) | | | |
| Kitoi Bay Hatchery | 14,000 | 24,000 | 1,000 |
| Cape Igvak ^b | 115,000 | 157,600 | 105,000 |
| Karluk ^c | 186,000 | 650,900 | 273,000 |
| Ayakulik ^d | 182,000 | 411,800 | 255,000 |
| Frazer ^e | 288,000 | 265,800 | 325,000 |
| Upper Station ^e | 85,000 | 91,800 | 64,000 |
| Minor Systems ^f | 70,000 | 8,900 | 30,000 |
| Minor Enhancement ^g | 74,000 | 53,600 | 122,000 |
| Spiridon ^h | 70,000 | 15,300 | 55,000 |
| Other | 100,000 | 95,000 | 75,000 |
| Subtotal | 1,184,000 | 1,774,700 | 1,305,000 |
| Late Sockeye Salmon Fisheries (7/16-10/31) | | | |
| Kitoi Bay Hatchery ⁱ | 21,000 | 24,500 | 7,000 |
| Cape Igvak ^b | 93,000 | 112,100 | 105,000 |
| Karluk ^c | 250,000 | 451,100 | 235,000 |
| Ayakulik ^d | 121,000 | 9,100 | 49,000 |
| Frazer ^e | 72,000 | 43,700 | 57,000 |
| Upper Station ^e | 203,000 | 60,600 | 202,000 |
| Minor Systems ^f | 20,000 | 6,100 | 15,000 |
| Spiridon ^h | 131,000 | 131,400 | 167,000 |
| Other | 75,000 | 44,300 | 60,000 |
| Subtotal | 986,000 | 882,900 | 897,000 |
| TOTAL SOCKEYE | 2,170,000 | 2,657,600 | 2,202,000 |
| Pink Salmon Fisheries (7/6-10/31) | | | |
| Kitoi Bay Hatchery ⁱ | 4,000,000 | 13,126,800 | 5,000,000 |
| Afognak (Wild) ^j | 650,000 | 542,700 | 500,000 |
| Westside Kodiak ^k | 2,850,000 | 3,257,800 | 4,000,000 |
| Alitak ^l | 2,050,000 | 1,440,000 | 600,000 |
| Eastside/Northend Kodiak ^m | 1,850,000 | 801,500 | 500,000 |
| Mainland ⁿ | 600,000 | 398,300 | 400,000 |
| Subtotal | 12,000,000 | 19,567,100 | 11,000,000 |

-Continued-

Table 1. (page 2 of 2)

| FISHERY | 2001 Harvest ^a | | 2002 Harvest ^a |
|--|---------------------------|---------------------|---------------------------|
| | Projection | Actual ^b | Projection |
| Chum Salmon Fisheries (6/9-10/31) | | | |
| Kitoy Bay Hatchery ⁱ | 63,000 | 216,300 | 78,000 |
| Afognak (Wild) ^j | 32,000 | 26,900 | 22,000 |
| Westside Kodiak ^k | 297,000 | 342,000 | 294,000 |
| Alitak ^l | 73,000 | 52,500 | 44,000 |
| Eastside/Northend Kodiak ^m | 191,000 | 207,500 | 165,000 |
| Mainland ⁿ | 96,000 | 208,500 | 175,000 |
| Subtotal | 752,000 | 1,053,700 | 778,000 |
| Coho Salmon Fisheries (8/1-10/31) | | | |
| Kitoy Bay Hatchery ⁱ | 109,000 | 151,700 | 127,000 |
| Afognak (Wild) ^j | 40,000 | 57,300 | 55,000 |
| Westside Kodiak ^k | 107,000 | 114,200 | 105,000 |
| Alitak ^l | 25,000 | 2,500 | 10,000 |
| Eastside/Northend Kodiak ^m | 47,000 | 64,600 | 54,000 |
| Mainland ⁿ | 20,000 | 17,700 | 16,000 |
| Subtotal | 348,000 | 408,000 | 367,000 |
| GRAND TOTAL^d | 15,290,000 | 23,710,200 | 14,367,000 |

a Numbers of fish. Does not include ADF&G test fish (1,666 sockeye, 111 pink, 39 chum, and 1 coho salmon).

b From the Cape Igvak Section. Early run is from beginning of season through June 26. Late run is from July 8 through 25. The Cape Igvak Section was closed June 27 to July 7.

c From the Southwest Afognak Section, Northwest Kodiak District (except for Spiridon and Settler Cove, Inner and Outer Karluk Sections, plus 50% of Halibut Bay Section from June 21 - July 15 and 100% after July 31.

d From the Outer and Inner Ayakulik Sections, plus 50% of Halibut Bay Section from June 21 - July 15 and 100% from July 16 - 31.

e From the Alitak Bay District, from preliminary scale pattern analysis with all unknown/other included in Frazer.

f From minor systems at Inner and Outer Ugak Bay (Saltery), Buskin River, Southeast Afognak (Litnik), Perenosa Bay (Pauls and Portage), Northwest Afognak (Thorsheim & Long Lagoon), Big River (Swikshak), and Outer Kukak Bay (Kafliia & Kuliuk) Sections.

g From the Malina Creek, Foul Bay, Waterfall Bay, and Settler Cove Terminal Harvest Areas, plus enhanced production at Afognak and Laura Lakes.

h From the Spiridon Lake Terminal Harvest Area plus the estimated catch from Westside fisheries.

i From the Duck Bay, Izhut Bay, and Kitoy Bay Sections only. An additional 145,400 pink, 400 chum, 1,200 coho, and 800 sockeye were taken in Danger Bay (252-33) from August 7 to 19.

j From the Afognak District except for the Duck Bay, Izhut Bay, and Kitoy Bay Sections.

k From the Northwest Kodiak District (except for the North Cape, Anton Larson, Sheratin, and Kizhuyak Section, plus part of the Central Section; 259-36, -37, and -38) and the Southwest Kodiak District.

l From the Alitak Bay District.

m From the Eastside Kodiak District, Northeast Kodiak District, and the North Cape, Anton Larson, Sheratin, and Kizhuyak Sections, plus part of the Central Section (259-36, -37, and -38).

n From the Mainland District.

o Includes 20,000 chinook salmon - projected harvest.

Table 2. Expected harvest from supplemental salmon production, by system and species, for the Kodiak Management Area, 2002.

| System | Species | Estimate | Forecast | | Expected Harvest |
|--------------------------------|-------------------------|------------------|------------------|------------------|------------------|
| | | | Low | High | |
| Spiridon Lake ^a | sockeye | 222,000 | 144,000 | 299,000 | 222,000 |
| Hidden Lake ^a | sockeye | 48,600 | 32,400 | 64,800 | 48,600 |
| L. Waterfall Lake ^a | sockeye | 21,200 | 7,100 | 35,400 | 21,200 |
| Crescent Lake ^a | sockeye | 11,000 | 4,600 | 18,600 | 11,000 |
| | coho | 6,600 | 3,300 | 9,900 | 6,600 |
| Kitoi Bay Area ^a | pink ^b | 4,800,000 | 3,000,000 | 6,400,000 | 4,500,000 |
| | chum ^b | 108,000 | 82,000 | 143,600 | 78,000 |
| | coho ^b | 133,200 | 89,200 | 177,200 | 127,200 |
| | ER sockeye ^c | 900 | 600 | 1,400 | 900 |
| | LR sockeye ^d | 7,300 | 3,700 | 12,900 | 7,300 |
| | Total sockeye | 8,200 | 4,300 | 14,300 | 8,200 |
| Afognak Lake | sockeye | 8,200 | 5,400 | 11,000 | ^f |
| Malina Lake | sockeye | 20,700 | 13,800 | 27,700 | ^g |
| Paul's/Laura Lake | sockeye | 5,500 | 2,700 | 8,200 | ^h |
| Katmai Lake ^a | coho | 1,500 | 750 | 2,250 | 1,500 |
| Totals: | pink | 4,800,000 | 3,000,000 | 6,400,000 | 4,500,000 |
| | chum | 108,000 | 82,000 | 143,600 | 78,000 |
| | coho | 141,300 | 93,250 | 189,350 | 135,300 |
| | sockeye | 348,200 | 214,300 | 479,000 | 311,000 |

Forecasts prepared by S. Schrof, R. Baer (Hidden, L. Waterfall, Laura), ADF&G for all systems except for Spiridon Lake, which was forecasted by S. Honnold and Kitoi Bay area pink, chum, and coho salmon, which was prepared by Kodiak Regional Aquaculture Association staff.

^a Barrired systems and/or with Terminal Harvest Areas.

^b Pink, chum and coho salmon estimates include brood stock needed for the Kitoi Bay Hatchery program.

^c From Little Kitoi Lake stocking.

^d From Little Kitoi Lake, Kitoi Bay, Jennifer Lake, and Ruth Lake stocking.

^e Approximately 2,800 late-run Saltery Lake sockeye salmon are expected to return from Little Kitoi Lake stockings.

^f System has natural sockeye run; expected harvest not available. Run is not regularly forecasted.

^g System has natural sockeye run; expected harvest not available. Run is forecast to be ~57,000, based on smolt estimates and a 12% to adult survival.

^h System has natural sockeye run; expected harvest not available.

Table 3. Commercial salmon season opening times and dates, by species and fishery, for the Kodiak Management Area, 2002.

| FISHERY | <u>EARLIEST POTENTIAL OPENING TIME/DATE</u> | |
|--|---|-----------------------|
| | Firm Time/Date | Approximate Time/Date |
| <u>Early Sockeye Salmon Fisheries</u> | | |
| Cape Igvak Section ^a | - | 12:01 AM June 5-14 |
| NW Kodiak District ^b | 12:00 NOON June 9 | - |
| Alitak Bay District ^b | 12:00 NOON June 9 | - |
| Foul Bay and Waterfall Terminal Harvest Areas | 12:00 NOON June 9 | - |
| Kitoy Bay Hatchery (Duck, Izhut, Kitoy Sections) | 12:00 NOON June 9 | - |
| Malina Terminal Harvest Area | - | 12:00 NOON June 9 |
| Inner and Outer Ayakulik Sections ^c | - | Low Tide June 9-14 |
| SW Afognak Section | 12:00 NOON June 14 | - |
| <u>Minor Systems</u> ^d | | |
| Saltery (Inner Ugak Section) | 12:00 NOON June 14 | - |
| Paramanof (NW Afognak Section) | 12:00 NOON June 14 | - |
| Swikshak (Big River Section) | 12:00 NOON June 14 | - |
| Kafliia (Outer Kukak Section) | 12:00 NOON June 14 | - |
| Litnik (SE Afognak Section) | - | 12:00 NOON June 14 |
| Pauls/Perenosa (Pauls and Perenosa Bay Sections) | - | 12:00 NOON June 14 |
| Uganik (Inner Uganik Bay Section) | - | 12:00 NOON June 14 |
| Spiridon Lake Terminal Harvest Area (Telrod Cove) | - | 12:00 NOON June 25 |
| <u>Pink/Chum Salmon Fisheries</u> ^e | | |
| All KMA Districts | 12:00 NOON July 6 | - |
| <u>Late Sockeye Salmon Fishery</u> | | |
| Cape Igvak Section ^f | - | 12:01 AM July 9 |
| Alitak Bay District ^g | - | 6:00 AM July 16 |
| NW Kodiak District/SW Afognak Section ^g | - | 12:00 NOON August 16 |
| <u>System Specific Coho Salmon Fisheries</u> ^h | | |
| Mainland District | - | 12:00 NOON Aug. 15 |
| Afognak District | - | 12:00 NOON Aug. 21 |
| - Pauls Bay Section ⁱ | - | 12:00 NOON Aug. 1 |
| NW Kodiak District | - | 12:00 NOON Aug. 25 |
| SW Kodiak District | - | 12:00 NOON Aug. 25 |
| Alitak District | - | 12:00 NOON Aug. 26 |
| Eastside Kodiak District | - | 12:00 NOON Aug. 25 |
| NE Kodiak District | - | 12:00 NOON Aug. 25 |

-Continued-

Table 3. (page 2 of 2)

- a Actual opening date will be determined by sockeye escapement levels into the Chignik Lakes system and the initial fishing period in Chignik. Fishing time will be in 24 hour increments.
- b Actual opening time/date is as shown. This opening is considered a commercial test fishery; fishing time will be 33 hours (12:00 NOON June 9 through 9:00 PM June 10).
- c Actual opening date will be determined by the sockeye escapement level into Ayakulik River and the opening time will be during daylight hours near low tide.
- d Actual opening date for most minor systems is set preseason; this will be a 33-hour fishery, with no extensions. For minor systems with weirs, or systems of concern, sockeye escapement levels will determine the opening date.
- e Actual opening time/date is as shown. Fishing time for the initial period will be 81 hours (12:00 NOON July 6 through 9:00 PM July 9) for the Kodiak Archipelago sections and 57 hours (12:00 NOON July 6 through 9:00 PM July 8) for the Mainland sections. See Fishing Periods for additional information. After August 16 fishing periods will end at 6:00 PM.
- f Actual opening date will be determined by sockeye escapement and anticipated harvest levels in the Chignik Management Area. Fishing time will be in 24-hour increments.
- g Actual opening date for system specific fishing time will be determined by sockeye escapement levels into major systems. After August 16 fishing periods will end at 6:00 PM.
- h Actual opening dates for system specific fishing time will be determined by overall coho run strength evaluation and by escapement levels into major systems and minor systems with reliable escapement data.
- i Commercial fisheries targeting local coho salmon in the Pauls Bay Section are possible as early as August 1. Escapement levels and overall coho run strength evaluation will determine the actual opening date.

Table 4. Board of Fisheries approved fishery management plans for the Kodiak Management Area, 2002.

| MANAGEMENT PLAN | YEAR INITIATED | MGMT. UNITS AFFECTED | DATES IN EFFECT |
|--|----------------|--|-----------------|
| Cape Igvak Salmon Management Plan | 1978 | Cape Igvak Section Wide Bay Section | 6/5 - 7/25 |
| Alitak Bay District Salmon Management Plan | 1987 | Alitak Bay District | 6/5 - 10/31 |
| Westside Kodiak Management Plan | 1990 | NW Kodiak District SW Kodiak District SW Afognak Section | 6/9 - 10/31 |
| North Shelikof Strait Sockeye Salmon Management Plan | 1990 | SW Afognak Section NW Afognak Section Shuyak Island Section Big River Section Hallo Bay Section Inner and Outer Kukak Bay Sections Dakavak Bay Section | 7/6 - 7/25 |
| Crescent Lake Coho Salmon Management Plan | 1990 | Terminal Harvest Area in the Central Section near Port Lions | 7/15 - 10/31 |
| Spiridon Lake Sockeye Salmon Management Plan | 1993 | Terminal Harvest Area in Spiridon Bay Section | 6/9 - 10/31 |
| Eastside Afognak Management Plan | 1993 | Southeast Afognak Section Raspberry Strait Section Inner and Outer Kitoi Bay Sections Duck Bay Section Izhut Bay Section | 6/9 - 10/31 |
| Eastside Kodiak Salmon Management Plan | 1995 | Eastside Kodiak District NE Kodiak District | 6/14 - 10/31 |
| North Afognak / Shuyak Island Salmon Management Plan | 1995 | NE Afognak Section Perenosa Bay Section Pauls Bay Section Shuyak Island Section NW Afognak Section | 6/9 - 10/31 |
| Mainland District Salmon Management Plan | 1999 | Mainland District | 6/14 - 10/31 |

Table 5. Biological and allocative criteria and the management chronology of the Cape Igvak Management Plan for the Kodiak Management Area.

| BIOLOGICAL REQUIREMENTS | | | ALLOCATIVE REQUIREMENTS | | |
|----------------------------|---|---------------------------------|----------------------------|--|---|
| REGULATION 5 AAC 18.360 | ESCAPEMENT NEEDS | | REGULATION 5 AAC 18.360 | CHIGNIK MINIMUM HARVEST | IGVAK % |
| | FIRST RUN CHIGNIK | SECOND RUN CHIGNIK | | | |
| (a) (b) (c) | THROUGH 6/30 350,000-400,000 | - | (a) | EXPECTATION OF LESS THAN 600,000 | CLOSED |
| - | - | - | (b) | EXPECTATION OF 600,000 IS IN DOUBT | CLOSED |
| (a) (b) (c) | - | THROUGH 7/31 195,000-200,000 | (c) | EXPECTATION OF 600,000 OR MORE OCCUR | OPEN TO ACHIEVE 15% |
| - | - | - | (d) | CHIGNIK SALMON % INTERCEPTION CALCULATIONS | 90% OF SOCKEYE CATCH AT IGVAK ARE CONSIDERED CHIGNIK SOCKEYE |
| - | - | - | (e) | ALLOCATION PERIOD 6/5 - 7/25 | CHIGNIK FISHES FIRST |
| (f) | JUNE 26 - JULY 8 CAPE IGVAK SECTION CLOSED OR SEVERELY LIMITED UNTIL CHIGNIK SOCKEYE RUN EVALUATED | | - | - | - |
| - | - | - | (g) | - | ONE DAY ADVANCE NOTICE |
| | 400,000 | 250,000 | | 600,000 MINIMUM | 15% |

MANAGEMENT CHRONOLOGY FOR CHIGNIK BOUND SOCKEYE AND KODIAK SALMON

| | | | | |
|---------------|---|---|--|---------------------|
| CLOSED | CHIGNIK SOCKEYE STOCKS (FIRST RUN) | CLOSED OR SEVERELY LIMITED | CHIGNIK SOCKEYE STOCKS (SECOND RUN) | LOCAL KODIAK STOCKS |
| 6/5 | | 6/26 | 7/8 | 7/25 |
| | | | | 9/5 |

Table 6. Primary management species and management chronology of the Alitak Bay District Salmon Management Plan for the Kodiak Management Area.

| Alitak Bay District Salmon Management Plan | | | | | | |
|--|--------------------------------------|--|--|--|--------------------|----------------------------------|
| | 6/9 | 7/16 | 8/10 | 8/21 | 8/26 | |
| HUMPY-DEADMAN SECTION (SEINE ONLY) | SMALL COMMERCIAL TEST FISHERY | FRAZER AND EARLY UPPER STATION SOCKEYE | ALITAK BAY PINK, CHUM, AND COHO | | | |
| CAPE ALITAK SECTION (SEINE ONLY) | | FRAZER AND EARLY UPPER STATION SOCKEYE | <u>ODD-YEAR CYCLE</u> FRAZER PINK SALMON | <u>ODD-YEAR CYCLE</u> UPPER STATION SOCKEYE (LATE RUN) | | ALL ALITAK DISTRICT COHO SYSTEMS |
| | | | <u>EVEN-YEAR CYCLE</u> UPPER STATION SOCKEYE (LATE RUN) | <u>EVEN-YEAR CYCLE</u> UPPER STATION SOCKEYE & FRAZER PINK SALMON | | |
| ALITAK BAY, MOSER BAY, & OLGA BAY SECTIONS (GILLNET ONLY) | | FRAZER AND EARLY UPPER STATION SOCKEYE | <u>ODD-YEAR CYCLE</u> FRAZER PINK SALMON | <u>ODD-YEAR CYCLE</u> UPPER STATION SOCKEYE (LATE RUN) | | ALL OLGA BAY COHO SYSTEMS |
| | | | <u>EVEN-YEAR CYCLE</u> UPPER STATION SOCKEYE (LATE RUN) | <u>EVEN-YEAR CYCLE</u> UPPER STATION SOCKEYE & FRAZER PINK SALMON | | |
| SECTIONS LISTED BELOW ARE NORMALLY CLOSED WATERS, EXCEPT FOR MOP-UP FISHERIES BASED ON: | | | | | | |
| OUTER & INNER UPPER STATION SECTIONS (GILLNET) (NON-TRADITIONAL) | UPPER STATION SOCKEYE (EARLY RUN) | | UPPER STATION (LATE RUN) | UPPER STATION SOCKEYE & COHO | UPPER STATION COHO | |
| OUTER AKALURA & INNER AKALURA SECTIONS (GILLNET) (NON-TRADITIONAL) | AKALURA SOCKEYE (EARLY RUN) | | AKALURA SOCKEYE (LATE RUN) | AKALURA SOCKEYE & COHO | AKALURA COHO | |
| DOG SALMON FLATS SECTION (GILLNET) (NON-TRADITIONAL) | FRAZER SOCKEYE | | FRAZER PINK SALMON | FRAZER AND HORSE MARINE COHO | | |
| | 6/9 | 7/16 | 8/10 | 8/21 | 8/26 | |

Table 7. Primary management species and management chronology of the Westside Kodiak Management Plan for the Kodiak Management Area.

