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KODIAK MANAGEMENT AREA

ANNUAL SALMON MANAGEMENT REPORT

1989

By

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INTRODUCTION

Boundaries

The Kodiak Management Area (KMA; Area K), encompasses the Kodiak archipelago and that portion of the Alaska Peninsula which drains into Shelikof Strait between Cape Douglas to the north and Kilokak Rocks at Imuya Bay to the south (Figure 1). The Kodiak archipelago is approximately 200 miles long; the Alaska Peninsula portion is over 300 miles long and is separated from the archipelago by the Shelikof Strait, which averages over 45 miles in width.

Management Units

Management of KMA salmon fisheries is structured around seven districts subdivided into 52 sections (Figure 2 and Appendix A.1-A.16). These districts and sections occasionally are further subdivided inseason by emergency order (EO) to adjust fishing effort on unexpected salmon surpluses or deficits. Each "management unit" defines a geographical harvest unit managed for specific stocks and fishing patterns.

Production Potential

There are 440 salmon spawning streams within KMA; 36 support sockeye salmon populations, 4 with viable chinook salmon populations, 174 are known to contain coho salmon populations, 150 sustain chum salmon populations, and all 440 streams are used by pink salmon populations (Table 1). Of these streams 92 occur in the Alaska Peninsula (Mainland District) portion, and the remaining 348 occur in the archipelago. Of the archipelago streams, 234 are on Kodiak Island, 84 are on Afognak Island, 18 are on Shuyak Island, and 12 are on the Trinity Island group.

KMA salmon management staff, with input from the research staff, have formulated salmon escapement goals for sockeye, pink and chum salmon by river system (Appendix B.1- B.3). Also goals have been developed for most coho salmon populations, and for chinook salmon streams with weirs (Appendix B.4 - B.6). An "average salmon production potential", by species, can be computed by assuming achievement of the midpoint escapement goals and applying this to average return per spawner data (Table 2). Production potential for the KMA will be realized in the future if the target escapement goals are achieved for each species and for each significant production system.

Processing

There are 16 operational shorebased fish processing plants in the Kodiak Management Area, of which 14 process salmon (Table 3).

Eleven of these plants are within Kodiak city limits. Additionally, two shorebased plants, one in Chignik and one in Cook Inlet, regularly process salmon harvested in the KMA. Estimated sustained processing capacity of Kodiak shore plants for the 1989 season was approximately 1.1 million salmon per day, inclusive of both canned and frozen product. Salmon processing ships do not commonly operate within the KMA. During large even-year pink salmon returns, when steady fishing time is expected, floating processors have operated around Kodiak. Though three floating salmon processors operated in KMA during the 1988 season none registered to operate in 1989.

HISTORICAL PERSPECTIVE

Gear

The earliest documented commercial salmon harvest was by cannery owned beach seine operations fished in Karluk Lagoon. Prior to statehood the Kodiak commercial salmon fishery had evolved to be dominated by cannery owned fish traps combined with fishermen owned set gillnet, purse seine, and beach seine operations. Poststatehood fish traps were eliminated and Kodiak commercial salmon fishermen utilized purse seine, set gillnet, and beach seine gear (in descending order of abundance). Adoption of limited entry in 1974 formally established the poststatehood relationship between gear abundance. The actual number of permits fished each year varies slightly (Table 4). The majority of all permits, over 75%, are owned by Alaska state residents (Table 5).

The geographical areas currently open to specific gear types have remained unchanged since 1974 with three exceptions: First, in the mid 1970's that portion of the Karluk District between Rocky Point and Cape Uyak was closed to set gillnet gear in an attempt to accelerate rebuilding of Karluk sockeye and pink salmon stocks. No documented gillnet gear had fished there since the early 1960's, so no existing gillnetters were affected. Several purse seine locations within that area which could impact Karluk stocks were brought under direct management. A second gear and area adjustment occurred in the late 1970's in the Alitak District. The common boundary between the Cape Alitak, Moser-Olga Bay, and Portage-Deadman Sections was adjusted. This was done in an effort to reduce gear conflicts caused by an unclear boundary description. The area open to set gillnet gear was reduced from Cape Alitak to Tanner Head and was increased in Deadman Bay to a point northwest of Fox Island. The third gear and area adjustment was made in Zachar Bay. To alleviate fixed versus mobile gear conflicts the closed water sanctuary markers were reduced (moved further into the bay) and the newly opened area was designated seine gear only. The creation of this small, seine gear only area adjacent to the closed water area within Zachar Bay was consistent with other major westside bays.

Processing

Commercial salmon processing in the KMA has evolved from small salting and pickling operations, to canning operations, to multi-tasked operations processing fresh and frozen products which supplement canned salmon. Kodiak salmon processors are exploring the marketability of various products, such as fresh and frozen whole salmon, frozen fillets, frozen minced, and salmon surimi. The physical and operational nature of Kodiak processing plants has evolved from scattered seasonally operated canning operations to highly efficient plants most of which are concentrated within Kodiak's city limits. Advanced processing technology has yielded diverse high quality salmon products in recent years.

MANAGEMENT

The Alaska Department of Fish and Game (ADF&G), Commercial Fisheries Division, is responsible for the management of salmon stocks within the state of Alaska. In the KMA, the staff responsible for commercial salmon fishery regulation is comprised of an Area Management Biologist, an Assistant Area Management Biologist, approximately 15 seasonal biologists and technicians, and a seasonal Boat Officer. The Kodiak salmon research staff includes an Area Research Biologist and approximately four seasonal employees. A Regional Management Coordinator and a Regional Research Biologist oversee each of the operations.

Preseason salmon forecasts are developed jointly by the management and research staffs. A preemergent pink salmon sac fry survival study has been conducted each spring by KMA finfish management staff for the past 20 years, and a pink salmon forecast is developed from that data (Appendix C.1 - C.4). Seasonal management personnel at remote fish counting weir stations collect salmon escapement data and sockeye salmon scale, sex, and length data, which are used to develop system specific and area wide sockeye salmon forecasts (Appendix C.5 - C.8).

Basic inseason management activities center around daily evaluations of actual run strength in comparison to preseason expectations by species. The management staff's inseason duties include daily contact with all processors to gather updated harvest information by area and species, and with as many fishermen as possible to discuss run strength and distribution as well as get feedback on prevailing inseason management activities. Salmon build up and escapement estimates are collected from frequent fixed wing aircraft surveys of KMA bays and streams. Actual escapements counts are collected from up to sixteen remote fish counting weir stations through twice daily single side band radio contact. Additional inseason information on sockeye salmon run strength is obtained from an ADF&G test fishery in the Alitak District.

Utilizing this data, the KMA Area Management Biologist writes an emergency order which describes the details of an upcoming or

continuing commercial fishery (starting date and time, duration, places open, etc.) and puts them into regulation. A news release (NR) is then issued which publicly announces the fishery. Guiding the KMA staff are several Board of Fisheries (BOF) approved "Management Plans" that describe biological and allocative constraints which the management staff must follow when structuring commercial salmon fisheries. These management plans are part of the Kodiak Area Commercial Salmon Fishery Regulations (Appendix D). Currently two Board approved management plans are if effect for the KMA.

STOCK STATUS

Chinook Salmon

The Kodiak Area has two natural chinook salmon populations (the Karluk and Ayakulik stocks), and two introduced chinook salmon populations (the Frazer and Pasagshak stocks). The natural runs occur in major systems where escapements are monitored by fish counting weirs, while the introduced runs are smaller populations in smaller river systems whose escapement is monitored by fish weir (Frazer) and aerial survey (Pasagshak). No directed commercial chinook salmon fisheries occur on these stocks, although harvests incidental to directed fisheries on sockeye and pink salmon occur. There is a moderate sport fish harvest of Karluk and Ayakulik stocks, however commercially guided operations are rapidly increasing. Both populations appear to be healthy as escapement requirements are regularly met. Current regulations provide adequate protection at current exploitation levels. For the Frazer and Pasagshak river systems, to aid establishment of spawning populations, sport fishing for chinook salmon is prohibited and efforts are made to protect them from incidental commercial fishing. The Frazer population is stable though at relatively low numbers. The success of the Pasagshak introduction remains uncertain, however recent trends in escapement are favorable.

Sockeye Salmon

There are 36 known sockeye salmon populations in the KMA. Large runs only occur in four systems; the Karluk, Ayakulik, Upper Station, and Frazer Rivers (in descending order of potential production). These systems provide as much as 90 percent of Kodiak's current sockeye salmon production. Directed fisheries on these stocks are intense and require extensive management activities from June 9 through September 15. The Karluk and Upper Station systems have distinct manageable early and late runs (early: June 9 - July 15; late: July 16 - September 15) while the Ayakulik and Frazer runs are primarily early. Stocks from all these systems are considered healthy. Combined maximum production from these systems has not yet been realized and possibly will not be until the early 1990's. Rebuilding efforts on these stocks started in 1970 and only recently have results been evident.

Ten sockeye salmon populations are considered minor, but significant; the Afognak, Uganik, Akalura, Saltery, Kaflia, Pauls, Swikshak, Little River, Thorsheim, and Portage systems (in descending order of potential production). These systems account for approximately five percent of Kodiak's current sockeye salmon production. Fish weirs are placed on the Afognak, Akalura, Saltery, Pauls, and Thorsheim systems for escapement enumeration. Timely, precise salmon counts provides the best opportunity for sockeye stock management. The other systems are monitored by aerial survey, and stock specific management is more precarious. These ten minor stocks offer a relatively high yield per unit effort to directed commercial seine effort, and so are vulnerable to overexploitation. These populations are considered to be marginally to moderately healthy based upon 1988 production levels. A more conservative management approach for these systems is planned in the future. It is also expected that enhancement and rehabilitation projects being considered could increase production for some of these stocks.

The remaining 22 systems are minor systems that normally are not exploited by directed commercial effort.

Commercial harvest strategies and regulations have not limited subsistence or sport fishing opportunities on sockeye salmon stocks. However, the relatively small populations of some minor, commercially insignificant, systems which are experiencing rapidly increasing subsistence harvests, such as the Buskin and Barabara systems, may be approaching maximum exploitation. Sport fish effort for sockeye salmon on these same systems is currently minimal. These systems will require close monitoring in the future to ensure biological protection and future subsistence use.

Coho Salmon

In recent years this species has experienced the largest increase in interest and exploitation within the KMA by sport, commercial, and subsistence users. Management which satisfies the desires of the various user groups is complicated by an incomplete data base of KMA coho salmon escapements and production. About 174 systems in KMA support coho salmon populations, however approximately 20 percent (35 streams) generate 80 percent of the area's production. With knowledgeable inseason management these system's minimum escapements will be achieved. There is great concern for the remaining 80 percent (135 streams) where coho salmon populations are relatively small and subject to overexploitation. The rather precarious status of these stocks will not improve unless a concentrated regulatory and management effort is implemented to safeguard broodstock.

Pink Salmon

Pink salmon represent the base of Kodiak salmon production, averaging 80 percent of total area harvest. The historical harvest

and escapement database is fairly extensive. Prior to 1948 odd-year KMA pink salmon returns tended to be larger than even-year, but these populations have shown an even-year dominance for the last 40 years. Within cycle variation in production is heavily influenced by environmental extremes which affect survival. The preemergent sac fry sampling project examines egg to fry survival. This data is compared to past year's results to develop a preseason forecast. The KMA pink salmon forecasts are reliable in projecting extremes for major systems and total area production. Forecast results strongly influence management of the commercial fishery, particularly in the early portion of the directed pink salmon fishery. Production should remain at above average levels provided existing management strategies and activities are retained, and environmentally induced fluctuations don't prevail. Pink salmon natural production in the KMA has been at above average levels. The long term status of this species is projected to be excellent.

Chum Salmon

There has been increasing emphasis on chum salmon management in KMA over the past 10 years. Knowledge of chum salmon populations has substantially increased, and so has production. There are difficulties associated with evaluating inseason run strength and timing for these stocks and, combined with the increases in directed fishing on specific chum salmon stocks, it is clear that intensive chum salmon stock management strategies require further development.

Currently chum salmon escapement goals, historical harvest and escapement data, and the use of inseason escapement and harvest data are being reevaluated. There are similarities between pink and chum salmon freshwater and early marine life cycles. Information on early life survival is gained from the preemergent pink salmon fry program. Combined with our ability to take advantage of the multiple age class nature of annual chum returns to develop harvest projections (through catch sampling) the future status of this species is expected to be excellent.

1989 SALMON SEASON SUMMARY

ADF&G Management

The 1989 KMA commercial salmon fishery was severely impacted by the March 24 Exxon Valdez oil spill (EVOS) in Prince William Sound. Oil contaminated waters were widespread throughout the KMA (Barrett 1989). This contamination made implementation of a normal harvest stategy impossible. Guiding inseason harvest strategy in 1989 were two documents: 1) A "Memorandum of Understanding" (MOU) between ADF&G and the Alaska Department of Environmental Conservation (ADEC) (Appendix E.1); and 2) An emergency regulation (ER) issued by the Commissioner of ADF&G suspending all regulatory management plans (Appendix E.2). The MOU between ADF&G and ADEC identified

the criteria required before conducting commercial salmon fisheries when there was potential for fouling vessels, gear or fish by oil contaminated waters. The Commissioner's ER released fishery managers from having to follow Board approved management plans, therefore providing for potentially abnormal scenarios to harvest salmon surplus to escapement needs. Because of the abnormal fishing conditions and the need to keep fishermen and processors completely informed of harvest requirements dictated by the MOU, numerous public meetings were held throughout the 3½ month season. Forty six news releases were issued identifying meeting times and providing updated information on potential fisheries (Appendix F.1).

A major problem in 1989 was providing advanced notice of potential fishing scenarios as the season progressed. The normal KMA management chronology for targeted fisheries identifies time sequences for potential fishing opportunities, by species (Figure 3), and past seasons have basically followed this harvest timing. In 1989 there was a gradual spread of oil contaminated waters throughout the entire management area. To salvage a "normal" season, widespread fishing would have had to occur by late July, at the latest. Any fishing time after that would cause significant changes in harvest allocations to the various gear groups. As normal fisheries timing was delayed fish moved out of traditional harvest locations toward terminal locations near their natal streams. There were allocative considerations between seine operations, between Westside set gillnet operations, and between seiners and gillnetters.

As daily updates on the extent of oil contamination were provided to industry, and as weekly informational meetings were held, many individual industry decisions were made about salvaging a salmon season. A key component of their decision making was that predictable, adequate, advance notice time for potential KMA fishing time had to be provided by ADF&G (Appendix E.3). An initial seven day advance notice procedure was implemented, and then as hopeful signs of potential fishing opportunities began to appear the advance notice period was reduced to 96 hours. However, the 96 hour advance notice was still in effect by season's end, when salmon were no longer commercially acceptable.

An extremely intensive effort by ADF&G and ADEC at evaluating fishable waters prevailed for the entire season (Barrett 1989). During the KMA sac roe herring fishery two Exxon chartered commercial seine vessels were used for test fishing. This program was expanded so that during the peak assessment period eight Exxon chartered purse seine vessels, each with a certified ADF&G observer aboard, were test fishing the entire traditional fishing grounds of the KMA. They were trying to identify fishable conditions which would meet the requirements of the MOU. At the same time, two helicopters chartered by Exxon and staffed by ADF&G, were conducting daily beach assessment surveys. This intense monitoring schedule was sustained over a 3½ month period. Only three fishable

situations, in geographically isolated locations, were identified. Two of these provided for modified commercial fishing on natural stocks (Olga Bay in the Alitak District and inside Karluk Lagoon in the Southwest Kodiak District) and one provided for a modified cost recovery fishery of Kitoi Bay Hatchery stocks (Appendix F.2).

Several times isolated fisheries were close to occurring. Advance notice was given for industry to prepare to fish. However, because of oil related observations by test vessels or helicopter crews, these potential fisheries were postponed. In summary, based upon the extensive nature of the oil contaminated waters and beaches in 1989, as monitored by comprehensive ADF&G and ADEC effort, and in consideration of the MOU requirements and their interpretation, all possible fishing scenarios were thoroughly explored in 1989.

Escapement

Salmon escapement was documented by aerial surveys, foot surveys and weir counts, with 928 observations made of 344 streams (Table 6, plus Appendix G.1 - G.10). Because of the limited commercial fishing opportunities, and a large return of salmon to the KMA, the 1989 actual escapement was tremendous, far exceeding normal escapement requirements. Barrett et al. (1990) expanded index escapement counts to more closely estimate total return. The eventual impact of these escapements on future returns is not certain, however returns-per-spawner could be at or near record low levels, especially for pink salmon.

Commercial Harvest

The extensive fishery closures in the KMA due to the EVOS provided only limited fishing opportunities for most permit holders, and yielded processing opportunities substantially below preseason expectations. As mentioned earlier, only two commercial fisheries occurred on natural wild stocks and a modified cost recovery fishery occurred on hatchery pink stocks (Table 7). The amount of gear actually fished in these fisheries was far less than that potentially fishable, and far less than average (Table 8).

One of the wild stock fisheries occurred in the Alitak District. The Alitak fishery was able to occur only in the exclusive set gillnetting section of this district. Of the 186 potentially fishable set gillnet permits in the KMA only 87 (46%) participated. This fishery was of relatively long duration, occurring over a 77 day time frame, from June 16 through August 31. A total of 56.5 days of fishing time was available within that 77 day period. Only two total closures occurred: An 8½ day closure from July 18 to July 26; and a 12 day closure from August 19 to August 31 (Figure 4). This fishery occurred on surplus sockeye salmon returning to the Frazer, Upper Station, and Akalura systems, and on surplus pink salmon returning to the Dog Salmon River system (Table 9). The 1989 sockeye harvest in this district represents the largest

sockeye harvest in the 99 year history of commercial fishing in this district (Table 10). However, because of low returns of pink salmon, the total 1989 harvest, all species combined, ranks only 11th over the last 20 years (Table 11).

The other wild stock fishery occurred extremely late in the season in a portion of the Inner Karluk Section. The Karluk fishery only occurred in two six hour fishing periods which extended over a two day period, September 16 and 17. It was only able to occur inside the closed water portion of the Inner Karluk Section and the lower two thirds of Karluk Lagoon. This is an area exclusive to purse seine and beach seine gear and, because of the late timing and expected low yield on surplus Karluk sockeye and coho salmon, only 4 units of seine gear made landings: 3 purse seiners (1% of the 387 potentially fishable purse seine permits) and 1 beach seine (3% of the 33 potential fishable beach seine permits). The late timing of this fishery coincided with a period when oil free waters were identified, along with a harvestable surplus of Karluk system sockeye.

The third fishery occurred in a small terminal portion of the Kitoi Bay Section near the Kitoi Bay Hatchery. It occurred as a supplemental cost recovery fishery. The Kitoi Bay fishery differed from the two aforementioned fisheries in that it was administered jointly by the Kodiak Regional Aquaculture Association and ADF&G Kitoi Bay hatchery personnel. This fishery was not a competitive fishery; it was a fishery designed to harvest high quality hatchery pink salmon surplus to the hatchery brood stock needs and normal cost recovery to cover hatchery operational costs. The pink salmon harvested in this fishery would normally have been taken in the common property fisheries adjacent to the Kitoi Bay Hatchery. The presence of oil contaminated waters in the normal common property fishing locations allowed these excess fish to return to their "stream of origin", the Kitoi Bay Hatchery. The inner portion of Kitoi Bay was laced with oil containment boom to protect hatchery rearing facilities for pink and chum salmon fry. The resultant clean waters of inner Kitoi Bay allowed the harvest of approximately 6.4 million surplus hatchery pink salmon. A relatively quick and orderly harvest of this volume of fish was accomplished by allowing only a limited number of purse seine and tender vessels to pass through the contaminant booms, under tightly controlled conditions in order to keep the area oil free. From a predetermined vessel list, approximately 30 different purse seine vessels harvested salmon over 26 days, from August 1 through August 25. Processors from Kodiak and Cook Inlet were allowed to provide daily bids for "lots" of fish. For a first time harvest of this type, the end result was that, instead of 6.4 million wasted pink salmon, approximately 10.6 million dollars in revenue was generated. This is currently being held in escrow pending final disposition of claims action. This harvest of pink salmon represents a record pink salmon return to the Kitoi Bay Hatchery, three times the preseason projection (Table 12).

Because of the limited commercial fishing opportunities in 1989 the actual salmon harvest was far less than preseason projections (Table 13). The 1989 return was close to that forecasted, except for the pink salmon return which was much stronger than anticipated. Had 1989 been a normal year the total harvest by species in 1989 could have been: 4,850 chinook; 2,633,898 sockeye; 141,433 coho; 23,239,158 pink; and 745,708 chum (Table 14). A fixed exvessel value of the KMA 1989 commercial salmon fishery cannot be provided until final settlements between permit holders and Exxon occurs. However, a very preliminary estimate of that value can be made by applying average prices paid for salmon harvested in the limited common property fisheries (Table 15) to projected natural production and adding in the actual value of the excess hatchery cost recovery fish. This would yield an estimate of exvessel value for natural and hatchery production combined of 61 million dollars (Table 16). By using 1988 gear levels and assuming that the harvest by gear may have been proportional to 1988 levels an estimated average exvessel value by gear type can be computed (Table 17). The estimated average exvessel earnings for each gear type would be: Purse seine $130,000, beach seine $30,000 and set gillnet $100,000. These figures are very approximate and only provide an estimated comparison between 1989 and prior years' exvessel values (Table 18).

In summary, the 1989 commercial salmon fishery under normal conditions would have yielded a record harvest (all species combined) from both natural and hatchery production. Preseason harvest projections would have been reasonably accurate except for pink salmon whose overall abundance in 1989 was over two times the preseason expectations. Since this species is the "bread and butter" species for the KMA fishing fleet, all participants could have experienced near record fishing opportunities (fishing time and areas open to fishing).

Subsistence Harvest

The KMA staff issues subsistence salmon permits in an attempt to obtain harvest data. In 1986, a program was instituted to build a computerized address list of permit users. In 1989 KMA staff began to mail out permits, in order to cut down office traffic (Appendix H.1). The mailing list was comprised of all the permit users from 1986 through 1988. State regulations in effect in 1989 limited permit holders to only those Alaskans permanently domiciled within the Kodiak Island Burrough. Regulations also excluded members of the United States Coast Guard (USCG) living on the USCG base or government provided housing in Kodiak (Appendix H.2). Eliminating the non-eligible past permit holders still left a list of over 2,800 persons. Permits were mailed out, and predictably many were returned to ADF&G as undeliverable. Over 600 permits were sent back to the office, so somewhere around 2,200 subsistence permits were issued.

The Exxon Valdez oil spill had a significant impact on subsistence salmon fishing in the KMA. In season, there was much discussion about the possible health risk of eating tainted salmon. Plus, many residents who would normally be fishing for subsistence salmon throughout the season were deeply involved in the cleanup effort, and so were losing their opportunity to catch fish for the winter. Through a long and somewhat twisted process it was decided that Exxon would "sponsor" a subsistence fishery in two locations certified as "oil free" and the salmon would be distributed to the needy in the villages and Kodiak (C. Mishler, Unpublished Memorandum to J. Fall, 10/31/89; Appendix H.3). ADF&G issued an Emergency Regulation on August 31, 1989, which allowed the use of beach or purse seine gear to take salmon for subsistence purposes in the Moser-Olga Bay Section of the Alitak Bay District, and in the Karluk Lagoon in the Inner Karluk Section of the Southwest Kodiak District (Appendix H.4).

A limited subsistence fishery using seine gear did take place in the Inner Karluk Section on September 7 and 8, 1989. Some 68,293 pounds of salmon were harvested, approximately half were canned and half were frozen, and these products were distributed to the various villages, organizations, and residents of the KMA by October 21, 1989 (Appendix H.5). This represents a harvest of 13,919 salmon, over 96% of which were sockeye. In addition to the Exxon sponsored subsistence harvest 714 of the subsistence permits which were issued in 1989 were returned to the ADF&G office in Kodiak showing individual's subsistence salmon harvest from various parts of the KMA (Table 19). That level of return is very similar to past year returns, and the total reported harvest of 17,605 salmon is above the 28 year average. Adding the "Exxon" subsistence harvest gives a total reported subsistence harvest of 31,524 salmon, the highest on record (Table 20).

1990 SALMON HARVEST PROJECTIONS

The 1990 salmon return to the KMA is expected to be very good, with a projected harvest of 15.2 million salmon (Table 21). The projected harvest of 2.5 million sockeye salmon reflects good production from the Karluk, Ayakulik, and Upper Station systems while the Frazer system, is expected to yield only fair production. The remaining production from minor systems is expected to be about average. Projected harvests on non local stocks (specifically Chignik and Cook Inlet sockeye salmon) are less certain.

The 1990 pink salmon harvest is projected by geographical area (Table 21). There are major differences from the actual distribution of the 1989 return. In the Alitak District a below average pink salmon harvest is projected, and in the Afognak District an above average and possibly near record natural production return could occur.

The projected chum and coho salmon harvests reflect lower expectations than for 1989. Projecting a geographical harvest for

these two species relates relative proportional production between the geographical areas identified, and is expected to be reasonably accurate.

1990 ISSUES AND PLANS

A major concern for both industry and ADF&G is if the effects of the March 24, 1989 EVOS will be present for the 1990 season. On 15 November 1989 both ADF&G staff and residents of Ouzinkie village report that "mousse" from the spill is still evident on Kodiak Island's north and west side and in the middle Mainland District. It is hoped that the major storm activity commonly seen over the winter months will take a toll on any residual pockets of "mousse" which could impact the 1990 commercial salmon fishery. KMA herring sac roe fisheries, which begin April 15, will provide critical insight into the status of fishable waters in the KMA, as will prefishery oil assessment activities.

Other issues will stem from the results of the November 1989 BOF deliberations in Kodiak. Regulatory changes stemming from Board action on four regulatory management plans for KMA could change the normal fishing opportunities for each of the gear types.

If the 1990 salmon return approaches the forecasted level, there should be ample fishing opportunities for all user groups. A more normal commercial salmon fishing harvest strategy, maximizing fishing opportunities, should be in place unless there are lingering negative effects of the 1989 Exxon Valdez oil spill.

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Table 1. Salmon production systems, Kodiak Management Area, 1989.

Estimated Number of Salmon Streams per District[a], with Species Distribution[b].

Management District	Number of Streams	Number of Streams with Each Species				
		Chinook	Sockeye	Coho	Pink	Chum
Afognak	102	0	15	48	102	5
N.W. Kodiak	63	0	3	22	63	23
S.W. Kodiak	11	2	2	10	11	6
Alitak	30	1	5	15	30	14
Eastside Kodiak	116	1	4	32	116	47
N.E. Kodiak	26	0	1	20	26	9
Mainland	92	0	6	27	92	46
TOTAL	440	4	36	174	440	150

[a] The total number of streams identified in this table are depicted on the 1990 Kodiak Area Salmon District Map.

[b] These estimates are based on current knowledge and are expected to change as more system specific data is collected.

Table 2. Salmon production (Potential vs. Actual) in the Kodiak Management Area, 1989[a].

SPECIES	Midpoint Indexed Escapement Goal[d]	Return Per Spawner[e]	AVERAGE POTENTIAL SALMON PRODUCTION[b] Total Return	Potential Harvest	ACTUAL HARVEST[c] 108 Yr. Period (1882-1989)	5 Yr. Period (1985-1989)
Chinook	.014	2.5	.035	.021	.002	.007
Sockeye	1.754	2.5	4.385	2.631	1.582	2.156
Coho	.150	3.0	.450	.300	.070	.190
Pink					4.567	
Odd-Year	2.020	4.0	8.080	6.060		6.411
Even-Year	3.602	4.0	14.408	10.806		12.316
Chum[f]	.501	3.0	1.503	1.002	.399	.737
TOTAL					6.620	
Odd-Year	4.439	-	14.453	10.014		9.501
Even-Year	6.021	-	20.781	14.760		15.406

a In millions of fish.

b Natural Production. Table completed initially 2/15/89 and revised 10/30/90 by Kodiak management staff with review by research staff. Revised 12/24/91 to include 1989 harvest data in the actual harvest averages.

c Includes natural and supplemental production.

d Approximate midpoint indexed escapement goal from Barrett et al (1990).

e Approximate average exploitation rate based upon Chapman (1988).

f A minimum rather than a midpoint indexed escapement goal is utilized because the entire annual chum return is vulnerable to variable bycatch rates in the targeted pink fisheries and the midpoint escapement levels can not realistically be managed for on a regular basis.

Table 3. Commercial salmon buyers and processors, Kodiak Management Area, 1989[a].

Buyers/Processors	Shorebased Processors			Floating Processors			Product	
	Kodiak City	Kodiak Borough	Other Areas	Kodiak City	Kodiak Borough	Other Areas	Canned	Frozen
Alaska Fresh Seafoods	X							X
ALCOD	X							X
All Alaskan Seafoods	X							X
Alaska Pacific Seafoods	X						X	X
Chignik Pride Fish-Chig.			X					X
Chugach Fisheries-Uganik		X					X	X
Columbia Ward-Alitak		X					X	X
Columbia Ward-Port Baily		X					X	X
Cook Inlet Processors	X							X
East Point Seafoods								X
International Seafoods	X							X
John Cabot Fish-Seldovia			X					X
Kodiak King Crab, Inc.	X							X
Kodiak Salmon Company-Larsen Bay		X					X	
Ursins Seafoods	X							X
Western Alaska Seafoods	X							X
TOTAL: 16/16	10	4	2	0	3	0	6	15

[a] Because of the unusual nature of the 1989 Kodiak commercial salmon season this list represents only those plants which were initially scheduled to process salmon. Only 12 processors actually purchased salmon during the 1989 season.

Table 4. Summary of salmon limited entry permit activity, Kodiak Management Area, 1975 - 1989[a].

Year	Purse Seine Fishable	Purse Seine Fished	Beach Seine Fishable	Beach Seine Fished	Set Gillnet Fishable	Set Gillnet Fished	Total Fishable	Total Fished	%
1975	468	280	26	8	229	116	723	404	56
1976	394	325	23	17	187	140	604	482	80
1977	378	312	32	22	186	142	596	476	80
1978	388	345	32	24	188	152	608	521	86
1979	385	340	34	28	184	154	603	522	87
1980	387	360	35	29	187	158	609	547	90
1981	387	325	35	30	187	169	609	524	86
1982	386	338	34	28	187	169	607	535	88
1983	383	342	35	27	188	174	606	543	90
1984	384	298	31	25	188	168	607	491	81
1985	384	272	35	21	188	169	607	467	77
1986	385	288	35	15	187	175	607	478	79
1987	386	298	35	18	188	173	609	489	80
1988	387	323	35	21	188	180	610	523	86
1989[b]	388	4	35	1	189	87	612	92	15
14 Year Average (75-88)	392	318	33	22	190	160	615	500	81

[a] Variability in the number of "Fishable" permits is due to determination of individual's eligibility by the Commercial Fisheries Entry Commission.

[b] The 1989 effort levels are not included in the average totals due to extensive fishery closures because of the presence of oil from the Exxon Valdez spill.

Table 5. Resident vs. nonresident salmon limited entry permit ownership, Kodiak Management Area, 1985-1989.

	PURSE SEINE		BEACH SEINE		SET GILLNET		TOTAL	
	Number	%	Number	%	Number	%	Number	%
1989								
RESIDENT	285	73	29	83	146	77	460	75
NONRESIDENT	96	25	4	11	43	23	143	23
UNKNOWN	7	02	2	06	0	-	9	02
TOTAL	388		35		189		612	
1988								
RESIDENT	287	74	30	86	149	79	466	76
NONRESIDENT	93	24	2	06	39	21	134	22
UNKNOWN	7	02	3	08	0	-	10	02
TOTAL	387		35		188		610	
1987								
RESIDENT	282	73	29	83	151	80	462	76
NONRESIDENT	84	22	2	06	35	19	121	20
UNKNOWN	20	05	4	11	2	01	26	04
TOTAL	386		35		188		609	
1986								
RESIDENT	286	74	28	80	148	79	462	76
NONRESIDENT	80	21	3	09	39	21	122	20
UNKNOWN	19	05	4	11	0	-	23	04
TOTAL	385		35		187		607	
1985								
RESIDENT	291	76	31	88	148	79	470	77
NONRESIDENT	89	23	2	06	40	21	131	22
UNKNOWN	4	01	2	06	0	-	6	01
TOTAL	384		35		188		607	

Table 6. Indexed peak salmon escapement, by district and species, Kodiak Management Area, 1989[a].

District	Number of fish[b]					Number of Observations
	Sockeye	Pink	Chum	Coho	Chinook	
Afognak	115,469	943,023	1,118	43,056	3	98
Northwest	83,450	4,139,790	410,350	27,142	0	227
Southwest	1,876,747	158,835	38,379	34,764	25,916	37
Alitak	771,359	2,710,821	53,199	20,588	160	109
Eastside	57,492	1,866,043	281,784	26,102	51	225
Northeast	17,853	847,055	26,279	14,110	1	50
Mainland	100,516	3,977,020	621,500	860	0	182
TOTAL	3,022,886	14,642,587	1,432,609	166,622	26,131	928

[a] Index peak counts are the highest single escapement count made of each stream surveyed, or if there are two counts of a stream which are thirty or more days apart these are added to give an index peak escapement count.

[b] Number of fish is estimated during aerial or foot survey, or taken from weir counts.

Table 7. Actual salmon harvest by species and management unit[a], Kodiak Management Area, 1989.

	SPECIES					
	CHINOOK	SOCKEYE	COHO	PINK	CHUM	TOTAL
COMMON PROPERTY FISHERIES						
ALITAK DISTRICT						
(Set Gillnet Only)						
Number of Fish	106	1,284,067	1,613	182,217	19,908	**1,487,911**
Average Weight	19.217	5.528	8.766	3.573	8.748	
Pounds of Fish	2,037	7,098,034	14,139	651,072	174,158	**7,939,440**
Average $/lb	$1.167	$1.794	$0.516	$0.369	$0.386	
EXVESSEL $	**$2,377.18**	**$12,733,873.00**	**$7,295.72**	**$240,245.57**	**$67,224.99**	**$13,051,016.46**
INNER KARLUK SECTION						
(Purse Seine Only)						
Number of Fish	-	3,151	879	3	19	**4,052**
Average Weight	-	4.905	10.433	3.333	7.526	
Pounds of Fish	-	15,455	9,171	10	143	**24,779**
Average $/lb	-	$1.642	$0.870	$0.553	$0.373	
EXVESSEL $	-	**$25,377.11**	**$7,978.77**	**$5.53**	**$53.34**	**$33,414.75**
INNER KARLUK SECTION						
(Beach Seine Only)						
Number of Fish	-	329	107	-	-	**436**
Average Weight	-	5.787	10.439	-	-	
Pounds of Fish	-	1,904	1,117	-	-	**3,021**
Average $/lb	-	$1.600	$0.600	-	-	
EXVESSEL $	-	**$3,046.40**	**$ 670.20**	-	-	**$3,716.60**
TOTALS (All Gear)[b]						
Number of Fish	106	1,287,547	2,599	182,220	19,927	1,492,399
Average Weight	19.217	5.526	9.399	3.573	8.747	
Pounds of Fish	2,037	7,115,393	24,427	651,082	174,301	7,967,240
Average $/lb	$1.167	$1.794	$0.663	$0.369	$0.386	
EXVESSEL $	**$2,377.18**	**$12,762,296.51**	**$15,944.69**	**$240,251.10**	**$67,278.33**	**$13,088,147.80**

-Continued-

Table 7. (Page 2 of 3)

	SPECIES					
	CHINOOK	SOCKEYE	COHO	PINK	CHUM	TOTAL
RECOVERY FISHERIES						
OPERATIONAL						
(Seine Only)						
Number of Fish	-	-	-	204,223	-	**204,223**
Average Weight	-	-	-	2.865	-	
Pounds of Fish	-	-	-	585,191	-	**585,191**
Average $/lb	-	-	-	$0.554	-	
EXVESSEL $	-	-	-	**$324,195.81**	-	**$324,195.81**
SUPPLEMENTAL						
(Seine Only)						
Number of Fish	-	-	-	6,437,666	-	**6,437,666**
Average Weight	-	-	-	2.971	-	
Pounds of Fish	-	-	-	19,128,525	-	**19,128,525**
Average $/lb	-	-	-	$0.554	-	
EXVESSEL $	-	-	-	**$10,597,202.85**	-	**$10,597,202.85**
TEST FISHERIES						
Number of Fish	-	1,989	-	1,016	45	3,049
Average Weight	-	5.670	-	3.411	8.289	
Pounds of Fish	-	11,278	-	3,462	373	15,113
Average $/lb	-	$1.794	-	$0.548	0.385	
EXVESSEL $	-	**$20,232.73**	-	**$1,897.18**	**$143.61**	**$22,273.51**
GRAND TOTAL						
(All Fisheries and All Gears)						
Number of Fish	106	1,289,536	2,599	6,825,124	19,972	8,137,337
Average Weight	19.217	5.527	9.399	2.984	8.746	
Pounds of Fish	2,037	7,126,671	24,427	20,368,260	174,674	27,696,069
Average $/lb	$1.167	$1.794	$0.653	$0.548	$0.386	
EXVESSEL $	**$2,377.18**	**$12,782,529.24**	**$15,944.69**	**$11,163,546.94**	**$67,421.93**	**$24,031,819.98**

-Continued-

Table 7. (Page 3 of 3)

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[a] DATA SOURCE Harvest data from 1989 final fish ticket summaries; includes number of pounds, number of fish, and average weights (mathematically rounded) by species. The average price per pound by species and gear was provided by the Commercial Fisheries Entry Commission.

[b] The average price per pound (Average $/lb.) for the Common Property Fisheries totals (All Gear) represents a weighted average of the average price per pound by gear type.

Table 8. Summary of gear participation, amount potentially fishable vs. amount actually fished, Kodiak Management Area, 1989.

		Limited Entry Permits	
		Fishable[a]	Fished[b]
Purse Seine[c]	Resident	285	-
	Nonresident	96	-
	Unknown[d]	7	-
	Subtotal	388	33
Beach Seine	Resident	29	-
	Nonresident	4	-
	Unknown	2	-
	Subtotal	35	1
Set Gillnet	Resident	146	-
	Nonresident	43	-
	Unknown	0	-
	Subtotal	189	87
Area Total	Resident	460	-
	Nonresident	143	-
	Unknown[d]	9	-
	Total	612	121

[a] Reflects only potentially fishable permits. Includes 5 interim purse seine permits and 1 interim beach seine permit.

[b] Because of the unusual nature of the 1989 season these numbers are significantly lower than in past years.

[c] Approximately 30 of the fished purse seine permits were used in the Kitoi Bay hatchery cost recovery fishery. Only 3 permits were used in the limited 1989 Kodiak Area commercial salmon fisheries.

[d] These permits were not renewed in 1989 so the physical domicile of the permit owner is unknown.

Table 9. Sockeye salmon harvest by stock and run timing, Alitak Bay Distict, Kodiak Management Area, 1989[a].

SALMON STOCK/ HARVEST LOCATION	EARLY RUN (6/09 - 7/15)	LATE RUN (7/16 - 9/15)	TOTAL
FRASER STOCK			
Moser/Olga Bay Section	223,257	-	223,257
Dog Salmon Flats Section	388,726	-	388,726
SUBTOTAL	611,983		611,983
UPPER STATION STOCK			
Moser/Olga Bay Section	24,806	0	24,806
Dog Salmon Flats Section	43,192	132,900	176,092
Outer Upper Station Section	11,967	434,035	446,002
Inner Upper Station Section	0	0	0
SUBTOTAL	79,965	566,935	646,900
AKALURA STOCK			
Moser/Olga Bay Section	0	0	0
Dog Salmon Flats Section	0	0	0
Outer Akalura Section	0	25,184	25,184
SUBTOTAL	0	25,184	25,184
TOTAL ALL STOCKS			
Moser/Olga Bay Section	248,063	0	248,063
Dog Salmon Flats Section	431,918	132,900	564,818
Outer Upper Station Section	11,967	434,035	446,002
Inner Upper Station Section	0	0	0
Outer Akalura Section	0	25,184	25,184
SUBTOTAL	691,948	592,119	1,284,067

[a] In number of fish. Data derived from fish ticket summaries.

Table 10. Sockeye salmon commercial harvest in the Alitak Bay District, Kodiak Management Area, 1889-1989[a].

YEAR	CATCH	YEAR	CATCH	YEAR	CATCH
1889	343,005	1929	200,989	1969	98,699
1890	443,911	1930	113,769	1970	81,544
1891	345,800	1931	226,326	1971	12,798
1892	274,001	1932	167,480	1972	22,127
1893	335,101	1933	168,540	1973	10,338
1894	360,360	1934	243,208	1974	67,743
1895	190,982	1935	163,137	1975	16,498
1896	277,860	1936	474,320	1976	97,015
1897	513,000	1937	245,413	1977	78,812
1898	409,184	1938	461,970	1978	218,301
1899	380,798	1939	522,541	1979	317,260
1900	395,446	1940	491,790	1980	197,928
1901	540,982	1941	369,952	1981	346,073
1902	586,989	1942	466,130	1982	476,862
1903	356,188	1943	463,479	1983	460,087
1904	730,733	1944	582,679	1984	382,729
1905	213,080	1945	347,301	1985	703,235
1906	364,958	1946	342,458	1986	1,247,976
1907	707,562	1947	368,760	1987	515,484
1908	218,033	1948	338,311	1988[b]	1,124,073
1909	308,784	1949	214,490	1989[b]	1,286,022
1910	174,450	1950	116,420		
1911	495,496	1951	68,162		
1912	284,314	1952	166,352		
1913	208,497	1953	86,304		
1914	229,241	1954	71,615		
1915	435,368	1955	75,634		
1916	723,315	1956	91,079		
1917	975,500	1957	23,289		
1918	569,602	1958	37,779		
1919	320,900	1959	24,723		
1920	485,356	1960	67,527		
1921	966,196	1961	145,827		
1922	347,884	1962	124,497		
1923	165,945	1963	54,999		
1924	238,759	1964	50,185		
1925	209,161	1965	68,809		
1926	323,596	1966	70,526		
1927	272,169	1967	14,693		
1928	212,239	1968	40,662		

[a] Data from Manthey et al (1986) and fish ticket summaries.
[b] Does not include sockeye taken in the test fishery.

Table 11. Alitak Bay fishery historical harvest, by species, Kodiak Management Area, 1970-1989[a].

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1970	8	81,544	4,540	949,871	93,320	1,129,283
1971	4	12,798	1,209	100,896	66,947	181,854
1972	15	22,127	1,289	188,477	95,135	307,043
1973	4	10,338	125	49,932	24,408	84,807
1974	19	67,743	1,284	355,154	23,939	448,139
1975	0	16,498	1,627	235,711	2,853	256,689
1976	18	97,015	3,535	1,826,482	68,132	1,995,182
1977	20	78,812	1,343	961,673	70,969	1,112,817
1978	694	218,301	2,788	4,191,756	72,166	4,485,705
1979	108	317,260	15,007	1,664,410	22,462	2,019,247
1980	33	197,928	13,120	2,052,273	67,641	2,330,995
1981	45	346,073	17,011	2,073,629	61,513	2,498,271
1982	43	476,862	29,378	519,880	101,543	1,127,706
1983	159	460,087	28,947	1,428,526	107,786	2,025,505
1984	290	382,729	25,299	433,806	84,924	927,048
1985	199	703,235	43,914	1,057,940	84,760	1,890,048
1986	134	1,247,976	30,548	728,205	75,643	2,082,506
1987	105	515,484	17,960	916,883	59,727	1,510,159
1988	624	1,124,073	30,001	385,735	93,401	1,633,834
1989	106	1,286,022	1,613	182,230	19,919	1,489,890
TOTAL	2,628	7,662,905	270,538	20,303,469	1,297,188	29,536,728
1970-89 AVERAGE	125	364,900	12,883	966,832	61,771	1,406,511
1985-89 AVERAGE	195	812,798	20,673	545,166	55,575	1,434,406

[a] Data from ADF&G fish ticket summary, 5/6/92.

Table 12. Pink salmon harvest, escapement, and run numbers for wild stocks and Kitoi Bay Hatchery stocks, and average fish weight in the catch, by year, Kodiak Management Area, 1960 through 1989[a].

	Harvest (wild & hatchery)[b]			Harvest		Escapement[c]		Total Run		
Year	Number	Total Weight[d]	Average Weight[d]	Hatchery	Wild	Hatchery Brood Stock	Wild	Hatchery	Wild	Total
1960	6,684,798	n/a	n/a	0	6,684,798	0	6,851,463	0	13,536,261	13,536,261
1961	3,926,023	n/a	n/a	0	3,926,023	0	1,356,161	0	5,282,184	5,282,184
1962	14,188,745	n/a	3.00	0	14,188,745	0	9,057,662	0	23,246,407	23,246,407
1963	5,480,158	n/a	3.30	0	5,480,158	0	2,554,969	0	8,035,127	8,035,127
1964	11,861,785	n/a	3.30	0	11,861,785	0	6,984,184	0	18,845,969	18,845,969
1965	2,886,831	10,970,000	3.80	0	2,886,831	0	2,026,981	0	4,913,812	4,913,812
1966	10,755,582	41,946,770	3.90	0	10,755,582	0	7,732,488	0	18,488,070	18,488,070
1967	187,813	788,815	4.20	0	187,813	0	2,231,335	0	2,419,148	2,419,148
1968	8,760,533	29,811,615	3.40	0	8,760,533	0	7,746,114	0	16,506,647	16,506,647
1969	12,492,576	51,031,227	4.08	0	12,492,576	0	3,110,525	0	15,603,101	15,603,101
1970	12,045,586	43,834,219	3.64	0	12,045,586	0	7,755,118	0	19,800,704	19,800,704
1971	4,332,994	16,744,774	3.86	0	4,332,994	0	2,293,556	0	6,626,550	6,626,550
1972	2,485,802	9,075,717	3.65	0	2,485,802	0	3,762,190	0	6,247,992	6,247,992
1973	511,708	2,068,089	4.04	0	511,708	0	1,213,496	0	1,725,204	1,725,204
1974	2,646,097	11,268,189	4.26	0	2,646,097	2,252	4,170,116	2,252	6,816,213	6,818,465
1975	2,942,801	12,470,661	4.24	0	2,942,801	4,220	2,284,854	4,220	5,227,655	5,231,875
1976	11,077,992	44,639,533	4.03	0	11,077,992	7,071	6,713,915	7,071	17,791,907	17,798,978
1977	6,252,405	25,844,663	4.13	1,738	6,250,667	18,458	4,334,716	20,196	10,585,383	10,605,579
1978	15,004,065	55,958,003	3.73	13,300	14,990,765	25,309	8,282,671	38,609	23,273,436	23,312,045
1979	11,287,591	42,514,374	3.77	166,258	11,121,333	39,276	5,709,497	205,534	16,830,830	17,036,364
1980	17,290,615	56,976,037	3.30	279,990	17,010,625	71,050	9,987,712	351,040	26,998,337	27,349,377
1981	10,336,829	39,948,506	3.86	1,153,362	9,183,467	94,022	5,802,258	1,247,384	14,985,725	16,233,109
1982	8,076,203	28,845,208	3.57	178,445	7,897,758	122,859	7,793,659	301,304	15,691,417	15,992,721
1983	4,603,371	16,412,829	3.57	128,611	4,474,760	135,466	3,902,959	264,077	8,377,719	8,641,796
1984	10,884,293	41,625,238	3.82	268,211	10,616,082	139,881	6,762,497	408,092	17,378,579	17,786,671
1985	7,334,825	26,764,307	3.65	3,448,324	3,886,501	131,676	5,710,970	3,580,000	9,597,471	13,177,471
1986	11,807,727	43,179,670	3.66	349,914	11,457,813	137,586	7,163,234	487,500	18,621,047	19,108,547
1987	5,075,027	18,287,058	3.60	1,061,518	4,013,509	140,282	4,869,933	1,201,800	8,883,442	10,085,242
1988	14,559,038	55,004,858	3.78	605,361	13,953,677	129,186	6,110,455	734,547	20,064,132	20,798,679
1989	6,825,124	20,368,260	2.98	6,641,889	183,235	129,986	21,084,539	6,771,875	21,267,774	28,039,649

a This table is from an unpublished memorandum by Barrett and Roche, KMA Commercial Fisheries salmon research staff, to Larry Peltz, FRED, February 5,1991.

b Barrett cited several sources for total harvest numbers and average weights: 1960-64 wild harvest data from unpublished ADF&G, Commercial Fisheries Division annual reports; 1965-85 wild harvest from the 1985 Kodiak Area Annual Finfish Management Report (Manthey et al, 1986); 1986-89 wild harvest from ADF&G fish ticket summaries; and Kitoi Bay Hatchery production numbers from Lonnie White, Kodiak FRED Biologist (personnel communications, 1991).

c Total annual escapements were determined from weir counts, peak aerial counts, foot survey counts, and from 1960-89 escapement distribution data. Weir counts were treated as total escapement numbers, peak counts were expanded by a factor of 1.84 for an estimate of total escapement (Barrett et al 1990), and those stream escapements which were not counted were estimated from the average odd- and even-year 1960-89 escapement distribution as derived from peak counts.

d All weights in pounds.

Table 13. Commercial salmon fishery projected vs. actual harvest by species and fishery[a], Kodiak Management Area, 1989.

FISHERY / DATES		HARVEST[b] (Millions of Fish) PROJECTED	ACTUAL
EARLY RUN SOCKEYE FISHERIES			
(6/9-7/15)	Cape Igvak	.141	.000
	Karluk	.250	.000
	Ayakulik	.367	.000
	Upper Station	.091	.080
	Fraser	.132	.612
	Minor Systems	.070	.000
	Other	.070	.000
	SubTotal	1.121	.692
PINK FISHERIES			
(7/6-9/5)	Afognak (Hatchery)	2.100	6.442
	Afognak (Natural)	.350	.000
	Westside Kodiak	3.100	.000
	Alitak	2.100	.182
	Eastside/Northend Kodiak	1.850	.000
	Mainland	1.000	.000
	SubTotal	10.500	6.624
CHUM FISHERIES			
(7/6-9/5)	Afognak (Hatchery)	.000	.000
	Afognak (Natural)	.050	.000
	Westside Kodiak	.350	.000
	Alitak	.080	.020
	Eastside/Northend Kodiak	.260	.000
	Mainland	.275	.000
	SubTotal	1.015	.020
LATE RUN SOCKEYE FISHERIES			
(7/16-9/15)	Cape Igvak	.133	.000
	Karluk	.300	.003
	Ayakulik	.151	.000
	Upper Station	.779	.567
	Fraser	-	-
	Minor Systems	.020	.025
	Other	.030	.000
	SubTotal	1.413	.595

-Continued-

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FISHERY / DATES		HARVEST[b] (Millions of Fish) PROJECTED	ACTUAL
COHO FISHERIES (6/9-10/15)	Afognak	.050	.000
	Westside	.065	.001
	Alitak	.030	.003
	Eastside/Northend Kodiak	.025	.000
	Mainland	.030	.000
	SubTotal	.200	.004
	GRAND TOTAL (6/9-10/15)	14.259	7.935

[a] For both early and late run sockeye, the fishery labeled "other" refers to the estimated total Cook Inlet sockeye interception in the Kodiak Management Area (approximately 100,000 sockeye). This estimate was derived using data presented in a Regional Informational Report 4K88-6 on Shelikof Strait sockeye interception, and using estimates made by the Kodiak finfish management staff of additional Cook Inlet bound sockeye harvested from portions of the Kodiak Management Area not covered by that report. This estimate was based upon a cursory review of historical Kodiak sockeye harvest data on run timing, average weights, differential production for systems both within and outside of the KMA, and of trends in fishing patterns.

[b] Does not include chinook harvests (actual in 1989 was 106 fish) or Kitoi Bay Hatchery cost recovery harvests (actual in 1989 was 204,223 fish).

Table 14. Commercial salmon harvest summary, preseason vs. postseason projections, Kodiak Management Area, 1989.

	Species					
	Chinook	Sockeye	Coho	Pink	Chum	Total
PRESEASON HARVEST PROJECTIONS						
KODIAK NATURAL	9,900	2,160,000	200,000	8,400,000	1,015,000	11,784,900
KODIAK HATCHERY	-	-	-	2,100,000	-	2,100,000
CAPE IGVAK[a]	-	274,000	-	-	-	274,000
OTHER[b]	-	100,000	-	-	-	100,000
AREA WIDE GRAND TOTAL:	**9,900**	**2,534,000**	**200,000**	**10,500,000**	**1,015,000**	**14,258,900**
POSTSEASON FINAL HARVEST						
KODIAK NATURAL						
ACTUAL[c]						
OIL TEST	0	116	0	1,002	37	1,155
ADF&G TEST	0	1,873	0	14	8	1,895
COMMERCIAL	106	1,287,547	2,599	182,220	19,927	1,492,399
TOTAL	106	1,289,536	2,599	183,236	19,972	1,495,449
PROJECTED[d]	4,744	1,239,482	138,834	16,414,033	725,736	18,522,829
TOTAL NATURAL[e]	**4,850**	**2,529,018**	**141,433**	**16,597,269**	**745,708**	**20,018,278**
KODIAK HATCHERY						
COST RECOVERY[f]	-	-	-	204,223	-	204,223
SUPPLEMENTAL[g]	-	-	-	6,437,666	-	6,437,666
TOTAL HATCHERY	**-**	**-**	**-**	**6,641,889**	**-**	**6,641,889**
NON-KODIAK						
CAPE IGVAK[h]	-	4,880	-	-	-	4,880
OTHER[i]	-	100,000	-	-	-	100,000
TOTAL NON-KODIAK	**-**	**104,880**	**-**	**-**	**-**	**104,880**
AREA WIDE GRAND TOTAL[j]	**4,850**	**2,633,898**	**141,433**	**23,239,158**	**745,708**	**26,765,047**

[a] ADF&G's preseason estimate of sockeye salmon which may be available for harvest in the Cape Igvak Section during the time period June 5-26 and July 9-25. Of this projected harvest 219,000 sockeye (80%) would be Chignik bound.

[b] ADF&G's preseason estimate of Cook Inlet bound sockeye which may be available for harvest in the North Shelikof management units during the time period July 6-25.

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[c] Actual Natural Fish Harvested. Data Source: ADF&G Kodiak fish ticket summaries.

[d] Estimated Natural "Paper" Fish. Fish projected to have been harvested if normal fishing conditions had occurred. These fish escaped to streams within the Kodiak Management Area (Barrett et al 1990).

[e] Projected Natural Total Harvest. Expected salmon harvest if normal fishing conditions had occurred. Includes actual and projected harvest on Kodiak stocks, and the projected harvest of Kodiak sockeye salmon in the Cape Igvak Section based on one day of fishing (allocative requirements of the Cape Igvak plan would have resulted in only one day of fishing). The estimated total catch of sockeye salmon in the Cape Igvak Section would have been 6,100, of which 1,220 would be designated Kodiak bound sockeye and 4,880 Chignik bound sockeye.

[f] These fish would not have been available to a normal commercial fishery in 1989.

[g] In a normal season these fish would have been caught in a commercial fishery. These fish represent "lost" harvest.

[h] This is an estimate of Chignik bound sockeye salmon which would have been harvested in the 1989 Cape Igvak fishery.

[i] The preseason projected Kodiak Area harvest on Cook Inlet bound sockeye of 100,000 fish represented ADF&G's estimate of maximum harvest on Cook Inlet's projected sockeye return. Because of the vagaries of weather, migration pattern, tides, and sockeye salmon abundance the actual availability of Cook Inlet bound sockeye to the Kodiak purse seine fleet is literally a guess. Nevertheless, it's expected that some harvest on Cook Inlet bound sockeye would have occurred because fishing time in the North Shelikof management units would have been adequate and there would have been a fleet available due to a complete closure in the Cape Igvak Section. Also, the preseason forecast for the Cook Inlet sockeye run was substantially below the actual return, thus potentially enhancing the Cook Inlet bound sockeye bycatch in Kodiak's pink and chum fisheries in the North Shelikof during the time period 7/6-25. Also, the weather conditions during this time period would have allowed a near normal fishing pattern to occur at the traditional cape, headland, and inshore "hook-hauling" locations. Consequently, it's assumed that a sockeye salmon bycatch of Cook Inlet bound sockeye in the North Shelikof management units would have approached the preseason harvest projection of approximately 100,000 sockeye.

[j] Projected final total harvest of both natural and hatchery Kodiak salmon as well as non-Kodiak salmon.

Table 15. Estimated exvessel salmon price per pound, in dollars, Kodiak Management Area, 1989.[a]

	Species				
	Chinook	Sockeye	Coho	Pink	Chum
Purse Seine	1.167	1.642	0.870	0.553	0.373
Beach Seine	1.167	1.600	0.600	0.553	0.373
Set Gillnet	1.167	1.794	0.516	0.369	0.386
Hatchery	-	-	-	0.554	-
Other/Unknown	-	1.794	-	0.548	0.385

[a] Data Source: Commercial Fisheries Entry Commission. Each year, the Commercial Fisheries Entry Commission develops exvessel price estimates for all fish and shellfish caught in Alaska waters for which fish ticket data exists. An annual price estimate is developed for each combination of area, species and gear type.

The primary source for these estimates is information taken from the Commercial Operators' Annual Reports which are filed with the Alaska Department of Fish and Game. These reports are required from all processors and buyers of fish or shellfish operating within Alaska. They contain only summarized data: the total pounds purchased from fishermen and the total amount paid by the processor over an entire season. These reports are to be submitted by April 1 of the year following the specified season, so that any postseason price adjustments can be included.

Because there were additional price adjustments made on some of the 1989 harvest after April 1, individual processors were contacted by telephone to either confirm or amend, the previously submitted pricing information.

Note that these price estimates reflect a weighted average annual exvessel price. Because exvessel prices typically fluctuate during a season, because exvessel prices vary among processors, and because there are often differences in the quality of the product delivered by individual fishermen, using these prices to estimate a given individual's gross earnings could possibly either under or overestimate the individual's actual earnings by a substantial amount.

Other sources of price data include value information from the fish tickets themselves, Department of Fish and Game personnel, Hatchery Annual Reports submitted to the FRED Division, and occasionally industry journals. These sources are normally used only when exvessel information is not available from the Operators's reports, or when it is felt that these alternative sources are superior.

Table 16. Estimated value of a commercial salmon fishery had a normal season occurred, Kodiak Management Area, 1989[a].

	Species					
	Chinook	Sockeye	Coho	Pink	Chum	Total
Total Actual Natural[b]	106	1,289,536	2, 599	183,236	19,972	1,495,449
Total Projected Natural[c]	4,744	1,239,482	138,834	16,414,033	725,736	18,522,829
Grand Total Natural	**4,850**	**2,529,018**	**141,433**	**16,597,269**	**745,708**	**20,018,278**
Average Weight	19.217	5.526	9.399	3.573	8.747	-
Pounds of Fish	93,202	13,975,253	1,329,329	59,302,042	6,522,708	81,222,635
Average $/lb	1.17	1.79	0.65	0.37	0.39	-
ExVessel Value	**$108,767**	**$25,071,784**	**$868,052**	**$21,882,454**	**$2,517,765**	**$50,448,822**
Total Actual Hatchery[d]	-	-	-	**6,437,666**	-	**6,437,666**
Average Weight	-	-	-	2.971	-	-
Pounds of Fish	-	-	-	19,128,525	-	19,128,525
Average $/lb	-	-	-	0.55	-	-
ExVessel Value	-	-	-	**$10,597,203**	-	**$10,597,203**
GRAND TOTAL EXVESSEL VALUE FOR KODIAK NATURAL AND HATCHERY COMBINED						
TOTAL NUMBER	4,850	2,529,018	141,433	23,034,935	745,708	26,455,944
TOTAL POUNDS	93,202	13,975,353	1,329,329	78,430,567	6,522,708	100,351,160
TOTAL EXVESSEL VALUE[a]	**$108,767**	**$25,071,784**	**$868,052**	**$32,479,656**	**$2,517,765**	**$61,046,025**

[a] This table provides estimates of what the total exvessel value of the 1989 commercial salmon fishery would have been if a normal fishery had occurred. Harvest figures do not include preseason harvest estimates of non-Kodiak sockeye salmon.

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[b] "Total Actual Natural" is the total harvest from commercial and test fisheries which actually took place in 1989, as derived from fish tickets. The exvessel value for these fish has actually been paid out by processors.

[c] "Total Projected Natural" is the estimated additional harvest which would have occurred if a normal fishery had taken place. These figures were derived from ADF&G postseason analysis of total run strength as described in Regional Information Report 4K90-35. These figures do not include preseason harvest estimates of non-Kodiak sockeye salmon. The estimated value for this "lost harvest" has been partially paid out to fishermen by Exxon.

[d] "Total Actual Hatchery" is the total harvest in the Kitoi Bay cost recovery fishery minus 204,223 pink which were sold to pay for hatchery operational costs. These fish would normally have been available to a common property fishery. Figures were derived from fish tickets. The estimated exvessel value noted is being held in escrow pending final resolution of a claim on this value by both the Kodiak Regional Aquaculture Association and Exxon.

Table 17. Estimated average exvessel value had there been a normal salmon fishery, by gear type, Kodiak Management Area, 1989.

	Species					
	Chinook	**Sockeye**	**Coho**	**Pink**	**Chum**	**Total**
Postseason[a]						
Projected Harvest	4,850	2,529,018	141,433	23,034,935	745,708	26,455,944
ExVessel Value	$108,767	$25,071,784	$868,052	$32,479,656	$2,517,765	$61,046,024
1988 Percent of Harvest of Each Species by Gear Type[b]						
Purse Seine	94.60	68.16	87.86	83.78	85.56	
Beach Seine	0.34	0.08	0.28	1.64	1.53	
Set Gillnet	5.06	31.76	11.86	14.58	12.91	
Estimated 1989 ExVessel Value for Each Species by Gear Type[c]						
Purse Seine	$102,894	$17,088,928	$762,670	$27,211,456	$2,154,200	$47,320,148
Beach Seine	$370	$20,057	$2,431	$532,666	$38,522	$594,046
Set Gillnet	$5,504	$7,962,799	$102,951	$4,735,534	$325,043	$13,131,830
Total	$108,767	$25,071,784	$868,052	$32,479,656	$2,517,765	$61,046,024
Projected 1989 Average ExVessel Value Per Unit of Gear (Using 1988 Gear Levels)[d]						
Purse Seine (323)	$319	$52,907	$2,361	$84,246	$6,669	$146,502
Beach Seine (21)	$18	$955	$116	$25,365	$1,834	$28,288
Set Gillnet (180)	$31	$44,238	$572	$26,309	$1,806	$72,955

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[a] Estimates of potential harvest had there not been an oil spill were computed in Barrett 1990. Exvessel value by species is from Table 16. Price information used to compute exvessel value was derived from Commercial Fisheries Entry Commission documents (Table 15). It is assumed that if a normal fishery had occurred during 1989, total harvest would have included actual and projected harvests as well as excess cost recovery fish from hatchery production. This does not include estimates of potential harvest on non-Kodiak salmon stocks (Chignik bound sockeye in the Cape Igvak fishery and Cook Inlet bound sockeye in the North Shelikof fishery).

[b] This is the actual percent of each species by gear type taken during the 1988 Kodiak Area commercial salmon season.

[c] This is the 1989 estimated exvessel value by species multiplied by the percent of each species taken by each gear type during the 1988 Kodiak Area commercial salmon season.

[d] This is the 1989 estimated exvessel value, by species and gear type, divided by the number of limited entry permits, by gear type, which were actually active in 1988.

Table 18. Estimated salmon harvest and value, by gear type, Kodiak Management Area, 1970-1989.[a]

Year	Total Catch[b]	Total Value	Average Purse Seine	Average Beach Seine	Average Set Net
1970	13,949,000	$21,658,000	$41,880	$10,470	$21,083
1971	6,378,000	4,973,000	13,397	2,919	3,015
1972	3,883,000	3,909,000	9,233	647	1,451
1973	1,001,000	2,094,000	5,075	251	852
1974	3,329,000	4,808,000	15,993	4,406	4,828
1975	3,187,000	3,831,000	13,300	5,600	3,849
1976	12,485,000	16,976,000	43,017	11,035	14,481
1977	7,977,000	21,000,000	48,382	12,434	19,351
1978	16,942,000	32,000,000	72,158	15,731	25,495
1979	12,420,000	25,000,000	48,906	18,839	23,000
1980	19,157,000	31,000,000	69,117	7,710	21,578
1981	13,094,000	33,000,000	75,257	17,312	26,231
1982	10,892,000	16,230,000	31,868	10,549	30,554
1983	7,082,000	14,530,000	32,832	5,886	19,338
1984	13,678,000	26,202,000	72,018	12,577	26,777
1985	9,898,000	20,782,000	45,303	6,451	31,296
1986	16,304,959	39,106,000	92,933	9,517	69,644
1987	7,747,000	28,113,000	71,170	12,780	38,000
1988	18,712,000	103,749,000	252,231	47,016	118,285
1989[c]	26,456,000	61,046,000	146,502	28,288	72,955
19 Yr. Average 1970-1988					
	10,427,158	$23,629,526	$55,477	$11,165	$26,269

[a] Value is an "exvessel value" based upon CFEC price information; it includes additional value associated with dock deliveries and postseason settlements.

[b] Includes total commercial harvest; excludes test fishery and Kitoi cost recovery fishery harvests. These figures are in numbers of fish.

[c] Estimate of potential harvest had there not been an oil spill (Barrett 1990). It is assumed that if a normal fishery had occurred in 1989, the total harvest would have included actual harvest and projected harvest as well as excess cost recovery fish from hatchery production. This does not include estimates of potential harvest on non-Kodiak salmon stocks (Chignik bound sockeye in the Cape Igvak fishery and Cook Inlet bound sockeye in the North Shelikof fishery).

Table 19. Summary of the subsistence salmon harvest, by species and area of catch, Kodiak Management Area, 1989[a].

Area of Harvest	Species					Total
	Chinook	Sockeye	Coho	Pink	Chum	
Kizhuyak Section						
Ouzinkie Narrows	0	42	84	15	7	148
Monk's Lagoon	0	0	10	0	0	10
Spruce Island	0	25	0	65	20	110
Shakmanof	0	10	0	0	2	12
Anton Larsen Bay	0	18	5	1	0	24
Sheratin Bay	0	30	15	12	3	60
Kizhuyak	2	40	91	52	29	214
Barabara Cove	3	196	216	3	0	418
Chiniak Section						
Monashka Bay	1	22	83	31	1	138
Buskin River	5	3,436	1,274	426	75	5,216
Womens Bay	0	23	64	2	11	100
Kalsin Bay	0	4	209	25	7	245
Roslyn Beach	0	10	262	5	42	319
Chiniak	0	35	70	3	10	118
Ugak Bay Section						
Saltery Cove	0	278	0	12	0	290
Pasagshak	0	122	28	23	1	174
Ugak Bay	0	18	0	59	2	79
Portage Bay	0	0	6	0	0	6
Sitkalidak Section						
Midway Creek (Big Creek)	0	85	163	45	15	308
Old Harbor	0	0	16	24	0	40
Barling Bay	0	30	10	110	0	150
Alitak Bay Section						
Olga Bay	0	505	72	36	0	613
Moser Bay	0	369	5	10	0	384
Deadman's Bay	0	0	12	0	0	12
Alitak Unknown	0	0	17	0	0	17
Ayakulik Section						
Red River (Bumble Bay)	1	2	0	0	0	3
Karluk Section						
Karluk[b]	4	382	210	0	1	597
Uyak Bay Section						
Larsen Bay	0	113	17	20	5	155
Uyak Bay	0	311	25	25	28	389
Spiridon Bay	0	76	0	3	2	81
Zachar Bay	0	6	0	26	1	33

-Continued-

Table 19. (page 2 of 2)

Area of Harvest	Species					Total
	Chinook	Sockeye	Coho	Pink	Chum	
Uganik Bay Section						
Kupreanof	1	164	0	4	2	171
Onion Bay	0	101	0	72	4	177
Viekoda Bay	0	195	0	5	5	205
Uganik Bay	3	689	43	104	51	890
Terror Bay	0	0	2	0	1	3
Village Islands	0	93	0	51	10	154
Little River	0	30	0	57	3	90
Afognak Section						
Afognak Bay	17	3,801	282	98	25	4,223
Whale Island	0	3	0	0	0	3
Raspberry Straits	0	64	0	0	0	64
Selief	0	0	97	0	0	97
Malina Bay	0	16	51	1	1	69
Blue Fox Bay	0	46	0	0	0	46
Pauls Bay	0	207	40	0	0	247
Kitoi Bay	0	0	16	0	1	17
Little Afognak	0	227	0	0	0	227
Duck Bay	0	20	70	0	0	90
Danger Bay	0	0	43	0	0	43
Marka Bay	0	47	84	3	2	136
Mary Anderson Cove	0	10	0	0	0	10
Mainland Section						
Dakavak Bay	4	75	5	60	0	144
Unknown	0	22	0	4	0	26
Total Reported Harvest	41	11,998	3,707	1,492	367	17,605
Exxon Sponsored Harvest[c]	1	13,329	523	47	19	13,919
Total Subsistence Harvest	42	25,327	4,230	1,539	386	31,524

a 714 subsistence salmon permits were returned to the Kodiak ADF&G office for 1989. Harvest figures are only from returned permits and so may not represent the total subsistence harvest for the KMA.

b Does not include salmon taken in the Exxon sponsored subsistence fishery at Karluk Lagoon on September 7 and 8, 1989.

c These salmon were taken at Karluk Lagoon on September 7 and 8, 1989 in a specially permitted Exxon sponsored seine fishery. Number of fish taken from processor reports supplied to ADF&G (Appendix H.5).

Table 20. Subsistence fishery summary, Kodiak Management Area, 1962-1989[a].

YEAR	PERMITS ISSUED	PERMITS RETURNED	%	Catch					
				Chinook	Sockeye	Coho	Pink	Chum	Total
1962	74	13	17.57	0	0	433	397	20	850
1963	74	15	20.27	0	297	576	836	195	1,904
1964	43	9	20.93	6	332	184	88	71	681
1965	67	7	10.45	2	19	318	244	12	595
1966	48	13	27.08	0	295	331	334	393	1,353
1967	84	29	34.52	2	1,306	571	894	344	3,117
1968	132	28	21.21	0	658	433	529	45	1,665
1969	242	30	12.40	1	481	338	620	30	1,470
1970	213	49	23.00	1	959	939	797	265	2,961
1971	267	131	49.06	5	3,442	1,720	1,276	472	6,915
1972	329	176	53.50	11	3,633	1,531	2,516	2,729	10,420
1973	400	149	37.25	7	4,453	2,289	1,393	1,166	9,308
1974	367	90	24.52	1	1,909	846	1,094	128	3,978
1975	508	90	17.72	1	1,141	922	947	221	3,232
1976	536	243	45.34	4	4,338	962	2,275	370	7,949
1977	739	451	61.03	54	8,119	2,508	2,849	317	13,847
1978	860	539	62.67	50	7,239	3,699	2,747	572	14,307
1979	1,085	697	64.24	111	10,376	3,840	3,300	333	17,960
1980	1,239	756	61.02	67	13,746	4,407	2,755	566	21,541
1981	1,166	733	62.86	44	12,756	3,729	2,278	470	19,277
1982	1,276	993	77.82	110	16,615	7,192	3,558	667	28,142
1983	1,307	1,082	82.79	111	15,526	6,283	2,536	800	25,256
1984	1,240	1,061	85.56	265	17,620	5,808	1,877	720	26,290
1985	1,476	1,196	81.03	172	16,231	8,873	2,756	855	28,887
1986	1,244	1,049	84.32	91	14,453	7,087	2,371	605	24,607
1987	1,124	969	86.21	162	11,562	6,149	2,195	1,061	21,129
1988	1,098	663	60.38	108	10,152	4,094	1,280	375	16,009
1989[b]	2,202	716	32.52	42	25,327	4,230	1,539	386	31,524
TOTAL 1962-89	19,440	11,977	61.61	1,428	202,985	80,292	46,281	14,188	345,174
OVERALL AVERAGE 1962-89	694	428	61.61	51	7,249	2,868	1,653	507	12,328
10 YEAR AVERAGE 1980-89	1,337	922	68.94	117	15,399	5,785	2,315	651	24,266

[a] Catch data is from returned permits only, and so may not represent the total KMA subsistence salmon harvest.

