

SOUTHEAST ALASKA DRIFT GILLNET FISHERY  
MANAGEMENT PLAN, 2003



by  
Southeast Region Management Staff

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## INTRODUCTION

This management plan provides an overview of the expected salmon run sizes, management issues, and harvest strategies for the Southeast Alaska drift gillnet fisheries in 2003.

There are approximately 480 limited entry permits in the Southeast Alaska drift gillnet fishery of which typically over 95% are actively fished each year. Drift gillnet landings have averaged approximately 4.1 million salmon annually from 1992 to 2001. Of the total commercial salmon harvest in Southeast Alaska, the drift gillnet fishery harvests an average of 38% of the sockeye, 19% of the chum, 12% of the coho, 3% of the pink, and 4% of the king salmon (1960 to 2001 data).

The drift gillnet fishery primarily targets sockeye, pink, and summer chum salmon during the summer season and coho and fall chum salmon during the fall season. King salmon are usually harvested incidentally, although some targeted king salmon fisheries are allowed in terminal hatchery areas in the spring. Currently, there are no directed drift gillnet fisheries for natural stocks of king salmon in Southeast Alaska.

There are five drift gillnet fishing areas in Southeast Alaska: District 1 (Tree Point and Portland Canal), District 6 (Prince of Wales), District 8 (Stikine), District 11 (Taku-Snettisham), and District 15 (Lynn Canal). In addition, drift gillnet fisheries occur in several terminal areas adjacent to hatchery facilities. Each of these gillnet fisheries are discussed separately in this management plan.

## SALMON RETURNS

In Southeast Alaska, the Alaska Department of Fish and Game (ADF&G) issues a regionwide preseason return forecast only for pink salmon. Otherwise, the projected returns of sockeye, chum, and coho salmon presented in this management plan are strictly qualitative and should not be considered official department forecasts. The return projections are calculated primarily from parent-year catch and escapement data and are expressed in terms of probable magnitude of return relative to historic levels.

Returns of natural produced summer chum salmon stocks are anticipated to be average in most areas. Returns of hatchery-produced summer chum salmon are expected to contribute significantly to the District 1, 11, and 15 gillnet fisheries and it is anticipated that the total Southeast Alaska hatchery chum salmon return will be well above levels observed in 2002. Poor returns of fall chum salmon are expected to the Taku/Snettisham and Lynn Canal fisheries. Overall, returns of coho salmon should be above average due, in part, to significant hatchery contributions. The total pink salmon return is forecasted to be strong with a regional total return of approximately 57 to 87 million fish. The major portion of the pink salmon harvest will be taken by purse seine gear.

## MANAGEMENT APPROACH

A flexible management approach is required because of the lack of accurate preseason forecasts for salmon returns to the drift gillnet fishing areas. Thus, this management plan presents only a general outlook of how the season is expected to develop. Some specific management approaches may be altered depending on inseason assessments of salmon run strength. Gillnetters are encouraged to contact department management staff listed at the end of this plan for more detailed information.

The primary objectives for management of the 2003 drift gillnet fishery are:

1. Obtain overall salmon spawning escapements with the best possible distribution to all systems.
2. Provide for an orderly fishery while harvesting those fish in excess of escapement needs.
3. Promote the harvest and processing of good quality fish within the constraints dictated by run size.
4. Manage for a total Southeast drift gillnet catch of 7,600 king salmon, exclusive of Alaska hatchery-produced fish [5 AAC 33.367(a)(2)].
5. Minimize, to the extent possible, the interception of salmon destined for locations where weak returns are expected.
6. Manage District 1, 6, 8, and 11 drift gillnet fisheries consistent with the provisions of the U.S./Canada Pacific Salmon Treaty.
7. Manage District 1 in accordance with the Hugh Smith Lake Sockeye Salmon Action Plan.
8. Manage hatchery Terminal Harvests Areas in accordance with provisions in existing terminal harvest area management plans adopted by the Alaska Board of Fisheries.

Achievement of these management objectives will be accomplished by inseason adjustments of fishing time and area to control harvests in specific areas in accordance with salmon run strength and timing. Comparisons of current-year fishing performance to historical fishing success (i.e., catch per unit effort, or CPUE analysis) are a major component of inseason run strength assessment. This approach assumes catch rates are an accurate reflection of run strength by time period and can be relied upon to indicate salmon escapements through the fishing area.

Past experience has demonstrated that management of salmon fisheries based only on fishery performance (CPUE) data can be misleading, especially for mixed-stock fisheries. Therefore, other available run-strength indicators will also be used including spawning escapements, stock composition estimates, test fishing, observed salmon concentrations in sanctuary areas, catches from other fisheries, and salmon run timing models.

The increasing availability of hatchery-produced salmon, in particular coho and summer chum salmon region wide and sockeye salmon in District 11, has become a major factor in the management of the Southeast Alaska drift gillnet fisheries. Where inseason management is based on fishery performance, it may be difficult to gauge natural stock run strength if significant numbers of hatchery fish are present in the catch. Where possible, the hatchery component of the catch will be separated when evaluating fishery performance.

### *Summary of Changes for 2003*

The Alaska Board of Fisheries (BOF) considered regulatory proposals for Southeast Alaska salmon fisheries in February 2003. Actions taken by the BOF that specifically affect Southeast Alaska drift gillnet fisheries are summarized here.

- The BOF adopted an Optimal Escapement Goal (OEG) and Action Plan for Hugh Smith Lake sockeye salmon in February 2003. Details of those actions are described below.
- The BOF adopted a Chilkat River king salmon management plan in February 2003. Details of that plan are described below.
- The BOF adopted language that placed a directed king salmon fishery for Section 11-B in regulation. **As there is no bilaterally agreed upon harvest sharing arrangement with Canada as required by the Pacific Salmon Treaty there will be no directed king salmon fishery in Section 11-B in 2003.**
- The BOF adopted proposals that modified drift gillnet maximum depth and length restrictions. These changes were specifically directed at early season fishing periods for king salmon but in summary the maximum depth of drift gillnets region wide is 60 meshes and the maximum length of drift gillnets in Section 11-B is 200 fathoms.
- The BOF adopted a proposal that changed the date that the department may open the Nakat Inlet Terminal Harvest Area (THA) to all user groups to September 17.
- The BOF adopted proposals that established closed waters for commercial salmon fishing during certain time periods in the Anita Bay THA to prevent gear conflicts with Dungeness crab fishermen.
- The BOF modified the Anita Bay THA outer boundary line.
- The BOF modified the Anita Bay and Earl West Cove THA management plans.

In addition, the department and industry reached agreement on several issues during the Southeast Alaska Drift Gillnet Task Force meeting in Sitka in November 2002. Issues pertinent for inseason management from that meeting are summarized below.

- If necessary to conserve wild stocks, particularly Chilkoot Lake sockeye salmon, the department may consider opening the waters of Section 15-C south of a line from the eastern shoreline of Lynn Canal at the latitude of Vanderbilt Reef Light to Vanderbilt Reef Light and east of a line from Vanderbilt Reef Light to Little Island Light. Any openings in this area will be predicated on information from stock assessment programs, observed effort levels, and observed sockeye salmon harvest in that area.

- The department and industry agreed to a change in the line used in 2001 and 2002 to target surplus Taku River sockeye salmon production in Taku Inlet. If conditions warrant extended fishing time in Taku Inlet the open fishing area will now be north of a line from Point Bishop to a point ½ a mile off of the shore at the latitude of Pete's Rock to Pete's Rock.
- The department and industry agreed upon the notification procedures for any extended openings in Speel Arm to target sockeye salmon returning to Snettisham Hatchery. Details of that agreement are outlined below.

### ***Weekly Fishing Announcements***

Inseason management of the District 1 drift gillnet fishery is conducted by the Ketchikan area management staff; Districts 6 and 8 by the Petersburg and Wrangell area staff; District 11 by the Juneau area staff; and District 15 by the Haines area staff. Because permit holders can move freely among all drift gillnet fisheries, the Juneau regional office will coordinate weekly fishing announcements for all areas. These will normally be released simultaneously in all area offices by mid-afternoon each Thursday during the fishing season.

### ***Weekly Fishing Periods***

Weekly fishing periods can generally be expected to begin on Sunday at 12:01 p.m. Exceptions include the Northern and Southern Southeast Regional Aquaculture Association's (NSRAA & SSRAA) terminal fisheries in Deep Inlet, Anita Bay, Neets Bay, Nakat Inlet, and Earl West Cove, where rotational harvest plans for drift gillnet, seine, and troll fisheries will apply.

## **U.S./CANADA PACIFIC SALMON TREATY**

The U.S./Canada Pacific Salmon Treaty (PST) will influence management of the District 1, 6, 8, and 11 drift gillnet fisheries. The management provisions specified by the PST will be considered separately under the specific management plan for each respective fishery. Gillnetters are encouraged to contact local department staff for more detailed information concerning Alaska's PST obligations under the ten-year agreement signed in 1999.

## **KING SALMON CATCH**

The BOF repealed regulation 5 AAC 33.367(a)(2) that specified a catch limit of 7,600 king salmon for the Southeast Alaska drift gillnet fishery and incorporated that language in a modified version of regulation 5 AAC 29.060. The 7,600 numerical limit of treaty king salmon was not modified. The Alaska Board of Fisheries adopted this regulation to ensure the various user groups maintain their recent-year share of the total king salmon harvest quota.

The need for management measures to comply with the drift gillnet harvest quota for king salmon will depend on inseason evaluation of king salmon catch rates relative to the 7,600 fish ceiling. If the need arises, nighttime fishing closures may be implemented in certain areas to reduce the incidental catch of immature, "feeder" king salmon. As in past years, early-season area closures may be needed to minimize the incidental harvest of mature, "spawner" king salmon returning to the Stikine River in District 8, the Taku River in District 11, and the Chilkat River in District 15.

## **TREE POINT AND PORTLAND CANAL FISHERY**

### *Introduction*

The Tree Point and Portland Canal drift gillnet fishing area consists of regulatory Sections 1-A and 1-B. This fishery targets summer chum and sockeye salmon early in the season, followed by pink salmon, and finally fall chum and coho salmon at the end of the season.

