

A

CHIGNIK MANAGEMENT AREA  
ANNUAL FINFISH MANAGEMENT REPORT, 1997



Regional Information Report No. 4K00-11

Alaska Department of Fish and Game  
Division of Commercial Fisheries  
211 Mission Road  
Kodiak, Alaska 99615

February 2000

**DOUG EGGERS**

CHIGNIK MANAGEMENT AREA  
ANNUAL FINFISH MANAGEMENT REPORT,  
1997

By

David L. Owen  
David R. Sarafin  
George E. Pappas  
and  
Robert T. Baer

Regional Information Report<sup>1</sup> No. 4K00-11

Alaska Department of Fish and Game  
Division of Commercial Fisheries  
211 Mission Road  
Kodiak, Alaska 99615

February 2000

---

<sup>1</sup>The Regional Information Report Series was established in 1987 to provide an information access system for all unpublished division reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Division of Commercial Fisheries.

## ACKNOWLEDGMENTS

The authors express their appreciation to the following seasonal employees: John Cannon, Alan Marisighan, Cordelia Ray, David Kaplan, Iona Fletcher, Keith Terstegge, and pilot Scott Moyer who worked many long days and irregular hours to keep the Chignik weir operational. Pete Probasco and Wayne Donaldson's aid and supervision during the season were also appreciated. Thanks to Ivan Vining and Jim Blackburn for biometric support and review and to Charlie Swanton for his assistance on research issues. Thanks to Rod Campbell and Arnie Shaul for their input on the southern Alaska Peninsula. We also appreciate the assistance from Jim Fall, Jim McCullough and Lisa Scarbrough on subsistence issues. We also thank Lucinda Neel, Joanne Shaker, and Sharon Harris for their technical support.

## TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES.....	i
LIST OF FIGURES .....	v
LIST OF APPENDICES .....	vii
CHIGNIK SALMON FISHERIES .....	1
Introduction.....	1
Overview of the 1997 Salmon Season .....	1
1997 Catch Overview .....	1
1997 Escapement Overview .....	2
1997 Exvessel Value.....	3
Perryville/Western Coho Salmon Management Plan .....	3
Chinook Salmon.....	4
Background .....	4
1997 Forecast .....	4
Historical Escapement and Harvests, and 1997 Management .....	4
Sockeye Salmon.....	5
Background .....	5
1997 Forecast .....	7
Historical Escapement and Harvests, and 1997 Management .....	7
Inriver Management .....	7
Chronology for June and Early July Inseason Management of Chignik Sockeye Salmon Fishery.....	7
Inseason Scale Pattern Analysis of Chignik Sockeye Salmon.....	8
Chronology for the Late Season Sockeye Salmon Fishery .....	9
Cape Igvak Sockeye Salmon Fishery.....	10
Southeastern District Mainland Sockeye Salmon Fishery .....	10
Postseason Scale Pattern Analysis of Chignik Sockeye Salmon .....	10
Season Summary .....	11
Pink and Chum Salmon .....	12
Background .....	12
1997 Forecast .....	12
1997 Management and Harvests.....	12
Coho Salmon.....	14
Background .....	14

## TABLE OF CONTENTS (Cont.)

	<u>Page</u>
1997 Forecast .....	15
1997 Management and Harvests.....	15
Subsistence Salmon Fisheries.....	16
Personal Use of the Commercial Catch .....	16
CHIGNIK HERRING FISHERIES .....	16
Background .....	16
1997 Management and Harvests .....	17
OTHER SPECIES (NON-COMMERCIAL).....	17
LITERATURE CITED .....	18
TABLES .....	19
FIGURES .....	122
APPENDIX .....	140

## LIST OF TABLES

<u>Table</u>	<u>Page</u>
1. List of permit holders who fished in the Chignik Management Area, 1997.....	19
2. Alaska-resident vs. non-resident ownership of permits in the Chignik Management Area, 1966-1997 .....	21
3. Commercial salmon catches in the Chignik Management Area by district, statistical area, and species, 1997 .....	22
4. Commercial salmon catch by day and effort in the Chignik Management Area, 1997.....	23
5. Commercial salmon catch and effort by statistical area and day in the Chignik Management Area, 1997 .....	25
6. Comparison of average weights of salmon, based on weights from fish tickets, caught in the Chignik Bay District, 1983-1997.....	37
7. Salmon processors in the Chignik Management Area, 1997 .....	38
8. Commercial salmon catches in the Chignik Management Area by year, 1960-1997 .....	39
9. Estimated salmon escapement by district and statistical area in the Chignik Management Area, 1997 .....	40
10. Chinook salmon daily and cumulative escapement estimates through the Chignik weir by day, 1997 .....	41
11. Sockeye salmon daily and cumulative escapement through the Chignik weir by day, 1997.....	42
12. Pink, chum, and coho salmon daily and cumulative escapement through the Chignik weir by day, 1997. ....	44
13. Economic value of salmon and average income per commercial salmon permit holder, in dollars, in the Chignik Management Area, 1970-1997 .....	46
14. Chignik River chinook salmon escapement, Chignik Management Area catch, and total run, 1960-1997 .....	47
15. Sockeye salmon age composition for Black Lake from scale samples collected at the Black Lake outlet, 1997.....	48
16. Sockeye and chinook salmon age compositions for Chignik Lagoon as determined from commercial fishery scale samples, 1997 .....	49

**LIST OF TABLES (Cont.)**

<u>Table</u>	<u>Page</u>
17. Sockeye salmon escapement through the Chignik River weir for Chignik Lake and Black Lake, using daily percentages attributable to Chignik Lake, derived from the inseason scale pattern analysis time of entry curve, 1997 .....	50
18. Harvest of Chignik bound sockeye salmon in the Chignik, Cape Igvak, and Southeastern District Mainland Areas from 1964-1997 .....	52
19. Total Chignik Management Area and 80 percent of the sockeye harvest in the Cape Igvak and Southeastern District Mainland Areas through July 25, and season's total for each area 1964-1997 .....	54
20. Estimated stock composition of age 1.3 Chignik sockeye salmon from commercial catch and test fishery samples, based on postseason scale pattern analysis, 1997.....	55
21. Estimated stock composition of age 2.3 Chignik sockeye salmon from commercial catch and test fishery samples, based on postseason scale pattern analysis, 1997.....	56
22. Daily Chignik River sockeye escapement, catch destined to the Chignik Lakes system, and total run, by day and area (adjusted to Chignik Lagoon date), 1997 .....	57
23. Daily and cumulative sockeye salmon escapement and catch as determined by scale pattern analysis for the Black Lake stock (adjusted to Chignik Lagoon date), 1997.....	61
24. Daily and cumulative sockeye salmon escapement and catch as determined by postseason scale pattern analysis for the Chignik Lake stock (adjusted to Chignik Lagoon date), 1997 .....	63
25. Black Lake weekly sockeye salmon escapement, by age class, estimated by scale pattern analysis, 1997 .....	66
26. Chignik Lake weekly sockeye salmon escapement, by age class, estimated by scale pattern analysis, 1997 .....	67
27. Black Lake weekly sockeye salmon catch, by age class, estimated by scale pattern analysis, 1997 .....	69
28. Chignik Lake weekly sockeye salmon catch, by age class, estimated by scale pattern analysis, 1997 .....	70
29. Black Lake and Chignik Lake sockeye salmon escapement, catch, and total run estimates, by age class, based on scale pattern analysis, 1997.....	72

## LIST OF TABLES (Cont.)

<u>Table</u>	<u>Page</u>
30. Sockeye salmon escapement, catch and total run for Black Lake, Chignik Lake, and combined runs, based on postseason scale pattern analysis, 1954 - 1997 .....	73
31. Black Lake and Black River tributaries peak aerial sockeye salmon survey escapement estimates, 1960-1997 .....	74
32. Pink salmon catch, escapement, and run numbers (in thousands of fish) in the Chignik Bay District, 1962-1997 .....	75
33. Pink salmon catch, escapement, and run numbers (in thousands of fish) in the Central District, 1962-1997 .....	75
34. Pink salmon catch, escapement, and run numbers (in thousands of fish) in the Eastern District, 1962-1997 .....	76
35. Pink salmon catch, escapement, and run numbers (in thousands of fish) in the Western District, 1962-1997 .....	76
36. Pink salmon catch, escapement, and run numbers (in thousands of fish) in the Perryville District, 1962-1997 .....	77
37. Total pink salmon catch, escapement, and run numbers (in thousands of fish) in the Chignik Management Area, 1962-1997 .....	77
38. Chum salmon catch, escapement, and run numbers (in thousands of fish) in the Chignik Bay District, 1962-1997 .....	78
39. Chum salmon catch, escapement, and run numbers (in thousands of fish) in the Central District, 1962-1997 .....	78
40. Chum salmon catch, escapement, and run numbers (in thousands of fish) in the Eastern District, 1962-1997 .....	79
41. Chum salmon catch, escapement, and run numbers (in thousands of fish) in the Western District, 1962-1997 .....	79
42. Chum salmon catch, escapement, and run numbers (in thousands of fish) in the Perryville District, 1962-1997 .....	80
43. Total chum salmon catch, escapement, and run numbers (in thousands of fish) in the Chignik Management Area, 1962-1997 .....	80
44. Pink salmon return per spawner in the Central and Eastern Districts, 1962-1997 .....	81

**LIST OF TABLES (Cont.)**

<u>Table</u>	<u>Page</u>
45. Pink salmon return per spawner in the Western and Perryville Districts, 1962-1997 .....	81
46. Chum salmon return per spawner in the Central and Eastern Districts, 1962-1997 .....	82
47. Chum salmon return per spawner in the Western and Perryville Districts, 1962-1997 .....	82
48. Chinook, sockeye, coho, pink, and chum salmon aerial stream survey counts in the Chignik Management Area, 1997 .....	83
49. Pink and chum salmon escapement estimates (in thousands of fish) for select Chignik Management Area streams, 1953-1997 .....	112
50. Estimated subsistence harvests of salmon, Chignik Management Area, 1976-1997 .....	120
51. Daily Dolly Varden escapement estimates through the Chignik weir by day, 1997.....	121

## LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1. Map of the Alaska Peninsula illustrating the relative locations of the Chignik, Kodiak, and South Peninsula Management Areas.....	122
2. Map of the Chignik River watershed with inset of western Alaska.....	123
3. Map illustrating district boundaries and village locations within the Chignik Management Area.....	124
4. Map of Chignik Management Area illustrating district boundaries.....	125
5. Total salmon harvests by species in the Chignik Management Area, 1960-1997 .....	126
6. Exvessel value of the salmon harvested in the Chignik Management Area, 1970-1997 .....	127
7. Average exvessel value of salmon per Chignik Management Area permit holder, 1970-1997. ....	128
8. Chinook salmon catch and escapement in the Chignik Management Area, 1960-1997 .....	129
9. Percent age composition of sockeye salmon sampled in the Chignik Lagoon fishery, 1997.....	130
10. Daily sockeye salmon run by stock to the Chignik Lake system as estimated by scale pattern analysis, 1997. ....	131
11. Black Lake (upper panel) and Chignik Lake (lower panel) sockeye salmon catch and escapement, 1954-1997 .....	132
12. Total sockeye salmon runs to Black and Chignik Lakes, 1954-1997 .....	133
13. Pink salmon catch and escapement in the Chignik Management Area, 1962-1997.....	134
14. Chum salmon catch and escapement in the Chignik Management Area, 1962-1997.....	135
15. Percentage of the coho salmon caught in the Chignik Bay, Western, and the combined percentage of Western and Chignik Bay Districts, 1980-1997.....	136
16. Average catch of coho salmon by day in the Western District as compared to the Chignik Bay District, 1988-1997. ....	137

## LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
17. Coho salmon catches in the Chignik Management Area, 1960-1997.....	138
18. Pacific Herring harvests in the Chignik Management Area, 1980 – 1997.....	139

## LIST OF APPENDICES

<u>Appendix</u>	<u>Page</u>
A.1. Chignik Management Area salmon forecasts, 1997.....	141
A.2. Comparison of Black Lake (early-run) and Chignik Lake (late-run) forecasts versus actual runs in millions of sockeye salmon, 1987-1997 .....	143
B.1. Total sockeye salmon return to Black Lake by brood year and age, 1915-1997.....	144
B.2. Total sockeye salmon return to Chignik Lake by brood year and age, 1915-1997 .....	147
C. Chignik River system sockeye salmon escapement goals for the early run (primarily Black Lake) and the late run (primarily Chignik Lake) by time period. ....	150
D.1. Chignik Management Area commercial salmon openings during the 1997 season.....	151
D.2. Emergency orders for the Chignik Management Area, 1997.....	153
E. Chignik salmon regulations, 1997.....	182
F. Chignik herring regulations, 1997.....	186

# CHIGNIK SALMON FISHERIES

## *Introduction*

The Chignik Management Area (CMA) includes all coastal waters and inland drainages of the northwest Gulf of Alaska between Kilokak Rocks and Kupreanof Point on the Alaska Peninsula (Figure 1). The CMA is bordered by the Alaska Peninsula Management Area to the west and the Kodiak Management Area to the east. The CMA includes over 100 salmon producing streams. The Chignik River system is the largest sockeye salmon producer in the CMA (Figure 2).

Within the CMA, commercial and subsistence salmon are the economic mainstay for five villages: Chignik Lake, Chignik Lagoon, Chignik Bay, Perryville, and Ivanof Bay (Figure 3). The CMA is divided, from east to west, into five districts; the Eastern, Central, Chignik Bay, Western, and Perryville Districts (Figures 4). Permit holders and crewmembers reside in all the villages, while shoreside processing is located only in the City of Chignik Bay.

Purse seines are the only legal commercial salmon gear type allowed within the CMA. In 1997, a total of 98 limited entry salmon permits were actively fished in the CMA (Table 1) with 82.7% of the permit holders claiming Alaska residency (Table 2).

Five species of Pacific salmon are commercially harvested in the CMA: chinook *Oncorhynchus tshawytscha*, sockeye *O. nerka*, pink *O. gorbuscha*, chum *O. keta*, and coho *O. kisutch* salmon. The Alaska Department of Fish and Game (ADF&G), Commercial Fisheries Management and Development (CFM&D) Division, manages the CMA salmon commercial fisheries to achieve biological escapement goals (BEG) for each species while allowing for an orderly harvest of surplus salmon.

This annual report adds to a report series dating back to 1922. Information has been updated from historic electronic databases after 1970. Disparities between previously reported catch and escapement statistics and those presented here can be attributed to the editorial objective of providing the most accurate information available.

## *Overview of the 1997 Salmon Season*

### **1997 Catch Overview**

The 1997 CMA salmon fishing season was characterized by weak sockeye salmon runs to both Black and Chignik Lakes. A strike of fishers against processors postponed the beginning of the sockeye salmon commercial fishery. On June 17 the strike was settled between fishers and processors. The 1997 commercial fishing season began with a 24-hour fishing period on June 17. Unusually weak escapement delayed the next announced fishing period until June 27. Since both sockeye runs were weak, fishery openings were limited during July. The commercial salmon

fishing season closed on September 17 because of the lack of registered buyers in the area. Salmon were delivered 3 days in June, 18 days in July, 26 days in August, and 12 days in September.

During most of 1997, Chignik managers implemented the following schedule for the Lagoon openings: 1) initial openings were only allowed up to south of a line from Hume's Point to Chignik Island markers, 2) after 24 hours the markers were then moved to Mensis Point, which is in the mouth of the Chignik River. The quality of the salmon harvested in the Chignik Lagoon likely improved because salmon (beginning to develop water marks) holding between Hume's Point and Mensis Point were given an extra day to migrate upriver and escape the commercial purse seines.

In 1996 the Board of Fisheries closed the waters around Kupreanof Point, the dividing line between Area M (South Peninsula) and Area L (Chignik). In 1997, these closed water areas were in effect from July 6 to August 31.

The total 1997 commercial salmon harvest (all-species) in the CMA of 1.9 million salmon (Tables 3-6), was purchased by two processors (Table 7). This was approximately 1.3 million less fish than the 1987-1996 average catch of 3.1 million fish (Table 8; Figure 5). The 1997 commercial salmon catch, by species, was below the 1987-1996 averages: the chinook salmon catch of 3,032 was 56% lower, the sockeye salmon catch of 769,683 was 52% lower, the coho salmon catch of 90,908 was 57% lower, the pink salmon catch of 844,431 was 22% lower, and the chum salmon catch of 155,905 was 21% lower.

Salmon caught during 1997 are ranked relative to 38 years of catches from 1960-1997 as follows (the highest rank possible would be enumerated as first): the 1997 chinook salmon catch is ranked fifteenth, the 1997 sockeye salmon catch is ranked twenty-sixth, the 1997 coho salmon catch is ranked sixteenth, the 1997 pink salmon catch is ranked eighteenth, and the 1997 chum salmon catch is ranked twenty-first.

Actual catches were lower than the preseason forecast for chinook salmon (57% lower), sockeye salmon (50% lower), coho salmon (59% lower), pink salmon (16% lower), and chum salmon (32% lower) (Table 8; Appendices A.1-A.2).

### **1997 Escapement Overview**

Fish were counted through the weir from May 27 until September 4. Salmon were counted later in the 1997 and 1996 seasons than in any other year since the late 1950s. Funding for operation of the weir in late August and September was made available through the Exxon Valdez Oil Spill Trustee Council (EVOS), Civil Settlement funds administered by the Department of Community and Regional Affairs. Funding will continue during the 1998 and 1999 seasons.

Chinook salmon escapement was estimated at 3,824 to the Chignik River, 2,374 fish above the established biological escapement goal of 1,450 (Table 10). Sockeye salmon escapement to the Chignik Lakes System was estimated at 775,618 fish, 125,618 over the June 1 through August 31 BEG of 650,000 sockeye salmon (Tables 9, 11). Pink salmon (4,880) and coho salmon (10,810) escapement was estimated through September 4 as they passed through the Chignik River weir

(Table 12). For all other streams in the CMA the pink, chum, and coho salmon escapement estimates was assessed by aerial surveys (Table 9). There was an estimated total escapement of 2,469,541 pink salmon in the CMA for the 1997 season. The estimated chum salmon total escapement was 587,421. Aerial surveys for coho are incomplete due to fall storms leaving stream flooded and turbid thus an area wide estimate was not developed.

### **1997 Exvessel Value**

The exvessel value of the 1997 commercial salmon harvest was \$5.9 million, about \$11.1 million less than the 1987-1996 average exvessel value of \$17.0 million (Table 13; Figures 6-7). The approximate value per permit for the 1997 season was \$60 thousand, which is approximately \$108 thousand less than the 1987-1996 average.

### **Perryville/Western Coho Management Plan.**

The Chignik Management Area Advisory Committee Chair held a teleconference on April 14, 1997 to discuss subsistence concerns expressed by the residents in the Perryville Village area. To address and understand the problem, ADF&G was asked to provide catch and escapement data to residents. These data were sent to area villages and other effected parties to be reviewed and discussed during the April 14 meeting. It was concluded coho salmon escapement in recent years had diminished in streams of the Western and Perryville Districts. In response, the Regional Planning Team (RPT) chairman asked ADF&G to draft a coho management plan to be discussed during the RPT and/or the Chignik Seiners Association (CSA) June meetings that may include fishing time or area restrictions, and escapement goals. In general, participants of the meeting wanted more conservative management in the Western and Perryville Districts to help rebuild the coho salmon runs. ADF&G presented an analysis of management and catch for the various salmon species harvested in the Western and Perryville Districts.

The following management plan was drafted and implemented in the Western and Perryville Districts during the 1997 salmon season:

- 1) The Western and Perryville Districts will close on or about August 20. The exact date will be determined by coho salmon run strength and catches during prior openings in these Districts.
- 2) Certain sections of the Perryville and Western Districts will be managed separately in years of high coho salmon abundance.
  - A) Openings may occur in the Ivanof section of the Perryville District if there is a strong coho salmon run to Ivanof Bay.
  - B) Openings may occur in the Castle Cape to Cape Itki area if coho salmon are high in abundance.
- 3) Subsistence users must implement self-imposed restrictions to enhance the rebuilding process.
  - A) No subsistence harvests permitted on critical spawning ground areas.
  - B) Residents will continue protecting spawning and rearing habitat.

- C) Subsistence users will continue community support for the department's enhancement project on the Kametolook.

### *Chinook Salmon*

#### **Background**

The CMA chinook salmon harvest primarily takes place in the Chignik Bay District, and the escapement is limited primarily to the Chignik River system (Table 3 and 9). The Chignik River has been the largest chinook salmon producing system on the south side of the Alaska Peninsula (Figure 2). There has not been a directed chinook salmon fishery within the CMA, although incidental harvests of chinook salmon peaked in July as fishers targeted sockeye salmon.

A brood table, based only on a few years of age class data from small sample sizes, has been used to establish an initial BEG of 1,450 fish. To ensure the BEG is met, an inriver goal of 1,950 fish must be achieved which apportions 500 fish to the sport and subsistence fisheries.

#### **1997 Forecast**

The chinook harvest forecast of 7,000 fish is approximated by a 10-year catch average. The chinook harvest is dependent upon the amount of fishing time allowed in July to harvest sockeye salmon.

#### **Historical Escapement and Harvests, and 1997 Management**

Chinook salmon runs (catch and escapement) to the Chignik River have ranged from a low of 927 fish in 1974 to a high of 21,461 fish in 1993 (Table 14; Figure 8). Commercial catches have increased from an average of 1,232 fish (1967-1976) to 6,918 fish (1987-1996) (Table 8). A corresponding increase in escapement has also occurred from an average of 1,217 fish (1967-1976) to 3,619 fish (1987-1996) (Table 14).

The 1997 CMA chinook salmon harvest of 3,032 fish was below the 1987-1996 average of 6,918 (Table 14; Figure 8). The commercial chinook salmon harvest occurred from June 27 to September 17 with a peak harvest of 302 on July 6 (Table 4).

The 1997 chinook salmon escapement of approximately 3,824 fish was 205 fish more than the 1987-1996 average escapement of 3,619 (Table 14). The escapement counts were not adjusted for chinook salmon removed by the sport and subsistence fisheries, or those that spawned below the counting weir.

The total exvessel value of the 1997 chinook salmon harvest was estimated at \$21,000, averaging \$200 per permit holder (Table 13; Figures 6-7).

## *Sockeye Salmon*

### **Background**

Economically, sockeye salmon are the most important commercial salmon species in the CMA. The commercial salmon fishery targets two runs of sockeye salmon that return to the Chignik River system. The early run of sockeye salmon comprises the Black Lake sockeye salmon stock. The late run is made up of the Chignik Lake stock. Sockeye salmon destined for the Chignik and Black Lakes system are also harvested outside the CMA in two historic fisheries: from the east in the Cape Igvak Section of the Kodiak Management Area, and from the west in the Southeastern District Mainland of the Alaska Peninsula Management Area.

Although most CMA sockeye salmon production originates from the Chignik-Black Lakes system, the Aniakchak River tributaries (Albert Johnson Creek) and Surprise Lake also support sockeye salmon returns. Tagging studies, conducted over several years in the Aniakchak Bay and Cape Kumlik areas, indicate that sockeye salmon harvested in these waters are almost exclusively bound for the Chignik-Black Lakes system (Lechner 1969). Consequently, the Eastern District management strategy is based on the sockeye salmon run strength of the Chignik-Black Lakes system and opens during June concurrently with the Chignik Bay and Central Districts. This management strategy has been approved by the Alaska Board of Fisheries and enacted into regulation as the Eastern District Management Plan (5 AAC 15.360) (ADF&G Regulation Booklet 1992-1997 edition).

The upper range BEG for sockeye salmon are 400,000 fish for Black Lake and 250,000 fish for Chignik Lake. Commercial fishing time for sockeye salmon is regulated based on achieving interim escapement goals by specific dates for each run. Achieving these goals is complicated due to overlap of the two runs (the transition period).

The period of transition from early-run (Black Lake) to late-run (Chignik Lake) sockeye salmon generally occurs between June 26 through mid July. Management biologists must assess age and stock composition of the catch to estimate which stock is dominant during this period. Sampling effort is increased from once a week to every third day to assess the changing age and stock composition. Subsequent to sampling results, fishing time may be increased to harvest early-run fish or may be decreased to allow time for evaluating the late-run strength.

Two methods have been developed to estimate the daily proportion of each run during the transition period. The first is based on tagging studies conducted from 1962-1966 (Dahlberg 1968). These studies allowed biologists to develop an average time of entry (ATOE) curve to apportion the two Chignik sockeye salmon runs into the early and late-run components. The second method is based on differential growth between juvenile salmon rearing in Black Lake and Chignik Lake (Burgner and Marshall 1974, Conrad 1983). Sockeye salmon fry rearing in Black Lake (early run) emerge earlier and grow at a faster rate than fry rearing in Chignik Lake (late run) (Narver 1966). The disparity in growth rates between Black Lake and Chignik Lake juvenile salmon is reflected in their scale patterns which, when measured, provides a means to separate Black Lake from Chignik Lake sockeye salmon stocks.

The latter method, scale pattern analysis (SPA), is currently used inseason and postseason to assign sockeye salmon to their stock of origin. After the sockeye age composition is determined, models for the dominant age classes (age 1.3 and 2.3) are constructed using two types of functions: linear discriminate (LDF) and quadratic discriminate (QDF). The model that provides the highest balanced classification accuracy is then selected for stock apportionment. However, the inseason age 1.3 fish cannot be directly assessed because the Chignik Lake scale standards cannot be collected until after August 1. Postseason, age 1.3 scales and stock compositions are analyzed and the best fit is applied for the current inseason stock composition estimates.

Generally, results from SPA indicate that the Black Lake run occurs in late May through July, peaking in the third week of June. By contrast, the Chignik Lake run starts in late May and peaks in late July, but continues at diminished levels through November. These generalizations are corroborated, not only by scale pattern analysis, but also from Black River weir escapement data and tagging studies (Dahlberg 1968). Subsistence users have reported that a few sockeye salmon spawn in springs of the Clark River (a Chignik Lake tributary) during February (Figure 2).

When constructing SPA models, the sockeye stocks are apportioned using scales that are randomly sampled from the Chignik Lagoon commercial fishery (unknowns, n=100). The standards (knowns, n=200) are seined from the outlet of Black Lake (mid June) and sampled from the Chignik Lagoon commercial fishery (post July 30) when approximately 100% of the salmon are destined for Chignik Lake. However in years when the Black Lake run is proportionally much larger than the Chignik Lake run, the Black Lake run may constitute a greater proportion of the escapement after July 30 than is now being modeled. The current model assigns 100% apportionment to Chignik Lake after July 30.

Inseason estimates are based on age 2.3 sockeye salmon standards collected from Black Lake in June and from the previous year's post July 30 age 2.2 sockeye salmon. Theoretically, last year's post July 30 age 2.2 sockeye salmon are siblings to this year's age 2.3 Chignik Lake sockeye salmon. Forming inseason estimates for age 1.3 fish is not possible because the previous year's post July 30 age 1.2 salmon are too scarce to create adequate standards. Therefore, postseason estimates are considered more accurate than those created inseason because they include standards for both major age classes (age 1.3 and 2.3).

The age composition of the Black Lake run is typically dominated by ages 1.3 and 1.2 fish, and the Chignik Lake run by ages 2.3 and 2.2 fish. Historically, it is unusual for the early run to have many age 2.2 fish or the late run to have a very large percentage of age 1.2 fish (Conrad 1983).

Spawning distribution of the sockeye escapement is documented by aerial surveys, which have been conducted almost every year since 1960.

## 1997 Forecast

The preseason Black Lake run forecast is based on a multiple linear regression estimate of the historical relationship of the number and length of the prior year's total return of age 1.2 fish, and the current year's two major age classes (sum of ages 1.3 and 2.3). All other age class estimates are predicted from the most recent 10-year average. These variables are used within a forecast model (Appendices A.1-A.2 and B.1). The total sockeye forecast for the 1997 Black Lake sockeye run was expected to be 1.0 million fish, leaving approximately 0.6 million sockeye salmon available for harvesting.

The Chignik Lake (late-run) forecast accuracy has historically been variable and construction of a model, such as the one used for Black Lake (early run), has been unsuccessful. The late-run forecast estimate was based on the average return per spawner estimate for each age class since 1970 (Appendices A.1-A.2 and B.2). The total sockeye run forecast to Chignik Lake and Black Lake was expected to be 2.6 million fish, of which approximately 1.95 million sockeye salmon were expected to be available for harvest.

## Historical Escapement and Harvests, and 1997 Management

***Inriver Management.*** The Chignik weir is located three miles upstream from the entrance of the Chignik River into the Chignik Lagoon. During 1997 the weir was operational from May 27 through September 4. Underwater video cameras record all fish passing through two fish counting gates installed in the weir. Live video feeds from the underwater cameras are displayed on video monitors inside the main weir office and are permanently archived on standard VHS video tapes. From 7:00 AM until midnight, weir personnel identify and enumerate all fish which pass by the video cameras during the first ten minutes of each hour from the real time video feed. To obtain fish counts from midnight until 7:00 AM, each morning weir personnel review the first ten minutes of each recorded hour of video tape. The ten minute count is extrapolated by multiplying by six to provide an estimate of all fish (by species) passing through the weir during that hour. To ensure that the weir remained fish tight until removal, weekly maintenance dives using SCUBA gear are made on the weir face to clean video cameras, to repair damage, or to check erosion beneath the aluminum panels.

This is the fourth year of using the underwater video cameras and taping system. Additional video equipment was purchased for backup and replacement purposes. Confidence in species identification continued to be gained in the separation of coho, chinook, pink, and chum salmon from sockeye salmon.

***Chronology for June and Early July Inseason Management of Chignik Sockeye Salmon Fishery.*** In accordance with the annual management plan, commercial sockeye salmon fishing is allowed if the cumulative sockeye salmon escapement exceeds the interim goal of 40,000 fish prior to June 12 (Appendix C), and is accompanied by a strong buildup of sockeye salmon within Chignik Lagoon (Owen and Sarafin 1997a). However, in 1997 the sockeye salmon run appeared weaker than in recent years when cumulative escapement fell short of the interim sockeye salmon escapement goals for June 12 and June 14.

The sockeye salmon escapement increased dramatically in mid June when the daily escapement counts doubled from June 13 to June 14 (Table 11). On June 15, sockeye salmon daily escapement increased by 47% but began to slow down on June 16. Additionally, the June 13 and June 15 test fisheries showed a modest decrease in sockeye salmon abundance in Chignik Lagoon (Table 4). When the sockeye salmon escapement of 104,464 surpassed the June 16 interim goal of 75,000-100,000 the Chignik Bay, Central, and Eastern Districts were opened on June 17 for 24-hours, preliminary as a commercial test fishery (Table 11; Appendices C-D.1).

Although the fishery was open, fishing did not occur because the Chignik Seiners Association (CSA) decided to strike for higher fish prices. The department did not extend or allow another fishery opening to occur until June 27 because sockeye escapement lagged behind the June interim escapement goals and the ADF&G test fisheries showed no appreciable increase in sockeye salmon abundance in Chignik Lagoon until June 25 (Table 4). On June 26, the escapement of 351,000 surpassed the June 30 lower end escapement goal of 350,000 and a fishery was announced starting June 27 (Table 11; Appendix C). The CSA strike was settled and fishing began as announced on June 27 (Table 4; Appendix D.1).

Sockeye salmon catches were considered adequate on June 27 resulting in an extension of fishing time on June 28 (Table 4). Since the sockeye salmon escapement began to wane on June 28, the fishery was not extended beyond June 29.

The fishery was reopened in the Chignik Bay and Central Districts on July 1. It was anticipated that the upper end of the escapement goal for June 30 of 400,000 sockeye salmon would be surpassed. The fishery was extended until July 7 since adequate escapement levels coupled with scale pattern analysis indicated the dominant stock was still of Black Lake origin (Appendix C). The commercial fishery closed on the afternoon of July 7 to allow the escapement of Chignik Lake stocks to build.

The commercial fishery was re-opened on July 11 after more than 10,000 sockeye salmon escaped through the weir on July 10 (Table 11; Appendix D.1). The July 7 analysis of sampled scales concluded that 54% of the stock were Chignik Lake sockeye salmon (Table 17). The fishery was extended on July 12 and again on July 14 due to the meeting of escapement goals. It was estimated that the July 12 escapement goal of 60,000 Chignik Lake sockeye salmon would be surpassed (Appendix C). Although the Chignik Lake stock dominated the Black Lake stock, the intention of the opening was to harvest surplus sockeye salmon bound for Black Lake.

***Inseason Scale Pattern Analysis of Chignik Sockeye Salmon.*** During 1997, run transition (50% Black Lake / 50% Chignik Lake), occurred on July 6 as determined by inseason scale pattern analysis (SPA), time of entry curve, and age composition data (Tables 16-17). The inseason SPA model with the highest and most balanced classification accuracy was the linear discriminate function (LDF). It had a mean classification accuracy for age 2.3 sockeye salmon of 80%. Scale samples (9,149) collected from the commercial and test fishery in Chignik Lagoon were utilized to determine age composition (Table 16). The proportion of age 1.3 fish peaked at 71% on June 18, trailing off to only 2% at season's end (Table 16; Figure 9). Age 1.2 fish were not abundant,

peaking at 10% on June 18. Age 2.3 fish peaked to 84% at the end of the run on August 30. The Age 2.2 sockeye salmon peaked to 34% on August 1 and tailed off to 9% at the end of the run.

***Chronology for the Late Season Sockeye Salmon Fishery.*** On July 7, the management priority shifted towards achieving escapement goals for the Chignik Lake run (late run). Results of the July 14 scale sample analysis indicated that the Chignik Lake stock dominated by 63%. From July 15 to July 18, the fishery remained closed to allow the Chignik Lake stock to reach desired escapement levels. Beginning July 18, a 24-hour fishery was warranted in the Chignik Bay and Central Districts. On July 19, the Chignik Lake sockeye salmon escapement was estimated at 100,243 which was on track with the July 19 sockeye interim escapement goal of 100,000-115,000 (Table 17; Appendix C). As a result, the July 18 fishery was extended until July 20. The Eastern District remained closed because the department is required to close the Eastern District on July 15 to allow evaluation of the strength of the pink and chum salmon runs as described in the Eastern District Salmon Management Plan 5 AAC 15.360. From July 18 to July 20, 56,498 sockeye salmon were caught (Table 4).

There was a 48-hour fishery opening on July 24 in Chignik Bay, Central, and Eastern Districts. The fishery was warranted because the July 26 goal of 170,000 - 180,000 Chignik Lake sockeye salmon was expected to be met (Appendix C).

The Chignik Bay and Central Districts were opened on July 31 and continued to stay open under an 'open until further notice' emergency order. The cumulative escapement on July 30 for the Chignik Lake stock was 207,955, which surpassed the desired July 30 escapement goal of 200,000 (Table 17; Appendix C). As a result of continued strong escapement levels, the commercial fishery for Chignik Bay and Central Districts remained open until August 6. The Western and Perryville Districts opened on August 1 and were extended until August 3. The Eastern District was opened on August 3 with an extension until August 5. These openings and extensions were justified due to sufficient pink and chum salmon interim escapement levels being achieved. During the July 31 to the August 6 fishing period there were 113,392 sockeye salmon harvested (Table 4). The fishery closed on August 6 to allow further pink salmon escapement to the Central District and because the total abundance of sockeye salmon (catch plus escapement) was declining.

The Chignik Bay, Central, and Eastern Districts opened for commercial fishing on August 8 for a 48-hour fishery. The Chignik and Central District fishery was warranted because the Chignik Lake escapement of sockeye salmon was estimated at 235,000 on August 7, which was rapidly approaching the end of season escapement goal of 250,000 (Appendix C). The Eastern District was opened because pink and chum salmon escapements, as estimated from aerial surveys, were meeting time of entry expectations. The fishery was extended in the Chignik Bay and Central Districts on August 10, 13, and again on August 16 due to sufficient sockeye salmon escapement. The Eastern District was extended on August 10 and 13 to test run strength; it was also extended again on August 14 and 16 as aerial survey results indicated that pink and chum salmon escapement goals were being met. The Western District was opened on August 17 for a 30 hour fishing period. Pink salmon stream escapements were on track and/or exceeded escapement goals for the Western District.

The Chignik Bay, Central, and Eastern Districts opened to commercial fishing on August 20 and were extended until August 26. The opening and extensions were warranted because sockeye and pink salmon escapement goals were being met. The three districts reopened on August 30 for a 72-hour fishing period. On September 5, the Chignik Bay and Central Districts opened for a 72-hour fishing period while the Eastern District opened on September 6 for a 48-hour fishing period. The escapement goals continued to be met and there was little fishing effort in the Eastern District. On September 10, the Chignik Bay, Central, and Eastern Districts opened to commercial fishing and were extended on September 12 for an additional 24 hours. The opening and extensions for the Chignik Bay and Central Districts were justified by the strong sockeye, pink, and coho salmon escapement numbers and the 'catch per unit effort' indicated that escapement should continue at levels that would support subsistence and commercial fisheries. The Eastern District opening and extension was warranted due to little fishing effort since June. The final commercial fishery opening occurred on September 15 in the Chignik, Central, and Eastern Districts. The fishery was extended on September 16 for an additional 24 hours before closing for the season.

The CMA closed to commercial salmon fishing for the 1997 season on September 17. The season closed to conserve sockeye salmon for subsistence use in the Chignik Lake watershed. This decision complied with a compromise agreement between commercial and subsistence users that addresses the commercial use of the sockeye salmon resource after subsistence needs are met in Chignik Lake and Clark River. The agreement states that after September 15, if subsistence users have a concern about the availability of sockeye salmon for subsistence use, then the commercial fishery could be curtailed. Since the commercial catches were low (100 fish per boat), the department concurred with the subsistence users that the sockeye salmon resource may not be sufficient to cover subsistence needs and closed the fishery for the 1997 fishing season (Tables 4-5; Appendices D.1-D.2).

The exvessel value of the sockeye salmon harvested in the CMA was approximately \$4.9 million (Table 13; Figure 6). The average total value per permit holder was \$60 thousand (Table 13; Figure 7).

***Cape Igvak Sockeye Salmon Fishery.*** Due to low harvest levels in the CMA there were no harvests allowed in the Cape Igvak fishery through July 25 (Table 18). This management restriction was in accordance with commercial fishing regulations (5 AAC 18.360 Cape Igvak Salmon Management Plan) (ADF&G 1997-1998 edition).

***Southeastern District Mainland Sockeye Salmon Fishery.*** The Southeastern District Mainland fishery was also closed to commercial fishing through July 25 resulting in no commercial harvests (Table 18). This management restriction was in accordance with commercial fishing regulations (5 AAC. 09.360 Southeastern District Salmon Management Plan) (ADF&G 1997-1998 edition).

***Postseason Scale Pattern Analysis of Chignik Sockeye Salmon.*** Postseason age 1.3 and 2.3 SPA models, used to assign sockeye salmon to Black Lake or Chignik Lake, were created using linear (LDF) and quadratic (QDF) discriminate functions to evaluate which type of analysis would provide the best classification accuracy. Linear discriminate models for the age 1.3 and 2.3 sockeye salmon were utilized for reconstructing the 1997 sockeye salmon run. Estimates using

these models were assigned to Black Lake or Chignik Lake for each commercial sample (Tables 20-21). Linear interpolation of percent composition between sample dates was calculated for catch and escapement values and adjusted to Chignik Lagoon dates (Table 22) resulting in daily escapement and catch estimates for each stock (Tables 23-24).

The Black Lake sockeye salmon postseason SPA escapement estimate of 396,668 was 41,824 fish less than the inseason estimate (Tables 17 and 25) but within the established Black Lake escapement goal of 350,000 to 400,000. Chignik Lake escapement estimates include not only salmon counts estimated through the weir but also post weir estimates that are based on statistical analysis of the ratio of the Chignik Lagoon sockeye salmon catch to escapement prior to weir removal. This relationship is then extrapolated to post weir escapement as long as the commercial fishery continues. The year-end Chignik Lake escapement estimate was 378,950 sockeye salmon, which was 128,950 more salmon than the 250,000 Chignik Lake escapement goal to August 31 (Table 26).

The major age classes, as determined by SPA, which contributed to the escapement and catch of the Black Lake run are listed in tables 25 and 27. The major age classes, as determined by SPA, which contributed to the escapement and catch of the Chignik Lake run are listed in tables 26 and 28.

**Season Summary.** The 1997 total sockeye harvest and escapement was 1.6 million fish (Tables 29-30; Figure 12). This was well below the forecasted 2.6 million total sockeye salmon return (Appendices A.1-A.2). The sockeye salmon run for Black Lake was 631,280 fish and for Chignik Lake was 987,434 fish. Total escapement to both lakes was 775,618 sockeye salmon with 396,668 apportioned to Black Lake and 378,950 apportioned to Chignik Lake (Tables 29-30; Figure 11). Total catch bound to both lakes was 843,096 sockeye salmon (including Igvak and Southeastern District Mainland) with 234,612 apportioned to Black Lake and 608,484 apportioned to Chignik Lake (Tables 29-30; Figure 11). Total sockeye salmon harvest within the Chignik Management Area was 769,683 fish at a value of \$4.9 million (Tables 8 and 13). Sockeye salmon harvests, in proportion, by district, within the Chignik Management area are as follows: 53% in Chignik Bay District, 38% in the Central District, 3% in the Eastern District, 6% in the Western District, and less than 1% in the Perryville District (Table 3). The harvest of Chignik-bound sockeye salmon through July 25 in the Chignik Management Area was 443,892 (100% of the total); there were no sockeye salmon harvested in the Cape Igvak or Southeastern District Mainland prior to July 25 (Table 18).

The Chignik Management Area sockeye salmon were slightly smaller this season than the historical average weight. The overall average weight of sockeye salmon in the Chignik Bay District and all other districts in the Chignik Management Area was 6.3 lbs. The 1987-1996 ten year average weight for Chignik Bay District was 6.9 lbs. while the ten-year average weight in all remaining districts was 6.6 lbs. (Table 6).

## *Pink and Chum Salmon*

### **Background**

Pink and chum salmon production in the CMA is characterized by variable escapements and returns for both species (Tables 32-49). The variability of the returns may be attributed to the physical morphology of the river and stream systems, which are characterized by loose substrates and steep gradients. These systems are impacted by fall, winter, and spring floods that may cause streambed scouring and result in high egg and fry mortality (Arnie Shaul and Patrick Holmes, personal communication, ADF&G).

Openings in the Eastern, Western, and Perryville Districts from early July through August depend primarily on the abundance of pink and chum salmon (Figure 4). However, openings in the Central and Chignik Bay Districts are based primarily on a directed fishery on the Chignik Lakes' sockeye salmon where pink and chum salmon are caught incidentally.

Management of the CMA pink and chum salmon fisheries is based on inseason aerial assessment of escapement (conducted annually since 1953) (Table 48), historical catch data, and catch per unit effort (CPUE) data. Aerial surveys of approximately 100 salmon streams, adjacent bays, and stream mouths are flown regularly throughout the season to provide the most current inseason escapement indices (Tables 48-49). Postseason escapement indices are estimated for each stream from these inseason aerial observations using area-under-the-curve methodology (Johnson and Barrett, 1988). The estimates assume a 15-day average stream life for pink and chum salmon and a final escapement stream entry date of September 15 (Table 49).

Currently, all salmon processed locally are for the fresh frozen market because there are no operational canning facilities. Consequently, in order to provide the quality required for fresh frozen processing, the fisheries are managed to harvest migrating fish prior to their entering, or just as they reach, terminal waters.

### **1997 Forecast**

The 1997 preseason harvest projections estimated a catch of 1.0 million pink salmon and 230,000 chum salmon (Appendix A.1). The projected return of Western/Perryville Districts pink salmon was based on multiplying the average recruit per spawner for the previous ten years by the parent year escapement. For the Central/Eastern Districts the projection is based on the average of the run strength for the previous ten years. The largest pink salmon catches historically come from the Western/Perryville Districts and could account for 70% of the projected total. However, unstable stream conditions in these districts may have resulted in poor returns from excellent parent year escapements.

### **1997 Management and Harvests**

Pink and chum salmon escapement levels began slowly and then increased towards the end of the season. The early July openings in the Western and Perryville Districts were delayed, initially

because early chum salmon escapements were weak and later because pink salmon escapements were weak. Later in the season, escapement levels increased but salmon were dark (of poor flesh quality) and the processors could not utilize them.

The harvest of pink and chum salmon in the CMA was lower than forecasted primarily due to late timing of escapement and a poor time of entry curve. There were two fishing periods in the Western District and only one in the Perryville District during the 1997 season. Primarily because of low chum escapement, the first fishery opening did not occur until August 1. This late opening was the latest opening date since 1987. Weak pink and chum salmon escapement levels and moderate pink salmon catches during the first opening delayed the only other Western District opening until August 17.

During June, pink and chum salmon were caught incidentally in fishery openings directed towards the harvest of sockeye. When the Chignik Bay District opened, the Central and Eastern Districts were opened concurrently as mandated by the Eastern District Management Plan (5 AAC 15.360) (ADF&G Com. Fish. Reg., 1997-1998 edition). Catches in the Chignik Bay, Central, and Eastern Districts for June 17 – June 29 were 42,309 pink and 134,720 chum salmon (Table 4; Appendix D.1).

There were no openings in the month of July for the Western or the Perryville Districts due to the low chum escapements and the run timing, which was falling behind the historic time of entry curve. The fishery in the Chignik Bay and Central Districts remained open for most of July due to strong sockeye salmon escapement. There was one 48 hour fishing period from July 24 - July 26 in the Eastern District concurrent with the Chignik Bay and Central District (Appendix D.1). The fishery opening for the Eastern District was justified due to an increase in pink and chum salmon escapement with good escapement levels. There were five fishing periods in the Eastern District during the month of July. The total harvest of pink salmon from July 1 - July 26 was 138,645 fish, while the harvest of chum salmon was 33,705 fish (Table 5; Appendix D.1).

The first and only fishing period for both the Western and Perryville Districts combined occurred on August 1 and was extended until August 3. This fishing period occurred while the Chignik Bay and Central Districts were also open. The Eastern District opened on August 3 and was extended until August 5 (Appendix D.1). These openings and extensions were justified because sockeye salmon escapements were meeting desired goals and pink and chum salmon escapements were meeting time of entry expectations. There were 225,316 pink salmon and 54,677 chum salmon harvested during this 5-day period (Table 4).

The projected commercial common property harvest for the Chignik Management Area was 1.0 million pink salmon (Appendix A.1). The total pink salmon catch for the Chignik management area was 844,431, of which 72% were harvested from the Central District (Tables 3 and 8). Historically the Western and Perryville Districts contribute 65% of the pink salmon harvest in the CMA.

The 1997 CMA pink salmon estimated total escapement of 2,469,541 fish was based on the area-under-the-curve method (Table 9; Figure 13). The 1997 pink salmon escapement was the second largest since state management. The distribution and the comparative magnitude of the 1997

escapement to the 1987-1996 escapement average by CMA District is as follows; the Chignik Bay District escapement of 59,397 was approximately 45% greater than the average of 41,100 pink salmon (Tables 9 and 32); the Central District escapement of 594,626 was approximately 53% greater than the average of 234,600 pink salmon (Tables 9 and 33); the Eastern District escapement of 1,287,743 was approximately 57% greater than the average of 820,300 pink salmon (Tables 9 and 34); the Western District escapement of 306,302 was approximately 112% greater than the average of 144,100 pink salmon (Tables 9 and 35). The only district which produced below average escapement was the Perryville District. The Perryville District escapement of 221,473 was approximately 18% less than the average escapement of 271,700 (Tables 9 and 36).

The 1997 CMA chum salmon catch was 155,905 fish (Table 3; Figure 14). The CMA chum salmon harvest was approximately 74,095 below the forecasted harvest of 230,000 fish, and 42,095 below the 1987-1996 average harvest of 198,000 chum salmon (Table 8; Appendix A.1). Most chum salmon were harvested in the Central District (104,259), the remaining districts were as follows: Chignik Bay (20,978), Western (16,280), Eastern (11,397) and Perryville (2,991) (Table 3). The chum salmon escapements by district are as follows: Chignik Bay (18,498), Central (65,650), Eastern (289,950), Western (60,495), and Perryville (152,828) (Table 9). Historically the Western and Perryville Districts contribute 57% of the chum salmon harvests in the CMA.

The 1997 CMA chum salmon escapement was 587,421 (Table 9; Figure 14). Like pink salmon, the chum salmon total escapement estimate was based on the area-under-the-curve method (Table 43; Figure 14). A total of 587,421 chum salmon escaped to all districts, this is approximately 82% higher than the ten-year average of 323,500 salmon (Tables 9 and 43; Figure 14).

The exvessel value of the pink and chum salmon harvested within the CMA was estimated at \$348,000 and \$239,000, respectively (Table 13; Figure 6). The average value per permit holder was \$3,500 for pink salmon and \$2,400 for chum salmon (Table 13; Figure 6).

## *Coho Salmon*

### **Background**

Although a directed CMA coho salmon fishery begins in late August to early September primarily in the Chignik Bay District, coho salmon are also harvested incidentally in the directed sockeye, pink, and chum salmon commercial fisheries. Outside of the Chignik Bay District, the Western District has produced, for most years, the highest coho salmon catches (Figure 15). Commercial coho salmon catches begin as early as June and have continued until the fishery closes, which could continue until October 31. Total catches for the years 1960 to 1997 have ranged from 1,292 to 370,420 fish with an overall trend of increasing catches since 1960 (Table 8; Figure 17).

Peak timing for coho salmon catches differs when comparing offshore cape and inshore bay fisheries. Peak offshore catches occur during the targeted pink and chum salmon cape fisheries in late July while peak inshore catches occur in the Chignik Bay District in late August to early September (Tables 4-5; Figure 16). The early coho salmon catches, occurring primarily in the

Western and Perryville Districts, have similar average weights as those caught early in Chignik Lagoon. As the season progresses, coho salmon average weights increase dramatically in outside districts as well as in the Chignik Bay District.

The Chignik Lakes coho salmon run is the largest within the CMA and one of the largest within the Westward Region. Escapement has averaged (from 1986-1997 excluding 1989, the Exxon Valdez oil spill year) 58,240 fish, and the catch has averaged 64,596 fish. In 1997 the relationship of coho salmon catch and escapement prior to the removal of the Chignik weir was used to estimate coho salmon escapement from September 5-September 17 to the Chignik Lakes system.

Other areas of high coho salmon escapement concentrations are in Ivanof Bay of the Perryville District and several streams in the Eastern District. Overall, coho salmon escapement monitoring in the CMA is sporadic due to the late timing of the run, poor weather conditions, and the logistics involved in monitoring the numerous streams in the area.

### **1997 Forecast**

Harvest projections for Chignik Bay and outside catches are based on 10-year averages. The 1997 coho salmon harvest forecast was 220,000 fish (Appendix A.1). Coho salmon harvests are effected by the strength of the Chignik Lake sockeye run and the strength of the pink and chum salmon runs. For example, a weak sockeye salmon second run (Chignik Lake) or a weak pink and chum salmon run could severely curtail the fisheries and, consequently, the incidental harvest of coho salmon.

### **1997 Management and Harvests**

The Chignik Lakes coho salmon escapement was estimated, directly from weir counts through September 4, as 10,810 fish (Table 12). Post weir estimates, using catch and escapement ratios prior to weir removal, were estimated through September 17 at 35,288 for a total coho salmon escapement of 46,098 (Table 12). Coho salmon were difficult to count during aerial surveys in late August because high numbers of pink salmon were still present in CMA streams. Coho salmon aerial surveys during the late season were limited by poor visibility due to high water events and turbid waters (Table 48).

In the CMA, 90,908 coho salmon were caught during 1997 (Table 3). This harvest is the smallest since 1989 (Table 8; Figure 16). This catch was 119,192 fish less than the harvest projection of 220,000 coho salmon (Appendix A.1). The largest catches came from the Central District with a harvest of 45,878 (Table 3; Figure 15). In 1997 limited fishery openings in the Western District resulted in lower than average coho salmon catches. The largest daily catch was on August 1 when 6,998 coho salmon were caught. The section within the Western and Perryville Districts which produced the largest harvest of coho salmon was the Castle Cape Section, producing 6,007 fish (Table 5).

The exvessel value of the CMA coho salmon harvest was \$454,000 (Table 13; Figure 6). The average value per permit holder was \$4,600 (Table 13).

### ***Subsistence Salmon Fisheries***

The CMA villages of Chignik, Chignik Lake, Chignik Lagoon, Perryville, and Ivanof Bay rely heavily on local salmon resources for subsistence. Salmon subsistence permits are issued to people in these villages through the Kodiak and Chignik ADF&G offices, Village Public Safety Officers, processors, and Subsistence Division personnel on assignment from the Anchorage ADF&G office. In 1997, 82% of the CMA subsistence permits issued were returned with harvest data. The ADF&G Subsistence Division estimates harvests by a stratified expansion design for each community. In 1997, the CMA subsistence harvest was estimated at 28 chinook, 13,442 sockeye, 2,678 coho, 2,035 pink, and 840 chum salmon (Table 50).

This year the village of Perryville implemented a self-imposed harvest restriction on approximately half (upper reaches) of the Kametolook River during the coho salmon escapement and spawning time. Jim McCullough, the ADF&G development biologist co-investigating the Kametolook project, counted 181 coho salmon in the stream but, because of turbidity and high water, could only survey one quarter of the river. Consequently, he expanded his original counts by 4, estimating 734 coho salmon in the entire stream. Eggs were taken in the fall and placed in incubation boxes for coho salmon enhancement purposes (Scarborough and McCullough, 1998).

### ***Personal Use of the Commercial Catch***

There were no data recorded on the personal use of commercial catch in the 1997 season.

## **CHIGNIK HERRING FISHERIES**

### ***Background***

The earliest recorded Pacific herring *Clupea pallasii* fishery in the Alaska Peninsula region was in 1906. During the early herring fisheries, the Chignik area catch was combined with catches from North and South Peninsula areas and labeled as southwestern Alaska catches. During this period of time, annual herring catches did not exceed 500 tons for all three areas combined. These herring were harvested with beach seines and marketed as a salted product. Herring fishing ceased in the late 1930s and did not commence again until 1980, when there was a sac roe herring fishery.

Since 1980, the CMA area sac roe herring fishery has been a low effort, low yield fishery (Figure 18). Prior to 1984, harvests were concentrated in the Big River Section of the Eastern District. This area was closed to commercial herring fishing in 1985 due to low herring abundance and has remained closed. This closure shifted fishing pressure to other areas of the CMA, but harvests have remained low.

Spawning schools of herring located in small geographic areas (generally a bay or lagoon) are managed as discrete stocks. The projected annual exploitation rate of each of these stocks is

dependent on the previous year's biomass estimates (Owen and Sarafin 1997b). Actual harvest levels may differ from preseason harvest projections if inseason information (aerial surveys, catch per unit effort) suggests that the spawning biomass of a discrete stock differs significantly from anticipated levels.

### *1997 Management and Harvests*

A herring sac roe fishery did not take place during 1997 in the CMA. No fishing effort or harvest of herring were recorded for 1997 due to lack of fishing interest. No herring biomass estimates were calculated by the department during 1997.

### **OTHER SPECIES (NON-COMMERCIAL)**

This was the second year Dolly Varden were enumerated through the Chignik River weir and data published since state management began in 1960. From the large amount of escapement counted, it is obvious that this species has the potential for an appreciable biological impact on other fish populations within the Chignik Lake system.

Over 26,000 Dolly Varden were counted through the Chignik weir from June 2 until the weir was removed on September 4 (Table 52). Escapement was consistently higher during the latter part of July compared to any other time period.

## LITERATURE CITED

- ADF&G (Alaska Department of Fish and Game). Bristol Bay and Westward Alaska Commercial Fishing Regulations Salmon and Miscellaneous Finfish, 1997-1998 edition, Commercial Fisheries Management And Development Division, Juneau.
- Burgner, R. and S. Marshall, 1974. Optimum escapement studies of Chignik sockeye salmon. University of Washington, Fisheries Research Institute, Project Report AFC-34, Segment 3, Seattle.
- Conrad, R.H. 1983. Management applications of scale pattern analysis methods for the sockeye salmon runs to Chignik, Alaska. M.S. Thesis, Univ. Washington, Seattle.
- Cook, R. C. and G. Lord 1978. Identification of stocks of Bristol Bay sockeye salmon by evaluating scale patterns with a polynomial discriminate method. Fish. Bull. 76(2):415-423.
- Dahlberg, M. L. 1968. Analysis of the dynamics of sockeye salmon returns to Chignik Lakes, Alaska. Ph.D. dissertation. Univ. Washington, Seattle.
- Johnson, B. A. and B. Barrett. 1988. Estimation of salmon escapement based on stream survey data: a geometric approach. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K88-35, Kodiak.
- Lechner, J. 1969. Identification of red salmon stocks taken in the Cape Kumlik-Aniakchak Bay fishery, Chignik Area, 1967. Alaska Department of Fish and Game, Division of Commercial Fisheries. Informational Leaflet 133, Juneau.
- McCullough, James N. 1992. Southeastern District Mainland (Alaska Peninsula Area) Salmon Management Plan, 1992. Alaska Department of Fish and Game, Regional Information Report 4K92-4, Kodiak.
- Narver, D.W. 1966. Pelagial ecology and carrying capacity of sockeye salmon in the Chignik Lakes, Alaska. Ph.D. dissertation, Univ. Washington, Seattle.
- Owen, D. and R. Sarafin 1997a. Chignik Management Area Commercial Salmon Fishery Management Plan, 1997. ADF&G Regional Information Report 4K97-33, Kodiak.
- Owen, D. and R. Sarafin 1997b. Chignik Management Area Commercial sac roe herring fishery management plan, 1997. ADF&G Regional Information Report 4K97-26, Kodiak.
- Ruggerone, G.T. 1989. Coho salmon predation of juvenile sockeye salmon in the Chignik Lakes, Alaska. Ph.D. dissertation, Univ. Washington, Seattle. 151 pp.
- Scarborough, H.L. and J. N. McCullough 1998. Kametolook River Coho Salmon Subsistence Project, Restoration Project 97247, Annual Report, Kodiak.

Table 1. List of permit holders who fished in the Chignik Management Area, 1997.

		ALASKA				
	NAME		PERMIT NO.	RESIDENCY	VESSEL NAME	ADF&G NO.
1	ALEXANDER	JASON	S01L59000W	NR	CAPT'N JAY	21757
2	ANDERSON	BILLY	S01L62210Z	R	ERICA RAE	33957
3	ANDERSON	JULIUS	S01L55433H	R	CHRISTINA J	41205
4	ANDERSON	AARON	S01L56203U	R	VENTURE	33848
5	ANDERSON	DAVID	S01L56415U	R	GYPSY LADY	61550
6	ANDERSON	RODNEY	S01L56936B	R	ENDURANCE	64123
7	ANDERSON	GEORGE	S01L57133E	R	ALICE A	33375
8	ANDERSON	AL	S01L57160U	R	ALYSA JUNE	61634
9	ANDERSON	GARY	S01L57501K	R	JANET LYNNE	53370
10	ANDERSON	DEAN	S01L60114M	NR	SIERRA GALE	60913
11	ANDERSON	EUGENE	S01L60601G	R	RAY MAR	31492
12	ASTOR	CRAIG	S01L59794I	R	DREAMER	41317
13	BATTISHILL	JEREMY	S01L50045K	R	PRINCESS DANETT	117
14	BECK	MARK	S01L55925M	NR	COLUMBIA	56222
15	BRANDAL	HENRY	S01L50032K	R	ORIOLE	15888
16	BRANDAL	ALEC	S01L55170U	R	ALEXANDRIA	32586
17	BROWN	MALCOLM	S01L55938M	R	HYPATIA	62612
18	BUMPUS	PETER	S01L61910L	NR	KIMBERLY DAWN	59651
19	BURKHART	GLEN	S01L56935J	R	RESURRECTION	45469
20	CAMPBELL	ANGUS	S01L55731X	NR	TORI-ANNA	58196
21	CARLSON	EUGENE	S01L55520P	NR	SEA GRIT	21855
22	CARLSON	GARY	S01L56192Z	R	AARON C	21898
23	CARLSON	ERNEST	S01L57125P	R	DESPERADO	43775
24	CARLSON	DALE	S01L57473V	R	LADY DIANE	43370
25	CARLSON	RODERICK	S01L57704F	R	LADY ANN	58085
26	CARLSON	RODERICK II	S01L57695S	R	DIANA	51282
27	CONSTANTINE	DAWAYNE	S01L57808I	R	EDDIE LEE	7024
28	COWGILL	JOHN	S01L57469C	NR	VICTORIA	51091
29	ERICKSON	CLARENCE	S01L56512B	R	SHARON LEE	53266
30	FELLOWS	ROBERT	S01L58425P	R	VALKYRIE	59782
31	GREGORIO	TONY	S01L58848X	R	ANTOINETTE RENA	37548
32	GRUNERT	CLEMENS	S01L50332L	R	ADVENTURESS	42335
33	GRUNERT	FRANK	S01L59851X	R	KURT ELDON	61416
34	GRUNERT	MICHEAL	S01L55935K	R	CAPT'N SAM	59482
35	HANSEN	RANDALL	S01L55954N	NR	MICKEY H	61758
36	HATCH	ARNE	S01L60183F	R	MISS MELODY	61676
37	HINDERER	WALLACE	S01L57085S	R	RAEHEL LOUISE	41592
38	HINDERER	RAEHEL	S01L57376O	R	ILLUSION	10567
39	HORN	DAVID	S01L55399O	R	ALYSA ANNE	31888
40	JOHNSON	PAUL	S01L56395S	NR	SUSAN RAE	35956
41	JONES	JOHN	S01L56589I	R	BEAR CLAW	34902
42	JONES	MORRIS	S01L56405W	NR	ISLANDER	39275
43	KALMAKOFF	HARVEY	S01L50090M	R	OCEAN SPRAY	23636
44	KALMAKOFF	ARCHIE	S01L55361H	R	DESERT STORM	38122
45	KALMAKOFF	JOSEPH	S01L60614G	R	SEA ROGUE	11017
46	KASHEVAROF	WILLIAM	S01L57487N	R	CHRISTINE K	54242
47	KOPUN	ALOYS	S01L57863I	R	KAREY GALE	45995
48	KOPUN	AXEL	S01L57612J	R	MISS MARIT	35863
49	KOSBRUK	IVAN	S01L50116R	R	JELLY ROLL	45720

-Continued-

Table 1. (page 2 of 2)

	NAME	PERMIT NO.	RESIDENCY	VESSEL NAME	ADF&G NO.	
50	KOSBRUK	HARRY	S01L56726L	R	SAINT HERMAN	38528
51	KOSBRUK	BORIS	S01L58206U	R	LADY EVELYN	43200
52	KULIN	STEPHEN	S01L60113U	R	KRITARKA	63151
53	LIND	JOHNNY	S01L50223W	R	ALEUT SISTERS	38404
54	LIND	ELLIOT	S01L56872O	R	LISA MARIE	35950
55	LIND	RONALD	S01L57384C	R	MISS OLIVIA	41758
56	LOUNSBURY	BRETT	S01L58322F	R	KARMA	31995
57	MCKILLY	GABRIEL	S01L59493O	R	DOROTHY M	32863
58	MERSHON	DANIEL	S01L61370V	R	MAGNUM	42629
59	MERSHON	JOSHUA	S01L58818F	R	WITNESS	57480
60	ODOMIN	NICK	S01L57696L	R	ELLA MAE	195
61	OGLE	LEONARD	S01L55311R	R	CHALLENGE	61706
62	OLSEN	KNUD	S01L56418W	NR	HEIDE LINEA	55822
63	OLSEN	GARRETT	S01L58496R	NR	ABSOLUT	21877
64	OLSEN	JEFFREY	S01L60115F	NR	DENAKA	118
65	ORLOFF	GEORGE	S01L59308M	R	MARJONETTE	57946
66	PEDERSEN	ALVIN	S01L55953V	R	MILLIE JO	37662
67	PEDERSEN	HANS	S01L57171K	R	SUSIE LYNN	40248
68	PEDERSEN	AUGUST	S01L58126H	R	SHARON ANN	59642
69	PEDERSEN	COREY	S01L64188M	R	LINDA W	59487
70	PEDERSEN	MARIUS	S01L64187U	R	KAISHA LENA E	57465
71	PEDERSEN	STANLEY	S01L58308N	R	KAYLEE	5041
72	PLETNIKOFF	ROBERT	S01L58077F	R	RITA MARIE	35986
73	ROSS	MALCOLM	S01L60106Z	R	SHADOWFAX	61997
74	ROWLAND	ROGER	S01L63976A	R	DESIDERATA	41160
75	SHANGIN	CLEMENT	S01L56733H	R	MISS CLEMENTINE	38622
76	SHANGIN	EDGAR	S01L50123N	R	MISS ANGELINA	49655
77	SHANGIN	RUSSELL	S01L57003B	R	AMBER NICOLE	56291
78	SHANGIN	ANDY	S01L58145K	R	SHARON DAWN	39351
79	SHANGIN	DENNIS	S01L58178G	R	MIRANDA LEIGH	21899
80	SHANGIN	STEPHEN	S01L52949G	R	JOSEPH BOONEY	58670
81	SIEMION	THEODORE	S01L56322H	NR	OUTSIDER	20453
82	SIEMION	MATTHEW	S01L56992S	NR	SEA BREEZE	32361
83	SKONBERG	RALPH	S01L50205L	R	MICHELE LEE	35698
84	SKONBERG	ARNOLD	S01L55477R	R	LEANNA JEAN	45060
85	SKONBERG	DARRELL	S01L55546P	NR	ALASKA ROSE	33614
86	SKONBERG	CALVIN	S01L56228C	R	ROSALIE	34184
87	SKONBERG	ROY	S01L58470R	R	AMY RAE	42210
88	STEPANOFF	SAM	S01L50338P	R	SONIA FRANCINE	33778
89	STEPANOFF	WALTER	S01L57091W	R	MIRICLE GIRL	36629
90	STEPANOFF	ANDREW	S01L60144G	R	LAURA JUNE	28396
91	SUYDAM	LOWELL	S01L56680K	R	STELLOR	39962
92	SUYDAM	GLENN	S01L59615J	R	ALEUT SON	53205
93	TAKAK	RICHARD	S01L57035F	R	LADY LENA	6163
94	TEUBER	PAUL	S01L60121I	NR	SONDRA	55545
95	VANWINGERDEN	MARK	S01L57296B	R	KARISSE DAWN	58817
96	VEERHUSEN	DANIEL	S01L57662X	R	FEARLESS JANE	67536
97	YAGIE	JERRY	S01L56797N	R	NORTHWIND	36296
98	YAGIE	MARVIN	S01L57278P	R	MAXINE	54909

Table 2. Alaska-resident vs. non-resident ownership of permits in the Chignik Management Area, 1966-1997.