[b] In 1989 permits were mailed to past permit holders so the exact number of permits used is uncertain. In addition, because of the Exxon Valdez oil spill there was a specially permitted subsistence fishery at Karluk Lagoon. These catch numbers include harvest reported by individuals and harvest reported from the Karluk fishery.

Table 21. Projected salmon harvest, by species and fishery chronology, Kodiak Management Area, 1990.

FISHERIES	Projected Harvest[a]
Early Run Sockeye Salmon Fisheries (6/9-7/15)	
- Cape Igvak	.060
- Karluk	.250
- Ayakulik	.468
- Upper Station	.020
- Fraser	.394
- Minor Systems	.040
- Other (Non-local stock)	.070
Subtotal	**1.302**
Late Run Sockeye Salmon Fisheries (7/16-9/15)	
- Cape Igvak	.115
- Karluk	.550
- Ayakulik	.312
- Upper Station	.211
- Fraser	.000
- Minor Systems	.020
- Other (Non-local stocks)	.030
Subtotal	**1.238**
TOTAL SOCKEYE	**2.540**
Pink Salmon Fisheries (7/6-9/5)	
- Afognak (Hatchery)	2.890
- Afognak (Natural)	1.850
- Westside Kodiak	3.350
- Alitak	.400
- Eastside/North Kodiak	1.600
- Mainland	1.700
Subtotal	**11.790**
Chum Salmon Fisheries (7/6-9/5)	
- Afognak (Hatchery	.000
- Afognak (Natural)	.035
- Westside Kodiak	.325
- Alitak	.055
- Eastside/North Kodiak	.060
- Mainland	.230
Subtotal	**0.705**
Coho Salmon Fisheries (8/1-10/1)	
- Afognak	.027
- Westside	.095
- Alitak	.025
- Eastside/North Kodiak Island	.022
- Mainland	.032
Subtotal	**0.190**
1990 GRAND TOTAL PROJECTED HARVEST FOR ALL KODIAK SALMON FISHERIES[b]	**15.233 Million Salmon**

[a] In millions of fish.
[b] Includes an estimated incidental chinook harvest of 8,000.

Figure 1. Kodiak Management Area and adjacent management areas, 1989.

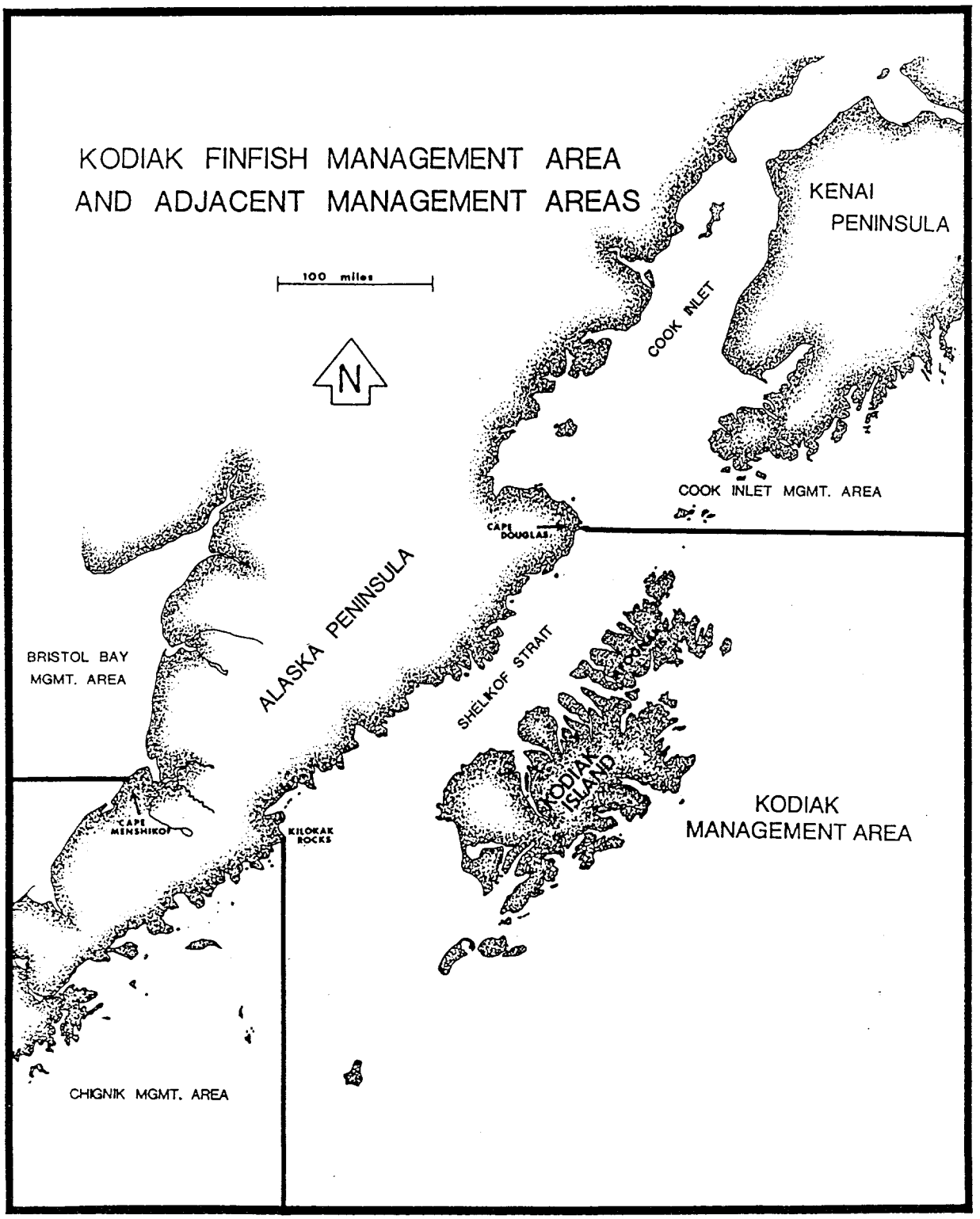


Figure 2. Commercial salmon fishing management units, Kodiak Management Area, 1989.

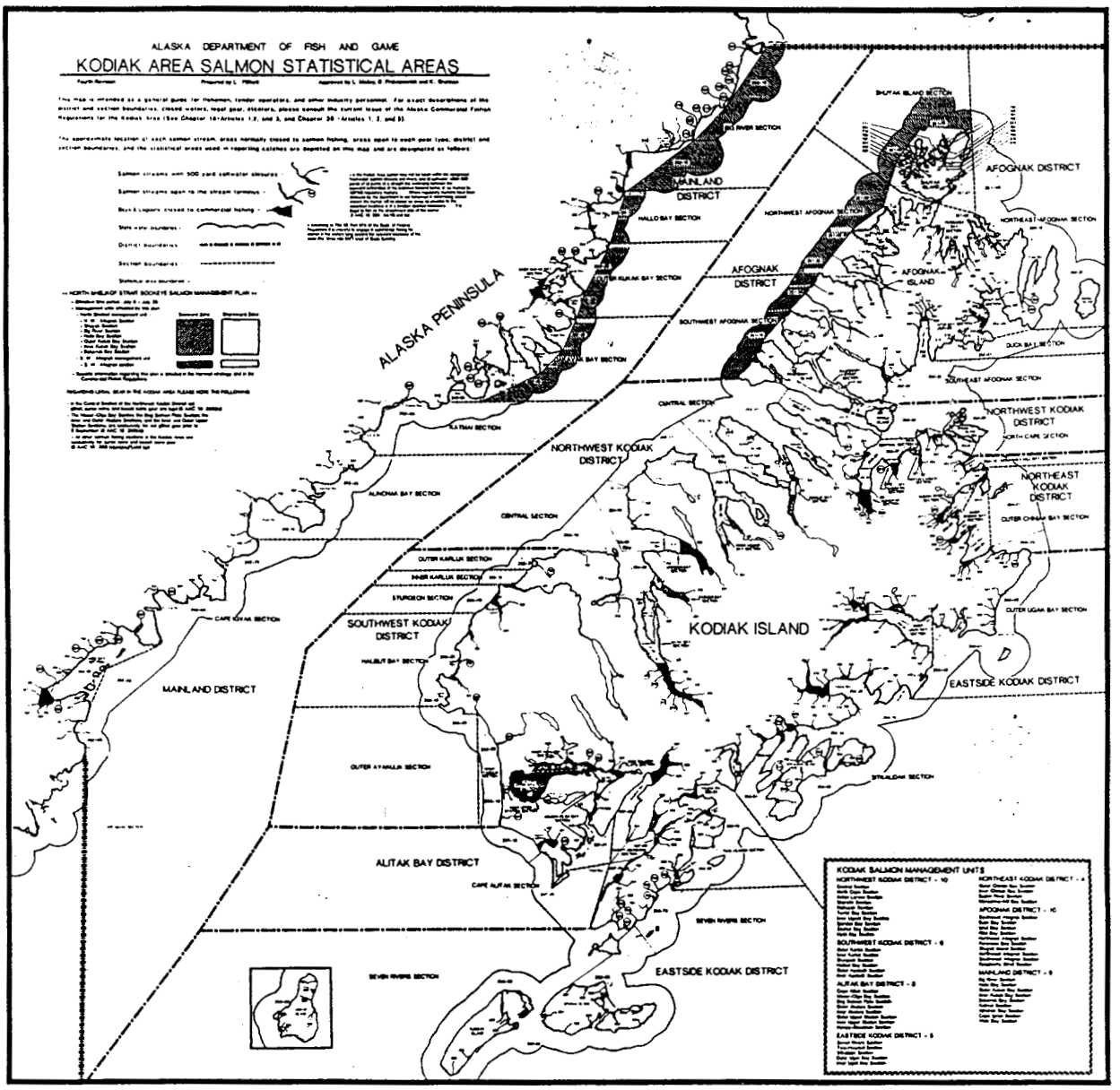
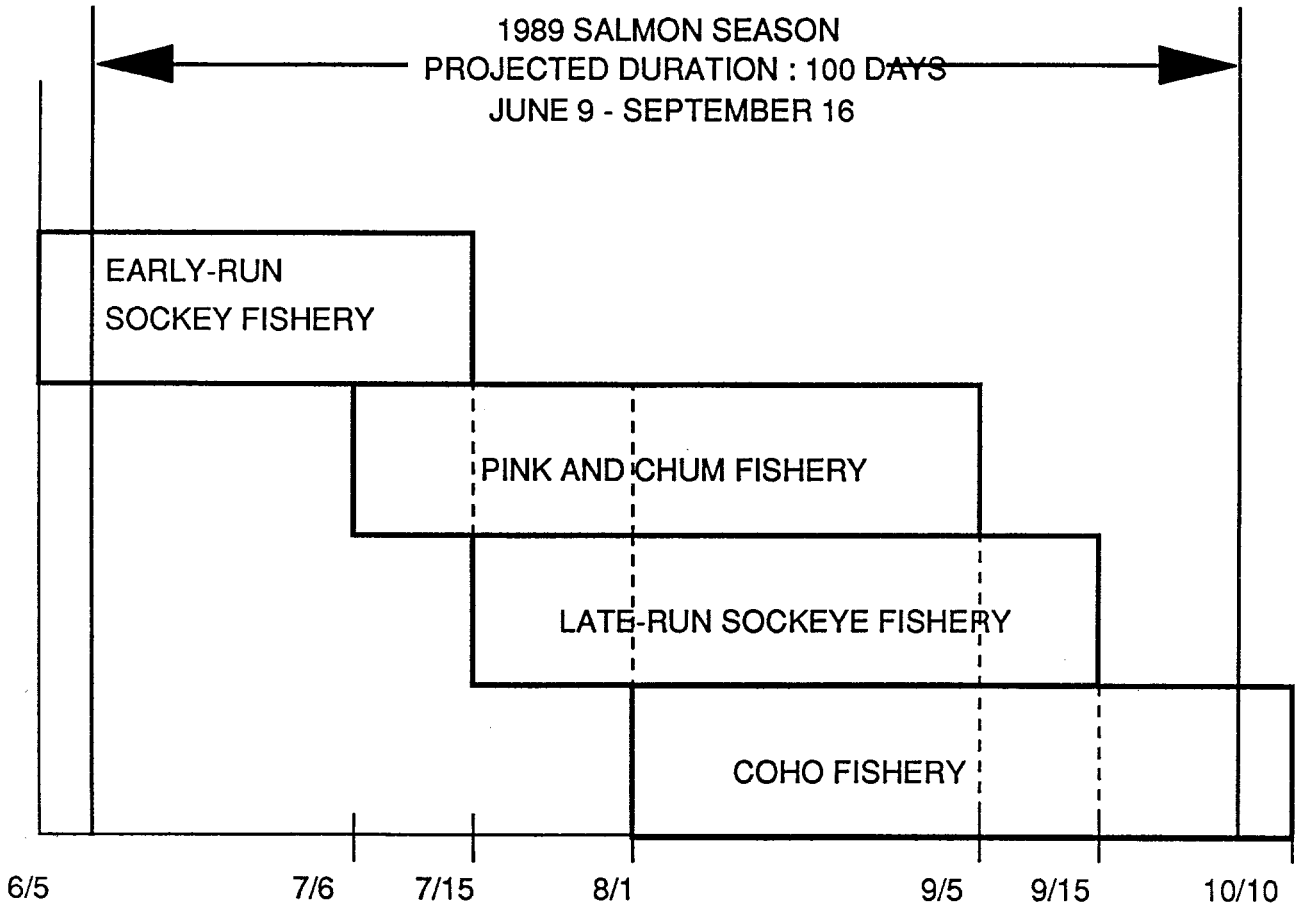


Figure 3. Chronology of normal commercial salmon fisheries, by species, Kodiak Management Area, 1989.



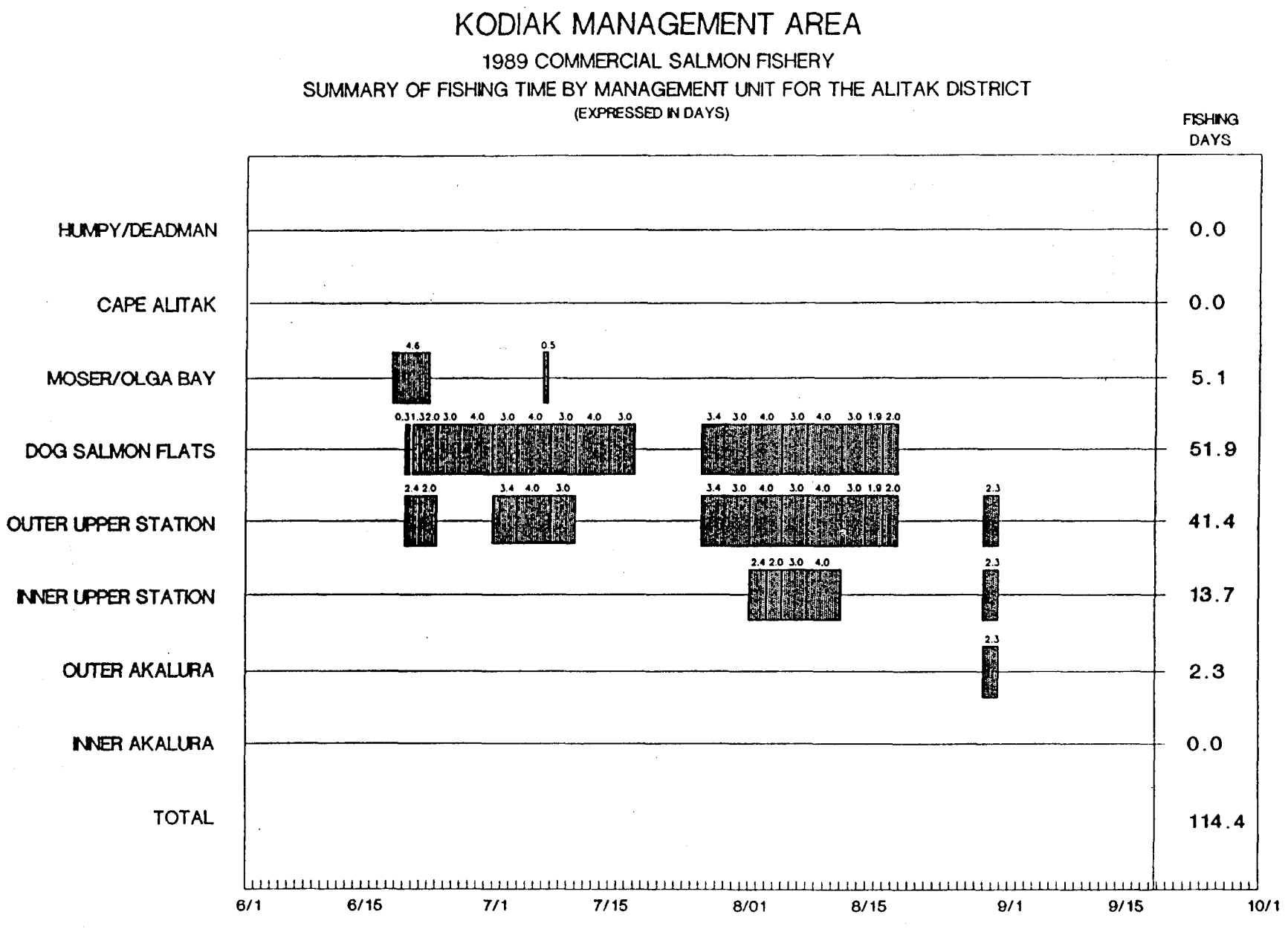
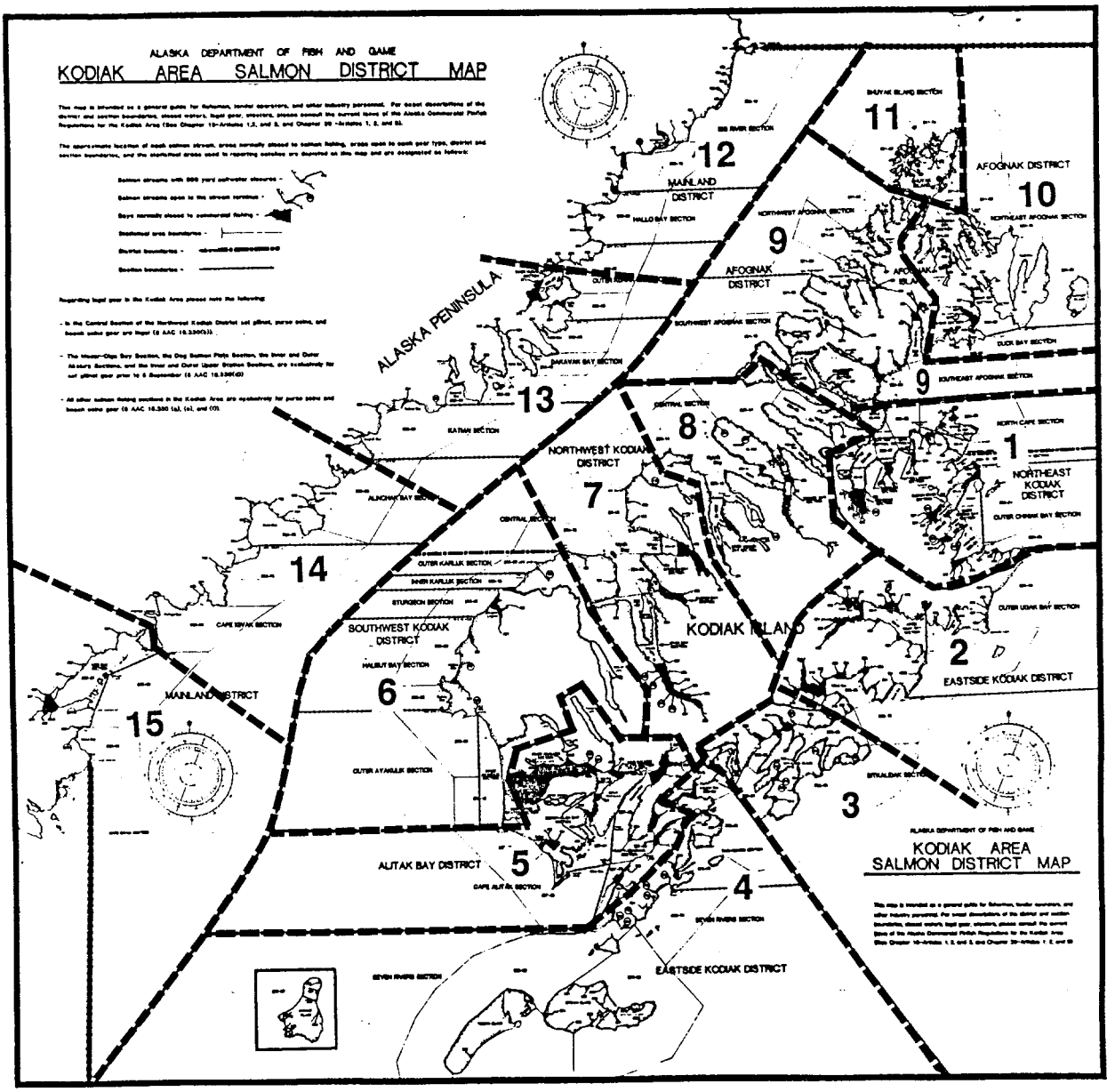
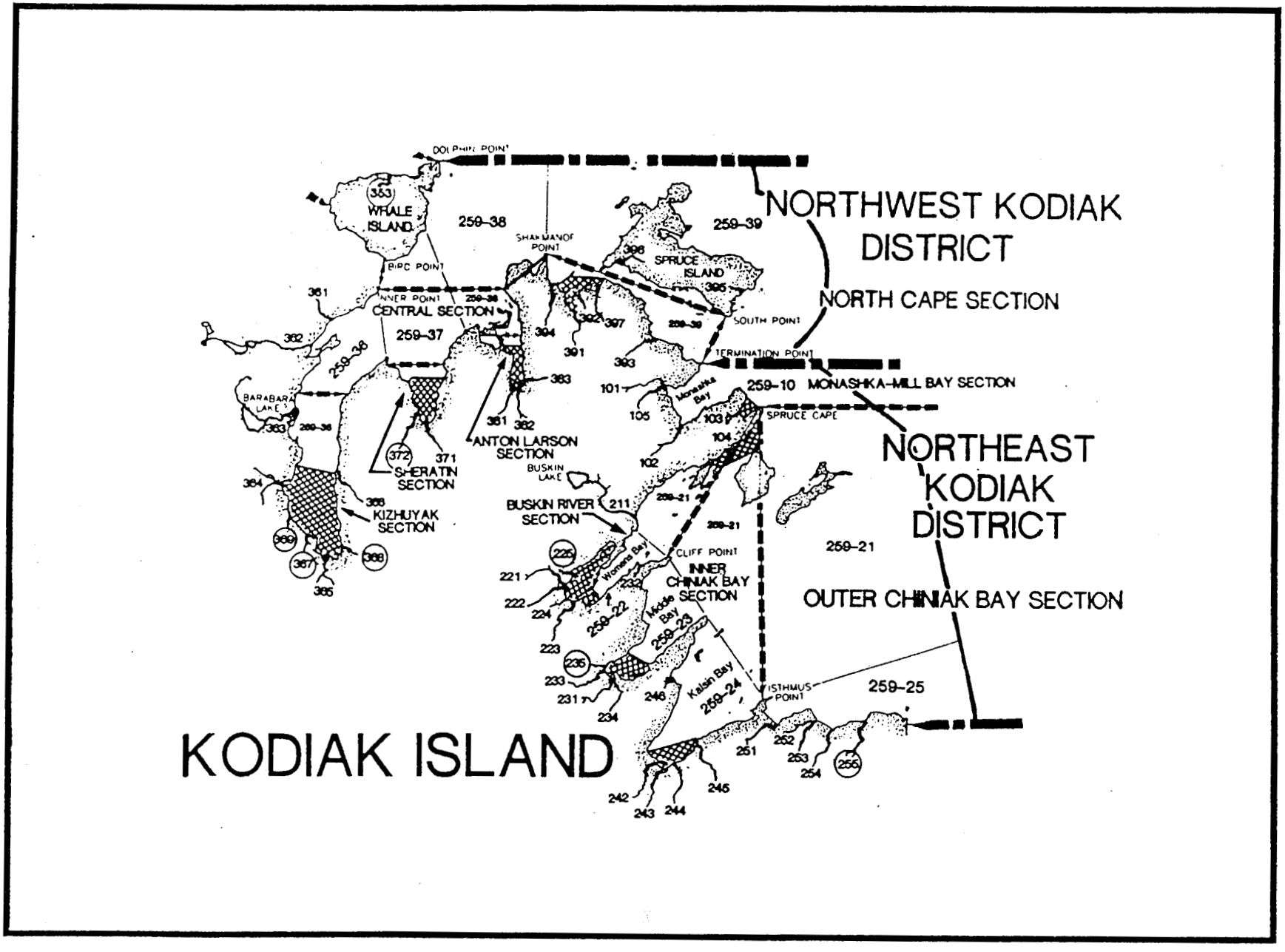


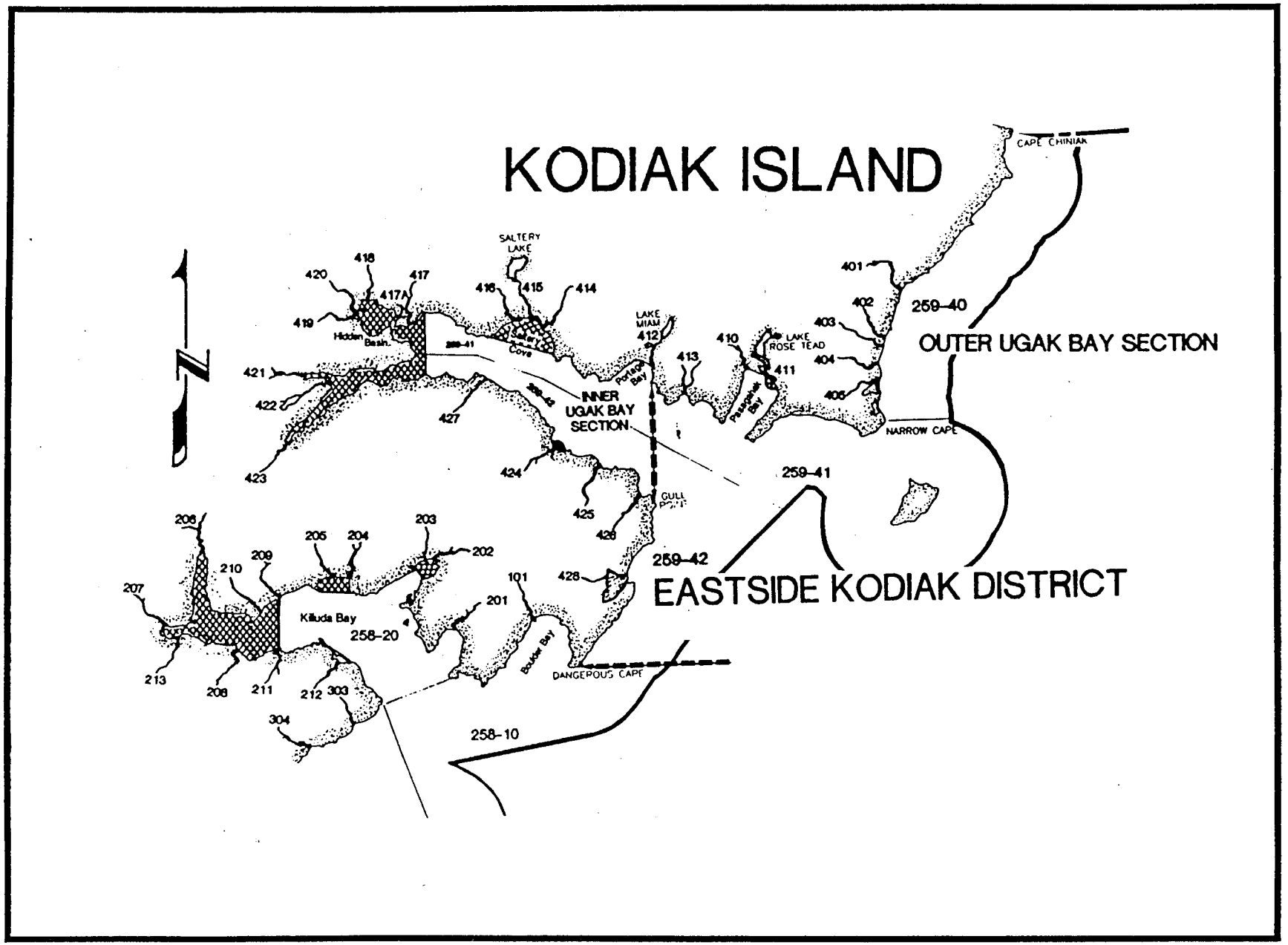
Figure 4. Commercial salmon fishing time in the Alitak Bay District, Kodiak Management Area, 1989.



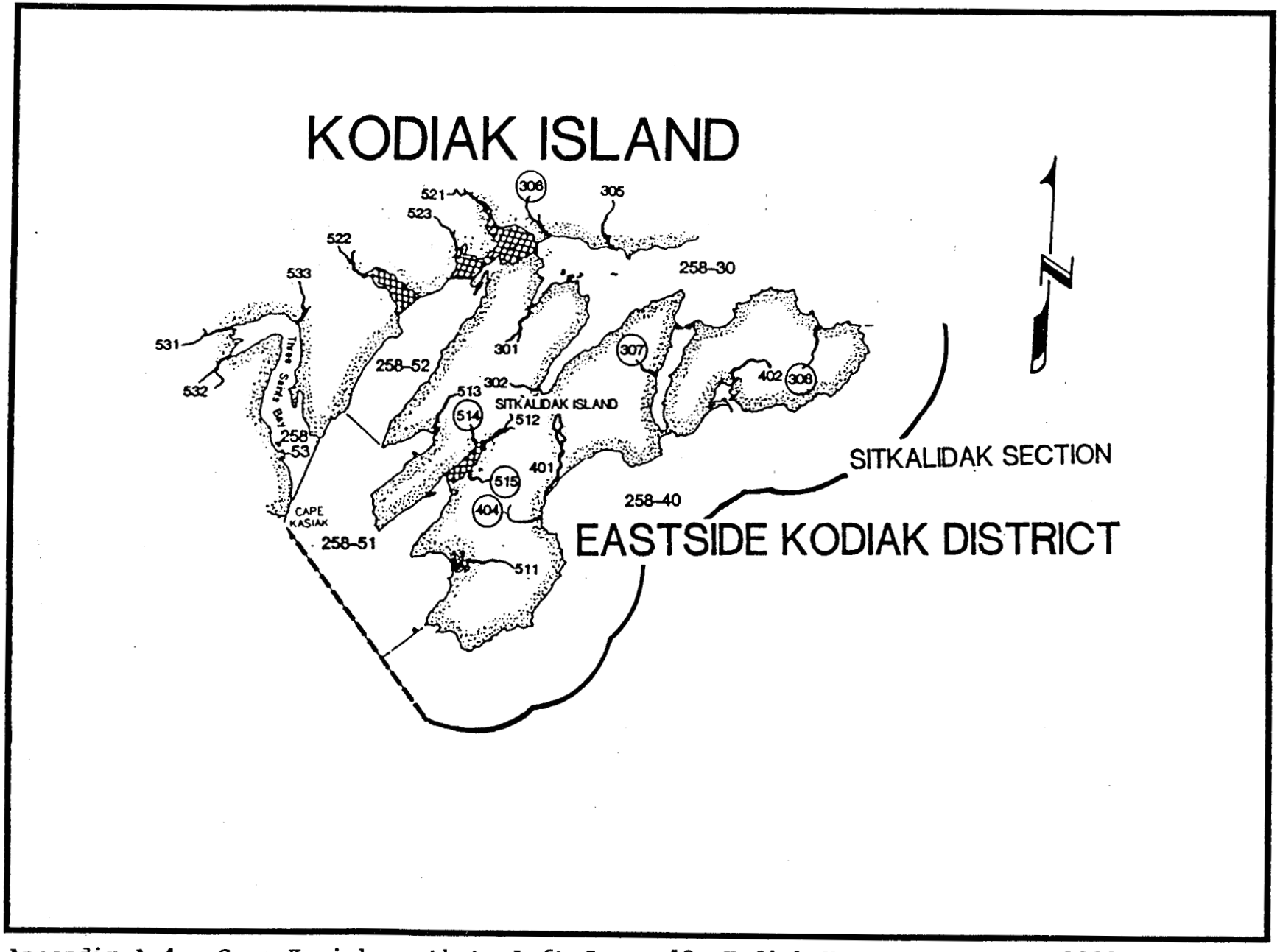
Appendix A.1. Kodiak Management Area salmon district map, 1989.



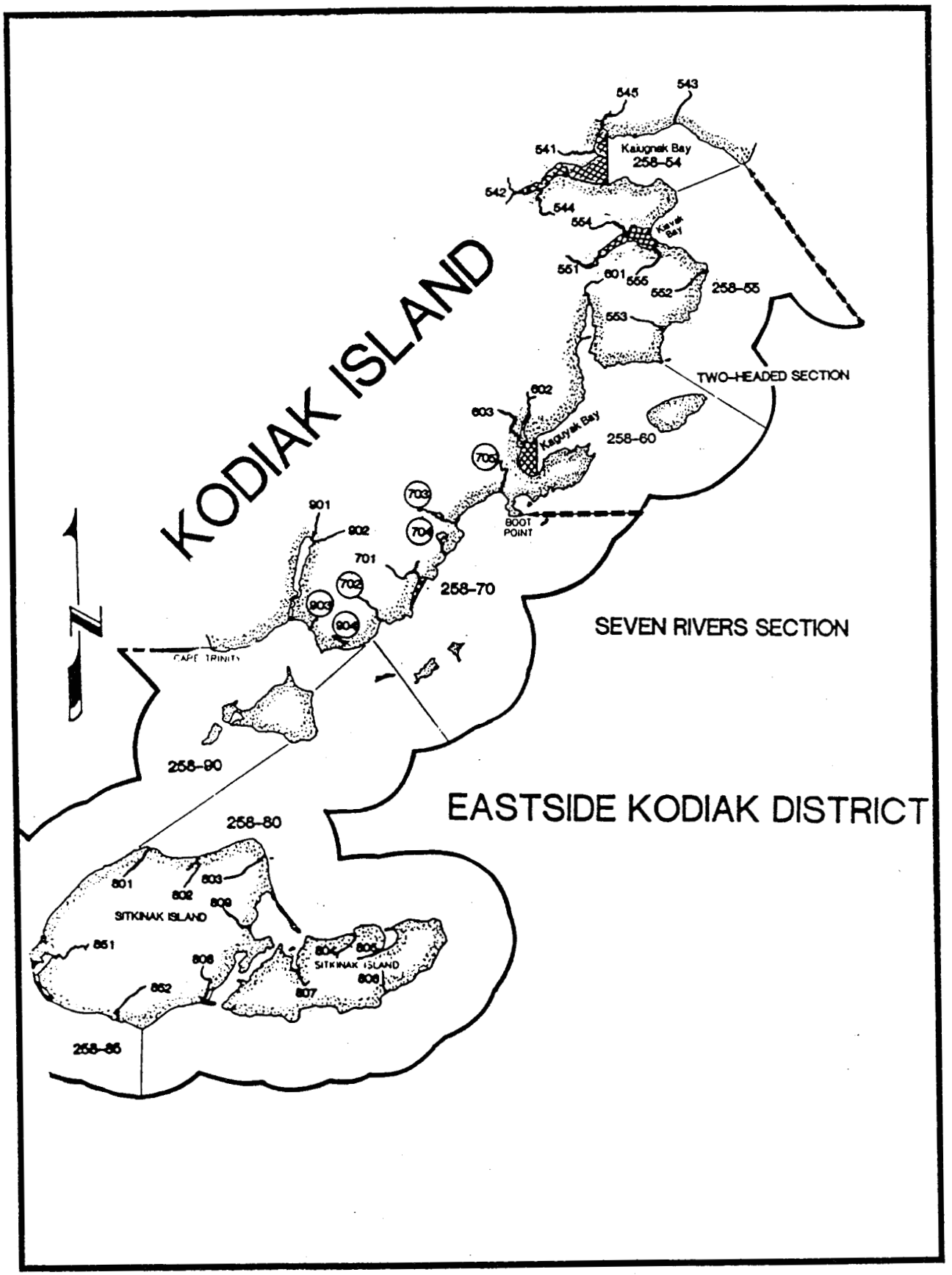
Appendix A.2. Whale Pass to Cape Chiniak, #1, Kodiak Management Area, 1989.



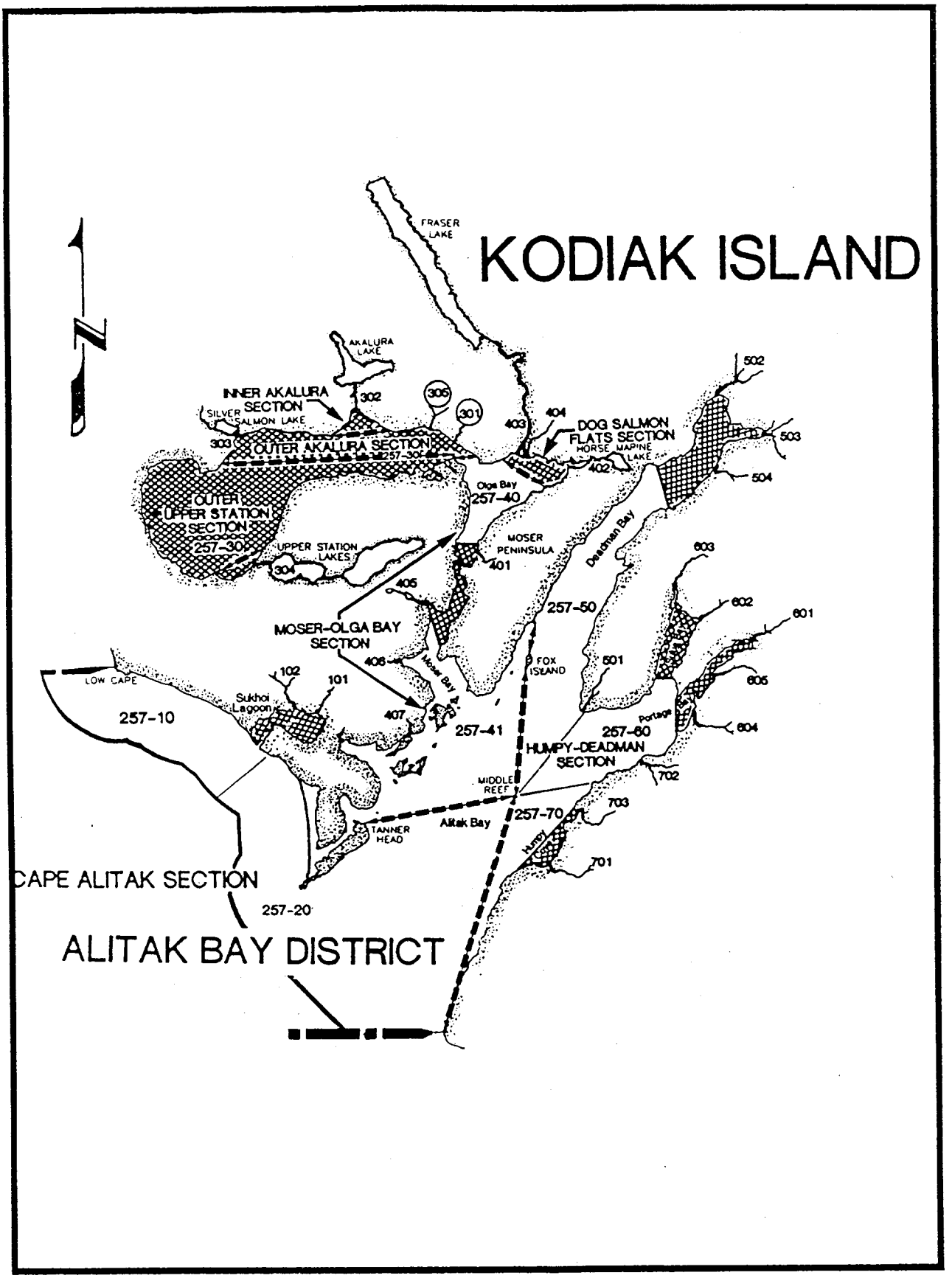
Appendix A.3. Left Cape north to Cape Chiniak, #2, Kodiak Management Area, 1989.



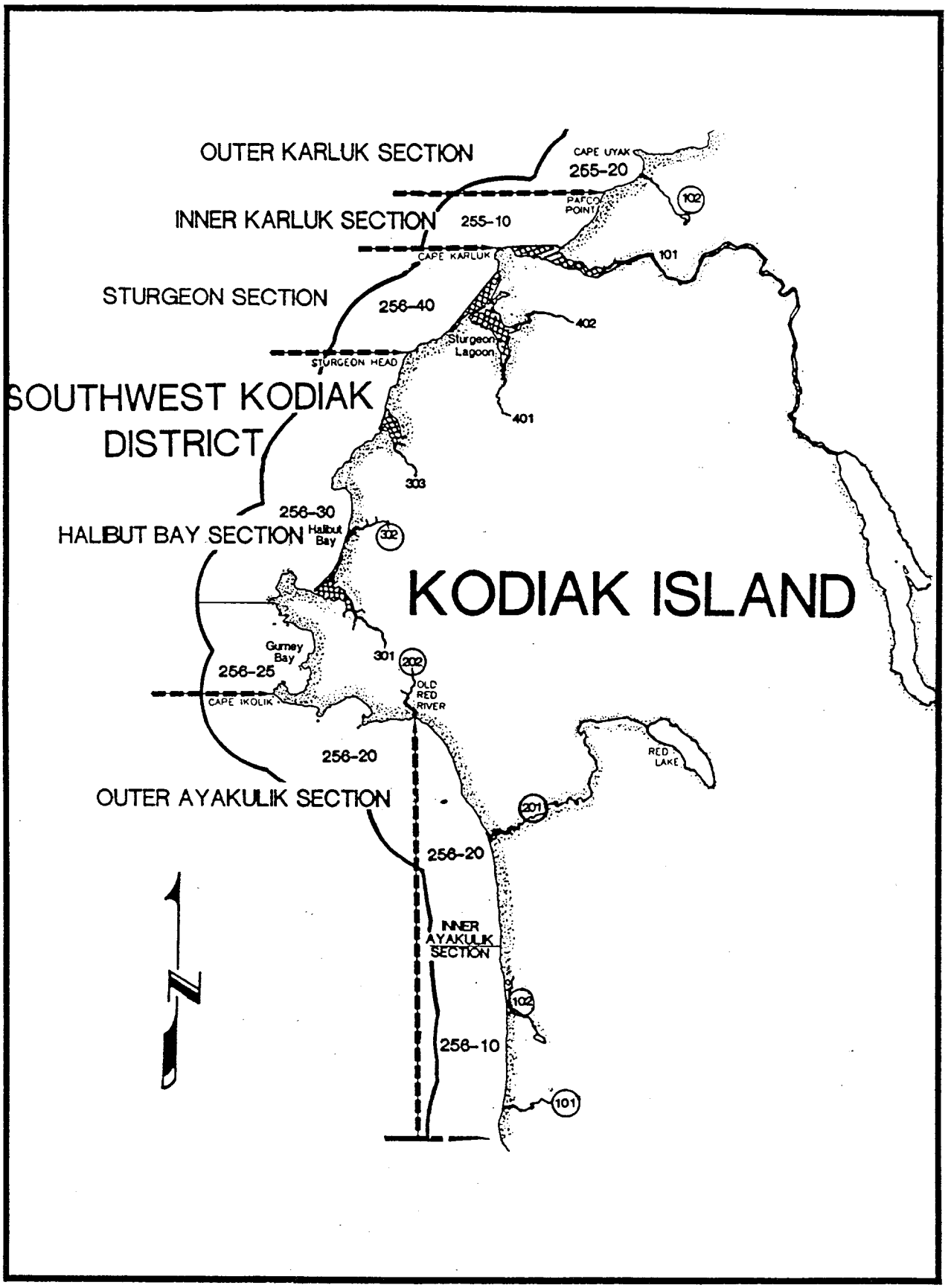
Appendix A.4. Cape Kasiak north to Left Cape, #3, Kodiak Management Area, 1989.



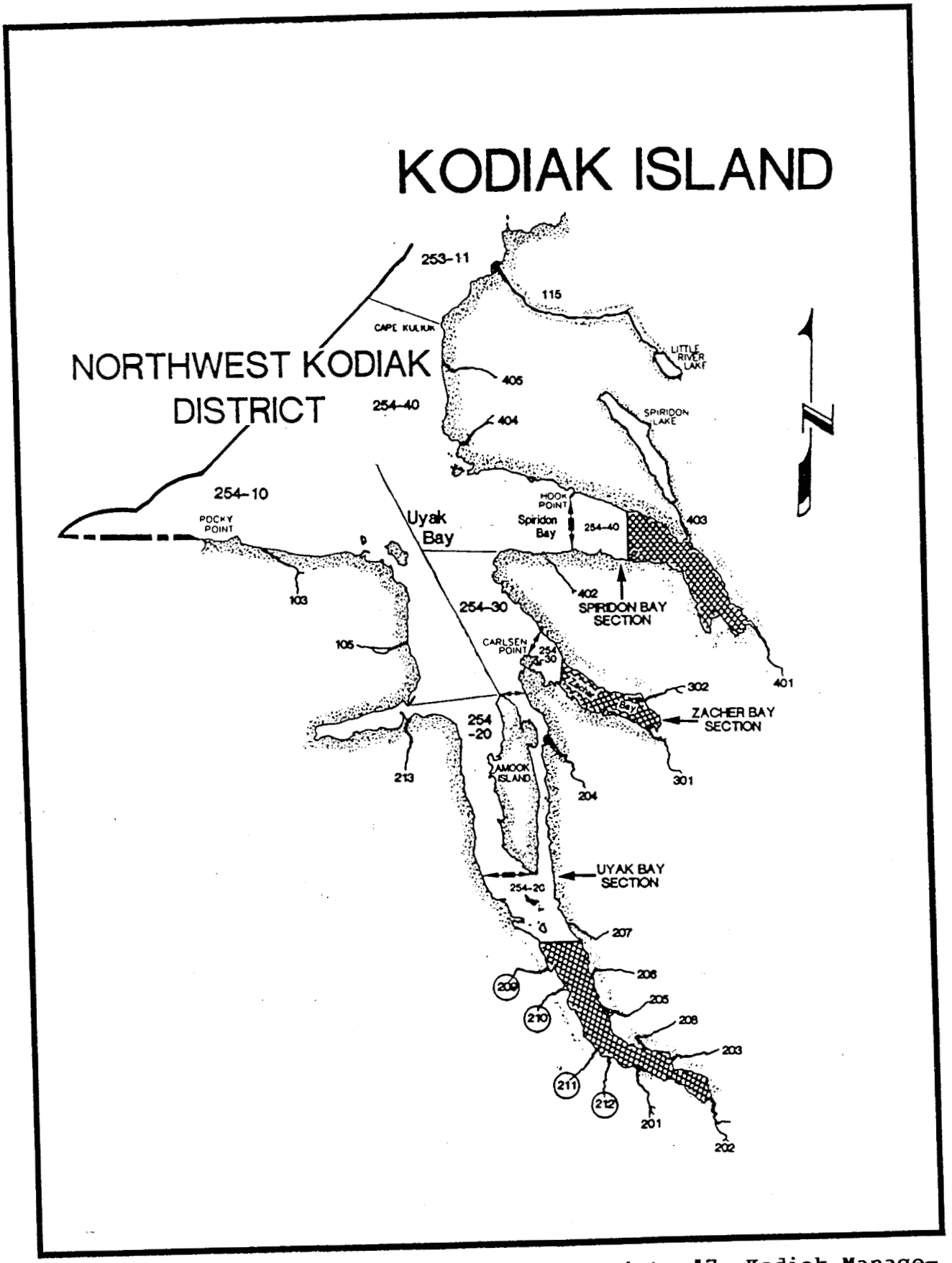
Appendix A.5. Cape Trinity north to Cape Kasiak, #4, Kodiak Management Area, 1989.



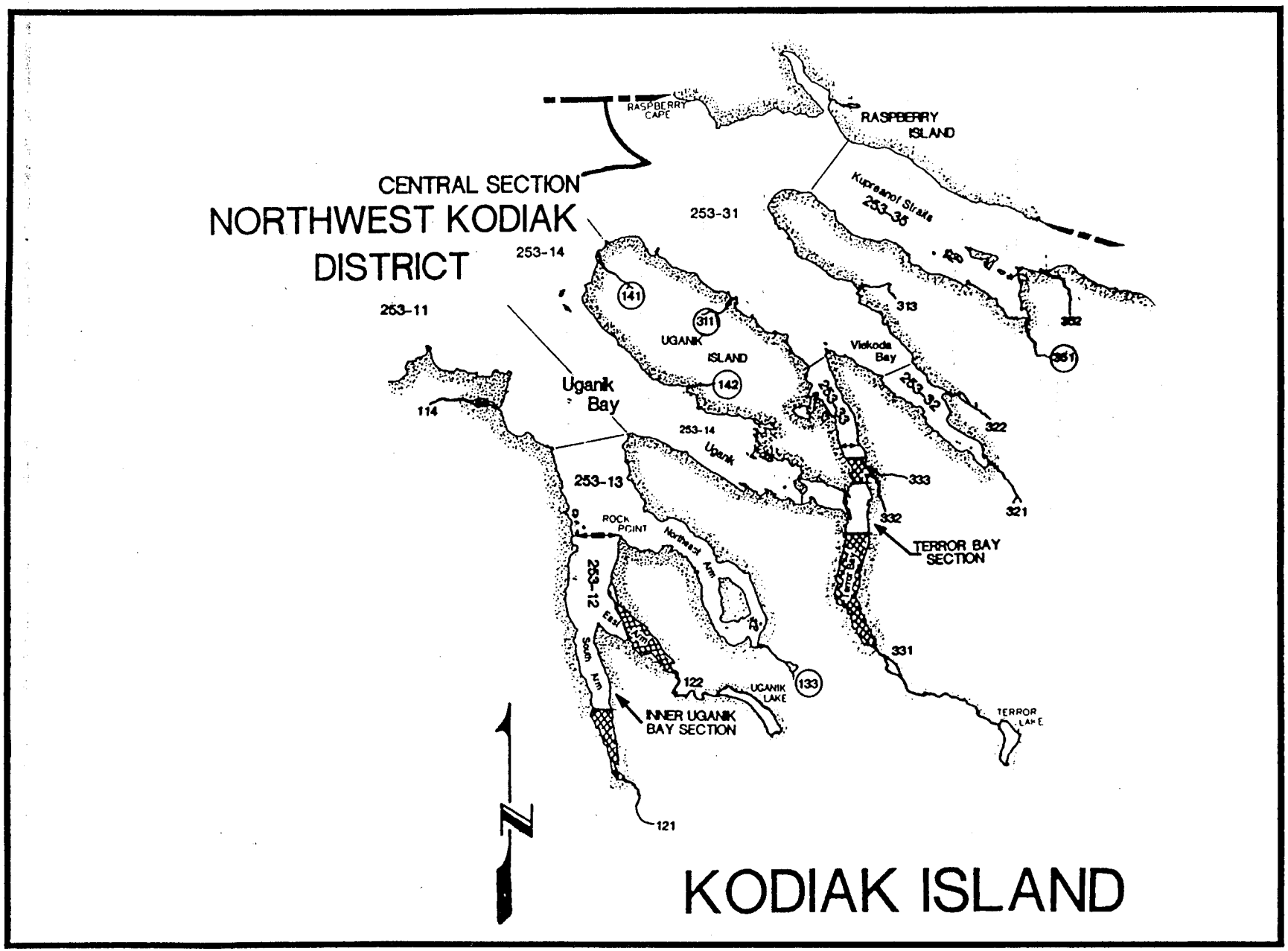
Appendix A.6. Low Cape east to Cape Trinity, #5, Kodiak Management Area, 1989.



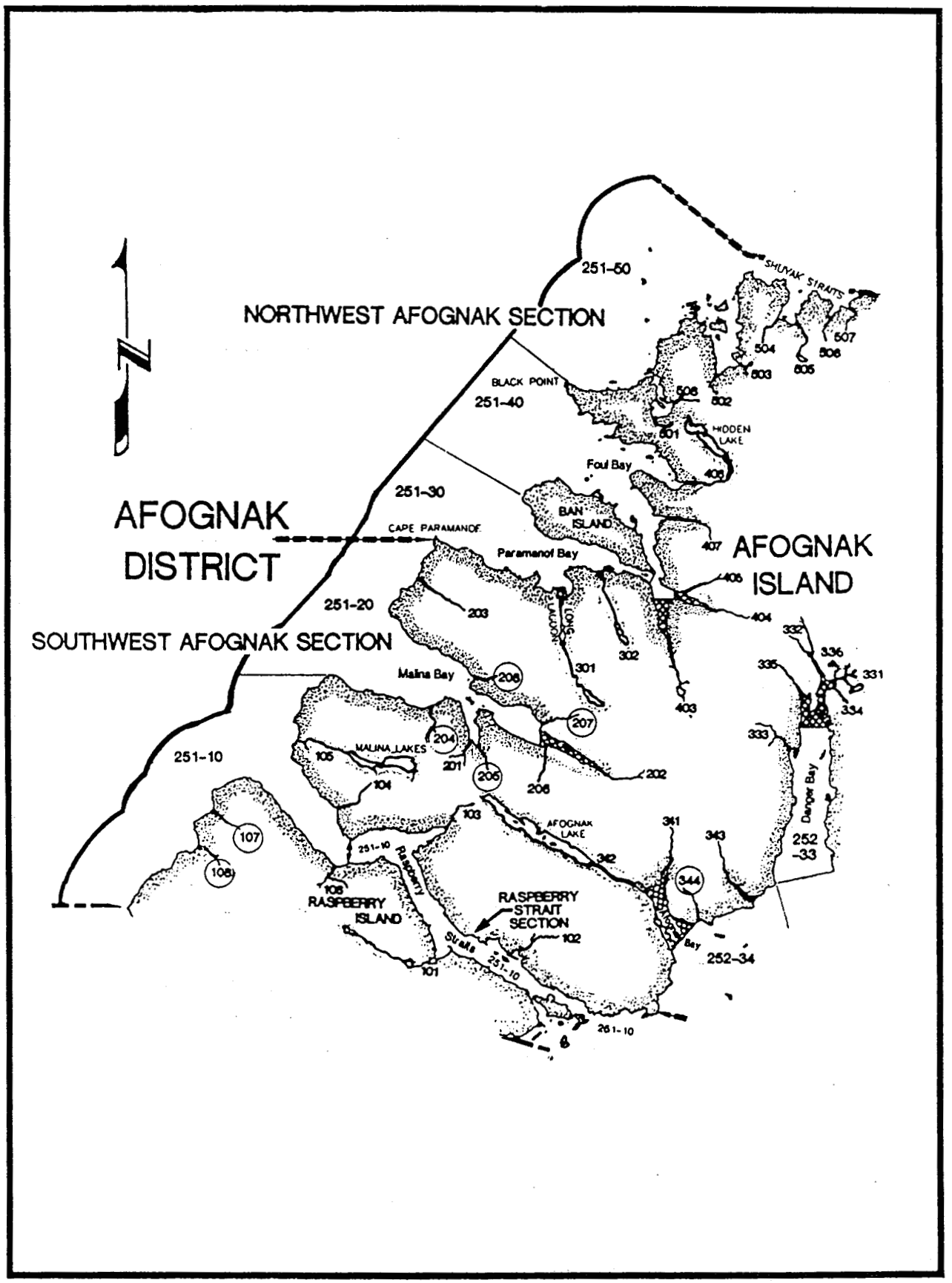
Appendix A.7. Rocky Point south to Low Cape, #6, Kodiak Management Area, 1989.



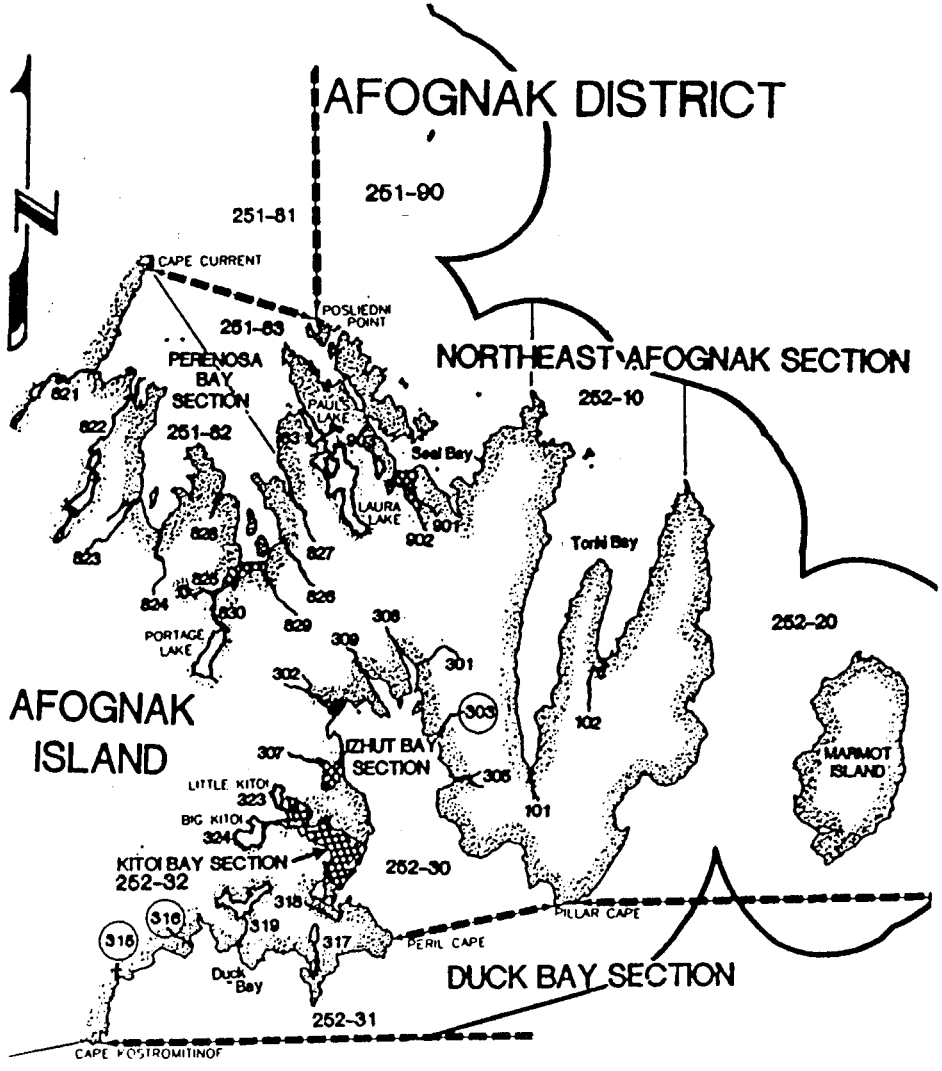
Appendix A.8. Cape Ugat south to Rocky Point, #7, Kodiak Management Area, 1989.



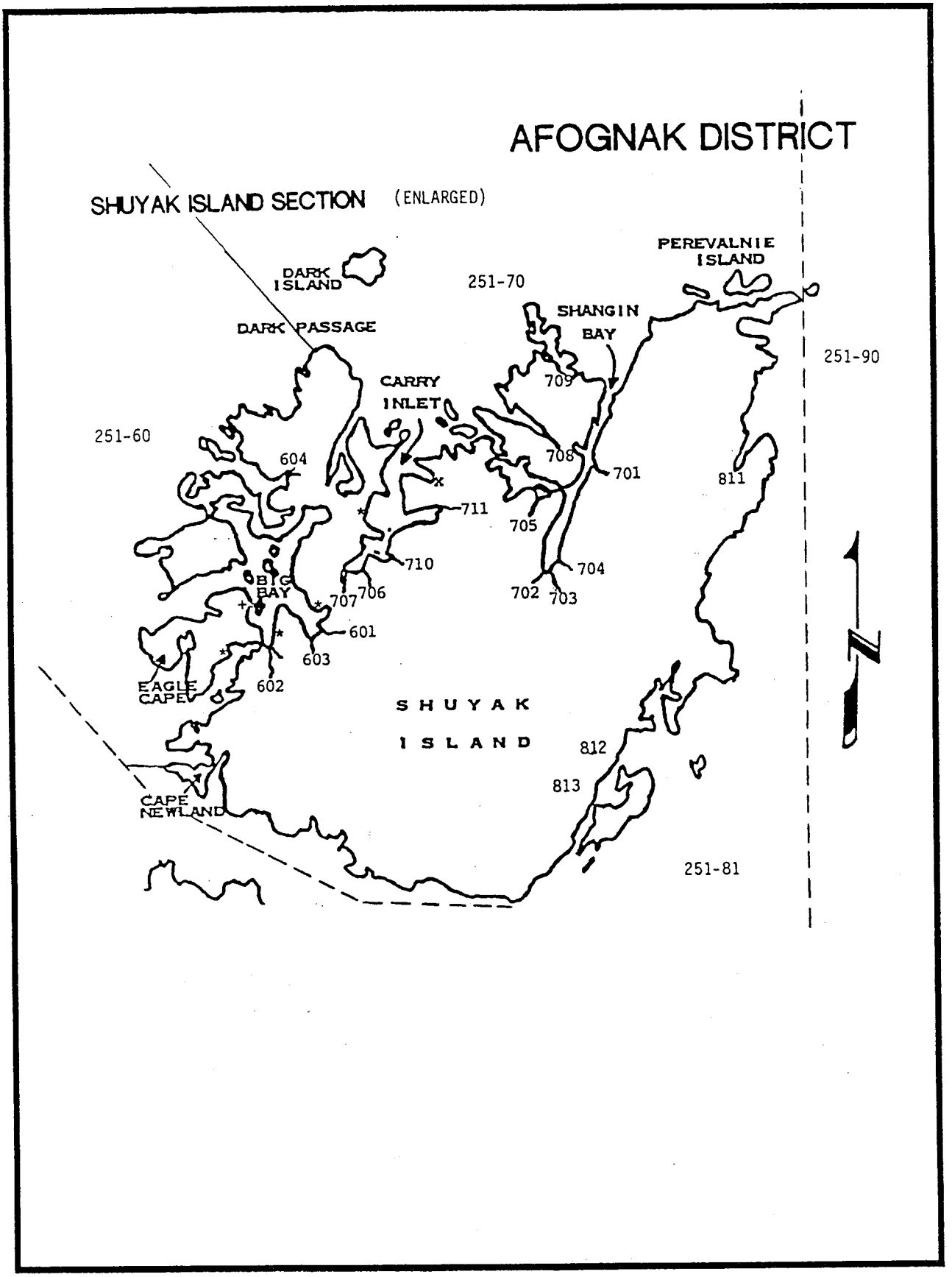
Appendix A.9. Raspberry Cape south to Cape Ugat, #8, Kodiak Management Area, 1989.



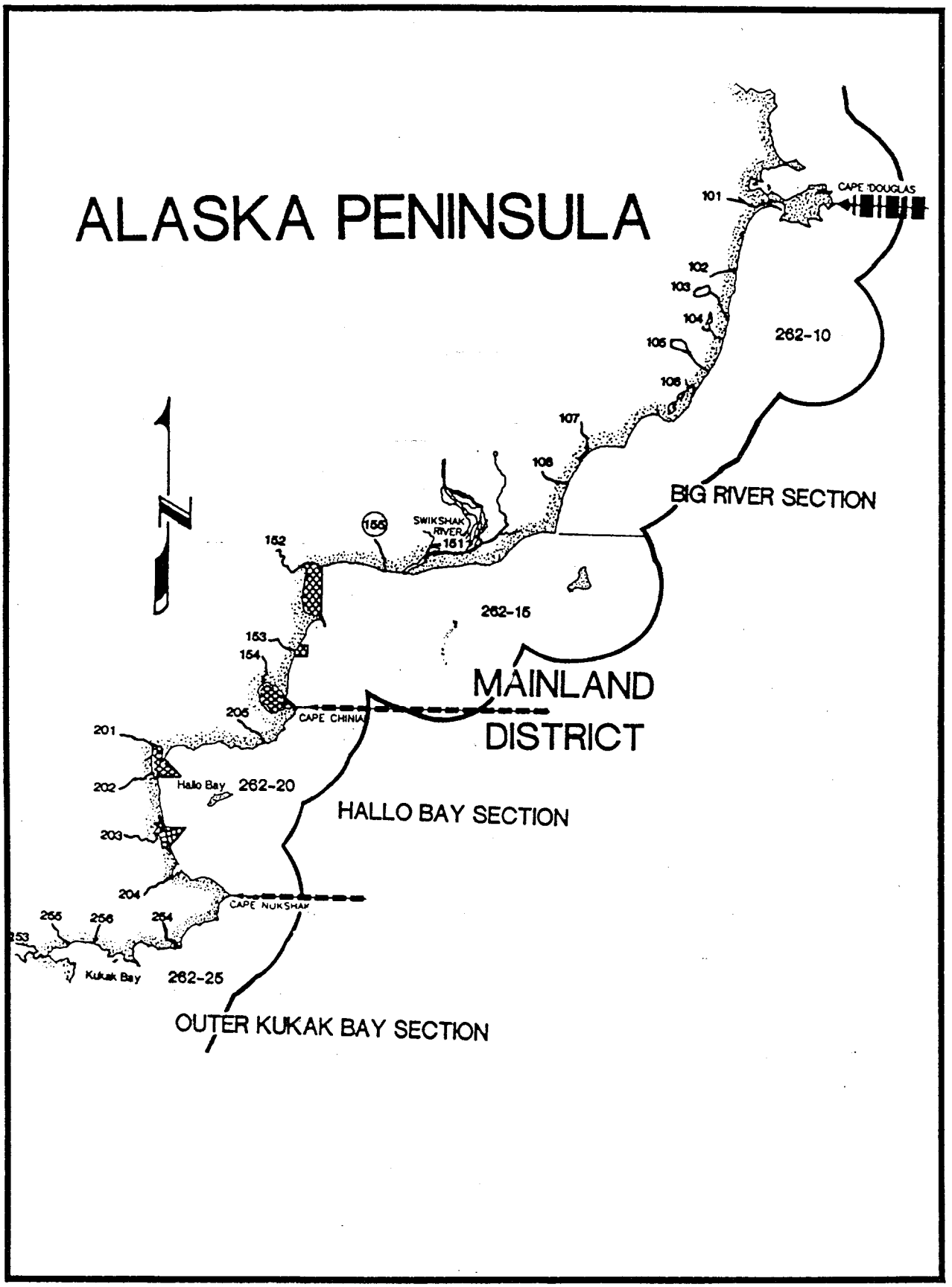
Appendix A.10. Raspberry Cape north to Shuyak Straits, #9, Kodiak Management Area, 1989.



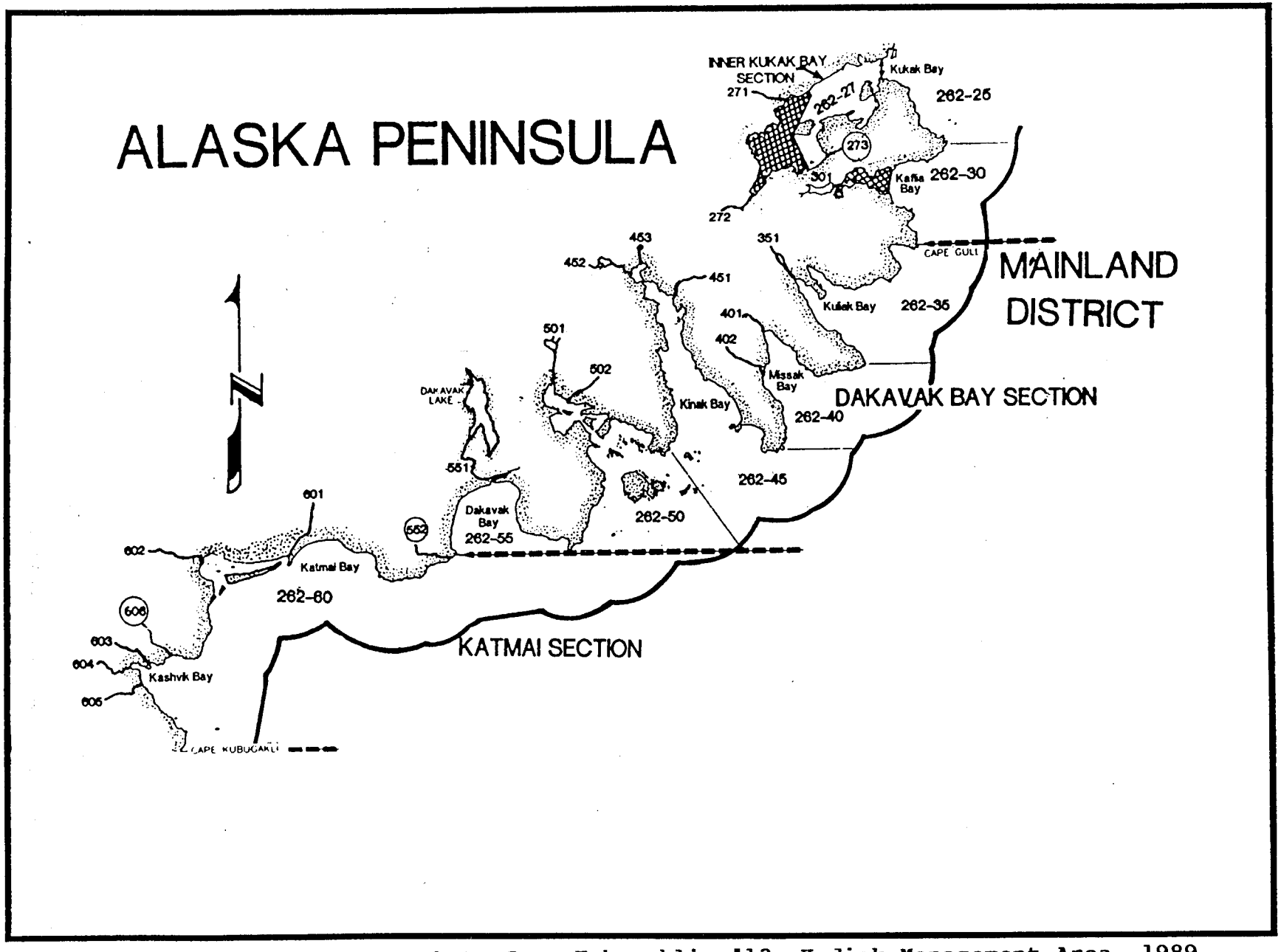
Appendix A.11. Cape Currant east to Cape Kostromitinof, #10, Kodiak Management Area, 1989.