### *2003 Outlook*

Chum salmon returns to natural spawning systems are expected to be below average to Portland Canal as a result of lower than average escapements to the major chum salmon producing systems in this area. Chum salmon escapements to systems in Boca de Quadra and Behm Canal were at satisfactory levels. The department will pay close attention to Portland Canal chum in 2003 and will take necessary management action early in the season to ensure adequate escapements of these stocks. The department will conduct aerial surveys starting in mid-June to determine the strength of returning chum salmon to these areas.

In the spring of 1999, the United States and Canada negotiated a ten-year annex for the Tree Point fishery. The new agreement calls for the following:

A. Manage the Alaskan District 1 drift gillnet fishery to:

- i. Achieve an annual catch share of Nass sockeye salmon of 13.8 percent of the Annual Allowable Harvest (AAH) of the Nass sockeye salmon stocks that year.
- ii. Carry forward from year to year annual deviations from the prescribed catch share arrangement.

The AAH each year will be calculated as the total run of adult Nass sockeye salmon in that year less the escapement target of 200,000 fish. In the event that the actual Nass spawning escapement for the season is below the target level, the actual spawning escapement will be used in the AAH calculations.

The total run calculation includes the catches of Nass sockeye salmon in the principal boundary area fisheries and the spawning escapement to the Nass watershed. This includes the catch of Nass sockeye salmon in Alaskan Districts 1, 2, 3, 4, and 6 net fisheries; Canadian Areas 1, 3, 4, and 5 net fisheries and Canadian Nass inriver 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 allowable percentage 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 a party is over or under its AAH.

The management intent for the 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 two years the Bilateral Northern Boundary Technical Committee has worked to finalize the total run reconstruction for the Nass and Skeena rivers. While the numbers have yet to be agreed upon the following table reflects the work to date:

	1999	2000	2001	2002
Nass Total Return	844,794	627,047	583,008	1,115,269
Nass Escapement	200,000	200,000	167,258	200,000
Allowable Nass AAH	644,794	427,047	415,750	915,269
Allowable TP Harvest (13.8%)	88,982	58,932	57,374	126,307
Actual Nass Harvest	129,798	46,305	55,095	101,269
Cumulative overage/(underage)	40,816	28,189	25,910	872

While the management plan for the early weeks at Tree Point will take into account the overage, it is not the intent of the Treaty to severely disrupt the conduct of any of the Boundary area fisheries in any given year to eliminate an overage. The department will look at the early season run strength of the Nass River,

the early season run strength of southern Southeast Alaska wild stock summer chum, and the effort levels at Tree Point when making management decisions prior to the start of the District 1 Pink Salmon Management Plan.

Early season options include a reduction from the normal four-day starting week, area reduction, a mandated 6-inch mesh size, or a combination of those options. At this time the department is contemplating a reduction in the time fished during the early portion of the season.

The Canadian Department of Fisheries and Oceans has a preseason expectation of approximately 711,000 Nass River sockeye salmon. If the 2003 forecast is accurate then the AAH for Tree Point will be approximately 70,500 Nass River sockeye salmon.

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 (Quinn and Deriso 1999). 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 (Geiger et al. 2003).

- (1) A "risk" analysis led to the conclusion that an escapement of about 8,000 fish was a reasonable threshold level to minimize making fishery management errors.
- (2) A Ricker approach, using reasonable assumed values for alpha and beta, led to the conclusion that a biological escapement goal of 9,000 to 18,000 fish was probably the best way to tradeoff risk and uncertainty, given the limitations of the analysis.
- (3) A Beverton-Holt spawner-juvenile production relationship for Hugh Smith Lake sockeye salmon, once adjusted for assumed juvenile to adult survival rates, identified a level of about 9,000 to 18,000 spawners as a potential range of values associated with the maximum sustained yield spawner escapement level.

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 BOF adopted this range in regulation as an OEG in February 2003. The escapement goal will be reevaluated in 2005.

## *Action Plan Development*

### **Hugh Smith Lake Sockeye Salmon Action Plan Goal**

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 takes and back-plants, and improved stock assessment.

### **Action Plan Alternatives**

#### **ACTION 1. Reduce the commercial harvest of Hugh Smith Lake sockeye salmon.**

##### *Objective*

Modify historic purse seine and drift gillnet fisheries managed by emergency order authority to reduce the harvest of Hugh Smith sockeye salmon in the Section 1-F purse seine and Section 1-B drift gillnet fisheries so that the Hugh Smith escapement goal range can be achieved.

##### *Specific Action Recommended to Implement the Objective*

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 salmon 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.

Hatchery returns of summer chum, fall chum, and coho salmon to SSRAA's Nakat Inlet remote release site are expected to contribute significantly to the Tree Point gillnet fishery in 2003. The 2003 projected returns are approximately 200,000 summer chum, 80,000 fall chum, and 15,000 coho salmon. 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.

Pink salmon returns are expected to be strong to southern Southeast Alaska in 2003. If the actual return is as strong as the forecast, Tree Point gillnet fishery should have four- and five-day fishing weeks beginning at the start of the District 1 Pink Salmon Management Plan.

The District 1 Pink Salmon Management Plan (5 AAC 33.360) establishes gillnet fishing time in Section 1-B in relation to District 1 purse seine fishing time when both gear types are concurrently harvesting the same pink salmon stocks. By regulation, the plan starts on the third Sunday in July (July 20, 2003) with the following fishing time schedule:

1. When the purse seine fishery is open for any portion of one day during a fishing week, the drift gillnet fishery must be open for 48 hours during the same fishing week.
2. When the purse seine fishery is open for any portion of two days during a fishing week, the drift gillnet fishery must be open for 96 hours during the same fishing week.
3. When the purse seine fishery is open for any portion of three or more days during a fishing week, the drift gillnet fishery must be open for 120 hours during the same week.

### ***Management Goals***

Management goals for the 2003 Tree Point drift gillnet fishery are as follows:

1. Manage the fishery in accordance within the Pink Salmon Management Plan (5 AAC 33.360).
2. Manage the fishery consistent with the current provisions of the PST (5 AAC 33.361).
3. Manage the fishery consistent with the Hugh Smith Lake Sockeye Action Plan.

### ***Management Plan***

The Tree Point gillnet fishery will open by regulation in Section 1-B beginning 12:01 p.m., Sunday, June 15, 2003. At the time of the writing of this plan, a final decision had not been made about the initial week of fishing. That decision will be made when early season Nass River run strength indicators are examined in early June. The duration of subsequent fishing periods, through mid-July, will be based on the need to stay with the 13.85% of the AAH of Nass River sockeye salmon, and to continue to bring sockeye salmon overage back to a neutral or negative balance.

As in recent years, the catch of hatchery-produced, summer chum salmon returning to the Nakat Inlet release site will not be included in the evaluation of natural stock fishery performance. The contribution of Nakat Inlet chum salmon will be estimated by inseason analysis of coded wire tag data. Hatchery chum salmon have contributed as much as 71% of weekly catches at Tree Point and as much as 31% of the total harvest in recent years.

The PST requires that interception of natural stocks of chum salmon returning to Portland Canal streams be minimized to ensure rebuilding of these stocks. As a result, no fishing should be expected in Section 1-A for Portland Canal chum salmon unless it is determined that a harvestable surplus exists. Any management decision to fish Portland Canal must assume there is sufficient additional surplus fish to support a Canadian as well as an Alaskan fishery.

The Section 1-B gillnet fishery will be managed according to the District 1 Pink Salmon Management Plan starting July 20, 2003. The overall pink salmon returns to southern Southeast Alaska is expected to be strong in 2003. If the returns come in as predicted then beginning in mid-July through the end of August, Tree Point gillnetters can anticipate four- and five-day fishing periods. The department is unlikely in 2003 to make changes in the District 1 Pink Salmon Management Plan in order to comply with the provision of the PST. By the third week in July, when District 1 Pink Salmon Management begins, approximately 75% of the annual sockeye salmon harvest has already occurred.

In 2003, management of the Southeast purse seine fishery is anticipated to be similar to the 2002 season. It is possible that during the peak of the pink salmon returns in the month of August the purse seine fleet will be fishing four or more consecutive days. This will not effect the management of the Tree Point fishery under the District 1 Pink Salmon Management Plan.

Fall management at Tree Point starts after the end of the pink salmon season. During the fall season, the Tree Point fishery targets primarily on fall chum and coho salmon. Little is known about the stock composition of the chum and coho salmon harvest at this time of the year. However, if the estimated exploitation rate of the Hugh Smith Lake coho salmon stock, which reaches 80% in some years (average 67% since 1982), holds true for adjacent areas then wild coho salmon stocks in the surrounding Tree Point area may benefit from a closing date at Tree Point of approximately September 20. Due to the uncertainties of the escapement levels of the stocks being harvested, the documented high exploitation rate of Hugh Smith Lake coho salmon, and the high preponderance of hatchery fish in the harvest, the department will continue to take a conservative approach to the fall season at Tree Point. However, fishing periods may be allowed after September 20 if fisheries performance data indicates above average returns of wild chum and coho salmon. During recent years, approximately 50% of the fall chum and coho salmon have been hatchery fish. Nakat Inlet fish not harvested in the common property fisheries can be harvested in the Nakat Inlet Special Harvest Area, which remains open to commercial fishing through late October.

## **PRINCE OF WALES AND STIKINE FISHERIES**

### ***Introduction***

The District-6 drift gillnet fishery occurs in the waters of northern Clarence Strait and Sumner Strait, in regulatory Sections 6-A, 6-B, and 6-C, and portions of Section 6-D. The Stikine fishery encompasses the waters of District 8 surrounding the terminus of the Stikine River. Due to their close proximity, management of these fisheries is interrelated, resulting in some major stocks being subject to harvest by both fisheries. Two distinct management areas exist within each district; the Frederick Sound (Section 8-A) and Wrangell (Section 8-B) portions of District 8, and the Sumner Strait (Section 6-A) and Clarence Strait (Sections 6-B, 6-C, and 6-D) portions of District 6. Terminal hatchery fisheries for harvesting returns to the Crystal Lake, Earl West Cove, and Anita Bay hatchery facilities will be discussed in the TERMINAL HATCHERY FISHERIES portion of this management plan.