Year	Resident		Non-Resident		Total Permits Fished
	Number	Percent	Number	Percent	
1966	65	89.0	8	11.0	73
1967	73	88.0	10	12.0	83
1968	59	88.1	8	11.9	67
1969	57	83.8	11	16.2	68
1970	57	82.6	12	17.4	69
1971	64	83.1	13	16.9	77
1972	62	78.5	17	21.5	79
1973	63	81.8	14	18.2	77
1974	79	84.0	15	16.0	94
1975	72	83.7	14	16.3	86
1976	66	85.7	11	14.3	77
1977	74	84.1	14	15.9	88
1978	82	86.3	13	13.7	95
1979	87	86.1	14	13.9	101
1980	87	86.1	14	13.9	101
1981	87	84.5	16	15.5	103
1982	89	84.8	16	15.2	105
1983	84	84.0	16	16.0	100
1984	84	83.2	17	16.8	101
1985	85	84.2	16	15.8	101
1986	87	87.0	13	13.0	100
1987	89	87.3	13	12.7	102
1988	88	86.3	14	13.7	102
1989	86	84.3	16	15.7	102
1990	85	84.2	16	15.8	101
1991	85	83.0	18	17.0	103
1992	84	84.0	17	17.0	101
1993	85	83.3	17	16.7	102
1994	82	82.8	17	17.2	99
1995	80	80.0	20	20.0	100
1996	80	80.0	20	20.0	100
1997	81	82.7	17	17.3	98

Table 3. Commercial salmon catches in the Chignik Management Area by district, statistical area, and species, 1997.

District	Stat Area	Catch by Species in Number of Salmon <sup>a,b,c</sup>					Total
		Chinook	Sockeye	Coho	Pink	Chum	
Chignik Bay	27110	1,296	406,763	32,847	39,461	20,978	501,345
	Total	1,296	406,763	32,847	39,461	20,978	501,345
Central	27220	489	23,827	15,056	72,400	27,901	139,673
	27230	210	85,218	17,905	181,341	35,918	320,592
	27240	136	48,111	6,070	203,370	13,567	271,254
	27250	202	68,662	3,846	68,132	15,675	156,517
	27262	572	68,816	2,721	74,713	10,310	157,132
	Total	1,609	294,634	45,598	599,956	103,371	1,045,168
Eastern	27260	26	8,836	368	21,248	2,012	32,490
	27280	0	64	27	7,366	3,246	10,703
	27290	2	438	661	31,709	2,969	35,779
	27292	32	11,312	745	12,024	3,170	27,283
	Total	60	20,650	1,801	72,347	11,397	106,255
Western	27374	12	27,449	2,264	39,237	3,320	72,282
	27380	10	9,306	529	27,399	1,683	38,927
	27390	36	7,619	6,007	41,726	9,624	65,012
	27394	2	513	519	10,550	2,483	14,067
	Total	60	44,887	9,319	118,912	17,110	190,288
Perryville	27540	4	2,020	1,225	10,998	2,602	16,849
	27550	3	729	118	2,757	447	4,054
	Total	7	2,749	1,343	13,755	3,049	20,903
All District	Total	3,032	769,683	90,908	844,431	155,905	1,863,959

<sup>a</sup>Does not include salmon caught for personal use.

<sup>b</sup>Does not include salmon caught with subsistence permit.

<sup>c</sup>Includes salmon caught from the department's test fishery but does not include salmon caught at Cape Igvak or Southeastern District Mainland.

Table 4. Commercial salmon catch by day and effort in the Chignik Management Area, 1997.

Catch DD/MM <sup>a,b</sup>	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
13-Jun <sup>c</sup>	1	1	0	0	1,451	9,933	0	0	0	0	0	0	1,451	9,933
15-Jun <sup>c</sup>	1	1	0	0	1,210	8,320	0	0	0	0	0	0	1,210	8,320
18-Jun <sup>c</sup>	1	1	7	149	2,008	13,505	0	0	0	0	0	0	2,015	13,654
20-Jun <sup>c</sup>	1	1	0	0	2,450	17,080	0	0	0	0	0	0	2,450	17,080
22-Jun <sup>c</sup>	1	1	0	0	1,192	8,496	0	0	0	0	0	0	1,192	8,496
25-Jun <sup>c</sup>	1	1	0	0	2,988	20,540	0	0	0	0	0	0	2,988	20,540
27-Jun	90	95	232	4,592	49,091	329,441	0	0	18,511	59,312	2,492	19,163	70,326	412,508
28-Jun	86	94	234	4,307	39,471	269,055	8	57	13,457	42,949	2,324	18,003	55,494	334,371
29-Jun	64	64	100	1,776	18,286	121,981	6	40	10,341	32,459	2,154	15,290	30,887	171,546
1-Jul	88	90	103	1,948	27,496	184,565	3	25	10,968	33,764	1,764	12,904	40,334	233,206
2-Jul	86	90	209	4,332	30,393	204,030	20	134	13,807	43,333	1,560	11,693	45,989	263,522
3-Jul	88	91	229	3,732	34,695	231,274	36	266	14,894	46,691	2,100	16,255	51,954	298,218
4-Jul	88	88	174	2,591	20,311	134,537	90	559	11,375	34,584	2,310	18,413	34,260	190,684
5-Jul	82	84	245	3,704	16,009	105,416	190	1,159	5,989	19,406	2,133	17,734	24,566	147,419
6-Jul	83	83	302	3,441	17,342	112,661	247	1,606	6,129	19,404	2,202	18,174	26,222	155,286
7-Jul	80	81	244	2,478	11,170	71,511	324	2,142	3,187	10,472	1,174	9,284	16,099	95,887
11-Jul	96	99	119	1,938	38,751	251,969	1,250	8,699	15,084	47,497	3,866	30,742	59,070	340,845
12-Jul	75	75	116	2,092	18,603	123,502	685	4,859	7,562	24,653	1,690	13,970	28,656	169,076
13-Jul	72	78	115	1,555	16,375	107,816	459	3,204	6,962	22,068	1,542	11,934	25,453	146,577
14-Jul	46	46	30	553	7,496	48,126	486	3,265	2,764	9,545	808	6,228	11,584	67,717
18-Jul	82	82	25	354	18,804	118,530	1,058	7,763	4,965	16,113	1,735	13,787	26,587	156,547
19-Jul	80	85	81	1,612	19,875	124,690	2,122	15,865	6,069	19,852	2,925	23,485	31,072	185,504
20-Jul	85	85	69	1,063	17,819	113,130	1,905	13,547	4,955	15,926	2,301	18,169	27,049	161,835
24-Jul	95	95	70	655	26,554	166,367	1,763	12,376	11,764	40,650	3,449	27,054	43,600	247,102
25-Jul	81	83	30	495	15,351	97,531	654	4,762	10,464	37,674	1,803	14,869	28,302	155,331
26-Jul	24	24	2	20	3,216	19,677	120	827	1,707	5,730	343	2,768	5,388	29,022
31-Jul	61	61	14	249	10,882	64,130	1,022	7,733	11,287	39,707	2,263	18,257	25,468	130,076
1-Aug	88	90	66	699	25,149	148,074	6,998	54,922	59,139	195,854	12,668	101,539	104,020	501,088
2-Aug	79	80	51	498	25,309	154,323	2,846	20,407	47,567	156,467	10,253	78,362	86,026	410,057
3-Aug	82	86	33	444	25,888	151,224	2,913	20,810	39,780	134,429	10,303	79,255	78,917	386,162
4-Aug	71	71	15	158	7,693	45,379	1,061	7,425	16,047	51,921	5,414	43,474	30,230	148,357
5-Aug	68	72	10	191	10,729	63,220	1,428	10,882	30,717	101,572	8,015	64,070	50,899	239,935
6-Aug	58	58	9	223	7,742	46,726	1,083	7,974	20,779	69,538	5,761	42,737	35,374	167,198
8-Aug	26	26	0	0	2,306	13,627	75	588	3,063	10,027	516	4,052	5,960	28,294

-Continued-

Table 4. (page 2 of 2)

Catch MM/DD	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
9-Aug	65	70	9	135	13,240	78,927	1,239	9,143	29,969	97,337	4,706	35,910	49,163	221,452
10-Aug	66	68	8	121	10,628	62,060	1,038	8,222	29,494	96,826	4,281	33,162	45,449	200,391
11-Aug	47	48	1	10	7,761	44,329	320	2,439	7,752	25,971	1,834	13,393	17,668	86,142
12-Aug	67	70	12	202	12,207	70,206	1,622	12,558	40,043	130,957	4,093	30,504	57,977	244,427
13-Aug	64	64	7	83	11,608	68,049	2,066	16,277	32,586	107,607	4,575	33,726	50,842	225,742
14-Aug	64	67	31	332	15,428	91,912	2,954	23,421	65,818	216,698	8,571	63,606	92,802	395,969
15-Aug	64	67	10	150	14,693	85,311	1,959	15,253	61,592	200,336	5,240	38,558	83,494	339,608
16-Aug	56	57	2	31	11,071	64,617	1,675	13,175	30,074	104,835	4,153	35,301	46,975	217,959
17-Aug	52	52	1	20	4,810	28,064	1,533	12,143	35,816	120,358	3,232	23,369	45,392	183,954
18-Aug	39	40	0	0	4,801	28,769	1,452	11,280	24,057	76,491	3,251	23,255	33,561	139,795
20-Aug	50	51	1	10	4,051	23,508	874	7,667	21,978	70,553	2,127	15,592	29,031	117,330
21-Aug	58	60	3	79	7,962	47,039	1,756	15,443	15,523	52,358	2,903	21,629	28,147	136,548
22-Aug	46	47	0	0	6,299	38,002	1,440	11,760	8,725	30,638	1,449	10,381	17,913	90,781
23-Aug	30	34	2	42	5,090	30,492	800	6,606	2,688	8,754	1,141	7,536	9,721	53,430
24-Aug	39	39	1	10	4,470	26,979	1,610	13,244	9,980	37,089	1,376	9,769	17,437	87,091
25-Aug	46	46	2	46	5,747	35,002	2,054	19,252	7,184	24,587	2,083	14,754	17,070	93,641
26-Aug	40	40	0	0	3,355	20,669	2,684	23,710	3,805	13,276	1,503	10,092	11,347	67,747
30-Aug	23	23	1	16	1,705	10,586	1,439	13,072	971	3,321	225	1,568	4,341	28,563
31-Aug	38	39	1	25	5,843	35,986	5,323	49,080	4,545	15,811	1,911	13,890	17,623	114,792
1-Sep	33	33	0	0	5,034	31,171	3,001	28,026	1,840	6,545	754	5,686	10,629	71,428
2-Sep	32	32	0	0	2,819	17,661	2,315	21,024	588	2,168	350	2,062	6,072	42,915
5-Sep	18	18	0	0	3,952	23,908	4,971	46,739	50	152	101	569	9,074	71,368
6-Sep	24	25	0	0	2,604	15,418	3,149	28,687	5	20	34	192	5,792	44,317
7-Sep	23	24	1	11	2,401	14,114	2,763	25,285	0	0	52	324	5,217	39,734
10-Sep	22	23	0	0	5,426	32,319	2,786	25,322	13	40	53	305	8,278	57,986
11-Sep	19	19	0	0	4,504	26,913	1,968	18,246	0	0	23	115	6,495	45,274
12-Sep	13	15	0	0	4,679	28,126	2,524	23,490	0	0	2	10	7,205	51,626
13-Sep	13	13	0	0	1,904	11,324	614	5,620	2	8	3	14	2,523	16,966
15-Sep	16	16	0	0	4,666	27,837	1,635	15,241	0	0	3	24	6,304	43,102
16-Sep	15	15	5	52	3,668	21,358	1,447	13,414	0	0	3	15	5,123	34,839
17-Sep	11	11	0	0	3,152	19,547	1,045	9,774	0	0	5	23	4,202	29,344
Total	98	3,388	3,032	47,224	769,683	4,860,589	90,908	756,509	844,431	2,784,333	155,905	1,196,999	1,863,959	9,645,654

24

<sup>a</sup>Does not include salmon that were caught for personal or subsistence use.

<sup>b</sup>Does not include salmon caught at Cape Igvak or Southeastern District Mainland.

<sup>c</sup>Catch from the department's test fishery within Chignik Lagoon.

Table 5. Commercial salmon catch and effort by statistical area and day in the Chignik Management Area, 1997.

Stat Area	Catch a,b,c Date	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
		Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
25	27110 Jun-13 <sup>d</sup>	1	1	0	0	1,451	9,933	0	0	0	0	0	0	1,451	9,933
	Jun-15 <sup>d</sup>	1	1	0	0	1,210	8,320	0	0	0	0	0	0	3,225	21,974
	Jun-18 <sup>d</sup>	1	1	7	149	2,008	13,505	0	0	0	0	0	0	0	0
	Jun-20 <sup>d</sup>	1	1	0	0	2,450	17,080	0	0	0	0	0	0	2,450	17,080
	Jun-22 <sup>d</sup>	1	1	0	0	1,192	8,496	0	0	0	0	0	0	1,192	8,496
	Jun-25 <sup>d</sup>	1	1	0	0	2,988	20,540	0	0	0	0	0	0	2,988	20,540
	Jun-27	59	63	167	3,558	26,145	185,726	0	0	2,174	6,791	77	702	28,563	196,777
	Jun-28	54	61	129	2,873	22,396	157,443	3	20	1,011	3,246	29	232	23,568	163,814
	Jun-29	42	42	50	953	7,713	53,603	1	9	365	1,145	51	391	8,180	56,101
	Jul-01	54	55	73	1,534	16,103	113,323	0	0	45	121	553	3,953	16,774	118,931
	Jul-02	52	55	166	3,734	15,647	107,555	0	0	261	888	76	598	16,150	112,775
	Jul-03	49	52	110	2,090	13,443	91,800	8	72	597	1,788	154	1,165	14,312	96,915
	Jul-04	45	45	31	538	8,546	56,846	10	77	181	561	21	168	8,789	58,190
	Jul-05	44	45	99	1,956	9,134	61,769	15	106	159	502	62	538	9,469	64,871
	Jul-06	42	42	45	976	8,820	57,439	8	52	153	490	35	276	9,061	59,233
	Jul-07	40	41	49	1,097	5,487	36,069	5	35	55	177	19	149	5,615	37,527
	Jul-11	55	56	36	738	12,967	83,302	63	397	599	2,065	137	1,157	13,802	87,659
	Jul-12	41	41	45	933	4,597	30,079	0	0	71	227	39	280	4,752	31,519
	Jul-13	40	44	39	749	7,207	47,191	2	15	191	612	49	350	7,488	48,917
	Jul-14	25	25	14	271	3,960	25,524	45	304	193	668	37	292	4,249	27,059
	Jul-18	49	49	8	135	11,308	71,700	0	0	254	819	64	509	11,634	73,163
	Jul-19	46	50	45	1,050	12,628	79,631	33	259	365	1,167	524	3,680	13,595	85,787
	Jul-20	48	48	28	522	11,207	72,135	2	16	142	464	103	799	11,482	73,936
	Jul-24	58	58	37	364	16,778	105,046	92	684	736	2,582	423	3,243	18,066	111,919
	Jul-25	54	55	24	417	10,503	65,833	15	115	542	1,824	219	1,661	11,303	69,850
	Jul-26	15	15	2	20	2,343	14,198	8	57	87	254	51	403	2,491	14,932
	Jul-31	42	42	4	114	7,634	43,878	9	67	1,213	4,254	211	1,643	9,071	49,956
Aug-01	34	35	9	118	5,501	31,550	22	165	760	2,691	215	1,711	6,507	36,235	
Aug-02	30	30	23	147	5,613	33,377	148	1,322	1,386	4,917	1,902	14,852	9,072	54,615	

-Continued-

Table 5. (page 2 of 12)

Stat Area	Date	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
		Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
27110															
	Aug-03	38	38	9	182	5,550	31,817	83	664	1,098	3,691	645	5,136	7,385	41,490
	Aug-04	32	32	8	74	3,884	22,142	9	80	555	1,909	371	2,920	4,827	27,125
	Aug-05	34	34	6	153	3,558	20,472	5	35	567	1,918	506	3,977	4,642	26,555
	Aug-06	27	27	3	66	2,345	13,768	52	327	472	1,599	695	5,231	3,567	20,991
	Aug-08	17	17	0	0	1,538	8,752	35	278	238	797	175	1,187	1,986	11,014
	Aug-09	40	44	1	15	7,463	42,791	41	297	1,599	5,198	1,497	11,143	10,601	59,444
	Aug-10	38	39	3	22	7,544	43,200	7	52	1,378	4,603	1,118	8,476	10,050	56,353
	Aug-11	38	39	0	0	6,588	37,405	53	450	1,486	5,227	914	6,837	9,041	49,919
	Aug-12	42	44	9	169	6,465	35,842	13	96	1,873	6,186	968	6,825	9,328	49,118
	Aug-13	40	40	3	44	6,283	36,176	38	249	1,673	5,552	778	5,402	8,775	47,423
	Aug-14	34	35	0	0	5,744	32,611	50	403	1,570	5,255	907	6,247	8,271	44,516
26	Aug-15	36	37	6	104	7,572	43,403	21	148	1,588	5,465	2,172	15,631	11,359	64,751
	Aug-16	28	28	1	5	5,552	31,732	25	192	977	3,253	401	2,578	6,956	37,760
	Aug-17	25	25	0	0	2,383	13,794	53	403	756	2,568	287	2,018	3,479	18,783
	Aug-18	18	18	0	0	2,283	13,345	46	332	765	2,824	638	4,468	3,732	20,969
	Aug-20	26	26	1	10	3,050	17,613	50	403	1,473	4,892	343	2,296	4,917	25,214
	Aug-21	37	38	1	23	6,115	35,883	148	1,123	2,100	7,688	582	4,121	8,946	48,838
	Aug-22	32	33	0	0	5,142	30,868	297	2,413	2,287	7,468	511	3,443	8,237	44,192
	Aug-23	26	29	2	42	4,863	29,145	640	5,036	1,870	6,084	561	3,557	7,936	43,864
	Aug-24	23	23	0	0	3,481	20,644	450	3,687	946	3,229	298	1,854	5,175	29,414
	Aug-25	27	27	0	0	3,941	24,034	770	6,784	952	3,239	443	2,893	6,106	36,950
	Aug-26	25	25	0	0	2,756	16,904	1,038	9,069	620	2,025	274	1,755	4,688	29,753
	Aug-30	18	18	1	16	1,168	7,096	1,037	9,187	217	743	47	298	2,470	17,340
	Aug-31	28	29	1	25	3,178	19,389	1,754	15,661	514	1,742	303	1,932	5,750	38,749
	Sep-01	23	23	0	0	3,041	18,458	1,360	12,112	184	623	146	1,007	4,731	32,200
	Sep-02	25	25	0	0	2,205	13,657	1,745	16,153	103	355	97	614	4,150	30,779
	Sep-05	18	18	0	0	3,952	23,908	4,971	46,739	50	152	101	569	9,074	71,368
	Sep-06	23	24	0	0	2,512	14,838	3,086	28,137	5	20	34	192	5,637	43,187
	Sep-07	23	24	1	11	2,401	14,114	2,763	25,285	0	0	52	324	5,217	39,734
	Sep-10	21	22	0	0	5,039	29,954	2,667	24,277	3	10	24	155	7,733	54,396
	Sep-11	18	18	0	0	4,329	25,803	1,932	17,911	0	0	23	115	6,284	43,829

-Continued-

Table 5. (page 3 of 12)

Stat Area	Date	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
		Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
27110	Sep-12	13	15	0	0	4,679	28,126	2,524	23,490	0	0	2	10	7,205	51,626
	Sep-13	12	12	0	0	1,768	10,519	528	4,855	2	8	3	14	2,301	15,396
	Sep-15	16	16	0	0	4,666	27,837	1,635	15,241	0	0	3	24	6,304	43,102
	Sep-16	14	14	0	0	3,594	20,970	1,387	12,906	0	0	3	15	4,984	33,891
	Sep-17	11	11	0	0	3,152	19,547	1,045	9,774	0	0	5	23	4,202	29,344
27110 Totals		72	2,022	1,296	25,997	406,763	2,579,448	32,847	298,021	39,461	132,576	20,978	152,039	501,345	3,188,081
Avg. Wt.					20.1		6.3		9.1		3.4		7.2		
27220	Jun-27	4	4	19	330	3,954	22,881	0	0	6,373	21,525	640	4,461	10,986	49,197
	Jun-28	4	4	66	901	2,416	14,435	0	0	3,706	12,351	414	3,771	6,602	31,458
	Jun-29			0	0	107	750	1	10	0	0	0	0	108	760
	Jul-01	6	6	23	247	1,032	6,994	0	0	3,075	9,284	282	1,969	4,412	18,494
	Jul-02			0	0	1,287	7,613	13	86	1,336	4,376	235	1,851	2,871	13,926
	Jul-03			5	43	836	5,358	0	0	718	2,665	87	732	1,646	8,798
	Jul-04			0	0	592	3,586	32	183	529	1,787	185	1,446	1,338	7,002
	Jul-05			0	0	284	1,755	67	360	422	1,290	188	1,470	961	4,875
	Jul-06	5	5	154	1,193	725	4,343	107	692	868	2,917	418	3,273	2,272	12,418
	Jul-07	3	3	119	624	536	3,087	153	1,004	258	868	171	1,430	1,237	7,013
	Jul-11	4	4	4	54	2,890	19,240	258	1,759	2,419	8,143	800	6,970	6,371	36,166
	Jul-12	4	4	2	20	864	5,623	118	810	682	2,271	232	1,844	1,898	10,568
	Jul-13			2	28	209	1,389	39	285	176	583	88	602	514	2,887
	Jul-14			2	55	951	6,388	220	1,427	1,154	4,090	253	1,765	2,580	13,725
	Jul-18	5	5	0	0	823	5,169	371	2,863	856	3,046	359	3,104	2,409	14,182
	Jul-19	6	6	16	288	814	4,997	980	7,279	1,404	4,894	823	7,092	4,037	24,550
	Jul-20	6	6	15	87	439	2,670	711	5,319	764	2,782	603	5,212	2,532	16,070
	Jul-24			0	0	330	2,151	136	821	428	1,284	175	1,395	1,069	5,651
	Jul-31	3	3	9	125	183	928	527	4,123	2,329	9,500	705	5,741	3,753	20,417
	Aug-01	3	3	3	29	380	2,028	496	3,621	2,009	7,013	881	6,941	3,769	19,632
Aug-02			0	0	263	1,433	509	3,753	1,661	6,025	825	6,350	3,258	17,561	
Aug-03	3	3	10	38	179	816	224	1,668	1,465	5,686	1,299	9,417	3,177	17,625	
Aug-04	5	5	4	27	244	1,367	130	792	896	3,150	602	4,636	1,876	9,972	

-Continued-

Table 5. (page 4 of 12)

Stat Area	Date	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
		Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
27220	Aug-05			2	12	143	752	359	2,863	1,080	3,811	1,028	7,945	2,612	15,383
	Aug-06			0	0	118	703	381	2,625	1,119	4,186	1,646	12,122	3,264	19,636
	Aug-09	6	6	0	0	169	945	624	4,500	1,143	3,975	1,203	9,234	3,139	18,654
	Aug-10	6	6	2	33	84	483	411	3,257	1,533	5,341	1,298	10,070	3,328	19,184
	Aug-11			0	0	78	411	154	1,127	1,340	4,854	560	3,692	2,132	10,084
	Aug-12	6	6	0	0	169	949	847	6,323	3,993	13,035	1,251	8,687	6,260	28,994
	Aug-13	7	7	4	39	221	1,307	1,473	11,713	5,654	19,985	1,756	12,705	9,108	45,749
	Aug-14	5	5	24	252	211	1,226	1,392	11,247	2,890	9,943	4,236	30,315	8,753	52,983
	Aug-15	3	3	3	33	370	2,125	709	5,587	3,006	10,445	594	4,001	4,682	22,191
	Aug-16	3	3	0	0	459	2,565	52	515	1,015	3,644	140	1,036	1,666	7,760
	Aug-17			0	0	76	462	2	16	67	222	0	0	145	700
	Aug-18			0	0	0	0	0	0	15	48	626	4,182	641	4,230
	Aug-20			0	0	33	202	102	997	983	4,290	760	5,095	1,878	10,584
	Aug-21	3	3	0	0	223	1,261	240	1,928	2,960	11,054	309	2,103	3,732	16,346
	Aug-22			0	0	171	1,200	86	864	1,658	7,048	62	625	1,977	9,737
	Aug-23			0	0	48	267	15	166	60	210	395	2,581	518	3,224
	Aug-24			0	0	76	518	139	1,520	5,405	21,619	56	540	5,676	24,197
	Aug-25	3	3	1	27	370	2,230	491	5,404	1,641	6,569	211	2,112	2,714	16,342
	Aug-26	4	4	0	0	117	798	645	6,407	1,614	6,072	692	4,623	3,068	17,900
	Aug-31	4	4	0	0	274	1,527	1,638	15,249	1,573	5,692	730	5,243	4,215	27,711
Sep-02			0	0	79	520	204	1,930	123	425	83	490	489	3,365	
27220	<b>Totals</b>	37	107	489	4,485	23,827	145,452	15,056	121,093	72,400	257,998	27,901	208,873	139,673	737,901
	<b>Avg. Wt.</b>				9.2		6.1		8.0		3.6		7.5		
27230	Jun-27	7	7	1	33	2,823	19,285	0	0	523	1,578	218	1,932	3,565	22,828
	Jun-28	7	8	0	0	1,774	12,135	3	25	509	1,659	245	2,057	2,531	15,876
	Jun-29	8	8	35	647	1,715	11,358	1	6	1,981	6,872	379	2,875	4,111	21,758
	Jul-01	8	9	0	0	1,690	11,960	0	0	168	586	62	586	1,920	13,132
	Jul-02	8	8	2	25	1,367	8,512	0	0	545	1,955	120	873	2,034	11,365
	Jul-03	9	9	4	98	2,336	15,234	3	18	674	2,284	232	1,965	3,249	19,599
	Jul-04	7	7	29	329	1,093	7,157	12	91	338	1,031	205	1,734	1,677	10,342

-Continued-

Table 5. (page 5 of 12)

Stat Area	Date	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
		Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
29	27230 Jul-05	5	5	12	78	819	5,225	15	109	216	687	175	1,470	1,237	7,569
	Jul-06	9	9	8	85	1,777	11,229	21	148	450	1,421	227	1,991	2,483	14,874
	Jul-07	9	9	26	228	942	5,985	73	485	367	1,120	255	2,041	1,663	9,859
	Jul-11	10	10	5	98	2,185	13,890	61	411	271	946	323	2,649	2,845	17,994
	Jul-12	6	6	6	103	767	4,791	16	115	202	636	136	1,174	1,127	6,819
	Jul-13	5	5	13	84	829	5,264	27	225	238	846	225	1,539	1,332	7,958
	Jul-14	5	5	4	101	832	5,225	25	162	424	1,401	160	1,301	1,445	8,190
	Jul-18	9	9	0	0	1,880	11,680	48	329	582	1,837	240	1,893	2,750	15,739
	Jul-19	10	10	3	35	1,819	11,454	79	598	596	1,906	295	2,440	2,792	16,433
	Jul-20	9	9	7	81	844	5,170	418	2,817	532	1,817	368	3,117	2,169	13,002
	Jul-24	13	13	6	52	2,430	14,624	217	1,545	1,362	4,655	608	5,040	4,623	25,916
	Jul-25	9	10	0	0	1,521	9,673	107	834	1,827	6,268	649	5,616	4,104	22,391
	Jul-26	3	3	0	0	234	1,439	34	243	371	1,214	151	1,284	790	4,180
	Jul-31	9	9	1	10	1,933	11,901	202	1,575	2,698	9,285	729	5,978	5,563	28,749
	Aug-01	11	12	6	59	3,306	20,279	361	2,660	5,154	18,261	1,965	15,689	10,792	56,948
	Aug-02	15	15	12	142	3,225	18,821	308	2,194	6,071	20,451	2,089	16,478	11,705	58,086
	Aug-03	18	19	5	51	3,135	18,442	318	2,497	6,275	22,037	2,139	17,152	11,872	60,179
	Aug-04	20	20	0	0	1,713	10,058	150	1,103	3,762	12,497	1,794	14,760	7,419	38,418
	Aug-05	18	19	0	0	2,728	15,476	374	2,805	6,047	21,151	3,008	23,770	12,157	63,202
	Aug-06	21	21	4	63	2,568	14,808	280	2,206	6,432	20,619	2,288	17,130	11,572	54,826
	Aug-08	8	8	0	0	334	2,053	9	63	936	2,996	206	1,845	1,485	6,957
	Aug-09	7	7	0	0	347	1,879	23	180	1,008	3,532	310	2,257	1,688	7,848
	Aug-10	11	12	1	28	1,174	6,565	163	1,097	6,703	22,173	914	6,838	8,955	36,701
	Aug-11	5	5	0	0	473	2,879	38	269	974	2,971	197	1,580	1,682	7,699
	Aug-12	9	9	3	33	2,278	13,819	276	2,305	6,484	21,460	813	5,838	9,854	43,455
	Aug-13	11	11	0	0	3,711	22,462	287	2,252	13,096	41,177	1,139	8,488	18,233	74,379
	Aug-14	18	19	7	80	6,215	38,657	1,020	7,932	26,811	83,335	2,111	16,371	36,164	146,375
	Aug-15	20	21	1	13	4,863	29,077	890	6,752	23,531	74,471	1,541	11,333	30,826	121,646
	Aug-16	16	16	1	26	3,977	23,979	1,280	9,718	14,317	45,271	1,118	7,714	20,693	86,708
	Aug-17	11	11	1	20	1,747	10,406	944	7,888	7,192	22,876	1,145	8,367	11,029	49,557
	Aug-18	8	8	0	0	647	3,881	630	5,285	2,710	8,668	566	4,052	4,553	21,886

-Continued-

Table 5. (page 6 of 12)

Stat Area	Date	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
		Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
27230	Aug-20	15	15	0	0	657	3,911	417	3,612	5,063	16,372	436	3,282	6,573	27,177
	Aug-21	12	13	2	56	1,258	7,621	1,122	10,456	6,799	21,765	1,056	7,516	10,237	47,414
	Aug-22	9	9	0	0	664	3,856	644	5,301	3,561	11,921	588	3,999	5,457	25,077
	Aug-23	3	4	0	0	179	1,080	145	1,404	758	2,460	185	1,398	1,267	6,342
	Aug-24	12	12	0	0	544	3,345	602	4,916	2,331	7,686	762	5,245	4,239	21,192
	Aug-25	14	14	0	0	1,113	6,609	676	6,126	3,848	12,178	1,229	8,131	6,866	33,044
	Aug-26	9	9	0	0	432	2,596	882	7,270	1,364	4,450	454	3,042	3,132	17,358
	Aug-30	5	5	0	0	537	3,490	402	3,885	754	2,578	178	1,270	1,871	11,223
	Aug-31	6	6	0	0	2,391	15,070	1,931	18,170	2,458	8,377	878	6,715	7,658	48,332
	Sep-01	10	10	0	0	1,993	12,713	1,641	15,914	1,656	5,922	608	4,679	5,898	39,228
	Sep-02	6	6	0	0	535	3,484	366	2,941	362	1,388	170	958	1,433	8,771
	Sep-06			0	0	92	580	63	550	0	0	0	0	155	1,130
	Sep-10			0	0	387	2,365	119	1,045	10	30	29	150	545	3,590
	Sep-11			0	0	175	1,110	36	335	0	0	0	0	211	1,445
	Sep-13			0	0	136	805	86	765	0	0	0	0	222	1,570
Sep-16			5	52	74	388	60	508	0	0	0	0	139	948	
27230	<b>Totals</b>	44	504	210	2,710	85,218	525,755	17,905	150,140	181,341	589,077	35,918	275,602	320,592	1,543,284
	Avg. Wt.				12.9		6.2		8.4		3.2		7.7		
27240	Jun-27	3	3	8	72	2,348	13,875	0	0	1,117	3,619	286	2,515	3,759	20,081
	Jun-29			9	57	2,504	15,341	2	8	2,812	8,977	623	4,704	5,950	29,087
	Jul-01	3	3	1	40	2,122	11,882	0	0	3,491	11,170	470	3,403	6,084	26,495
	Jul-02			3	27	1,106	7,732	2	23	2,000	6,034	122	1,126	3,233	14,942
	Jul-03			4	56	807	5,485	0	0	1,865	5,595	102	706	2,778	11,842
	Jul-04	5	5	8	43	2,785	18,787	12	54	4,415	13,512	637	5,208	7,857	37,604
	Jul-05			9	78	276	1,802	33	218	745	2,484	214	1,701	1,277	6,283
	Jul-06	3	3	4	72	431	2,962	28	160	1,391	4,497	433	4,014	2,287	11,705
	Jul-07	4	4	0	0	317	2,041	31	186	754	2,624	194	1,664	1,296	6,515
	Jul-11	5	5	18	210	5,760	36,511	382	2,879	6,968	21,281	1,080	7,898	14,208	68,779
	Jul-13	7	8	33	253	3,055	21,160	145	1,078	2,853	8,970	362	3,188	6,448	34,649
	Jul-14	4	4	5	43	275	1,691	108	738	272	791	54	423	714	3,686

-Continued-

Table 5. (page 7 of 12)

Stat Area	Date	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
		Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
27240  31	Jul-18	5	5	0	0	557	3,474	346	2,648	818	2,828	470	3,590	2,191	12,540
	Jul-19	4	5	5	46	620	3,962	836	6,392	1,051	3,534	614	4,858	3,126	18,792
	Jul-20			0	0	132	860	213	1,492	263	739	138	1,109	746	4,200
	Jul-24			0	0	287	1,802	152	1,070	637	1,910	149	1,005	1,225	5,787
	Jul-26			0	0	10	60	14	100	70	300	14	100	108	560
	Aug-01			1	16	378	2,268	465	3,376	1,877	7,367	562	5,107	3,283	18,134
	Aug-02			0	0	74	381	46	310	418	1,379	157	1,190	695	3,260
	Aug-04			0	0	222	1,445	23	168	1,321	4,382	27	223	1,593	6,218
	Aug-05	4	4	0	0	2,540	15,773	213	1,521	12,611	38,918	401	2,899	15,765	59,111
	Aug-06	3	3	0	0	2,371	15,407	195	1,466	8,917	31,207	400	2,997	11,883	51,077
	Aug-08			0	0	434	2,822	31	247	1,889	6,234	135	1,020	2,489	10,323
	Aug-09	11	11	6	88	4,886	31,091	533	4,045	23,087	74,615	1,511	11,823	30,023	121,662
	Aug-10	8	8	2	38	1,307	8,515	397	3,366	14,201	47,168	547	4,892	16,454	63,979
	Aug-11			1	10	570	3,306	71	571	3,550	11,715	122	1,000	4,314	16,602
	Aug-12	7	7	0	0	2,651	15,574	407	3,158	19,689	61,295	617	5,194	23,364	85,221
	Aug-13	4	4	0	0	1,077	6,128	229	1,790	10,883	36,788	691	5,443	12,880	50,149
	Aug-14	6	6	0	0	2,291	13,295	398	3,176	31,041	106,528	898	7,308	34,628	130,307
	Aug-15	6	6	0	0	1,888	10,706	339	2,766	33,467	109,955	933	7,593	36,627	131,020
	Aug-16	7	7	0	0	692	4,067	201	1,710	5,489	17,402	190	1,601	6,572	24,780
	Aug-17			0	0	53	250	14	90	110	440	11	70	188	850
Aug-20			0	0	91	466	30	199	886	2,816	40	294	1,047	3,775	
27240	<b>Totals</b>	25	125	136	1,435	48,111	302,948	6,070	46,323	203,370	664,467	13,567	108,575	271,254	1,123,748
	<b>Avg. Wt.</b>				10.6		6.3		7.6		3.3		8.0		
27250	Jun-27	7	7	5	55	4,766	32,176	0	0	3,116	9,727	320	2,373	8,207	44,331
	Jun-28	9	9	10	157	5,491	36,202	2	12	3,251	10,045	769	6,048	9,523	52,464
	Jun-29	3	3	0	0	474	3,117	0	0	225	628	84	612	783	4,357
	Jul-01	9	9	5	92	4,367	25,742	1	11	1,813	5,333	292	2,244	6,478	33,422
	Jul-02	12	13	18	275	5,605	37,628	2	14	4,406	13,315	590	4,248	10,621	55,480
	Jul-03	14	14	7	168	8,025	54,266	18	131	5,947	17,725	781	5,540	14,778	77,830
	Jul-04	15	15	10	188	3,088	20,766	15	98	2,484	7,228	638	4,409	6,235	32,689

-Continued-

Table 5. (page 8 of 12)

Stat Area	Date	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
		Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
27250	Jul-05	11	11	17	274	1,798	11,920	42	234	1,942	6,389	826	7,401	4,625	26,218
	Jul-06	11	11	14	271	2,391	15,689	29	185	1,243	3,933	422	2,750	4,099	22,828
	Jul-07	11	11	14	208	1,319	8,275	33	244	727	2,220	387	2,815	2,480	13,762
	Jul-11	13	15	33	522	8,335	54,889	316	2,137	2,637	8,282	1,097	8,567	12,418	74,397
	Jul-12	9	9	20	378	4,382	29,644	243	1,615	1,751	5,988	394	3,121	6,790	40,746
	Jul-13	10	10	7	135	2,140	13,341	90	618	1,395	4,564	270	1,942	3,902	20,600
	Jul-14	7	7	2	41	887	5,577	60	381	335	1,181	198	1,727	1,482	8,907
	Jul-18	5	5	7	82	2,387	14,670	152	1,011	1,369	4,202	299	2,244	4,214	22,209
	Jul-19	3	3	0	0	615	3,728	52	356	439	1,382	85	638	1,191	6,104
	Jul-20	12	12	13	230	3,879	24,275	515	3,606	2,474	7,630	854	6,013	7,735	41,754
	Jul-24	10	10	11	64	3,043	20,518	502	3,368	4,179	13,537	1,056	8,446	8,791	45,933
	Jul-25	9	9	2	30	1,642	10,883	182	1,422	5,446	20,786	433	3,675	7,705	36,796
	Jul-26	4	4	0	0	279	1,660	43	300	779	2,741	96	727	1,197	5,428
	Jul-31			0	0	395	2,530	50	392	945	3,028	233	1,794	1,623	7,744
	Aug-03			2	32	805	4,982	110	890	3,394	11,764	995	8,444	5,306	26,112
	Aug-04	8	8	3	57	991	6,338	724	5,096	5,820	18,906	2,291	18,699	9,829	49,096
	Aug-05	4	6	2	26	765	5,034	215	1,788	4,472	15,608	1,438	12,552	6,892	35,008
	Aug-06			0	0	136	854	50	351	1,734	5,202	513	3,541	2,433	9,948
	Aug-10			0	0	48	329	25	206	1,259	4,280	46	413	1,378	5,228
	Aug-12			0	0	342	1,985	50	400	3,927	12,565	116	950	4,435	15,900
Aug-21			0	0	112	670	133	1,093	294	969	75	620	614	3,352	
Aug-22			0	0	155	933	192	1,536	329	1,098	77	613	753	4,180	
27250	<b>Totals</b>	25	212	202	3,285	68,662	448,621	3,846	27,495	68,132	220,256	15,675	123,166	156,517	822,823
	<b>Avg. Wt.</b>				16.3		6.5		7.1		3.2		7.9		
27260	Jun-27			6	77	614	3,808	0	0	466	1,398	20	136	1,106	5,419
	Jun-28			2	23	670	4,068	0	0	552	1,933	11	97	1,235	6,121
	Jun-29			3	60	1,627	10,582	1	7	805	2,415	45	376	2,481	13,440
	Jul-07	5	5	7	107	804	5,285	7	42	362	1,180	30	260	1,210	6,874
	Jul-24	6	6	3	37	2,427	14,469	121	847	1,943	7,785	334	2,699	4,828	25,837
	Jul-25			3	28	90	502	8	43	171	649	30	203	302	1,425

-Continued-

Table 5. (page 9 of 12)

Stat Area	Date	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total		
		Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	
27260	Aug-02	3	3	0	0	790	4,973	38	284	4,149	14,764	171	1,735	5,148	21,756	
	Aug-04	4	4	0	0	639	4,029	25	186	3,693	11,077	329	2,236	4,686	17,528	
	Aug-05	3	3	0	0	801	4,609	55	368	4,587	15,600	633	4,797	6,076	25,374	
	Aug-06			2	94	72	421	84	648	443	1,521	81	595	682	3,279	
	Aug-12	3	3	0	0	302	2,037	29	276	4,077	16,416	328	3,010	4,736	21,739	
27260	<b>Totals</b>	13	30	26	426	8,836	54,783	368	2,701	21,248	74,738	2,012	16,144	32,490	148,792	
	<b>Avg. Wt.</b>				16.4		6.2		7.3		3.5		8.0			
33	27262	Jun-27	5	5	10	213	4,048	26,650	0	0	2,408	7,442	114	797	6,580	35,102
		Jun-28	8	8	16	193	4,371	29,251	0	0	1,576	4,962	218	1,478	6,181	35,884
		Jun-29	3	3	1	34	669	4,632	0	0	298	858	15	110	983	5,634
		Jul-01	8	8	1	35	2182	14664	2	14	2376	7270	105	749	4666	22732
		Jul-02	11	11	20	271	5,381	34,990	3	11	5,259	16,765	417	2,997	11,080	55,034
		Jul-03	13	13	99	1,277	9,248	59,131	7	45	5,093	16,634	744	6,147	15,191	83,234
		Jul-04	14	14	96	1,493	4,207	27,395	9	56	3,428	10,465	624	5,448	8,364	44,857
		Jul-05	19	20	108	1,318	3,698	22,945	18	132	2,505	8,054	668	5,154	6,997	37,603
		Jul-06	13	13	77	844	3,198	20,999	54	369	2,024	6,146	667	5,870	6,020	34,228
		Jul-07	8	8	29	214	1,765	10,769	22	146	664	2,283	118	925	2,598	14,337
		Jul-11	9	9	23	316	6,614	44,137	170	1,116	2,190	6,780	429	3,501	9,426	55,850
		Jul-12	11	11	24	372	4,799	31,338	134	1,001	2,444	8,138	526	4,842	7,927	45,691
		Jul-13	9	9	21	306	2,935	19,471	156	983	2,109	6,493	548	4,313	5,769	31,566
		Jul-14	3	3	3	42	591	3,721	28	253	386	1,414	106	720	1,114	6,150
		Jul-18	9	9	10	137	1,849	11,837	141	912	1,086	3,381	303	2,447	3,389	18,714
		Jul-19	11	11	12	193	3,379	20,918	142	981	2,214	6,969	584	4,777	6,331	33,838
		Jul-20	9	9	6	143	1,318	8,020	46	297	780	2,494	235	1,919	2,385	12,873
		Jul-24			10	94	579	3,230	90	642	679	2,420	270	1,729	1,628	8,115
		Jul-25	5	5	1	20	1,186	7,918	50	305	1,295	3,887	148	1,203	2,680	13,333
		Jul-26			0	0	350	2,320	21	127	400	1,221	31	254	802	3,922
	Jul-31	5	5	0	0	737	4,893	234	1,576	4,102	13,640	385	3,101	5,458	23,210	
	Aug-01	3	3	0	0	971	6,339	75	467	4,753	15,161	190	1,487	5,989	23,454	
	Aug-03	3	3	1	22	1,141	7,489	40	242	7,220	23,577	375	2,972	8,777	34,302	

-Continued-

Table 5. (page 10 of 12)

Stat Area	Date	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
		Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
27262	Aug-05			0	0	75	449	27	173	444	1,566	171	1,330	717	3,518
	Aug-06			0	0	132	765	41	351	1,662	5,204	138	1,121	1,973	7,441
	Aug-09			2	32	375	2,221	18	121	3,132	10,017	185	1,453	3,712	13,844
	Aug-10			0	0	471	2,968	35	244	4,420	13,261	358	2,473	5,284	18,946
	Aug-11			0	0	52	328	4	22	402	1,204	41	284	499	1,838
	Aug-13			0	0	316	1,976	39	273	1,280	4,105	211	1,688	1,846	8,042
	Aug-14			0	0	967	6,123	94	663	3,506	11,637	419	3,365	4,986	21,788
	Aug-20			0	0	98	643	45	327	528	1,748	57	464	728	3,182
	Aug-21			0	0	205	1,335	100	757	912	3,104	156	1,254	1,373	6,450
	Aug-22			0	0	167	1,145	221	1,646	890	3,103	211	1,701	1,489	7,595
	Aug-24			1	10	369	2,472	419	3,121	1,298	4,555	260	2,130	2,347	12,288
	Aug-25			1	19	323	2,129	117	938	743	2,601	200	1,618	1,384	7,305
Aug-26			0	0	50	371	119	964	207	729	83	672	459	2,736	
27262	<b>Totals</b>	24	207	572	7,598	68,816	445,982	2,721	19,275	74,713	239,288	10,310	82,493	157,132	794,636
	<b>Avg. Wt.</b>				13.3		6.5		7.1		3.2		8.0		
27280	Aug-16			0	0	60	356	17	139	5,566	26,596	2,246	21,882	7,889	48,973
	Aug-17			0	0	4	17	10	80	1,800	5,400	1,000	7,055	2,814	12,552
27280	<b>Totals</b>			0	0	64	373	27	219	7,366	31,996	3,246	28,937	10,703	61,525
	<b>Avg. Wt.</b>				0.0		5.8		8.1		4.3		8.9		
27290	Aug-03			2	38	258	1,625	418	2,845	1,694	5,083	1,589	10,969	3,961	20,560
	Aug-17			0	0	9	42	0	0	13,592	48,119	119	992	13,720	49,153
	Aug-18			0	0	0	0	0	0	920	4,140	45	410	965	4,550
	Aug-20			0	0	122	673	230	2,129	13,045	40,435	491	4,161	13,888	47,398
	Aug-21			0	0	49	269	13	86	2,458	7,778	725	6,015	3,245	14,148
27290	<b>Totals</b>	9	11	2	38	438	2,609	661	5,060	31,709	105,555	2,969	22,547	35,779	135,809
	<b>Avg. Wt.</b>				19.0		6.0		7.7		3.3		7.6		
27292	Jun-27	5	5	16	254	4,393	25,040	0	0	2,334	7,232	817	6,247	7,560	38,773
	Jun-28	3	3	11	160	2,353	15,521	0	0	2,852	8,753	658	4,320	5,854	28,754

-Continued-

Table 5. (page 11 of 12)

Stat Area	Date	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
		Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
27292	Jun-29	3	3	2	25	3,477	22,598	0	0	3,855	11,564	957	6,222	8,291	40,409
	Jul-24	3	3	3	44	680	4,527	453	3,399	1,800	6,477	434	3,497	3,370	17,944
	Jul-25	3	3	0	0	409	2,722	292	2,043	1,183	4,260	324	2,511	2,208	11,536
27292	<b>Totals</b>	5	17	32	483	11,312	70,408	745	5,442	12,024	38,286	3,170	22,797	27,283	137,416
	Avg. Wt.				15.1		6.2		7.3		3.2		7.2		
27374	Aug-01	10	10	12	103	7,019	40,673	1,624	12,531	11,445	37,237	2,293	17,624	22,393	108,168
	Aug-02	8	9	0	0	10,474	65,420	301	1,977	18,793	61,561	512	4,133	30,080	133,091
	Aug-03	8	8	0	0	9,833	57,051	160	1,314	7,220	23,959	174	1,468	17,387	83,792
	Aug-18			0	0	123	777	179	1,255	1,779	5,335	341	2,350	2,422	9,717
27374	<b>Totals</b>	14	28	12	103	27,449	163,921	2,264	17,077	39,237	128,092	3,320	25,575	72,282	334,768
	Avg. Wt.				8.6		6.0		7.5		3.3		7.7		
27380	Aug-01	6	6	4	64	5,095	29,825	275	2,024	17,942	54,454	655	4,759	23,971	91,126
	Aug-02	6	6	6	73	3,558	22,416	202	1,377	7,534	22,601	922	6,260	12,222	52,727
	Aug-03			0	0	618	3,643	27	219	1,371	4,195	58	512	2,074	8,569
	Aug-17			0	0	35	200	25	209	552	1,851	48	333	660	2,593
27380	<b>Totals</b>	10	14	10	137	9,306	56,084	529	3,829	27,399	83,101	1,683	11,864	38,927	155,015
	Avg. Wt.				13.7		6.0		7.2		3.0		7.0		
27390	Aug-01	8	8	27	277	858	5,313	2,500	20,017	6,930	22,051	3,195	25,449	13,510	73,107
	Aug-02	6	6	6	80	326	1,973	948	6,654	2,494	7,991	2,127	15,512	5,901	32,210
	Aug-03	10	10	3	52	4,345	25,233	1,487	10,136	9,636	32,945	2,878	21,997	18,349	90,363
	Aug-17	10	10	0	0	494	2,840	475	3,380	6,770	21,461	522	3,828	8,261	31,509
	Aug-18	9	10	0	0	1,596	9,844	597	4,408	15,896	48,616	902	6,513	18,991	69,381
27390	<b>Totals</b>	28	44	36	409	7,619	45,203	6,007	44,595	41,726	133,064	9,624	73,299	65,012	296,570
	Avg. Wt.				11.4		5.9		7.4		3.2		7.6		
27394	Aug-01			0	0	88	379	210	1,516	2,003	8,023	1,141	9,234	3,442	19,152
	Aug-02			1	17	121	848	73	656	282	999	128	994	605	3,514
	Aug-03			1	29	24	126	46	335	407	1,492	151	1,188	629	3,170

-Continued-

Table 5. (page 12 of 12)

Stat Area	Date	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
		Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
27394	Aug-05			0	0	119	655	180	1,329	909	3,000	830	6,800	2,038	11,784
	Aug-17			0	0	9	53	10	77	4,977	17,421	100	706	5,096	18,257
	Aug-18			0	0	152	922	0	0	1,972	6,860	133	1,280	2,257	9,062
27394	<b>Totals</b>			2	46	513	2,983	519	3,913	10,550	37,795	2,483	20,202	14,067	64,939
	Avg. Wt.				23.0		5.8		7.5		3.6		8.1		
27540	Aug-01			1	12	828	5,169	852	7,702	3,562	14,573	1,130	10,202	6,373	37,658
	Aug-02			3	39	861	4,653	273	1,880	4,726	15,572	1,414	10,818	7,277	32,962
	Aug-16			0	0	331	1,918	100	901	2,710	8,669	58	490	3,199	11,978
27540	<b>Totals</b>	9	12	4	51	2,020	11,740	1,225	10,483	10,998	38,814	2,602	21,510	16,849	82,598
	Avg. Wt.				12.8		5.8		8.6		3.5		8.3		
27550	Aug-01			3	21	725	4,251	118	843	2,704	9,023	441	3,336	3,991	17,474
	Aug-02			0	0	4	28	0	0	53	207	6	40	63	275
27550	<b>Totals</b>			3	21	729	4,279	118	843	2,757	9,230	447	3,376	4,054	17,749
	Avg. Wt.				7.0		5.9		7.1		3.3		7.6		
<b>Grand Total</b>		98	3,388	3,032	47,224	769,683	4,860,589	90,908	756,509	844,431	2,784,333	155,905	1,196,999	1,863,959	9,645,654
<b>Overall Average Weight</b>					15.6		6.3		8.3		3.3		7.7		

<sup>a</sup>Fishing effort omitted where there are confidentiality concerns (Vessels < 3)

<sup>b</sup>Does not include any catch from Southeastern District Mainland or Cape Igvak.

<sup>c</sup>Does not include any salmon that were caught for personal use or subsistence.

<sup>d</sup>Includes the Department's test fisheries in Chignik Lagoon.

Table 6. Comparison of average weights of salmon, based on weights from fish tickets, caught in the Chignik Bay District, 1983-1997.

Year	Chinook		Average	Sockeye		Average	Coho		Average	Pink		Average	Chum		Average
	Number	Pounds	Weight	Number	Pounds	Weight	Number	Pounds	Weight	Number	Pounds	Weight	Number	Pounds	Weight
<b>Chignik Bay District</b>															
1983	3,560	80,193	22.5	1,597,059	10,536,850	6.6	29,519	250,786	8.5	27,284	97,222	3.6	16,747	130,154	7.8
1984	3,696	93,096	25.2	1,942,822	13,579,107	7.0	72,722	658,240	9.1	165,178	670,923	4.1	8,173	61,159	7.5
1985	1,810	43,396	24.0	812,605	4,820,590	5.9	156,579	1,431,798	9.1	14,429	55,900	3.9	4,906	31,307	6.4
1986	2,592	60,723	23.4	1,389,172	9,488,499	6.8	60,197	481,706	8.0	191,264	767,714	4.0	18,167	134,735	7.4
1987	1,931	42,848	22.2	1,559,757	11,508,187	7.4	77,333	654,640	8.5	13,887	51,855	3.7	5,163	38,429	7.4
1988	4,331	96,241	22.2	529,540	3,873,621	7.3	94,292	819,677	8.7	119,794	460,519	3.8	7,013	55,911	8.0
1989	3,532	76,491	21.7	1,156,782	7,950,548	6.9	68,231	559,127	8.2	27,691	94,218	3.4	1,587	11,546	7.3
1990	3,719	80,915	21.8	1,400,069	9,374,800	6.7	61,260	497,901	8.1	94,528	319,928	3.4	11,460	77,739	6.8
1991	1,996	47,206	23.7	1,487,421	10,196,187	6.9	56,574	481,741	8.5	76,163	231,960	3.0	17,545	115,553	6.6
1992	3,181	67,840	21.3	792,889	5,177,003	6.5	80,946	676,752	8.4	178,105	729,324	4.1	12,711	79,207	6.2
1993	5,240	85,848	16.4	762,730	4,675,799	6.1	48,808	349,816	7.2	55,909	174,334	3.1	8,116	44,235	5.5
1994	1,808	36,773	20.3	908,042	5,696,656	6.3	70,541	669,451	9.5	59,425	261,622	4.4	25,250	174,189	6.9
1995	3,008	76,580	25.5	1,083,707	7,335,791	6.8	54,646	460,937	8.4	106,939	416,116	3.9	14,588	114,029	7.8
1996	1,579	38,326	24.3	1,003,683	7,915,161	7.9	45,361	416,985	9.2	1,523	5,861	3.8	639	5,140	8.0
1997	1,296	25,997	20.1	406,763	2,579,448	6.3	32,847	298,021	9.1	39,461	132,576	3.4	20,978	152,039	7.2
Average Weight <sup>a</sup>															
1987-1996			21.4			6.9			8.5			3.7			6.9
<b>All other Districts</b>															
1983	1,928	15,966	8.3	227,116	1,389,979	6.1	32,408	237,417	7.3	293,894	1,103,666	3.8	142,665	1,075,112	7.5
1984	622	6,471	10.4	717,797	4,957,180	6.9	37,406	291,725	7.8	279,626	980,326	3.5	55,130	424,808	7.7
1985	78	1,508	19.3	109,546	629,469	5.7	34,609	278,049	8.0	145,699	587,831	4.0	17,900	113,974	6.4
1986	445	6,049	13.6	256,662	1,766,361	6.9	56,436	385,489	6.8	455,861	1,606,597	3.5	158,473	1,169,683	7.4
1987	720	6,634	9.2	339,081	2,493,527	7.4	73,081	535,163	7.3	232,888	847,705	3.6	122,098	905,512	7.4
1988	2,965	32,639	11.0	266,301	1,840,831	6.9	276,128	2,069,750	7.5	2,877,365	10,262,986	3.6	260,762	2,140,466	8.2
1989	10	207	20.7	2,505	18,732	7.5	2	13	6.5	21	51	2.4	37	342	9.2
1990	6,182	53,350	8.6	693,581	4,434,969	6.4	68,871	435,844	6.3	455,480	1,355,716	3.0	258,544	1,679,280	6.5
1991	1,161	19,497	16.8	408,244	2,748,265	6.7	109,051	701,216	6.4	1,093,085	3,125,671	2.9	243,551	1,560,646	6.4
1992	7,651	70,250	9.2	484,560	3,195,899	6.6	229,997	1,685,939	7.3	1,375,968	5,069,835	3.7	209,423	1,513,119	7.2
1993	14,275	148,405	10.4	934,621	5,586,833	6.0	180,651	1,111,428	6.2	1,592,468	5,139,463	3.2	114,244	691,812	6.1
1994	2,111	35,092	16.6	710,931	4,449,179	6.3	166,663	1,327,375	8.0	371,638	1,233,037	3.3	202,026	1,456,822	7.2
1995	2,253	34,607	15.4	640,338	4,186,530	6.5	225,959	1,601,149	7.1	1,951,059	6,934,270	3.6	366,361	2,700,958	7.4
1996	1,526	24,277	15.9	954,670	6,987,584	7.3	147,865	1,068,962	7.2	182,283	530,357	2.9	99,152	774,700	7.8
1997	1,736	21,227	12.2	362,920	2,281,141	6.3	58,061	458,488	7.9	804,970	2,651,757	3.3	134,927	1,044,960	7.7
Average Weight <sup>a</sup>															
1987-1996			11.9			6.6			7.1			3.4			7.2

<sup>a</sup> Average weight was calculated using 1987-1996 data, including 1989 (oil spill year) where openings and closures were restricted.

Table 7. Salmon processors in the Chignik Management Area, 1997.

Processor	Code	Name	Type	Address
F1662	Aleutian Dragon Fisheries	Chignik-Shoreside	P.O. Box 70668	Seattle, Wa. 98107
F0365	Sea Catch Inc.	Chignik-Shoreside	4241 21st Avenue West #300,	Seattle, Wa. 98199

Table 8. Commercial salmon catches in the Chignik Management Area by year, 1960-1997.

Year	Number of Fish <sup>a,b,c,d</sup>					Total
	Chinook	Sockeye	Coho	Pink	Chum	
1960	643	715,969	8,933	557,327	486,699	1,769,571
1961	409	322,890	3,088	443,510	178,760	948,657
1962	435	364,753	1,292	1,519,305	364,335	2,250,120
1963	1,744	408,606	9,933	1,662,363	112,697	2,195,343
1964	1,099	556,890	2,735	1,682,365	333,336	2,576,425
1965	1,592	599,553	9,602	1,118,158	120,589	1,849,494
1966	636	219,794	16,050	683,215	238,883	1,158,578
1967	882	462,000	13,150	108,981	75,543	660,556
1968	674	977,382	2,200	1,290,660	223,861	2,494,777
1969	3,448	394,135	18,103	1,779,736	67,721	2,263,143
1970	1,226	1,325,734	15,348	1,157,172	437,252	2,936,732
1971	2,010	1,016,136	14,557	612,290	353,952	1,998,945
1972	464	378,218	19,615	72,161	78,298	548,756
1973	525	870,354	22,322	25,472	8,717	927,390
1974	255	662,905	12,245	69,515	34,312	779,232
1975	549	399,593	53,283	66,165	25,161	544,751
1976	2,290	1,163,728	35,167	395,287	81,403	1,677,875
1977	710	1,972,207	17,430	604,806	110,452	2,705,605
1978	1,603	1,576,283	20,212	985,114	120,889	2,704,101
1979	1,253	1,049,497	99,129	1,905,198	188,907	3,243,984
1980	2,344	859,966	119,573	1,093,184	252,521	2,327,588
1981	2,694	1,839,469	78,805	1,162,613	580,332	3,663,913
1982	5,236	1,521,686	300,273	873,384	390,096	3,090,675
1983	5,488	1,824,175	61,927	321,178	159,412	2,372,180
1984	4,318	2,660,619	110,128	444,804	63,303	3,283,172
1985	1,888	922,151	191,188	160,128	22,806	1,298,161
1986	3,037	1,645,834	116,633	647,125	176,640	2,589,269
1987	2,651	1,898,838	150,414	246,775	127,261	2,425,939
1988	7,296	795,841	370,420	2,997,159	267,775	4,438,491
1989	3,542	1,159,287	68,233	27,712	1,624	1,260,398
1990	9,901	2,093,650	130,131	550,008	270,004	3,053,694
1991	3,157	1,895,665	165,625	1,169,248	261,096	3,494,791
1992	10,832	1,277,449	310,943	1,554,073	222,134	3,375,431
1993	19,515	1,697,351	229,459	1,648,377	122,360	3,717,062
1994	3,919	1,618,973	237,204	431,063	227,276	2,518,435
1995	5,261	1,724,045	280,605	2,057,998	380,949	4,448,858
1996	3,105	1,958,353	193,226	183,806	99,791	2,438,281
1997	3,032	769,683	90,908	844,431	155,905	1,863,959
Avg (1967-76)	1,232	765,019	20,599	557,744	138,622	1,483,216
Avg (1977-86)	2,857	1,587,189	111,530	819,753	206,536	2,727,865
Avg (1987-96)	6,918	1,611,945	213,626	1,086,622	198,027	3,117,138

<sup>a</sup>Catch does not include Cape Igvak or Southeastern District Mainland Area.

<sup>b</sup>Catches (1970-1997) were updated using historical electronic fish ticket databases.

<sup>c</sup>Does not include fish designated for personal use or subsistence.

<sup>d</sup>Includes catches from the department's test fishery.

Table 9. Estimated salmon escapement by district and statistical area in the Chignik Management Area, 1997.

District	Statistical Area	Species					Total
		Chinook	Sockeye <sup>a</sup>	Coho <sup>b</sup>	Pink <sup>c</sup>	Chum	
Chignik Bay	271-10	3,824	775,618	46,851	59,397	18,498	904,188
	Total	3,824	775,618	46,851	59,397	18,498	904,188
Central	272-20	0	0	0	68,660	4,700	73,360
	272-30	0	0	200	29,883	2,913	32,996
	272-50	0	200	0	496,083	58,037	554,320
	Total	0	200	200	594,626	65,650	660,676
Eastern	272-60	0	1,100	-	247,867	10,670	259,637
	272-70	0	20	-	204,300	31,396	235,716
	272-72	0	0	-	90,267	18,067	108,334
	272-80	0	200	-	222,350	99,934	322,484
	272-90	0	0	-	375,292	63,383	438,675
	272-92	0	1,200	-	22,700	2,000	25,900
	272-96	0	500	-	124,967	64,500	189,967
Total	0	3,020	-	1,287,743	289,950	1,580,713	
Western	273-70	0	0	-	79,300	2,033	81,333
	273-72	0	0	-	154,069	12,571	166,640
	273-80	0	0	-	6,000	50	6,050
	273-82	0	0	-	5,050	535	5,585
	273-84	0	0	-	49,033	43,306	92,339
	273-94	0	0	-	12,850	2,000	14,850
Total	0	0	-	306,302	60,495	366,797	
Perryville	275-40	0	0	-	136,849	142,612	279,461
	275-50	0	0	-	80,476	9,210	89,686
	275-60 <sup>d</sup>	0	0	181	4,148	1,006	5,335
	Total	0	0	181	221,473	152,828	374,482
All District Total		3,824	778,838	47,232	2,469,541	587,421	3,886,856

<sup>a</sup> Chignik River sockeye escapement was estimated by actual weir counts through September 4 and then by catch escapement ratios from September 5-17.

<sup>b</sup> Chignik River coho escapement was estimated by actual weir counts through September 4 and then by catch escapement ratios from September 5-17. Coho aerial surveys were incomplete because poor visibility.

<sup>c</sup> Chignik River pink and chum escapement was based on Chignik River weir counts through September 4. All other stream estimates were based on aerial surveys and expansion methods developed by Johnson and Barrett (1988).

<sup>d</sup> From a November foot survey on approximately 1/4 of the Kametlook River, 181 coho salmon were counted. An expanded estimate of 734 coho salmon for the entire river was developed.

Table 10. Chinook salmon daily and cumulative escapement estimates through the Chignik weir by day, 1997.

Date	Escapement <sup>a,b</sup>		Date	Escapement <sup>a,b</sup>	
	Daily	Cumulative		Daily	Cumulative
27-May	0	0	17-Jul	132	2,263
28-May	0	0	18-Jul	188	2,451
29-May	0	0	19-Jul	92	2,543
30-May	0	0	20-Jul	44	2,587
31-May	0	0	21-Jul	34	2,621
1-Jun	0	0	22-Jul	108	2,729
2-Jun	0	0	23-Jul	129	2,858
3-Jun	0	0	24-Jul	114	2,972
4-Jun	0	0	25-Jul	73	3,045
5-Jun	0	0	26-Jul	12	3,057
6-Jun	0	0	27-Jul	16	3,073
7-Jun	0	0	28-Jul	58	3,131
8-Jun	0	0	29-Jul	84	3,215
9-Jun	0	0	30-Jul	42	3,257
10-Jun	0	0	31-Jul	92	3,349
11-Jun	0	0	1-Aug	38	3,387
12-Jun	0	0	2-Aug	20	3,407
13-Jun	0	0	3-Aug	7	3,414
14-Jun	0	0	4-Aug	6	3,420
15-Jun	0	0	5-Aug	14	3,434
16-Jun	6	6	6-Aug	31	3,465
17-Jun	13	19	7-Aug	99	3,564
18-Jun	0	19	8-Aug	63	3,627
19-Jun	0	19	9-Aug	24	3,651
20-Jun	36	55	10-Aug	45	3,696
21-Jun	18	73	11-Aug	20	3,716
22-Jun	33	106	12-Aug	12	3,728
23-Jun	18	124	13-Aug	1	3,729
24-Jun	6	130	14-Aug	0	3,729
25-Jun	30	160	15-Aug	32	3,761
26-Jun	58	218	16-Aug	12	3,773
27-Jun	62	280	17-Aug	0	3,773
28-Jun	78	358	18-Aug	6	3,779
29-Jun	24	382	19-Aug	12	3,791
30-Jun	80	462	20-Aug	24	3,815
1-Jul	66	528	21-Aug	6	3,821
2-Jul	54	582	22-Aug	0	3,821
3-Jul	42	624	23-Aug	0	3,821
4-Jul	69	693	24-Aug	0	3,821
5-Jul	85	778	25-Aug	0	3,821
6-Jul	70	848	26-Aug	1	3,822
7-Jul	142	990	27-Aug	0	3,822
8-Jul	147	1,137	28-Aug	0	3,822
9-Jul	261	1,398	29-Aug	0	3,822
10-Jul	135	1,533	30-Aug	0	3,822
11-Jul	131	1,664	31-Aug	1	3,823
12-Jul	129	1,793	1-Sep	1	3,824
13-Jul	97	1,890	2-Sep	0	3,824
14-Jul	31	1,921	3-Sep	0	3,824
15-Jul	54	1,975	4-Sep	0	3,824
16-Jul	156	2,131	Weir Out		

<sup>a</sup> No escapement adjustments are made for chinook salmon that spawn below the weir, or those removed by the sport fishery.

