

SOUTHEAST ALASKA PURSE SEINE FISHERY
2004 MANAGEMENT PLAN



by

Region I Staff

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INTRODUCTION

This plan describes how the Southeast Alaska salmon purse seine fishery will be managed during the 2004 season and includes expected run sizes, harvest strategies, and related management issues. The plan is based on the Alaska Department of Fish and Game (ADF&G) 2004 pre-season pink salmon forecast, historical escapement, and fishery performance data. The ADF&G area management biologists listed at the end of this document can provide further details regarding the implementation of the plan in their respective areas.

Regulations allow purse seine fishing in Districts 1 (Sections 1-C, 1-D, 1-E, and 1-F only), 2, 3, 4, 5, 6 (Sections 6-C and 6-D only), 7, 9, 10, 11 (Sections 11-A and 11-D only), 12, 13, and 14. Purse seining is also allowed in terminal hatchery fishing areas at Nakat Inlet, Neets Bay, Kendrick Bay, Eastern Passage, Anita Bay, Deep Inlet, Silver Bay, and Hidden Falls. Although the areas specified above are designated seine fishing areas, specific open areas and fishing periods are established by emergency order.

On average, purse seiners harvest 70 to 90% of the salmon caught in all Southeast Alaska commercial fisheries. Because pink salmon is the primary species targeted by the seine fleet, most management actions are based on the abundance of pink salmon stocks. Other species are generally harvested incidental to pink salmon. On average, sockeye and coho salmon account for approximately 2%, chum salmon 12%, and king salmon less than 1% of the total purse seine salmon harvest.

Tagging studies of adult pink salmon have demonstrated that the stocks in Southeast Alaska exhibit a distinct separation between the northern and southern portions of the region. For purposes of catch tabulation and management, Districts 1–8 are grouped as “southern Southeast” and Districts 9–14 as “northern Southeast.”

In-season assessments of pink salmon run strength are determined primarily from spawning escapement information obtained from aerial surveys of terminal areas and streams and from fishery performance data (catch and catch per unit effort, or CPUE). Department staff and researchers at the University of Alaska Fairbanks, Juneau Center for Fisheries and Ocean Sciences, use fishery performance data and associated information to make in-season forecasts of pink salmon returns to northern and southern Southeast Alaska. The department also charters purse seine vessels to conduct test fishing assessments of run strength in selected index areas and monitors pink salmon sex ratios in the commercial harvest to evaluate run timing.

2004 PINK SALMON FORECAST

The following categories of pink salmon harvest in Southeast Alaska were obtained by calculating the 20th, 40th, 60th, and 80th percentiles of historical harvest during the 40-year period 1962 to 2001:

Category	Range (millions)	Percentile
Disaster	Less than 10	Less than 20 th
Weak	10 to 17	21 st to 40 th
Average	17 to 30	41 st to 60 th
Strong	30 to 53	61 st to 80 th
Excellent	Greater than 53	Greater than 80 th

The pink salmon return in 2004 is predicted to be *Strong* to *Excellent*, with a potential total Southeast Alaska harvest of **50 million fish, with a range of 24 to 76 million fish.**

Forecast Methods:

The forecast methods that were used for the last six years tended to under-forecast the actual harvest and the prediction ranges have been too narrow. The actual harvest was outside these prediction ranges about half the time (Table 1). For that reason, we have introduced new statistical methods this year that predict future harvests based on prior years' harvests. This forecast does not rely on estimates of total escapement or total run size, as did prior forecasts, because accurate measures of these variables are not currently available. We expect this new method to do a better job of forecasting trends in the harvest until ongoing efforts to improve escapement and total run size information are completed. Because it is strictly based on historical harvests, this new method of forecasting does not directly forecast the amount of fish that might be available for harvest. We note that harvests in recent years (especially in the strong and excellent categories) have been affected by processing capacity.

The forecast of the potential pink salmon harvest in Southeast Alaska in 2004 was based on a time-series technique called *exponential smoothing*. This technique is similar to a running average; recent harvest observations were given more weight in the analysis, while all observations in the past were increasingly down-weighted. All harvests over the past 40 years (Figure 1) were used in the analysis. If x_t, x_{t-1}, \dots denotes the observed harvests in year $t, t-1$, and so on, then the forecast in year $t+1$ is given by,

$$\hat{x}_{t+1} = cx_t + (1 - c)\hat{x}_t .$$

Notice that the forecast for year t , that is \hat{x}_t , is also a weighted average of the observed catch in year $t-1$, and the forecast in year $t-2$. This is a kind of recursive equation that contains all of the data in the series. In this case, we choose a value of c to be approximately 0.27, based on minimizing the sum of past squared errors.

Notice that there are four production periods in Figure 1: the low-production period of the 1960s, the very-low-production period of the early 1970s, the period of increase from the mid-1970s to the early-1990s, and the latter period of high production. The forecast range was based on an estimated 80% confidence interval, calculated by estimating the forecast error in the exponential smoothing technique over the last 11 years – during the period of high production.

Table 1. Preseason forecast of pink salmon harvests versus actual harvests for Southeast Alaska, 1994-2003 (millions of fish).

Year	Preseason		Postseason	
	Category	Harvest	Harvest	Category
1994	<i>Strong</i>	47	58	<i>Excellent</i>
1995	<i>Average</i>	21	48	<i>Strong</i>
1996	<i>Excellent</i>	62	65	<i>Excellent</i>
1997	<i>Strong</i>	37	29	<i>Average</i>
1998	<i>Strong</i>	31-51	42	<i>Strong</i>
1999	<i>Strong</i>	31-51	75	<i>Excellent</i>
2000	<i>Strong</i>	31-51	20	<i>Average</i>
2001	<i>Strong</i>	31-50	67	<i>Excellent</i>
2002	<i>Strong</i>	30-52	45	<i>Strong</i>
2003	<i>Strong</i>	30-52	52	<i>Strong</i>
2004	<i>Strong</i>	50		

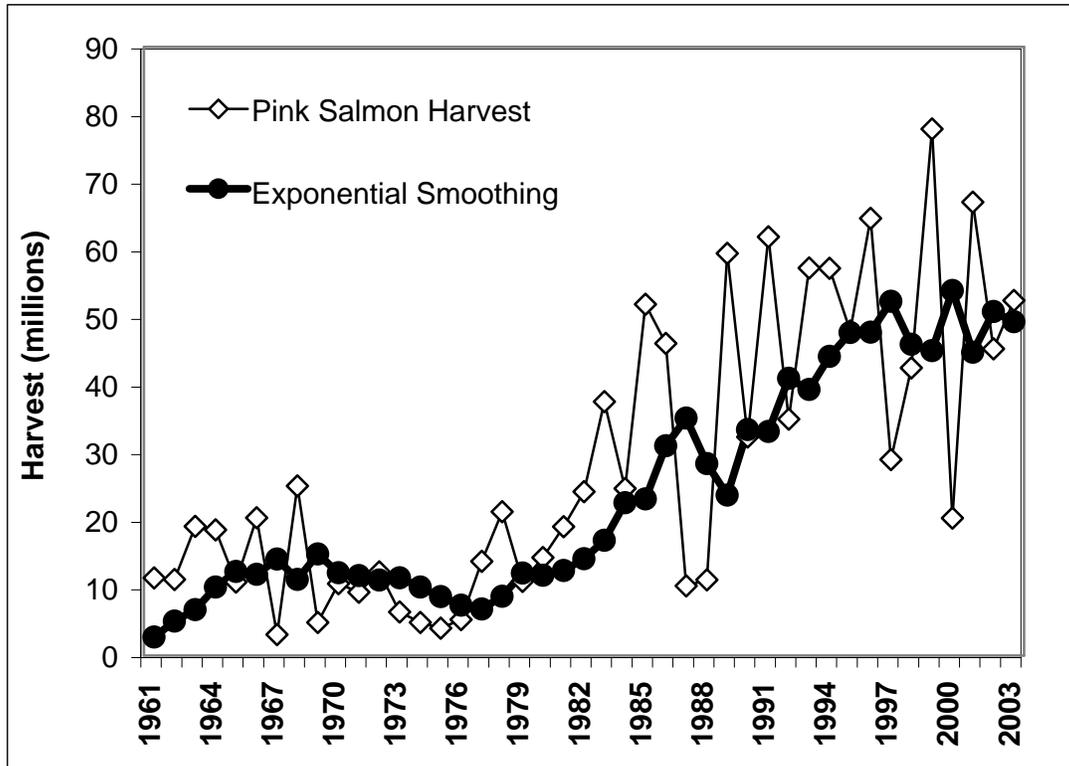


Figure 1. Comparison of annual harvest of pink salmon in Southeast Alaska, and smoothed values of the harvest used in the 2004 forecast model.

Forecast Discussion:

Many different statistical approaches all lead to the same general conclusion: pink salmon runs in Southeast Alaska have tended towards very high levels in recent years, and recent harvests have also tended to fluctuate around high levels. Moreover, the fluctuations in harvest have been caused by random, unknown factors in the marine environment, and by changes in the fishing industry. We have tried to present a forecast of next year's harvest using the simplest method we could find that makes the best possible use of our forecast indicators. We believe a simple, easily explained procedure that tracks the overall trend in harvest will produce a better forecast than complicated analyses based on questionable assumptions or based on spurious correlations. This new forecast, had it been used during the prior six years, would have provided slightly higher forecast point estimates and wider forecast ranges than the old methods.

Although it is very hard to predict pink salmon returns from the ocean, the forecast of pink salmon harvest is further complicated by recent large-scale changes in the fishing and fish processing industries. Researchers cannot predict future management actions, fishing conditions, harvest and processing capacity, distribution of the fleet, or product demand that drives the harvest each year. These factors have affected recent harvest levels, and in both 2002 and 2003, our escapement measures indicated that there could have been considerable additional harvest had there been demand for the product. We note that there has been substantial error in past

forecasts, with a tendency to under-forecast the harvest. Although we do not have a statistically reliable estimate of total return, the trend in catch has probably under-represented the trend in total run size. One indication of this is that the upper end of the escapement goal range has been exceeded in at least one of the three subregions in Southeast Alaska each year since 1994. Moreover, the upper end of the escapement goal range has been exceeded in all three subregions the last three years – further suggesting that pink salmon returns to Southeast Alaska have continued to increase over time, even though the trend in harvest level stabilized in the mid-1990s. The department will continue to manage fisheries inseason based on the strength of salmon runs. Aerial escapement surveys and fishery performance data will continue, as always, to be essential in making inseason management decisions.

Other considerations:

- 1) Brood year escapement indices in 2002 were the 6th highest on record for the region (17.4 million): the 8th highest in Southern (SSE); the 6th highest in Northern Inside (NSEI); and the 6th highest in Northern Outside (NSEO) for years 1960-2003. Escapements appear to have been ample to provide a *Strong* to *Excellent* total return in 2004.
- 2) Winter incubation temperatures throughout Southeast Alaska from November 2002 through February 2003 were above the 40-year average and should not be a significant cause of mortality for the 2004 return.
- 3) No early marine fry surveys were conducted in Southeast Alaska in 2003 to index fry abundance; however, anecdotal observations in Southeast indicated fry abundance was very high in some areas.

Regardless of the actual returns of pink salmon to Southeast Alaska in 2004 the department will continue to manage fisheries inseason based on the strength of salmon runs. Data from aerial escapement surveys and fishery performance data will continue to be essential in making inseason management decisions.

The strength of the pink salmon return will be monitored on a weekly basis through two inseason prediction programs. In southern Southeast, inseason estimates of run strength will be calculated from weekly purse seine catch, CPUE, and pink salmon sex ratio data. Pink salmon CPUE from the Icy Strait commercial troll fishery will be used to estimate run strength in northern Southeast Alaska. Run strength of individual stocks and stock groups will also be intensively monitored via aerial, boat, and foot surveys.