| Westside Kodiak Management Plan | | | | | | | | | | | |
|---------------------------------|--|--------|---|----------------------------|-----|--|--|--|-------------------------------|-------------|-------|
| | | 6/9 | 6/16 | 6/23 | 7/6 | 7/16 | 8/1 | 8/16 | 8/25 | 9/6 | 10/31 |
| AFOGNAK DISTRICT | SOUTHWEST AFOGNAK | CLOSED | | EARLY-RUN KARLUK SOCKEYE | | LOCAL & MIXED PINK | | LATE-RUN KARLUK SOCKEYE LOCAL & MIXED PINK | | LOCAL COHO | |
| | NORTH CAPE, CENTRAL | CLOSED | | EARLY-RUN KARLUK SOCKEYE | | LOCAL & MIXED PINK | | LATE-RUN KARLUK SOCKEYE LOCAL & MIXED PINK | | LOCAL COHO | |
| | ANTON LARSEN, SHERATIN, KIZHUYAK, TERROR, INNER UGANIK, SPIRIDON, ZACHAR, UYAK | CLOSED | | LOCAL SOCKEYE & EARLY CHUM | | LOCAL SOCKEYE & EARLY CHUM | | LOCAL PINK & LATE CHUM | LOCAL PINK, LATE CHUM, & COHO | LOCAL COHO | |
| NORTHWEST KODIAK DISTRICT | OUTER KARLUK | | EARLY-RUN KARLUK SOCKEYE | | | ODD-YEAR: LATE-RUN KARLUK SOCKEYE EVEN-YEAR: LATE-RUN KARLUK SOCKEYE/PINK | | | L.R. KARLUK SOCKEYE | KARLUK COHO | |
| | INNER KARLUK | | EARLY-RUN KARLUK SOCKEYE | | | ODD-YEAR: LATE-RUN KARLUK SOCKEYE EVEN-YEAR: LATE-RUN KARLUK SOCKEYE/PINK | | | L.R. KARLUK SOCKEYE | KARLUK COHO | |
| | STURGEON | CLOSED | EARLY-RUN KARLUK & AYAKULIK SOCKEYE & STURGEON CHUM | | | ODD-YEAR: LATE-RUN KARLUK SOCKEYE EVEN-YEAR: LATE-RUN KARLUK SOCKEYE/PINK | | | LATE RUN KARLUK SOCKEYE | LOCAL COHO | |
| | HALIBUT BAY | CLOSED | EARLY-RUN KARLUK & AYAKULIK SOCKEYE | | | ODD-YEAR: LATE AYAKULIK SOCKEYE EVEN-YEAR: LATE AYAKULIK SOCKEYE & PINK | ODD-YEAR: LATE-RUN KARLUK SOCKEYE ODD YEAR: LATE-RUN KARLUK SOCKEYE & AYAKULIK PINK | LATE RUN KARLUK SOCKEYE | LOCAL COHO | | |
| | OUTER AYAKULIK | | EARLY AYAKULIK SOCKEYE | | | ODD-YEAR: LATE AYAKULIK SOCKEYE EVEN-YEAR: LATE AYAKULIK SOCKEYE & PINK | | | AYAKULIK COHO | | |
| | INNER AYAKULIK | | EARLY AYAKULIK SOCKEYE | | | ODD-YEAR: LATE AYAKULIK SOCKEYE EVEN-YEAR: LATE AYAKULIK SOCKEYE & PINK | | | AYAKULIK COHO | | |
| SOUTHWEST KODIAK DISTRICT | OUTER KARLUK | | EARLY-RUN KARLUK SOCKEYE | | | ODD-YEAR: LATE-RUN KARLUK SOCKEYE EVEN-YEAR: LATE-RUN KARLUK SOCKEYE/PINK | | | L.R. KARLUK SOCKEYE | KARLUK COHO | |
| | INNER KARLUK | | EARLY-RUN KARLUK SOCKEYE | | | ODD-YEAR: LATE-RUN KARLUK SOCKEYE EVEN-YEAR: LATE-RUN KARLUK SOCKEYE/PINK | | | L.R. KARLUK SOCKEYE | KARLUK COHO | |
| | STURGEON | CLOSED | EARLY-RUN KARLUK & AYAKULIK SOCKEYE & STURGEON CHUM | | | ODD-YEAR: LATE-RUN KARLUK SOCKEYE EVEN-YEAR: LATE-RUN KARLUK SOCKEYE/PINK | | | LATE RUN KARLUK SOCKEYE | LOCAL COHO | |
| | HALIBUT BAY | CLOSED | EARLY-RUN KARLUK & AYAKULIK SOCKEYE | | | ODD-YEAR: LATE AYAKULIK SOCKEYE EVEN-YEAR: LATE AYAKULIK SOCKEYE & PINK | ODD-YEAR: LATE-RUN KARLUK SOCKEYE ODD YEAR: LATE-RUN KARLUK SOCKEYE & AYAKULIK PINK | LATE RUN KARLUK SOCKEYE | LOCAL COHO | | |
| | OUTER AYAKULIK | | EARLY AYAKULIK SOCKEYE | | | ODD-YEAR: LATE AYAKULIK SOCKEYE EVEN-YEAR: LATE AYAKULIK SOCKEYE & PINK | | | AYAKULIK COHO | | |
| | INNER AYAKULIK | | EARLY AYAKULIK SOCKEYE | | | ODD-YEAR: LATE AYAKULIK SOCKEYE EVEN-YEAR: LATE AYAKULIK SOCKEYE & PINK | | | AYAKULIK COHO | | |

Table 8. Primary management species and general management chronology in management units affected by the North Shelikof Strait Sockeye Salmon Management Plan for the Kodiak Management Area.

| NORTH SHELIKOF STRAIT SOCKEYE SALMON MANAGEMENT PLAN | | | | | | | | | |
|--|----------------------------------|--|---------------------------------|---|---|----------------------|---|--------------------|--|
| | | 6/9 | 6/14 | 7/6 | | 7/25 | 8/15 | 9/5 | |
| MAINLAND DISTRICT | BIG RIVER SECTION | CLOSED | EARLY-RUN SOCKEYE MINOR SYSTEMS | NORTH SHELIKOF MANAGEMENT UNIT (5AAC 18.363 (b)(3)(A) & (B)) | MANAGEMENT BASED ON LOCAL PINK AND CHUM SALMON STOCKS EXCEPT: IF SOCKEYE HARVEST EXCEEDS 15,000 THEN THE "SEAWARD ZONES" ARE CLOSED, AND ONLY THE "SHOREWARD ZONES" MAY REMAIN OPEN. (5AAC 18.363.(b)) | PINK AND CHUM SALMON | | COHO SALMON | |
| | HALLO BAY SECTION | CLOSED | CLOSED | | | PINK AND CHUM SALMON | | | |
| | INNER KUKAK SECTION | CLOSED | CLOSED | | | PINK AND CHUM SALMON | | | |
| | OUTER KUKAK SECTION | CLOSED | EARLY-RUN SOCKEYE MINOR SYSTEMS | | | PINK AND CHUM SALMON | | | |
| | DAKAVAK SECTION | CLOSED | CLOSED | | | PINK AND CHUM SALMON | | | |
| AFOGNAK DISTRICT | SHUYAK ISLAND SECTION | CLOSED | EARLY-RUN SOCKEYE MINOR SYSTEMS | SW AFOGNAK MGMT UNIT (5AAC 18.363.(c)(3)(c)) | MANAGEMENT BASED ON LOCAL PINK AND CHUM SALMON STOCKS EXCEPT: IF THE SOCKEYE HARVEST EXCEEDS 50,000 THEN THE "SEAWARD ZONE" CLOSES, AND ONLY THE "SHOREWARD ZONE" MAY REMAIN OPEN. (5AAC 18.363.(c)) | PINK SALMON | | COHO SALMON | |
| | NW AFOGNAK SECTION | EARLY-RUN SOCKEYE MINOR AND ENHANCED SYSTEMS | | | | PINK SALMON | | | |
| | SOUTHWEST AFOGNAK SECTION | CLOSED | EARLY-RUN KARLUK SOCKEYE | | | PINK SALMON | PINK SALMON AND LATE-RUN KARLUK SOCKEYE | | |
| | | 6/9 | 6/14 | 7/6 | | 7/25 | 8/15 | 9/5 | |

Table 9. Primary management species and management chronology of the Eastside Afognak Management Plan for the Kodiak Management Area.

| EASTSIDE AFOGNAK MANAGEMENT PLAN | | | | | |
|---|------------------------------------|------------------------------------|--------------------------------|------|--------------------------------------|
| | 6/9 | 7/6 | 7/18 | 7/26 | 8/24 |
| RASPBERRY STRAIT SECTION | CLOSED | LOCAL AND MIXED KODIAK PINK SALMON | | | LOCAL COHO |
| SE AFOGNAK SECTION | AFOGNAK LAKE (LITNIK) SOCKEYE | LOCAL PINK SALMON | | | LOCAL COHO |
| DUCK BAY SECTION | EARLY HATCHERY CHUM AND/OR SOCKEYE | | HATCHERY AND LOCAL PINK SALMON | | LOCAL COHO |
| IZHUT BAY SECTION | EARLY HATCHERY CHUM AND/OR SOCKEYE | | HATCHERY AND LOCAL PINK SALMON | | LOCAL COHO AND LATE HATCHERY SOCKEYE |
| OUTER KITOI BAY SECTION | HATCHERY CHUM AND/OR EARLY SOCKEYE | | HATCHERY PINK SALMON | | LATE HATCHERY SOCKEYE OR COHO |
| INNER KITOI BAY ^a SECTION | HATCHERY CHUM AND/OR EARLY SOCKEYE | | HATCHERY PINK SALMON | | LATE HATCHERY SOCKEYE OR COHO |
| | 6/9 | 7/6 | 7/18 | 7/26 | 8/24 |

^a Throughout the season fishing time may be restricted in order to meet broodstock goals for hatchery bound chum, sockeye, pink, and coho salmon.

Table 10. Primary management species and management chronology of the Eastside Kodiak Management Plan for the Kodiak Management Area.

| EASTSIDE KODIAK MANAGEMENT PLAN | | | | | | | | | |
|----------------------------------|----------------------------|--------|------------------------------|--------|------------------------------|-----------------------------------|--------------------------|-------------------------|------------|
| | | 6/9 | 6/14 | 6/21 | 7/6 | 7/10 | 8/25 | 9/6 | 10/31 |
| NORTHEAST KODIAK DISTRICT | OUTER CHINIAK BAY | CLOSED | | | LOCAL AND MIXED PINK | | LOCAL PINK & COHO | LOCAL COHO | |
| | INNER CHINIAK BAY | CLOSED | | | LOCAL AND MIXED PINK | | LOCAL PINK & COHO | LOCAL COHO | |
| | BUSKIN RIVER | CLOSED | | | LOCAL PINK & BUSKIN SOCKEYE | LOCAL PINK & CHUM | LOCAL PINK, COHO, & CHUM | LOCAL COHO | |
| | MONASHKA / MILL BAY | CLOSED | | | LOCAL AND MIXED PINK | | LOCAL PINK & COHO | LOCAL COHO | |
| EASTSIDE KODIAK DISTRICT | SEVEN RIVERS | CLOSED | 33 HOURS LOCAL MIXED SOCKEYE | CLOSED | 33 HOURS LOCAL MIXED SOCKEYE | CLOSED | LOCAL AND MIXED PINK | LOCAL PINK & COHO | LOCAL COHO |
| | TWO HEADED | CLOSED | 33 HOURS LOCAL MIXED SOCKEYE | CLOSED | 33 HOURS LOCAL MIXED SOCKEYE | CLOSED | LOCAL AND MIXED PINK | LOCAL PINK & COHO | LOCAL COHO |
| | SITKALIDAK | CLOSED | 33 HOURS LOCAL MIXED SOCKEYE | CLOSED | 33 HOURS LOCAL MIXED SOCKEYE | CLOSED | LOCAL AND MIXED PINK | LOCAL PINK, CHUM & COHO | LOCAL COHO |
| | OUTER UGAK BAY | CLOSED | 33 HOURS LOCAL MIXED SOCKEYE | CLOSED | PASAGSHAK SOCKEYE | LOCAL AND MIXED PINK | LOCAL PINK, CHUM & COHO | LATE CHUM & COHO | |
| | INNER UGAK BAY | CLOSED | 33 HOURS LOCAL MIXED SOCKEYE | CLOSED | SALTRY SOCKEYE | LOCAL PINK & CHUM, SALTRY SOCKEYE | LOCAL PINK & CHUM | LOCAL PINK & COHO | COHO |
| | | 6/9 | 6/14 | 6/21 | 7/6 | 7/10 | 8/25 | 9/6 | 10/31 |

Table 11. Primary management species and management chronology for the North Afognak/Shuyak Island Salmon Management Plan for the Kodiak Management Area.

| NORTH AFOGNAK/SHUYAK ISLAND SALMON MANAGEMENT PLAN | | | | | | | | |
|--|---|---|---------------------------|-------------------|--------------------------|--------------------------|-------------------|-------|
| | 6/9 | 7/6 | 7/21 | 8/1 | 8/21 | 8/25 | 9/6 | 10/31 |
| NORTHEAST AFOGNAK SECTION | CLOSED | LOCAL AND MIXED PINK SALMON | | | | LOCAL PINK & COHO SALMON | LOCAL COHO SALMON | |
| PAULS BAY SECTION | PAULS BAY SOCKEYE SALMON | PAULS BAY SOCKEYE SALMON & LOCAL AND MIXED PINK SALMON | | LOCAL COHO SALMON | | | | |
| PERENOSA^a BAY SECTION | PAULS BAY AND PORTAGE LAKE SOCKEYE SALMON | LOCAL AND MIXED PINK SALMON, & PAULS AND PORTAGE SOCKEYE SALMON | LOCAL & MIXED PINK SALMON | | LOCAL PINK & COHO SALMON | LOCAL COHO SALMON | | |
| SHUYAK^b ISLAND SECTION | CLOSED | LOCAL AND MIXED PINK SALMON | | | LOCAL COHO SALMON | | | |
| NORTHWEST^c AFOGNAK SECTION | THORSHEIM & LONG LAGOON SOCKEYE SALMON | LOCAL AND MIXED PINK SALMON | | | LOCAL COHO SALMON | | | |
| | 6/9 | 7/6 | 7/21 | 8/1 | 8/21 | 8/25 | 9/6 | 10/31 |

^a Additional fishing time to harvest enhanced sockeye bound to Waterfall Lake will occur only in the Waterfall Lake Terminal Harvest Area.

^b From July 6 to 25 this section must also be managed in accordance with the North Shelikof Strait Sockeye Salmon Management Plan.

^c Only two 33-hour fishing periods are allowed from June 9 through July 5. Additional fishing time to harvest enhanced sockeye bound to Hidden Lake will only occur in the Foul Bay Terminal Harvest Area. From July 6 to 25 this section must also be managed in accordance with the North Shelikof Strait Sockeye Salmon Management Plan.

Table 12. Primary management species and management chronology for the Mainland District Salmon Management Plan for the Kodiak Management Area.

| MAINLAND DISTRICT SALMON MANAGEMENT PLAN | | | | | | | | | |
|--|---|-------|--------|-------|---|---|-------------------------|-------------------------|--|
| | 6/5 | 6/14 | 6/21 | 7/6 | 7/25 | 8/15 | 8/20 | 8/25 | |
| BIG RIVER^a | CLOSED | 33 Hr | CLOSED | 33 Hr | CLOSED | LOCAL & MIXED KODIAK PINK & CHUM SALMON | | LOCAL COHO | |
| HALLO BAY^a | CLOSED | | | | LOCAL & MIXED KODIAK PINK & CHUM SALMON | | LOCAL COHO | | |
| OUTER KUKAK^a | CLOSED | 33 Hr | CLOSED | 33 Hr | CLOSED | LOCAL & MIXED KODIAK PINK & CHUM SALMON | | LATE RUN CHUM & COHO | |
| INNER KUKAK | CLOSED | | | | LOCAL & MIXED KODIAK PINK & CHUM SALMON | | LATE RUN CHUM & COHO | | |
| DAKAVAK^a | CLOSED | | | | LOCAL & MIXED KODIAK PINK & CHUM SALMON | | | LATE PINK & COHO SALMON | |
| KATMAI & ALINCHAK | CLOSED | | | | LOCAL & MIXED KODIAK PINK & CHUM SALMON | | | LATE PINK & COHO SALMON | |
| CAPE IGVAK | CAPE IGVAK SALMON MANAGEMENT PLAN (5AAC 18.360) | | | | LOCAL & MIXED KODIAK PINK & CHUM SALMON | | LATE PINK & COHO SALMON | | |
| WIDE BAY | CLOSED | | | | LOCAL PINK & CHUM SALMON | | LATE PINK & COHO SALMON | | |
| | 6/5 | 6/14 | 6/21 | 7/6 | 7/25 | 8/15 | 8/20 | 8/25 | |

^a During the time period July 6 through July 25 these management sections must also be managed in accordance with the North Shelikof Strait Sockeye Salmon Management Plan (5AAC 18.363).

 A 33-hour fishing period for local sockeye salmon.

Table 13. Sockeye salmon escapement goals for major and minor systems with fish counting weirs in the Kodiak Management Area, 2002.

| | <u>Early Run (Before 7/15)</u> | | <u>Late Run (After 7/15)</u> | | <u>Total</u> | |
|-----------------------------------|--------------------------------|----------------|------------------------------|----------------|------------------|------------------|
| | Lower | Upper | Lower | Upper | Lower | Upper |
| <u>Major Systems</u> ^a | | | | | | |
| Karluk ^b | 150,000 | 250,000 | 400,000 | 550,000 | 550,000 | 800,000 |
| Ayakulik ^c | 160,000 | 220,000 | 40,000 | 80,000 | 200,000 | 300,000 |
| Upper Station ^{bd} | 25,000 | 75,000 | 150,000 | 200,000 | 175,000 | 275,000 |
| Frazer ^e | <u>140,000</u> | <u>200,000</u> | - | - | <u>140,000</u> | <u>200,000</u> |
| Subtotal | 475,000 | 745,000 | 590,000 | 830,000 | 1,065,000 | 1,575,000 |
| <u>Minor Systems</u> ^a | | | | | | |
| Saltery ^e | 15,000 | 30,000 | - | - | 15,000 | 30,000 |
| Buskin ^e | 8,000 | 13,000 | - | - | 8,000 | 13,000 |
| Litnik ^e | 40,000 | 60,000 | - | - | 40,000 | 60,000 |
| Pauls ^e | 20,000 | 40,000 | - | - | 20,000 | 40,000 |
| Malina ^e | 10,000 | 20,000 | - | - | 10,000 | 20,000 |
| Akalura ^b | <u>10,000</u> | <u>15,000</u> | <u>30,000</u> | <u>45,000</u> | <u>40,000</u> | <u>60,000</u> |
| Subtotal | 103,000 | 178,000 | 30,000 | 45,000 | 133,000 | 223,000 |
| GRAND TOTAL | 578,000 | 923,000 | 620,000 | 875,000 | 1,198,000 | 1,798,000 |

^a Escapements into weired systems accounts for ~85% of the KMA total sockeye escapement.

^b These systems have a bimodal sockeye escapement, with distinct early and late runs. Early-run escapement occurs before July 15, and late-run escapement occurs after July 15.

^c Escapement into this system is not truly bimodal, but extends through mid to late August. However a portion of the escapement is desired after July 15.

^d The early-run Upper Station Optimal Escapement Goal (OEG) is 25,000 sockeye salmon. The Sustainable Escapement Goal (SEG) range is 50,000 to 75,000 sockeye salmon.

^e Escapement into these systems primarily occurs before July 25, though low numbers of sockeye salmon will continue to enter these systems throughout the summer.