<sup>b</sup> The chinook salmon minimum biological escapement goal is 1,450 fish.

Table 11. Sockeye salmon daily and cumulative escapement through the Chignik weir by day, 1997.

Date	Escapement		Date	Escapement	
	Daily	Cumulative		Daily	Cumulative
27-May	62	62	6-Jul	1,207	423,513
28-May	10	72	7-Jul	1,281	424,794
29-May	73	145	8-Jul	4,546	429,340
30-May	28	173	9-Jul	8,238	437,578
31-May	153	326	10-Jul	10,827	448,405
1-Jun	339	665	11-Jul	19,186	467,591
2-Jun	731	1,396	12-Jul	3,889	471,480
3-Jun	686	2,082	13-Jul	2,735	474,215
4-Jun	379	2,461	14-Jul	2,550	476,765
5-Jun	133	2,594	15-Jul	5,644	482,409
6-Jun	980	3,574	16-Jul	8,317	490,726
7-Jun	8,046	11,620	17-Jul	18,321	509,047
8-Jun	5,072	16,692	18-Jul	21,069	530,116
9-Jun	3,452	20,144	19-Jul	6,218	536,334
10-Jun	4,613	24,757	20-Jul	3,172	539,506
11-Jun	5,017	29,774	21-Jul	6,606	546,112
12-Jun	3,016	32,790	22-Jul	11,822	557,934
13-Jun	8,193	40,983	23-Jul	21,548	579,482
14-Jun	18,458	59,441	24-Jul	14,356	593,838
15-Jun	24,108	83,549	25-Jul	5,213	599,051
16-Jun	20,915	104,464	26-Jul	4,330	603,381
17-Jun	17,190	121,654	27-Jul	8,026	611,407
18-Jun	26,098	147,752	28-Jul	12,090	623,497
19-Jun	26,700	174,452	29-Jul	9,804	633,301
20-Jun	29,264	203,716	30-Jul	13,145	646,446
21-Jun	26,187	229,903	31-Jul	14,456	660,902
22-Jun	25,495	255,398	1-Aug	3,319	664,221
23-Jun	25,984	281,382	2-Aug	1,271	665,492
24-Jun	27,464	308,846	3-Aug	1,484	666,976
25-Jun	21,872	330,718	4-Aug	1,891	668,867
26-Jun	23,623	354,341	5-Aug	1,227	670,094
27-Jun	21,743	376,084	6-Aug	1,800	671,894
28-Jun	5,488	381,572	7-Aug	2,404	674,298
29-Jun	1,936	383,508	8-Aug	5,495	679,793
30-Jun	8,444	391,952	9-Aug	4,195	683,988
1-Jul	17,877	409,829	10-Aug	2,277	686,265
2-Jul	6,636	416,465	11-Aug	3,326	689,591
3-Jul	2,039	418,504	12-Aug	2,197	691,788
4-Jul	1,748	420,252	13-Aug	1,441	693,229
5-Jul	2,054	422,306	14-Aug	851	694,080

-Continued-

Table 11. (page 2 of 2)

Date	Escapement		Date	Escapement	
	Daily	Cumulative		Daily	Cumulative
15-Aug	637	694,717	2-Sep	874	732,026
16-Aug	1,228	695,945	3-Sep	1,779	733,805
17-Aug	1,501	697,446	4-Sep	1,806	735,611
18-Aug	1,417	698,863	Post Weir <sup>a</sup>	Weir Out	
19-Aug	2,975	701,838	5-Sep	3,648	739,259
20-Aug	4,315	706,153	6-Sep	1,539	740,798
21-Aug	2,630	708,783	7-Sep	978	741,776
22-Aug	1,821	710,604	8-Sep	935	742,711
23-Aug	1,126	711,730	9-Sep	5,547	748,258
24-Aug	2,027	713,757	10-Sep	7,759	756,017
25-Aug	1,496	715,253	11-Sep	4,931	760,948
26-Aug	1,837	717,090	12-Sep	1,685	762,633
27-Aug	1,810	718,900	13-Sep	1,822	764,455
28-Aug	3,232	722,132	14-Sep	1,730	766,185
29-Aug	2,204	724,336	15-Sep	5,399	771,584
30-Aug	4,317	728,653	16-Sep	2,226	773,810
31-Aug	1,678	730,331	17-Sep	1,808	775,618
1-Sep	821	731,152	Post Weir Total	40,007	

<sup>a</sup>The relationship of catch and escapement prior to weir removal was used to estimate sockeye escapement after the weir was removed on September 5 until the fishery closed on September 17.

Table 12. Pink, chum, and coho salmon daily and cumulative escapement through the Chignik weir by day, 1997.

Date	Pink Salmon Escapement		Chum Salmon Escapement		Coho Salmon Escapement	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
Jul-3	0	0	6	6	0	0
Jul-4	0	0	0	6	0	0
Jul-5	0	0	0	6	0	0
Jul-6	0	0	0	6	0	0
Jul-7	0	0	0	6	0	0
Jul-8	0	0	0	6	0	0
Jul-9	0	0	0	6	0	0
Jul-10	6	6	6	12	0	0
Jul-11	0	6	0	12	0	0
Jul-12	0	6	0	12	0	0
Jul-13	0	6	0	12	0	0
Jul-14	12	18	0	12	0	0
Jul-15	54	72	0	12	0	0
Jul-16	24	96	12	24	0	0
Jul-17	42	138	24	48	0	0
Jul-18	42	180	0	48	0	0
Jul-19	0	180	6	54	0	0
Jul-20	36	216	6	60	0	0
Jul-21	24	240	12	72	0	0
Jul-22	30	270	6	78	0	0
Jul-23	42	312	0	78	0	0
Jul-24	18	330	12	90	0	0
Jul-25	72	402	12	102	0	0
Jul-26	114	516	12	114	0	0
Jul-27	155	671	12	126	0	0
Jul-28	68	739	12	138	0	0
Jul-29	54	793	6	144	0	0
Jul-30	90	883	6	150	0	0
Jul-31	90	973	0	150	0	0
Aug-1	105	1,078	6	156	0	0
Aug-2	74	1,152	0	156	0	0
Aug-3	124	1,276	0	156	0	0
Aug-4	78	1,354	12	168	0	0
Aug-5	104	1,458	0	168	0	0
Aug-6	138	1,596	0	168	0	0
Aug-7	163	1,759	99	267	0	0
Aug-8	137	1,896	0	267	0	0
Aug-9	108	2,004	0	267	0	0
Aug-10	81	2,085	0	267	0	0
Aug-11	62	2,147	0	267	0	0
Aug-12	36	2,183	6	273	0	0
Aug-13	24	2,207	0	273	0	0

-Continued-

Table 12. (page 2 of 2)

Date	Pink Salmon Escapement		Chum Salmon Escapement		Coho Salmon Escapement	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
Aug-14	42	2,249	0	273	18	18
Aug-15	62	2,311	6	279	18	36
Aug-16	69	2,380	0	279	8	44
Aug-17	108	2,488	12	291	24	68
Aug-18	117	2,605	6	297	18	86
Aug-19	90	2,695	0	297	18	104
Aug-20	187	2,882	0	297	0	104
Aug-21	84	2,966	0	297	12	116
Aug-22	138	3,104	0	297	24	140
Aug-23	122	3,226	12	309	30	170
Aug-24	265	3,491	6	315	224	394
Aug-25	116	3,607	0	315	56	450
Aug-26	102	3,709	6	321	108	558
Aug-27	168	3,877	24	345	327	885
Aug-28	101	3,978	0	345	608	1,493
Aug-29	159	4,137	0	345	717	2,210
Aug-30	153	4,290	0	345	2,130	4,340
Aug-31	153	4,443	0	345	1,081	5,421
Sep-1	143	4,586	0	345	1,423	6,844
Sep-2	126	4,712	18	363	804	7,648
Sep-3	132	4,844	42	405	1,353	9,001
Sep-4	36	4,880	78	483	1,809	10,810
Weir Out						
Sep-5	Post Weir Estimate For Coho Salmon <sup>a</sup>				5,180	15,990
Sep-6					3,581	19,571
Sep-7					2,223	21,794
Sep-8					1,990	23,784
Sep-9					4,762	28,546
Sep-10					4,469	33,015
Sep-11					1,921	34,936
Sep-12					1,392	36,328
Sep-13					1,818	38,146
Sep-14					2,770	40,916
Sep-15					3,005	43,921
Sep-16					1,178	45,099
Sep-17					999	46,098

<sup>a</sup> The relationship of catch and escapement prior to weir removal was used to estimate post weir salmon escapement.

Table 13. Economic value of salmon and average income per commercial salmon permit holder, in dollars, in the Chignik Management Area, 1970- 1997.

Date	Chinook		Sockeye		Coho		Pink		Chum		Total Value	Number Of Permits Fished	Total Value Per Permit
	Total	Average	Total	Average	Total	Average	Total	Average	Total	Average			
1970	6,129	89	2,190,272	31,743	18,397	267	635,673	9,213	376,025	5,450	3,226,496	69	46,761
1971	6,472	84	2,034,279	26,419	23,240	302	366,693	4,762	326,760	4,244	2,757,444	77	35,811
1972	2,028	28	825,498	11,308	35,699	489	48,401	663	87,759	1,202	999,385	79	12,650
1973	5,255	72	3,030,057	41,508	73,663	1,009	20,610	282	10,180	139	3,139,765	77	40,776
1974	2,941	32	3,618,781	39,767	31,933	351	64,069	704	51,125	562	3,768,849	94	40,094
1975	6,561	76	1,384,271	16,240	213,539	2,581	104,115	12,211	61,704	717	1,770,190	86	20,584
1976	13,800	179	4,751,000	61,701	138,000	1,792	568,300	7,381	183,600	2,384	5,654,700	77	73,438
1977	18,828	212	14,553,720	163,525	104,819	1,178	920,881	10,347	368,066	4,136	15,966,314	88	181,435
1978	56,700	597	15,653,500	164,774	116,400	1,225	1,131,500	11,911	404,500	4,258	17,362,600	95	182,764
1979	32,050	317	11,345,503	112,332	710,192	7,031	2,622,269	25,963	126,866	1,256	14,836,880	101	146,900
1980	67,657	670	5,532,290	54,775	520,655	5,155	1,477,060	14,624	1,061,963	10,514	8,659,625	101	85,739
1981	75,231	730	17,262,119	167,593	439,900	4,271	1,881,334	18,265	2,431,421	23,606	22,090,005	103	214,466
1982	75,276	717	13,038,510	124,176	1,782,027	16,972	578,184	5,506	1,356,597	12,920	16,830,594	105	160,291
1983	96,159	962	10,728,088	107,281	219,650	2,197	240,171	2,402	421,713	4,217	11,705,781	100	117,058
1984	114,502	1,134	20,402,076	202,000	759,972	7,525	330,916	3,276	146,024	1,446	21,753,490	101	215,381
1985	67,088	664	7,997,834	79,186	1,471,418	14,568	140,076	1,387	59,475	589	8,735,891	101	86,494
1986	84,800	848	16,882,290	168,823	667,740	6,677	356,147	3,562	456,546	4,565	18,447,523	100	184,475
1987	72,739	706	24,783,033	240,612	1,035,129	10,050	269,868	2,620	339,819	3,299	26,500,588	102	259,810
1988	286,740	2,811	14,350,354	140,690	4,153,424	40,720	6,771,266	66,385	2,189,293	21,464	27,751,077	102	272,069
1989 <sup>a</sup>	78,999	790	13,047,378	130,474	436,892	4,369	32,994	3,299	4,745	47	13,601,008	100	136,010
1990	185,256	1,834	22,509,923	222,871	700,309	6,934	502,693	4,977	878,510	8,698	24,776,691	101	245,314
1991	50,027	486	11,002,784	106,823	650,626	6,317	402,916	3,912	502,860	4,882	12,609,213	101	124,844
1992	193,326	1,858	12,552,025	120,693	1,323,107	12,722	811,882	7,807	414,005	3,981	15,294,345	101	151,429
1993	175,690	1,722	8,210,106	80,491	730,622	7,163	637,666	6,252	184,012	1,804	9,938,096	102	97,432
1994	38,096	385	10,046,245	101,477	1,094,415	11,055	226,504	2,208	430,888	4,352	11,836,148	99	119,557
1995	60,174	602	11,969,210	119,692	834,337	8,343	977,811	9,778	634,780	6,348	14,476,312	100	144,763
1996	25,041	250	12,640,560	126,406	447,228	4,472	24,827	248	32,279	323	13,169,935	100	131,699
1997	20,642	211	4,860,589	49,598	453,905	4,632	348,042	3,551	239,400	2,443	5,922,577	98	60,434
<b>10-yr Averages</b>													
1977-1986	68,829	685	13,339,593	134,447	679,277	6,680	967,854	9,724	683,317	6,751	15,638,870	100	157,500
1987-1996	116,609	1,144	14,111,162	139,023	1,140,609	11,215	1,065,843	10,749	561,119	5,520	16,995,341	101	168,293

<sup>a</sup> Exxon Valdez Oil Spill

Table 14. Chignik River chinook salmon escapement, Chignik Management Area catch, and total run, 1960-1997.

Year	Escapement <sup>a</sup>	Catch <sup>b</sup>	Total Run
1960	-	643	643
1961	-	409	409
1962	-	435	435
1963	564	1,744	2,308
1964	914	1,099	2,013
1965	942	1,592	2,534
1966	822	636	1,458
1967	1,500	882	2,382
1968	1,000	674	1,674
1969	600	3,448	4,048
1970	2,500	1,226	3,726
1971	2,000	2,010	4,010
1972	1,500	464	1,964
1973	822	525	1,347
1974	672	255	927
1975	877	549	1,426
1976	700	2,290	2,990
1977	798	710	1,508
1978	1,197	1,603	2,800
1979	1,050	1,253	2,303
1980	876	2,344	3,220
1981	1,603	2,694	4,297
1982	2,412	5,236	7,648
1983	1,943	5,488	7,431
1984	5,806	4,318	10,124
1985	3,144	1,888	5,032
1986	3,612	3,037	6,649
1987	2,624	2,651	5,275
1988	4,868	7,296	12,164
1989	3,316	3,542	6,858
1990	4,364	9,901	14,265
1991	4,531	3,157	7,702
1992	3,806	10,832	14,638
1993	1,946	19,515	21,461
1994	2,963	3,919	6,935
1995	4,288	5,261	9,549
1996	3,488	3,105	6,593
1997	3,824	3,032	6,856
Avg (1967-76)	1,217	1,232	2,449
Avg (1977-86)	2,244	2,857	5,101
Avg (1987-96)	3,619	6,918	10,544

<sup>a</sup> No escapement adjustments are made for chinook salmon that spawn below the weir, or those removed by the sport fishery.

<sup>b</sup> Does not include chinook salmon utilized for personal use or listed on a subsistence permit.

Table 15. Sockeye salmon age composition for Black Lake from scale samples collected at the Black Lake outlet, 1997.

Date	Sample Size	Age Class (Percent)										
		0.3	1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.2	3.3
21-Jun	143	4.2	0.0	11.9	69.9	0.0	0.0	4.2	9.1	0.0	0.0	0.7
22-Jun	445	1.3	0.0	14.8	63.1	0.4	0.0	7.6	11.5	0.7	0.2	0.2
23-Jun	638	2.4	0.2	17.6	62.9	0.0	0.2	8.0	7.7	0.3	0.0	0.9
24-Jun	536	2.4	0.2	17.2	65.9	0.4	0.0	6.7	6.9	0.0	0.0	0.4
Total	1,762	2.3	0.1	16.3	64.4	0.2	0.1	7.2	8.5	0.3	0.1	0.6

Table 16. Sockeye and chinook salmon age compositions for Chignik Lagoon as determined from commercial fishery scale samples, 1997.

Date	Sample Size	Sockeye Salmon Age Composition (Percent)												
		0.2	0.3	1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.2	3.3	Other
Jun-13 <sup>a</sup>	384	0.0	4.4	0.0	9.4	69.8	0.3	0.0	4.7	9.6	0.8	0.3	0.5	0.3
Jun-15 <sup>a</sup>	502	0.2	2.4	0.0	9.4	67.9	0.4	0.0	6.6	11.4	0.6	0.4	0.6	0.2
Jun-18 <sup>a</sup>	528	0.0	1.5	0.0	10.4	71.0	0.2	0.0	7.0	9.1	0.4	0.0	0.2	0.2
Jun-22 <sup>a</sup>	540	0.0	1.7	0.0	6.7	66.1	0.2	0.0	7.0	16.1	0.4	0.0	1.7	0.2
Jun-25 <sup>a</sup>	518	0.0	1.0	0.2	9.8	65.6	0.2	0.0	8.5	12.9	0.6	0.0	1.2	0.0
Jul-29	524	0.2	2.3	0.4	7.6	64.1	0.4	0.4	7.6	15.5	0.4	0.0	1.0	0.0
Jul-2	327	0.0	1.5	0.0	5.8	67.3	0.0	0.9	4.9	17.1	0.6	0.3	1.5	0.0
Jul-5	520	0.0	0.2	0.2	3.7	55.6	0.0	0.2	14.2	23.8	0.4	0.6	1.2	0.0
Jul-7	498	0.0	0.6	0.2	4.6	51.6	0.2	0.6	16.9	21.7	1.2	0.8	1.6	0.0
Jul-11	497	0.0	0.6	0.0	2.4	38.6	0.0	0.4	17.5	38.0	0.4	0.0	1.8	0.2
Jul-14	500	0.0	0.2	0.0	2.0	25.4	0.0	0.0	20.4	49.8	0.6	0.0	1.6	0.0
Jul-18	506	0.0	0.4	0.2	3.2	18.2	0.4	0.0	28.9	46.4	0.6	0.0	1.8	0.0
Jul-24	508	0.0	0.0	0.2	3.3	19.9	0.0	0.8	32.5	40.9	0.2	0.6	1.6	0.0
Aug-1	490	0.0	0.2	0.2	3.5	11.2	0.0	1.6	33.9	46.5	0.0	0.2	2.2	0.4
Aug-9	506	0.0	0.0	0.0	2.2	9.7	0.0	7.9	32.2	45.1	0.0	0.4	1.0	1.6
Aug-15	484	0.0	0.6	0.0	1.9	4.5	0.0	4.8	16.9	69.2	0.0	0.6	1.2	0.2
Aug-20	492	0.0	0.0	0.0	0.8	5.5	0.0	2.4	25.0	63.6	0.0	0.4	1.2	1.0
Aug-24	501	0.0	0.4	0.2	1.0	1.6	0.0	8.8	11.2	73.5	0.0	0.4	1.4	1.6
Aug-30	324	0.0	0.0	0.0	0.9	2.2	0.0	1.2	8.6	83.6	0.0	0.3	2.5	0.6
Total	9,149	0.0	0.9	0.1	4.7	37.9	0.1	1.6	16.4	35.9	0.4	0.3	1.3	0.3

Date	Sample Size	Chinook Salmon Age Composition (Percent)					
		1.2	1.3	1.4	1.5	2.3	2.4
All Season	99	22.2	34.3	42.4	0.0	1.0	0.0

<sup>a</sup> The department's test fishery in Chignik Lagoon.

Table 17. Sockeye salmon escapement through the Chignik River weir for Chignik Lake and Black Lake, using daily percentages attributable to Chignik Lake, derived from the inseason scale pattern analysis time of entry curve, 1997.

Date	Total Daily	Total Cumulative	Percent Decimal Fraction	Chignik Lake		Black Lake
				Daily	Cumulative	Cumulative
27-May	62	62	0.01	1	1	61
28-May	10	72	0.01	0	1	71
29-May	73	145	0.01	1	2	144
30-May	28	173	0.01	0	2	171
31-May	153	326	0.01	2	4	323
1-Jun	339	665	0.01	3	7	658
2-Jun	731	1,396	0.01	7	14	1,382
3-Jun	686	2,082	0.02	14	28	2,054
4-Jun	379	2,461	0.02	8	36	2,426
5-Jun	133	2,594	0.02	3	38	2,556
6-Jun	980	3,574	0.02	20	58	3,516
7-Jun	8,046	11,620	0.03	241	299	11,321
8-Jun	5,072	16,692	0.03	152	451	16,241
9-Jun	3,452	20,144	0.04	138	590	19,555
10-Jun	4,613	24,757	0.04	185	774	23,983
11-Jun	5,017	29,774	0.05	251	1,025	28,749
12-Jun	3,016	32,790	0.05	151	1,176	31,615
13-Jun	8,193	40,983	0.05	410	1,585	39,398
14-Jun	18,458	59,441	0.05	923	2,508	56,933
15-Jun	24,108	83,549	0.05	1,205	3,714	79,836
16-Jun	20,915	104,464	0.05	1,046	4,759	99,705
17-Jun	17,190	121,654	0.06	1,031	5,791	115,864
18-Jun	26,098	147,752	0.06	1,566	7,357	140,396
19-Jun	26,700	174,452	0.07	1,869	9,226	165,227
20-Jun	29,264	203,716	0.07	2,048	11,274	192,442
21-Jun	26,187	229,903	0.07	1,833	13,107	216,796
22-Jun	25,495	255,398	0.08	2,040	15,147	240,252
23-Jun	25,984	281,382	0.07	1,819	16,966	264,417
24-Jun	27,464	308,846	0.07	1,922	18,888	289,958
25-Jun	21,872	330,718	0.07	1,531	20,419	310,299
26-Jun	23,623	354,341	0.06	1,417	21,837	332,505
27-Jun	21,743	376,084	0.06	1,305	23,141	352,943
28-Jun	5,488	381,572	0.06	329	23,470	358,102
29-Jun	1,936	383,508	0.06	116	23,587	359,922
30-Jun	8,444	391,952	0.07	591	24,178	367,775
1-Jul	17,877	409,829	0.07	1,251	25,429	384,400
2-Jul	6,636	416,465	0.07	465	25,894	390,572
3-Jul	2,039	418,504	0.26	530	26,424	392,081
4-Jul	1,748	420,252	0.35	612	27,036	393,217
5-Jul	2,054	422,306	0.49	1,006	28,042	394,264
6-Jul	1,207	423,513	0.51	616	28,658	394,856
7-Jul	1,281	424,794	0.52	666	29,324	395,471
8-Jul	4,546	429,340	0.54	2,455	31,779	397,562
9-Jul	8,238	437,578	0.55	4,531	36,309	401,269
10-Jul	10,827	448,405	0.57	6,171	42,481	405,925
11-Jul	19,186	467,591	0.57	10,936	53,417	414,175
12-Jul	3,889	471,480	0.55	2,139	55,556	415,925
13-Jul	2,735	474,215	0.53	1,450	57,005	417,210
14-Jul	2,550	476,765	0.51	1,301	58,306	418,460

-Continued-

Table 17. (page 2 of 2)

DATE	Total		Percent Decimal Fraction	Chignik Lake		Black Lake
	Daily	Cumulative		Daily	Cumulative	Cumulative
15-Jul	5,644	482,409	0.57	3,217	61,523	420,887
16-Jul	8,317	490,726	0.63	5,240	66,763	423,964
17-Jul	18,321	509,047	0.69	12,641	79,404	429,644
18-Jul	21,069	530,116	0.75	15,802	95,206	434,911
19-Jul	6,218	536,334	0.81	5,037	100,243	436,092
20-Jul	3,172	539,506	0.87	2,760	103,002	436,505
21-Jul	6,606	546,112	0.93	6,144	109,146	436,967
22-Jul	11,822	557,934	0.95	11,231	120,377	437,558
23-Jul	21,548	579,482	0.97	20,902	141,278	438,205
24-Jul	14,356	593,838	0.98	14,069	155,347	438,492
25-Jul	5,213	599,051	1.00	5,213	160,560	438,492
26-Jul	4,330	603,381	1.00	4,330	164,890	438,492
27-Jul	8,026	611,407	1.00	8,026	172,916	438,492
28-Jul	12,090	623,497	1.00	12,090	185,006	438,492
29-Jul	9,804	633,301	1.00	9,804	194,810	438,492
30-Jul	13,145	646,446	1.00	13,145	207,955	438,492
31-Jul	14,456	660,902	1.00	14,456	222,411	438,492
1-Aug	3,319	664,221	1.00	3,319	225,730	438,492
2-Aug	1,271	665,492	1.00	1,271	227,001	438,492
3-Aug	1,484	666,976	1.00	1,484	228,485	438,492
4-Aug	1,891	668,867	1.00	1,891	230,376	438,492
5-Aug	1,227	670,094	1.00	1,227	231,603	438,492
6-Aug	1,800	671,894	1.00	1,800	233,403	438,492
7-Aug	2,404	674,298	1.00	2,404	235,807	438,492
8-Aug	5,495	679,793	1.00	5,495	241,302	438,492
9-Aug	4,195	683,988	1.00	4,195	245,497	438,492
10-Aug	2,277	686,265	1.00	2,277	247,774	438,492
11-Aug	3,326	689,591	1.00	3,326	251,100	438,492
12-Aug	2,197	691,788	1.00	2,197	253,297	438,492
13-Aug	1,441	693,229	1.00	1,441	254,738	438,492
14-Aug	851	694,080	1.00	851	255,589	438,492
15-Aug	637	694,717	1.00	637	256,226	438,492
16-Aug	1,228	695,945	1.00	1,228	257,454	438,492
17-Aug	1,501	697,446	1.00	1,501	258,955	438,492
18-Aug	1,417	698,863	1.00	1,417	260,372	438,492
19-Aug	2,975	701,838	1.00	2,975	263,347	438,492
20-Aug	4,315	706,153	1.00	4,315	267,662	438,492
21-Aug	2,630	708,783	1.00	2,630	270,292	438,492
22-Aug	1,821	710,604	1.00	1,821	272,113	438,492
23-Aug	1,126	711,730	1.00	1,126	273,239	438,492
24-Aug	2,027	713,757	1.00	2,027	275,266	438,492
25-Aug	1,496	715,253	1.00	1,496	276,762	438,492
26-Aug	1,837	717,090	1.00	1,837	278,599	438,492
27-Aug	1,810	718,900	1.00	1,810	280,409	438,492
28-Aug	3,232	722,132	1.00	3,232	283,641	438,492
29-Aug	2,204	724,336	1.00	2,204	285,845	438,492
30-Aug	4,317	728,653	1.00	4,317	290,162	438,492
31-Aug	1,678	730,331	1.00	1,678	291,840	438,492
1-Sep	821	731,152	1.00	821	292,661	438,492
2-Sep	874	732,026	1.00	874	293,535	438,492
3-Sep	1,779	733,805	1.00	1,779	295,314	438,492
4-Sep	1,806	735,611	1.00	1,806	297,120	438,492

Table 18. Harvest of Chignik bound sockeye salmon in the Chignik, Cape Igvak, and Southeastern District Mainland Areas from 1964-1997.

Year	Chignik Area		Cape Igvak <sup>a</sup>		Mainland Area <sup>a</sup>		Total All Areas
	Catch	Percent	Catch	Percent	Catch	Percent	
1964 <sup>b</sup>	556,890	90.57	14,980	2.44	43,021	7.00	614,891
1965	599,553	89.94	11,021	1.65	56,020	8.40	666,594
1966	219,794	87.99	18,003	7.21	12,011	4.81	249,808
1967	462,000	91.48	23,014	4.56	20,021	3.96	505,035
1968	977,382	82.53	135,951	11.48	70,959	5.99	1,184,292
1969	394,135	78.96	97,982	19.63	7,013	1.41	499,130
1970 <sup>c</sup>	1,325,734	72.51	434,394	23.76	68,181	3.73	1,828,309
1971	1,016,136	80.33	197,614	15.62	51,272	4.05	1,265,022
1972	378,218	87.99	33,865	7.88	17,752	4.13	429,835

1964-72 catch and percentage figures are total for the entire season. Catch figures and percentages after 1972 are only through July 25.

1973 <sup>d</sup>	769,258	88.97	57,348	6.63	37,983	4.39	864,859
1974	530,278	73.61	122,071	16.95	68,029	9.44	720,378
1975	115,984	81.78	23,635	16.67	2,205	1.55	141,824
1976	792,024	82.96	117,926	12.35	44,730	4.69	954,680
1977	1,547,285	90.40	128,852	7.53	35,502	2.07	1,711,639
1978 <sup>e,f</sup>	1,454,389	85.38	227,014	13.33	22,064	1.30	1,703,467
1979 <sup>g</sup>	794,504	91.81	13,950	1.61	56,878	6.57	865,332
1980	670,001	91.31	32	0.00	63,724	8.68	733,757
1981	1,606,300	79.85	282,727	14.06	122,533	6.09	2,011,560
1982	1,250,768	84.46	167,401	11.30	62,767	4.24	1,480,936
1983	1,450,832	72.68	318,048	15.93	227,392	11.39	1,996,272
1984	2,474,405	73.93	449,372	13.43	423,068	12.64	3,346,845
1985 <sup>h</sup>	696,169	79.91	123,627	14.19	51,421	5.60	871,217
1986	1,456,729	82.64	188,017	10.67	118,006	6.69	1,762,752
1987	1,659,615	77.99	321,506	15.11	146,886	6.90	2,128,007
1988	675,487	95.67	11,218	1.59	19,320	2.74	706,025
1989	496,044	99.10	0	0.00	4,485	0.90	500,529
1990	1,205,575	83.61	107,706	7.47	128,599	8.92	1,441,880
1991 <sup>i</sup>	1,958,954	80.42	324,329	13.31	152,714	6.27	2,435,997
1992 <sup>j</sup>	1,054,309	81.07	152,358	11.72	93,845	7.22	1,300,512
1993	1,495,098	77.72	300,055	15.60	128,536	6.68	1,923,689
1994 <sup>k</sup>	1,632,435	80.61	250,230	12.36	142,350	7.03	2,025,015
1995	1,024,785	79.90	169,530	13.22	88,301	6.88	1,282,616
1996 <sup>l</sup>	1,710,249	79.70	308,327	14.37	127,201	5.93	2,145,777
1997	443,892	100.00	0	0.0	0	0.0	443,892

<sup>a</sup> The Cape Igvak and Southeastern District Mainland figures represent 80% of the total sockeye catches for those areas as it is estimated that roughly 80% of the sockeye caught in the Cape Igvak section and Southeastern District Mainland Area (excluding sockeye caught in Northwest Stepovak Section from 1964-1991 and in Orzinski Bay in 1992 are destined for Chignik.

-Continued-

Table 18. (page 2 of 2)

---

- b The data from 1964-1972 are based on total yearly catches. Prior to 1973, Cape Igvak and Southeastern District Mainland fisheries were set by regulation to weekly fishing periods, usually 5 days per week. Time modifications were implemented when poor escapements occurred at Chignik.
  - c Catches (1970-1992) were updated using historical electronic fish ticket databases.
  - d During 1973 through 1977 all three fisheries were managed on a day by day basis.
  - e From 1978-1991, the Cape Igvak Fishery Management Plan allocated 15 percent of the total sockeye catch destined for Chignik.
  - f During 1978, seining prior to July 11 was disallowed in the Southeastern District Mainland. The set gillnet fishery was allowed to fish 3 days per week through July 10 after which the fishery was managed on the basis of local stocks.
  - g During 1979-1984 and prior to July 11, fishing was allowed 5 days per week in the Southeastern District Mainland Area with a ceiling of an estimated 60,000 sockeye destined for Chignik. If the Chignik Area sockeye catch was 1,000,000 or more before July 11, the 60,000 ceiling was to be dropped.
  - h Beginning in 1985, Southeastern District Mainland Area (excluding the Northwest Stepovak Section from 1964-1991 and Orzinski Bay statistical area) was placed on an allocation of 6.2 percent of the total estimated Chignik sockeye catch through July 25. After July 25, the Southeastern District Mainland is managed on a local stock basis. The allocation changed to 6.0 percent beginning in 1988. Seining is still not allowed prior to July 11.
  - i Includes overescapement of 278,305 sockeye counted past the weir during the Chignik Area seiners' boycott (Jun 23-Jul 4).
  - j Review of Orzinski Lake historical and current escapement records led the Alaska Board of Fisheries to redefine the Southeastern District Mainland Management Plan. Beginning in 1992, the Southeastern District Mainland fishery (excluding Orzinski Bay) was placed on an allocation of 7.0 percent of the total estimated Chignik sockeye catch through July 25.
  - k Includes overescapement of 208,921 sockeye counted past the weir during the Chignik Area seiners' strike (Jun 22-Jun 25).
  - l During their January 1996 meeting, the BOF increased the area to be managed for local Orzinski Lake sockeye salmon from only Orzinski Bay to the entire Northwest Stepovak Section. Prior to July 1, the entire Northwest Stepovak Section will be managed on an allocation based on the strength of the Chignik sockeye salmon runs. Beginning July 1, the Northwest Stepovak Section will be managed entirely on local stocks. The BOF also decreased the percentage of sockeye salmon allocated to the SEDM fishery from 7% to 6% to attempt to maintain traditional harvest levels of Chignik bound sockeye salmon in the SEDM fishery.
-

Table 19. Total Chignik Management Area and 80 percent of the sockeye harvest in the Cape Igvak and Southeastern District Mainland Areas through July 25, and season's total each area, 1964-1997.

Year	Harvest to July 25 Only <sup>a</sup>				Harvest for Entire Season <sup>a</sup>			
	Chignik	Igvak	Mainland	Total	Chignik	Igvak	Mainland	Total
1964	-	-	-	-	556,890	14,980	43,021	614,891
1965	-	-	-	-	599,553	11,021	56,020	666,594
1966	-	-	-	-	219,794	18,003	12,011	249,808
1967	-	-	-	-	462,000	23,014	20,021	505,035
1968	-	-	-	-	977,382	135,951	70,959	1,184,292
1969	-	-	-	-	394,135	97,982	7,013	499,130
1970	-	-	-	-	1,325,734	434,394	68,181	1,828,309
1971	-	-	-	-	1,016,136	197,614	51,272	1,265,022
1972	-	-	-	-	378,218	33,865	17,752	429,835
1973	769,258	57,348	37,983	864,589	870,354	57,348	38,635	966,337
1974	530,278	122,071	68,029	720,378	662,905	122,071	68,980	853,956
1975	115,984	23,635	2,205	141,824	399,593	23,635	2,205	425,433
1976	792,024	117,926	44,730	954,680	1,163,728	117,978	46,155	1,327,861
1977	1,547,285	128,852	35,502	1,711,639	1,972,207	128,852	39,405	2,140,464
1978	1,454,389	227,014	22,064	1,703,467	1,576,283	227,052	24,102	1,827,437
1979	794,504	13,950	56,878	865,332	1,049,497	20,436	83,837	1,153,770
1980	670,001	32	63,724	733,757	859,966	631	88,752	949,349
1981	1,606,300	282,727	122,533	2,011,560	1,839,469	284,211	167,357	2,291,037
1982	1,250,768	167,401	62,767	1,480,936	1,521,686	168,295	86,886	1,776,867
1983	1,450,832	318,048	227,392	1,996,272	1,824,175	323,004	297,429	2,444,608
1984	2,474,405	449,372	423,068	3,346,845	2,660,619	450,066	487,938	3,598,623
1985	696,169	123,627	51,421	871,217	922,151	125,134	93,206	1,140,491
1986	1,456,729	188,017	118,006	1,762,752	1,645,834	188,129	147,056	1,981,019
1987	1,659,615	321,506	146,886	2,128,007	1,898,538	344,117	188,983	2,431,638
1988	675,487	11,218	19,320	706,025	792,416	28,783	79,101	900,300
1989	496,044	-	4,485	500,529	1,152,854	-	138,594	1,291,448
1990	1,205,575	107,706	128,599	1,441,880	2,088,128	133,821	216,944	2,438,893
1991 <sup>b</sup>	1,958,954	324,329	152,714	2,435,997	2,165,864	341,869	228,934	2,736,667
1992	1,054,309	152,358	93,845	1,300,512	1,265,026	156,318	177,715	1,599,059
1993	1,495,098	300,055	128,536	1,923,689	1,691,907	329,907	222,591	2,244,405
1994 <sup>c</sup>	1,632,435	250,230	142,350	2,025,015	1,818,755	257,827	226,562	2,303,144
1995	1,024,785	169,530	88,301	1,282,616	1,715,022	197,697	270,589	2,183,308
1996	1,710,249	308,327	127,201	2,145,777	1,954,036	309,543	183,321	2,446,900
1997	443,892	0	0	443,892	769,683	300	73,113	843,096

<sup>a</sup> Catches (1970-1996) were updated using historical electronic fish ticket databases.

Data does not include test fishery catches. The criteria established by the Board of Fisheries to allocate Chignik bound sockeye salmon at Cape Igvak and Southeastern District Mainland each year through July 25 was extrapolated from July 26 through the end of each year's fishing season to estimate total catch of Chignik bound salmon.

<sup>b</sup> Includes overescapement of 278,305 sockeye counted past the weir during the Chignik Area Seiners' boycott (June 23-July 4).

<sup>c</sup> Includes overescapement of 208,921 sockeye counted past the weir during the Chignik Area Seiners' strike (June 22-June 25).

Table 20. Estimated stock composition of age 1.3 Chignik sockeye salmon from commercial catch and test fishery samples, based on postseason scale pattern analysis, 1997.

Sample Date	Sample Size (n)	Stock	Adjusted <sup>a</sup> Estimate	Estimated Variance	Smoothed <sup>b</sup> Estimate
13-Jun	100	Black Lake	0.807	0.24073	0.874
		Chignik Lake	0.193	0.24073	0.126
15-Jun	100	Black Lake	0.814	0.24985	0.808
		Chignik Lake	0.186	0.24985	0.192
18-Jun	100	Black Lake	0.803	0.24438	0.795
		Chignik Lake	0.197	0.24438	0.205
22-Jun	100	Black Lake	0.769	0.24681	0.763
		Chignik Lake	0.231	0.24681	0.237
25-Jun	100	Black Lake	0.718	0.24742	0.719
		Chignik Lake	0.282	0.24742	0.281
29-Jun	100	Black Lake	0.671	0.24863	0.673
		Chignik Lake	0.329	0.24863	0.327
2-Jul	100	Black Lake	0.629	0.25653	0.637
		Chignik Lake	0.371	0.25653	0.363
5-Jul	100	Black Lake	0.61	0.24134	0.602
		Chignik Lake	0.39	0.24134	0.398
7-Jul	100	Black Lake	0.567	0.2535	0.557
		Chignik Lake	0.433	0.2535	0.443
11-Jul	100	Black Lake	0.495	0.2924	0.500
		Chignik Lake	0.505	0.2924	0.500
14-Jul	100	Black Lake	0.438	0.24134	0.433
		Chignik Lake	0.562	0.24134	0.567
18-Jul	78	Black Lake	0.367	0.29544	0.342
		Chignik Lake	0.633	0.29544	0.658
24-Jul	86	Black Lake	0.221	0.25957	0.196
		Chignik Lake	0.779	0.25957	0.804

<sup>a</sup>Adjustments were made using Cook and Lord correction procedures.

<sup>b</sup>Smoothing was done by a running average of 3, assuring an initial proportion of 0.0 and an ending proportion of 1.0 for Chignik Lake.

Table 21. Estimated stock composition of age 2.3 Chignik sockeye salmon from commercial catch and test fishery samples, based on postseason scale pattern analysis, 1997.

Sample Date	Sample		Adjusted <sup>a</sup> Estimate	Estimated Variance	Smoothed <sup>b</sup> Estimate
	Size (n)	Stock			
13-Jun	37	Black Lake	0.822	0.2924	0.882
		Chignik Lake	0.178	0.2924	0.118
15-Jun	48	Black Lake	0.823	0.25836	0.822
		Chignik Lake	0.177	0.25836	0.178
18-Jun	45	Black Lake	0.822	0.27599	0.816
		Chignik Lake	0.178	0.27599	0.184
22-Jun	81	Black Lake	0.803	0.22979	0.804
		Chignik Lake	0.197	0.22979	0.196
25-Jun	62	Black Lake	0.788	0.24255	0.773
		Chignik Lake	0.212	0.24255	0.227
29-Jun	77	Black Lake	0.729	0.22492	0.726
		Chignik Lake	0.271	0.22492	0.274
2-Jul	54	Black Lake	0.66	0.25228	0.669
		Chignik Lake	0.34	0.25228	0.331
5-Jul	99	Black Lake	0.617	0.18176	0.619
		Chignik Lake	0.383	0.18176	0.381
7-Jul	99	Black Lake	0.58	0.18176	0.537
		Chignik Lake	0.42	0.18176	0.463
11-Jul	99	Black Lake	0.415	0.18602	0.448
		Chignik Lake	0.585	0.18602	0.552
14-Jul	102	Black Lake	0.348	0.18176	0.357
		Chignik Lake	0.652	0.18176	0.643
18-Jul	101	Black Lake	0.307	0.18541	0.281
		Chignik Lake	0.693	0.18541	0.719
24-Jul	101	Black Lake	0.189	0.19027	0.165
		Chignik Lake	0.811	0.19027	0.835

<sup>a</sup>Adjustments were made using Cook and Lords correction procedures.

<sup>b</sup>Smoothing was done by a running average of 3, assuring an initial proportion of 0.0 and an ending proportion of 1.0 for Chignik Lake.

Table 22. Daily Chignik River sockeye escapement, catch destined to the Chignik Lakes system, and total run, by day and area (adjusted to Chignik Lagoon date), 1997.

Date	Chignik Weir	Catch Areas <sup>a,b,c,d</sup>								Daily Total
	Escapement	Chignik Lagoon	Hook Bay /Kujulik	Aniakchak	Eastern District	Cape Igvak	Western District	Perryville District	Southeastern Mainland	
26-May	62	0	0	0	0	0	0	0	0	62
27-May	10	0	0	0	0	0	0	0	0	10
28-May	73	0	0	0	0	0	0	0	0	73
29-May	28	0	0	0	0	0	0	0	0	28
30-May	153	0	0	0	0	0	0	0	0	153
31-May	339	0	0	0	0	0	0	0	0	339
1-Jun	731	0	0	0	0	0	0	0	0	731
2-Jun	686	0	0	0	0	0	0	0	0	686
3-Jun	379	0	0	0	0	0	0	0	0	379
4-Jun	133	0	0	0	0	0	0	0	0	133
5-Jun	980	0	0	0	0	0	0	0	0	980
6-Jun	8,046	0	0	0	0	0	0	0	0	8,046
7-Jun	5,072	0	0	0	0	0	0	0	0	5,072
8-Jun	3,452	0	0	0	0	0	0	0	0	3,452
9-Jun	4,613	0	0	0	0	0	0	0	0	4,613
10-Jun	5,017	0	0	0	0	0	0	0	0	5,017
11-Jun	3,016	0	0	0	0	0	0	0	0	3,016
12-Jun	8,193	0	0	0	0	0	0	0	0	8,193
13-Jun	18,458	1,451	0	0	0	0	0	0	0	19,909
14-Jun	24,108	0	0	0	0	0	0	0	0	24,108
15-Jun	20,915	1,210	0	0	0	0	0	0	0	22,125
16-Jun	17,190	0	0	0	0	0	0	0	0	17,190
17-Jun	26,098	0	0	0	0	0	0	0	0	26,098
18-Jun	26,700	2,008	0	0	0	0	0	0	0	28,708
19-Jun	29,264	0	0	0	0	0	0	0	0	29,264
20-Jun	26,187	2,450	0	0	0	0	0	0	0	28,637
21-Jun	25,495	0	0	0	0	0	0	0	0	25,495
22-Jun	25,984	1,192	0	0	0	0	0	0	0	27,176
23-Jun	27,464	0	0	0	0	0	0	0	0	27,464
24-Jun	21,872	0	0	0	0	0	0	0	0	21,872
25-Jun	23,623	2,988	0	0	0	0	0	0	0	26,611
26-Jun	21,743	0	0	0	0	0	0	0	0	21,743
27-Jun	5,488	26,145	0	0	0	0	0	0	0	31,633
28-Jun	1,936	22,396	13,891	0	0	0	0	0	0	38,223
29-Jun	8,444	7,713	9,681	4,048	0	0	0	0	0	29,886
30-Jun	17,877	0	4,800	4,371	4,393	0	0	0	0	31,441
1-Jul	6,636	16,103	0	669	2,353	0	0	0	0	25,761
2-Jul	2,039	15,647	9,211	0	3,477	0	0	0	0	30,374
3-Jul	1,748	13,443	9,365	2,182	0	0	0	0	0	26,738
4-Jul	2,054	8,546	12,004	5,381	0	0	0	0	0	27,985
5-Jul	1,207	9,134	7,558	9,248	0	0	0	0	0	27,147
6-Jul	1,281	8,820	3,177	4,207	0	0	0	0	0	17,485
7-Jul	4,546	5,487	5,324	3,698	0	0	0	0	0	19,055
8-Jul	8,238	0	3,114	3,198	0	0	0	0	0	14,550

-Continued-

Table 22. (page 2 of 4)

Date	Chignik Weir Escapement	Catch Areas <sup>a,b,c,d</sup>								Daily Total
		Chignik Lagoon	Hook Bay /Kujulik	Aniakchak	Eastern District	Cape Igvak	Western District	Perryville District	Southeastern Mainland	
9-Jul	10,827	0	0	1,765	0	0	0	0	0	12,592
10-Jul	19,186	0	0	0	0	0	0	0	0	19,186
11-Jul	3,889	12,967	0	0	0	0	0	0	0	16,856
12-Jul	2,735	4,597	19,170	0	0	0	0	0	0	26,502
13-Jul	2,550	7,207	9,207	6,614	0	0	0	0	0	25,578
14-Jul	5,644	3,960	6,233	4,799	0	0	0	0	0	20,636
15-Jul	8,317	0	2,945	2,935	0	0	0	0	0	14,197
16-Jul	18,321	0	0	591	0	0	0	0	0	18,912
17-Jul	21,069	0	0	0	0	0	0	0	0	21,069
18-Jul	6,218	11,308	0	0	0	0	0	0	0	17,526
19-Jul	3,172	12,628	5,647	0	0	0	0	0	0	21,447
20-Jul	6,606	11,207	3,868	1,849	0	0	0	0	0	23,530
21-Jul	11,822	0	5,294	3,379	0	0	0	0	0	20,495
22-Jul	21,548	0	0	1,318	0	0	0	0	0	22,866
23-Jul	14,356	0	0	0	0	0	0	0	0	14,356
24-Jul	5,213	16,778	0	0	0	0	0	0	0	21,991
25-Jul	4,330	10,503	6,090	0	0	0	0	0	0	20,923
26-Jul	8,026	2,343	3,163	579	0	0	0	0	0	14,111
27-Jul	12,090	0	523	1,186	680	0	0	0	0	14,479
28-Jul	9,804	0	0	350	409	0	0	0	0	10,563
29-Jul	13,145	0	0	0	0	0	0	0	0	13,145
30-Jul	14,456	0	0	0	0	0	0	0	0	14,456
31-Jul	3,319	7,634	0	0	0	0	0	0	24,376	35,329
1-Aug	1,271	5,501	2,511	0	0	0	0	0	0	9,283
2-Aug	1,484	5,613	4,064	737	0	0	0	0	0	11,898
3-Aug	1,891	5,550	3,562	971	0	0	13,060	0	0	25,034
4-Aug	1,227	3,884	4,119	0	0	0	14,479	1,553	0	25,262
5-Aug	1,800	3,558	3,170	1,141	0	0	14,820	865	0	25,354
6-Aug	2,404	2,345	6,295	0	258	0	0	0	0	11,302
7-Aug	5,495	0	5,193	75	0	0	0	0	0	10,763
8-Aug	4,195	1,538	0	132	0	0	0	0	0	5,865
9-Aug	2,277	7,463	768	0	0	0	0	0	0	10,508
10-Aug	3,326	7,544	5,402	0	0	0	0	0	0	16,272
11-Aug	2,197	6,588	2,613	375	0	0	0	0	0	11,773
12-Aug	1,441	6,465	1,121	471	0	61	0	0	0	9,559
13-Aug	851	6,283	5,440	52	0	54	0	0	0	12,680
14-Aug	637	5,744	5,009	0	0	0	0	0	0	11,390
15-Aug	1,228	7,572	8,717	316	0	50	0	0	0	17,883
16-Aug	1,501	5,552	7,121	967	0	5	0	0	0	15,146
17-Aug	1,417	2,383	5,128	0	0	1	0	0	0	8,929
18-Aug	2,975	2,283	1,876	0	0	79	0	0	0	7,213
19-Aug	4,315	0	647	0	60	50	538	331	0	5,941
20-Aug	2,630	3,050	0	0	13	0	1,871	0	652	8,216
21-Aug	1,821	6,115	781	0	0	0	0	0	906	9,623

-Continued-

Table 22. (page 3 of 4)

Date	Chignik Weir	Catch Areas <sup>a,b,c,d</sup>								Daily Total
	Escapement	Chignik Lagoon	Hook Bay /Kujulik	Aniakchak	Eastern District	Cape Igvak	Western District	Perryville District	Southeastern Mainland	
22-Aug	1,126	5,142	1,593	98	0	0	0	0	0	7,959
23-Aug	2,027	4,863	990	205	122	0	0	0	0	8,207
24-Aug	1,496	3,481	227	167	49	0	0	0	0	5,420
25-Aug	1,837	3,941	620	0	0	0	0	0	0	6,398
26-Aug	1,810	2,756	1,483	369	0	0	0	0	0	6,418
27-Aug	3,232	0	549	323	0	0	0	0	0	4,104
28-Aug	2,204	0	0	50	0	0	0	0	0	2,254
29-Aug	4,317	0	0	0	0	0	0	0	0	4,317
30-Aug	1,678	1,168	0	0	0	0	0	0	0	2,846
31-Aug	821	3,178	537	0	0	0	0	0	0	4,536
1-Sep	874	3,041	2,665	0	0	0	0	0	0	6,580
2-Sep	1,779	2,205	1,993	0	0	0	0	0	0	5,977
3-Sep	1,806	0	614	0	0	0	0	0	0	2,420
4-Sep	3,648	0	0	0	0	0	0	0	0	3,648
5-Sep	1539	3,952	0	0	0	0	0	0	0	5,491
6-Sep	978	2,512	0	0	0	0	0	0	814	4,304
7-Sep	935	2,401	92	0	0	0	0	0	3,204	6,632
8-Sep	5547	0	0	0	0	0	0	0	3,587	9,134
9-Sep	7759	0	0	0	0	0	0	0	3,372	11,131
10-Sep	4931	5,039	0	0	0	0	0	0	4,097	14,067
11-Sep	1685	4,329	387	0	0	0	0	0	0	6,401
12-Sep	1822	4,679	175	0	0	0	0	0	0	6,676
13-Sep	1730	1,768	0	0	0	0	0	0	1,634	5,132
14-Sep	4990	0	136	0	0	0	0	0	845	5,971
15-Sep	1817	4,666	0	0	0	0	0	0	650	7,133
16-Sep	1399	3,594	0	0	0	0	0	0	704	5,697
17-Sep	1227	3,152	74	0	0	0	0	0	1,072	5,525
20-Sep	0	0	0	0	0	0	0	0	1,391	1,391
21-Sep	0	0	0	0	0	0	0	0	280	280
22-Sep	0	0	0	0	0	0	0	0	38	38
23-Sep	0	0	0	0	0	0	0	0	1,067	1,067
24-Sep	0	0	0	0	0	0	0	0	590	590
25-Sep	0	0	0	0	0	0	0	0	0	0
26-Sep	0	0	0	0	0	0	0	0	0	0
27-Sep	0	0	0	0	0	0	0	0	102	102
28-Sep	0	0	0	0	0	0	0	0	1538	1,538
29-Sep	0	0	0	0	0	0	0	0	117	117
30-Sep	0	0	0	0	0	0	0	0	581	581
1-Oct	0	0	0	0	0	0	0	0	4492	4,492
2-Oct	0	0	0	0	0	0	0	0	0	0
3-Oct	0	0	0	0	0	0	0	0	0	0
4-Oct	0	0	0	0	0	0	0	0	4747	4,747
5-Oct	0	0	0	0	0	0	0	0	456	456
6-Oct	0	0	0	0	0	0	0	0	128	128

-Continued-

Table 22. (page 4 of 4)

Date	Chignik Weir	Catch Areas <sup>a,b,c,d</sup>									Daily Total
	Escapement	Chignik Lagoon	Hook Bay /Kujulik	Aniakchak	Eastern District	Cape Igvak	Western District	Perryville District	Southeastern Mainland		
7-Oct	0	0	0	0	0	0	0	0	3725	3,725	
8-Oct	0	0	0	0	0	0	0	0	593	593	
9-Oct	0	0	0	0	0	0	0	0	0	0	
10-Oct	0	0	0	0	0	0	0	0	0	0	
11-Oct	0	0	0	0	0	0	0	0	2735	2,735	
12-Oct	0	0	0	0	0	0	0	0	138	138	
13-Oct	0	0	0	0	0	0	0	0	189	189	
14-Oct	0	0	0	0	0	0	0	0	1859	1,859	
15-Oct	0	0	0	0	0	0	0	0	1469	1,469	
16-Oct	0	0	0	0	0	0	0	0	0	0	
17-Oct	0	0	0	0	0	0	0	0	0	0	
18-Oct	0	0	0	0	0	0	0	0	901	901	
19-Oct	0	0	0	0	0	0	0	0	0	0	
20-Oct	0	0	0	0	0	0	0	0	0	0	
21-Oct	0	0	0	0	0	0	0	0	0	0	
22-Oct	0	0	0	0	0	0	0	0	64	64	
<b>Total</b>	<b>775,618</b>	<b>406,763</b>	<b>225,937</b>	<b>68,816</b>	<b>11,814</b>	<b>300</b>	<b>44,768</b>	<b>2,749</b>	<b>73,113</b>	<b>1,609,878</b>	

<sup>a</sup> The catch date and the escapement date past the weir for sockeye salmon was adjusted by travel time to the Chignik Lagoon date. Travel time to Chignik Lagoon from Cape Igvak and Southeastern District Mainland = 5 days, Eastern and Perryville Districts = 3 days, Western District and Aniakchak Bay = 2 days, Hook Bay and Kujulik Bay = 1 day, and the Chignik weir = (-) 1 day.

<sup>b</sup> Does not include catch designated for personal or subsistence use.

<sup>c</sup> Includes 80% of the catches for the entire season from Cape Igvak and Southeastern District Mainland.

Table 23. Daily and cumulative sockeye salmon catch and escapement as determined by scale pattern analysis for the Black Lake stock (adjusted to Chignik Lagoon date), 1997.

Date	Escapement Counts	Catch <sup>a,b,c</sup>	Daily Total	Cumulative	
				Catch and Escapement	Cumulative Percent
26-May	61	0	61	61	0.0
27-May	10	0	10	71	0.0
28-May	71	0	71	142	0.0
29-May	27	0	27	169	0.0
30-May	147	0	147	316	0.0
31-May	323	0	323	639	0.1
1-Jun	692	0	692	1,331	0.2
2-Jun	645	0	645	1,976	0.3
3-Jun	354	0	354	2,330	0.4
4-Jun	123	0	123	2,453	0.4
5-Jun	904	0	904	3,357	0.5
6-Jun	7,375	0	7,375	10,732	1.7
7-Jun	4,619	0	4,619	15,351	2.4
8-Jun	3,123	0	3,123	18,474	2.9
9-Jun	4,146	0	4,146	22,620	3.6
10-Jun	4,479	0	4,479	27,099	4.3
11-Jun	2,675	0	2,675	29,774	4.7
12-Jun	7,217	0	7,217	36,991	5.9
13-Jun	16,149	1,269	17,418	54,409	8.6
14-Jun	20,316	0	20,316	74,725	11.8
15-Jun	16,955	981	17,936	92,661	14.7
16-Jun	13,867	0	13,867	106,528	16.9
17-Jun	20,950	0	20,950	127,478	20.2
18-Jun	21,326	1,604	22,930	150,408	23.8
19-Jun	23,178	0	23,178	173,586	27.5
20-Jun	20,571	1,925	22,496	196,082	31.1
21-Jun	19,867	0	19,867	215,949	34.2
22-Jun	20,089	922	21,011	236,960	37.5
23-Jun	20,851	0	20,851	257,811	40.8
24-Jun	16,300	0	16,300	274,111	43.4
25-Jun	17,272	2,185	19,457	293,568	46.5
26-Jun	15,649	0	15,649	309,217	49.0
27-Jun	3,887	18,519	22,406	331,623	52.5
28-Jun	1,350	25,287	26,637	358,260	56.8
29-Jun	5,788	15,118	20,906	379,166	60.1
30-Jun	12,006	9,559	21,565	400,731	63.5
1-Jul	4,365	13,650	18,015	418,746	66.3
2-Jul	1,313	18,249	19,562	438,308	69.4
3-Jul	1,106	15,813	16,919	455,227	72.1
4-Jul	1,275	16,102	17,377	472,604	74.9
5-Jul	735	15,787	16,522	489,126	77.5
6-Jul	742	9,383	10,125	499,251	79.1
7-Jul	2,497	7,970	10,467	509,718	80.7

Table 23. (page 2 of 2)

Date	Escapement	Catch <sup>a,b,c</sup>	Daily Total	Cumulative	Cumulative Percent
	Counts			Catch and Escapement	
8-Jul	4,370	3,349	7,719	517,437	82.0
9-Jul	5,533	1,313	6,846	524,283	83.1
10-Jul	9,418	0	9,418	533,701	84.5
11-Jul	1,828	6,095	7,923	541,624	85.8
12-Jul	1,204	10,463	11,667	553,291	87.6
13-Jul	1,045	9,433	10,478	563,769	89.3
14-Jul	2,135	5,671	7,806	571,575	90.5
15-Jul	2,971	2,101	5,072	576,647	91.3
16-Jul	6,162	199	6,361	583,008	92.4
17-Jul	6,648	0	6,648	589,656	93.4
18-Jul	1,834	3,334	5,168	594,824	94.2
19-Jul	871	5,018	5,889	600,713	95.2
20-Jul	1,680	4,304	5,984	606,697	96.1
21-Jul	2,766	2,029	4,795	611,492	96.9
22-Jul	4,603	282	4,885	616,377	97.6
23-Jul	2,774	0	2,774	619,151	98.1
24-Jul	901	2,899	3,800	622,951	98.7
25-Jul	640	2,453	3,093	626,044	99.2
26-Jul	986	1,047	2,033	628,077	99.5
27-Jul	1,187	243	1,430	629,507	99.7
28-Jul	720	56	776	630,283	99.8
29-Jul	643	0	643	630,926	99.9
30-Jul	353	0	353	631,279	100.0

<sup>a</sup>Includes 80% of the catches for the entire season from Cape Igvak and Southeastern District Mainland.

<sup>b</sup>Includes catches from the Chignik Lagoon test fishery.

<sup>c</sup>Does not include catch designated for personal or subsistence use.

Table 24. Daily and cumulative sockeye salmon escapement and catch as determined by postseason scale pattern analysis for the Chignik Lake stock (adjusted to Chignik Lagoon date), 1997.

Date	Escapement Counts	Catch <sup>a,b,c</sup>	Daily Total	Cumulative Catch and Escapement	Cumulative Percent
26-May	1	0	1	1	0.0
27-May	0	0	0	1	0.0
28-May	2	0	2	3	0.0
29-May	1	0	1	4	0.0
30-May	6	0	6	10	0.0
31-May	16	0	16	26	0.0
1-Jun	39	0	39	65	0.0
2-Jun	41	0	41	106	0.0
3-Jun	25	0	25	131	0.0
4-Jun	10	0	10	141	0.0
5-Jun	76	0	76	217	0.0
6-Jun	671	0	671	888	0.0
7-Jun	453	0	453	1,341	0.1
8-Jun	329	0	329	1,670	0.2
9-Jun	467	0	467	2,137	0.2
10-Jun	538	0	538	2,675	0.3
11-Jun	341	0	341	3,016	0.3
12-Jun	976	0	976	3,992	0.4
13-Jun	2,309	182	2,491	6,483	0.7
14-Jun	3,792	0	3,792	10,275	1.0
15-Jun	3,960	229	4,189	14,464	1.5
16-Jun	3,323	0	3,323	17,787	1.8
17-Jun	5,148	0	5,148	22,935	2.3
18-Jun	5,374	404	5,778	28,713	2.9
19-Jun	6,086	0	6,086	34,799	3.5
20-Jun	5,616	525	6,141	40,940	4.1
21-Jun	5,628	0	5,628	46,568	4.7
22-Jun	5,895	270	6,165	52,733	5.3
23-Jun	6,613	0	6,613	59,346	6.0
24-Jun	5,572	0	5,572	64,918	6.6
25-Jun	6,351	803	7,154	72,072	7.3
26-Jun	6,094	0	6,094	78,166	7.9
27-Jun	1,601	7,626	9,227	87,393	8.9
28-Jun	586	11,000	11,586	98,979	10.0
29-Jun	2,656	6,938	9,594	108,573	11.0
30-Jun	5,871	4,675	10,546	119,119	12.1
1-Jul	2,271	7,102	9,373	128,492	13.0
2-Jul	726	10,086	10,812	139,304	14.1
3-Jul	642	9,177	9,819	149,123	15.1
4-Jul	779	9,829	10,608	159,731	16.2
5-Jul	472	10,153	10,625	170,356	17.3
6-Jul	539	6,821	7,360	177,716	18.0
7-Jul	2,049	6,539	8,588	186,304	18.9
8-Jul	3,868	2,963	6,831	193,135	19.6
9-Jul	5,294	1,256	6,550	199,685	20.2
10-Jul	9,768	0	9,768	209,453	21.2
11-Jul	2,061	6,872	8,933	218,386	22.1
12-Jul	1,531	13,304	14,835	233,221	23.6
13-Jul	1,505	13,595	15,100	248,321	25.1

-Continued-

Table 24. (page 2 of 3)

Date	Escapement Counts	Catch <sup>a,b,c</sup>	Daily	Cumulative	Cumulative
			Total	Catch and Escapement	Percent
14-Jul	3,509	9,321	12,830	261,151	26.4
15-Jul	5,346	3,779	9,125	270,276	27.4
16-Jul	12,159	392	12,551	282,827	28.6
17-Jul	14,421	0	14,421	297,248	30.1
18-Jul	4,384	7,974	12,358	309,606	31.4
19-Jul	2,301	13,257	15,558	325,164	32.9
20-Jul	4,926	12,620	17,546	342,710	34.7
21-Jul	9,056	6,644	15,700	358,410	36.3
22-Jul	16,945	1,036	17,981	376,391	38.1
23-Jul	11,582	0	11,582	387,973	39.3
24-Jul	4,312	13,879	18,191	406,164	41.1
25-Jul	3,690	14,140	17,830	423,994	42.9
26-Jul	7,040	7,465	14,505	438,499	44.4
27-Jul	10,903	2,236	13,139	451,638	45.7
28-Jul	9,084	703	9,787	461,425	46.7
29-Jul	12,502	0	12,502	473,927	48.0
30-Jul	14,103	0	14,103	488,030	49.4
31-Jul	3,319	32,010	35,329	523,359	53.0
1-Aug	1,271	8,012	9,283	532,642	53.9
2-Aug	1,484	10,414	11,898	544,540	55.1
3-Aug	1,891	23,143	25,034	569,574	57.7
4-Aug	1,227	24,825	26,052	595,626	60.3
5-Aug	1,800	23,554	25,354	620,980	62.9
6-Aug	2,404	9,418	11,822	632,802	64.1
7-Aug	5,495	6,188	11,683	644,485	65.3
8-Aug	4,195	1,742	5,937	650,422	65.9
9-Aug	2,277	8,231	10,508	660,930	66.9
10-Aug	3,326	12,946	16,272	677,202	68.6
11-Aug	2,197	9,576	11,773	688,975	69.8
12-Aug	1,441	8,118	9,559	698,534	70.7
13-Aug	851	11,829	12,680	711,214	72.0
14-Aug	637	11,055	11,692	722,906	73.2
15-Aug	1,228	16,655	17,883	740,789	75.0
16-Aug	1,501	13,645	15,146	755,935	76.6
17-Aug	1,417	7,512	8,929	764,864	77.5
18-Aug	2,975	4,238	7,213	772,077	78.2
19-Aug	4,315	1,626	5,941	778,018	78.8
20-Aug	2,630	5,586	8,216	786,234	79.6
21-Aug	1,821	7,802	9,623	795,857	80.6
22-Aug	1,126	6,833	7,959	803,816	81.4
23-Aug	2,027	6,180	8,207	812,023	82.2
24-Aug	1,496	3,924	5,420	817,443	82.8
25-Aug	1,837	4,561	6,398	823,841	83.4
26-Aug	1,810	4,608	6,418	830,259	84.1
27-Aug	3,232	872	4,104	834,363	84.5
28-Aug	2,204	50	2,254	836,617	84.7

-Continued-

Table 24. (page 3 of 3)

Date	Escapement Counts	Catch <sup>a,b,c</sup>	Daily Total	Cumulative Catch and Escapement	Cumulative Percent
29-Aug	4,317	0	4,317	840,934	85.2
30-Aug	1,678	1,168	2,846	843,780	85.5
31-Aug	821	3,715	4,536	848,316	85.9
1-Sep	874	5,706	6,580	854,896	86.6
2-Sep	1,779	4,198	5,977	860,873	87.2
3-Sep	1,806	614	2,420	863,293	87.4
4-Sep	3,648	0	3,648	866,941	87.8
5-Sep	1,539	3,952	5,491	872,432	88.4
6-Sep	978	3,326	4,304	876,736	88.8
7-Sep	935	5,697	6,632	883,368	89.5
8-Sep	5,547	3,587	9,134	892,502	90.4
9-Sep	7,759	3,372	11,131	903,633	91.5
10-Sep	4,931	9,136	14,067	917,700	92.9
11-Sep	1,685	4,716	6,401	924,101	93.6
12-Sep	1,822	4,854	6,676	930,777	94.3
13-Sep	1,730	3,402	5,132	935,909	94.8
14-Sep	4,990	981	5,971	941,880	95.4
15-Sep	1,817	5,316	7,133	949,013	96.1
16-Sep	1,399	4,298	5,697	954,710	96.7
17-Sep	1,227	4,298	5,525	960,235	97.2
20-Sep	-	1,391	1,391	961,626	97.4
21-Sep	-	280	280	961,906	97.4
22-Sep	-	38	38	961,944	97.4
23-Sep	-	1,067	1,067	963,011	97.5
24-Sep	-	590	590	963,601	97.6
27-Sep	-	102	102	963,703	97.6
28-Sep	-	1,538	1,538	965,241	97.8
29-Sep	-	117	117	965,358	97.8
30-Sep	-	581	581	965,939	97.8
1-Oct	-	4,492	4,492	970,431	98.3
4-Oct	-	4,747	4,747	975,178	98.8
5-Oct	-	456	456	975,634	98.8
6-Oct	-	128	128	975,762	98.8
7-Oct	-	3,725	3,725	979,487	99.2
8-Oct	-	593	593	980,080	99.3
11-Oct	-	2,735	2,735	982,815	99.5
12-Oct	-	138	138	982,953	99.5
13-Oct	-	189	189	983,142	99.6
14-Oct	-	1,859	1,859	985,001	99.8
15-Oct	-	1,469	1,469	986,470	99.9
18-Oct	-	901	901	987,371	100.0
22-Oct	-	64	64	987,435	100.0

<sup>a</sup>Includes 80% of the catches for the entire season from Cape Igvak and Southeastern District Mainland.