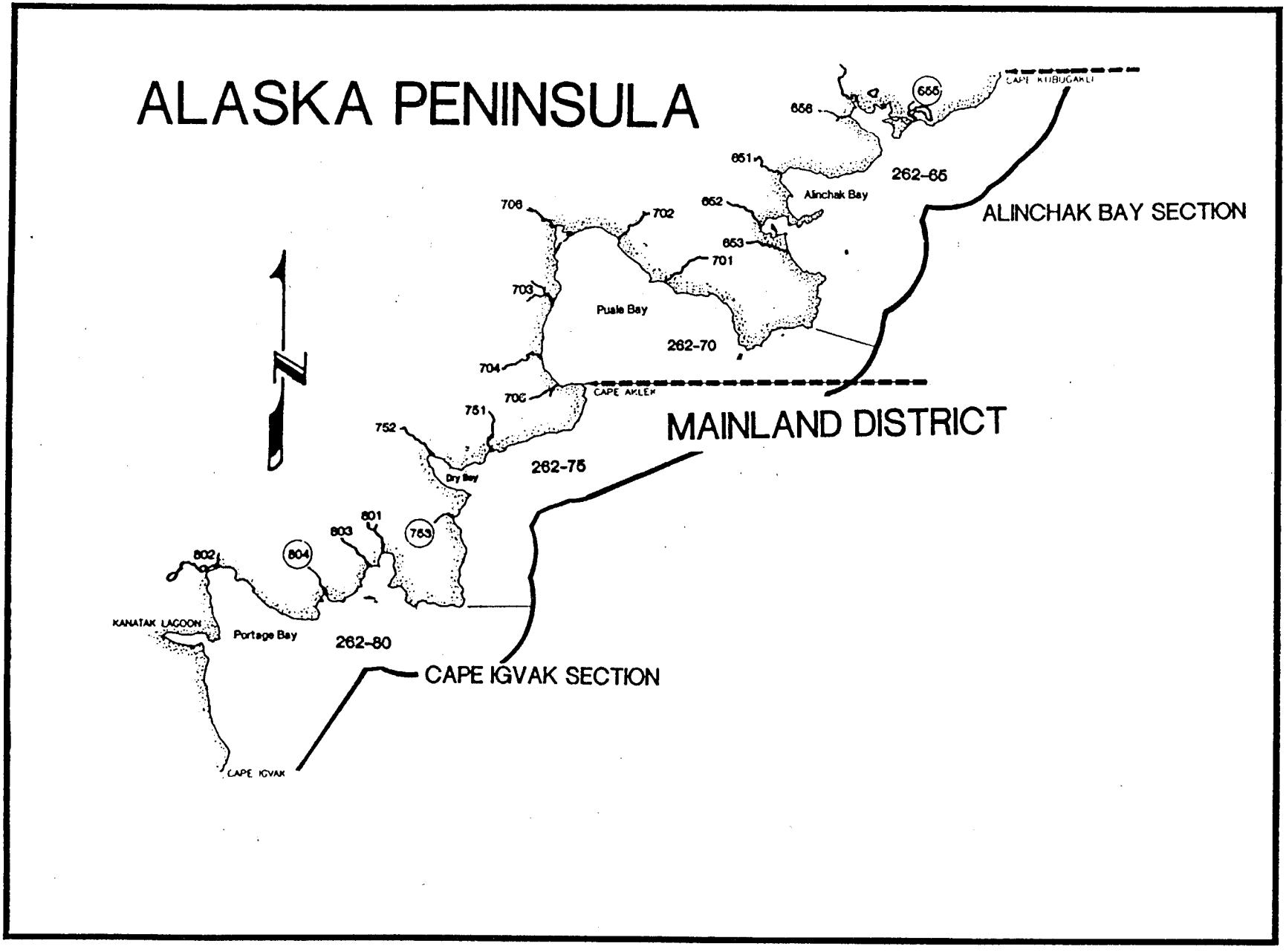
Appendix A.12. Shuyak Island, #11, Kodiak Management Area, 1989.



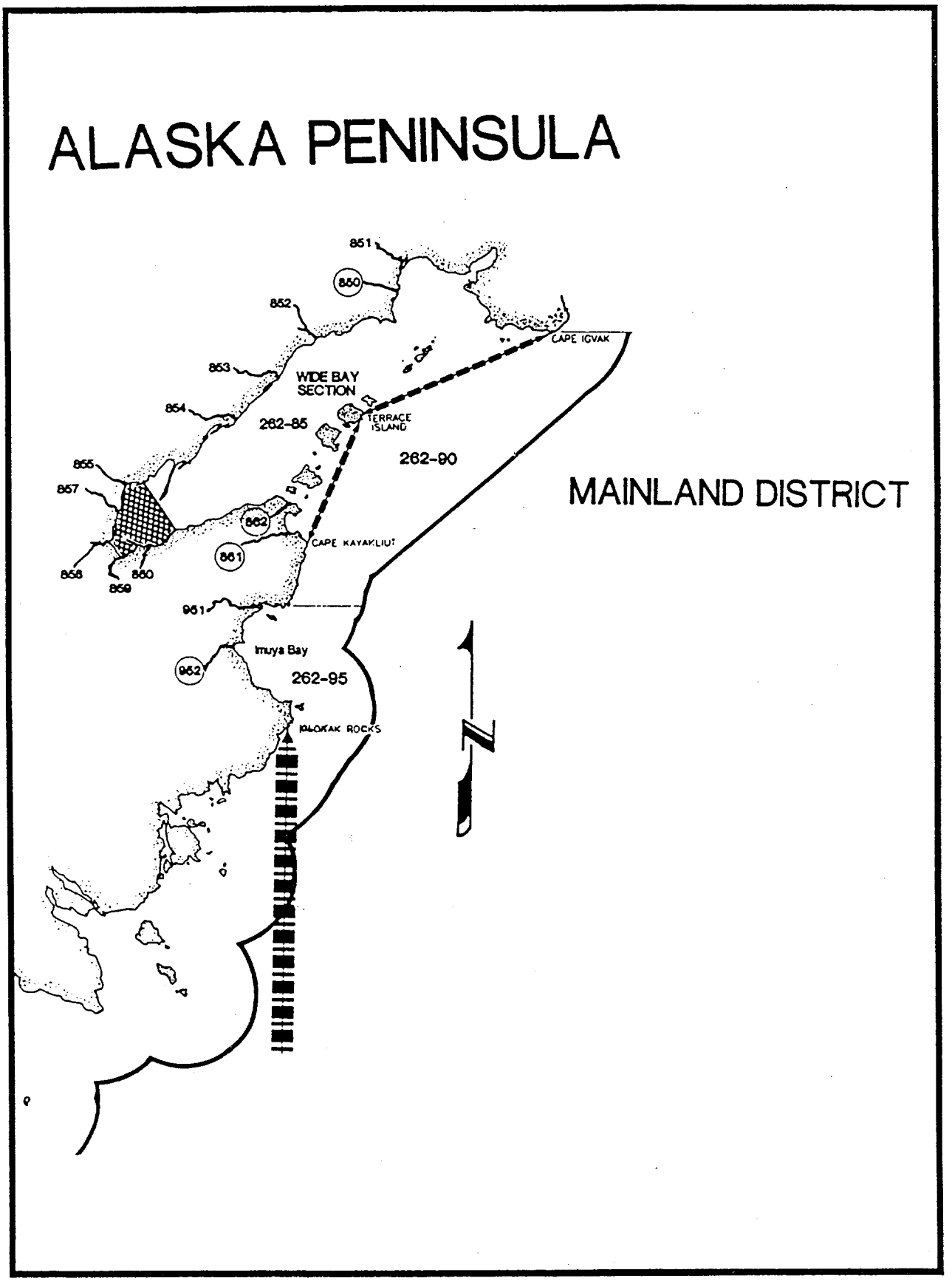
Appendix A.13. Cape Douglas south to Devil's Inlet, #12, Kodiak Management Area, 1989.



Appendix A.14. Kukak Bay south to Cape Kubugakli, #13, Kodiak Management Area, 1989.



Appendix A.15. Cape Kubugakli south to Cape Igvak, #14, Kodiak Management Area, 1989.



Appendix A.16. Cape Igvak south to Kilokak Rocks, #15, Kodiak Management Area, 1989.

Appendix B.1. Sockeye salmon escapement goals by spawning system for the Kodiak Management Area[a].

System		Escapement (in 1,000's of fish)		
Name	Number	Minimum	Mid Pt.	Desired
Weirs				
Karluk	255-101	560	730	900
Ayakulik	256-201	200	250	300
Upper Station	257-304	200	238	275
Frazer	257-401	140	170	200
Litnik	252-342	40	50	60
Saltery	259-415	20	30	40
Pauls	251-831	20	30	40
Thorsheim	251-302	5	8	10
Buskin	259-211	10	13	15
Akalura	257-302	40	50	60
subtotal		1,235.0	1,567.5	1,900.0
Non weir (indexed escap.[b])				
Barabara Cove	259-363	1	3	5
Bear Lake	262-655	1	3	5
Big Bay	251-601	1	3	5
Horse Marine	257-402	5	8	10
Kaflia	262-301	15	20	25
Kaguyak	258-706	0.5	1	1
Kanatak	262-802	1	3	5
Kuliak	262-351	1	3	5
Little Afognak	252-319	1	3	5
Little Danger	252-331	1	1	1
Little Kitoi	252-323	1	1	1
Little River	253-116	15	20	25
Long Lagoon Cr.	251-301	1	3	5
Malina	251-105	5	8	10
Matfay	257-704	0.5	1	1
Miam	259-412	1	3	5
Ocean Beach	258-401	5	8	10
Old Red River	258-202	0.5	1	1
Paramonof	251-301	1	1	1
Pasagshak	259-411	1	3	5
Perenosa	251-825	5	8	10
Pivot Point	258-212	0.5	1	1
Red Fox	251-505	1	1	1
Russian Harbor	258-901	1	1	1
Selief	251-101	1	3	5
Silver Salmon	257-303	1	3	5

-Continued-

Appendix B.1. (page 2 of 2)

System		Escapement (in 1,000's of fish)		
Name	Number	Minimum	Mid Pt.	Desired
Swikshak	262-151	15	20	25
Slough Crk.	262-105	0.5	1	1
Uganik Lake	253-122	40	50	60
Total indexed escap.[b]		123.5	181.8	240.0
Estimated total escapement for indexed systems[c]		247.0	363.5	480.0
Estimated total escapement for systems with weirs and indexed by aerial surveys		1,482.0	1,931.0	2,380.0

a Source: Barrett et al. (1990) and Malloy et al. (1992).

b Indexed escapement represents a peak aerial escapement count.

c Indexed escapement expanded by a factor of 2.0 for an estimate of total escapement (Barrett et al. 1985).

Appendix B.2. Pink salmon odd and even year index stream escapement goals, estimated odd year index stream total escapement goals and the estimated total odd year escapement goals by stream for the Kodiak Management Area[a].

Index Stream	Stream Number	Even Year Indexed[b] Minimum	Even Year Indexed[b] Desired	Odd Year Indexed[a] Minimum	Odd Year Indexed[a] Desired	Odd Year Est. Total Minimum	Odd Year Est. Total Desired	Odd Year Est. Total Mid Point
AFOGNAK DISTRICT								
Malina	(251-105)	20,000	60,000	5,000	15,000	9,209	27,626	18,418
Paramanof	(251-404)	10,000	30,000	5,000	15,000	9,209	27,626	18,418
Little Waterfall[c]	(251-822)	15,000	45,000	15,000	45,000	15,000	45,000	30,000
Discoverer	(251-830)	20,000	60,000	20,000	60,000	36,835	110,506	73,671
Pauls Bay[c]	(251-831)	3,000	9,000	3,000	9,000	3,000	9,000	6,000
Seal Bay	(251-901)	5,000	15,000	5,000	15,000	9,209	27,626	18,418
Big Danger	(252-332)	15,000	45,000	10,000	30,000	18,418	55,253	36,835
Marka	(252-334)	30,000	90,000	10,000	30,000	18,418	55,253	36,835
Litnik[c]	(252-342)	30,000	90,000	10,000	30,000	10,000	30,000	20,000
Subtotal		148,000	444,000	83,000	249,000	129,297	387,891	258,594
N.W. KODIAK DISTRICT								
Sheratin	(253-371)	15,000	45,000	10,000	30,000	18,418	55,253	36,835
Baumans	(253-333)	5,000	15,000	5,000	15,000	9,209	27,626	18,418
Terror	(253-331)	40,000	120,000	30,000	90,000	55,253	165,759	110,506
Uganik	(253-122)	80,000	240,000	70,000	210,000	128,923	386,770	257,847
Little	(253-115)	40,000	120,000	15,000	45,000	27,626	82,879	55,253
Zachar	(254-301)	40,000	120,000	20,000	60,000	36,835	110,506	73,671
Browns	(254-204)	40,000	120,000	5,000	15,000	9,209	27,626	18,418
Uyak	(254-202)	50,000	150,000	50,000	150,000	92,088	276,264	184,176
Uyak	(259-203)	5,000	15,000	15,000	45,000	27,626	82,879	55,253
Subtotal		315,000	945,000	220,000	660,000	405,188	1,215,563	810,376
S.W. KODIAK DISTRICT								
Karluk[c]	(255-101)	800,000	1,600,000	20,000	60,000	20,000	60,000	40,000
Sturgeon	(256-401)	50,000	150,000	5,000	15,000	9,209	27,626	18,418
Ayakulik[c]	(256-201)	400,000	800,000	5,000	15,000	5,000	15,000	10,000
Subtotal		1,250,000	2,550,000	30,000	90,000	34,209	102,626	68,418
ALITAK DISTRICT								
Narrows	(257-401)	2,000	6,000	2,000	6,000	3,684	11,051	7,367
Dog Salmon[c]	(257-403)	50,000	150,000	60,000	180,000	60,000	180,000	120,000
Deadman	(257-502)	40,000	120,000	60,000	180,000	110,506	331,517	221,012
Humpy	(257-701)	70,000	210,000	90,000	270,000	165,759	497,276	331,517
Subtotal		162,000	486,000	212,000	636,000	339,948	1,019,844	679,896
N.E. KODIAK DISTRICT								
Sid Olds	(259-242)	30,000	90,000	30,000	90,000	55,253	165,759	110,506
American	(259-231)	30,000	90,000	30,000	90,000	55,253	165,759	110,506
Buskin[c]	(259-211)	60,000	180,000	50,000	150,000	50,000	150,000	100,000
Subtotal		120,000	360,000	110,000	330,000	160,506	481,517	321,012

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Appendix B.2. (page 2 of 2)

Index Stream	Stream Number	Even Year Indexed[b] Minimum	Even Year Indexed[b] Desired	Odd Year Indexed[a] Minimum	Odd Year Indexed[a] Desired	Odd Year Est. Total Minimum	Odd Year Est. Total Desired	Odd Year Est. Total Mid Point
EASTSIDE KODIAK DISTRICT								
7-Rivers	(258-701)	40,000	120,000	40,000	120,000	73,671	221,012	147,341
Kalugnak	(258-542)	10,000	30,000	10,000	30,000	18,418	55,253	36,835
Barling	(258-522)	30,000	90,000	30,000	90,000	55,253	165,759	110,506
Kiliuda	(258-207)	20,000	60,000	10,000	30,000	18,418	55,253	36,835
Saltery[c]	(259-415)	20,000	60,000	30,000	90,000	30,000	90,000	60,000
Miam	(259-412)	20,000	60,000	10,000	30,000	18,418	55,253	36,835
Hurst	(259-414)	10,000	30,000	10,000	30,000	18,418	55,253	36,835
Subtotal		150,000	450,000	140,000	420,000	232,594	697,782	465,188
MAINLAND KODIAK DISTRICT								
Big River	(262-152)	10,000	30,000	10,000	30,000	18,418	55,253	36,835
Village	(262-153)	15,000	45,000	15,000	45,000	27,626	82,879	55,253
Cape Chiniak	(262-205)	5,000	15,000	3,000	9,000	5,525	16,576	11,051
Big Hallo	(262-203)	2,000	6,000	2,000	6,000	3,684	11,051	7,367
Kukak	(262-271)	3,000	9,000	2,000	6,000	3,684	11,051	7,367
Missak	(262-402)	5,000	15,000	3,000	9,000	5,525	16,576	11,051
Kinak	(262-451)	20,000	60,000	20,000	60,000	36,835	110,506	73,671
Geographic	(262-501)	4,000	12,000	4,000	12,000	7,367	22,101	14,734
Dakavak	(262-551)	25,000	75,000	20,000	60,000	36,835	110,506	73,671
Kashvik	(262-604)	25,000	75,000	25,000	75,000	46,044	138,132	92,088
Big Alinchak	(262-651)	30,000	90,000	20,000	60,000	36,835	110,506	73,671
Portage	(262-702)	15,000	45,000	10,000	30,000	18,418	55,253	36,835
Oil	(262-751)	15,000	45,000	10,000	30,000	18,418	55,253	36,835
Jute	(262-801)	2,000	6,000	1,000	3,000	1,842	5,525	3,684
Kanatak	(262-802)	10,000	30,000	10,000	30,000	18,418	55,253	36,835
Big Creek	(262-851)	70,000	210,000	60,000	180,000	110,506	331,517	221,012
Subtotal		256,000	768,000	215,000	645,000	395,979	1,187,937	791,958
GRAND TOTAL		2,401,000	6,003,000	1,010,000	3,030,000	1,697,720	5,093,161	3,395,440
		Est. Total Kodiak Management Area Escapement[d]				2,335,253	7,005,759	4,670,506

a Source: Barrett et al. (1990) and Malloy et al. (1992).

b Index escapement for non weir systems are peak counts.

c Systems where the escapement is counted through weirs.

d The 51 listed index streams average 72.70% of the total KMA escapement based on 1969-87 odd year escapement distribution data. The estimated total KMA escapements are derived by expanding the minimum desired, and mid point total estimated escapements for the index streams by a factor of 1.38.

Appendix B.3. Chum salmon indexed escapement goals and estimated total escapement goals for selected streams[a].

Index Stram	Stream Number	Indexed Minimum	Indexed Desired	Est. Total Minimum	Est. Total Desired	Est. Total Mid Point
N.W. KODIAK DISTRICT						
Red Cloud	(259-382)	3,000	9,000	4,173	12,518	8,345
Slough Trail	(259-383)	1,000	3,000	1,391	4,173	2,782
Sheratin	(259-371)	5,000	15,000	6,954	20,863	13,908
Kizhuyak	(259-365)	8,000	24,000	11,127	33,380	22,253
Terror	(253-331)	5,000	15,000	6,954	20,863	13,908
Uganik	(253-122)	10,000	30,000	13,908	41,725	27,817
Spiridon	(254-401)	15,000	45,000	20,863	62,588	41,725
Zachar	(254-301)	15,000	45,000	20,863	62,588	41,725
Uyak	(254-202)	10,000	30,000	13,908	41,725	27,817
Subtotal		72,000	216,000	100,140	300,421	200,281
S.W. KODIAK DISTRICT						
Sturgeon	(256-401)	50,000	150,000	69,542	208,626	139,084
Subtotal		50,000	150,000	69,542	208,626	139,084
ALITAK DISTRICT						
Big Sukoi	(257-102)	20,000	60,000	27,817	83,450	55,633
Dog Salmon[b]	(257-403)	2,000	6,000	2,000	6,000	4,000
Narrows	(257-401)	2,000	6,000	2,782	8,345	5,563
Deadman	(257-502)	5,000	15,000	6,954	20,863	13,908
Salua	(257-603)	8,000	24,000	11,127	33,380	22,253
Portage	(257-601)	1,000	3,000	1,391	4,173	2,782
Subtotal		38,000	114,000	52,070	156,210	104,140
N.E. KODIAK DISTRICT						
Kalsin River	(259-243)	1,000	3,000	1,391	4,173	2,782
Sid Olds	(259-242)	6,000	18,000	8,345	25,035	16,690
American	(259-231)	6,000	18,000	8,345	25,035	16,690
Salt	(259-233)	2,000	6,000	2,782	8,345	5,563
Salonie Creek	(259-223)	1,000	3,000	1,391	4,173	2,782
Russian River	(259-222)	2,000	6,000	2,782	8,345	5,563
Sargent Creek	(259-221)	2,000	6,000	2,782	8,345	5,563
Subtotal		20,000	60,000	27,817	83,450	55,633
EASTSIDE KODIAK DISTRICT						
Sitkinak Chum	(258-807)	3,000	9,000	4,173	12,518	8,345
Kaguyak	(258-602)	5,000	15,000	6,954	20,863	13,908
Kiavak Portage	(258-551)	1,000	3,000	1,391	4,173	2,782
Kaiugnak	(258-603)	3,000	9,000	4,173	12,518	8,345
Barling	(258-522)	3,000	9,000	4,173	12,518	8,345
Midway	(258-521)	5,000	15,000	6,954	20,863	13,908
Newman	(258-513)	3,000	9,000	4,173	12,518	8,345
Natalia	(258-512)	3,000	9,000	4,173	12,518	8,345
Rolling	(258-511)	4,000	12,000	5,563	16,690	11,127
Amee	(258-301)	1,000	3,000	1,391	4,173	2,782
McCord Beach	(258-302)	1,000	3,000	1,391	4,173	2,782
Pivot Point	(258-212)	1,000	3,000	1,391	4,173	2,782
Marker Grove	(258-211)	1,000	3,000	1,391	4,173	2,782
Dukaluk	(258-208)	2,000	6,000	2,782	8,345	5,563
W. Kiliuda	(258-207)	8,000	24,000	11,127	33,380	22,253

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Table B.3. (page 2 of 2)

Index Stram	Stream Number	Indexed Minimum	Indexed Desired	Est. Total Minimum	Est. Total Desired	Est. Total Mid Point
E. Kiliuda	(258-206)	3,000	9,000	4,173	12,518	8,345
Burn's Spit	(258-210)	1,000	3,000	1,391	4,173	2,782
Coxcomb Point	(258-205)	6,000	18,000	8,345	25,035	16,690
Dog Bay	(258-204)	6,000	18,000	8,345	25,035	16,690
Shearwater	(258-202)	1,000	3,000	1,391	4,173	2,782
Gull Cape	(259-428)	8,000	24,000	11,127	33,380	22,253
Eagle Harbor	(259-424)	4,000	12,000	5,563	16,690	11,127
Kiliuda Pass	(259-423)	2,000	6,000	2,782	8,345	5,563
Hidden Basin	(259-418)	4,000	12,000	5,563	16,690	11,127
Wild Creek	(259-417)	2,000	6,000	2,782	8,345	5,563
Rough Creek	(259-416)	3,000	9,000	4,173	12,518	8,345
Saltery[b]	(259-415)	2,000	6,000	2,000	6,000	4,000
Miam	(259-412)	2,000	6,000	2,782	8,345	5,563
Subtotal		88,000	264,000	121,612	364,836	243,224
MAINLAND KODIAK DISTRICT						
Productive Forks	(262-108)	1,000	3,000	1,391	4,173	2,782
Swikshak	(262-151)	2,000	6,000	2,782	8,345	5,563
Big River	(262-152)	40,000	120,000	55,633	166,900	111,267
Village Creek	(262-153)	10,000	30,000	13,908	41,725	27,817
Chiniak Lagoon	(262-154)	8,000	24,000	11,127	33,380	22,253
Ninagiak	(262-201)	5,000	15,000	6,954	20,863	13,908
Serpent	(262-203)	10,000	30,000	13,908	41,725	27,817
Cape Chiniak	(262-205)	1,000	3,000	1,391	4,173	2,782
Kukak River	(262-271)	60,000	180,000	83,450	250,351	166,900
Kukak Valley	(262-272)	3,000	9,000	4,173	12,518	8,345
Kinak Creek	(262-451)	2,000	6,000	2,782	8,345	5,563
Dakavak	(262-551)	10,000	30,000	13,908	41,725	27,817
Alagogshak	(262-602)	25,000	75,000	34,771	104,313	69,542
Kashvik	(262-604)	5,000	15,000	6,954	20,863	13,908
Big Alinchak	(262-651)	2,000	6,000	2,782	8,345	5,563
Little Alinchak	(262-652)	1,000	3,000	1,391	4,173	2,782
East Bear	(262-654)	8,000	24,000	11,127	33,380	22,253
West Bear	(262-656)	3,000	9,000	4,173	12,518	8,345
Portage	(262-702)	1,000	3,000	1,391	4,173	2,782
Teresa	(262-703)	8,000	24,000	11,127	33,380	22,253
Trail Creek	(262-704)	8,000	24,000	11,127	33,380	22,253
Dry Bay	(262-752)	8,000	24,000	11,127	33,380	22,253
Jute	(262-801)	1,000	3,000	1,391	4,173	2,782
Kanatak	(262-802)	1,000	3,000	1,391	4,173	2,782
Big Creek	(262-851)	10,000	30,000	13,908	41,725	27,817
Kialagvik	(262-858)	8,000	24,000	11,127	33,380	22,253
Icy Peak	(262-859)	1,000	3,000	1,391	4,173	2,782
Subtotal		242,000	726,000	336,583	1,009,748	673,165
GRAND TOTAL		510,000	1,530,000	707,764	2,123,291	1,415,528
Estimated Total Kodiak Management Area Escapement[c]				784,440	2,353,321	1,568,881

a Source: Barrett et al. (1990) and Malloy et al. (1992)

b Systems where the escapement is counted through weirs.

c The 78 listed index streams supported 90.2% of the total KMA chum escapement in 1989. The estimated total KMA escapement goal minimum, desired, and mid point values were determined from this relationship.

Appendix B.4. Coho salmon escapement goals for fish weir systems in the Kodiak Management Area, 1989[a].

Weir Site	Interim Goals	Interim Dates 8/15 Weir	8/15 (Bldup)	8/20 Weir	8/20 (Bldup)	8/25 Weir	8/25 (Bldup)	8/31 Weir	8/31 (Bldup)	9/5 Weir	9/5 (Bldup)	9/10 Weir	9/10 (Bldup)	9/15 Weir	9/15 (Bldup)	9/20 Weir	9/20 (Bldup)
Karluk	Min.	-	-	50	-	100	(1,400)	300	(2,200)	1,500	(3,500)	3,000	(7,000)	8,000	(5,000)	10,000	(5,000)
(255-101)	Des.	-	-	500	-	1,000	(2,000)	3,000	(4,000)	3,000	(6,000)	6,000	(9,000)	9,000	(8,000)	20,000	(5,000)
Ayakulik	Min.	500	(1,000)	3,000	(2,000)	4,000	(3,500)	7,000	(5,000)	10,000	(7,000)	12,000	(6,000)	-	(6,000)	-	(2,000)
(256-201)	Des.	2,000	(1,500)	6,000	(2,500)	7,000	(5,000)	13,000	(6,000)	15,000	(8,000)	18,000	(9,000)	-	(8,000)	-	(4,000)
Dog Salmon	Min.	-	(100)	50	-	500	-	1,500	-	2,000	-	2,500	-	3,500	-	-	(1,000)
(257-403)	Des.	-	(200)	200	-	1,500	-	3,000	-	4,500	-	4,500	-	5,500	-	-	(3,000)
Upper Station	Min.	-	-	50	-	500	-	1,500	-	2,000	-	2,500	-	3,500	-	-	-
(257-304)	Des.	-	-	200	-	1,500	-	3,500	-	4,000	-	4,500	-	5,500	-	-	-
Akalura	Min.	-	-	-	-	50	-	250	-	500	-	1,000	-	1,500	-	-	-
(257-302)	Des.	-	-	-	-	200	-	1,000	-	1,500	-	2,500	-	3,500	-	-	-
Horse Marine	Min.	-	-	-	-	50	-	200	-	400	-	800	-	1,000	-	-	-
(257-402)	Des.	-	-	-	-	100	-	400	-	800	-	1,600	-	2,500	-	-	-
Saltery	Min.	-	-	-	(100)	50	(500)	300	(1,000)	1,000	(1,000)	2,000	(1,000)	2,500	(2,000)	3,000	(2,000)
(259-415)	Des.	-	-	-	(500)	100	(1,000)	1,000	(2,000)	2,000	(2,000)	3,000	(2,000)	4,000	(3,000)	5,000	(5,000)
Buskin	Min.	25	-	100	-	300	-	400	-	1,000	-	2,000	-	2,000	-	3,000	(3,000)
(259-211)	Des.	100	-	300	-	500	-	1,000	-	2,000	-	3,500	-	4,000	-	5,000	(4,000)
Litnik	Min.	500	-	1,000	-	1,500	-	2,000	-	2,500	-	3,000	-	3,500	-	-	-
(252-342)	Des.	2,000	-	3,000	-	4,000	-	5,000	-	6,000	-	7,000	-	8,000	-	-	-
Pauls	Min.	500	-	1,500	-	3,000	-	3,500	-	4,500	-	5,500	-	6,500	-	-	-
(251-831)	Des.	2,000	-	3,000	-	5,000	-	6,000	-	7,000	-	8,000	-	9,000	-	-	-
Perenosa	Min.	50	-	500	-	1,000	-	1,300	-	1,500	-	1,700	-	2,000	-	-	-
(251-830)	Des.	500	-	1,000	-	3,000	-	2,800	-	3,000	-	3,200	-	3,500	-	-	-
Big Bay	Min.	20	-	100	-	150	-	200	-	250	-	300	-	400	(600)	600	(400)
(251-601)	Des.	100	(200)	200	(300)	300	(300)	400	(400)	500	(600)	600	(1,000)	800	(1,200)	1,300	(700)
Bear Creek	Min.	10	-	50	-	100	-	125	-	150	-	175	-	150	-	350	-
(251-706)	Des.	50	(50)	150	(100)	200	(150)	250	(200)	300	(400)	350	(600)	500	(500)	700	(400)

[a] Source: Malloy et al. (1992).

Appendix B.5. Peak indexed coho salmon escapement goals for Northeast District non-fish weir systems in the Kodiak Management Area, 1989.[a,b]

Geographical Location	Stream		Escapement Goals	
	Name	Number	Minimum	Desired
MONASHKA/MILL BAY	Monashka	(259-101)	20	35
	Virginia	(259-105)	30	45
	Pillar	(259-102)	30	45
	Island Lake	(259-103)	40	60
Subtotal	**4 Streams**		**120**	**180**
WOMAN'S BAY[c]	Buskin	(259-211)	2,000[d]	4,210[d]
	Sargent	(259-221)	65	100
	Russian	(259-222)	40	60
	Paramanof	(259-224)	20	30
	Salonie	(259-223)	350	500
	Cliff Point	(259-232)	10	20
Subtotal	**6 Streams**		**2,485**	**4,210**
MIDDLE BAY	Short	(259-235)	10	20
	Salt	(259-233)	20	30
	American	(259-231)	300	400
	Slough	(259-234)	100	200
Subtotal	**4 Streams**		**430**	**650**
KALSIN BAY	Mayflower	(259-246)	30	45
	Sid Olds	(259-242)	450	675
	Kalsin	(259-243)	100	150
	Frank	(259-244)	10	20
	Myrtle	(259-245)	30	45
Subtotal	**5 Streams**		**620**	**935**
Outer Chiniak Bay	Rosalyn	(259-251)	600	1,200
	Twin	(259-252)	40	60
	Capelin	(259-253)	20	30
	Chiniak	(259-254)	100	150
	Chiniak Lagoon	(259-255)	10	20
Subtotal	**5 Streams**		**770**	**1,460**

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Appendix B.5. (page 2 of 2)

Geographical Location	Stream Name	Stream Number	Escapement Goals Minimum	Escapement Goals Desired
Coastal Chiniak	Sacramento	(259-401)	40	60
	Twin Peaks	(259-402)	10	20
	Valley	(259-403)	10	20
	Barry's	(259-405)	10	20
	Burton's	(259-404)	10	20
Subtotal	**5 Streams**		**70**	**120**
GRAND TOTAL	**29 Streams**		**4,475**	**7,555**

[a] Total indexed escapement as of October and November aerial and foot surveys.

[b] Source: Malloy et al. (1992). These escapement goals were developed by Kodiak Area fishery biologists, Frank VanHulle and Pete Murray with the Sport Fish Division, and Ken Manthey, Larry Malloy and Dave Prokopowich with the Commercial Fisheries Division. The basis for these goals is the annual escapement and subsequent return data derived from approximately 1970 through 1988.

[c] Includes the Buskin River actual total escapement obtained by fish weir count.

[d] Buskin River actual weir escapement as of 9/10, an important date for management of the freshwater sport fisheries in Buskin River.

Appendix B.6. Chinook salmon escapement goals[a], by week, for systems with fish weirs, Kodiak Management Area.

River	Interim Goals	Interim Dates 5/30	6/06	6/13	6/20	6/27	7/04	7/11	7/18
Karluk (255-101)	Minimum	100	500	1,500	2,500	3,000	3,500	4,000	4,500
	Desired	300	800	2,800	4,500	6,000	7,000	7,500	8,000
Ayakulik (256-201)	Minimum	500	1,000	3,500	4,500	5,000	5,500	6,000	6,500
	Desired	1,500	3,000	5,000	6,000	7,000	8,000	9,000	10,000
Dog Salmon (257-403)	Minimum	-	-	-	20	40	80	100	110
	Desired	-	-	-	60	120	240	300	330

[a] Escapement goals shown in this table are based upon historical escapement database for 10 year period 1980-1989 and the subsequent return from those escapements. As additional research is conducted on the nature of these king salmon populations as well as the carrying capacity/production potential for king salmon in these systems, adjustments in these goals may be recommended.

Appendix C.1. Preliminary forecast of the pink salmon return[a], Kodiak Management Area, 1989.

	Total Return	Escapement[2]	Harvest
Point Estimate (millions of fish):			
Natural Production	10.40	2.00	8.40
Hatchery Production	2.35	0.15	2.10
KRAA Cost Recovery			0.10
Total Production	12.75	2.15	10.60
Range Estimate (millions of fish):			
Natural Production	9.60-11.20	2.00	7.60- 9.20
Hatchery Production	1.20- 5.90	0.15	0.95- 5.65
KRAA Cost Recovery			0.10
Total Production	10.80-17.10	2.15	8.65-14.95

1 Hatchery production forecast is for Kitoi Bay Hatchery and was prepared by Hatchery Manager Tim Joyce. See the section below entitled "Afognak District Supplemental Production" for additional discussion.

2 All escapement numbers represent indexed escapement.

Forecast Methods:

The 1988 pink salmon forecast return to the Kodiak Management Area was determined as follows: A point estimate for the total management area natural return was calculated from a linear least squares regression analysis of the past 23 years pre-emergent data. Variables used in the analysis were the indexed live fry densities and the average combined departure from the norm of the March-April ambient air temperatures taken in Kodiak. The upper and lower range estimates are the 80% confidence intervals.

Discussion of the 1989 Forecast:

Pre-emergent fry sampling this spring (1988) indicated poor to excellent overwinter survival from the brood year escapement of 2.7 million pink salmon. Sampling resulted in an unweighted live fry index of 204.3 live fry/m^2. This fry index is one of the highest on record for an odd year return.

Distribution of the brood year escapement resulted in 60% of the fish entering pre-emergent index streams. Sampling conditions during March and April (1988) were generally very good on Kodiak and Afognak Islands. Sampling on the Mainland was limited once again by severe weather and length of the helicopter contract. The close to normal spring conditions in 1988 combined with the overall excellent live fry densities are the main reasons for the above average forecast for the 1989 return.

-Continued-

A breakdown of the expected return by major geographical districts is summarized below. All district harvest projections assume desired escapement goals will be met.

Afognak District: The pre-emergent fry index for this district is below average. A total of 500,000 pink salmon are expected to return. The desired escapement level is 150,000 pink salmon leaving 350,000 pink salmon available for harvesting.

Afognak District Supplemental Production: Kitoi Bay Hatchery total return point estimate is 2.35 million pink salmon from a release of 11 million emergent fry and 83 million reared pink fry. Approximately 150,000 pink salmon are required for escapement and broodstock and an estimated 100,000 are necessary for cost recovery needs, leaving 2.1 million pink salmon available for harvesting.

Westside District: Overall, live fry density for this district are some of the best on record. Some scouring was evident on all streams sampled, however, Uganik River suffered the worst. Approximately 3.5 million pink salmon are expected to return to this district. The desired escapement goal is 400,000 pink salmon, leaving 3.1 million pink salmon available for harvesting.

Alitak District: Live fry densities for this district were excellent. Scouring was evident in the Lower Dog Salmon and portions of Deadman River. As a result of the excellent live fry densities 2.5 million pink salmon are expected to return to this district. The desired escapement goal is 400,000 pink salmon, leaving 2.1 million pink salmon available for harvesting.

General District: The overall live fry densities for this district are average. Warm low water conditions at Seven Rivers during the early spawning period appeared to be the main reason for the lower than expected fry densities. The remaining streams sampled had good to excellent fry densities. Approximately 2.5 million pink salmon are expected to return to this district. The desired escapement goal is 650,000 pink salmon, leaving 1.85 million pink salmon available for harvesting.

Mainland District: Seven streams were sampled between Wide Bay and Kinak. Additional sampling was not completed due to weather conditions. Based on the streams sampled, brood year escapements and the overwinter success of the fry on Kodiak Island approximately 1.4 million pink salmon are expected to return to this district. The desired escapement goal is 400,000 pink salmon leaving 1.0 million pink salmon available for harvesting.

Appendix C.2. 1988 pink salmon pre-emergent sampling project summary for the 1989 return in the Kodiak Management Area.

The 1988 Kodiak pre-emergent fry indexing field season began on March 13, 1988 and terminated on April 6, 1988. A total of 34 streams were sampled, of which 6 were on Afognak Island, 21 were on Kodiak Island and seven were on the mainland. Additional sampling was done in the Kizhuyak and Terror River drainage as required by ADF&G involvement with the Terror Lake Hydroelectric Project.

Transportation to Buskin and Sid Olds Rivers was via state vehicle. Transportation to all other sampling sites was via a Bell 206 Long Ranger helicopter contracted from Alaska Helicopters, Inc. (Aircraft #222AC, State contract award No. C23375).

Ten drums of Jet B fuel were placed at Camp Island on December 30, 1987. Two drums were for FRED use. All ten drums were flown to Karluk Lake by Pen Air's Goose in two trips. Approximately 30 empty drums were hauled to Kodiak on the back haul. Seven drums were used. The remaining three drums will be used by USFWS personnel for their south end brown bear studies. One drum of Jet B fuel was placed at Kitoi Bay hatchery in mid March by the ADF&G vessel, the Resolution. Four drums of Jet B fuel were placed at Geographic Harbor by a Beaver chartered from Uyak Air on March 30, 1988. All four drums were used.

Karluk Lake was open during the entire project. Project personnel and gear were transported from Kodiak to Camp Island and return by helicopter. The helicopter was used to move a new propane stove to the Red River weir site. Use of the helicopter by FRED personnel took place after sampling was completed for the day.

Eighteen days were actually spent sampling. The helicopter arrived in Kodiak on March 8 and was released from contract on April 6, 1988. Due to adverse weather conditions the first day of work using the helicopter was not until March 13. There were no mechanical problems with the helicopter.

Special Use Permits were obtained from the U.S. Fish and Wildlife Service, the National Park Service, Koniag, Old Harbor Native Corporation and the Akhiok-Kaguyak Inc. for use of a helicopter on sampling streams which are located in the Kodiak National Wildlife Refuge, Katmai National Monument and Preserve, the Becharof National Wildlife Refuge and native owned or claimed lands on Kodiak-Afognak Islands.

Kodiak was used as a base of operations. Camp Island at Karluk Lake, Kitoi Bay Hatchery and the Geographic Harbor cabin were utilized as temporary base camps.

Once the weather conditions improved, the stream water conditions were excellent for sampling. Following is a brief summary of the sampling results by district.

General District

Eleven streams were sampled. Sampling results from Beaver Pond Creek are not included in the district total index. Pillar and Monashka Creeks were not sampled due to the beginning of the herring season. The overall live fry index for this district is about average. Low water and warm temperatures in August 1987 appeared to be the main reason for the lower than expected fry densities in 7-Rivers and Kaiugnak. Scouring was a problem at Barling, Kiliuda, and Sharatin Creeks. Fry densities were excellent for Saltery Cove and Chiniak Bay creeks. A mild spring should help in producing one of the better adult returns this district has seen in years.

Westside District

Six streams were sampled. Uganik, Zachar and Terror Rivers showed signs of scouring. The overall live fry index for this district is one of the better on record for the odd-year return cycle. Forty-five percent of the live fry sampled were from Bauman's Creek. Because of the improvement in Uyak River fry survival and the mild spring conditions to date, the 1989 adult return to this district should be above average.

Alitak District

Four streams were sampled. Scouring was evident on lower Dog Salmon and portions of the Deadman River. The overall live fry index for this district is one of the highest on record in recent odd year return cycles. With a mild spring the 1989 adult return to this district should be above average.

Afognak District

Six streams were sampled. Seal Bay and Waterfall Creek data are not included in the district summaries. The overall live fry index for this district is one of the lowest on record. The adult return to this district is expected to be below average. Additional production should be expected from the Kitoi Bay Hatchery.

Mainland District

Seven streams were sampled. Weather conditions prevented sampling on Portage and Alinchak Rivers. The lower portion of Kanatak Creek was damaged from severe easterly storms. The streams sampled showed good to excellent overwinter fry survival. The 1989 pink return to this district should be above average.

Tentative Outlook for the 1989 Return

Based on the Kodiak-Afognak live fry index and the mild spring temperatures to date, the total return of pink salmon in 1989 may be 9 million fish. Approximately 2.0 million pinks are needed for escapement, leaving 7 million pinks available for harvesting. Once again, additional production should be expected from Kitoi Bay Hatchery.

1988 Pre-Emergent Crew

David Prokopowich, Kevin Brennan, Ed Sampson. Pilot for Alaska Helicopters, Inc. was Dick Izold.

[a] Data Source: Unpublished memorandum from Dave Prokopowich, Kodiak Assistant Area Management Biologist, to Larry Malloy, Kodiak Area Management Biologist, April 21, 1988.

Appendix C.3. Pink salmon forecast based on established methodology in the Kodiak Management Area, 1989.

The method of the 1989 pink salmon forecast is that of linear least squares regression on various independent variables including fry density. This is as provided in the past. The models are the same as last year.

The standard approach in the past was to perform a Stepwise Regression to select the variables that are important to the model and use those variables in a linear regression so that 80% prediction and confidence intervals can be computed. The variables that entered the model were the weighted fry index and sum of the norms of the April and March temperatures (Table 1). The models provide point estimates of return strength varying from 10 to 14 million (Table 1). The prediction intervals and confidence intervals also show quite diversity, indicating a fairly high magnitude in variability, but much more stable than last year. This stability will increase as more years are added to the data. this is due to the model and the aspect of converging to some overall mean value. It is time to look at the forecast approach under a different analytical approach, e.g. time series.

Table 1. Statistics on Kodiak 1989 pink salmon forecast models.

Model	R	MSE	80% C.I. Interval Lower	80% C.I. Interval Upper	80% Prediction Interval Lower	80% Prediction Interval Upper	Point Est.
Fry 1 with:							
March[a]	61.7	15.49	12.5	15.1	8.4	19.2	13.8
April[b]	71.1	11.69	11.3	13.5	7.7	17.1	12.4
M+A dev[c]	65.2	14.09	11.6	14.0	7.7	17.9	12.8
$(Md\&Ad)^2$	46.5	21.67	11.5	15.0	6.8	19.7	13.2
Fry 2 with:							
March	74.0	10.54	10.7	12.6	7.2	16.1	11.7
April	79.8	8.17	9.3	10.9	6.2	13.9	10.1
M+A dev[d]	80.7	7.83	9.6	11.2	6.6	14.2	10.4
$(Md\&Ad)^2$	54.5	18.44	9.2	12.4	4.9	16.7	10.8

[a] March = March temperature
[b] April = April temperature
[c] M+A dev = summation of March and April deviation from norm.
[d] Fry 2 with M+A dev is the standard approach

Appendix C.4. Results of pre-emergent pink salmon fry sampling for 1989 return in the Kodiak Management Area, 1988.

Afognak Streams	Digs	Dig Dates	Live Fry	Live Eggs	Dead Fry	Dead Eggs	1988 Index LiveFry/M²	% Digs WithFry	1986 Index	1984 Index	Range of Development	H_2O Temp.
Perenosa - Up	20	3/26/88	4	7	0	1	1.08	20	279.49	25.09	70% - 99%	1.0°C
Perenosa - Down	30	3/26/88	360	0	1	446	64.56	37	174.85	59.36	50% - 90%	2.0°C
Perenosa (Total)	(50)		(364)	(7)	(1)	(447)	(39.17)	(30)	(216.71)	(46.05)		
Paramanoff	40	3/27/88	41	0	0	897	5.51	8	5.65	44.52	50% - 80%	0.5°C
Afognak	50	3/27/88	50	1	0	144	5.38	4	2.37	0.32	95%	3.0°C
Danger	40	3/26/88	1,296	0	59	255	174.31	45	56.89	10.22	20% - 90%	1.0°C
Seal Bay (N)	(25)	3/26/88	(797)	(0)	(6)	(496)	(171.51)	(52)	(581.69)	(89.74)	20% - 80%	0.0°C
L.Waterfall (N)	(10)	3/26/88	(320)	(0)	(0)	(808)	(172.16)	(60)	(676.27)	(838.74)	80% - 90%	0.0°C
Afognak Total	**180**		**1,751**	**7**	**60**	**1,743**	**52.34**	**16%**	**74.75**	**25.05**	**20-99%**	

Westside Streams	Digs	Dig Dates	Live Fry	Live Eggs	Dead Fry	Dead Eggs	1988 Index LiveFry/M²	% Digs WithFry	1986 Index	1984 Index	Range of Development	H_2O Temp.
Baumans	30	3/13/88	4,809	126	29	1,787	862.41	93%	559.88	252.68	20% - 90%	1.0°C
Terror	50	3/25/88	150	0	0	1,185	16.14	8%	0.22	2.04	99%	1.0°C
Uganik	60	3/20/88	16	147	1	750	1.43	10%	0.45	7.08	80% - 95%	2.0°C
Uyak 203	20	3/21/88	300	0	4	3	80.70	30%	0	0.81	50% - 95%	2.0°C
Uyak 202	60	3/16/88	4,988	0	23	829	447.26	62%	162.39	233.22	80% - 95%	3.0°C
Zachar- Up	30	3/20/88	0	0	0	1	0	0	0	0		3.0°C
Zachar- Down	20	3/20/88	353	0	3	385	94.96	45%	0	0	50% - 90%	3.0°C
Zachar (Total)	(50)		(353)	(0)	(3)	(386)	(37.89)	(18%)	(0)	(0)	50% - 90%	
Westside Total	**270**		**10,616**	**273**	**60**	**5,640**	**211.53**	**33%**	**98.43**	**81.92**	**20 - 99%**	

Alitak Streams	Digs	Dig Dates	Live Fry	Live Eggs	Dead Fry	Dead Eggs	1988 Index LiveFry/M²	% Digs WithFry	1986 Index	1984 Index	Range of Development	H_2O Temp.
Dog Salmon- Up	40	3/17/88	1,126	0	1	11	151.45	40%	74.92	-	80% - 95%	4.0°C
Dog Salmon- Down	20	3/17/88	0	0	0	117	0		0	0.27		2.0°C
Dog Salmon (Total)	(60)		(1,126)	(0)	(1)	(128)	(100.96)	(27%)	(50.03)	(120.24)		
Humpy- Up	30	3/18/88	1,799	0	36	209	322.62	40%	132.71	157.28	80% - 95%	4.0°C
Humpy- Down	60	3/19/88	6,408	0	263	615	574.58	78%	136.65	251.65	20% - 95%	1.0°C
Humpy (Total)	(90)		(8,207)	(0)	(299)	(824)	(490.60)	(70%)	(134.96)	(219.86)	20% - 95%	
Narrows	30	3/21/88	757	10	20	75	135.76	37%	96.66	106.88	40% - 95%	1.0°C
Deadman	60	3/17/88	4,460	0	150	276	399.91	57%	349.25	242.19	30% - 95%	2.0°C
Alitak Total	**240**		**13,684**	**1**	**894**	**2,134**	**306.75**	**53%**	**306.23**	**212.62**	**20% - 95%**	

-Continued-

Appendix C.4. (page 2 of 2)

General Streams	Digs	Dig Dates	Live Fry	Live Eggs	Dead Fry	Dead Eggs	1988 Index LiveFry/M^2	% Digs WithFry	1986 Index	1984 Index	Range of Development	H_2O Temp.
Kaiugnak	50	3/19/88	670	0	41	293	72.09	54%	421.04	55.41	95% - 98%	4.0°C
Seven Rivers- Up	30	3/18/88	1,812	0	23	4,533	324.95	70%	1,044.97	137.19	20% - 90%	3.0°C
Seven Rivers- Dn	60	3/18/88	2,400	0	383	4,399	215.20	77%	330.51	133.78	20% - 95%	2.0°C
Seven Rivers (Total)	(90)		(4,212)	(0)	(406)	(8,932)	(251.78)	(74%)	(568.67)	(134.92)	20% - 95%	
Barling	40	3/22/88	1,562	0	0	718	210.09	45%	147.56	289.56	40% - 99%	1.0°C
Kiliuda	40	3/22/88	115	0	25	181	15.47	18%	104.37	4.98	95% - 99%	3.0°C
Saltery	50	3/24/88	2,112	2	55	1,223	227.25	64%	44.33	46.70	80% - 99%	2.0°C
Hurst	40	3/13/88	631	0	5	4	84.87	18%	0.14	0	50% - 95%	3.0°C
Sid Olds	50	3/23/88	2,851	1	100	594	306.77	68%	186.04	186.67	20% - 95%	3.0°C
American	60	3/25/88	4,220	0	279	789	378.39	73%	126.43	0	20% - 95%	4.0°C
Sheratin	50	3/24/88	66	0	8	2,217	7.10	24%	68.65	6.99	95% - 99%	3.0°C
Buskin - Up	20	3/14/88	2,239	0	0	195	602.29	90%	446.27	506.53	60% - 99%	1.0°C
Buskin - Down	40	3/14/88	743	2	35	1,425	99.93	35%	149.16	162.61	30% - 90%	1.0°C
Buskin (Total)	(60)		(2,982)	(2)	(35)	(1,620)	(267.39)	(53%)	(248.20)	(277.49)	30% - 90%	
Beaver Pond (N)	40	3/13/88	1,427	0	62	410	191.93	40%	171.22	-	30% - 95%	3.0°C
General Total	**530**		**19,421**	**5**	**954**	**16,571**	**197.14**	**52%**	**225.93**	**102.02**	**20% - 99%**	
KODIAK-AFOGNAK DISTRICTS TOTAL	**1,220**		**46,338**	**295**	**1,544**	**25,257**	**204.34**	**43%**	**163.40**	**104.54**	**20% - 99%**	

Mainland Streams	Digs	Dig Dates	Live Fry	Live Eggs	Dead Fry	Dead Eggs	1988 Index LiveFry/M^2	% Digs WithFry	1986 Index	1984 Index	Range of Development	H_2O Temp.
Missak	20	4/01/88	797	0	31	180	214.39	35%	-	-	40% - 80%	3.5°C
Geographic	20	3/31/88	2,985	0	24	26	802.97	100%	-	-	40% - 80%	3.5°C
Kinak	40	4/01/88	317	0	224	158	42.64	33%	-	-	60% - 95%	4.0°C
Dakavak	30	4/01/88	652	0	5	181	116.93	30%	-	-	90% - 95%	3.0°C
Kashvik	40	3/31/88	610	0	10	150	82.05	20%	-	-	20% - 90%	4.0°C
Kanatak	30	3/31/88	466	1	12	36	83.57	33%	-	-	50% - 95%	3.0°C
Big Creek	40	3/31/88	2,934	0	30	378	394.62	63%	-	-	20% - 95%	3.0°C
Mainland Total	**220**		**8,761**	**1**	**336**	**1,109**	**214.25**	**42%**			**20% - 95%**	

* The remainder of the Mainland District index streams were not sampled due to poor weather.

(N) = Non-Index Streams, results not included in District totals.

Appendix C.5. Formal forecast of the 1989 early run sockeye salmon return to Upper Station Lake, Kodiak Management Area[a].

FORECAST AREA: KODIAK, UPPER STATION LAKES

SPECIES: SOCKEYE SALMON, EARLY RUN

PRELIMINARY FORECAST OF THE 1989 RUN:

	Point	Range
Total Run:	134,000	79,500 - 189,200
Escapement Goal:	62,500	
Projected Catch:	71,500	17,000 - 126,700

FORECAST METHODS:

The 1989 forecast was calculated from a series of multiple regression equations using age specific returns from the 1969 through 1985 parent-year escapements. Each major age class in the forecast was estimated by a regression equation chosen to maximize the coefficient of determination and interpreted for reasonableness.

FORECAST DISCUSSION:

The forecast of 134,000 sockeye salmon for the Upper Station early run is 51% 5-year-old fish produced from the 1984 parent escapement of 97,000 fish, 34% 4-year-old fish produced from the 1985 parent escapement of 27,000 fish, and 15% 6-year-old fish from the 1983 parent escapement of 116,000 fish The formulas used in developing the forecast provided R-squared values ranging from 0.65 to 0.85.

This marks the second year that a formal forecast has been prepared on the early sockeye run to Upper Station. The 1988 run was approximately 124,600 which was 18% lower than the forecasted 152,000 fish. The 1989 forecast of 134,000 fish is based on an additional year of spawner-return data which should improve the reliability of the forecast model.

If the 1989 run materializes as predicted purse seine and gill net fishermen can expect to harvest about 71,500 Upper Station early run fish in the Alitak Bay District.

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[a] By Bruce M. Barrett, KMA Research Biologist, November 10, 1988.

Appendix C.6. Formal forecast of the 1989 late run sockeye salmon return to Upper Station Lake, Kodiak Management Area[a].

FORECAST AREA: KODIAK, UPPER STATION LAKES

SPECIES: SOCKEYE SALMON, LATE RUN

PRELIMINARY FORECAST OF THE 1989 RUN:

	Point	Range
Total Run:	929,000	366,000 - 1,492,000
Escapement Goal:	150,000	
Projected Catch:	779,000	216,000 - 1,342,000

FORECAST METHODS:

The forecast was calculated from a series of multiple regression equations using age specific returns from the 1966 through 1986 parent-year escapements and average lengths of age 1.2 female fish in the 1973 through 1988 escapements. Each major age class in the forecast was estimated by a regression equation chosen to maximize the coefficient of determination and interpreted for reasonableness. Individual age classes were estimated using existing count data except for one case in which a forecasted value was used to forecast another age class.

FORECAST DISCUSSION:

This is the first time that a formal forecast has been prepared on the late sockeye run to the Upper Station Lakes. The forecast of 929,000 late run sockeye salmon is 8% 3-year-old fish produced from the 1986 parent escapement of 368,000 fish, 46% 4-year-old fish produced from the 1985 parent escapement of 408,000 fish, and 46% 5-year-old fish from the 1984 parent escapement of 240,000 fish.

The late sockeye run to the Upper Station Lakes in 1988 was approximately 1,002,000 fish which is within 30% of the record high 1986 run of 1,393,000 fish. The 1988 escapement was about 248,000 fish. The forecast indicates that there will be about 5% less fish in 1989 than occurred in 1988 and about 35% less fish in 1989 than the record high 1986 run.

If the 1989 run forecast is correct purse seine and gill net fishermen should harvest about 779,000 Upper Station late run fish in the Alitak Bay District.

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[a] By Bruce M. Barrett, KMA Research Biologist, and B. Alan Johnson, Regional Biometrician, November 25, 1988.

Appendix C.7. Formal forecast of the 1989 sockeye salmon return to Frazer Lake, Kodiak Management Area[a].

FORECAST AREA: KODIAK, FRAZER LAKE

SPECIES: SOCKEYE SALMON

PRELIMINARY FORECAST OF THE 1989 RUN:

	Point	Range
Total Run:	537,000	302,000 - 910,000
Escapement Goal:	170,000	
Projected Catch:	367,000	132,000 - 740,000

FORECAST METHODS:

The 1989 forecast was calculated from a series of multiple regression equations using historic escapement-return relationships, smolt meristic information, and smolt age composition data. Each major age class in the forecast was estimated by a regression equation chosen to maximize the coefficient of determination. Each estimate was interpreted for reasonableness. After the first estimate was accepted, a second equation was developed with that estimate in the data base. This process was repeated until all age classes were estimated.

FORECAST DISCUSSION:

The forecast of 537,000 sockeye salmon for the Frazer run is 80% 5-year-old fish produced from the 1984 parent escapement of 54,000 fish, 15% 6-year-old fish produced from the 1983 parent escapement of 158,000 fish, 4% 4-year-old fish produced from the 1985 parent escapement of 486,000 fish, and 1% 3-year-old fish from the 1986 parent escapement of 127,000 fish.

This is the third year that a formal forecast has been prepared on the Frazer Lake sockeye run. The 1987 run was approximately 58,000 fish which was 54% lower than the forecasted 127,000 fish. The 1988 run was approximately 456,000 fish which was 33% higher than the forecasted 343,000 fish. The 1989 forecast of 537,000 fish is based on an additional year of data which should improve the reliability of the forecast model. However the 1989 run forecast is predominated by a single age class (80% 5-year-old fish) produced from a relatively low, 54,000 fish escapement. This tends to accentuate the likelihood that the 1989 run may be significantly different than the forecasted number. The forecast indicates that there will be about 21,000 4-year-old fish in the 1989 Frazer Lake run. To date all available smolt and escapement-return data indicates that the 1985 parent escapements of 486,000 fish will produce an insignificant number of 4-year-olds in 1989, 5-year-olds in 1990, and 6-year olds in 1991.

If the 1989 run materializes as predicted purse seine and gill net fishermen can expect to harvest about 367,000 Frazer Lake sockeye salmon in the Alitak Bay District.

[a] By Bruce M. Barrett, KMA Research Biologist, and B. Alan Johnson, Regional Biometrician, November 10, 1988.

Appendix C.8. Formal forecast of the 1989 sockeye salmon return to Ayakulik River, Kodiak Management Area[a].

FORECAST AREA: KODIAK, AYAKULIK RIVER (RED RIVER)

SPECIES: SOCKEYE SALMON

PRELIMINARY FORECAST OF THE 1989 RUN:

	Point Estimate	80% Prediction Interval
Total Run:	1,026,000	768,000 - 1,284,000
Escapement Goal:	50,000	
Projected Catch:	776,000	518,000 - 1,034,000

FORECAST METHODS:

The forecast was calculated through a series of multiple regression equations which used brood table information covering age-specific return data for the 1969-85 parent-year escapements into the Ayakulik River system. The equations used in the forecast were derived from relationships that had high correlations. All age-specific estimates were interpreted for reasonableness.

FORECAST DISCUSSION:

This marks the first year that a formal forecast of the Ayakulik River sockeye run has been prepared. The forecast of 1,026,000 sockeye salmon is 1% 3-year-olds, 55% 4-year-olds, 28% 5-year-olds, and 16% 6-year-olds. The average parent escapement for these age groups was 290,000 fish. The run forecast exceeds the average escapement by a factor of 3.5. This level is within the -.4:1 to 4.5:1 return-per-spawner range for the 1965 through 1982 Ayakulik River sockeye escapements but is markedly higher than the 1.5:1 return-per-spawner average for these escapements. The 1989 forecast for a higher than average production is partially derived from the recorded high 1988 run of precocious males or jacks.

If the 1989 run materializes as predicted commercial purse seine fishermen can expect to harvest about 776,000 Ayakulik River sockeye salmon in the Southwest Kodiak District.

[a] By Bruce M. Barrett, KMA Research Biologist, and B. Alan Johnson, Regional Biometrician, February 2, 1989.

Appendix D.1. Commercial finfish regulations for salmon and miscellaneous finfish, Kodiak Management Area, 1988-1989.

1988-1989
BRISTOL BAY AND WESTWARD ALASKA
COMMERCIAL FINFISH REGULATIONS
SALMON AND MISCELLANEOUS FINFISH

ALASKA DEPARTMENT OF FISH AND GAME

KODIAK AREA

CHAPTER 18.—KODIAK AREA

ARTICLE 1.—DESCRIPTION OF AREA

5 AAC 18.001. 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. 1 and 2 of this title.

5 AAC 18.100. DESCRIPTION OF AREA. The Kodiak Area includes all waters of Alaska south of a line extending east from Cape Douglas (58°52′ N.lat.), west of 150° W.long., north of 55°30′ N.lat.; and east of a line extending south from the southern entrance of Imuya Bay near Kilokak Rocks (156°20′13″ W.long.).

ARTICLE 2.—FISHING DISTRICTS

5 AAC 18.200. DESCRIPTION OF DISTRICTS AND SECTIONS. (a) Afognak District: all waters of Afognak and Shuyak Islands bounded by a line from Occident Point (57°57′25″ N. lat., 152°51′30″ W. long.), to Last Timber Point (57°58′50″ N. lat., 152°58′55″ W. long.), by the latitude of Dolphin Point on Whale Island (57°59′10″ N. lat.), by the latitude of Raspberry Cape (58°03′35″ N. lat.), by mid-stream Shelikof Straits, and by the latitude of Cape Douglas (58°52′ N. lat.);

(1) Raspberry Straits Section: all waters of Raspberry Straits bounded by the longitude of Dolphin Point on Afognak Island (153°09′ W. long.) and by a line from Head Point to Dolphin Point on Whale Island and a line from Occident Point to Last Timber Point;

(2) Southwest Afognak Section: all waters west of Afognak Island bounded by the latitude of Raspberry Cape, the longitude of Dolphin Point on Afognak Island (153°09′ W. long.) in Raspberry Straits, by the latitude of Cape Paramanof (58°18′20″ N. lat.), and by mid-stream Shelikof Strait;

(3) Northwest Afognak Section: all waters northwest of Afognak Island bounded by the latitude of Cape Paramanof, by a line extending along mid-stream Shuyak Straits and perpendicular to mid-stream Shelikof Strait to Cape Current (58°27′40″ N. lat., 159°29′10″ W. long.), and by mid-stream Shelikof Strait;

(4) Shuyak Island Section: all waters in the vicinity of Shuyak Island bounded by a line extending along mid-stream Shuyak Straits and perpendicular to mid-stream Shelikof Straits to Cape Current, north of a line from Cape Current to Posliedni Point (58°26′ N. lat., 152°19′30″ W. long.), west of the longitude of Posliedni Point, south of the latitude of Cape Douglas, and by mid-stream Shelikof Strait;

(5) Perenosa Bay Section: all waters of Perenosa Bay south of a line extending from Cape Current to Posliedni Point;

(6) Northeast Afognak Section: all waters northeast of Afognak Island bounded by the longitude of Posliedni Point and by the latitude of Pillar Cape (58°09′ N. lat.);

(7) Izhut Bay Section: all waters of Izhut Bay, excluding the Kitoi Bay Section, bounded by a line from Pillar Cape to Peril Cape (58°07′30″ N. lat., 152°16′20″ W. long.);

(8) Kitoi Bay Section: all waters of Kitoi Bay bounded by a line from 58°10′39″ N. lat., 152°17′13″ W. long. to 58°09′32″ N. lat., 152°18′36″ W. long.;

(9) Duck Bay Section: all waters of Duck Bay bounded by the latitude of Pillar Cape, by a line from Pillar Cape to Peril Cape, and by the latitude of Cape Kostromitinof (58°05′05″ N. lat.).

(b) Northwest Kodiak District: all waters of north and west Kodiak Island bounded by the latitude of Termination Point (57°51′15″ N. lat.), by the latitude of Dolphin Point on Whale Island (57°59′10″ N. lat.), by a line from Occident Point (57°57′25″ N. lat., 152°51′30″ W. long.) to Last Timber Point (57°58′50″ N. lat., 152°58′55″ W. long.), by the latitude of Raspberry Cape (58°03′35″ N. lat.), by the latitude of Rocky Point (57°39′45″ N. lat.), and by mid-stream Shelikof Strait;

(1) Anton Larsen Bay Section: all waters of Anton Larsen Bay south of 57°52′18″ N. lat.;

(2) Sheratin Bay Section: all waters of Sheratin Bay south of 57°51′09″ N. lat.;

(3) Kizhuyak Bay Section: all waters of Kizhuyak Bay south of 57°50′ N. lat.;

(4) Terror Bay Section: all waters of Terror Bay and Uganik Bay passages south of 57°50′ N. lat., and east of 153°12′36″ W. long.;

(5) Inner Uganik Bay Section: all waters of the South and East Arms of Uganik Bay south of a line from Rock Point at 57°46′30″ N. lat., 153°29′12″ W.long. to 57°46′20″ N. lat., 153°33′48″ W. long.;

(6) Spiridon Bay Section: all waters of Spiridon Bay east of the longitude of Hook Point (153°46′30″ W. long.);

(7) Zachar Bay Section: all waters of Zachar Bay east of a line from Carlsen Point at 57°34′48″ N. lat., 153°50′ W. long., to a point on the opposite shore at 57°35′42″ N. lat., 153°49′12″ W. long.;

(8) Uyak Bay Section: all waters of Inner Uyak Bay south of the latitude of the southernmost tip of Amook Island (57°25′45″ N. lat., 153°49′51″ W. long.) to the west shore, and south of the latitude of the northernmost tip of Amook Island (56°59′44″ N. lat., 154°01′42″ W. long.) to the east shore;

(9) Central Section: all waters of the Northwest Kodiak District bounded by a line from Termination Point (57°51′15″ N. lat., 152°24′ W. long.), to South Point (57°53′10″

N. lat., 152°22′ W. long), to Ouzinkie Point (57°54′50″ N. lat., 152°31′09″ W. long.), to Shakmanof Point (57°55′30″ N. lat., 152°35′15″ W. long.), to a point at 57°54′12″ N. lat. on the east shore of Kizhuyak Bay; north of 57°52′18″ N. lat. in Anton Larsen Bay; north of 57°51′09″ N. lat. in Sheratin Bay; north of 57°50′ N. lat., and south of the latitude of Inner Point (57°54′06″ N. lat.) in Kizhuyak Bay; west of a line from Inner Point (57°54′06″ N. lat., 152°47′40″ W. long.) to Bird Point (57°55′20″ N. lat., 152°47′25″ W. long.); south of a line from Occident Point (57°57′25″ N. lat., 152°51′30″ W. long.) to Last Timber Point (57°58′50″ N. lat., 152°58′58″ W. long.); south of the latitude of Raspberry Cape (58°03′35″ N. lat.); north of 57°50′ N. lat., and west of 153°12′36″ W. long. in Terror Bay and Uganik Bay passages; north of the line from Rock Point at 57°46′30″ N. lat., 153°29′12″ W. long. to 57°46′20″ N. lat., 153°33′48″ in the South and East Arms of Uganik Bay; west of the longitude of Hook Point (153°46′30″ W. long.) in Spiridon Bay; west of a line from Carlsen Point (57°34′48″ N. lat., 153°50′ W. long.) to 57°35′42″ N. lat., 153°49′12″ W. long. in Zachar Bay; all waters of Inner Uyak Bay north of the latitude of the southernmost tip of Amook Island to the west shore, and north of the latitude of the northernmost tip of Amook Island to the east shore; east of the latitude of Rocky Point (57°39′45″ N. lat.); and by mid-stream Shelikof Strait;

(10) North Cape Section: all other waters of the Northwest Kodiak District.

(c) Southwest Kodiak District: all waters southwest of Kodiak Island bounded by the latitudes of Rocky Point (57°39′45″ N. lat.) and Low Cape (56°59′35″ N. lat.), and by mid-stream Shelikof Strait;

(1) Outer Karluk Section: all waters west of Kodiak Island bounded by the latitude of Rocky Point, the latitude of Pafco Point (57°38′20″ N. lat.), and by mid-stream Shelikof Strait;

(2) Inner Karluk Section: all waters west of Kodiak Island bounded by the latitude of Pafco Point, the latitude of Cape Karluk (57°34′42″ N. lat., 154°30′54″ W. long.), and by mid-stream Shelikof Strait;

(3) Sturgeon Section: all waters southwest of Kodiak Island bounded by the latitude of Cape Karluk, the latitude of Sturgeon Head (57°30′40″ N. lat., 154°37′20″ W. long.), and by mid-stream Shelikof Strait;

(4) Halibut Bay Section: all waters southwest of Kodiak Island bounded by the latitude of Sturgeon Head, the latitude of Cape Ikolik (57°17′26″ N. lat., 154°47′20″ W. long.) and by mid-stream Shelikof Strait;

(5) Outer Ayakulik Section: all waters southwest of Kodiak Island bounded by the latitude of Cape Ikolik, the longitude of Old Red River (stream No. 256-202) (154°37′12″ W. long.), and by mid-stream Shelikof Strait;

(6) Inner Ayakulik Section: all waters southwest of Kodiak Island bounded by the longitude of Old Red River (stream No. 256-202) (154°37′12″ W. long.) and the latitude of Low Cape (56°59′35″ N. lat.).

(d) Alitak Bay District: all waters south of Kodiak Island bounded by the latitude of Low Cape, the latitude of Cape Trinity (56°44'50" N. lat.), and by mid-stream Shelikof Strait;

(1) Cape Alitak Section: all waters bounded by the latitude of Low Cape, the latitude of Cape Trinity, by mid-stream Shelikof Strait, by a line from Cape Trinity (56°44'50" N. lat., 154°08'45" W. long.) to Middle Reef (56°54' N. lat., 154°03' W. long.), and by a line from Middle Reef to Tanner Head at 56°53'14" N. lat., 154°13'38" W. long.;

(2) Humpy-Deadman Section: all waters of Alitak Bay east of a line from Cape Trinity, to Middle Reef, to the southernmost tip of Fox Island (56°59'09" N. lat., 154°01'58" W. long.), and from the northernmost tip of Fox Island (56°59'44" N. lat., 154°01'42" W. long.), to 57°01'09" N. lat., 154°00'51" W. long., to the Moser Peninsula at 57°01'10" N. lat., 154°01' W. long.;

(3) Moser-Olga Bay Section: all waters of Moser and Olga Bays bounded by a line from Tanner Head (56°53'14" N. lat., 154°13'38" W. long.), to Middle Reef (56°54' N. lat., 154°03' W. long.), to the southernmost tip of Fox Island (56°59'09" N. lat., 154°01'58" W. long.), and from the northernmost tip of Fox Island (56°59'44" N. lat., 154°01'42" W. long.), to 57°01'09" N. lat., 154°00'51" W. long., to the Moser Peninsula at 57°01'10" N. lat., 154°01' W. long., and by a line from Stockholm Point (57°07'40" N. lat., 154°06'36" W. long.) to the opposite shore at 57°07'40" N. lat., 154°04'50" W. long., excluding the Dog Salmon Flats section;

(4) Dog Salmon Flats Section: all waters of Lower Olga Bay northeast of a line from 57°06'27" N. lat., 154° W. long. to the opposite shore at 57°07'33" N. lat., 154°03' W. long.;

(5) Outer Upper Station Section: all waters of Upper Olga Bay south of a line from 57°07'40" N. lat., 154°23'06" W. long., to 57°07'49" N. lat., 154°06'36" W. long., to Stockholm Point, excluding the Inner Upper Station Section;

(6) Inner Upper Station Section: all waters of Upper Olga Bay south of a line from 57°03'27" N. lat., 154°23'27" W. long. to 57°04'12" N. lat., 154°20'33" W. long.;

(7) Outer Akalura Section: all waters of Upper Olga Bay north of a line from 57°07'40" N. lat., 154°23'06" W. long., to 57°07'49" N. lat., 154°06'36" W. long., to Stockholm Point, excluding the Inner Akalura Section.