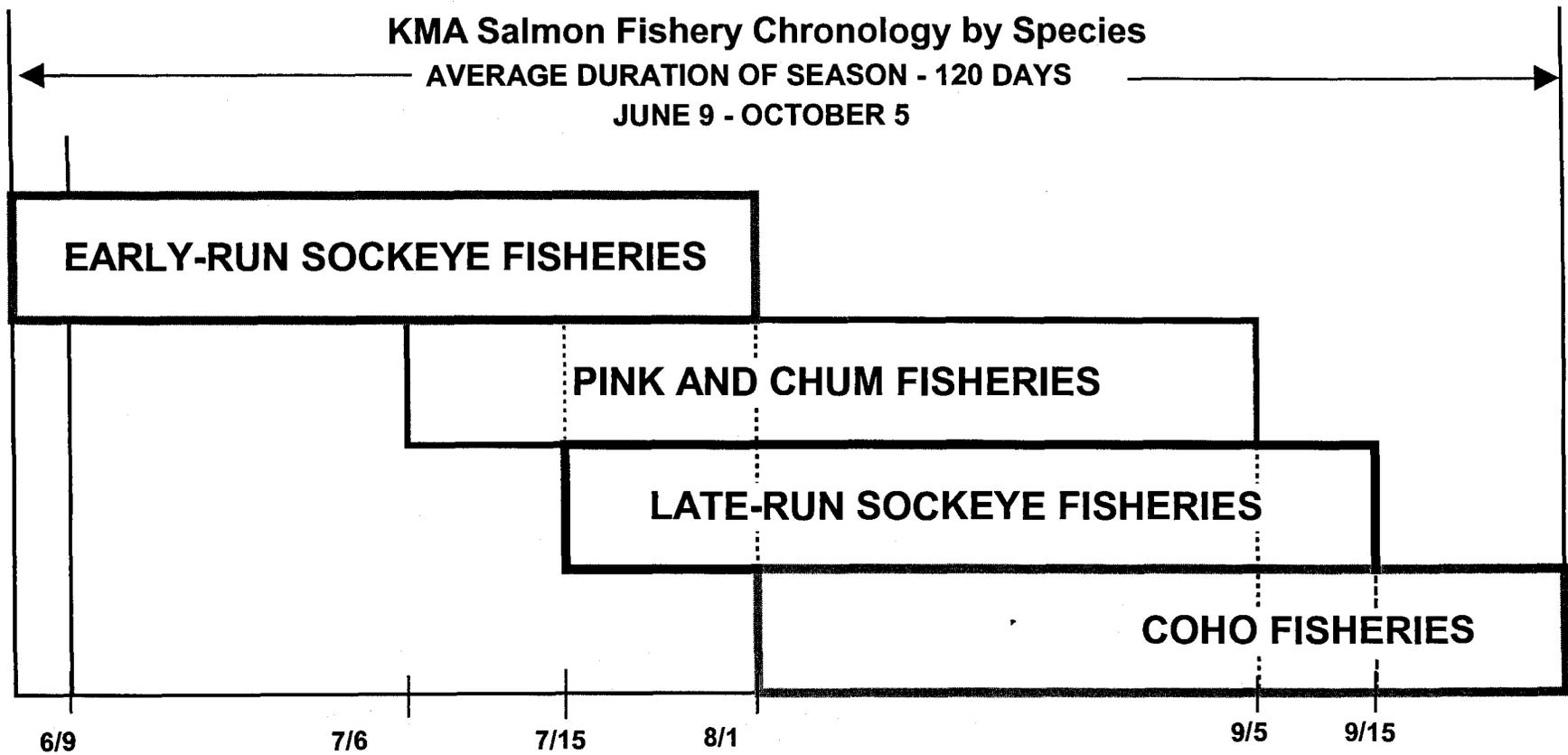


Figure 1. Commercial salmon fishery chronology, by species, for the Kodiak Management Area.

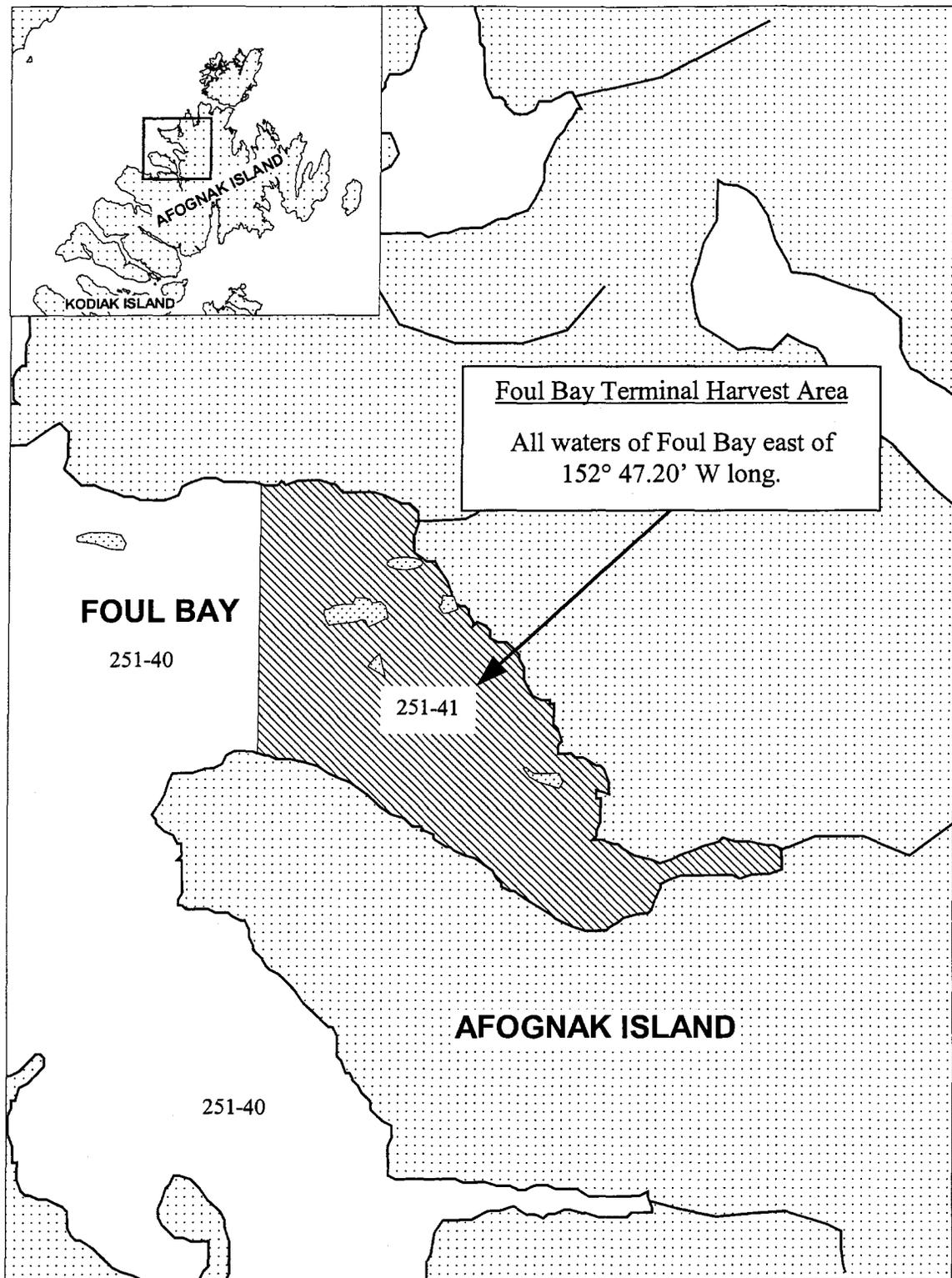


Figure 2. Boundaries of the Foul Bay Terminal Harvest Area in the Kodiak Management Area.

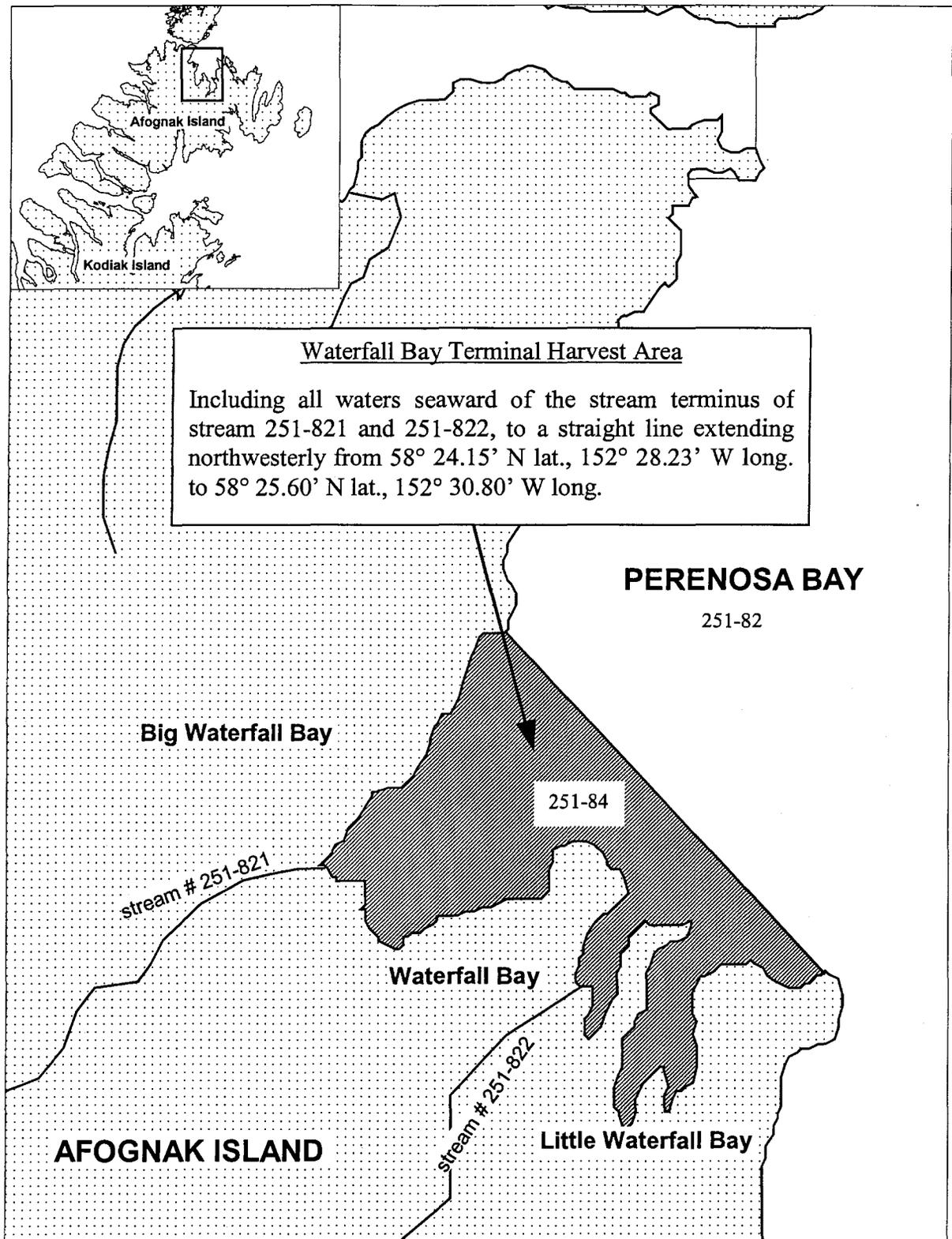


Figure 3. Boundaries of the Waterfall Bay Terminal Harvest Area in the Kodiak Management Area.

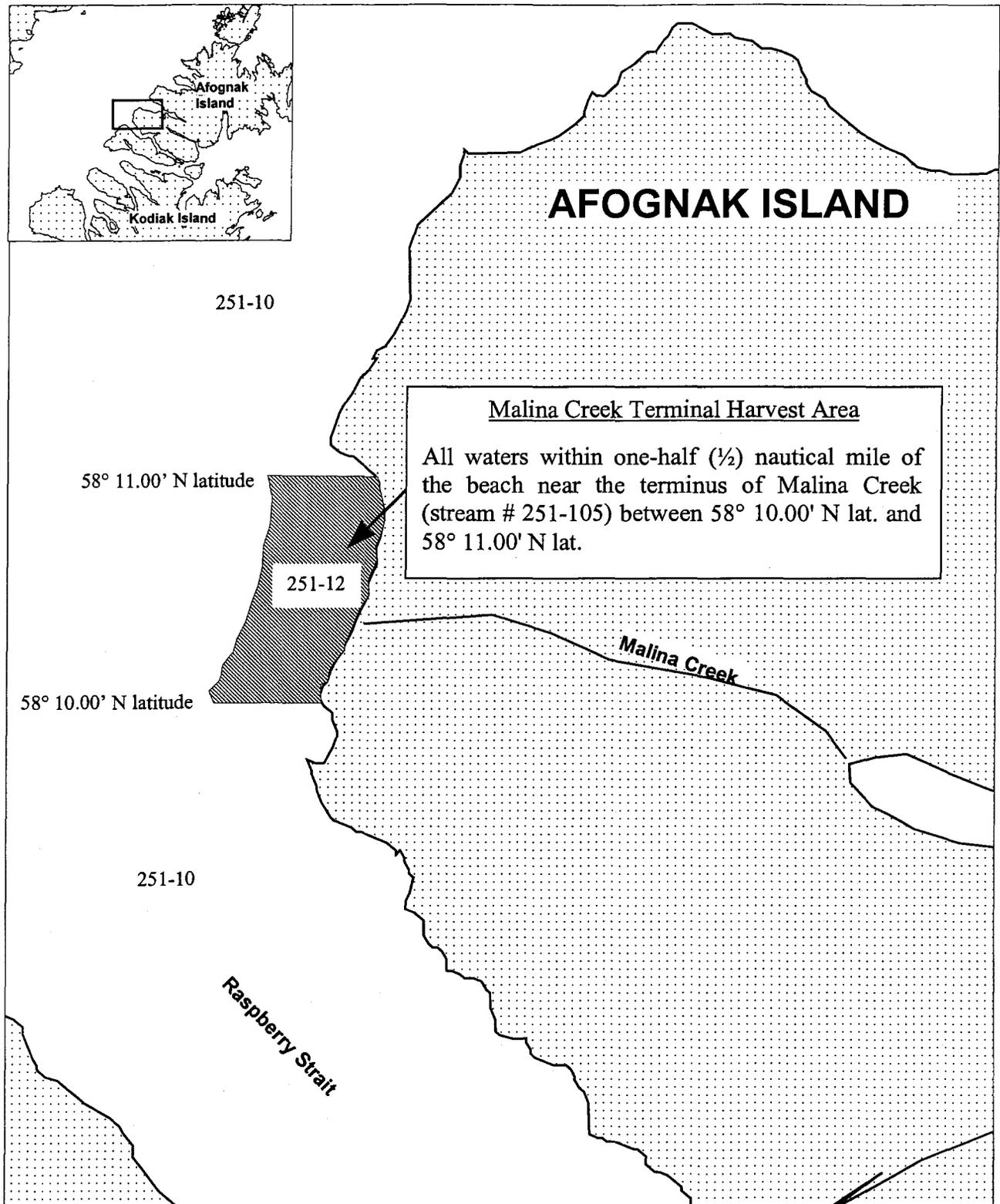


Figure 4. Boundaries of the Malina Creek Terminal Harvest Area in the Kodiak Management Area.

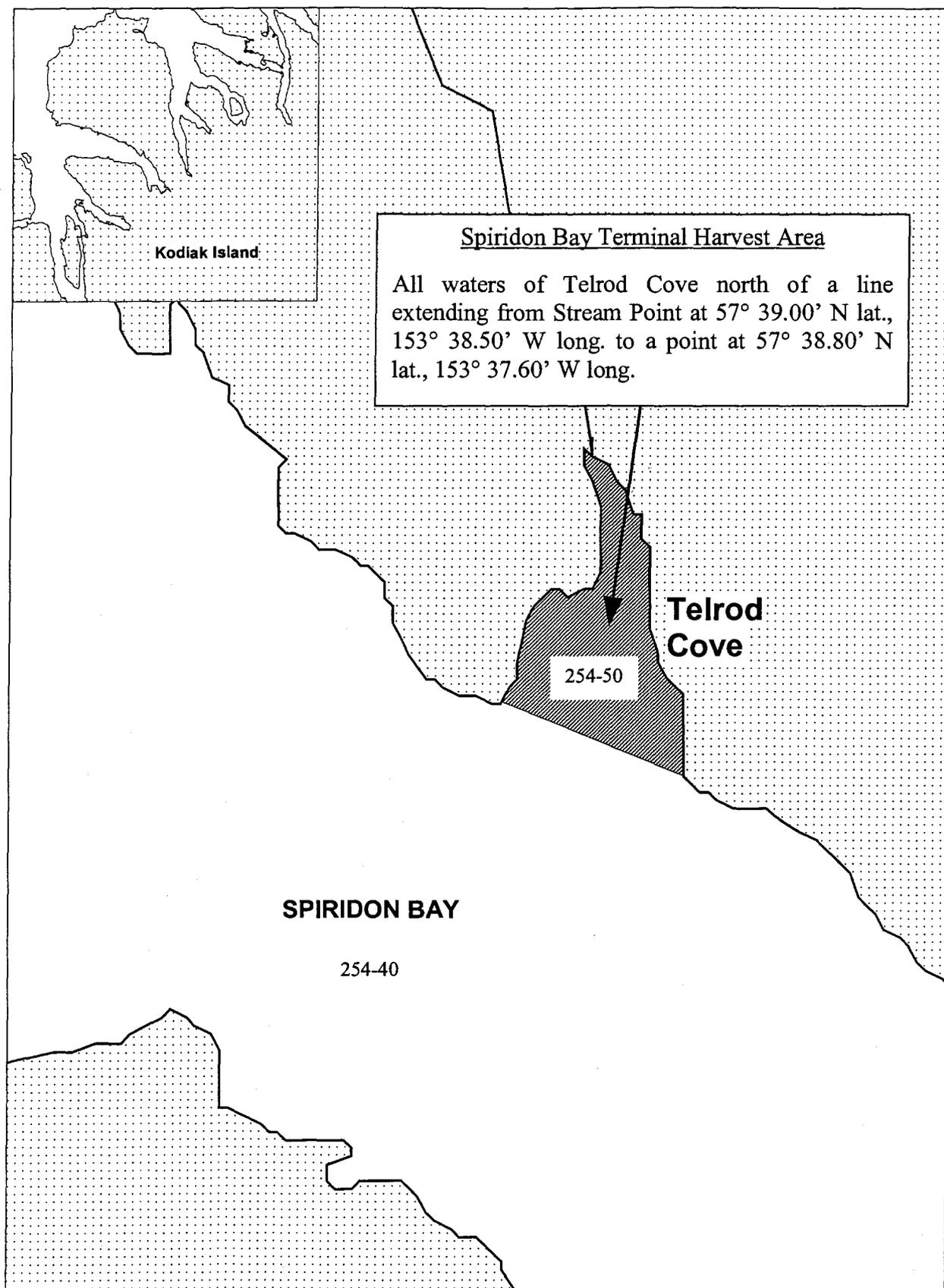


Figure 5. Boundaries of the Spiridon Bay Terminal Harvest Area (Telrod Cove) in the Kodiak Management Area.

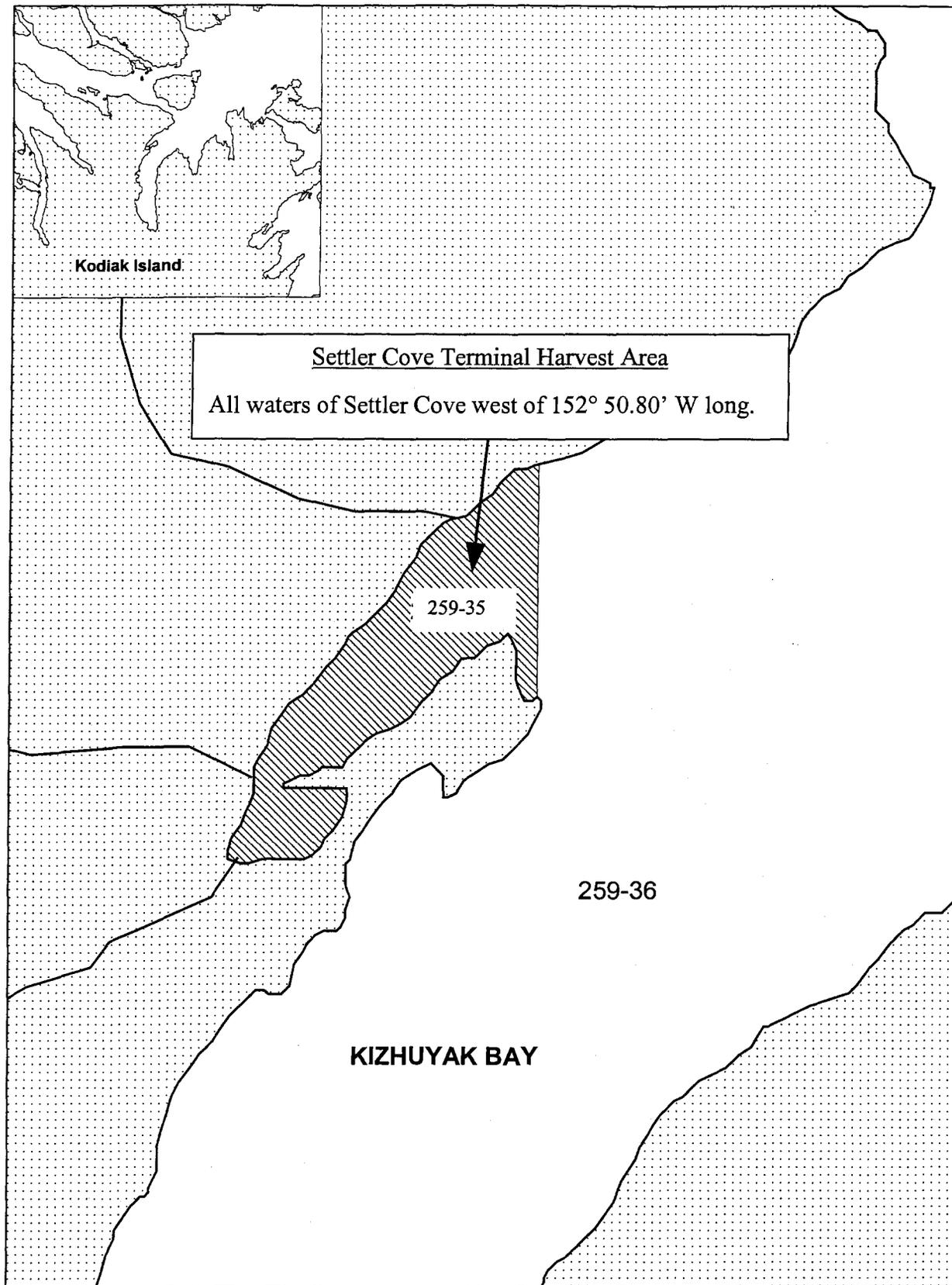


Figure 6. Boundaries of the Settler Cove Terminal Harvest Area in the Kodiak Management Area.