<sup>b</sup>Does not include catch designated for personal or subsistence use.

<sup>c</sup>Includes catches from Chignik Lagoon test fishery.

Table 25. Black Lake weekly sockeye salmon escapement, by age class, estimated by scale pattern analysis, 1997.

Stat	Week	Age Class												Total	
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3		Other
22	Number	0	0	14	30	0	220	15	1	30	1	2	2	1	316
	Percent	0.0	0.0	4.4	9.5	0.0	69.6	4.7	0.3	9.5	0.3	0.6	0.6	0.3	
23	Number	0	0	461	977	0	7,270	488	27	1,004	27	81	54	27	10,416
	Percent	0.0	0.0	4.4	9.4	0.0	69.8	4.7	0.3	9.6	0.3	0.8	0.5	0.3	
24	Number	0	0	1,877	3,976	0	29,598	1,988	110	4,086	110	331	221	110	42,407
	Percent	0.0	0.0	4.4	9.4	0.0	69.8	4.7	0.3	9.6	0.3	0.8	0.5	0.3	
25	Number	86	0	2,778	13,122	0	95,160	9,193	357	14,635	199	654	708	271	137,163
	Percent	0.1	0.0	2.0	9.6	0.0	69.4	6.7	0.3	10.7	0.1	0.5	0.5	0.2	
26	Number	11	117	1,586	9,389	22	75,214	8,761	227	16,419	0	525	1,536	110	113,917
	Percent	0.0	0.1	1.4	8.2	0.0	66.0	7.7	0.2	14.4	0.0	0.5	1.3	0.1	
27	Number	31	65	522	1,867	151	17,659	1,905	63	4,460	36	126	317	0	27,202
	Percent	0.1	0.2	1.9	6.9	0.6	64.9	7.0	0.2	16.4	0.1	0.5	1.2	0.0	
28	Number	0	25	147	869	121	11,353	4,290	23	7,556	97	191	425	26	25,123
	Percent	0.0	0.1	0.6	3.5	0.5	45.2	17.1	0.1	30.1	0.4	0.8	1.7	0.1	
29	Number	0	21	69	568	5	4,972	5,354	42	10,463	0	129	373	2	21,998
	Percent	0.0	0.1	0.3	2.6	0.0	22.6	24.3	0.2	47.6	0.0	0.6	1.7	0.0	
30	Number	0	28	21	467	72	2,734	4,435	21	6,120	53	49	235	0	14,235
	Percent	0.0	0.2	0.1	3.3	0.5	19.2	31.2	0.1	43.0	0.4	0.3	1.7	0.0	
31	Number	0	8	4	132	45	625	1,288	0	1,689	16	4	73	7	3,891
	Percent	0.0	0.2	0.1	3.4	1.2	16.1	33.1	0.0	43.4	0.4	0.1	1.9	0.2	
Total		128	264	7,479	31,397	416	244,805	37,717	871	66,462	539	2,092	3,944	554	396,668
Percent		0.0	0.1	1.9	7.9	0.1	61.7	9.5	0.2	16.8	0.1	0.5	1.0	0.1	

Table 26. Chignik Lake weekly sockeye salmon escapement by age class, estimated by scale pattern analysis, 1997.

Statistical Week		Age Class												Total	
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3		Other
22	Number	0	0	0	1	0	8	0	0	1	0	0	0	0	10
	Percent	0.0	0.0	0.0	10.0	0.0	80.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0
23	Number	0	0	39	82	0	613	41	2	85	2	7	5	2	878
	Percent	0.0	0.0	4.4	9.3	0.0	69.8	4.7	0.2	9.7	0.2	0.8	0.6	0.2	
24	Number	0	0	240	508	0	3,778	254	14	522	14	42	28	14	5,414
	Percent	0.0	0.0	4.4	9.4	0.0	69.8	4.7	0.3	9.6	0.3	0.8	0.5	0.3	
25	Number	19	0	652	3,183	0	23,112	2,248	85	3,563	44	155	173	65	33,299
	Percent	0.1	0.0	2.0	9.6	0.0	69.4	6.8	0.3	10.7	0.1	0.5	0.5	0.2	
26	Number	4	43	518	3,153	9	24,901	2,927	76	5,409	0	177	502	33	37,752
	Percent	0.0	0.1	1.4	8.4	0.0	66.0	7.8	0.2	14.3	0.0	0.5	1.3	0.1	
27	Number	15	31	256	919	76	8,781	950	30	2,233	19	63	159	0	13,532
	Percent	0.1	0.2	1.9	6.8	0.6	64.9	7.0	0.2	16.5	0.1	0.5	1.2	0.0	
28	Number	0	22	142	817	116	10,755	4,120	21	7,356	87	179	410	26	24,051
	Percent	0.0	0.1	0.6	3.4	0.5	44.7	17.1	0.1	30.6	0.4	0.7	1.7	0.1	
29	Number	0	45	136	1,126	6	9,454	10,611	89	20,404	0	253	729	3	42,856
	Percent	0.0	0.1	0.3	2.6	0.0	22.1	24.8	0.2	47.6	0.0	0.6	1.7	0.0	
30	Number	0	104	69	1,736	283	10,166	16,532	68	22,602	208	172	870	2	52,812
	Percent	0.0	0.2	0.1	3.3	0.5	19.2	31.3	0.1	42.8	0.4	0.3	1.6	0.0	
31	Number	0	117	67	1,989	737	8,722	19,371	0	25,678	216	50	1,138	135	58,220
	Percent	0.0	0.2	0.1	3.4	1.3	15.0	33.3	0.0	44.1	0.4	0.1	2.0	0.2	
32	Number	0	15	15	495	1,012	1,902	6,078	0	8,439	59	0	273	208	18,496
	Percent	0.0	0.1	0.1	2.7	5.5	10.3	32.9	0.0	45.6	0.3	0.0	1.5	1.1	

-Continued-

Table 26. (page 2 of 2)

Statistical Week		Age Class												Total	
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3		Other
33	Number	0	0	27	246	809	935	3,190	0	6,435	57	0	129	129	11,957
	Percent	0.0	0.0	0.2	2.1	6.8	7.8	26.7	0.0	53.8	0.5	0.0	1.1	1.1	
34	Number	0	2	30	173	545	788	3,475	0	10,371	73	0	195	133	15,785
	Percent	0.0	0.0	0.2	1.1	3.5	5.0	22.0	0.0	65.7	0.5	0.0	1.2	0.8	
35	Number	0	6	12	158	443	365	1,622	0	13,747	55	0	379	136	16,923
	Percent	0.0	0.0	0.1	0.9	2.6	2.2	9.6	0.0	81.2	0.3	0.0	2.2	0.8	
36	Number	0	0	0	112	150	262	1,050	0	10,159	37	0	300	75	12,145
	Percent	0.0	0.0	0.0	0.9	1.2	2.2	8.6	0.0	83.6	0.3	0.0	2.5	0.6	
37	Number	0	0	0	219	292	511	2,044	0	19,788	73	0	584	146	23,657
	Percent	0.0	0.0	0.0	0.9	1.2	2.2	8.6	0.0	83.6	0.3	0.0	2.5	0.6	
43	Number	0	0	0	103	138	241	965	0	9,337	34	0	276	69	11,163
	Percent	0.0	0.0	0.0	0.9	1.2	2.2	8.6	0.0	83.6	0.3	0.0	2.5	0.6	
Total		38	385	2,203	15,020	4,616	105,294	75,478	385	166,129	978	1,098	6,150	1,176	378,950
Percent		0.0	0.1	0.6	4.0	1.2	27.8	19.9	0.1	43.8	0.3	0.3	1.6	0.3	

Table 27. Black Lake weekly sockeye salmon catch by age class, estimated by scale pattern analysis, 1997.

Statistical Week	Age Class <sup>a,b,c</sup>													Total	
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other		
24	Number	0	0	56	119	0	887	59	3	122	3	10	7	3	1,269
	Percent	0.0	0.0	4.4	9.4	0.0	69.9	4.6	0.2	9.6	0.2	0.8	0.6	0.2	
25	Number	2	0	78	423	0	3,125	312	11	500	4	19	27	9	4,510
	Percent	0.0	0.0	1.7	9.4	0.0	69.3	6.9	0.2	11.1	0.1	0.4	0.6	0.2	
26	Number	18	58	338	1,896	35	14,071	1,745	59	3,063	0	105	236	2	21,626
	Percent	0.1	0.3	1.6	8.8	0.2	65.1	8.1	0.3	14.2	0.0	0.5	1.1	0.0	
27	Number	86	215	1,835	7,348	629	73,207	8,529	184	19,559	234	554	1,398	0	113,778
	Percent	0.1	0.2	1.6	6.5	0.6	64.3	7.5	0.2	17.2	0.2	0.5	1.2	0.0	
28	Number	0	71	181	1,663	165	22,482	6,913	32	11,202	245	300	628	15	43,897
	Percent	0.0	0.2	0.4	3.8	0.4	51.2	15.7	0.1	25.5	0.6	0.7	1.4	0.0	
29	Number	0	8	111	712	41	8,978	6,407	16	14,213	0	167	528	20	31,201
	Percent	0.0	0.0	0.4	2.3	0.1	28.8	20.5	0.1	45.6	0.0	0.5	1.7	0.1	
30	Number	0	34	33	554	72	3,212	5,225	32	7,420	51	65	286	1	16,985
	Percent	0.0	0.2	0.2	3.3	0.4	18.9	30.8	0.2	43.7	0.3	0.4	1.7	0.0	
31	Number	0	3	1	46	14	235	443	0	570	6	2	24	2	1,346
	Percent	0.0	0.2	0.1	3.4	1.0	17.5	32.9	0.0	42.3	0.4	0.1	1.8	0.1	
	Total	106	389	2,633	12,761	956	126,197	29,633	337	56,649	543	1,222	3,134	52	234,612
	Percent	0.0	0.2	1.1	5.4	0.4	53.8	12.6	0.1	24.1	0.2	0.5	1.3	0.0	

69

<sup>a</sup>Includes 80% of the catches for the entire season from Cape Igyak and Southeastern District Mainland.

<sup>b</sup>Includes catches from the Chignik Lagoon test fishery.

<sup>c</sup>Does not include catch designated for personal use or subsistence.

Table 28. Chignik Lake weekly sockeye salmon catch by age class, estimated by scale pattern analysis, 1997.

Statistical Week	Age Class <sup>a,b,c</sup>													Total	
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other		
24	Number	0	0	8	17	0	128	9	0	18	0	1	1	0	182
	Percent	0.0	0.0	4.4	9.3	0.0	70.3	4.9	0.0	9.9	0.0	0.5	0.5	0.0	
25	Number	0	0	20	108	0	803	80	3	129	1	5	7	2	1,158
	Percent	0.0	0.0	1.7	9.3	0.0	69.3	6.9	0.3	11.1	0.1	0.4	0.6	0.2	
26	Number	7	23	137	764	15	5,658	703	24	1,231	0	42	94	1	8,699
	Percent	0.1	0.3	1.6	8.8	0.2	65.0	8.1	0.3	14.2	0.0	0.5	1.1	0.0	
27	Number	40	103	913	3,701	334	37,767	4,444	84	10,263	134	290	734	0	58,807
	Percent	0.1	0.2	1.6	6.3	0.6	64.2	7.6	0.1	17.5	0.2	0.5	1.2	0.0	
28	Number	0	52	153	1,286	136	17,326	5,532	26	9,144	181	240	511	17	34,604
	Percent	0.0	0.2	0.4	3.7	0.4	50.1	16.0	0.1	26.4	0.5	0.7	1.5	0.0	
29	Number	0	18	169	1,129	54	13,400	10,249	36	22,202	0	263	818	27	48,365
	Percent	0.0	0.0	0.3	2.3	0.1	27.7	21.2	0.1	45.9	0.0	0.5	1.7	0.1	
30	Number	0	122	95	2,020	318	11,696	19,186	91	26,583	220	209	1,029	7	61,576
	Percent	0.0	0.2	0.2	3.3	0.5	19.0	31.2	0.1	43.2	0.4	0.3	1.7	0.0	
31	Number	0	102	80	1,736	727	6,643	16,925	0	22,829	147	22	1,056	159	50,426
	Percent	0.0	0.2	0.2	3.4	1.4	13.2	33.6	0.0	45.3	0.3	0.0	2.1	0.3	
32	Number	0	121	121	2,923	4,144	10,524	32,966	0	45,605	280	0	1,723	877	99,284
	Percent	0.0	0.1	0.1	2.9	4.2	10.6	33.2	0.0	45.9	0.3	0.0	1.7	0.9	
33	Number	0	0	268	1,569	4,837	5,375	18,667	0	45,758	407	0	883	646	78,410
	Percent	0.0	0.0	0.3	2.0	6.2	6.9	23.8	0.0	58.4	0.5	0.0	1.1	0.8	
34	Number	0	11	130	577	1,896	2,219	9,663	0	31,558	229	0	589	370	47,242
	Percent	0.0	0.0	0.3	1.2	4.0	4.7	20.5	0.0	66.8	0.5	0.0	1.2	0.8	

-Continued-

Table 28. (page 2 of 2)

Statistical Week	Age Class <sup>a,b,c</sup>													Total	
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other		
35	Number	0	17	34	191	914	439	2,215	0	15,710	72	0	388	215	20,195
	Percent	0.0	0.1	0.2	0.9	4.5	2.2	11.0	0.0	77.8	0.4	0.0	1.9	1.1	
36	Number	0	0	0	179	239	418	1,672	0	16,188	60	0	478	119	19,353
	Percent	0.0	0.0	0.0	0.9	1.2	2.2	8.6	0.0	83.6	0.3	0.0	2.5	0.6	
37	Number	0	0	0	321	428	749	2,998	0	29,015	107	0	856	214	34,688
	Percent	0.0	0.0	0.0	0.9	1.2	2.2	8.6	0.0	83.6	0.3	0.0	2.5	0.6	
43	Number	0	0	0	421	562	983	3,932	0	38,053	140	0	1,123	281	45,495
	Percent	0.0	0.0	0.0	0.9	1.2	2.2	8.6	0.0	83.6	0.3	0.0	2.5	0.6	
	Total	47	569	2,128	16,942	14,604	114,128	129,241	264	314,286	1,978	1,072	10,290	2,935	608,484
	Percent	0.0	0.1	0.3	2.8	2.4	18.8	21.2	0.0	51.7	0.3	0.2	1.7	0.5	

71

<sup>a</sup>Includes 80% of the catches for the entire season from Cape Igvak and Southeastern District Mainland.

<sup>b</sup>Includes catches from the Chignik Lagoon test fishery.

<sup>c</sup>Does not include catch designated for personal use or subsistence.

Table 29. Black Lake and Chignik Lake sockeye salmon escapement, catch, and total run estimates by age class, based on scale pattern analysis, 1997.

	Age Class <sup>a,b,c</sup>													Total
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other	
<b>Black Lake</b>														
Escapement	128	264	7,479	31,397	416	244,805	37,717	871	66,462	539	2,092	3,944	554	396,668
Catch	106	389	2,633	12,761	956	126,197	29,633	337	56,649	543	1,222	3,134	52	234,612
Run	234	653	10,112	44,158	1,372	371,002	67,350	1,208	123,111	1,082	3,314	7,078	606	631,280
Percent	0.0	0.1	1.6	7.0	0.2	58.8	10.7	0.2	19.5	0.2	0.5	1.1	0.1	100.0
<b>Chignik Lake</b>														
Escapement	38	385	2,203	15,020	4,616	105,294	75,478	385	166,129	978	1,098	6,150	1,176	378,950
Catch	47	569	2,128	16,942	14,604	114,128	129,241	264	314,286	1,978	1,072	10,290	2,935	608,484
Run	85	954	4,331	31,962	19,220	219,422	204,719	649	480,415	2,956	2,170	16,440	4,111	987,434
Percent	0.0	0.1	0.4	3.2	1.9	22.2	20.7	0.1	48.7	0.3	0.2	1.7	0.4	100.0
<b>Total Run</b>														
Escapement	166	649	9,682	46,417	5,032	350,099	113,195	1,256	232,591	1,517	3,190	10,094	1,730	775,618
Catch	153	958	4,761	29,703	15,560	240,325	158,874	601	370,935	2,521	2,294	13,424	2,987	843,096
Run	319	1,607	14,443	76,120	20,592	590,424	272,069	1,857	603,526	4,038	5,484	23,518	4,717	1,618,714
Percent	0.0	0.1	0.9	4.7	1.3	36.5	16.8	0.1	37.3	0.2	0.3	1.5	0.3	100.0

<sup>a</sup>Includes 80% of the catches for the entire season from Cape Igvak and Southeastern District Mainland.

<sup>b</sup>Includes catches from the Chignik Lagoon test fishery.

<sup>c</sup>Does not include catch designated for personal use or subsistence.

Table 30. Sockeye salmon escapement, catch, and total run for Black Lake, Chignik Lake, and combined runs, based on postseason scale pattern analysis, 1954-1997.

Year	Escapement and Catch <sup>a,b,c</sup>								
	Black Lake			Chignik Lake			Combined		
	Escapement	Catch	Total	Escapement	Catch	Total	Escapement	Catch	Total
1954	184,953	72,334	257,287	277,912	19,232	297,144	462,865	91,566	554,431
1955	256,757	179,539	436,296	201,409	168,987	370,396	458,166	348,526	806,692
1956	289,096	246,442	535,538	483,024	421,251	904,275	772,120	667,693	1,439,813
1957	192,479	77,423	269,902	328,779	224,757	553,536	521,258	302,180	823,438
1958	120,862	141,180	262,042	212,594	179,949	392,543	333,456	321,129	654,585
1959	112,226	165,000	277,226	308,645	251,547	560,192	420,871	416,547	837,418
1960	251,567	274,048	525,615	357,230	418,356	775,586	608,797	692,404	1,301,201
1961	140,714	53,852	194,566	254,970	278,609	533,579	395,684	332,461	728,145
1962	167,602	71,562	239,164	324,860	292,528	617,388	492,462	364,090	856,552
1963	332,536	80,258	412,794	200,314	323,080	523,394	532,850	403,338	936,188
1964	137,073	142,380	279,453	166,625	472,510	639,135	303,698	614,890	918,588
1965	307,192	497,018	804,210	163,151	169,576	332,727	470,343	666,594	1,136,937
1966	383,545	87,169	470,714	183,525	162,638	346,163	567,070	249,807	816,877
1967	328,000	154,134	482,134	189,000	350,901	539,901	517,000	505,035	1,022,035
1968	342,343	542,598	884,941	244,836	641,693	886,529	587,179	1,184,291	1,771,470
1969	366,589	263,170	629,759	132,055	235,960	368,015	498,644	499,130	997,774
1970	536,257	1,566,065	2,102,322	119,952	262,244	382,196	656,209	1,828,309	2,484,518
1971	671,668	555,832	1,227,500	232,501	709,190	941,691	904,169	1,265,022	2,169,191
1972	326,320	43,220	369,540	231,270	386,615	617,885	557,590	429,835	987,425
1973	533,047	569,854	1,102,901	247,144	396,114	643,258	780,191	965,968	1,746,159
1974	351,701	174,883	526,584	364,612	675,607	1,040,219	716,313	850,490	1,566,803
1975	308,914	4,019	312,933	314,084	421,414	735,498	622,998	425,433	1,048,431
1976	551,254	548,107	1,099,361	341,828	778,380	1,120,208	893,082	1,326,487	2,219,569
1977	482,247	439,693	921,940	463,561	1,696,767	2,160,328	945,808	2,136,460	3,082,268
1978	458,660	1,070,487	1,529,147	263,009	754,838	1,017,847	721,669	1,825,325	2,546,994
1979	385,694	207,122	592,816	317,889	944,964	1,262,853	703,583	1,152,086	1,855,669
1980	311,332	170,629	481,961	279,729	778,014	1,057,743	591,061	948,643	1,539,704
1981	438,540	779,755	1,218,295	301,092	1,509,959	1,811,051	739,632	2,289,714	3,029,346
1982	616,117	1,325,041	1,941,158	305,193	451,789	756,982	921,310	1,776,830	2,698,140
1983	426,177	977,548	1,403,725	409,458	1,467,060	1,876,518	835,635	2,444,608	3,312,346
1984	597,712	3,245,482	3,843,194	268,496	353,141	621,637	866,208	3,598,623	4,464,831
1985	376,576	650,340	1,026,916	369,262	490,151	859,413	745,838	1,140,491	1,887,269
1986	566,088	1,371,935	1,938,023	207,231	609,084	816,315	773,319	1,981,019	2,754,338
1987	589,291	1,949,867	2,539,158	214,452	482,311	696,763	803,743	2,432,178	3,235,921
1988	420,577	272,553	693,130	255,180	631,172	886,352	675,757	903,725	1,579,482
1989	384,004	234,839	618,843	557,171	1,063,042	1,620,213	941,175	1,297,881	2,239,056
1990	434,543	587,818	1,022,361	335,867	1,856,597	2,192,464	770,410	2,444,415	3,214,825
1991	657,511	1,714,835	2,372,346	382,587	751,291	1,133,878	1,040,098	2,466,126	3,506,224
1992	360,681	747,829	1,108,510	405,922	863,651	1,269,573	766,603	1,611,480	2,378,083
1993	364,263	926,863	1,291,126	333,114	1,322,984	1,656,098	697,377	2,249,847	2,947,224
1994	769,464	1,595,256	2,364,720	197,445	508,109	705,554	966,909	2,103,365	3,070,274
1995	366,163	660,282	1,026,445	373,757	1,522,406	1,896,163	739,920	2,182,688	2,922,608
1996	464,750	1,705,642	2,170,392	284,387	745,575	1,029,962	749,137	2,451,217	3,200,354
1997	396,668	234,612	631,280	378,950	608,484	987,434	775,618	843,096	1,618,714
Average									
87-96	488,849	1,069,793	1,558,641	322,465	941,475	1,263,940	811,313	2,011,267	2,822,581
77-86	465,914	1,023,803	1,489,718	318,492	905,577	1,224,069	784,406	1,929,380	2,717,091
67-76	431,609	442,188	873,798	241,728	485,812	727,540	673,338	928,000	1,601,338

<sup>a</sup>Includes 80% of the catches for the entire season from Cape Igvak and Southeastern District Mainlan

<sup>b</sup>Includes catches from the Chignik Lagoon test fishery.

<sup>c</sup>Does not include catch designated for personal use or subsistence.

Table 31. Black Lake and Black River tributaries peak aerial sockeye salmon survey escapement estimates, 1960-1997.

Year	Black Lake <sup>a</sup>							Black River				Chignik Lake		
	Fan Creek	Milk Creek	Boulevard Creek	Alec River <sup>b</sup>	Conglomerate	Broad Creek	Total	Bearskin Creek	West Fork	Chiaktuak Creek	Total	Clark River	Home Creek	Hatchery Beach
1960	38,500	8,000	40,000	30,000	3,000	30,000	149,500	11,600	23,000	19,000	53,600			
1961	27,000	5,000	28,700	25,000	800	17,000	103,500	2,500	17,100	20,700	40,300			
1962	18,000	7,000	13,000	60,000	200	15,000	113,200	3,000	13,000	24,000	40,000			
1963	39,000	-	36,000	85,000	1,000	61,000	222,000	900	5,000	9,000	14,900			
1964	19,500	3,050	23,850	17,900	9,300	9,500	83,100	500	4,500	7,000	12,000			
1967	20,000	1,000	9,000	156,000	10,000	10,000	206,000	10,000	25,000	31,000	66,000			
1968	32,000	2,400	20,000	60,000	2,000	4,100	120,500	1,200	10,500	10,000	21,700			
1969	103,000	2,100	33,000	50,000	4,000	5,000	197,100	50	800	1,500	2,350			
1970	146,000	9,000	55,500	198,000	5,000	-	413,500	450	4,000	4,000	8,450			
1971	105,000	14,000	85,000	158,000	0	-	362,000	3,500	5,500	47,000	56,000			
1972	18,000	3,500	19,000	74,000	400	-	114,900	1,400	4,300	23,000	28,700			
1973	115,000	4,000	76,000	74,000	5,000	-	274,000	13	4,100	1,500	5,613			
1974	90,000	5,000	50,000	93,000	5,000	-	243,000	450	8,000	7,000	15,450			
1975	40,000	4,500	25,000	87,000	0	-	156,500	65	2,500	2,500	5,065			
1976	78,000	8,900	100,000	119,000	2,000	-	307,900	2,650	23,700	7,700	34,050			
1977	88,000	20,000	127,000	133,000	1,000	-	369,000	200	13,600	6,900	20,700			
1978	114,000	3,300	74,000	83,300	500	-	275,100	410	9,600	8,500	18,510			
1979	37,000	11,800	32,000	105,100	400	26,100	212,400	918	7,610	29,000	37,528			
1980	127,000	16,000	75,000	70,500	1,500	68,000	358,000	3,600	33,000	40,400	77,000			
1981	93,000	4,700	59,000	76,500	20,000	27,000	280,200	950	1,500	18,700	21,150			
1982	50,000	5,500	60,000	43,000	20,000	32,000	210,500	1,066	10,791	5,000	16,857			
1983	-	-	-	-	-	-	-	-	-	6,000	6,000			
1984	50,000	22,200	70,000	30,500	31,000	36,000	239,700	-	-	-	8,200			
1985	28,000	5,500	36,000	65,000	5,500	17,000	157,000	350	450	1,200	2,000			
1986	60,000	15,300	47,000	76,000	39,000	27,000	264,300	-	-	8,300	8,300			
1987	52,000	12,200	133,000	88,400	45,900	32,500	364,000	-	-	1,000	1,000			
1988	54,000	71,000	83,700	106,500	2,300	26,500	344,000	-	-	4,600	4,600			
1989	19,300	21,000	64,000	133,000	1,000	7,500	245,800	-	-	2,100	2,100			
1990	32,600	7,400	35,900	49,800	2,200	18,000	145,900	300	0	50	350			
1991	14,600	19,500	48,000	-	2,000	13,000	97,100	-	-	-	-			
1992 <sup>c</sup>	-	-	-	392,000	-	-	-	-	-	-	-			
1993	40,900	12,600	97,600	8,000	77,000	18,200	254,300	-	-	16,000	16,000			
1994	70,000	25,000	125,000	350,000	20,000	51,000	641,000	5,000	-	31,000	36,000	18,000	9,200	-
1995	23,000	10,000	60,000	200,000	40,000	60,000	393,000	7,100	18,000	31,000	56,100	13,000	6,000	150,000
1996	40,000	24,000	51,000	100,000	50,000	45,000	310,000	1,800	22,000	22,000	45,800	13,000	5,500	70,000
1997	60,000	5,000	48,000	166,000	8,000	20,000	307,000	9,000	9,000	23,500	41,500	25,000	8,000	35,000

<sup>a</sup> Dashes or blanks represent no surveys taken or survey results not adequate to make stream estimate.

<sup>b</sup> Aerial count accuracy varies because of the changing water turbidity levels.

<sup>c</sup> Survey considered incomplete for all streams except the Alec River.

Table 32. Pink salmon catch, escapement, and run numbers (in thousands of fish) in the Chignik Bay District, 1962-1997.

Year	Catch <sup>a,b,c</sup>	Escapement	Run	Year	Catch	Escapement <sup>d</sup>	Run
1962	36.7	30.0	66.7	1980	180.9	3.0	183.9
1963	63.7	20.7	84.4	1981	121.4	1.4	122.8
1964	123.6	20.0	143.6	1982	83.0	2.4	85.4
1965	31.5	11.0	42.5	1983	27.3	1.0	28.3
1966	18.3	71.3	89.6	1984	165.2	123.2	288.4
1967	27.4	5.7	33.1	1985	14.4	0.0	14.4
1968	230.2	81.4	311.6	1986	191.3	0.0	191.3
1969	29.5	11.7	41.2	1987	13.9	0.0	13.9
1970	46.3	43.6	89.9	1988	119.8	22.4	142.2
1971	65.3	5.5	70.8	1989	27.7	13.5	41.2
1972	31.6	5.8	37.4	1990	94.5	6.0	100.5
1973	22.7	2.2	24.9	1991	76.2	12.2	88.4
1974	33.5	4.0	37.5	1992	178.2	55.8	234.0
1975	27.4	1.2	28.6	1993	55.9	2.0	57.9
1976	108.8	12.3	121.1	1994	59.4	75.8	135.2
1977	60.9	3.0	63.9	1995	106.9	180.5	287.4
1978	137.1	10.7	147.8	1996	1.5	43.1	44.6
1979	312.4	1.2	313.6	1997	39.5	59.4	98.9

Table 33. Pink salmon catch, escapement, and run numbers (in thousands of fish) in the Central District, 1962-1997.

Year	Catch <sup>a,b,c</sup>	Escapement	Run	Year	Catch	Escapement <sup>d</sup>	Run
1962	84.3	83.9	168.2	1980	108.7	99.4	208.1
1963	121.3	92.6	213.9	1981	210.0	76.5	286.5
1964	71.9	131.1	203.0	1982	80.6	26.1	106.7
1965	69.5	65.8	135.3	1983	7.9	11.0	18.9
1966	17.4	62.6	80.0	1984	47.3	94.0	141.3
1967	26.0	18.5	44.5	1985	16.1	7.4	23.5
1968	45.4	66.1	111.5	1986	44.1	121.9	166.0
1969	1.4	69.6	71.0	1987	7.8	65.7	73.5
1970	27.9	60.7	88.6	1988	318.4	216.4	534.8
1971	20.5	74.8	95.3	1989	0.0	215.0	215.0
1972	0.8	3.1	3.9	1990	233.7	131.9	365.6
1973	0.3	50.2	50.5	1991	174.0	201.1	375.1
1974	22.1	9.8	31.9	1992	205.7	223.8	429.5
1975	31.3	26.4	57.7	1993	198.5	160.9	359.4
1976	16.6	66.0	82.6	1994	99.1	178.9	278.0
1977	120.0	199.9	319.9	1995	469.7	715.5	1,185.2
1978	61.2	101.2	162.4	1996	15.8	237.1	252.9
1979	284.4	297.0	581.4	1997	600	594.6	1,194.6

<sup>a</sup> Post 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988). September 15 was the assumed last day of stream entry.

<sup>b</sup> Catches (1970-1997) were updated using historical electronic fish ticket databases.

<sup>c</sup> Personal use or other subsistence fish are not included.

<sup>d</sup> Chignik River escapement was incompletely monitored all years except 1996 and 1997 when pink escapement was counted through the weir until September 4.

Table 34. Pink salmon catch, escapement, and run numbers (in thousands of fish) in the Eastern District, 1962-1997.

Year	Catch <sup>a,b,c</sup>	Escapement	Run	Year	Catch	Escapement	Run
1962	1,109.9	401.7	1,511.6	1980	472.5	425.5	898.0
1963	26.9	126.2	153.1	1981	173.3	154.7	328.0
1964	1,251.5	605.7	1,857.2	1982	89.1	301.5	390.6
1965	25.7	64.8	90.5	1983	7.8	46.3	54.1
1966	386.2	302.2	688.4	1984	57.7	486.5	544.2
1967	22.6	56.1	78.7	1985	6.6	212.1	218.7
1968	523.4	390.3	913.7	1986	49.6	580.7	630.3
1969	1.7	46.0	47.7	1987	2.1	215.6	217.7
1970	268.9	201.7	470.6	1988	1,006.4	1,005.4	2,011.8
1971	29.0	23.0	52.0	1989	0.0	881.0	881.0
1972	12.9	15.9	28.8	1990	40.6	811.4	852.0
1973	2.5	12.8	15.3	1991	28.0	125.0	153.0
1974	0.6	76.2	76.8	1992	183.1	1,318.1	1,501.2
1975	0.0	23.5	23.5	1993	59.3	524.7	584.0
1976	28.8	228.8	257.6	1994	13.0	863.3	876.3
1977	0.2	76.0	76.2	1995	8.6	1,399.3	1,407.9
1978	86.8	309.3	396.1	1996	7.2	1,059.6	1,066.8
1979	292.4	194.3	486.7	1997	72.3	1,287.7	1,360.0

Table 35. Pink salmon catch, escapement, and run numbers (in thousands of fish) in the Western District, 1962-1997.

Year	Catch <sup>a,b,c</sup>	Escapement	Run	Year	Catch	Escapement	Run
1962	81.0	242.0	323.0	1980	216.5	139.5	356.0
1963	516.9	305.0	821.9	1981	433.6	249.3	682.9
1964	112.9	165.0	277.9	1982	602.4	45.9	648.3
1965	345.6	152.0	497.6	1983	164.3	36.0	200.3
1966	173.2	179.3	352.5	1984	173.8	188.0	361.8
1967	27.1	104.4	131.5	1985	80.6	67.5	148.1
1968	295.6	151.3	446.9	1986	200.8	43.8	244.6
1969	485.0	422.0	907.0	1987	187.7	38.3	226.0
1970	442.7	202.0	644.7	1988	1,141.4	232.4	1,373.8
1971	285.4	268.8	554.2	1989	0.0	57.9	57.9
1972	14.9	8.6	23.5	1990	135.8	44.3	180.1
1973	0.0	62.4	62.4	1991	419.3	96.8	516.1
1974	13.4	77.4	90.8	1992	628.9	38.8	667.7
1975	7.4	141.7	149.1	1993	685.6	45.8	731.4
1976	135.8	114.2	250.0	1994	174.6	111.6	286.2
1977	379.0	355.5	734.5	1995	791.7	554.7	1,346.4
1978	419.3	333.4	752.7	1996	100.9	220.8	321.7
1979	744.6	185.0	929.6	1997	118.9	306.3	425.2

<sup>a</sup> Post 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett, 1988). September 15 was assumed to last day of stream entry.

<sup>b</sup> Catches (1970-1997) were updated using historical electronic fish ticket databases.

<sup>c</sup> Personal use or other subsistence fish not included.

Table 36. Pink salmon catch, escapement, and run numbers (in thousands of fish) in the Perryville District, 1962-1997.

Year	Catch <sup>a,b,c</sup>	Escapement	Run	Year	Catch	Escapement	Run
1962	207.4	155.5	362.9	1980	114.6	74.8	189.4
1963	933.6	162.0	1,095.6	1981	224.3	116.0	340.3
1964	122.6	72.0	194.6	1982	18.3	13.4	31.7
1965	644.8	82.0	726.8	1983	113.9	64.5	178.4
1966	88.2	90.0	178.2	1984	0.8	109.8	110.6
1967	5.2	155.3	160.5	1985	42.5	235.2	277.7
1968	196.1	128.7	324.8	1986	161.3	180.5	341.8
1969	1,262.2	218.6	1,480.8	1987	35.3	65.7	101.0
1970	371.4	72.6	444.0	1988	411.2	181.3	592.5
1971	212.1	45.0	257.1	1989	0.0	267.4	267.4
1972	12.0	7.8	19.8	1990	45.4	88.4	133.8
1973	0.0	31.5	31.5	1991	471.9	343.5	815.4
1974	0.0	60.2	60.2	1992	358.2	190.4	548.6
1975	0.0	45.3	45.3	1993	649.1	448.4	1,097.5
1976	105.2	89.3	194.5	1994	84.9	153.9	238.8
1977	44.6	115.4	160.0	1995	681.0	582.1	1,263.1
1978	280.8	157.5	438.3	1996	58.5	395.7	454.2
1979	271.4	181.3	452.7	1997	13.8	221.5	235.3

Table 37. Total pink salmon catch, escapement, and run numbers (in thousands of fish) in the Chignik Management Area, 1962-1997.

Year	Catch <sup>a,b,c</sup>	Escapement	Run	Year	Catch	Escapement	Run
1962	1,519.3	913.1	2,432.4	1980	1,093.2	742.2	1,835.4
1963	1,662.4	706.5	2,368.9	1981	1,162.6	597.9	1,760.5
1964	1,682.5	993.8	2,676.3	1982	873.4	389.3	1,262.7
1965	1,117.1	375.6	1,492.7	1983	321.2	158.8	480.0
1966	683.3	705.4	1,388.7	1984	444.8	1,001.5	1,446.3
1967	108.3	340.0	448.3	1985	160.1	522.2	682.3
1968	1,290.7	817.8	2,108.5	1986	647.1	926.9	1,574.0
1969	1,779.8	767.9	2,547.7	1987	246.8	385.3	632.1
1970	1,157.2	580.6	1,737.8	1988	2,997.2	1,657.9	4,655.1
1971	612.3	417.1	1,029.4	1989	27.7	1,434.8	1,462.5
1972	72.2	41.2	113.4	1990	550.0	1,082.0	1,632.0
1973	25.5	159.1	184.6	1991	1,169.2	778.6	1,947.8
1974	69.6	227.6	297.2	1992	1,554.1	1,826.9	3,381.0
1975	66.2	238.1	304.3	1993	1,648.4	1,181.8	2,830.2
1976	395.3	510.6	905.9	1994	431.1	1,383.5	1,814.6
1977	604.8	749.8	1,354.6	1995	2,058.0	3,432.0	5,490.0
1978	985.1	912.1	1,897.3	1996	183.8	1,956.4	2,140.2
1979	1,905.2	858.8	2,764.0	1997	844.4	2,469.5	3,313.9

<sup>a</sup> Post 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett, 1988). September 15 was the assumed last day of stream entry.

<sup>b</sup> Catches (1970-1997) were updated using historical electronic fish ticket databases.

<sup>c</sup> Does not include personal use or other subsistence fish.

Table 38. Chum salmon catch, escapement, and run numbers (in thousands of fish) in the Chignik Bay District, 1962-1997.

Year	Catch <sup>a,b</sup>	Escapement <sup>c</sup>	Run	Year	Catch <sup>a,b</sup>	Escapement <sup>c</sup>	Run
1962	5.2	6.7	11.9	1980	19.9	0.3	20.2
1963	5.3	0.8	6.1	1981	38.1	0.5	38.6
1964	8.5	2.5	11.0	1982	16.0	1.4	17.4
1965	1.2	3.0	4.2	1983	16.7	0.1	16.8
1966	6.6	4.5	11.1	1984	8.2	0.3	8.5
1967	5.9	4.0	9.9	1985	4.9	0.0	4.9
1968	5.4	1.0	6.4	1986	18.2	0.0	18.2
1969	2.9	1.5	4.4	1987	5.2	0.1	5.3
1970	1.7	21.0	22.7	1988	7.0	15.3	22.3
1971	19.4	7.1	26.5	1989	1.6	4.2	5.8
1972	18.2	3.3	21.5	1990	11.5	1.5	13.0
1973	7.3	0.7	8.0	1991	17.5	0.0	17.5
1974	17.3	2.1	19.4	1992	12.7	0.1	12.8
1975	21.2	2.1	23.3	1993	8.1	0.3	8.4
1976	19.2	2.4	21.6	1994	25.3	1.5	26.8
1977	8.6	2.0	10.6	1995	14.6	10.3	24.9
1978	15.0	2.1	17.1	1996	0.6	16.4	17.0
1979	32.2	1.6	33.8	1997	21.0	18.5	39.5

Table 39. Chum salmon catch, escapement, and run numbers (in thousands of fish) in the Central District, 1962-1997.

Year	Catch <sup>a,b</sup>	Escapement <sup>c</sup>	Run	Year	Catch <sup>a,b</sup>	Escapement <sup>c</sup>	Run
1962	132.0	40.4	172.4	1980	38.9	34.2	73.1
1963	23.1	34.0	57.1	1981	160.7	26.1	186.8
1964	50.3	24.2	74.5	1982	33.7	49.4	83.1
1965	37.8	19.2	57.0	1983	9.8	17.0	26.8
1966	20.9	10.0	30.9	1984	8.2	35.4	43.6
1967	9.9	17.2	27.1	1985	5.2	9.6	14.8
1968	4.2	14.5	18.7	1986	29.5	31.0	60.5
1969	3.2	6.5	9.7	1987	9.4	17.5	26.9
1970	28.6	23.4	52.0	1988	39.3	55.8	95.1
1971	13.7	29.1	42.9	1989	0.0	34.7	34.7
1972	1.6	14.2	15.8	1990	113.7	28.0	141.7
1973	0.2	12.2	14.4	1991	51.4	18.0	69.4
1974	13.5	18.1	31.6	1992	45.5	173.1	218.6
1975	3.2	18.8	22.0	1993	43.0	39.4	82.4
1976	3.4	17.8	21.2	1994	69.6	102.6	172.2
1977	8.9	9.3	18.2	1995	107.1	44.5	151.6
1978	10.3	13.8	24.1	1996	26.1	45.1	71.2
1979	11.4	44.8	56.2	1997	103.4	65.7	169.1

<sup>a</sup> Catches (1970-1997) were updated using historical electronic fish ticket databases.

<sup>b</sup> Personal use or other subsistence fish not included.

<sup>c</sup> Post 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett, 1988). September 15 was assumed to be the last day for stream entry.

Table 40. Chum salmon catch, escapement, and run numbers (in thousands of fish) in the Eastern District, 1962-1997.

Year	Catch <sup>a,b</sup>	Escapement <sup>c</sup>	Run	Year	Catch <sup>a,b</sup>	Escapement <sup>c</sup>	Run
1962	74.7	79.6	154.3	1980	56.8	107.0	163.8
1963	20.5	55.2	75.7	1981	108.7	126.0	234.7
1964	242.7	165.4	408.1	1982	64.5	145.4	209.9
1965	32.4	58.0	90.4	1983	8.3	50.2	58.5
1966	130.1	58.0	188.1	1984	21.1	214.7	235.8
1967	24.4	89.8	114.2	1985	0.9	4.9	5.8
1968	110.1	63.0	173.1	1986	17.9	8.5	26.4
1969	3.7	66.5	70.2	1987	8.9	38.3	47.2
1970	241.1	126.0	367.1	1988	77.5	221.9	299.4
1971	102.3	219.2	321.5	1989	0.0	74.3	74.3
1972	27.7	107.4	135.1	1990	27.5	139.7	167.2
1973	1.2	59.1	60.3	1991	4.9	70.4	75.3
1974	0.3	76.3	76.5	1992	61.2	306.9	368.1
1975	0.0	41.3	41.3	1993	21.4	135.2	156.6
1976	10.0	122.3	132.3	1994	4.3	129.2	133.5
1977	1.5	54.5	56.0	1995	8.0	112.8	120.8
1978	17.5	55.8	73.3	1996	19.7	130.5	150.2
1979	36.1	79.5	115.6	1997	11.4	290.0	301.4

Table 41. Chum salmon catch, escapement, and run numbers (in thousands of fish) in the Western District, 1962-1997.

Year	Catch <sup>a,b</sup>	Escapement <sup>c</sup>	Run	Year	Catch <sup>a,b</sup>	Escapement <sup>c</sup>	Run
1962	134.4	83.1	217.5	1980	91.9	56.5	148.4
1963	44.7	10.0	54.7	1981	221.6	70.3	291.9
1964	21.2	37.0	58.2	1982	253.3	35.4	288.7
1965	36.4	25.0	61.4	1983	102.0	20.1	122.1
1966	73.8	12.0	85.8	1984	25.4	73.8	99.2
1967	33.6	24.0	57.6	1985	10.7	34.6	45.3
1968	90.1	9.6	99.7	1986	74.1	5.3	79.4
1969	36.8	27.6	64.4	1987	86.9	19.7	106.6
1970	139.6	49.7	189.3	1988	102.7	27.4	130.1
1971	177.5	184.1	361.6	1989	0.0	7.4	7.4
1972	18.5	59.0	77.5	1990	91.6	28.8	120.4
1973	0.0	35.6	35.6	1991	98.6	38.1	136.7
1974	3.2	39.4	42.6	1992	65.5	53.3	118.8
1975	0.8	43.4	44.2	1993	25.0	14.0	39.0
1976	33.1	55.0	88.1	1994	94.1	23.0	117.1
1977	88.0	70.4	158.4	1995	158.3	45.7	204.0
1978	46.0	27.3	73.3	1996	36.3	44.5	80.8
1979	82.3	42.5	124.8	1997	17.1	60.5	77.6

<sup>a</sup> Catches (1970-1997) were updated using historical electronic fish ticket databases.

<sup>b</sup> Personal use or other subsistence fish not included.

<sup>c</sup> Post 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett, 1988). September 15 was assumed to be the last day for stream entry.

Table 42. Chum salmon catch, escapement, and run numbers (in thousands of fish) in the Perryville District, 1962-1997.

Year	Catch <sup>a,b</sup>	Escapement <sup>c</sup>	Run	Year	Catch <sup>a,b</sup>	Escapement <sup>c</sup>	Run
1962	17.9	10.5	28.4	1980	45.0	29.1	74.1
1963	19.1	7.0	26.1	1981	51.3	19.3	70.6
1964	10.6	26.0	36.6	1982	22.6	23.6	46.2
1965	12.8	7.0	19.8	1983	22.6	8.2	30.8
1966	7.9	20.4	28.3	1984	0.5	46.0	46.5
1967	1.7	5.7	7.4	1985	1.1	12.9	14.0
1968	14.0	1.8	15.8	1986	37.0	7.7	44.7
1969	21.1	1.0	22.1	1987	16.9	9.8	26.7
1970	26.3	13.0	39.3	1988	41.2	41.4	82.6
1971	40.9	30.0	70.9	1989	0.0	15.9	15.9
1972	12.3	11.5	23.8	1990	25.7	55.8	81.5
1973	0.0	9.3	9.3	1991	88.6	343.2	431.8
1974	0.0	12.5	12.5	1992	37.2	40.3	77.5
1975	0.0	20.5	20.5	1993	24.7	66.8	91.5
1976	15.7	8.9	24.6	1994	34.0	126.0	160.0
1977	3.4	15.4	18.8	1995	93.0	134.6	227.6
1978	32.1	5.3	37.4	1996	17.0	132.0	149.0
1979	26.9	12.8	39.7	1997	3.0	152.8	155.8

Table 43. Total chum salmon catch, escapement, and run numbers (in thousands of fish) in the Chignik Management Area, 1962-1997.

Year	Catch <sup>a,b</sup>	Escapement <sup>c</sup>	Run	Year	Catch <sup>a,b</sup>	Escapement <sup>c</sup>	Run
1962	364.2	220.3	584.5	1980	252.5	227.1	479.6
1963	112.7	107.0	219.7	1981	580.4	242.2	822.6
1964	333.3	255.1	588.4	1982	390.1	255.2	645.3
1965	120.6	112.2	232.8	1983	159.4	95.6	255.0
1966	239.3	104.9	344.2	1984	63.4	370.2	433.6
1967	75.5	140.7	216.2	1985	22.8	62.0	84.8
1968	223.8	89.9	313.7	1986	176.7	52.5	229.2
1969	67.7	103.1	170.8	1987	127.3	85.4	212.7
1970	437.3	233.1	670.4	1988	267.7	361.8	629.5
1971	353.8	469.5	823.3	1989	1.6	136.5	138.1
1972	78.3	195.4	273.7	1990	270.0	253.8	523.8
1973	8.7	116.9	125.6	1991	261.0	469.7	730.7
1974	34.3	148.4	182.7	1992	222.1	573.7	795.8
1975	25.2	126.1	151.3	1993	122.4	255.7	378.1
1976	81.4	206.4	287.8	1994	227.3	382.4	609.7
1977	110.4	151.6	262.0	1995	380.9	347.8	728.7
1978	120.9	104.3	225.2	1996	99.8	368.5	468.3
1979	188.9	181.2	370.1	1997	155.9	587.4	743.3

<sup>a</sup>Catches (1970-1997) were updated using historical electronic fish ticket databases.

<sup>b</sup>Personal use or other subsistence fish not included.

<sup>c</sup>Post 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett, 1988). September 15 was assumed to be the last day for stream entry.

Table 44. Pink salmon return per spawner in the Central and Eastern Districts, 1962-1997.

Even Year Cycle <sup>a,b,c</sup>				Odd Year Cycle <sup>a,b,c</sup>			
Brood Year	Pink Escapement	Return 2-yrs Later	Return/Spawner	Brood Year	Pink Escapement	Return 2-yrs Later	Return/Spawner
1962	485,600	2,060,200	4.2	1963	218,800	225,800	1.0
1964	736,800	768,400	1.0	1965	130,600	123,200	0.9
1966	364,800	1,025,200	2.8	1967	74,600	118,700	1.6
1968	456,400	559,800	1.2	1969	115,600	147,300	1.3
1970	262,400	32,700	0.1	1971	97,800	65,800	0.7
1972	19,000	108,700	5.7	1973	63,000	81,200	1.3
1974	86,000	340,200	4.0	1975	49,900	396,100	7.9
1976	294,800	558,500	1.9	1977	275,900	1,068,100	3.8
1978	410,500	1,106,100	2.7	1979	491,300	614,500	1.3
1980	524,900	497,300	0.9	1981	231,200	73,000	0.3
1982	327,600	685,500	2.1	1983	57,300	242,200	4.2
1984	580,500	796,300	1.4	1985	219,500	291,200	1.3
1986	702,600	2,546,600	3.6	1987	281,300	1,096,000	3.9
1988	1,221,800	1,217,600	1.0	1989	1,096,000	528,100	0.5
1990	943,300	1,930,700	2.0	1991	326,100	943,400	2.9
1992	1,541,900	1,153,400	0.8	1993	685,600	2,593,100	3.8
1994	1,042,200	1,319,700	1.3	1995	2,114,800	2,554,700	1.2
1996	1,296,700			1997	1,882,400		

Table 45. Pink salmon return per spawner in the Western and Perryville Districts, 1962-1997.

Even Year Cycle <sup>a,b,c</sup>				Odd Year Cycle <sup>a,b,c</sup>			
Brood Year	Pink Escapement	Return 2-yrs Later	Return/Spawner	Brood Year	Pink Escapement	Return 2-yrs Later	Return/Spawner
1962	397,500	472,500	1.2	1963	467,000	1,225,400	2.6
1964	237,000	530,700	2.2	1965	234,600	292,000	1.2
1966	269,300	771,700	2.9	1967	259,700	2,387,800	9.2
1968	280,000	1,088,700	3.9	1969	640,600	811,300	1.3
1970	274,600	43,300	0.2	1971	313,800	93,900	0.3
1972	16,400	151,000	9.2	1973	93,900	194,400	2.1
1974	137,600	444,500	3.2	1975	187,000	894,500	4.8
1976	203,500	1,191,000	5.9	1977	470,900	1,382,300	2.9
1978	490,900	545,400	1.1	1979	366,300	1,023,200	2.8
1980	214,300	680,000	3.2	1981	365,300	378,700	1.0
1982	59,300	472,400	8.0	1983	100,500	425,800	4.2
1984	297,800	586,400	2.0	1985	302,700	327,000	1.1
1986	224,300	1,966,300	8.8	1987	104,000	325,300	3.1
1988	413,700	313,900	0.8	1989	325,300	1,331,500	4.1
1990	132,700	1,216,300	9.2	1991	440,300	1,828,800	4.2
1992	229,200	524,900	2.3	1993	494,200	2,609,500	5.3
1994	265,500	775,800	2.9	1995	1,136,700	660,400	0.6
1996	616,500			1997	527,800		

<sup>a</sup>Catches (1970-1997) were updated using historical electronic fish ticket databases.

<sup>b</sup>Personal use or other subsistence fish not included.

<sup>c</sup>Post 1984 escapement estimates computed by area-under-the-curve methodology using

Table 46. Chum salmon return per spawner in the Central and Eastern Districts, 1962-1997.

Brood <sup>a,b,c</sup> Year	Chum Escapement	Return 4-yrs Later	Return/ Spawner	Brood <sup>a,b,c</sup> Year	Chum Escapement	Return 4-yrs Later	Return/ Spawner
1962	120,000	219,000	1.8	1980	141,200	279,400	2.0
1963	89,200	141,300	1.6	1981	152,100	20,600	0.1
1964	189,600	191,800	1.0	1982	194,800	86,900	0.4
1965	77,200	79,900	1.0	1983	67,200	74,100	1.1
1966	68,000	149,400	2.2	1984	250,100	194,500	0.8
1967	107,000	364,400	3.4	1985	14,500	109,000	7.5
1968	77,500	150,900	2.0	1986	39,500	308,900	7.8
1969	73,000	72,700	1.0	1987	55,800	144,700	2.6
1970	149,400	108,700	0.7	1988	277,700	586,700	2.1
1971	248,300	63,300	0.3	1989	109,000	239,000	2.2
1972	121,600	153,500	1.3	1990	167,700	305,700	1.8
1973	71,300	74,200	1.0	1991	88,400	272,400	3.1
1974	94,400	97,400	1.0	1992	480,000	202,300	0.4
1975	60,100	171,800	2.9	1993	174,600	470,400	2.7
1976	140,100	236,900	1.7	1994	231,800		
1977	63,800	421,500	6.6	1995	157,200		
1978	69,600	293,000	4.2	1996	175,400		
1979	124,300	85,300	0.7	1997	355,600		

Table 47. Chum salmon return per spawner in the Western and Perryville Districts, 1962-1997.

Brood <sup>a,b,c</sup> Year	Chum Escapement	Return 4-yrs Later	Return/ Spawner	Brood <sup>a,b,c</sup> Year	Chum Escapement	Return 4-yrs Later	Return/ Spawner
1962	93,600	114,100	1.2	1980	85,600	145,700	1.7
1963	17,000	65,000	3.8	1981	89,600	59,300	0.7
1964	63,000	115,500	1.8	1982	59,000	124,100	2.1
1965	32,000	86,500	2.7	1983	28,300	133,300	4.7
1966	32,400	228,600	7.1	1984	119,800	212,700	1.8
1967	29,700	432,500	14.6	1985	47,500	23,300	0.5
1968	11,400	101,300	8.9	1986	13,000	201,900	15.5
1969	28,600	44,900	1.6	1987	29,500	568,500	19.3
1970	62,700	55,100	0.9	1988	68,800	196,300	2.9
1971	214,100	64,700	0.3	1989	23,300	130,600	5.6
1972	70,500	112,700	1.6	1990	84,600	277,100	3.3
1973	44,900	177,200	3.9	1991	381,300	431,500	1.1
1974	51,900	110,700	2.1	1992	93,600	229,800	2.5
1975	63,900	164,500	2.6	1993	80,800	223,500	2.8
1976	63,900	222,500	3.5	1994	149,000		
1977	85,800	362,500	4.2	1995	180,300		
1978	32,600	334,900	10.3	1996	176,500		
1979	55,300	152,900	2.8	1997	213,300		

<sup>a</sup> Post 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett, 1988). September 15 was assumed to be last day for stream entry.

<sup>b</sup> Catches (1970-1997) were updated using historical electronic fish ticket databases.

<sup>c</sup> Personal use or other subsistence fish are not included.

Table 48. Chinook, sockeye, coho, pink, and chum salmon aerial stream survey counts in the Chignik Management Area, 1997.