Table 2. Management target ranges by district, in units of escapement index (the sum of the peak, bias-adjusted, aerial observations in streams in the index sample, in millions), for Southeast Alaska pink salmon.

District	Lower Target	Upper Target
101	1.33	3.00
102	0.40	1.10
103	1.13	2.55
104	No Escapement Target	
105	0.33	0.65
106	0.40	0.85
107	0.40	0.85
108	No Escapement Target	
SSE Total	4.00	9.00
109	0.40	0.85
110	0.65	1.45
111	0.32	0.73
112	0.40	0.85
113 Inside	0.40	0.90
114	0.32	0.73
115	No Escapement Target	
NSE Inside Total	2.50	5.50
113 Outside	0.75	1.75
NSE Outside Total	0.75	1.75
NSE Total	3.25	7.25
SE Total	7.25	16.25

Table 3. Recommended pink salmon management targets for Southeast Alaska, by stock group, in relation to district and the subregion biological escapement goals, with redistribution based on 1960–2001 median count for each group in units of escapement index (the sum of the peak aerial observations in streams in the index sample, in millions).

Sub-region	District	Stock Group	Median ^a (60-01)	Percent of District ^b	Lower Target	Upper Target
SSE	101	Portland	197,995	12.4%	0.17	0.37
SSE	101	E Behm	1,003,782	62.9%	0.84	1.89
SSE	101	W Behm	394,896	24.7%	0.33	0.74
SSE	102	Moira	78,202	15.4%	0.06	0.17
SSE	102	Kasaan	427,988	84.6%	0.34	0.93
SSE	103	E Dall	190,985	14.3%	0.16	0.36
SSE	103	Hetta	356,054	26.7%	0.30	0.68
SSE	103	Klawock	614,668	46.0%	0.52	1.17
SSE	103	Sea Otter Sound	173,780	13.0%	0.15	0.33
SSE	105	Shipley Bay	72,269	41.2%	0.14	0.27
SSE	105	Affleck Canal	103,293	58.8%	0.20	0.38
SSE	106	Burnett	45,556	24.1%	0.10	0.20
SSE	106	Ratz Harbor	46,501	24.6%	0.10	0.21
SSE	106	Totem Bay	34,418	18.2%	0.07	0.15
SSE	106	Whale Pass	62,514	33.1%	0.13	0.28
SSE	107	Union Bay	61,063	19.7%	0.08	0.17
SSE	107	Anan	248,680	80.3%	0.32	0.68
SSE	108	Stikine	14,639	No Escapement Target		
NSEI	109	SE Baranof	46,050	12.5%	0.05	0.11
NSEI	109	E Baranof	60,995	16.5%	0.07	0.14
NSEI	109	Tebenkof	119,521	32.4%	0.13	0.27
NSEI	109	Saginaw Bay	66,570	18.0%	0.07	0.15
NSEI	109	Eliza Harbor	76,285	20.6%	0.08	0.18
NSEI	110	Portage Bay	16,329	5.6%	0.04	0.08
NSEI	110	Farragut Bay	5,661	2.0%	0.01	0.03
NSEI	110	Houghton	177,603	61.2%	0.40	0.89
NSEI	110	Pybus/Gambier	90,384	31.2%	0.20	0.45
NSEI	111	Seymour Canal	139,528	56.3%	0.18	0.41
NSEI	111	Stephens	108,201	43.7%	0.14	0.32
NSEI	112	SW Admiralty	113,635	19.8%	0.08	0.17
NSEI	112	W Admiralty	55,286	9.7%	0.04	0.08
NSEI	112	Tenakee	250,237	43.7%	0.18	0.37
NSEI	112	Freshwater Bay	87,700	15.3%	0.06	0.13
NSEI	112	Kelp Bay	37,446	6.5%	0.03	0.06
NSEI	112	Lynn Canal ^c	28,393	5.0%	0.02	0.04
NSEI	113	Hoonah Sound	216,374	100.0%	0.40	0.90
NSEO	113	Whale Bay	24,272	7.0%	0.05	0.12
NSEO	113	W Crawfish	6,909	2.0%	0.01	0.03
NSEO	113	Sitka Sound	98,759	28.5%	0.21	0.50
NSEO	113	Salisbury Sound	71,685	20.7%	0.16	0.36
NSEO	113	Slocum Arm	94,743	27.3%	0.21	0.48
NSEO	113	Portlock	15,781	4.6%	0.03	0.08
NSEO	113	Lisianski	34,329	9.9%	0.07	0.17
NSEI	114	Homesshore	22,709	14.2%	0.05	0.10
NSEI	114	N Chichagof	136,691	85.8%	0.28	0.62
NSEI	115	Lynn Canal ^c	28,637	No Escapement Target		

^a The column labeled “Median (60-01)” provides the median escapement index value for years between 1960 and 2001.

^b The column labeled “Percent of District” denotes the percent each stock group contributes to the sum of all stock group medians, for each specific district. Except for Hoonah Sound that is the only NSEI stock group in District 113.

^c Lynn Canal stock group consists of streams in both Districts 112 and 115. This table breaks them out by district but District 115 streams in the Lynn Canal stock group have no escapement goal.

GENERAL MANAGEMENT GOALS

The primary management goals for the 2004 Southeast Alaska purse seine fishery are as follows:

1. Obtain overall pink salmon spawning biological escapement goals by subregion and within sub regions obtain escapements consistent with district and stock group management targets to ensure that spawning escapements are well distributed.
2. Obtain overall adequate chum salmon spawning escapements and ensure that spawning escapements are well distributed.
3. Provide for an orderly fishery while harvesting fish in excess of spawning escapement needs.
4. Minimize, to the extent possible, the interceptions of salmon destined for fishing districts where weak returns are expected.
5. Promote a harvest of good quality fish within constraints dictated by run size and timing.
6. Manage the District 4 purse seine fishery consistent with the provisions of the U.S./Canada Pacific Salmon Treaty.
7. Restrict the total purse seine harvest of king salmon (28 inches or larger) to no more than 4.3% of the all-gear king salmon catch ceiling established for the 2003/2004 season.
8. Manage the seine fishery in the waters of District 12, north of Point Marsden (along the Hawk Inlet Shore), and in Section 14-C north of the latitude of Porpoise Islands, consistent with the Northern Southeast Purse Seine Management Plan (5 AAC 33.366).
9. Manage the seine fishery in the waters of District 1 consistent with the Hugh Smith Lake sockeye salmon Action Plan adopted by the Alaska Board of Fisheries in February 2003.

GENERAL MANAGEMENT PROBLEMS

The department will strive to maintain and improve the high quality of the harvest achieved in recent years. This will mean an aggressive fishing schedule early in the season in areas where strong returns are expected.

At the timing of the writing of this plan there was still ongoing discussion about the size of the purse seine fleet for the 2004 season. In 2003, approximately 239 purse seine permits were actively fished; this was down from the previous record low number of 275 permits fished in the 2002 season. The size of the purse seine fleet will have some impact on the management decisions the department makes as the season progresses.

For the 2004 season, the fishery opening and closing times will be as follows:

1. From the start of the seine season (June) through approximately August 15, 5:00 a.m. to 8:00 p.m.
2. From approximately August 15 through the end of the pink salmon season 6:00 a.m. to 9:00 p.m.
3. From the start of the chum salmon season until the season closes 7:00 a.m. to 7:00 p.m.

MATURE PINK SALMON FISHERIES

In 2001, the department, at the request of several processors, initiated terminal area fisheries for mature pink salmon in areas where management needs had been exceeded. These fisheries were directed at harvesting the roe or ikura of the pink salmon. Approximately 2.4 million pink salmon were harvested in these fisheries that took place in Districts 1, 3, 5, 6, and 7. In order to meet the added cost of this fishery the department had a test fishery for mature pink salmon in District 3.

No terminal area pink fisheries occurred during the 2002 season.

In 2003, the department allowed for terminal area pink salmon fisheries in District 1 in Carroll Inlet, in District 3 in El Capitan Passage, and Section 9-A in Red Bluff Bay. No harvest occurred in either District 1 or 3, however 69,000 pink salmon were harvested from Red Bluff Bay.

The department will continue to look for opportunities to continue the terminal area pink salmon fisheries in 2004 if there is an interest and a market. The department will continue to open fisheries so all of the fish can be harvested in the best possible quality in the existing fisheries. However, if certain systems end up with significant numbers of pink salmon that are in excess to all expected spawning needs, openings to target mature fish may occur. It is anticipated that this type of fishery, if it occurs, would primarily be in late August and September. Since this is still a new method of management, it is anticipated that several types of openings may occur to determine what works best for the industry while insuring needed escapement is not jeopardized. Openings of this nature will be announced via standard news releases and will be clearly differentiated from traditional openings. If these fisheries are to continue, test fisheries may be required to cover additional aerial surveys and personnel costs.

KING SALMON HARVEST

The department is required to manage the Southeast Alaska purse seine fishery for a harvest of 4.3% of the annual all-gear king salmon catch ceiling determined under the terms of the Pacific

Salmon Treaty [5 AAC 29.060 (b)(1)]. Prior to 1997, the purse seine fishery was limited to a fixed quota of 11,400 king salmon (not including Alaska hatchery-produced fish). The purpose of the 1997 regulation was to make management of the purse seine harvest of king salmon more consistent with the abundance-based management approach agreed to by the U.S. Section of the Pacific Salmon Commission in June 1999. The king salmon all-gear catch ceiling is driven by the preseason abundance index that determined by the Chinook Technical Committee. For 2004, the purse seine king salmon allocation will be slightly above 16,000 fish.

The board has adopted size limits [5 AAC 33.392] and directed the department to manage the purse seine fishery such that incidental mortality from catch and release is minimized. The specific provisions for management of the seine fishery harvest of king salmon are as follows:

1. King salmon taken in the purse seine fishery that are less than 28 inches in length (as measured from the tip of the snout to the tip of the tail) will not be counted against the king salmon harvest quota.
2. Purse seiners may take but may not sell king salmon between the sizes of greater than 21 and less than 28 inches in length.
3. Purse seiners may possess and sell king salmon that are less than 21 inches (approximately 5 pounds or less).

Implementation Plan

Non-retention of 28-inch and larger king salmon has been the primary management measure for maintaining the catch limit. **Because of the relatively large king salmon seine allocation for 2004, retention of king salmon will be permitted from the beginning of the season and for as long as possible during the time period when the catch rate for other species is high.** If the quota is reached, non-retention regulations will be reinitiated late in the season.

There may be specific terminal areas in which all king salmon may be, or must be, retained. At this time the department intends to implement full retention (5 AAC 39.265) from the beginning of the season for net fisheries in the Deep Inlet Terminal Harvest Area. Additional areas may be announced via news releases.

During periods of non-retention, seiners are encouraged to avoid fishing in areas with high concentrations of king salmon and to quickly release those caught in a manner that minimizes mortality. To ensure small (less than 21 inches) king salmon are not counted against the quota, the department needs the cooperation of the fishing industry. To accomplish this, all king salmon sold that are 28 inches or longer must be specified on fish tickets as species code 410; this is pre-printed on each fish ticket. King salmon 21 inches or less should be indicated on fish tickets as species code

411. This code will need to be handwritten on the fish ticket at the time of sale because it is not pre-printed.

King Salmon Encounter/Genetic Study

The 1999 Pacific Salmon Treaty Agreement calls for a move to total abundance-based management of king salmon based upon knowledge of total mortality. Total fishing mortality is defined as the sum of total landed catch and total incidental mortality (including catch and release mortality). Although the net fisheries harvest only a small portion of the overall king quota, and king salmon are not targeted in these fisheries, it is necessary to estimate total king salmon catch and release encounters by net gear in order to estimate total king salmon mortality for the chinook management model. Mortality resulting from catch and release encounters will be estimated by applying mortality rates to the catch and release estimates previously determined by the Pacific Salmon Commission Joint Chinook Technical Committee. The current chinook model estimates seine catch and release mortality indirectly based upon data from the 1980s. Gillnet catch and release mortality has never been studied in the Southeast Alaska fisheries, and although the incidence of catch and release is assumed to be minimal, it is necessary to directly measure it.