(8) Inner Akalura Section: all waters of Upper Olga Bay north of a line from 57°08'40" N. lat., 154°15'18" W. long. to 57°18'45" N. lat., 154°10'54" W. long.

(e) Eastside Kodiak District: all waters south and east of Kodiak Island bounded by the latitude of Cape Trinity (56°44'50" N. lat.), by the latitude of Cape Chiniak (57°37' N. lat.), and by mid-stream Shelikof Strait;

(1) Seven Rivers Section: all waters east of Kodiak Island bounded by the latitude of Cape Trinity, by the latitude of Boot Point (56°50' N. lat.) and a line extending seaward

144° from Cape Kasiak (57°04' N. lat., 153°29'38" W. long.), and by mid-stream Shelikof Strait;

(2) Two-Headed Section: all waters east of Kodiak Island bounded by the latitude of Boot Point and by a line extending seaward 144° from Cape Kasiak;

(3) Sitkalidak Section: all waters east of Kodiak Island bounded by a line extending seaward 144° from Cape Kasiak and by the latitude of Dangerous Cape (57°16'36" N. lat.);

(4) Inner Ugak Bay Section: all waters of Ugak Bay west of the longitude of Gull Point (152°06'W. long.);

(5) Outer Ugak Bay Section: all waters of Kodiak Island bound by the longitude of Gull Point, the latitude of Dangerous Cape, and the latitude of Cape Chiniak (57°37' N. lat.).

(f) Northeast Kodiak District: all waters northeast of Kodiak Island bounded by the latitude of Cape Chiniak (57°37' N. lat.), and the latitude of Termination Point (57°51'15" N. lat.);

(1) Outer Chiniak Bay Section: all waters north of Kodiak Island bounded by the latitude of Cape Chiniak and the longitude of Isthmus Point (152°19'30" W. long.);

(2) Inner Chiniak Bay Section: all waters of Chiniak Bay bounded by the longitude of Isthmus Point and the latitude of Spruce Cape (57°49'36" N. lat.), excluding the Buskin River Section;

(3) Buskin River Section: all waters of Chiniak Bay west of a line from Cliff Point (57°43'30" N. lat., 152°26'45" W. long.) to Spruce Cape (57°49'36" N. lat., 152°19'24" W. long.);

(4) Monashka/Mill Bay Section: all waters north of Kodiak bounded by the latitude of Spruce Cape and the latitude of Termination Point.

(g) Mainland District: all waters along the southside of the Alaska Peninsula bounded by the latitude of Cape Douglas (58°52' N. lat.), mid-stream Shelikof Strait, and west of the longitude of the southern entrance of Imuya Bay near Kilokak Rocks (57°11'22" N. lat., 156°20'13" W. long.);

(1) Big River Section: all waters bounded by the latitude of Cape Douglas, the latitude Cape Chiniak on the mainland (58°31' N. lat.), and by mid-stream Shelikof Strait;

(2) Hallo Bay Section: all waters of Hallo Bay bounded by the latitude of Cape Chiniak on the mainland, the latitude of Cape Nukshak (58°23'30" N. lat.), and by mid-stream Shelikof Strait;

(3) Outer Kukak Bay Section: all waters bounded by the latitude of Cape Nukshak and the latitude of Cape Gull (58°13′ N. lat.), excluding the Inner Kukak Section;

(4) Inner Kukak Bay Section: all waters of Kukak Bay west of 154°11′ W. long.;

(5) Dakavak Bay Section: all waters bounded by the latitude of Cape Gull, the latitude of the southern entrance of Dakavak Bay (58°01′ N. lat.), and by mid-stream Shelikof Strait;

(6) Katmai Section: all waters bounded by the latitude of the southern entrance of Dakavak Bay, the latitude of Cape Kubugakli (57°53′30″ N. lat.), and by mid-stream Shelikof Strait;

(7) Alinchak Section: all waters bounded by the latitude of Cape Kubugakli, the latitude of Cape Aklek (57°41′24″ N. lat.), and by mid-stream Shelikof Strait;

(8) Cape Igvak Section: all waters bounded by the latitude of Cape Aklek (57°41′24″ N. lat.), the longitude of the southern entrance of Imuya Bay near Kilokak Rocks (156°20′13″ W. long.), and by mid-stream Shelikof Strait, excluding the Wide Bay Section;

(9) Wide Bay Section: all waters of Wide Bay enclosed by a line from Cape Kayakliut (57°17′35″ N. lat., 156°19′ W. long.) to the easternmost tip of Terrace Island at 156°15′ N. lat., to Cape Igvak (57°26′ N. lat., 156°01′ W. long.).

5 AAC 18.201. SEAWARD BOUNDARY OF DISTRICTS. The seaward boundary of districts and sections in Shelikof Straits is a line all points of which are equidistant from the east and west shore of Shelikof Strait.

ARTICLE 3.—SALMON FISHERY

5 AAC 18.310. FISHING SEASONS. (a) Salmon may be taken only from June 5 through October 31.

5 AAC 18.320. FISHING PERIODS. (a) Salmon may be taken only during periods established by emergency order.

5 AAC 18.330. GEAR. (a) In the Afognak District salmon may be taken only by purse seines and beach seines.

(b) In the Northwest Kodiak District salmon may be taken only by purse seines and beach seines, except that in the Central Section, salmon may also be taken by set gill nets.

(c) In the Southwest Kodiak District salmon may by taken only by purse seines and beach seines.

(d) In the Alitak District salmon may be taken only by purse seines and beach seines except that:

(1) in the Moser-Olga Bay Section salmon may be taken only by set gill nets;

(2) in the Dog Salmon Flats Section salmon may be taken only by set gill nets;

(3) in the Outer Upper Station Section salmon may be taken only by set gill nets;

(4) in the Inner Upper Station Section salmon may be taken only by set gill nets;

(5) in the Outer Akalura Section salmon may be taken only by set gill nets;

(6) in the Inner Akalura Section salmon may be taken only by set gill nets;

(7) after September 4, salmon may also be taken by purse seines and beach seines in the entire Alitak District.

(e) In the East Kodiak District salmon may be taken only by purse seines and beach seines.

(f) In the Northeast Kodiak District salmon may be taken only by purse seines and beach seines.

(g) In the Mainland District salmon may be taken only by purse seines and beach seines.

5 AAC 18.331. GILL NET SPECIFICATIONS AND OPERATIONS. (a) Except as provided for in (e) of this section. A CFEC permit holder may operate no more than 150 fathoms of set gill net in the aggregate, nor more than two set gill nets.

(b) Seine webbing may be used on the shoreward end of a set gill net and the length of the seine webbing used may extend no more than 50 fathoms seaward of the beach at the lowest tide of the current day, except that

(1) in the Moser-Olga Bay, Inner Dog Salmon, Inner Akalura, Outer Akalura, Outer Upper Station, and Inner Upper Station Sections of the Alitak District, seine webbing may be used only from the high tide mark seaward, and no portion of the seine web may be in water deeper than five feet at the lowest tide of the current day;

(2) in that portion of the Moser-Olga Bay Section of the Alitak District south of a line from Bun Point to the opposite shore at 56°57′59″ N. lat., 154°07′35″ W. long., seine webbing may be used only from the high tide mark seaward, and must meet one of the following requirements:

(A) no portion of the seine web may be in water deeper than five feet at the lowest tide of the current day; or

(B) the length of seine webbing used may be no more than 20 fathoms per set.

(c) Set gill nets must be operated in substantially a straight line, except that no more than 25 fathoms of a set gill net may be used as a hook. A hook may be used in any configuration.

(d) The shoreward end of a set gill net must be attached to a point of land which is exposed at the lowest tide of the day or to a rock which is within 5 feet of the surface at the lowest tide of the day. A rock is any naturally located or created geological formation which shows no evidence of having been located or created through man-made means. A set gill net may not be attached to the beach inside of closed waters.

(e) Two salmon set gill net CFEC permit holders may form a joint venture and combine their gear under the following conditions:

(1) a permit must be obtained from a local representative of the department before a joint venture may start operations;

(2) only one permit per year will be issued for each joint venture;

(3) the permit must be signed by both CFEC permit holders and each must have a copy of the permit readily available for inspection;

(4) the permit may be canceled by the department upon the request of one of the joint venture operators;

(5) the gear and site markers required by 5 AAC 39.280 must bear the five-digit CFEC permit serial number of both permit holders;

(6) no single set gill net may be more than 150 fathoms in length;

(7) no joint venture may operate more than three set gill nets; and

(8) both parties of the joint venture are legally responsible for the operation of all gear of the joint venture.

(f) No set gill net gear, including but not limited to running lines, shore leads, anchors, and buoys, may be placed in the water nor may signs be placed on the beach prior to emergency order openings of the closed waters areas of Upper Olga Bay described in 5 AAC 18.350(a)(1)(B)(i).

5 AAC 18.332. SEINE SPECIFICATIONS AND OPERATION. (a) No purse seine and hand purse seine may be less that 100 fathoms or more than 200 fathoms in length. No seine may be less than 100 meshes in depth. At least 50 fathoms of a seine must be 150 meshes in depth.

(b) One lead no more than 100 fathoms in length may be used with each purse seine or hand purse seine. The aggregate length of a seine and lead may not exceed 250 fathoms. Leads must be removed from the water within two hours after a season or fishing period closure. Each lead must have at each end a buoy, cork, or float plainly and legibly marked with the operator's five-digit CFEC permit serial number.

(c) Beach seines no less than 100 fathoms nor more than 225 fathoms in length may be used.

(d) Beach seines may not be less than 100 meshes in depth.

(e) When an anchor is used during the operation of a purse seine, hand purse seine or beach seine, only the shoreward end of the seine or lead may be anchored; the seine shall be attached to the licensed vessel, and the vessel may not be anchored.

(f) In the Mainland District, it is unlawful to take salmon with the assistance of an aircraft directing the operation of the seine gear.

5 AAC 18.335. MINIMUM DISTANCE BETWEEN UNITS OF GEAR. No part of a set gill net may be set or operated within 900 feet of any part of another set gill net, or be attached to the beach within 900 feet of another net, except that in the Dog Salmon Flats, Outer Upper Station, Inner Upper Station, Outer Akalura, and Inner Akalura Sections there is not minimum distance between units of set gill net gear.

5 AAC 18.350. CLOSED WATERS. (a) Salmon may not be taken in the following waters:

(1) Alitak District.

(A) Humpy Cove: all waters east of a line from the northern entrance of Seaborg Cove at 56°53'45" N.lat., 153°58'48" W.long., to a point approximately two and three-quarters miles northeast of Hawk Point at 56°51' N.lat., 154°03'39" W.long.;

(B) Olga Bay.

(i) Upper Olga Bay: north and west of a line from Stockholm Point at 57°07'40" N.lat., 154°06'36" W.long., to the opposite shore at 57°07'40" N.lat., 154°04'50" W.long.;

(ii) Horse Marine: northeast of a line from 57°06'27" N.lat., 154° W.long.; to 57°07'33" N.lat., 154°03' W.long.;

(iii) Olga Narrows: south of 57°04'23" N.lat., and north of a line from 57°01'27" N.lat., 154°08'32" W.long. running east to a point 75 fathoms from the mean low tide mark to 57°11" N.lat., 154°07'58" W.long.;

(C) Portage Bay

(i) Southeast Arm: east of the longitude of Bert Point;

(ii) Sulua Bay: north of 56°58'36" N.lat.;

(D) Deadman Bay: north of a line from 57°05'30" N.lat., 153°50'54" W.long., to 57°07'05" N.lat., 153°51'44" W.long.;

(E) Sukhoi Lagoon: in the bay and the lagoon;

(2) Southwest Kodiak District

(A) all waters east of the terminus of the Ayakulik River (Red River);

(B) all waters east of the terminus of the unnamed stream at 57°16'21" N.lat., 154°37'10" W.long.;

(C) all waters east of a line from 57°33'48" N.lat., 154°30'54" W.long., to 57°31'26" N.lat., 154°34'36" W.long., including Sturgeon Lagoon;

(D) all waters of Grant's Lagoon and Halibut Bay Lagoon;

(E) that portion of the Southwest Kodiak District enclosed by a line from Cape Karluk (57°34'42" N. lat., 154°30'54" W. long.), to 57°34'42" N. lat., 154°26'36" W. long., to Karluk Spit at 57°34'37" N. lat., 154°26'30" W. long.;

(5) Northwest Kodiak District

(A) Uyak Bay: south of 57°23'06" N.lat.;

(B) Zachar Bay: within a line from 57°33'36" N.lat., 153°47'42" W.long. Northerly to a point at 57°34'36" N.lat., 153°47'30" W.long.;

(C) Spiridon Bay: east of 153°42'24" W.long.;

(D) Little River: within 500 yards of the terminus;

(E) Cannon's Lagoon (Cambell's): in the lagoon and 500 yards from its mouth;

(F) Uganik Bay

(i) South Arm: south of 57°39'44" N.lat.;

(ii) East Arm (Mush Bay): within a line from Packers Spit at 57°44'30" N.lat., 153°29'54" W.long., the opposite shore at 57°42'30" N.lat., 153°28'36" W.long., and including the lagoon behind Packers Spit;

(G) North Uganik Passage: south of 57°49'30" N.lat., to 57°48'30" N.lat.;

(H) Terror Bay: all waters of the bay south of 57°46'30" N.lat.;

(I) Kizhuyak Bay

(i) Barabara Cove: within one-half statute mile of the stream terminus;

(ii) all waters south of a line extending from Pestchani Point to a point on the opposite shore at 57°47' N.lat., 152°54' W.long.;

(J) Sharatin Bay: south of 57°50'41" N.lat.;

(K) Soldier's Bay: within a line from Otmeloi Point to Entrance Point to the southern tip of Low Island to Seredni Point;

(L) Anton Larsen Bay: south of 57°51'54" N.lat.;

(M) Ouzinkie Harbor: all waters of Ouzinkie Harbor north of a line from 57°55'10" N. lat., 152°36' W. long. to 57°55'03' N. lat., 152°29'20" W. long.;

(N) Monks Lagoon: all waters of the lagoon northwest of a line between ADF&G regulatory markers located on both sides of the entrance to the lagoon;

(6) Northeast Kodiak District

(A) Mill Bay and all those waters bounded by a line from Spruce Cape to the northernmost point of Woody Island, to the northernmost point of Holiday Island, to the northernmost point of Near Island, to the opposite shore on Kodiak Island at 57°47'25" N.lat., 152°23'23" W.long.;

(B) Women's Bay: all waters inside a line from the tip of Nyman Peninsula (57°43'18" N. lat., 152°31'25" W. long.), to the northeastern tip of Mary's Island (57°42'27" N. lat., 152°31'52" W. long.) to the southeastern shore of Women's Bay at 57°42' N. lat., 152°31'23" W. long.;

(C) Middle Bay: all waters south of a line from 57°39'58" N.lat., 152°29'15" W.long., to the opposite shore at 57°39'30" N.lat., 152°28' W.long.;

(D) Kalsin Bay: all waters south of a line from a bluff on the east shore at 57°36'30" N.lat.,
152°24'30" W.long., to the opposite shore at the southwest corner of the bay at 57°36'30" N.lat., 152°28'06" W.long.;

(7) Eastside Kodiak District

(I) Ugak Bay

(i) west of 152°52'30" W.long.;

(ii) Eagle Harbor: within one-half statute mile of the terminus of Eagle River;

(iii) Gull Cape Lagoon: in the lagoon;

(iv) Saltery Cove: all waters north of a line from a point at 57°29' N.lat., 152°43'06" W.long., to a point on the opposite shore at 57°29'48" N.lat., 152°47'42" W.long.;

(v) Pasagshak River (No. 259-411): within 1000 yards from the terminus;

(J) Kiliuda Bay

(i) west of 153°03'36" W.long.;

(ii) Dog Bay: north of a line from Coxcomb Point to Shearwater Point;

(K) Shearwater Bay: north of a line from 57°20'23" N.lat., 152°52'47" W.long., to 57°20'45" N.lat., 152°53'30" W.long.;

(L) Sitkalidak Strait: north of a line at the latitude of Old Harbor Village (57°12'06" N. lat.) and west of 153°12'48" W.long.;

(M) Barling Bay: inside a line from 57°10'45" N.lat., 153°21'47" W.long., to 57°11'27" N.lat., 153°20'24" W.long.;

(N) Kaiugnak Bay: west of 153°39'32" W.long.;

(O) Kiavak Bay: in the lagoon and 500 yards from its mouth;

(P) Kaguyak Bay: west of 153°45'07" W.long.;

(Q) Seven Rivers Cove (includes stream no. 258-701): west of a line from 56°47'30" N.lat., 153°52'36" W.long. to 56°46'54" N.lat., 153°54' W.long.;

(R) Natalia Bay Lagoon: in the lagoon inside of 153°19'06" W.long.;

(8) Afognak District

(A) Kazakof Bay (Danger Bay): north of 58°10'54" N.lat.;

(B) Kitoi Bay: west of a line from 58°10'39" N.lat., 152°17'13" W.long., to 58°09'32" N.lat., 152°18'36" W.long.;

(C) Ruth Bay (Izhut): west of 152°18'33" W.long.;

(D) Seal Bay: south of 58°21'38" N.lat., in the inner West Bay;

(E) Pauls Bay (Perenosa): within one-half statute mile of the terminus of Pauls Creek;

(F) Discoverer Bay: south of 58°19'06" N.lat.;

(G) Paramanof Bay

(i) East Arm: east of 152°45' W.long.;

(ii) South Arm: south of 58°15'57" N. lat.;

(iii) Thorsheim Bay (includes stream no. 251-302): south of a line from 58°17'12" N.lat., 152°50'24" W.long. to 58°17'08" N.lat., 152°50'42" W.long.

(iv) Long Lagoon Bay (includes stream no. 251-301): south of a line from 58°16'28" N.lat., 152°53'21" W.long. to 58°16'24" N.lat., 152°53'11" W.long.

(H) Malina Bay: east of 152°55' W.long.;

(I) Afognak Bay: north of a line from Otrubistoi Point to Settlement Point;

(9) Mainland District

(A) Swikshak Lagoon: all waters of the lagoon;

(B) Kukak Bay: all waters west of a line from a point at 58°18'52" N.lat., 154°16'32" W.long., then to a point at 58°18'45" N.lat., 154°16'05" W.long., then to a point at 58°17'18" N.lat., 154°17'23" W.long., then to a point at 58°15'56" N.lat., 154°16'29" W.long.

(C) Kaflia Bay: within one statute mile outside the entrance of the outer lagoon;

(D) Wide Bay: west of a line from 156°28'42" W.long., 57°17'55" N.lat., to 156°31'59" W.long., 57°19'48" N.lat.;

(E) Chiniak Lagoon Creek (stream no. 262-154): all waters enclosed by a line from Cape Chiniak (58°31' N.lat., 153°54'30" W.long.) to a point on Village Beach approximately 500 yards from the entrance to Chiniak Lagoon;

(F) all waters of Big River (stream no. 262-152) flats west of 153°52'20" W.long.

(G) Hallo Bay

(i) Ninagiak River: inside of a line running in a southeasterly direction from a point approximately 500 yards north of the stream terminus and a line running in an easterly direction from a point approximately 500 yards south of the stream terminus:

(ii) unnamed stream (ADF&G stream no. 262-203): inside of a line running in an easterly direction from a point approximately 500 yards north of the stream terminus and a line running in a northeasterly direction from a point approximately 500 yards south of the stream terminus;

(H) Village Creek (stream no. 262-153): between two parallel lines that start at points located at higher high water beginning at approximately 500 yards north and 500 yards south of the stream terminus and extend east to mid-stream of Shelikof Strait;

(I) Kinak Bay (Kinak Creek, no. 262-451): in the lagoon and 500 yards from its mouth;

(10) within the designated freshwater salmon streams and rivers of the Kodiak Area, and all saltwater within 500 yards of all points of a straight line extending between the seaward extremities of the exposed tideland banks, or as marked by ADF&G regulatory markers. The provisions of 5 AAC 39.290 do not apply to the Kodiak Area. Freshwater salmon streams and rivers are those identified annually on a Kodiak Area Salmon Stream Chart available from the department.

(b) Where regulatory markers have been deployed by the department to aid fishermen in determining closed waters locations listed in this section, the markers will be placed either as close as possible to the described locations or in a location deemed necessary by the department. If the location of a regulatory marker is in conflict with the closed waters listed in this section, it is illegal to fish on the streamward side of the marker.

5 AAC 18.355. SALMON PROCESSOR AND BUYER REPORTING REQUIREMENTS. 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.

5 AAC 18.360. CAPE IGVAK SALMON MANAGEMENT PLAN. (a) In years when a harvestable surplus is beyond escapement goals, for the first (Black Lake) and second (Chignik Lake) runs of Chignik River system sockeye salmon is expected to be less than 600,000, there will be no commercial salmon fishery allowed in the Cape Igvak section, as described in 5 AAC 18.200(i)(2) until a harvest of 300,000 sockeye salmon in the Chignik Area, as described in 5 AAC 15.100, is achieved. After July 8, and after at least 300,000 sockeye salmon have been harvested in the Chignik area, and if escapement goals are being met, the department shall manage the fishery so that the number of sockeye salmon harvested in the Chignik Area will be at least 600,000 and the harvest in the Cape Igvak Section will approach as near as possible 15 percent of the total Chignik sockeye salmon catch.

(b) In years when a harvestable surplus beyond escapement goals for the first and second runs of Chignik River system sockeye salmon is expected to be more than 600,000, but the first run fails to develop as predicted and it is determined that a total sockeye salmon harvest in the Chignik Area of 600,000 or more may not be achieved, the Cape Igvak section commercial salmon fishery will be curtailed in order to allow at least a minimum harvest in the Chignik Area of 300,000 sockeye salmon by July 9 if that number of fish is determined to be surplus to the escapement goals of the Chignik River system. After July 8, after at least 300,000 sockeye salmon have been harvested in the Chignik Area and its escapement goals are being met, the department shall manage the fishery so that the number of sockeye salmon harvested in the Chignik Area will be at least 600,000 and the harvest in the Cape Igvak Section will approach as near as possible 15 percent of the total Chignik sockeye salmon catch.

(c) On years when a harvestable surplus beyond the escapement goals for the first and second runs of Chignik River system sockeye salmon is expected to be more than 600,000, and the department determines the runs are as strong as expected, the department will manage the fishery in such a manner whereby the number of sockeye salmon taken in the Cape Igvak Section will approach as near as possible 15 percent of the total Chignik sockeye salmon catch.

(d) The total Chignik sockeye salmon catch constitutes those sockeye salmon caught within the Chignik area plus 80 percent of the sockeye salmon caught in the East Stepovak, West Stepovak, Balboa Bay, and Beaver Bay Sections, as described in 5 AAC 09.200 (e) and (f), plus 80 percent of the sockeye salmon caught in the Cape Igvak Section. The harvest in the Cape Igvak Section at any time before July 25 may be permitted to fluctuate above or below 15 percent of the cumulative Chignik sockeye salmon catch.

(e) This allocation method will be in effect through July 25. The first fishing period of the commercial salmon fishing season in the Cape Igvak Section will not occur before the first fishing period of the commercial salmon fishing season in the Chignik Area. After July 25, commercial salmon fishing season in the Cape Igvak section may be allowed on the local Kodiak Area stocks or specifically for Chignik River system sockeye salmon if the second run escapement has reached 200,000.

(f) During the period from approximately June 26 to July 9, the strength of the second run of Chignik River system sockeye salmon cannot be evaluated. In order to prevent overharvest of the second run, commercial salmon fishing in the Cape Igvak Section will, in the department's discretion, be disallowed or severely restricted during this period.

(g) The department shall announce commercial salmon fishing periods by emergency order. The department shall give at least one day notice prior to the opening of a commercial salmon fishing period unless it is an extension of a fishing period in progress.

5 AAC 18.361. ALITAK BAY DISTRICT SALMON MANAGEMENT PLAN. (a) The department shall manage the commercial salmon fishery in the Alitak Bay District in accordance with the guidelines set out in the Alitak Bay District Salmon Management Plan. The goal of this plan is to achieve escapement and harvest objectives of sockeye, pink, and coho salmon stocks returning to the Deadman-Portage Bay Section systems and the Horse Marine, Fraser, Akalura, and Upper Station systems. It is the intent of the board that salmon bound to these systems be harvested to the extent possible by the traditional fisheries located in the Cape Alitak, Deadman-Portage Bay, and Moser-Olga Bay Sections.

(b) The Cape Alitak Section will be managed during the period June 9 through July 15 based on the sockeye salmon return to the Fraser system. During the period July 16 through August 9, in odd numbered years this section will be managed based on the pink salmon return to the Fraser system and, in even numbered years this section will be managed based on the sockeye salmon return to Upper Station. During the period August 10 through August 25, this section will be managed based on the sockeye salmon return to Upper Station but, on even numbered years this section may be managed based on the pink salmon return to the Fraser system. During the period August 26 through season's end,

the Cape Alitak Section will be managed based upon the coho and sockeye salmon returns to the entire Alitak District.

(c) The Moser-Olga Bay Section will be managed, during the period June 9 through July 15, based upon the sockeye salmon return to the Fraser system. During the period July 16 through August 9, on odd numbered years this section will be managed based on the pink salmon return to the Fraser system and, on even numbered years this section will be managed based on the sockeye salmon return to Upper Station. During the period August 10 through August 25, on odd numbered years this section will be managed on the sockeye salmon return to Upper Station and, on even numbered years this section will be managed based on either the pink salmon return to the Fraser system or on the sockeye salmon return to the Upper Station system. During the period August 26 through season's end this section will be managed based on the coho and late sockeye salmon returns to all Olga Bay systems.

(d) The Humpy-Deadman Section will be managed simultaneously, and with equivalent fishing time, with the Cape Alitak and Moser-Olga Bay Sections during the period from June 9 through July 15. After July 15, the Humpy-Deadman Section will be managed based on the strength of returns to systems located within the section.

(e) The Dog Salmon Flats Section will be managed on the basis of sockeye and pink salmon returns to the Fraser River system during the period of June 9 through August 20. During the period of August 21 through season's end this section will be managed on the basis of coho salmon returns to the Dog Salmon River and Horse Marine systems. This section may only be opened to fishing when total desired escapement goals are expected to be exceeded. Such openings should not jeopardize achievement of minimum escapement goals for either of the two remaining salmon species. A 24 hour advance notice will be given before opening this section.

(f) The Inner and Outer Akalura Sections will be managed based on early and late returns of sockeye salmon to the Akalura system during the period from June 9 through August 20. From August 21 through August 26, these sections will be managed based on coho and late sockeye salmon returns to the Akalura system. After August 26, both sections will be managed based on coho salmon returns to the Akalura system. The Inner and Outer Akalura Sections may be opened to fishing only when desired escapement goals are expected to be exceeded. Such openings should not jeopardize achievement of minimum escapement goals for other salmon species. Fishing time in the Outer Akalura Section will always occur before any fishing time in the Inner Akalura Section is allowed for each target species. At least 24 hours advance notice will be given before opening either the Inner or Outer Akalura Sections.

(g) The Inner and Outer Upper Station Sections will be managed based on early and late returns of sockeye salmon to the Upper Station system during the period from June 9 through August 20. From August 21 through August 25, these sections will be managed based on coho and late sockeye salmon returns to the Upper Station system. After August 26, both sections will be managed based on coho and late sockeye salmon returns to the Upper Station system. The Inner and Outer Upper Station Sections may be opened to fishing only when desired escapement goals are expected to be exceeded. Such openings should not jeopardize achievement of minimum escapement goals for the other salmon species. Fishing time in the Outer Upper Station Section will always occur before any fishing time in the Inner Upper Station Section is allowed for each target species. At least 24 hours advance notice will be given before opening of either the Inner or Outer Upper Station Sections.

5 AAC 18.394. POSSESSION OF STEELHEAD. Steelhead taken incidental to commercial salmon fishing in Karluk Lagoon must be returned to the water unharmed.

ARTICLE 4.—BOTTOMFISH FISHERY

5 AAC 18.410. FISHING SEASON. There is no closed season on bottomfish.

5 AAC 18.430. GEAR. Bottomfish may be taken by sunken gill nets under the authority of a permit issued by the commissioner or a local representative of the department. The permit may specify open areas, fishing periods, gear specifications and operating specifications, and may require completion by the vessel operator of a log book provided by the department.

5 AAC 18.450. CLOSED WATERS. (a) From June 1 through October 31, bottomfish may not be taken by seines in waters listed in 5 AAC 18.350.

(b) Rockfish (genus Sebastes) may not be taken in waters of Monashka Bay inside of a line from the tip of Termination Point to the tip of Miller Point.

ARTICLE 5.—SMELT FISHERY

5 AAC 18.510. FISHING SEASON. There is no closed season on smelt.

Appendix E.1. "Memorandum of Understanding" (MOU) between ADF&G and Alaska Department of Environmental Conservation (ADEC), Kodiak Management Area, 1989.

I. PREAMBLE

On March 24, 1989, the oil tanker EXXON VALDEZ ran aground, spilling more than 10,500,000 gallons of crude oil into the waters of Prince William Sound. The spilled oil has spread and continues to spread from Prince William Sound through the western Gulf of Alaska. The spilled oil has polluted and contaminated and continues to pollute and contaminate state waters and shoreline. The affected waters support productive fisheries which are of immense economic and social value to the State of Alaska and its citizens.

The State of Alaska, through the Department of Fish and Game, is charged with managing fishery resources and fisheries. Management directives and goals include: 1) to protect, maintain, improve, and extend fishery resources; 2) to avoid depletion or waste of fishery resources; 3) to conduct fishing in state waters in an orderly fashion which promotes conservation, development, and utilization of fishery resources; and 4) to preserve the economic stability of the state's fishing industry.

The State of Alaska, through the Department of Environmental Conservation, is charged with protecting the environment and the health, safety, welfare, and economic and social well-being of the public. Public protection directives and goals include: 1) to conserve, improve, and protect natural resources from oil pollution; and 2) to ensure that fish marketed from state waters are pure, safe, wholesome, unadulterated, and free from any taint of oil contamination.

Oil pollution (as defined in AS 46.03.900(19)) in waters or on shorelines in or adjacent to an area where a fishery is conducted poses a risk of adulterating fisheries resources and spreading oil pollution. Oil contamination also poses a risk of disruption of fisheries, including alteration of traditional fishing patterns and Board of Fisheries' adopted fisheries management plans, by causing fouling of fishing gear, by causing loss of fishing time, by causing strains on the ability of industry to supply sufficient amounts of uncontaminated gear to vessels, by causing fishermen who are unable to acquire uncontaminated gear or vessels to forego their livelihoods, and by causing waste of fishery resources that have become adulterated by oil pollution in the water or by contact with oil contaminated gear or vessels.

If oil adulterated fish are introduced into fish processing facilities, it could cause disruption of fisheries and waste of fish product because processing activities would have to be suspended while oil contaminated processing equipment was cleaned, maintained, and inspected. Additional waste and adulteration of fish product could occur if uncontaminated fish were exposed to oil contaminated fish or equipment.

Therefore, in order to carry out the management and public protection directives and goals with which the Department of Fish and Game and the Department of Environmental Conservation are charged, the respective departments agree to conduct the following activities during the 1989 commercial fishing season.

II. ALASKA DEPARTMENT OF FISH AND GAME

The Alaska Department of Fish and Game (ADF&G) will undertake the following activities in areas which have been polluted by oil:

A. ADF&G will conduct, and document the results of, aerial surveys or beach surveys in potential fishing districts, sections, subareas, or other areas as defined by ADF&G (hereinafter "areas") before the initial fishery opening in an area in order to ascertain whether oil pollution is present and to document the character and general location of the oil. ADF&G will provide the Department of Environmental Conservation (DEC) with the results of the surveys.

B. ADF&G will monitor oil contamination in potential fishing areas using oil spill tracking maps provided by DEC and survey information developed by ADF&G.

C. ADF&G will conduct test fisheries before the initial fishery opening in potential fishing areas which have been polluted by oil, even if there is no current discernible presence of oil, and will provide samples of test fishery catches to DEC for evaluation.

1. If requested, ADF&G will assist in providing transportation for DEC inspectors to and from test fishing vessels.
2. Test fishing will be conducted according to the test fishery sampling plans developed in individual fishery management areas.
3. ADF&G may conduct additional test fishing in a previously tested or previously fished area if there is reason to believe that weather or other variables may have resulted in oil or an oil sheen entering the area.

III. ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

The Alaska Department of Environmental Conservation (DEC) will undertake the following activities:

A. DEC will evaluate commercial fishery catches to ensure that seafood safety and product wholesomeness is maintained. In order to accomplish this, DEC will undertake an intensive inspection program which will have requirements for fishing vessels, tender vessels, buying stations, and processing facilities.

B. DEC will enforce the emergency regulations, 18 AAC 34.500 et seq., which establish emergency requirements for fishing vessels, tender vessels, buying stations, and processing facilities in order to prevent adulteration of product and contamination of equipment by oil. DEC will review the records of tender vessels and processing facilities in order to assure compliance with the regulations.

C. DEC will train state personnel in the technique of organoleptic evaluation of fish for safety and wholesomeness. DEC-trained personnel will evaluate samples of catches from test fisheries provided by ADF&G to determine whether a safe and wholesome product will result from commercial openings in the areas where test fisheries were conducted. DEC will determine the appropriate methods of evaluation of particular samples. DEC will provide the results of organoleptic examination of test fish catches to ADF&G managers within 12 hours after the fish are made available to DEC. DEC will provide the results of laboratory evaluations, if any, of test fish catches to ADF&G managers within 24 hours after the fish are made available to DEC. DEC will provide inspectors for test fishing vessels when ADF&G requires an immediate evaluation of fish catch safety and wholesomeness for fisheries management purposes.

D. DEC will attempt to work with Exxon Shipping Company (Exxon) and encourage Exxon to establish boat cleaning stations and receiving stations for oil adulterated fish and oil contaminated gear. DEC will attempt to work with Exxon to develop recordkeeping procedures and oil contaminated material disposal procedures.

IV. OPENING OF FISHERY AREAS

ADF&G will decide whether to open particular areas for fishing based upon information acquired from the activities described above. The general principles by which ADF&G will make opening determinations are as follows:

A. A fishing area will remain closed if there is an indication of oil in any quantity in the area or the proximity of the area (including beaches), such that there is an appreciable likelihood that gear will be fouled, fish harvest adulterated, or such that the conduct of an orderly fishery could not take place. If weather conditions prohibit ADF&G from evaluating a potential fishing area through surveys or test fishing as set out above, the area will remain closed until the survey or test fishery can be conducted if DEC oil pollution tracking maps, or other reliable information, indicate the presence of oil pollution in the vicinity.

B. A fishing area will remain closed if test fishing has demonstrated that oil contamination of fishing gear or oil adulteration of product is likely to occur.

C. After fishing areas are opened for commercial fishing, if DEC inspection or evaluation of fishing vessels, tender vessels, buying stations, or processing facilities indicates oil adulteration of a harvest, designated representatives of DEC and ADF&G will consult to determine whether a recurring contamination problem has developed. If so, ADF&G will close fishing in the area where the oil contamination occurred.

V. AGENCY STAFF

Each agency will designate key contact people to implement this Memorandum of Understanding (MOU) and to facilitate the decision-making process during the 1989 commercial fishery season. The following are specific agency representatives for all purposes under this MOU:

ADF&G designates:	_____	(NAME)
	_____	(TITLE)
	_____	(PHONE)
DEC designates:	Manny Soares	(NAME)
	Environmental Conservation Manager	(TITLE)
	(907) 563-0318	(PHONE)

Because it may be necessary to make emergency closure decisions, in the event that either designated representative is unavailable, the alternative designated persons are:

ADF&G designates:

Prince William Sound Region:	James Brady & Dennis Haanpaa	(NAME)
	_____	(TITLE)
	_____	(PHONE)
Cook Inlet Region:	Schroeder and Ken Florey	(NAME)
	_____	(TITLE)
	_____	(PHONE)
Westward Region:	Larry Nicholson and Pete Probasco	(NAME)
	_____	(TITLE)
	_____	(PHONE)
DEC Designates:	_____	(NAME)
	_____	(TITLE)
	_____	(PHONE)

Agency staff will, to the maximum extent possible, coordinate and channel all respective efforts through the designated staff member.

6·8·89
Dated

Don W. Collinsworth, Commissioner
Alaska Department of Fish and Game

8 June 1989
Dated

Dennis D. Kelso, Commissioner
Department of Environmental Conservation

Appendix E.2. An emergency regulation (ER) issued by the Commissioner of the Alaska Department of Fish and Game suspending all regulatory management plans.

The Department of Fish and Game finds that an emergency exists and that the attached regulation is necessary for the immediate preservation of the public peace, health, safety, or general welfare. A statement of the facts constituting the emergency is:

1. On March 24, 1989, the tanker Exxon Valdez ran aground on Bligh Reef, in Prince William Sound, spilling over 11 million gallons of crude oil into the waters of Prince William Sound, Alaska. The oil has spread from Prince William Sound to areas around Kodiak Island and elsewhere in the Westward Region, necessitating closures of some fishing opportunities in order to insure that fisheries can be conducted without oil contamination.

2. The Board of Fisheries has adopted regulatory management plans for the Cape Igvak and the Alitak Bay District fisheries in the Kodiak Area which require the department to manage these fisheries according to specific allocation guidelines and using specific management strategies. Closures necessary in specific areas to avoid oil contamination of fish, fishing gear, and vessels may affect different gear groups in ways not contemplated in the existing fishery management plans.

3. It is therefore necessary for the general peace, health, safety, and public welfare, and for the conservation, development, and utilization of the state's fisheries, to allow the department the flexibility to make in-season openings and closures that will supersede those management plans currently in regulation.

ADOPTION ORDER

Under authority of AS 16.05.060, AS 16.05.251, AS 16.05.270, and delegation of the Board of Fisheries, this regulation is therefore adopted as an emergency regulation to take effect immediately upon filing by the lieutenant governor, as provided in AS 44.62.180(3).

This action is not expected to require an increased appropriation.

DATE: 6·14·89
Juneau, Alaska

Don W. Collinsworth, Commissioner
Alaska Department of Fish and Game

NOTICE OF ADOPTION OF EMERGENCY REGULATIONS

As required by AS 44.62.250, notice is given that, under authority vested by AS 16.05.060, AS 16.05.251, AS 16.05.270, and delegation of the Board of Fisheries, the Department of Fish and Game adopted on this date as emergency regulation 5 AAC 18.362, relating to emergency amendment of management plans in the Kodiak area. The regulation enables the department to modify fishing times, areas, or periods as necessary in order to conduct fisheries free from oil contamination of fish, fishing gear, and vessels.

These regulations took effect June 14, 1989 and will expire October 11, 1989.

This action is not expected to require an increased appropriation.

Copies of this regulation may be obtained by writing to the Department of Fish and Game, Division of Commercial Fisheries, P.O. Box 3-2000, Juneau, Alaska, 99802.

DATE: 6-14-89
Juneau, Alaska

Don W. Collinsworth, Commissioner
Alaska Department of Fish & Game

Appendix E.3. Proposed schedule for providing in-season fishing period announcements for the 1989 commercial salmon season, Kodiak Management Area, 1989.

KODIAK SALMON MANAGEMENT AREA

A PROPOSED SCHEDULE

FOR PROVIDING IN-SEASON FISHING PERIOD ANNOUNCEMENTS

FOR THE 1989 COMMERCIAL SALMON SEASON

* **The information contained in this packet is intended to be used as a tentative substitute for the 1989 harvest strategy which normally would have been available by this date. A more definitive harvest strategy will be available by June 30, 1989.**

Issued June 22, 1989

On March 24, 1989, the tanker Exxon Valdez ran aground on Bligh Reef, in Prince William Sound, spilling over 11 million gallons of crude oil into the waters of Prince William Sound. The oil has spread, as of June 20, 1989, to affect the waters and beaches in portions of the following salmon management areas:

Prince William Sound
Lower Cook Inlet
Upper Cook Inlet
Kodiak
Chignik

Because of this presence of oil-contaminated water and beaches in the **Kodiak Salmon Management Area,** clarification of an in-season salmon harvest strategy is needed to diffuse the evident uncertainty and chaos prevalent among fishermen and processors as they try to plan and reorganize their 1989 fishing operations.

In an attempt to identify how the season is expected to progress in terms of criteria used for providing fishing opportunities and how these opportunities are going to be announced in an orderly manner, the following guidelines are offered:

- **FISHING SEASON**
    - **The commercial fisheries management chronology shown in attachment A will be in effect for the 1989 season.**
        - This identifies normal commercial fishing opportunities extending from June 9 through approximately early October.
    - **There will be a continuing effort by ADF&G throughout the duration of this management chronology to provide normalized fishing opportunities for all fishermen.**
        - Realistically, this will not be a normal year because of the presence of oil-contaminated water and beaches in portions of the Kodiak Management Area.
    - **However, unconventional management practices may be required to provide fishing opportunities on surplus fish while ensuring that harvesting of these fish occurs in documented uncontaminated waters.**
        - **Guidelines for potential deviations in normal management practices are:**
            - A memorandum of understanding between the Commissioners of the Department of Fish and Game and Department of Environmental Conservation.

- An Emergency Regulation issued by the Commissioner of Fish and Game suspending the Board of Fisheries approved allocation plans.

- The recommendations of the Kodiak Salmon Task Force regarding in-season management actions.

- **The degree to which 1989 in-season management practices deviate from traditional management will depend upon:**

  - The extent and duration of the presence of oil-contaminated waters and beaches within the management area.

  - The degree of conservation which ADF&G deems necessary to insure that uncontaminated gear and adulterated fish do not result from in-season management actions.

    - This action will be structured to be consistent with action taken in other salmon management areas of the state impacted by oil.

- **The extent to which ADF&G will provide fishing opportunities in clean water and beach areas regardless of allocation concerns:**

  - This action would not consider past consistency of fishing opportunities either **between gear types**, e.g. seiners vs. gillnetters **or within gear types**, e.g. limit seiners vs., small seiners.

  - This action would only emphasize fishing opportunity and define it as an area, of any size, open to fishing for those gear types legal for that area.

  - This action would allow ADF&G to sub-divide all management units as deemed necessary to provide **"a"** fishing opportunity.

FISHING PERIODS

- All fishing periods will continue to begin at 12:00 noon and end at 9:00 P.M., except that fishing periods in the Inner Ayakulik Section will begin at approximately low water.

- All fishing periods will be announced in a manner consistent with either of the four (4) following scenarios: All fishermen and processors will need to heed this announcement schedule for planning purposes.

1/ **For the Initial Opening in Any Management Unit**:

- A scheduled sequence of fixed time and dates for announcements will be used rather than the random manner that has been occurring to date. (See attached calendar).

- Advance notice for initial openings in any management unit will occur per the following schedule:

  - The **First Announcement** will be an approximately **seven (7) day advance notice** of potential fishing opportunity for those management units documented to have clean water and shorelines for at least three (3) consecutive days.

    - This announcement will always occur at **6:00 P.M. on all Fridays** throughout the season. (See attached calendar)

  - The **Second Announcement** will be an approximately **four (4) day update** on this advance notice advising which management units are being considered for potential fishing time.

    - This announcement will always occur at **6:00 P.M. on all Mondays** throughout the season.

  - The **Third Announcement** will be an approximately **two (2) day update** further confirming which management units will be opening.

    - This announcement will always occur at **6:00 P.M. on all Wednesdays** throughout the season.

    - This will be the final announcement for actual fishing time.

2/ **For additional openings in any management unit**:

- Advance notice for subsequent openings in any management unit previously open, where no contamination of water or beaches was documented will be **approximately 42 hours.**
  - This is consistent with past year's practices of providing at least a day and a half advance notice prior to the beginning of all fishing periods following the initial fishing period.
  - The 42 hours is figured from the 6:00 P.M. weather broadcast on SSB frequency 4125 until the 12:00 noon opening time two days later.
    - Low water openings for the Inner Ayakulik Section may result in slightly less than 42 hours advance notice.

3/ **For extensions of fishing time in management units currently open.**

- Advance notice will be at least **18 hours**, which will be figured from the 6:00 P.M. weather broadcast on SSB frequency 4125 until 12:00 noon the next day.

4/ **For re-openings in management units closed in-period due to the presence or close proximity of contaminated water.**

- Advance notice procedures identical to those used for the **Initial Opening in any management unit** will be implemented.

- **FISHING TIME**

- Fishing time in all management units will be based upon perceived run strength and eventual escapement projections.
  - This will be primarily evaluated by in-season aerial surveys and to a lesser degree any available harvest information.

- As the season progresses and concern for fish quality becomes a factor where fish build-ups exceed escapement requirements, near terminal fisheries will no longer be considered.

  - This is primarily of concern for pink and chum salmon stocks.

- Escapement in excess of desired levels will not be considered detrimental to those stocks, except that:.

  - Concern for excess sockeye escapement will have to be evaluated on a system by system basis, since it is the one species where extreme excess escapement may have significant adverse impact on long term production.

- **ANNOUNCEMENT PROCEDURES**

- All pertinent in-season ADF&G announcements to the commercial salmon industry will be provided in the following manner:

  1/ A news release will be constructed detailing:

  a. The date, time, and number of the emergency order announcement (if applicable).

  b. The length of the fishing period.

  c. The opening and closing times and dates.

  d. The areas open to fishing.

  e. The areas closed to fishing (those sections not listed as being open).

  f. The location of "closed water" marker adjustments.

  2/ Copies of the news release will be posted in the glassed in cabinet to the right of the entrance door to the Kodiak ADF&G office.

  3/ Copies of the news release will be made available for walk-in traffic to the office during working hours; for after hours availability, copies will be stored in a manila envelope taped to the window by the main entrance door.

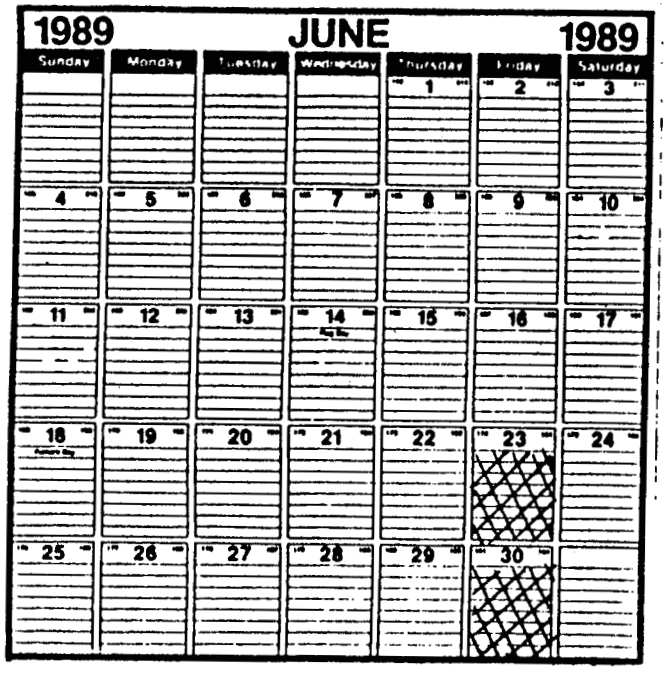
4/ The news release will be recorded on a 24-hour recorded message phone (number 486-4559).

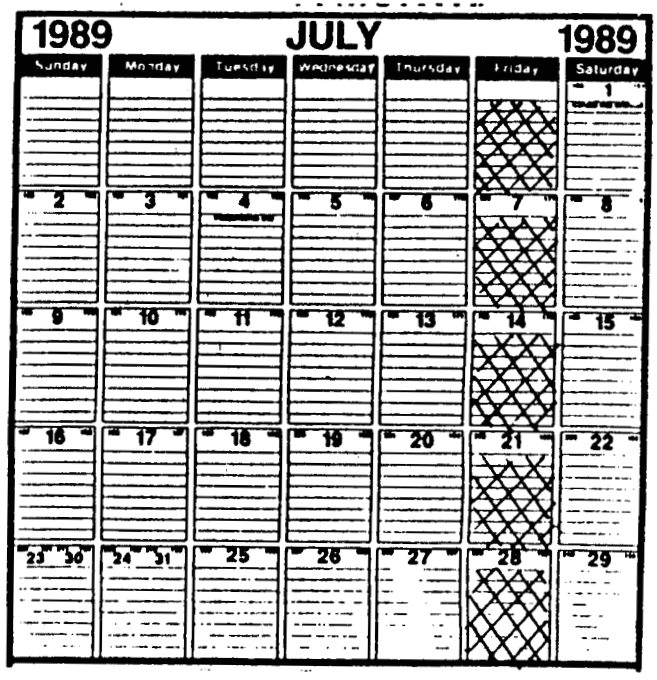
5/ The news release will be made available to three local radio stations (K.V.O.K., K.M.X.T., and K.J.T.L.) to be played by these stations at pre-designated times during the day.

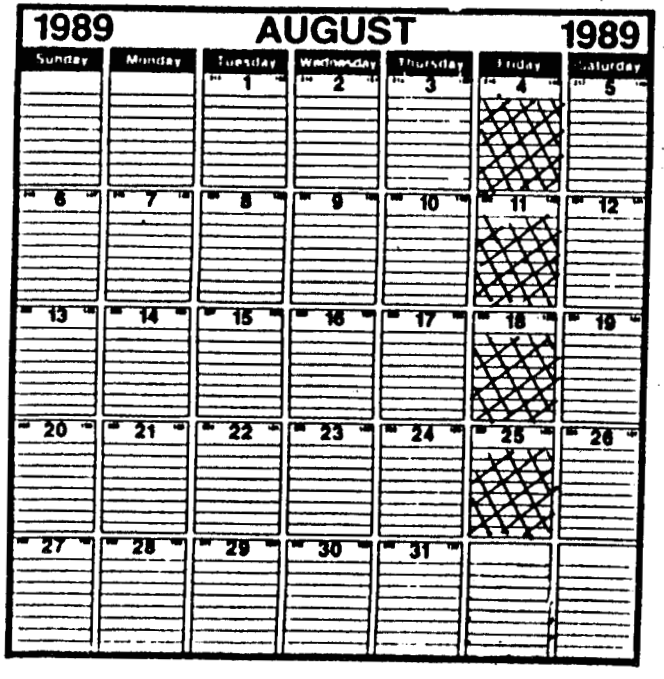
6/ The news release will be announced over SSB frequency 4125 by Peggy Dyson following her weather schedules. Commonly, the first reading of a news release occurs after Peggy's 6:00 P.M. schedule, but occasionally the 8:00 A.M. schedule yields the initial reading.

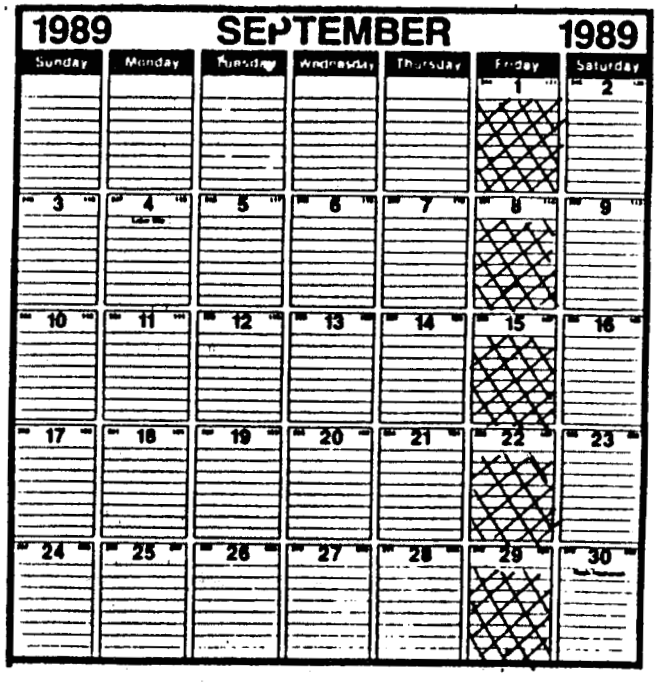
7/ The news release will be distributed to all processors either by hand, verbally on the telephone, by tele-fax, or by their calling the recorded message phone; this information will then be passed along to their respective tenders.

KODIAK MANAGEMENT AREA
SCHEDULE OF ADF&G ANNOUNCEMENTS FOR THE INITIAL FISHING TIME IN ANY MANAGEMENT UNIT









SCHEDULE FOR ADF&G ANNOUNCEMENTS

- Every Friday, Monday, and Wednesday at 6:00 P.M. on S.S.B. frequency 4125 Mhz.
  - The **Friday Announcement** will identify which management units are being considered for an **"opening" seven (7) days** later on the next Friday.
  - The **Monday Announcement** will represent a **four (4) days advance notice** updating which management units are still being considered for the Friday **"opening"**.
  - The **Wednesday Announcement** will represent a **two (2) day final** scheduled notice confirming which management units will be "opening" on Friday.
- Unscheduled announcements either to stop on-going fishing periods or to prevent an anticipated opening will be issued on any of the twice-daily scheduled weather forecasts on SSB 4125 Mgz at 8:00 A.M. and 6:00 P.M.

Appendix E.3. (page 8 of 8)

ACE 9498120

Appendix F.1. News releases issued for the commercial salmon fisheries, Kodiak Management Area, 1989.

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: 12:00 Noon Sunday
June 4, 1989

NEWS RELEASE

-IN THE KODIAK COMMERCIAL SALMON FISHERY:

- The commercial salmon test fishery scheduled to begin on June 9 has been postponed. At the recommendation of the Kodiak Salmon Task Force and with the concurrence of ADF&G, no salmon fishery will occur prior to June 16 in the Kodiak management area.

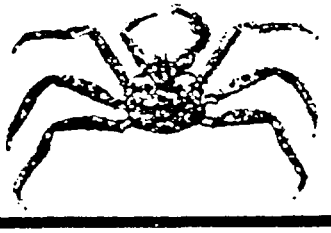
- Due to extenuating circumstances associated with the unpredictable presence of oil in portions of the Kodiak management area, as well as ADF&G currently not having a sufficient amount of oil impact surveys of commercial fishing areas which would be opened on June 9, an orderly and competitive fishery would not be possible prior to June 16.

- All announcements describing the June 16th opening will be released no later than June 14th.

- The details of that announcement will be influenced by additional test fishing and beach surveillance information which will be accumulated prior to that announcement.

- For all persons interested in monitoring the progress of sockeye escapement into Kodiak's major sockeye systems and into the Chignik River system, there will be daily escapement reports provided at the Kodiak Fish and Game office, the U.F.M.A. office, and to all canneries having FAX machines.

COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: 10:00 A.M. Friday
June 9, 1989

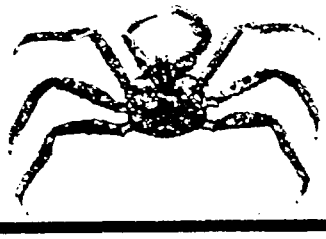
NEWS RELEASE
THE KODIAK COMMERCIAL SALMON FISHERY

The scheduled meeting of the Kodiak Salmon Task Force which was to occur at 6:30 P.M. Friday June 9 in the Fishermen's Hall has been postponed and has been rescheduled and will now occur at 3:00 P.M. Saturday June 10 in the Fishermen's Hall. Updated information on this meeting can be obtained from ADF&G at 486-4791.

As indicated at the last Salmon Task Force meeting, the opening of the 1989 salmon season has been postponed until June 16. An announcement detailing the particulars of that opening will be released by 6:00 P.M. on Wednesday June 14.

END

COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: 10:00 Noon Sunday
June 11, 1989

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY:

- As indicated at the Saturday June 10 meeting of the Kodiak Salmon Task Force, ADF&G is continuing to evaluate the extent of shoreline and water contamination associated with the presence of oil in the Kodiak Area.

- The results of ADF&G test fishing operations and extensive helicopter surveys will be evaluated daily up until the time an announcement for the first fishing period is released.

- The details of that first fishing period are scheduled to be released by Wednesday June 14 for a potential opening time and date of 12:00 Noon Friday June 16.

- Another meeting of the Kodiak Salmon Task Force has been scheduled for 6:30 P.M. on Wednesday June 14 at the Fishermen's Hall.

END

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Ken Parker, Director
Division of Commercial Fisheries

Westward Region
211 Mission Road
Kodiak, AK 99615

Contact: Peter Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 2:00 P.M. Monday
June 12, 1989

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY:

SHELIKOF STRAIT - STATE AND FEDERAL WATERS

This State of Alaska, Department of Fish and Game News Release will serve as clarification to fishermen fishing in the Shelikof Strait waters of the Kodiak Management Area. Pertinent to Title 50, Part 694 of the Code of Federal Regulations, it is unlawful to engage in commercial fishing for salmon in the waters lying beyond the seaward boundary of the state (the "three mile limit") west of Cape Suckling. Kodiak fishermen are hereby notified that commercial salmon fishing beyond the seaward boundary of the state is in direct violation of this regulation and will be strictly enforced.

END

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Ken Parker, Director
Division of Commercial Fisheries

Westward Region
211 Mission Road
Kodiak, AK 99615

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: 6:00 P.M. Monday
June 12, 1989

NEWS RELEASE

-IN THE KODIAK COMMERCIAL SALMON FISHERY:

- After close evaluation of the Kodiak Salmon Management Area it has been determined that only a minor portion of the management area can be open to commercial salmon fishing on Friday, June 16. The details of this announcement will be provided by 6:00 P.M. on Wednesday, June 14.

- The areas under consideration for the June 16 opening are the Inner and Outer Ayakulik sections, the Cape Alitak section and the Moser/Olga Bay section.

- Whether or not these sections will open depends on the results of ADF&G test fishing operations and extensive helicopter surveys during the next three days. This will ensure that only uncontaminated waters are open to commercial salmon fishing.

- The remainder of the Kodiak Management Area will remain closed until further notice.

- There will be a continuing evaluation of the extent to which shoreline and water are oil contaminated throughout the Kodiak Area during the 1989 commercial salmon season.

-continued-

- In the event that other management units become clearly uncontaminated, a 96 hour notice will be issued outlining the areas that a potential fishery may occur. During this initial notice period a 48-hour notice of actual fishing time will be provided for the first fishing period in all management units. This will allow an opportunity for both fishermen and processors to plan for potential fishing opportunities during this difficult start-up phase of the 1989 Kodiak commercial salmon season.

- Further clarification of how the 1989 salmon fishery will be conducted can be obtained by calling the Kodiak ADF&G office at 486-4791.

END

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish & Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, Alaska 99615

Ken Parker, Director
Division of Commercial Fish

Contact: Larry Malloy
Kodiak Area
Management Biologist

IMMEDIATE RELEASE

Date: June 14, 1989
6:00 p.m. Wednesday

IN THE KODIAK COMMERCIAL SALMON FISHERY

The commercial salmon opening scheduled to occur on Friday, June 16, 1989 in the Inner and Outer Ayakulik Sections, the Cape Alitak Section, and the Moser/Olga Bay section has been postponed until further notice.

A combination of events, including the documented occurrence of oil-contaminated water in the Outer Ayakulik and Cape Alitak Sections and the close proximity of this oil-contaminated water to the Inner Ayakulik and Moser/Olga Bay Sections justify postponing the fishery on June 16th. Additionally, in the case of the Fraser sockeye salmon return, the uncertainty as to run strength because of the loss of the June 9th commercial test fishery and the reduced level of 5 year old Fraser-bound sockeye occurring in the ADF&G Test Fishery, further justifies this postponement.

In the Alitak district, the Dog Salmon Flats section and the Inner and Outer Upper Station Sections will be managed as terminal harvest areas. In the event that desired sockeye escapement goals into the Fraser and Upper Station systems may be exceeded, these Sections along with portions of the Moser-Olga Bay Section may be opened with at least 48 hours notice to terminal fisheries for set gillnet gear, the only legal gear for these sections.

As indicated in the June 12, 1989 News Release, prior to the initial fishing period in all management units (sections), a 96 hour advance notice of potential fishing opportunity will be provided prior to the initial opening for each management unit.

A more detailed explanation of the justification for the action described in this News Release, as well as the 1989 Kodiak commercial salmon fishery, will be forthcoming in future News Releases.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Ken Parker, Director
Division of Commercial Fisheries

Westward Region
211 Mission Road
Kodiak, AK 99615

Contact: Peter Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 6:00 P.M. Friday
June 16, 1989

NEWS RELEASE
For E.O. No. 4-F-K-33-89

IN THE KODIAK COMMERCIAL SALMON FISHERY:

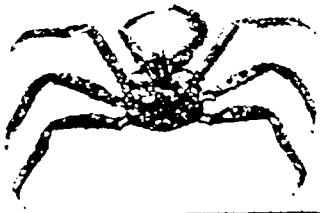
The Moser-Olga Bay Section in the Alitak Bay District of the Kodiak Management Area will open to commercial salmon fishing for set-gillnet gear, for 15 hours, starting at 6:00 A.M. Monday June 19 through 9:00 P.M. Monday, June 19, 1989. There will be a fishery update at 3:00 P.M. on Monday, outlining any additional fishing time within this area. If additional fishing time is warranted, there will be fishery updates at 3:00 P.M. daily.

Fishermen fishing within this section are hereby placed on a notice that if escapements into Dog Salmon and the Upper Station systems warrant, an 18 hour notice will be issued prior to the Dog Salmon Flats and Outer Upper Station Sections opening.

The test fishing effort and the continuing evaluation of the shoreline and waters of this area for the presence of oil will be increased to insure that waters that open on Monday are free of potential oil contamination. If the Olga-Moser Bay Section has to be reduced due to the presence of oil then an announcement will be made at 6:00 P.M. Sunday, June 18, 1989.

END

COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Ken Parker, Director
Division of Commercial Fisheries

Westward Region
211 Mission Road
Kodiak, AK 99615

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 6:00 P.M. Monday
July 17, 1989

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY:

The Dog Salmon Flats Section will close to commercial salmon fishing as previously announced at 9:00 P.M. Tuesday July 18 due to the reduced escapement rate of pink salmon into Dog Salmon River.

There will be at least 42 hours notice prior to <u>any</u> additional fishing time in the normal closed waters of Olga Bay.

The potential salmon opening scheduled to occur on Friday, July 21 has been postponed and is now scheduled to occur on Sunday, July 23. The areas which may be considered for the potential opening on July 23, will be announced by 6:00 p.m. Wednesday, July 19.

Regarding the advance notice which will be given prior to the initial openings in any management units, beginning on Monday, July 17 the previous seven (7) day advance notice will be reduced to at least a four (4) day advance notice. This advance notice will only be given on Monday, Wednesday, and Friday evenings at 6:00 P.M., again, beginning with the Monday July 17 announcement. These announcements will identify potential fishing locations which could open four days later. There will be an update two days prior to the actual opening verifying which locations will open.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Ken Parker, Director
Division of Commercial Fisheries

Westward Region
211 Mission Road
Kodiak, AK 99615

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: 4:30 P.M. Monday
June 19, 1989

NEWS RELEASE
For E.O. 4-F-K-35-89

IN THE KODIAK COMMERCIAL SALMON FISHERY:

- There will be an 72 hour extension in fishing time for the Moser/Olga Bay Section to run from 9:00 P.M. Monday June 19 until 9:00 P.M. Thursday June 22, 1989.

- In addition, there will be a 57 hour fishing period in the Outer Upper Station Section to run from 12:00 noon Tuesday June 20 until 9:00 P.M. Thursday June 22, 1989.

- Also, there will be a 6 hour fishing period in the Dog Salmon Flats Section to run from 12:00 noon until 6:00 P.M. on Tuesday June 20, 1989. Closed water markers will be placed identifying the stream terminus for the Dog Salmon River systems.

- All remaining closed waters in Olga Bay are as described in the 1989 Finfish Regulation Book.

- Gillnet fishermen fishing in the Alitak District should be advised that in-period closures are a possibility. Announcements regarding in-period closures will provide for a 3 hour notice prior to the closure. These announcements will be made on VHF Channel 6 or CB channels 4, 11, and 14, and will occur on any of the following scheduled times: 9:00 A.M., 12:00 Noon, 3:00 P.M., and 6:00 P.M.

-continued-

- Regarding the remainder of the Kodiak Salmon Management Area, the following management units are being placed on 96 hour advance notice for potential fishing opportunities beginning on Friday June 23, 1989:

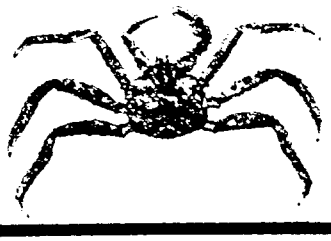
  - The Cape Alitak Section
  - The Inner Ayakulik Section

An update on the status of fishing time in these management units will be provided by 6:00 P.M. Wednesday June 21, 1989

The Kodiak Salmon Task Force meeting scheduled for Tuesday June 20, 1989 has been rescheduled for 6:30 P.M. Thursday June 22, 1989 at Fishermen's Hall.

END

COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Ken Parker, Director
Division of Commercial Fisheries

Westward Region
211 Mission Road
Kodiak, AK 99615

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: 4:30 P.M. Tuesday
June 20, 1989

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY:

- The previously announced potential <u>opening</u> on Friday June 23 of the Cape Alitak and Inner Ayakulik sections to commercial salmon fishing has been <u>postponed</u>.

- Additional test fishing and helicopter surveillance is needed to ensure that a fishery does not occur in waters which may have been potentially contaminated by recent extreme adverse weather and tide conditions in these management units.

- The new projected opening time and date for the Cape Alitak and Inner Ayakulik sections is for 12:00 Noon Sunday June 25.

- Confirmation of that time and date will be provided in an announcement following the 6:00 P.M. weather broadcast on Friday June 23 on SSB frequency 4125.

- A reminder to all fishermen and processors that the Kodiak Salmon Task Force meeting scheduled for Tuesday June 20, 1989 has been rescheduled for 6:30 P.M. Thursday June 22, 1989 at Fishermen's Hall.

- Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559.

END

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Ken Parker, Director
Division of Commercial Fisheries

Westward Region
211 Mission Road
Kodiak, AK 99615

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: 8:00 A.M. Wednesday June 21, 1989

NEWS RELEASE
For E.O. 4-F-K-36-89

IN THE KODIAK COMMERCIAL SALMON FISHERY:

- There will be a <u>30 hour fishery</u> in the <u>Dog Salmon Flats Section</u> of the Alitak Bay District to run from 3:00 P.M. Wednesday June 21 to 9:00 P.M. Thursday June 22, 1989.
- Closed water markers will be in place to identify the stream terminus of Dog Salmon River and the entrance of Horse Marine Lagoon.
- A reminder that the Kodiak Salmon Task Force meeting scheduled for Tuesday June 20, 1989 has been rescheduled for 6:30 P.M. Thursday June 22, 1989 at Fishermen's Hall.
- Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Ken Parker, Director
Division of Commercial Fisheries

Westward Region
211 Mission Road
Kodiak, AK 99615

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: 6:00 P.M. Wednesday June 21, 1989

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY:

- For that portion of the Alitak Bay District currently open to fishing for gillnet gear, there will be an updated announcement regarding additional fishing time for those areas issued by 6:00 P.M. Thursday June 22 on SSB frequency 4125 mhz.

- Regarding the remainder of the Kodiak Salmon Management Area, the following management units remain on notice for potential fishing opportunities to begin at 12:00 noon on Sunday June 25:

  - **The Cape Alitak Section**
  - **The Inner Ayakulik Section**

- An update on this potential opening will be provided by 6:00 P.M. on Friday June 23 on SSB frequency 4125 mhz.

- The Kodiak Salmon Task Force is scheduled to meet at 6:30 P.M. Thursday June 22, 1989 at Fishermen's Hall.

- Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

END

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Ken Parker, Director
Division of Commercial Fisheries

Westward Region
211 Mission Road
Kodiak, AK 99615

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 4:30 P.M. Thursday
June 22, 1989

NEWS RELEASE
For E.O. 4-F-K-37-89

IN THE KODIAK COMMERCIAL SALMON FISHERY:

- There will be a **48 hour extension** in fishing time for the Dog Salmon Flats, Outer Upper Station, and the Moser/Olga Bay Sections to run from 9:00 P.M. Thursday June 22 until 9:00 P.M. Saturday June 24, 1989.

- All remaining closed waters in Olga Bay are as described in the 1989 Finfish Regulation Book.

- Gillnet fishermen fishing in the Alitak District should be advised that in-period closures are a possibility. Announcements regarding in-period closures will provide for a 3 hour notice prior to the closure. These announcements will be made on VHF Channel 6 or CB channels 4, 11, and 14, and will occur on any of the following scheduled times: 9:00 A.M., 12:00 Noon, 3:00 P.M., and 6:00 P.M.

- Regarding the remainder of the Kodiak Salmon Management Area, the following management units remain on notice for potential fishing opportunities to begin at 12:00 noon on Sunday June 25:

  - The Cape Alitak Section
  - The Inner Ayakulik Section

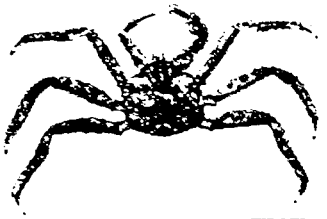
-continued-

An update on this potential opening will be provided by 6:00 P.M. on Friday June 23, 1989 on SSB frequency 4125 mhz.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

END

COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Ken Parker, Director
Division of Commercial Fisheries

Westward Region
211 Mission Road
Kodiak, AK 99615

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 5:00 P.M. Friday
June 23, 1989

NEWS RELEASE
For E.O. 4-F-K-38-89

IN THE KODIAK COMMERCIAL SALMON FISHERY:

The Cape Alitak Secction and the Inner Ayakulik Section will not open to commercial salmon fishing as previously anticipated due to the documented presence of oil-contaminated waters and beaches in these sections.

- The Moser/Olga Bay Section will close to commercial salmon fishing effective 9:00 P.M. Friday June 23.

- The Outer Upper Station Section will close to commercial salmon fishing at 9:00 P.M. Saturday June 24.

- There will be a 72 hour extension of fishing time for the Dog Salmon Flats Section to run from 9:00 P.M. Saturday June 24 to 9:00 P.M. Tuesday June 27, 1989.

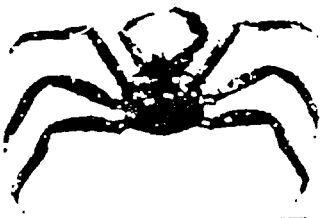
- All remaining commercial fishing areas of the Kodiak Management Area will remain closed due to the presence of oil contaminated waters and beaches to remain consistent with the M.O.U. between ADF&G and D.E.C. which further states that fishing areas will remain closed if surveys or test fishing has demonstrated that oil contamination of fishing gear or oil adulteration of product is likely to occur.