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
Boulevard Creek, 271-083									
07/18/1997	David Owen	Stream	G	0	48,000	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Black Lake, 271-084									
07/18/1997	David Owen	Stream	G	0	75,000	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Alec River, 271-085									
07/18/1997	David Owen	Stream	G	0	166,000	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Broad Creek, 271-087									
07/18/1997	David Owen	Stream	G	0	20,000	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Conglomerate Creek, 271-088									
07/18/1997	David Owen	Stream	G	0	8,000	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Cathedral Creek, 271-089									
07/18/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Milk Creek, 271-090									
07/18/1997	David Owen	Stream	G	0	5,000	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Fan Creek, 271-091									
07/18/1997	David Owen	Stream	G	0	60,000	0	0	0	PARTLY CLOUDY - 50 BEARS OBSERVED
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Chiaktiak Creek, 271-092									
07/18/1997	David Owen	Stream	G	0	7,700	0	0	0	PARTLY CLOUDY
		Mouth	G	0	3,000	0	0	0	
		Bay	G	0	0	0	0	0	
07/30/1997	David Owen	Stream	G	0	19,000	0	0	0	FOGGY
		Mouth	G	0	18,000	0	0	0	
		Bay	G	0	0	0	0	0	
08/25/1997	David Owen	Stream	P	0	23,500	0	0	0	
		Mouth	P	0	5,000	0	0	0	
		Bay	P	0	0	0	0	0	
Cucumber Creek, 271-093									
08/25/1997	David Owen	Stream	P	0	500	0	0	0	
		Mouth	P	0	10,000	0	0	0	
		Bay	P	0	0	0	0	0	

-Continued-

Table 48. (page 2 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
09/07/1997	David Owen	Stream	P		600				LAKE AND STREAMS EXTREMELY MUDDY
		Mouth	P						
		Bay	P						
West Fork River, 271-094									
07/18/1997	David Owen	Stream	G	0	3,400	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/30/1997	David Owen	Stream	G	0	9,000	0	0	0	FOGGY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/25/1997	David Owen	Stream	P	0	5,000	0	0	0	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
Bearskin Creek, 271-095									
07/18/1997	David Owen	Stream	G	0	800	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/30/1997	David Owen	Stream	G	0	9,000	0	0	0	FOGGY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/25/1997	David Owen	Stream	P	0	200	0	0	0	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
Hatchery Beach, 271-096									
08/25/1997	David Owen	Stream	P	0	35,000	0	0	0	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
09/07/1997	David Owen	Stream	P		5,000				LAKE AND STREAMS EXTREMELY MUDDY
		Mouth	P						
		Bay	P						
Clark River, 271-097									
08/25/1997	David Owen	Stream	P	0	20,000	0	0	0	
		Mouth	P	0	10,000	0	0	0	
		Bay	P	0	0	0	0	0	
08/30/1997	David Owen	Stream	P	0	20,000	0	0	0	LAKE VERY TURBID
		Mouth	P	0	5,000	0	0	0	
		Bay	P	0	0	0	0	0	
09/07/1997	David Owen	Stream	P		2,000				
		Mouth	P						
		Bay	P						
09/16/1997	David Owen	Stream	E		0				
		Mouth	E		8,000				
		Bay	E		18,000				
Home Creek, 271-099									
08/25/1997	David Owen	Stream	P	0	8,000	0	0	0	LAKE EXTREMELY TURBID
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	

-Continued-

Table 48. (page 3 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/30/1997	David Owen	Stream	P	0	8,000	0	0	0	LAKE VERY TURBID
		Mouth	P	0	5,000	0	0	0	
		Bay	P	0	0	0	0	0	
09/07/1997	David Owen	Stream	P		0				
		Mouth	P						
		Bay	P						
Lake Bay Creek, 271-101b									
07/22/1997	David Owen	Stream	G	0	0	0	0	0	SOLID OVERCAST
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	500	0	
08/07/1997	Dave Sarafin	Stream	F	0	0	0	300	0	
		Mouth	F	0	0	0	15,000	1,000	
		Bay	F	0	0	0	5,000	0	
08/11/1997	Dave Sarafin	Stream	F	0	0	0	5,000	500	POOR VISABILITY
		Mouth	F	0	0	0	15,000	1,000	
		Bay	P	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	4,000	0	
		Mouth	F	0	0	0	50,000	3,000	
		Bay	F	0	0	0	0	0	
08/30/1997	David Owen	Stream	F	0	0	0	2,000	0	
		Mouth	F	0	0	0	20,000	4,000	
		Bay	F	0	0	20	0	0	
Mallard Duck Creek, 271-102									
07/22/1997	David Owen	Stream	G	0	0	0	0	0	SOLID OVERCAST
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/28/1997	David Owen	Stream	G	0	0	0	1,000	5,000	
		Mouth	G	0	0	0	0	5,000	
		Bay	G	0	0	0	0	0	
Marshiniak Creek, 271-102a									
07/22/1997	David Owen	Stream	G	0	0	0	0	0	SOLID OVERCAST
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/28/1997	David Owen	Stream	G	0	0	0	0	500	
		Mouth	G	0	0	0	0	500	
		Bay	G	0	0	0	0	0	
Mud Bay, 271-102c									
07/22/1997	David Owen	Stream	G	0	300	0	0	0	SOLID OVERCAST
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Metrofania Creek, 271-103									
07/22/1997	David Owen	Stream	G	0	0	0	0	120	SOLID OVERCAST
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/27/1997	David Owen	Stream	E	0	0	0	0	1,000	SUNNY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	

-Continued-

Table 48. (page 4 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/28/1997	David Owen	Stream	G	0	0	0	1,000	1,000	
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Alfred Creek, 271-104									
07/15/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/30/1997	David Owen	Stream	G	0	0	0	1,000	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	1,500	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/30/1997	David Owen	Stream	F	0	0	0	4,000	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Frank Creek, 271-105									
07/15/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/30/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	0	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/30/1997	David Owen	Stream	F	0	0	0	12,000	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Through Creek, 271-106									
07/15/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/30/1997	David Owen	Stream	P	0	0	0	2,000	0	FOGGY, RAINY.
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/07/1997	Dave Sarafin	Stream	F	0	0	0	1,500	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	8,000	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/30/1997	David Owen	Stream	F	0	0	0	0	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Jack Creek, 272-100									
08/19/1997	David Owen	Stream	F	0	0	0	0	0	
		Mouth	F	0	0	0	5,000	0	
		Bay	F	0	0	0	0	0	

-Continued-

Table 48. (page 5 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/30/1997	David Owen	Stream	F	0	0	0	0	0	STREAM MOUTH BLOCKED
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	2,000	
Chignik Bay, 272-201									
07/15/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/30/1997	David Owen	Stream	P	0	0	0	10	0	FOGGY, RAINY.
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	0	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/30/1997	David Owen	Stream	F	0	0	0	500	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Chignik Bay, 272-202a									
07/15/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/30/1997	David Owen	Stream	P	0	0	0	500	0	FOGGY, RAINY.
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	3,000	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/30/1997	David Owen	Stream	G	0	0	0	300	0	
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Neketa Creek, 272-202b									
07/15/1997	David Owen	Stream	G	0	0	0	1,000	2,000	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/30/1997	David Owen	Stream	P	0	0	0	100	0	FOGGY, RAINY.
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	50	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Thompson Creek, 272-204									
07/15/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/30/1997	David Owen	Stream	P	0	0	0	5,000	0	FOGGY, RAINY.
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	23,000	200	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	

-Continued-

Table 48. (page 6 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/30/1997	David Owen	Stream	G	0	0	0	26,000	0	
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Mckinsey Creek, 272-205									
07/30/1997	David Owen	Stream	P	0	0	0	0	0	FOGGY, RAINY.
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/07/1997	Dave Sarafin	Stream	F	0	0	0	4,000	500	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/11/1997	Dave Sarafin	Stream	P	0	0	0	0	0	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	0	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/30/1997	David Owen	Stream	G	0	0	0	0	0	
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Dry Creek, 272-206									
07/15/1997	David Owen	Stream	P	0	0	0	0	0	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/07/1997	Dave Sarafin	Stream	F	0	0	0	50	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/11/1997	Dave Sarafin	Stream	P	0	0	0	0	0	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	4,000	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/30/1997	David Owen	Stream	G	0	0	0	2,000	0	
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Hook Creek, 272-302									
07/14/1997	David Owen	Stream	P	0	0	0	0	50	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
07/15/1997	David Owen	Stream	P	0	0	0	0	600	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
07/30/1997	David Owen	Stream	P	0	0	0	500	0	FOGGY, RAINY.
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/07/1997	Dave Sarafin	Stream	F	0	0	0	7,000	500	
		Mouth	F	0	0	0	100	0	
		Bay	F	0	0	0	0	0	

-Continued-

Table 48. (page 7 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/19/1997	David Owen	Stream	F	0	0	200	25,000	2,000	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Kumlium Creek, 272-501									
07/30/1997	David Owen	Stream	G	0	0	0	125,000	0	FOGGY
		Mouth	G	0	0	0	50,000	0	
		Bay	G	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	120,000	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
272-502, 272-502									
07/30/1997	David Owen	Stream	G	0	0	0	0	50	FOGGY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	10,000	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
272-502a, 272-502a									
07/30/1997	David Owen	Stream	G	0	0	0	1,000	0	FOGGY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	500	0	
		Mouth	F	0	0	0	500	0	
		Bay	F	0	0	0	0	0	
Kujulik Bay, 272-504									
07/14/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	0	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Bear Creek, 272-505									
07/14/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	2,000	
		Bay	G	0	0	0	0	0	
07/15/1997	David Owen	Stream	P	0	0	0	0	0	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/11/1997	Dave Sarafin	Stream	P	0	0	0	0	12,000	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	2,000	10,000	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Packer's Creek, 272-506									
07/14/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	1,000	
		Bay	G	0	0	0	0	0	

-Continued-

Table 48. (page 8 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
07/15/1997	David Owen	Stream	P	0	0	0	0	0	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/19/1997	David Owen	Stream	P	0	0	0	0	3,500	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
Kujulik Bay, 272-507 07/15/1997	David Owen	Stream	P	0	0	0	0	200	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/11/1997	Dave Sarafin	Stream	P	0	0	0	0	5,000	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	3,000	5,000	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Kujulik Bay, 272-508 07/14/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	1,000	
		Bay	G	0	0	0	0	0	
07/15/1997	David Owen	Stream	P	0	0	0	0	0	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/13/1997	Dave Sarafin	Stream	F	0	0	0	2,500	1,500	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	5,000	6,000	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Rudy's Creek, 272-509 08/07/1997	Dave Sarafin	Stream	F	0	0	0	4,000	2,000	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/13/1997	Dave Sarafin	Stream	F	0	0	0	3,000	2,000	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	500	
08/19/1997	David Owen	Stream	F	0	0	0	20,000	3,000	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
272-510, 272-510 07/14/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/15/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/07/1997	Dave Sarafin	Stream	F	0	0	0	0	700	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	

-Continued-

Table 48. (page 9 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/13/1997	Dave Sarafin	Stream	F	0	0	0	4,000	0	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	18,000	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Kujulik Bay, 272-511a	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
07/14/1997		Mouth	G	0	0	0	0	1,000	
		Bay	G	0	0	0	0	0	
07/15/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	18,000	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Kujulik Bay, 272-511b	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
07/14/1997		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/15/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	0	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Kujulik Bay, 272-512	David Owen	Stream	P	0	0	0	0	0	PARTLY CLOUDY
07/14/1997		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
07/15/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	2,000	0	
		Mouth	F	0	0	0	5,000	0	
		Bay	F	0	0	0	0	0	
North Fork River, 272-514	David Owen	Stream	P	0	0	0	0	500	PARTLY CLOUDY
07/14/1997		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	1,000	
08/07/1997	Dave Sarafin	Stream	F	0	0	0	5,000	2,500	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/13/1997	Dave Sarafin	Stream	F	0	0	0	7,000	5,000	
		Mouth	F	0	0	0	3,000	5,000	
		Bay	P	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	200	0	33,000	5,000	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	

-Continued-

Table 48. (page 10 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
New Creek, 272-516									
08/19/1997	David Owen	Stream	F	0	0	0	92,000	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Wolverine Creek, 272-602									
08/19/1997	David Owen	Stream	G	0	0	0	35,000	0	
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Village Creek, 272-603									
08/19/1997	David Owen	Stream	F	0	0	0	2,000	0	
		Mouth	F	0	0	0	1,000	0	
		Bay	F	0	0	0	0	0	
Black Creek, 272-604									
07/15/1997	David Owen	Stream	G	0	0	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/19/1997	David Owen	Stream	F	0	0	0	4,000	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
Aniakchak River, 272-605									
07/15/1997	David Owen	Stream	G	0	1,100	0	0	0	PARTLY CLOUDY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/01/1997	David Owen	Stream	G	0	0	0	20,000	7,500	CLEAR
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/01/1997	David Owen	Stream	G	0	0	0	25,000	3,000	CLEAR
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/07/1997	Dave Sarafin	Stream	P	0	0	0	0	200	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/19/1997	David Owen	Stream	P	0	0	0	68,000	0	MOST OF THE PINKS IN NORTH FORK
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
Fred Gungus, 272-606									
07/23/1997	David Owen	Stream	F	0	0	0	200	0	MISTING
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/01/1997	David Owen	Stream	G	0	0	0	2,000	2,500	CLEAR
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	8,000	0	
08/20/1997	David Owen	Stream	P	0	0	0	28,000	0	
		Mouth	P	0	0	0	500	0	
		Bay	P	0	0	0	0	0	
West Creek, 272-701									
07/23/1997	David Owen	Stream	F	0	0	0	200	30	MISTING
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	

-Continued-

Table 48. (page 11 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/01/1997 David Owen	Stream	E	0	0	0	0	0	CLEAR	
	Mouth	E	0	0	0	0	0		
	Bay	E	0	0	0	0	0		
08/13/1997 Dave Sarafin	Stream	F	0	0	0	5,000	0		
	Mouth	P	0	0	0	0	0		
	Bay	P	0	0	0	0	0		
08/20/1997 David Owen	Stream	P	0	0	0	26,000	0		
	Mouth	P	0	0	0	0	0		
	Bay	P	0	0	0	0	0		
Main Creek, 272-702 07/23/1997 David Owen	Stream	F	0	0	0	9,000	5,000	PARTLY CLOUDY	
	Mouth	F	0	0	0	0	0		
	Bay	F	0	0	0	0	0		
08/01/1997 David Owen	Stream	E	0	0	0	19,000	1,000	CLEAR	
	Mouth	E	0	0	0	0	0		
	Bay	E	0	0	0	0	0		
08/13/1997 Dave Sarafin	Stream	F	0	20	0	20,000	10,000		
	Mouth	P	0	0	0	0	0		
	Bay	P	0	0	0	0	0		
08/20/1997 David Owen	Stream	P	0	0	0	70,000	6,000		
	Mouth	P	0	0	0	0	0		
	Bay	P	0	0	0	0	0		
Northeast Creek, 272-703 07/23/1997 David Owen	Stream	F	0	0	0	0	2,500	PARTLY CLOUDY	
	Mouth	F	0	0	0	0	0		
	Bay	F	0	0	0	0	0		
08/01/1997 David Owen	Stream	E	0	0	0	15,000	0	CLEAR	
	Mouth	E	0	0	0	10,000	0		
	Bay	E	0	0	0	20,000	0		
08/13/1997 Dave Sarafin	Stream	F	0	0	0	20,000	7,000		
	Mouth	P	0	0	0	0	0		
	Bay	P	0	0	0	0	0		
08/20/1997 David Owen	Stream	P	0	0	0	54,000	13,000		
	Mouth	P	0	0	0	0	0		
	Bay	P	0	0	0	0	0		
Cape Kunmik, 272-704 07/23/1997 David Owen	Stream	F	0	0	0	0	0	PARTLY CLOUDY	
	Mouth	F	0	0	0	0	0		
	Bay	F	0	0	0	0	0		
08/01/1997 David Owen	Stream	E	0	0	0	0	0	CLEAR	
	Mouth	E	0	0	0	0	0		
	Bay	E	0	0	0	3,000	0		
08/13/1997 Dave Sarafin	Stream	F	0	0	0	5,000	0		
	Mouth	F	0	0	0	0	0		
	Bay	F	0	0	0	0	0		
08/20/1997 David Owen	Stream	P	0	0	0	25,000	0		
	Mouth	P	0	0	0	0	0		
	Bay	P	0	0	0	0	0		

-Continued-

Table 48. (page 12 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
Yantarni Bay, 272-720									
07/23/1997		Stream	F	0	0	0	0	100	PARTLY CLOUDY
	David Owen	Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/01/1997									CLEAR
	David Owen	Stream	E	0	0	0	0	0	
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
08/20/1997									
	David Owen	Stream	P	0	0	0	9,000	0	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
Yantarni Creek, 272-721									
07/23/1997		Stream	F	0	0	0	0	3,000	PARTLY CLOUDY
	David Owen	Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/01/1997									CLEAR
	David Owen	Stream	E	0	0	0	13,000	5,000	
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
08/20/1997									
	David Owen	Stream	P	0	0	0	45,000	6,000	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
Ocean Beach, 272-801									
07/23/1997		Stream	F	0	0	0	2,500	2,500	PARTLY CLOUDY
	David Owen	Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/01/1997									15000F IN BAY AT MOUTH
	David Owen	Stream	E	0	0	0	5,500	1,000	
		Mouth	E	0	0	0	1,500	0	
		Bay	E	0	0	0	0	0	
08/20/1997									
	David Owen	Stream	G	0	0	0	55,000	2,000	
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Ocean Beach (north), 272-802									
07/23/1997		Stream	F	0	0	0	2,000	4,000	PARTLY CLOUDY
	David Owen	Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/01/1997									CLEAR
	David Owen	Stream	E	0	0	0	10,000	4,000	
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
08/13/1997									TOO TURBID TO ESTIMATE FISH AT MOUTH
	Dave Sarafin	Stream	F	0	0	0	7,500	5,000	
		Mouth	P	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/20/1997									
	David Owen	Stream	G	0	200	0	30,000	7,000	
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Nakalilok Bay, 272-803									
07/23/1997		Stream	F	0	0	0	0	0	MISTY
	David Owen	Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	

-Continued-

Table 48. (page 13 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/01/1997 David Owen	Stream	E	0	0	0	0	4,000	CLEAR	
	Mouth	E	0	0	0	0	0		
	Bay	E	0	0	0	0	0		
08/13/1997 Dave Sarafin	Stream	G	0	0	0	2,000	0		
	Mouth	F	0	0	0	0	0		
	Bay	F	0	0	0	0	0		
08/20/1997 David Owen	Stream	P	0	0	0	4,000	1,000		
	Mouth	P	0	0	0	0	0		
	Bay	P	0	0	0	0	0		
Nakalilok River, 272-804 07/23/1997 David Owen	Stream	F	0	0	0	0	4,000	MISTY	
	Mouth	F	0	0	0	0	2,000		
	Bay	F	0	0	0	0	0		
08/01/1997 David Owen	Stream	E	0	0	0	0	0	CLEAR	
	Mouth	E	0	0	0	200	20		
	Bay	E	0	0	0	0	0		
08/13/1997 Dave Sarafin	Stream	G	0	0	0	0	2,000		
	Mouth	G	0	0	0	0	0		
	Bay	F	0	0	0	0	5,000		
08/20/1997 David Owen	Stream	P	0	0	0	50,000	12,000		
	Mouth	P	0	0	0	25,000	50,000		
	Bay	P	0	0	0	0	0		
Nakalilok Bay(north), 272-805 08/01/1997 David Owen	Stream	E	0	0	0	0	0	CLEAR	
	Mouth	E	0	0	0	15,000	0		
	Bay	E	0	0	0	0	0		
08/13/1997 Dave Sarafin	Stream	E	0	0	0	2,000	1,000		
	Mouth	E	0	0	0	2,000	5,000		
	Bay	G	0	0	0	0	10,000		
08/20/1997 David Owen	Stream	P	0	0	0	24,000	1,000		
	Mouth	P	0	0	0	0	0		
	Bay	P	0	0	0	0	0		
272-900, 272-900 07/23/1997 David Owen	Stream	F	0	0	0	0	0	MISTY	
	Mouth	F	0	0	0	0	0		
	Bay	F	0	0	0	0	0		
08/01/1997 David Owen	Stream	E	0	0	0	0	0	CLEAR	
	Mouth	E	0	0	0	15,000	0		
	Bay	E	0	0	0	8,000	0		
08/13/1997 Dave Sarafin	Stream	E	0	0	0	5,000	0		
	Mouth	E	0	0	0	1,000	500		
	Bay	E	0	0	0	0	0		
08/20/1997 David Owen	Stream	G	0	0	0	27,000	0		
	Mouth	G	0	0	0	15,000	0		
	Bay	G	0	0	0	0	0		
Cape Kuyuyukak, 272-901 07/23/1997 David Owen	Stream	F	0	0	0	0	0	MISTY	
	Mouth	F	0	0	0	0	0		
	Bay	F	0	0	0	0	0		

-Continued-

Table 48. (page 14 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/01/1997	David Owen	Stream	E	0	0	0	0	0	CLEAR
		Mouth	E	0	0	0	2,000	0	
		Bay	E	0	0	0	3,000	0	
08/13/1997	Dave Sarafin	Stream	E	0	0	0	7,000	0	
		Mouth	E	0	0	0	5,000	0	
		Bay	E	0	0	0	0	0	
08/20/1997	David Owen	Stream	G	0	0	0	17,000	0	
		Mouth	G	0	0	0	8,000	0	
		Bay	G	0	0	0	0	0	
Cape Kuyuyukak, 272-902									
07/23/1997	David Owen	Stream	F	0	0	0	0	500	MISTY
		Mouth	F	0	0	0	0	1,000	
		Bay	F	0	0	0	0	0	
08/01/1997	David Owen	Stream	E	0	0	0	0	0	CLEAR
		Mouth	E	0	0	0	10,000	0	
		Bay	E	0	0	0	15,000	0	
08/13/1997	Dave Sarafin	Stream	G	0	0	0	30,000	0	
		Mouth	G	0	0	0	20,000	0	
		Bay	G	0	0	0	2,000	0	
08/20/1997	David Owen	Stream	G	0	0	0	64,000	0	
		Mouth	G	0	0	0	30,000	0	
		Bay	G	0	0	0	0	0	
Chiginagak River, 272-903									
08/01/1997	David Owen	Stream	E	0	0	0	0	0	CLEAR
		Mouth	E	0	0	0	7,500	0	
		Bay	E	0	0	0	3,500	0	
08/20/1997	David Owen	Stream	P	0	0	0	0	0	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
Chiginagak River, 272-903a									
07/23/1997	David Owen	Stream	F	0	0	0	1,000	12,000	CLEAR
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/01/1997	David Owen	Stream	E	0	0	0	2,500	3,500	CLEAR
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
08/13/1997	Dave Sarafin	Stream	G	0	0	0	40,000	30,000	
		Mouth	F	0	0	0	5,000	0	
		Bay	P	0	0	0	0	0	
08/20/1997	David Owen	Stream	P	0	0	0	39,000	20,000	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
Chiginagak Bay, 272-903b									
07/23/1997	David Owen	Stream	F	0	0	0	0	0	CLEAR
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/01/1997	David Owen	Stream	E	0	0	0	200	0	CLEAR
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	

-Continued-

Table 48. (page 15 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/20/1997	David Owen	Stream	P	0	0	0	25,000	1,000	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
Chiginagak Bay, 272-904									
08/01/1997	David Owen	Stream	E	0	0	0	450	0	CLEAR
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	1,000	0	
08/13/1997	Dave Sarafin	Stream	G	0	0	0	12,000	2,000	
		Mouth	G	0	0	0	10,000	2,000	
		Bay	F	0	0	0	0	0	
08/20/1997	David Owen	Stream	G	0	0	0	35,000	5,000	
		Mouth	G	0	0	0	0	5,000	
		Bay	G	0	0	0	0	0	
Chiginagak Bay, 272-905									
07/23/1997	David Owen	Stream	F	0	0	0	0	2,000	CLEAR
		Mouth	F	0	0	0	2,000	0	
		Bay	F	0	0	0	0	0	
08/01/1997	David Owen	Stream	E	0	0	0	3,500	0	CLEAR
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	1,500	0	
Chiginagak Bay, 272-906									
07/23/1997	David Owen	Stream	F	0	0	0	1,000	2,000	CLEAR
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/13/1997	Dave Sarafin	Stream	G	0	0	0	35,000	1,000	
		Mouth	G	0	0	0	5,000	0	
		Bay	F	0	0	0	5,000	6,000	
08/20/1997	David Owen	Stream	G	0	0	0	32,000	0	
		Mouth	G	0	0	0	35,000	0	
		Bay	G	0	0	0	0	0	
Chiginagak Bay, 272-907									
07/23/1997	David Owen	Stream	F	0	0	0	20	0	CLEAR
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/01/1997	David Owen	Stream	E	0	0	0	0	0	CLEAR
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
08/13/1997	Dave Sarafin	Stream	G	0	0	0	2,000	0	
		Mouth	F	0	0	0	1,000	0	
		Bay	P	0	0	0	0	0	
08/20/1997	David Owen	Stream	G	0	0	0	3,000	0	
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Port Wrangell Bay, 272-921									
07/23/1997	David Owen	Stream	F	0	0	0	0	0	CLEAR
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	

-Continued-

Table 48. (page 16 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/13/1997	Dave Sarafin	Stream	E	0	20	0	3,000	0	EXTREMELY TURBID STREAM
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	1,500	0	
08/20/1997	David Owen	Stream	P	0	1,000	0	6,000	2,000	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
Port Wrangell Bay, 272-922									
07/23/1997	David Owen	Stream	F	0	0	0	0	0	CLEAR
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/13/1997	Dave Sarafin	Stream	E	0	0	0	2,500	0	
		Mouth	E	0	0	0	1,500	0	
		Bay	E	0	0	0	0	0	
08/20/1997	David Owen	Stream	G	0	0	0	3,000	0	
		Mouth	G	0	0	0	10,000	0	
		Bay	G	0	0	0	0	0	
Cape Providence, 272-923									
07/23/1997	David Owen	Stream	F	0	0	0	0	0	CLEAR
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/13/1997	Dave Sarafin	Stream	E	0	0	0	0	0	
		Mouth	E	0	0	0	2,000	0	
		Bay	E	0	0	0	3,000	0	
08/20/1997	David Owen	Stream	G	0	0	0	3,000	0	
		Mouth	G	0	0	0	8,000	0	
		Bay	G	0	0	0	0	0	
Agripina Lake, 272-961a									
07/23/1997	David Owen	Stream	F	0	0	0	3,000	0	CLEAR, FISH MAY BE CHUMS
		Mouth	F	0	0	0	10,000	0	
		Bay	F	0	0	0	0	0	
08/13/1997	Dave Sarafin	Stream	E	0	0	0	20,000	0	
		Mouth	E	0	0	0	10,000	0	
		Bay	E	0	0	0	10,000	0	
08/20/1997	David Owen	Stream	G	0	200	0	45,000	3,000	
		Mouth	G	0	0	0	0	50,000	
		Bay	G	0	0	0	0	0	
Agripina Slough, 272-961b									
07/23/1997	David Owen	Stream	F	0	0	0	3,000	0	CLEAR
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/13/1997	Dave Sarafin	Stream	F	0	100	0	7,000	0	
		Mouth	G	0	0	0	200	0	
		Bay	G	0	0	0	0	0	
08/20/1997	David Owen	Stream	G	0	500	0	2,000	0	
		Mouth	G	0	0	0	0	500	
		Bay	G	0	0	0	0	0	

-Continued-

Table 48. (page 17 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
Glacier Creek, 272-962									
07/23/1997	David Owen	Stream	P		0	0	0	0	
		Mouth	P		0	0	0	0	
		Bay	P		0	0	0	0	
08/13/1997	Dave Sarafin	Stream	F	0	0	0	2,000	0	
		Mouth	F	0	0	0	2,000	10,000	
		Bay	P	0	0	0	0	5,000	
08/20/1997	David Owen	Stream	P	0	0	0	4,000	1,000	
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
Glacier Creek, 272-962a									
07/23/1997	David Owen	Stream	F	0	0	0	0	0	CLEAR
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/13/1997	Dave Sarafin	Stream	E	0	0	0	0	0	
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
08/20/1997	David Owen	Stream	G	0	0	0	0	4,500	
		Mouth	G	0	0	0	0	7,000	
		Bay	G	0	0	0	0	0	
Kilokak Creek, 272-963									
07/23/1997	David Owen	Stream	F	0	0	0	0	0	CLEAR
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/13/1997	Dave Sarafin	Stream	E	0	0	0	8,000	0	
		Mouth	E	0	0	0	20,000	0	
		Bay	E	0	0	0	0	0	
08/20/1997	David Owen	Stream	G	0	0	0	29,000	0	
		Mouth	G	0	0	0	25,000	0	
		Bay	G	0	0	0	0	0	
Red Bluff Creek, 273-702									
07/05/1997	David Owen	Stream	E	0	0	0	0	0	PARTLY CLOUDY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
07/14/1997	David Owen	Stream	P	0	0	0	0	0	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
07/17/1997	David Owen	Stream	P	0	0	0	5,000	0	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
07/22/1997	David Owen	Stream	G	0	0	0	6,000	0	RAINY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/27/1997	David Owen	Stream	E	0	0	0	18,000	1,000	SUNNY
		Mouth	E	0	0	0	1,000	0	
		Bay	E	0	0	0	0	0	
07/31/1997	David Owen	Stream	P	0	0	0	23,000	500	RAINY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	

-Continued-

Table 48. (page 18 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/04/1997	David Owen	Stream	P	0	0	0	11,000	0	CLOUDY-FOGGY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/07/1997	Dave Sarafin	Stream	F	0	0	0	16,000	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/16/1997	David Owen	Stream	P	0	0	0	8,000	0	VISABILITY VERY POOR, RAINY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/28/1997	David Owen	Stream	G	0	0	0	58,000	2,000	
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Mitrofanina Bay, 273-720									
07/22/1997	David Owen	Stream	G	0	0	0	0	0	RAINY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/27/1997	David Owen	Stream	E	0	0	0	0	0	SUNNY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
08/16/1997	David Owen	Stream	P	0	0	0	20	0	EXTEMELY MUDDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/28/1997	David Owen	Stream	G	0	0	0	3,000	0	
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Ivan River, 273-722									
07/05/1997	David Owen	Stream	E	0	0	0	7	0	PARTLY CLOUDY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
07/17/1997	David Owen	Stream	P	0	0	0	0	0	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
07/22/1997	David Owen	Stream	G	0	0	0	0	0	RAINY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/27/1997	David Owen	Stream	E	0	0	0	12,000	1,000	SUNNY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
07/31/1997	David Owen	Stream	P	0	0	0	16,000	1,500	RAINY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/04/1997	David Owen	Stream	P	0	0	0	17,000	1,000	CLOUDY-FOGGY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/07/1997	Dave Sarafin	Stream	F	0	0	0	16,000	12,000	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	

-Continued-

Table 48. (page 19 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/16/1997 David Owen	Stream	P		0	0	0	30,000	5,000	
	Mouth	P		0	0	0	0	0	
	Bay	P		0	0	0	0	0	
08/28/1997 David Owen	Stream	G	0	0	0	92,000	4,000		
	Mouth	G	0	0	0	0	0	0	
	Bay	G	0	0	0	0	0	0	
Fishrack Bay, 273-723 07/05/1997 David Owen	Stream	E	0	0	0	0	0	0	PARTLY CLOUDY
	Mouth	E	0	0	0	0	0	0	
	Bay	E	0	0	0	0	0	0	
07/17/1997 David Owen	Stream	P	0	0	0	0	1		PARTLY CLOUDY
	Mouth	P	0	0	0	0	0		
	Bay	P	0	0	0	0	0		
07/22/1997 David Owen	Stream	G	0	0	0	0	0	0	RAINY
	Mouth	G	0	0	0	0	0	0	
	Bay	G	0	0	0	0	0	0	
07/27/1997 David Owen	Stream	E	0	0	0	0	2		SUNNY
	Mouth	E	0	0	0	0	0	0	
	Bay	E	0	0	0	50	0		
07/31/1997 David Owen	Stream	P	0	0	0	4	4		RAINY
	Mouth	P	0	0	0	0	0		
	Bay	P	0	0	0	0	0		
08/04/1997 David Owen	Stream	P	0	0	0	50	0		CLOUDY-FOGGY
	Mouth	P	0	0	0	50	0		
	Bay	P	0	0	0	0	0		
08/16/1997 David Owen	Stream	F		0	0	2,000	0		
	Mouth	F		0	0	0	0		
	Bay	F		0	0	0	0		
08/28/1997 David Owen	Stream	G	0	0	0	15,000	0		
	Mouth	G	0	0	0	10,000	0		
	Bay	G	0	0	0	0	0		
Foot Creek, 273-802 07/22/1997 David Owen	Stream	G	0	0	0	0	0		SOLID OVERCAST
	Mouth	G	0	0	0	0	0		
	Bay	G	0	0	0	0	0		
07/27/1997 David Owen	Stream	E	0	0	0	0	0		SUNNY
	Mouth	E	0	0	0	0	50		
	Bay	E	0	0	0	0	0		
07/31/1997 David Owen	Stream	P	0	0	0	0	0		RAINY
	Mouth	P	0	0	0	0	0		
	Bay	P	0	0	0	0	0		
08/16/1997 David Owen	Stream	P		0	0	0	0		
	Mouth	P		0	0	0	0		
	Bay	P		0	0	0	0		
08/28/1997 David Owen	Stream	G	0	0	0	1,000	0		
	Mouth	G	0	0	0	5,000	0		
	Bay	G	0	0	0	0	0		

-Continued-

Table 48. (page 20 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
Windy Creek, 273-821									
07/27/1997	David Owen	Stream	E	0	0	0	0	5	SUNNY
		Mouth	E	0	0	0	0	30	
		Bay	E	0	0	0	0	0	
08/16/1997	David Owen	Stream	P		0	0	0	0	
		Mouth	P		0	0	0	0	
		Bay	P		0	0	0	0	
08/28/1997	David Owen	Stream	G	0	0	0	500	0	
		Mouth	G	0	0	0	500	0	
		Bay	G	0	0	0	0	0	
273-822, 273-822									
07/31/1997	David Owen	Stream	P	0	0	0	0	1	RAINY
		Mouth	P	0	0	0	0	1	
		Bay	P	0	0	0	0	0	
08/28/1997	David Owen	Stream	G	0	0	0	3,000	500	
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Spoon Creek, 273-823									
07/05/1997	David Owen	Stream	E	0	0	0	0	0	PARTLY CLOUDY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
07/22/1997	David Owen	Stream	G	0	0	0	0	0	SOLID OVERCAST
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/27/1997	David Owen	Stream	E	0	0	0	0	0	SUNNY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
07/31/1997	David Owen	Stream	P	0	0	0	0	0	RAINY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/04/1997	David Owen	Stream	P	0	0	0	0	0	CLOUDY-FOGGY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/07/1997	Dave Sarafin	Stream	F	0	0	0	0	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/16/1997	David Owen	Stream	P		0	0	300	0	
		Mouth	P		0	0	750	0	
		Bay	P		0	0	0	0	
Portage Creek, 273-842									
07/14/1997	David Owen	Stream	P	0	0	0	0	50	PARTLY CLOUDY
		Mouth	P	0	0	0	0	50	
		Bay	P	0	0	0	0	0	
07/22/1997	David Owen	Stream	G	0	0	0	0	3	SOLID OVERCAST
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/27/1997	David Owen	Stream	E	0	0	0	0	100	SUNNY
		Mouth	E	0	0	0	0	4,000	
		Bay	E	0	0	0	0	1,500	

-Continued-

Table 48. (page 21 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
07/31/1997 David Owen	Stream	P	0	0	0	0	0	RAINY	
	Mouth	P	0	0	0	0	10,000		
	Bay	P	0	0	0	0	0		
08/03/1997 David Owen	Stream	P	0	0	0	500	500	CLOUDY, FOGGY	
	Mouth	P	0	0	0	0	8,000		
	Bay	P	0	0	0	0	0		
08/07/1997 Dave Sarafin	Stream	F	0	0	0	500	800		
	Mouth	F	0	0	0	0	11,000		
	Bay	F	0	0	0	0	0		
08/16/1997 David Owen	Stream	G	0	0	0	2,000	5,000		
	Mouth	G	0	0	0	0	20,000		
	Bay	G	0	0	0	0	0		
08/28/1997 David Owen	Stream	G	0	0	0	1,000	15,000		
	Mouth	G	0	0	0	0	20,000		
	Bay	G	0	0	0	0	0		
Seal Bay, 273-843 07/05/1997 David Owen	Stream	E	0	0	0	0	0	PARTLY CLOUDY	
	Mouth	E	0	0	0	0	0		
	Bay	E	0	0	0	0	0		
07/14/1997 David Owen	Stream	P	0	0	0	0	0	PARTLY CLOUDY	
	Mouth	P	0	0	0	0	200		
	Bay	P	0	0	0	0	0		
07/22/1997 David Owen	Stream	G	0	0	0	0	0	SOLID OVERCAST	
	Mouth	G	0	0	0	0	0		
	Bay	G	0	0	0	0	0		
07/27/1997 David Owen	Stream	E	0	0	0	0	0	SUNNY	
	Mouth	E	0	0	0	0	500		
	Bay	E	0	0	0	0	2,000		
07/31/1997 David Owen	Stream	P	0	0	0	0	0	RAINY	
	Mouth	P	0	0	0	0	0		
	Bay	P	0	0	0	0	0		
08/03/1997 David Owen	Stream	P	0	0	0	0	500	CLOUDY, FOGGY	
	Mouth	P	0	0	0	0	0		
	Bay	P	0	0	0	0	0		
08/16/1997 David Owen	Stream	P		0	0	0	1,000		
	Mouth	P		0	0	10,000	0		
	Bay	P		0	0	0	0		
08/28/1997 David Owen	Stream	G	0	0	0	15,000	1,000		
	Mouth	G	0	0	0	15,000	0		
	Bay	G	0	0	0	0	0		
Seal Bay, 273-844 07/22/1997 David Owen	Stream	G	0	0	0	0	0	SOLID OVERCAST	
	Mouth	G	0	0	0	0	0		
	Bay	G	0	0	0	0	0		
07/27/1997 David Owen	Stream	E	0	0	0	0	0	SUNNY	
	Mouth	E	0	0	0	0	0		
	Bay	E	0	0	0	0	0		

-Continued-

Table 48. (page 22 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks							
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum								
07/31/1997	David Owen	Stream	P	0	0	0	0	0	RAINY							
		Mouth	P	0	0	0	0	0								
		Bay	P	0	0	0	0	0								
08/03/1997	David Owen	Stream	P	0	0	0	0	0	CLOUDY, FOGGY							
		Mouth	P	0	0	0	0	0								
		Bay	P	0	0	0	0	0								
08/16/1997	David Owen	Stream	P		0	0	0	25								
		Mouth	P		0	0	0	0								
		Bay	P		0	0	0	0								
08/28/1997	David Owen	Stream	G	0	0	0	10,000	0								
		Mouth	G	0	0	0	500	0								
		Bay	G	0	0	0	0	0								
Dog Bay, 273-845																
07/22/1997	David Owen									Stream	G	0	0	0	0	SOLID OVERCAST
										Mouth	G	0	0	0	0	
		Bay	G	0	0	0	0									
07/31/1997	David Owen	Stream	P	0	0	0	0	20	RAINY							
		Mouth	P	0	0	0	0	0								
		Bay	P	0	0	0	0	0								
08/03/1997	David Owen	Stream	P	0	0	0	0	200	CLOUDY, FOGGY							
		Mouth	P	0	0	0	0	0								
		Bay	P	0	0	0	0	200								
08/16/1997	David Owen	Stream	G	0	0	0	0	500								
		Mouth	G	0	0	0	0	0								
		Bay	G	0	0	0	0	0								
08/28/1997	David Owen	Stream	G	0	0	0	5,000	3,000								
		Mouth	G	0	0	0	1,000	0								
		Bay	G	0	0	0	0	0								
Castle Creek, 273-941																
07/22/1997	David Owen									Stream	G	0	0	0	0	SOLID OVERCAST
										Mouth	G	0	0	0	0	
		Bay	G	0	0	0	0									
08/19/1997	David Owen	Stream	F	0	0	0	2,000	50								
		Mouth	F	0	0	0	6,000	2,000								
		Bay	F	0	0	0	0	0								
08/30/1997	David Owen	Stream	G	0	0	0	500	2,000								
		Mouth	G	0	0	0	10,000	0								
		Bay	G	0	0	0	0	0								
Hag Creek, 275-400																
07/27/1997	David Owen									Stream	E	0	0	0	0	SUNNY
										Mouth	E	0	0	0	0	
		Bay	E	0	0	0	0									
08/12/1997	Dave Sarafin	Stream	F	0	0	0	0	0	2000 FT CEILING. FISH AT MOUTH COULD HAVE BEEN PINKS. DRIFTWOOD LOG JAM BLOCKING MOUTH.							
		Mouth	P	0	0	0	0	5,000								
		Bay	P	0	0	0	0	0								

-Continued-

Table 48. (page 23 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/16/1997	David Owen	Stream	E	0	0	0	0	0	
		Mouth	E	0	0	0	6,000	0	
		Bay	E	0	0	0	0	0	
08/28/1997	David Owen	Stream	G	0	0	0	2,500	0	
		Mouth	G	0	0	0	7,000	0	
		Bay	G	0	0	0	0	0	
Kupreanof Peninsula, 275-401									
07/27/1997	David Owen	Stream	E	0	0	0	0	50	SUNNY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
08/12/1997	Dave Sarafin	Stream	G	0	0	0	0	1,000	2000 FT CEILING.
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/16/1997	David Owen	Stream	E	0	0	0	14,000	0	
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
08/28/1997	David Owen	Stream	G	0	0	0	22,000	500	
		Mouth	G	0	0	0	2,000	0	
		Bay	G	0	0	0	0	0	
Smokey Hollow Creek, 275-402									
07/05/1997	David Owen	Stream	E	0	0	0	0	200	BROKEN 7000
		Mouth	E	0	0	0	0	200	
		Bay	E	0	0	0	0	0	
07/14/1997	David Owen	Stream	P	0	0	0	0	200	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
07/17/1997	David Owen	Stream	P	0	0	0	0	400	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
07/22/1997	David Owen	Stream	G	0	0	0	0	500	SOLID OVERCAST
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/27/1997	David Owen	Stream	E	0	0	0	0	100	SUNNY
		Mouth	E	0	0	0	0	500	
		Bay	E	0	0	0	0	0	
07/31/1997	David Owen	Stream	P	0	0	0	0	500	RAINY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/04/1997	David Owen	Stream	P	0	0	0	0	500	CLOUDY-FOGGY
		Mouth	P	0	0	0	500	0	
		Bay	P	0	0	0	0	0	
08/07/1997	Dave Sarafin	Stream	F	0	0	0	0	200	
		Mouth	F	0	0	0	0	2,000	
		Bay	F	0	0	0	0	0	
08/12/1997	Dave Sarafin	Stream	F	0	0	0	50	500	2000 FT CEILING.
		Mouth	F	0	0	0	0	500	
		Bay	P	0	0	0	0	0	

-Continued-

Table 48. (page 24 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
08/16/1997	David Owen	Stream	E	0	0	0	700	200	
		Mouth	E	0	0	0	5,000	500	
		Bay	E	0	0	0	0	0	
08/28/1997	David Owen	Stream	G	0	0	0	4,000	2,000	
		Mouth	G	0	0	0	0	5,000	
		Bay	G	0	0	0	0	0	
Ivanof Bay, 275-403		Stream	E	0	0	0	0	0	SUNNY
07/27/1997	David Owen		Mouth	E	0	0	0	0	
			Bay	E	0	0	0	0	
07/31/1997	David Owen	Stream	P	0	0	0	0	0	RAINY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
Wasco's Creek, 275-404		Stream	E	0	0	0	0	0	BROKEN 7000
07/05/1997	David Owen		Mouth	E	0	0	0	0	
			Bay	E	0	0	0	0	
07/17/1997	David Owen	Stream	P	0	0	0	0	0	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
07/22/1997	David Owen	Stream	G	0	0	0	0	0	SOLID OVERCAST - 2 JUMPERS
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/27/1997	David Owen	Stream	E	0	0	0	0	0	SUNNY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
07/31/1997	David Owen	Stream	P	0	0	0	0	0	RAINY
		Mouth	P	0	0	0	25	0	
		Bay	P	0	0	0	0	0	
08/04/1997	David Owen	Stream	P	0	0	0	0	0	CLOUDY-FOGGY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/07/1997	Dave Sarafin	Stream	F	0	0	0	0	0	
		Mouth	F	0	0	0	0	100	
		Bay	F	0	0	0	0	0	
08/12/1997	Dave Sarafin	Stream	P	0	0	0	0	0	2000 FT CEILING. HIGH WATER, MUDDY.
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/16/1997	David Owen	Stream	E	0	0	0	2,000	0	
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
08/28/1997	David Owen	Stream	G	0	0	0	8,000	0	
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	

-Continued-

Table 48. (page 25 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
Sunnyside Creek, 275-405									
07/27/1997		Stream	E	0	0	0	0	0	SUNNY
	David Owen	Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
Ivanof River, 275-406									
07/05/1997		Stream	E	0	0	0	0	4,500	BROKEN 7000
	David Owen	Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	1,000	
07/14/1997		Stream	P	0	0	0	0	6,000	PARTLY CLOUDY
	David Owen	Mouth	P	0	0	0	0	10,000	
		Bay	P	0	0	0	0	0	
07/17/1997		Stream	P	0	0	0	0	26,000	PARTLY CLOUDY
	David Owen	Mouth	P	0	0	0	0	2,000	
		Bay	P	0	0	0	0	5,000	
07/22/1997		Stream	F	0	0	0	0	5,000	SOLID OVERCAST
	David Owen	Mouth	F	0	0	0	0	200	
		Bay	F	0	0	0	0	0	
07/27/1997		Stream	E	0	0	0	500	7,000	SUNNY, NEW FISH
	David Owen	Mouth	E	0	0	0	0	3,000	
		Bay	E	0	0	0	0	6,000	
07/31/1997		Stream	P	0	0	0	0	1,000	RAINY
	David Owen	Mouth	P	0	0	0	0	6,000	
		Bay	P	0	0	0	0	0	
08/04/1997		Stream	P	0	0	0	2,000	15,000	CLOUDY-FOGGY
	David Owen	Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	10,000	0	
08/07/1997		Stream	F	0	0	0	1,500	3,000	
	Dave Sarafin	Mouth	F	0	0	0	0	5,000	
		Bay	F	0	0	0	0	15,000	
08/12/1997		Stream	P	0	0	0	0	5,000	2000 FT CEILING. POOR VIS. CAN'T PROVIDE AN ACCURATE ESTIMATE.
	Dave Sarafin	Mouth	P	0	0	0	0	5,000	
		Bay	P	0	0	0	0	0	
08/16/1997		Stream	E	0	0	0	19,000	11,000	
	David Owen	Mouth	E	0	0	0	1,000	1,000	
		Bay	E	0	0	0	0	70,000	
08/28/1997		Stream	G	0	0	0	35,000	56,000	
	David Owen	Mouth	G	0	0	0	30,000	50,000	
		Bay	G	0	0	0	0	0	
Wolverine Cove, 275-408									
07/22/1997		Stream	G	0	0	0	0	0	RAINY
	David Owen	Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/27/1997		Stream	E	0	0	0	0	0	SUNNY
	David Owen	Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
07/31/1997		Stream	P	0	0	0	0	0	RAINY
	David Owen	Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	

-Continued-

Table 48. (page 26 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks					
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum						
08/04/1997	David Owen	Stream	P	0	0	0	0	0	PARTLY CLOUDY - FOGGY					
		Mouth	P	0	0	0	25	0						
		Bay	P	0	0	0	1,000	0						
08/12/1997	Dave Sarafin	Stream	P	0	0	0	0	200	2000 FT CEILING.					
		Mouth	P	0	0	0	0	1,000						
		Bay	P	0	0	0	0	600						
08/16/1997	David Owen	Stream	E	0	0	0	750	0						
		Mouth	E	0	0	0	3,000	0						
		Bay	E	0	0	0	0	0						
08/28/1997	David Owen	Stream	G	0	0	0	4,000	0						
		Mouth	G	0	0	0	500	0						
		Bay	G	0	0	0	0	0						
Humpback Creek, 275-502		Stream	G	0	0	0	0	0	BROKEN 7000 FT. CEILING					
07/05/1997	Mouth									G	0	0	0	0
David Owen	Bay									G	0	0	0	0
07/14/1997	David Owen	Stream	P	0	0	0	200	0	PARTLY CLOUDY					
		Mouth	P	0	0	0	0	0						
		Bay	P	0	0	0	0	0						
07/17/1997	David Owen	Stream	P	0	0	0	1,000	0	PARTLY CLOUDY					
		Mouth	P	0	0	0	0	0						
		Bay	P	0	0	0	0	0						
07/22/1997	David Owen	Stream	G	0	0	0	1,000	100	SOLID OVERCAST					
		Mouth	G	0	0	0	0	0						
		Bay	G	0	0	0	0	0						
07/27/1997	David Owen	Stream	E	0	0	0	3,000	200	SUNNY					
		Mouth	E	0	0	0	0	0						
		Bay	E	0	0	0	0	0						
07/31/1997	David Owen	Stream	P	0	0	0	3,000	0	RAINY					
		Mouth	P	0	0	0	30,000	0						
		Bay	P	0	0	0	0	0						
08/04/1997	David Owen	Stream	P	0	0	0	4,000	0	CLOUDY - FOGGY					
		Mouth	P	0	0	0	0	0						
		Bay	P	0	0	0	2,000	1						
08/07/1997	Dave Sarafin	Stream	F	0	0	0	5,000	0						
		Mouth	F	0	0	0	0	0						
		Bay	F	0	0	0	4,000	0						
08/12/1997	Dave Sarafin	Stream	P	0	0	0	0	0	2000 FT CEILING. LT. RAIN. RISING TIDE VIS. TOO POOR TO EST.					
		Mouth	P	0	0	0	0	0						
		Bay	P	0	0	0	0	0						
08/16/1997	David Owen	Stream	E	0	0	0	22,000	0						
		Mouth	E	0	0	0	0	0						
		Bay	E	0	0	0	5,000	0						
08/28/1997	David Owen	Stream	G	0	0	0	46,000	6,000						
		Mouth	G	0	0	0	0	0						
		Bay	G	0	0	0	0	0						

-Continued-

Table 48. (page 27 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
Humpback Bay, 275-503									
07/05/1997	David Owen	Stream	G	0	0	0	0	0	BROKEN 7000 FT. CEILING
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/22/1997	David Owen	Stream	G	0	0	0	0	0	SOLID OVERCAST
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
08/04/1997	David Owen	Stream	P	0	0	0	0	0	CLOUDY-FOGGY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/16/1997	David Owen	Stream	E	0	0	0	0	0	
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
08/28/1997	David Owen	Stream	G	0	0	0	50	0	
		Mouth	G	0	0	0	1,000	0	
		Bay	G	0	0	0	0	0	
Humpback Bay Creek, 275-504									
07/05/1997	David Owen	Stream	E	0	0	0	0	0	BROKEN 7000 FT. CEILING
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
07/17/1997	David Owen	Stream	P	0	0	0	0	0	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
07/22/1997	David Owen	Stream	G	0	0	0	0	0	SOLID OVERCAST
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/27/1997	David Owen	Stream	E	0	0	0	0	0	SUNNY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
07/31/1997	David Owen	Stream	P	0	0	0	0	0	RAINY
		Mouth	P	0	0	0	2,000	0	
		Bay	P	0	0	0	0	0	
08/04/1997	David Owen	Stream	P	0	0	0	0	0	CLOUDY-FOGGY
		Mouth	P	0	0	0	25	0	
		Bay	P	0	0	0	2,000	0	
08/16/1997	David Owen	Stream	E	0	0	0	500	0	
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
Alexander Point, 275-505									
07/05/1997	David Owen	Stream	E	0	0	0	0	10	BROKEN 7000 FT. CEILING
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
07/17/1997	David Owen	Stream	P	0	0	0	0	0	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
07/22/1997	David Owen	Stream	G	0	0	0	0	0	RAINY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	

-Continued-

Table 48. (page 28 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
07/27/1997	David Owen	Stream	E	0	0	0	0	0	SUNNY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
07/31/1997	David Owen	Stream	P	0	0	0	0	0	RAINY
		Mouth	P	0	0	0	1,200	0	
		Bay	P	0	0	0	0	0	
08/04/1997	David Owen	Stream	P	0	0	0	0	0	CLOUDY-FOGGY
		Mouth	P	0	0	0	25	0	
		Bay	P	0	0	0	1,000	0	
08/07/1997	Dave Sarafin	Stream	F	0	0	0	300	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/12/1997	Dave Sarafin	Stream	F	0	0	0	1,000	200	2000 FT CEILING.
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/16/1997	David Owen	Stream	E	0	0	0	2,000	0	
		Mouth	E	0	0	0	1,000	0	
		Bay	E	0	0	0	0	0	
08/28/1997	David Owen	Stream	G	0	0	0	3,000	0	
		Mouth	G	0	0	0	10,000	3,000	
		Bay	G	0	0	0	0	0	
275-506, 275-506									
07/27/1997	David Owen	Stream	E	0	0	0	0	0	SUNNY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
Kametolook River, 275-600									
07/05/1997	David Owen	Stream	E	0	0	0	0	0	PARTLY CLOUDY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
07/22/1997	David Owen	Stream	G	0	0	0	0	0	SOLID OVERCAST
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/27/1997	David Owen	Stream	E	0	0	0	0	0	SUNNY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
07/31/1997	David Owen	Stream	P	0	0	0	0	0	RAINY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/16/1997	David Owen	Stream	F	0	0	0	50	0	
		Mouth	F	0	0	0	0	0	
		Bay	F	0	0	0	0	0	
08/28/1997	David Owen	Stream	G	0	0	0	100	6	EXTREMELY TURBID
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
Kametolook River (n), 275-601									
07/05/1997	David Owen	Stream	E	0	0	0	0	0	PARTLY CLOUDY
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	

-Continued-

Table 48. (page 29 of 29)

Stream		Location	Visi- bility	Species					Observer Remarks
Date	Observer			Chinook	Sockeye	Coho	Pink	Chum	
07/17/1997	David Owen	Stream	P	0	0	0	0	0	PARTLY CLOUDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
07/22/1997	David Owen	Stream	G	0	0	0	0	0	RAINY
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	
07/27/1997	David Owen	Stream	E	0	0	0	0	0	2 SUBSISTENCE USERS DRAGGING NET THROUGH WATER
		Mouth	E	0	0	0	0	0	
		Bay	E	0	0	0	0	0	
07/31/1997	David Owen	Stream	P	0	0	0	0	0	RAINY
		Mouth	P	0	0	0	500	0	
		Bay	P	0	0	0	0	0	
08/04/1997	David Owen	Stream	P	0	0	0	0	50	CLOUDY-FOGGY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/07/1997	Dave Sarafin	Stream	P	0	0	0	20	100	
		Mouth	P	0	0	0	0	0	
		Bay							
08/16/1997	David Owen	Stream	P	0	0	0	0	2	EXTREMELY MUDDY
		Mouth	P	0	0	0	0	0	
		Bay	P	0	0	0	0	0	
08/28/1997	David Owen	Stream	G	0	0	0	4,000	1,000	
		Mouth	G	0	0	0	0	0	
		Bay	G	0	0	0	0	0	

Table 49. Pink and chum salmon escapement estimates (in thousands of fish) for select Chignik Management Area streams, 1953-1997 .<sup>a,b</sup>

Year	Thompson Valley		Hook Bay		Cape Kumlik		Bear Cr.	
	272-204		272-302		272-501		272-505	
	Pink	Chum	Pink	Chum	Pink	Chum	Pink	Chum
1953	25.3	0.0	13.0	6.3			0.0	0.7
1954	28.2	4.5	14.3	5.3			0.2	0.2
1955	115.0	3.0	78.0	0.0			1.0	0.0
1956								
1957								
1958								
1959								
1960								
1961								
1962	7.0	0.0	18.9	4.1	7.0	0.0	0.0	12.4
1963	23.3	0.0	33.0	7.5	23.0	0.0	0.0	9.5
1964	4.1	0.0	42.0	1.2	8.7	0.0	0.0	8.8
1965	9.4	0.0	23.3	2.1	13.7	0.0	0.0	8.5
1966	4.1	0.0	10.0	0.5	3.8	0.0	0.0	4.3
1967	2.0	0.4	7.3	2.5	5.2	0.0	0.0	8.0
1968			5.0	0.0			0.0	2.7
1969	19.0	0.0	30.0	0.0			0.0	4.5
1970	12.0	0.0	11.0	1.0	5.0	0.0	0.0	10.0
1971	7.5	0.0	13.0	8.0	51.0	0.0	0.0	10.0
1972	0.2	0.0	0.4	1.1	0.2	0.0	0.0	2.5
1973	2.3	0.2	4.9	4.7	40.0	0.0	0.0	4.0
1974	1.6	0.1	3.8	0.8	0.6	0.0	0.0	2.3
1975	10.2	0.0	1.3	6.0	17.8	0.0	0.0	1.5
1976	5.5	0.2	8.0	2.5	2.6	0.0	0.0	1.4
1977	29.4	0.0	22.6	2.0	124.0	0.0	0.5	2.6
1978	14.0	0.0	14.5	2.8	6.1	0.0	0.1	1.5
1979	35.5	1.0	42.7	11.0	153.0	0.0	0.0	5.0
1980	0.7	0.0	24.5	4.2	2.6	0.0	0.2	0.0
1981	6.5	0.5	13.9	9.0	36.2	0.0	0.1	0.0
1982	1.2	0.0	7.3	10.0	0.9	0.0	0.0	2.5
1983	2.3	0.0	0.2	0.3	0.0	0.0	2.0	7.9
1984	14.0	0.0	16.2	0.1	3.7	0.0	0.3	2.3
1985	0.0	0.0	2.0	0.0			0.0	7.2
1986	0.3	0.0	66.9	0.0	38.2	0.0	0.0	7.5
1987			9.5	0.3	46.9	0.3	0.0	12.0
1988	9.6	3.3	26.4	0.7	18.0	0.0	0.0	0.7
1989	16.6	3.7	45.5	10.2	63.0	0.0	0.0	3.6
1990	4.8	0.0	16.7	0.2	3.2	0.0	0.3	T
1991	0.0	0.0	0.0	0.0	109.7	0.0	0.0	0.9
1992	61.2	0.0	7.2	7.5	15.4	0.0	0.0	20.8
1993	0.0	19.0	26.2	9.3	82.0	0.0	0.0	1.4
1994	48.0	4.0	21.5	8.9	21.0	0.0	0.0	22.0
1995	8.3	0.0	61.4	0.6	252.4	0.0	6.0	10.1
1996	38.2	6.0	42.9	2.0	7.2	0.0	0.2	7.2
1997	48.7	0.2	29.9	2.9	285.8	0.0	2.0	21.7

-Continued-

Table 49. (page 2 of 8)

Year	Rudys Cr. 272-509		North Fork 272-514		Aniakchak R. 272-605		Cape Agutka 272-606	
	Pink	Chum	Pink	Chum	Pink	Chum	Pink	Chum
1953	0.7	0.2	1.3	3.5	0.0	35.0	0.2	0.7
1954			55.0	4.6	100.0	37.2	3.9	1.5
1955	15.0	4.0	13.5	1.0	16.0	0.0	1.2	0.0
1956								
1957								
1958								
1959								
1960								
1961								
1962	4.5	5.2	34.0	0.8	126.0	25.0	17.6	0.5
1963	0.0	12.0	9.7	1.8	6.0	14.6	0.4	0.0
1964	0.5	5.0	68.0	3.0	175.0	82.5	11.0	1.1
1965	0.0	1.1	8.7	2.0	10.8	4.0	5.1	0.1
1966	2.0	3.0	2.0		90.8	9.0	7.7	0.2
1967	1.0	3.0	20.0	1.1	2.0	10.5	1.1	0.1
1968	2.0	7.0	26.0	0.0	85.0	10.0	22.3	0.0
1969	0.2	1.0	5.2	4.0	0.1	0.5	4.6	2.0
1970	0.0	3.0	24.0	8.0	40.0	30.5	10.0	2.0
1971	0.0	1.3	0.0	4.5	0.0	11.5	2.0	3.0
1972	0.2	1.7	1.7	6.9	1.8	7.1	2.5	1.5
1973	0.0	1.2	2.8	1.5	2.7	4.0	1.5	1.8
1974	0.8	4.2	2.5	4.2	29.8	25.7	1.6	0.0
1975	0.0	1.8	0.4	3.7	2.4	5.5	1.9	0.2
1976	6.2	3.7	17.5	7.9	165.0	34.0	5.9	0.8
1977	6.3	0.9	6.6	2.3	3.0	14.8	1.0	0.1
1978	4.0	2.2	46.0	6.9	215.5	23.2	8.0	0.2
1979	12.0	7.7	12.7	5.6	0.0	0.2	13.0	1.5
1980	9.3	0.0	38.5	29.5	40.0	43.0	20.0	5.5
1981	0.7	0.1	15.8	16.5	2.7	32.0	5.8	0.0
1982	0.2	8.7	19.0	3.5	130.0	47.0	21.0	0.0
1983	0.0	1.3	4.1	1.3	1.0	3.1	0.1	0.0
1984	4.5	5.0	32.4	17.4	56.4	47.0	17.2	1.2
1985	0.0	0.0	4.7	1.3	0.0	0.0	0.0	0.0
1986	38.0	10.9	34.3	5.0	1.5	0.5	65.0	0.4
1987	0.0	0.0	8.8	4.0	2.5	0.3	4.2	0.3
1988	34.9	16.6	48.5	17.0	95.1	17.4	84.4	0.0
1989	7.3	0.4	23.0	1.2	5.0	2.5	1.8	0.0
1990	8.0	1.3	40.9	0.7	19.7	11.6	46.5	0.0
1991	0.0	7.4	2.1	2.9	0.0	7.6	4.1	0.0
1992	15.0	48.2	42.3	59.7	96.6	53.8	161.9	16.8
1993	3.7	0.0	24.5	8.0	0.0	7.8	53.0	T
1994	4.0	35.0	31.0	5.2	60.0	40.0	35.0	0.0
1995	49.0	2.5	84.5	15.0	70.0	50.0	91.1	0.0
1996	22.9	5.3	63.9	11.0	198.0	51.5	82.6	0.0
1997	20.0	5.3	33.0	8.8	167.1	8.2	39.8	2.5

-Continued-

Table 49. (page 3 of 8)

Year	Main Cr. 272-702		Northeast Cr. 272-703		Yantarni R. 272-721		Ocean Beach 272-801	
	Pink	Chum	Pink	Chum	Pink	Chum	Pink	Chum
1953	0.2	17.0	3.5	2.0				
1954	6.9	21.5	1.1	0.8				
1955	25.2	0.8			7.5	7.0	8.0	3.0
1956								
1957								
1958								
1959								
1960								
1961								
1962	33.0	3.6	1.6	2.5	52.5	0.1	45.0	2.0
1963	16.0	5.8	5.0	0.9	16.0	0.3	3.4	0.0
1964	40.5		2.3	3.0	42.0	21.0	34.6	10.1
1965	5.0	4.8	2.3	6.0	4.0	7.6	0.4	1.0
1966	3.0	0.0	1.3	0.2	18.5	5.0	11.0	3.3
1967	16.5	2.0	2.0	0.2				
1968	28.0	8.0	7.7	1.0	25.0	6.5	26.5	0.0
1969	3.0	15.0	7.0	4.5	1.5	11.0	6.0	3.5
1970	13.0	7.0	7.0	6.0	1.5	11.5	7.5	5.0
1971	1.0	20.0	2.0	5.5	0.0	18.0	0.0	3.5
1972	2.0	8.0	1.7	0.5	2.1	21.0	0.5	4.6
1973	1.0	7.0	1.1	3.1	0.3	6.5	0.6	1.7
1974	6.6	6.3	3.0	2.0	3.7	3.8	2.3	2.2
1975	4.7	8.0	0.4	0.7	0.3	1.6	0.8	0.2
1976	5.5	8.5	3.8	2.0	5.8	12.5	4.2	3.0
1977	4.5	3.5	10.0	0.8	1.9	3.5	1.1	0.4
1978	5.6	7.6	4.4	4.6	7.9	3.3	7.1	0.5
1979	13.5	14.0	7.0	7.5	14.0	9.5	1.5	0.0
1980	53.5	17.0	4.8	3.0	60.0	11.0	27.6	0.0
1981	6.3	16.3	5.9	2.5	13.5	18.2	10.5	5.5
1982	36.0	12.3	6.2	3.7	8.5	25.5	0.0	14.5
1983	9.2	6.7	3.2	4.7	3.6	13.4	3.1	1.5
1984	15.7	14.5	7.0	4.3	26.5	18.7	19.0	13.2
1985	13.7	4.0	9.0	0.0	67.8	0.7	9.9	0.0
1986	85.0	0.0	13.6	0.0	3.1	0.3	1.8	0.2
1987	14.3	1.5	7.5	0.4	18.0	3.0	13.0	2.7
1988	43.6	5.5	41.4	10.6	33.7	30.3	32.8	12.8
1989	53.0	3.2	17.0	4.0	10.9	3.4	10.9	4.8
1990	54.3	5.7	80.3	13.3	23.6	9.3	45.0	1.3
1991	0.0	8.4	1.9	8.8	5.3	1.7	0.0	2.8
1992	30.3	45.2	31.9	50.5	14.9	26.2	15.6	7.1
1993	26.5	14.0	24.2	0.0			10.0	23.0
1994	30.0	0.5	44.4	6.1	57.3	4.6	42.5	10.0
1995	123.3	9.0	98.7	7.4	54.0	10.0	74.8	3.8
1996	94.8	10.0	68.6	3.0	61.1	5.0	49.5	2.0
1997	85.3	14.4	68.0	16.9	81.3	18.0	80.0	5.2

-Continued-

Table 49. (page 4 of 8)

Year	Nakalilok R. 272-804		Chiginagak 272-902		Chiginagak R. 272-903		Chiginagak 272-904	
	Pink	Chum	Pink	Chum	Pink	Chum	Pink	Chum
1953								
1954								
1955	3.0	0.5			0.0	15.9		
1956								
1957								
1958								
1959								
1960								
1961								
1962	22.0	0.1	16.0	0.0	0.3	34.3	20.1	0.0
1963	10.4	0.1	1.2	0.0	0.0	15.0	43.0	0.0
1964	89.0	3.0	20.0	0.0	6.0	24.4	41.4	0.0
1965	0.5	9.0	0.4	0.0	0.0	13.8	12.4	0.1
1966	12.5	0.0	5.8	0.0	0.0	33.2	16.0	0.0
1967	3.5	18.5	0.5	0.1	0.0	27.0	12.4	0.0
1968	7.4	2.0	21.0	0.0	2.0	29.5	20.0	0.0
1969	8.0	3.5	1.3	0.0		20.0	6.0	0.0
1970	10.0	6.5	11.0	0.0	0.0	31.0	4.0	0.0
1971	1.0	44.0	2.8	0.0	0.0	86.0	1.1	0.0
1972	0.0	6.0	0.1	0.3	1.0	33.0	0.1	0.1
1973	0.5	5.2	0.3	0.0	0.2	28.3	0.5	0.0
1974	2.2	4.8	0.2	0.2	8.5	28.5	0.9	0.0
1975	3.0	4.8	0.5	0.5	2.9	20.3	0.8	0.0
1976	2.4	14.2	0.7	0.0	0.7	35.0	2.2	0.0
1977	3.8	4.9	2.7	0.0	1.8	19.4	3.8	0.0
1978	8.1	4.2	4.4	0.4	1.3	9.1	3.5	0.0
1979	12.0	2.9	11.0	15.0	0.4	24.3	7.2	0.0
1980	25.6	14.0	17.9	0.0	16.3	5.7	14.5	0.0
1981	6.5	8.0	5.0	0.0	6.0	23.4	6.9	0.0
1982	4.0	12.3	2.2	0.0	2.0	18.5	1.7	0.4
1983	4.8	4.2	0.7	0.0	1.8	9.6	1.9	0.0
1984	15.0	36.5	16.6	0.0	6.9	53.8	19.5	3.0
1985	27.0	0.0	0.0	0.0	1.0	0.0	5.0	0.0
1986	12.7	1.0	42.3	0.0	21.1	3.3	8.9	0.0
1987	1.4	3.8	3.2	0.4	67.5	15.7	11.0	3.3
1988	16.8	8.0	33.7	0.0	12.6	13.2	40.0	30.0
1989	10.6	4.1	22.0	0.0	70.4	4.2	32.0	11.5
1990	47.0	6.3	19.2	0.0	63.0	9.8	18.7	5.0
1991	0.0	4.1	18.6	0.0	0.3	0.0	0.5	5.5
1992	16.7	27.3	27.6	0.6	0.0	4.5	0.1	0.0
1993	30.0	33.0	35.3	0.0	59.8	10.0	59.3	10.0
1994	71.4	6.1	35.0	0.0	35.0	3.0	109.0	5.0
1995	101.0	1.9	63.0	5.0	0.0	0.3	119.1	0.0
1996	71.3	32.1	26.3	0.0	22.0	0.0	32.7	0.0
1997	75.0	62.0	97.9	1.5	56.2	45.1	35.0	10.0

-Continued-

Table 49. (page 5 of 8)

Year	Chiginagak 272-905		Aripina R. 272-961A		Glacier Cr. 272-962		Kilokak 272-963	
	Pink	Chum	Pink	Chum	Pink	Chum	Pink	Chum
1953								
1954								
1955					0.0	0.0		
1956								
1957								
1958								
1959								
1960								
1961								
1962	17.1	0.0	12.0	3.0	0.5	3.0	16.2	0.0
1963	1.0	0.0	19.2	0.1	0.0	10.0	0.8	0.0
1964	100.0	0.3	8.5	0.0	0.5	6.0	14.2	0.0
1965	1.2	0.0	20.1	0.0	0.0	1.3	0.1	0.0
1966	90.5	0.0					24.5	0.0
1967	5.8	1.8	7.3	0.5	0.0	5.6	0.3	0.0
1968	53.0	0.0	12.0	0.0	0.0	0.2	65.6	0.0
1969	2.4	0.0	2.5	0.0	0.0	2.0	0.2	0.0
1970	24.0	0.0	15.5	0.0	0.0	5.0	55.0	0.0
1971	4.3	2.0	6.6	0.0	0.0	6.0	0.0	0.0
1972	2.4	0.0	1.6	0.0	0.0	4.6	2.1	0.0
1973	1.0	0.0	4.2	0.5	0.0	3.0	0.1	0.0
1974	1.9	0.0	1.2	0.2	0.0	0.9	0.3	0.0
1975	2.1	0.2	2.7	0.0	0.2	0.5	0.6	0.0
1976	20.1	0.4	4.9	0.0	0.0	1.8	4.9	0.0
1977	22.0	1.3	4.3	0.0	0.0	1.0	0.5	0.0
1978	41.0	0.4	7.4	0.1	0.6	1.1	5.9	0.0
1979	61.1	0.0	23.5	0.0	0.0	1.6	1.1	0.0
1980	38.5	0.0	14.3	0.0	5.2	0.7	61.0	0.0
1981	48.0	0.1	13.4	0.0	0.0	0.6	0.3	0.0
1982	34.1	0.0	33.0	0.0	0.0	1.1	20.0	0.0
1983	3.6	5.0	5.0	0.0	1.3	0.2	0.3	0.0
1984	117.2	0.2	39.8	0.0	1.0	3.2	75.8	0.0
1985	17.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0
1986	85.0	0.1	0.0	0.0	0.0	0.0	175.0	0.0
1987	20.0	0.3	1.0	0.0	6.2	0.0	0.0	0.0
1988	52.9	14.4	78.0	20.6	0.3	0.0	137.8	0.0
1989	89.0	4.0	53.0	0.0	0.3	0.1	10.5	0.0
1990	84.8	2.4	33.3	0.0	1.1	0.2	83.4	0.0
1991	5.2	5.0	9.6	5.0	0.2	1.2	9.7	0.0
1992	137.8	5.1	180.5	5.7	10.4	0.0	157.8	0.0
1993	87.3	10.0	47.2	0.0	0.0	0.0	105.7	0.0
1994	45.0	6.0	65.0	25.0	3.0	0.1	70.0	0.0
1995	8.5	0.0	100.0	4.7	9.0	0.2	29.0	0.0
1996	7.5	0.0	7.0	0.5	6.5	0.5	30.0	0.0
1997	3.5	2.0	56.2	53.0	4.0	11.0	54.0	0.0

-Continued-

Table 49. (page 6 of 8)

Year	Coal Cape		Ivan River		Foot Bay		Spoon Cr.	
	273-702		273-722		273-802		273-823	
	Pink	Chum	Pink	Chum	Pink	Chum	Pink	Chum
1953							1.0	1.5
1954								
1955							15.0	0.0
1956								
1957								
1958								
1959								
1960								
1961								
1962	129.0	12.0	85.0	36.0	13.3	1.0	10.6	2.0
1963	127.5	0.0	124.0	4.5	11.0	1.0	3.5	0.0
1964	60.0	10.0	65.5		12.0	0.9	13.2	0.0
1965	48.0	5.9	89.1	0.0	5.3	0.0	1.4	0.0
1966	9.7	2.0	94.5	1.0	18.4	0.2	15.5	0.0
1967	9.0	1.0	35.0	7.0	4.7	0.0	2.4	0.0
1968	39.0		85.0	0.0	14.2	0.0	7.8	0.0
1969	77.0	0.0	302.0	0.0	14.2	0.1	6.5	0.0
1970	69.0	0.0	103.0	17.0	14.5	3.0	10.5	0.0
1971	8.0	0.0	205.0	90.0	30.0	5.2	7.0	0.0
1972	2.5	4.5	4.4	13.0	0.6	0.6	0.2	0.0
1973	1.6	1.0	43.8	17.2	7.5	0.3	0.8	0.2
1974	62.8	5.1	3.9	22.3	2.1	0.3	1.7	0.0
1975	21.0	4.5	96.0	24.5	9.8	0.0	4.5	0.0
1976	70.3	13.4	17.3	22.1	7.0	1.1	9.3	1.9
1977	78.5	0.0	236.0	36.0	18.3	0.8	5.7	0.1
1978	218.5	0.1	73.7	0.8	16.6	2.0	7.5	0.1
1979	50.2	2.0	90.0	32.0	9.6	0.4	7.1	1.0
1980	53.0	12.5	51.0	22.1	3.5	1.0	4.5	0.9
1981	84.9	3.0	117.0	28.0	10.0	4.6	6.7	0.8
1982	30.5	3.3	21.0	16.3	1.4	2.8	0.1	0.4
1983	17.8	0.5	12.2	7.2	1.2	1.1	0.8	0.0
1984	60.2	6.5	103.0	40.0	6.0	1.8	0.3	0.1
1985	3.5	0.5	49.6	23.3	5.9	1.7	0.3	0.0
1986	22.0	0.0	10.1	0.0	4.9	0.0	0.5	0.0
1987	13.4	0.4	14.8	2.4	6.6	1.0	0.0	0.0
1988	135.6	10.6	57.0	5.6	13.0	0.9	3.1	0.3
1989	2.9	1.5	32.0	0.8	10.8	0.6	1.7	0.1
1990	7.5	0.8	23.1	14.3	8.2	0.2	0.8	2.0
1991	53.6	0.0	42.2	3.1	0.0	4.9	0.0	1.7
1992	0.0	0.3	31.4	45.1	1.1	0.0	0.8	0.2
1993	16.1	0.0	17.3	1.7	6.1	0.0	0.3	0.3
1994	17.0	7.5	35.5	0.0	7.0	0.2	0.5	0.5
1995	174.1	0.1	161.2	1.0	19.0	0.0	10.1	0.0
1996	63.4	0.6	105.7	4.2	4.0	0.2	1.1	0.5
1997	79.3	2.0	125.8	12.6	6.0	T	10.5	0.0

-Continued-

Table 49. (page 7 of 8)

Year	Portage		Seal Bay		Kupreanof		Smokey Hollow	
	273-842		273-843		275-401		275-402	
	Pink	Chum	Pink	Chum	Pink	Chum	Pink	Chum
1953	5.3	0.5	2.0	2.0				
1954								
1955	0.0	20.0	0.0	0.6				
1956								
1957								
1958								
1959								
1960								
1961								
1962	0.0	23.8	0.0	1.8	12.2	0.0	3.6	3.9
1963	27.0	4.4	6.0	0.0	3.5	0.0	1.5	2.0
1964	0.0	20.4	1.3	0.0	13.0	1.1	0.8	17.0
1965	1.7	8.3	3.3	0.0	3.0	0.0	0.0	0.5
1966	24.4	8.9	4.0	0.0			0.0	7.4
1967	28.5	15.0	6.0	0.5	6.7	0.0	0.0	0.3
1968	3.3	5.0	2.5	0.0	14.0	0.0	0.0	0.9
1969	0.1	27.5	7.5	0.0	6.8	0.2	0.0	0.2
1970	9.0	27.6	5.2	0.0	11.0	0.0	0.0	2.5
1971	10.2	60.1	5.0	10.1	3.5	0.0	0.0	1.5
1972	0.1	21.4	0.0	11.1	1.0	0.5	0.0	2.0
1973	2.9	18.1	2.0	0.1	0.2	0.5	0.2	0.6
1974	0.0	8.7	1.2	1.0	1.2	0.5	0.4	0.8
1975	0.4	9.2	5.3	2.3	1.0	0.1	0.1	0.1
1976	0.9	8.5	0.6	4.6	4.0	0.0	0.6	0.8
1977	5.0	20.5	3.1	5.2	5.1	0.0	2.3	1.6
1978	4.1	19.0	1.5	1.4	16.1	0.0	0.5	0.5
1979	17.7	4.5	0.2	0.6	28.0	0.0	0.6	0.4
1980	10.2	18.5	1.0	0.5	11.6	0.0	0.5	0.3
1981	6.5	33.3	9.0	0.0	22.5	0.1	1.5	0.0
1982	0.0	6.3	0.0	3.5	5.5	0.0	0.0	0.0
1983	0.3	7.3	0.8	0.0	3.5	0.0	0.2	2.6
1984	1.0	14.6	4.6	5.5	5.2	0.0	0.3	1.4
1985	0.0	9.1	7.3	0.0			0.2	0.0
1986	0.7	5.0	0.0	0.1			0.5	0.1
1987	0.0	10.2	0.5	3.9			1.4	0.1
1988	4.0	6.1	0.0	0.8	5.1	0.0	0.9	1.0
1989	1.2	1.6	1.7	0.8	4.2	0.1	9.4	0.1
1990	0.9	8.9	0.0	2.2	13.5	0.0	1.3	1.5
1991	0.0	22.0	0.0	3.4	7.1	0.0	0.0	10.0
1992	2.5	5.3	1.5	2.0	28.8	0.0	1.2	0.8
1993	0.0	10.6	1.0	1.3	10.0	0.0	0.0	7.3
1994	17.3	6.0	5.0	3.0	9.4	0.0	1.6	3.5
1995	41.8	33.9	27.0	0.1	26.0	0.5	23.7	1.5
1996	7.1	30.0	6.4	1.0	22.5	0.0	3.0	3.0
1997	2.5	38.2	30.0	1.9	33.1	1.1	4.0	7.0

-Continued-

Table 49. (page 8 of 8)

Year	Wasco's Cr. 275-404		Ivanof River 275-406		Humpback Cr. 275-502	
	Pink	Chum	Pink	Chum	Pink	Chum
1956						
1957						
1958						
1959						
1960						
1961						
1962	23.0	0.0	48.5	2.5	64.5	3.0
1963	1.0	0.0	128.0	4.0	26.4	0.4
1964	0.0	6.5	15.0	0.8	40.7	0.2
1965	2.0	0.0	61.4	5.5	13.8	0.0
1966	10.5	0.0	39.5	9.0	30.0	0.0
1967	2.0	0.0	98.5	3.0	36.7	0.0
1968	0.3	0.0	60.0	0.5	52.3	0.0
1969	4.0	0.0	122.4	0.5	75.0	0.0
1970	2.5	0.0	51.0	10.0	31.0	0.0
1971	3.0	4.0	25.0	21.0	13.4	1.5
1972	0.3	0.0	6.3	7.8	0.5	1.0
1973	0.0	0.0	24.7	8.2	6.1	0.6
1974	6.3	1.9	41.9	8.1	10.2	0.7
1975	0.9	0.0	33.4	15.0	9.2	3.5
1976	6.2	0.2	55.0	6.8	20.3	0.7
1977	1.6	0.5	51.8	9.0	48.2	1.2
1978	9.7	0.0	71.5	4.2	51.0	0.2
1979	2.0	0.1	89.0	7.1	59.0	5.0
1980	0.0	3.0	40.5	22.7	18.7	3.1
1981	0.0	0.2	39.9	17.0	46.5	2.0
1982	0.1	2.3	2.7	9.4	4.8	11.0
1983	2.0	0.0	34.3	5.6	17.8	0.0
1984	14.6	1.4	61.0	42.5	18.3	0.7
1985	0.3	0.0	181.6	10.6	36.8	0.3
1986	10.0	0.0	150.0	7.6	12.0	0.0
1987	11.9	0.1	24.7	6.9	15.5	0.8
1988	14.0	1.1	126.0	30.6	30.8	0.4
1989	3.8	0.3	161.0	4.0	51.0	0.5
1990	0.5	4.4	47.3	33.7	7.4	0.5
1991	0.0	0.1	118.3	332.9	28.8	0.0
1992	9.0	0.0	109.3	285.8	36.1	2.3
1993	0.0	1.0	230.2	22.7	96.9	4.8
1994	2.1	0.0	74.2	120.2	40.0	2.0
1995	14.0	3.4	234.2	128.0	195.7	0.7
1996	19.3	1.2	227.9	124.7	85.7	T
1997	8.3	0.1	77.4	128.2	62.7	6.0

<sup>a</sup>Escapement from 1953-1984 are based on index estimates described by Shaul and Schwarz (1989) and from 1985-1997 estimates are based on area-under-the-curve methodology described by Johnson and Barrett (1988).