### ***2003 Outlook***

The 2003 Stikine River sockeye salmon return is expected to be better than the past five years. However, decreased fishing time may be required to ensure optimum escapement into Tahltan Lake. The Tahltan sockeye salmon escapement goal of 24,000 fish established by the Pacific Salmon Commission, Transboundary Technical Committee (TTC) has not been reached since 1996. Although the 2002 escapement of 17,740 sockeye salmon to Tahltan Lake was below goal, it was an improvement over the 2001 escapement of 14,811 sockeye salmon, and a dramatic improvement over the 2000 escapement of 6,076 that was the lowest since 1988. The returns of the Tahltan Lake sockeye salmon and the Tuya Lake enhanced sockeye salmon are expected to be better than the 2002 returns and near the 1993–2002 average. Returns of mainstem Stikine River sockeye stocks are expected to be better than 2002 and above the long-term average. Due to the near identical return timing of the Tahltan Lake and Tuya Lake stocks, any open fishing periods in District 8, and to a limited extent in District 6, will be determined by the actual inseason abundance of the wild Tahltan Lake stock. The returns of local area sockeye salmon stocks should be similar to the past four years. Parent year escapements into Salmon Bay, Red Bay, and Luck Lake were near the average of the previous four years.

Large numbers of pink salmon returns are forecast to return to District 6 spawning streams, and fisheries targeted on pink salmon may be extensive. Parent-year escapements to District 6 were excellent.

No directed fishing occurs on chum salmon in either district. Chum salmon are caught incidentally in fisheries for sockeye, pink, and coho salmon. It is anticipated that the chum catches in District 6 will be better than the 2002 season catches and the catches in District 8 will be higher than the past two to three years. Returns of chum salmon to the Earl West Cove THA in 2003 (60,000) are expected to be similar to

the 2002 returns. Chum salmon releases from EWC were discontinued in 2000 and production at this site was moved to Anita Bay in. The first returns of chum salmon are expected to return to Anita Bay in 2003 (20,000). Summer chum salmon production from Ketchikan area hatcheries are expected to be significantly higher than the 2002 production. Chum salmon returning to the Ketchikan area facilities migrate through Districts 6 and are expected to contribute significant numbers to the catches in this district. Alaska hatchery contributions to the total chum catch for the past 10-years have averaged 35% of the District 6 chum catch and 21% of the District 8 chum catch.

The overall coho salmon returns for 2003 are expected to be approximately the same as 2002. SSRAA summer coho remote release sites at Neck Lake and Burnett Inlet in upper Clarence Strait are expecting returns of approximately 65,000 and 23,000 respectively. The combined 2002 returns to these facilities was approximately 88,800. Approximately 195,000 fall coho salmon are projected to return to enhancement projects in the Ketchikan area, that is approximately 210,200 less than actually returned in 2002. Coho salmon returns to Earl West Cove have been shifted to Anita Bay. The coho salmon return to Anita Bay is projected to be approximately 20,000, which is 3,700 more than actually returned to Earl West Cove in 2002. Wild coho salmon returns for 2003 are expected to be better than the long term average. Extended fishing periods in Districts 6 or 8 could occur after Statistical Week 35 (last week in August). However, actual fishing periods will be determined weekly inseason based on coho salmon catch rates and hatchery contribution.

### *Management Goals*

Management goals for the District 6 and District 8 gillnet fisheries for the 2003 season are as follows:

1. Limit the catch of Tahltan Lake sockeye to ensure the minimum escapement goal is met while harvesting enhanced Tuya Lake sockeye salmon.
2. Limit the harvest of king salmon returning to the Stikine River to ensure the minimum escapement goal is met while harvesting sockeye salmon returning to the Stikine River.
3. Obtain pink salmon spawning escapement goals in District 6 and District 7.
4. Maintain spawning escapement goals of sockeye salmon in local Alaskan systems while harvesting increased numbers of enhanced sockeye salmon returning to the Stikine River.
5. Manage the District 6 and District 8 gillnet fisheries consistent with the provisions of the Pacific Salmon Treaty (5 AAC 33.361).

### *Management Plan*

The sockeye salmon fishery in both districts will be managed in accordance with the Transboundary Rivers (TBR) Annex of the PST. The Annex allows the District 6 fishery to be managed for harvesting local Alaskan sockeye salmon stocks and normally is not influenced under most conditions by the presence of sockeye salmon stocks of Stikine River origin. However, due to the failure to achieve the minimum escapement goal of Tahltan sockeye salmon during the past six seasons management actions in District 6 may be necessary to maintain the health of this stock. Management of the District 8 fishery is

based on the need to harvest sockeye salmon of Stikine River origin, as allowed by the sharing provisions of the TBR Annex, and the conservation of the resource. The 2003 Stikine River returns, specifically returns to Tahltan Lake, may be strong enough to fulfill PST obligations and also allow some fishing time in District 8. However, because past forecasts have been inaccurate and since the escapement goal for Tahltan Lake has not been achieved the past six seasons a conservative management approach will occur early in the season.

The season will start at 12:01 p.m. on Sunday, June 15 for a 48-hour open period in District 6 and District 8 will be closed. Subsequent openings will be determined inseason based on catches and stock proportion data. Due to past failures to forecast the run to Tahltan Lake, it is anticipated that no fishery will occur in District 8 and no fishery extensions should be expected in District 6 during at least the first two or three weeks of the season. If inseason catch and stock data indicate that the Tahltan sockeye salmon return is strong, and additional fishing time would not constitute a risk to the health of the stock, then more liberal fishing periods will be allowed.

Management actions during the sockeye salmon fishing season will be based on analysis of CPUE and stock identification data to determine the availability of Stikine River fish. These stock abundance indicators, along with fishery performance and stock composition data obtained from a Canadian test fishery will be incorporated into a Stikine sockeye salmon management model. As the season progresses, this model will be the primary method used to estimate the availability of sockeye salmon for harvest by the Alaskan fishery in District 8 and the Canadian inriver fisheries. Any conservation measures required for Stikine River sockeye salmon are implemented first in District 8 followed by Sumner Strait in District 6. Reductions in fishing time or area or district-wide closures will be used when conservation measures are needed. All openings will be based upon the most recent Stikine sockeye model update and the current weekly sockeye salmon harvest. Announcements for fishery extensions or any mid-week opening will be announced on the fishing grounds by 10:00 a.m. of the last day of the regular fishery opening. Open area and fishing time during any extensions may not necessarily be the same as the general weekly opening.

Pink salmon should begin entering District 6 in significant numbers by the third or fourth week of July. The early portion of the pink salmon fishery will be managed primarily on CPUE and parent year escapement. By mid-August, pink salmon destined for local systems will begin to enter the fishery in greater numbers and at that time management will be based on observed escapements.

The coho salmon season will begin during late August or early September. Management of the District 6 fishery will be based predominantly on wild stock CPUE. Crystal Lake Hatchery, Burnett Inlet Hatchery, facilities in the Ketchikan area, the Anita Bay remote release site, and the Neck Lake remote release site at Whale Pass all contribute coho salmon to the District 6 and District 8 fisheries. Inseason estimates from coded microwire tag recovery data will be used to identify the hatchery component of the catch. Only the catch of wild coho salmon will be used for fishery performance evaluation.

Regulation 5 AAC 33.310(c)(2)(B) allows gillnetting along the Screen Island shore of Section 6-D only during the early and late portions of the season. Specifically, this area encompasses those waters of Section 6-D west of a line from Mariposa Rock Buoy to the northernmost tip of Point Harrington to a point on the shore of Etolin Island at 56°09'35" N. latitude, 132°42'42" W. longitude to the southernmost tip of Point Stanhope. Actions by the Board of Fisheries, based on an agreement between gillnet and purse seine representatives at the board meeting in February 2000, increased the fishing time for gillnetting in this area by one week on each end of the closure. The periods when fishing may be allowed are now: 1) from the second Sunday in June (June 8) through the first Saturday in August (August 2) and,

2) from the first Sunday in September (September 7) until the season is closed. During this time, gillnetting is allowed during same time periods that the adjoining waters of Section 6-C are open.

## **TAKU/SNETTISHAM GILLNET FISHERY**

### *Introduction*

The Taku/Snettisham (District 11) gillnet area encompasses Section 11-B (Taku Inlet, Port Snettisham, and Stephens Passage south of Midway Island) and Section 11-C (Midway Island south to a line from Point League to Point Hugh). This fishery has traditionally targeted on sockeye salmon during the early portion of the season and fall chum and coho salmon later in the season. In recent years, the fishery has also targeted hatchery summer chum salmon.

### *2003 Outlook*

The total return of wild Taku River sockeye salmon in 2003 is expected to be slightly above average. This is based on both spawner-recruit analysis and a sibling forecast. The main parent year, 1998, had an escapement of 74,400 fish, which was the low end of the escapement goal range of from 71,000 to 80,000 fish, and below the ten-year average escapement of 102,000. The 1999 parent year had an escapement of 98,200 fish. Adult returns to date from the joint U.S./Canada Taku River sockeye salmon enhancement project at Tatsamenie Lake have been very low and the number of enhanced sockeye salmon returning to Tatsamenie Lake is not expected to contribute significant numbers of fish to harvests in 2003. The Tatsamenie Lake smolt outmigration of 190,720 smolts in 2000 was significantly below the estimates for the prior two years (2.5 million in 1998 and 777,000 in 1999). In addition, the Tatsamenie Lake sockeye smolt estimate in 2001 was only 70,900 fish so the two-ocean return of Tatsamenie Lake sockeye is expected to be poor. Returns of wild Port Snettisham sockeye salmon stocks are difficult to project because escapement enumeration programs were not in place during all brood years. Escapement through the Speel Lake weir in the 1998 parent year was 13,400 sockeye salmon, well above average, and the 1999 escapement of 10,300 was also above average. The aerial survey estimates for Crescent Lake escapements in the 1998 and 1999 parent years were 5,400 and 3,750, respectively both of these counts were below the 1990 to 2002 average of 10,800 fish. Enhanced sockeye salmon returning to the Douglas Island Pink and Chum, Inc. (DIPAC) Snettisham Hatchery are expected to total 218,000 fish.