The next announcement regarding potential fishery openings will be at 6:00 P.M. Friday June 30, except that the gill net areas in the Alitak District will remain on 18-hour notice.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

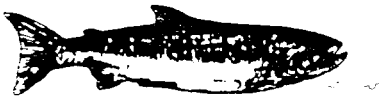
- - END - -

COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME



STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 4:00 P.M. Monday
June 26, 1989

NEWS RELEASE
For E.O. 4-F-K-39-89

IN THE KODIAK COMMERCIAL SALMON FISHERY:

- There will be a **96 hour extension** in fishing time for the **Dog Salmon Flats section** to run from 9:00 P.M. Tuesday June 27, 1989 until 9:00 P.M. Saturday July 1, 1989.
- The **remainder of the Kodiak Management Area remains closed** to commercial salmon fishing due to either the presence or close proximity of oil-contaminated waters or beaches, except that those management units in Upper Olga Bay remain closed to commercial fishing for biological reasons related to sockeye escapement levels into the Upper Station and Akalura systems.
- Regarding the fishery **announcement schedule** for the initial fishing periods in all remaining Kodiak Management units, there remains a **seven (7) day advance notice** prior to actual fishing opportunities. This advance notice will initially be **provided each Friday, updated on the following Monday** and **finalized on the following Wednesday.**
- This announcement schedule also applies to the reopening of areas closed due to the presence or close-proximity of oil, such as the Moser/Olga Bay section.
    - All announcements will be made following the 6:00 P.M. weather broadcast on S.S.B. frequency 4125 Khz.
- A reminder that the Kodiak Salmon Task Force will meet this Friday, June 30 at 6:30 P.M. in the K.H.S. Auditorium to primarily review the status of oil contamination in the Kodiak Area and the status of salmon escapement and potential fisheries.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Ken Parker, Director
Division of Commercial Fisheries

Westward Region
211 Mission Road
Kodiak, AK 99615

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 4:00 P.M. Friday
June 30, 1989

NEWS RELEASE
For E.O. 4-F-K-40-89

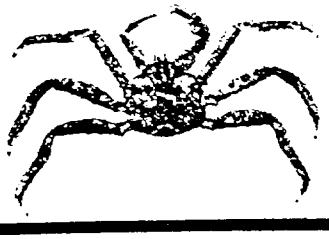
IN THE KODIAK COMMERCIAL SALMON FISHERY:

- Fishing time in the **Dog Salmon Flats section** is being **extended an additional 72 hours** to run from 9:00 P.M. Saturday July 1, 1989 until 9:00 P.M. Tuesday July 4, 1989.
- The **Outer Upper Station Section** will be **open for an 81 hour** fishing period to run from 12:00 noon Saturday July 1 to 9:00 P.M. Tuesday July 4.
- The only area which is being considered for a <u>potential opening</u> on July 7 is the Moser-Olga Bay Section
- Updates on the status of this <u>potential</u> <u>opening</u> will be given on Monday July 3 and Wednesday July 5.
- The remainder of the Kodiak Management Area will remain closed to commercial salmon fishing due to either the presence or close proximity of oil contaminated waters or beaches.
- Per the seven (7) day advance notice schedule previously released, the next scheduled announcement for potential areas open to fishing will be on Friday July 7. At that time, potential areas open to fishing on Friday July 14 will be announced.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 4:00 P.M. Monday
July 3, 1989

NEWS RELEASE
For E.O. 4-F-K-41-89

IN THE KODIAK COMMERCIAL SALMON FISHERY:

- Fishing time in the **Dog Salmon Flats and Outer Upper Station Sections** is being extended an additional 96 hours to run from 9:00 p.m. Tuesday, July 4 until 9:00 p.m. Saturday, July 8, 1989.

- The only area which is being considered for a potential opening on July 7 is the Moser-Olga Bay Section.

- Updates on the status of this potential opening will be given on Wednesday July 5.

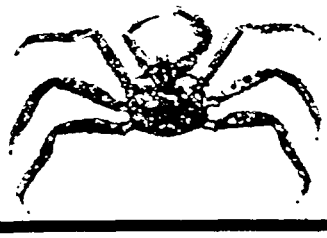
- The remainder of the Kodiak Management Area will remain closed to commercial salmon fishing due to either the presence or close proximity of oil contaminated waters or beaches.

- Per the seven (7) day advance notice schedule previously released, the next scheduled announcement for potential areas open to fishing will be on Friday July 7. At that time, potential areas open to fishing on Friday July 14 will be announced.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 4:45 P.M. Wednesday
July 5, 1989

NEWS RELEASE
For E.O. 4-F-K-42-89

IN THE KODIAK COMMERCIAL SALMON FISHERY:

- The Moser-Olga Bay Section will be open to commercial salmon fishing for 81 hours to run from 12:00 noon Friday July 7 through 9:00 P.M. Monday July 10, 1989.

  The Dog Salmon Flats and the Outer Upper Station Sections will remain open to commercial salmon fishing until 9:00 P.M. Saturday July 8.

- The remainder of the Kodiak Management Area will remain closed to commercial salmon fishing due to either the presence or close proximity of oil contaminated waters or beaches.

- Per the seven (7) day advance notice schedule previously released, the next scheduled announcement for potential areas open to fishing will be on Friday July 7. At that time, potential areas open to fishing on Friday July 14 will be announced.

- A reminder that the Kodiak Salmon Task Force will meet this Friday, July 7 at 6:30 P.M. in the Kodiak High School Auditorium primarily to review the status of oil contamination in the Kodiak Area and the status of salmon escapements and potential fisheries.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

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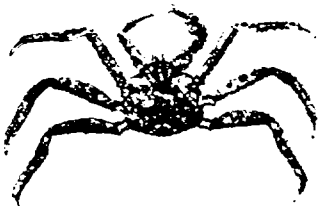
COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 6:00 P.M. Friday
July 7, 1989

NEWS RELEASE
For E.O. 4-F-K-43-89

IN THE KODIAK COMMERCIAL SALMON FISHERY:

- The **Moser-Olga Bay Section** will **close** to commercial salmon fishing effective at 11:00 P.M. Friday July 7, 1989, due to the documented close proximity of oil and the potential for fishing gear and fish to be contaminated.

- Fishing time in the Dog Salmon Flats and Outer Upper Station Sections is being extended an additional 72 hours to run from 9:00 P.M. Saturday July 8 until 9:00 P.M. Tuesday July 11, 1989.

- There are no new areas listed to potentially open to commercial salmon fishing on July 14.

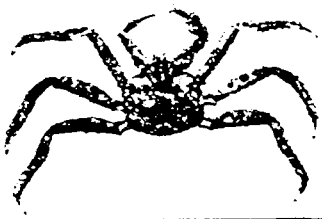
- The remainder of the Kodiak Management Area will remain closed to commercial salmon fishing due to either the presence or close proximity of oil contaminated waters or beaches.

- Per the seven (7) day advance notice schedule previously released, the next scheduled announcement for potential areas open to fishing will be on Friday July 14. At that time, potential areas open to fishing on Friday July 21 will be announced.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 3:00 P.M. Monday
July 10, 1989

NEWS RELEASE
For E.O. 4-F-K-44-89

IN THE KODIAK COMMERCIAL SALMON FISHERY:

- The Outer Upper Station Section will close to commercial salmon fishing as previously announced at 9:00 P.M. Tuesday July 11, 1989, due to the low rates of sockeye escapement into the Upper Station Lakes.

- Fishing time in the Dog Salmon Flats Section is being extended an additional 96 hours to run from 9:00 P.M. Tuesday July 11 until 9:00 P.M. Saturday July 15, 1989.

- There are no new areas listed to potentially open to commercial salmon fishing on July 14.

- The remainder of the Kodiak Management Area will remain closed to commercial salmon fishing due to either the presence or close proximity of oil contaminated waters or beaches.

- Per the seven (7) day advance notice schedule previously released, the next scheduled announcement for potential areas open to fishing will be on Friday July 14. At that time, potential areas open to fishing on Friday July 21 will be announced.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 5:30 P.M. Friday
July 14, 1989

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY:

The following areas are being considered for a <u>potential opening</u> on July 21:

- Terror Bay Section and portions of terminal area waters.
- Zachar Bay Section - from Carlsen Point and including portions of terminal area waters.
- Humpy-Deadman Section - from the southeast marker of Humpy Cove.
- Moser-Olga Bay Section

ADF&G aerial observations and test fishing results have indicated that these areas have either no oil contamination or very light to light sheen oil contaminated waters. This impact classification indicates that this area would have an oil coverage 1 to less than 10% of the area and/or a 1 - 3 meter band of sheen. Results from the test fishing vessels have indicated that this type of oil contamination, very light to light sheen with no mousse or silver sheen present, may provide minimal contamination to gear. However, the appreciable likelihood that the fish harvested would be adulterated is minimal. Prior to the proposed July 21 opening date, ADF&G will increase the frequency of oil impact monitoring by the test fish vessels and the inter-tidal survey crews in these areas listed that may open to commercial salmon fishing. If oil contamination is documented that would foul gear, fish harvest adulterated or such that the conduct of an orderly fishery could not take place then this area would be closed to commercial fishing.

- - continued - -

If these fisheries are prosecuted then the ADF&G test fishing vessels assigned to that area will survey the immediate outer areas daily until either the fishery closes or directed otherwise. In order to assure high product quality reaching the market place, ADF&G and DEC will continue to thoroughly monitor these fisheries in progress and if oil adulteration of the harvest occurs and there is a potential of recurring contamination then this area will be closed.

A news release will be issued on July 19 that will describe the areas and times for the commercial fishery on July 21.

Commencing on July 14 the fishery announcement schedule will be shortened from the current notice prior to a fishery being conducted to a 7 day notice.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Ken Parker, Director
Division of Commercial Fisheries

Westward Region
211 Mission Road
Kodiak, AK 99615

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 6:00 P.M. Friday
July 14, 1989

NEWS RELEASE
For E.O. 4-F-K-45-89

IN THE KODIAK COMMERCIAL SALMON FISHERY:

- Fishing time in the **Dog Salmon Flats Section** is being extended an additional 72 hours to run from 9:00 P.M. Saturday July 15 until 9:00 P.M. Tuesday July 18, 1989.

The Alaska Department of Fish and Game in conjunction with the Department of Environmental Conservation will be increasing the frequency of the oil impact monitoring by the test fish vessels and the intertidal survey crews in the following areas which are being considered for a potential commercial fishing opening:

- Terror Bay Section and portions of terminal area waters.
- Zachar Bay Section - from Carlsen Point and including portions of terminal area waters.
- Humpy-Deadman Section - from the southeast marker of Humpy Cove.
- Moser-Olga Bay Section

During these investigations if oil contamination is documented that would foul fishing gear, adulterate the fish harvested, or such that the conduct of an orderly fishery could not take place, then that area would not be opened to commercial fishing.

Commencing on July 17 all areas that could potentially open to commercial salmon fishing will be placed on a 96 hour notice. A news release will be issued on this date that would describe the potential areas that could be open. This announcement schedule

- continued -

will be updated on an every other day basis starting on July 17. If a commercial fishery could not be announced on July 17 then the next announcement would be on July 19 for a potential fishery 96 hours later or on July 23.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

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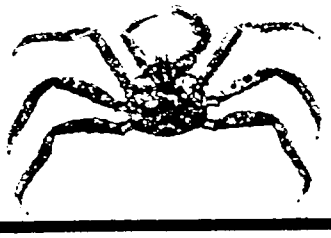
COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 6:00 P.M. Monday
July 17, 1989

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY:

The Dog Salmon Flats Section will close to commercial salmon fishing as previously announced at 9:00 P.M. Tuesday July 18 due to the reduced escapement rate of pink salmon into Dog Salmon River.

There will be at least 42 hours notice prior to <u>any</u> additional fishing time in the normal closed waters of Olga Bay.

The potential salmon opening scheduled to occur on Friday, July 21 has been postponed and is now scheduled to occur on Sunday, July 23. The areas which may be considered for the potential opening on July 23, will be announced by 6:00 p.m. Wednesday, July 19.

Regarding the advance notice which will be given prior to the initial openings in any management units, beginning on Monday, July 17 the previous seven (7) day advance notice will be reduced to at least a four (4) day advance notice. This advance notice will only be given on Monday, Wednesday, and Friday evenings at 6:00 P.M., again, beginning with the Monday July 17 announcement. These announcements will identify potential fishing locations which could open four days later. There will be an update two days prior to the actual opening verifying which locations will open.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 3:30 P.M. Wednesday
July 19, 1989

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY:

The potential salmon opening scheduled to occur on Sunday, July 23 has been postponed until further notice. This postponement is due to the eminent presence or close proximity of oil contaminated waters within the areas originally offered up as potential areas that could have been fished. These areas were; Terror Bay Section and terminal waters, Zachar Bay Section and terminal waters, Moser/Olga Bay Section and the Humpy-Deadman Section.

All management units of the Kodiak Management Area will remain on the 96 hour advance notice prior to any commercial fishery with the exception of the normal closed water areas of Olga Bay which will remain on a 42 hour notice prior to any commercial fishery. These 96 hour advance announcements for potential openings will only be given on Monday, Wednesday and Friday evenings at 6:00 P.M. These announcements will identify potential fishing locations which could open four days later. There will be an update two days prior to the actual opening verifying which locations will open.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 5:00 P.M. Friday
July 21, 1989

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY:

The Alaska Department of Fish and Game (ADF&G) has announced that terminal fishing areas (normal closed waters) in bays of the Kodiak Management Area will not be opened to seining for pink and chum salmon due to the continuing presence of petroleum. The Memorandum of Understanding between ADF&G and the Department of Environmental Conservation (DEC) specifies that fishing areas will remain closed if there is an indication of oil in any quantity in the area such that there is an appreciable likelihood that gear will be fouled, fish harvest adulterated,or such that the conduct of an orderly fishery could not take place.

Monitoring of the Kodiak Management Area in general will continue, to determine if late run sockeye salmon, chum salmon, pink salmon and coho salmon can be harvested at a later date. This will be accomplished by continued test fishing and beach surveys. Oil impacts are currently continuing in many areas and it is unclear if the situation will improve to the extent that fisheries can be opened without an appreciable likelihood that gear will be fouled or fish harvest adulterated.

Consequently, all management units of the Kodiak Management Area will remain on the 96 hour advance notice prior to any commercial fishery with the exception of the normal closed waters of Olga Bay which will remain on a 42 hour notice. The 96 hour notice for potential openings will be announced on Monday, Wednesday, and Friday evenings at 6:00 P.M.

As a reminder, August 1 is the deadline for submitting proposed regulation changes regarding commercial, sport, personal use and subsistence fisheries for Kodiak, Chignik, Alaska Peninsula/ Aleutian Islands, and Bristol Bay management areas.

Proposal forms are available at the local Kodiak Fish and Game office.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

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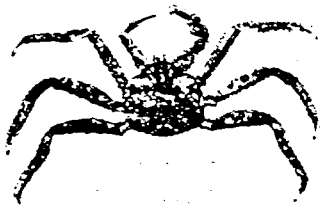
COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Pete Probasco
Regional Finfish
Management Biologist

IMMEDIATE RELEASE

Date: 5:00 P.M. Friday
July 21, 1989

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY:

The Alaska Department of Fish and Game (ADF&G) has announced that terminal fishing areas (normal closed waters) in bays of the Kodiak Management Area will not be opened to seining for pink and chum salmon due to the continuing presence of petroleum. The Memorandum of Understanding between ADF&G and the Department of Environmental Conservation (DEC) specifies that fishing areas will remain closed if there is an indication of oil in any quantity in the area such that there is an appreciable likelihood that gear will be fouled, fish harvest adulterated,or such that the conduct of an orderly fishery could not take place.

ADF&G and DEC thus agree that fishing should not occur in areas where tarballs and sheens cannot be avoided. The departments have continuously reiterated that fishing would not be allowed directly in oil contamination. This is necessary to protect the consumer from any risk of purchasing contaminated Alaskan product and to ensure that the value of the state's fishing industry is maintained. DEC must ensure that fish marketed from state waters is safe and free from any taint of oil contamination.

Intensified surveys conducted by ADF&G personnel have documented oil presence in all bays that have recently been under consideration for potential purse seine openings. Any openings in these bays with a concentrated fleet would result in salmon catches and gear being exposed to oil contamination. This situation is not expected to improve in the near future. Pink and chum salmon currently entering the bays of the Kodiak Management Area will rapidly develop spawning characteristics and quality will deteriorate. Once this occurs, the harvest of good quality pink and chum salmon in terminal areas will not be possible.

- - continued - -

ACE 9872500

In consideration of the above circumstances, the option to harvest pink and chum salmon in the normal closed waters associated with terminal portions of the Kodiak Management Area is not deemed to be in the interest of the economy and the well being of the state and will no longer be considered for the 1989 season.

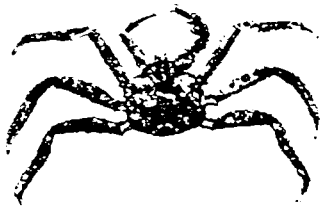
Monitoring of the Kodiak Management Area in general will continue, to determine if late run sockeye salmon, chum salmon, pink salmon and coho salmon can be harvested at a later date. This will be accomplished by continued test fishing and beach surveys. Oil impacts are currently continuing in many areas and it is unclear if the situation will improve to the extent that fisheries can be opened without an appreciable likelihood that gear will be fouled or fish harvest adulterated.

Consequently, all management units of the Kodiak Management Area will remain on the 96 hour advance notice prior to any commercial fishery with the exception of the normal closed waters of Olga Bay which will remain on a 42 hour notice.

- - END - -

ACE 9872501

COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: July 24, 1989
Monday, 4:00 p.m.

NEWS RELEASE
For E.O. #4-F-K-46-89

IN THE KODIAK COMMERCIAL SALMON FISHERY

The Outer Upper Station Section and that portion of the Dog Salmon Flats Section east of 154° 01′ 00" W. Long., will open to commercial salmon fishing for an 81 hour fishing period to run from 12:00 noon Wednesday, July 26 to 9:00 p.m. Saturday, July 29.

Additional fishing time in the normal closed waters will have at least 18 hours notice.

Due to the presence of oil contamination in the remainder of the Kodiak Management Area there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements made on Monday, Wednesday and Friday.

As a reminder, August 1, is the deadline for submitting proposed regulation changes regarding commercial, sport, personal use and subsistence fisheries for Kodiak, Chignik, Alaska Peninsula/Aleutian Islands, and Bristol Bay management areas.

Proposal forms are available at the local Kodiak Fish and Game office.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: July 26, 1989
Wednesday, 3:00 p.m.

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY

The Outer Upper Station Section and that portion of the Dog Salmon Flats Section east of 154°01" W. long. opened to commercial salmon fishing at 12:00 noon Wednesday, July 26 for an 81 hour fishing period scheduled to end at 9:00 P.M. Saturday, July 29.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours notice.

Due to the presence of oil contamination in the remainder of the Kodiak Management Area there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements made on Monday, Wednesday and Friday.

As a reminder, August 1, is the deadline for submitting proposed regulation changes regarding commercial, sport, personal use and subsistence fisheries for Kodiak, Chignik, Alaska Peninsula/Aleutian Islands, and Bristol Bay management areas.

Proposal forms are available at the local Kodiak Fish and Game office.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: July 28, 1989
Friday, 11:00 A.M.

NEWS RELEASE
For E.O. #4-F-K-47-89

IN THE KODIAK COMMERCIAL SALMON FISHERY

Fishing time in the Outer Upper Station Section and that portion of the Dog Salmon Flats Section east of 154° 01′ 00" W. Long, is being extended an additional 72 hours to run from 9:00 P.M. Saturday, July 29 to 9:00 P.M. Tuesday, August 1.

Additional fishing time in the normal closed waters will have at least 18 hours notice.

Due to the presence of oil contamination in the remainder of the Kodiak Management Area there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements made on Monday, Wednesday and Friday.

As a reminder, August 1, is the deadline for submitting proposed regulation changes regarding commercial, sport, personal use and subsistence fisheries for Kodiak, Chignik, Alaska Peninsula/Aleutian Islands, and Bristol Bay management areas.

Proposal forms are available at the local Kodiak Fish and Game office.

The Salmon Task Force meeting previously scheduled for Friday July 28 has been cancelled.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: July 31, 1989
Monday, 6:00 P.M.

NEWS RELEASE
For E.O. #4-F-K-48-89

IN THE KODIAK COMMERCIAL SALMON FISHERY

Fishing time in the Outer Upper Station Section and that portion of the Dog Salmon Flats Section east of 154° 01′ 00" W. Long, is being extended an additional 96 hours to run from 9:00 P.M. Tuesday, August 1 to 9:00 P.M. Saturday, August 5.

In addition, there will be a 57 hour fishing period in the Inner Upper Station Section to run from 12:00 noon Tuesday August 1 until 9:00 P.M. Thursday August 3.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours notice advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

As a reminder, August 1, is the deadline for submitting proposed regulation changes regarding commercial, sport, personal use and subsistence fisheries for Kodiak, Chignik, Alaska Peninsula/ Aleutian Islands, and Bristol Bay management areas.

Proposal forms are available at the local Kodiak Fish and Game office.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

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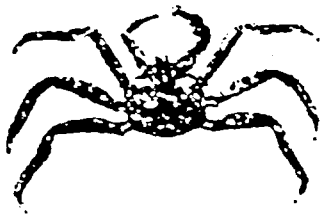
COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: August 2, 1989
Wednesday, 4:30 P.M.

NEWS RELEASE
For E.O. #4-F-K-49-89

IN THE KODIAK COMMERCIAL SALMON FISHERY

Fishing time in the Inner Upper Station Section is being extended an additional 48 hours to run from 9:00 P.M. Thursday August 3 until 9:00 P.M. Saturday August 5.

Fishing time in the Outer Upper Station Section and that portion of the Dog Salmon Flats Section east of 154° 01′ 00" W. Long, remains open to set gillnet fishing until 9:00 P.M. Saturday, August 5.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

A Salmon Task Force meeting has been scheduled for Friday, August 4 at 6:30 P.M. in the High School auditorium.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: August 4, 1989
Friday, 12:00 Noon

NEWS RELEASE
For E.O. #4-F-K-50-89

IN THE KODIAK COMMERCIAL SALMON FISHERY

Fishing time in the Inner Upper Station Section and the Outer Upper Station Section is being extended an additional 72 hours to run from 9:00 P.M. Saturday August 5 until 9:00 P.M. Tuesday August 8.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: August 7, 1989
Monday, 3:00 P.M.

NEWS RELEASE
For E.O. #4-F-K-51-89

IN THE KODIAK COMMERCIAL SALMON FISHERY

Fishing time in the Outer and Inner Upper Station Sections and that portion of the Dog Salmon Flats Section east of 154°01" W. long. is being extended an additional 96 hours to run from 9:00 P.M. Tuesday August 8 until 9:00 P.M. Saturday August 12.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

-- END --

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: August 9, 1989
Wednesday, 3:00 P.M.

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY

The Outer and Inner Upper Station Sections and that portion of the Dog Salmon Flats Section east of 154°01" W. long. will remain open until 9:00 P.M. Saturday August 12.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

In addition there is a Salmon Task Force meeting scheduled for Thursday, August 10, at the Borough Chambers beginning at 6:30 P.M.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: August 11, 1989
Friday, 3:00 P.M.

NEWS RELEASE
For E.O. 4-F-K-52-89

IN THE KODIAK COMMERCIAL SALMON FISHERY

The Inner Upper Station Section will close to commercial salmon fishing as previously announced at 9:00 P.M. Saturday August 12.

Fishing time in the Outer Upper Station Section and that portion of the Dog Salmon Flats Section east of 154°01" W. long is being extended an additional 72 hours to run from 9:00 P.M. Saturday August 12 to 9:00 P.M. Tuesday August 15.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

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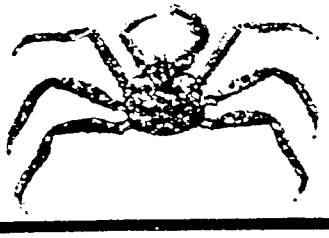
COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: August 14, 1989
Monday, 2:00 P.M.

NEWS RELEASE
For E.O. 4-F-K-53-89

IN THE KODIAK COMMERCIAL SALMON FISHERY

Fishing time in the Outer Upper Station Section and that portion of the Dog Salmon Flats Section east of 154°01" W. long is being extended an additional 45 hours to run from 9:00 P.M. Tuesday August 15 to 6:00 P.M. Thursday August 17.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: August 16, 1989
Wednesday, 2:00 P.M.

NEWS RELEASE
For E.O. 4-F-K-54-89

IN THE KODIAK COMMERCIAL SALMON FISHERY

Fishing time in the Outer Upper Station Section and that portion of the Dog Salmon Flats Section east of 154°01" W. long is being extended an additional 48 hours to run from 6:00 P.M. Thursday August 17 to 6:00 P.M. Saturday August 19.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

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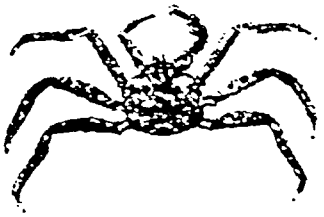
COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Ken Parker, Director
Division of Commercial Fisheries

Westward Region
211 Mission Road
Kodiak, AK 99615

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: August 18, 1989
Friday, 3:00 P.M.

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY

The Outer Upper Station Section and that portion of the Dog Salmon Flats Section east of 154°01" W. long. will close as previously announced at 6:00 P.M. Saturday August 19.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

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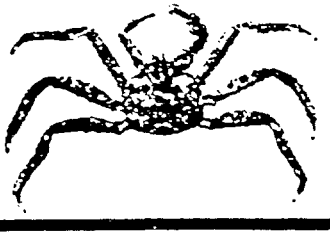
COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: August 21, 1989
Monday, 3:00 P.M.

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY

The normal closed waters in Olga Bay remain closed to commercial salmon fishing in order to achieve the desired sockeye escapement goal into Upper Station Lakes.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Ken Parker, Director
Division of Commercial Fisheries

Westward Region
211 Mission Road
Kodiak, AK 99615

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: August 23, 1989
Wednesday, 3:00 P.M.

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY

The normal closed waters in Olga Bay remain closed to commercial salmon fishing in order to achieve the desired sockeye escapement goal into Upper Station Lakes.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: August 25, 1989
Friday, 3:00 P.M.

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY

The normal closed waters in Olga Bay remain closed to commercial salmon fishing in order to achieve the desired sockeye escapement goal into Upper Station Lakes.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

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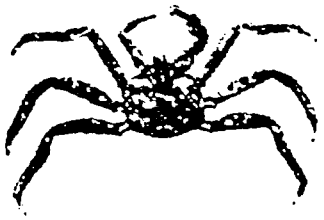
COMMERCIAL FISHERIES



NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: August 28, 1989
Monday, 4:00 P.M.
CORRECTED

NEWS RELEASE
For E.O. 4-F-K-55-89

IN THE KODIAK COMMERCIAL SALMON FISHERY

The Inner Upper Station Section, the Outer Upper Station Section and that portion of the Outer Akalura Section east of 154°17'51" W. long. will be open for a 54 hour fishing period to run from 12:00 noon Tuesday August 29 through 6:00 P.M. Thursday August 31, 1989.

Fishermen are reminded that no set gillnet gear, including but not limited to running lines, shore leads, anchors and buoys may be placed in the water nor may signs be placed on the beach prior to the opening of this fishing period.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: August 28, 1989
Monday, 11:00 A.M.

NEWS RELEASE
For E.O. 4-F-K-55-89

IN THE KODIAK COMMERCIAL SALMON FISHERY

The Inner Upper Station Section, the Outer Upper Station Section and that portion of the Outer Akalura Section east of 154°17'51" W. long. will be open for a 54 hour fishing period to run from 12:00 noon Tuesday August 29 through 6:00 P.M. Thursday August 31, 1989.

Fishermen are reminded that no set gillnet gear, including but not limited to running lines, shore leads, anchors and buoys may be placed in the water nor may signs be placed on the beach prior to the opening of this fishing period.

Additional fishing time in the normal closed waters of Olga Bay will have at least 18 hours advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

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COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: August 30, 1989
Wednesday 2:00 P.M.

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY

The Inner Upper Station Section, the Outer Upper Station Section and that portion of the Outer Akalura Section east of 154°17'51" W. long. will close to commercial salmon fishing as previously announced at 6:00 P.M. Thursday August 31, 1989.

Additional fishing time in the normal closed waters of Olga Bay will depend on improved coho salmon escapements and will have at least 42 hours advance notice.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Larry Malloy
Dave Prokopowich
Fishery Biologists

IMMEDIATE RELEASE

Date: September 1, 1989
Friday 2:00 P.M.

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY

Additional fishing time in the normal closed waters of Olga Bay will have at least 42 hours advance notice and will depend on improved coho salmon escapements and subsistence harvest requirements being met.

Because of the continuing presence of oil contamination in the remainder of the Kodiak Management Area, there are no new areas being considered for potential openings. The 96 hour notice for potential openings is still in effect with announcements being made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT
OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Pete Probasco
Regional Finfish
Mgmt. Biologist

IMMEDIATE RELEASE

Date: September 13, 1989
Wednesday 4:00 P.M.

NEWS RELEASE

IN THE KODIAK COMMERCIAL SALMON FISHERY

The potential commercial salmon fishery for the closed water portions of the Inner Karluk Section will occur no earlier than Saturday, September 16. This one day delay is due to not being able to have a vessel on the grounds by Wednesday to survey this area for potential oil contamination. All surveillance to date has been conducted from a helicopter and no new oil contamination within this area was documented. Results from the vessel survey should be available late Thursday afternoon. Depending on these results, an exact description of the area which could open to fishing and the nature of the fishing periods will be announced Thursday evening, September 14. Again this would be for a potential fishery in the closed water portions of the Inner Karluk Section, to occur no earlier than Saturday, September 16.

Additional fishing time in the normal closed waters of Olga Bay will have at least 42 hours advance notice and will continue to depend on an evaluation of coho stocks returning to the Upper Station and Akalura systems.

The remainder of the Kodiak Management Area continues to remain closed to commercial salmon fishing due to the presence or close proximity of oil-contaminated waters and beaches as identified in the latest vessel assessment surveys. Final assessment surveys which would identify any last opportunities for a commercial salmon fishery are scheduled to be completed by September 15. Any such opportunities would have at least 96 hours advance notice with announcements made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

COMMERCIAL FISHERIES

NEWS RELEASE

ALASKA DEPARTMENT OF FISH & GAME

STATE OF ALASKA
Department of Fish and Game
Don W. Collinsworth, Commissioner

Westward Region
211 Mission Road
Kodiak, AK 99615

Ken Parker, Director
Division of Commercial Fisheries

Contact: Pete Probasco
Regional Finfish
Mgmt. Biologist

IMMEDIATE RELEASE

Date: September 14, 1989
Thursday 5:00 P.M.

NEWS RELEASE
For E.O. 4-F-K-56-89

IN THE KODIAK COMMERCIAL SALMON FISHERY

Recently completed aerial and vessel surveys of the waters and beaches of the closed water portion of the Inner Karluk Section indicate that this area and the area in close proximity to it appear to be oil-free.

Consequently, there will be two (2) six hour fishing periods in the closed water portion of Karluk Lagoon west of King Hole as identified by ADF&G regulatory markers. The closed water portion of the Inner Karluk Section is identified is on page 56 of the 1989 Finfish Regulation Book.

Each of the two (2) six hour fishing periods will begin at 12:00 noon and end at 6:00 P.M. on each of the following days.

Saturday, September 16, 1989
Sunday, September 17, 1989

This fishery is considered to be a mop-up type fishery on surplus sockeye and coho and is consistent with historical such fisheries in the Karluk area. Additional fishing time in this area will depend heavily on the results of these two six hour fishing periods.

ADF&G personnel will be on the grounds to monitor each fishing period.

A reminder to all commercial fishermen that all steelhead caught incidental to this fishery must be released unharmed.

- - continued - -

ACE 9872952

Additional fishing time in the normal closed waters of Olga Bay will have at least 42 hours advance notice and will continue to depend on an evaluation of coho stocks returning to the Upper Station and Akalura systems.

The remainder of the Kodiak Management Area continues to remain closed to commercial salmon fishing due to the presence or close proximity of oil-contaminated waters and beaches as identified in the latest vessel assessment surveys. Final assessment surveys which would identify any last opportunities for a commercial salmon fishery are scheduled to be completed by September 15. Any such opportunities would have at least 96 hours advance notice with announcements made on Mondays, Wednesdays and Fridays.

Recent fishery information can be obtained by calling the Kodiak ADF&G office at 486-4791 or the ADF&G 24 hour record-a-phone at 486-4559. Catch and escapement information is available on the other ADF&G 24 hour record-a-phone at 486-4366.

- - END - -

ACE 9872953

Appendix F.2. Summary of Emergency Orders issued for commercial salmon fishing in the Kodiak Management Area, 1989.

Emergency Order No.	Time/Date Issued	Time/Date Effective	Action Taken
33	6:00 P.M. 6/16/89	6:00 A.M. 6/19/89	**Opening** for 15 hours; 6:00 A.M. 6/19 - 9:00 P.M. 6/19: - **Moser/Olga Bay Section**
34			**Herring E.O.**
35	4:30 P.M. 6/19/89	9:00 P.M. 6/19/89	**Extension** for 72 hours;9:00 P.M. 6/19 - 9:00 P.M. 6/22: - **Moser/Olga Bay Section** **Opening** for 57 hours; 12:00 Noon 6/20 - 9:00 P.M. 6/22: - **Outer Upper Station Section** **Opening** for 6 hours; 12:00 Noon 6/20 - 6:00 P.M. 6/20: - **Dog Salmon Flats Section**
36	8:00 A.M. 6/21/89	3:00 P.M. 6/21/89	**Opening** for 30 hours; 3:00 P.M. 6/21 - 9:00 P.M. 6/22: - **Dog Salmon Flats Section**
37	4:30 P.M. 6/22/89 (3 hour notice announcement for all gillnet fishermen in Alitak District.)	9:00 P.M. 6/24/89	**Extension** for 48 hours: 9:00 P.M. 6/22 - 9:00 P.M. 6/24: - **Moser/Olga Bay Section** - **Outer Upper Station Section** - **Dog Salmon Flats Section**
38	5:00 P.M. 6/23/89	9:00 P.M. 6/27/89	**Extension** for 72 hours; 9:00 P.M. 6/24 - 9:00 6/27: - **Dog Salmon Flats Section** **Closure** due to presence of oil; 9:00 P.M. 6/23: - **Moser/Olga Bay Section**
39	4:00 P.M. 6/26/89	9:00 P.M. 6/27/89	**Extension** for 96 hours; 9:00 P.M. 6/27 - 9:00 P.M. 7/1: - **Dog Salmon Flats Section**
40	4:00 P.M. 6/30/89	9:00 P.M. 7/1/89	**Extension** for 72 hours; 9:00 P.M. 7/1 - 9:00 P.M. 7/4: - **Dog Salmon Flat Section** **Opening** for 81 hours; 12:00 Noon 7/1 - 9:00 P.M. 7/4: - **Outer Upper Station Section**
41	4:00 P.M. 7/3/89	9:00 P.M. 7/4/89	**Extension** for 96 hours; 9:00 P.M. 7/4 - 9:00 P.M. 7/8 - **Outer Upper Station Section** - **Dog Salmon Flats Section**

-Continued-

Appendix F.2. (page 2 of 3)

Emergency Order No.	Time/Date Issued	Time/Date Effective	Action Taken
42	4:45 P.M. 7/5/89	12:00 A.M. 7/7/89	**Opening** for 81 hours; (See E.O. #43) 12:00 Noon. 7/7 - 9:00 P.M. 7/10: - **Moser/Olga Bay Section**
43	6:00 P.M. 7/7/89	11:00 P.M. 7/7/89	**Closure** due to close proximity of oil contaminated waters to fishing grounds of the: - **Moser/Olga Bay Section (only open for 11 hours)** **Extension** for 72 hours; 9:00 P.M. 7/8 - 9:00 P.M. 7/11: - **Outer Upper Station Section** - **Dog Salmon Flats Section**
44	3:00 P.M. 7/10/89	9:00 P.M. 7/11/89	**Extension** for 96 hours; 9:00 P.M. 7/11 - 9:00 P.M. 7/15: - **Dog Salmon Flats Section**
45	6:00 P.M. 7/14/89	9:00 P.M. 7/15/89	**Extension** for 72 hours; 9:00 P.M. 7/15 - 9:00 P.M. 7/18: - **Dog Salmon Flats Section**
46	4:00 P.M. 7/24/89	12:00 Noon 7/26/89	**Opening** for 81 hours; 12:00 Noon 7/26 - 9:00 P.M. 7/29: - **Outer Upper Station Section** - **Dog Salmon Flats Section East of 154°01' W. long.**
47	11:00 A.M. 7/28/89	9:00 P.M. 7/29/89	**Extension** for 72 hours; 9:00 P.M. 7/29 - 9:00 P.M. 8/1: - **Outer Upper Station Section** - **Dog Salmon Flats Section East of 154°01' W. long.**
48	6:00 P.M. 7/31/89	12:00 Noon 8/1/89	**Extension** for 96 hours; 9:00 P.M. 8/1 - 9:00 P.M. 8/5: - **Outer Upper Station Section** - **Dog Salmon Flats Section East of 154°01' W. long.** **Opening** for 57 hours; 12:00 Noon 8/1 - 9:00 P.M. 8/3: - **Inner Upper Station Section**
49	4:30 P.M. 8/2/89	9:00 P.M. 8/3/89	**Extension** for 48 hours; 9:00 P.M. 8/3 - 9:00 P.M. 8/5: - **Inner Upper Station Section**

-Continued-

Appendix F.2. (page 3 of 3)

Emergency Order No.	Time/Date Issued	Time/Date Effective	Action Taken
50	12:00 Noon 8/4/89	9:00 P.M. 8/5/89	**Extension** for 72 hours; 9:00 P.M. 8/5 - 9:00 P.M. 8/8: - **Outer Upper Station Section** - **Inner Upper Station Section** - **Dog Salmon Flats Section East of 154°01' W. long.**
51	3:00 P.M. 8/7/89	9:00 P.M. 8/8/89	**Extension** for 96 hours; 9:00 P.M. 8/8 - 9:00 P.M. 8/12: - **Outer Upper Station Section** - **Inner Upper Station Section** - **Dog Salmon Flats Section East of 154°01' W. long.**
52	3:00 P.M. 8/11/89	9:00 P.M. 8/12/89	**Extension** for 72 hours; 9:00 P.M. 8/12 - 9:00 P.M. 8/15: - **Outer Upper Station Section** - **Dog Salmon Flats Section East of 154° 01' W. long.**
53	2:00 P.M. 8/14/89	9:00 P.M. 8/15/89	**Extension** for 45 hours; 9:00 P.M. 8/15 - 6:00 P.M. 8/17: - **Outer Upper Station Section** - **Dog Salmon Flats Section East of 154° 01' W. long.**
54	2:00 P.M. 8/16/89	6:00 P.M. 8/17/89	**Extension** for 48 hours; 6:00 P.M. 8/17 - 6:00 P.M. 8/19: - **Outer Upper Station Section** - **Dog Salmon Flats Section East of 154° 01' W. long.**
55	11:00 A.M. 8/28/89	12:00 Noon 8/29/89	**Opening** for 54 hours: 12:00 Noon 8/29 - 6:00 P.M. 8/31: - **Inner Upper Station Section** - **Outer Upper Station Section** - **Outer Akalura Section East of 154°17'51" W. long.**
56	5:00 P.M. 9/14/89	12:00 Noon 9/16/89	**Opening** for two six hour periods: 12:00 Noon 9/16/89-6:00 P.M. 9/16/89 12:00 Noon 9/17/89-6:00 P.M. 9/17/89 - **Closed water portion of Inner Karluk Section west of "King Hole".**

Appendix G.1. Escapement summary for systems with fish weirs, Kodiak Management Area, 1989[a].

Weir Location	Dates		Salmon Species Enumerated					Total
	Installed	Removed	Chinook	Sockeye	Coho	Pink	Chum	
1. Karluk	5/22	9/16	10,484	1,108,646[b]	21,852[b]	109,880[b]	129	1,250,991
2. Red River	5/31	8/31	15,432	768,101[b]	8,242[b]	45,655[b]	100	837,530
3. Dog Salmon	6/06	9/06	156	362,007	5,668[b]	315,559[b]	4,690	688,080
4. Fraser Lake[a]	6/19	8/10	85[c]	360,373[c]	0	516[c]	0	360,974[c]
5. Upper Station	5/31	9/12	4	286,288[b]	5,319[b]	754	1	292,366
6. Akalura	5/19	9/23	0	116,029[b]	4,001[b]	49,608[b]	3	169,641
7. Saltery	6/10	9/25	1	30,237[b]	5,332[b]7	214,541[b]	14	250,125
8. Buskin	4/20	10/02	0	17,853[b]	9,930[b]	159,123[b]	79	186,985
9. Litnik	5/31	9/20	3	88,825[b]	13,050[b]	41,611[b]	9	143,498
10. Thorsheim	6/04	7/17	0	8,206[b]	0	15	32	8,253
11. Paul's Bay	6/06	9/10	0	12,605[b]	7,919[b]	4,254	0	24,778
12. Perenosa (Portage)	8/13	8/27	0	9	5,928[b]	79,690[b]	4	85,631
13. Whitey's Hole	8/13	9/09	0	1	42	11	0	54
14. Carry Bear	8/13	9/02	0	7	441	37	0	485
15. Big Bay	8/13	9/25	0	0	1,799	62	0	1,861
TOTALS			26,080	2,798,806	87,241	1,020,690	5,061	3,937,878

[a] Escapement figures are total escapement figures that include actual total counts of fish passes through the weir plus estimates of fish that spawned below the weir.
[b] Primary management species.
[c] Numbers not used in species total.

Appendix G.2. Total salmon escapements counted through weirs, by stream and species within the Kodiak Management Area, 1989.

District Stream	Number of Fish				
	Sockeye	Pink	Chum	Coho[a]	Chinook
Afognak District					
Afognak R. (252-342)	88,825	49,088[b]	9	16,347	0
East Arm Ck. (251-404)	48	20,056	522	433	0
Big Bay Ck. (251-601)	0	62	0	1,799	0
Carry Bear Ck. (251-705)	7	37	0	441	0
Whitey's Hole Ck. (251-706)	1	11	0	42	0
Ltl. Waterfl Ck. (251-822)	0	106,347	0	0	0
Perenosa Ck. (251-830)	9	95,700	4	5,928	0
Pauls Bay Ck. (251-831)	12,605	4,254	0	7,984	0
Thorsheim Ck. (251-302)	8,206	15	32	0	0
subtotal	109,701	275,570	567	32,974	0
Alitak Bay District					
Akalura Ck. (257-302)	116,029	49,608	3	4,182	0
Dog Salmon Ck. (257-403)	362,007	315,559	4,690	6,750	156
Upper Station Ck. (257-304)	286,288	754	1	7,229	4
subtotal	764,324	365,921	4,694	18,161	160

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Appendix G.2. (page 2 of 2)

District Stream	Number of Fish				
	Sockeye	Pink	Chum	Coho[a]	Chinook
Northwest District					
Karluk R. (255-101)	1,108,646	109,880	129	25,370	10,484
subtotal	1,108,646	109,880	129	25,370	10,484
Southwest District					
Ayakulik R. (256-201)	768,101	45,655	100	12,822	15,432
subtotal	768,101	45,655	100	12,822	15,432
Eastside District					
Saltery Ck. (259-415)	30,237	214,541	14	6,738	1
subtotal	30,237	214,541	14	6,738	1
Northeast District					
Buskin R. (259-211)	17,853	272,785[c]	79	9,954	0
subtotal	17,853	272,785	79	9,954	0
Total	2,798,862	1,284,352	5,583	106,019	26,077

[a] Coho escapement counts for listed streams include a post-weir estimate derived from the time-of-entry pattern of the escapement counted. Karluk, Ayakulik, Dog Salmon, Upper Station, Akalura, Saltery, Buskin, Afognak and Pauls Bay.

[b] Estimate includes 7,477 pink salmon escapement through an Afognak River tributary down river of the Afognak River weir.

[c] Pink salmon weir count was expanded by a factor of 1.7143 based upon historical spawner distribution below the existing weir facility.

Appendix G.3. Index peak salmon escapement counts[a] for the Afognak District, by stream and species, 1989.

Stream	Number of fish[b] Sockeye	Pink	Chum	Coho	Chinook	Date	Observer	Number of Surveys
251-101	2,600	0	0	0	0	7/16	Brennan	
		1,500	0	0	0	7/31	Brennan	
	0	0	0	4,500	0	9/13	Brennan	5
251-102	0	412	0	0	0	9/7	Sampson	1
251-103	1	4,020	24	21	0	9/7	Sampson	1
251-104	0	300	0	0	0	9/7	Sampson	1
251-105	120	1,200	0	0	0	7/26	Brennan	
	2,450	750	0	0	0	9/13	Brennan	5
251-109	0	520	0	0	0	9/7	Sampson	1
251-201	0	774	0	0	0	9/8	Sampson	1
251-202	3	651	0	0	0	9/8	Sampson	1
251-206	0	9	0	0	0	9/8	Sampson	1
251-207	0	200	0	0	0	9/8	Sampson	1
251-301	0	0	0	0	0	9/13	Brennan	1
251-302	8,206	15	32	0	0	7/17	Weir Count	
	100	2,500	0	0	0	7/26	Brennan	
	11	418	0	500	0	9/12	Rudio	3
251-403	0	220	0	50	0	9/11	Rudio	2
251-404	48	20,056	522	433	0	9/18	Weir Count	
251-405	0	80	0	0	0	9/6	Hander	1
251-406	1		0		0	9/6	Hander	
	0	2,500		1	0	9/9	Sampson	2
251-407	0	3,050	0	0	0	9/8	Hander	2
251-502	0	80	0	0	0	9/6	Hander	2
251-503	0	0	0	0	0	9/9	Sampson	1
251-504	0	250	0		0	9/1	Barnhart	
	0		0	3,000	0	9/10	Sampson	3
251-505	0	115	0	2	0	9/10	Sampson	1
251-505A	0	24	0	0	0	9/10	Sampson	1
251-506	0	99	0	0	0	9/10	Sampson	1
251-507	0	12	0	0	0	9/10	Sampson	1
251-510	0	2,100	0	10	0	9/8	Hander	2
251-601	0	262	0	2,649	0	9/25	Weir Count	
251-705	7	37	0	1,441	0	9/9	Weir Count	
251-706	1	11	0	42	0	9/9	Weir Count	
	0	0	0	3,050	0	9/11	Sampson	1
251-811	0	11	0	24	0	9/11	Sampson	1
251-812	0	0	0	0	0	9/11	Sampson	1
251-813	0	150	0	0	0	9/11	Sampson	1
251-821	0	1,000	0	0	0	7/31	Brennan	
	0	2,500	0	0	0	9/11	Hasting	2
251-822	14	101,752	0	0	0	8/28	Honnold	
	0		8	16	0	9/4	Honnold	3
251-825	0	0	0	0	0	7/26	Brennan	1
251-826	0	0	0	0	0	7/26	Brennan	1
251-829	0	0	0	0	0	7/26	Brennan	1
251-830	425	0	0	0	0	7/26	Brennan	4
	9	79,690	4	5,928	0	8/27	Weir Count	
251-831	12,605	4,254	0	7,919	0	9/10	Weir Count	
251-832	0	375	0	0	0	9/2	Barnhart	1
251-901	0	1,500	0	12	0	9/11	Sampson	1
252-103	0	1,150	0	0	0	9/2	Barnhart	1
252-104	0	325	0	0	0	9/2	Barnhart	1
252-301	0	7,000	0	0	0	9/3	Sampson	1
252-302	0	3,000	0	4	0	9/3	Sampson	1
252-303	0	0	0	0	0	7/26	Brennan	1
252-305	0	35,500	0	0	0	9/3	Sampson	1
252-306	0	66,000	0	0	0	9/3	Sampson	2
252-307	0	18,500	0	0	0	9/3	Sampson	1
252-308	0	28	0	3	0	9/3	Sampson	1
252-309	0	23,000	0	0	0	9/3	Sampson	1
252-317	0	1	0	18	0	9/5	Sampson	2
252-318	0	45,000	0	2	0	9/3	Sampson	1
252-319	0	0	0	0	0	6/28	Brennan	1
252-323	0	150,000	0	0	0	9/19	Joyce	1
252-324	0	250,000	0	0	0	9/19	Joyce	1
252-331	1	2,281	0	72	0	9/6	Sampson	2

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Appendix G.3. (page 2 of 2)

Stream	Number of fish[b]					Date	Observer	Number of Surveys
	Sockeye	Pink	Chum	Coho	King			
252-331A	0	1,429	0	0	0	9/6	Sampson	1
252-331B	0	1,168	0	56	0	9/6	Sampson	1
252-332	0	500	0	0	0	7/31	Brennan	
	0	30,500	500	0	0	9/5	Sampson	6
252-333	0	15,500	0	0	0	9/5	Sampson	2
252-335	0	209	0	0	0	9/5	Sampson	2
252-337	0	43	0	0	0	9/5	Sampson	1
252-338	0	2	0	0	0	9/5	Sampson	1
252-339	0	10	0	0	0	9/5	Sampson	1
252-342	88,825	41,611	9	13,050	3	9/20	Weir Count	
252-343	0	400	0	0	0	7/31	Brennan	
	0	10,000	0	0	0	9/6	Hastings	
	0		0	225	0	9/13	Brennan	5
252-345	42	6,469	19	28	0	9/19	Weir Count	
	115,469	943,023	1,118	43,056	3			98

[a] Index peak counts are the highest single count made for each species in each stream surveyed, or if there are counts made approximately 30 or more days apart these counts are added to give the index peak estimate.

[b] From aerial surveys, foot surveys, or weir counts.

Appendix G.4. Index peak salmon escapement counts[a] for the Northwest Kodiak District, by stream and species, 1989.

Stream	Number of fish[b] Sockeye	Pink	Chum	Coho	King	Date	Observer	Number of Surveys
253-114	0	15	0	0	0	8/1	Hander	
	0	2,500	0	0	0	8/29	Hander	
	0	200	0	150	0	9/13	Prokopowich	3
253-115	14,700	51,000	0	0	0	7/26	Malloy	
	10,000	84,000	0	0	0	8/26	Prokopowich	
	0	0	0	5,000	0	9/13	Prokopowich	7
253-121	0	0	19,000	0	0	7/27	Chatto	
	0	8,000	0	0	0	8/29	Hander	12
253-122	38,000	28,000		0	0	7/26	Malloy	
			53,000	0	0	8/1	Brennan	
	20,500	705,000	20,000	0	0	8/29	Prokopowich	17
253-141	0	1,800	0	0	0	9/13	Prokopowich	1
253-142	0	900	0	0	0	9/13	Prokopowich	1
253-311	0	1,600	0	0	0	9/13	Prokopowich	1
253-313	0	0	0	350	0	9/13	Brennan	1
253-321	0	6,000	0	0	0	8/1	Hander	
	0	0	0	50	0	9/13	Brennan	2
253-331	0	0	4,500	0	0	7/11	Chatto	
	0	25,000		0	0	7/19	Blackett	
	0	367,000	23,000	0	0	8/25	Brennan	
	0	32,000	200	500	0	9/21	Blacket	20
253-332	0	5,000	0	0	0	7/12	Nicholson	
	0	325,000	0	0	0	8/29	Prokopowich	12
253-333	0	500	0	0	0	7/12	Nicholson	
	0	3,300	0	0	0	8/25	Brennan	5
254-102	0	0	0	0	0	9/13	Prokopowich	1
254-103	0	3,500	0	200	0	9/13	Prokopowich	1
254-105	0	150	0	0	0	9/13	Prokopowich	1
254-201	0	60,000	0	0	0	7/22	Giegerich	
	0		6,000	0	0	8/1	Hander	8
254-202	0		14,000	0	0	8/1	Brennan	
	0	1,205,000		0	0	8/4	Prokopowich	
	0		18,000	0	0	9/13	Prokopowich	
	0	0	0	700	0	10/8	Hander	15
254-203	0	0	15,000	0	0	8/1	Brennan	
	0	455,000		0	0	8/4	Prokopowich	10
254-204	0	2,000	0	0	0	7/22	Giegerich	
	0	34,000	0	0	0	8/25	Brennan	
	0		1,000	0	0	8/29	Hander	
	0	0	0	250	0	9/26	Hander	14
254-205	0	2,000	0	0	0	8/1	Hander	2
254-206	0	1,000	0	0	0	8/1	Hander	2
254-207	0	2,200	0	0	0	8/1	Hander	2
254-208	0	3,000	0	0	0	8/1	Hander	2
254-209	0	700	0	0	0	7/18	Brennan	2
254-210	0	5,000	0	0	0	7/18	Brennan	2
254-211	0	5,000	0	0	0	7/18	Brennan	2
254-212	0	1,500	1,500	0	0	8/1	Hander	3
254-301	0		80,000	0	0	7/22	Giegerich	
	0	215,000		0	0	8/4	Prokopowich	
	0	0	4,400	0	0	9/18	Brennan	
	0	0	0	6,000	0	10/14	Lechner	14
254-302	0	17,250	750	0	0	8/10	Hander	3
254-401	0	48,000	32,000	0	0	8/10	Hander	
	0	0	0	12,500	0	10/13	Hander	6
254-402	0	8,000	0	0	0	8/1	Hander	1
254-403	0	100	0	0	0	8/1	Hander	1
254-404	0	4,000	0	0	0	8/1	Hander	2
254-405	0	1,700	0	0	0	8/1	Hander	2
259-307	0	0	300	0	0	7/11	Malloy	1
259-363	0	0	0	700	0	9/13	Brennan	1
259-364	0	0	0	0	0	7/31	Brennan	1
259-365	0	2,500	0	0	0	7/19	Blackett	
	0		2,000	0	0	8/31	Brennan	
	0	236,000		0	0	8/23	Blackett	
	0		55,500	0	0	9/13	Brennan	
	0			600	0	9/21	Blackett	10

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Stream	Number of fish[b]					Date	Observer	Number of Surveys
	Sockeye	Pink	Chum	Coho	King			
259-366	0	16,700	0	0	0	8/30	Brennan	2
259-367	250	13,000	4,000	0	0	7/31	Brennan	1
259-368	0	19,000	0	0	0	8/30	Brennan	2
259-369	0	0	4,300	0	0	7/11	Malloy	1
259-371	0		900	0	0	7/26	Malloy	
	0	39,000	0	0	0	8/4	Prokopowich	
	0	22,000	45,000	0	0	9/13	Brennan	10
259-372	0	4,500	0	0	0	9/13	Brennan	4
259-373	0	1,800	0	0	0	7/31	Brennan	2
259-381	0	0	0	0	0	7/26	Malloy	1
259-382	0	54,000	6,000	0	0	8/30	Brennan	3
259-383	0	0	0	0	0	7/26	Malloy	1
259-391	0	5,400	0	0	0	8/30	Brennan	2
259-392	0	4,000	0	0	0	8/30	Brennan	1
259-394	0	300	0	0	0	9/13	Brennan	1
259-395	0	286	0	142	0	9/2	Sampson	1
259-397	0	300	0	0	0	9/13	Brennan	1
259-398A	0	48	0	0	0	9/2	Sampson	1
259-398B	0	29	0	0	0	9/2	Sampson	1
259-399	0	12	0	0	0	9/2	Sampson	1
	83,450	4,139,790	410,350	27,142	0			227

[a] Index peak counts are the highest single count made for each species in each stream surveyed, or if there are counts made approximately 30 or more days apart these counts are added to give the index peak estimate.

[b] From aerial surveys, foot surveys, or weir counts.

Appendix G.5. Index peak salmon escapement counts[a] for the Southwest Kodiak District, by stream and species, 1989.

	Number of fish[b]							
Stream	Sockeye	Pink	Chum	Coho	King	Date	Observer	Number of Surveys
255-101	1,108,646	109,880	129	21,852	10,484	9/16	Weir Count	
256-101	0	0	100	0	0	7/27	Chatto	2
256-102	0	0	0	0	0	9/26	Hander	3
256-201	768,101	45,655	100	8,242	15,432	8/31	Weir Count	
256-202	0	0	0	0	0	9/26	Hander	5
256-301	0	1,500	0	600	0	9/13	Prokpowich	5
256-302	0	50	0	0	0	8/25	Hander	
	0	0	0	100	0	9/13	Prokpowich	5
256-303	0	0	0	0	0	10/8	Hander	7
256-303A	0	0	0	0	0	7/27	Chatto	1
256-401	0	0	35,000	0	0	7/11	Chatto	
	0	1,750		0	0	7/27	Chatto	
	0	0	0	3,970	0	9/26	Hander	9
256-402	0	0	3,050	0	0	7/19	Chatto	
	0	3,000	0	0	0	10/8	Hander	
	0	0	0	615	0	10/26	Hander	6
	1,876,747	158,835	38,379	34,764	25,916			37

[a] Index peak counts are the highest single count made for each species in each stream surveyed, or if there are counts made approximately 30 or more days apart these counts are added to give the index peak estimate.

[b] From aerial surveys, foot surveys, or weir counts.

Appendix G.6. Index peak salmon escapement counts[a] for the Alitak Bay District, by stream and species, 1989.

Stream	Number of fish[b]					Date	Observer	Number of Surveys
	Sockeye	Pink	Chum	Coho	King			
257-101	0	0	430	0	0	7/19	Chatto	
	0	0	0	1,200	0	10/26	Hander	5
257-102	0	0	100	0	0	7/20	Chatto	
	0	1,000	0	0	0	8/25	Hander	
	0	0	500	0	0	9/26	Hander	6
257-301	0	0	0	0	0	6/17	Brenna	1
257-302	116,029	49,608	3	4,001	0	10/15	Weir Count	
257-303	3,035	0	0	0	0	7/27	Chatto	
		600	0	0	0	8/25	Hander	
	0	0	0	1,000	0	10/8	Hander	11
257-304	286,288	754	1	5,319	4	9/12	Weir Count	
257-305	0	0	0	0	0	6/23	Brenna	6
257-401	0	3,050	25	0	0	7/25	Brennan	
	0	550	0	0	0	9/15	Gieger	2
257-402	4,000	300	0	2,700	0	9/26	Hander	11
257-403	362,007	315,559	4,690	5,668	156	9/6	Weir Count	
257-405	0	6,000	0	0	0	7/25	Brennan	1
257-502	0	490,000	5,000	0	0	8/4	Prokopowich	
	0	192,000	22,000	0	0	9/13	Prokopowich	
	0		0	700	0	9/26	Hander	13
257-503	0	600		0	0	7/25	Brennan	
	0		650	0	0	7/26	Hander	
	0	87,000	0	0	0	8/25	Brennan	9
257-504	0	70,000	0	0	0	8/26	Brennan	4
257-601	0	0	800	0	0	7/26	Hander	
	0	24,800	0	0	0	8/26	Brennan	4
257-602	0	0	500	0	0	7/26	Hander	
	0	35,000	4,000	0	0	8/26	Brennan	5
257-603	0	24,000	0	0	0	8/4	Prokopowich	
	0		9,500	0	0	8/30	Malloy	5
257-604	0	500	0	0	0	7/21	Brennan	
	0		3,000	0	0	7/26	Hander	
	0		2,000	0	0	8/26	Brennan	
	0	123,000		0	0	8/30	Malloy	6
257-605	0	8,000	0	0	0	8/26	Hander	4
257-701	0	226,000	0	0	0	7/26	Hander	
	0	891,000	0	0	0	8/30	Malloy	9
257-702	0	2,500	0	0	0	7/26	Hander	
	0	94,000	0	0	0	8/30	Malloy	4
257-702A	0	65,000	0	0	0	8/26	Hander	2
257-703	0	0	0	0	0	7/26	Hander	1
	771,359	2,710,821	53,199	20,588	160			109

[a] Index peak counts are the highest single count made for each species in each stream surveyed, or if there are counts made approximately 30 or more days apart these counts are added to give the index peak estimate.

[b] From aerial surveys, foot surveys, or weir counts.

Appendix G.7. Index peak salmon escapement counts[a] for the Eastside Kodiak District, by stream and species, 1989.

Stream	Number of fish[b] Sockeye	Pink	Chum	Coho	King	Date	Observer	Number of Surveys
258-101	0	1,700	0	0	0	8/4	Brennan	
	0	2,600	0	0	0	9/12	Brennan	2
258-201	0	4,500	0	0	0	8/4	Brennan	
	0	4,700	5,300	300	0	9/12	Brennan	2
258-202	0	1,175	0	0	0	8/4	Brennan	
	0	0	3,600	0	0	9/12	Brennan	3
258-203	0	150	0	0	0	8/4	Brennan	1
258-204	0	0	19,200	0	0	8/26	Brennan	
	0	200		0	0	9/12	Brennan	4
258-205	0	0	1,725	0	0	8/4	Brennan	
	0	300	4,400	0	0	9/12	Brennan	4
258-206	0	4,100	900	0	0	8/4	Brennan	
	0	200	1,800	0	0	9/12	Brennan	2
258-207	0	1,900	4,700	0	0	7/27	Brennan	
	0	74,500	34,000	0	0	8/26	Brennan	
	0	0	0	650	0	10/8	Hander	9
258-208	0	19,200	225	0	0	8/4	Brennan	
	0	400	3,200	0	0	9/12	Brennan	4
258-209	0	4,100	0	0	0	8/4	Brennan	2
258-210	0	0	0	0	0	8/4	Brennan	2
258-211	0	400	0	0	0	8/3	Chatto	
	0	300	1,300	0	0	9/12	Brennan	4
258-212	0	150	0	0	0	8/4	Brennan	
	0	4,000	6,500	0	0	9/12	Brennan	4
258-213	0	31,800	1,900	0	0	8/26	Brennan	4
258-301	0	800	6,000	0	0	9/15	Brennan	1
258-302	0	1,500	6,000	0	0	8/30	Malloy	1
258-303	0	2	0	0	0	9/15	Brennan	2
258-304	0	3,000	0	0	0	8/3	Chatto	
	0	2,300	0	0	0	9/15	Brennan	2
258-305	0	575	0	0	0	9/15	Brennan	2
258-306	0	150	0	0	0	9/15	Brennan	2
258-307	0	1,100	0	0	0	9/13	Malloy	2
258-401	425	0	0	0	0	7/27	Brennan	
	11,000	0	0	800	0	9/13	Malloy	2
258-511	0	0	32,000	400	0	9/15	Brennan	2
258-512	0	11,000	40,000	0	0	8/30	Malloy	2
258-513	0	0	8,600	0	0	9/15	Brennan	2
258-514	0	10,800	1,200	0	0	8/30	Malloy	1
258-521	0	0	400	0	0	7/18	Chatto	
	0	9,200		0	0	7/27	Brennan	
	0	15,000	0	0	0	8/30	Hander	
	0		2,500	3,000	0	9/15	Brennan	6
258-522	0	43,000	0	0	0	8/4	Prokopowich	
	0	35,000	10,000	0	0	9/15	Brennan	
	0	0	0	1,600	0	10/8	Hander	10
258-524	0	0	0	40	0	10/8	Dolezal	1
258-531	0	0	0	0	0	7/18	Chatto	1
258-532	0	0	0	0	0	7/18	Chatto	1
258-533	0	0	0	0	0	7/18	Chatto	1
258-541	0	1,000	0	0	0	7/26	Hander	
	0	50,000	0	0	0	8/26	Hander	
	100	0	0	300	0	10/8	Hander	6
258-541A	0	0	0	0	0	7/18	Chatto	1
258-542	0	0	100	0	0	7/26	Hander	
	0	78,000		0	0	8/25	Brennan	
	0		10,000	0	0	8/30	Malloy	11
258-544	0	17,000	0	0	0	8/25	Brennan	
	0	0	0	60	0	10/8	Hander	8
258-551	0	4,300	0	0	0	8/26	Hander	
	10	0	0	0	0	9/15	Brennan	6
258-554	0	0	4,000	0	0	7/18	Chatto	
	0	1,000	0	0	0	8/26	Hander	4
258-555	0	0	500	0	0	7/18	Chatto	
	0	300	0	0	0	8/26	Hander	3
258-601	0	0	300	0	0	7/26	Hander	
	0	4,300	0	0	0	8/26	Hander	2

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Stream	Number of fish[b] Sockeye	Pink	Chum	Coho	King	Date	Observer	Number of Surveys
258-602	0	1,500	5,015	0	0	7/26	Hander	
	0	57,000	0	0	0	8/26	Brennan	4
258-603	0	0	20	0	0	7/26	Hander	
	0	42,000	0	0	0	8/30	Malloy	4
258-701	0	78,500	0	0	0	7/26	Hander	
	0	455,000	0	0	0	8/30	Malloy	8
258-702	0	104,000	0	0	0	8/30	Malloy	3
258-703	0	48,500	0	0	0	8/30	Malloy	3
258-704	0	0	0	0	0	8/30	Malloy	2
258-705	0	19,000	0	0	0	8/30	Malloy	3
258-706	0	0	3,000	0	0	7/26	Hander	1
258-707	0	100	200	0	0	7/26	Hander	1
258-801	0	0	1,200	0	0	8/30	Malloy	1
258-803	0	0	0	0	0	8/30	Malloy	1
258-804	0	0	0	0	0	8/30	Malloy	1
258-805	0	0	0	0	0	8/30	Malloy	1
258-807	0	0	900	0	0	8/30	Malloy	1
258-808	0	100	400	20	0	8/30	Malloy	1
258-809	0	0	0	0	0	8/30	Malloy	1
258-810	0	0	500	0	0	8/30	Malloy	1
258-851	0	0	2,100	400	0	8/30	Malloy	1
258-852	0	0	0	0	0	8/30	Malloy	1
258-901	0	3,300	0	0	0	8/26	Brennan	2
258-902	0	42,000	0	0	0	8/26	Brennan	2
258-903	0	3,000	0	0	0	7/26	Hander	1
258-904	0	2,000	0	0	0	7/26	Hander	1
259-401	0	3,600	0	0	0	9/12	Brennan	1
259-403	0	100	0	0	0	9/12	Brennan	1
259-411			0		50	9/12	Brennan	
	14,300	2,000	0	1,800	0	9/13	Malloy	2
259-412	470	14,900	0	0	0	7/27	Brennan	
	950		0	0	0	9/12	Brennan	
	0	61,000	0	1,400	0	9/13	Malloy	4
259-414	0	1,500	0	0	0	7/27	Brennan	
	0		1,000	0	0	8/4	Prokopowich	
259-414	0	96,000	0	0	0	8/26	Brennan	6
259-415	0	71,000	15,000	0	0	9/12	Brennan	
	30,237	214,541	14	5,332	1	9/25	Weir Count	
	0			3,500	0	9/25	Malloy	11
259-416	0	6,500		0	0	8/4	Prokopowich	
	0		5,210	0	0	8/4	Brennan	2
259-417	0	500	1,200	0	0	9/12	Brennan	2
259-417A	0	0	55	0	0	8/4	Brennan	1
259-418	0	0	470	0	0	8/4	Brennan	1
259-418A	0	900	3,800	0	0	9/12	Brennan	1
259-418B	0	0	0	0	0	9/12	Brennan	1
259-419	0	0	0	0	0	8/4	Brennan	1
259-420	0	0	0	0	0	8/4	Brennan	1
259-421	0	0	0	0	0	8/4	Brennan	1
259-422	0	20,200	0	0	0	8/4	Brennan	
	0	6,000	0	0	0	9/12	Brennan	2
259-423	0	0	550	0	0	8/4	Brennan	
	0	700	1,900	0	0	9/12	Brennan	2
259-424	0	10,100	1,900	0	0	8/4	Brennan	
	0	46,000	15,000	0	0	9/12	Brennan	
	0			6,500	0	9/25	Malloy	4
259-425	0	100	0	0	0	8/4	Brennan	
	0	6,300	0	0	0	9/12	Brennan	2
259-426	0	2,200	0	0	0	8/4	Brennan	1
259-427	0	200	0	0	0	8/4	Brennan	1
259-428	0	0	12,000	0	0	9/13	Malloy	3
	57,492	1,866,043	281,784	26,102	51			225

Appendix G.8. Index peak salmon escapement counts[a] for the Northeast Kodiak District, by stream and species, 1989.

Stream	Number of fish[b]					Date	Observer	Number of Surveys
	Sockeye	Pink	Chum	Coho	King			
259-101	0	12,000	0	0	0	8/30	Brennan	
	0		0	120	0	9/13	Brennan	3
259-102	0	132	0	0	0	7/27	Swanton	
	0	42,100	0	0	0	8/27	Swanton	
	0		0	25	0	8/30	Brennan	19
259-105	0	7,000	0	0	0	8/30	Brennan	2
259-211	17,853	159,123	79	9,930	0	10/2	Weir Count	
259-221	0	43,000	0	0	0	9/12	Brennan	1
259-222	0	1,300	0	0	0	7/31	Brennan	
	0	36,500	1,800	0	0	9/12	Brennan	2
259-223	0	1,600	0	0	0	7/31	Brennan	
	0	113,000	0	200	0	9/12	Brennan	2
259-231	0			0	1	8/4	Brennan	
	0	72,500	7,800	0	0	8/26	Brennan	
	0	126,000	11,000	2,500	0	9/25	Malloy	7
259-233	0	500	1,800	0	0	9/12	Brennan	1
259-235	0	16,700	0	0	0	8/26	Brennan	2
259-242	0	34,400	700	0	0	7/27	Brennan	
	0	53,000	0	0	0	8/30	Brennan	
	0		1,500	1,100	0	9/13	Malloy	3
259-243	0	50,200	1,400	0	0	8/4	Brennan	1
259-244	0	12,600	0	0	0	8/4	Brennan	2
259-245	0	25,700	0	0	0	8/4	Brennan	1
259-246	0	300	0	0	0	8/4	Brennan	1
259-251	0	39,400	200	0	0	8/30	Brennan	
	0	0	0	235	0	10/25	Gretsch	3
	17,853	847,055	26,279	14,110	1			50

[a] Index peak counts are the highest single count made for each species in each stream surveyed, or if there are counts made approximately 30 or more days apart these counts are added to give the index peak estimate.

[b] From aerial surveys, foot surveys, or weir counts.

Appendix G.9. Index peak salmon escapement counts[a] for the Mainland District, by stream and species, 1989.