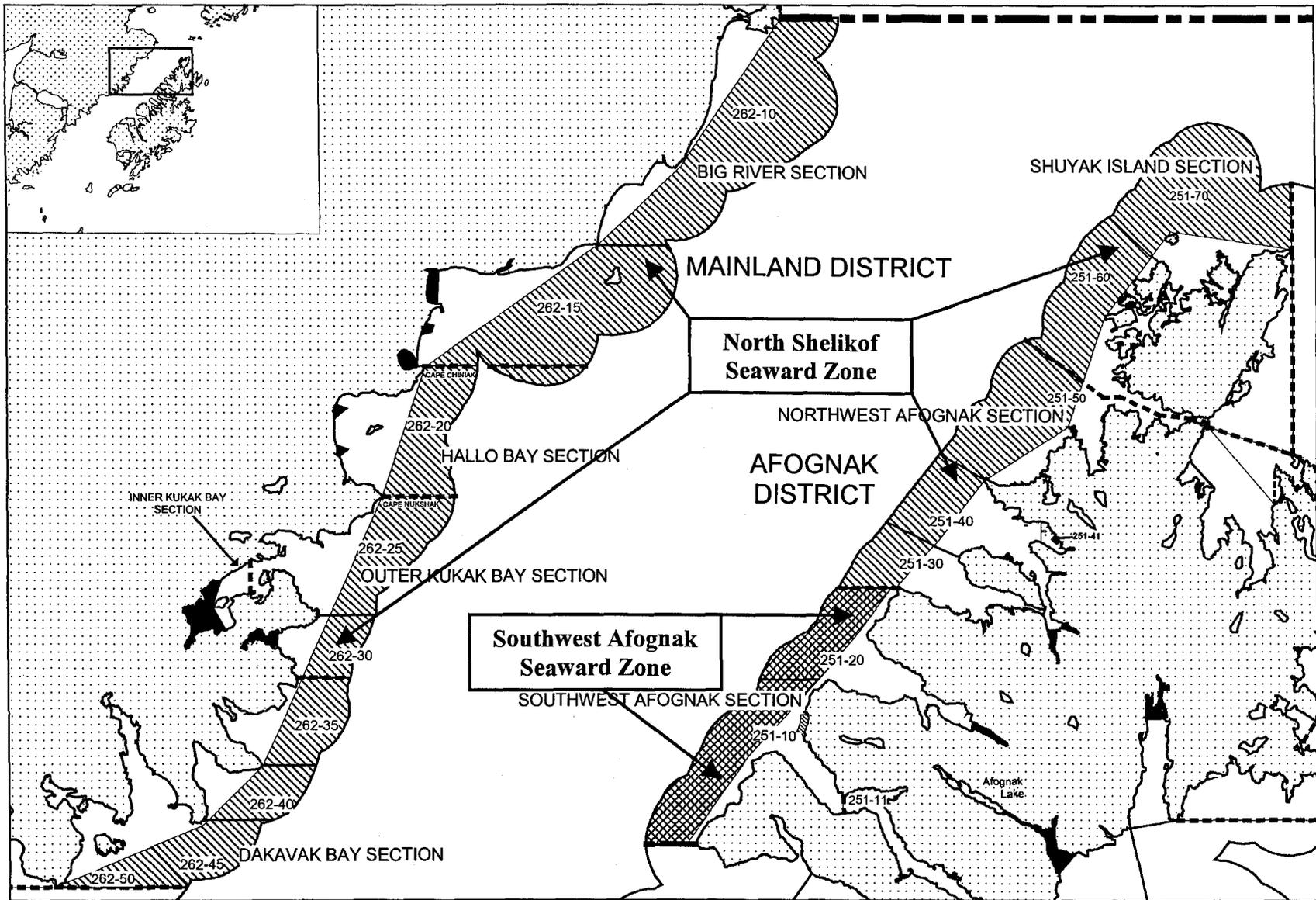


Figure 7. Map of the “North Shelikof Seaward Zone” and the “Southwest Afognak Seaward Zone” of the North Shelikof Strait Sockeye Salmon Management Plan in the Kodiak Management Area.

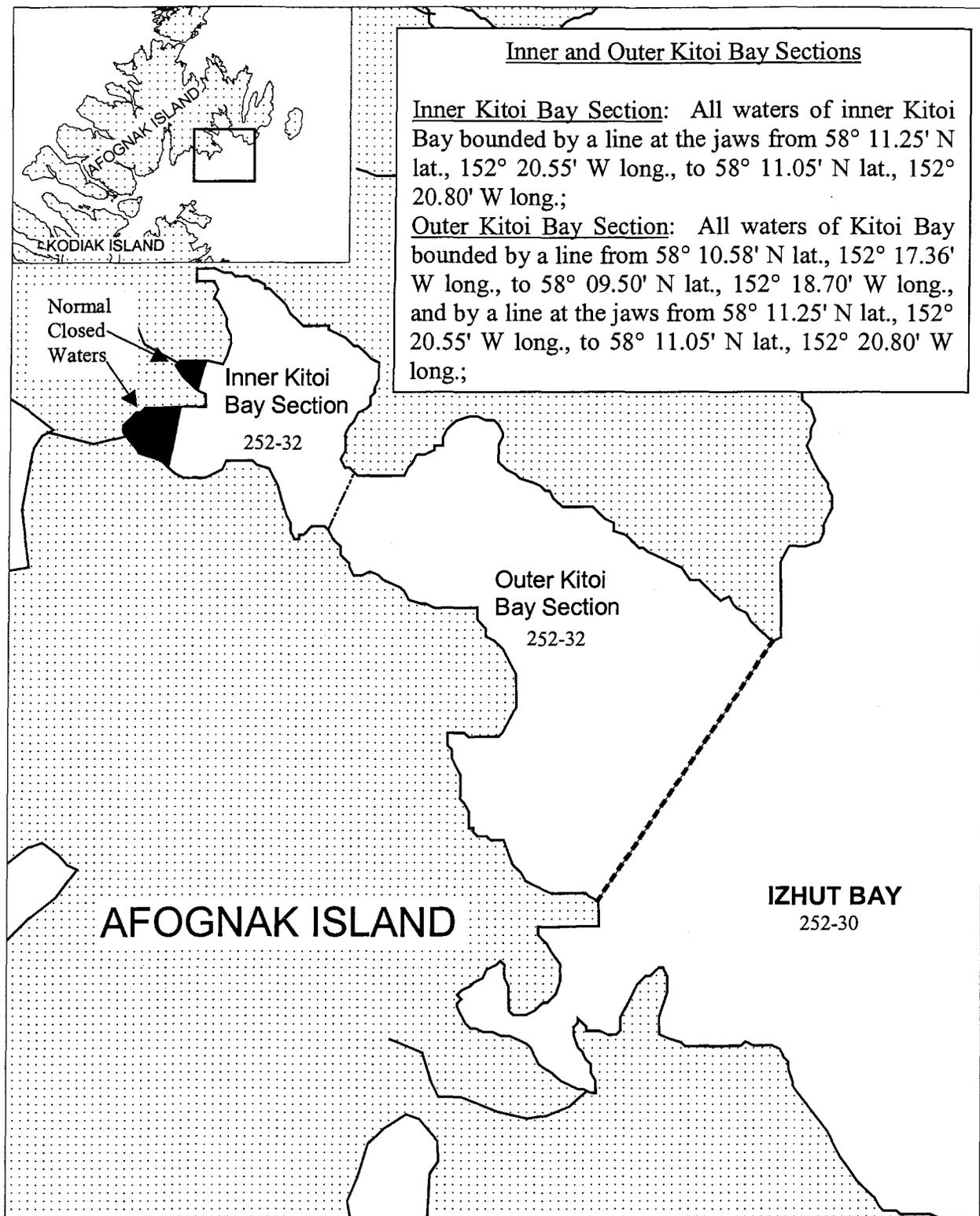


Figure 8. Map of the Inner and Outer Kitoi Bay Sections and the normally closed waters, in the Kodiak Management Area.

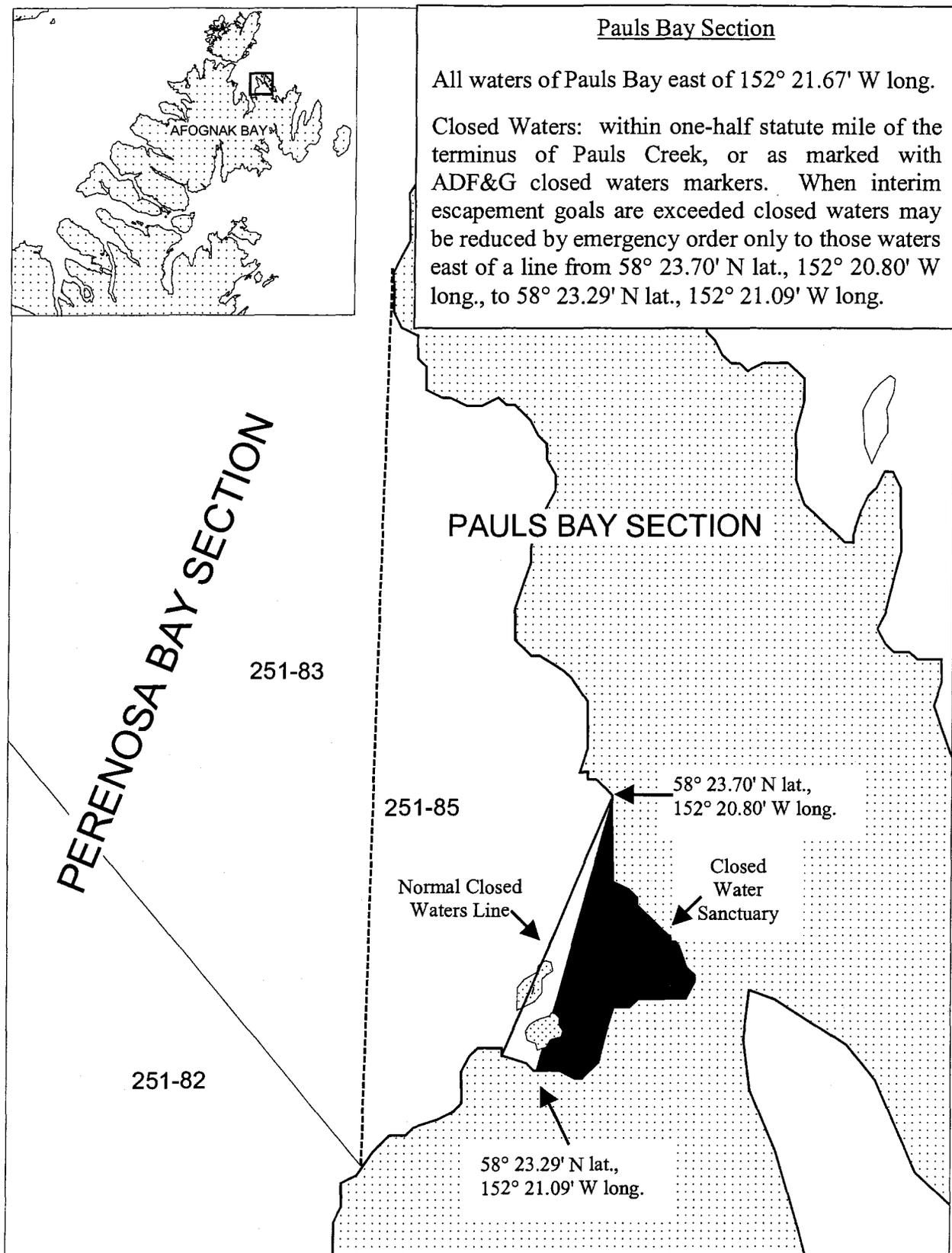


Figure 9. Map of the Pauls Bay Section and closed waters, in the Kodiak Management Area.

BUSKIN RIVER CLOSED WATER SANCTUARY

Waters closed to commercial and subsistence salmon fishing.

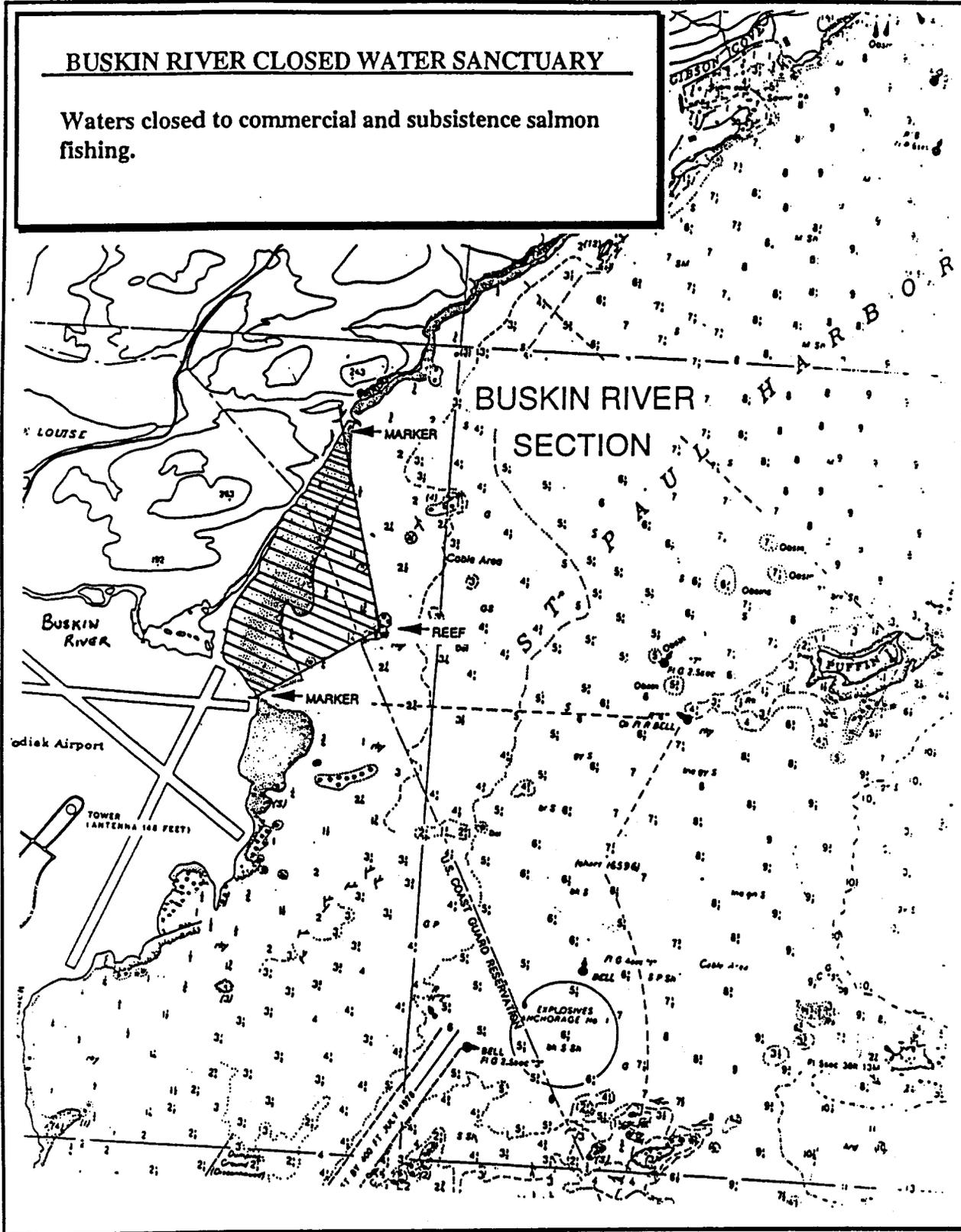


Figure 10. Buskin River closed water sanctuary in the Kodiak Management Area.