Returns of hatchery summer chum salmon to the District 11 area are expected to be greater than the returns in 2002. Approximately 456,000 summer chum salmon are expected to return in 2003 from DIPAC hatchery releases in Gastineau Channel. Chum returns from Limestone Inlet remote releases are expected to total another 280,000 fish. For comparison, the total estimated DIPAC chum salmon contribution to the Section 11-B drift gillnet fishery was 208,800 fish. Additional fishing time can again be expected south of Circle Point in order to harvest summer chum salmon returns to the Limestone Inlet remote release site. As in recent years, the department anticipates implementing six-inch minimum mesh size restrictions south of Circle Point to reduce the harvest rate on wild sockeye salmon returning to Crescent and Speel lakes. Returns of fall chum salmon to the Taku River are expected to be poor.

Returns of Taku River coho salmon are expected to be above the ten-year average. Parent-year escapements of coho salmon in Canadian portions of the Taku River were 64,700 and 104,500 fish respectively in 1999 and 2000. Both were below the ten-year average escapement of 76,000 but well above the above border goal of 38,000 fish, and adequate to produce a good return in 2003 under favorable environmental conditions. DIPAC projects a 2003 return of hatchery coho salmon of approximately 89,500 fish which is comparable to recent years from their smolt releases into Gastineau Channel.

Returns of pink salmon to District 11 systems are expected to be above average in 2003; the management target range was met in the parent year for District 11. Parent year pink numbers through the Canyon Island fish wheel were below average, and indicated below average escapement in the Taku River. Returns in 2003 from DIPAC fry releases into Gastineau Channel are expected to total 85,000 to 102,000 pink salmon.

The return of large Taku River king salmon in 2003 is expected to be approximately 46,000 fish which is near the 2001 and 2002 returns.

### *Management Goals*

Management goals for the 2003 Taku/Snettisham drift gillnet fishery are as follows:

1. Provide for sufficient salmon spawning escapements to Taku River, Port Snettisham, and Stephens Passage streams while harvesting those fish in excess of escapement needs.
2. Minimize, to the extent practical, the incidental harvest of king salmon to stay within the Board of Fisheries Southeast drift gillnet allocation of 7,600 non-Alaska hatchery king salmon.
3. Manage the fishery consistent with current provisions of the PST (5 AAC 33.361). Long-term harvest sharing agreements for Taku River sockeye and coho salmon were specified in the 1999 Pacific Salmon Treaty agreement.
4. Maximize the harvest of hatchery-produced chum salmon returning to Limestone Inlet while minimizing the incidental harvest of Port Snettisham wild sockeye salmon.
5. Manage the return of enhanced Port Snettisham sockeye salmon consistent with the Board of Fisheries Snettisham Hatchery Management Plan (5 AAC 33.378).

6. Manage the Speel Lake sockeye salmon return to achieve a escapement to the lake of between 4,000 to 13,000 spawners. This goal is a biological escapement goal based on an updated analysis completed during the winter of 2002–2003.

### *Management Plan*

The District 11 gillnet fishery will be managed in accordance with the Transboundary River (TBR) Annex of the PST. Harvest sharing arrangements for sockeye and coho salmon through the 2008 fishing season are specified in the annex. The Canadian inriver gillnet fishery is allocated 18% of the total allowable catch (TAC) of wild Taku sockeye salmon originating from Canadian portions of the Taku drainage, and can harvest 20% of inriver escapements above 100,000 sockeye salmon. Harvests of sockeye salmon produced from joint U.S./Canada enhancement programs in the Taku River are to be shared equally by the two countries. For coho salmon, the annex calls for the U.S. to manage its fisheries to achieve a minimum above-border run size of 38,000 fish. In addition, incidental harvests of coho salmon in the Canadian directed sockeye salmon fishery are allowed and directed harvests of 3,000 to 10,000 coho salmon are allowed depending on run size.

The District 11 fishery will be managed through mid-August primarily on the basis of sockeye salmon abundance. Run strength will be evaluated using fishery catch and CPUE data and weekly inriver run size estimates derived from the Taku River fish wheel mark-recapture project operated by ADF&G at Canyon Island. Contribution of enhanced stocks of sockeye salmon will be estimated inseason by analysis of salmon otoliths sampled from the commercial harvests. The age and stock compositions of the harvest of wild sockeye salmon will be estimated after the fishing season by analysis of scale pattern and parasite incidence data from commercial catch samples.

Section 11-B will open by regulation on the third Sunday in June (June 15) for a three-day fishing period. Fishing time in subsequent weeks will depend on developing run strength. Nighttime fishing closures may be instituted to limit incidental catches of immature king salmon. Harvests and CPUE of king salmon in the Juneau recreational fishery prior to the opening of the gillnet fishery and catches during initial gillnet openings will be evaluated to determine the need for night closures during the 2003 season.

Extended fishing time is expected in Stephens Passage to harvest the return of enhanced summer chum salmon to the Limestone Inlet remote release site. The department plans to implement a six-inch minimum mesh size restriction in Section 11-B south of Circle Point beginning in early July to minimize the incidental harvest of wild Port Snettisham sockeye salmon during these openings. The department also plans to implement full retention (5 AAC 39.265) in the District 11 drift gillnet fishery as was done in 2002 beginning in week 27 (June 29). This requires that all salmon harvested are retained, utilized, and reported on fish tickets whether they are sold or retained for personal use.

The return of enhanced Port Snettisham sockeye salmon is expected to be higher than in previous years of the fishery, and will be managed according to the Board of Fisheries' Snettisham Hatchery Management Plan. The plan provides basic guidelines for managing enhanced sockeye salmon production from Port Snettisham including the following provisions, in order of priority:

- 1) Sustainable production of wild sockeye salmon from Crescent and Speel Lakes.
- 2) Management of enhanced Snettisham sockeye salmon returns may not prevent achieving escapement goals or PST harvest sharing agreements for Taku River salmon stocks.
- 3) Assessment programs shall be conducted to estimate Snettisham wild sockeye salmon stock escapements and contributions of enhanced sockeye salmon to the District 11 commercial fishery.
- 4) Common property harvests in the Speel Arm SHA shall be conducted by limiting time and area to protect wild sockeye salmon returns.

Peak migration timing for wild Snettisham sockeye salmon through Stephens Passage is expected to be from mid-July through the first week in August. Because of expectations for a poor return of Tatsamenie Lake sockeye salmon it is anticipated that fishing time in Section 11-B north of Circle Point will be limited to two days per week during the peak of the return timing for that stock (weeks 30 or 31 to weeks 32 or 33) Management of the fishery in Stephens Passage will focus on conservation of the wild Snettisham sockeye salmon stocks, particularly in July. The department intends to implement extensive use of six-inch minimum gillnet mesh size restrictions in Section 11-B south of Circle Pt. in order to limit harvest rates on wild Snettisham sockeye salmon and yet allow harvest of enhanced chum salmon returning to the Limestone remote release site. The mesh restriction in Section 11-B may be relaxed at the end of July or after the peak migration timing of wild Snettisham sockeye salmon stocks through Stephens Passage. When the mesh restriction is relaxed in Section 11-B, a portion of Section 11-C from Midway Islands to Point Coke may open to allow additional access to hatchery sockeye salmon. Port Snettisham will remain closed inside a line from Point Anmer to Point Styleman through the end of July to limit overall harvest rates on wild Snettisham sockeye salmon stocks. Commercial openings may occur inside Port Snettisham after this time if wild stock escapements are developing adequately.

Common property fishery openings are expected to occur during August in the DIPAC Speel Arm SHA, which is located in waters of Speel Arm north of 58°03.42' N latitude. Timing of these openings will depend on DIPAC progress toward brood stock and cost recovery goals and the sockeye salmon escapement to Speel Lake. DIPAC cost recovery efforts in the SHA during July will be limited to waters in the immediate vicinity of the hatchery where wild and hatchery stocks are well segregated. Fishery management decisions for the Speel Arm SHA will be made jointly by the department and DIPAC. As mentioned above, the department and industry formalized the notification procedure for any extended fishery openings in Speel Arm. The agreement specified:

- 1) That the department include notice in the Southeast Alaska Drift Gillnet Fishery Management Plan that extended openings in Speel Arm could be expected on short notice once Speel Lake escapement goals are met.
- 2) That the department include notice in the regionwide news release on or near the end of July that extended openings in Speel Arm could be expected on short notice once Speel Lake escapement goals are met.

- 3) If an announcement is made for extended fishing time in Speel Arm the department shall provide a minimum of **six hours** notice from the time of the news release to the time the fishery opens.

A personal use fishery will be allowed in Sweetheart Creek to ensure enhanced returns to this site are fully utilized; Sweetheart Creek is blocked to anadromous fish migration several hundred yards upstream from the mouth. The Sweetheart Creek personal use fishery will be open seven-days per week.

Pink salmon will be harvested in Section 11-B incidental to the sockeye salmon and enhanced summer chum salmon fisheries. Fishing time for a directed pink salmon fishery in Section 11-C will depend upon the strength of pink salmon returns in lower Stephens Passage, Seymour Canal, and the northern portions of District 10. Parent year pink salmon escapements in Stephens Passage and Seymour Canal were within the management range targets for both stock groups. Returns will be closely monitored and if surpluses are present, openings could occur in August.

Beginning in mid-August, management of the Taku/Snettisham gillnet fishery will be based on the run strength of coho and fall chum salmon. Inseason management will be based on evaluation of the fishery catch, effort, and CPUE relative to historical levels, inriver run size estimates from the Taku River mark-recapture project, and recovery of coded wire tagged wild Taku River and hatchery coho salmon in marine fisheries. Coho salmon is the primary species managed during the fall season, but area and time restrictions may be necessary to further protect the weaker fall chum salmon returns. In practice, this means that fishing time will be limited to two days per week in Section 11-B north of Circle Point during the peak weeks of the return of that stock (weeks 34 and 35).

In order to avoid gear conflicts, the District 11 drift gillnet fishery will not be open concurrent with the 2003 Juneau Golden North Salmon Derby. Consequently, during Statistical Week 35, the District 11 gillnet fishery will not open until Monday, August 25.