Stream	Number of fish[b]					Date	Observer	Number of Surveys
	Sockeye	Pink	Chum	Coho	King			
262-101	0	100	0	0	0	8/26	Malloy	2
262-102	0	12,000	0	0	0	8/26	Malloy	2
262-103	0	600	0	0	0	8/26	Malloy	2
262-104	0	0	0	0	0	8/26	Malloy	1
262-105	0	0	0	0	0	8/26	Malloy	2
262-106	0	0	0	0	0	8/26	Malloy	2
262-107	0	0	0	0	0	8/26	Malloy	2
262-108	0	3,600	4,200	0	0	8/26	Malloy	2
262-109	0	0	1,400	0	0	8/26	Malloy	2
262-110	0	0	0	0	0	8/26	Malloy	2
262-111	0	0	0	0	0	8/26	Malloy	2
262-113	0	3,800	0	0	0	8/26	Malloy	1
262-151	230	0	0	0	0	6/27	Brennan	
	39,000	0	0	0	0	8/26	Malloy	2
262-152	0	3,000	15,000	0	0	8/26	Malloy	2
262-153	0	48,000	8,000	0	0	8/26	Malloy	2
262-154	0	0	14,000	0	0	8/26	Malloy	2
262-155	0	800	0	0	0	8/26	Malloy	1
262-201	0	3,000	8,000	0	0	8/26	Malloy	3
262-202	0	0	1,100	0	0	8/26	Malloy	2
262-203	0	0	8,000	0	0	8/26	Malloy	2
262-204	0	0	0	0	0	8/26	Malloy	2
262-205	0	42,000	12,000	0	0	8/26	Malloy	2
262-206	0	6,000	2,000	0	0	8/26	Malloy	1
262-207	0	0	3,400	0	0	8/26	Malloy	1
262-254	0	100	0	0	0	8/26	Malloy	1
262-271	0	2,000	58,000	0	0	8/26	Malloy	1
262-272	0	0	0	0	0	8/26	Malloy	1
262-273	0	0	0	0	0	8/26	Malloy	1
262-301	5,250	0	0	0	0	6/27	Brennan	
	56,000	0	0	0	0	8/26	Malloy	2
262-351	0	9,000	0	0	0	8/26	Malloy	1
262-352	0	3,800	0	0	0	8/26	Malloy	2
262-401	0	3,800	0	0	0	8/26	Malloy	1
262-402	0	52,000	0	0	0	8/26	Malloy	1
262-451	0	38,000	3,000	0	0	8/29	Prokopowich	2
262-501	0	210,000	0	0	0	8/29	Prokopowich	2
262-502	0	0	0	0	0	9/12	Malloy	2
262-503	0	1,000	0	0	0	9/1	Giegerich	1
262-504	0	10,000	0	0	0	8/29	Prokopowich	1
262-505	0	10,000	0	0	0	8/29	Prokopowich	1
262-551	0	38,000	5,000	0	0	8/29	Prokopowich	5
262-552	0	0	0	0	0	7/26	Malloy	1
262-601	0	0	0	0	0	7/26	Malloy	1
262-602	0	0	0	0	0	8/29	Prokopowich	2
262-603	0	0	0	0	0	8/29	Prokopowich	2
262-604	0	31,000	12,000	0	0	7/26	Malloy	
	0	80,000	0	0	0	8/29	Prokopowich	2
262-605	0	10,000	0	0	0	8/29	Prokopowich	2
262-606	0	20	0	0	0	8/29	Prokopowich	1
262-651	0	1,600	0	0	0	7/26	Malloy	
	0	445,000	15,000	0	0	8/29	Prokopowich	6
262-652	0	525,000	0	0	0	8/29	Prokopowich	5
262-653	0	230,000	0	0	0	8/29	Prokopowich	5
262-654	0	13,600	11,400	500	0	8/29	Prokopowich	3
262-655	30	300	0	0	0	8/26	Prokopowich	2
262-656	0	13,500	0	0	0	8/26	Prokopowich	2
262-701	0	500	0	0	0	7/26	Malloy	
	0	44,000	0	0	0	8/26	Prokopowich	2
262-702	0	1,800	0	0	0	7/26	Malloy	
	0	82,000	0	0	0	8/26	Prokopowich	
	6		0	0	0	9/15	Hastings	4
262-703	0		38,600	0	0	8/13	Malloy	
	0	42,000		0	0	8/26	Prokopowich	3
262-704	0		98,000	0	0	8/13	Malloy	
	0	20,000		0	0	8/26	Prokopowich	3
262-705	0	27,000	0	0	0	8/13	Malloy	4
262-706	0	0	0	60	0	8/26	Prokopowich	2

-Continued-

Appendix G.9. (page 2 of 2)

Stream	Number of fish[b]					Date	Observer	Number of Surveys
	Sockeye	Pink	Chum	Coho	King			
262-751	0	1,200	0	0	0	7/26	Malloy	
	0	73,000	0	0	0	8/26	Prokopowich	4
262-752	0	0	202,600	0	0	8/13	Malloy	
	0	10,000		0	0	8/26	Prokopowich	3
262-753	0	3,500	0	0	0	8/26	Prokopowich	1
262-801	0	52,000	0	0	0	8/26	Prokopowich	5
262-802	0	84,000	7,600	0	0	8/13	Malloy	4
262-803	0	1,500	0	0	0	8/26	Prokopowich	3
262-804	0	350	0	0	0	8/26	Prokopowich	2
262-805	0	0	0	0	0	8/13	Malloy	1
262-850	0	5,000	0	0	0	8/26	Prokopowich	3
262-851	0	24,000	18,000	0	0	7/26	Malloy	
	0	1,320,000	60,000	300	0	8/26	Prokopowich	4
262-852	0	142,000	0	0	0	8/13	Malloy	4
262-853	0	69,000	0	0	0	8/13	Malloy	3
262-854	0	18,000	0	0	0	8/13	Malloy	3
262-856	0	7,100	0	0	0	8/13	Malloy	1
262-858	0	19,000		0	0	8/13	Malloy	
	0		15,200	0	0	8/26	Prokopowich	3
262-859	0	0	0	0	0	8/26	Prokopowich	2
262-860	0	0	0	0	0	8/26	Prokopowich	3
262-861	0	9,300	0	0	0	8/26	Prokopowich	2
262-862	0	200	0	0	0	8/26	Prokopowich	2
262-863	0	0	0	0	0	8/13	Malloy	1
262-864	0	2,000	0	0	0	8/13	Malloy	1
262-865	0	5,050	0	0	0	8/13	Malloy	1
262-866	0	2,800	0	0	0	8/13	Malloy	2
262-868	0	3,100	0	0	0	8/13	Malloy	1
262-951	0	24,000	0	0	0	8/26	Prokopowich	1
262-952	0	33,000	0	0	0	8/26	Prokopowich	1
	100,516	3,977,020	621,500	860	0			182

[a] Index peak counts are the highest single count made for each species in each stream surveyed, or if there are counts made approximately 30 or more days apart these counts are added to give the index peak estimate.

[b] From aerial surveys, foot surveys, or weir counts.

Appendix G.10. Salmon escapement survey counts by stream, Kodiak Management Area, 1989.

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Selief												
251-101	6-27	Brennan	e	e	e	50	0	0	0	-	-	1500 Hrs. Fish in ball just below outlet to lake. Two beaver dams in stream to second lake - doubtful if fish can pass.
251-101	7-16	Brennan	g	g	g	2600	0	0	0	-	1500P	1345 Hrs. 2,600 reds up in lake along north side creek to second lake blocked by beaver dam.
251-101	7-26	Brennan	e	e	e	2000	0	0	0	-	-	2000 hrs. Tide flooding.
251-101	7-31	Brennan		g	g	0	0	0	0	1500P	-	1629 hrs. Tide falling. Just a few small dabs. Jumpers outside. No stream survey.
251-101	9-13	Brennan	f	f	f	0	4500	0	0	-	-	1440 hrs. Wind, turbidity.
Waskanareska Creek												
251-102	9- 7	Sampson	e	e		0	0	409	0	3P	-	Foot Survey. Surveyed only about half of creek. Plus 185 pink carcasses in stream. Good water flow. Pinks spread out evenly.
Muskomee Bay												
251-103	9- 7	Sampson	g	g		1	18	4000	24	3Co 20P	-	Foot survey. Plus 800 pink carcassesin stream. Good water flow. Pinks spawning in lower half of creek. Chums and coho in pond. Beaver dams block access to upper creek and lakes.
Dolphin Creek												
251-104	9- 7	Sampson	f	f		0	0	300	0	-	-	Foot survey. Only surveyed first 75 yards of creek. Plus 50 pink carcasses in stream.
Malina River												
251-105	7-16	Brennan	g	g	g	0	0	0	0	-	110R	1355 Hrs. No fish seen in either lake or river. Some reds off mouth.
251-105	7-26	Brennan	e	e	e	120	0	1200	0	-	1700P	1945 hrs. Tide flooding. 120 reds in lakes, 30+ in first lake in deep water, 0 in creek. Pinks in lagoon. Bay fish to south along rock.
251-105	9- 6	Hastings	g			0	0	27	0	-	-	Surveyed after peak spawning; very few live fish seen. Estimating 220 carcasses.
251-105	9-10	Hastings	f			12	0	35	0	-	-	Surveyed upper stream, mid reach to lake. Past peak spawning. Plus 50 carcasses.
251-105	9-13	Brennan	f	f	f	1600	0	350	0	850R 400P	-	1425 hrs. Reds were distributed - 300 betweenlakes, 550 along shore of lower lake, 750 at outlet to stream.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Herring Camp Creek 251-109	9- 7	Sampson	g	g		0	0	500	0	20P	-	Foot survey. Plus 50 pink carcasses in stream. Lots of water coming down into a series of falls and pools.
Malka Bay 251-201	9- 8	Sampson	f	f		0	0	774	0	-	-	Foot survey. Plus 713 pink carcasses in stream. Good water flow. Creek forks 500 yards upstream. Southwest fork is the main stem but fish present in both.
Malina Bay 251-202	9- 8	Sampson	g	g		3	0	651	0	-	-	Foot survey. Plus 582 pink carcasses in stream. Surveyed 0.25 miles of stream; pinks spread out evenly.
Marker Creek 251-206	9- 8	Sampson	g	g		0	0	9	0	-	-	Foot survey. Plus 16 pink carcasses in stream.
Site Creek 251-207	9- 8	Sampson	f	f		0	0	200	0	-	-	Foot survey. Plus 25 pink salmon carcasses. Pinks spawning in intertidal lagoon.
Long Lagoon 251-301	9-13	Brennan	p	f	f	0	0	0	0	-	-	1415 hrs. No fish seen in bay or lagoon. Creek and upper 1/2 of lagoon muddy.
Thorsheim Creek 251-302	6-28	Brennan		f	g	0	0	0	0	2500R	-	1230 Hrs. Fish too bright to get good estimate; likely more fish present.
251-302	7-17	Weir Count	f			8206	0	15	32	-	-	Weir in place 6/4 through 7/17. No estimate made of fish remaining in the lagoon or bay.
251-302	7-26	Brennan		g	g	0	0	0	0	100R 2500P	-	1935 hrs. Tide flooding. No stream survey.
251-302	9-12	Rudio	e	f		10	0	368	0	1R 500Co 50P	-	Foot survey. Plus an estimated 5,000 pink carcasses. Several coho jumping in the lagoon. 50% of pinks in stream still bright.
South Arm Creek 251-403	7-16	Brennan	f	f	f	0	0	0	0	-	-	1415 Hrs.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
251-403	9-11	Rudio	e	f		0	0	200	0	50Co 20P	-	Foot Survey. Plus an estimated 600 pink carcasses. Majority of live pinks spawned out. 80% of carcasses are bear kills.
East Arm Creek												
251-404	7-16	Brennan	g	g	g	0	0	0	0	500P	2000P	1425 Hrs. Only one ball pinks on north side of bay. A few (50) edging into mouth at high tide.
251-404	7-18	Brennan	g	g	g	0	0	300	5	500P	3000P	1505 Hrs. Not a lot of "show".
251-404	7-26	Brennan	g	e	e	0	0	175	15	2200P	2600P	1920 hrs. Tide flooding.
251-404	7-31	Brennan		f	f	0	0	0	0	3500P	2200P	1600 hrs. Tide falling. No stream survey.
251-404	9-13	Brennan	f	f	f	0	0	350	0	-	-	1400 hrs. Plus 5,000 carcasses in bay. Few carcasses apparent in creek - washed out??
251-404	9-18	Weir Count	f			48	433	20056	522	-	-	Weir in operation 7/20 through 9/18. Counts do not include estimates of fish in lagoon or bay after weir pulled.
Old Cabin Creek												
251-405	9- 6	Hander	g	g		0	0	75	0	5P	-	Foot survey. 1330 hrs. Mid high tide. Plus 25-30 carcasses in stream and a few pink carcasses off the mouth.
Hidden Lake Creek												
251-406	9- 6	Hander	g	g		0	0	1500	0	1R 1Co	-	Foot Survey. 1450 hrs. Stream flow good. Surveyed approx. 0.5 miles upstream from mouth. Plus an estimated 5000 pink carcasses in stream and 500 pink carcasses off mouth.
251-406	9- 9	Sampson	f	f		0	0	2500	0	-	-	Foot Survey. Plus 25,000 pink carcasses in stream. Water level very high.
Long Canyon Creek												
251-407	9- 6	Hander	g	g		0	0	3000	0	50P	-	Foot survey. 1045 hrs. Mid low tide. Moderate water level. Surveyed to falls. Plus an estimated 1500 pink carcasses in the stream and hundreds of carcasses off mouth.
251-407	9- 9	Sampson	g	g		0	0	425	0	-	-	Foot survey. Plus 8,000 pink carcasses in stream. Surveyed only 0.5 miles upstream.
Bluefox Creek												
251-502	6-28	Brennan		f	f	0	0	0	0	-	-	1200 Hrs. No stream survey

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
251-502	9- 8	Hander	g	g		0	0	75	0	5P	-	Foot survey. 1510 hrs. Mid low tide. Moderate water level. Surveyed to falls. Plus an estimated 100 pink carcasses in stream and 25 pink carcasses off mouth.
251-502	9- 9	Sampson	f	f		0	0	75	0	-	-	Foot survey. Plus 150 pink carcasses in mouth. High water.
Ester Lagoon Creek												
251-503	9- 9	Sampson	f	f		0	0	0	0	-	-	Foot survey. Looks like good spawning habitat.
SW Redfox Creek												
251-504	6-28	Brennan		f	f	0	0	0	0	-	-	1150 Hrs. No stream survey.
251-504	9- 1	Barnhart	f	f		0	0	250	0	1000Co	-	Surveyed only 75 yards of stream.
251-504	9-10	Sampson	g	g		0	0	15	0	3000Co	-	Foot survey. Plus 600 pink carcasses in lagoon.
SE Redfox Creek												
251-505	9-10	Sampson	f	f		0	0	75	0	2Co 40P	-	Foot survey. Plus 250 pink carcasses in stream. Good water flow.
251-505A	9-10	Sampson	f	f		0	0	24	0	-	-	Foot survey. Plus 400 pink carcasses. Only partial survey, past peak spawning.
Crossfox Creek												
251-506	9-10	Sampson	f	f		0	0	24	0	75P	-	Foot survey. Plus 250 pink carcasses in stream. Only partial survey. Good water flow.
Cataract Creek												
251-507	9-10	Sampson	f	f		0	0	12	0	-	-	Foot survey. Plus 275 pink carcasses in lagoon. Pinks spawning in intertidal area.
Hander Creek												
251-510	9- 8	Hander	g	g		0	0	2000	0	10Co 100P	-	Foot survey. 1530 hrs. Mid low tide. Good water level. Plus an estimated 2000 pink carcasses in stream and 150 pink carcasses off mouth. Previously undocumented anadromous fish stream.
251-510	9- 9	Sampson	f	f		0	0	12	0	-	-	Foot survey. Plus 1500 pink carcasses in mouth.
Big Bay Creek												
251-601	9-25	Caylor	f	f	f	0	1799	62	0	850Co 200P	1500Co 500P	Weir in operation 8/10 through 9/25. Bay counts are rough estimates.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Carry Bear Creek												
251-705	9- 9	Caylor	f	f		7	441	37	0	1000Co	-	Weir in operation 8/16 through 9/9. Mouth count is a rough estimate of fish remaining after weir pulled.
Whitey's Hole												
251-706	9- 9	Caylor	f			1	42	11	0	-	-	Weir in operation 8/17 through 9/9. No estimate of fish remaining in lagoon or bay after weir pulled.
251-706	9-11	Sampson	f	f		0	50	0	0	3000Co	-	Foot survey. Plus 1 coho carcass. Fish still in salt water. Very bright.
Back Bay Creek												
251-811	9-11	Sampson	e	e		0	0	11	0	24Co	-	Foot survey. Plus 30 pink and 2 coho carcasses.
Anderson Bay Creek												
251-812	9-11	Sampson	f	f		0	0	0	0	-	-	Foot survey. Plus 2 pink carcasses in mouth.
Big Fort Creek												
251-813	9-11	Sampson	f	f		0	0	150	0	-	-	Foot survey. Plus 2,000 pink carcasses in mouth. Surveyed only 0.25 miles of creek. Very high water.
Big Waterfall												
251-821	7-31	Brennan	f	f	f	0	0	0	0	1000P	-	1546 hrs. Tide high.
251-821	9-11	Hastings	g	g		0	0	0	0	2500P	-	No live or dead pinks found beyond waterfall. All pinks spawning in intertidal.
Little Waterfall												
251-822	8-21	Honnold	f			8	0	11722	0	-	-	Foot survey. Plus 1639 pink carcasses on weir.
251-822	8-28	Honnold	f	f		14	0	51752	0	50000P	-	Weir count and foot survey. Plus 9479 pink carcasses on the weir.
251-822	9- 4	Honnold	f	f		0	16	42873	0	43000P	-	Weir count and foot survey. Plus 10530 pink carcasses on weir.
Portage Creek												
251-825	7-26	Brennan	g	e	g	425	0	0	0	4200P	-	1850 hrs. Tide flooding. Not much else showing; lots of dollies in stream plus 425+ reds in upper lake; more in deep water.
251-825	7-31	Brennan	f	g	f	0	0	300	0	-	2000P	1537 hrs. Tide high.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
251-825	8-25	Hastings	f	f	f	0	0	10000	0	10000P	50000P	Dense amounts of pinks moving in from bay area to lagoon. Lots of spawning activity; redds dug in streambed. Water very murky and high. Estimate 2000 carcasses.
251-825	8-27	Weir Count	f			9	5928	79690	4	-	-	Weir operating 8/13 through 8/27. Counts include estimates of fish in the creek prior to weir and and in bay after weir pulled.
251-825	9-13	Brennan	g	g	f	0	7000	88700	0	-	-	1345 hrs. Fish well distributed: 50% in lower end; 15% mid reaches; 35% in upper end.
Discovery Bay Creek 251-826	7-26	Brennan	e	e	g	0	0	0	0	-	-	1850 hrs. Tide flooding.
Elk Creek 251-829	7-26	Brennan	g	e	g	0	0	0	0	-	-	1850 hrs. Tide flooding.
Cabin Creek 251-830	7-26	Brennan	g	e	g	0	0	0	0	-	-	1855 hrs. Tide flooding.
Paul's Bay 251-831	6-28	Brennan		g	g	0	0	0	0	1500R	1000R	1130 Hrs. Fish very bright and difficult to see. Most off west end of log boom or in bight to west. No stream survey.
251-831	9-10	Weir Count	f			12605	7919	4254	0	-	-	Weir in operation 6/6 through 9/10. Count includes estimate of fish remaining in the bay after the weir closed.
Barnyard Creek 251-832	9- 2	Barnhart	f	f		0	0	75	0	300P	-	Pinks spawning in lower reaches of stream. No fish in upper reaches or in muskeg type lake at head of stream.
Seal Creek 251-901	9-11	Sampson	f	f		0	12	1500	0	-	-	Foot survey. Plus 4,500 pink carcasses in stream. Surveyed to fish pass. Most pinks spawning below fish pass.
Tonki Camp Creek 252-103	9- 2	Barnhart	f	f		0	0	1150	0	-	-	Barrier falls upstream deliniates available fish habitat.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Tonki Falls Creek												
252-104	9- 2	Barnhart	f	f		0	0	325	0	-	-	Barrier falls upstream limits available habitat.
East Saposa Creek												
252-301	7-26	Brennan	e	e	e	0	0	0	0	-	-	1830 hrs. Tide flooding.
252-301	9- 3	Sampson	g	g		0	0	1000	0	6000P	-	Foot survey. Plus 500 pink carcasses in creek. Only 50 yards of available habitat before impassible waterfall.
Grassy Lagoon Creek												
252-302	9- 3	Sampson	g	g		0	0	2500	0	4Co 500P	-	Foot survey. Plus 800 pink carcasses in creek. Surveyed only first 75 yards...fish spawning everywhere. Creek plugged with fish.
252-302	9-12	Joyce			f	0	0	0	0	-	50000P	Rough estimate of surplus Kitoi fish that moved toward this system (based on aerial survey 9/10 - 9/12). No estimate of number that moved into the creek.
Unnamed												
252-303	7-26	Brennan	e	e	e	0	0	0	0	-	-	1830 hrs. Tide flooding.
252-305	9- 3	Sampson	g	g		0	0	1500	0	34000P	-	Foot survey. Plus 1500 pink carcasses in stream. Only 25 yards of available spawning habitat, and enterance to creek limited to high tide. Pinks actively spawning in lagoon along shore and in sloughs. "New" creek on north side of lagoon also with excellent escapement.
Saposa Bay												
252-306	7-26	Brennan	e	e	g	0	0	0	0	-	-	1835 hrs. Tide flooding.
252-306	9- 3	Sampson	g	g		0	0	50000	0	16000P	-	Foot survey. Plus 5000 pink carcasses in mouth. "Fish so thick you could walk on their backs". Surveyed only 0.5 miles upstream.
252-306	9-12	Joyce			f	0	0	0	0	-	150000P	Rough estimate of surplus Kitoi fish which moved toward this system (based on aerial surveys 9/10 - 9/12). No estimate of number that moved into creek.
Ruth Bay												

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
252-307	9- 3	Sampson	g	g		0	0	3500	0	15000P	-	Foot Survey. Plus 1500 pink carcasses in stream. Surveyed only first 100 yards...creek was saturated with fish. Heavy bear activity. Total number of fish in 10's of thousands.
252-307	9-12	Joyce			f	0	0	0	0	-	60000P	Rough estimate of surplus Kitoi fish which moved toward this system (based on aerial survey 9/10 - 9/12). No estimate of number that moved into the creek.
Barrier Creek												
252-308	9- 3	Sampson	e	e		0	0	3	0	3Co 25P	-	Foot survey. Plus 22 pink carcasses in stream. Only 23 yards of spawning habitat available; log dam in creek. More fish off mouth.
Left Hand Bay												
252-309	9- 3	Sampson	g	g		0	0	20000	0	3000P	-	Foot survey. Plus 1500 pink carcasses in stream. Surveyed only 0.25 miles. Good water flow. Pinks spawning everywhere possible.
252-309	9-12	Joyce			f	0	0	0	0	-	60000P	Rough estimate of surplus Kitoi fish which moved toward this system (based on aerial surveys 9/10 - 9/12). No estimate of number that moved into the creek.
Hermit's Creek												
252-317	6-28	Brennan	g	g	g	0	0	0	0	-	-	1110 Hrs.
252-317	9- 5	Sampson	g	g		0	6	1	0	12Co	-	Foot survey. Low tide. Fair water flow. Only a few fish showing in lagoon, nothing in creek. According to Ralf, the hermit, very poor show this year.
McDonald's Lagoon												
252-318	9- 3	Sampson	f	f		0	0	30000	0	2Co 15000P	-	Foot survey. Plus 1500 pink carcasses in stream. Surveyed only 0.75 miles of creek. Fish spawning in any available space... intertidal areas, sloughs, side creeks, etc.
252-318	9-12	Joyce			f	0	0	0	0	-	150000P	Rough estimate of surplus Kitoi fish which moved toward this system (based on aerial surveys 9/10 - 9/12). No estimate of number that moved into the creek.
Little Afognak												

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
252-319	6-28	Brennan	g	g	g	0	0	0	0	-	-	1100 Hrs.
Kitoi Bay												
252-32	7-26	Brennan		e	e	0	0	0	0	20000P	133000P	1805 hrs. Tide flooding. By dock 20,000; along north side inner bay 25,000; along southside to booms 65,000; outside to north 23,000; inside log boom 10,000+; outside log boom 12,000+; by mouth of Little Kitoi 27,000.
252-32	7-30	Malloy			g	0	0	0	0	-	610000P	Heavy schooling near net - scattered schools throughout Inner Kitoi Bay.
252-32	7-31	Brennan		g	g	0	0	0	0	-	970000P	1525 hrs. Tide high. Very impressive. Nicholson's overall estimate 800,000 - 1,000,000.
252-32	8- 4	Brennan		g	g	0	0	0	0	1780000P	1500000P	1535 hrs. Tide high. Fish in large schools from Cape Izhut to Peril Cape and inside to booms (over 1 million pinks). Large school also along shoreline around point into Izhut Bay (500,000 plus). Some of bay fish appear to be moving to south, most moving inside. Jumpers further out (between Kitoi and Spruce Island).
252-32	8-19	Brennan			f	0	0	0	0	-	1510000P	1400 hrs. More fish outside by booms coming into the bay.
252-32	9-13	Brennan		p	p	0	0	0	0	150000P	790000P	1330 hrs. Bay overflight. Water very dark and murky, cloudy, so poor look. Fish widely spread but unable to tell depth. Could be less or more (top estimate 1.2 million). No stream survey.
252-32	9-15	Prokopowich	g	g	g	0	0	0	0	-	300000P	Bay survey only. Majority of fish in front of hatchery. Bay murky - most schools appeared to be very shallow - fish very dark.
Little Kitoi												
252-323	7-26	Brennan		e	e	0	0	0	0	27000P	-	1820 hrs. Tide flooding.
252-323	7-31	Brennan		g	g	0	0	0	0	-	110000P	1525 hrs. Tide high.
252-323	9-19	Joyce	f			0	0	150000	0	-	-	This is an estimate of total escapement from surplus pinks in Kitoi Bay. See comments under Big Kitoi.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Big Kitoi												
252-324	9-19	Joyce	f			0	0	250000	0	-	-	This is a rough estimate of escapement into this creek from surplus pinks in Kitoi Bay. The remainder of the surplus is distributed as follows... Little Kitoi(323): 150,000; McDonald's Lagoon(318): 150,000; Saposa Bay(306): 150,000; Ruth Bay(307): 60,000; Left Hand Bay(309): 60,000; Grassy Bay(302): 50,000. Approximatley 100,000 pinks died in the bay prior to spawning.
N.E. Danger Creek												
252-331	7-31	Brennan	g	g	g	0	0	0	0	600P	-	1515 hrs. Tide high.
252-331	9- 6	Sampson	g	g		0	54	2131	0	1R 18Co 150P	-	Foot survey. Plus 225 pink carcasses in stream. Pinks well distributed throughout stream...there doesn't appaer to be any overcrowding in the spawning areas.
252-331A	9- 6	Sampson	g	g		0	0	1429	0	-	-	Foot survey. Good water flow. Majority of spawning habitat from bridge to saltwater.
252-331B	9- 6	Sampson	g	g		0	50	1156	0	6Co 12P	-	Foot survey. Plus 263 pink carcasses in stream.
Big Danger												
252-332	7-26	Brennan	g	e	e	0	0	35	0	4700P	-	1745 hrs. Tide flooding. Fish lying in kelp below river mouth, just starting to enter river.
252-332	7-31	Brennan	g	g	f	0	0	500	0	1500P	3000P	1510 hrs. Tide high.
252-332	8-19	Brennan	f	f	f	0	0	500	0	1900P	-	1355 hrs. Plus an estimated 300 carcasses.
252-332	9- 5	Sampson	g	g		0	0	30000	500	-	-	Foot Survey. Plus 30,000 pink and 25 chum carcasses in stream. Good water flow. Plenty of spawning habitat in upper reaches of both forks.
252-332	9- 6	Kaplan	g	g		0	0	11000	30	1000P	-	The majority of live pinks and 2000+ carcasses found from tide water to 1 mile upstream. Estimating 500 live pinks in east fork.
252-332	9-13	Brennan	g	g	f	0	0	450	0	-	-	1320 hrs. Plus 2,850 carcasses.
East Danger Creek												
252-333	7-26	Brennan	f	e	e	0	0	0	0	200P	-	1735 hrs. Tide flooding.
252-333	9- 5	Sampson	e	e		2	0	15000	0	500P	-	Foot survey. Plus 10,000 pink carcasses in stream. Stream doesn't appear over saturated.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
N.W. Danger Creek												
252-335	7-26	Brennan	g	e	e	0	0	0	0	-	-	1740 hrs Tide flooding.
252-335	9- 5	Sampson	g	g		0	0	189	0	20P	-	Foot survey. Plus 30 pink carcasses in stream. Good water flow. Little sign of overcrowding. Pinks spawning in intertidal area and in pool below falls.
P-A Creek												
252-337	9- 5	Sampson	g	g		0	0	3	0	40P	-	Foot survey. Plus 3 pink carcasses in stream.
Steep Creek												
252-338	9- 5	Sampson	g	g		0	0	2	0	-	-	Foot survey.
Crack Creek												
252-339	9- 5	Sampson	f	f		0	0	7	0	3P	-	Foot survey. Plus 1 pink carcass in stream. Fairly good water flow.
Afognak River												
252-342	9-20	Weir Count	f			88825	13050	41611	9	-	-	Weir in operation 5/13 through 9/20. Plus three kings. No estimate given of fish remaining in the bay after the weir pulled.
Marka Bay												
252-343	7-26	Brennan	g	e	e	0	0	350	0	900P	6700P	1725 hrs. Tide flooding. Fish sitting along outside of booms...2,200 outside and 45,000 along inner boom. Stream fish in lower 1/2 mile. Water level low.
252-343	7-31	Brennan	g	g	g	0	0	400	0	400P	2700P	1456 hrs. Tide high.
252-343	8-19	Brennan	p	p	f	0	0	2300	0	-	-	1345 hrs.
252-343	9- 6	Hastings	g			0	0	10000	0	-	-	Estimating 10,000 live and 4,000 carcasses in entire system.
252-343	9-13	Brennan	g	g	f	0	25	200	0	200Co	-	1310 hrs. Plus 1,000 carcasses in creek and 15,000 carcasses in bay.
Cort's Creek												
252-345	9-13	Brennan	p	f	f	0	0	550	0	-	-	1300 hrs. Plus 3,800 carcasses.
252-345	9-19	Weir Count	f			42	28	6469	19	-	-	Weir in operation 7/19 through 9/19. No estimate given for fish remaining in the bay after weir closed
252-902	9-11	Hastings	g	g		0	0	40	0	-	-	No live pinks in intertidal area. Stream becomes swamp 350 yards upstream from tide water. Estimating 250+ carcasses.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Campbell Lagoon												
253-114	8- 1	Hander	f	g	g	0	0	15	0	-	-	1314 hrs. Tide low, stream low. No fish in lagoon or off mouth.
253-114	8-29	Hander	f	g		0	0	2500	0	-	-	1233 hrs. Low tide. Moderate water level. Few hundred pinks in stream, no counts. Pink count is from lagoon. No fish off of lagoon mouth.
253-114	9-13	Prokopowich	g	g		0	150	200	0	-	-	Plus 1800 pink carcasses in stream. Coho in lower lagoon.
Little River												
253-115	7- 5	Brennan	f	f	f	5700	0	0	0	500R	-	1115 Hrs. "Stream" fish actually in lake by upper creek mouths.
253-115	7-26	Malloy	f	e	g	14700	0	51000	0	3000P	17000P	Reds primarily schooled off tributaries with some fish up inside. Heavy carcesses (800) in mouth of middle tributary. Live reds: 4,500 E. trib., 5,100 mid trib, 4,300 W. trib; 800 at shoals between tribs. Pinks heavily schooled in lower lagoon and beginning to move upstream. Glare in stream. Fish in main stem.
253-115	7-27	Chatto	p	g		4000	0	56000	0	14000P	-	1637 hrs. Some reds below lake outlet mixed with pinks but too scattered to count. Water level low.
253-115	8-26	Prokopowich	f	f		10000	0	84000	0	-	-	Estimate 25,000 pink carcasses. Reds - lake shore spawners and schooled off tributary.
253-115	8-29	Hander	f	f		5000	0	9000	0	11000P	-	1240 hrs. Mid tide. Low water level. Few carcasses. Few jumpers off of mouth.
253-115	9-13	Prokopowich	e			0	5000	0	0	-	-	No stream survey. Lagoon survey only.
253-115	9-18	Brennan	g	g	f	0	1205	150	0	-	-	1320 hrs. Water high but fairly good visibility. Surprisingly few fish or carcasses in river - washed out? Coho just sitting in deep water of lagoon.
S. Arm Uganik												
253-121	7- 5	Brennan		g	g	0	0	0	0	-	-	1100 Hrs. No stream survey.
253-121	7- 7	Brennan	p	p	p	0	0	0	0	-	10000Ch	1145 Hrs. Fish at edge of flats.
253-121	7-11	Brennan		g	g	0	0	0	0	17000Ch	-	1245 Hrs. Low estimate of fish in mouth, did not survey creek.
253-121	7-11	Chatto	f	f		0	0	0	200	40000Ch	-	1200 hrs. Low tide. Surveyed lagoon and 1 mile upstream. Most fish in stream were within 1/4 mile of lower section. Major buildup of fish inside lagoon mostly chums. Stream flow very low.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
253-121	7-11	Malloy	p	p	p	0	0	0	0	1800Ch	-	Jumpers in lower portion of lagoon. Nothing showing in bay.
253-121	7-12	Nicholson	f			0	0	0	6000	-	-	South Arm - not much show for jumpers, 6,000 in creek. Could not survey Spiridon or Zachar.
253-121	7-18	Brennan	f	f	f	0	0	0	250	2000P 12000Ch	10000Ch	1835 Hrs. 2 miles of creek surveyed.
253-121	7-27	Chatto	p	f		0	0	0	10000	9000Ch	-	1740 hrs. Visibility from beaver ponds downstream poor (muddy) due to bear activity in pond. Visibility above beaver pond good. Stream estimate considered conservative. Water level low.
253-121	8- 1	Brennan		f	f	0	0	0	7000	5000Ch	5000P 10000Ch	1138 hrs. Tide low. Bay murky. Surveyed only 1 mile of stream. Poor look.
253-121	8-10	Hander	p	f		0	0	4000	0	2000P	-	1055 hrs. Mid outgoing tide. Lower creek from beaver dam down murky, Thousands of carcasses in stream.
253-121	8-25	Brennan	p	p	p	0	0	4000	0	2000P	-	1540 hrs. Awful conditions. Surveyed only 1/2 mile of stream.
253-121	8-29	Hander	f	f		0	0	8000	0	100P	-	1215 hrs. Low tide. Low water level. Conservative instream estimate due to brushy overhanging vegetation.
Uganik River												
253-122	7- 5	Brennan	g	g	f	13000	0	0	0	-	3500P	1050 Hrs. Reds off mouths of upper streams in lake.
253-122	7- 7	Brennan	p	p	p	0	0	0	0	-	5000Ch	1130 Hrs. Some jumping but too much wind and murk.
253-122	7-11	Malloy	f	f	f	0	0	5000	11000	2000P 4000Ch	3000P 5000Ch	South shore blank, northshore had fish but extremely "light"; most fish on flats.
253-122	7-11	Chatto	g	f		700	0	0	3900	-	-	1130 hrs. Surveyed upper river...observed all reds located in first mile of upper river. All chums in lower river. Saw very few fish in flats off mouth - no jumpers. Stream flow very low.
253-122	7-11	Brennan	f	f	p	3000	0	0	700	-	4000Ch	1300 Hrs. Quick look at river, poor look at bay. Reds in lake at mouths of upper river.
253-122	7-12	Nicholson	f			0	0	8000	0	-	-	Good showing along north shore. 8,000 in Uganik River.
253-122	7-18	Brennan	f	f	f	0	0	0	4200	6000Ch	1000Ch	1835 Hrs.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
253-122	7-26	Malloy	f	f	f	38000	0	28000	19000	12000P 5000Ch	18000P	Glare in upper river. Light turbidity/shadows in Bay. Pinks in closed waters. No new fish showing outside stream. Pinks distributed throughout stream. Chum favoring intertidal sloughs and above sampling area. Reds off tributaries and in small balls in upper portion lake.
253-122	7-27	Chatto	g	p		33000	0	58500	0	7500P 42500Ch	-	1800 hrs. Surveyed upper Uganik River for 9.5 miles; water level low. 45% reds were off mouth along south shore of lake.
253-122	8- 1	Brennan	f	f	p	0	0	20000	53000	2000P 5000Ch	18000P 31000Ch	1148 hrs. Tide flooding.
253-122	8- 4	Prokopowich	e	e	e	0	0	125000	20000	-	4000P	-
253-122	8-10	Hander	f	f		12500	0	13000	2000	21000P 14000Ch	-	1022 hrs. Mid high tide. All reds from lake mouth upstream. 9,000 reds off mouth in lake, rest in E. fork and main stem. Mixed chums and pinks in flats 35,000 total, 60% pink, 40% chum. Surveyed 6 miles up from lake.
253-122	8-25	Brennan	p	p	p	0	0	310000	16000	81000P 4000Ch	100000P	1525 hrs. Plus 30,000 carcasses. 95% of fish schooled up in pools and eddies at lower end of river.
253-122	8-29	Hander	f	f		13300	0	112000	3000	80000P	-	1145 hrs. Low tide. Moderate water level. Heavy use of side pools for spawning. Most pinks asre below lake. Surveyed approximately 8 miles from mouth. Many jumpers in bay.
253-122	8-29	Prokopowich	g	g	g	20500	0	520000	20000	185000P	170000P	Reds at tributaries to lake.
253-122	9-14	Hastings	g			0	0	150000	0	-	-	Pinks spawning in tidal area and upstream 1 mile. No live fish seen beyond that. Estimating 200,000 carcasses in intertidal area.
253-122	9-18	Brennan	p	f	p	0	0	50000	5000	47000P 10000Ch	-	1300 hrs. Lake and stream high and murky, clearing slightly at mouth - poor look. A lot of fish in sloughs and mouth. Plus up to 175,000 carcasses at mouth.
253-122	11- 1	Barnes	f			0	2681	0	0	-	-	1456 hrs., surveyed lower and upper river. 57 fish in lower river, 894 in upper main stem, 1,730 fish in east fork. Surveyed upper 7 miles of river.
Cape Uganik Creek												
253-141	9-13	Prokopowich	g	g		0	0	1800	0	-	-	-

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Unnamed 253-142	9-13	Prokopowich	g	g		0	0	900	0	-	-	Plus 3500 pink carcasses in stream.
Fawn Creek 253-311	9-13	Prokopowich	g	g		0	0	1500	0	100P	-	-
Coho Creek 253-313	9-13	Brennan	f	f	f	0	350	0	0	-	-	1450 hrs. Coho in lower end of lagoon. Plus 12,000 carcasses.
Viekoda Creek 253-321	8- 1	Hander	g	f		0	0	6000	0	-	-	1215 hrs, tide mid-low, few jumpers off mouth.
253-321	9-13	Brennan	f	f	f	0	50	0	0	-	-	1455 hrs. Plus 15,000 carcasses in lower river, mouth and bay.
Terror River 253-331	6-15	Brennan		g	g	0	0	0	0	-	-	1315 Hrs. No stream survey.
253-331	7- 5	Brennan	f	f	f	0	0	0	0	-	2500P 7500Ch	1040 Hrs.
253-331	7- 7	Brennan	p	p	p	0	0	0	0	150Ch	8000P 5000Ch	1100 Hrs. Water murky. Fish way out. Likely more present.
253-331	7-11	Chatto	g	f		0	0	0	4500	200Ch	-	1100 hrs. Low tide. Surveyed upstream and over flats. Most fish from mouth upstream to 2-1/2 miles. Stream flow low. Very few jumpers in flats. Visibility on flats not good.
253-331	7-11	Brennan	p	p	p	0	0	2000	2400	15000P 5000Ch	-	1330 Hrs. No fish in outer bay; most fish in deep channels on flats. Surveyed only 2 miles of river.
253-331	7-11	Malloy	f	f	f	0	0	4600	1500	-	12000P 2500Ch	Bay looks very sparse for this time. No sign in outer bay, only near flats.
253-331	7-12	Nicholson	f			0	0	10000	0	-	-	10,000 in creek. Within Terror Bay closed water - jumpers throughout bay area. Water rough.
253-331	7-18	Brennan	f	f	f	0	0	600	2000	28000P	27000P	1845 Hrs.
253-331	7-19	Blackett	f	f		0	0	25000	2250	-	-	Surveyed main channels for two miles upstream of lower tidal flats. Low tide. Scattered schools of pinks and chums 0.25 miles to 1.5 miles upstream from tidal flats in both channels. Concentrations of fish primarily above the USGS stream guage. Only a few schools of 10-20 fish seen in last 0.5 miles of survey. Consternation Creek had a few pinks (50-100) in the lower end. Many of the chums seen had severe fungus (estimating that they had been in system two to three weeks).

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
253-331	8- 1	Hander	f	f		0	0	33000	0	50000P	-	1245 hrs. Tide mid-low. Lots of glare on water in flats. Many jumpers in outer flats.
253-331	8- 4	Prokopowich	e	e		0	0	93000	10000	102000P	-	Started survey below 4-mile creek.
253-331	8-10	Hander	p	g		0	0	25000	0	40000P 10000Ch	-	1002 hrs. Mid high tide. Mixed chum and pink off mouth in flats. Estimate 50 K fish total 80% pink, 20% chum. Water level moderate flow. Lots of carcasses.
253-331	8-20	Swanton	g	g	g	0	0	40000	0	10000P	10000P	Initial preflight survey. Fish (pinks) still moving into stream from bay, highest concentrations starting from the mouth of the river ranging 2 miles upstream. Most carcasses found washed downstream due to high water. Estimate 20,000 carcasses on first 1/2 mile of stream.
253-331	8-23	Blackett	g	f	p	0	0	192000	9500	-	-	Intertidal, delta channels, to USGS stream guage (1.5 miles) 60,000 pink and 1,500 chum. To Consternation Creek (0.5 miles) 55,000 pink and 5,000 chum. Consternation Creek (0.2 miles) 2,000 pinks. To Four Mile Creek (2.25 miles) 70,000 pink and 3,000 chum. Four Mile to falls (1.0 mile) 5,000 pinks (pinks present beyond the guage in Four Mile Creek). Ouzel and Bear Creeks almost dry; only a few pinks in downstream portions. An unknown number of fish jumping in bay. Estimating 20,000 pink salmon carcasses. Massive schools of pink salmon in areas made estimation of numbers difficult, plus chums difficult to distinguish (there were probably more).
253-331	8-25	Brennan	f	f	f	0	0	367000	23000	80000P 16000Ch	200000P	1510 hrs. Plus 43,000 carcasses. Of total 290 K in lower stream (below wire) 70 K above, and 20 K in sloughs.
253-331	8-29	Prokopowich	g	g	g	0	0	162000	12500	30000P	118000P	Estimating 18,000 pink carcasses, 12,500 chum carcasses in stream. From mouth to cable - 85,000 pinks; sloughs - 19,000 pinks.
253-331	8-29	Hander	g	g		0	0	70000	0	3000P	-	1120 hrs. Low tide, water level good.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
253-331	9-11	Blackett	g	g	g	0	85	108600	2000	8000P	-	At river terminus 8,000 late run pinks. Intertidal, delta channels, to USGS stream guage (1.15 miles) 105,000 pink, 2,000 chum, 35 coho. To Consternation Creek (0.5 miles) 2,000 pinks. Consternation Creek (0.25 miles) 500 pinks. To Four Mile Creek (2.25 miles) 1000 pink and 45 coho. Ouzel and Bear Creeks (0.2 miles from junction) 100 pinks. Four Mile Creek to Falls (1.0 miles) 0 salmon. Early run pink salmon spawning in upstream areas almost gone. There is still an abundance of late run pinks in lower river and delta channels and new fish in bay. Some schools of massed pinks makes estimates of fish numbers difficult, plus it is difficult to distinguish chum salmon (there may have been more). Most all of carcasses have been washed downstream into the bay. Terror Bay was littered with carcasses.
253-331	9-18	Brennan	f	f	f	0	0	9000	11000	-	-	1245 hrs. Relatively few live fish left; Main stem pretty clean. Carcasses: Bay-150,000; mouth/sloughs-50,000; stream-75,000.
253-331	9-21	Blackett	g	g	f	0	500	32000	200	-	-	32,000 pink, 200 chum, and 400 coho from delta channels to USGS stream guage (1.15 miles). 100 coho beyond to Consternation Creek (+ 0.5 miles). Surveyed Consternation, Ouzel, Bear, and Four Mile Creeks (3.25 miles) - 0 salmon.Carcasses in intertidal area and bay estimated at 5 to 6 times the pink salmon live count. Upstream areas above Four Mile and Consternation Creeks surveyed by foot and helicopter on 09/20/1989. Spawning of pink and chum anticipated to be finished by October 5.
253-331	11- 1	Barnes	g			0	77	0	0	-	-	1448 hrs., surveyed entire river excluding tributaries.
Baumann's												
253-332	7-11	Brennan	g	g	g	0	0	0	0	-	3100P	1350 Hrs. No fish in lagoon or creek.
253-332	7-11	Malloy	p	p	p	0	0	0	0	-	-	Glare
253-332	7-12	Nicholson	f			0	0	5000	0	-	-	5,000 in creek. Within Terror Bay closed waters - jumpers throughout bay area - water rough.
253-332	7-18	Brennan	f	f	f	0	0	4000	0	12000P	-	1850 Hrs
253-332	8- 1	Brennan	f	g	f	0	0	45000	0	35000P	10000P	1223 hrs. Tide flooding. Turbulent so limited stream survey. Large number of fish in lower river and scattered over flats.
253-332	8- 1	Hander	g	g		0	0	20000	0	20000P	-	1227 hrs. Tide mid-low. Many schools pinks in bay.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
253-332	8-19	Brennan	f	f	f	0	0	45000	0	-	-	1330 hrs. Plus an estimated 18,000 carcasses.
253-332	8-20	Swanton	g	g	g	0	0	100000	0	50000P	100000P	Major build up of live pinks starting from the bay ranging 1/4 mile upstream to waterfalls. Highest concentrations in stream was last 120 meters to falls, estimate 60,000. Estimate 60,000+ carcasses washed up on high tide lines.
253-332	8-25	Brennan	f	g	g	0	0	110000	0	65000P	10000P	1455 hrs. Plus 45,000 carcasses. Difficult to count fish - extremely packed into intertidal. This estimate conservative.
253-332	8-29	Hander	g	f		0	0	50000	0	25000P	-	1105 hrs. Low tide, water level good. Surveyed from falls to mouth. Many carcasses instream and off mouth.
253-332	8-29	Prokopowich	e	e	e	0	0	325000	0	-	-	All fish inside banks on high tide.
253-332	9-18	Brennan	p	g	g	0	0	22000	0	-	-	1235 hrs. Lots of glare,. Poor look at stream. 50,000 carcasses at mouth, 120,000+ in bay.
Clara's Creek												
253-333	7-11	Malloy	p	p	p	0	0	0	0	-	-	Glare.
253-333	7-12	Nicholson	f			0	0	500	0	-	-	500+ in creek.
253-333	8- 1	Hander	f	g		0	0	100	0	50P	-	1223 hrs, tide mid-low, falls 300 yards upstream.
253-333	8-25	Brennan	g	g	g	0	0	800	0	2500P	-	1450 hrs. Plus 1,500 carcasses.
7-Mile Beach												
254-103	9-13	Prokopowich	g	g		0	0	2000	0	200Co 1500P	-	Wiley Creek -600 pinks.
Unnamed Creek												
254-105	9-13	Prokopowich	g	g		0	0	150	0	-	-	Plus 1250 carcasses.
254-20	6-27	Prokopowich			e	0	0	0	0	-	13000P 3000Ch	Additional 7,000 pinks along west shore - markers to Park's cannery. Small schools 10-15 fish heading into bay.
Uyak 201 Creek												
254-201	6-15	Brennan		g	g	0	0	0	0	-	-	1255 Hrs. No stream survey.
254-201	7- 5	Brennan		f	f	0	0	0	0	-	500P	1130 Hrs. Didn't survey creek.
254-201	7- 7	Brennan	f	f	f	0	0	0	0	-	-	1245 Hrs. No fish sighted.
254-201	7-11	Brennan		g	g	0	0	0	0	-	33000P	1130 Hrs Did not survey creek.
254-201	7-11	Malloy		g	g	0	0	0	0	18000P	-	Didn't survey creek
254-201	7-18	Brennan	f	f	f	0	0	0	0	10000P	15000P	1730 Hrs.
254-201	7-22	Giegerich	g	g		0	0	60000	0	500P	-	Area 300 yards around creek mouth observed 25 jumpers per second (like popcorn).
254-201	8- 1	Hander	p	f		0	0	2000	1000	5000P 5000Ch	-	1516 hrs. Tide high. 1,000+ carcasses in stream. Pinks and chums in stream and flats mixed.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Uyak River												
254-202	7- 5	Brennan	f	f	f	0	0	0	0	-	30000P 10000Ch	1200 Hrs. Westside of Uyak Bay 12,000 pinks, Eastside of Uyak Bay 18,000 pinks. Chums in middle of bay. Nothing in creek.
254-202	7- 7	Brennan	f	f	f	0	0	0	0	-	39000P 10000Ch	1300 Hrs. Eastside Uyak/Nellie's Cove - 24,000 pinks. Mid Uyak Bay 15,000 pinks. No fish in creek.
254-202	7-10	Chatto	g	g		0	0	100	150	-	-	1230 hrs. Low tide. Surveyed upstream 2 miles. Very few fish. No fish or jumpers seen in bay flats. Stream flow low.
254-202	7-11	Malloy	g	g	g	0	0	100	100	-	264000P 12000Ch	Westside of Uyak Bay 140,000 pinks; eastside of Uyak Bay 124,000 pinks. 12,000 chum in bay; all on westside.
254-202	7-11	Brennan	g	g	g	0	0	75	200	500P 100Ch	173000P 10000Ch	1140rs. Westside Uyak 73,000 pinks (low estimate). Eastside Uyak 100,000 pinks, 10,000 pinks, 10,000 chums. Difficult to see fish in kelp along westside.
254-202	7-18	Brennan	f	f	f	0	0	9000	0	28000P	34000P 15000Ch	1655 Hrs. "Bay" fish listed for 201, 208, 211, 212. May be bound for this system.
254-202	7-22	Giegerich	g	g		0	0	60000	0	300P	-	Several bears working area. Not many "jumpers" observed at creek mouth - one or two per 10 seconds.
254-202	7-27	Chatto	g	g	g	0	0	14400	57600	-	300000Ch	1515 hrs. Water level low. Jumpers all over flats. Estimate in stream and off mouth considered conservative.
254-202	8- 1	Brennan	f	f	p	0	0	72000	14000	15000P 3000Ch	229000P 36000Ch	1030 hrs. Tide low slack. Bay very murky and muddy. Not many carcasses apparent. Perhaps 2,000. Most of stream chums in little fork to east. Bay fish scattered. 90,000 pinks in channel, 36,000 chums just off flats in mid-bay, and new pinks clear to Amook Island - 42,000 along west side, 47,000 along east.
254-202	8- 4	Prokopowich	e	e		0	0	120000	10000	1085000P	-	Pinks off mouth and head of bay. Good water flow. Did not survey outer bay. Lots of jumpers. All side creeks plugged.
254-202	8-25	Brennan	p	p	p	0	0	0	0	-	-	1600 hrs. Jumpers from creek #206 and across flats. Too muddy to survey.
254-202	8-29	Hander	f	p		0	0	300000	0	200000P	-	1420 hrs. High tide. Water level good. Fish schooled along north and south shore for approximately 1.5 miles.
254-202	9-13	Prokopowich	g	g		0	0	94000	18000	-	-	Plus estimated 24,000 pink and 2,000 chums carcasses.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
254-202	9-26	Hander				0	400	100	0	-	-	1115 hrs. Mid low tide. Water level good.
254-202	10- 8	Hander	g	g		0	700	0	0	-	-	1220 hrs. Mid high tide. Water level high. Surveyed approximately 4 miles up river from mouth. No fish off mouth.
East Uyak Creek												
254-203	7- 5	Brennan	f	f	f	0	0	0	0	500P	1000P	1230 Hrs. Surveyed 3 miles of lower creek.
254-203	7- 7	Brennan	p	p	p	0	0	0	0	-	16000P	1330 Hrs. Pinks lining shore to north and some on flats.
254-203	7-10	Chatto	g	g		0	0	0	0	48000P 12000Ch	-	1200 hrs. Low tide. Surveyed upstream 1 mile - no fish in stream. All fish were seen in flats out front. Lots of jumpers all across bay. Estimate on numbers ok, but composition not considered too accurate. Stream flow low.
254-203	7-11	Malloy		g	g	0	0	0	0	22000P	-	Didn't survey creek.
254-203	7-11	Brennan	e	e	g	0	0	1700	0	6000P	45000P	1210 Hrs.
254-203	7-18	Brennan	f	f	f	0	0	4500	750	33000P	76000P 5000Ch	1625 Hrs.
254-203	7-27	Chatto	f	f		0	0	0	50000	100000Ch	-	1500 hrs. Surveyed 3 miles upstream. Turbulent - most fish upstream. Estimate in stream and off mouth considered conservative.
254-203	8- 1	Brennan	f	f	p	0	0	61000	15000	2000P	87000P 16000Ch	1015 hrs. Tide low slack. Bay very murky and muddy; fish not showing. Carcasses along main stem - 17,000 P + 3,000 chum. In slough to north 10,000 chums, 12,000 pinks. In main creek - 5,000 chums, 49,000 pinks. Flats dry.
254-203	8- 4	Prokopowich	e	e		0	0	165000	0	290000P	-	Excellent. Good water flow.
254-203	8-29	Hander	f	p		0	0	50000	0	80000P	-	1410 hrs. High tide. Very conservative estimate off of mouth. Carcasses along entire length of stream and off mouth. Water level moderate. Fish schooled for two miles either side of creek on the N.E. side of bay.
Browns Lagoon												
254-204	7- 7	Brennan	f	f	f	0	0	0	0	-	-	1230 Hrs. No fish seen in bay or creek.
254-204	7-11	Chatto	f			0	0	0	330	-	-	1345 hrs. Mid tide. Surveyed upstream to cascade falls. All fish located from mouth to 1-1/2 miles upstream.
254-204	7-11	Brennan	g	g	g	0	0	1900	0	-	-	1220 Hrs. No fish seen in mouth or bay.
254-204	7-11	Malloy	g	g	g	0	0	0	0	-	-	Nothing in lower creek.
254-204	7-22	Giegerich	g	g	g	0	0	2000	0	-	-	No fish observed in bay or at mouth of stream. Fish in groups of 200 holding in holes along stream.
254-204	7-27	Chatto	g	f		0	0	1500	1000	-	-	1535 hrs. No fish off mouth.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
254-204	8- 1	Brennan	f	f	f	0	0	1200	0	800P	-	1055 hrs. Tide low slack. Bay murky. Fish seen jumping outside clear to Carlson Point, but no schools visible.
254-204	8- 4	Prokopowich	e	e		0	0	16500	0	45000P	-	Very good for an odd year return.
254-204	8-10	Hander	f	f		0	0	6600	400	9000P	-	1155 hrs. Outgoing mid tide. Water level good.
254-204	8-19	Kaplan	f	f	f	0	0	20000	0	5000P	10000P	Fish still moving into stream from bay. Highest concentrations found from tide water ranging 1 mile upstream. Fish still very bright; estimate 50 mortalities.
254-204	8-25	Brennan	f	f	f	0	0	34000	0	-	-	1555 hrs. Plus 5,000 carcasses. 50% of fish in lower 30% of river.
254-204	8-29	Hander	f	p		0	0	17000	1000	5000P	-	1317 hrs. Mid high tide. Good water level. Surveyed up to falls.
254-204	8-31	Hastings	g			0	0	30000	0	-	-	Completed egg retention. Estimated 30,000 pinks in stream, 10,000 carcasses.
254-204	9-26	Hander	f	f		0	250	0	0	-	-	1750 hrs. High tide. Water level good. Poor light. No fish in lagoon.
Islands Creek												
254-205	7-18	Brennan	g	g	g	0	0	0	0	-	8000P	1620 Hrs. Fish scattered in cove.
254-205	8- 1	Hander	f	f		0	0	500	0	1500P	-	1504 hrs. Tide high. At least 1,000 carcasses of pinks in stream.
Short Creek												
254-206	7-18	Brennan	f	f	f	0	0	0	0	-	3500P	1615 Hrs. Fish did not appear to be in river yet.
254-206	8- 1	Hander	p	f		0	0	0	0	1000P	-	1501 hrs. Tide high. No count in stream due to brush.
Long Creek												
254-207	7-18	Brennan	f	f	f	0	0	0	0	250P	3000P	1610 Hrs.
254-207	8- 1	Hander	f	p		0	0	1000	0	1200P	-	1454 hrs. Tide high. Numerous schools pinks along shoreline.
Cabin Creek												
254-208	7-11	Malloy	g	g	g	0	0	0	0	2000P	-	Nothing in lower creek.
254-208	7-18	Brennan	f	f	f	0	0	0	0	9000P	10000P	1745 Hrs
254-208	8- 1	Hander	p	f		0	0	1000	0	2000P	-	1510 hrs. Tide high. Numerous schools of pinks all along beach shoreline. 1,000+ carcasses in stream.
Gwen's Creek												
254-209	7-18	Brennan	f	f	f	0	0	0	0	700P	-	1750 Hrs.
254-209	8- 1	Hander	p	f		0	0	0	0	-	-	1531 hrs. Tide high. Cannot see stream due to brush. No count. 1,500+ carcasses off mouth (pinks).

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Trap Creek												
254-210	7-18	Brennan	f	f	f	0	0	0	0	5000P	-	1755 Hrs.
254-210	8- 1	Hander	p	g		0	0	0	0	-	-	1527hrs. Tide high. Cannot see due to brush. No count. No fish off mouth. 1,500+ carcasses (pinks) off and in mouth.
Marker Creek												
254-211	7- 5	Brennan		f	f	0	0	0	0	-	1000P	1300 Hrs. Didn't survey creek.
254-211	7-11	Brennan		g	g	0	0	0	0	-	5000P	1205 Hrs. Did not survey creek.
254-211	7-18	Brennan	f	f	f	0	0	0	0	5000P	10000P	1800 Hrs.
254-211	8- 1	Hander	p	f		0	0	0	0	-	-	1526 hrs. Tide high. Cannot see stream due to brush - no count. No fish off mouth.
Ruins Creek												
254-212	7-11	Malloy	g	g	g	0	0	0	0	4000P	-	Nothing in lower creek.
254-212	7-18	Brennan	f	f	f	0	0	0	0	3000P	10000P	1805 Hrs.
254-212	8- 1	Hander	f	f		0	0	1500	1500	-	-	1522 hrs. Tide high. 1,000+ carcasses off mouth. Jumpers off mouth.
254-30	6-27	Prokopowich			g	0	0	0	0	-	8700Ch	2,200 chums on west side. 6,500 chums along east side.
Zachar River												
254-301	7- 7	Brennan	p	p	p	0	0	0	0	-	10000Ch	1215 Hrs. Rough estimate of fish in mid bay.
254-301	7-11	Brennan	g	g	g	0	0	200	1000	29000Ch	2000P 17000Ch	1230 Hrs. Only surveyed 2 miles of creek.
254-301	7-11	Chatto	g			0	0	400	4615	-	-	1300 hrs. Low tide. Surveyed upstream for approximately 10 miles. Fish scattered from mouth upstream 9 miles. Stream flow low. In front of mouth on flats observation limited by chop on water - some jumpers seen.
254-301	7-11	Malloy	g	g	g	0	0	0	2200	3000Ch	39000Ch	Schooled most in upper 1/4 of bay, most heavily near flats.
254-301	7-18	Brennan	f	f	f	0	0	0	2400	17000Ch	31000Ch	1820 Hrs.
254-301	7-22	Giegerich	g	g		0	0	30000	80000	-	-	Observed a 75% to 25% ratio chums to pinks extending to first major fork in system. Very few fish observed thereafter.
254-301	7-27	Chatto	g	f	f	0	0	15000	32000	-	100000Ch	1552 hrs. Survey upstream for 13.5 miles. Chums abundant in lower 10 miles of river.
254-301	8- 1	Brennan	f	f	f	0	0	12800	42000	-	74000P 28000Ch	1105 hrs. Tide low.
254-301	8- 4	Prokopowich	e	e		0	0	95000	47000	120000P	-	Pinks sampling area to mouth.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
254-301	8-10	Hander	f	f		0	0	16000	4000	95000P 5000Ch	-	1120 hrs. Outgoing mid tide. Off mouth numerous jumpers 40+ at any one time. Estimate 100 K fish total, 95% pink, 5% chum. Heavy use of side channel spawning upstream. Surveyed upstream 7 miles; water level good.
254-301	8-25	Brennan	p	p	p	0	0	0	0	-	-	1550 hrs. Too muddy to survey. High water.
254-301	8-29	Hander	g	f		0	0	34300	700	30000P	-	1324 hrs. Mid high tide. Surveyed approximately 10 miles from mouth. Very conservative estimate off mouth. Water level good.
254-301	9-18	Brennan	f	f	p	0	0	0	4400	-	-	1345 hrs. Bay and lower 1/2 of stream murky but zero fish showing. Water clearing in upper reaches - dogs in several large schools in deep holes.
254-301	10-14	Probasco	G			0	6000	0	0	-	-	Conservative estimate; every deep pool or hole heavy with coho; approximately 2/3 of river surveyed
254-301	11- 1	Barnes	f			0	3445	0	0	-	-	1535 hrs., surveyed up to forks. Fish distributed fairly evenly from about 2 miles from bay upstream to forks at river mile 10-11.
N.E. Zachar Creek												
254-302	7-11	Malloy	g	g	g	0	0	0	0	-	-	Nothing in lower creek; build-up in bay associated with #301 creek.
254-302	7-27	Chatto	f	p		0	0	0	1500	5000Ch	-	1615 hrs.
254-302	8-10	Hander	g	g		0	0	3000	0	14250P 750Ch	-	1115 hrs. Outgoing mid tide. Estimate 15,000 fish off mouth 95% pink, 5% chum.
Spiridon River												
254-401	7- 7	Brennan	p	p	p	0	0	0	0	-	-	1200 Hrs. Nothing showing in bay; water very murky.
254-401	8-10	Hander	g			0	0	48000	32000	-	-	1100 hrs. Outgoing tide. Mainstem Zachar River glacial, turbid. No survey. Count on Munsey's Lake stream only. Water level good.
254-401	8-25	Brennan	p	p	p	0	0	0	0	-	-	1545 hrs. Water high, river full of mud.
254-401	8-29	Hander				0	0	0	0	-	-	1345 hrs. Mid tide. No count - water too dirty.
254-401	9-18	Brennan	p	p	p	0	0	0	0	-	-	1340 hrs. Bay and stream too murky to survey.
254-401	10-13	Hander	g	g		0	12500	0	0	-	-	1120 Hrs. High tide; water flow good. Fish distributed evenly in upper 7 miles of river. Surveyed to the fork in the upper river.
Clover Rock												
254-402	8- 1	Hander	f	g		0	0	2500	0	5500P	-	1404 hrs. Tide high.
Telrod Cove												
254-403	8- 1	Hander	f	p		0	0	100	0	-	-	1330 hrs. Tide mid-high. Many jumpers in outer bay.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Chief Cove												
254-404	8- 1	Hander	g	f		0	0	1500	0	2500P	-	1349 hrs. Tide high. No count in upper reach of stream due to brush.
254-404	9-13	Prokopowich	g	g		0	0	1000	0	-	-	Plus 1000 pink carcasses in stream.
Cape Kuliuk												
254-405	8- 1	Hander	g	f		0	0	200	0	1500P	-	1355 hrs. Tide high. No count in upper reach of stream due to brush.
254-405	9-13	Prokopowich	g			0	0	400	0	-	-	-
Karluk River												
255-101	6-13	Brennan		f	f	0	0	0	0	5000R	-	1200 Hrs. Fish showing along beach to north of lagoon. No steam survey.
255-101	8-23	Hastings	e			500	0	8000	0	-	-	Majority of live pinks seen from weir ranging upstream 2 miles. Water running fast and was murky due to rains. Estimate 80-100 carcasses upstream from weir. Also observed reds and 200 kings 1 mile downstream from lake. Did not see any live pinks downstream of weir.
255-101	8-29	Prokopowich		g	g	0	0	0	0	170000R	375000R	Fish in "Mouth" in lagoon. Reds in "Bay" off entrance to lagoon (most from mouth to Tanglefoot). Good show of jumpers up to waterfalls.
255-101	9-12	Malloy	P	P	P	8000	4000	0	0	-	-	Lagoon looks very light - fish not showing. Jumpers only at mouth. Poor visibility; chop offshore. Only fish show in King Hole.
255-101	9-13	Prokopowich	e	e		45500	500	0	0	-	-	Lagoon survey - 45,500 reds, 500 coho. Most fish in upper end of lagoon. Additional fish below weir. No show off mouth.
255-101	9-16	Weir Count	f			1108646	21852	109880	129	-	-	Weir in operation 5/22 through 9/16. Plus 10484 kings. Counts include estimates of fish in lagoon after weir pulled.
Cape Uyak												
255-102	9-13	Prokopowich	g			0	0	0	0	-	-	Nothing seen. Log jam at mouth.
Low Cape												
256-101	7-27	Chatto	p			0	0	0	100	-	-	1100 hrs. All fish just inside mouth. Water level good. No fish off mouth.
256-101	9-26	Hander	p			0	0	0	0	-	-	1145 hrs. Low incoming tide. High water level. Coho observed in stream but visibility too poor to obtain count.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
N. Low Cape											
256-102	7-27	Chatto	f		0	0	0	0	-	-	1107 hrs. Water level low. No fish in stream or off mouth.
256-102	9-13	Prokopowich	f		0	0	0	0	-	-	Nothing seen, water very high.
256-102	9-26	Hander	p		0	0	0	0	-	-	1137 hrs. Low incoming tide. Good water level. No fish observed.
Red River											
256-201	8-31	Weir Count	f		768101	8242	45655	100	-	-	Weir in operation 5/31 through 8/31. Plus 15432 kings.
256-201	10-26	Hander	g		0	8540	0	0	-	-	1440 hrs. High Tide. Good water level. Survey includes Red Lake River, Bare Creek, mainstem of the river from mouth to east fork, east fork to Fraser flats. Visibility in upper river good, in lower river fair
Old Red River											
256-202	7-20	Chatto	g	g	0	0	0	0	-	-	1310 hrs. Only surveyed 1/2 of stream to lake...no fish. No jumpers or fish off mouth. Stream flow low.
256-202	7-27	Chatto	p	f	0	0	0	0	-	-	1222 hrs. No fish in stream or off mouth. Water level low.
256-202	8-25	Hander	p	p	0	0	0	0	-	-	1928 hrs. Mid tide. Lower 1.5 miles turbid. Observed fish attempting to jump falls. Water level high.
256-202	9-13	Prokopowich	p		0	0	0	0	-	-	Too muddy to survey.
256-202	9-26	Hander	f		0	0	0	0	-	-	1120 hrs. Low incoming tide. High water level, lower stream muddy. No fish observed.
Caramel Creek											
256-301	7-20	Chatto	g	g	0	0	0	0	-	-	1315 hrs. Low tide. No fish in stream or lagoon, no jumpers outside of lagoon. Stream low.
256-301	7-27	Chatto	p	f	0	0	0	0	-	-	1228 hrs. No fish in stream, lagoon or off mouth. Water level low.
256-301	8-25	Hander	p		0	0	0	0	-	-	1920 hrs. Mid low tide. Water too turbid, no count. Water level high. 75 yard x 10 yard sheen patch in upper lagoon.
256-301	9-13	Prokopowich	g	g	0	600	1500	0	-	-	Coho in upper lagoon.
256-301	9-26	Hander	f	f	0	450	0	0	-	-	1109 hrs. Mid low tide. Good water level.
256-301	10- 8	Hander	f	f	0	0	0	0	-	-	1053 hrs., high tide. No fish observed.
Halibut Bay											
256-302	7-20	Chatto	f	g	0	0	0	0	-	-	1329 hrs. No fish in stream, lagoon of lagoon beach. Stream low.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
256-302	7-27	Chatto	p	f		0	0	0	0	-	-	1237 hrs. No fish in stream, lagoon or off mouth. Water level moderate.
256-302	8-25	Hander	p	p	f	0	0	0	0	50P	-	1912 hrs. Mid low tide. Water level high.
256-302	9-13	Prokopowich	g	g		0	100	0	0	-	-	Fish in lagoon.
256-302	9-26	Hander	f	g		0	0	0	0	-	-	1104 hrs. Mid low tide. No fish in stream or off mouth. Water level good.
Grant's Lagoon Cr.												
256-303	7-20	Chatto	g	g		0	0	0	0	-	-	1335 hrs. No fish in stream or lagoon. Stream from lagoon to ocean dry (land locked).
256-303	7-25	Brennan	g	g	g	0	0	0	0	-	250P	1525 hrs. Tide low. Fish seen on outside beach to north (traveling fish?).
256-303	7-27	Chatto	g	g	g	0	0	0	0	-	450P	1243 hrs. No fish in stream or lagoon. Pinks in bay schooled off beach. Water level low. Lagoon landlocked.
256-303	8-25	Hander	f	f		0	0	0	0	-	-	1908 hrs. Low tide. Mouth still inaccessible, no fish.
256-303	9-13	Prokopowich	f			0	0	0	0	-	-	Nothing seen, water high and muddy.
256-303	9-26	Hander				0	0	0	0	-	-	1100 hrs. Mid low tide. Landlocked no fish.
256-303	10- 8	Hander				0	0	0	0	-	-	1045 hrs, high tide. Lagoon still landlocked. No fish.
256-303A	7-27	Chatto	f	f	f	0	0	0	0	-	250P	1247 hrs. No fish in stream. Pinks in bay schooled off beach.
Sturgeon River												
256-401	7-10	Chatto	f	f		0	0	0	1390	22500Ch	-	1400 hrs. Low tide. Surveyed entire stream and lagoon. Majority of chums seen in stream were above the forks. 90% of fish in lagoon were in upper lagoon area. Some jumpers in outer lagoon flats. Stream flow low.
256-401	7-11	Chatto	g	g		0	0	0	5000	30000Ch	-	1436 hrs. Low tide. Surveyed entire stream and lagoon. Majority of chums in stream downstream of forks for approximately 2 miles. Stream flow low.
256-401	7-25	Brennan	g	e	g	0	0	450	2735	150Ch	-	1535 hrs. Tide low. Nothing seen outside or in channels. Few fish in mouth or creek. Few carcasses (<100). Most of fish in a few large schools in lower 1/3 of river.
256-401	7-27	Chatto	g	f		0	0	1250	1560	500P 1000Ch	-	1252 hrs. 500 chums in south fork. Fish lightly scattered from forks downstream.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
256-401	8-25	Hander	g	f	f	0	0	100	0	-	-	1830 hrs. Low tide. No fish off mouth or in lagoon. Scattered pinks in lower 3 miles of stream. Visibility fair to poor below fork, no count. Water level high.
256-401	9-13	Prokopowich	g	g		0	200	0	0	-	-	Coho in upper lagoon.
256-401	9-26	Hander	g	g		0	3970	0	0	-	-	1020 hrs. Mid low tide. Water level good. Fish scattered in lower ten miles of river.
256-401	10- 8	Hander	f			0	890	0	0	-	-	1001 hrs. High tide. Water level high. Visibility good in upper river past forks. Fish distributed evenly through mainstem and south fork. Lower river too high and rough to obtain counts.
256-401	10-26	Hander	g			0	3635	0	0	-	-	1355 hrs. High tide. Water level good. Surveyed approximately 20 miles from mouth including the southeast fork. Began seeing coho upstream 3 miles.
East Sturgeon River												
256-402	7-11	Chatto		g		0	0	0	0	-	-	1510 hours low tide. Stream flow low. No stream survey. Surveyed lagoon area at east Sturgeon...no fish.
256-402	7-19	Chatto	f	g		0	0	0	2050	1000Ch	-	0802 hrs. Most fish located upstream approximately 1 mile below forks, numerous carcasses upstream. Water level low. Upper south fork dry.
256-402	7-27	Chatto	f	g		0	0	0	1600	-	-	1317 hrs. Most fish located 3 miles upstream.
256-402	8-25	Hander	f			0	0	3000	0	-	-	1855 hrs. Low tide. Few fish in upper river, visibility good in upper river but very few fish. Water level good.
256-402	10- 8	Hander	f	g		0	615	0	0	-	-	1026 hrs. High tide. Water level high. Surveyed 8 miles up from mouth. Upper 4 miles good visibility and fish distributed through this area. Water too rough and high in lower river.
256-402	10-26	Hander	g			0	600	0	0	-	-	1425 hrs. High tide. Water level good. Surveyed upper 4-5 miles of river.
Little Sukhoi												
257-101	7-10	Chatto	g			0	0	0	0	-	-	1420 hrs. Low tide. No fish seen in stream or lagoon - no jumpers. Water flow in stream very low.
257-101	7-20	Chatto	f	f		0	0	0	0	-	-	1120 hrs. No fish observed in stream or off mouth. Stream flow low.
257-101	7-27	Chatto	f	f		0	0	0	430	-	-	1050 hrs. Visibility poor in lower river. Estimate more fish present in lower part of river. Fish spawning to headwaters. No fish in the lagoon.
257-101	8-25	Hander	p			0	0	0	0	-	-	2034 hrs. High tide. Water level high. Too turbid for surveying.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
257-101	10- 8	Hander	f	f		0	1200	0	0	-	-	1120 hrs. High tide. Water level high. No fish in lagoon.
Big Sukhoi												
257-102	7-10	Chatto	g			0	0	0	0	-	-	1420 hrs. Low tide. No fish seen in stream or lagoon - no jumpers. Water flow in stream very low.
257-102	7-20	Chatto	f	p		0	0	0	100	-	-	1114 hrs. No fish observed in lagoon or off mouth. Visibility poor to fair. Stream flow low.
257-102	7-25	Brennan	g	e	f	0	0	2	0	5P	-	1400 hrs. Tide low. Few fish visible. 5 bears in lagoon (waiting?) Water ripple outside - fish flushed out by tide?
257-102	7-27	Chatto	f			0	0	0	0	-	-	1055 hrs. No fish.
257-102	8-25	Hander	g	p	g	0	0	0	0	1000P	-	2027 hrs. Mid high tide. Upper stream visibility fair - many pinks, no estimate. Lower stream visibility poor. High water level. 32 swans in lagoon.
257-102	9-26	Hander	f	f		0	0	0	500	-	-	1155 hrs. Mid low tide. Water level high. Fish scattered in lower five miles.
Steep Creek												
257-301	6-17	Brennan		g	g	0	0	0	0	-	15000R	1310 Hrs. Offshore of waterfall - these fish most likely Dog Salmon reds.
Akalura Creek												
257-302	6- 7	Brennan		F	F	0	0	0	0	-	-	1945 Hrs. No stream survey.
257-302	6-11	Brennan		g	g	0	0	0	0	-	-	1810 Hrs. No stream survey.
257-302	6-13	Brennan		f	f	0	0	0	0	-	-	1310 Hrs. No stream survey
257-302	6-15	Brennan		g	g	0	0	0	0	-	3000R	1350 Hrs. Upper Station fish??? No stream survey.
257-302	6-17	Brennan		g	g	0	0	0	0	-	7000R	1330 Hrs. Upper Station fish??? Moving along shoreline.
257-302	6-23	Brennan		p	p	0	0	0	0	-	-	1615 Hrs. No stream survey.
257-302	6-27	Prokopowich	g	g	g	0	0	0	0	-	1750R	Akalura east side markers - 1,750 Reds.
257-302	7-17	Kuriscak	g			0	0	0	0	-	-	Dolly varden and assorted fry seen - coho fry numerous.
257-302	7-17	Kuriscak	g			0	0	0	0	-	-	Foot survey. Dolly varden and assorted fry seen - coho fry numerous.
257-302	7-19	Ranallo	g			0	0	0	0	-	-	Foot Survey. Dolly varden and assorted fry seen - coho fry numerous.
257-302	7-20	Ranallo	g			0	0	0	0	-	-	Foot survey. Dolly varden and assorted fry seen - coho fry numerous.
257-302	7-21	Ranallo	g			0	0	0	0	-	-	Dolly varden and assorted fry seen - coho fry numerous.
257-302	7-23	Ranallo	g			0	0	0	0	-	-	Coho fry numerous along creek banks and still water.
257-302	7-24	Ranallo	g			0	0	0	0	-	-	2 pinks holding behind weir.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
257-302	7-25	Brennan	g	g	f	0	0	0	0	3000R 500P	-	1500 hrs. Tide falling. 2,000 reds in lakes--700 to west, 1,225 to east, 75 to north.
257-302	7-27	Ranallo	g			0	0	1	0	-	-	-
257-302	7-28	Scott	g			0	0	1	0	-	-	Foot survey. 3 pinks seen in Akalura prior to Humpy.
257-302	7-29	Ranallo	f			0	0	4	0	-	-	Sockeye and dolly varden present.
257-302	7-30	Ranallo	f			0	0	6	0	-	-	Pinks are hiding under cutbanks, etc. and are often difficult to spot.
257-302	7-31	Ranallo	p			0	0	1	0	-	-	Dolly varden and sockeye present. Dead pink in water prior to Humpy Creek.
257-302	8- 2	Ranallo	p			0	0	0	0	-	-	Poor visibility due to rain and increasing water level.
257-302	8- 2	Chatto	f	p	f	1500	0	0	0	-	-	1500 hrs. High tide. Turbulent at lagoon. Count for lake shore off mouths of creek only. No species separation below weir or lagoon - 600 fish.
257-302	8- 3	Scott	p			0	0	86	0	-	-	Foot Survey. Poor visibility due to high water level. Pinks are hiding under cutbanks.
257-302	8- 6	Scott	g			0	0	11	0	-	-	Foot Survey. Figure does not include 4 dead. All pinks were observed at the (7 DOW) mouth of Humpy Creek - or before.
257-302	8- 6	Ranallo	g			0	0	130	0	-	-	Figure does not include 8 dead. Four of the 8 dead pinks were animal kills on bank of creek.
257-302	8- 8	Ranallo				0	0	12	0	-	-	62 reds, 6 dead reds, 5,000 dolly varden. DV are very thick; beaver dam approximately 2 miles upstream.
257-302	8- 8	Ranallo	f			0	0	12	0	-	-	Figure does not include 4 dead. Two animal kills on bank. Majority of live fish concentrated at Humpy Creek mouth.
257-302	8- 8	Ranallo	f			0	0	48	0	-	-	Figure does not include 51 dead. First 1/3 of creek contained majority of live fish. Majority dead were bear kills.
257-302	8-10	Ranallo	p			0	0	0	0	-	-	2 reds spawned out near mouth.
257-302	8-10	Ranallo	p			0	0	0	0	-	-	Very murky water - didn't go far upstream because of poor visibility.
257-302	8-10	Ranallo	f			0	0	0	0	-	-	3 reds, 0 dolly varden, reds spawned out near mouth.
257-302	8-11	Scott	p			0	0	202	0	-	-	Figure does not include 1 dead. Includes approximately 200 pinks directly in front of weir; couldn't see in certain areas.
257-302	8-11	Scott	p			0	0	171	0	-	-	Foot Survey. Figure does not include 18 dead. Majority of dead bear kills (old).
257-302	8-13	Scott	g			0	0	1189	0	-	-	Foot Survey. Figure does not include 4 dead. Approximately 200 holding in front of weir.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
257-302	8-13	Scott	g			0	0	222	0	-	-	Figure does not include 55 dead. 49/55 dead were bear kills. Encountered bear fishing in creek about 1/2 way through survey.
257-302	9-23	Weir Count	f			116029	4001	49608	3	-	-	Weir in operation 5/19 through 9/23. Counts include estimates of fish in system after weir was out.
257-302	10-26	Hander	g			80000	0	0	0	-	-	1538 hrs. Water level good. No fish in the lagoon. Reds spawning on beaches of lake.
Silver Salmon Creek												
257-303	6-23	Brennan		p	p	0	0	0	0	-	-	1625 Hrs. No stream survey.
257-303	6-27	Prokopowich	g	g	g	0	0	0	0	-	-	Silver Salmon to Stormy Point. 1,500 Reds - scattered schools.
257-303	7-20	Chatto	f	f	p	0	0	0	0	-	-	1144 hrs. No jumpers off mouth. Nothing in lagoon, river, lake or upper streams. Stream flow low.
257-303	7-27	Chatto	f	f		3035	0	0	0	-	-	1115 hrs. 35 reds in stream. 3,000 reds in lake. No fish in lagoon or off mouth.
257-303	8- 1	Hander				0	0	0	0	-	-	-
257-303	8- 2	Chatto	f	f	g	0	0	600	0	-	-	1511 hrs. High tide. All fish observed were in lake. Streams above lake poor visibility (murky)... numerous fish in streams but no count.
257-303	8-25	Hander	f	f		200	0	600	0	-	-	1941 hrs. Mid tide. Reds spawning full length of main tributary, no estimate. Water level good.
257-303	9-17	Hastings	f	f	f	0	0	0	0	-	1Co	Water fairly high due to recent rains. Some what cloudy and fast. Did not observe any fish in lagoon or lake. Observed one jumper at outlet.
257-303	9-26	Hander				0	300	0	0	-	-	1213 hrs. High water level. Coho seen in lagoon, reds observed in lake but no count made.
257-303	10- 8	Hander	p	p		0	1000	0	0	-	-	1107 hrs. Water level high in creek and lake.
257-303	10-26	Hander	f	p		0	100	0	0	-	-	1530 hrs. Water level good. Lake very murky. Fish in lagoon.
Upper Station												
257-304	6- 7	Brennan		F	F	0	0	0	0	-	-	1955 Hrs. No stream survey.
257-304	6-11	Brennan		g	g	0	0	0	0	-	-	1815 Hrs. No stream survey.
257-304	6-13	Brennan		f	f	0	0	0	0	-	-	1330 Hrs. No stream survey
257-304	6-15	Brennan		f	p	0	0	0	0	4000R	-	1325 Hrs. Turbid and choppy offshore. No stream survey.
257-304	6-17	Brennan	g	g	g	0	0	0	0	-	-	1340 Hrs. No fish sighted offshore or in lagoon.
257-304	6-23	Brennan		p	p	0	0	0	0	700R	-	1635 Hrs. Reds in the lagoon. No stream survey.
257-304	6-27	Prokopowich	g			1200	0	0	0	-	-	Too much surf off mouth to see. Fish in creek are below weir. 800 reds in lagoon. 400 in creek.
257-304	7-25	Brennan		g	g	4500	0	0	0	12000R	23300R	1440 hrs. Surveyed lagoon and offshore only. Most of reds to east of mouth (20,000+)