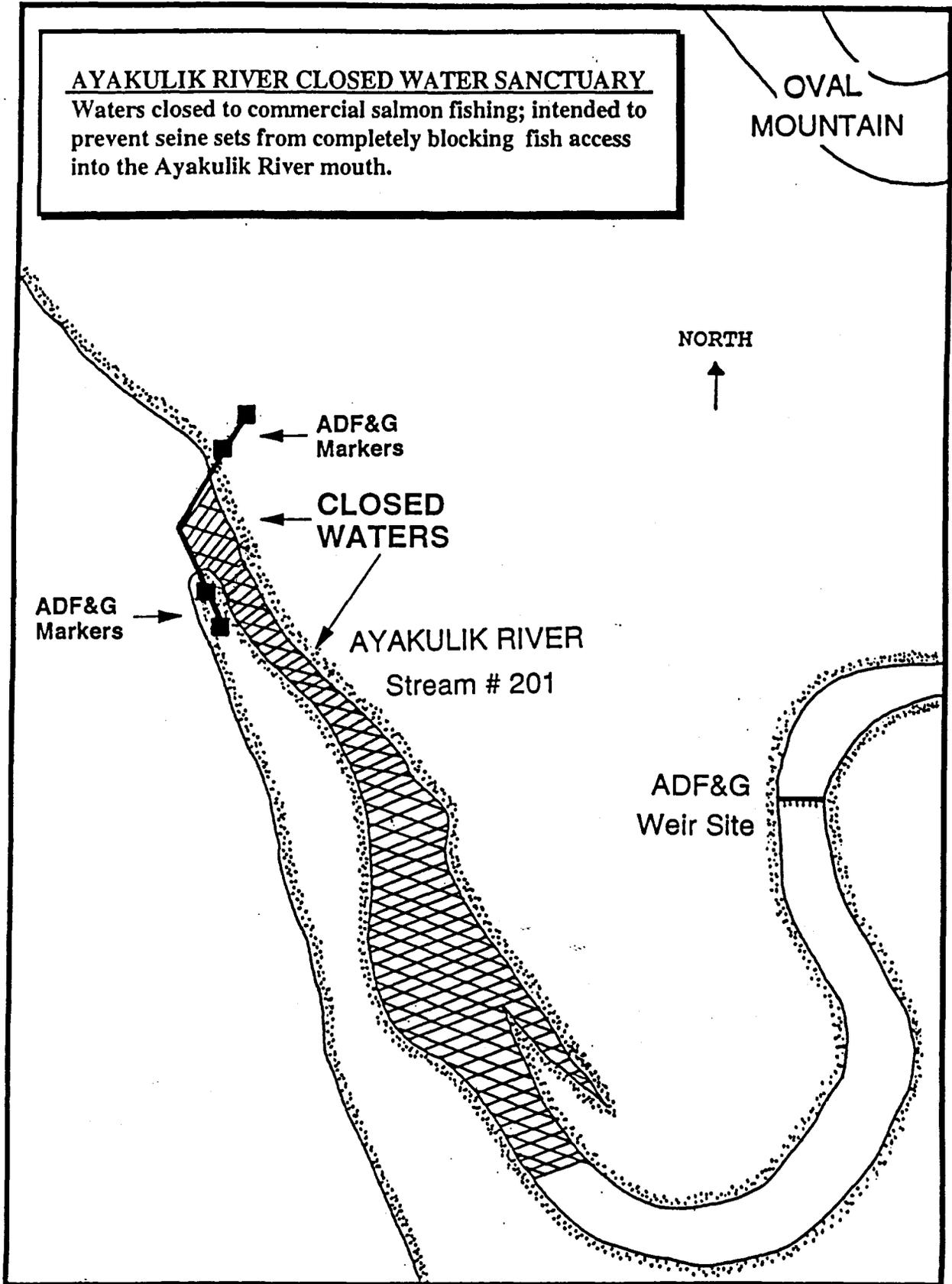
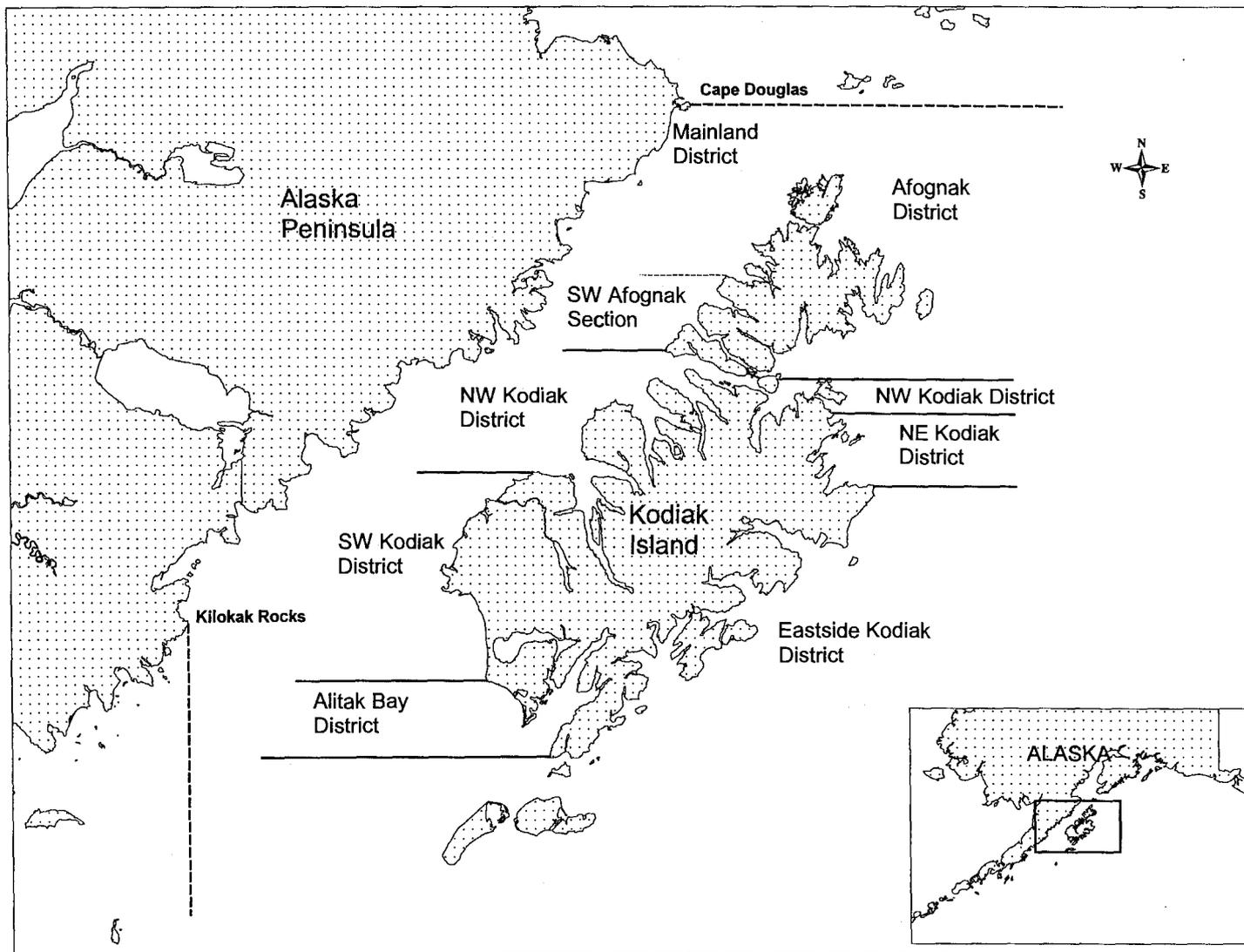
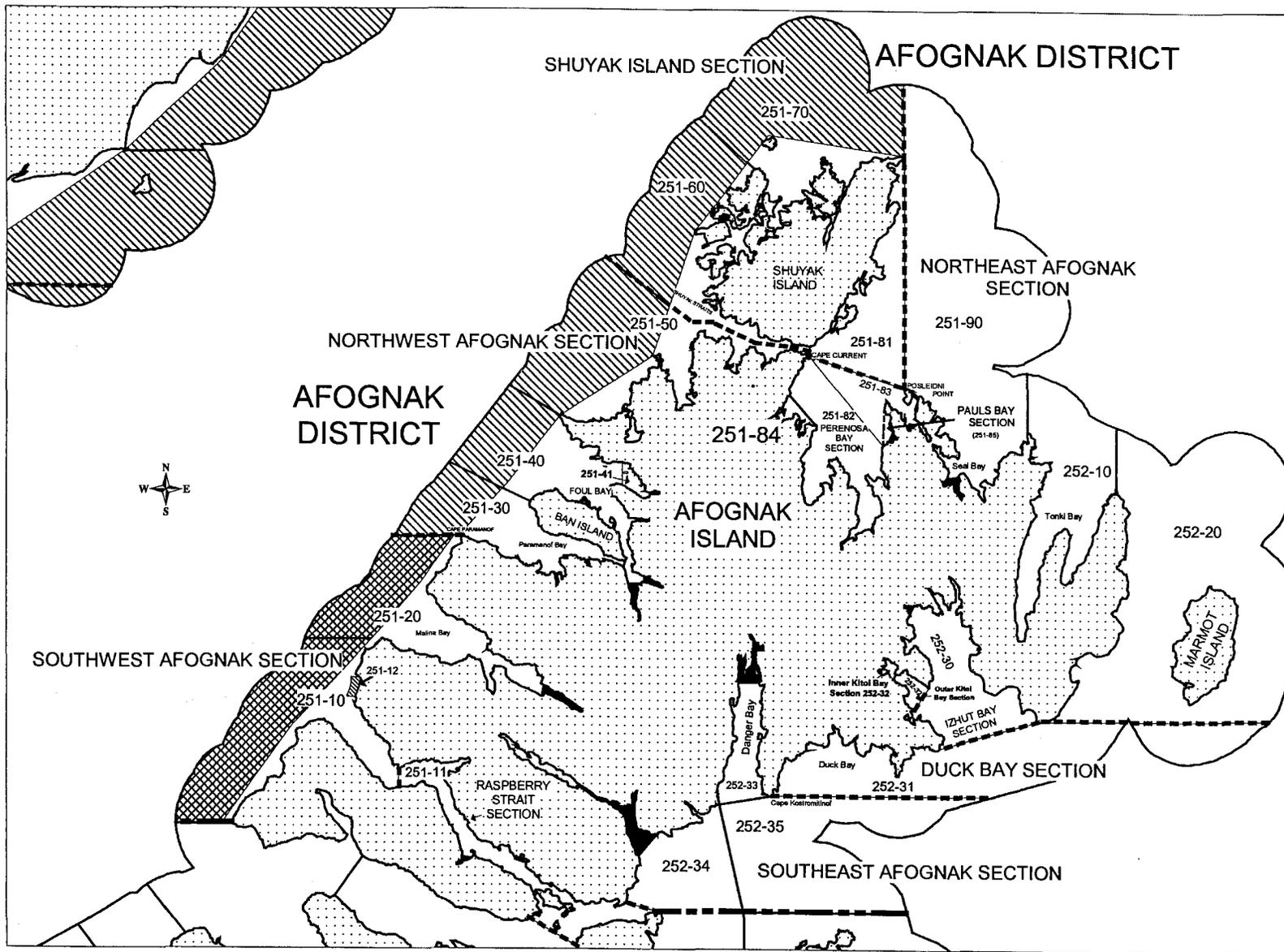


Figure 11. Ayakulik River closed water sanctuary in the Kodiak Management Area.

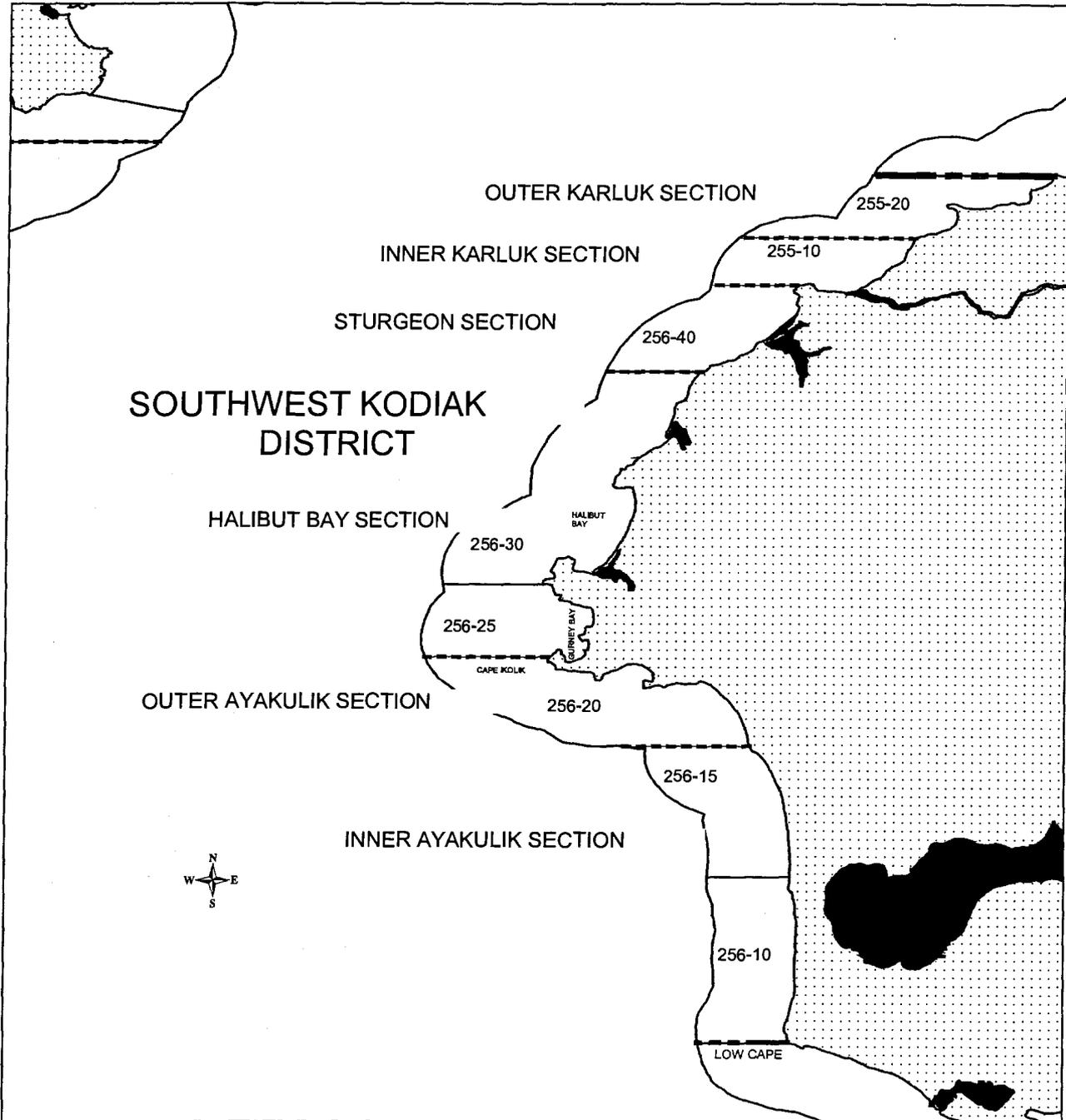
APPENDIX



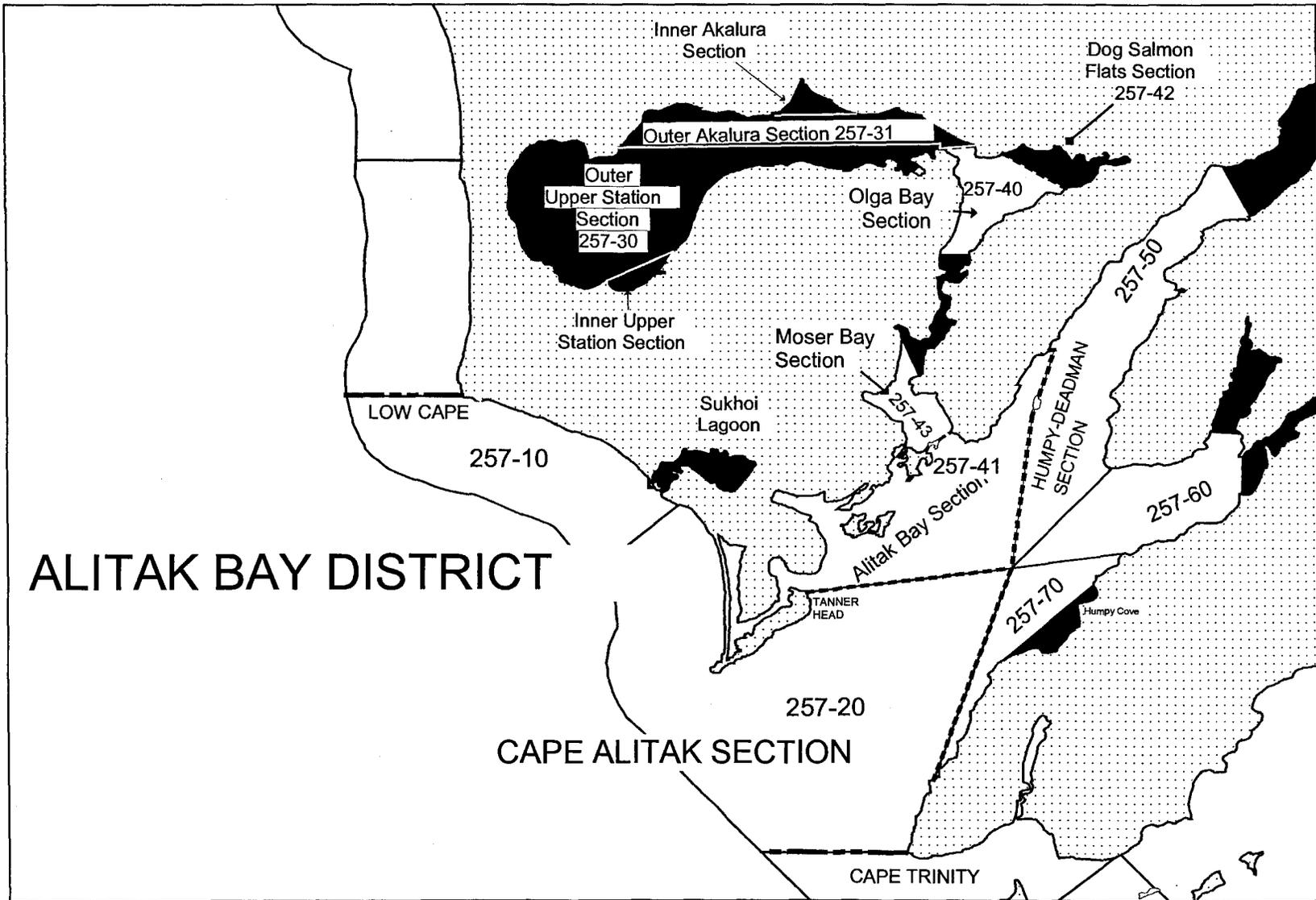
Appendix A.1. Map of the Kodiak Management Area identifying commercial salmon fishing districts.



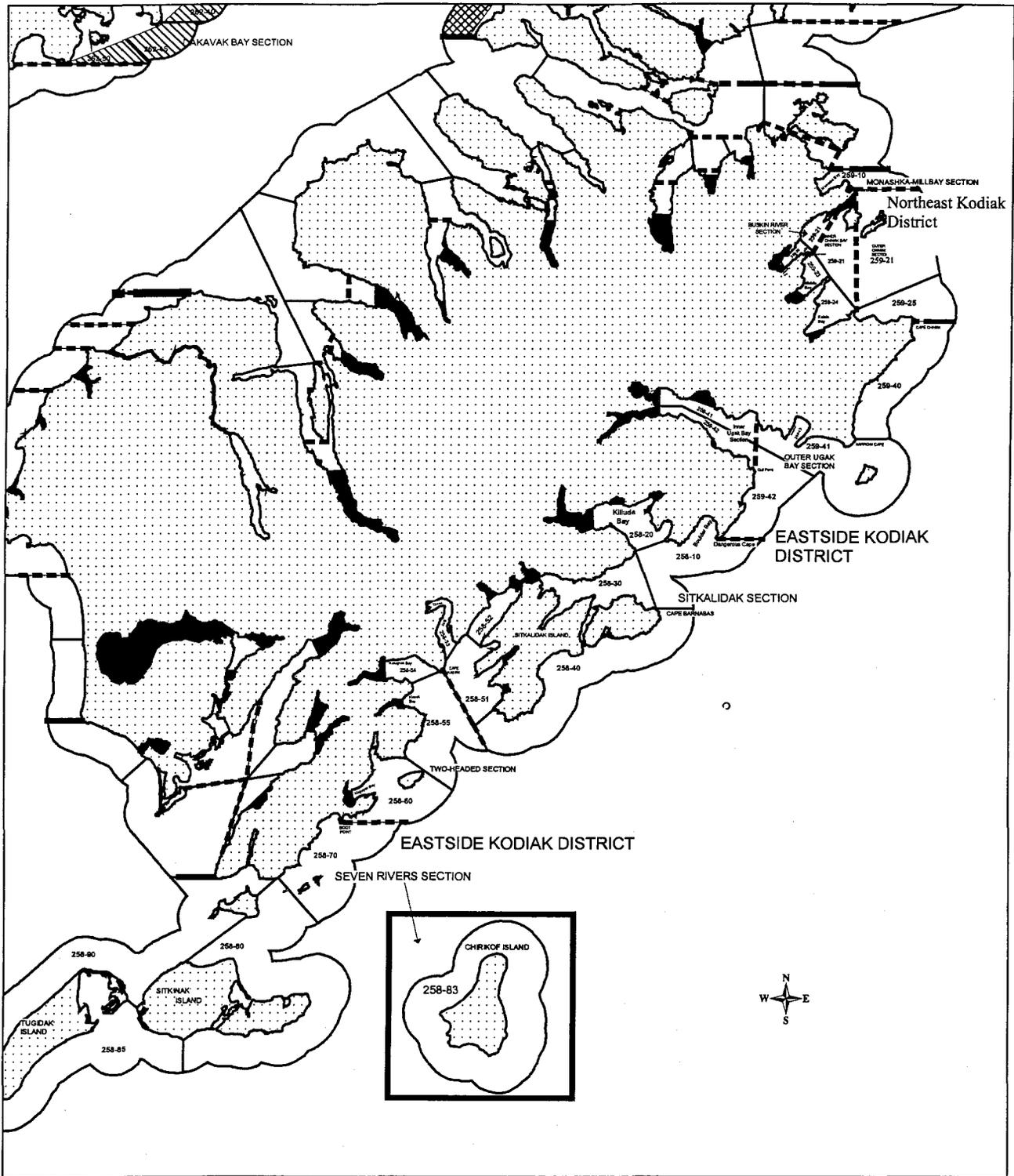
Appendix A.2. Map of the Afognak District identifying commercial salmon fishing sections and statistical areas.



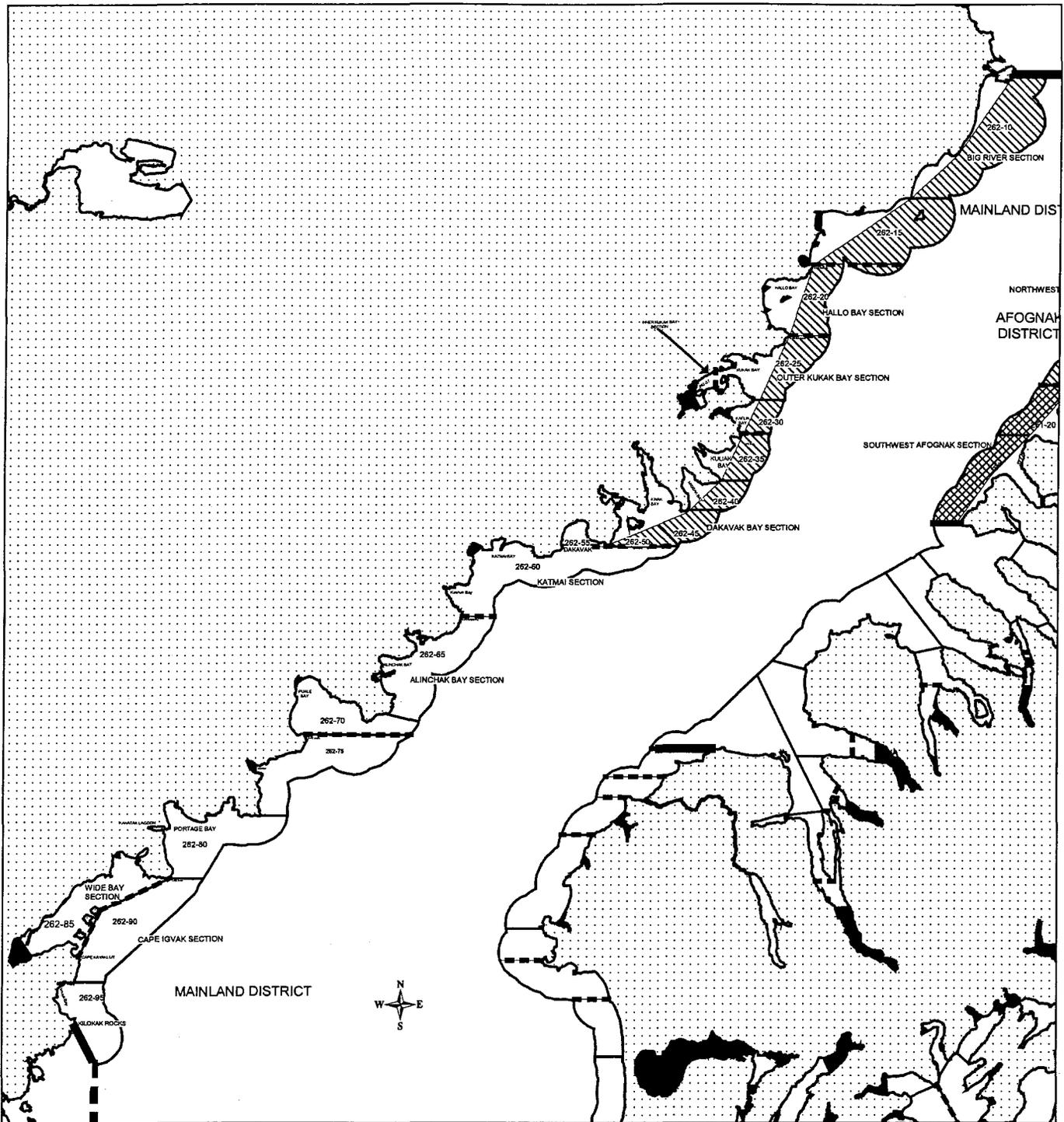
Appendix A.4. Map of the Southwest Kodiak District identifying commercial salmon fishing sections and statistical areas.