## **LYNN CANAL FISHERY**

### ***Introduction***

The Lynn Canal drift gillnet fishery operates in the waters of District 15. The district is divided into three regulatory sections: 15-A (upper Lynn Canal), 15-B (Berners Bay), and 15-C (lower Lynn Canal). The Lynn Canal drift gillnet fishery targets sockeye, summer chum, coho, and fall chum salmon. King and pink salmon are taken incidentally.

Sockeye salmon are mainly targeted from June through early September. The primary stocks originate in Chilkat and Chilkoot lakes, Berners Bay rivers, and mainstem spawning areas of the Chilkat River. Both the Chilkat and Chilkoot Lake sockeye salmon populations have early and late-run stock components with separate escapement goals.

Hatchery and wild summer chum salmon are harvested from late June through early August, and fall chum and coho salmon are targeted from September through mid-October. The primary fall chum salmon stocks originate in the Klehini and Chilkat rivers and the primary coho salmon stocks originate in the Chilkat and Berners Bay rivers.

King salmon are harvested incidentally in the Lynn Canal drift gillnet fishery. The management objective for this species is to minimize king salmon harvests to stay within the Board of Fisheries allocation of all-gear quota (7,600 king for all Southeast gillnet districts). In 2003, the Board of Fisheries adopted the Lynn Canal and Chilkat River Chinook Salmon Fishery Management Plan. This plan establishes management measures in subsistence, commercial and sport fisheries that harvest Chilkat River king salmon based on projected in river run strength. The newly established biological escapement goal of 1,750 to 3,500 large king salmon (three ocean age and older) provides the framework for action points under the plan. The provisions in the management plan are identical to methods the department used to managed the gillnet fishery in section 15-A during recent years.

### *Management Goals*

Specific management goals for the 2003 Lynn Canal drift gillnet fishery are as follows:

1. Obtain escapement counts for early run (through week 28; July 13) and late run Chilkoot Lake sockeye salmon of 16,500 and 34,000 fish, respectively.
2. Obtain an escapement of between 52,000 and 106,000 sockeye salmon to Chilkat Lake. The escapement objective for the early stock is 17,500 fish through week 33 (August 17) and 47,500 for the late stock.
3. Provide for sufficient chum, coho, and pink salmon spawning escapements to the Chilkat, Chilkoot, and Berners rivers and other Lynn Canal systems, while harvesting those fish in excess of escapement needs.
4. Manage the Section 15-A commercial drift gillnet fishery in a manner that is consistent with the Lynn Canal and Chilkat River king salmon fishery management plan.

### *2003 Outlook*

#### **Sockeye Salmon**

The 1997 Chilkat Lake mark-recapture sockeye salmon escapement estimate totaled 238,803 fish, including 80,744 early run fish and 158,059 late run fish, well above the desired upper escapement goals for both stocks. The 1998 Chilkat Lake mark-recapture escapement estimate was 309,462 sockeye salmon, including 135,050 early run fish, and 174,412 late run fish, again exceeding the desired escapement goal range for both stocks. Historically, 39.7% of the Chilkat Lake sockeye salmon escapement are age-2.3 (six-year old) fish, 23.8% are age-2.2 (five-year old) fish, 31.4% are age-1.3

(five-year old) fish, and the remainder are primarily age-1.2 (four-year old) fish. The Lynn Canal drift gillnet catches of Chilkat Lake sockeye salmon for return years, 1997 and 1998, were estimated to be 70,056 and 120,644 fish respectively, compared to the 1976 to 2002 historical average of 95,236 fish.

The Northern Southeast Regional Aquaculture Association (NSRAA) has conducted a smolt abundance estimation project at the outlet of Chilkat Lake from 1995 through 2002. Sockeye salmon smolt production from Chilkat Lake in 2000 and 2001, the dominant smolt years for the 2003 return, were estimated to be 1.63 million fish and 1.34 million fish, respectively. These smolt abundance estimates are 90 and 77%, respectively, of the historical 1989–1990 and 1994–2002 average. There will be no enhanced returns of sockeye salmon returning to Chilkat Lake in 2003. Returns from the NSRAA release program will start in 2004. At that time returns of age-1.2 enhanced adult sockeye salmon originating from the NSRAA 2000 egg-take operations at Chilkat Lake will be assessed. For 2003, assuming a 10% marine survival rate and that 71% of adult sockeye salmon return at three-years ocean age (combination of age-1.3 and 2.3 fish) there will be approximately 114,100 three-ocean (ages 1.3 and 2.3) Chilkat Lake sockeye salmon returning in 2002. Assuming a 10% marine survival rate and that 27% of those smolts return at two-years ocean age (ages 1.2 and 2.2), there will be approximately 42,000 two-ocean (ages 1.2 and 2.2) Chilkat Lake sockeye salmon returning in 2003. The total expected return of four, five, and six-year-old sockeye salmon to Chilkat Lake is approximately 156,100 fish, which is 72% of the 1976 to 2002 historical average of 217,000 fish.

Mark-recapture estimates of the Chilkat River mainstem sockeye salmon escapements in 1998, 1999, and 2000, the dominant parental brood years, were 13,200, 14,300, and 54,300 fish, respectively. The dominant age classes for this run include age 0-2 (23%), 0-3 (46%), and age 1.3 (21%) fish based on scale samples collected from the spawning grounds. The Lower Chilkat River fish wheel project has been providing inseason stock assessment and post season escapement estimates of Chilkat River mainstem sockeye salmon since 1994. These estimates of abundance were well below the historical 1994–2002 average of 29,600 fish for brood years 1998 and 1999 but the brood year 2000 estimate is 1.8 times this average and the highest estimate on record. Total escapement estimates are not available for Berners Bay sockeye systems. Peak aerial escapements to Berners Bay streams were below average in 1999 but above average in 2000. The 1999 commercial harvest of Berners Bay and Chilkat River mainstem sockeye salmon was estimated at 9,600 fish. This catch was 70% of the historical 1976–2002 average catch of 13,700 fish. Based on the information above and age data collected in 2002 from Chilkat mainstem spawning areas which showed a lower than average age compositions for 2-ocean age fish, a below average run of Chilkat River mainstem sockeye salmon is expected in 2003.

The Chilkoot Lake weir has been in operation since 1976. The Chilkoot Lake sockeye salmon weir count during the dominant parental brood year (1998) for the 2002 return was 12,300 fish (2,600 early run and 9,700 late run), the second lowest weir count on record. The early run and the late run segments were below escapement goals. The Lynn Canal drift gillnet catch for the dominant brood year, 1998, was estimated to be 2,200 fish, well below the 1976 to 2002 historical average of 106,500 fish and the smallest catch on record.

Zooplankton abundance was the third lowest on record in 1999; the year sockeye salmon juveniles would have been rearing in the lake. The 1999 fall hydroacoustic estimate was also very low (second lowest on record) indicating small numbers of outmigrating smolt during the spring of 2000.

Although the total return in recent years has been better, the annual total adult return of Chilkoot Lake sockeye salmon has been well below average since 1993. The 1998 total return of Chilkoot Lake sockeye salmon (14,500 fish) was the lowest on record and 8.3% of the 1976–2001 average of 176,000 fish. Zooplankton abundance and smolt measurements collected during the years 2000 through 2002 by ADF&G and NSRAA staff indicates an increase in zooplankton density as well as a continued increase in the general size of the emigrating Chilkoot Lake sockeye salmon smolts. Management will be monitoring the escapements during 2003 closely and implement management decisions to the commercial drift gillnet salmon fishery to achieve the lower end of the escapement goal range for Chilkoot Lake sockeye salmon like what was achieved in 2002.

The 2003 Chilkoot Lake sockeye return is projected to be poor based on:

- Very poor (second lowest on record) weir counts of adult sockeye salmon during 1998.
- Lowest total return of Chilkoot Lake sockeye salmon on record.
- Poor zooplankton abundance during 1999 (third lowest on record).
- Low estimate of pre-smolt (second lowest on record) during the fall 1999 acoustic survey.

## **Summer Chum**

The majority of the summer chum salmon harvest is comprised of enhanced fish from remote release sites at Boat Harbor and Amalga Harbor. Smaller numbers of wild chum salmon are produced from local area streams such as Sawmill Creek and other Berners Bay rivers on the eastern side of Lynn Canal and the Endicott, Beardslee, and St. James rivers on the western side of Lynn Canal.

Douglas Island Pink and Chum Salmon Incorporated (DIPAC) have been operating chum salmon remote release sites at Boat Harbor and Amalga Harbor since 1988 and 1991, respectively. The contribution to the lower Lynn Canal drift gillnet fishery have averaged 313,600 fish for years 1991–2002. In recent years, hatchery chum salmon contributions to the drift gillnet fleet has exceeded this average. Preliminary projections for the Boat Harbor return are approximately 177,000 fish, an increase from last year and 1.4 times the 1991–2002 average. No hatchery cost recovery fishery is planned for the Boat Harbor area, so these fish will all be available for common property fishery harvest. The preliminary projection for the Amalga Harbor project is approximately 1,730,000 fish, a substantial increase from last year and 1.8 times the 1994–2002 average of 955,700 fish. DIPAC will conduct a hatchery cost recovery fishery in its Amalga Harbor Special Harvest Area in Section 11-A to harvest chum salmon returning to the Amalga Harbor remote release site.

Peak aerial escapement counts of summer chum salmon in Sawmill Creek in 1998, 1999, and 2000 were 1,100, 3,100, and 13,000 fish respectively. Those peak aerial escapements are near or above the 1991–2002 average for this index system. Cumulative peak counts of chum salmon in western Lynn Canal streams in 1998, 1999, and 2000 were 2,300, 2,780, and 4,680 fish respectively. The peak counts in 1998 and 1999 were below the 1991–2002 average and the 2000 peak count just exceeded this average. The department is concerned about the status of wild chum salmon stocks along the western side of Lynn Canal, particularly the Endicott River. Because of these concerns the department implemented strategies

designed to reduce the exploitation rate of wild chum salmon in order to boost escapements into western Lynn Canal streams in 2002. We feel that these strategies improved escapements into the Endicott River as the 2002 peak chum salmon count of 3,000 fish exceeded the 1991–2001 average of 2,200 fish. Based on parental-year escapement counts, the wild summer chum salmon return in 2003 should be average in run strength but at a much lower scale than the hatchery summer chum salmon return.