This study will provide current data from logbooks and onboard observers to determine king catch and mortality estimates for the abundance based management strategy. An ongoing similar study in the troll fishery has allowed the Chinook Technical Committee to calibrate the chinook model more accurately with current directly measured catch and release data.

The other major goal of this study is to collect tissue samples from representative king salmon caught in the net fisheries for analysis. This portion of the study will provide stock composition data for king salmon encountered in these fisheries that has never before been available. Current coded-wire tag (CWT) recovery data available from these fisheries does not adequately represent the portion of the catch made up by wild stocks. Also, the data currently available does not represent fish that are not landed and sold. This study will sample king salmon that are caught and released for genetic stock composition data, as well as the fish that are landed and sold. In addition, genetic samples obtained in this study will provide a more complete picture of the stock composition of king salmon in these fisheries, by representing wild stocks. An ongoing study in the troll fishery and a concurrent study to be implemented in the sport fishery will provide a total picture of king salmon catch and release as well as king salmon stock composition for all major fisheries in the Southeast Alaska region.

Onboard ADF&G fisheries observers employed in this study will also collect data on marine mammal and bird interactions with the fishing vessels and gear, as well as other species of fish and shellfish caught by net gear. This data will be helpful in certifying our net fisheries as having a minimal impact on non-target species.

Additional details regarding this study will be announced via Commercial Fisheries Division news releases. A detailed project operational plan is available at local Fish and Game offices and questions related to this study can be Richard Bloomquist in the Douglas Fish and Game office.

SOUTHERN DISTRICTS PURSE SEINE FISHERY

2004 Pink Salmon Returns

The 2002 pink salmon escapement indices had mixed results throughout SSE Alaska. Even though some stock groups did not reach the 90-99 averages, they were still above their minimum escapement goals. The District 1 pink salmon escapement index was 3.25 million fish, above the upper goal of 3.0 million. The District 2 pink salmon index escapement of 1.68 million fish was above the upper goal of 1.1 million pink salmon. The District 3 pink salmon index escapement of 3.14 million fish was above the upper goal of 2.55 million pink salmon. The District 5 pink salmon index escapement of 0.68 million fish was at the upper goal of 0.65 million pink salmon.

The District 6 pink salmon index escapement of 0.60 million fish was within the goal range of 0.60 to 0.85 million pink salmon. The District 7 pink salmon index escapement of 0.56 million fish was just below the lower goal limit of 0.60 million pink salmon. When summed across Districts 1-8, escapement indices totaled 9.91 million, above the 6.0 – 9.0 million goal range for the southern Southeast Alaska subregion (Table 2).

Management Problems

The continuation of the management strategy that started in 2002 will still pose the largest management problems in 2004. Uncertainties about fleet size and distribution and the department's reaction to those can only be answered in season. The department and the fishing industry will have to be flexible and be able to react quickly in season to changes from historical fishing patterns. Above all, meeting escapement goals will continue to be the number-one objective of the department. Within that conservation mandate the department will attempt to meet the fundamental objective of the modified fishing strategy that is to provide a more stable supply of fresher fish.

In response to the guidelines established in the Sustainable Salmon Fisheries Policy (5 AAC 39.222), the department, during the October 2002 work session, identified Hugh Smith Lake sockeye salmon as a candidate for stock of management concern status. The Board of Fisheries, after reviewing stock status information and public input during the February 2003 regulatory meeting, classified Hugh Smith Lake sockeye salmon as a stock of management concern. This determination was based on the inability, despite the use of specific management measures, to maintain escapements for a salmon stock within the bounds of the BEG during the last five years.

The department recently completed an analysis of available stock assessment data for Hugh Smith Lake sockeye salmon in the process of re-examining the escapement goal for the system. The conventional method for setting an escapement goal in a sockeye salmon producing system with 20 years of catch and escapement information, would be to do a Ricker stock-recruit analysis. Unfortunately, the unknown annual Canadian harvests of the Hugh Smith Lake stock of

sockeye salmon, and questions about the U.S. harvests in some years, greatly clouds the picture for an analyst attempting to conduct a Ricker stock-recruit analysis. The department conducted three independent analyses of available information as summarized below, to determine an appropriate escapement goal range for the system.

On the basis of these diverse analyses, a BEG for the Hugh Smith Lake stock of sockeye salmon of 8,000 to 18,000 spawners was recommended. The Board of Fisheries (BOF) adopted this goal as an Optimal Escapement Goal (OEG) in February 2003. The escapement goal will be reevaluated in 2005. The BOF also adopted an Action Plan to rebuild the Hugh Smith Lake sockeye salmon run back to levels that attain the current escapement goal range. The rebuilding plan will include measures to reduce harvests, rehabilitation efforts, including egg take and back-plants, and improved stock assessment. The specific provisions of the Action Plan include:

- If projections of the cumulative Hugh Smith Lake sockeye salmon weir counts in Statistical Week 29 and 30, fall below the cumulative number of sockeye salmon needed to meet the lower end of the escapement range the department shall:
 1. Close that portion of the District 101 purse seine fishery east of a line from Quadra Point to Slate Island Light to Black Rock Light to a point on the mainland shore at 55°01.40' N. latitude, 131°00.20' W. longitude.
- If the projections of the cumulative Hugh Smith Lake sockeye salmon weir counts in Statistical Weeks 31, 32, and 33 fall below the cumulative number of sockeye needed to meet the lower end of the escapement range the department shall:
 1. Close that portion of the District 101 purse seine fishery east of a line from Foggy Point Light to Black Rock Light to the southernmost tip of Black Island and;
 2. Close the upper portion of the Section 1-B drift gillnet fishery one nautical mile south of the latitude of Foggy Point Light.

The base years for determining the mean weekly run timing will start in 1982 and continue through the most current year of weir counts.

When the projections of Hugh Smith Lake sockeye salmon counts are above the cumulative number of sockeye needed to meet the lower end of the escapement range, the department shall manage the purse seine and drift gillnet fishery on the basis of the overall strength of wild stock salmon to District 101.

In mid-July 2003, the projected Hugh Smith escapement was below the lower end of the escapement goal range. As mandated by the Plan, beginning on July 29 (Stat Week 31) and continuing through August 13 (Stat Week 33), the closures were implemented at the entrance of Boca de Quadra. However, by the end of season a large number of sockeye did pass through the

Hugh Smith Lake weir. The final sockeye escapement into Hugh Smith was 20,000 sockeye salmon.

Management Plan

The southern Southeast Alaska area purse seine management plan consists of separate segments for the District 4 fishery, the inside districts pink salmon fishery, the McDonald Lake sockeye salmon fishery, the fall chum salmon fishery in Cholmondeley Sound, and hatchery terminal area fisheries.

District 4

The early portion of the District 4 purse seine fishery will be managed to comply with the Pacific Salmon Treaty. The agreement calls for the following:

A. Manage the Alaskan District 4 purse seine fishery prior to Statistical Week 31 to:

- i. Achieve an annual catch share of the Nass and Skeena sockeye salmon of 2.45 percent of the Annual Allowable Harvest (AAH) of the Nass and Skeena sockeye salmon stocks in that year.
- ii. Carry forward from year to year annual deviations from the catch share arrangement.

The AAH each year will be calculated as the combined total run of adult Nass and Skeena sockeye salmon in that year less the combined Nass and Skeena escapement target of 1.1 million fish. In the event the actual Nass and Skeena spawning escapement for the season is below the target level, the actual spawning escapement will be used in the AAH calculation.

The total run calculation includes the catches of Nass and Skeena sockeye salmon in the principal boundary area fisheries and the spawning escapements to the Nass and Skeena watersheds. This includes the catch of Nass and Skeena sockeye salmon in Alaska Districts 1, 2, 3, 4, and 6 net fisheries, Canadian Areas 1, 3, 4, and 5 net fisheries, and Canadian Nass and Skeena in-river fisheries. Catches in other boundary area fisheries may be included as jointly agreed by the Northern Boundary Technical Committee.

Although the management intent shall be to harvest salmon at the AAH, it is recognized that overages and underages will occur and an accounting mechanism is required. The payback mechanism for the fishery will be based on the number of fish.

The management intent for each fishery shall be to return any overages to a neutral or negative balance as soon as possible. After five years of consecutive overages, a management plan must be provided to the Northern Panel with specific management actions that will eliminate the

overage. The accrual of underages is not intended to allow either Alaska or Canada to modify its fishing behavior in any given year to harvest the accrued underage.

Over the past three years the Bilateral Northern Boundary Technical Committee has worked to finalize the total run reconstructions for the Nass and Skeena Rivers. In January 2004, the bilateral Northern Panel accepted the work of the Technical Committee and the 1999-2002 run reconstructions of the Nass/Skeena Rivers sockeye numbers were finalized. Table 4 reflects the performance of the District 104 fishery for 1999 through 2002.

Table 4. District 4 Purse Seine Nass/Skeena Allocation.

	1999	2000	2001	2002
Nass/Skeena Total Return	1,777,048	5,318,228	4,965,291	2,776,502
Nass/Skeena Escapement	936,705	1,100,000	1,100,000	1,030,688
Allowable Nass/Skeena AAH	834,343	4,218,228	3,865,291	1,725,169
Allowable D4 Harvest (2.45%)	20,441	103,347	94,700	42,267
Actual Nass/Skeena Harvest	3,232	29,221	167,854	18,627
Cumulative overage/(underage)	(17,209)	(91,335)	(18,181)	(41,820)

The preliminary results from the 2003 season indicate a total return to the Nass/Skeena Rivers of approximately 3,000,000 sockeye. This would allow for an allowable AAH of 1,900,000 sockeye salmon. That would allow for a harvest of approximately 46,550 Nass/Skeena sockeye in District 104 prior to Statistical Week 31. In 2003, a total of 84,750 sockeye were harvested in the district prior to Week 31. If 75%, or 63,500 of those sockeye were Nass/Skeena fish, then the district incurred an overage of 16,950 fish. However, if these preliminary numbers are close to correct, then the district would have a long-term underage of 24,870 sockeye salmon. The 2003 numbers should be considered very preliminary. The final bi-lateral stock identification work will not be completed until May 2004, and the final run reconstruction will not become completed until the fall of 2004.

The Canadian Department of Fisheries and Oceans has a preseason expectation of approximately 2,856,000 sockeye salmon to the Nass/Skeena River in 2004. If the 2004 forecast is accurate and escapement goals are achieved, then the AAH for District 4 will be approximately 43,000 Nass/Skeena sockeye salmon.

In 2004, the District 4 purse seine fishery will start on Sunday, July 4. It is anticipated that the initial opening on July 4 will be 10 hours in length. The duration of subsequent openings will be based on the run strength of sockeye and pink salmon, the amount of effort in the district, and the need to stay within treaty numbers. District 4 will be managed under the treaty annex through

July 24, 2004. Starting on Sunday, July 25, 2004 the district will be managed on the strength of southern Southeast Alaska salmon.