Appendix A.5. Map of the Alitak Bay District identifying commercial salmon fishing sections and statistical areas.

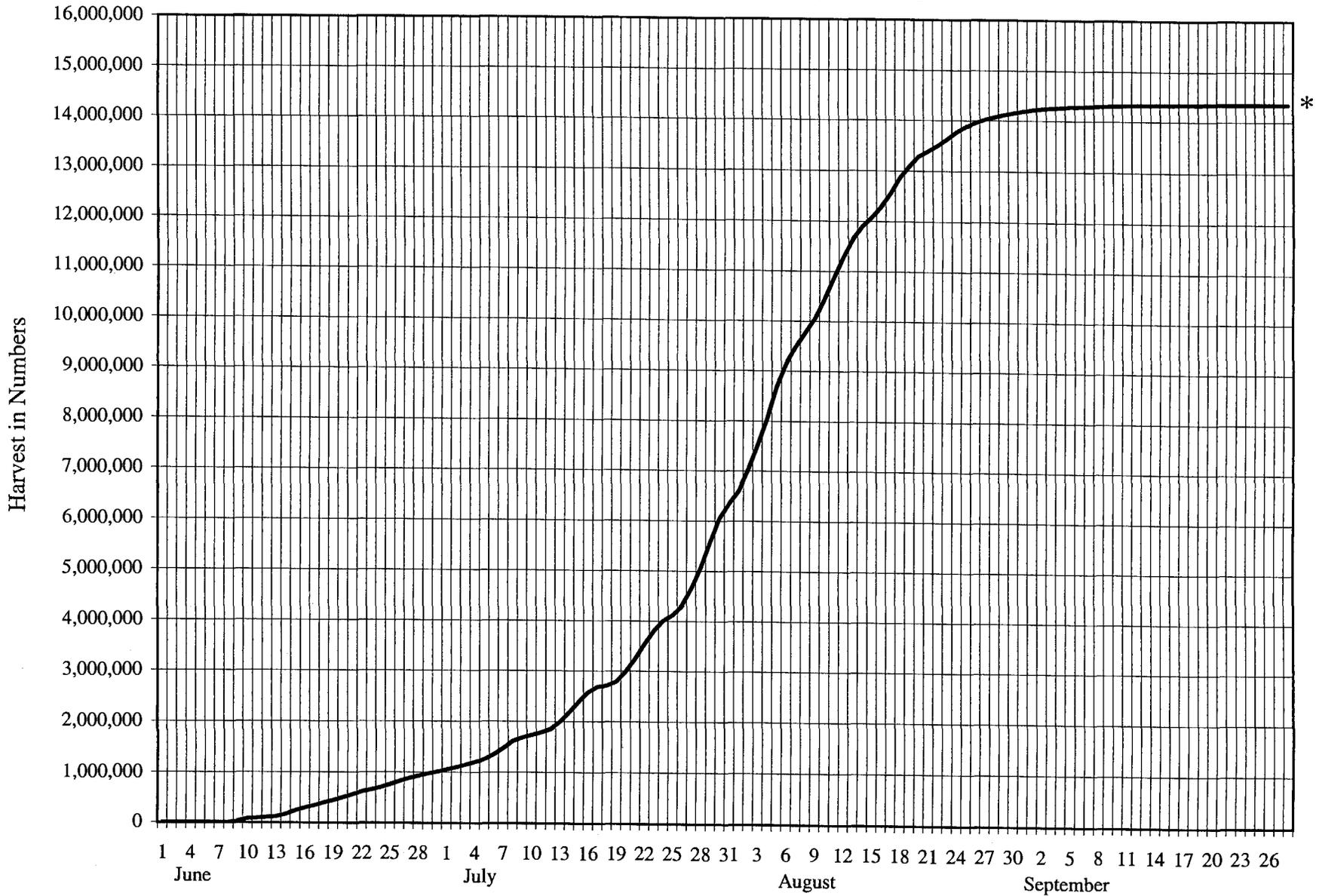


Appendix A.6. Map of the Northeast Kodiak and Eastside Kodiak Districts identifying commercial salmon fishing sections and statistical areas.



Appendix A.7. Map of the Mainland District identifying commercial salmon fishing sections and statistical areas.

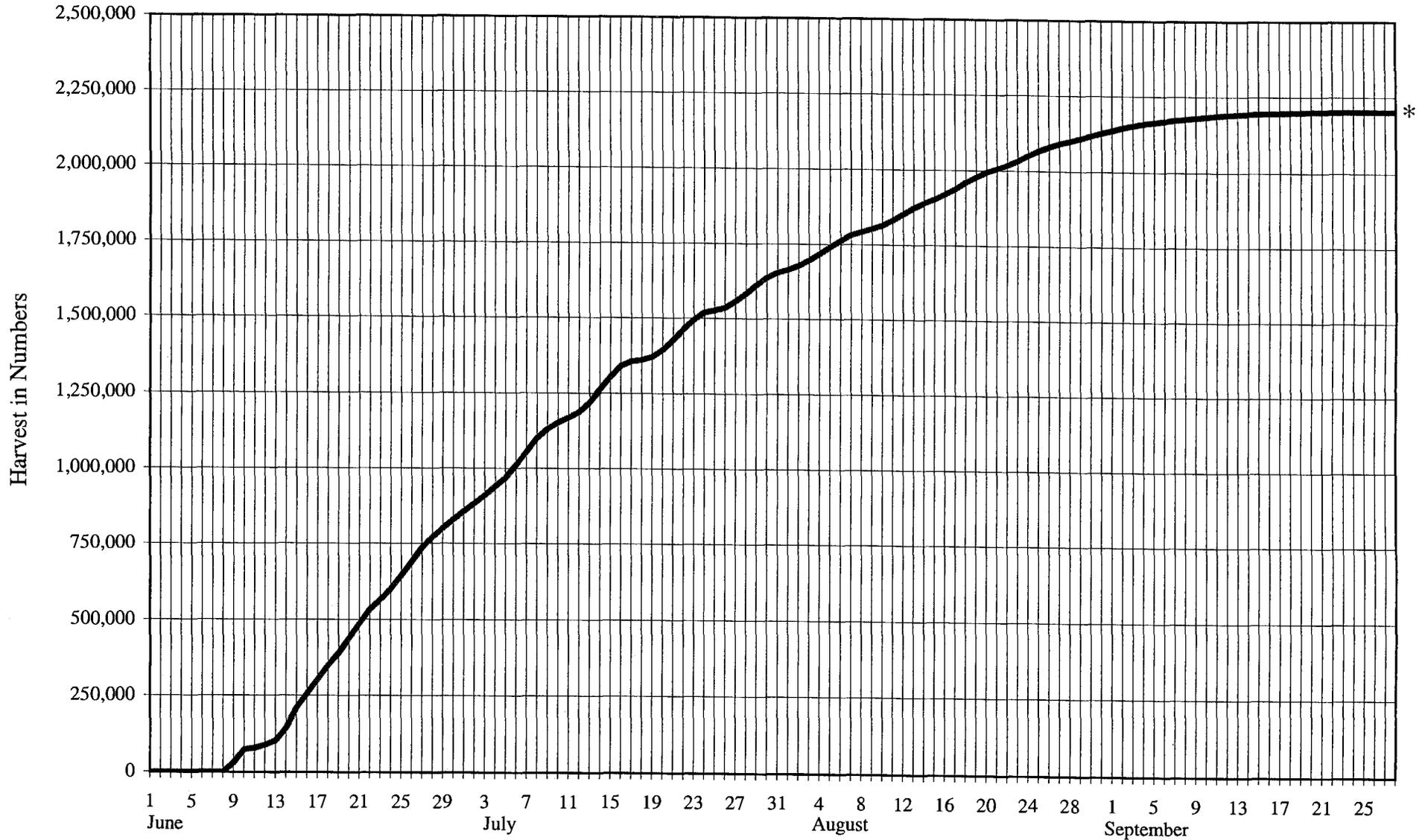
Projected Cumulative Salmon Harvest by Day, All Species Combined, 2002



* 2002 All Salmon Speices Projected Harvest Total = 14,367,000

Appendix B.1. Projected salmon harvest curve, all species combined, for the Kodiak Management Area, 2002.

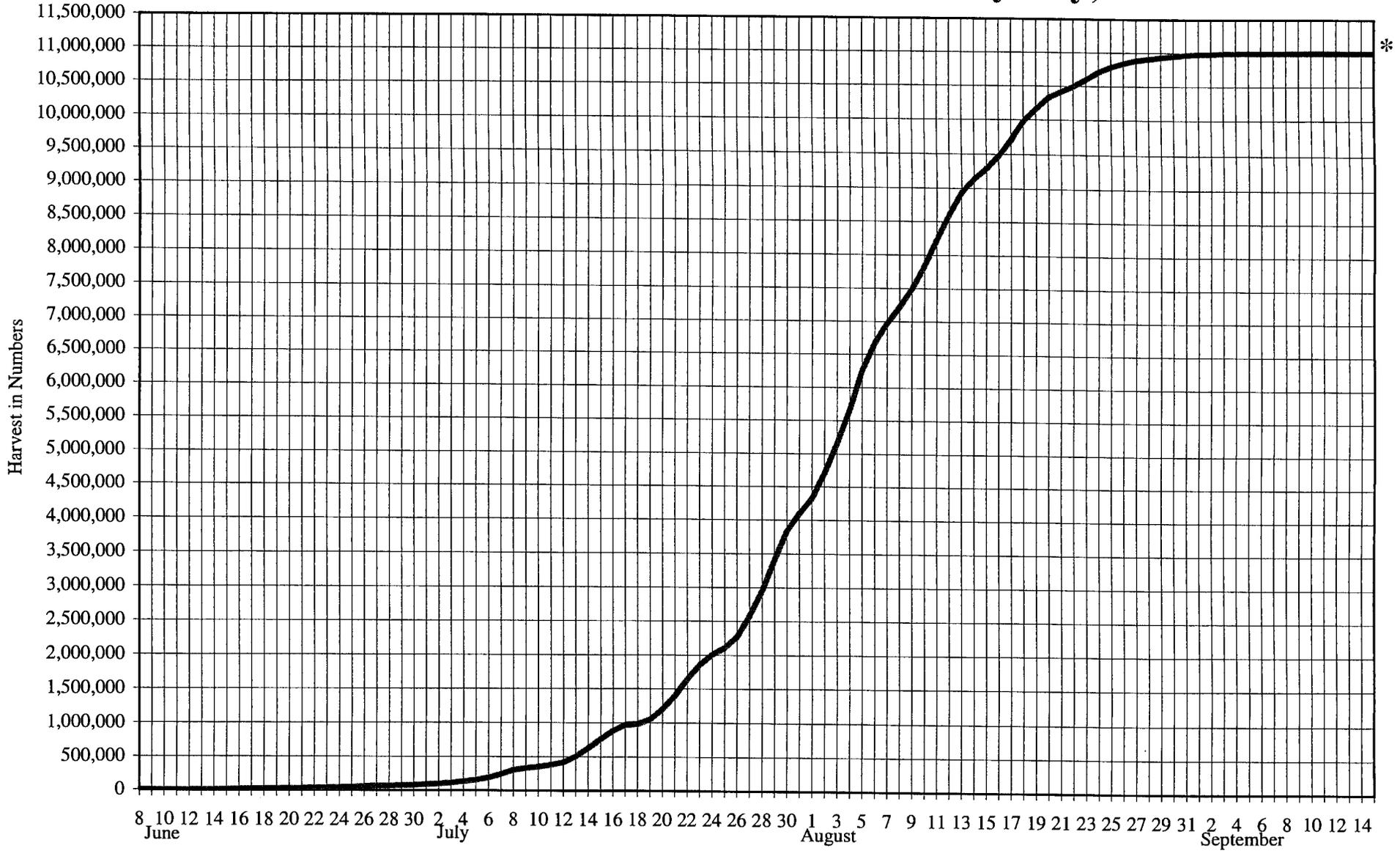
Projected Cumulative Sockeye Salmon Harvest by Day, 2002



* 2002 Sockeye Salmon Projected Harvest Total = 2,202,000

Appendix B.2. Projected sockeye salmon harvest curve for the Kodiak Management Area, 2002.

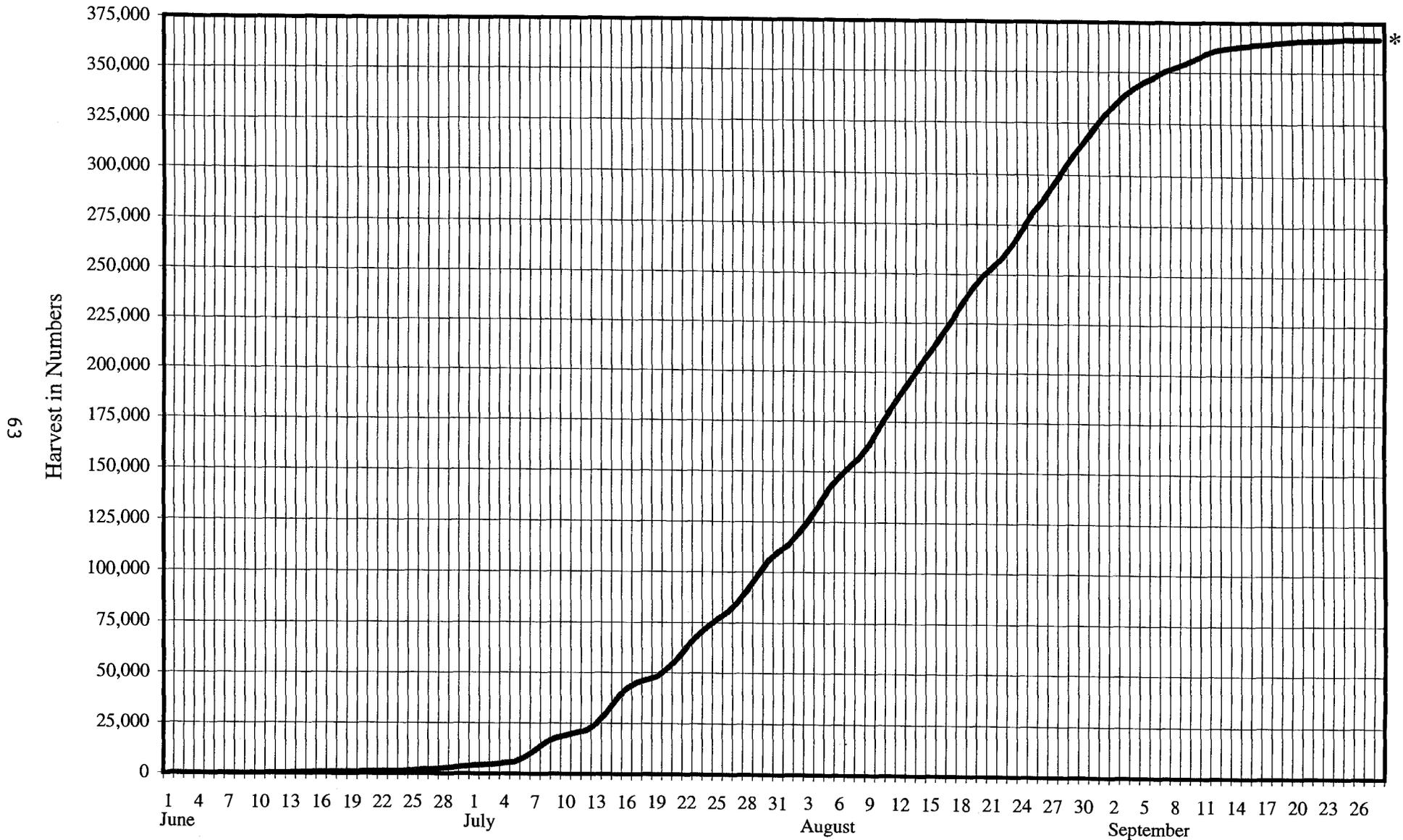
Projected Cumulative Pink Salmon Harvest by Day, 2002



*** 2002 Pink Salmon Projected Harvest = 11,000,000**

Appendix B.3. Projected pinks salmon harvest curve for the Kodiak Management Area, 2002.

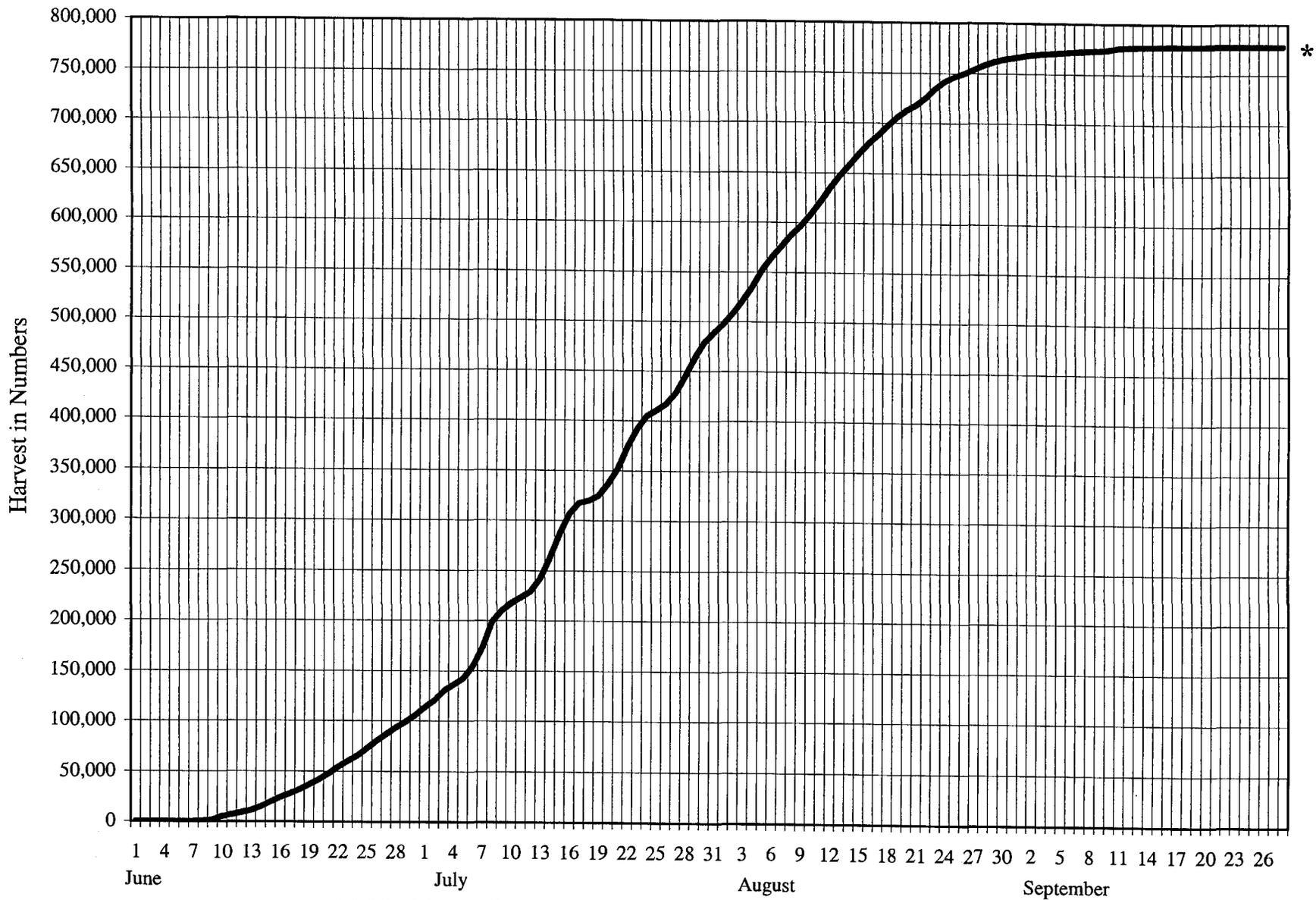
Projected Cumulative Coho Salmon Harvest by Day, 2002



* 2002 Coho Salmon Projected Harvest Total = 367,000

Appendix B.4. Projected coho salmon harvest curve for the Kodiak Management Area, 2002.