<sup>b</sup>September 15 was assumed to be last day of entry.

Table 50. Estimated subsistence harvests of salmon, Chignik Management Area, 1976 - 1997.

Year <sup>a</sup>	Number of Permits		Percentage Returned	Estimated Number Fished	Percentage Fished	Estimated Harvests					
	Issued	Returned				Chinook	Sockeye	Coho	Pink	Chum	Total
1976						100	6,000	1,500	500	150	8,250
1977						50	9,700	2,400	1,800	600	14,550
1978						50	6,000	500	2,100	600	9,250
1979						14	7,750	34	262	0	8,060
1980	82	37	45.1%	70.0	85.4%	6	12,475	32	478	169	13,160
1981	29	7	24.1%	18.0	62.1%	0	2,049	0	0	0	2,049
1982	59	15	25.4%	56.0	94.9%	3	8,532	12	2	0	8,548
1983	32	21	65.6%	26.5	82.8%	0	3,078	1,319	1,250	850	6,497
1984	77	64	83.1%	57.7	74.9%	23	8,747	464	330	204	9,768
1985	59	48	81.4%	49.0	83.1%	1	7,177	50	26	25	7,279
1986	74	38	51.4%	70.0	94.6%	4	10,347	205	98	77	10,730
1987	NA	NA	NA	NA	NA	10	7,021	278	204	261	7,774
1988	80	34	42.5%	77.0	96.3%	9	9,073	1,455	54	142	10,733
1989	68	23	33.8%	46.8	68.8%	24	7,552	384	81	147	8,187
1990	72	23	31.9%	62.0	86.1%	103	8,099	210	470	115	8,996
1991	95	58	61.1%	83.0	87.4%	42	11,483	13	275	81	11,893
1992	98	19	19.4%	85.8	87.5%	55	8,648	709	305	145	9,862
1993	202	141	69.8%	163.6	81.0%	122	14,710	3,765	1,265	642	20,503
1994	219	122	55.7%	159.9	73.0%	165	13,978	4,055	1,720	382	20,300
1995	111	95	85.6%	95.2	85.8%	98	9,563	1,191	723	150	11,725
1996	119	104	87.4%	104.1	87.5%	48	7,357	2,126	2,204	355	12,090
1997	126	103	81.7%	118.7	94.2%	28	13,442	2,678	2,035	840	19,023
Aver. 1980-97	94.2	56.0	59.4%	79.0	83.9%	41	9,074	1,053	640	255	11,062
Aver./ 1993-97	155.4	113.0	72.7%	129.3	83.2%	92	11,810	2,763	1,589	474	16,728

<sup>a</sup> In 1993, the Division of Subsistence, ADF&G, obtained copies of all available subsistence permits for the Chignik Management Area from the Division of Commercial Fisheries archive in Kodiak. Permits issued prior to 1980 and for 1987 could not be located. All permit data were entered into a database. The estimated harvests reported in this table differ slightly from that reported in earlier annual management reports for several reasons. There are small discrepancies in some years for the number of permits issued or returned. Estimated harvests in earlier annual management reports were based on a simple expansion from harvests reported on returned permits to the total number of permits issued. Harvest estimates in this table are based on the sum of expanded community harvest estimates, similar to the method used in the Bristol Bay.

Since 1993, The Division of Subsistence has been responsible for permit data entry and harvest estimates for the Chignik Management Area. Increases in permits issued beginning in 1993, and consequently higher harvest estimates, reflect the use of local vendors to issue permits and post-season surveys by department staff and local research assistants.

Sources: Quimby and Owen 1994:90, for 1976-1979 and 1987; Division of Subsistence, ADF&G, Chignik Subsistence Salmon Permit Database, Anchorage, for the remaining years.

Table 51. Dolly Varden daily and cumulative escapement estimates through the Chignik weir by day, 1997.

Date	Escapement		Date	Escapement	
	Daily	Cumulative		Daily	Cumulative
Jun-2	8	8	Jul-20	213	21,701
Jun-3	0	8	Jul-21	475	22,176
Jun-4	0	8	Jul-22	238	22,414
Jun-5	0	8	Jul-23	225	22,639
Jun-6	0	8	Jul-24	195	22,834
Jun-7	6	14	Jul-25	125	22,959
Jun-8	0	14	Jul-26	182	23,141
Jun-9	2	16	Jul-27	254	23,395
Jun-10	6	22	Jul-28	179	23,574
Jun-11	0	22	Jul-29	43	23,617
Jun-12	0	22	Jul-30	163	23,780
Jun-13	18	40	Jul-31	88	23,868
Jun-14	24	64	Aug-1	72	23,940
Jun-15	36	100	Aug-2	104	24,044
Jun-16	18	118	Aug-3	95	24,139
Jun-17	1	119	Aug-4	60	24,199
Jun-18	17	136	Aug-5	120	24,319
Jun-19	18	154	Aug-6	98	24,417
Jun-20	67	221	Aug-7	6	24,423
Jun-21	93	314	Aug-8	62	24,485
Jun-22	405	719	Aug-9	180	24,665
Jun-23	1,475	2,194	Aug-10	97	24,762
Jun-24	1,313	3,507	Aug-11	30	24,792
Jun-25	810	4,317	Aug-12	78	24,870
Jun-26	711	5,028	Aug-13	126	24,996
Jun-27	1,165	6,193	Aug-14	92	25,088
Jun-28	891	7,084	Aug-15	30	25,118
Jun-29	294	7,378	Aug-16	61	25,179
Jun-30	320	7,698	Aug-17	120	25,299
Jul-1	304	8,002	Aug-18	12	25,311
Jul-2	773	8,775	Aug-19	99	25,410
Jul-3	432	9,207	Aug-20	176	25,586
Jul-4	1,436	10,643	Aug-21	45	25,631
Jul-5	1,462	12,105	Aug-22	54	25,685
Jul-6	425	12,530	Aug-23	138	25,823
Jul-7	318	12,848	Aug-24	198	26,021
Jul-8	523	13,371	Aug-25	108	26,129
Jul-9	524	13,895	Aug-26	66	26,195
Jul-10	468	14,363	Aug-27	95	26,290
Jul-11	685	15,048	Aug-28	64	26,354
Jul-12	399	15,447	Aug-29	69	26,423
Jul-13	599	16,046	Aug-30	69	26,492
Jul-14	907	16,953	Aug-31	36	26,528
Jul-15	1,573	18,526	Sep-1	21	26,549
Jul-16	936	19,462	Sep-2	33	26,582
Jul-17	925	20,387	Sep-3	37	26,619
Jul-18	918	21,305	Sep-4	38	26,657
Jul-19	183	21,488	Weir Out		

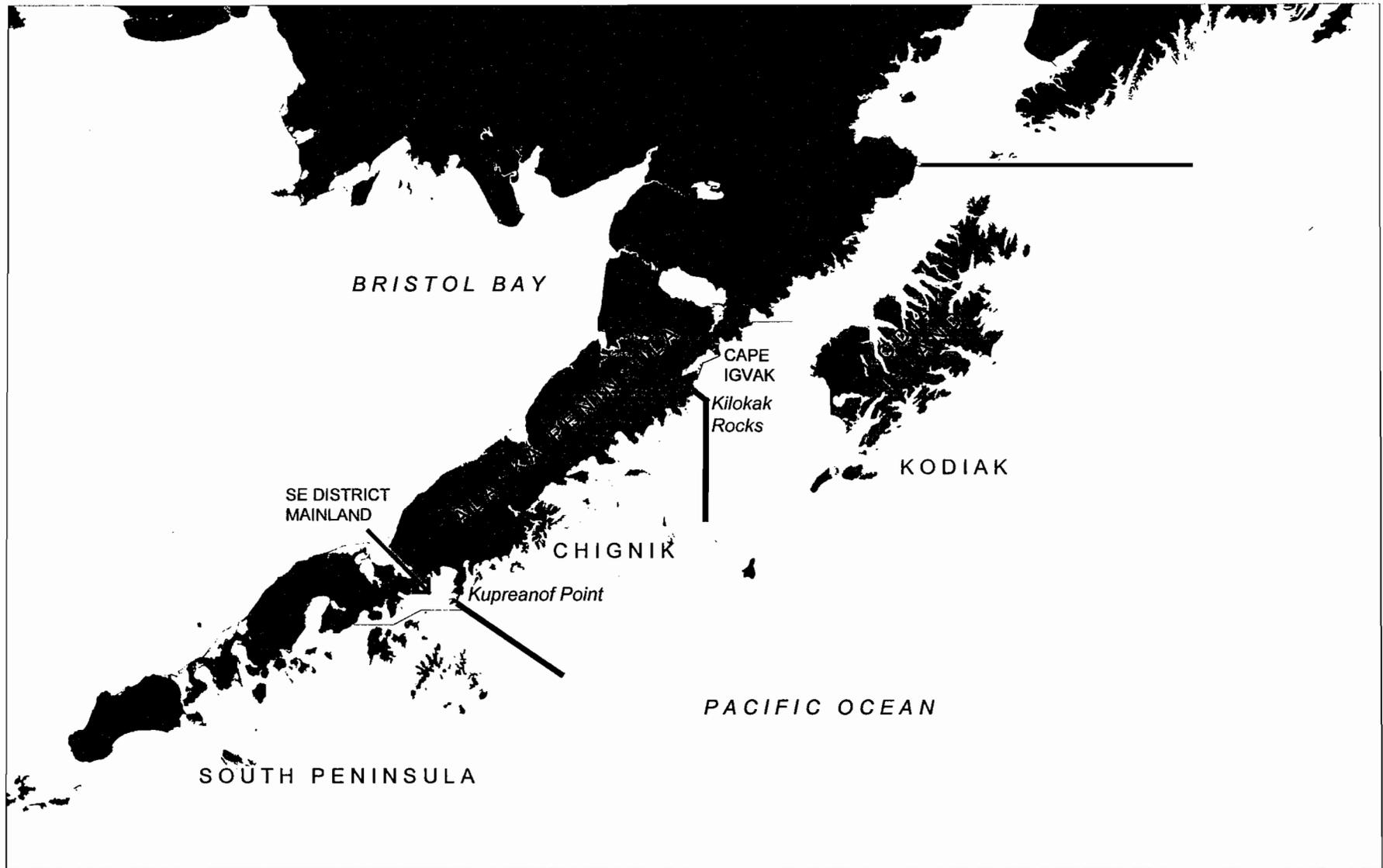


Figure 1. Map of the Alaska Peninsula illustrating the relative locations of the Chignik, Kodiak, and South Peninsula Management Areas.

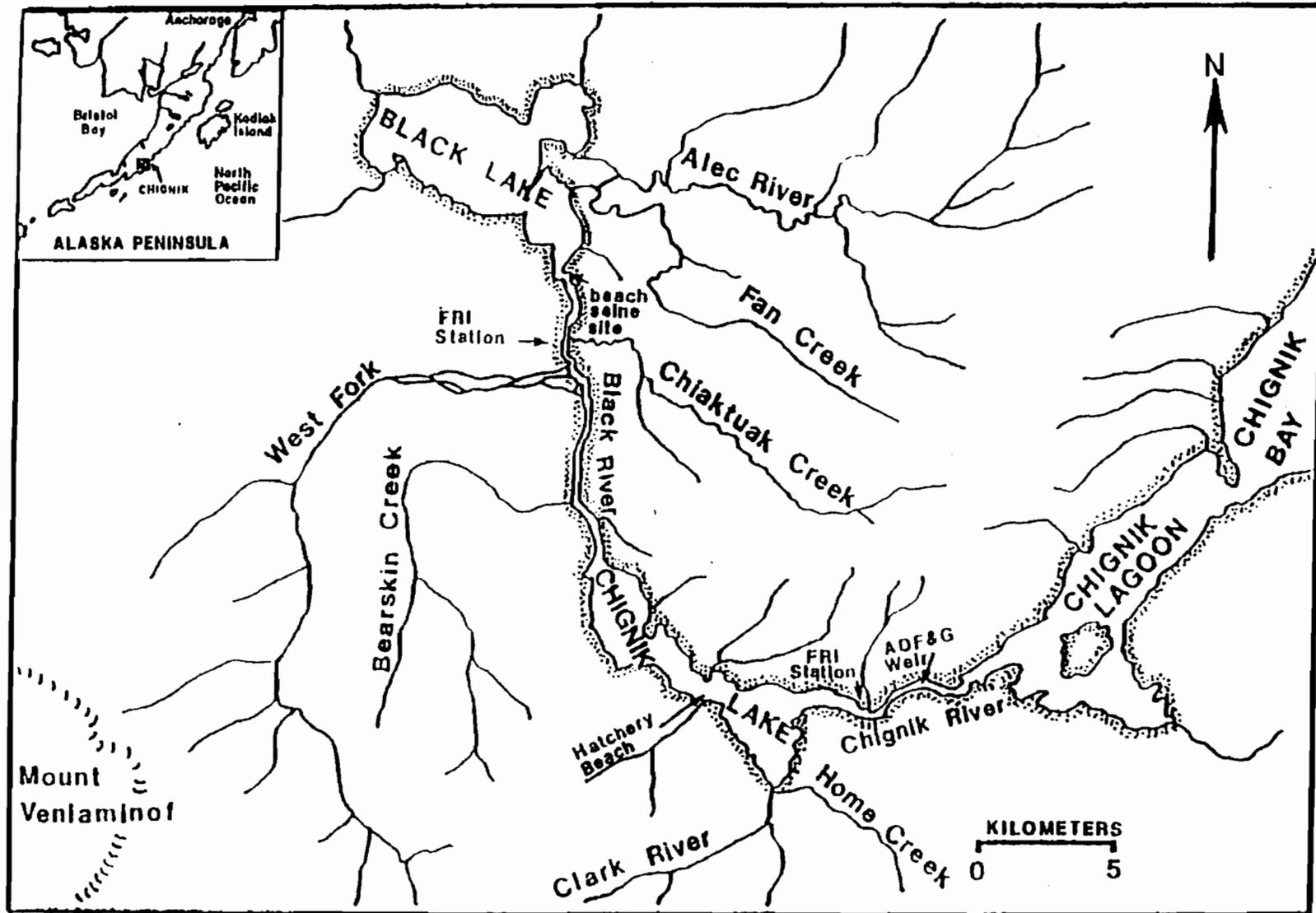


Figure 2. Map of the Chignik Lake watershed with inset of western Alaska.

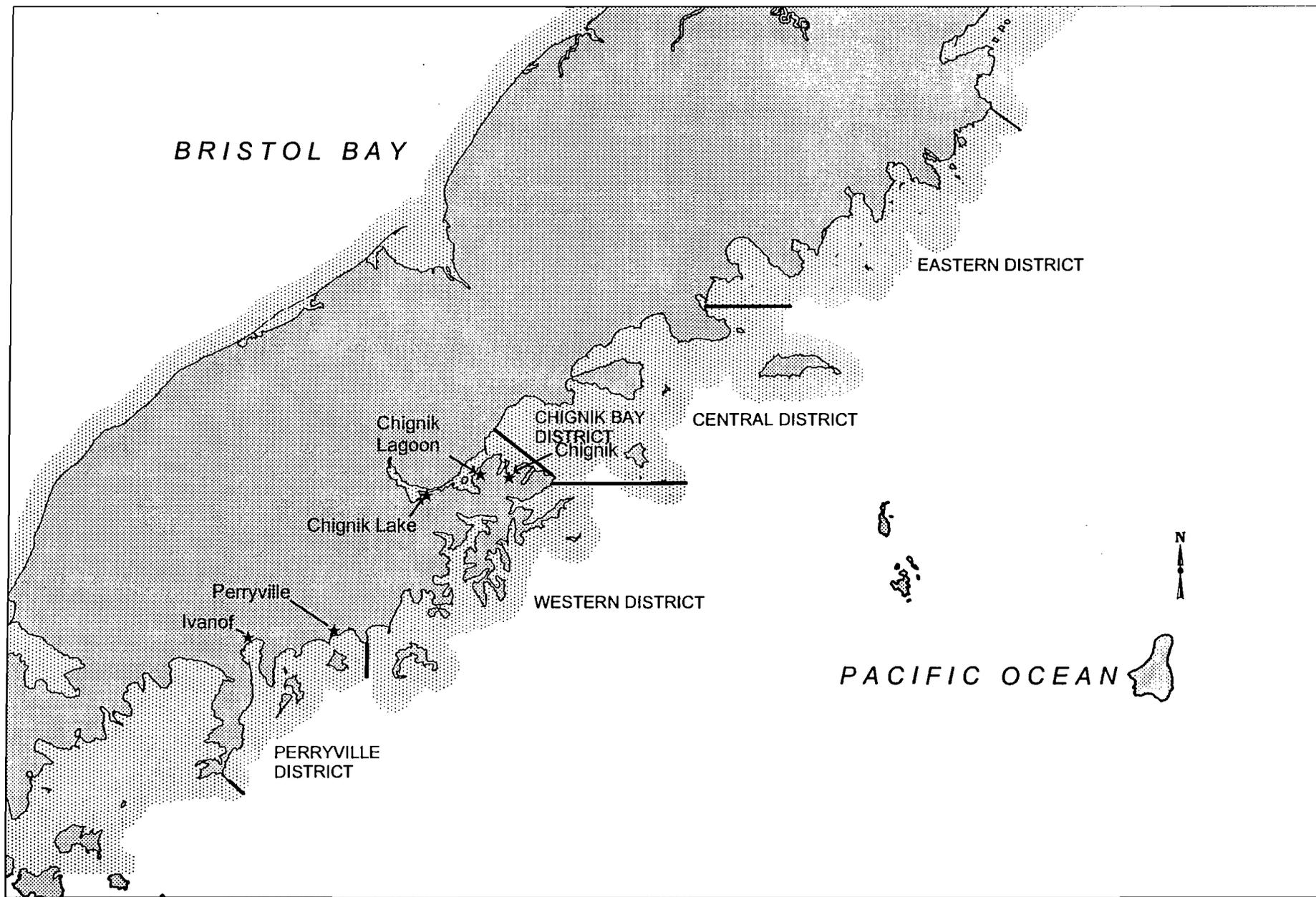


Figure 3. Map illustrating district boundaries and village locations within the Chignik Management Area.

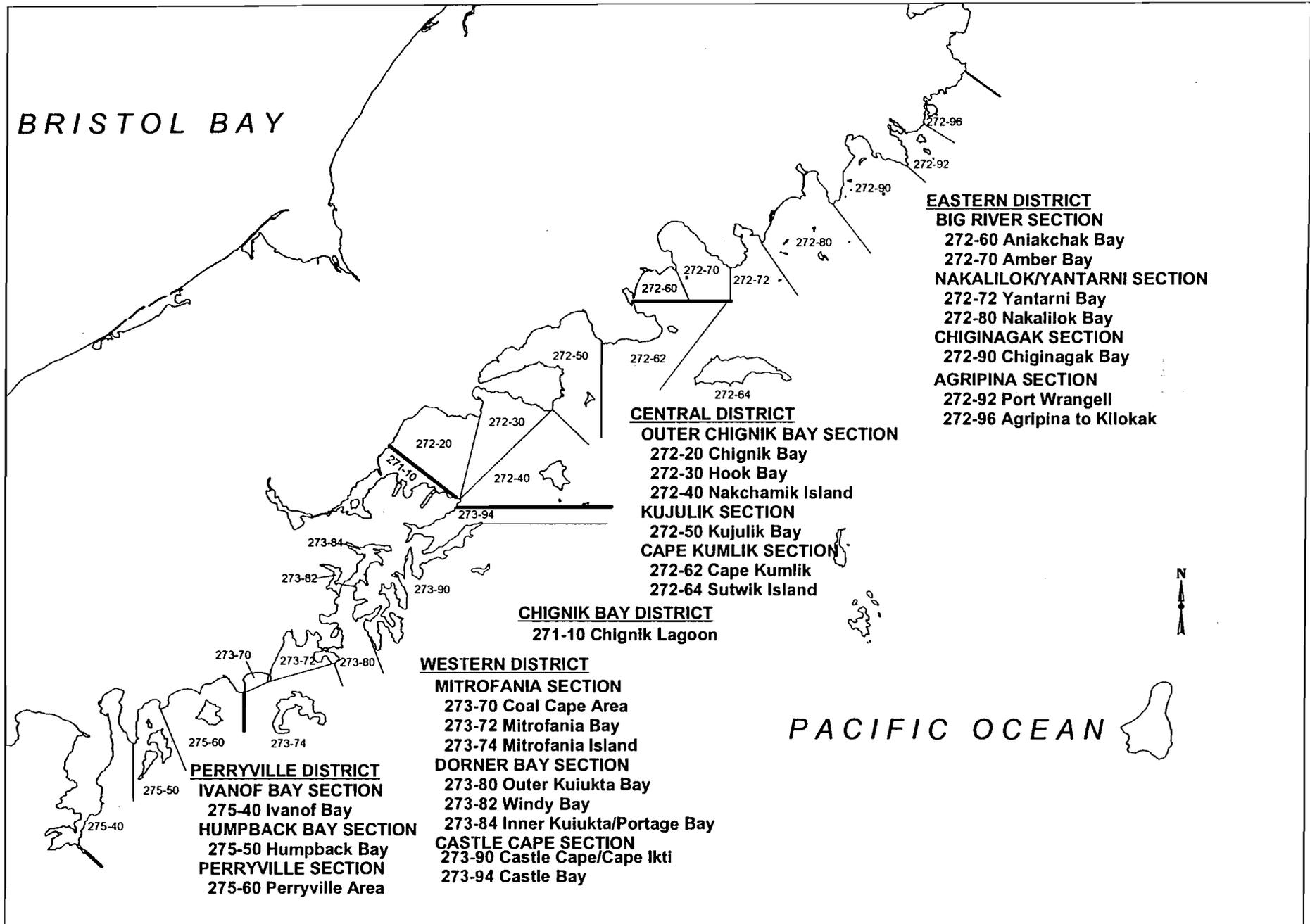


Figure 4. Map of Chignik Management Area illustrating district boundaries.

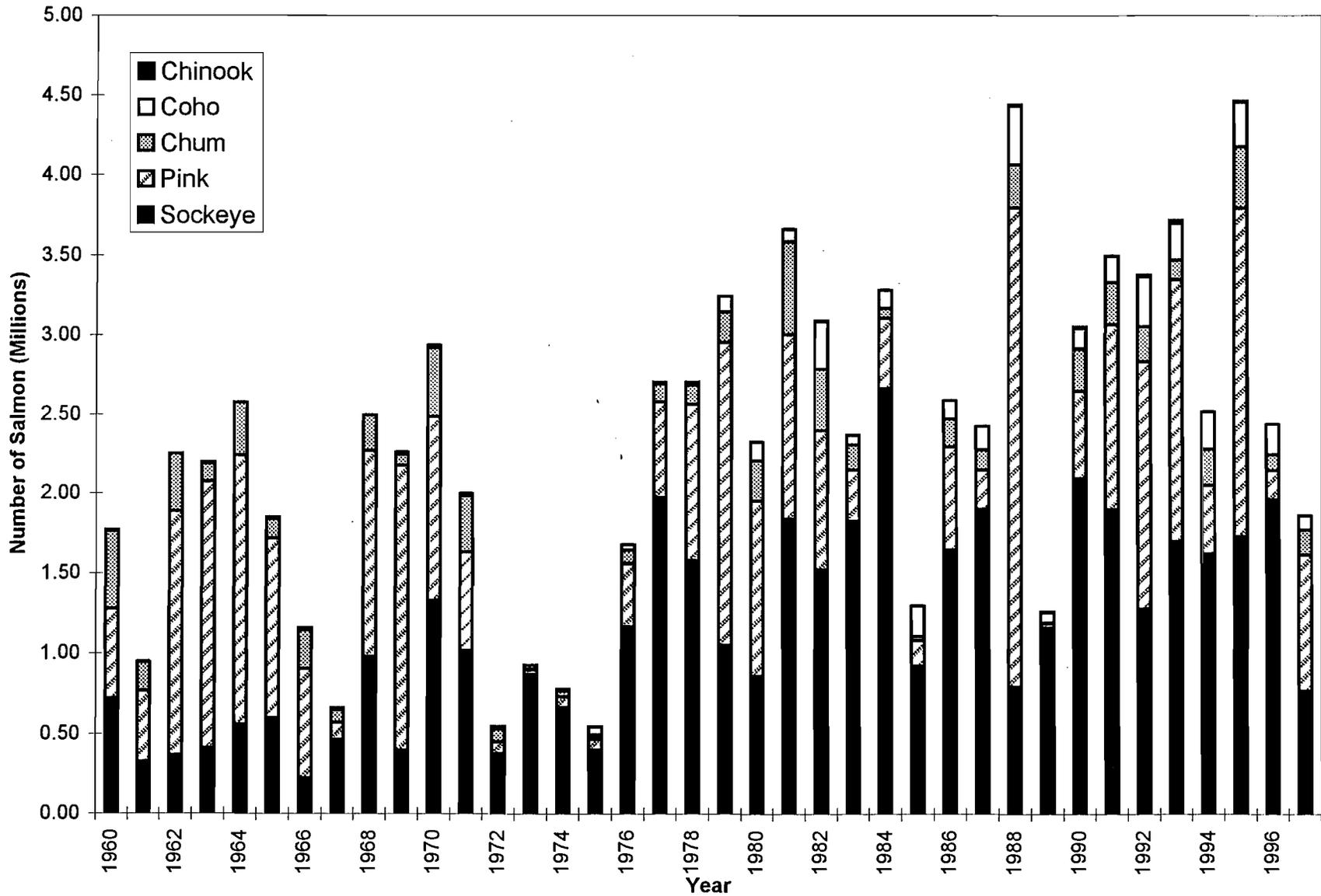


Figure 5. Total salmon harvests by species in the Chignik Management Area, 1960-1997.

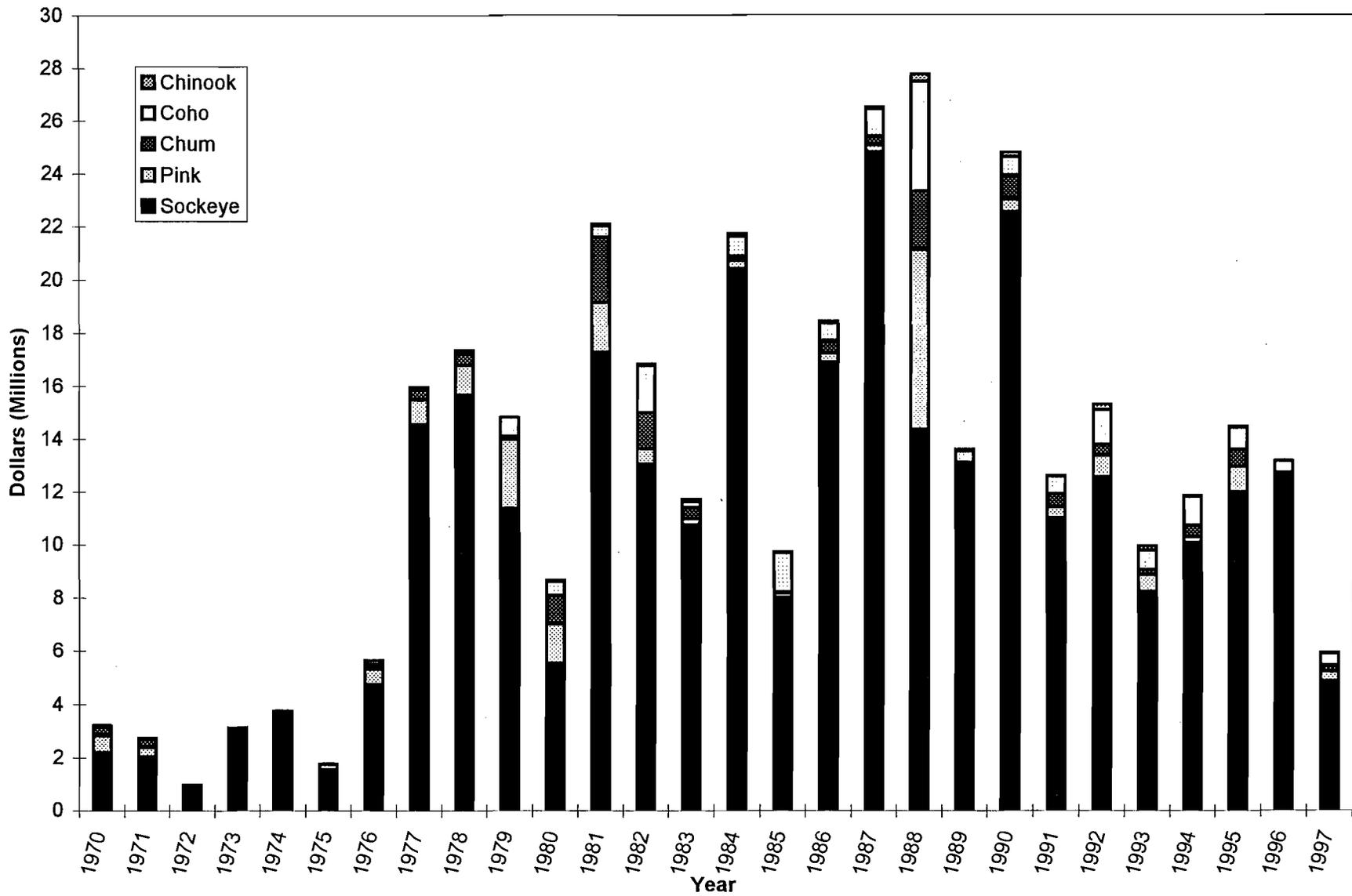


Figure 6. Exvessel value of the salmon harvested in Chignik Management Area. 1970-1997.

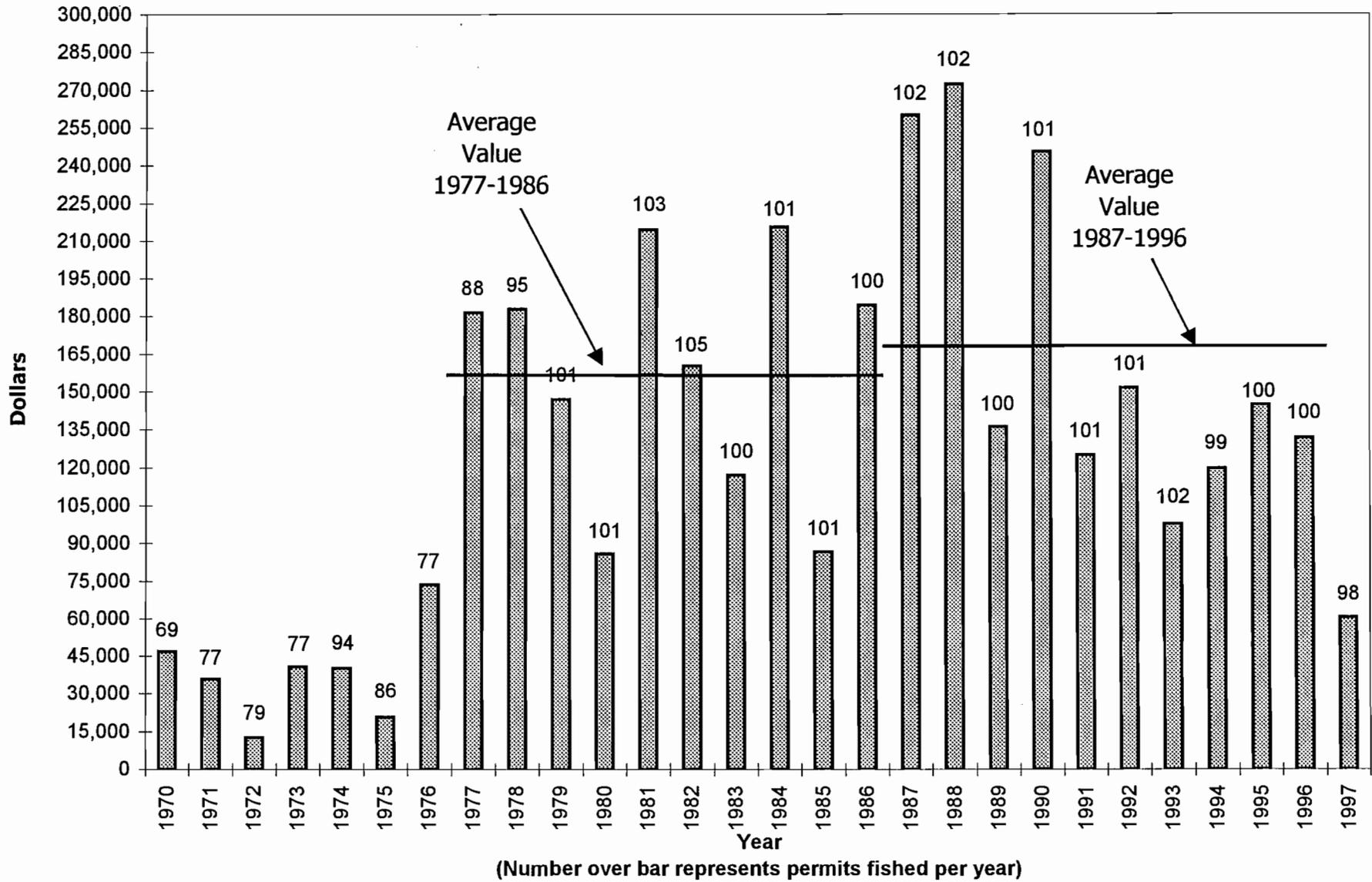


Figure 7. Average exvessel value of salmon per Chignik Management Area permit holder, 1970-1997.

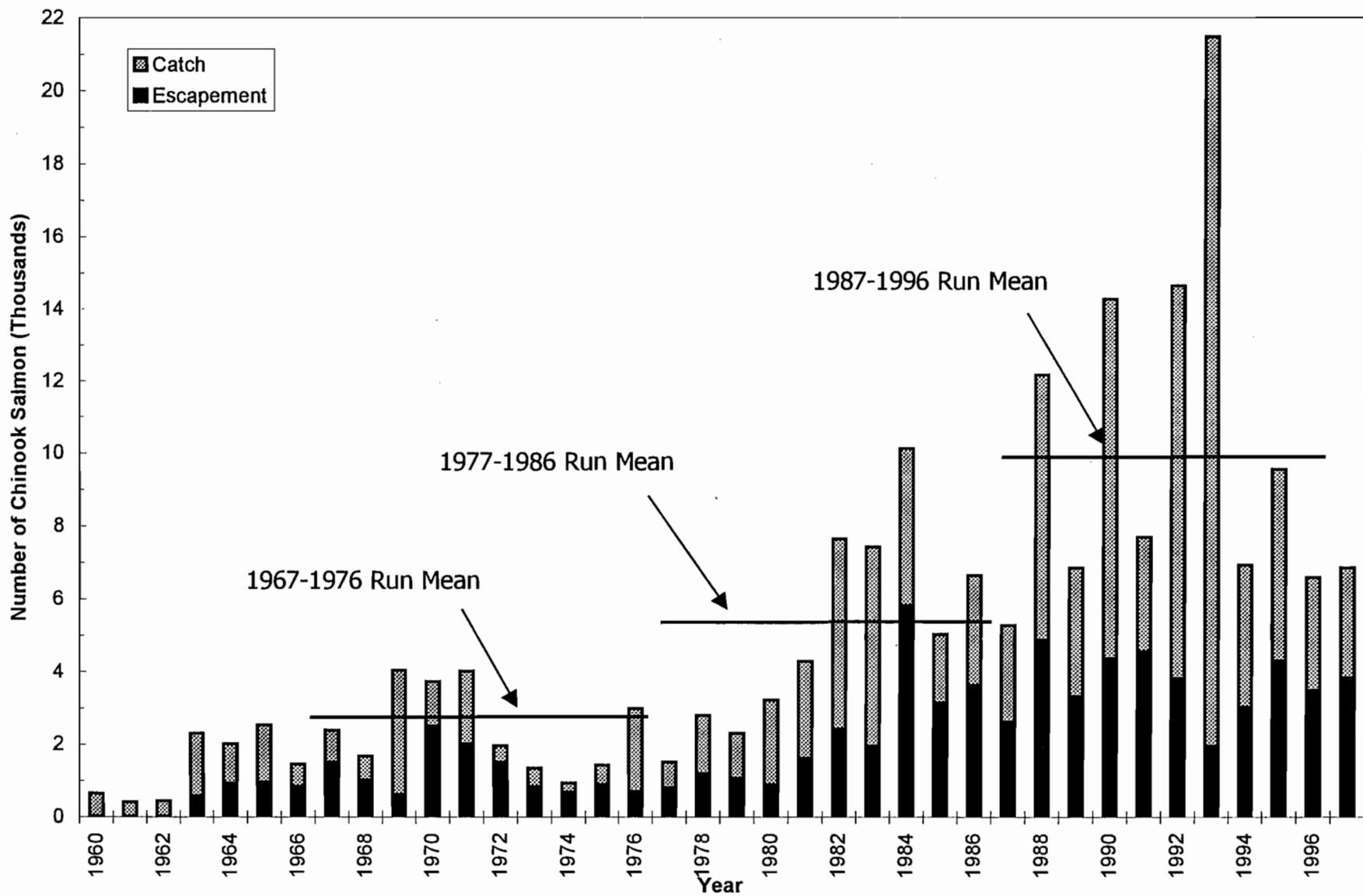


Figure 8. Chinook salmon catch and escapement in the Chignik Management Area, 1960-1997.

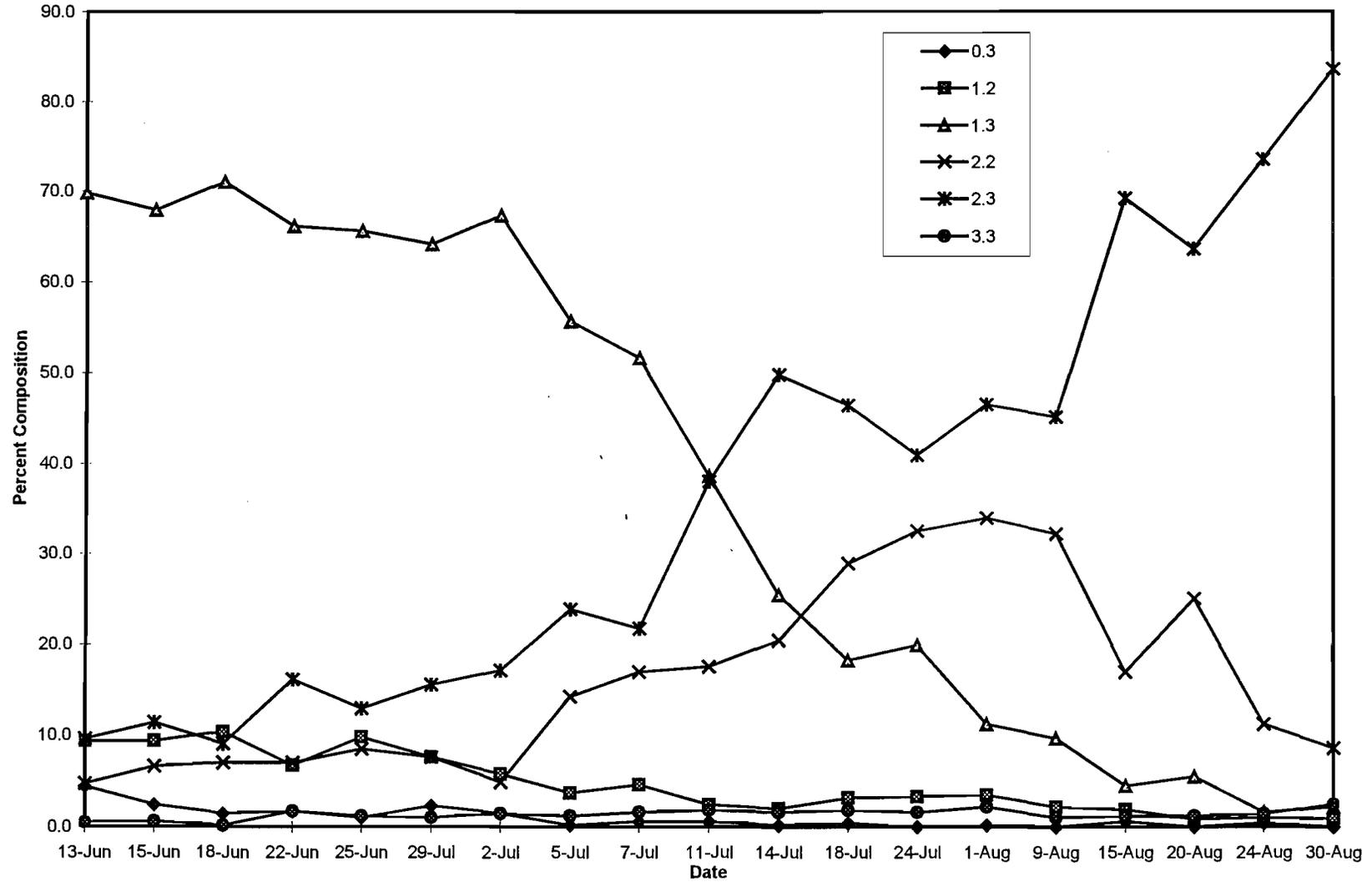


Figure 9. Percent age composition of sockeye salmon sampled in the Chignik Lagoon fishery, 1997.

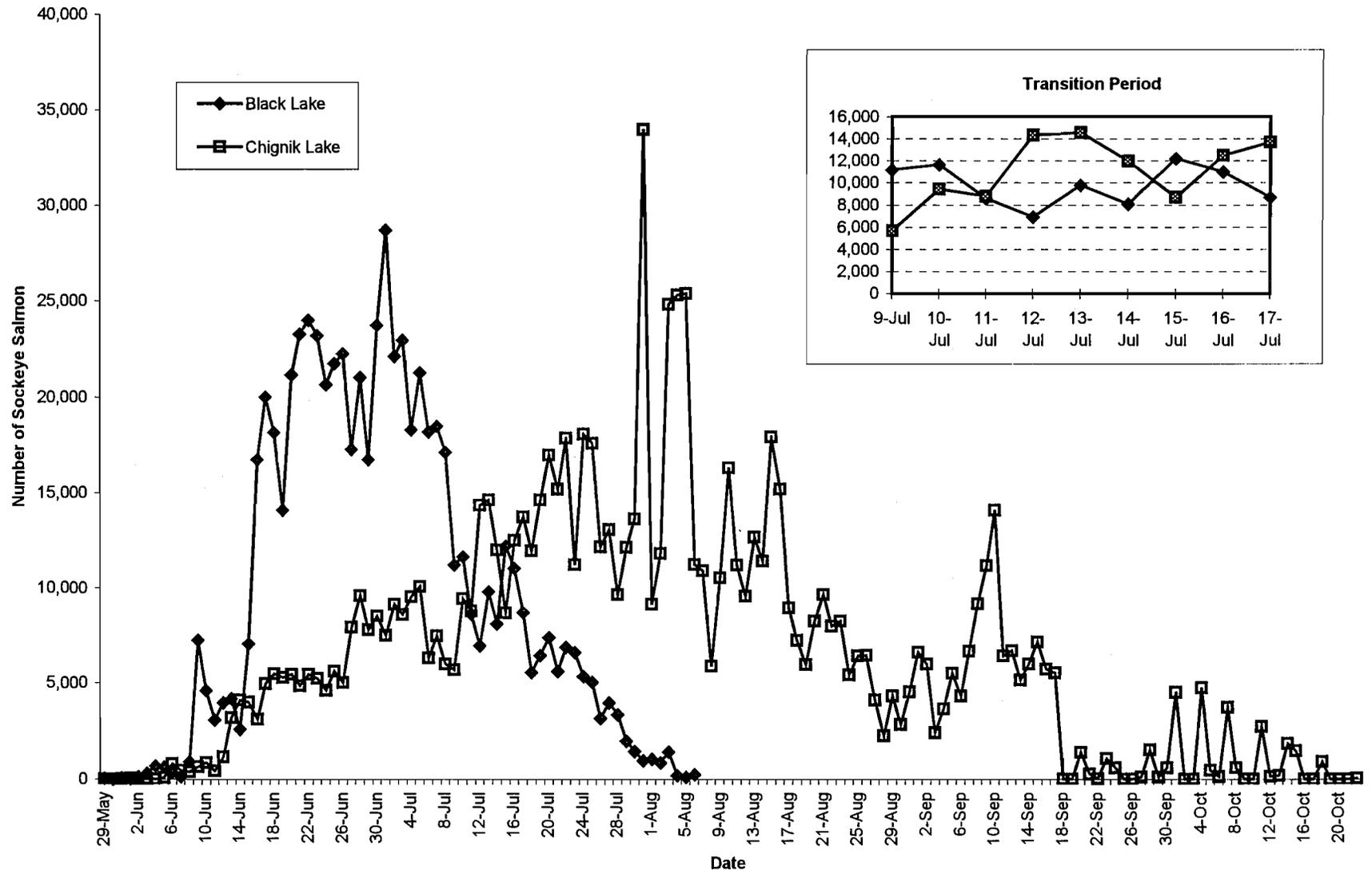


Figure 10. Daily sockeye salmon run by stock to the Chignik Lake system as estimated by scale pattern analysis, 1997.

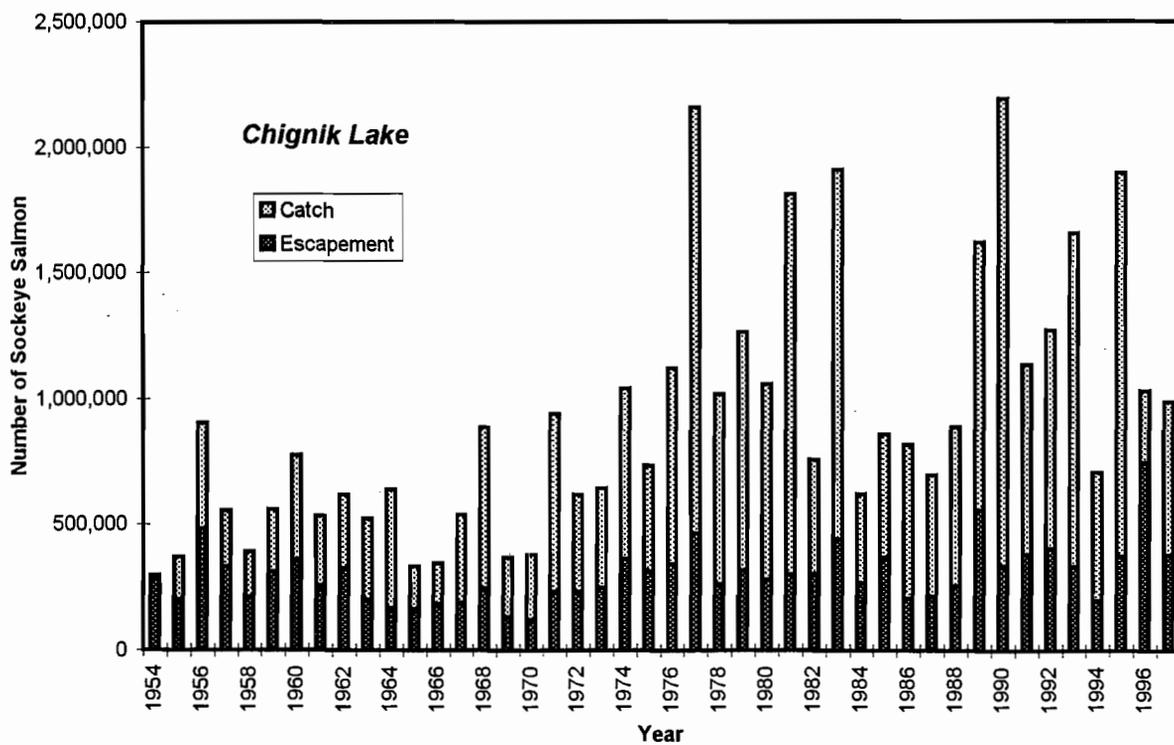
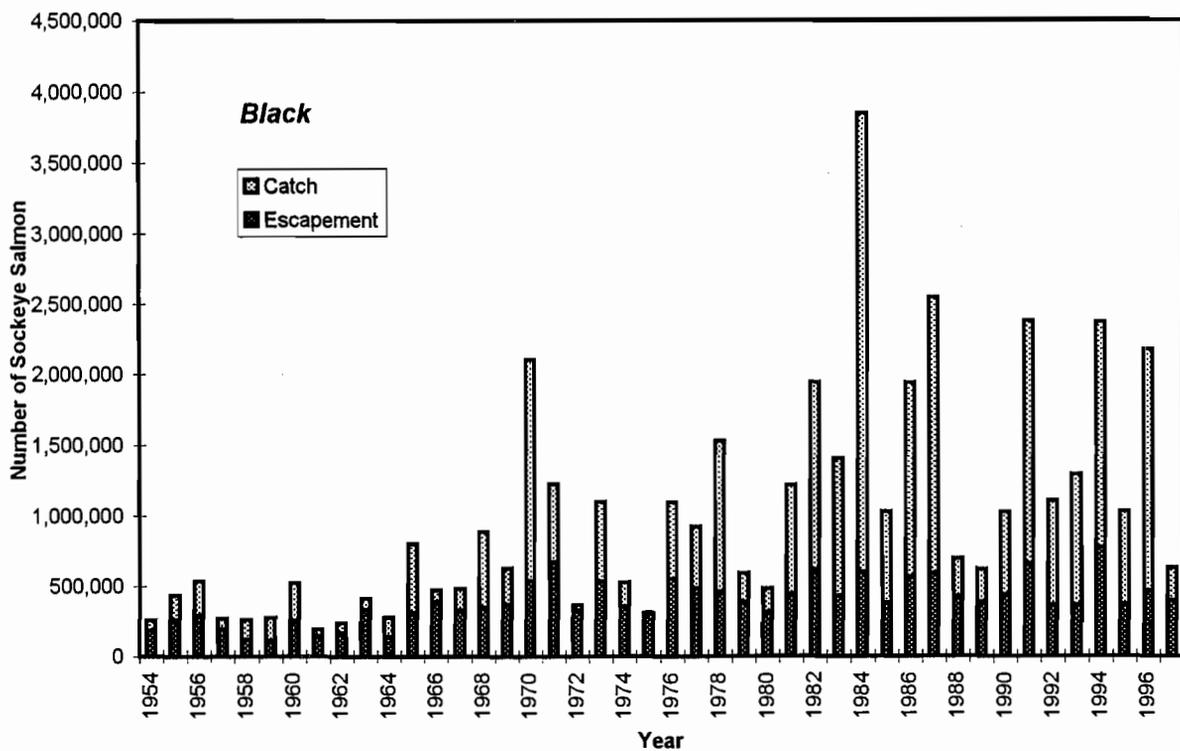


Figure 11. Black Lake (upper panel) and Chignik Lake (lower panel) sockeye catch and escapement, 1954-1997.

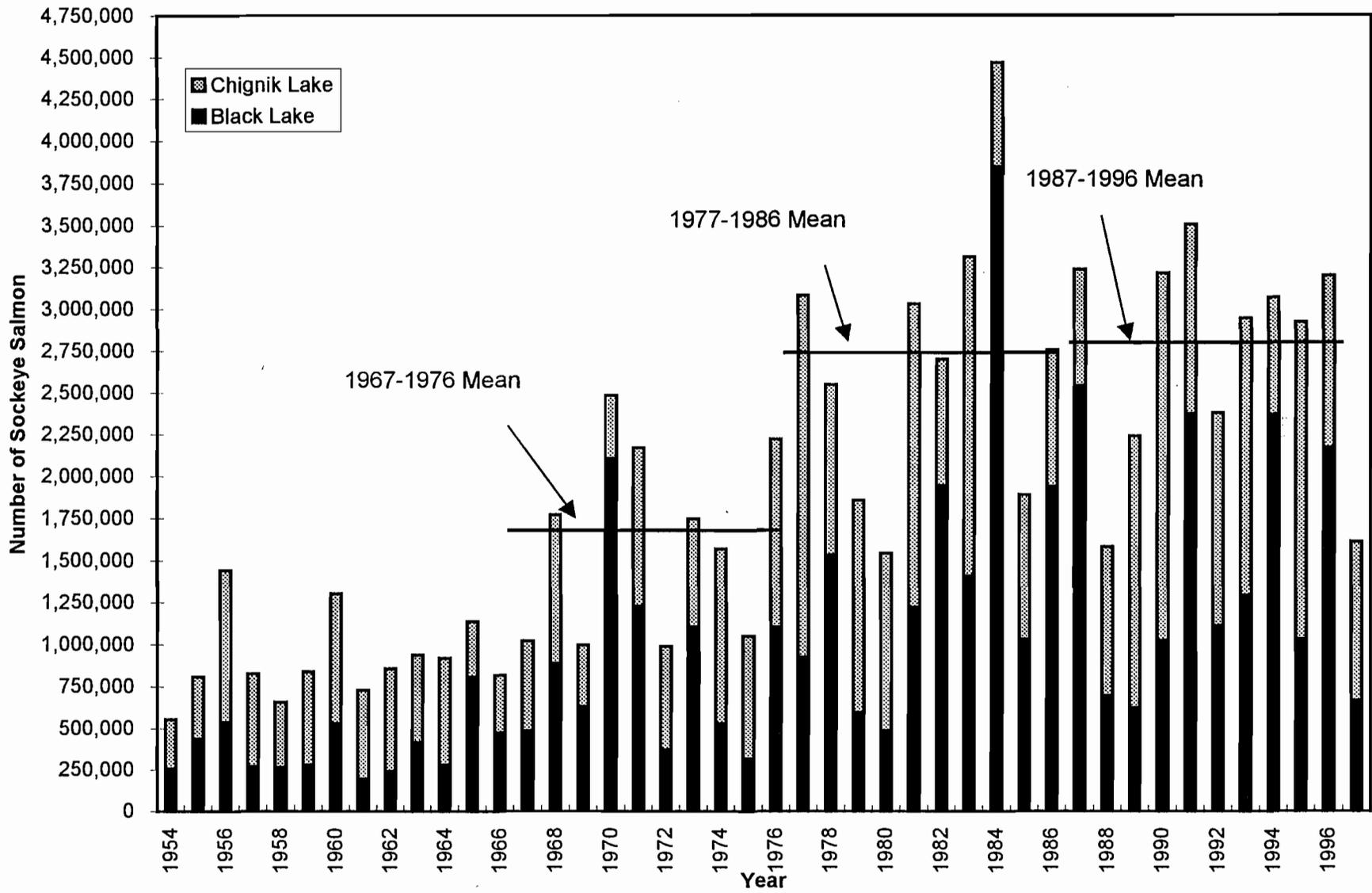


Figure 12. Total sockeye salmon runs to Black and Chignik Lakes, 1954-1997.

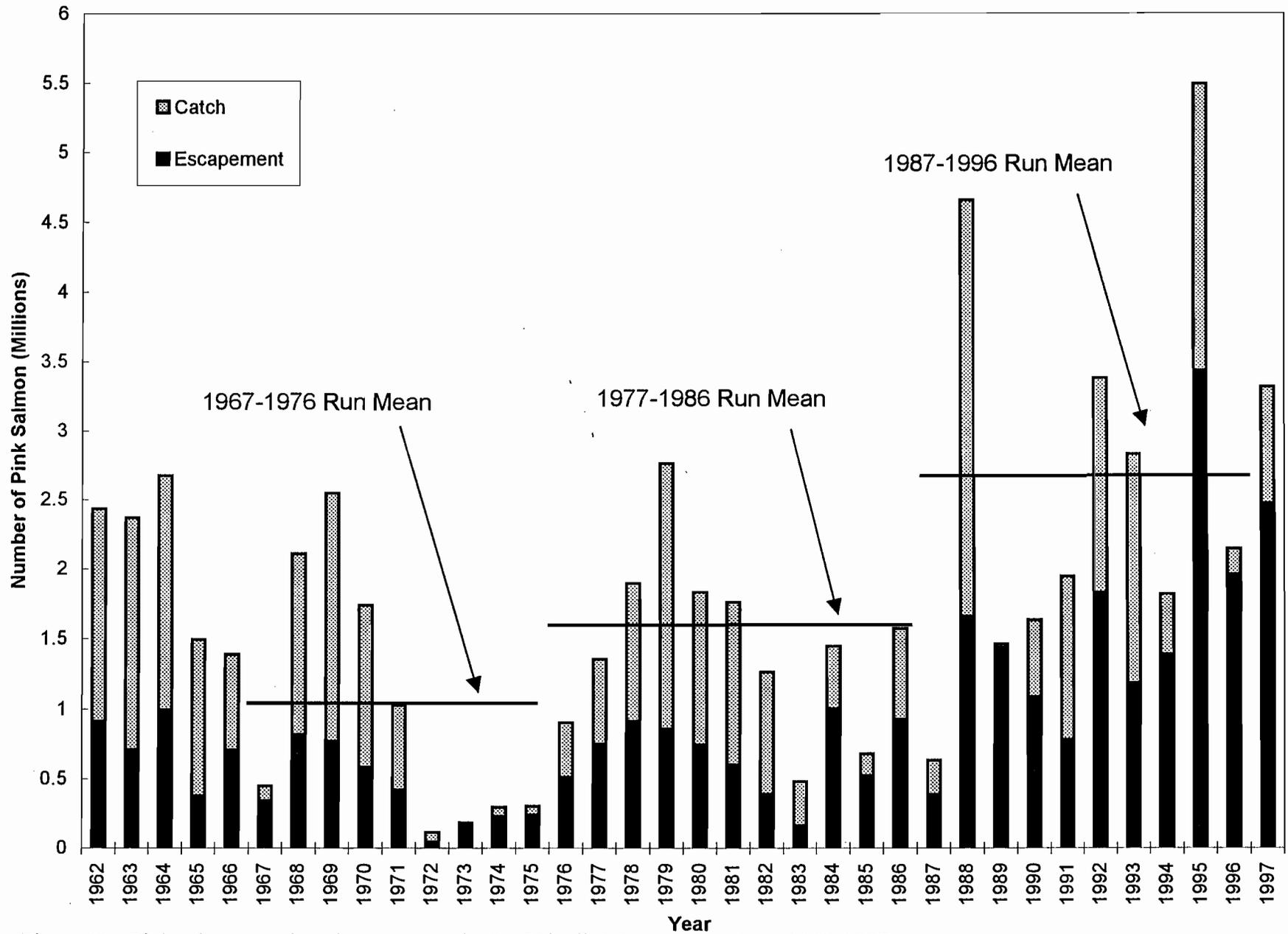


Figure 13. Pink salmon catch and escapement in the Chignik Management Area, 1962-1997.