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
257-304	9-12	Weir Count	f			286288	5319	754	1	-	-	Weir in operation 5/31 through 9/12. Plus 4 kings. Count does not include estimate of fish in lagoon or bay after weir pulled.
Little Dog Salmon Cr												
257-305	6- 7	Brennan		f	f	0	0	0	0	-	-	1935 Hrs. No stream survey.
257-305	6-11	Brennan		g	g	0	0	0	0	-	-	1800 Hrs. No stream survey.
257-305	6-13	Brennan		f	f	0	0	0	0	-	4000R	1300 Hrs. Reds probably traveling to Upper Station. No stream survey.
257-305	6-15	Brennan		g	g	0	0	0	0	-	4000R	1305 Hrs. Upper Station fish? No stream survey.
257-305	6-17	Brennan		g	g	0	0	0	0	-	7000R	1315 Hrs. Likely travelling fish. No stream survey.
257-305	6-23	Brennan		p	p	0	0	0	0	-	-	1610 Hrs. No stream survey.
Narrows Creek												
257-401	7-25	Brennan	g	g	g	0	0	50	25	3000P	10200P	1320 hrs. Tide falling. 7,500 pinks to south in back bay.
257-401	9-15	Giegerich	g	g		0	0	550	0	185P	-	Surveyed only 5 sections of creek.
Horse Marine												
257-402	6- 7	Brennan		f	f	0	0	0	0	-	-	1910 Hrs. No stream surveys.
257-402	6-11	Brennan		G	G	0	0	0	0	-	-	1720 Hrs. No stream survey.
257-402	6-13	Brennan		f	f	0	0	0	0	-	2000R	1250 Hrs. No stream survey.
257-402	6-15	Brennan		g	g	0	0	0	0	4500R	5000R	1245 Hrs. Fish off mouth of lagoon and along beach to south. No stream survey.
257-402	6-17	Brennan	g	g	g	0	0	0	0	-	3000R	1240 Hrs. Nothing seen in lake or lagoon.
257-402	7-20	Chatto	g	f	p	450	0	0	0	-	-	1030 hrs. No fish in lagoon mouth. Some jumpers outside of lagoon. No jumpers in lagoon. 150 reds just below weir in stream. 150 reds above weir, 150 at lake outlet.
257-402	7-25	Brennan	g	g	g	0	0	0	0	450R 2600P	1500P	1245 hrs. Tide falling. Jumpers along south shore to Burkholder's site.
257-402	8-26	Hander	g	f	f	3000	150	0	0	1000Co	-	1320 hrs. Mid tide. Water level good. Reds spawning on N. lake shore, few instream reds, 150 coho near weir, coho jumping off mouth. 1,000 coho in lagoon.
257-402	9-13	Prokopowich	g	g		3400	0	0	0	-	-	Reds spawning north lake shore, good distribution. Few coho jumping in lagoon.
257-402	9-26	Hander	g	f		4000	400	300	0	2300Co	-	1250 hrs. Water level good. 2,000 coho in lagoon, 300 coho off mouth, reds observed spawning along N.E. shore of lake.
257-402	10- 8	Hander	g	f		600	700	0	0	700Co	-	1142 hrs. water level high. All reds observed were lakeshore spawners.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Dog Salmon												
257-403	6- 7	Brennan		f	f	0	0	0	0	-	-	1920 Hrs. No stream surveys.
257-403	6-11	Brennan		g	g	0	0	0	0	18000R	26000R	1730 Hrs. No stream survey.
257-403	6-13	Brennan		f	f	0	0	0	0	20000R	28000R	1230 Hrs. No stream survey.
257-403	6-15	Brennan		e	e	0	0	0	0	52000R	70000R	1230 Hrs. Reds not right upon flats; off in deeper water or towards Talifson's bight. No stream survey.
257-403	6-17	Brennan	-	g	g	0	0	0	0	11000R	160000R	1250 Hrs. Reds have moved "out" since last survey. Most (129,000) along Barker/Omlid beach offshore and along backside of spit to waterfall. An additional 14000 reds along east side. No stream survey.
257-403	6-23	Brennan		p	p	0	0	0	0	-	200000R	1540 Hrs. Lots of show in Iverson's Bight and on backside of Barkers spit but visibility too poor to see much. No stream survey.
257-403	6-27	Prokopowich	e	e	e	4300	0	0	0	10000R	32000R	E.F. below weir 1,500R, W.F below weir 2,800R, Barkers to Omlid Spit 10,500R Normal closed waters - 20,500 R, Burkholders to Narrows - 7,000R.
257-403	7-25	Brennan		g	g	0	0	0	0	43000P	37000P	1300 hrs. Tide falling. 34,000 pinks below weir on east side; 9,000 on west side. 24,000 plus pinks right on beach at Talifson;s Beach. No stream survey.
257-403	8- 2	Chatto	f	p	f	500	0	0	0	-	-	1550 hrs. Surveyed east fork of river below fishway for reds. All reds located one school 60 yards upstream from confluence with main river.
257-403	8-26	Kaplan	f			1500	7	0	0	-	-	No live pinks seen when surveyed. Majority of pink carcasses washed out to tide water. Past peak spawning.
257-403	9- 6	Weir Count	f			362007	5668	315559	4690	-	-	Weir in operation 6/6 through 9/6. Plus 156 kings.
Chip Cove Creek												
257-405	7-25	Brennan	g	g	g	0	0	0	0	6000P	-	1340 hrs. Tide falling.
Deadman River												
257-502	6-17	Brennan		f	f	0	0	0	0	-	-	1210 Hrs. No stream survey.
257-502	7-10	Chatto	f	f	f	0	0	300	330	-	-	1245 hrs. Mid tide. Surveyed river upstream for 2 miles. All fish observed from mouth upstream 1-1/2 miles. No fish or jumpers in bay or mouth flats.
257-502	7-18	Chatto	f	f		0	0	15000	0	2000P 1500Ch	-	1752 hrs. Stream flow low. Jumpers on flats east side.
257-502	7-25	Brennan	g	e	e	0	0	19500	1460	24000P	83200P	1215 hrs. Tide falling. Water in stream low; intermittent flow inupper reach. 47,000 pinks in balls along east side to Alpine Cove. 12,000 P. along westside. Jumpers in middle of bay.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
257-502	7-26	Hander	f	g		0	0	32000	3000	14000Ch	-	1549 hrs, 2,000 pinks on north west fork, upstream from forks for approximately 1.5 miles upstream.
257-502	8- 4	Prokopowich	e	e		0	0	410000	5000	80000P	-	Left fork - 125,000 P, 2,000Ch; Right fork - 285,000 P, 7,000 Ch. Pinks off mouth on west side.
257-502	8-25	Brennan	g	g	f	0	0	375000	15000	-	275000P	1620 hrs. Plus 20,000 carcasses.
257-502	8-26	Hander	e	f		0	0	200000	0	50000P	-	0955 hrs. Mid high tide. Heavy spawning in side pools, 5,000 pinks in East Fork. Water level good.
257-502	8-26	Brennan	g	g	f	0	0	398000	15500	-	75000P	1650 hrs. Plus 25,000 carcasses.
257-502	9-13	Prokopowich	g	g		0	0	192000	22000	-	-	West fork water murky - 7,5000 pinks; East fork - 71,000 pinks, 22,000 chums;Middle fork - 46,000 pinks. Channel continuing to change. Live fish count.
257-502	9-15	Giegerich	g	g		0	0	4000	0	11000P	-	Majority of live pinks and carcasses found in intertidal area. Estimating 30,000 carcasses.
257-502	9-26	Hander	g			0	700	4000	0	-	-	1307 hrs. High tide. Water level low.
257-502	10- 8	Hander	f	f		0	600	0	0	-	-	1155 hrs. Mid high tide. Water level good. Surveyed approximately 5 miles up river from mouth. Fish distributed throughout area surveyed. No fish off mouth.
Alpine Cove Creek												
257-503	6-17	Brennan		f	f	0	0	0	0	-	-	1220 Hrs. No stream survey.
257-503	7-18	Chatto	e	g		0	0	150	0	550P	-	1744 hrs. Stream flow good. Few jumpers on flats off mouth.
257-503	7-25	Brennan	g	e	e	0	0	600	275	1000P	6000P 250Ch	1230 hrs.
257-503	7-26	Hander	e	p		0	0	3000	650	-	-	1544 hrs. Jumpers off mouth. Water level moderate to low.
257-503	8- 4	Prokopowich	e	e		0	0	30000	0	70000P	-	Pinks in lower end. Lots of jumpers in bay.
257-503	8-25	Brennan	g	g	g	0	0	87000	0	-	-	1630 hrs. Plus 5,000 carcasses.
257-503	8-26	Brennan	g	g	g	0	0	83000	0	-	-	1645 hrs. Plus 5,000 carcasses.
257-503	8-26	Hander	e	f		0	0	40000	0	5000P	-	1017 hrs. High tide. Water level good.
257-503	9-26	Hander	e			0	0	0	0	-	-	1303 hrs. Mid high tide. Water level good. Few live pinks in stream, 12,000 carcasses in lower 1 mile of stream and off mouth.
Hellen Creek												
257-504	7-18	Chatto	g	f		0	0	0	0	-	-	1735 hrs. Impassable falls 200 yards up from mouth. No fish below falls or off mouth. 3,000 pinks along west shore between 504 and 503.
257-504	8-25	Brennan	f	f	f	0	0	25000	0	1800P	17000P	1638 hrs. Plus 8,000 carcasses.
257-504	8-26	Hander	g	g		0	0	8000	0	8000P	-	1026 hrs. High tide. Fish present all the way to falls. Water level good.
257-504	8-26	Brennan	g	g	g	0	0	32000	0	38000P	-	1642 hrs. Plus 1,500 carcasses.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
N.E. Portage												
257-601	7-18	Chatto		f		0	0	0	0	-	-	1720 hrs. Stream goes dry 1/2 mile upstream. No fish in stream or off mouth.
257-601	7-26	Hander	g	g		0	0	0	800	-	-	1522 hrs. No fish off mouth. Stream dry after 1.0 miles upstream.
257-601	8-26	Hander	g	p		0	0	15000	0	-	-	1054 hrs. Mid tide. Thousands of fish in lagoon, no count. Water level good.
257-601	8-26	Brennan	g	g	g	0	0	12000	0	12800P	-	1405 hrs. Plus 7,200 carcasses.
Sulua Pink Creek												
257-602	7-18	Chatto	f	f		0	0	0	0	4000P	-	1704 hrs. No fish in stream.
257-602	7-21	Brennan	g	g	g	0	0	0	0	12600P	26000P	1705 Hrs.
257-602	7-26	Hander	f	p		0	0	0	500	2000P 15000Ch	-	1530 hrs. Water level moderate.
257-602	8-26	Brennan	g	g	g	0	0	35000	4000	-	-	1632 hrs. Plus 14,000 carcasses.
257-602	8-26	Hander	g	g		0	0	17000	0	14000P	-	1040 hrs. Mid high tide. Water level good.
Sulua Chum Creek												
257-603	7-18	Chatto	g	g		0	0	250	0	-	-	1650 hrs. No fish in flats off mouth. Water low.
257-603	7-26	Hander	g	g		0	0	300	200	500P	-	1535 hrs. Low water.
257-603	8- 4	Prokopowich	e	e		0	0	14000	0	10000P	-	-
257-603	8-26	Hander	g	g	g	0	0	55000	0	10000P	-	1033 hrs. Mid high tide. Water level good.
257-603	8-30	Malloy	e	g	f	0	0	2800	5500	4000Ch	-	Additional 36K chum and 24K pink carcasses in stream and lagoon. Water flow excellent.
Toms Creek												
257-604	7-18	Chatto		f		0	0	0	0	-	-	1710 hrs. Stream dry. No fish off mouth.
257-604	7-21	Brennan	g	g	g	0	0	500	0	3000P	5000P	1655 Hrs. Water very low.
257-604	7-26	Hander	g	g		0	0	0	3000	1500P	-	1514 hrs. All chums in lower river intertidal area. Low water level upstream.
257-604	8-26	Brennan	g	g	g	0	0	77000	2000	6000P	-	1614 hrs. Plus 1,000 carcasses.
257-604	8-26	Hander	g	g		0	0	1500	0	2000P	-	1045 hrs. Mid high tide. Water level good.
257-604	8-30	Malloy	e	g	g	0	0	123000	0	-	-	Water flow very good - best ever seen for this date. Additional 100K pink carcasses in stream.
East Portage Creek												
257-605	7-18	Chatto		f		0	0	0	0	9150P	-	1712 hrs. Stream dry. 600 pinks off mouth, 8,550 pinks along west shore of lagoon.
257-605	7-26	Hander		p		0	0	0	0	-	-	1520 hrs. Stream dry. Numerous jumpers off mouth of lagoon. No count or species.
257-605	8-26	Hander	g	g		0	0	7000	0	1000P	-	1049 hrs. Mid tide. Water level good.
257-605	8-26	Brennan	f	g	g	0	0	6900	0	-	2000Ch	1625 hrs. Plus 500 carcasses. Low estimate - poor stream count (brush).

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Humpy River												
257-701	7-18	Chatto	g	f	f	0	0	129000	0	30000P	50000P	1401 hrs. Surveyed entire streams up to head waters. Fish distributed evenly on entire stream. Water low but o.k. Pinks in bay along north end of beach for approximately 1/2 mile. *Estimate in stream considered very conservative.
257-701	7-21	Brennan	g	g	g	0	0	180000	0	5000P	25000P	1620 HRS. "Bay" fish 1/2 mile to north along beach. Poor visibility in lower 1/4 of creek, in canyon. Estimate of 35,000 in canyon pools likely low.
257-701	7-26	Hander	g	f		0	0	226000	0	25000P	-	1437 hrs. pinks all way up drainage. Water level moderate. Pink estimate along beach for approximately 1.0 miles to north. Many jumpers in deeper water - no count.
257-701	8- 4	Prokopowich	e	e	e	0	0	690000	0	70000P	70000P	Didn't survey complete bay. Pinks from mouth to north marker.
257-701	8-26	Hander	g	f		0	0	400000	0	100000P	-	1120 hrs. Low tide. Thousands of carcasses in stream and off mouth. Water level good.
257-701	8-26	Brennan	g	g	f	0	0	626000	0	260000P	58000P	1545 hrs. Plus mountains of carcasses - hard to estimate #....375,000. New fish outside and along beach to north.
257-701	8-27	Kaplan	f	f	f	0	0	50000	0	100000P	100000P	Live pinks from bay stretching 1/4 mile upstream. Mass buildup of carcasses at mouth of river stacked in some places 2' high on gravel bars; estimate 100,000 carcasses in area. Did not survey past 1/4 mile upstream due to high winds and low ceiling.
257-701	8-30	Malloy	e	e	g	0	0	641000	0	250000P	5000P	Stream breakdown: 260K from lower end to canyon. 81K in canyon, 280K from canyon to headwater. Carcass count: 250K in stream and 350K off mouth. Water flow excellent. Extremely late timing to observe this volume of live fish.
257-701	9- 5	Hastings	p	p		0	0	500000	0	50000P	-	Stream very murky and swift. Large buildup of pinks, 250,000, from tidewater to 1/4 mile upstream (heaviest concentration). Another 250,000 from 1/4 mile to 4.5 miles upstream. Fish thin above 5 miles.
Shag Bluff Creek												
257-702	7-21	Brennan	G	G	G	0	0	0	0	9000P	13600P	1645 Hrs."Bay" fish scattered along beach to south for 2-3 miles - look to be moving south towards Humpy Creek in groups of 100 - 1,000.
257-702	7-26	Hander	g	f		0	0	2500	0	2400P	-	1503 hrs. Pinks along beach for 1.0 miles to north. Very low water in stream. Fish held up in pools.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
257-702	8-26	Hander	g	g		0	0	31000	0	-	-	1112 hrs. Mid low tide. Water level good. Fish all the way upstream past fork for at least one mile in both forks. No fish off mouth.
257-702	8-30	Malloy	e	g	g	0	0	94000	0	-	-	Water flow very good - best ever seen for this date. Additional 22K pink carcasses in stream.
257-702A	7-26	Hander	g	g		0	0	0	0	8000P	-	1512 hrs. No fish in stream.
257-702A	8-26	Hander	g	p		0	0	65000	0	-	-	1102 hrs. Mid low tide. Water level good. Schools off mouth, visibility too poor to obtain count.
Seaborg Bay Creek												
257-703	7-26	Hander	g			0	0	0	0	-	-	1500 hrs. Terminus of stream landlocked. Water very low - no fish.
Boulder Bay												
258-101	8- 4	Brennan	g	g	f	0	0	1700	0	-	-	1255 hrs. Tide flooding. Pinks well distributed to head of stream.
258-101	9-12	Brennan	g	g	f	0	0	2600	0	-	-	1300 hrs. Plus 2,000 carcasses.
Santa Flavia												
258-201	8- 4	Brennan	e	e	e	0	0	4500	0	3800P	600P	1250 hrs. Tide flooding.
258-201	9-12	Brennan	g	g	f	0	300	4700	5300	-	-	1250 hrs.
Shearwater Bay Creek												
258-202	7-27	Brennan	g	f	p	0	0	200	0	-	-	1646 hrs. Tide flooding. Water very low.
258-202	8- 4	Brennan	e	e	e	0	0	75	0	1100P	-	1245 hrs. Tide flooding.
258-202	9-12	Brennan	g	g	f	0	0	0	3600	-	-	1240 hrs.
Port Otter Creek												
258-203	8- 4	Brennan	e	e	e	0	0	0	0	150P	-	1240 hrs. Tide flooding.
Dog Bay Creek												
258-204	7-27	Brennan		f	p	0	0	0	0	-	1300Ch	1644 hrs. Tide flooding. No stream survey.
258-204	8- 4	Brennan	e	e	e	0	0	0	1000	2300Ch	-	1235 hrs. Tide flooding. Very low water in stream.
258-204	8-26	Brennan	g	g	f	0	0	0	16700	2500Ch	-	1225 hrs. Fish well distributed in sloughs.
258-204	9-12	Brennan	f	f	f	0	0	200	3600	-	-	1225 hrs.
Coxcomb Pt. Creek												
258-205	7-27	Brennan		f	p	0	0	0	0	-	4500Ch	1642 hrs. Tide flooding. No stream survey.
258-205	8- 4	Brennan	e	e	e	0	0	0	1725	1500Ch	2500Ch	1230 hrs. Tide flooding. Chums split evenly between left and right fork of stream.
258-205	8-26	Brennan		g	f	0	0	0	0	3500Ch	-	1230 hrs. No stream survey.
258-205	9-12	Brennan	p	f	f	0	0	300	4400	-	-	1220 hrs. Creek muddy; fish seen in sloughs.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
N.Kiliuda Creek												
258-206	8- 4	Brennan	e	e	e	0	0	4100	900	-	2100P 950Ch	1145 hrs. Tide low, flooding. Bay fish scattered clear to outer spit.
258-206	9-12	Brennan	g	g	f	0	0	200	1800	-	-	1120 hrs. Plus 12,000 carcasses.
W. Kiliuda Creek												
258-207	7-18	Chatto	g	f		0	0	0	250	150Ch	-	1100 hrs. 250 chums first quarter mile of stream, 150 chums on flats off mouth; no jumpers. Water low.
258-207	7-27	Brennan	g	g	g	0	0	1900	4700	1800P 300Ch	19500P 6500Ch	1630 hrs. Tide beginning to flood. 15,000 pinks and 5,000 chums along south shore of bay; 4,500 pinks, 1,500 chums on flats. In stream pinks along south fork, chums along north near mouth.
258-207	8- 3	Chatto	g	g		0	0	7000	0	5000P	-	1133 hrs. Low tide. Fish schooled along east and west shores off mouth.
258-207	8- 4	Brennan	e	e	e	0	0	1350	1875	900P	14500P 30000Ch	1150 hrs. Tide low, flooding. Most of chums in sloughs, pinks in main channel and sloughs. 14,000 chums + 6,500 pinks in balls mid bay, 16,000 chums + 8,000 pinks in balls + bands along south shore to east - in kelp and along beach. Likely more fish in deeper water.
258-207	8-26	Brennan	g	g	g	0	0	60500	34000	14000P	-	1235 hrs. Plus 5,000+ carcasses. A lot of carcasses likely flushed out in recent high water. Fish not in mainstem, but in intertidal sloughs and side creeks.
258-207	8-30	Hastings		g		0	0	0	0	25000P	-	Peak of spawning. Pinks between tide water and first transect, 500 yards upstream. Only 10 carcasses seen.
258-207	8-30	Hander	g	g		0	0	20000	0	400P	-	1910 hrs. Mid high tide. Good water level.
258-207	9-12	Brennan	g	g	f	0	0	1600	11150	-	-	1155 hrs. Plus 40,000 carcasses.
258-207	10- 8	Hander	g	g		0	650	0	0	-	-	1604 hrs. Low tide. Water level moderate.
Dukaluk Creek												
258-208	7-27	Brennan	g	g	f	0	0	900	175	-	-	1620 hrs. Tide low.
258-208	8- 3	Chatto				0	0	0	0	-	-	1144 hrs. Low tide. Stream was dry.
258-208	8- 4	Brennan	e	e	e	0	0	200	225	19000P 700Ch	2000P	1200 hr. Tide flooding. Pinks in stream to west, chums in slough to east. Lots of fish in kelp and on flats.
258-208	9-12	Brennan	g	g	f	0	0	400	3200	-	-	1200 hrs. Plus 12,000 carcasses.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Deer Creek												
258-209	7-27	Brennan		f	f	0	0	0	0	3000P	-	1641 hrs. Tide flooding. No stream survey.
258-209	8- 4	Brennan	e	e	e	0	0	1600	0	2500P	1700P	1228 hrs. Tide flooding.
Kiliuda Spit Creek												
258-210	7-27	Brennan		f	f	0	0	0	0	200P	1200P	1640 hrs. Tide flooding. Likely a lot more fish moving outside. No stream survey.
258-210	8- 4	Brennan	e	e	e	0	0	0	0	-	300Ch	1225 hrs. Tide flooding. Chums along spit.
Marker Grove Creek												
258-211	7-27	Brennan	g	g	f	0	0	0	0	1100P	-	1615 hrs. Tide low.
258-211	8- 3	Chatto	g	g		0	0	400	0	5000P	-	1146 hrs. Low tide. Very low water level and stream was dry 300 yards upstream from mouth.
258-211	8- 4	Brennan	e	e	e	0	0	0	0	-	18000P	1210 hrs. Tide flooding. Pinks all along beach outside mouth - 4,500 to west, 11,000 along beach to east, and 2,500 up toward Pivot Point. Not bound for #211 (?) No water in stream.
258-211	9-12	Brennan	g	g	f	0	0	300	1300	-	-	1205 hrs. Plus 5,000 carcasses.
Pivot Point												
258-212	7-27	Brennan	g	f	p	0	0	0	0	100P	-	1610 hrs. Tide low. Winds increasing; visibility outside to cape poor. A few fish in lagoon.
258-212	8- 3	Chatto		g	f	0	0	0	0	2700P	-	1155 hrs. Low incoming tide. Low water level, stream was dry .5 miles upstream from mouth.
258-212	8- 4	Brennan	e	e	e	0	0	150	0	1000P	20000P	1217 hrs. Tide flooding. Lots of pinks moving along beach in front of lagoon.
258-212	9-12	Brennan	g	g	f	0	0	4000	6500	-	-	1210 hrs.
Bear Camp Creek												
258-213	7-18	Chatto	f	f		0	0	0	0	2000Ch	-	1115 hrs. Stream dry. Fish schooled off mouth along shore both sides. Lots of jumpers.
258-213	7-27	Brennan	g	g	f	0	0	0	0	-	-	1625 hrs. Tide low. Fish moving along outside but probably headed for #207.
258-213	8- 3	Chatto				0	0	0	0	-	-	1143 hrs. Low tide. Stream was dry.
258-213	8-26	Brennan	g	g	g	0	0	28500	1800	3300P 100Ch	-	1235 hrs.
Amee Bay Creek												
258-301	9-15	Brennan	g	g	f	0	0	800	6000	-	-	1525 hrs. Plus 2,000 carcasses.
McCord Beach												
258-302	8-30	Malloy	f	f	f	0	0	1500	6000	-	-	Additional 1,500 chum carcasses and 2,000 pink carcasses. Water flow excellent.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Left Cape Creek												
258-303	8- 3	Chatto				0	0	0	0	-	-	1200 hrs. Low incoming tide. Stream was dry.
258-303	9-15	Brennan	g	g	f	0	0	2	0	-	-	1500 hrs.
Ghost Rocks Creek												
258-304	8- 3	Chatto	g	g		0	0	3000	0	1300P	-	1202 hrs. Low incoming tide. Very low water level, stream was dry 1 mile upstream from the mouth.
258-304	9-15	Brennan	g	g	f	0	0	2300	0	-	-	1505 hrs. Plus 2,500 carcasses in mouth and stream.
Nut Island Creek												
258-305	8- 3	Chatto	g	g		0	0	0	0	700P	-	205 hrs. Low incoming tide. Very low water level, dry in spots.
258-305	9-15	Brennan	g	g	f	0	0	575	0	-	-	1510 hrs. Plus 1,300 carcasses in mouth.
Bush Point Creek												
258-306	8- 3	Chatto				0	0	0	0	-	-	1125 hrs. Low tide. Stream was dry.
258-306	9-15	Brennan	f	f	f	0	0	150	0	-	-	1525 hrs. Plus 2,000 carcasses.
Fugitive Creek												
258-307	7-27	Brennan		g	g	0	0	0	0	4800P	-	1605 hrs. Tide low. Fish scattered over flats by stream mouth. No survey of creek.
258-307	9-13	Malloy	F	F	F	0	0	1100	0	-	-	Water flow very good. Moderate carcass accumulation.
Ocean Beach												
258-401	7-27	Brennan	g	g	f	425	0	0	0	-	-	1552 hrs. Tide low. Reds in upper lake (125) and in channel between lakes (300). A few fish visible in surf to south (traveling pinks?).
258-401	9-13	Malloy	G	P	P	11000	800	0	0	-	-	Water level in lake good. Sockeye very colored, coho getting dark. Should have been more coho showing off mouth.
Rolling Bay												
258-511	8-25	Brennan	f	f	f	0	0	0	12400	10000Ch	-	1700 hrs.
258-511	9-15	Brennan	g	g	a	0	400	0	32000	-	-	1615 hrs. Plus 15,000 carcasses.
Natalia Bay												
258-512	8-25	Brennan	f	f	f	0	0	0	1800	5000Ch	-	1710 hrs.
258-512	8-30	Malloy	e	g	g	0	0	11000	28000	12000Ch	500Ch	Additional 15K chum carcasses in stream and lagoon. Water flow very good.
Newman Bay												
258-513	8-25	Brennan	f	f	f	0	0	0	2050	6500Ch	-	1715 hrs.
258-513	9-15	Brennan	g	g	f	0	0	0	8600	-	-	1600 hrs. Plus 5,000 carcasses.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Natalia Cabin Creek												
258-514	8-30	Malloy	f	f	f	0	0	10800	1200	-	-	Additional 25K dead pinks, 100 dead chums. Water flow good.
Midway Creek												
258-521	7-18	Chatto	e	f	f	0	0	2500	400	1000P 1000Ch	20000P	1202 hrs. Pinks in lower 3/8 mile of stream. Pinks in bay 20,000 along west shore approximately 1 mile from mouth. Water low.
258-521	7-27	Brennan	e	e	g	0	0	9200	0	2000P	2700P	1532 hrs. Tide low. Majority of fish schooled up in lower reaches.
258-521	8- 3	Chatto	g	g		0	0	7500	0	1000P 1500Ch	-	1116 hrs. Low tide. Surveyed lower 6 miles.
258-521	8-30	Hander	g	f		0	0	15000	0	-	-	1900 hrs. Mid high tide. No fish off mouth. Surveyed approximately 5 miles up from mouth. Most fish in. Moderate water level.
258-521	9-15	Brennan	g	g	f	0	2500	5000	2300	500Co 200Ch	-	1530 hrs. Majority of fish in lower river. Plus 75,000 carcasses, 90% pinks (?)
258-521	10- 8	Hander	g	g		0	2300	0	0	-	-	1543 hrs. Low tide. Fish observed approximately 10 miles up from mouth. Stopped survey at forks.
Barling Creek												
258-522	7-18	Chatto	g	f	f	0	0	0	0	-	10000P	1215 hrs. Numerous pinks along west shore to straits and along beach to west. Water low.
258-522	7-27	Brennan	g	g	g	0	0	22000	0	9000P	68000P	1512 hrs. Tide low. 48,000 pinks in kelp south of channel by side creek; 12,000 pinks in kelp mid-bay; 8,000 pinks south side of bay.
258-522	8- 3	Chatto	g	g		0	0	21000	0	30000P	-	1104 hrs. Low tide. Water level low. Fish extended from mouth along western shoreline 1.5 miles.
258-522	8- 4	Prokopowich	e	e	e	0	0	43000	0	-	125000P	Looks very good.
258-522	8-25	Brennan	p	p	p	0	0	0	0	-	-	1735 hrs. Too turbid and muddy for survey.
258-522	8-26	Brennan	g	g	f	0	0	53300	0	6000P	-	1255 hrs. Plus 10,000+ carcasses. Most of carcasses washed out in recent flood; this is a rough (low) estimate.
258-522	8-30	Hander	g	f		0	0	30700	0	10000P	-	1853 hrs. Mid high tide. Low water level.
258-522	9-12	Hastings	g	g		0	0	6000	0	3000P	-	Majority of live pinks found from tide water to 3/4 mile upstream. Only 200+beyond that. Estimating 3000 carcasses.
258-522	9-15	Brennan	g	g	f	0	0	35000	10000	-	-	1545 hrs. Plus 100,000 carcasses.
258-522	10- 8	Hander	g	g		0	1600	0	0	-	-	1532 hrs. Low tide. Water level good. No fish in lagoon.
Lagoon Creek												
258-524	10-26	Dolezal	f			0	40	0	0	-	-	Foot Survey.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
West Three Saints												
258-531	7-18	Chatto	g	g		0	0	0	0	-	-	1225 hrs. No fish in mouth or stream. Water level low.
SW Three Saints												
258-532	7-18	Chatto	g	g		0	0	0	0	-	-	1227 hrs. No fish in mouth or streams. Water level low.
NE Three Saints												
258-533	7-18	Chatto	g	g		0	0	0	0	-	-	1220 hrs. No fish in mouth or stream. Water level low.
Kaiugnak Point												
258-541	7-18	Chatto	g	g		0	0	0	0	150Ch	-	1304 hrs. No fish in stream. Water low. No jumpers off mouth.
258-541	7-26	Hander	g	g		0	0	1000	0	1000P	-	1220 hrs. No jumpers off mouth. Stream dry except for lower 0.5 miles, stream flow very low.
258-541	8- 3	Chatto	g	g		0	0	4500	0	-	-	1050 hrs. Mid-tide. Water level good. 65% of fish were just inside mouth.
258-541	8-26	Hander	g	f		0	0	50000	0	-	-	1307 hrs. Mid high tide. Water level moderate. Few fish in upper stream, no fish off mouth.
258-541	8-26	Brennan	g	g	g	0	0	30500	0	11000P	-	1340 hrs. Plus 2,000 carcasses. 70% of fish in lower 1/4 mile.
258-541	10- 8	Hander	g	g		100	300	0	0	-	-	1517 hrs. Mid low tide, water level low, reds were very colored and spawning in slow shallow water. No fish off mouth.
258-541A	7-18	Chatto	g	g		0	0	0	0	-	-	1302 hrs. No fish. Falls at mouth.
Kaiugnak Lagoon												
258-542	6-17	Brennan		f	f	0	0	0	0	-	-	1200 Hrs. No stream survey.
258-542	7-18	Chatto	g	g		0	0	0	0	25330Ch	-	1317 hrs. No fish in stream. Water low. Numerous schools chums in lagoon.
258-542	7-26	Hander	g	g		0	0	0	100	2000P 12900Ch	-	1225 hrs. Stream flow low. Chums and pinks identified for mouth were all in lagoon.
258-542	8- 3	Chatto	g	f	g	0	0	4000	0	2500Ch	-	1043 hrs. Mid-tide. Many jumpers off mouth but glare and wind on water hindered survey. Water level good.
258-542	8- 4	Prokopowich	e	e	e	0	0	11000	0	36000P	-	Good water flow.
258-542	8-25	Brennan	g	g	f	0	0	78000	0	-	-	1645 hrs. Plus 8,000 carcasses.
258-542	8-26	Hander	g	f	f	0	0	41000	0	2000P	-	1300 hrs. Mid high tide. Water level good. Fish all the way to falls. Thousands of carcasses off mouth.
258-542	8-26	Brennan	g	g	g	0	0	21100	0	-	-	1350 hrs. Plus 13,000 carcasses. 15% of fish in sloughs or side channels.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
258-542	8-30	Malloy	f	f	f	0	0	76000	10000	-	-	Additional 30K pink carcasses and 5K chum carcasses in lagoon. Live chums primarily in lagoon slough.
258-542	9-12	Hastings	g			0	0	3250	0	-	-	Past peak spawning. Live pinks from tidewater to 1 mile upstream. Estimating 750,000 carcasses on tide flats.
258-542	9-15	Brennan	g	g	f	0	0	5900	0	-	-	1640 hrs. Plus 15,000 carcasses.
Bruin Creek												
258-544	7-18	Chatto	g	g		0	0	0	0	-	-	1318 hrs. No fish in stream. Water low.
258-544	7-26	Hander	f			0	0	0	0	-	-	1237 hrs. No fish, low water.
258-544	8- 4	Prokopowich	e	e		0	0	2000	0	3000P	-	-
258-544	8-25	Brennan	f	f	f	0	0	17000	0	-	-	1645 hrs. Plus 13,000 carcasses.
258-544	8-26	Brennan	g	g	g	0	0	5000	0	-	-	1345 hrs. Plus 17,000 carcasses.
258-544	8-26	Hander	g	f		0	0	3000	0	300P	-	1257 hrs. Mid high tide. Thousands of carcasses off mouth. Water level good.
258-544	9-15	Brennan	f	f	f	0	0	900	0	-	-	1650 hrs. Plus 5,000 carcasses.
258-544	10- 8	Hander	g	g		0	60	0	0	-	-	1511 hrs. Mid low tide, moderate water level.
Kiavak Portage												
258-551	7-18	Chatto	g	p		0	0	0	0	200Ch	-	1320 hrs. Upper river dry, last 1/4 mile flow very low. No fish in stream or off mouth. Chums in inner lagoon.
258-551	7-26	Hander	g	f		0	0	0	0	1500P	-	1245 hrs. No fish in stream. One small school fish type and number unknown. Water level low. Stream dryin sections, water flow only in lower 0.5 miles.
258-551	8- 3	Chatto	g	f	f	0	0	50	0	200P 250Ch	-	1030 hrs. Mid-tide. Water level good. Turbulent-hard to survey.
258-551	8-26	Brennan	g	g	g	0	0	2400	0	-	-	1400 hrs. Plus 3,000 carcasses.
258-551	8-26	Hander	g	f	f	0	0	3000	0	1300P	-	1243 hrs. High tide. Water level good. Few pinks in lagoon off stream mouth.
258-551	9-15	Brennan	f	f	f	10	0	2600	0	-	-	1630 hrs. Plus 3,000 carcasses.
Kiavak Lagoon												
258-554	7-18	Chatto		g		0	0	0	0	4000Ch	-	1322 hrs. Stream dry. Chums off mouth.
258-554	7-26	Hander	f			0	0	0	0	-	-	1245 hrs. Lower 0.25 miles dry. No fish.
258-554	8- 3	Chatto	g			0	0	0	0	-	-	1035 hrs. Mid-tide. Water level o.k. Last survey creek was dry. Too turbulent to survey in creek.
258-554	8-26	Hander	g	f		0	0	1000	0	-	-	1247 hrs. Mid high tide. Water level good. No fish off mouth.
Kiavak Spit												
258-555	7-18	Chatto		g		0	0	0	0	500Ch	-	1325 hrs. Stream dry. Chums off mouth.
258-555	7-26	Hander	f			0	0	0	0	-	-	1245 hrs. no fish. Stream dry.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
258-555	8-26	Hander	p	f		0	0	300	0	-	-	1251 hrs. High tide. Water level good. Few hundred pinks instream, very brushy, hard to count. No fish off mouth.
Jap Bay												
258-601	7-26	Hander	f	f		0	0	0	0	3500P 300Ch	-	1251 hrs. Stream dry.
258-601	8-26	Hander	g	f		0	0	4000	0	300P	-	1210 hrs. High tide. Water level good. Many carcasses off mouth. Conservative estimate. Stream concealed with brush.
Kaguyak Bay Creek												
258-602	7-21	Brennan	g	g	g	0	0	300	0	2800P	12300P	1530 Hrs. Fish scattered throughout bay along beach and rocky shores southeast of creeks.
258-602	7-26	Hander	g	f		0	0	1500	15	2500P 5000Ch	-	1302 hrs. Low water.
258-602	8-26	Brennan	g	g	g	0	0	50400	0	6600P	-	1415 hrs. Plus 12,000 carcasses.
258-602	8-30	Malloy	g	g	g	0	0	38000	0	-	-	Water flow good. 40,000 carcasses, of which 30% chum, 70% pinks.
Kaguyak Fox Creek												
258-603	7-26	Hander	f			0	0	0	20	-	-	1314 hrs. Low water.
258-603	8-26	Hander	g	g	g	0	0	30000	0	-	3000P	1200. High tide. Water level good. Few pinks off mouth.
258-603	8-26	Brennan	g	g	g	0	0	11000	0	-	-	1420 hrs.
258-603	8-30	Malloy	g	g	g	0	0	42000	0	-	-	Water flow good. 25,000 carcasses, of which 60% chums, 40% pinks.
Seven River												
258-701	7-18	Chatto	f	f		0	0	4760	0	14000P	-	1343 hrs. 2,010 pinks in north fork, 2,750 pinks in south fork. Water level low but looks o.k.
258-701	7-21	Brennan	g	g	g	0	0	65900	0	10000P	14000P	1600 Hrs. The majority of stream fish in lower 1/3 of river, from mouth to just above fork.
258-701	7-26	Hander	g	f		0	0	78500	0	9000P	-	1334 hrs. Water flow moderate. 26,000 P in north fork, 32,000 below falls on south fork of 20,500 P from forks to mouth.
258-701	8- 4	Prokopowich	g	g		0	0	159000	0	50000P	-	Good water flow - Right fork - 68,000; Left fork - 60,000; Below forks 31,000.
258-701	8-26	Brennan	g	p	p	0	0	366000	0	200000P	-	1435 hrs. Plus 40,000 carcasses in stream and 25,000 carcasses at mouth. More likely washed out into bay. Water outside mouth murky; could be more than 200,000.
258-701	8-26	Hander	g	f		0	0	110000	0	100000P	-	1140 hrs. High tide. Water level good. Thousands of carcasses. 10,000 in S. fork, 75,000 in main stem, 25,000 from mouth to fork. Very conservative estimates in stream and off mouth.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
258-701	8-30	Malloy	g	e	e	0	0	450000	0	5000P	-	Water flow good. 125,000 live and 160,000 dead W. Fork; 325,000 live and 275,000 dead N. Fork and mainstem. 180,000 carcasses off mouth.
258-701	9- 5	Hastings	f			0	0	50000	0	-	-	Water muddy and swift. Heaviest concentrations from mouth to 2.5 miles upstream.
Walter's Creek												
258-702	7-26	Hander	f	g		0	0	0	0	11000Ch	-	1350 hrs. All chums along beach south from mouth. Water flow moderate.
258-702	8-26	Brennan	g	g	f	0	0	55000	0	24000P	9000P	1450 hrs. Plus 25,000 carcasses - likely more washed out. More fish along shore to south.
258-702	8-30	Malloy	e	e	g	0	0	68000	0	36000P	-	Water flow excellent. 35,000 carcasses in stream, 80,000 carcasses off moputh.
Tundra Lakes Creek												
258-703	7-26	Hander	p	f		0	0	0	0	-	-	1328 hrs. No fish off mouth. Lots glare on stream surface. Very few (<100) fish in stream.
258-703	8-26	Brennan	g	g	p	0	0	22500	0	-	-	1427 hrs.
258-703	8-30	Malloy	e	e	g	0	0	47000	0	1500P	-	Water flow very good; 20,000 dead in creek, 5,000 dead off mouth.
Sow Creek												
258-704	7-26	Hander	p			0	0	0	0	-	-	1331 hrs. No fish.
258-704	8-30	Malloy	g	g	g	0	0	0	0	-	-	Log jam. No fish.
Melavedof Creek												
258-705	7-26	Hander	p			0	0	0	0	-	-	1318 hrs. No fish in stream. Lots junk (mousse?) in stream lower part.
258-705	8-26	Brennan	g	g	p	0	0	8700	0	-	-	1425 hrs.
258-705	8-30	Malloy	e	e	e	0	0	19000	0	-	-	Stream flow good. 15,000 carcasses at mouth.
Kaguyak Village Crk.												
258-706	7-26	Hander	p	f		0	0	0	0	3000Ch	-	1323 hrs. No fish in stream.
No Name												
258-707	7-26	Hander	f			0	0	100	200	-	-	1327 hrs. No fish off mouth.
Dolina Point												
258-801	8-30	Malloy	g	g	f	0	0	0	1200	-	-	Additional 600 chum carcasses in stream. Water flow good.
Whirlpool Point												
258-803	8-30	Malloy	g	g	g	0	0	0	0	-	-	Water flow good; no barrier to stream.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Camp Creek 258-804	8-30	Malloy	f	f	f	0	0	0	0	-	-	Good water flow.
Bend Creek 258-805	8-30	Malloy	e	g	f	0	0	0	0	-	-	Access to lagoon blocked by gravel build-up on beach.
Pyramid Creek 258-807	8-30	Malloy	g	e	e	0	0	0	900	-	-	Additional 600 chum carcasses in stream. Water flow good.
Strip Creek 258-808	8-30	Malloy	g			0	20	100	400	-	-	Additional 300 dead chum and 100 dead pinks. Coho in lower end.
Glotecloss Creek 258-809	8-30	Malloy	g	g	f	0	0	0	0	-	-	Good water flow - should have fish.
258-810	8-30	Malloy	g	g	f	0	0	0	300	200Ch	-	Additional 100 chum carcasses in stream. Water flow good.
Passage Creek 258-851	8-30	Malloy	e	e	g	0	400	0	2100	-	-	Additional 100 chum carcasses. All coho in lagoon.
South View Creek 258-852	8-30	Malloy	g	g	f	0	0	0	0	-	-	100 dead pinks.
Russian Harbor 258-901	7-26	Hander	g	p		0	0	0	0	-	-	1406 hrs. No fish in stream but few jumpers pinks off mouth of stream.
258-901	8-26	Brennan	g	g	f	0	0	1800	0	1500P	-	1540 hrs.
E. Russian Creek 258-902	7-26	Hander	p	p	p	0	0	0	0	-	-	1405 hours, no fish in stream or off mouth in lagoon. Fish off mouth of lagoon. Visibility poor - no count.
258-902	8-26	Brennan	g	g	f	0	0	17000	0	25000P	-	1530 hrs.
Kevin Creek 258-903	7-26	Hander	g	f		0	0	0	0	3000P	-	1403 hrs. No fish in stream.
Reef Creek 258-904	7-26	Hander	f	f		0	0	0	0	2000P	-	1355 hrs. No fish in stream.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Monashka Creek												
259-101	8- 4	Brennan	e	e	e	0	0	475	0	1500P	3500P	1640 hrs. Tide high.
259-101	8-30	Brennan	f	f	f	0	0	8000	0	4000P	-	1635 hrs.
259-101	9-13	Brennan	f	g	g	0	0	800	0	150Co 300P	-	1230 hrs. Plus 1,500 carcasses in creek and 15,000 carcasses in bay.
Pillar Creek												
259-102	7-16	Swanton	f			0	0	50	0	-	-	Fott survey. Figure does not include 1 dead. (?) lots of glare from sun. 1 dead pink one mile upstream. 1 pool 1/2 mile upstream 30 pinks, 10 dollys, pool 3/4 mile upstream near lagoon. 20 pinks, 16 dollys.
259-102	7-19	Swanton	e			0	0	62	0	-	-	Foot survey. 3 humps in pool 1/2 mile from terminus, 5/8 mile 3 humps, 3/4 mile 1 hump, 1.5 mile below culvert 12 humps, pool below reservoir 8 humps.
259-102	7-21	Dill	f			0	0	49	0	-	-	Foot survey. CAVU, glare from sun. 9 humps 1/8 mile from (?) in pool, 8 in pool 1/2 mile from terminus, 1 pink 5/8 mile, 25 in pool below culvert from road, 6 in pool below reservoir.
259-102	7-24	Swanton	g			0	0	63	0	-	-	Foot Survey. 25% cloud cover. 1/2 mile pool 30 humps, 5/8 cutbank 1 hump, 1.2 mile 6 humps, 1.22 mile 4 humps, cutbank 1 (?) below road 1 hump, pool belowculvert 15 pool ???????
259-102	7-27	Swanton	g			0	0	132	0	-	-	Foot survey. CAVU. .25 mile pool 16 humps, .375 10 humps cutbank, .375 pool 65 humps, 10 humps under cutbank. 1.0 mi. 5 humps, 1.2 mi 1 hup, 1.2 mi 1 hump, 1.3 3 humps, 1.4 culvert 15 humps.
259-102	7-30	Kaplan	g			0	0	396	0	-	-	Foot survey. Cloudy, some glare. 10 dolly varden with pink spaghetti tags.
259-102	8- 2	Giegerich	f			0	0	414	0	-	-	Foot Survey. Figure does not include 8 dead. Majority of fish still in (?) and in pools. Carcasses up arm.
259-102	8- 4	Brennan	e	e	e	0	0	375	0	4900P	5300P	1645 hrs. Tide high.
259-102	8- 5	Ralston	g			0	0	743	0	-	-	Foot Survey. Figure does not include 21 dead.
259-102	8- 8	Dill	p			0	0	933	0	-	-	Foot survey. Figure does not include 64 dead. More dead males than females.
259-102	8-11	Swanton	e			0	0	3518	0	-	-	Foot survey. Figure does not include 69 dead. Jumpers at mouth. Very little (less than 10%) spawning. Most of fish holding in the large pools.
259-102	8-15	Swanton	f			0	0	4510	0	-	-	Foot survey. Figure does not include 232 dead. Mouth full of jumpers, 20,000+ off mouth.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
259-102	8-23	Dill	f			0	0	33052	0	-	-	Foot survey. Figure does not include 631 dead. Jumpers at mouth. Lots of fish waiting to come in.
259-102	8-27	Swanton	f			0	0	42100	0	-	-	Foot survey. Figure does not include 718 dead.
259-102	8-30	Brennan	f	f	f	0	0	32700	0	25Co	-	1640 hrs. Plus 6,000 carcasses.
259-102	8-31	Brockman	g	g		0	0	25000	0	300P	-	Foot survey. Surveyed entire creek from tidewater to reservoir. Live pinks throughout creek with highest concentrations in deep pools. Estimated 5,000 carcasses.
259-102	9-13	Brennan	f	g	g	0	0	1500	0	-	-	1225 hrs. Plus 10,000 carcasses.
259-105	8- 4	Brennan	e	e	e	0	0	200	0	-	-	1635 hrs. Tide high.
259-105	8-30	Brennan	f	f	f	0	0	4000	0	3000P	-	1635 hrs.
Buskin River												
259-211	9- 7	Hastings	f			0	25	5550	0	-	-	Foot survey. Did not survey upper reaches of river or tributaries beyond lake. Only 5 sections surveyed. Plus 1700 carcasses.
259-211	9-13	Brennan	f	f	f	0	1500	48000	0	750Co	-	1615 hrs. Above weir- 20,000 live and 20,000 carcasses, below weir - 28,000 live and 45,000 carcasses.
259-211	10- 2	Weir Count	f			17853	9930	159123	79	-	-	Weir in operation 4/20 through 10/2.
Sargent's Creek												
259-221	9-12	Brennan	g	g	f	0	0	22000	0	21000P	-	955 hrs. Plus 1,500 carcasses in stream and 7,500 carcasses in bay.
Russian River												
259-222	7-31	Brennan	p	f	f	0	0	1300	0	1500P	750P	1425 hrs. Tide high. Very turbulent so limited stream survey.
259-222	9-12	Brennan	g	g	f	0	0	36500	1800	-	-	1000 hrs. 90% of fish in lower 1/2 mile and intertidal area. Plus 5,000 carcasses in stream, 25,000 carcasses in bay, and 10,000 carcasses in slough.
Solonie Creek												
259-223	7-31	Brennan	f	g	g	0	0	1600	0	7600P	4800P	1415 hrs. Tide high. Pinks in small dabs along flats and along shore to southeast. Limited stream survey due to turbulence.
259-223	9-12	Brennan	g	g	f	0	200	113000	0	-	-	1010 hrs. 50% in lower 1/4 mile and intertidal, remainder well distributed. Lots of carcasses.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
American River												
259-231	7-31	Brennan		f	f	0	0	0	0	-	9700P	1435 hrs. Tide high. 1 large school along south shore, the rest in dabs. No stream survey.
259-231	8- 4	Brennan	g	g	g	0	0	3100	175	1500P	111000P	1700 hrs. Tide high. 1 king!!! 45,000 pinks bunched up off mouth; 48,000 pinks along beach to dock; 18,000 pinks offshore.
259-231	8- 4	Prokopowich	e	e		0	0	2000	0	8000P	-	1,000 Dolly Varden in creek. Did not survey off mouth or in bay.
259-231	8-26	Brennan	g	g	g	0	0	72500	7800	10000P	700Co 5000P	1140 hrs. Plus 26,000 carcasses. 75% of fish in lower river, plus sloughs plugged.
259-231	9-12	Brennan	g	g	f	0	0	152000	0	-	-	1025 hrs. Plus 25,000 carcasses. Fish in upper reaches, dark, below pretty wasted.
259-231	9-25	Malloy	e	g	g	0	2500	126000	11000	-	-	Huge accumulation of pink carcasses at stream's mouth and on stream delta. Pinks schooled heavily in pools as well as spawning heavily on all major riffles and heavily on all side sloughs. Chums distributed evenly between lower portion of main stem and in sloughs on north side of valley. Coho most noticeable in deep pools in with pinks. Largest concentrations near Mother's Hole and entrance to sloughs and side tributaries.
259-231	10-26	Holmes	f			0	296	0	0	-	-	Surveyed 10/25-26, less coho than expected for this date. Visibility excellent in tribs, fair in mainstem, poor in few holes on mainstem. Distribution of coho: 22 in spring tribs, 125 at junction of tribs and mainstem, 29 in small creek, 120 in mainstem. Additional 10 dead. 20% fish spawning. Most dark and holding in pools.
Salt Creek												
259-233	9-12	Brennan	g	g	f	0	0	500	1800	-	-	1020 hrs.
Peat Beach Creek												
259-235	8- 4	Brennan	g	g	g	0	0	0	0	19000P	2500P	1655 hrs. Tide high.
259-235	8-26	Brennan	f	g	g	0	0	3700	0	13000P	-	1130 hrs. Plus 900 carcasses.
Sid Olds												
259-242	7-27	Brennan	f	g	g	0	0	34400	700	4200P	12000P 2000Ch	1740 hrs. Tide flooding. Poor survey conditions for upper end - estimate of 19,200 pinks very low, 15,200 pinks below upper cabin, chums lower.
259-242	8-30	Brennan	f	f	f	0	0	46000	0	7000P	-	1730 hrs. Plus 2,000 carcasses.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
259-242	9-13	Malloy	E	F	F	0	800	14500	1400	300Co 100Ch	-	Water flow excellent. Heavy carcass accumulation on stream banks and lower pools. Pink distribution heaviest in index area; chum from lowest index riffle down; coho from bridge to just above fence.
259-242	10-28	Holmes	e			6	743	0	0	-	-	Surveyed mainstem 10/27, 348 live coho, 5 dead. Majority in deep holes. Fish dark, less than expected for this date. Poor visibility in few holes. Surveyed tributaries 10/28. 395 live coho, 5 dead. Majority in tributary #6, 80% paired and spawning. Additional 26 mortalities.
Kalsin Creek												
259-243	8- 4	Brennan	e	e	e	0	0	47700	1400	2500P	31200P	1720 hrs. Tide high.
Frank's Creek												
259-244	7-27	Brennan		g	g	0	0	0	0	-	5500P	1750 hrs. Tide flooding. No stream survey. Fish in ball in rocks by point.
259-244	8- 4	Brennan		e	e	0	0	0	0	12600P	-	1730 hrs. Tide high. No stream survey.
Myrtle Creek												
259-245	8- 4	Brennan	e	e	e	0	0	10200	0	15500P	-	1735 hrs. Tide high.
Mayflower Beach												
259-246	8- 4	Brennan	e	e	e	0	0	0	0	300P	-	1715 hrs. Tide high.
Roslyn Creek												
259-251	8-30	Brennan	g	f	f	0	0	39400	200	-	-	1700 hrs.
259-251	9-16	Holmes	g			0	222	0	0	-	-	Foot Survey. 125 coho in two schools from tide water to campgrounds, 97 coho from campgrounds to bridge. No count above bridge. Coho very bright for this date... late entry into stream?
259-251	10-25	Gretsch	e			0	235	0	0	-	-	Additional 1 dead coho. Majority of fish in beaver pond and a few holes upstream. Fish not spawning, yet dark and holding. On 10/28 fish were observed moving upstream to spawning grounds.
Barabara Creek												
259-363	9-13	Brennan	f	f	f	0	0	0	0	700Co	-	1530 hrs.
Goat Creek												
259-364	7-31	Brennan		g	g	0	0	0	0	-	4500P	1705 hrs. Tide falling. Small balls of fish moving along beach. No stream survey.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Kizhuyak River												
259-365	6-15	Brennan		g	g	0	0	0	0	-	-	1340 Hrs. No stream survey.
259-365	7- 5	Brennan		f	p	0	0	0	0	-	7500Ch	1020 Hrs. Rough estimate of fish jumping in middle. No stream survey.
259-365	7-11	Malloy	e	e	e	0	0	0	0	100Ch	-	Good water flow; looked at lower end of both forks and mainstream and chum sloughs. Bay visibility excellent.
259-365	7-19	Blackett	f	f		0	0	2500	0	-	-	Surveyed tributary and main channels from tidal flats to 1.5 miles upstream (just beyond stream guage). Low tide. No chum salmon. No pinks in tributary. 2,500 pinks in braided channels of main river from 0.5 miles to 1.25 miles upstrem of the lower tidal flats. A few pinks (20-30) were above the Watchout Creek tributary. Scattered schools of 100-200 pinks in the bay off stream mouth.
259-365	7-31	Brennan	g	g	g	0	0	14400	2000	16000P	52000P	1642 hrs. Tide falling.
259-365	8-23	Blackett	g	f	p	0	0	236000	3600	-	-	Intertidal, delta channels, to Watchout Creek (1.5 miles) 128,000 pink and 2,000 chum. Chum Channel (0.5 miles) 8,000 pink and 1,500 chum. Spring Creek (0.6 miles) 8,000 pinks. Watchout Creek (1.0 mile) 35,000 pinks. To Hydro Tailrace (2.25 Mile) 55,000 pink and 100 chum. Hydro Tailrace (0.2 miles) 1,000 pinks (3 chinook reported by residents). To Falls Creek (0.9 miles) 1,000 pinks. River above tailrace was nearly dry in places. An unknown number of salmon jumping in the bay. Estimating 5,000 pink carcasses. Massive schools of pinks in river make estimation of numbers difficult, plus chums difficult to distinguish (there were probably more).
259-365	8-30	Brennan	f	f	p	0	0	70000	14000	28000P	-	1550 hrs. Plus 12,000 carcasses.
259-365	9-11	Blackett	g	g	g	0	200	123000	8200	-	-	Intertidal, delta channels, to Watchout Creek (1.5 miles) 80,000 pink and 4,000 chum. Chum Channel (0.5 miles) 25,000 pink and 1,200 chum. Spring Creek (0.6 miles) 8,000 pink and 1,500 chum. Watchout Creek (1.0 mile) 8,000 pink, 500 chum, and 200 coho. To Hydro Tailrace (2.25 miles) 2,000 pink and 1,000 chum. Hydro Tailrace and to Falls Creek (0.9 miles) 0 salmon. Substantial sedimentation from powerhouse to Watchout Creek. No new fish seen in bay. Many carcasses in bay and in piles in delta areas. Some massive schools of pink salmon make estimation of numbers difficult, plus difficult to distinguish chum salmon (there may have been more).

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
259-365	9-13	Brennan	f	f	f	0	0	34500	55500	-	-	1535 hrs. Fish predominantly in sloughs and lower 1/2 mile of river. Plus 40,000 carcasses in sloughs; 32,000 carcasses in river; and 45,000 carcasses in bay.
259-365	9-21	Blackett	g	g	f	0	600	84000	1700	-	-	Intertidal, delta channels, to Watchout Creek (1.5 miles) 49,000 pink, 200 chum, 100 coho. There were only a few hundred pink salmon left in the mainstem; the greatest number (35,000) were in a spring source creek (slough) at the southeast end of the bay that drains through the delta. Chum Channel (0.5 miles) 15,000 pink and 500 chum. Spring Creek (0.6 miles) 20,000 pink and 1,000 chum. Watchout Creek (1.0 miles) 500 coho. Watchout Creek to Hydro Tailrace (2.25 miles) to Falls Creek (0.9 miles) 0 salmon. Carcasses of pink and chum in the intertidal area estimated at 2 to 3 times the live count. Spawning of pink and chum anticipated to be finished by October 5.
Pestchanie Creek												
259-366	7-11	Malloy		e	e	0	0	0	0	-	-	No stream survey. Glanced at lower end - nothing. Bay visibility excellent.
259-366	8-30	Brennan	f	f	p	0	0	8700	0	8000P	-	1605 hrs. Plus 1,700 carcasses.
Few Creek												
259-367	7-31	Brennan		g	g	0	0	0	0	250R 13000P 4000Ch	4000P	1658 hrs. Tide falling. Fish on point and milling near KEA dock. Large school of chums right at dock. No stream survey.
Dovolno Creek												
259-368	7-11	Malloy		e	e	0	0	0	0	-	-	No stream survey. Bay visibility excellent.
259-368	8-30	Brennan	f	f	p	0	0	7000	0	12000P	15000P	1545 hrs. Plus 1,000 carcasses.
More Creek												
259-369	7-11	Malloy		f	f	0	0	0	0	4300Ch	-	No stream survey.
Sheratin River												
259-371	6-17	Brennan	f	f	f	0	0	0	0	-	-	1440 Hrs.
259-371	7- 5	Brennan	f	f	f	0	0	0	0	-	1500Ch	1010 Hrs. Suspected chums mixed in with forage fish.
259-371	7-11	Malloy	e	e	e	0	0	0	0	-	-	Stream blank. Some dollies in lower pool.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
259-371	7-16	Brennan	g	g	g	0	0	500	140	4000P 2000Ch	4000P 12000Ch	1330 Hrs. Most of stream pinks in lower end. Chums all along east side, half of pinks in bay out by side creek on east side.
259-371	7-26	Malloy	g	g	f	0	0	10600	900	12000P	96000P 24000Ch	Some glare. Fish heavily schooled on east shore. Chums and pinks mixed. West shore visibility poor. Stream flow fairly good.
259-371	7-31	Brennan	g	g	g	0	0	18200	650	27000P 4000Ch	-	1720 hrs. - Tide falling. 14,800 pinks in main stream, 3,400 in sloughs.
259-371	8- 4	Prokopowich	e	e	e	0	0	39000	0	67000P	10000P	Looks very good.
259-371	8-19	Brennan	p	p	f	0	0	6700	0	-	-	1315 hrs. Plus an estimated 9000 carcasses. Fish not above braids...looks like water intermittent. Poor visibility.
259-371	8-30	Brennan	f	f	f	0	0	36500	5400	-	-	1612 hrs. Plus 19,400 carcasses.
259-371	9-13	Brennan	f	f	f	0	0	22000	45000	-	-	1600 hrs.
Horse Creek												
259-372	7-11	Malloy		e	e	0	0	0	0	-	-	No stream survey. Excellemt bay visibility.
259-372	7-16	Brennan	g	g	g	0	0	0	0	200P	-	1335 Hrs.
259-372	7-26	Malloy	g	g	p	0	0	0	0	-	-	Stream flow o.k.
259-372	9-13	Brennan	f	f	f	0	0	4500	0	-	-	1600 hrs.
New Creek												
259-373	7-26	Malloy	g	e	e	0	0	0	0	-	100P	Small schools on beach.
259-373	7-31	Brennan	f	f		0	0	1800	0	-	-	1715 hrs. Tide falling. Fish jammed up into lower portion of creek.
Corral Creek												
259-381	7-11	Malloy	f	f	p	0	0	0	0	-	-	Glare in bay.
259-381	7-26	Malloy	e	f	g	0	0	0	0	-	-	Stream flow becoming poor. Bay looks non-fishy.
Red Cloud Creek												
259-382	7-11	Malloy	f	f	p	0	0	0	0	-	-	Glare in bay.
259-382	7-26	Malloy	e	f	g	0	0	0	0	-	-	Stream flow becoming poor; becoming intergravel near bridge.
259-382	8-30	Brennan	f	f	f	0	0	54000	6000	-	-	1620 hrs. Plus 15,000 carcasses.
259-383	7-26	Malloy	e	f	g	0	0	0	0	-	-	Should have seen chum build-up.
Soldier's Bay												
259-391	8-30	Brennan	f	f	f	0	0	5400	0	-	-	1625 hrs. Plus 10,000 carcasses.
259-391	9-13	Brennan	f	f	f	0	0	500	0	-	-	1240 hrs. Plus 4,300 carcasses in stream and 5,000+ in bay.