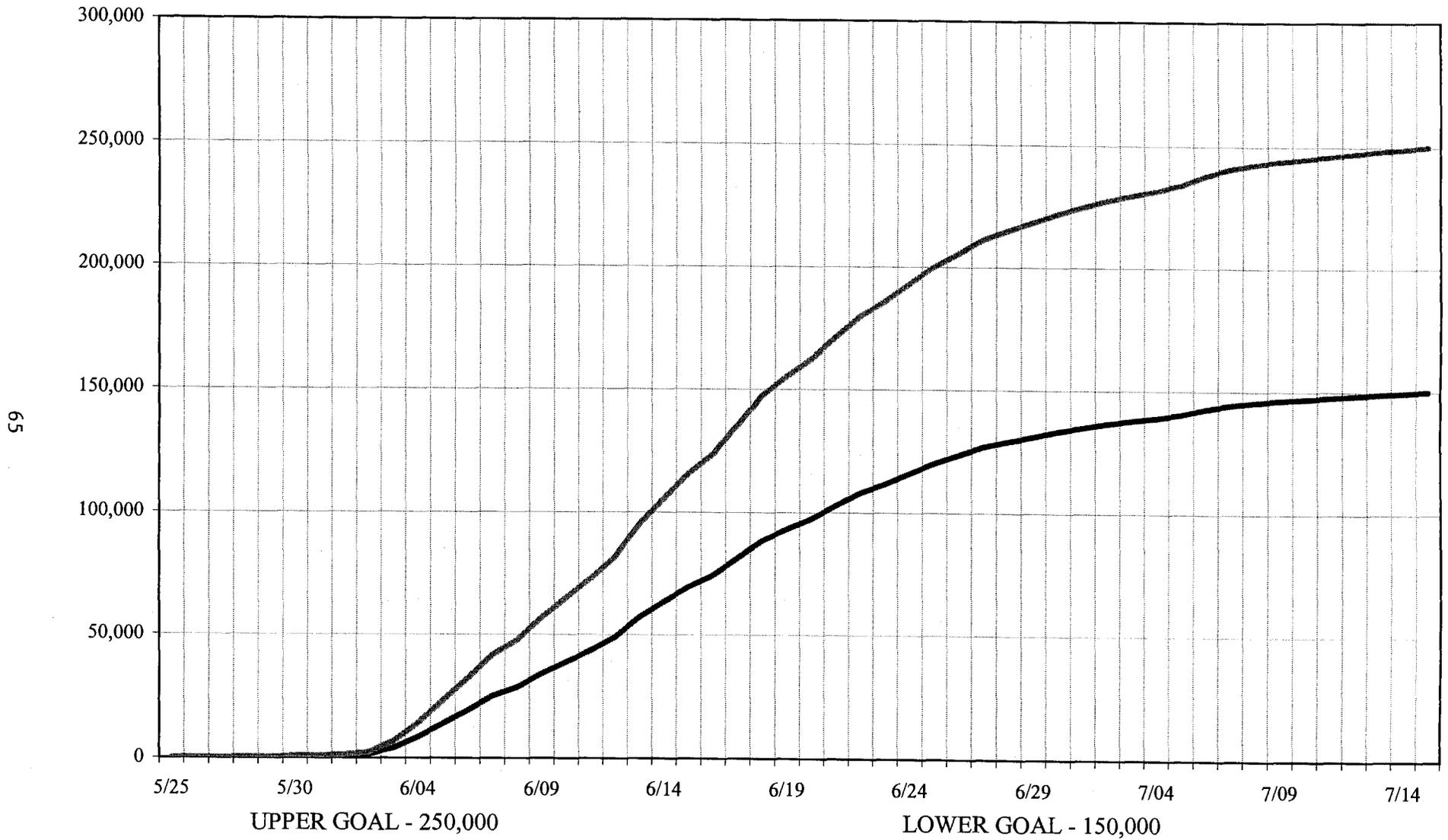
Projected Cumulative Chum Salmon Harvest by Day, 2002



* 2002 Chum Salmon Projected Harvest Total =778,000

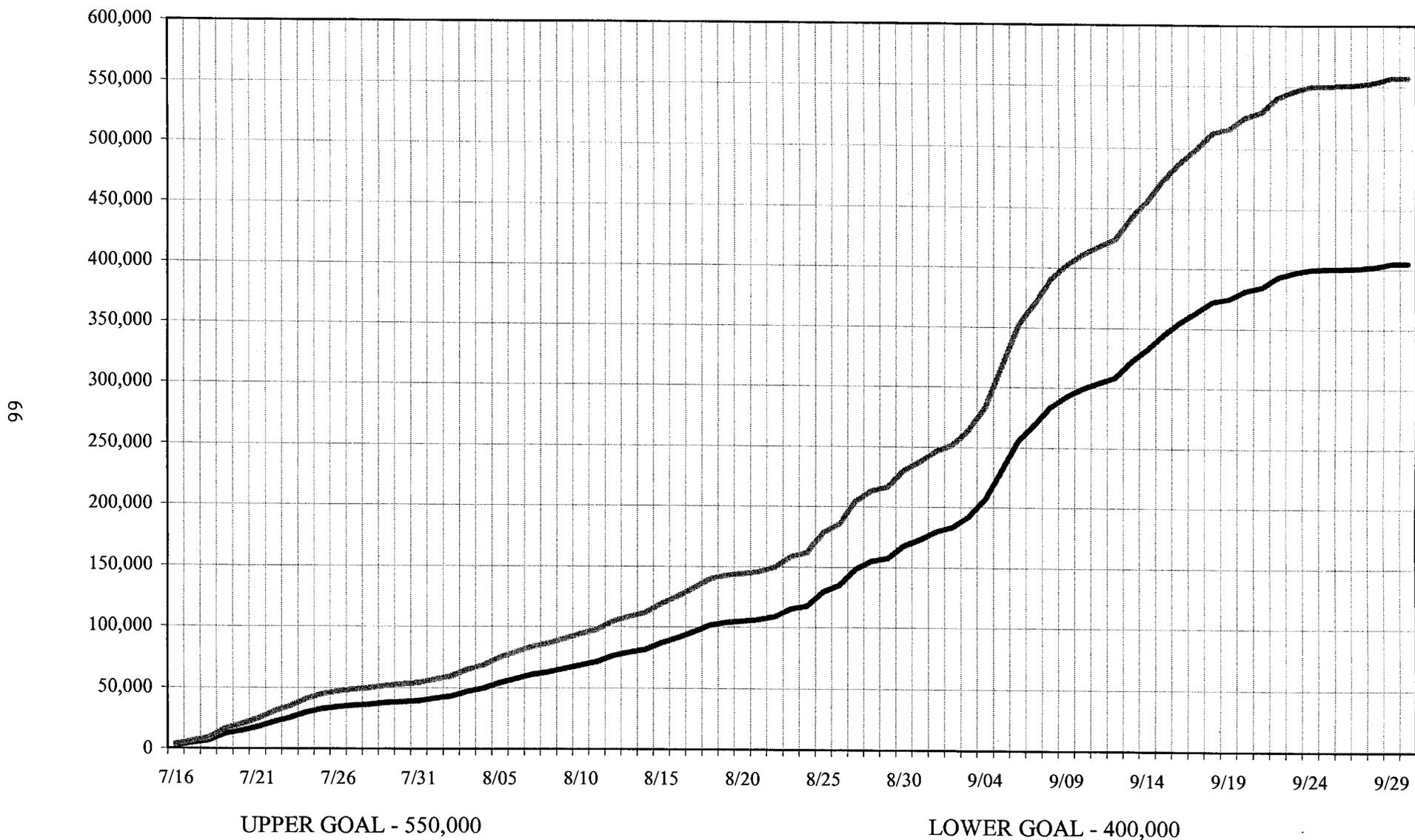
Appendix B.5. Projected chum salmon harvest curve for the Kodiak Management Area, 2002.

KARLUK SOCKEYE SALMON, EARLY-RUN
Upper and Lower Escapement Goals



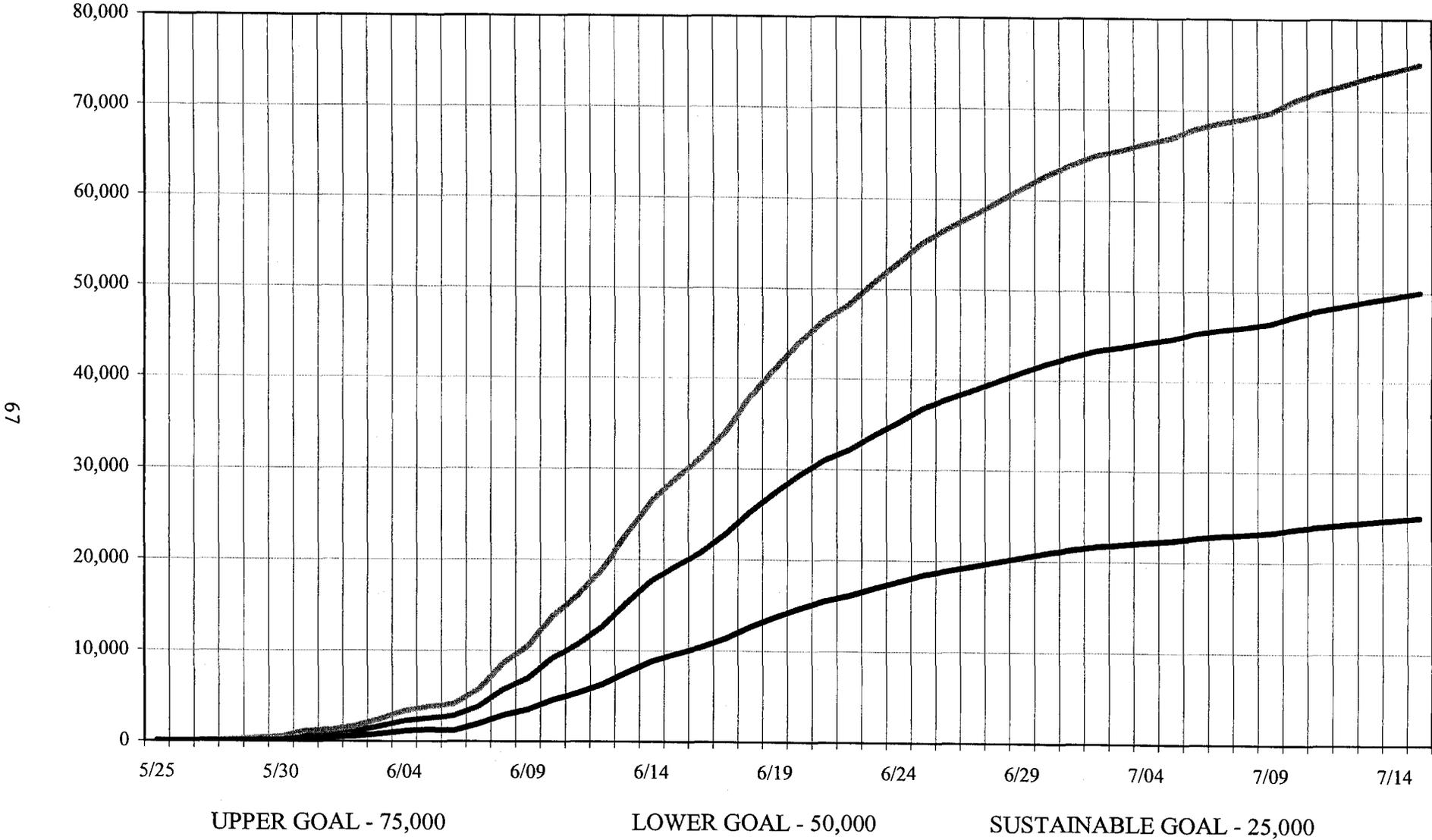
Appendix C.1. Upper and lower escapement goal curves for early-run Karluk sockeye salmon in the Kodiak Management Area, 2002.

KARLUK SOCKEYE SALMON, LATE-RUN
Upper and Lower Escapement Goals



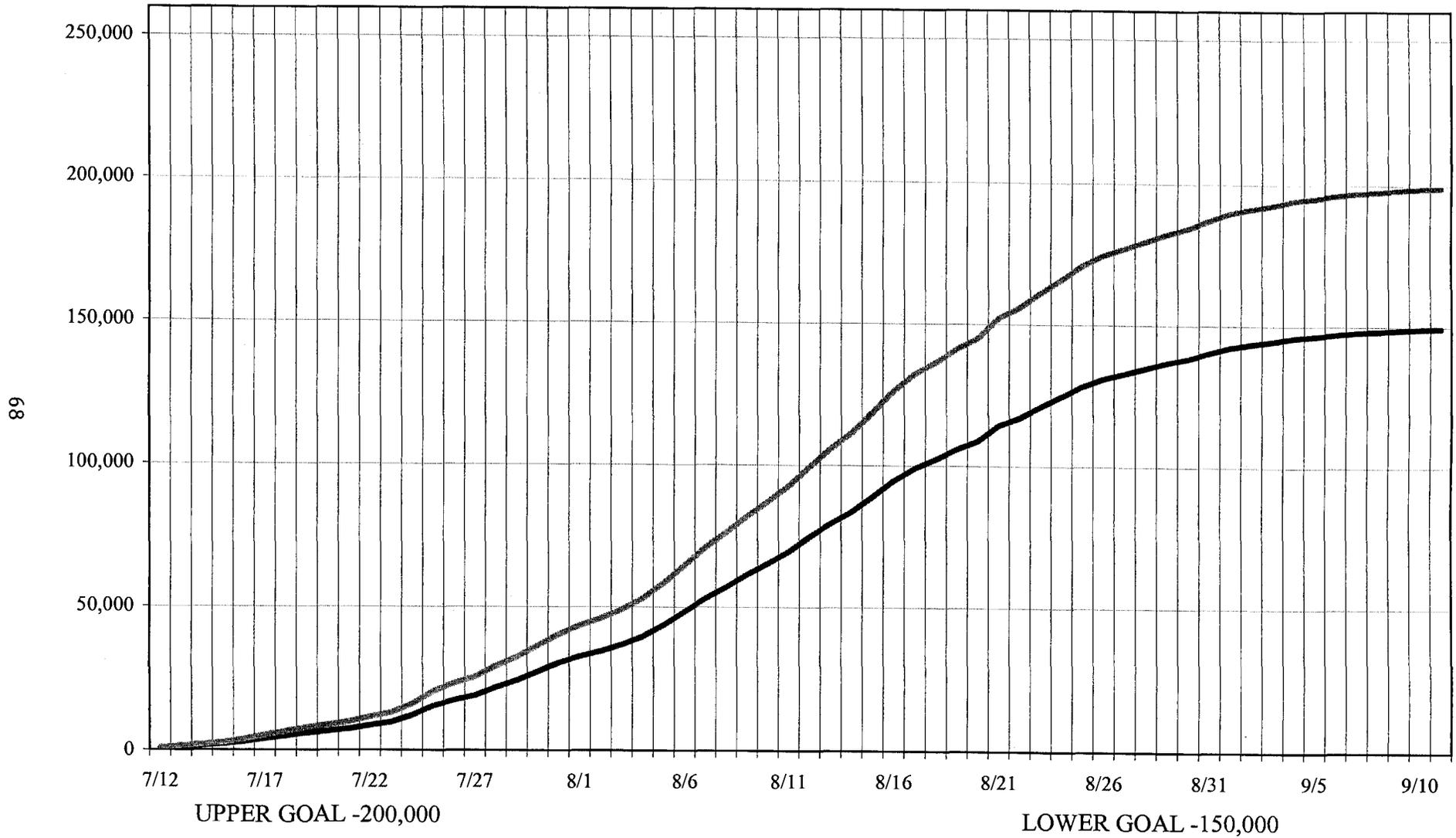
Appendix C.2. Upper and lower escapement goal curves for late-run Karluk sockeye salmon in the Kodiak Management Area, 2002.

UPPER STATION SOCKEYE SALMON, EARLY RUN
Upper and Lower Escapement Goals



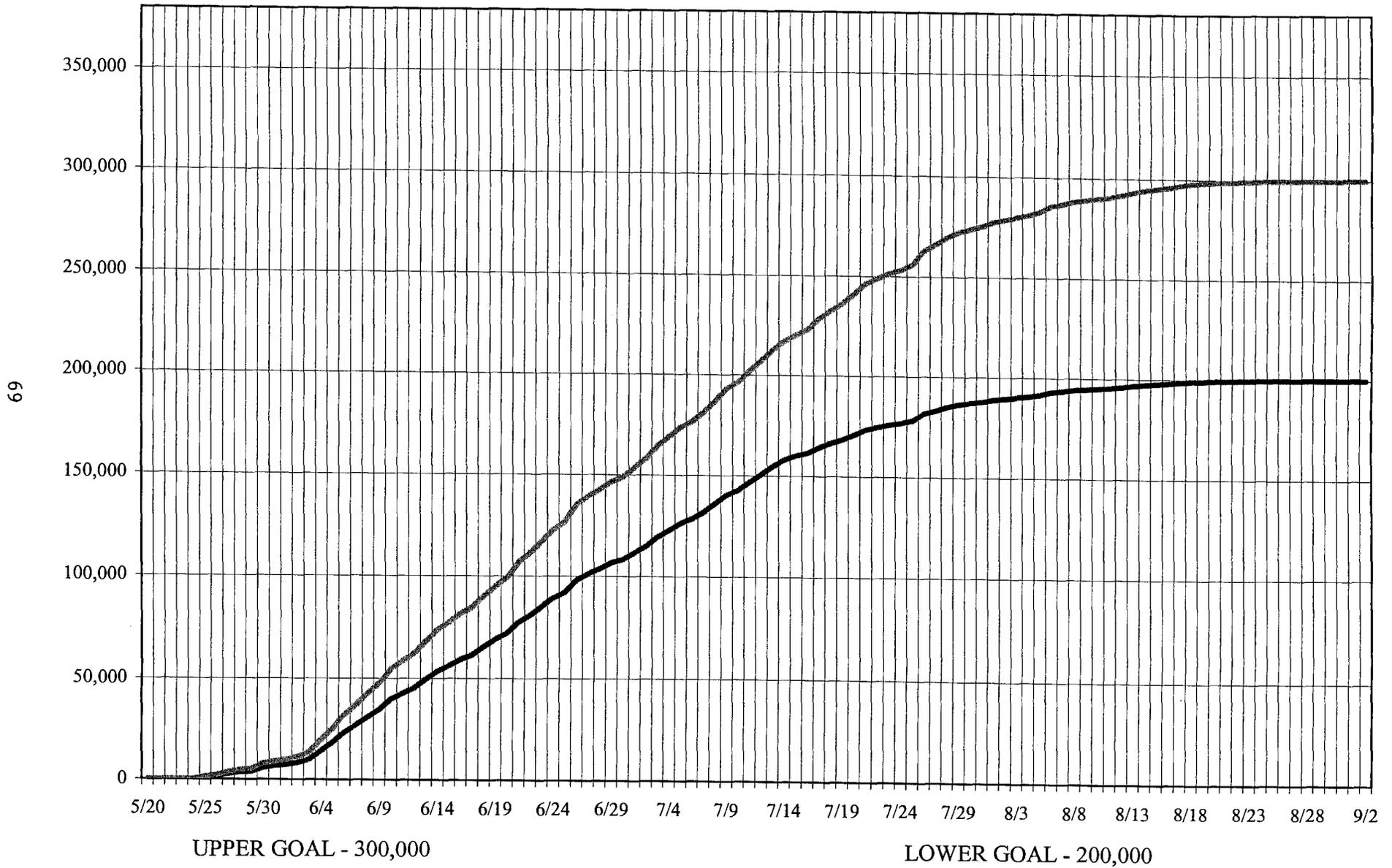
Appendix C.3. Upper and lower escapement goal curves for early-run Upper Station sockeye salmon in the Kodiak Management Area, 2002.