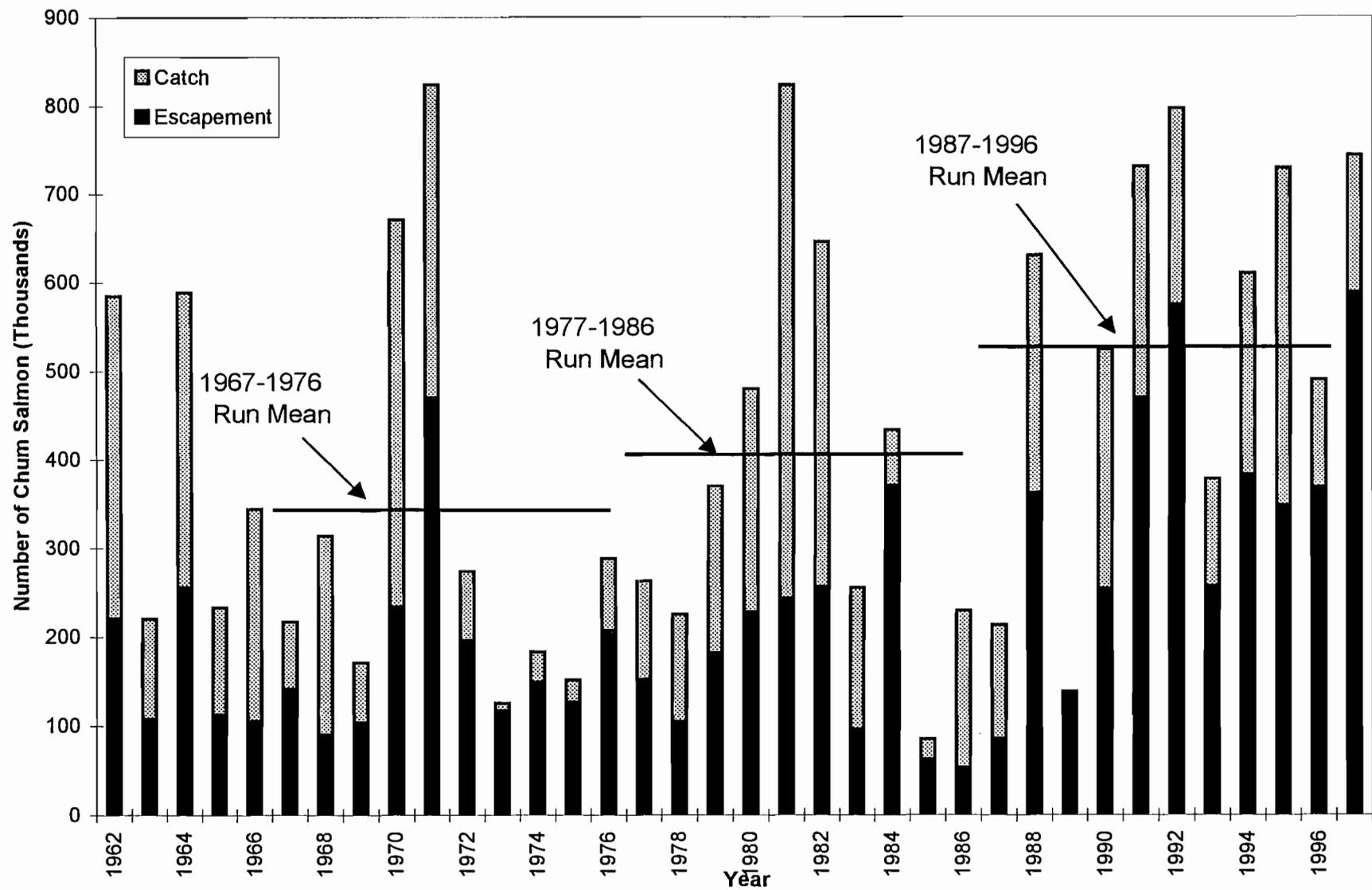


Figure 14. Chum salmon catch and escapement in the Chignik Management Area, 1962-1997.

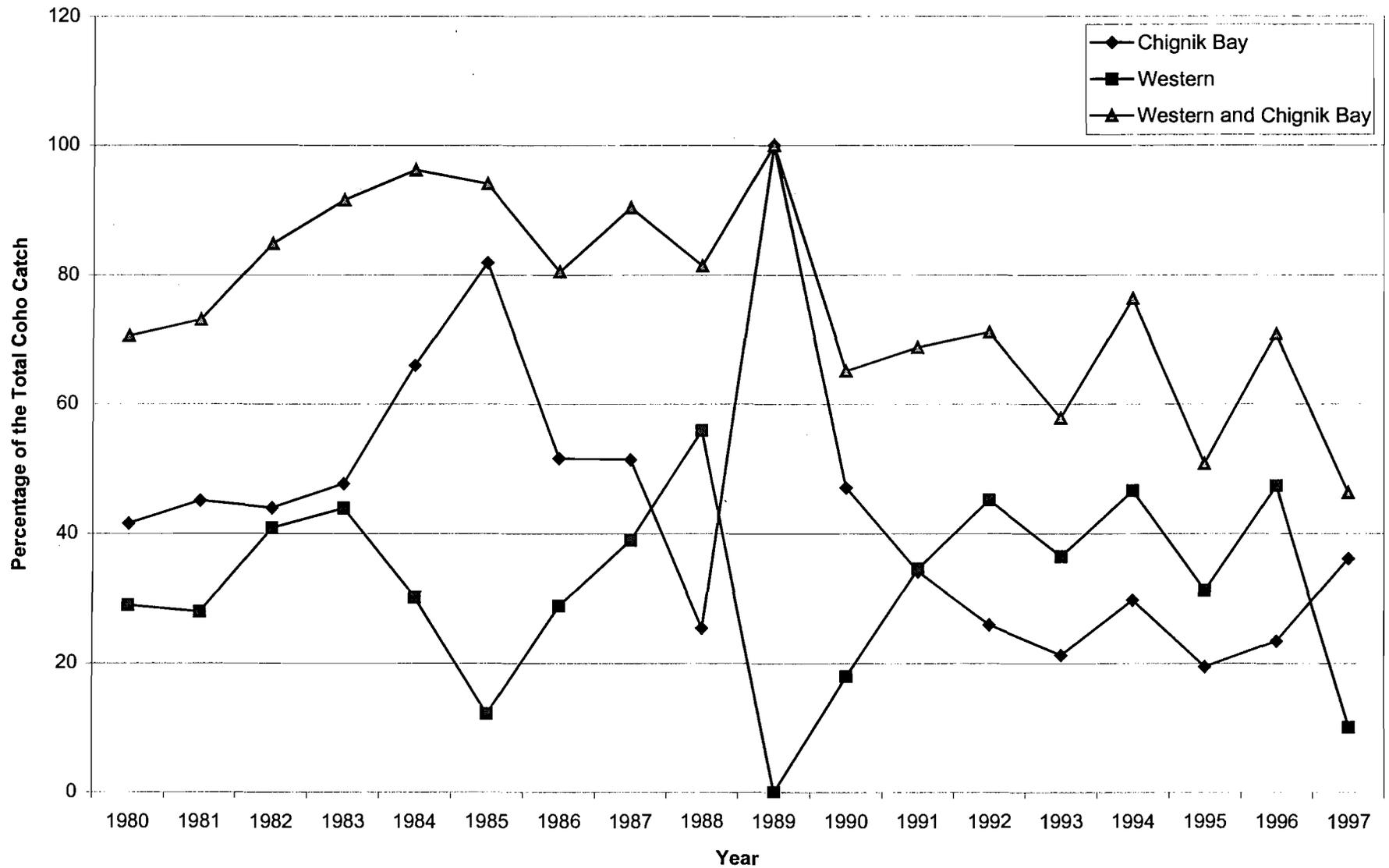


Figure 15. Percentage of coho salmon caught in the Chignik Bay, Western, and the combined percentage of Western and Chignik Bay Districts, 1980-1997.

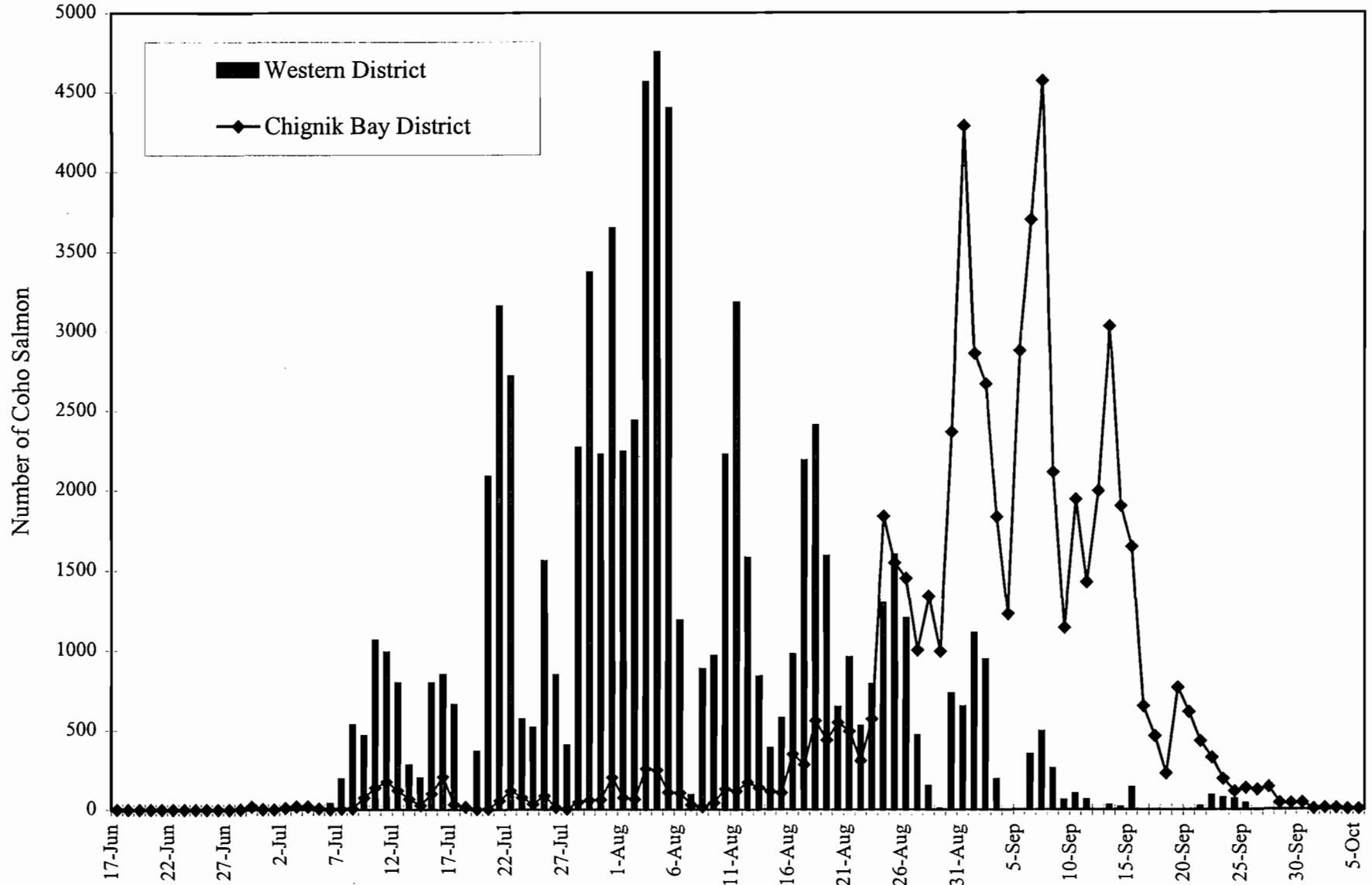


Figure 16. Average catch of coho salmon by day in the Western District as compared to the Chignik Bay District, 1988-1997.

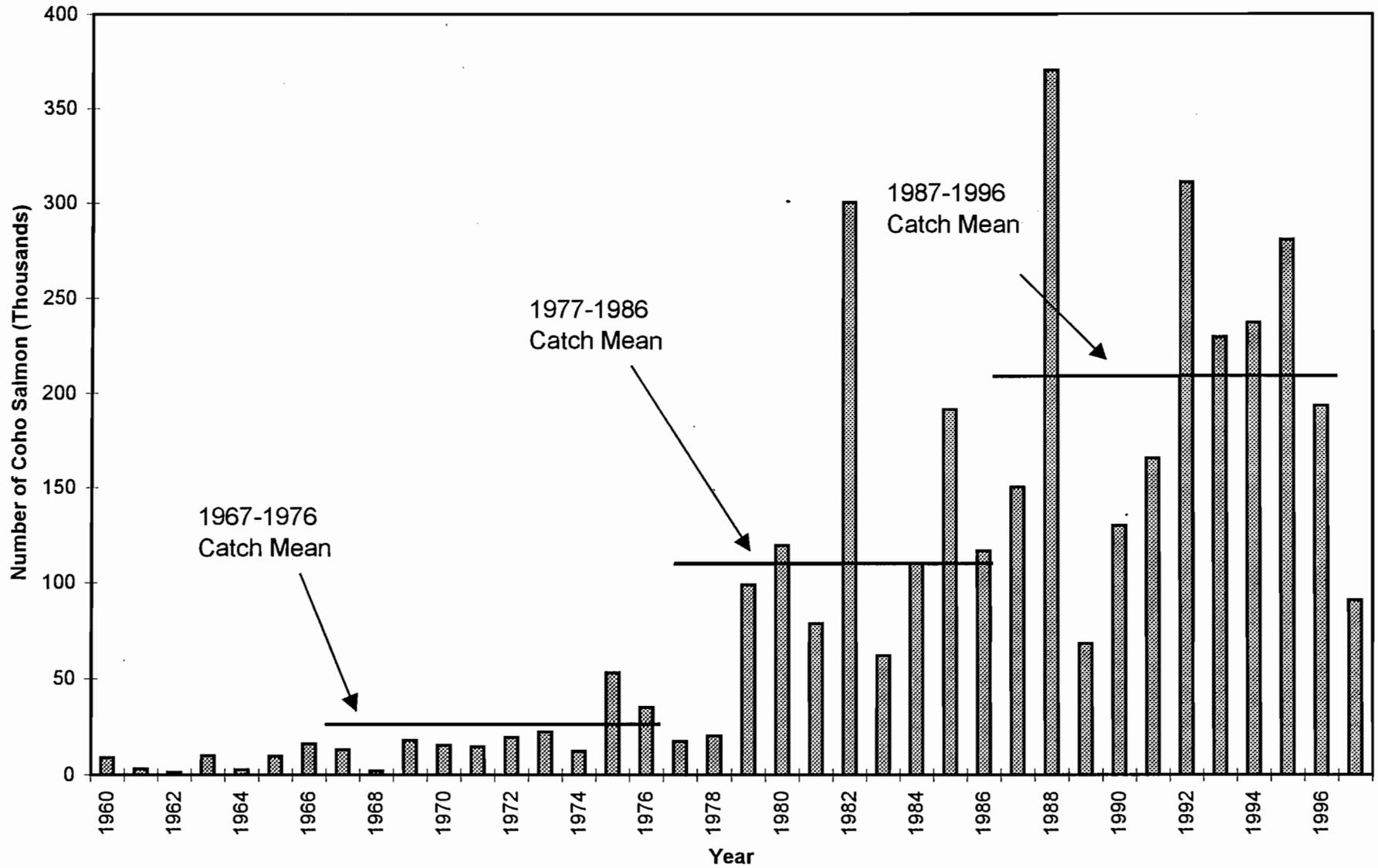


Figure 17. Coho salmon catches in the Chignik Management Area, 1960-1997.

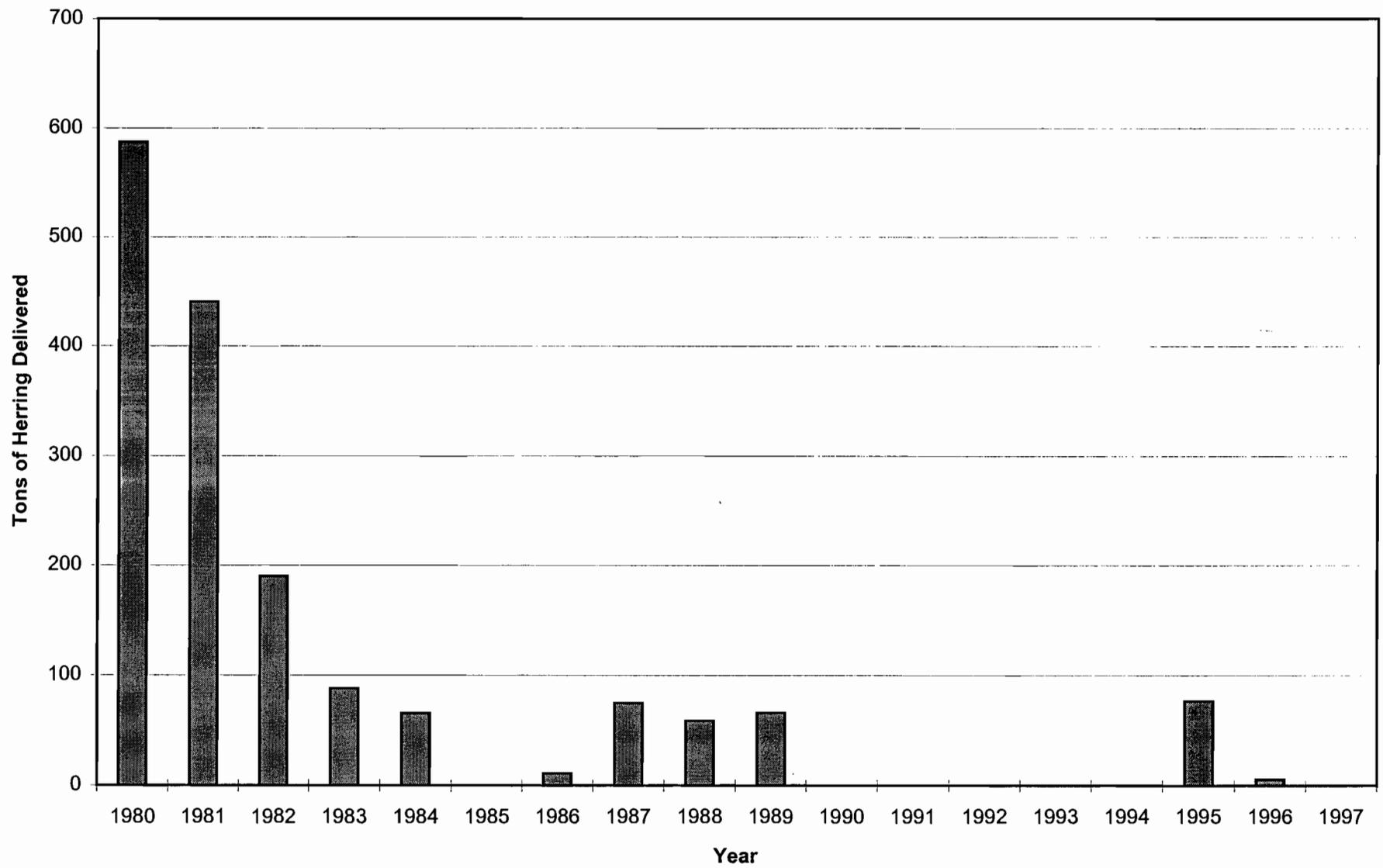


Figure 18. Pacific Herring harvests in the Chignik Management Area, 1980-1997.

**APPENDIX**

Appendix A.1. Chignik Management Area salmon forecasts, 1997.

---

FORECAST AREA: **Chignik Management Area**

SPECIES: **Sockeye salmon**

PRELIMINARY FORECAST OF THE 1997 RUN:

	Forecast Estimate <u>(thousands)</u>	Forecast Range <u>(thousands)</u>
TOTAL PRODUCTION:		
<i>Early Run (Black Lake)</i>		
Total Run	1,000	250-1,650
Escapement	400	
Commercial Common Property Harvest	600	
<i>Late Run (Chignik Lake)</i>		
Total Run	1,600	550-2,650
Escapement	250	
Commercial Common Property Harvest	1,350	
<i>Total Chignik Run</i>		
Total Run	2,600	800-4,300
Escapement	650	
Commercial Common Property Harvest	1,950	

FORECAST METHODS

The estimated run to Black Lake is the sum of a regression estimate (1966-1996) for two major age classes (ages 1.3 and 2.3) and the most recent 10-year average for minor age classes, while the Chignik Lake run is based on recruit per spawner relationships. The Black Lake forecast is based on the historical relationship between the number and length of prior year age-1.2 fish. All other age classes are predicted from a 10-year average. The Chignik Lake forecast accuracy has historically been quite variable, and developing a model such as the one used for the Black Lake run has been unsuccessful. The 1997 Chignik Lake run forecast was derived using post-1969 average return per spawner relationships for each year class.

---

-Continued-

---

DISCUSSION OF THE 1997 FORECAST

Early Run: The 1997 Black Lake sockeye salmon run is expected to be 1.0 million fish. This is approximately 0.5 million fish less than the 1987–96 average run of 1.5 million fish and 0.4 million fish less than the 1996 forecast.

Late Run: The estimated 1997 Chignik Lake sockeye run is 1.6 million fish, 0.3 million more than the 1987–96 average of 1.3 million fish. The Chignik Lake run forecast in 1996 was also 1.6 million.

Prepared By:

David Owen  
Area Management Biologist  
Chignik Area ADF&G

Ivan Vining  
Westward Biometrician  
Kodiak

**Chignik Management Area  
1997 Harvest Projections  
(in thousands)**

Chinook <sup>1</sup>	Sockeye <sup>2</sup>	Coho <sup>3</sup>	Pink <sup>4</sup>	Chum <sup>5</sup>	Total
7	1,550	220	1,000	230	3,007

- <sup>1</sup> Chinook harvest is dependent upon the amount of fishing time allowed for sockeye salmon in July; the harvest projection approximates a 10-year average.
  - <sup>2</sup> Estimate does not include the Cape Igvak and Southeastern Mainland District intercept fisheries (22% allocation) which equates to approximately .5 million Chignik bound sockeye salmon through July 25.
  - <sup>3</sup> Coho salmon harvest is related to the strength of the Chignik Lake sockeye run. Lagoon and outside catches are based on a 10-year harvest average.
  - <sup>4</sup> In the Western/Perryville Districts the pink salmon forecast is computed by multiplying the average recruit per spawner for the previous ten years by the parent year escapement. For the Central/Eastern Districts the projection is based on the average of the run strength for the previous ten years. The largest pink catches should come from the Western/Perryville Districts and could account for 70% of the projected total. Unstable stream conditions in these districts have resulted in poor returns from excellent parent year escapements.
  - <sup>5</sup> The chum salmon forecast is based on the average of the run strength since 1980. The Western/Perryville Districts should experience the largest proportion of the catch.
-

Appendix A.2. Comparison of Black Lake (early run) and Chignik Lake (late run) forecasts versus actual runs in millions of sockeye salmon, 1987-1997.

Year	Black Lake			Chignik Lake			Combined Total Run		
	Forecast	Actual	Percent Difference	Forecast	Actual	Percent Difference	Forecast	Actual	Percent Difference
1987	1.8	2.5	-38.9%	1.3	0.7	46.2%	3.1	3.2	-3.2%
1988	1.4	0.7	50.0%	0.8	0.9	-12.5%	2.2	1.6	27.3%
1989	1.2	0.6	50.0%	1.0	1.6	-60.0%	2.2	2.2	0.0%
1990	0.8	1.0	-25.0%	1.0	2.2	-120.0%	1.8	3.2	-77.8%
1991	2.8	2.4	14.3%	1.1	1.1	0.0%	3.9	3.5	10.3%
1992	1.8	1.1	38.9%	0.9	1.3	-44.4%	2.7	2.4	11.1%
1993	1.6	1.3	18.8%	1.0	1.7	-70.0%	2.6	3.0	-15.4%
1994	1.8	2.4	-33.3%	1.3	0.7	46.2%	3.1	3.1	0.0%
1995	1.9	1.0	47.4%	1.9	0.9	52.6%	2.8	2.9	-3.6%
1996	1.4	2.2	-57.1%	1.6	1.2	25.0%	3.0	3.4	-13.3%
1997	1.0	0.6	40.0%	1.6	1.0	37.5%	2.6	1.6	38.5%

Appendix B.1. Total sockeye salmon return to Black Lake by brood year and age, 1915 - 1997.

Year	Parent Escapement	Age Composition <sup>a,b</sup>													Total	Return/ Spawner
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other		
1915												1,202	1,202	0	2,404	
1916									9,315	68,559	37	15	0	0	77,926	
1917							318,491	20,666	576	18,747	0	0	0	0	358,480	
1918				0	12,960	0	43,803	6,984	0	49,097	0	0	138	0	112,982	
1919		0	0	0	15,073	0	92,073	28,499	16	74,062	30	0	324	0	210,077	
1920		0	0	0	63,251	0	422,288	28,279	0	111,422	6,511	0	273	0	632,024	
1921		0	0	0	122,550	0	258,628	113,493	5,873	255,927	0	0	0	0	756,471	
1922	86,421	0	0	0	40,685	0	659,040	56,121	0	202,612	2,465	1,222	1,669	0	963,814	11.2
1923	4,642	0	0	0	18,213	0	172,343	53,445	2,677	132,776	410	436	59	0	380,359	81.9
1924	121,983	0	0	0	85,083	0	1,206,555	8,855	426	19,931	939	384	384	0	1,322,557	10.8
1925	386,364	0	0	0	1,529	0	54,164	9,924	384	50,707	937	17	0	0	117,662	0.3
1926	289,009	0	0	0	7,544	420	104,094	45,572	11,714	352,025	7,117	0	1,708	0	530,194	1.8
1927	857,881	0	0	0	99,929	66	2,375,878	85,253	721	107,239	165	3,699	4,234	0	2,677,184	3.1
1928	507,353	0	0	0	23,860	0	304,338	49,284	9,848	428,369	2,755	409	2,118	0	820,981	1.6
1929	995,832	0	0	0	9,910	0	918,487	58,777	5,626	60,214	865	144	144	0	1,054,167	1.1
1930	92,955	0	0	0	23,769	0	286,339	13,886	6,663	43,297	3,527	4	0	0	377,485	4.1
1931	96,201	0	0	0	33,685	943	923,763	46,710	28	122,389	0	655	58	0	1,128,231	11.7
1932	2,151,734	0	0	0	50,602	0	191,354	36,823	10,350	43,060	291	8,584	234	0	341,298	0.2
1933	223,913	0	0	0	62,079	0	247,818	7,609	138,675	164,540	0	625	54	0	621,400	2.8
1934	866,890	0	0	0	16,228	4	1,583,632	6,057	9,886	40,971	276	1,299	113	0	1,658,466	1.9
1935	194,636	0	10	0	68,710	0	235,971	7,188	20,562	85,058	572	1,508	130	0	419,709	2.2
1936	548,039	0	0	0	15,422	3	490,061	14,873	23,865	98,553	661	2,346	201	0	645,985	1.2
1937	205,613	0	9	0	32,001	7	567,984	17,179	37,146	153,156	1,026	960	82	0	809,550	3.9
1938	175,972	0	19	0	37,059	7	882,938	26,618	15,193	62,552	418	706	60	0	1,025,570	5.8
1939	1,142,852	0	22	0	57,563	12	360,712	10,840	11,171	45,926	307	2,470	209	0	489,232	0.4
1940	176,307	0	35	0	23,499	5	264,904	7,938	39,130	160,651	1,070	7,513	634	0	505,379	2.9
1941	374,420	0	14	0	17,246	3	926,890	27,697	119,048	488,137	3,247	1,196	101	0	1,583,579	4.2
1942	442,981	0	11	0	60,302	12	2,817,023	83,954	18,948	77,598	515	684	58	0	3,059,105	6.9
1943	701,859	0	36	0	183,156	37	447,919	13,315	10,839	44,522	297	499	38	0	700,658	1.0
1944	291,844	0	111	0	29,106	6	256,848	7,683	7,947	31,664	203	482	43	0	334,093	1.1
1945	217,882	0	18	0	16,715	3	183,734	5,143	7,619	31,784	216	275	27	0	245,534	1.1
1946	774,130	0	10	0	11,775	2	182,835	5,644	4,307	18,686	133	707	64	0	224,163	0.3
1947	2,386,733	0	7	0	11,988	2	106,718	3,550	11,150	46,809	320	525	43	0	181,112	0.1
1948	384,637	0	7	0	7,129	1	268,953	8,407	8,346	33,877	223	352	0	0	327,295	0.9
1949	213,269	0	4	0	17,688	4	195,878	5,713	0	89,095	0	0	152	0	308,534	1.4
1950	206,270	0	11	0	12,671	3	287,407	12,644	1,862	76,722	648	373	286	0	392,627	1.9

-Continued-

Appendix B.1. (page 2 of 3)

145

Year	Parent Escapement	Age Composition <sup>a,b</sup>													Total	Return/ Spawner
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other		
1951	125,126	0	8	0	46,798	0	448,360	3,404	2,319	124,345	0	455	0	0	625,689	5.0
1956	289,096	0	17	0	16,499	0	81,569	14,910	9	90,001	0	196	4,967	0	208,168	0.7
1957	192,479	0	0	0	6,559	161	117,979	10,507	52	210,686	3,641	21	906	0	350,512	1.8
1958	120,862	0	905	0	19,146	0	79,955	81,992	0	60,132	77	61	103	0	242,370	2.0
1959	112,226	0	1,522	0	31,039	142	148,403	13,872	402	144,581	874	58	54	0	340,947	3.0
1960	251,567	0	124	0	55,546	221	610,592	32,598	6,221	65,418	49	606	3,383	0	774,756	3.1
1961	140,714	0	276	0	14,301	1	387,053	3,483	536	164,278	486	1,020	209	0	571,645	4.1
1953	168,375	0	0	0	1,024	32	154,589	17,848	1,625	180,887	252	0	1,350	0	357,607	2.1
1954	184,953	0	143	0	6,468	0	50,272	10,720	515	72,973	9	312	1,009	0	142,421	0.8
1962	167,602	0	698	0	8,379	0	257,371	25,726	3,194	395,626	1,524	954	0	0	693,473	4.1
1963	332,536	0	0	0	29,538	173	448,298	17,628	905	199,104	0	2,506	551	0	698,703	2.1
1964	137,073	0	37	0	13,311	3,735	190,972	133,203	3,809	409,973	414	0	271	0	755,726	5.5
1965	307,192	0	394	0	102,570	421	1,535,858	80,851	3,332	201,220	271	497	22,731	0	1,948,144	6.3
1966	383,545	0	1,631	0	65,254	378	990,567	15,248	2,193	225,660	28	0	2,504	0	1,303,463	3.4
1967	328,000	0	2,728	0	16,157	163	99,357	6,078	13,406	96,629	1,537	0	0	0	236,054	0.7
1968	342,343	0	271	0	12,997	0	971,408	4,519	2,163	161,664	1,960	0	1,663	0	1,156,644	3.4
1969	366,589	0	0	0	12,747	153	279,429	63,258	1,313	84,120	486	0	2,251	0	443,757	1.2
1970	536,257	0	0	0	17,281	261	195,050	8,163	4,614	192,247	621	0	3,698	0	421,934	0.8
1971	671,668	0	569	0	22,138	0	800,515	67,483	3,873	454,039	385	264	6,763	0	1,356,029	2.0
1972	326,320	0	0	0	31,630	0	423,794	16,474	3,195	587,997	4,596	831	2,564	0	1,071,082	3.3
1973	533,047	0	0	0	19,627	0	753,970	121,231	0	324,538	1,425	511	1,812	0	1,223,113	2.3
1974	351,701	0	51	0	50,797	334	123,590	117,544	116	305,094	551	452	2,727	0	601,256	1.7
1975	308,914	0	0	0	19,977	1,826	71,732	55,434	1,010	447,233	1,057	396	34	2,437	601,137	1.9
1976	551,254	0	520	0	44,085	88	669,395	24,810	816	135,036	0	0	334	11,778	886,860	1.6
1977	482,247	0	102	0	59,211	389	1,687,898	12,701	6,990	337,281	0	3,492	1,655	44,852	2,154,571	4.5
1978	458,660	0	235	0	55,123	3,060	448,274	61,734	6,664	354,902	0	0	210	15,138	945,339	2.1
1979	385,694	0	1,241	0	533,050	671	3,195,846	57,155	4,133	68,046	223	422	805	1,350	3,862,941	10.0
1980	311,332	0	255	120,421	99,989	1,187	641,668	151,574	1,503	741,614	2,098	943	1,113	4,847	1,767,213	5.7
1981	438,540	0	532	0	155,923	1,112	938,072	75,567	4,289	664,383	510	1,112	259	2,819	1,844,578	4.2
1982	616,117	0	121	0	172,993	2,021	1,627,753	134,483	2,133	391,690	0	394	0	194	2,331,780	3.8
1983	426,177	0	0	19,136	79,674	3,905	209,772	37,475	285	211,457	2	3,596	0	466	565,767	1.3
1984	597,712	478	2,279	1,225	46,148	2,194	324,901	42,078	2,605	210,908	1,216	703	2,461	0	637,196	1.1
1985	377,516	156	501	510	36,677	638	376,202	73,568	20,665	249,837	1,091	1,202	9,240	3,500	773,787	2.0
1986	566,088	384	1,517	6,384	342,057	0	1,893,213	55,260	2,978	203,218	11,147	5,791	1,147	45	2,523,141	4.5

-Continued-

Appendix B.1. (page 3 of 3)

Parent Year	Escapement	Age Composition <sup>a,b</sup>													Total	Return/ Spawner
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other		
1987	589,291	2,325	0	961	145,616	1,027	727,158	75,666	8,944	433,856	2,904	6,072	31,613	745	1,436,887	2.4
1988	420,577	0	1,467	670	70,153	1,885	491,967	122,690	5,445	961,154	1,426	798	444	256	1,658,355	3.9
1989	384,004	32	4,416	5,832	213,429	2,749	1,035,809	143,882	4,145	268,597	1,258	2,248	21,375	1,452	1,705,224	4.4
1990	434,543	1,004	557	34,085	137,435	5,125	458,197	179,469	5,792	698,629	23	3,314	7,078	579	1,531,287	3.5
1991	657,511	720	520	1,823	108,526	333	1,222,609	45,707	1,208	123,111	1,082			851	1,506,490	2.3
1992	360,681	1,830	446	114,896	52,665	2,593	371,002	67,350						606	611,388	
1993	364,263	2,900	104	10,112	44,158	1,372										
1994	766,909	234	653													
1995	366,163															
1996	464,750															
1997	396,668															

<sup>a</sup>Includes all escapement and catch including that from Southeastern District Mainland and Cape Igvak.

<sup>b</sup>Does not include personal use or other subsistence sockeye salmon.

Appendix B.2 Total sockeye salmon return to Chignik Lake by brood year and age, 1915-1997.

Year	Parent Escapement	Age Composition <sup>a,b</sup>														Return/ Total Spawner	
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	Other		
1915													4,514	4,514		9,028	
1916									11,874	690,450	9,120	2,007	0	0	0	713,451	
1917							339,637	149,163	0	296	274,036	0	0	0	0	763,132	
1918				0	44,358	0	201,318	195,611	0	0	999,888	0	2,948	2,966	0	1,447,089	
1919		0	0	0	100,404	2,425	243,024	286,119	0	2,492	423,094	8,270	0	5,828	0	1,071,656	
1920		0	0	0	148,914	0	435,826	137,704	0	2,509	300,319	20,713	0	1,567	0	1,047,552	
1921		0	0	0	101,251	0	216,728	278,711	0	4,085	193,620	2,245	955	3,396	0	800,991	
1922	352,807	0	0	0	43,667	0	382,956	73,351	0	0	991,979	14,972	2,886	4,175	0	1,513,986	4.3
1923	213,781	0	0	0	74,884	218	410,194	245,187	0	2,360	577,390	1,111	1,647	2,376	0	1,315,367	6.2
1924	910,521	0	0	0	126,685	1,819	1,003,422	8,350	0	1,115	102,217	5,830	425	55	0	1,249,918	1.4
1925	677,566	0	0	0	3,736	0	51,222	195,414	0	332	427,580	7,817	5,367	456	0	691,924	1.0
1926	695,314	0	0	0	25,764	919	279,018	304,619	273	3,461	879,220	3,821	55	2,246	0	1,499,396	2.2
1927	429,525	0	207	0	113,952	1,499	951,950	100,633	0	744	203,942	1,586	1,225	5,557	0	1,381,295	3.2
1928	1,020,520	0	0	0	40,063	0	353,506	77,224	0	12,047	300,603	3,129	1,042	1,618	0	789,232	0.8
1929	914,307	0	0	0	16,254	0	584,561	38,873	253	5,675	361,557	1,165	2,192	1,251	0	1,011,781	1.1
1930	359,405	0	0	0	26,688	0	426,128	41,867	0	6,177	344,419	16,565	2,065	0	0	863,909	2.4
1931	631,986	0	0	0	30,856	2,454	296,899	138,440	0	3,747	264,858	0	2,678	635	0	740,567	1.2
1932	1,113,859	0	0	0	24,809	0	475,759	46,764	0	8,530	185,288	2,049	13,674	1,502	0	758,375	0.7
1933	310,088	0	0	0	35,679	0	311,946	35,705	0	48,795	321,467	0	1,267	301	0	755,160	2.4
1934	447,642	0	0	0	19,716	90	708,212	33,934	0	4,066	88,027	969	4,299	1,026	0	860,339	1.9
1935	462,469	0	69	0	37,642	308	148,352	16,893	0	13,842	299,288	3,284	4,082	976	0	524,736	1.1
1936	376,838	0	0	0	9,342	43	504,624	57,326	0	13,186	284,707	3,117	9,326	2,233	0	883,904	2.3
1937	406,618	0	33	0	31,723	145	480,250	54,435	0	30,220	651,642	7,116	2,664	639	0	1,258,867	3.1
1938	305,827	0	111	0	30,143	137	1,099,657	124,382	0	8,660	186,504	2,032	1,128	270	0	1,453,024	4.8
1939	512,754	0	106	0	68,919	315	314,851	35,542	0	3,674	79,035	859	5,420	1,305	0	510,026	1.0
1940	152,957	0	244	0	19,705	90	133,474	15,039	0	17,705	380,481	4,130	10,049	2,422	0	583,339	3.8
1941	531,904	0	70	0	8,342	38	642,782	72,293	0	32,912	706,532	7,654	2,225	537	0	1,473,385	2.8
1942	516,621	0	30	0	40,124	183	1,194,007	134,060	0	7,305	156,659	1,695	4,662	1,112	0	1,539,837	3.0
1943	1,205,418	0	143	0	74,442	340	264,830	29,686	0	15,007	324,527	3,562	5,405	1,321	0	719,263	0.6
1944	351,212	0	266	0	16,492	75	547,139	62,179	0	18,110	385,087	4,101	2,886	711	0	1,037,046	3.0
1945	151,326	0	59	0	34,405	157	652,782	72,138	0	9,784	207,054	2,186	1,246	315	0	980,126	6.5
1946	739,884	0	121	0	40,246	183	351,541	38,531	0	4,401	91,579	937	1,531	371	0	529,441	0.7
1947	1,393,990	0	147	0	21,549	98	156,343	16,644	0	5,048	108,068	1,165	1,316	333	0	310,711	0.2
1948	313,319	0	80	0	9,390	42	182,792	20,430	0	4,658	96,858	989	826	0	0	316,065	1.0
1949	574,715	0	36	0	11,360	52	165,402	17,581	0	1,766	103,345	0	496	650	0	300,688	0.5
1950	861,070	0	41	0	9,924	45	199,966	31,411	0	2,206	245,826	407	2,903	1,820	0	494,549	0.6
1951	490,899	0	38	0	33,082	0	618,729	13,748	0	7,046	242,042	0	1,028	0	0	915,713	1.9
1952	260,540	0	0	0	22,213	0	258,747	30,836	0	986	229,563	0	3,932	8,403	0	554,680	2.1
1953	221,408	0	0	0	9,167	428	125,399	32,350	0	470	396,916	1,935	934	5,424	0	573,023	2.6
1954	277,912	0	547	0	2,848	0	39,658	75,361	0	771	418,442	804	1,661	5,069	0	545,161	2.0

-Continued-

Appendix B.2. (page 2 of 3)

Year	Parent Escapement	Age Composition <sup>a,b</sup>														Return/ Total Spawner	
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	Other		
1955	201,409	0	369	0	32,187	0	303,988	32,708	0	168	363,162	1,252	0	0	0	733,834	3.6
1956	483,024	0	1,330	0	12,515	0	106,327	36,113	0	435	221,169	0	1,349	4,781	0	384,019	0.8
1957	328,779	0	0	0	17,746	622	232,393	109,475	0	351	332,661	2,104	1,189	1,319	0	697,860	2.1
1958	212,594	0	1,459	0	50,630	0	23,204	139,797	0	0	418,960	980	93	432	0	635,555	3.0
1959	308,645	0	3,286	0	18,094	907	109,165	81,640	227	117	197,975	738	689	187	0	413,025	1.3
1960	357,230	0	146	0	24,446	491	122,278	8,273	0	1,314	210,884	141	1,618	12,824	0	382,415	1.1
1961	254,970	0	718	0	1,899	799	109,935	18,702	0	220	401,733	2,698	5,335	2,420	0	544,459	2.1
1962	324,860	0	123	0	4,312	0	44,074	69,811	0	998	692,188	1,074	1,109	0	0	813,689	2.5
1963	200,314	0	0	0	5,536	1,300	103,116	68,605	0	29	243,939	0	1,501	867	0	424,893	2.1
1964	166,625	0	88	0	6,607	4,550	24,880	65,639	0	700	138,282	943	205	6,114	0	248,008	1.5
1965	163,151	0	1,636	0	25,157	5,547	159,113	57,942	0	382	650,181	1,028	659	96,111	0	997,756	6.1
1966	183,525	0	1,715	0	14,517	925	300,759	30,263	0	461	413,807	2,453	0	18,073	0	782,974	4.3
1967	189,000	0	501	0	6,187	768	78,308	31,097	0	701	482,538	2,780	1,342	0	0	604,221	3.2
1968	244,836	0	914	0	3,835	0	115,840	20,435	339	636	583,517	15,603	2,691	30,092	0	773,902	3.2
1969	132,055	0	0	0	1,239	1,062	85,064	270,966	283	818	487,805	7,288	0	16,722	0	871,247	6.6
1970	119,952	0	0	0	18,234	12,035	27,646	151,089	0	1,318	461,271	12,205	0	19,870	0	703,668	5.9
1971	232,501	0	1,500	0	15,448	12,620	185,532	410,628	0	236	1,898,372	4,096	2,842	13,887	0	2,545,161	10.9
1972	231,270	0	0	0	30,087	2,445	120,639	96,178	0	98	718,493	30,779	267	3,698	0	1,002,684	4.3
1973	247,144	0	0	0	5,778	10,740	56,736	173,028	0	0	919,784	3,852	1,248	4,756	0	1,175,922	4.8
1974	364,612	0	4,420	0	19,284	2,764	105,493	196,981	0	51	677,611	2,036	2,316	9,262	2,703	1,022,921	2.8
1975	314,084	0	0	0	24,550	7,125	123,634	185,390	0	914	859,629	3,573	6,449	2,334	7,609	1,221,207	3.9
1976	341,828	0	1,103	0	59,255	807	775,826	94,346	0	2,484	499,554	0	3,117	10	5,083	1,441,585	4.2
1977	463,561	0	252	0	52,795	3,975	155,472	59,987	0	1,958	1,207,619	0	2,034	789	7,477	1,492,358	3.2
1978	263,009	0	422	0	16,755	5,822	259,993	318,606	0	686	278,532	490	1,752	176	239	883,473	3.4
1979	317,889	0	2,029	0	102,991	5,057	281,909	28,124	0	1,235	278,237	388	1,469	784	3,223	705,446	2.2
1980	279,729	0	1,794	8,287	13,217	6,060	156,838	320,949	0	632	448,135	3,096	830	1,070	1,189	962,097	3.4
1981	301,092	0	1,116	0	88,980	5,093	232,004	74,324	0	664	370,421	151	649	74	35	773,511	2.6
1982	305,193	0	2,542	0	51,480	3,199	194,469	108,490	0	740	582,904	160	1,383	0	301	945,668	3.1
1983	441,561	0	0	2,715	12,125	3,824	148,143	109,807	0	208	1,105,502	807	11,621	76	0	1,394,828	3.2
1984	268,496	120	914	552	30,409	10,724	150,188	324,007	0	2,480	1,638,859	1,743	9,695	7,155	597	2,177,443	8.1
1985	369,262	98	689	207	18,638	16,398	174,283	161,966	0	6,682	501,843	1,161	4,112	3,789	173	890,039	2.4
1986	207,231	103	2,745	13,060	179,104	321	345,786	175,958	0	1,834	497,777	7,787	12,896	2,149	619	1,240,139	6.0
1987	214,452	6,253	686	1,066	72,172	9,757	457,744	225,494	0	6,045	1,037,042	6,866	7,292	71,800	125	1,902,342	8.9
1988	255,180	0	2,430	1,115	57,578	3,326	295,438	109,596	0	2,118	206,346	4,081	10,594	8,802	1,268	702,692	2.8
1989	557,171	418	7,979	9,244	171,035	4,773	273,461	105,477	0	3,988	1,202,092	7,408	11,544	88,753	320	1,886,492	3.4
1990	335,867	447	442	6,049	26,006	1,321	366,364	186,817	0	1,947	463,728	1,800	2,170	16,440	890	1,074,421	3.2
1991	382,587	134	201	1,008	105,106	1,934	297,675	109,027	0	649	480,415	2,956			4,111	1,003,216	2.6
1992	405,922	628	1,107	22,469	18,620	12,535	219,422	204,719	0								
1993	333,114	474	500	4,331	31,962	19,220											
1994	197,445	85	954														

-Continued-

148

Appendix B.2. (page 3 of 3)

Year	Parent Escapement	Age Composition <sup>a,b</sup>											Return/ Total Spawner			
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2		2.4	3.3	Other
1995	373,757															
1996	284,387															
1997	378,950															

<sup>a</sup>Includes all escapement and catch including that from Southeastern District Mainland and Cape Igvak.

<sup>b</sup>Does not include personal use or other subsistence sockeye salmon.

Appendix C. Chignik River system sockeye salmon escapement goals for the **early run** (primarily Black Lake) and the **late run** (primarily Chignik Lake) by time period.

The numbers of fish presented in the escapement tables below were derived from averages over several years of escapements of various timing and magnitude. It should be noted that daily escapement levels will fluctuate considerably throughout the run. The tables listed serve only as a guide for achieving the total escapement for each run. Inseason variations from the figures listed may be due to variations in actual timing and/or strength of the run.

<b>Early Run-400,000 Escapement</b>		
Date	Lower	Upper
June 12		40000
June 14	50,000	65000
June 16	75,000	100,000
June 18	125,000	150,000
June 20	175,000	200,000
June 22	225,000	250,000
June 25	275,000	325,000
June 30	350,000	400,000

<b>Late Run-250,000 Escapement to August 31</b>				
Date	Early Escapement Is Achieved		Early Escapement Is Not Achieved	
July 6				40000
July 8			45,000	50000
July 10		40000	55,000	65000
July 12	50,000	60000	70,000	75000
July 14	65,000	75000	75,000	80000
July 16	80,000	90000	80,000	90000
July 19	100,000	115,000	100,000	115,000
July 21	125,000	135,000	125,000	135,000
July 23	145,000	160,000	150,000	160,000
July 26	170,000	180,000	170,000	180,000
July 29	185,000	195,000	190,000	195,000
July 31	195,000	200,000	195,000	200,000
August 31	200,000	250,000	200,000	250,000

Appendix D.1. Chignik Management Area commercial salmon openings during the 1997 season.

Emergency Order No.	Management Action	Date of Action	Duration of Action (hrs)	District in Which Management Action Was Warranted
2	open	June 17-18	24	Chignik Bay, Central, and Eastern Districts
3	open	June 27-28	24	Chignik Bay, Central, and Eastern Districts
4	extend	June 28-29	24	Chignik Bay, Central, and Eastern Districts
5	open	July 1-3	48	Chignik Bay and Central Districts
6	extend	July 3-5	48	Chignik Bay and Central Districts
7	extend	July 5-7	50	Chignik Bay and Central Districts
8	open	July 11-12	24	Chignik Bay and Central Districts
9	extend	July 12-13	25	Chignik Bay and Central Districts
10	extend	July 13-14	24	Chignik Bay and Central Districts
11	open	July 18-19	24	Chignik Bay and Central Districts
12	extend	July 19-20	24	Chignik Bay and Central Districts
13	open	July 24-26	48	Chignik Bay, Central, and Eastern Districts
14	open	July 31-August 2	48	Chignik Bay and Central Districts
15	extend	August 2-Further Notice		Chignik Bay and Central Districts
16	extend	Further Notice		Chignik Bay and Central Districts
17	closed	6-Aug	99	Chignik Bay and Central Districts
14	open	August 1-2	48	Western and Perryville Districts
15	extend	August 2-3	24	Western and Perryville Districts
15	open	August 3-4	48	Eastern District
16	extend	August 4-5	24	Eastern District
18	open	August 8-10	48	Chignik Bay, Central, and Eastern Districts
19	extend	August 10-13	76	Chignik Bay, Central, and Eastern Districts
21	extend	August 13-14	24	Eastern District
22	extend	August 14-16	40	Eastern District
23	extend	August 16-18	48	Eastern District
21	extend	August 13-14	24	Kujulik and Cape Kumlik sections of the Central District
21	extend	August 13-16	64	Chignik Bay, and the Outer Chignik Bay Section of the Central District
23	extend	August 16-18	48	Chignik Bay, and the Outer Chignik Bay Section of the Central District
24	open	August 17-18	30	Western District
26	open	August 20-22	50	Chignik Bay and Central Districts
27	open	August 20-22	45	Eastern District
28	extend	August 22-24	48	Chignik Bay, Central, and Eastern Districts
29	extend	August 24-26	48	Chignik Bay, Central, and Eastern Districts
30	open	August 30-September 2	72	Chignik Bay, Central, and Eastern Districts

-Continued-

Appendix D.1. (page 2 of 2)

Emergency Management Order No.	Action	Date of Action	Duration of Action (hrs)	District in Which Management Action Was Warranted
31	open	September 5-8	72	Chignik Bay and Central Districts
32	open	September 6-8	48	Eastern District
32	open	September 10-12	48	Chignik Bay and Central Districts
33	extend	September 12-13	24	Chignik Bay and Central Districts
32	open	September 10-12	48	Eastern District
33	extend	September 12-13	24	Eastern District
34	open	September 15-16	48	Chignik Bay, Central, and Eastern Districts
35	extend	September 16-17	24	Chignik Bay, Central, and Eastern Districts

Appendix D.2.. Emergency orders for the Chignik Management Area, 1997.

---

EMERGENCY ORDER NO. 4-F-L-01-97

Issued at: Chignik, AK.,  
10:00 a.m. April 14, 1997

EFFECTIVE DATE: 12:00 noon  
Monday, April 15, 1997  
emergency order.

Expiration Date: June 30, 1997  
unless superseded by subsequent

**EXPLANATION:**

This emergency order establishes the Chignik Management Area commercial herring fishing periods during the sac roe season, April 15 through June 30. Beginning April 15, the fishery will open for 24-hour fishing periods, each of which begins at 12:00 noon on the odd numbered days of the month and closes at 12:00 noon on the even days of the month. Each 24-hour opening will be separated by a 24-hour closure for the entire management area. The only exception to this "24-hour on - 24-hour off" rule is the period from 12:00 noon June 1 through noon June 3 when the fishery will actually be closed for a 48-hour period due to the occurrence of two consecutive odd numbered days, May 31 and June 1. The Perryville, Mitrofanina, Big River Sections and that part of the Ivanof Section northwest of the Road Island salmon markers will be closed to commercial herring fishing during the 1997 season.

**REGULATION:**

5 AAC 27.560 (b) and 5 AAC 27.580 are superseded to read:

5 AAC 27.560. FISHING SEASONS AND WEEKLY FISHING PERIODS.

(b) During the established fishing season from April 15 through June 30, herring may be taken during 24-hour fishing periods in the Chignik Management Area as described in 5 ACC 27.550 as follows.

- (1) From 12:00 noon April 15 through 12:00 noon April 16.
- (2) From 12:00 noon April 17 through 12:00 noon April 18.
- (3) From 12:00 noon April 19 through 12:00 noon April 20.
- (4) From 12:00 noon April 21 through 12:00 noon April 22.
- (5) From 12:00 noon April 23 through 12:00 noon April 24.
- (6) From 12:00 noon April 25 through 12:00 noon April 26.
- (7) From 12:00 noon April 27 through 12:00 noon April 28.
- (8) From 12:00 noon April 29 through 12:00 noon April 30.
- (9) From 12:00 noon May 1 through 12:00 noon May 2.
- (10) From 12:00 noon May 3 through 12:00 noon May 4.
- (11) From 12:00 noon May 5 through 12:00 noon May 6.
- (12) From 12:00 noon May 7 through 12:00 noon May 8.
- (13) From 12:00 noon May 9 through 12:00 noon May 10.
- (14) From 12:00 noon May 11 through 12:00 noon May 12.
- (15) From 12:00 noon May 13 through 12:00 noon May 14.
- (16) From 12:00 noon May 15 through 12:00 noon May 16.
- (17) From 12:00 noon May 17 through 12:00 noon May 18.
- (18) From 12:00 noon May 19 through 12:00 noon May 20.
- (19) From 12:00 noon May 21 through 12:00 noon May 22.
- (20) From 12:00 noon May 23 through 12:00 noon May 24.
- (21) From 12:00 noon May 25 through 12:00 noon May 26.
- (22) From 12:00 noon May 27 through 12:00 noon May 28.
- (23) From 12:00 noon May 29 through 12:00 noon May 30.

---

-Continued-

- (24) From 12:00 noon May 31 through 12:00 noon June 1.
- (25) From 12:00 noon June 3 through 12:00 noon June 4.
- (26) From 12:00 noon June 5 through 12:00 noon June 6.
- (27) From 12:00 noon June 7 through 12:00 noon June 8.
- (28) From 12:00 noon June 9 through 12:00 noon June 10.
- (29) From 12:00 noon June 11 through 12:00 noon June 12.
- (30) From 12:00 noon June 13 through 12:00 noon June 14.
- (31) From 12:00 noon June 15 through 12:00 noon June 16.
- (32) From 12:00 noon June 17 through 12:00 noon June 18.
- (33) From 12:00 noon June 19 through 12:00 noon June 20.
- (34) From 12:00 noon June 21 through 12:00 noon June 22.
- (35) From 12:00 noon June 23 through 12:00 noon June 24.
- (36) From 12:00 noon June 25 through 12:00 noon June 26.
- (37) From 12:00 noon June 27 through 12:00 noon June 28.
- (38) From 12:00 noon June 29 through 12:00 noon June 30.

5 AAC 27.580. WATERS CLOSED TO HERRING FISHING.

(a) During the period June 12 through October 31, herring may not be taken in waters described in 5 AAC 15.350 and 5 AAC 39.290.

(b) The Big River section of the Eastern District is closed to commercial herring fishing unless the spawning biomass is estimated to exceed over 250 tons.

The Big River section is described as follows: all waters of Amber and Aniakchak bays bounded by 157°12.05' W. long., and the latitude of the southernmost marker 500 yards from the mouth of Aniakchak Lagoon.

(c) The Mitrofanina Section of the Western District and the Perryville Section of the Perryville District are closed to commercial herring fishing unless a sufficient spawning biomass is observed by the Department of Fish and Game aerial surveyors.

(d) The Ivanof Bay Section northwest of the Road Island salmon markers of the Perryville District is closed to commercial herring fishing unless a sufficient spawning biomass is observed by the Department of Fish and Game aerial surveyors.

**JUSTIFICATION:**

Regulations adopted by the Alaska Board of Fisheries established that weekly fishing periods for herring in the Chignik Area would be announced by emergency order. During the sac roe season (April 15 through June 30) herring stocks are concentrated and are vulnerable to over exploitation. The 24-hour on and 24-hour off fishery will reduce the time that stocks are subject to exploitation and will allow the Department more time to collect catch information and assess stock abundance.

The Big River section has not received any appreciable recruitment of herring into that fishery since 1980 when it was first harvested. However, during a May 1996 survey, 100 tons of herring were spotted in Amber Bay. Chignik Managers would like to see at least 250 tons for an opening because of the apparent slow rebuilding process. Consequently, unless harvestable concentrations of herring are observed by the Department, the Big River Section will remain closed in 1997.

The Mitrofanina Section, Perrville Section, and the Ivanof Bay Section will remain closed to commercial fishing until there is surplus spawning biomass sufficiently large to support a commercial fishery above that required for

---

-Continued-

---

subsistence needs. These stocks have been historically small and before these areas could open, the department wants to insure that overharvesting of herring does not occur.

---

EMERGENCY ORDER NO. 4-F-L-02-97

Issued at: Chignik, AK.,  
6:00 p.m. June 10, 1997

EFFECTIVE DATE: 11:30 a.m.  
Tuesday, June 11, 1997

Expiration Date: 11:30 a.m.  
Wednesday, June 12, unless  
superseded by subsequent  
emergency order.

**EXPLANATION:**

The Chignik Bay, Central, and Eastern Districts of the Chignik Management Area open to commercial salmon fishing for 24 hours from 11:30 a.m. Tuesday, June 11 until 11:30 a.m. Wednesday, June 12. Fishing will be allowed up to the regulatory markers at Mensis Point in Chignik Lagoon. Fishers are encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. Tuesday, June 11 for the next fishery announcement.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5AAC 15.350. CLOSED WATERS. (1) are superceded to read:

5AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central, and Eastern Districts will extend to commercial salmon fishing from 11:30 a.m. Tuesday, June 11 until 11:30 a.m. Wednesday, June 12.

5AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

A fishery extension is warranted in the Chignik Bay District because the sockeye salmon escapement of 82,500 has already surpassed the June 12 interim escapement goal of 40,000 and catches near 29,000. The Chignik Lagoon markers will be at Mensis Point markers to insure that interim escapement goals will not be surpassed. The Central and Eastern District will open concurrently with the Chignik Bay District as described in the Eastern District Management Plan 5 AAC 15.360.

---

EMERGENCY ORDER NO. 4-F-L-03-97

Issued at: Chignik, AK.,  
6:00 p.m. June 26, 1997

EFFECTIVE DATE: 9:00 a.m.  
Friday, June 27, 1997

Expiration Date: 9:00 a.m.  
Saturday, June 28, unless superseded  
by subsequent emergency order.

**EXPLANATION:**

The Chignik Bay, Central, and Eastern Districts of the Chignik Management Area will open to commercial salmon fishing for 24 hours from 9:00 a.m. Friday, June 27 until 9:00 a.m. Saturday, June 28. Fishing will be allowed up to the regulatory markers at Hume's Point in Chignik Lagoon. The fishery opening will be started by a flare and fishers are

---

-Continued-

---

encouraged to monitor VHF channel 6 for the final countdown. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. Friday, June 27 for the next announcement.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) is superseded to read:

AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central, and Eastern Districts will be open to commercial salmon fishing from 9:00 a.m. Friday, June 27 until 9:00 a.m. Saturday, June 28.

**JUSTIFICATION:**

A sockeye salmon commercial fishery is warranted because the June 26 total sockeye escapement of 351,000 at 6:00 p.m. has surpassed the June 30 interim goal's lower range of 350,000. In addition, the June 25 Chignik Lagoon test fishery indicated a modest buildup of sockeye salmon over that of June 22. The June 27 sockeye escapement is anticipated to be over 20,000 which will contribute to the goal of 400,000 by June 30. The Central and Eastern District will open concurrently with the Chignik Bay District as described in the Eastern District Management Plan 5 AAC 15.360.

---

EMERGENCY ORDER NO. 4-F-L-04-97

Issued at: Chignik, AK.,  
6:00 p.m. June 27, 1997

EFFECTIVE DATE: 9:00 a.m.  
Saturday, June 28, 1997

Expiration Date: 9:00 a.m.  
Sunday, June 29 unless superseded  
by subsequent emergency order.

**EXPLANATION:**

The Chignik Bay, Central, and Eastern Districts of the Chignik Management Area will extend to commercial salmon fishing for 24 hours from 9:00 a.m. Saturday, June 28 until 9:00 a.m. Sunday, June 29. Fishing regulatory markers will be moved to Mensis Point in Chignik Lagoon at 9:00 a.m. Saturday, June 28. Fishermen are encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. Saturday, June 28 for the next announcement.

**REGULATION:**

5AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central, and Eastern Districts will extend to commercial salmon fishing from 9:00 a.m. Saturday, June 28 until 9:00 a.m. Sunday, June 29.

5 AAC 15.350. CLOSED WATERS. (1) Effective at 9:00 a.m. Saturday, July 28, all waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

A sockeye salmon commercial fishery extension is warranted because the total sockeye escapement of approximately 377,000 on June 27 has surpassed the escapement goal's lower range of the 350,000 - 400,000 from June 25 to June 30. At the current rate that sockeye salmon are escaping to the Chignik Lakes system, it is anticipated that sockeye

---

-Continued-

---

escapement will surpass the 400,000 interim escapement goal by June 30. The Central and Eastern District will extend concurrently with the Chignik Bay District as described in the Eastern District Management Plan 5 AAC 15.360.

---

EMERGENCY ORDER NO. 4-F-L-05-97

Issued at: Chignik, AK.,  
8:00 a.m. July 1, 1997

EFFECTIVE DATE: 2:00 p.m.  
Tuesday, July 1, 1997

Expiration Date: 2:00 p.m.  
Thursday, July 3 unless superseded  
by subsequent emergency order.

**EXPLANATION:**

Only the Chignik Bay and Central Districts of the Chignik Management Area will open to commercial salmon fishing for 48 hours from 2:00 p.m. Tuesday, July 1 until 2:00 p.m. Thursday, July 3. Fishing will be allowed up to the regulatory markers at Hume's Point in the Chignik Lagoon. Starting at 2:00 p.m. Wednesday, July 2 the regulatory markers will move from Hume's to Mensis Point. The fishery opening will be started by a flare and fishers are encouraged to monitor VHF channel 6 for the final countdown. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. Wednesday, July 3 for the next announcement.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central Districts will open to commercial salmon fishing from 2:00 p.m. Tuesday, July 1 until 2:00 p.m. Thursday, July 3.

5 AAC 15.350. CLOSED WATERS. (1) Effective starting at 2:00 p.m. Wednesday, July 2, all waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

A sockeye salmon commercial fishery opening is warranted because the daily sockeye escapement of 8,444 has passed through the weir as of 8:00 a.m. July 1 for a season's total of approximately 391,952. It is anticipated that the upper end of the escapement goal for June 30 of 350,000 - 400,000 will be surpassed by the day's end. As described in the Eastern District Management Plan 5 AAC 15.360, the Eastern District may not open during the transition period when determining which stock dominates, Black or Chignik Lake.

---

EMERGENCY ORDER NO. 4-F-L-06-97

Issued at: Chignik, AK.,  
6:00 p.m. July 2, 1997

EFFECTIVE DATE: 2:00 p.m.  
Thursday, July 3, 1997

Expiration Date: 2:00 p.m.  
Saturday, July 5 unless superseded  
by subsequent emergency order.

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will extend to commercial salmon fishing for 48 hours from 2:00 p.m. Thursday, July 3 until 2:00 p.m. Saturday, July 5. Fishing will continue up to the regulatory

---

-Continued-

---

markers at Mensis Point in the Chignik Lagoon. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. Friday, July 4 for the next announcement.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central Districts will extend to commercial salmon fishing from 2:00 p.m. Thursday, July 3 until 2:00 p.m. Saturday, July 5.

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

An extension of the sockeye commercial fishery is warranted because daily sockeye escapement for July 2 was approximately 7,000 through 6:00 p.m. for a season's total of 417,000. It is anticipated that the upper end of the escapement goal for July 10 of 40,000 to Chignik Lake will be achieved. As described in the Eastern District Management Plan 5 AAC 15.360, the Eastern District may not open during the transition period when determining whether the Black Lake or Chignik Lake stock dominates.

---

EMERGENCY ORDER NO. 4-F-L-07-97

Issued at: Chignik, AK.,  
6:00 p.m. July 4, 1997

EFFECTIVE DATE: 2:00 p.m.  
Saturday, July 5, 1997

Expiration Date: 4:00 p.m.  
Monday, July 7 unless superseded  
by subsequent emergency order.

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will extend to commercial salmon fishing for 50 hours from 2:00 p.m. Saturday, July 5 until 4:00 p.m. Monday, July 7. Fishing will continue to be allowed up to the regulatory markers at Mensis Point in the Chignik Lagoon. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. Sunday, July 6 for the next announcement.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central Districts will extend to commercial salmon fishing from 2:00 p.m. Saturday, July 5 until 4:00 p.m. Monday, July 7.

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

---

-Continued-

---

**JUSTIFICATION:**

A commercial fishery extension is warranted because daily sockeye escapement for July 4 was approximately 1,000 through 6:00 p.m. for a season's total of 419,000. Since the July 3 sample of age 2.3 sockeye age composition and scale pattern analysis showed very little increase over the sample of June 29, it appears the dominant stock is still primarily returning to Black Lake. As described in the Eastern District Management Plan 5 AAC 15.360, the Eastern District may not open during the transition period to determine whether the Black Lake or Chignik Lake stock dominates.

---

EMERGENCY ORDER NO. 4-F-L-08-97

Issued at: Chignik, AK.,  
6:00 p.m. July 10, 1997

EFFECTIVE DATE: 7:30 a.m.  
Friday, July 11, 1997

Expiration Date: 7:30 a.m.  
Saturday, July 12 unless superseded  
by subsequent emergency order.

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will open to commercial salmon fishing for 24 hours from 7:30 a.m. Friday, July 11 until 7:30 a.m. Saturday, July 12. Fishing will continue up to the regulatory markers at Hume's Point in the Chignik Lagoon. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 3:00 p.m. Friday, July 11 for the next announcement.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) is superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central Districts will open to commercial salmon fishing from 7:30 a.m. Friday, July 11 until 7:30 a.m. Saturday, July 12.