If the management regime of four days on/one day off is implemented after Statistical Week 30, it is department's intent to manage the district similarly in terms of boat-days of overall effort to that since the signing of the Treaty. Weekly fishing periods in August will be decided only after the department starts to realize the distribution of the fleet and the run size of pink salmon. In past years, District 4 was opened for the same amount of time as inside waters after the treaty period. That may not be the case under the 2004 fishing regime.

Inside Fishing Areas

As in past years, aerial surveys of early run pink salmon producing areas, primarily Boca de Quadra, east Behm Canal, and Ernest Sound, will begin in late June. Seining is expected to begin on Sunday, July 4, (Statistical Week 28). The initial fishing period will be for 15 hours and will be confined to the southeast portion of Section 1-F, the southern portion of District 2, and portions of Section 7-A (Anan).

Fishing time will begin with a series of 15-hour to 39-hour openings depending on run strength and the distribution of the purse seine fleet.

That fishing regime will probably change into a 2-on/2-off fishing pattern unless it becomes obvious to the department that due to the size and distribution of the purse seine fleet that the 4-on/1-off can be implemented before any 2-on/2-off fishing periods. Based on the preseason forecast, historical run timing, and the anticipated size of the purse seine fleet, the department anticipates the implementation of the 4-on/1-off by late July or early August. Until that time, the purse seine fishery will be managed similarly to previous years. Purse seiners should expect fishing times to be in blocks of 15-hours rather than continual fishing and areas will open and close within the extended fishing opportunities.

In District 1 the area from Boca de Quadra to Foggy Point will be managed to reflect the harvest patterns, effort levels, and fishing time in recent years. Other areas in District 1, such as the Gravina Island shoreline, will also be managed to take into account other user groups and the need to achieve escapement of salmon into the back Behm Canal systems.

In District 2, the department will open a portion of the lower district outside of the THA when Kendrick Bay opens on Sunday, June 20. This will be done to target on Kendrick Bay summer chum salmon at a time when few wild stock chum salmon are available, and to maximize the quality of those chum salmon. As discussed to the Seiner's Task Force meeting, the department will look at the possibility of additional fishing time in District 2, adjacent to Kendrick Bay beyond what has taken place there in recent years. If wild salmon run strength, effort, and other pertinent considerations allow additional fishing time to target hatchery chum salmon the department will consider it.

Seining will be limited to the southern portion of District 2 until escapements of pink salmon to northern Clarence Strait, Ernest Sound, Cholmondeley Sound, and Kasaan Bay can be adequately assessed. Additionally, no seining should be expected in middle Clarence Strait, along the Ship Island and Tolstoi shorelines, until run strength of pink salmon returns to west Behm Canal, Thorne Bay, District 6, and Section 7-B is determined. Also, in District 2, the fishing pattern along the Ship Island shore and near Thorne Bay will be managed to reflect historical fishing patterns to take into account other user groups and the need to achieve escapement to Thorne River and back Behm Canal.

Returns of pink salmon to District 3 are expected to be above average based on parent-year escapements. Portions of Section 3-A will open in mid to late July if pink salmon harvest in the early District 4 fishery warrants it. By late July or early August, Sections 3-B and 3-C will also open. Under the extended fishing periods expected during August, it is possible portions of District 3 may have longer fishing periods than inside districts if there is less effort in some of the more remote areas of the district.

Districts 5, 6, and 7

Parent-year pink salmon escapements were almost uniformly excellent in District 5 (Sumner Strait). Seine openings can be expected to occur in major portions of the district during the first week of August. Escapements were also excellent in the seine portion of District 6 (upper Clarence Strait). Openings are expected to begin during the first week in August. Parent-year escapements were very good in District 7. Openings in Section 7-B (Pt. Eaton to Union Bay) are expected to begin in late July. If run strengths are as strong as expected, the present plan is to rotate openings between District 6 and Districts 5 and 7. Openings will be more variable among these districts to provide the best distribution of effort and harvest. This could potentially include two-day fisheries during one 5-day period and then switching to three-day fisheries the following 5-day period. Every effort will be made to begin more continuous openings as soon as possible to give industry maximum flexibility for harvesting large returns.

McDonald Lake Sockeye Salmon

The forecasted return of sockeye salmon to McDonald Lake in Section 1-D is within the escapement goal range of 65,000 to 85,000 fish. The department will monitor returns beginning in early July by aerial surveys and test fishing with purse seine vessels. If a harvestable surplus is evident, a limited seine fishery in the immediate vicinity of Yes Bay will be allowed from mid-July to early August. If a fishery is authorized, the opening will be in conjunction with other seine openings and it may be of short duration to minimize impacts on other stocks. However, with the low forecasted return of sockeye salmon the department will take a conservative management approach to McDonald Lake this year.

Fall Chum Salmon Fisheries

Some watersheds along the eastern shoreline of Prince of Wales Island in District 2 produce late-run chum salmon that have traditionally supported fall purse seine fisheries. Although no formal forecasts are made for these stocks, some expectations can be based on parent-year escapements. In Disappearance Creek and Lagoon Creek, the primary chum salmon spawning systems in Cholmondeley Sound, the majority of the 1999, 2000, and 2001 parent year chum salmon escapements were average to above average. The first opening for fall-run chum salmon can be expected about September 10. In 2003, approximately 145,000 chum salmon were caught in the District 2 fall chum fishery.

The department has opened portions of Section 3-A (Cordova Bay) in 2002 and 2003 to target fall chum salmon. However, there has been little or no effort in those years and no reported harvest. The department will again open portions of Section 3-A in 2004. Open areas and fishing times will be similar to the 2003 season.

Terminal Hatchery Fisheries

For the 2004 season, special harvest area seine fisheries will occur at Neets Bay, Nakat Inlet, Eastern Passage (Earl West Cove), Anita Bay, and Kendrick Bay to harvest fish returning to Southern Southeast Regional Aquaculture Association (SSRAA) enhancement facilities. The fisheries in these Terminal Harvest Areas will be managed jointly with SSRAA, and in accordance with existing Board of Fisheries approved management plans. Details regarding the open fishing periods by gear type in each of these areas will be announced via commercial fishery news releases. Table 5 details the expected returns to each of SSRAA's release locations.

Seiners are requested to ensure fish caught in terminal areas are reported correctly on the fish tickets. This will enable the accurate documentation of fish taken from terminal harvest areas and allow area-specific catch sampling to determine contribution rates based on recovery of coded microwire tags or otolith marks.

Terminal Area – Neets Bay [5 AAC 33.370]

From the second Sunday in June through the third Sunday in July, the Neets Bay THA shall include those waters of Neets Bay east of the longitude of Chin Point to the closed waters at the head of the bay. After the third Sunday in July, the Neets Bay THA consists of those waters east of the longitude of the eastern most tip of Bug Island to the closed waters at the head of the bay.

In 2004, SSRAA is expecting a total return of 1.2 million summer chum, 400,000 fall chum, 300,000 coho, and 14,000 king salmon to return to Neets Bay.

The fisheries in Neets Bay will be opened by the department via emergency order in consultation with SSRAA. The Neets Bay fishery will be a rotational fishery according to 5 AAC 33.370.

Salmon may be taken by purse seine and drift gillnet gear concurrently from 12:01 a.m. Saturday, May 15, 2004 through 11:59 p.m. Monday, May 31, 2004 and as follows:

Gillnet

From 12:00 noon Tuesday, June 1 to 12:00 noon Thursday, June 3
From 12:00 noon Sunday, June 6 to 12:00 noon Tuesday June 8
From 12:00 noon Friday, June 11 to 12:00 noon Sunday, June 13
From 12:00 noon Wednesday, June 16 to 12:00 noon Friday, June 18

From 12:00 noon Saturday, September 25 to 12:00 noon Monday, September 27
From 12:00 noon Thursday, September 30 to 12:00 noon Saturday, October 2
From 12:00 noon Tuesday, October 5 to 12:00 noon Thursday, October 7
From 12:00 noon Sunday, October 10 to 12:00 noon Tuesday, October 12

Purse Seine:

From 12:00 noon Friday, June 4 to 12:00 noon Saturday, June 5
From 12:00 noon Wednesday, June 9 to 12:00 noon Thursday, June 10
From 12:00 noon Monday, June 14 to 12:00 noon Tuesday, June 15
From 12:00 noon Saturday, June 19 to 12:00 noon Sunday, June 20

From 12:00 noon Tuesday, September 28 to 12:00 noon Wednesday, September 29
From 12:00 noon Sunday, October 3 to 12:00 noon Monday, October 4
From 12:00 noon Friday, October 8 to 12:00 noon Saturday, October 9
From 12:00 noon Wednesday, October 13 to 12:00 noon Thursday, October 14

Effective 12:01 a.m. Friday, October 15, 2004 the Neets Bay terminal harvest area will be open to the harvest of salmon concurrently by drift gillnet, purse seine, and troll gear. The Neets Bay Terminal Harvest Area will close for the season at 11:59 p.m. Sunday, November 14, 2004.

Terminal Area — Nakat Inlet [5 AAC 33.372]

The Nakat Inlet drift gillnet fishing area includes the waters of Nakat Inlet between 54°50' N. latitude and 54°56' N. latitude. In 2004, approximately 150,000 summer chum, 100,000 fall chum, and 22,000 coho salmon are expected to return to Nakat Inlet. Peak chum salmon catches from these releases are expected between mid-July to mid-August for summer chum and late August to early September for fall chum and coho salmon.

Nakat Inlet will be open to all gear types for a continual basis starting on September 17. This is a change from past regulations that opened Nakat Inlet to continual fishing on October 10.

District 1 is open in the waters of Section 1-B in Nakat Inlet between 54°50'00" N. latitude and 54°56'00" N. latitude for the harvesting of salmon with troll gear from 12:00 noon Tuesday, June 1, 2004. The Nakat Inlet SHA will close for the season at 12:00 noon Wednesday, November 10, 2004.

Drift Gillnet:

From 12:00 noon Tuesday, June 1 to 12:00 noon Wednesday, June 2
From 12:00 noon Friday, June 4 to 12:00 noon Saturday, June 5
From 12:00 noon Monday, June 7 to 12:00 noon Tuesday, June 8
From 12:00 noon Thursday, June 10 to 12:00 noon Friday, June 11
From 12:00 noon Sunday, June 13 to 12:00 noon Monday, June 14
From 12:00 noon Wednesday, June 16 to 12:00 noon Thursday, June 17
From 12:00 noon Saturday, June 19 to 12:00 noon Sunday, June 20
From 12:00 noon Tuesday, June 22 to 12:00 noon Wednesday, June 23
From 12:00 noon Friday, June 25 to 12:00 noon Saturday, June 26
From 12:00 noon Monday, June 28 to 12:00 noon Tuesday, June 29

From 12:00 noon Thursday, July 1 to 12:00 noon Friday, July 2
From 12:00 noon Sunday, July 4 to 12:00 noon Monday, July 5
From 12:00 noon Wednesday, July 7 to 12:00 noon Thursday, July 8
From 12:00 noon Saturday, July 10 to 12:00 noon Sunday, July 11
From 12:00 noon Tuesday, July 13 to 12:00 noon Wednesday, July 14
From 12:00 noon Friday, July 16 to 12:00 noon Saturday, July 17
From 12:00 noon Monday, July 19 to 12:00 noon Tuesday, July 20
From 12:00 noon Thursday, July 22 to 12:00 noon Friday, July 23
From 12:00 noon Sunday, July 25 to 12:00 noon Monday, July 26
From 12:00 noon Wednesday, July 28 to 12:00 noon Thursday, July 29
From 12:00 noon Saturday, July 31 to 12:00 noon Sunday, August 1