## **Fall Chum**

Fall chum salmon returning to Lynn Canal are wild stocks originating primarily from the Klehini River, Chilkat River, and several Chilkat River tributaries. A smaller number of fall chum salmon are produced from the Herman Creek spawning channel and streamside incubation projects carried out by NSRAA. Parent-year escapements for the 2003 return of fall chum salmon were generally low. Peak aerial counts in the Klehini River in 1998 and 1999 were 5,000 and 8,170 fish respectively, close to the 1992–2001 average of 7,850 fish. For the Chilkat River, the peak aerial survey counts were 100 and 220 fish (1998 and 1999), well below the peak aerial escapement average of 10,640. It is known, however, that aerial escapement counts are not very reliable for this system because of the glacial nature of the Chilkat River and the protracted spawning duration of these stocks. Other information that may be used as an indication of the strength of the fall chum salmon return is the fishery performance data from Lynn Canal. The fishery performance in the dominant parental brood years (1998 and 1999) was also poor. Based on this information, the return of fall chum salmon stocks is, again, expected to be below average. Escapements of Chilkat River fall chum salmon since 1999 have improved. Management strategies designed to sway harvests away from these stocks have been successful. Both fish wheel counts and aerial escapement surveys have indicated increasing escapements of these fish into spawning areas of the Chilkat River during years 1999 through 2002. A mark-recapture experiment utilizing the lower Chilkat River fish wheels was initiated in 2002. Based on the results of that project it is estimated that 195,200 chum salmon migrated past the fish wheels between June 8 to October 19, 2002.

## **Coho Salmon**

The coho salmon return in Lynn Canal is comprised of several stocks. The largest coho salmon system in the area is the Chilkat River, followed by the Berners and Chilkoot rivers.

A mark-recapture experiment conducted in 1990 estimated that the total coho salmon escapement to the Chilkat River was 80,500 (95% confidence interval 70,000 to 95,600 fish). In 1998 and 2002, Sport Fish Division conducted mark-recapture experiments to estimate the escapement of Chilkat River adult coho salmon. The escapement estimate for the 1998 project was 37,132 fish (SE = 7,432). Results for the 2002 estimate are not available at this time. Sport Fish Division initiated a coho salmon smolt coded wire-tagging (CWT) project to estimate smolt size, age structure, production of coho smolts in 1999 and marine harvest of Chilkat River adult coho salmon in various fisheries in 2000. The lower Chilkat River fish wheels were used to recover tagged fish for this research. Based on the collected data, a total of 1,237,056 (SE = 219,715) coho salmon smolts emigrated from the Chilkat River in 1999. During 2000, 265 tagged coho salmon were recovered from random sampling of various sport and commercial harvests. From these samples it was estimated that 40,569 (SE = 3,752) coho salmon bound for the Chilkat River were harvested in commercial, sport, and subsistence fisheries in 2000. Most (53.3%) of the harvest occurred in the commercial troll fishery, followed by the Lynn Canal drift gillnet fishery

(38.8%). The remainder of the harvests occurred in the recreational, commercial seine, and subsistence fisheries.

A longer-term (1982 to present) stock assessment program has been conducted on the Berners River. Results from that program indicate the average (1982 to 1995) total coho salmon return for that system is approximately 33,000 fish (range 14,000 to 73,800). Total harvest rates on the Berners River stock (1982 to 1995) have averaged 74.3%. Parent-year survey counts at the Chilkat, Berners, and Chilkoot rivers were generally above the ten-year average for all systems. The 1999 and 2000 escapement to Berners Bay were with and above the escapement goal range. The 1999 coho fish wheel catch of 1,700 was very close the 1994–2002 average. The District 15 gillnet catch of 35,330 coho salmon in 1999 was approximately 60% of the previous ten-year average. Weir counts for Chilkoot River coho salmon are also available but of limited value. In recent years the weir was operated primarily for sockeye salmon and in most years has been removed prior to the peak of the coho salmon return. Based on this information the coho return is expected to be average during 2003.

## **King Salmon**

Sport Fish Division has, since 1991, conducted mark-recapture methods to determine the spawning abundance of Chilkat River king salmon. The department reviewed the data from this project and based on that the analysis a biological escapement goal was established for this stock. The biological escapement goal range is 1,750 to 3,500 mature ( $\geq$ age 1.3) king salmon. The Board of Fisheries adopted the Lynn Canal and Chilkat River king fishery management plan. This plan will provide the framework necessary to manage the existing fisheries that harvest Chilkat drainage king salmon for desired escapement. The 2003 preseason forecast for mature ( $\geq$ age 1.3) Chilkat king salmon is estimated to be close to the 1991–2002 average of 4,650 fish. There is no directed fishery for king salmon in Lynn Canal commercial fisheries but management actions have been implemented to reduce the incidental take of Chilkat River king salmon. These management actions have been effective in conserving Chilkat River king salmon stocks as the biological escapement goal has been met or exceeded each year since 1991.

### ***Management Plan***

In 2003 the department intends to manage the Lynn Canal drift gillnet fishery to obtain the lower ends of the escapement goal ranges for early and late stocks of Chilkoot Lake sockeye salmon. Depressed populations of Chilkoot Lake zooplankton that serve as the forage base for rearing juvenile sockeye salmon are thought to be limiting production from this system. The department believes targeting the low end of the escapement goal range is prudent to reduce the possibility of high fry production and resultant heavy predation on the lake's principal food source for sockeye salmon.

Section 15-A will open for two days south of the latitude of Seduction Point beginning 12:01 p.m., Sunday June 15 (Statistical Week 25). If the Chilkoot River weir count through June 11 is less than 4,500 sockeye salmon the eastern side of Section 15-A will be closed. If the weir count is 4,500 sockeye salmon or greater the eastern portion of 15-A may be opened. Chilkat Inlet will remain closed the first week of the season to protect mature king salmon returning to the Chilkat River. Given that the department has no preseason expectations for a poor run of Chilkat Lake sockeye salmon Chilkat Inlet will be managed according to the Lynn Canal and Chilkat River King Salmon Fishery Management Plan (Appendix 1) for the first three weeks of the season.

King salmon return timing data from the sport fish king salmon tagging program indicates that approximately 90% of the Chilkat River king salmon return has passed the inriver drift gillnet capture site at river-mile seven by July 15 which is Statistical Week 29. Assuming the travel time from Chilkat Inlet to the sport fish division tagging site is about ten days, the bulk of the Chilkat River king salmon return should be in the Chilkat River by about July 4 (week 27 in 2003).

If the Chilkat River and early-run Chilkat Lake sockeye salmon returns develop as expected the northern boundary line in Chilkat Inlet will be moved northwards to Glacier Point for week 26 and to Cannery Point for week 27. The area from Cannery Point to the Chilkat River mouth will likely be closed to protect Chilkat River mainstem sockeye salmon during weeks 28 through 30. If the Chilkat Lake sockeye salmon run is stronger than expected, the northern boundary line may be moved to the mouth of the Chilkat River during weeks 31–34. Section 15-A (west of a line beginning at a point within two nautical miles of the western shoreline of Lynn Canal at the latitude to Point Sherman, to Sullivan Rock Light, to Eldred Rock Light, to the southernmost tip of Talsani Island, to the northernmost tip of Talsani Island, to Seduction Point) may be opened for extended periods of time during the summer season, but due to this year's expected smaller run of Chilkat Lake sockeye salmon it is likely that fishing time in this area will be limited to three-days per week. Fishing time and area may be adjusted inseason and will be based on fishery performance and on stock assessment data, primarily from the fish wheels in the lower Chilkat River.

If the Chilkoot Lake sockeye salmon return is poor as expected (run not forecasted to meet minimum escapement goals), the eastern side of Section 15-A will be closed for much of the season. Chilkoot Inlet will also be closed north of Seduction Point for most, if not all, of the summer season to protect Chilkoot Lake sockeye salmon if returns are poor. If the run does come in better than expected, Chilkoot Inlet north of Seduction point and eastern shoreline of Section 15-A below Seduction Point may be opened.

The department has attempted to increase harvest rates on Chilkat Lake sockeye salmon by allowing extended fishing time and area in Chilkat Inlet and adjacent marine waters during years of high abundance. The success of this approach is limited because of terminal area closures designed to protect king salmon and Chilkat River mainstem sockeye salmon early in the season and fall chum salmon late in the fishing season. Chilkat River mainstem fish have a return timing that overlaps the Chilkat Lake early sockeye salmon run. There are no formal escapement goals for Chilkat River mainstem sockeye salmon. Data from the Chilkat River fish wheel mark-recapture program will be used to judge run strength inseason and escapement levels post season. The department is hopeful that this data may be used in the future to develop spawning escapement goals for this stock.

Fall management will begin in late August or early September. Fall chum salmon conservation will drive fishery management in Section 15-A from week 35 until the end of the season. If the late run of Chilkat Lake sockeye salmon is very strong, the department will use a management approach to the early fall fishery in Section 15-A similar to that used in the fall of 1999. In order to target fishing on Chilkat Lake sockeye salmon while limiting the harvest of milling Chilkat River fall chum salmon during weeks 35

and 36 in 1999, Chilkat Inlet was open from the latitude of Point Seduction to the mouth of the Chilkat River and the remainder of Section 15-A was closed. The need to use this management strategy in 2003 will be assessed in season and will be based on the strength of the late run of Chilkat Lake sockeye salmon. The department will assess sockeye salmon and fall chum salmon runs closely by monitoring fishery performance and inriver abundance at the Chilkat River fish wheels to adjust fishing time and area in Section 15-A.

Section 15-B will not be open in 2003 unless the return of coho salmon to Berners Bay is very strong.