**JUSTIFICATION:**

A sockeye salmon commercial fishery is warranted because daily sockeye escapement for July 10 was approximately 10,000 through 6:00 p.m. for a season's total of 447,000. It is anticipated that the Chignik Lake sockeye escapement goal for July 10 of 40,000 will be achieved. The July 7 sample of age 2.3 sockeye for age composition and scale pattern analysis shows that the dominant stock is now Chignik Lake but only at approximately 54%. The Eastern, Western and Perryville Districts will remain closed because aerial surveys have shown low chum escapement to streams in those areas.

---

EMERGENCY ORDER NO. 4-F-L-09-97

Issued at: Chignik, AK.,  
3:00 p.m. July 11, 1997

EFFECTIVE DATE: 7:30 a.m.  
Saturday, July 12, 1997

Expiration Date: 8:30 a.m.  
Sunday, July 13 unless superseded  
by subsequent emergency order.

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will extend to commercial salmon fishing for 25 hours from 7:30 a.m. Saturday, July 12 until 8:30 a.m. Sunday, July 13. Fishing will move to the regulatory markers

---

-Continued-

---

at Mensis Point in the Chignik Lagoon at 7:30 a.m. Saturday, July 12. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 3:00 p.m. Saturday, July 12 for the next announcement.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central Districts will open to commercial salmon fishing from 7:30 a.m. Saturday, July 12 until 8:30 a.m. Sunday, July 13.

5 AAC 15.350. CLOSED WATERS. (1) Effective at 7:30 Saturday, July 12, all waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

A commercial fishery extension is warranted because daily sockeye escapement for July 11 was approximately 15,700 through 3:00 p.m. for a season's total of 464,105. It is anticipated that the escapement goal for July 12 of 60,000 to chignik Lake will be achieved. The Eastern, Western and Perryville Districts will remain closed because aerial surveys have shown low chum escapement to streams in those areas.

---

EMERGENCY ORDER NO. 4-F-L-10-97

Issued at: Chignik, AK.,  
6:00 p.m. July 12, 1997

EFFECTIVE DATE: 8:30 a.m.  
Sunday, July 13, 1997

Expiration Date: 8:30 a.m.  
Monday, July 14 unless superseded  
by subsequent emergency order.

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will extend to commercial salmon fishing for 24 hours from 8:30 a.m. Sunday, July 13 to 8:30 a.m. Monday, July 14. Fishing will continue to the regulatory markers at Mensis Point in the Chignik Lagoon. This is the last fishing period during this opening.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central Districts will extend to commercial salmon fishing from 8:30 a.m. Sunday, July 13 to 8:30 a.m. Monday, July 14.

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

---

-Continued-

---

**JUSTIFICATION:**

A fishery extension is warranted because daily sockeye escapement for July 12 was about 3,500 through 6:00 p.m. for a season's total of approximately 471,091. From July 7 to July 11, the Chignik Lake sockeye salmon age composition has increased from 54% to 58%. Although the Chignik Lake stock dominates, this opening is intended to harvest the surplus Black Lake bound sockeye salmon. Preliminary estimates shows that between 55,000 to 65,000 sockeye salmon are destined for Chignik Lake surpassing the interim goal of July 12 of between 50,000 - 60,000. The Eastern, Western and Perryville Districts will remain closed because aerial surveys have shown low chum escapement to streams in those areas.

---

EMERGENCY ORDER NO. 4-F-L-11-97

Issued at: Chignik, AK.,  
6:00 p.m. July 17, 1997

EFFECTIVE DATE: 3:00 p.m.  
Friday, July 18, 1997

Expiration Date: 3:00 p.m.  
Saturday, July 19 unless superseded  
by subsequent emergency order.

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will open to commercial salmon fishing for 24 hours from 3:00 p.m. Friday, July 18 until 3:00 p.m. Saturday, July 19. Fishing will continue up to the regulatory markers at Hume's Point in the Chignik Lagoon. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. Friday, July 18 for the next announcement.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) is superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central Districts will open to commercial salmon fishing from 3:00 p.m. Friday, July 18 until 3:00 p.m. Saturday, July 19.

**JUSTIFICATION:**

A fishery opening is warranted because the daily sockeye escapement was approximately 15,692 through July 17 at 6:00 p.m. for a season's total of approximately 511,500. The results from the July 14 sample of age 2.3 sockeye for age composition and scale pattern analysis shows that the dominant stock is Chignik Lake at 63%. Preliminary analysis shows that approximately 70,000 to 80,000 sockeye salmon have escaped to Chignik Lake. It is anticipated that the July 19 escapement goal of 100,000 - 125,000 will be achieved during this opening. Therefore, this opening is intended to harvest the surplus Black Lake and Chignik Lake bound sockeye salmon. Escapement to the Eastern, Western, and Perryville Districts is still behind schedule for this time of year but has improved over the previous surveys.

---

EMERGENCY ORDER NO. 4-F-L-12-97

Issued at: Chignik, AK.,  
9:00 p.m. July 18, 1997

EFFECTIVE DATE: 3:00 p.m.  
Saturday, July 19, 1997

Expiration Date: 3:00 p.m.  
Sunday, July 20 unless superseded  
by subsequent emergency order.

---

-Continued-

---

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will extend to commercial salmon fishing for 24 hours from 3:00 p.m. Saturday, July 19 until 3:00 p.m. Sunday, July 20. Fishing will be allowed up to the regulatory markers at Mensis Point in the Chignik Lagoon starting at 3:00 p.m. Saturday, July 19. This is the last fishing period during this opening.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central Districts will extend to commercial salmon fishing from 3:00 p.m. Saturday, July 19 to 3:00 p.m. Sunday, July 20.

5 AAC 15.350. CLOSED WATERS. (1) Effective starting at 3:00 p.m. Saturday, July 19, all waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

A fishery extension is warranted because daily sockeye escapement for July 18 was about 21,000 through 9:00 p.m. for a season's total of approximately 530,000. The results from the July 14 sample of age 2.3 for sockeye age composition and scale pattern analysis indicates that the dominant stock is Chignik Lake at approximately 63%. Although the Chignik Lake stock dominates, this extension is intended to harvest the surplus Black Lake bound sockeye salmon. The Eastern, Western and Perryville Districts will remain closed because aerial surveys have shown low chum escapement to streams in those areas.

---

EMERGENCY ORDER NO. 4-F-L-13-97

Issued at: Chignik, AK.,  
6:00 p.m. July 23, 1997

EFFECTIVE DATE: 6:30 a.m.  
Thursday, July 24, 1997

Expiration Date: 6:30 a.m.  
Saturday, July 26 unless superseded  
by subsequent emergency order.

**EXPLANATION:**

The Chignik Bay, Central Districts and Eastern Districts of the Chignik Management Area will open to commercial salmon fishing for 48 hours from 6:30 a.m. Thursday, July 24 until 6:30 a.m. Saturday, July 26. Fishing will be allowed up to the regulatory markers at Mensis Point in the Chignik Lagoon starting at 6:30 a.m. Friday, July 25. The fishery will be opened by flare in Chignik Lagoon. Fishermen are encouraged to listen to SSB 4125 and VHF channel 6 for fishery updates.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central, and Eastern Districts will open to commercial salmon fishing from 6:30 a.m. Thursday, July 24 until 6:30 a.m. Saturday, July 26.

---

-Continued-

---

5 AAC 15.350. CLOSED WATERS. (1) Effective starting at 6:30 a.m. Friday, July 25, all waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

A fishery opening is warranted because sockeye escapement for July 23 through 6:00 p.m. was about 18,000 for a season's total of approximately 138,000 to the Chignik Lake run. By July 26, escapement is expected to be within the range of the 170,000 to 180,000 interim sockeye escapement goal to Chignik Lake. Escapement to the Western and Perryville Districts is still behind schedule and the survey of July 22 showed no appreciable buildup over that of July 18. However, chum and pink escapement to the Eastern District appears to be building with good escapement already to some streams.

---

EMERGENCY ORDER NO. 4-F-L-14-97

Issued at: Chignik, AK.,  
10:00 a.m. July 31, 1997

EFFECTIVE DATE: 3:00 p.m.  
Thursday, July 31, 1997

Expiration Date: 3:00 p.m.  
Saturday, August 2 unless  
superseded by subsequent  
emergency order.

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will open to commercial salmon fishing for 48 hours from 3:00 p.m. Thursday, July 31 until 3:00 p.m. Saturday, August 2. Fishing will be allowed up to the regulatory markers at Mensis Point in the Chignik Lagoon. Open waters in Kujulik Bay will be south of a line drawn from Brandel Point on Cape Kumlik to the furthest northeast point on Cape Kumlium. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. Friday, August 1 for fishery updates.

The Western and Perryville Districts will open to commercial fishing for 48 hours from 12:01 a.m. Friday, August 1 until 11:59 p.m. Saturday, August 2. Open waters will be south of a line drawn from Cape Itki to Coal Cape to Alexander point. Open waters in Ivanof Bay of the Perryville District will be south of a line drawn between the Road Island markers. The Eastern District will remain closed.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central Districts will open to commercial salmon fishing from 3:00 p.m. Thursday, July 31 until 3:00 p.m. Saturday, August 2. Open waters in Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik (56°36.53' N. lat., 157°40.42' W. long.) to the furthest point on Cape Kumlium (56°33.6' N. lat., 157°49.1' W. long.)

Open waters in Ivanof Bay of the Perryville District will be south of a line drawn from a point on the northeast shore (55°52.42' N. lat., 159°28.40' W. long.) to a point on the north end of the spit (55°59.95' N. lat., 159°31.02' W. long.) (all waters northwest of Road Island are closed).

---

-Continued-

---

**JUSTIFICATION:**

A fishery is warranted because the daily sockeye escapement was approximately 5,000 on July 30 at 6:00 p.m. for a season's total of approximately 199,000 sockeye salmon to the Chignik Lake run. Escapement is expected to exceed the July 31 interim escapement goal of 200,000 on July 30. Pink and chum escapement to the Eastern District is falling behind time of entry curves. However, pink and chum escapement to the Western and Perryville District appears to be building with good escapement already to some streams.

---

EMERGENCY ORDER NO. 4-F-L-15-97

Issued at: Chignik, AK.,  
1:00 p.m. August 2, 1997

EFFECTIVE DATE: 3:00 p.m.  
Saturday, August 2, 1997

Expiration Date: Unless superseded  
by subsequent emergency order

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will extend to commercial salmon fishing from 3:00 p.m. Saturday, August 2 until further notice. The regulatory markers will continue to be at Mensis Point in the Chignik Lagoon. Open waters in Kujulik Bay will be south of a line drawn from Brandel Point on Cape Kumlik to the furthest northeast point on Cape Kumlium. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. for further fishery updates.

The Western District will extend to commercial fishing for 24 hours from 11:59 p.m. Saturday, August 2 until 11:59 p.m. Sunday, August 3. Open waters will be south of a line drawn from Cape Itki to Coal Cape to Alexander point. The Perryville District will close to commercial fishing as scheduled at 11:59 p.m. Saturday, August 2.

The Eastern District will open to commercial fishing for 48 hours from 12:01 a.m. Sunday, August 3 until 11:59 p.m. Monday, August 4. Open waters will be to the stream markers except between Cape Kunmik to Cape Providence where open waters will be south of a line drawn between a point on each Cape.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central Districts will extend to commercial salmon fishing from 3:00 p.m. Saturday, August 2 until further notice. Open waters in Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik (56°36.53' N. lat., 157°40.42' W. long.) to the furthest point on Cape Kumlium (56°33.6' N. lat., 157°49.1' W. long.)

The Western District will extend to commercial salmon fishing for 24 hours from 11:59 p.m. Saturday, August 2 until 11:59 p.m. Sunday, August 3. Open waters will be south of a line drawn from a point on Cape Itki (55°58.75' N. lat., 158°30.0' W. long.) to Coal Cape (55°53.42' N. lat., 159°00.45' W. long.) to Alexander Point (55°47.32' N. lat., 159°24.68' W. long.).

The Eastern District will open to commercial salmon fishing for 48 hours from 12:01 a.m. Sunday, August 3 until 11:59 p.m. August 4. Open waters will be to the stream markers except open waters will be defined as south of a line drawn between Cape Kunmik (56°50.0' N. lat., 157°10.0' W. long.) to Cape Providence (56°00.0' N. lat., 156°42.0' W. long.).

---

-Continued-

---

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately (56°16.15' N. lat., 158°38.10' W. long.) to the opposite shore at approximately (56°16.10' N. lat., 158°38.10' W. long.).

**JUSTIFICATION:**

A fishery extension is warranted in the Chignik Lagoon and Central Districts because the daily sockeye escapement was approximately 729 on August 2 to 1:00 p.m. for a season's total of approximately 226,459 to Chignik Lake. This total escapement far surpasses the July 30 Chignik Lake goal of 200,000. A fishery extension or opening is also warranted in the Chignik Lagoon, Central, Eastern, and Western Districts because pink and chum salmon escapement is meeting time of entry expectations for this time of year.

---

EMERGENCY ORDER NO. 4-F-L-16-97

Issued at: Chignik, AK.,  
3:00 p.m. August 3, 1997

EFFECTIVE DATE: 3:00 p.m.  
Saturday, August 3, 1997

Expiration Date: 11:59 p.m.  
Tuesday, August 5 unless  
superseded by subsequent  
emergency order

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will continue to be open to commercial salmon fishing until further notice. The regulatory markers will continue to be at Mensis Point in the Chignik Lagoon. Open waters in Kujulik Bay will be south of a line drawn from Brandel Point on Cape Kumlik to the furthest northeast point on Cape Kumlium. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. for further fishery updates.

The Western District will close as scheduled at 11:59 p.m. Sunday, August 3.

The Eastern District will extend to commercial fishing for 24 hours from 11:59 p.m. Monday, August 4 until 11:59 p.m. Tuesday, August 5. Open waters will be to the stream markers except south of a line drawn between Cape Kunmik to Cape Providence. Open waters will be to the stream markers except between Cape Kunmik to Cape Providence where open waters will be south of a line drawn between a point on each Cape.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central Districts will continue to be open to commercial fishing until further notice.

The Eastern District will extend to commercial salmon fishing for 48 hours from 11:59 p.m. Monday, August 4 until 11:59 p.m. Tuesday, August 5. Open waters will be to the stream markers except open waters will be defined as south of a line drawn between Cape Kunmik (56°50.0' N. lat., 157°10.0' W. long.) to Cape Providence (56°00.0' N. lat., 156°42.0' W. long.)°50.

---

-Continued-

---

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately (56°16.15' N. lat., 158°38.10' W. long.) to the opposite shore at approximately (56°16.10' N. lat., 158°38.10' W. long.).

**JUSTIFICATION:**

A fishery extension is warranted in the Chignik Lagoon and Central Districts because daily sockeye escapement was approximately 729 through August 2 at 1:00 p.m. for a season's total of approximately 226,459 to Chignik Lake. This escapement far surpasses the July 30 Chignik Lake escapement goal of 200,000. A fishery extension or opening is also warranted to the Chignik Lagoon, Central, Eastern, and Western Districts because pink and chum salmon escapement is meeting time of entry expectations for this time of year.

---

EMERGENCY ORDER NO. 4-F-L-17-97

Issued at: Chignik, AK.,  
12:01 p.m. August 5, 1997

EFFECTIVE DATE: 11:59 p.m.

Expiration Date: Remain  
closed

Tuesday, August 5, 1997

unless superseded by  
subsequent emergency order

EFFECTIVE DATE: 6:00 p.m.

Wednesday, August 6, 1997

**EXPLANATION:**

The Eastern District of the Chignik Management Area will close to commercial salmon fishing at 11:59 p.m. Tuesday, August 5 until further notice.

The Chignik Bay and Central District of the Chignik Management Area will close to commercial salmon fishing at 6:00 p.m. Wednesday, August 6 until further notice.

Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. for further fishery updates.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) is superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. The Eastern District will close to commercial salmon fishing at 11:59 p.m. Tuesday, August 5 until further notice.

The Chignik Bay and Central Districts will close to commercial salmon fishing at 6:00 p.m. Wednesday, August 6 until further notice.

**JUSTIFICATION:**

A fishery closure is warranted because total sockeye salmon (catch plus escapement) has been declining the past few days. A closure will help insure that the 50,000 escapement goal for Chignik Lake will be achieved. In addition, this closure will allow further pink escapement to the Central District.

---

-Continued-

Appendix D.2. (page 15 of 29)

---

EMERGENCY ORDER NO. 4-F-L-18-97

Issued at: Chignik, AK.,  
8:00 p.m. August 7, 1997

EFFECTIVE DATE: 7:00 p.m.  
Friday, August 8, 1997

Expiration Date: 7:00 p.m.  
Sunday, August 10 unless  
superseded by subsequent  
emergency order

**EXPLANATION:**

The Chignik Bay, Central, and Eastern Districts of the Chignik Management Area will open to commercial salmon fishing for 48 hours from 7:00 p.m. Friday, August 8 until 7:00 p.m. Sunday, August 10. The regulatory markers will be at Mensis Point in the Chignik Lagoon. Open waters in Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik to the furthest point on Cape Kumlium. Open waters in the Eastern District will be to the stream markers except between Cape Kunmik to Cape Providence where open waters will be south of a line drawn between a point on each cape. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. for further fishery updates.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. The Chignik Lagoon, Central and Eastern Districts will open to commercial salmon fishing for 48 hours from 7:00 p.m. Friday, August 8 until 7:00 p.m. Sunday, August 10.

Open waters in Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik (56°36.53' N. lat., 157°40.42' W. long.) to the furthest point on Cape Kumlium (56°33.6' N. lat., 157°49.1' W. long.)

Open waters will be to the stream markers in the Eastern District except between Cape Kunmik to Cape Providence where open waters will be south of a line drawn between a point on each cape at (56°50.0' N. lat., 157°10.0' W. long.) and (56°00.0' N. lat., 156°42.0' W. long.)

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately (56°16.15' N. lat., 158°38.10' W. long.) to the opposite shore at approximately (56°16.10' N. lat., 158°38.10' W. long.).

**JUSTIFICATION:**

A fishery opening is warranted in the Chignik Lagoon and Central Districts because the daily sockeye escapement was approximately 1,500 through August 7 at 7:00 p.m. for a season's total of approximately 235,000 to the Chignik Lake run. At this sockeye escapement rate to the Chignik Lake system, the 50,000 escapement goal for August should be easily attainable. A fishery opening is also warranted in the Eastern District because pink and chum salmon escapement, as estimated from aerial surveys, is meeting time of entry expectations for this time of year.

---

EMERGENCY ORDER NO. 4-F-L-19-97

Issued at: Chignik, AK.,  
11:00 a.m. August 10, 1997

EFFECTIVE DATE: 7:00 p.m.

Expiration Date: 11:00 p.m.

---

-Continued-

Sunday, August 10, 1997

Wednesday, August 13 unless  
superseded by subsequent  
emergency order

**EXPLANATION:**

The Chignik Bay, Central, and Eastern Districts of the Chignik Management Area will extend to commercial salmon fishing for 76 hours from 7:00 p.m. Sunday, August 10 until 11:00 p.m. Wednesday, August 13. The regulatory markers will continue to be at Mensis Point in the Chignik Lagoon. Open waters in Kujulik Bay will be south of a line drawn from Brandel Point on Cape Kumlik to the furthest northeast point on Cape Kumlium. Open waters in the Eastern District will be to the stream markers except between Cape Kunmik to Cape Providence where open waters will be south of a line drawn between a point on each cape. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. for further fishery updates.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. The Chignik Lagoon, Central and Eastern Districts will extend to commercial salmon fishing for 76 hours from 7:00 p.m. Sunday, August 10 until 11:00 p.m. Wednesday, August 13.

Open waters in Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik (56°36.53' N. lat., 157°40.42' W. long.) to the furthest point on Cape Kumlium (56°33.6' N. lat., 157°49.1' W. long.)

Open waters will be to the stream markers in the Eastern District except between Cape Kunmik to Cape Providence where open waters will be south of a line drawn between a point on each cape at (56°50.0' N. lat., 157°10.0' W. long.) and (56°00.0' N. lat., 156°42.0' W. long.).

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately (56°16.15' N. lat., 158°38.10' W. long.) to the opposite shore at approximately (56°16.10' N. lat., 158°38.10' W. long.).

**JUSTIFICATION:**

A fishery extension is warranted in the Chignik Lagoon and Central Districts because yesterday's daily sockeye escapement was approximately 4,200 for a season's total of approximately 245,000 to the Chignik Lake run. At this rate of sockeye escapement to Chignik Lake, the 50,000 escapement goal for August should be easily obtainable. A fishery opening is also warranted in the Eastern District because pink and chum salmon escapement, as estimated from aerial surveys, is meeting time of entry expectations for this time of year. This extension to the Eastern District is also intended to test the run strength of pink and chum salmon to the various bays.

EMERGENCY ORDER NO. 4-F-L-20-97

Issued at: Chignik, AK.,  
2:00 p.m. August 12, 1997

EFFECTIVE DATE: 2:00 p.m.  
Tuesday, August 12, 1997

Expiration Date: Remainder of  
the 1997 salmon season

-Continued-

---

**EXPLANATION:**

This is an informational release regarding the Central District boundary definitions extending from Jack Point. Discrepancies within the Commercial Fishing Regulations booklet (Cook Inlet, Kodiak, and Chignik Areas, 1996-1998) have been brought to the department's attention. To address these discrepancies, the following definition will supesede the regulation 5 AAC 15.200 (e) as defined by the booklet. The line from Jack Point is also intended to apply to the boundary of the Outer Chignik Bay Section of the Central District, as well as, to the Western District.

**REGULATION:**

5 AAC 15.200 FISHING DISTRICTS. (e) is superseded to read:

5 AAC 15.320. FISHING DISTRICTS. (e) The Central District includes all waters, excluding the waters of the Chignik Bay District, between a line extending 90° east from Jack Point at 56°17.48' N. lat., 158°12.05' W. long., and a line extending 90° east from the southernmost marker 500 yards from the mouth of Aniakchak Lagoon.

**JUSTIFICATION:**

A boundary definition is necessary to correct existing discrepancies to the 1996-1998 Cook Inlet, Kodiak, and Chignik Area Commercial Fishing Regulations booklet.

---

EMERGENCY ORDER NO. 4-F-L-21-97

Issued at: Chignik, AK.,  
11:00 a.m. August 13, 1997

EFFECTIVE DATE: 11:00 p.m.  
Wednesday, August 13, 1997

Expiration Date: 3:00 p.m.  
Saturday, August 16 unless  
superseded by subsequent  
emergency order

**EXPLANATION:**

The Chignik Bay and the Outer Chignik Bay Section of the Central District of the Chignik Management Area will extend to commercial salmon fishing for 64 hours from 11:00 p.m. Wednesday, August 13 until 3:00 p.m. Saturday, August 16. The regulatory markers will continue to be at Mensis Point in the Chignik Lagoon.

The Kujulik and Cape Kumlik Sections of the Central District of the Chignik Management Area will extend to commercial salmon fishing for 24 hours from 11:00 p.m. Wednesday, August 13 until 11:00 p.m. Thursday, August 14. Open waters will be south of a line drawn from Brandel Point on Cape Kumlik to the furthest northeast point on Cape Kumlium.

The Eastern District of the Chignik Management Area will extend to commercial salmon fishing for 24 hours from 11:00 p.m. Wednesday, August 13 until 11:00 p.m. Thursday, August 14. Open waters in the Eastern District will be to the stream markers except between Cape Kunmik to Cape Providence where open waters will be south of a line drawn between a point on each cape. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. for further fishery updates.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

---

-Continued-

5 AAC 15.320. WEEKLY FISHING PERIODS. The Chignik Lagoon and the Outer Chignik Bay Section of the Central District will extend to commercial salmon fishing for 64 hours from 11:00 p.m. Wednesday, August 13 until 11:00 p.m. Saturday, August 16.

The Kujulik and Cape Kumlik Sections of the Central District will extend to commercial salmon fishing for 24 hours from 11:00 p.m. Wednesday, August 13 until 11:00 p.m. Thursday, August 14. Open waters in Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik (56°36.53' N. lat., 157°40.42' W. long.) to the furthest point on Cape Kumlium (56°33.6' N. lat., 157°49.1' W. long.)

The Eastern District will extend to commercial salmon fishing for 24 hours from 11:00 p.m. Wednesday, August 13 until 11:00 p.m. Thursday, August 14. Open waters will be to the stream markers in the Eastern District except between Cape Kunmik to Cape Providence where open waters will be south of a line drawn between a point on each cape at (56°50.0' N. lat., 157°10.0' W. long.) and (56°00.0' N. lat., 156°42.0' W. long.).

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately (56°16.15' N. lat., 158°38.10' W. long.) to the opposite shore at approximately (56°16.10' N. lat., 158°38.10' W. long.).

**JUSTIFICATION:**

A fishery extension is warranted in the Chignik Lagoon and Central Districts because yesterday's daily sockeye escapement was approximately 2,197 for a season's total of approximately 253,297 to the Chignik Lake run. At this rate, the 50,000 sockeye escapement goal for August should be easily attainable. Although sockeye goals are being met at this time, pink and chum escapement to the Central and Eastern District is beginning to lag behind time of entry curves. Therefore, only a 24 hour extension is warranted in the Eastern District and portions of the Central District until aerial surveys show a boost in pink and chum salmon stream escapement.

---

EMERGENCY ORDER NO. 4-F-L-22-97

Issued at: Chignik, AK.,  
11:30 a.m. August 14, 1997

EFFECTIVE DATE: 11:00 p.m.  
Thursday, August 14, 1997

Expiration Date: 3:00 p.m.  
Saturday, August 16 unless  
superseded by subsequent  
emergency order

**EXPLANATION:**

The Eastern District of the Chignik Management Area will extend to commercial salmon fishing for 40 hours from 11:00 p.m. Thursday, August 14 until 3:00 p.m. Saturday, August 16. Open waters in the Eastern District will be to the stream markers except between Cape Kunmik to Cape Providence where open waters will be south of a line drawn between a point on each cape. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. for further fishery updates.

The Kujulik and Cape Kumlik Sections of the Central District will close as scheduled at 11:00 p.m. Thursday, August 14.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

---

-Continued-

---

5 AAC 15.320. WEEKLY FISHING PERIODS. The Eastern District will extend to commercial salmon fishing for 40 hours from 11:00 p.m. Thursday, August 14 until 3:00 p.m. Saturday, August 16. Open waters will be to the stream markers in the Eastern District except between Cape Kunmik to Cape Providence where open waters will be south of a line drawn between a point on each cape at (56°50.0' N. lat., 157°10.0' W. long.) and (56°00.0' N. lat., 156°42.0' W. long).

**JUSTIFICATION:**

A fishery extension is warranted in the Eastern District because the aerial survey of August 13 shows that pink and chum salmon escapement approximates that expected from stream time of entry curves. Survey results of August 11 indicates weak escapement to the Kujulik and Cape Kumlik Sections of the Central District.

---

EMERGENCY ORDER NO. 4-F-L-23-97

Issued at: Chignik, AK.,  
6:00 p.m. August 15, 1997

EFFECTIVE DATE: 3:00 p.m.  
Saturday, August 16, 1997

Expiration Date: 3:00 p.m.  
Monday, August 18 unless  
superseded by subsequent  
emergency order

**EXPLANATION:**

The Chignik Bay and the Outer Chignik Bay Section of the Central District of the Chignik Management Area will extend to commercial salmon fishing for 48 hours from 3:00 p.m. Saturday, August 16 until 3:00 p.m. Monday, August 18. The regulatory markers will continue to be at Mensis Point in the Chignik Lagoon. The Kujulik and Cape Kumlik Sections of the Central District will remain closed.

The Eastern District of the Chignik Management Area will extend to commercial salmon fishing for 48 hours from 3:00 p.m. Saturday, August 16 until 3:00 p.m. Monday, August 18. Fishing will be allowed to the stream terminus markers.

Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. for further fishery updates.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. The Chignik Lagoon and the Outer Chignik Bay Section of the Central District will extend to commercial salmon fishing for 48 hours from 3:00 p.m. Saturday, August 16 until 3:00 p.m. Monday, August 18.

The Eastern District will extend to commercial salmon fishing for 48 hours from 3:00 p.m. Saturday, August 16 until 3:00 p.m. Monday, August 18. Effective starting at 3:00 p.m. Saturday, August 16 open waters will be to the regular stream markers (500 yards from each stream terminus).

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately (56°16.15' N. lat., 158°38.10' W. long.) to the opposite shore at approximately (56°16.10' N. lat., 158°38.10' W. long.) ( 500 yards from stream terminus).

---

-Continued-

---

**JUSTIFICATION:**

A fishery extension is warranted in the Chignik Lagoon District and portions of the Central District because sockeye escapement goals are being met at this time. Yesterday's daily sockeye escapement was approximately 851 for a season's total of approximately 255,589 to the Chignik Lake run. At this escapement rate, the 50,000 sockeye escapement goal for August should be easily attainable. Although sockeye goals are being met at this time, pink and chum escapement to the Central District is beginning to lag behind time of entry curves. Fishing is extended in the Eastern District because little effort has been directed there, and aerial surveys indicate adequate pink and chum escapement for this time of the season.

---

EMERGENCY ORDER NO. 4-F-L-24-97

Issued at: Chignik, AK.,  
7:00 p.m. August 16, 1997

EFFECTIVE DATE: 9:00 a.m.  
Sunday, August 17, 1997

Expiration Date: 3:00 p.m.  
Monday, August 18, unless superseded by  
subsequent emergency order.

**EXPLANATION:**

The Western District of the Chignik Management Area will open to commercial salmon fishing for 30 hours from 9:00 a.m. Sunday, August 17 until 3:00 p.m. Monday, August 18. Open waters in the Western District will be south of a line drawn from Cape Itki to Coal Cape. The Perryville District will remain closed.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) is superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Western District will be open to commercial salmon fishing from 9:00 a.m. Sunday, August 17 until 3:00 p.m. Monday, August 18. Open waters in the Western District will be south of a line drawn from Cape Itki at (55°58.75' N. lat., 158°30.0' W. long.) to Coal Cape at (55°53.42' N. lat., 159°00.45' W. long.).

**JUSTIFICATION:**

A short fishery opening is warranted in the Western District because pink salmon escapement is on track or exceeds escapement goals for many area streams. The Perryville District will remain closed because of insufficient escapement to the Ivanof River as indicated by an aerial survey of August 16.

---

EMERGENCY ORDER NO. 4-F-L-25-97

Issued at: Chignik, AK.,  
12:00 p.m. August 17, 1997

EFFECTIVE DATE: 3:00 p.m.  
Monday, August 18, 1997

Expiration Date: Remain closed  
unless superseded by subsequent  
emergency order

**EXPLANATION:**

The Chignik Bay, Central, Eastern, and Western Districts of the Chignik Management Area will close to commercial salmon fishing at 3:00 p.m. Monday, August 18 until further notice. Fishermen are also encouraged to monitor VHF channel 6 and SSB channel 4125 at 6:30 p.m. for further fishery updates

---

-Continued-

---

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) is superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. The Chignik Bay, Central, Eastern, and Western Districts will close to commercial salmon fishing at 3:00 p.m. Monday, August 18 until further notice.

**JUSTIFICATION:**

A fishery closure is warranted because total sockeye salmon (catch plus escapement) has been declining the past few days. A closure will help insure that August's 50,000 escapement goal for Chignik Lake will be achieved. In addition, this closure will allow further pink salmon escapement to the Central District.

---

EMERGENCY ORDER NO. 4-F-L-26-97

Issued at: Chignik, AK.,  
6:00 p.m. August 15, 1997

EFFECTIVE DATE: 3:00 p.m.  
Wednesday, August 20, 1997

Expiration Date: 5:00 p.m.  
Friday, August 22 unless superseded by  
subsequent emergency order.

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will open to commercial salmon fishing for 50 hours from 3:00 p.m. Wednesday, August 20 until 5:00 p.m. Friday, August 22. Fishing will be allowed up to the regulatory markers at Mensis Point in the Chignik Lagoon. Open waters in Kujulik Bay will be south of a line drawn from Brandel Point on Cape Kumlik to the furthest northeast point on Cape Kumlium. The Eastern, Western, and Perryville Districts will remain closed. Fishermen are encouraged to listen to SSB 4125 and VHF channel 6 for fishery updates.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central District will open to commercial salmon fishing from 3:00 p.m. Wednesday, August 20 until 5:00 p.m. Friday, August 22. Open waters in Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik (56°36.53' N. lat., 157°40.42' W. long.) to the furthest point on Cape Kumlium (56°33.6' N. lat., 157°49.1' W. long.)

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

A fishery opening is warranted in the Chignik Bay and Central Districts because sockeye and pink salmon escapement goals to those districts are being met at this time. As of 6:00 p.m., a daily total of approximately 1,635 daily sockeye escapement has passed through the weir for a total escapement to the second run of about 262,000. Pink and chum escapement to the Western and Perryville Districts is still behind schedule and the survey of August 12 showed no appreciable buildup of pink salmon. The Eastern District will remain closed until it can be aerial surveyed.

---

-Continued-

EMERGENCY ORDER NO. 4-F-L-27-97

Issued at: Chignik, AK.,  
6:00 p.m. August 20, 1997

EFFECTIVE DATE: 8:00 p.m.  
Wednesday, August 20, 1997

Expiration Date: 5:00 p.m.  
Friday, August 22, unless superseded by  
subsequent emergency order.

**EXPLANATION:**

The Eastern District of the Chignik Management Area will open to commercial salmon fishing for 45 hours from 8:00 p.m. Wednesday, August 20 until 5:00 p.m. Friday, August 22. Fishing will allowed up to the stream markers (500 yards from each stream terminus). Fishermen are encouraged to monitor VHF channel 6 or SSB 4125 for further fishery updates.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) is superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Eastern District will open to commercial salmon fishing from 8.00 p.m. Wednesday August 20 until 5:00 p.m. Friday, August 22. Fishing will allowed up to the stream markers (500 yards from the stream terminus).

**JUSTIFICATION:**

A fishery opening is warranted in the Eastern District because pink and chum salmon escapement is on track or exceeds stream escapement goals as indicated by an aerial survey of August 20.

---

EMERGENCY ORDER NO. 4-F-L-28-97

Issued at: Chignik, AK.,  
6:00 p.m. August 21, 1997

EFFECTIVE DATE: 5:00 p.m.  
Friday, August 22, 1997

Expiration Date: 5:00 p.m.  
Sunday, August 24 unless superseded by  
subsequent emergency order.

**EXPLANATION:**

The Chignik Bay, Central, and Eastern Districts of the Chignik Management Area will extend to commercial salmon fishing for 48 hours from 5:00 p.m. Friday, August 22 until 5:00 p.m. Sunday, August 24. Fishing will be allowed up to the regulatory markers at Mensis Point in the Chignik Lagoon. Open waters in Kujulik Bay will be south of a line drawn from Brandel Point on Cape Kumlik at to the furthest northeast point on Cape Kumlium. The Western and Perryville

District will remain closed. Open waters in the Eastern District will be to the regular stream markers (500 yards from each stream terminus). Fishermen are encouraged to listen to SSB 4125 and VHF channel 6 for fishery updates.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central, and Eastern Districts will extend to commercial salmon fishing from 5:00 p.m. Friday, August 22 until 5:00 p.m. Sunday, August 24. Open waters in

---

-Continued-

Appendix D.2. (page 23 of 29)

---

Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik (56°36.53' N. lat., 157°40.42' W. long.) to the furthest point on Cape Kumlium (56°33.6' N. lat., 157°49.1' W. long.). Open waters in the Eastern District will be to the regular stream markers (500 yards from each stream terminus).

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

A fishery extension is warranted because sockeye daily escapement for August 21 through 6:00 p.m. was about 2,200 for a season's total of approximately 269,905 to the Chignik Lake run. Pink and chum escapement to the Western and Perryville Districts is still behind schedule and the survey of August 16 showed no appreciable buildup of pink salmon. However, chum and pink escapement to the Eastern and Central Districts appears to be on track or has exceeded seasonal escapement goals.

---

EMERGENCY ORDER NO. 4-F-L-29-97

Issued at: Chignik, AK.,  
6:00 p.m. August 23, 1997

EFFECTIVE DATE: 5:00 p.m.  
Sunday, August 24, 1997

Expiration Date: 5:00 p.m.  
Tuesday, August 26 unless superseded by  
subsequent emergency order.

**EXPLANATION:**

The Chignik Bay, Central, and Eastern Districts of the Chignik Management Area will extend to commercial salmon fishing for 48 hours from 5:00 p.m. Sunday, August 24 until 5:00 p.m. Tuesday, August 26. Fishing will be allowed up to the regulatory markers at Mensis Point in the Chignik Lagoon. Open waters in Kujulik Bay will be south of a line drawn from Brandel Point on Cape Kumlik to the furthest northeast point on Cape Kumlium. Open water in the Eastern District will be to the stream markers (500 yards from each stream terminus). The Western and Perryville Districts will remain closed. Fishermen are encouraged to listen to SSB 4125 and VHF channel 6 at 6:30 p.m. for fishery updates.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central, and Eastern Districts will extend to commercial salmon fishing from 5:00 p.m. Sunday, August 24 until 5:00 p.m. Tuesday, August 26. Open waters in Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik (56°36.53' N. lat., 157°40.42' W. long.) to the furthest point on Cape Kumlium (56°33.6' N. lat., 157°49.1' W. long.). Open water in the Eastern District will be to the stream markers (500 yards from each stream terminus).

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

A fishery extension is warranted because daily sockeye escapement for August 23 through 6:00 p.m. was about 700 for a season's total of approximately 270,000 to the Chignik Lake run. The weak catches of coho salmon within the entire

---

-Continued-

---

Chignik Management Area throughout the season indicates a weak coho run. To meet escapement and subsistence needs within the Western District, this District will remain closed. The Perryville District will remain closed because the last aerial survey of August 18 showed that the Ivanof River is behind the pink escapement time of entry for that time period. However, chum and pink escapement to the Eastern and Central Districts appears to be on track or has exceeded seasonal escapement goals.

---

EMERGENCY ORDER NO. 4-F-L-30-97

Issued at: Chignik, AK.,  
9:00 a.m. August 29, 1997

EFFECTIVE DATE: 3:00 p.m.  
Saturday, August 30, 1997

Expiration Date: 3:00 p.m.  
Tuesday, September 2 unless superseded  
by subsequent emergency order

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will open to commercial salmon fishing for 72 hours from 3:00 p.m. Saturday, August 30 until 3:00 p.m. Tuesday, September 2. Fishing will be allowed up to the regulatory markers at Mensis Point in the Chignik Lagoon. Open waters in Kujulik Bay will be south of a line drawn from Brandel Point on Cape Kumlik to the furthest northeast point on Cape Kumlium. The Eastern, Western, and Perryville Districts will remain closed. Fishermen are encouraged to listen to SSB 4125 and VHF channel 6 at 6:30 p.m. for fishery updates.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central Districts will extend to commercial salmon fishing from 3:00 p.m. Saturday, August 30 until 3:00 p.m. Tuesday, September 2. Open waters in Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik (56°36.53' N. lat., 157°40.42' W. long.) to the furthest point on Cape Kumlium (56°33.6' N. lat., 157°49.1' W. long.).

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

A fishery opening is warranted in the Chignik Bay and Central Districts because sockeye and pink salmon escapement goals are being met at this time. The 1997 season sockeye escapement, from August 22, is similar to that of 1995 and 1996 when subsistence needs were met from the Clark River. As of 8:00 a.m., 450 daily sockeye escapement have passed through the weir for a total sockeye escapement to the second run of approximately 284,000. The Eastern, Western, and Perryville Districts will remain closed because the pink run to those areas is essentially over.

---

EMERGENCY ORDER NO. 4-F-L-31-97

Issued at: Chignik, AK.,  
6:30 a.m. September 3, 1997

EFFECTIVE DATE: 6:30 a.m.  
Friday, September 5, 1997

Expiration Date: 6:30 a.m.  
Monday, September 8 unless superseded by  
subsequent emergency order.

---

-Continued

---

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will open to commercial salmon fishing for 72 hours from 6:30 a.m. Friday, September 5 until 6:30 a.m. Monday, September 8. Fishing will be allowed up to the regulatory markers at Mensis Point in the Chignik Lagoon. Open waters in Kujulik Bay will be south of a line drawn from Brandel Point on Cape Kumlik to the furthest northeast point on Cape Kumlium.

The Eastern District will open for 48 hours at 6:30 a.m. Saturday, September 6 until 6:30 a.m. Monday, September 8. Open waters will be to the regular stream markers (500 yards from each stream terminus).

Western, and Perryville Districts will remain closed. Fishermen are encouraged to listen to SSB 4125 and VHF channel 6 at 6:30 for fishery updates.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central District will open to commercial salmon fishing from 6:30 a.m. Friday, September 5 until 6:30 a.m. Monday, September 8. Open waters in Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik (56°36.53' N. lat., 157°40.42' W. long.) to the furthest point on Cape Kumlium (56°33.6' N. lat., 157°49.1' W. long.).

The Eastern District will open from 6:30 a.m. Saturday, September 6 until 6:30 a.m. Monday, September 8. Open waters will be to the regular stream markers (500 yards from each stream terminus).

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

A fishery opening is warranted in the Chignik Bay and Central Districts because sockeye, pink, and coho salmon escapement goals are being met at this time. The 1997 season sockeye escapement, from August 22, is similar to that of 1995 and 1996 when subsistence needs were met from the Clark River. As of 8:00 a.m., 450 daily sockeye escapement have passed through the weir for a total sockeye escapement to the second run of approximately 284,000. A fishery opening is warranted in the Eastern District because little fishing has occurred there since June. This opening will serve as a test fishery and aerial surveys will determine future openings. The Western and Perryville Districts will remain closed because the pink run to those areas is essentially over and early outside coho catches were below average.

---

EMERGENCY ORDER NO. 4-F-L-32-97

Issued at: Chignik, AK.,  
6:30 a.m. September 7, 1997

EFFECTIVE DATE: 11:00 a.m.  
Wednesday, September 10, 1997

Expiration Date: 11:00 a.m.  
Friday, September 12 unless superseded by  
subsequent emergency order.

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will open to commercial salmon fishing for 48 hours from 11:00 a.m. Wednesday, September 10 until 11:00 a.m. Friday, September 12. Fishing will be allowed up to

---

-Continued-

Appendix D.2. (page 26 of 29)

---

the regulatory markers at Mensis Point in the Chignik Lagoon. Open waters in Kujulik Bay will be south of a line drawn from Brandel Point on Cape Kumlik to the furthest northeast point on Cape Kumlium.

The Eastern District will open for 48 hours at 11:00 a.m. Wednesday, September 10 until 11:00 a.m. Friday, September 12. Open waters will be to the regular stream markers (500 yards from stream terminus).

Western, and Perryville Districts will remain closed. Fishermen are encouraged to listen to SSB 4125 and VHF channel 6 at 6:30 for fishery updates.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central District will open to commercial salmon fishing from 11:00 a.m. Wednesday, September 10 until 11:00 a.m. Friday, September 12. Open waters in Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik (56°36.53' N. lat., 157°40.42' W. long.) to the furthest point on Cape Kumlium (56°33.6' N. lat., 157°49.1' W. long.)

The Eastern District will open from 11:00 a.m. Wednesday, September 10 until 11:00 a.m. Friday, September 12. Open waters will be to the regular stream markers (500 yards from stream terminus).

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

A fishery opening is warranted in the Chignik bay and Central Districts because sockeye, pink, and coho salmon escapement goals are being met at this time. The 1997 season sockeye escapement, from August 22, is similar to that of 1995 and 1996 when subsistence needs were met from the Clark River. A fishery opening is warranted in the Eastern District because little fishing has occurred there since June. This opening will serve as a test fishery to determine future openings. The Western and Perryville Districts will remain closed because the pink run to those areas is essentially over and early outside coho catches were below average.

EMERGENCY ORDER NO. 4-F-L-33-97

Issued at: Chignik, AK.,  
4:00 p.m. September 11, 1997

EFFECTIVE DATE: 11:00 a.m.  
Friday, September 12, 1997

Expiration Date: 11:00 a.m.  
Saturday, September 13 unless superseded by  
subsequent emergency order.

**EXPLANATION:**

The Chignik Bay and Central Districts of the Chignik Management Area will extend to commercial salmon fishing for 24 hours from 11:00 a.m. Friday, September 12 until 11:00 a.m. Saturday, September 13. Fishing will be allowed up to the regulatory markers at Mensis Point in the Chignik Lagoon. Open waters in Kujulik Bay will be south of a line drawn from Brandel Point on Cape Kumlik to the furthest northeast point on Cape Kumlium.

The Eastern District will open for 24 hours at 11:00 a.m. Friday, September 12 until 11:00 a.m. Saturday, September 13. Open waters will be to the regular stream markers (500 yards from each stream terminus).

---

-Continued-

---

Western, and Perryville Districts will remain closed.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central District will open to commercial salmon fishing from 11:00 a.m. Friday, September 12 until 11:00 a.m. Saturday, September 13. Open waters in Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik (56°36.53' N. lat., 157°40.42' W. long.) to the furthest point on Cape Kumlium (56°33.6' N. lat., 157°49.1' W. long.)

The Eastern District will open from 11:00 a.m. Friday, September 12 until 11:00 a.m. Saturday, September 13. Open waters will be to the regular stream markers (500 yards from each stream terminus).

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

A fishery extension is warranted in the Chignik bay and Central Districts because sockeye, pink, and coho salmon escapement goals are being met at this time. The 1997 season sockeye escapement, from August 22, is similar to that of 1995 and 1996 when subsistence needs were met from the Clark River. The sockeye salmon catch on September 10 totaled over 5,300 indicating run strength stronger than the recent trend. A fishery extension is warranted in the Eastern District because little fishing has occurred there since June. This opening will serve as a test fishery to determine future openings. The Western and Perryville Districts will remain closed because the pink run to those areas is essentially over and early outside coho catches were below average.

---

EMERGENCY ORDER NO. 4-F-L-34-97

Issued at: Chignik, AK.,  
4:30 p.m. September 12, 1997

EFFECTIVE DATE: 12:01 a.m.  
Monday, September 15, 1997

Expiration Date: 11:59 a.m.  
Tuesday, September 16 unless superseded by  
subsequent emergency order.

**EXPLANATION:**

The Chignik Bay, Central District, and Eastern Districts of the Chignik Management Area will open to commercial salmon fishing for 48 hours from 12:01 a.m. Monday, September 15 until 11:59 p.m. Tuesday, September 16. Fishing will be allowed up to the regulatory markers at Mensis Point in the Chignik Lagoon. Open waters in Kujulik Bay will be south of a line drawn from Brandel Point on Cape Kumlik to the furthest northeast point on Cape Kumlium. Open waters in the Eastern District will be to the regular stream markers (500 yards from each stream terminus). The Western and Perryville Districts will remain closed.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

---

-Continued-

---

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central District, and Eastern Districts will open to commercial salmon fishing from 12:01 a.m. Monday, September 15 until 11:59 p.m. Tuesday, September 16. Open waters in Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik (56°36.53' N. lat., 157°40.42' W. long.) to the furthest point on Cape Kumlium (56°33.6' N. lat., 157°49.1' W. long.). Open waters in the Eastern District will be to the regular stream markers (500 yards from each stream terminus).

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

**JUSTIFICATION:**

A fishery opening is warranted in the Chignik bay and Central Districts because sockeye, pink, and coho salmon escapement goals are being met at this time. The 1997 season sockeye escapement, from August 22, is similar to that of 1995 and 1996 when subsistence needs were met from the Clark River. Recent catch per unit effort indicates that escapement should continue at levels that will support subsistence and commercial fishers. A fishery opening is warranted in the Eastern District because little fishing has occurred there since June. This opening will serve as a test fishery to determine future openings. The Western and Perryville Districts will remain closed because the pink run to those areas is essentially over and early outside coho catches were below average.

---

EMERGENCY ORDER NO. 4-F-L-35-97

Issued at: Chignik, AK.,  
11:00 a.m. September 16, 1997

EFFECTIVE DATE: 11:59 a.m.  
Tuesday, September 16, 1997

Expiration Date: 11:59 a.m.  
Wednesday, September 17 unless superseded  
by subsequent emergency order.

**EXPLANATION:**

The Chignik Bay, Central District, and Eastern Districts of the Chignik Management Area will extend to commercial salmon fishing for 24 hours from 11:59 a.m. Tuesday, September 16 until 11:59 p.m. Wednesday, September 17. Fishing will be allowed up to the regulatory markers at Mensis Point in the Chignik Lagoon. Open waters in Kujulik Bay will be south of a line drawn from Brandel Point on Cape Kumlik to the furthest northeast point on Cape Kumlium. Open waters in the Eastern District will be to the regular stream markers (500 yards from each stream terminus). The Western and Perryville Districts will remain closed.

**REGULATION:**

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.350. CLOSED WATERS. (1) are superseded to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central District, and Eastern Districts will extend to commercial salmon fishing from 11:59 a.m. Tuesday, September 16 until 11:59 p.m. Wednesday, September 17. Open waters in Kujulik Bay of the Central District will be south of a line drawn from Brandel Point on Cape Kumlik (56°36.53' N. lat., 157°40.42' W. long.) to the furthest point on Cape Kumlium (56°33.6' N. lat., 157°49.1' W. long.). Open waters in the Eastern District will be to the regular stream markers (500 yards from each stream terminus).

5 AAC 15.350. CLOSED WATERS. (1) All waters upstream from a line drawn between markers from Mensis Point at approximately 56°16.15' N. lat., 158°38.10' W. long. to the opposite shore at approximately 56°16.10' N. lat., 158°38.10' W. long..

---

-Continued-

**JUSTIFICATION:**

A fishery extension is warranted in the Chignik bay and Central Districts because sockeye, pink, and coho salmon escapement goals are being met at this time. The 1997 season sockeye escapement, from August 22, is similar to that of 1995 and 1996 when subsistence needs were met from the Clark River. Recent catch per unit effort indicates that escapement should continue at levels that will support subsistence and commercial fishers. A fishery extension is warranted in the Eastern District because little fishing has occurred there since June. Based on the subsistence management plan for the period after September 15, this could be the last fishing period for this week. The Western and Perryville Districts will remain closed because the pink run to those areas is essentially over and early outside coho catches were below average.

---

EMERGENCY ORDER NO. 4-F-L-36-97

Issued at: Chignik, AK.,  
11:00 p.m. September 19, 1997

EFFECTIVE DATE: 12:00 a.m.  
Friday, September 19, 1997

Expiration Date: 12:00 p.m.  
Friday, October 31, 1997.

**EXPLANATION:**

The Chignik Management Area will close to commercial salmon fishing for the 1997 season at 12:00 a.m. (noon) Friday, September 19. The season will close because no commercial salmon markets are available.

**REGULATION:**

5 ACC 15.320. WEEKLY FISHING PERIODS. (a) and 5 AAC 15.310. FISHING SEASONS. (a) are amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) Salmon may be taken in the Chignik Management Area from 2:00 p.m. June 17 until 12:00 a.m. (noon) September 19.

5 AAC 15.310. FISHING SEASONS.(a) The Chignik Management Area will close to commercial salmon fishing for the 1997 season at 12:00 a.m. (noon) Friday, September 19.

**JUSTIFICATION:**

The department closed the season because of the lack of a commercial salmon market.

---

## CHAPTER 15. CHIGNIK AREA.

**PLEASE NOTE THAT AS OF 1996 ALL LONGITUDE AND LATITUDE COORDINATES IN THE CHIGNIK AREA HAVE BEEN CONVERTED TO DECIMAL MINUTES AND ARE BASED ON THE NORTH AMERICAN DATUM OF 1983.**

### ARTICLE 1. DESCRIPTION OF AREA.

**5 AAC 15.001. APPLICATION OF THIS CHAPTER.** Requirements set forth in this chapter apply to commercial fishing only, unless otherwise specified. Subsistence fishing regulations affecting commercial fishing vessels or affecting any other commercial fishing activity are set forth in the subsistence fishing regulations in chs. 01 and 02 of this title.

**5 AAC 15.100. DESCRIPTION OF AREA.** The Chignik area includes all waters of Alaska on the south side of the Alaska Peninsula enclosed by 156° 20.22' W. long., (the longitude of the southern entrance to Imuya Bay near Kilokak Rocks) and a line extending 135° southeast from Kupreanof Point.

### ARTICLE 2. FISHING DISTRICTS.

**5 AAC 15.200. FISHING DISTRICTS.** (a) The Eastern District includes all waters from the southernmost marker 500 yards from the mouth of Aniakchak Lagoon to the eastern boundary of the Chignik Area.

(1) Agripina Section: all waters between Kilokak Rocks at 57° 11.32' N. lat., 156° 20.22' W. long., and Cape Providence at 56° 58.67' N. lat., 156° 33.47' W. long.;

(2) Chiginagak Section: all waters between Cape Providence at 56° 58.67' N. lat., 156° 33.47' W. long., and Cape Kuyuyukak at 56° 53.85' N. lat., 156° 49.72' W. long.;

(3) Nakalilok-Yantarni Section: all waters between Cape Kuyuyukak at 56° 53.85' N. lat., 156° 49.72' W. long., and Cape Kunmik at 56° 45.88' N. lat., 157° 12.05' W. long.;

(4) Big River Section: all waters of Amber and Aniakchak Bays bounded by 157° 12.05' W. long., and the latitude of the southernmost marker 500 yards from the mouth of Aniakchak Lagoon.

(b) The Chignik Bay District includes all waters of Chignik Bay and Lagoon west of a line from a point near Jack Bay at 56° 18.23' N. lat., 158° 15.02' W. long., to Neketa Creek at 56° 24.12' N. lat., 158° 27.73' W. long.

(c) The Western District includes all waters south and west of Jack Point at 56° 17.48' N. lat., 158° 12.05' W. long., excluding the waters of Chignik Lagoon, to Coal Cape at 55° 53.42' N. lat., 159° 00.45' W. long.

(1) Castle Cape Section: all waters between Jack Point at 56° 17.48' N. lat., 158° 12.05' W. long. and Cape Ikti at 55° 58.75' N. lat., 158° 30.00' W. long.;

(2) Dorner Bay Section: all waters between Cape Ikti at 55° 58.75' N. lat., 158° 30.00' W. long., and a point on the west side of Dorner (Kuiukta) Bay's entrance at 55° 57.00' N. lat., 158° 40.00' W. long.;

## CHIGNIK AREA

(3) Mitrofanina Section: all waters, including Mitrofanina Island, between a point on the west side of Dorner (Kuiukta) Bay's entrance at 55° 57.00' N. lat., 158° 40.00' W. long., and Stirni Point at 55° 54.73' N. lat., 158° 55.27' W. long.;

(4) Anchor Bay Section: all waters between Stirni Point at 55° 54.73' N. lat., 158° 55.25' W. long., and Coal Cape at 55° 53.42' N. lat., 159° 00.45' W. long.

(d) The Perryville District includes all waters between Coal Cape at 55° 53.42' N. lat., 159° 00.45' W. long. and Kupreanof Point at 55° 33.98' N. lat., 159° 35.88' W. long.

(1) Perryville Section: all waters, including the Chiachi Islands, between Coal Cape at 55° 53.42' N. lat., 159° 00.45' W. long., and Coal Point at 55° 51.47' N. lat., 159° 18.95' W. long.;

(2) Humpback Bay Section: all waters, including Paul and Jacob Islands, between Coal Point at 55° 51.47' N. lat., 159° 18.95' W. long., and Alexander Point at 55° 47.32' N. lat., 159° 24.68' W. long.;

(3) Ivanof Bay Section: all waters between Alexander Point at 55° 47.32' N. lat., 159° 24.68' W. long., and Kupreanof Point at 55° 33.98' N. lat., 159° 35.88' W. long.

(e) The Central District includes all waters, excluding the waters of the Chignik Bay District, between a point near Jack Bay at 56° 18.23' N. lat., 158° 15.02' W. long., and the southernmost marker 500 yards from the mouth of Aniakchak Lagoon.

(1) Cape Kumlik Section: all waters, including Sutwik Island, between the latitude of the southernmost marker 500 yards from the mouth of Aniakchak Lagoon and 157° 40.53' W. long. on the southwest side of Cape Kumlik;

(2) Kujulik Section: all waters between a point on the southwest side of Cape Kumlik at 56° 36.48' N. lat., 157° 40.53' W. long., and a point on Cape Kumliun at 56° 28.58' N. lat., 157° 51.55' W. long.;

(3) Outer Chignik Bay Section: all waters, including Nakchamik Island, between a point on Cape Kumliun at 56° 28.58' N. lat., 157° 51.55' W. long., and a point near Jack Bay at 56° 18.23' N. lat., 158° 15.02' W. long., excluding the Chignik Bay District.

## ARTICLE 3. SALMON FISHERY.

**5 AAC 15.310. FISHING SEASONS.** (a) In the Chignik Bay District, salmon may be taken only from June 1 through October 31.

(b) The Perryville, Western, Central and Eastern Districts are opened by emergency order.

**5 AAC 15.320. WEEKLY FISHING PERIODS.** (a) Salmon fishing periods shall be established by emergency order.

(b) Repealed 3/13/75.

**5 AAC 15.330. GEAR.** (a) Salmon may be taken only by purse seine and hand purse seine.

(b) Repealed 4/24/80.

**5 AAC 15.332. SEINE SPECIFICATIONS AND OPERATIONS.** (a) In the Eastern, Central, Western and Perryville Districts no purse seine less than 100 fathoms or more than 225 fathoms in length may be used.

(b) In the Eastern, Central, Western and Perryville Districts no hand purse seine less than 100 fathoms or more than 225 fathoms in length may be used.

## CHIGNIK AREA

(c) In the Chignik Bay District, purse seines and hand purse seines may not be less than 100 fathoms or more than 125 fathoms in length.

(d) No seine may be less than three fathoms nor more than 375 meshes in depth; in addition, up to twenty-five meshes of chafing gear with a maximum mesh size of seven inches may be used.

(e) No lead may be more than 75 fathoms in length. The aggregate length of seine and lead may not be more than 225 fathoms in the Eastern, Central, Western and Perryville Districts.

(f) When a purse seine or hand purse seine is in the water for the purpose of taking fish, the seine shall be attached to the licensed vessel operating the gear.

**5 AAC 15.350. CLOSED WATERS.** Salmon may not be taken in the following waters:

(1) Chignik Lagoon:

(A) southwest of a line from the tip of Hume Point to the northside of Chignik Island (56° 17.42' N. lat., 158° 35.50' W. long.);

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56° 16.63' N. lat., 158° 34.90' W. Long.);

(2) Kilokak Rocks Bay: northwest of a line from the southern entrance of the bay at 57° 09.78' N. lat., 156° 20.78' W. long., then to the opposite shore 500 yards northeast of the mouth of Kilokak Rocks Creek at 57° 10.07' N. lat., 156° 20.78' W. long.;

(3) Agripina River: west of a line from 57° 06.72' N. lat., 156° 28.22' W. long., to 57° 06.44' N. lat., 156° 28.67' W. long.;

(4) Chiganagak Bay: north of a line from 57° 00.50' N. lat., 156° 45.75' W. long., to 57° 01.68' N. lat., 156° 41.97' W. long.;

(5) Nakalilok Lagoon: the lagoon and within 500 yards of the entrance;

(6) Yantarni Lagoon: the lagoon and within 500 yards of the entrance;

(7) Aniakchak River: northwest of a line from approximately 500 yards northeast of the mouth at 56° 45.86' N. lat., 157° 28.88' W. long., to an ADF&G regulatory marker on the southern tip of the island directly off the mouth and then to approximately 1,000 yards southwest of the mouth at 56° 45.28' N. lat., 157° 31.53' W. long.;

(8) Aniakchak Lagoon: the lagoon and within 500 yards of the entrance;

(9) Kujulik Bay: the southwest end of the bay southwest of a line from 56° 35.85' N. lat., 157° 59.12' W. long., to the opposite shore at 56° 34.50' N. lat., 157° 54.63' W. long.;

(10) Portage Bay: west of a line from 56° 11.68' N. lat., 158° 33.07' W. long., to 56° 10.58' N. lat., 158° 33.07' W. long.;

(11) Ivan Bay: north of a line from the ADF&G regulatory marker on the northwest shore 1,000 yards from the stream mouth to the ADF&G regulatory marker on the southeast shore 750 yards from the stream mouth;

(12) Humpback Bay: within 1,000 yards of the terminus of Humpback Bay stream at 55° 52.68' N. lat., 159° 20.12' W. long.;

(13) Ivanof Bay: all waters northwest of a line from a point on the northeast shore at 55° 52.42' N. lat., 159° 28.40' W. long. to a point on the north end of the spit at 55° 50.95' N. lat., 159° 31.02' W. long. (all waters northwest of Road Island are closed);

## CHIGNIK AREA

(14) Alfred Creek: before August 1, the 500-yard closure at the terminus described in 5 AAC 39.290 does not apply, the 500-yard closure does apply from August 1 to the end of the salmon fishing season;

(15) Dago Frank Creek: before August 1, the 500-yard closure at the terminus described in 5 AAC 39.290 does not apply, the 500-yard closure does apply from August 1 to the end of the salmon fishing season;

(16) Hook Bay: northwest of a line from the tip of Hook Bay Spit at 56° 30.07' N. lat., 158° 08.18' W. long., to a point on the north side of the bay at 56° 31.10' N. lat., 158° 07.65' W. long.;

(17) unnamed stream at 55° 48.98' N. lat., 159° 24.45' W. long.; the 500-yard closure at the terminus described in 5 AAC 39.290 does not apply;

(18) Lake Bay: all waters southwest of a line drawn at the entrance to Lake Bay at 56° 18.80' N. lat., 158° 17.62' W. long. extending across the entrance to Lake Bay;

(19) Mud Bay: all waters southwest of a line from 56° 19.42' N. lat., 158° 25.10' W. long. extending across the entrance to Mud Bay;

(20) from July 6 through August 31, all waters of Alaska in the Ivanof Bay Section, between a line extending 135° from Kupreanof Point at 55° 33.98' N. lat., 159° 35.88' W. long., and a line extending 65° from 55° 34.90' N. lat., 159° 37.10' W. long.

**5 AAC 15.355. REPORTING REQUIREMENTS.** (a) The operator of a floating salmon processing vessel or tender, or a shorebased processing operation, and a company employing aircraft used for transporting salmon, shall report in person, or by radio or telephone, to a local representative of the department located in the management area of intended operation before the start of processing or buying operations. The report must include the location and the date of intended operation, and identify and describe each vessel or other method of transport employed in hauling or processing salmon.

(b) A commercial fisherman shall report, on an ADF&G fish ticket at the time of landing, the number of salmon taken but not sold.

**5 AAC 15.360. EASTERN DISTRICT SALMON MANAGEMENT PLAN.** (a) The department shall open and close the Eastern District for commercial salmon fishing concurrently with the Chignik Bay and Central Districts. The department may close the Eastern District for the period between the first (Black Lake) and second (Chignik Lake) sockeye salmon runs.

(b) The department shall close the Eastern District on July 15 to allow evaluation of the strength of the pink and chum salmon runs.

(c) The department shall close the Eastern District when it determines that the salmon being harvested in that district are from stocks that do not originate from spawning areas located in the Chignik Area.

Appendix F. Chignik Management Area Herring Regulations.

**ARTICLE 9. - STATISTICAL AREA L**

**CHIGNIK AREA.**

**5 AAC 27.550. DESCRIPTION OF AREA.** Statistical Area L includes all waters on the south side of the Alaska Peninsula enclosed by 156°20'13" W. long. (the longitude of the southern entrance to Imuya Bay near Kilokak Rocks) and a line extending southeast (135°) from the southernmost tip of Kupreanof Point.

**5 AAC 27.555. DESCRIPTION OF DISTRICTS.** Districts are as described in 5 AAC 15.200.

**5 AAC 27.560. FISHING SEASONS AND WEEKLY FISHING PERIODS.** (a) Herring may be taken from April 15 through June 30 (sac roe season) and from August 15 through February 28 (food and bait season).

(b) Herring may be taken only during periods established by emergency order.

**5 AAC 27.565. GEAR.** (a) Herring may be taken only by purse seines.

(b) A herring fishing vessel may operate or assist in operating only one legal limit of herring fishing gear in the aggregate.

(c) Unhung gear sufficient for mending purposes may be carried aboard fishing vessels.

(d) Herring fishing nets shall be measured, either wet or dry, by determining the maximum length of cork line when the net is fully extended with traction applied at one end only.

(e) The interim-use or entry permit holder is responsible for operation of the net.

(f) The use of leads with any net gear used for commercial herring fishing is prohibited during the herring sac roe season.

**5 AAC 27.575. SEINE SPECIFICATIONS AND OPERATIONS.** No purse seine may be more than 1,000 meshes in depth or more than 100 fathoms in length.

**5 AAC 27.580. WATERS CLOSED TO HERRING FISHING.** During the period June 12 through October 31, herring may not be taken in waters described in 5 AAC 15.350 and 5 AAC 39.290.

**5 AAC 27.590. BUYER AND TENDER REPORTING REQUIREMENTS.** In addition to the requirements of 5 AAC 39.130(f) each tender operator and each buyer or his agents shall report in person to and register with a local representative of the department upon arrival in the statistical area before commencing operations and before changing location of the operation. Each buyer shall:

(1) identify all vessels to be employed in transporting or processing herring and shall register such vessels with a local representative of the department located in the statistical area before transporting or processing herring;

(2) make daily reports of all herring purchased from fishermen, and other processing records as specified by a local representative of the department, and

(3) submit fish tickets before departure from the area and no later than 10 days after termination of buying operations in the area, or as otherwise specified by a local representative of the department.

The Alaska Department of Fish and Game administers all programs and activities free from discrimination based on race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. The department administers all programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972.

If you believe you have been discriminated against in any program, activity, or facility, or if you desire further information please write to ADF&G, P.O. Box 25526, Juneau, AK 99802-5526; U.S. Fish and Wildlife Service, 4040 N. Fairfax Drive, Suite 300 Webb, Arlington, VA 22203 or O.E.O., U.S. Department of the Interior, Washington DC 20240.

For information on alternative formats for this and other department publications, please contact the department ADA Coordinator at (voice) 907-465-6077, (TDD) 907-465-3646, or (FAX) 907-465-6078.