From 12:00 noon Tuesday, August 3 to 12:00 noon Wednesday, August 4
From 12:00 noon Friday, August 6 to 12:00 noon Saturday, August 7
From 12:00 noon Monday, August 9 to 12:00 noon Tuesday, August 10
From 12:00 noon Thursday, August 12 to 12:00 noon Friday, August 13
From 12:00 noon Sunday, August 15 to 12:00 noon Monday, August 16
From 12:00 noon Wednesday, August 18 to 12:00 noon Thursday, August 19
From 12:00 noon Saturday, August 21 to 12:00 noon Sunday, August 22
From 12:00 noon Tuesday, August 24 to 12:00 noon Wednesday, August 25
From 12:00 noon Friday, August 27 to 12:00 noon Saturday, August 28
From 12:00 noon Monday, August 30 to 12:00 noon Tuesday, August 31

From 12:00 noon Thursday, September 2 to 12:00 noon Friday, September 3
From 12:00 noon Sunday, September 5 to 12:00 noon Monday, September 6
From 12:00 noon Wednesday, September 8 to 12:00 noon Thursday, September 9
From 12:00 noon Saturday, September 11 to 12:00 noon Sunday, September 12

From 12:00 noon Tuesday, September 14 to 12:00 noon Wednesday, September 15

Purse Seine:

From 6:00 a.m. to 6:00 p.m. Thursday, June 3
From 6:00 a.m. to 6:00 p.m. Sunday, June 6
From 6:00 a.m. to 6:00 p.m. Wednesday, June 9
From 6:00 a.m. to 6:00 p.m. Saturday, June 12
From 6:00 a.m. to 6:00 p.m. Tuesday, June 15
From 6:00 a.m. to 6:00 p.m. Friday, June 18
From 6:00 a.m. to 6:00 p.m. Monday, June 21
From 6:00 a.m. to 6:00 p.m. Thursday, June 24
From 6:00 a.m. to 6:00 p.m. Sunday, June 27
From 6:00 a.m. to 6:00 p.m. Wednesday, June 30

From 6:00 a.m. to 6:00 p.m. Saturday, July 3
From 6:00 a.m. to 6:00 p.m. Tuesday, July 6
From 6:00 a.m. to 6:00 p.m. Friday, July 9
From 6:00 a.m. to 6:00 p.m. Monday, July 12
From 6:00 a.m. to 6:00 p.m. Thursday, July 15
From 6:00 a.m. to 6:00 p.m. Sunday, July 18
From 6:00 a.m. to 6:00 p.m. Wednesday, July 21
From 6:00 a.m. to 6:00 p.m. Saturday, July 24
From 6:00 a.m. to 6:00 p.m. Tuesday, July 27
From 6:00 a.m. to 6:00 p.m. Friday, July 30

From 6:00 a.m. to 6:00 p.m. Monday, August 2
From 6:00 a.m. to 6:00 p.m. Thursday, August 5
From 6:00 a.m. to 6:00 p.m. Sunday, August 8
From 6:00 a.m. to 6:00 p.m. Wednesday, August 11
From 6:00 a.m. to 6:00 p.m. Saturday, August 14
From 6:00 a.m. to 6:00 p.m. Tuesday, August 17
From 6:00 a.m. to 6:00 p.m. Friday, August 20
From 6:00 a.m. to 6:00 p.m. Monday, August 23
From 6:00 a.m. to 6:00 p.m. Thursday, August 26
From 6:00 a.m. to 6:00 p.m. Sunday, August 29

From 6:00 a.m. to 6:00 p.m. Wednesday, September 1
From 6:00 a.m. to 6:00 p.m. Saturday, September 4
From 6:00 a.m. to 6:00 p.m. Tuesday, September 7
From 6:00 a.m. to 6:00 p.m. Friday, September 10
From 6:00 a.m. to 6:00 p.m. Monday, September 13
From 6:00 a.m. to 6:00 p.m. Thursday, September 16

Beginning 12:01 a.m. Friday, September 17, 2004, the Nakat Inlet SHA will be open to the harvesting of salmon concurrently by drift gillnet, purse seine, and troll gear. The Nakat Inlet SHA will close for the season at 12:00 noon Wednesday, November 10, 2004.

Terminal Area — Eastern Passage [5 AAC 33.373]

The Eastern Passage (Earl West Cove) drift gillnet fishing area includes the waters of Eastern Passage south of 56°24.83' N. latitude and west of 132°06.60' W. longitude. In 2004, no significant returns of chum (1,600) or king salmon are expected to the EWC THA. Salmon that do return will be older, larger fish and are expected to return earlier than previous years peak return timing.

District 7 is open in those waters of Eastern Passage south of 56°24.83' N. latitude and west of 132°06.60' W. longitude for the harvesting of salmon by drift gillnet and purse seine during the following rotational schedule:

Drift Gillnet:

From 12:00 noon Saturday, June 19 to 12:00 noon Sunday, June 20
From 12:00 noon Tuesday, June 22 to 12:00 noon Wednesday, June 23
From 12:00 noon Friday, June 25 to 12:00 noon Saturday, June 26
From 12:00 noon Monday, June 28 to 12:00 noon Tuesday, June 29

From 12:00 noon Thursday, July 1 to 12:00 noon Friday, July 2
From 12:00 noon Sunday, July 4 to 12:00 noon Monday, July 5
From 12:00 noon Wednesday, July 7 to 12:00 noon Thursday, July 8

From 12:01 a.m. to 11:59 p.m. Saturday, July 10
From 12:00 noon Sunday, July 11 to 12:00 noon Monday, July 12
From 12:01 a.m. to 11:59 p.m. Tuesday, July 13
From 12:00 noon Wednesday, July 14 to 12:00 noon Thursday, July 15
From 12:01 a.m. to 11:59 p.m. Friday, July 16
From 12:00 noon Saturday, July 17 to 12:00 noon Sunday, July 18
From 12:01 a.m. to 11:59 p.m. Monday, July 19
From 12:00 noon Tuesday, July 20 to 12:00 noon Wednesday, July 21
From 12:01 a.m. to 11:59 p.m. Thursday, July 22
From 12:00 noon Friday, July 23 to 12:00 noon Saturday, July 24
From 12:01 a.m. to 11:59 p.m. Sunday, July 25
From 12:00 noon Monday, July 26 to 12:00 noon Tuesday, July 27
From 12:01 a.m. to 11:59 p.m. Wednesday, July 28
From 12:00 noon Thursday, July 29 to 12:00 noon Friday, July 30
From 12:01 a.m. to 11:59 p.m. Saturday, July 31

From 12:00 noon Sunday, August 1 to 12:00 noon Monday, August 2

From 12:01 a.m. to 11:59 p.m. Tuesday, August 3
From 12:00 noon Wednesday, August 4 to 12:00 noon Thursday, August 5
From 12:01 a.m. to 11:59 p.m. Friday, August 6
From 12:00 noon Saturday, August 7 to 12:00 noon Sunday, August 8
From 12:01 a.m. to 11:59 p.m. Monday, August 9
From 12:00 noon Tuesday, August 10 to 12:00 noon Wednesday, August 11
From 12:01 a.m. to 11:59 p.m. Thursday, August 12
From 12:00 noon Friday, August 13 to 12:00 noon Saturday, August 14
From 12:01 a.m. to 11:59 p.m. Sunday, August 15
From 12:00 noon Monday, August 16 to 12:00 noon Tuesday, August 17
From 12:01 a.m. to 11:59 p.m. Wednesday, August 18
From 12:00 noon Thursday, August 19 to 12:00 noon Friday, August 20
From 12:01 a.m. to 11:59 p.m. Saturday, August 21
From 12:00 noon Sunday, August 22 to 12:00 noon Monday, August 23
From 12:01 a.m. to 11:59 p.m. Tuesday, August 24
From 12:00 noon Wednesday, August 25 to 12:00 noon Thursday, August 26
From 12:01 a.m. to 11:59 p.m. Friday, August 27
From 12:00 noon Saturday, August 28 to 12:00 noon Sunday, August 29
From 12:01 a.m. to 11:59 p.m. Monday, August 30
From 12:00 noon Tuesday, August 31 to 12:00 noon Wednesday, September 1

From 12:00 noon Friday, September 3 to 12:00 noon Saturday, September 4
From 12:00 noon Monday, September 6 to 12:00 noon Tuesday, September 7
From 12:00 noon Thursday, September 9 to 12:00 noon Friday, September 10
From 12:00 noon Sunday, September 12 to 12:00 noon Monday, September 13
From 12:00 noon Wednesday, September 15 to 12:00 noon Thursday, September 16
From 12:00 noon Saturday, September 18 to 12:00 noon Sunday, September 19
From 12:00 noon Tuesday, September 21 to 12:00 noon Wednesday, September 22
From 12:00 noon Friday, September 24 to 12:00 noon Saturday, September 25
From 12:00 noon Monday, September 27 to 12:00 noon Tuesday, September 28
From 12:00 noon Thursday, September 30 to 12:00 noon Friday, October 1
From 12:00 noon Sunday, October 3 to 12:00 noon Monday, October 4
From 12:00 noon Wednesday, October 6 to 12:00 noon Thursday, October 7
From 12:00 noon Saturday, October 9 to 12:00 noon Sunday, October 10

Purse Seine:

From 6:00 a.m. to 6:00 p.m. Monday, June 21
From 6:00 a.m. to 6:00 p.m. Thursday, June 24
From 6:00 a.m. to 6:00 p.m. Sunday, June 27
From 6:00 a.m. to 6:00 p.m. Wednesday, June 30
From 6:00 a.m. to 6:00 p.m. Saturday, July 3
From 6:00 a.m. to 6:00 p.m. Tuesday, July 6
From 6:00 a.m. to 6:00 p.m. Friday, July 9

From 12:01 a.m. to 12:00 noon Sunday, July 11
From 12:00 noon to 11:59 p.m. Monday, July 12
From 12:01 a.m. to 12:00 noon Wednesday, July 14
From 12:00 noon to 11:59 p.m. Thursday, July 15
From 12:01 a.m. to 12:00 noon Saturday, July 17
From 12:00 noon to 11:59 p.m. Sunday, July 18
From 12:01 a.m. to 12:00 noon Tuesday, July 20
From 12:00 noon to 11:59 p.m. Wednesday, July 21
From 12:01 a.m. to 12:00 noon Friday, July 23
From 12:00 noon to 11:59 p.m. Saturday, July 24
From 12:01 a.m. to 12:00 noon Monday, July 26
From 12:00 noon to 11:59 p.m. Tuesday, July 27
From 12:01 a.m. to 12:00 noon Thursday, July 29
From 12:00 noon to 11:59 p.m. Friday, July 30

From 12:01 a.m. to 12:00 noon Sunday, August 1
From 12:00 noon to 11:59 p.m. Monday, August 2
From 12:01 a.m. to 12:00 noon Wednesday, August 4
From 12:00 noon to 11:59 p.m. Thursday, August 5
From 12:01 a.m. to 12:00 noon Saturday, August 7
From 12:00 noon to 11:59 p.m. Sunday, August 8
From 12:01 a.m. to 12:00 noon Tuesday, August 10
From 12:00 noon to 11:59 p.m. Wednesday, August 11
From 12:01 a.m. to 12:00 noon Friday, August 13
From 12:00 noon to 11:59 p.m. Saturday, August 14
From 12:01 a.m. to 12:00 noon Monday, August 16
From 12:00 noon to 11:59 p.m. Tuesday, August 17
From 12:01 a.m. to 12:00 noon Thursday, August 19
From 12:00 noon to 11:59 p.m. Friday, August 20
From 12:01 a.m. to 12:00 noon Sunday, August 22
From 12:00 noon to 11:59 p.m. Monday, August 23
From 12:01 a.m. to 12:00 noon Wednesday, August 25
From 12:00 noon to 11:59 p.m. Thursday, August 26
From 12:01 a.m. to 12:00 noon Saturday, August 28
From 12:00 noon to 11:59 p.m. Sunday, August 29
From 12:01 a.m. to 12:00 noon Tuesday, August 31

From 6:00 a.m. to 6:00 p.m. Thursday, September 2
From 6:00 a.m. to 6:00 p.m. Sunday, September 5
From 6:00 a.m. to 6:00 p.m. Wednesday, September 8
From 6:00 a.m. to 6:00 p.m. Saturday, September 11
From 6:00 a.m. to 6:00 p.m. Tuesday, September 14
From 6:00 a.m. to 6:00 p.m. Friday, September 17
From 6:00 a.m. to 6:00 p.m. Monday, September 20
From 6:00 a.m. to 6:00 p.m. Thursday, September 23

From 6:00 a.m. to 6:00 p.m. Sunday, September 26
From 6:00 a.m. to 6:00 p.m. Wednesday, September 29
From 6:00 a.m. to 6:00 p.m. Saturday, October 2
From 6:00 a.m. to 6:00 p.m. Tuesday, October 5
From 6:00 a.m. to 6:00 p.m. Friday, October 8
From 6:00 a.m. to 6:00 p.m. Monday, October 11

Beginning 12:01 a.m. Tuesday, October 12, 2004, the Earl West Cove SHA will be open to the harvesting of salmon concurrently by drift gillnet, purse seine and troll gear. The Earl West Cove SHA will close for the season at 12:00 noon Wednesday, November 10, 2004.