Section 15-C will open for two days beginning 12:01 p.m., Sunday, June 15. If the Chilkoot River weir count is less than 4,500 sockeye salmon through June 11 the eastern side of Section 15-C will be closed north of the latitude of Bridget Point. If the Chilkoot Lake sockeye salmon returns are poor (based on weir counts) as expected, there will be six-inch minimum mesh size restrictions in Section 15-C (except for the Boat Harbor area). This gear restriction will be implemented to minimize the harvest of sockeye salmon while targeting summer hatchery chum salmon. If the Chilkoot River weir or Chilkat River fish wheel counts continue to be very poor and effort levels are higher than average, it is also possible that additional areas of Section 15-C may be closed. The decision to open additional area of this section and whether to remove or implement gear restrictions will be driven by Chilkoot River weir counts, Chilkat River fish wheel counts, effort levels, and inseason stock assessment information based on site specific scale samples.

A strategy used in recent years to harvest hatchery chum salmon while conserving poor returns of Chilkoot Lake sockeye salmon has included, in addition to the 6" mesh size restriction, extended fishing time in reduced areas along the eastern shoreline of Lynn Canal. During the 2002 drift gillnet task force meeting, there was discussion between industry and the department to open a reduced area along the eastern shoreline of Section 15-C during the peak weeks of the hatchery chum salmon return. The department agreed to consider opening a smaller area similar to that used during the 1999 season if Chilkoot River sockeye salmon escapements warranted this action. The area agreed upon includes the waters of Section 15-C from the eastern shoreline of Lynn Canal at the latitude of Vanderbilt Reef Light to Vanderbilt Reef Light and east of a line from Vanderbilt Reef Light to Little Island Light. If the weir counts are very poor the department may open this area during July and the first week of August. If weir counts continue to be very poor it is possible that the eastern shoreline of Section 15-C will be closed entirely.

Another issue that was discussed at the Drift Gillnet Task Force meeting in November was the possibility that DIPAC would not conduct cost recovery fisheries in the Amalga Harbor SHA immediately prior to common property openings on Sundays. Fishers indicated that chum salmon returning to the Amalga Harbor release site commonly mill back and forth with the tide from lower Section 15-C to the northeastern most portion of Section 11-A. DIPAC plans to suspend cost recovery operations 24 hours prior to any Sunday opening during the chum salmon return in order to provide a higher proportion of these fish to the common property fishery in lower Lynn Canal.

The Boat Harbor area (those waters within two nautical miles of the western shoreline of Lynn Canal from the latitude of Danger Point at 58°41.73' N. latitude south to a point 2.4 miles north of Point Whidbey at 58°37.05' N. latitude) may be opened for extended periods beginning in week 28 (July 6). During 2002 the northern line of the Boat Harbor area was moved from Lance Point to Danger Point approximately two nautical miles south. The purpose of this change in area is to decrease the exploitation rate on wild Endicott River and other western Lynn Canal wild chum salmon stocks, which migrate through this area during the early summer season. Poor aerial and foot survey counts of chum salmon in recent years have required the department to take actions to boost escapement for this species. The Boat

Harbor area is expected to be open continuously beginning the second week of July. The western shoreline of Section 15-C will be closed north of Danger Point to protect wild summer chum salmon returning to the Endicott River from the start of the season to week 31 (June 15 to August 3).

The department also plans to implement full retention (5 AAC 39.265) in the District 15 drift gillnet fishery as was done in 2002 beginning in week 27 (June 29). This requires that all salmon harvested are retained, utilized, and reported on fish tickets whether they are sold or retained for personal use.

Fall season management will begin in late August or early September in Section 15-C. A conservative management approach will again be implemented to ensure improved fall chum salmon escapement during the early weeks of the fall season. Management of Section 15-C during the fall season will be based on coho and chum salmon overall run strength and fishing effort levels. Fishing effort will be directed at harvesting returns of coho salmon in Lynn Canal while conserving fall chum salmon.

To avoid gear conflicts, the District 15 drift gillnet fishery will not be open concurrent with the Juneau Golden North Salmon Derby. Consequently, during Statistical Week 35, the District 15 gillnet fishery will not open until Monday, August 25.

## **TERMINAL HATCHERY FISHERIES**

For the 2003 season, drift gillnet terminal area fisheries can be expected in Deep Inlet, Neets Bay, Nakat Inlet, Eastern Passage (Earl West Cove), Anita Bay, Speel Arm, and Boat Harbor to harvest salmon returning to DIPAC, NSRAA, and SSRAA enhancement facilities.

### ***Northern Southeast Regional Aquaculture Association Terminal Area Fisheries***

The terminal hatchery fishery at Deep Inlet will be managed jointly with NSRAA and according to Board of Fisheries management plans. The open 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 1,450,000 chum salmon to the Deep Inlet remote release site and the Medvejie Hatchery in 2003. Cost recovery and broodstock goals for the Deep Inlet returns are 160,000 fish and 50,000 fish respectively, allowing for a common property harvest of approximately 1,240,000 chum salmon by purse seine, drift gillnet, and troll gear. The majority of this 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 decided at their March meeting in Sitka that, as during the 2002 season, THA openings for the early part of the season would be reduced in order to help achieve the season's cost recovery goal. The NSRAA board also requested a starting date of June

1 for the common property rotational fishery. Beginning June 1, the common property rotational schedule will be one day of seine and two days of gillnet per week 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 in the catch so they do not count against the region wide drift gillnet king salmon allocation of 7,600 fish. NSRAA plans to begin cost recovery fishing during the first week of July and to harvest half of the cost recovery goal by the end 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 following rotational fishing schedule will be in effect for the 2003 season:

From the beginning of the season 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 inseason adjustments to ensure the NSRAA cost recovery remains on schedule and the seasonal cost recovery goal is achieved. An 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 Eastern Channel 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 chum 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 2003 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.

During the 2003 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 2003 by emergency order under authority of 5 AAC 39.325 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 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.

### ***Southern Southeast Regional Aquaculture Association Terminal Area Fisheries***

The terminal hatchery fisheries at Neets Bay, Nakat Inlet, Earl West Cove (Eastern Passage), and Anita Bay will be managed jointly with SSRAA and according to Board of Fisheries management plans. The open gillnet fishing times listed here were agreed upon by the SSRAA Board of Directors but are subject to change if necessary. Any changes to these schedules will be announced via news releases prior to, and during, the fishing season.

#### **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 easternmost tip of Bug Island to the closed waters at the head of the bay.

In 2003 SSRAA is expecting a total return of 1.6 million summer chum, 400,000 fall chum, 160,000 coho, and 14,000 king salmon to return to Neets Bay.

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. The SSRAA Board of Directors adopted the following drift gillnet fishing schedule for Neets Bay THA in 2003:

**Neets Bay:**

From 12:01 a.m. Thursday, May 15 to 11:59 p.m. Saturday, May 31

From 12:00 noon Sunday, June 1 to 12:00 noon Tuesday, June 3

From 12:00 noon Friday, June 6 to 12:00 noon Sunday, June 8

From 12:00 noon Wednesday, June 11 to 12:00 noon Friday, June 13

From 12:00 noon Monday, June 16 to 12:00 noon Wednesday, June 18

From 12:00 noon Thursday, September 25 to 12:00 noon Saturday, September 27

From 12:00 noon Tuesday, September 30 to 12:00 noon Thursday, October 2

From 12:00 noon Sunday, October 5 to 12:00 noon Tuesday, October 7

From 12:00 noon Friday, October 10 to 12:00 noon Sunday, October 12

From 12:01 a.m. Wednesday, October 15 to 11:59 p.m. Saturday, October 25

**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 2003, approximately 200,000 summer chum, 80,000 fall chum, and 15,000 coho salmon are expected to return to Nakat Inlet.

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. The SSRAA Board of Directors adopted the following drift gillnet fishing schedule for the Nakat Inlet THA in 2003:

**Nakat:**

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

From 12:00 noon Wednesday, June 4 to 12:00 noon Thursday, June 5

From 12:00 noon Saturday, June 7 to 12:00 noon Sunday, June 8

From 12:00 noon Tuesday, June 10 to 12:00 noon Wednesday, June 11

From 12:00 noon Friday, June 13 to 12:00 noon Saturday, June 14

From 12:00 noon Monday, June 16 to 12:00 noon Tuesday, June 17

From 12:00 noon Thursday, June 19 to 12:00 noon Friday, June 20

From 12:00 noon Sunday, June 22 to 12:00 noon Monday, June 23

From 12:00 noon Wednesday, June 25 to 12:00 noon Thursday, June 26

From 12:00 noon Saturday, June 28 to 12:00 noon Sunday, June 29

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

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

From 12:00 noon Tuesday, September 2 to 12:00 noon Wednesday, September 3  
From 12:00 noon Friday, September 5 to 12:00 noon Saturday, September 6  
From 12:00 noon Monday, September 8 to 12:00 noon Tuesday, September 9  
From 12:00 noon Thursday, September 11 to 12:00 noon Friday, September 12  
From 12:00 noon Sunday, September 14 to 12:00 noon Monday, September 15  
From 12:00 noon Wednesday, September 17 to 12:00 noon Thursday, September 18

From 12:01 a.m. Saturday, September 20 until closed by emergency order.

### **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 2003 approximately 10,000 king, and 60,000 summer chum salmon are expected to be returning to Eastern Passage. It is projected that about 4,000 king and 45,000 chum salmon will be available for harvest in the terminal area. The SSRAA Board of Directors adopted the following drift gillnet fishing schedule for the Eastern Passage THA in 2003:

#### **Earl West Cove:**

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

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

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

From 12:00 noon Friday, August 1 to 12:00 noon Saturday, August 2  
From 12:01 a.m. to 11:59 p.m. Sunday, August 3  
From 12:00 noon Monday, August 4 to 12:00 noon Tuesday, August 5  
From 12:01 a.m. to 11:59 p.m. Wednesday, August 6  
From 12:00 noon Thursday, August 7 to 12:00 noon Friday, August 8  
From 12:01 a.m. to 11:59 p.m. Saturday, August 9  
From 12:00 noon Sunday, August 10 to 12:00 noon Monday, August 11  
From 12:01 a.m. to 11:59 p.m. Tuesday, August 12  
From 12:00 noon Wednesday, August 13 to 12:00 noon Thursday, August 14  
From 12:01 a.m. to 11:59 p.m. Friday, August 15  
From 12:00 noon Saturday, August 16 to 12:00 noon Sunday, August 17  
From 12:01 a.m. to 11:59 p.m. Monday, August 18  
From 12:00 noon Tuesday, August 19 to 12:00 noon Wednesday, August 20  
From 12:01 a.m. to 11:59 p.m. Thursday, August 21  
From 12:00 noon Friday, August 22 to 12:00 noon Saturday, August 23  
From 12:01 a.m. to 11:59 p.m. Sunday, August 24  
From 12:00 noon Monday, August 25 to 12:00 noon Tuesday, August 26  
From 12:01 a.m. to 11:59 p.m. Wednesday, August 27  
From 12:00 noon Thursday, August 28 to 12:00 noon Friday, August 29  
From 12:01 a.m. to 11:59 p.m. Saturday, August 30  
From 12:00 noon Sunday, August 31 to 12:00 noon Monday, September 1

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

From 12:00 noon Saturday, September 27 to 12:00 noon Sunday, September 28  
From 12:00 noon Tuesday, September 30 to 12:00 noon Wednesday, October 1

From 12:00 noon Friday, October 3 to 12:00 noon Saturday, October 4  
From 12:00 noon Monday, October 6 to 12:00 noon Tuesday, October 7  
From 12:00 noon Thursday, October 9 to 12:00 noon Friday, October 10

From 12:01 a.m. Sunday, October 12 until closed by emergency order.