UPPER STATION SOCKEYE SALMON, LATE-RUN
Upper and Lower Escapement Goals



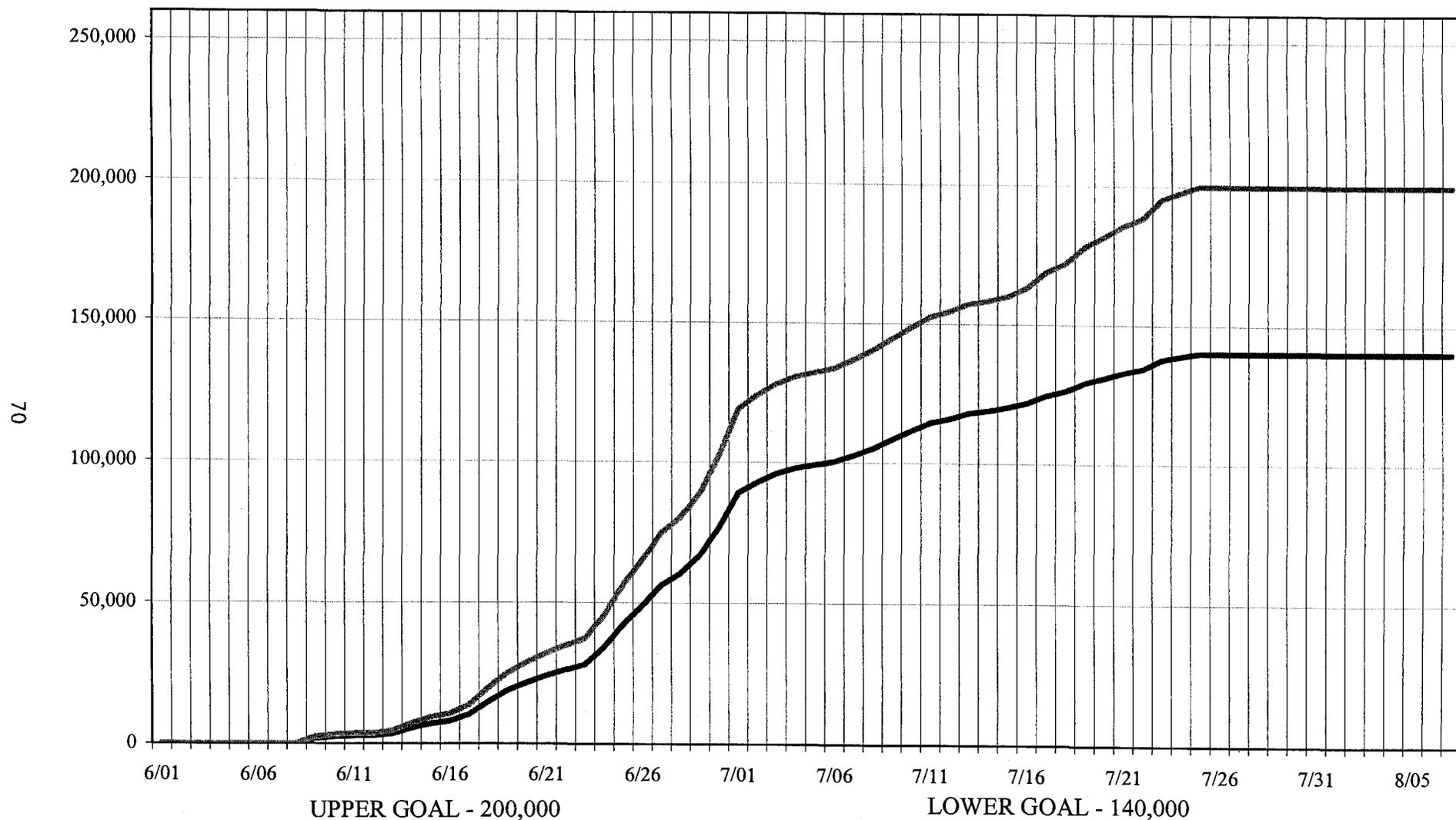
Appendix C.4. Upper and lower escapement goal curves for late-run Upper Station sockeye salmon in the Kodiak Management Area, 2002.

AYAKULIK SOCKEYE SALMON
Upper and Lower Escapement Goals



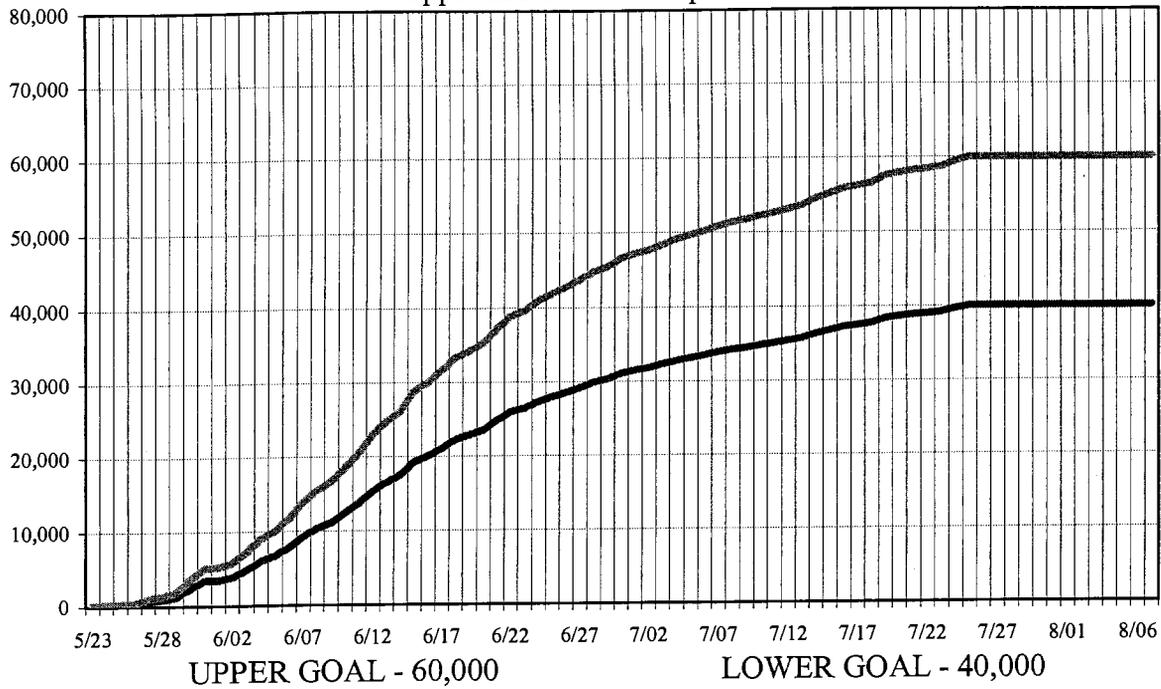
Appendix C.5. Upper and lower escapement goal curves for Ayakulik sockeye salmon in the Kodiak Management Area, 2002.

DOG SALMON RIVER SOCKEYE SALMON
Upper and Lower Escapement Goals

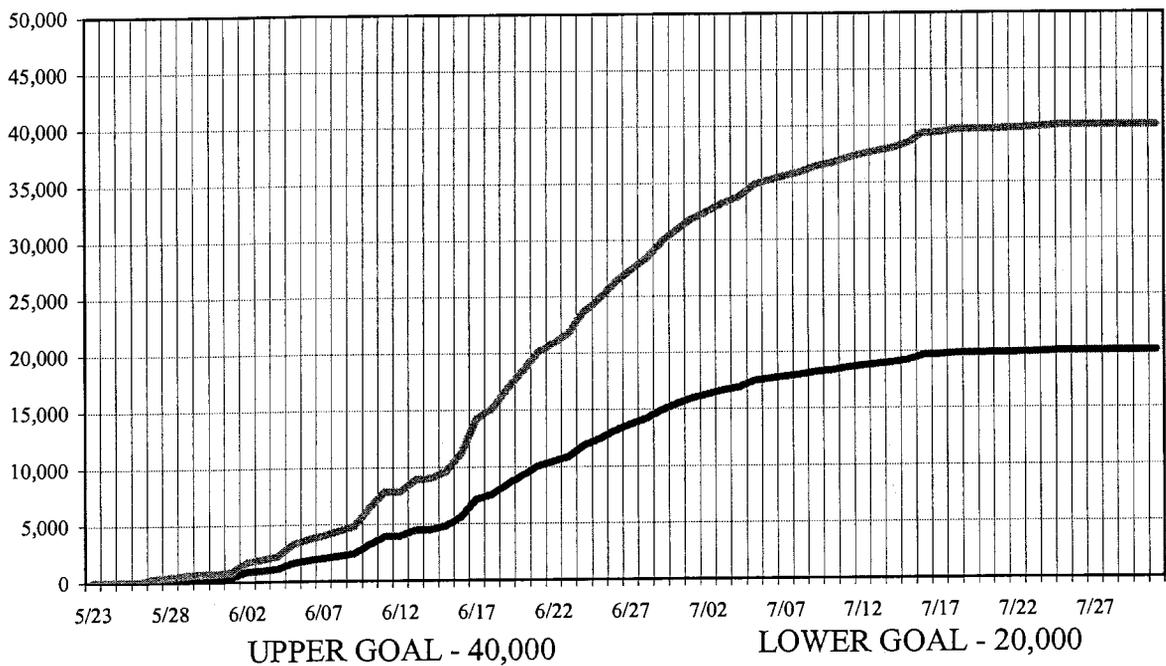


Appendix C.6. Upper and lower escapement goal curves for Frazer (Dog Salmon) sockeye salmon in the Kodiak Management Area, 2002.

LITNIK SOCKEYE SALMON
Upper and Lower Escapement Goals

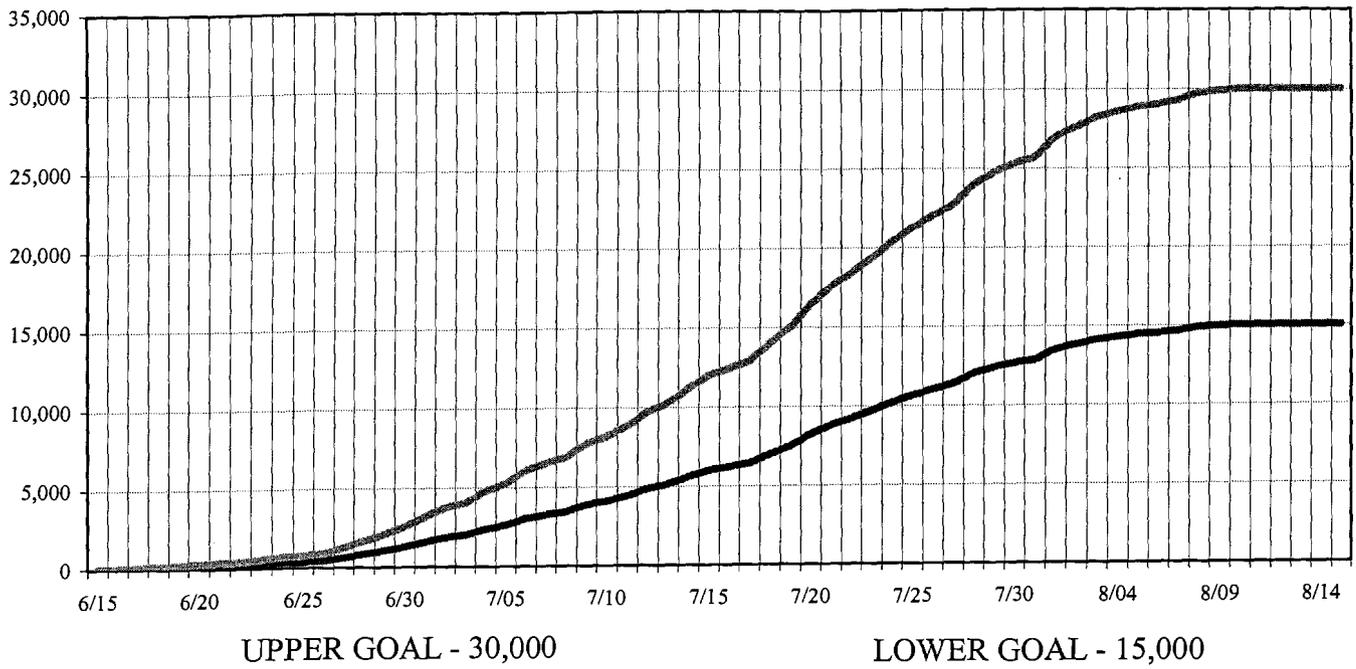


PAULS BAY SOCKEYE SALMON
Upper and Lower Escapement Goals

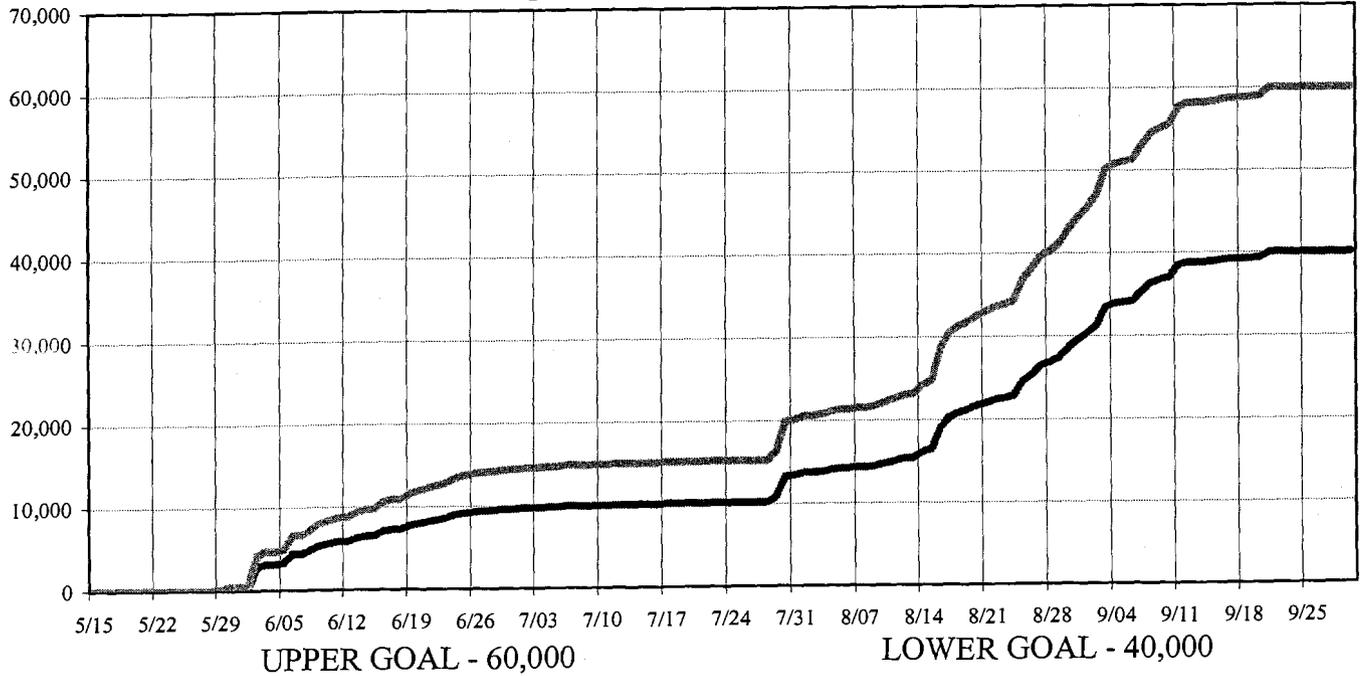


Appendix C.7. Upper and lower escapement goal curves for Litnik and Pauls Bay sockeye salmon in the Kodiak Management Area, 2002.

SALTERY SOCKEYE SALMON
Upper and Lower Escapement Goals

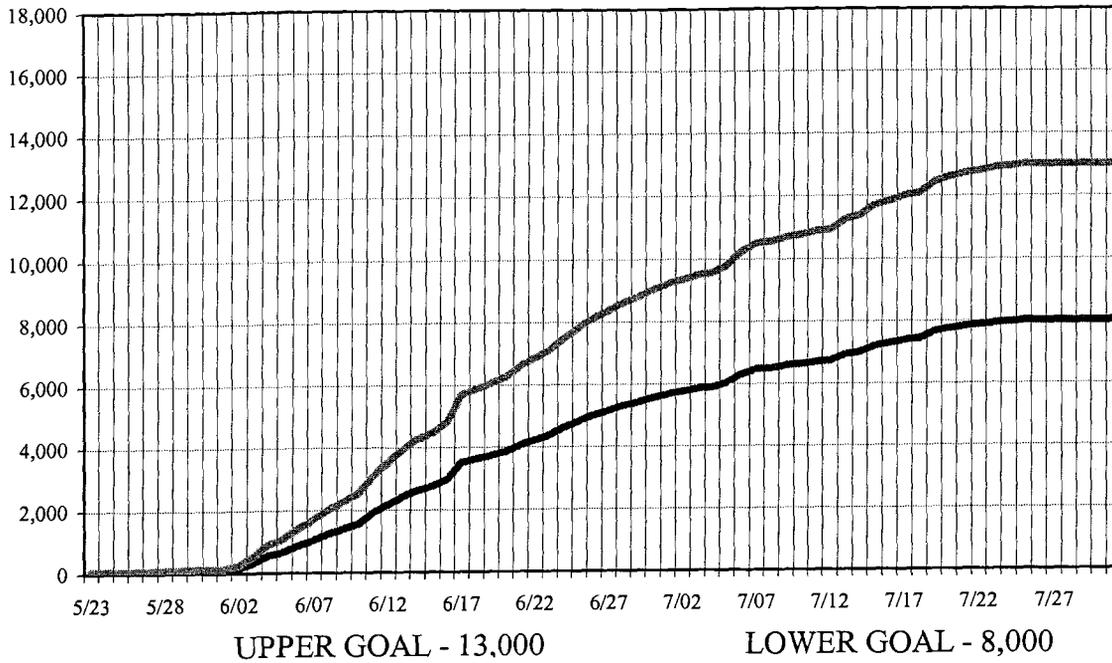


AKALURA SOCKEYE SALMON
Upper and Lower Escapement Goals

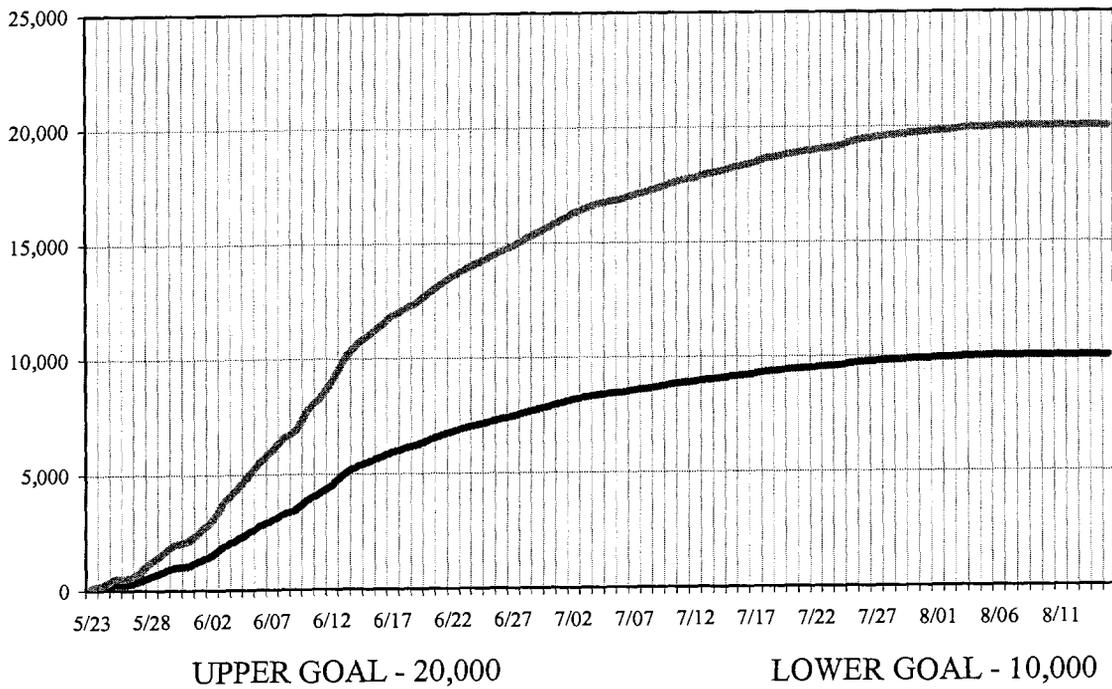


Appendix C.8. Upper and lower escapement goal curves for Saltery and Akalura (early and late runs) sockeye salmon in the Kodiak Management Area, 2002.

BUSKIN SOCKEYE SALMON
Upper and Lower Escapement Goals



MALINA SOCKEYE SALMON
Upper and Lower Escapement Goals



Appendix C.9. Upper and lower escapement goal curves for Buskin and Malina sockeye salmon in the Kodiak Management Area, 2002.

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