Terminal Area — Wrangell Narrows-Blind Slough [5 AAC 33.381]

In the Wrangell Narrows (District 6) terminal area, the preliminary projected king salmon return is fewer than 4,000 adults to the terminal area. Under provisions of the Wrangell Narrows-Blind Slough Terminal Harvest Area Management Plan if the return is less than 4,000 king salmon no fish will be available for commercial troll catch in the terminal area. No terminal gillnet fishery will occur.

The total Crystal Lake Hatchery coho salmon return is expected to be 3,500 fish; of that, an estimated 2,500 fish will be available for sport and commercial harvest in the Wrangell Narrows-Blind Slough area. No commercial gillnet fishery is expected on these fish.

Terminal Area — Anita Bay [5 AAC 33.383]

The Anita Bay terminal area consists of the waters of Anita Bay west of a line between 56°12.35' N. latitude, 132°27.10' W. longitude, and 56°11.30' N. latitude, 132°26.22' W. longitude. In 2004, approximately 120,000 chum, 6,000 king and 20,000 coho salmon are expected to be returning in total. It is anticipated that approximately 70,800 chum, 1,000 king and 2,000 coho will return to the terminal area and be available for harvesting in the rotational fisheries.

District 7, in those waters of Anita Bay west of 132°24.40" W. longitude is open to the harvesting of salmon by drift gillnet and purse seine during the following rotational schedule:

Drift Gillnet:

From 12:00 noon Saturday, June 19 to 12:00 noon Monday, June 21
From 12:00 noon Thursday, June 24 to 12:00 noon Saturday, June 26
From 12:00 noon Tuesday, June 29 to 12:00 noon Thursday, July 1

From 12:00 noon Sunday, July 4 to 12:00 noon Tuesday, July 6
From 12:00 noon Friday, July 9 to 12:00 noon Sunday, July 11
From 12:00 noon Wednesday, July 14 to 12:00 noon Friday, July 16

From 12:00 noon Monday, July 19 to 12:00 noon Wednesday, July 21
From 12:00 noon Saturday, July 24 to 12:00 noon Monday, July 26
From 12:00 noon Thursday, July 29 to 12:00 noon Saturday, July 31

From 12:00 noon Tuesday, August 3 to 12:00 noon Thursday, August 5
From 12:00 noon Sunday, August 8 to 12:00 noon Tuesday, August 10
From 12:00 noon Friday, August 13 to 12:00 noon Sunday, August 15
From 12:00 noon Wednesday, August 18 to 12:00 noon Friday, August 20
From 12:00 noon Monday, August 23 to 12:00 noon Wednesday, August 25
From 12:00 noon Saturday, August 28 to 12:00 noon Monday, August 30

From 12:00 noon Thursday, September 2 to 12:00 noon Saturday, September 4
From 12:00 noon Tuesday, September 7 to 12:00 noon Thursday, September 9
From 12:00 noon Sunday, September 12 to 12:00 noon Tuesday, September 14
From 12:00 noon Friday, September 17 to 12:00 noon Sunday, September 19
From 12:00 noon Wednesday, September 22 to 12:00 noon Friday, September 24
From 12:00 noon Monday, September 27 to 12:00 noon Wednesday, September 29

From 12:00 noon Saturday, October 2 to 12:00 noon Monday, October 4
From 12:00 noon Thursday, October 7 to 12:00 noon Saturday, October 9

Purse Seine:

From 12:00 noon Tuesday, June 22 to 12:00 noon Wednesday, June 23
From 12:00 noon Sunday, June 27 to 12:00 noon Monday, June 28

From 12:00 noon Friday, July 2 to 12:00 noon Saturday, July 3
From 12:00 noon Wednesday, July 7 to 12:00 noon Thursday, July 8
From 12:00 noon Monday, July 12 to 12:00 noon Tuesday, July 13
From 12:00 noon Saturday, July 17 to 12:00 noon Sunday, July 18
From 12:00 noon Thursday, July 22 to 12:00 noon Friday, July 23
From 12:00 noon Tuesday, July 27 to 12:00 noon Wednesday, July 28

From 12:00 noon Sunday, August 1 to 12:00 noon Monday, August 2
From 12:00 noon Friday, August 6 to 12:00 noon Saturday, August 7
From 12:00 noon Wednesday, August 11 to 12:00 noon Thursday, August 12
From 12:00 noon Monday, August 16 to 12:00 noon Tuesday, August 17
From 12:00 noon Saturday, August 21 to 12:00 noon Sunday, August 22
From 12:00 noon Thursday, August 26 to 12:00 noon Friday, August 27
From 12:00 noon Tuesday, August 31 to 12:00 noon Wednesday, September 1

From 12:00 noon Sunday, September 5 to 12:00 noon Monday, September 6
From 12:00 noon Friday, September 10 to 12:00 noon Saturday, September 11
From 12:00 noon Wednesday, September 15 to 12:00 noon Thursday, September 16
From 12:00 noon Monday, September 20 to 12:00 noon Tuesday, September 21

From 12:00 noon Saturday, September 25 to 12:00 noon Sunday, September 26
From 12:00 noon Thursday, September 30 to 12:00 noon Friday, October 1

From 12:00 noon Tuesday, October 5 to 12:00 noon Wednesday, October 6
From 12:00 noon Sunday, October 10 to 12:00 noon Monday, October 11

(d)(3) Beginning 12:01 a.m. Tuesday, October 12, 2004, the Anita Bay SHA will be open to the harvesting of salmon concurrently by drift gillnet, purse seine and troll gear. The Anita Bay SHA will close for the season at 12:00 noon Wednesday, November 10, 2004.

Table 5. Expected Returns to SSRAA enhancement projects by release location

Species, Run	Release Location	Common property Harvest	Other ¹	Total Return
Coho	Herring Cove	20,000	4,000	24,000
Coho	Nakat Inlet	21,000	1,000	22,000
Coho	Anita Bay	18,000	2,000	20,000
Coho	Neets Bay	180,000	120,000	300,000
Summer Coho	Burnett Inlet	10,000	15,000	25,000
Summer Coho	Neck Lake	60,000	60,000	120,000
King	Whitman Lake	8,000	9,000	17,000
King	Anita Bay	5,000	1,000	6,000
King	Neets Bay	6,000	8,000	14,000
Summer Chum	Neets Bay	351,000	844,000	1,195,000
Summer Chum	Anita Bay	140,000	60,000	200,000
Summer Chum	Earl West Cove	5,000	12,000	17,000
Summer Chum	Kendrick Bay	45,000	5,000	50,000
Summer Chum	Nakat Inlet	60,000	90,000	150,000
Fall Chum	Nakat Inlet	80,000	20,000	100,000
Fall Chum	Neets Bay	50,000	350,000	400,000
Sockeye	Neck Creek	14,000	21,000	35,000
Sockeye	Hugh Smith Lake	20,000	12,000	32,000
Sockeye	McDonald Lake	56,500	56,500	113,000

NORTHERN DISTRICTS PURSE SEINE FISHERY

2004 Pink Salmon Returns

Pink salmon escapement goals were met in the 2002 parent-year in Districts 9 through 13 but not in District 14. Excluding District 14, the department expects good returns from the good parent year escapements observed in all of the northern districts.

Management Problems

As with southern Southeast seine areas, implementation of the new management strategy will pose the most significant management problems in 2004. Uncertainties about fleet size and distribution and the department's reaction to those can only be answered in season. The department and the

fishing industry will have to be flexible and be able to react quickly in season to changes from historical fishing patterns. Above all, meeting escapement goals will continue to be the number-one objective of the department. Within that conservation mandate, the department will attempt to meet the fundamental objective of the modified fishing strategy that is to provide a more stable supply of fresher fish.

With no specific northern Southeast Alaska pink salmon return prediction, it will be necessary to assess the overall run strength of the return early in the season. Another early-season management concern will be to prevent excessive interception of weak salmon stocks in mixed stock fishing corridors (e.g., Icy Strait and west Admiralty) until run strengths to near-terminal and terminal areas can be adequately assessed.

Management Plan

The northern Southeast Alaska purse seine fishery management plan consists of separate segments for the outside areas (Sections 13-A and 13-B), the inside areas, the fall chum salmon fishery, and the Hidden Falls and Deep Inlet Hatchery terminal fisheries.

Inside Fishing Areas

The 2004 seining season will begin on Sunday, June 20, with initial open periods of 15 hours to harvest expected surplus summer chum and early pink salmon returns. During the first open period, seining will be allowed in portions of District 12 in Tenakee Inlet and Point Augusta in Chatham Strait; the opening will be in conjunction with the first opening at the Hidden Falls Terminal Harvest Area. The Point Augusta line will be changed from 1/3 mile to 1/2 mile offshore as agreed during the 2003 Purse Seine Task Force Meeting in Sitka. Very few pink salmon have been harvested in District 10 and Section 13-C during previous early-June openings so the first openings in these areas will occur on Sunday, June 27.

Escapements of summer chum salmon in Tenakee Inlet were near or above the most recent 10 and 20-year averages in the 1999-2001 parent years. For example, the 1999 chum salmon escapement index for Tenakee Inlet was 121,000 fish that compares to a 1983 to 2003 average of 85,000 fish and a recent 10-year average of 146,000 fish. The 2000 Tenakee Inlet chum salmon escapement index was above average at 159,000 fish while the 2001 index was well below average at only 31,000 fish. The 2002 parent year pink salmon escapement index for Tenakee Inlet of 602,000 fish was above the upper management goal of 370,000 pink salmon and ranks as the 5th largest escapement for this area since statehood. An aggressive early season fishing schedule for Tenakee Inlet can be expected. The upper portion of Tenakee Inlet may be opened and fishing will continue as long as escapement continues to build adequately. Portions of the Basket Bay shoreline may also be opened to harvest pink salmon returns to Tenakee Inlet and Peril Strait if escapements to local streams are adequate.