-Continued-

Appendix G.10. (page 53 of 69)

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Unnamed 259-392	8-30	Brennan	f	f	f	0	0	4000	0	-	-	1630 hrs. Plus 1,500 carcasses.
Unnamed 259-394	9-13	Brennan	f	f	f	0	0	300	0	-	-	1245 hrs. Plus 2,900 carcasses in stream and 3,000 carcasses in bay.
Monks Lagoon 259-395	9- 2	Sampson	e			0	142	286	0	-	-	Foot survey. Good water level. 37 pink carcasses in stream. Pinks spread out evenly...no apparent overcrowding. Majority of coho in lower river. Good holding pools and spawning habitat along creek. 3 beaver dams but fish seem to be getting over.
Soldier's Bay 259-397	9-13	Brennan	f	f	f	0	0	300	0	-	-	1238 hrs. Plus 1,200 carcasses.
259-398A	9- 2	Sampson	p	p		0	0	36	0	12P	-	Foot survey. 19 pink carcasses in stream. Majority of pinks in first 150 yards of creek. Old beaver pond at head. Creek very thick with alders.
259-398B	9- 2	Sampson	f	f		0	0	5	0	24P	-	Total length of creek only 200 yards.
Knee Bay Creek 259-399	9- 2	Sampson	g	g		0	0	3	0	9P	-	Very small creek with only 10 - 15 yards of available spawning habitat.
Sacramento River 259-401	9-12	Brennan	f	f	f	0	0	3600	0	-	-	1450 hrs.
Valley Creek 259-403	9-12	Brennan	f	f	f	0	0	100	0	-	-	1445 hrs.
Pasagshak River 259-411	9-12	Brennan	f	f	f	7200	800	500	0	-	-	1430 hrs. 50 kings. Limited lake survey of reds/kings. Did not survey upper reaches. Poor survey.
259-411	9-13	Malloy	F	F	P	14300	1800	2000	0	-	-	Reds primarily schooled in Lake Rosetead below culvert. Also numerous scattered schools spawning (1800 reds). Coho distribution from just above old bridge to above intertidal.

-Continued-

Appendix G.10. (page 54 of 69)

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Miam River												
259-412	7-27	Brennan	g	g	f	470	0	14900	0	1800P	5000P	1725 hrs. Tide flooding. Stream fish throughout west fork clear to head; only 200 in east fork to lake. 470 reds in lake.
259-412	9-11	Kaplan	f	f		0	0	40000	0	50P	-	Water high and swift due to rains. Heaviest concentations of live pinks from 1/4 mile upstream from tide water to lake on east fork and to 1 mile upstrem on west fork. Estimating 8-10,000 carcasses.
259-412	9-12	Brennan	g	g	f	950	0	45700	0	-	-	1425 hrs. Reds off tributary creek mouth in lake. Poor survey.
259-412	9-13	Malloy	G	G	F	0	1400	61000	0	-	-	Excellent show of pinks and coho. Mixed schools in lake near outlet. 58,000 pinks in lake fork, only 3,000 in other main fork. Heavy carcass accumulation in lower creek. Stream coho in lower pools, good school in lake.
Hurst Creek												
259-414	7-27	Brennan	g	g	f	0	0	1500	0	5000P	8500P	1715 hrs. Tide flooding. Up to 10,000 fish outside keying on this creek; 3,500 pinks along beach to east.
259-414	8- 4	Brennan	e	e	e	0	0	4400	0	9000P	-	1410 hrs. Tide flooding. Fish blocked upstream by beaver dam. For bay fish see Saltery Creek survey.
259-414	8- 4	Prokopowich	e			0	0	33000	1000	-	-	Beaver dam lower end of creek.
259-414	8-12	Kaplan	e			0	0	32000	0	-	-	Foot survey. No bay or mouth survey. Estimations were from stream ranging from lower stream reach to upper reach 4.5 miles from tide water. Fish were very bright; very low mortality count...estimate 40 morts. Highest concentrations of live fish were found from the tide water running consistent 3 miles upstream. Largest numbers were congregated in deep pools (usually 500+). This was the first system surveyed.
259-414	8-26	Brennan	g	f	p	0	0	96000	0	-	-	1151 hrs. Plus 3,000 carcasses - A lot of carcasses likely washed out in recent flood. 75% of fish below beaver dam (blocking passage).
259-414	9-12	Brennan	g	g	f	0	0	14000	0	-	-	1035 hrs. Plus 75,000 carcasses.
Saltery River												
259-415	6-17	Brennan		f	f	0	0	0	0	-	-	1130 Hrs. No steeam survey.
259-415	6-27	Prokopowich		f	f	0	0	0	0	400R	-	Blood red plankton/algae bloom in bay. No stream survey.

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Appendix G.10. (page 55 of 69)

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
259-415	7-21	Brennan	f	f	f	0	0	0	0	8000P	3000P	1735 hrs. Very quick look at mouth of creek.
259-415	7-27	Brennan		g	f	0	0	0	0	14000P	47000P	1710 hrs. Tide flooding. Fish in lagoon by boom and along shoreline; bay fish spread from mouth to west. No stream survey.
259-415	8- 4	Prokopowich	e	e		0	0	81000	0	60000P	-	Did not survey bay.
259-415	8- 4	Brennan	e	e	e	0	0	75100	0	29000P	72000P	1355 hrs. Tide flooding. 63,000 pinks main channel, 12,100 pinks in lagoon to boom, 29,000 fish on flats by mouth. 52,000 pinks in solid bands from Hurst Creek to outside point, and 20,000 plus very bright fish just offshore in kelp. Bound for Saltery? Hurst??
259-415	8-26	Brennan	g	f	p	0	0	65000	0	-	-	1200 hrs. Plus 17,000 carcasses - most of carcasses likely washed out in recent floods.
259-415	8-30	Hastings	g			0	0	50000	0	-	-	Past peak spawning but 50,000 pinks still actively spawning between weir and lagoon.
259-415	9-12	Brennan	g	g	f	0	0	71000	15000	-	-	1045 hrs. No fish visible at mouth, none outside. Pink count from lagoon down. Too murky in lagoon, 40,000 plus pinks right above weir. Plus 100,000 carcasses.
259-415	9-25	Weir Count	f			30237	5332	214541	14	-	-	Weir in operation 6/10 through 9/25. Plus 1 king. Counts do not include estimates of fish below the weir.
259-415	9-25	Malloy	g	g	f	0	3500	11000	1800	200Co	-	Heavy carcass build-up in lagoon. Peak spawning period long past in index sampling area. Chums primarily in sloughs (1,100 out of 1,800); spawning past peak. Coho in upper portion of lagoon and in deepest holes of river.
Rough Creek												
259-416	8- 4	Brennan	e	e	e	0	0	1000	4500	710Ch	-	1340 hrs. Tide flooding.
259-416	8- 4	Prokopowich	e			0	0	6500	4000	-	-	-
Wild Creek												
259-417	8- 4	Brennan	e	e	e	0	0	0	0	-	-	1105 hrs. Tide low, beginning to flood.
259-417	9-12	Brennan	g	g	f	0	0	500	1200	-	-	1050 hrs. Fish predominantly in sloughs to west in stream mouth.
Short Slough Creek												
259-417A	8- 4	Brennan	e	e	e	0	0	0	40	15Ch	525Ch	1110 hrs; tide low, beginning to flood. Bay fish to east along beach.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Hidden Basin												
259-418	8- 4	Brennan	e	e	e	0	0	0	470	-	500Ch	1115 hrs. Tide low. Water in creek low, intermittent above.
259-418A	9-12	Brennan	g	g	f	0	0	900	3800	-	-	1055 hrs. 90% of chums in sloughs.
259-418B	9-12	Brennan	g	g	f	0	0	0	0	-	-	1100 hrs.
West Basin Creek												
259-419	8- 4	Brennan	e	e	e	0	0	0	0	-	-	1125 hrs.
Glottof Creek												
259-420	8- 4	Brennan	e	e	e	0	0	0	0	-	-	1120 hrs.
259-421	8- 4	Brennan		e	e	0	0	0	0	-	1100Ch	1130 hrs. Tide low, starting to flood. Chums along beach in front of LaRose's cabins, and to west.
Goat Lake Creek												
259-422	8- 4	Brennan	e	e	e	0	0	20200	0	11500P	14000P 3000Ch	1135 hrs. Tide low, flooding. Fish in stream clear to lake and throughout "falls". 70% in lower 1/2 and in intertidal area. Bay fish on point to south.
259-422	9-12	Brennan	g	g	f	0	0	6000	0	-	-	1105 hrs. Plus 21,000 carcasses
Kiliuda Pass Creek												
259-423	8- 4	Brennan	e	e	e	0	0	0	550	2100Ch	3500Ch	1140 hrs. Tide low, flooding.
259-423	9-12	Brennan	g	g	f	0	0	700	1900	-	-	1120 hrs. Plus 12,000 carcasses.
Eagle Harbor												
259-424	7-27	Brennan	g	g	f	0	0	2500	800	3500P 500Ch	1200P 300Ch	1655 hrs. Tide flooding.
259-424	8- 4	Brennan	e	e	e	0	0	10100	1900	5800P	11100P 400Ch	1320 hrs. Tide flooding. 9,200 pinks in west fork; 900 pinks and 1,900 chums in left fork.
259-424	9-12	Brennan	f	f	f	0	0	46000	15000	-	-	1330 hrs. Very poor survey due to severe internal turbulence.
259-424	9-25	Malloy	g	g	f	0	6500	12000	8000	-	-	Pink peak spawning long past. A lot of carcasses in lagoon. Heavy chum spawning occurring; equal amount of carcasses to live chums. Coho build-up in mainstream excellent; huge schools in middle pool.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Buck Creek												
259-425	8- 4	Brennan	e	e	e	0	0	100	0	2200P	500P	1315 hrs. Tide flooding.
259-425	9-12	Brennan	f	f	f	0	0	6300	0	-	-	1315 hrs.
Gull Point Creek												
259-426	8- 4	Brennan	e	g	g	0	0	800	0	1400P	-	1310 hrs. Tide flooding.
Delta Creek												
259-427	8- 4	Brennan	e	e	e	0	0	0	0	200P	-	1335 hrs. Tide flooding.
Gull Cape Lagoon												
259-428	8- 4	Brennan	g	f	p	0	0	0	0	700Ch	13500Ch	1300 hrs. Tide flooding. No fish in lagoon; chums lying in big schools off beach past kelp beds. Water very muddy.
259-428	9-12	Brennan	g	f	p	0	0	0	9100	-	-	1310 hrs. Main stem of creek w/intermittent flow. Fish all in sloughs. Unable to see in lagoon or outside; too turbid or murky.
259-428	9-13	Malloy	E	E	F	0	0	0	12000	-	-	Chums primarily in tributaries. Water flow in tributaries fairly good. No fish show in lagoon channel or off mouth. Spawning not quite at peak.
Douglas Creek												
262-101	7-30	Malloy	p	p	p	0	0	0	0	-	-	Extremely muddy - water level very high.
262-101	8-26	Malloy	p	p	p	0	0	100	0	-	-	Water flow excellent - turbidity bad; fish count low.
Clear Creek												
262-102	7-30	Malloy	e	p	p	0	0	50	0	-	-	Fish small, very bright; located in first big pool.
262-102	8-26	Malloy	g	f	p	0	0	12000	0	-	-	Water flow excellent. Excellent look at stream; some glare.
Monument Creek												
262-103	7-30	Malloy	p	p	p	0	0	0	0	-	-	Stream milky. Water very high.
262-103	8-26	Malloy	p	p	p	0	0	600	0	-	-	Water high; very turbid; fish count low.
Glacier Lake Creek												
262-104	8-26	Malloy	p	p	p	0	0	0	0	-	-	Water high; very turbid.
Calving Glacier Cr.												
262-105	7-30	Malloy	p	p	p	0	0	0	0	-	-	Streams milky. Water very high.
262-105	8-26	Malloy	p	p	p	0	0	0	0	-	-	Water high; very turbid.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Triple Lakes Creek												
262-106	7-30	Malloy	e	f	p	0	0	0	0	-	-	Stream clear - no fish. Water very high.
262-106	8-26	Malloy	p	p	p	0	0	0	0	-	-	Water high and uncharacteristically turbid. No sign of fish.
Long Mud Creek												
262-107	7-30	Malloy	p	p	p	0	0	0	0	-	-	Water very muddy and high.
262-107	8-26	Malloy	p	p	p	0	0	0	0	-	-	Water flow very high - very muddy.
Productive Forks Cr.												
262-108	7-30	Malloy	e	p	p	0	0	0	0	-	-	Clear - no fish.
262-108	8-26	Malloy	e	f	p	0	0	3600	4200	-	-	Water flow excellent. Water clear. Count low because of brushy cover on fish streams.
Bluff Creek												
262-109	7-30	Malloy	f	p	p	0	0	0	0	-	-	Stream somewhat milky. Water very high.
262-109	8-26	Malloy	f	p	p	0	0	0	1400	-	-	Water flow high - turbid with poor visibility except for lowest portion by bluff.
Long Slough Creek												
262-110	7-30	Malloy	e	p	p	0	0	0	0	-	-	Stream clear - no fish.
262-110	8-26	Malloy	g	p	p	0	0	0	0	-	-	Water flow normal.
Parallel Mud Creek												
262-111	7-30	Malloy	p	p	p	0	0	0	0	-	-	Water very muddy.
262-111	8-26	Malloy	p	p	p	0	0	0	0	-	-	Water flow very high - very muddy.
Broad Valley Creek												
262-113	8-26	Malloy	f	f	p	0	0	3800	0	-	-	Water flow excellent - water turbid. Fish in lower portion of stream.
Swikshak River												
262-151	6-27	Brennan	g	f	p	180	0	0	0	50R	-	1545 Hrs. Fish showing at mouth, but water too murky.
262-151	8-26	Malloy	e	p	p	39000	0	0	0	-	-	Sockeye distribution excellent, from spawning on spawning grounds to small schools (50 - 100 fish) holding in lowest portion of clear fork.
Big River												
262-152	7-30	Malloy	p	p	p	0	0	0	11000	-	-	Water turbid and muddy. Fish observed on shoals of river bed in shallower water.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
262-152	8-26	Malloy	p	p	p	0	0	3000	15000	-	-	Water very high and muddy. Fish count only a partial, very conservative count. Stream has not been clear all season. Fish count should have been at least 3 times number counted based on historical spawner distribution for chums and at least 5 times for pinks based on their normal distribution.
Village Creek												
262-153	7-30	Malloy	p	p	p	0	0	0	0	-	-	Water muddy and high.
262-153	8-26	Malloy	f	f	f	0	0	48000	8000	-	-	Pinks distributed heaviest in headwaters; spawner density in upper spawning grounds good, but poor in lower spawning grounds. Chum lightly dispersed throughout system. Water flow excellent; turbid in lower portion.
Chiniak Lagoon												
262-154	7-30	Malloy	p	f	p	0	0	0	0	38000Ch	-	Lagoon water muddy; village beach very turbid. Fish at entrance to lagoon.
262-154	8-26	Malloy	g	p	p	0	0	0	11000	3000Ch	-	Fish heaviest in upper portion of lagoon. Fish count on outside conservative - water turbid.
Wolf Creek												
262-155	8-26	Malloy	g	f	p	0	0	800	0	-	-	Water flow excellent. Looked a lower open portion; upper 4/5 of stream brushy.
Ninagiak Creek												
262-201	6-27	Brennan	f	p	p	0	0	0	0	-	-	1600 Hrs.
262-201	7-30	Malloy	p	p	p	0	0	0	0	-	-	Water muddy and high.
262-201	8-26	Malloy	f	p	p	0	0	3000	8000	-	-	Water flow high - fairly clear. Fish count conservative; many side sloughs had fish - too brushy to count.
Hook Creek												
262-202	7-30	Malloy	p	p	p	0	0	0	0	-	-	Water muddy.
262-202	8-26	Malloy	p	p	p	0	0	0	1100	-	-	Water flow very high and very turbid. Fish count very conservative.
Serpent Creek												
262-203	7-30	Malloy	p	p	p	0	0	0	0	-	-	Water very muddy and high.
262-203	8-26	Malloy	p	p	p	0	0	0	8000	-	-	Water flow very high and extremely turbid. Fish count very conservative - should have seen 3 times number counted based on historical spawner distribution.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Hallo Creek												
262-204	7-30	Malloy	p	p	p	0	0	0	0	-	-	Water very muddy and high.
262-204	8-26	Malloy	p	p	p	0	0	0	0	-	-	Water extremely high and turbid as usual.
Cape Chiniak Creek												
262-205	7-30	Malloy	p	p	p	0	0	0	0	-	-	Water muddy and high.
262-205	8-26	Malloy	g	p	p	0	0	42000	12000	-	-	Water flow and clarity excellent; some glare. Excellent spawner distribution and density; many fish spawning; very few carcasses. Spawning riffles full of fish and additional fish schooled in pools.
Ole's Creek												
262-206	8-26	Malloy	g	f	f	0	0	6000	2000	-	-	Water flow good; water clear - no glare.
Little Ninagiak												
262-207	8-26	Malloy	f	p	p	0	0	0	3400	-	-	Water flow good.
Yugnak Creek												
262-254	8-26	Malloy	f	f	f	0	0	100	0	-	-	Water flow o.k. - glare
Kukak River												
262-271	8-26	Malloy	e	p	p	0	0	2000	56000	2000Ch	-	Water flow excellent; minimal glare. Fish all in index fork, excellent distribution throughout length of stream. Fish lightly distributed on riffles and more heavily schooled in pools. Fish count at mouth, on flats conservative. No fish build-up in bay which is extremely muddy.
Kukak Valley Creek												
262-272	8-26	Malloy	p	p	p	0	0	0	0	-	-	Water flow very high; water very turbid.
Inside Creek												
262-273	8-26	Malloy	p	p	p	0	0	0	0	-	-	Water flow good - heavy glare.
Kaflia Creek												
262-301	6-27	Brennan	f	f	f	4050	0	0	0	1200R	-	1630 Hrs. Reds mostly schooled up at base of stream to lake; some outside in lagoon.
262-301	8-26	Malloy	e	g	g	56000	0	0	0	-	-	Fish distribution: 29,000 off of tributary to Upper Lake; 11,000 in scattered schools on shoals of lower lake, and 16,000 heavily schooled in backwater build-up area of lower lake.

-Continued-

Appendix G.10. (page 61 of 69)

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Halferty Creek												
262-351	8-26	Malloy	g	g	g	0	0	9000	0	-	-	Water flow excellent. Didn't see any reds, however didn't survey deeply into lake bowl.
Weiss Creek												
262-352	8-26	Malloy	g	g	g	0	0	3800	0	-	-	Water flow excellent.
262-352	9- 1	Giegerich	f	f		0	0	500	0	-	-	Observed 500 pink salmon from stream terminus to 300 yards upstream. No fish observed upstream of that point.
Sandy Creek												
262-401	8-26	Malloy	e	e	e	0	0	3800	0	-	-	Water flow good. Fish spread out on riffles - no carcasses.
Missak Creek												
262-402	8-26	Malloy	e	e	e	0	0	19000	0	33000P	-	Water flow excellent. Fish distribution in creek excellent. Heavy bear activity on creek. Fish at creek mouth very dark - spawning grounds definitely will be saturated.
Kinak Creek												
262-451	8-29	Prokopowich	e	e	e	0	0	37000	3000	1000P	4000P	Very few carcasses. Good distribution
262-451	9-12	Malloy	E	G	G	0	0	19200	1100	-	-	Light escapement. Distribution heavily favoring lower half of system; chum interspersed in middle portion. Water flow excellent and very clear.
Geographic Creek												
262-501	8-29	Prokopowich	g	g	g	0	0	200000	0	10000P	-	20,000 fish in bay at two side creeks on west side.
262-501	9-12	Malloy	P	P	P	0	0	2500	0	-	-	Water flow high and muddy; intertidal area less turbid. Heavy carcass accumulation on flats. Bay very turbid.
Pothole Creek												
262-502	8-29	Prokopowich	g			0	0	0	0	-	-	-
262-502	9-12	Malloy	P	P	P	0	0	0	0	-	-	Water flow high and muddy; bay very turbid
Giegerich Creek												
262-503	9- 1	Giegerich	g	g		0	0	1000	0	-	-	1,000 pink salmon equally distributed along first 300 yards of creek. No fish observed upstream thereafter. Restricted by falls.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Ried Creek												
262-504	8-29	Prokopowich	g	g		0	0	0	0	10000P	-	Fish schooled up at mouth of creeks.
Theis Creek												
262-505	8-29	Prokopowich	g	g		0	0	0	0	10000P	-	Fish schooled up at mouth of creeks.
Dakavak												
262-551	7-26	Malloy	e	e	e	0	0	0	0	200Ch	53000P	Stream flow o.k. Bay quiet. Bay fish schooled N.E. corner.
262-551	8-29	Prokopowich	g	g		0	0	38000	5000	-	-	Muddy off mouth.
262-551	9- 4	Hastings	f			0	0	0	150	-	-	Surveyed 1/2 mile upstream from tidewater. Only partial survey due to poor weather.
262-551	9- 5	Hastings	g			0	0	831	0	-	-	Surveyed 1.5 miles upstream from tide water. No live pinks seen 1.5 miles from starting point. Estimated 271 carcasses.
262-551	9-12	Malloy	G	F	F	0	0	8500	2500	-	-	Pinks in upper half of stream; chum in lower half. Water flow good. Not as many carcasses as expected.
Atmo Creek												
262-552	7-26	Malloy	e	e	e	0	0	0	0	-	-	Stream flow o.k.
Katmai Creek												
262-601	7-26	Malloy	p	p	p	0	0	0	0	-	-	Bay and stream very muddy - typical!
Alogogshak Creek												
262-602	7-26	Malloy	f	p	p	0	0	0	0	-	-	Bay turbid.
262-602	8-29	Prokopowich	p			0	0	0	0	-	-	No survey. Too muddy.
Clam Creek												
262-603	7-26	Malloy	e	g	f	0	0	0	0	-	-	Bay turbid.
262-603	8-29	Prokopowich	p			0	0	0	0	-	-	Too muddy to see fish.
Kashvik Creek												
262-604	7-26	Malloy	e	g	f	0	0	31000	12000	-	8000P 400Ch	Stream flow down but o.k. Fish schooled in deep pools distributed 1/2 way upstream. Bay turbid.
262-604	8-29	Prokopowich	f	p	p	0	0	80000	0	-	-	Water murky.
Wreckage Creek												
262-605	7-26	Malloy	e	e	f	0	0	0	0	-	-	Bay turbid. Stream flow o.k.
262-605	8-29	Prokopowich	g	g		0	0	10000	0	-	-	-
Skimpy Creek												
262-606	8-29	Prokopowich	g			0	0	20	0	-	-	-

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Big Alinchak												
262-651	7-26	Malloy	e	e	e	0	0	1600	0	21000P	261000P	Stream flow O.K.
262-651	8-13	Malloy	e	e	e	0	0	102000	0	15000P	525000P	Stream flow excellent. Fish distribution in stream excellent - still room for more. Bay buildup incredible. West beaches have 330,000 pinks and east beaches 305,000 pinks. Total of 642,000 fish in bay.
262-651	8-26	Prokopowich	f	f		0	0	225000	10000	150000P	-	Water murky - poor visibility off mouth.
262-651	8-29	Prokopowich	e	f	p	0	0	445000	15000	-	-	Bay murky off mouth. Much better visibility. New fish still coming into bay.
262-651	9-12	Malloy	P	P	P	0	0	0	0	-	-	Water very high and turbid; bay very turbid
262-651	9-15	Hastings	g	g	g	0	0	0	0	-	-	Overall, unsuitable habitat. No live pinks seen and only 10 carcasses found within 1/4 mile of outlet.
Little Alinchak												
262-652	7-26	Malloy	e	e	e	0	0	0	0	6000P	124000P	Stream flow medium low. Bay and adjacent beach build-ups excellent.
262-652	8-13	Malloy	e	e	e	0	0	25000	0	20000P	230000P	Stream flow excellent. Escapement just beginning. Basin plugged with fish - 230,000. Total of 275,000 fish from basin to stream.
262-652	8-26	Prokopowich	f	f		0	0	110000	0	150000P	-	Water in bay and creek murky.
262-652	8-29	Prokopowich	e	e	e	0	0	162000	0	200000P	163000P	18,000 carcasses in stream.
262-652	9-12	Malloy	P	P	P	0	0	0	0	-	-	Water very high and turbid; bay very turbid
Moose Creek												
262-653	7-26	Malloy	e	e	e	0	0	0	0	8000P	148000P	Stream flow o.k. Beach build-up excellent.
262-653	8-13	Malloy	e	e	e	0	0	48000	0	130000P	350000P	Stream flow excellent. Incredible return from large parent year escapement. Stream fish extend to extreme headwaters. Heavy buildup right in mouth. Bay fish separated into 210,000 along south beach and 140,000 along north beach. Beach fish dark. Total of 628,000 fish from outer cape and beaches to stream.
262-653	8-26	Prokopowich	e	e	e	0	0	17000	0	10000P	30000P	Partial survey of lower end. Bay pinks along west beach.
262-653	8-29	Prokopowich	e	e	e	0	0	230000	0	-	-	100,000 carcasses in bay along beach.
262-653	9-12	Malloy	P	P	P	0	0	0	0	-	-	Water very high and turbid; bay very turbid
Bear Bay Creek												
262-654	7-26	Malloy	e	g	f	0	0	0	0	-	32000P	Stream flow o.k.
262-654	8-26	Prokopowich	p	p	p	0	0	0	11500	-	5000Ch	Very muddy - most of bay muddy.
262-654	8-29	Prokopowich	g	g		0	0	0	11400	-	-	Right fork. 2800 chum carcasses in stream

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Bear Lake Creek												
262-655	7-26	Malloy	e	e	e	0	0	0	0	-	3400P 200Ch	Stream flow o.k.
262-655	8-26	Prokopowich	g			30	0	300	0	-	-	-
West Bear Creek												
262-656	7-26	Malloy	e	g	f	0	0	0	0	-	31000P	Stream flow o.k.
262-656	8-26	Prokopowich	f			0	0	13500	0	-	-	Water murky.
262-656	8-29	Prokopowich	g	g	g	0	0	13600	0	-	500Co 3000Ch	Left fork. 3400 pink carcasses in stream.
Helen Creek												
262-701	7-26	Malloy	e	e	e	0	0	500	0	3000P	15000P	Water flow o.k. Bay buildup good for this date.
262-701	8-26	Prokopowich	e			0	0	44000	0	-	-	-
Portage Creek												
262-702	7-26	Malloy	e	e	e	0	0	1800	0	4000P	13000P	Water flow o.k. Bay build-up good for this date.
262-702	8-13	Malloy	e	e	e	0	0	38000	0	7000P	40000P	Stream flow excellent. Stream fish distributed into canyons of both forks. Lower stream light. Bay fish very bright. Mostly schooled along north beach.
262-702	8-26	Prokopowich	e	e		0	0	67000	0	15000P	-	-
262-702	9-15	Hastings	g			6	0	22	0	-	-	Overall a poor spawning area. Began survey 1/2 mile upstream from tide water. Estimating 15 carcasses. No fish seen above 1 1/4 mile up.
Teresa Creek												
262-703	7-26	Malloy	g	f	f	0	0	0	0	-	-	Good chum build-up along beach.
262-703	8-13	Malloy	g	g	g	0	0	800	3600	1000P 1000Ch	8000P 35000Ch	Stream flow excellent. Bay lightly turbid. Most fish very bright. Nice buildup of chums.
262-703	8-26	Prokopowich	f			0	0	42000	15000	-	-	No survey on S.F. Water muddy.
Trail Creek												
262-704	7-26	Malloy	g	f	f	0	0	0	0	-	-	Heavy chum build-up along beach.
262-704	8-13	Malloy				0	0	4800	2000	-	18000P 96000Ch	Stream flow excellent. Bay build-up greatest between 704 and 703 creeks. Most chums very bright.
262-704	8-26	Prokopowich	f			0	0	20000	20000	-	-	Water murky.
Katie Creek												
262-705	6-27	Malloy	g	g	p	0	0	0	0	-	-	Bay visible turb. Should be pinks build-up in bay.
262-705	7-26	Malloy	g	g	p	0	0	0	0	-	-	Bay turbid. Should be pink build up in bay.
262-705	8-13	Malloy				0	0	12000	0	15000P	40000P	Stream flow excellent. Stream going to be plugged.
262-705	8-26	Prokopowich	g			0	0	8000	0	-	-	-

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Puale Creek												
262-706	7-26	Malloy	f	f	f	0	0	0	0	-	-	Head of bay turbid.
262-706	8-26	Prokopowich	e			0	60	0	0	-	-	-
Oil Creek												
262-751	7-26	Malloy	e	e	e	0	0	1200	0	6000P	36000P	Excellent build-up on beach. Stream flow fair. Fish just beginning to enter stream; stream fish in lower 1/4 of stream.
262-751	8-13	Malloy				0	0	38000	0	18000P	15000P	Stream flow excellent. Stream fish distributed over 2/3 way to headwaters. Lagoon contains 40% of stream fish. Fish built up along east beach.
262-751	8-26	Prokopowich	e			0	0	73000	0	-	-	-
262-751	9-13	Hastings	f			0	0	240	0	-	-	Overall poor to marginal spawning habitat. Water very swift. No fish seen above 2 miles upstream from tide water. Estimating 390 carcasses.
Dry Bay												
262-752	7-26	Malloy	e	g	g	0	0	0	0	17000Ch	3000P 23000Ch	"Mouth" fish in deep channel by bluff - fish very bright! Outside beach has excellent "show". Stream flow good.
262-752	8-13	Malloy	e	g	g	0	0	1400	22600	180000Ch	-	Stream flow excellent. Stream fish favoring headwaters. "Mouth" fish all in lagoon channel mostly near bluffs. Fish extremely bright; very hard to see smaller schools. Incredible number of chums.
262-752	8-26	Prokopowich	f			0	0	10000	56000	-	-	Water was murky.
262-753	8-26	Prokopowich	g			0	0	3500	0	-	-	-
Jute Creek												
262-801	7-26	Malloy	e	e	e	0	0	0	0	-	200P 3300Ch	Stream flow moderately low. Bay build-up looks weak.
262-801	8-13	Malloy	e	e	g	0	0	0	0	-	32000P	Stream flow good. Bay fish very bright. Glare in bay.
262-801	8-26	Prokopowich	e	e		0	0	22000	0	30000P	-	-
262-801	9- 5	Hastings	f			0	0	0	0	-	-	Surveyed tributary to mainstem. No live pinks, 10 carcasses.
262-801	9-13	Hastings	f			0	0	900	0	-	-	Overall poor habitat; water very swift. Surveyed main stream starting 1/2 mile upstream from tide water. Estimating 6000 carcasses.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Kanatak												
262-802	7-26	Malloy	g	e	g	0	0	100	0	200P 200Ch	34000P 13000Ch	Stream flow moderate. Fish just beginning to enter stream. Bay build-up very good for this date.
262-802	8-13	Malloy				0	0	76000	7600	8000P	24000P	Stream flow very good. Fish beginning to move into lake. Stream heavy with fish. Chums favoring tributary to lake and upper portion of outlet.
262-802	8-26	Prokopowich	e			0	0	70000	0	-	-	-
262-802	9- 5	Hastings	g	g		0	0	36950	0	-	-	From lagoon to tide water 17,500 pinks and 600 carcasses. In main creek from lagoon to barrier falls below lake 15,000 pinks spread evenly over sections 7-1 plus 1500 carcasses. In side creek (Little Kanatak) 450 live plus 175 carcasses in first 1/4 mile, 4000 live and 1500 carcasses in second 1/4 mile, and 2500 above in steep canyon.
Salmon Creek												
262-803	7-26	Malloy	e	e	g	0	0	0	0	-	-	Stream flow low.
262-803	8-13	Malloy	e	e	e	0	0	0	0	-	11000P	Stream flow good. Fish very bright.
262-803	8-26	Prokopowich	e	e		0	0	500	0	1000P	-	-
Log Jam Creek												
262-804	8-13	Malloy	e	e	e	0	0	0	0	-	-	Stream flow good. Fish able to pass through log jam at this flow level.
262-804	8-26	Prokopowich	e	e		0	0	200	0	150P	-	-
262-805	8-13	Malloy	e	e	e	0	0	0	0	-	-	Stream flow excellent. Fish able to access lower portion of stream.
Little Big Creek												
262-850	8-13	Malloy	g	g	g	0	0	0	0	25000P	28000P	Stream flow excellent. Huge number of fish in vicinity of mouth - all fairly bright.
262-850	8-26	Prokopowich	e			0	0	5000	0	-	-	-
262-850	9-12	Malloy	P	P	P	0	0	0	0	-	-	Water very high and turbid; bay very turbid
Big Creek												
262-851	7-26	Malloy	e	e	e	0	0	24000	18000	7000P 2000Ch	294000P	New fish entering bay buildup area - numerous deep-balls of fish 1/4 mile off mouth, as well as "ribbons" of fish on either side of stream mouth. Stream fish schooled in pools distributed half way upstream.

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Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
262-851	8-13	Malloy	e	e	e	0	0	685000	0	220000P	820000P	Incredible amount of fish. Did several surveys to double check counts-good index counts. Strings of fish still coming up from depths of bay along far east shore; balls of fish 1/4 mile offshore of mouth. Incredible sight! Stream fish extend to extreme headwaters; all sloughs and potholes plugged; all pools in stream plugged. Carcasses building in very lower reaches of stream. Fish massed in mouth of creek fanning out to beaches on either side of mouth. Of bay fish 280,000 massed along west beach between streams 850 and 851 and 540,000 massed along east beach from mouth out to north bay entrance.Fish on outer east beach extremely bright. Excellent visibility today. Stream flow in stream perfect. Total of 1.725 million fish counted - still new fish coming in.
262-851	8-26	Prokopowich	e	e		0	0	1320000	60000	300Co	-	Side slough 120,000 pinks (included in count). Near
262-851	9-12	Malloy	F	P	P	0	50	59000	24000	-	-	Pinks- 41,000 in mainstem, 18,000 in side slough; chum- 16,000 in mainstem, 8,000 in side slough. Uncountable number of carcasses. Live fish distributed entire length of stream. Water very high and turbid; alot of debris at inner mouth. Coho in first big hole. Bay very turbid
Des Moines Creek												
262-852	7-26	Malloy	e	e	e	0	0	700	0	400P	26000P	Good fish show along beach.
262-852	8-13	Malloy	e	g	g	0	0	91000	0	51000P	203000P	Stream flow excellent; clear. Heavy concentration of fish on beaches. Of 203,000 in bay 61,000 along west beach, 64,000 along east beach, additional 98,000 in bay near mouth. Fish at mouth still bright. Of stream fish 33,000 in east fork, 42,000 in west fork and 18,000 in mainstem. Incredible amount of fish.
262-852	8-26	Prokopowich	f			0	0	62000	0	-	-	-
262-852	9-12	Malloy	P	P	P	0	0	0	0	-	-	Stream and bay very muddy from heavy rain; very high water and alot of debris in stream
Pass Creek												
262-853	7-26	Malloy	e	e	f	0	0	0	0	-	-	Wind chop in bay - water flow moderately low.
262-853	8-13	Malloy				0	0	66000	0	3000P	39000P	Stream flow excellent. Beaches full of fish - mostly very bright. Looks excellent.
262-853	8-26	Prokopowich	f			0	0	60000	0	-	-	Water murky.

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Appendix G.10. (page 68 of 69)

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Short Creek												
262-854	7-26	Malloy	e	e	f	0	0	0	0	-	-	Wind chop in bay - water flow medium low.
262-854	8-13	Malloy				0	0	10000	0	8000P	64000P	Stream flow excellent. Beaches full of fish - balls of fish off mouth. Looks excellent.
262-854	8-26	Prokopowich	p			0	0	0	0	-	-	No estimate - Muddy water
Spit Creek												
262-856	8-13	Malloy	g	f	f	0	0	100	0	7000P	-	Bay lightly turbid.
Kialagvik Creek												
262-858	7-26	Malloy	g	f	p	0	0	600	1400	200P 200Ch	-	Bay very turbid. No jumpers seen in bay. Stream weak for early chum.
262-858	8-13	Malloy	g	p	p	0	0	1900	0	17100P	-	Bay turbid. Stream flow excellent. Expected to see more chums and pinks.
262-858	8-26	Prokopowich	g	p		0	0	0	15200	-	-	Main forks muddy. East Clear fork - 8,200 ch; West Clear fork - 7,000 ch. Poor visibility on flats.
Icy Peak Creek												
262-859	8-13	Malloy	f	f	p	0	0	0	0	-	-	Bay turbid - no jumpers. Expected to see more fish activity in salt water.
262-859	8-26	Prokopowich				0	0	0	0	-	-	No survey - turbulent
Slough Creek												
262-860	7-26	Malloy	e	g	f	0	0	0	0	-	-	Bay turbid/wind choppy. Stream flow low.
262-860	8-13	Malloy		g	f	0	0	0	0	-	-	No stream survey. Stream goes intergravel. No fish in salt water.
262-860	8-26	Prokopowich	f			0	0	0	0	-	-	Nothing seen. Windy.
Kayakliut Creek												
262-861	7-26	Malloy	e	e	e	0	0	0	0	-	4000P	Fish on east side in mouth along beach.
262-861	8-26	Prokopowich	e	e		0	0	9000	0	300P	-	-
Point Creek												
262-862	8-13	Malloy	e	g	f	0	0	0	0	7000P	-	Stream flow good. Conservative bay count; bay lightly turbid.
262-862	8-26	Prokopowich	e	e		0	0	200	0	-	-	-
Wind Shear Creek												
262-863	8-13	Malloy	g	g	f	0	0	0	0	-	-	South side of Wick Bay barren of fish.
Beach Creek												
262-864	8-13	Malloy				0	0	0	0	2000P	10000P	Stream flow excellent.

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Appendix G.10. (page 69 of 69)

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream Reds	Fish in Stream Coho	Fish in Stream Pink	Fish in Stream Chum	Build Up Fish Mouth	Build Up Fish Bay	Observer Remarks
Tiny Creek 262-865	8-13	Malloy				0	0	50	0	5000P	-	Stream flow good. Build-up on flats in mouth.
W. Coal Creek 262-866	8-13	Malloy	e	f	f	0	0	800	0	2000P	66000P	Stream flow excellent. Tremendous build-up along beach. Fish fairly bright.
262-866	9-12	Malloy	P	P	P	0	0	0	0	-	-	Water very high and turbid; bay very turbid
262-868	8-13	Malloy	g	g	g	0	0	100	0	3000P	29000P	Stream flow excellent. Big build-up along beach. Fish still pretty bright.
Imuya Creek 262-951	8-26	Prokopowich	f	f		0	0	24000	0	-	-	Water murky. No estimate off mouth.
Last Creek 262-952	8-26	Prokopowich	g	g		0	0	28000	0	5000P	-	-

Appendix H.1. Letter and example of permit sent to eligible salmon subsistence fishermen in the Kodiak Management Area, 1989.

KODIAK AREA SALMON SUBSISTENCE PERMIT HOLDERS:

June 1, 1989

In an attempt to provide a more timely and expeditious handling of Kodiak salmon subsistence permits, beginning in 1989 blank permits will annually be mailed to permit holders who have returned the previous year's permit. These permits should contain the required subsistence fishing information designated on the permit.

In future years, if you have not received your subsistence permit by approximately April 15, please contact the Kodiak ADF&G Finfish Management staff at 486-4791. For the 1989 season, permits have been available at the Kodiak office for "walk-in requests", however our intentions of implementing this permit "mail-out" program have been hampered by distractions associated with oil-spill activities. My apologies for any inconvenience or uncertainties which this may have caused. Any subsistence harvest which may have occurred prior to receiving this year's permit should be recorded in order to document subsistence-use dates, locations, and species utilized without concern for having fished without a permit.

It's important to remember that the purpose of the subsistence permit program is to provide an accurate documentation of the utilization of salmon for subsistence purposes in the Kodiak Area. This requires that each permit holder accurately record the information requested on the permit. Adequate protection of salmon stocks utilized for subsistence purposes cannot be accomplished without the documentation of **how many salmon of each species are harvested when, and from which system or fishing area.**

The blank permit included in this letter should be filled out by you, the potential subsistence fisherman, prior to fishing. In order for the permit to be valid all parts must be completed. Please check the description below and the example permit on page 3.

FILLING OUT YOUR SUBSISTENCE PERMIT:

1. The subsistence fisherman's name and address must be listed on the top three lines. A computer generated label with your name and address may be attached. Please check this for accuracy and note any changes on the permits.

2. The subsistence fisherman must sign and date the permit on the fourth line. This is to certify that you are a Kodiak Island Borough and Alaska State resident.

3. Fill in the names of any household members that you may be taking salmon for on the fifth and sixth lines. For example, if you have two children for which you will be fishing, list both of their names. If your children will be fishing for themselves, they must have their own permits, and should not be listed on your permit.

4. Each permit is valid for 25 salmon (of any species) for each person listed on the permit. For example, if you have three household members listed, you may take up to 100 salmon on this permit (25 for yourself and 25 for each of the three listed) This number should be listed on the last line, just above the "Harvest Log" portion of this permit.[1/]

5. In the "Harvest Log" please record when you fished, where you fished, and what species were caught each time you fish. If your subsistence efforts were unsuccessful please note that information.

If you have additional questions please contact the following ADF&G personnel at 486-4791, the Kodiak Fish and Game office:

Larry Malloy (Home: 486-4251)
Dave Prokopowich (Home: 486-6007)
Kevin Brennan (Home: 486-2748)

Also, if you are aware of someone who is unsure of how to obtain a subsistence permit please provide them with the Kodiak ADF&G telephone number (486-4791) for assistance in obtaining one.

Please remember to return your completed permit to ADF&G, Kodiak, by no later than January 31, 1990.

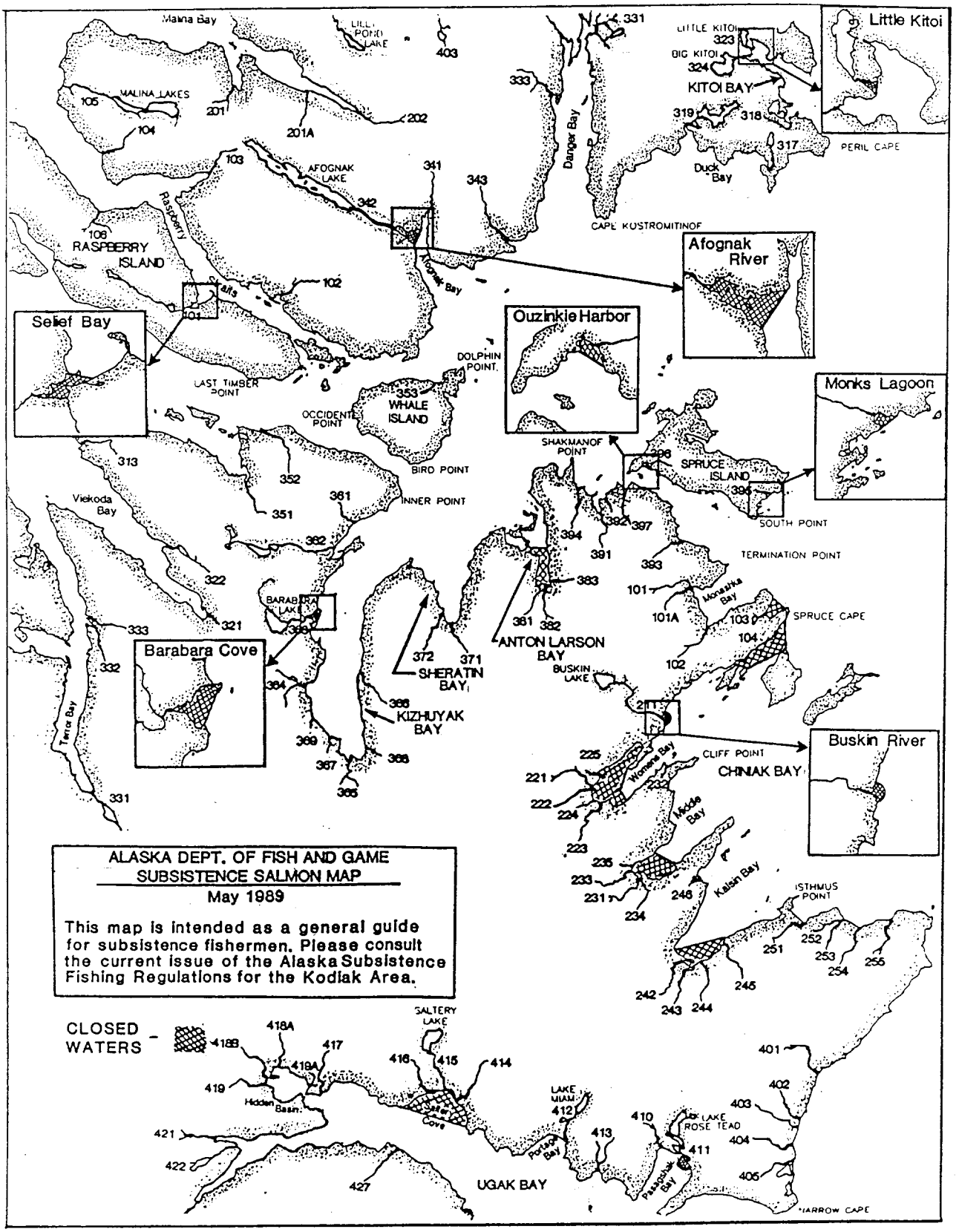
Thank you for your patience.

Larry Malloy
Kodiak Area Management Biologist

[1/]This does not mean that you are limited to 25 salmon per person each season, but that each permit is valid only for a catch of 25 salmon per person listed. If you need more than 25 salmon please inform ADF&G, Kodiak, and you will be issued another permit. If you inadvertently catch in one set more salmon than listed on the permit just note it on the harvest log.

Enclosures: Map of waters closed to subsistence fishing
Blank Subsistence Permit
Example of completed subsistence permit

Appendix H.1. Map of waters closed to salmon subsistence fishing, Kodiak Management Area, 1989.
(Page 3 of 4)



Appendix H.1. (Page 4 of 4) Example of salmon subsistence permit, Kodiak Management Area, 1989.

KODIAK SALMON SUBSISTENCE PERMIT

EXAMPLE

KODIAK SALMON SUBSISTENCE PERMIT

PERMIT NUMBER 000

PERMITTEE NAME John Doe YEAR

ADDRESS Box 111 Gravel St. 19 89

Kodiak, AK.

I CERTIFY THAT I HAVE RESIDED IN ALASKA FOR TWELVE (12) CONSECUTIVE MONTHS

PERMITTEE SIGNATURE John Doe DATE 4/1/89

ADDITIONAL MEMBERS OF SAME HOUSEHOLD TO BE INCLUDED ON PERMIT (RESIDENTS ONLY)

Jane, John Jr.

TOTAL NUMBER OF SALMON PROVIDED FOR ON THIS PERMIT 75

ADF reg Fisherman 4/1/89 DEPARTMENT SIGNATURE DATE

SUBSISTENCE HARVEST LOG

TRIP DATE	SPCIFIC LOCATION	NUMBER OF SALMON BY SPECIES					TOTAL
		KINGS	REDS	COHO	PINKS	CHUMS	

PLEASE RETURN THIS PERMIT BY JANUARY 31, 19 90
TO: ALASKA DEPARTMENT OF FISH AND GAME, 211 MISSION ROAD, KODIAK, ALASKA 99615

SALMON SUBSISTENCE FISHERMAN REMINDER

-- BE FAMILIAR WITH THE SUBSISTENCE REGULATIONS WHICH ARE DISTRIBUTED WITH THIS PERMIT.

-- ALL PERSONS MUST HAVE A VALID SALMON SUBSISTENCE PERMIT IN POSSESSION WHILE TAKING OR ATTEMPTING TO TAKE SUBSISTENCE SALMON.

-- PERSONAL SUBSISTENCE PERMITS ARE NON-TRANSFERABLE.

-- PERMITS EXPIRE DECEMBER 31, AND CATCH REPORTS ARE DUE BY JANUARY 31 OF THE FOLLOWING YEAR.

-- CATCH REPORTS MUST BE SUBMITTED TO ADF & G BEFORE A NEW PERMIT WILL BE ISSUED.

-- CATCH REPORTS CONSIST OF COMPLETING THE SUBSISTENCE HARVEST LOG SHOWN ABOVE.

-- THIS MUST BE DONE IMMEDIATELY UPON LANDING SUBSISTENCE CAUGHT FISH.

-- EACH SUBSISTENCE TRIP SHOULD BE RECORDED AS TO DATE, LOCATION AND HARVEST BY NUMBER OF FISH.

-- UNSUCCESSFUL TRIPS SHOULD ALSO BE RECORDED.

-- LOCATION OF HARVEST SHOULD BE IDENTIFIED BY STREAM, BAY, NEAREST HEADLAND, AND/OR NEAREST GEOGRAPHICAL FEATURE.

-- ANY QUESTIONS REGARDING SUBSISTENCE FISHING SHOULD BE DIRECTED TO THE KODIAK FISH AND GAME OFFICE AT 211 MISSION ROAD, KODIAK, ALASKA 99615, OR BY TELEPHONING - 486-4791.

Subsistence fisherman's name and address.

Subsistence fisherman's signature and date signed.

Household members you will be fishing for.

Number of salmon allowed on this permit (25 salmon per household member). (If you want to catch more, contact ADF&G, Kodiak, for another subsistence permit).

Catch Report (when, where, and what you caught).

KODIAK AREA

ARTICLE 10.—KODIAK AREA.

5 AAC 01.550. DESCRIPTION OF KODIAK AREA. The Kodiak Area includes all waters of Alaska south of a line extending east from Cape Douglas (58°52' N. lat.), west of 150° W. long., north of 55°30' N. lat.; and east of the longitude of the southern entrance of Imuya Bay near Kilokak Rocks (156°20'13" W. long.).

5 AAC 01.510. FISHING SEASONS. (a) Salmon may be taken for subsistence purposes from 6:00 a.m. until 9:00 p.m. from January 1 through December 31, with the following exceptions:

(1) from June 1 through September 15, salmon seine vessels may not be used to take subsistence salmon for 24 hours before, during, and for 24 hours after any open commercial salmon fishing period;

(2) from June 1 through September 15, purse seine vessels may be used to take salmon only with gill nets and no other type of salmon gear may be on board the vessel.

(c) Fish other than salmon may be taken at any time unless restricted by the terms of a subsistence fishing permit.

5 AAC 01.520. LAWFUL GEAR AND GEAR SPECIFICATIONS. (a) Unless restricted by this section or under the terms of a subsistence fishing permit, fish may be taken by gear listed in 5 AAC 01.010(a).

(b) Salmon may be taken only by gill net and seine.

(c) Halibut may be taken only by a single hand-held line with not more than two hooks attached to it.

(d) Subsistence fishermen must be physically present at the net at all times the net is being fished.

5 AAC 01.525. WATERS CLOSED TO SUBSISTENCE FISHING. The following locations are closed to the subsistence taking of salmon:

(1) all waters of Mill Bay and all those waters bounded by a line from Spruce Cape to the northernmost point of Woody Island, then to the northernmost point of Holiday Island, then to a point on Near Island opposite the Kodiak small boat harbor entrance and then to the small boat harbor entrance;

(2) all freshwater systems of Little Afognak River and Portage Creek drainage in Discoverer Bay;

(4) all waters closed to commercial salmon fishing in the Barbara Cove, Chiniak Bay, Saltery Cove, Pasagshak Bay, Monashka Bay and Anton Larsen Bay as described in 5 AAC 18.350, and all waters closed to commercial salmon fishing within 100 yards of the terminus of Sehel Bay Creek and north and west of a line from the tip of East Point to the tip of River Mouth Point in Afognak Bay;

(6) all waters 300 yards seaward of the terminus of Monks Creek;

(7) from August 15 through September 30, all waters 500 yards seaward of the terminus of Little Kitoi Creek;

(8) all freshwater systems of Afognak Island;

(9) all waters of Ouzinkie Harbor north of a line from 57°55'10" N. lat., 152°36' W. long. to 57°55'03" N. lat., 152°29'20" W. long.

5 AAC 01.530. SUBSISTENCE FISHING PERMITS. (a) A subsistence fishing permit is required for taking salmon, trout and char for subsistence purposes. A subsistence fishing permit is required for taking herring and bottomfish for subsistence purposes during the commercial herring sac roe season from May 1 through June 30.

(b) A subsistence salmon fishing permit allows the holder to take 25 salmon plus an additional 25 salmon for each member of the same household whose names are listed on the permit. An additional permit may be obtained if it can be shown that more fish are needed.

(c) All subsistence fishermen shall keep a record of the number of subsistence fish taken each year. The number of subsistence fish taken shall be recorded on the reverse side of the permit. The record must be completed immediately upon landing subsistence caught fish and must be returned to the local representative of the department by February 1 of the year following the year the permit was issued.

5 AAC 01.535. LIMITATIONS ON PARTICIPATION IN SUBSISTENCE FINFISH FISHERIES. Only those residents domiciled in the Kodiak Island Borough, except those residing on the Kodiak Coast Guard Base, may take salmon in the Kodiak Area. This restriction does not apply to the Mainland District, as described in 5 AAC 18.200.

5 AAC 01.545. SUBSISTENCE BAG AND POSSESSION LIMITS. The daily bag limit for halibut is two fish and the possession limit is two daily bag limits. No person may possess sport-taken and subsistence-taken halibut on the same day.

Appendix H.3. Synopsis of Exxon sponsored subsistence salmon fishery, Kodiak Management Area, 1989.

MEMORANDUM

TO: James Fall
Regional Supervisor

FROM: Craig Mishler
SRS II

SUBJ: The Exxon-Sponsored Subsistence Fishery, Kodiak Island

DATE: October 31, 1989

What follows is a synopsis of events which transpired on Kodiak Island during the recent oil spill emergency subsistence fishery sponsored by Exxon. Much of the planning for this fishery was conducted in the form of sketchily-documented phone calls, which are difficult to reconstruct. In some cases the dates and numbers given are approximate, but the chronology should be fairly intact.

The genesis of this fishery came directly from the Kodiak Oiled Mayors, who were worried that because of the Exxon Valdez oil spill, many villagers would not be able to put up enough salmon to get them through the coming winter. The two major concerns of these mayors were that: 1) villagers were afraid that most of the salmon around the Island were contaminated by oil and were therefore unsafe to eat, and 2) many villagers spent so much time on oil cleanup that they lost their opportunity to harvest and put up subsistence fish in the traditional manner. Throughout the summer of 1989, the Kodiak commercial salmon fishery remained closed except in a couple of areas on the south end of the Island.

These concerns were apparently addressed to John Peavey, Regional Supervisor at Exxon, sometime during the middle part of August, and Peavey in turn contacted Larry Nicholson, Regional Supervisor of ADF&G in Kodiak, about an emergency seine boat fishery to harvest subsistence salmon. At the same time, Peavey apparently had some conversations with Gary Arenson, the newly-appointed President of the Kodiak Area Native Association (KANA), because on August 8 Arenson called Jim Fall, Regional Supervisor for Subsistence at ADF&G. Arenson verified that the villagers' need was genuine and wanted to get an idea of he procedures involved in setting up the special fishery. Fall told him what needed to be done and also discussed this with Nicholson.

Exxon then approached KANA with the request that KANA coordinate both the catch and distribution of these salmon, but Arenson declined, saying that there were too many non-Native subsistence users who might be upset if KANA did the distribution. Arenson did not want KANA to get involved in a dispute between Natives and non-Natives over the allocation. This produced a stalemate which lasted about two weeks.

On August 22, John Peavey called Fall about how the fishery could be opened. In a memo to Peavey dated August 23, Fall replied that the request for an emergency subsistence seine boat fishery really ought to come from a local government body such as the Kodiak Island Borough or an IRA Council. After being contacted by Peavey, Borough Mayor Jerome Selby then wrote an official request to ADF&G Commissioner Don Collinsworth dated August 29 asking for an emergency regulation to allow this fishery to occur.

The Borough's specific request was to allow 90,000 lbs. of salmon to be caught in Olga Bay using seine boat gear. Olga Bay location was selected because it was free of any contamination by the oil spill. An emergency regulation was required because the published regulation under 5 AAC 01.510 (2) says that "from June 1 through September 15, purse seine vessels may be used to take salmon only with gill nets and no other type of salmon gear may be on board the vessel."

Jim Fall responded to the Borough's request by consulting with Steve Behnke and with the Commissioner's office and then drafted a Finding of Emergency to be approved by the Commissioner. Jim Sellers of the Governor's office and Sarah McCracken, Assistant Attorney General, were also consulted in the review of this proposed Finding, along with Larry Nicholson and Pete Probasco in the Kodiak office. Finally, on August 31, the Finding of Emergency was signed by Commissioner Collinsworth. this Finding allowed the purse seine fishery to take place in both the Moser-Olga Bay Section of the Island and also in Karluk Lagoon, another area relatively well-protected from the spill.

KANA recruited two purse seiners from Old Harbor and rounded up a volunteer crew to go into Olga-Moser Bay but the attempt failed for lack of sufficient numbers of fish. An alternate plan was then put into action, and the harvest site was moved to Karluk Lagoon. On September 6, Allen Panamaroff, Chairman of the Board of Directors at KANA and a resident of Karluk, organized a traditional beach seining operation. Volunteers were recruited by KANA and flown in from Port Lions and Larsen Bay to assist the local Karluk crew, and observers from DEC (Mark Lewis) and ADF&G (Pete Probasco and Tracy McKinnon) went out on the grounds to monitor the fishery. The observers found no visible signs of oil on the fish, and DEC collected three sockeye from the beach seine for organoleptic testing.

I interviewed Doug Jaeger and Sandra Johnson of Larsen Bay, two volunteers who participated in this fishery on September 6. They were fairly upset with Exxon for not providing them with return transportation from Karluk to Larsen Bay and thought the entire operation was not very well organized. According to Jaeger, about 14 people took part in the beach seining, along with three skiffs. The first haul brought in only 87 fish, but the second haul brought in over 2,000. Figuring an average of 6 lbs. per fish, this one haul produced approximately 12,000 lbs. of salmon.

Two purse seiners, the Wild Goose and the Sarah Jean were chartered to take additional fish just outside the entrance of the Lagoon, and their catch was spread out over a period of two days.

The total subsistence catch for September 6 and 7 amounted to a little over 68,000 lbs. of sockeye and silver salmon, well under the target goal of 90,000 lbs. requested by the mayors. The fish were then tendered to Kodiak City aboard two vessels for processing. About half the fish, 30,357 lbs., were delivered by the Barb M and then frozen at Eagle Fisheries, while the other half, 37,936 lbs. were delivered by the F/V Eagle and canned at Alaska Pacific Seafoods. Mark Lewis from DEC monitored the fish again when they were offloaded at the canneries.

On October 31 I interviewed Ron Kuczek, skipper of the Sarah Jean, on the telephone, and he informed me that the Sarah Jean made two sets on the outgoing tide, taking about 1,500 fish in the first set and about 3,500 in the second. About 99% of these fish were sockeye.

While the processing only took a few days, it took a full month of political wrangling between Exxon, the Borough, and KANA to get the fish allocated. Again, Exxon wanted KANA to do the allocation, and KANA again refused. Exxon did not want the Borough to do it, partly as a result of the hard feelings generated over the incinerator issue at Viekoda Bay. But the Borough decided that the fish didn't belong to Exxon and began to take charge by requesting a list of subsistence permit holders from the Kodiak office of ADF&G. This list, supplied by Larry Nicholson, showed that the vast majority of permit holders resided within the Kodiak-Chiniak area.

The Borough's intended allocation of frozen fish as of September 28, according to Mayor Selby's administrative assistant, Mary Ann Weideman, was not just by permit holder but by the number of resident senior citizens. The Borough wanted to distribute the fish as follows (measured in #s of 50 lb. boxes): Ouzinkie, 33; Port Lions, 57; Larsen Bay, 30; Old Harbor, 60; Akhiok, 10; and Karluk, 0 (due to a lack of elders). However, it was immediately noticed that some villages, such as Karluk, were severely under-represented in the State's permitting list and in the list of elders, so Mayor Selby felt that perhaps a better plan was to obtain a list of seniors from each village mayor or IRA Council President and give the seniors a priority in the distribution. This is exactly what happened.

Still, the Borough felt that within Kodiak City the allocation should be made first to subsistence permit holders (by family size) and second to other individuals in need. During the second and

third weeks in September, the Borough posted a public notice in the classified section of the Kodiak Daily Mirror, asking those people in need of fish to contact the Borough and sign up before October 6.

Meanwhile, the distribution of the cases of canned salmon was slowed by the need to have the fish inspected by the FDA. When I called the Mayor's office on October 10, Weideman informed me that Exxon had decided to distribute the fish themselves, taking the Borough completely out of the loop. Exxon requested and received a copy of the sign-up list which the Borough compiled.

August Aga, KANA's Oil Spill Coordinator, told me that Exxon asked KANA and the Borough to deliver subsistence fish to senior citizens living in Kodiak City. This request was entertained briefly and then turned down because Exxon did not offer to pay either organization to perform this distribution. In a telephone conversation with me on October 20, John Peavey said he was upset that no one offered to help Exxon distribute the fish yet everyone wanted to take credit for doing so.

Peavey continued to tell me that out of frustration, Exxon then devised its own plan for the distribution, following suggestions by Joe Llanos, an Exxon employee and member of KANA's Board of Directors, and Pete Squartsoff, a Native leader from Port Lions. On October 17, more than five weeks after the fish were caught, August Aga told me that the first round of distribution to seniors was delivered via an Exxon-chartered fishing vessel, The Island Trader, but since mistakes were made in certain communities, the boat had to go back and give some of them more.

In Port Lions, the situation was fairly chaotic when The Island Trader arrived because the entire village council was out of town, and it was left to the senior citizen cook to allocate all of the fish. Unlike Ouzinkie, which ha a state-of-the-art community freezer, Port Lions has no such storage facility. All of the seniors received fish, but the cook discovered that not all of the seniors had sufficient freezer space, so many of the fish were delivered to other households which had the freezer space to store them. In this way, the senior citizen distribution rapidly became a general distribution to virtually everyone else in the village. A few cases of fish were set aside to be delivered to seniors living out in Raspberry Strait.

Each box of frozen salmon weighed about 50 lbs., and each case of canned salmon weighed about 48.5 lbs. In the first round, fish were given to the seniors hot lunch program (run by KANA) and also to individual households where seniors reside. Rita Eisenhower of KANA picked up the salmon from the processors and delivered them to the seniors:

Round 1	Seniors Hot Lunch Program		Home Use	
	Canned Fish	Frozen Fish	Canned	Frozen
Karluk	0 cases	0 boxes	40 cases	2 boxes
Akhiok	0 "	0 "	25 "	0 "
Ouzinkie	20 "	15 "	48 "	18 "
Larsen Bay	18 "	14 "	32 "	16 "
Old Harbor	30 "	25 "	70 "	35 "
Port Lions	30 "	25 "	64 "	32 "
Kodiak City	2 "	25 "	71 "	17 "

Total/1st Round Frozen: 224 boxes (11,200 lbs.)
Total/1st Round Canned: 450 cases (21,825 lbs.)

On October 20, John Peavey at Exxon informed me that PenAir had been chartered to deliver the second round of subsistence fish, but it took until October 26 before Port Lions and Ouzinkie received their allocation from Round 2. According to Peavey, the distribution of this second round was to be a general distribution based on village size.

Round 2	Frozen Fish	Canned Fish
Karluk	8 boxes	40 cases
Akhiok	8 "	40 "
Ouzinkie	15 "	70 "
Larsen Bay	10 "	60 "
Old Harbor	15 "	70 "
Port Lions	15 "	70 "

Total/2nd Round Frozen: 121 boxes (6,050 lbs.)
Total/2nd Round Canned: 350 cases (16,975 lbs.)

In Round 3, the remainder of the catch (11,950 lbs.) was distributed to Kodiak City residents (via the Borough's sign-up list) and to local charities. From 8 a.m. to 5 p.m. October 18-21, Exxon opened up a warehouse in downtown Kodiak City for distributing the fish. In a telephone call with me, Peavey said he was upset that many of the people on the Borough's list were prominent doctors and lawyers who had no need for free fish but claimed them anyway:

Round 3	Frozen Fish	Canned Fish
Kodiak City	113 boxes	224 cases
Women's Crisis Ctr.	4 "	4 "
Salvation Army	50 "	0 "

Total/3rd Round Frozen: 180 boxes (8,350 lbs.)
Total/3rd Round Canned: 228 cases (11,058 lbs.)

SUMMARY:

Going by the above figures, the total distribution of frozen and canned fish from Rounds 1-3 was 75,458 lbs. (49,858 canned and 25,600 frozen). However, this exceeds the 68,293 lbs. of fish counted right after the catch (37,936 lbs. canned and 30,357 lbs. frozen) by about 10%. Calculations for the distribution therefore came up short on the frozen fish and went way over on the canned fish.

Such accounting errors may be explained by frequent shifts in the numbers allocated to each community by the three principal parties involved: KANA, Exxon, and the Borough, not to mention how much was requested for each community by the oiled mayors themselves. The figures from Round 1 were supplied by KANA, while those from Rounds 2 and 3 were supplied by Exxon. The figures on the catch itself were provided by ADF&G in Kodiak.

cc: Larry Nicholson
Pete Probasco
Pippa Coiley
Ron Stanek
Lee Stratton
Bob Wolfe

Appendix H.4. Special permit for Exxon sponsored subsistence fishery at Karluk Lagoon, Kodiak, 1989.

KODIAK SALMON MANAGEMENT AREA
SPECIAL SUBSISTENCE SALMON HARVEST PERMIT
ISSUED EXCLUSIVELY FOR THE 1989 SEASON

REASONS FOR THIS PERMIT:

- Information received from Kodiak Island communities has identified that normal subsistence fishing activities by these communities has been seriously disrupted since the Exxon Valdez oil spill. Many community residents have foregone harvesting subsistence salmon because of concern about possible oil contamination of the salmon and/or because many residents have been and continue to be involved in oil clean-up activities and consequently have had insufficient time to harvest and preserve a winter's supply of salmon.

- Therefore, the Department of Fish and Game finds that an emergency exists and within the provisions of an Emergency Regulation issued by the Commissioner of the Department of Fish and Game and consistent with present regulations (5 AAC 01.530), the conditions of this special subsistence salmon harvest permit are identified below.

CONDITIONS OF THIS PERMIT

- Permit is valid only for that portion of Upper Karluk Lagoon known as the "King Hole" east of the longitude of the derelict tank as identified by ADF&G regulatory markers.

- Permit is valid for seine gear only.

- Permit is valid only from September 1 until the desired harvest of subsistence salmon has been achieved as specified by the permittee below.

- Permittee must be domiciled in the Kodiak Island Borough.

- Permittee must identify for which community subsistence salmon are being caught and the quantity of salmon intended to be harvested on this permit.

- Permittee must have this permit in their possession while taking or attempting to take subsistence salmon under the provisions of this permit.

- Permittee must provide a subsistence harvest report to ADF&G's Kodiak office or field representative by October 1, 1989.

- A subsistence catch report will consist of completing the subsistence harvest log on this permit.

- This permit becomes invalid when either of the following events are documented:

  - When the number of salmon harvested approximates the number designated on this permit.

or - When minimum escapement requirements for targeted species appear to be in jeopardy.

- This permit can be cancelled at any time by ADF&G field representatives during the subsistence fishing activities allowed under the provision of this permit.

- Failure to comply with the conditions of this permit, as determined by ADF&G field representatives, will result in this permit being declared invalid.

Permit Number: SSSHP 1-89

Permittees Names: Carl Christiansen, Fred Coyle

Signature:

	C. Christiansen	Fred Coyle
Mailing Address:	Box 832	Box 207
City:	Old Harbor 99643	Kodiak 99615
Vessel Names:	Sabrina C.	Miss Diedre

Permit Issued By: Larry Nicholson

Title: Regional Supervisor, Westward Region, Comm. Fish Division

Date: September 1, 1989

Location: Kodiak, Alaska

Number of Salmon to be Collected on This Permit: Approximately 15,000 salmon

Communities for Which Salmon are Destined: Kodiak Island Borough Communities

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Date	Harvest Location	Kings	Number of Salmon by Species				Total
			Reds	Coho	Pinks	Chums	

Permit Number: SSSHP 2-89

Permittees Names: Alan Panamaroff, Sonny Reft, Eli Malutin

Signature: _____

Mailing Address: _____

City: Karluk, Alaska

Vessel Names: Skiffs

Permit Issued By: Larry Nicholson

Title: Regional Supervisor, Westward Region

Date: September 1, 1989

Location: Kodiak, Alaska

Number of Salmon to be Collected on This Permit: Approximately 35,000 fish

Communities for Which Salmon are Destined: Kodiak Island Borough Communities

---

Date	Harvest Location	Kings	Number of Salmon by Species				Total
			Reds	Coho	Pinks	Chums	

Appendix H.5. Summary of Exxon sponsored subsistence salmon harvest at Karluk Lagoon, 1989.

Alaska Pacific Seafoods - All canned Date: 9/7/89

Tender: Eagle

Total Pounds: 37,936 lbs.

of which	7,629 Sockeye	516 Coho	14 Chum	41 Pink
	31,299 lbs.	6,377 lbs.	136 lbs.	124 lbs.

5 Pallets

Eagle Fisheries: All frozen Date: 9/8/89

Tender: Barb M II

Total Pounds: 30,357 lbs. Round weight

of which	5,700 Sockeye	7 Coho	5 Chum	6 Pink	1 Chinook
	30,215 lbs.	70 lbs.	50 lbs.	18 lbs.	4 lbs.
	3.3 lbs $\bar{X}$ wt.				

76.1% recovery 460 - 50 lb. cases

Seine vessels under charter at time of harvest:

F/V Wild Goose (Ron Painter) and F/V Sara Jean (Ron Kuczek)

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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.

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