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

In the Wrangell Narrows (District 6) terminal area, the projected king salmon return is 4,900 adults to the terminal area. Under provisions of the Wrangell Narrows-Blind Slough Terminal Harvest Area Management Plan 50% of the return over 4,000 king salmon (450) will be available for commercial troll catch in the terminal area. No terminal gillnet fishery is anticipated.

The total Crystal Lake Hatchery coho salmon return is expected to be 7,000 fish; of that, an estimated 2,200 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**

The Anita Bay terminal area consists of the waters of Anita Bay west of 132°24.40' W. longitude. In 2003 approximately 20,000 coho salmon are expected to be returning. It is anticipated that approximately 3,000 of these will return to the terminal area and be available for harvesting in the rotational fisheries. The SSRAA Board of Directors adopted the following drift gillnet fishing schedule for Anita Bay THA in 2003:

#### **Anita Bay:**

From 12:01 a.m. to 11:59 p.m. Thursday, August 21  
From 12:00 noon Friday, August 22 to 12:00 noon Saturday, August 23  
From 12:01 a.m. to 11:59 p.m. Sunday, August 24  
From 12:00 noon Monday, August 25 to 12:00 noon Tuesday, August 26  
From 12:01 a.m. to 11:59 p.m. Wednesday, August 27  
From 12:00 noon Thursday, August 28 to 12:00 noon Friday, August 29  
From 12:01 a.m. to 11:59 p.m. Saturday, August 30  
From 12:00 noon Sunday, August 31 to 12:00 noon Monday, September 1

From 12:00 noon Wednesday, September 3 to 12:00 noon Thursday, September 4  
From 12:00 noon Saturday, September 6 to 12:00 noon Sunday, September 7  
From 12:00 noon Tuesday, September 9 to 12:00 noon Wednesday, September 10  
From 12:00 noon Friday, September 12 to 12:00 noon Saturday, September 13

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

From 12:00 noon Friday, October 3 to 12:00 noon Saturday, October 4  
From 12:00 noon Monday, October 6 to 12:00 noon Tuesday, October 7  
From 12:00 noon Thursday, October 9 to 12:00 noon Friday, October 10

From 12:01 a.m. Sunday, October 12 until closed by emergency order.

***Douglas Island Pink and Chum Inc. Terminal Area Fisheries***

**Terminal Area — Boat Harbor**

DIPAC has been operating chum salmon remote release sites at Boat Harbor and Amalga Harbor since 1988 and 1991, respectively. This year the Boat Harbor return is expected to be approximately 177,000 fish, an increase from last year. No hatchery cost recovery fishery is planned for the Boat Harbor area so these fish will all be available for common property fishery harvest. Chum salmon returning to the Amalga Harbor remote release site in Section 11-A will also be intercepted in the Boat Harbor terminal fishery and in other areas of Section 15-C. The projection for Amalga Harbor returns is approximately 1,730,000 a substantial increase from last year. DIPAC will conduct a hatchery cost recovery fishery in its Amalga Harbor Special Harvest Area in Section 11-A to harvest chum salmon returning to the Amalga Harbor remote release site.

**Special Harvest Area — Speel Arm**

The expected return of Snettisham Hatchery sockeye salmon in 2003 is 218,000 fish, which is an increase from last year's total return of approximately 127,000 fish. This return will be principally harvested in the traditional District 11 commercial gillnet fishery. Common property fishery openings are also expected to occur during August in the DIPAC Speel Arm SHA, which is located in waters of Speel Arm north of 58°03'25" N. latitude. Timing of openings in the SHA will depend on DIPAC's progress toward brood stock and cost recovery goals and the sockeye salmon escapement to Speel Lake. DIPAC cost recovery efforts in the SHA during July will be limited to waters in the immediate vicinity of the hatchery where wild and hatchery stocks are well segregated. Fishery management decisions for the Speel Arm SHA will be made jointly by the department and DIPAC.

## FISHERY CONTACTS

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

Ketchikan	-	(907) 225-6870
Petersburg	-	(907) 772-3700
Sitka	-	(907) 747-5022
Juneau	-	(907) 465-8905
Haines		(907) 766-2830

## **APPENDIX**

Appendix 1. Lynn Canal and Chilkat River King Salmon Fishery Management Plan.

**5 AAC 33.384. Lynn Canal and Chilkat River King Salmon Fishery Management Plan.** (a) The purpose of this management plan is to ensure biological spawning escapement requirements of king salmon to the Chilkat River. It is the intent of the Board of Fisheries (board) that Chilkat River king salmon be harvested in the fisheries that have historically harvested them. The board, through this management plan, recognizes that the commercial drift gillnet fishery in Chilkat Inlet and the subsistence fisheries in Chilkat Inlet and the Chilkat River are directed primarily toward sockeye salmon but catch king salmon incidentally. A secondary goal of this management plan is to provide a reasonable opportunity to harvest sockeye salmon in the Chilkat Inlet and Chilkat River subsistence fisheries while minimizing the incidental harvest of king salmon. This management plan provides the department guidelines to preclude allocation conflicts between the various user groups of this resource. The department shall manage the Chilkat River king salmon stocks in a conservative manner consistent with sustained yield principles.

(b) The department shall close the subsistence net fisheries in Chilkat Inlet north of a line extending from an ADF&G regulatory marker approximately one mile south of Anchorage Point to an ADF&G regulatory marker directly north of the Lenikof Cove boat ramp, through July 15. In the Chilkat River, excluding that portion of the river from Haines highway mile 19, continuing upstream to Well's Bridge, from approximately the third week of June through the fourth week of July.

(c) The department shall manage the commercial and sport fisheries in Lynn Canal to achieve an inriver run goal of 1,850 to 3,600 king salmon in the Chilkat River upstream of the department fish wheels located approximately adjacent to mile 9 of the Haines highway. The inriver run goal provides for the following:

(1) a biological escapement goal (BEG) of 1,750 to 3,500 large king salmon (three ocean age and older) to the Chilkat River; and

(2) an incidental harvest of king salmon in the Chilkat River subsistence sockeye fishery.

(d) The department will evaluate the inriver run of king salmon based on the following:

(1) primarily a pre-season projected run of Chilkat River king salmon to Lynn Canal;

(2) inseason fisheries performance; and

(3) inriver stock assessment programs.

(e) The department shall manage the commercial and drift gillnet and troll fisheries in Lynn Canal, and the sport king salmon fishery in Chilkat Inlet, as follows:

(1) the department shall close the commercial troll fishery in Chilkat Inlet north of a ADF&G regulatory marker immediately north of Seduction Point through July 14;

(2) if the projected inriver run of king salmon to the Chilkat River is 1,850 fish (three ocean age and older) or less, the department shall:

(A) close the commercial drift gillnet fishery in Chilkat Inlet north of a ADF&G regulatory marker immediately north of Seduction Point through the first two weeks of the fishery; during the third and fourth week of the fishery, the Chilkat Inlet north of Glacier Point shall be closed; during the fifth week, the commercial drift gillnet fishery in Chilkat Inlet north of Cannery Point shall be closed; and

(B) close sport fishing for king salmon in Chilkat Inlet north of a ADF&G regulatory marker immediately north of Seduction Point through June 30; close king salmon fishing in Chilkat Inlet north of a line extending from an ADF&G regulatory marker one mile south of Anchorage Point to an ADF&G regulatory marker directly north of the Letnikof Cove boat ramp, through July 15; in the remainder of Chilkat Inlet north of Seduction Point, from July 1 – July 15, sport fishers are allowed a bag and possession limit of one king salmon, 28 inches or greater in length;

(3) if the projected inriver run of king salmon to the Chilkat River is 1,850 to 3,600 fish the department shall;

(A) close the commercial drift gillnet fishery in Chilkat Inlet north of a ADF&G regulatory marker immediately north of Seduction Point through the first two weeks of the fishery; during the third week of the fishery, close the area in Chilkat Inlet north of Glacier Point; during the fourth week, close the area in Chilkat Inlet north of Cannery Point; and

(B) close sport fishing for king salmon in Chilkat Inlet north of a line extending from an ADF&G regulatory marker approximately one mile south of Anchorage Point to an ADF&G regulatory marker directly north of the Lenikof Cove boat ramp from April 15 through July 15;

(4) if the projected inriver run of king salmon to the Chilkat River is greater than 3,600 fish the department shall;

(A) close the commercial drift gillnet fishery in Chilkat Inlet north of a ADF&G regulatory marker immediately north of Seduction Point through the first week of the fishery; during the second week of the fishery, close the area in Chilkat Inlet north of Glacier Point; during the third week, close the area in Chilkat Inlet north of Cannery Point; and

(B) close sport fishing for king salmon in Chilkat Inlet north of a line extending from an ADF&G regulatory marker approximately one mile south of Anchorage Point to an ADF&G regulatory marker directly north of the Lenikof Cove boat ramp from April 15 through July 15; the commissioner may, through emergency order, increase the bag and possession limits of king salmon north of Seduction Point.

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