Parent year pink escapements were strong in Peril Straits and Hoonah Sound and parent year chum escapements were at record levels since statehood. Beginning June 27, portions of Section 13-C will be open to harvest surplus salmon and to assess run strength of pink and chum salmon returning to Hoonah Sound streams. Further openings in 13-C will be determined in season based on catch and observations of escapement. In the event that chum salmon returns provide for sufficient escapement, then the department may adjust open area in the associated bays for limited times to provide for harvest opportunities. In mid-July, the west boundary of the fishing area in Peril Strait may be moved towards Chatham Strait to improve the quality of the harvest and to ensure pink salmon escapement for Hoonah Sound and Peril Strait streams is obtained. Portions of Section 13-C, west of the Duffield Peninsula, and Section 13-A in lower Peril Strait, may remain open to provide fishing opportunity on pink salmon migrating through Salisbury Sound and western Peril Strait to Hoonah Sound streams.

The total District 10 parent-year bias adjusted escapement index for District 10 was 1.16 million pink salmon; within the escapement goal range of 650,000 to 1.45 million fish. Escapements were uniformly excellent throughout the district. Parent-year escapements were 18% below the 10-year average in Seymour Canal (Section 11-D). If Seymour Canal runs develop adequately in 2004, openings to access these fish may be allowed along the Big Bend shoreline in District 10 and in lower Seymour Canal. It is anticipated that the portion of District 10 south of Gambier Island Light will open no later than July 11. The 1999 - 2000 chum salmon escapement indices for Southwest Admiralty chum salmon systems (primarily in Hood and Chaik bays) were well above average while the 2001 index was slightly below average for these systems. The department will monitor summer chum salmon escapements to these systems and open targeted seine fisheries for chum salmon as appropriate.

Subsequent seining for early-run pink salmon returns will be based upon aerial survey and fishery performance assessments of run strength. Aerial surveys to evaluate run strength will begin in late June for the northern inside fishing districts. Catch rates in the Cross Sound troll fishery and incidental catches of pink salmon at the Hidden Falls Hatchery terminal fishery during the first three-weeks of the season will also be monitored as indicators of pink salmon run strength. The department will open a one-mile section of shoreline by Point Augusta in District 12 in conjunction with other weekly openings to provide an additional assessment of incoming run strength of early-run pink salmon. The Point Augusta shoreline will be open ½ mile offshore and will be included in mid-week openings early in the season to obtain additional stock strength information. Test fishing will be conducted at Point Gardner starting in late June and Kingsmill Point starting in early July to assess the strength and timing of the pink salmon returns entering Frederick Sound. Test fishing will also occur along the Hawk Inlet Shoreline beginning June 25 to assess the strength of pink salmon returns entering the northern inside waters of Districts 11 and 15.

Seining in District 12 along the west Admiralty Island shoreline may expand in mid-to-late July depending on the observed run strength of middle-run pink salmon stocks in District 10 and 11 and continue as long as Chatham escapements develop satisfactorily. Parent year pink salmon escapements were well above average in streams on the northern Chatham Strait shoreline of Chichagof Island and in streams along the southwest Admiralty Island shoreline. The west

Admiralty shoreline (north of Angoon) had very poor pink salmon escapements. Openings along these shorelines will depend on developing returns of local stocks as well as Peril Strait and Tenakee stocks. Fishing may begin in this area in late July depending on the observed run strength.

Pink salmon escapements in District 14 were very poor in 2002. The pink salmon escapement index of 194,000 fish was less than half of the most recent 10-year average of 419,000 fish and well below the lower escapement goal of 330,000 fish. Given these poor escapements, the department does not anticipate openings along the Whitestone shoreline area in District 14 however; the department will monitor escapements of the pink salmon stocks in this area and could open this shoreline should pink salmon returns be stronger than anticipated. The department will also monitor pink salmon escapements in streams adjacent to Porpoise Islands along Homeshore and will consider seine openings in this was to harvest pink salmon surplus to escapement needs.

Middle-run pink salmon returns should begin entering the inside waters of the northern districts during July. Seining is expected to begin in District 9 during mid-July near Red Bluff Bay in Section 9-A, in late-July along the Admiralty Island shore in Section 9-B, and in early August in Section 9-A near Little Port Walter north of Armstrong Point. Parent year escapements of pink salmon in Section 9-A were somewhat below average in lower portions of the Section, but above average in Red Bluff Bay. In order to provide for escapement needs as well as subsistence uses at Falls Lake, the department will closely monitor subsistence harvest of sockeye and escapements at the Falls Lake weir. If necessary, an area closure will be implemented in the Falls Lake vicinity immediately south of Red Bluff Bay. If pink salmon escapements are sufficient into Red Bluff Bay, short openings inside of the bay may occur to harvest pink salmon surplus to escapements. Parent year escapements of pink salmon were uniformly excellent in Section 9-B. Openings in District 12 along the Catherine Island shoreline and in portions of Kelp Bay may occur from middle July to early August, to harvest surplus pink salmon returning to Kelp Bay or to harvest surplus chum returning to the Hidden Falls hatchery if wild chum and pink salmon escapements are being met. Parent year escapements to Kelp Bay were below average. When run strengths are strong enough to warrant additional fishing time, the fisheries will go from 15 and 39 hour openings to 2-on/2-off, or more continuous openings. Every effort will be made to begin more continuous openings as soon as possible in District 9 to give industry maximum flexibility for harvesting large returns.

Late-run pink salmon returns should begin entering the inside waters of the northern districts in August. The fishing regime will probably shift to a 2-on/2-off fishing pattern for some limited time unless it becomes obvious to the department that due to the size and distribution of the purse seine fleet that the 4-on/1-off can be implemented before any 2-on/2-off fishing periods. Based on the preseason forecast and historical run timing the department anticipates this will occur in early August. Until that time the purse seine fishery will be managed similarly to previous years.

Hawk Inlet Shore Fishery

The Admiralty Island shoreline between Funter Bay and Point Marsden in Chatham Strait is known as the Hawk Inlet shoreline. Purse seine fishing is allowed in this area to harvest pink salmon stocks migrating northward to Taku River, Lynn Canal, and upper Stephens Passage. During July, the department will manage the Hawk Inlet Shore fishery in accordance with the Northern Southeast Seine Fishery Management Plan (5 AAC 33.366). This plan stipulates that any portion of the area north of Point Marsden may be opened when a harvestable surplus of pink salmon is observed. Openings must also consider the conservation of all species, and the area must be closed in July after 15,000 sockeye salmon have been harvested.

During August, openings along the Hawk Inlet shore may extend northward to the latitude of Hanus Reef Light if north-migrating pink salmon stocks remain strong. If north-migrating salmon returns are poor and south-migrating stocks are strong, seining will be allowed only south of Point Marsden.

Pink salmon escapements in northern inside areas were below average in 2002 but within escapement goal ranges. Openings along the Hawk Inlet shore north of Point Marsden will be based on the observed run strength of north-migrating stocks of pink salmon. The assessment methods used by the department to determine if run strengths are adequate and a harvestable surplus of pink salmon is available for harvest will include:

1. Parent year escapements of pink salmon stocks in the Taku River, Stephens Passage, and Lynn Canal.
2. Inseason forecasts of pink salmon run size from the “Icy Strait troll index” program.
3. Test fishing at designated locations along the Admiralty Island shoreline north of Point Marsden.
4. Aerial assessments of pink salmon abundance along the Admiralty Island Shoreline north of Point Marsden.
5. Pink salmon catches in the department’s Taku River fish wheels.
6. Pink salmon marine sport fish catch rates in the Juneau area (lower Lynn Canal and upper Stephens Passage).
7. Fishery performance of District 11 and District 15 drift gillnet fisheries.

In 2003, the Alaska Board of Fisheries adopted a department proposal codifying the sockeye salmon reporting requirements for the Hawk Inlet shoreline fishery. The provisions of that proposal encapsulated the agreement reached between net gear groups during the January 1994 meeting in Ketchikan. The regulation is summarized below:

“All sockeye salmon harvested by any seine boat the department identifies as fishing north of Point Marsden during any July fishing period when other nearby areas (i.e., Point Marsden to Point Hepburn, Whitestone Shore, or the Point Augusta Test Fishery) are open concurrently, will be counted against the 15,000 sockeye salmon quota for the Hawk Inlet fishery north of Point Marsden. During the openings, the department will utilize fishery

overflights, on-the-grounds sampling, and interviews to estimate the sockeye salmon harvest north of Point Marsden.”

The purpose of this change was to provide the department with more flexibility to open areas adjacent to the Hawk Inlet shore fishery (e.g., south of Point Marsden, Point Augusta, and Whitestone Shore) when pink salmon run strength warrants.

Hidden Falls Terminal Hatchery Fishery

The Hidden Falls Hatchery, operated by the Northern Southeast Regional Aquaculture Association (NSRAA), expects a return of approximately 2,500,000 chum salmon in 2004. Of this total return, approximately 1,787,000 will be available for the common property harvest after allowing 593,000 for cost recovery and 120,000 for broodstock requirements. In 2004, cost recovery will be managed by NSRAA to harvest 4,740,000 pounds, and the goal in numbers of fish will be adjusted as needed to achieve the goal in pounds. The initial Hidden Falls opening for the 2004 season is scheduled for June 20. As usual, seiners are advised that openings at Hidden Falls during the 2004 season may be announced with a minimum 24-hour notice if necessary in order to maximize fish quality. In the event that a large abundance of chum salmon develops early, the Hidden Falls Terminal Harvest Area may open prior to June 20. NSRAA has scheduled cost recovery fishing daily from June 21 through June 26. A mid-week opening on Thursday, June 24 is considered unlikely at this time. Decisions to provide for mid-week openings will depend on both run strength and progress toward cost recovery goals. This year, on news releases announcing fishery openings, the department will coordinate with NSRAA to provide updates including: any changes in the seasonal cost recovery goal, progress made toward reaching the cost recovery goal, and other pertinent information such as average weights or sex ratios.

The Hidden Falls Hatchery Terminal Harvest Area Management Plan (5 AAC 33.374) provides guidelines for allocation of hatchery produced chum and king salmon in the Hidden Falls THA. The management plan sets forth different management approaches through June 30 and beginning July 1. Until July 1, if management actions are necessary to close the purse seine and troll fisheries to chum salmon harvest to achieve broodstock and cost recovery goals, then troll retention of chum in the THA is prohibited. Troll non-retention of chum salmon would occur in June in the event that there is no purse seine fishery on either June 20 or June 27. Also, provided that some trollers are present, in order to allow increased troll access to king salmon, Kasnyku Bay will be closed to purse seining in June west of a line from North Point to the westernmost tip of Round Island and north of the latitude of the westernmost tip of Round Island. Beginning July 1, areas within the THA may be closed to protect chum or king broodstock, and the department shall manage so that the troll harvest of chum salmon may not exceed the king salmon harvest.

The Hidden Falls terminal harvest area will include the waters of Chatham Strait, Kasnyku Bay, and Takatz Bay, within two nautical miles of the Baranof Island shoreline south of a range marker at South Point, and north of a range marker located at 57°06.83' N. latitude (½ mile south of Takatz Bay). The boundaries may be extended north to include Kelp Bay and the Catherine Island shoreline if chum salmon escapements to Kelp Bay streams are being met. Parent year chum

escapements into Kelp Bay systems were good. The southern boundary may be expanded south to the District 12 boundary near Cascade Bay if the overall strength of pink salmon returns are sufficient to meet escapements in the area and provided that eastern Baranof Island sockeye salmon escapements and subsistence uses are being met. Any boundary expansions will be determined based on inseason observations of run strength.

Deep Inlet Terminal Hatchery Fishery

The terminal hatchery fishery at Deep Inlet will be managed jointly with NSRAA and according to Board of Fisheries management plans. The open seine and gillnet fishing times and any modifications of the terminal fishing area will be announced by ADF&G news releases prior to, and during, the fishing season.

Terminal Area – Deep Inlet [5 AAC 33.376]

NSRAA expects a return of 1,800,000 chum salmon to the Deep Inlet remote release site and the Medvejie Hatchery in 2004. Cost recovery and broodstock goals for the Deep Inlet returns are 427,000 fish and 50,000 fish respectively, allowing for a common property harvest of approximately 1,323,000 chum salmon by purse seine, drift gillnet, and troll gear. This year NSRAA is awarding two separate cost recovery contracts for Deep Inlet based a total harvest of 3.4 million pounds. Actual numbers of chum salmon harvested for cost recovery will be adjusted to achieve this total weight. The majority of the common property harvest can be expected to occur in the Deep Inlet THA by drift gillnet and purse seine gear, but some harvest is likely outside the THA by troll and purse seine gear as well.

The NSRAA board has requested that the common property rotational fishery occur in June in order to provide for additional common property harvest of king salmon returning to the Medvejie Hatchery along with early chum salmon returns to Deep Inlet. THA rotational gear fisheries are scheduled to begin on Sunday, May 30 and throughout June with four days of gillnet and two days of seine per week. June fisheries are contingent on adequate NSRAA and department staffing to sample king salmon for coded wire tags in order to document the percentage of Alaska hatchery king salmon in the catch so those fish do not count against the region-wide drift gillnet king salmon allocation of 7,600 fish or the purse seine allocation of 4.3% of the Treaty harvest ceiling.

The NSRAA board decided at their March meeting in Sitka that, as during the 2003 season, THA openings in July would be reduced and area within Deep Inlet would be closed in order to help achieve the season's cost recovery goal, and to reach 50% of the cost recovery goal by August 1. NSRAA plans to begin cost recovery fishing in late June or during the first week of July. The THA rotational schedule will change to two days of seine and four days of gillnet, once NSRAA has reached or is close to reaching the cost recovery goal for the season. The change in schedule is expected to occur sometime during the mid-August period of peak returns. The NSRAA board has directed NSRAA staff to manage cost recovery fishing in-season in order to achieve the cost

recovery goal. A portion of Deep Inlet south of 56°58.50' N. latitude would be closed beginning in July and until cost recovery goals can be met. If necessary, the THA rotational gear fisheries may be fully closed in order to achieve the cost recovery goal.

The following rotational fishing schedule will be in effect for the 2004 season:

May 30 – June 29

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Seine	Gillnet	Gillnet	Seine/Troll*	Seine/Troll*	Gillnet	Gillnet

*Seine and Troll gear alternates between Wednesday and Thursday.

From Sunday, July 4 until cost recovery goals are met:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Seine	CR/Troll	CR/Troll	Gillnet	Gillnet	CR/Troll	CR/Troll

After cost recovery goals are met until the end of the season:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Seine	Gillnet	Gillnet	Seine/Troll*	Seine/Troll*	Gillnet	Gillnet

*Seine and Troll gear alternates between Wednesday and Thursday.

The schedule indicated above is subject to in-season adjustments to ensure that NSRAA cost recovery remains on schedule and the seasonal cost recovery goal is achieved. A detailed initial schedule for common property harvest in the THA will be published in a news release at the outset of the season. When changes are necessary the revised schedule will be issued in a subsequent news release.

Cost recovery management is planned such that NSRAA may conduct cost recovery in the Deep Inlet Special Harvest area and in the Silver Bay Special Harvest Area. The Silver Bay Special Harvest area is expanded including most of Silver Bay and Eastern Channel east of a line from Makhnati Island to Sentinel Rock to Cape Burunof through July 23 and after the troll coho salmon closure in August. The Silver Bay SHA is reduced in area to Eastern Channel and Silver Bay east of Galankin Island to Silver Point from July 24 through the August troll closure.

The Deep Inlet THA fishery will be managed jointly with NSRAA, and in accordance with the Deep Inlet Terminal Harvest Management Plan (5 AAC 33.376). The plan provides for the distribution of the harvest of hatchery-produced salmon between the purse seine and drift gillnet fleets. The ratio of gillnet fishing time to purse seine fishing time will be 2:1. Additionally, the Board of Fisheries has allowed trolling to occur when net fisheries are closed and when trolling does not interfere with cost recovery.

The terminal harvest area during the 2004 season will be as follows:

Deep Inlet THA: Deep Inlet, Aleutkina Bay, and contiguous waters south of a line from a point west of Pirates Cove at 135°22.63' W. longitude, 56°59.35' N. latitude to the westernmost tip of Long Island to the easternmost tip of Long Island to the westernmost

tip of Emgeten Island to the westernmost tip of Error Island to the westernmost tip of Berry Island to the southernmost tip of Berry Island to the westernmost tip of the southernmost island in the Kutchuma Island group to the easternmost tip of the southernmost island in the Kutchuma Island group to the westernmost tip of an unnamed island at 135°17.67' W. longitude, 57°00.30' N. latitude to a point on the southern side of the unnamed island at 135°16.78' W. longitude, 57°00.08' N. latitude and then to a point on the Baranof Island Shore at 135°16.53' W. longitude 56°59.93' N. latitude with the following restrictions: all waters of Sandy Cove and Leesofskaia Bay will be closed.

From June 30 and until cost recovery goals are assured of being met, portions of Deep Inlet south of 56°58.50' N. latitude will be closed to provide an area for cost recovery.

During the 2004 season, the boundaries of the Deep Inlet THA may be changed by NSRAA and the department to help resolve conflicts between fishers and local private landowners in the area if they occur. Conflicts can be avoided by reducing boat wakes in areas near private docks, by reducing excessive noise and lights prior to openings, and by anchoring well away from private residences.

In order to promote full utilization of salmon, to prevent waste of salmon, to determine harvest patterns of incidentally harvested coho and sockeye salmon, and to allow full and accurate reporting of returns, the Deep Inlet THA fishery will be managed in 2004 by emergency order under authority of 5 AAC 39.265 FULL RETENTION AND UTILIZATION OF SALMON. This requires that all salmon harvested in net fisheries are retained, utilized, and reported on fish tickets whether they are sold or retained for personal use.

In early September, the Deep Inlet THA boundaries may be adjusted by the department to reduce interception of wild coho salmon returning to Salmon Lake or hatchery coho salmon returning to Medvejie Hatchery needed for broodstock. THA boundary adjustments to protect coho salmon will be based on historic run timing and inseason observations of abundance. Since voluntary compliance with reporting of coho salmon in the Deep Inlet Terminal Harvest Area fishery has in the past been poor and the department needs detailed information on coho and sockeye salmon harvest patterns, personnel from the department or FWP may board some vessels and conduct hold inspections to ensure compliance as well as to sample marked coho for coded wire tags.

Gunnuk Creek Hatchery Returns

Chum salmon returns to Gunnuk Creek Hatchery at Kake and Southeast Cove on northeast Kuiu Island in Kuiu Strait are forecast to be significantly larger than any previous return. These returns occur primarily in July and are taken incidentally in seine fisheries in Chatham Strait and western Frederick Sound during that time period. A total return of 1.73 million chum salmon is expected. This would be highest return ever, slightly higher than the 2003 return of where 1.2 million fish were harvested in the terminal area.

Fall Chum Salmon Fisheries

Portions of northern Southeast Alaska support returns of fall-run chum salmon that are harvested by purse seine gear. Fishing opportunities are not expected in Port Camden due to lower than normal escapement during the parent year. Fishing in Security Bay usually occurs the first week in September if the observed run strength is good. Escapements in Security Bay were very good in the 1999 and 2000 parent years. Limited fishing opportunities in Excursion Inlet may occur in late August or early September. Parent year escapements to Excursion Inlet were slightly below average in 1999, and slightly above average in 2000 and 2001. Targeted fall chum openings may occur in Nakwasina Sound, however opportunities are most often concurrent with pink salmon fisheries in Sitka Sound. Fall chum fisheries will be managed on the basis of observations of run strengths in the bays beginning in mid-August and continuing through September.

Outside Fishing Areas (Sections 13-A and 13-B)

Management of Sections 13-A and 13-B, along the outer coasts of Baranof and Chichagof Islands, is distinct from the management of the northern inside areas. Salmon returning to these areas enter directly from the ocean and do not pass through major inside migration corridors. In Section 13-A parent-year pink salmon escapements to northern outside areas were strong in Portlock Harbor, and Slocum Arm, and Salisbury Sound. Escapements to Lisianski Inlet were notably strong for even-year returns. In Section 13-B parent year pink salmon escapements in Sitka Sound, West Crawfish and Whale Bay were strong-excellent. Pink salmon seine fisheries can be expected in these all of these areas depending on inseason observations of escapement. Seining for pink salmon returning to Lisianski Inlet, Salisbury Sound, and Hoonah Sound streams could begin in mid-July, and in late July in other outside water areas.

Summer chum salmon returns will be monitored to determine run strengths beginning in early July. If harvestable surpluses can be identified, seiners may expect portions of Sections 13-A and 13-B to be open by mid-July. Openings are possible in Whale Bay, West Crawfish Inlet, Slocum Arm, and Portlock Harbor.

Short purse seine openings to harvest sockeye salmon along the outer coast of Baranof Island may occur from in early July to target fish returning to Necker Bay, and in early August to target returns to Redfish Bay. Openings will be dependent on inseason observations of run strength and a cautious approach to ensure that escapement needs and subsistence fishery needs are met. At purse seine task force meetings in Sitka the department has agreed to opening Necker Bay somewhat earlier than usual due to the short term availability of returns passing through outer portions of the Bay. Targeted sockeye openings are also a possibility at Redoubt Bay between July 15 and August 31 provided that the inseason forecast by the department indicates that an escapement greater than 40,000 will occur.

A modified fishing regime may be implemented in early to middle August of 2004 provided that regional pink salmon returns to Southeastern Alaska develop as expected. The fishing regime will probably change into a 2-on/2-off fishing pattern for a limited amount of time unless it becomes

obvious to the department that due to the size and distribution of the purse seine fleet that the 4-on/1-off can be implemented before any 2-on/2-off fishing periods. Depending on fleet size, fishing patterns, catch rates, and escapements, this pattern may continue or be modified as the season progresses. Fishing patterns in southern Sitka Sound will likely be scheduled as alternating 2-on/3-off and 3-on/2-off to prevent changes in the allocation of enhanced chum salmon returning to the Deep Inlet THA that are also targeted by the other gear groups, yet will maintain the historic 50% seine fishing opportunity. Also, due to the expected concentration of effort targeting enhanced chum salmon in the Sitka Sound area, the 2-on/2-off fishing pattern has been shown to provide for a good distribution and amount of escapement at most run sizes. Continuous fishing opportunities can be provided in the general Sitka area and in northern Sitka Sound by scheduling openings of nearby areas including Salisbury Sound, Whale Bay, and West Crawfish during those days when portions of Sitka Sound are closed. More continuous fishing patterns will be considered as inseason options in the Lisianski Inlet and West Chichagof areas where effort is often more limited and surplus fish may not be harvested. Consecutive 15-hour openings will also be considered, as a management option to 39-hour or continuous openings at intermediate run sizes in order to ensure escapement needs will be met. In addition line changes may be implemented if needed to ensure escapement needs are met.

LIST OF MANAGEMENT CONTACTS

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The following is a list of telephone numbers that may be called during the fishing season to obtain recorded announcements concerning areas open to purse seine fishing:

Ketchikan	-	(907) 225-6870
Petersburg	-	(907) 772-3700
Sitka	-	(907) 747-5022
Juneau	-	(907) 465-8905

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For information on alternative formats for this and other department publications, please contact the department ADA Coordinator at (voice) 907-465-4120, (TDD) 907-465-3646, or (FAX) 907-465-2440.