

2002
YUKON AREA
SUBSISTENCE, PERSONAL USE, AND COMMERCIAL
SALMON FISHERIES OUTLOOK AND
MANAGEMENT STRATEGIES



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By

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To familiarize yourself with the federal regulations you should consult the *Subsistence Management Regulations for the Harvest of Fish and Shellfish on Federal Public Lands and Waters in Alaska* for details. Copies may be obtained at federal offices. Calling the federal agencies is also recommended as in-season closures or temporary regulatory changes can occur at any time and may not be reflected in their annual regulatory publication.

For more information, or a copy of federal regulations, please contact:

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1.0 INTRODUCTION

This provides the 2002 outlook for the Yukon Area salmon runs as well as the management strategies for the subsistence, personal use, and commercial salmon fisheries. Subsistence fishing in portions of the Yukon Area is under joint management authority of the Alaska Department of Fish & Game and the U.S. Fish and Wildlife Service (USFWS). Fishermen are reminded that they should consult both the State of Alaska fishing regulations and the Federal Subsistence Management Regulations for Federal Public Lands before fishing in the Yukon Area.

The Yukon Area includes all waters of Alaska within the Yukon River drainage and coastal waters from Point Romanof, northeast of Kotlik, to the Naskonat Peninsula. For management purposes the Yukon Area is divided into seven districts and ten subdistricts (Figure 1). Commercial fishing may be allowed along the entire 1,224 miles of the Yukon River in Alaska and along the lower 225 miles of the Tanana River. The Coastal District includes the majority of coastal marine waters within the Yukon Area and is open only to subsistence fishing. The Lower Yukon Area, Districts 1, 2, and 3, includes coastal waters of the Yukon River delta and that portion of the Yukon River drainage downstream of Old Paradise Village (river mile 301). The Upper Yukon Area, Districts 4, 5, and 6, is the Alaskan portion of the Yukon River drainage upstream of Old Paradise Village.

Chinook, chum, coho, and pink salmon are harvested in Yukon River fisheries. The Yukon River chum salmon return consists of an earlier and more abundant summer chum salmon run and a later fall chum salmon run. No directed commercial fishing has occurred for pink salmon within the Yukon River drainage. Aboriginal, commercial, domestic, and sport salmon fisheries also occur in Canada, with fishery management activities conducted by the Canadian Department of Fisheries and Oceans (DFO).

2.0 OUTLOOK FOR 2002

2.1 CHINOOK SALMON

Yukon River chinook salmon return primarily as age-5 and age-6 fish, although age-4 and age-7 fish also contribute to the run. Spawning ground escapements in 1996, the brood year producing 6-year-old fish returning in 2002, were judged to be average in magnitude. However, the return of salmon since 1998 has been well below average in strength indicating abnormally poor production from adequate parent year escapements. Assuming continued below-average trends in survival rates of parent year escapements, the return of 5- and 6-year-old fish in 2002 is expected to be below average.

Overall, the 2002 Yukon River chinook salmon run is anticipated to be below average to poor in strength for the fifth year in a row. Given the uncertainties associated with recent declines in productivity, it is anticipated the run will support an average subsistence harvest and possibly a small commercial harvest. The fishery will be managed based upon inseason assessments of the actual returns. If inseason qualitative indicators of run strength suggest sufficient abundance exists to have a commercial fishery, the commercial harvest in Alaska could range from 0 to 20,000 chinook salmon (0 to 18,000 fish in the Lower Yukon Area and 0 to 2,000 fish in the Upper Yukon Area). This represents a range of catch well below all other years with the exception of 2000 (9,000 chinook salmon harvested in the commercial fishery) and 2001 (fishery closed) during the previous 30-year period.

2.2 SUMMER CHUM SALMON

Yukon River summer chum salmon return primarily as age-4 and age-5 fish therefore the returns in 2002 will be from the parent years 1997 and 1998. Summer chum salmon spawning escapements to selected tributaries in 1997 ranged from adequate to below average. In 1998, spawning escapements were slightly above the low end of the recently established biological escapement goal (BEG) ranges in the Anvik and East Fork Andreafsky Rivers. Escapements into other monitored tributaries did not meet minimum goals or were considered inadequate. In 2001, it appeared that recent declines in the productivity of Yukon River summer chum salmon continued. This trend is similar to the declines seen in many chinook and chum salmon stocks in the Bering Sea region. Specifically, production of Anvik River chum salmon, which represent the largest spawning stock of Yukon River summer chum salmon, has fallen well below one return per spawner for the most recent returning broods. Causes for the observed decrease in productivity are still largely unknown. There is uncertainty as to how long this trend will continue, and whether productivity could be reduced even further. While exact reasons for the run failures are unknown, it is speculated that the Pacific Decadal Oscillation, which affects the entire Bering Sea, had influence on poor marine survival. The recent decline in Yukon River salmon runs has been attributed to reduced productivity and not the result of low levels of parent year escapements. Nearly all stocks are continuing to exhibit decreased production levels, in some cases bordering on production failure.

Overall, the 2002 summer chum salmon run is anticipated to be poor in strength. Given the uncertainties associated with recent declines in productivity, and the beginning of below average parent-year escapements, it is unlikely the run will support a commercial harvest. If necessary, subsistence harvest opportunity may also require reductions to provide for escapements. If inseason qualitative indicators of run strength suggest sufficient abundance exists to have a commercial fishery, the commercial harvest in Alaska could range from 0 to 150,000 summer chum salmon.

2.3 FALL CHUM SALMON

Drainage-wide, Yukon River fall chum salmon escapements for the period 1974 through 1995 have been estimated by ADF&G to have ranged from approximately 180,000 (1982) to 1,500,000 (1975) fish. Escapements in these years resulted in subsequent returns that ranged in size from approximately 315,000 (1995 production) to 1,400,000 (1975 production) fish. Corresponding return per spawner rates ranged from 0.3 to 3.2, with an average of 1.9 for all years combined.

Yukon River fall chum salmon return primarily as age-4 or age-5 fish, although age-3 and age-6 fish also contribute to the run. A Ricker spawner-recruit model was used to predict the returns from the 1996 to 1999 parent years that will contribute to the 2002 fall chum salmon run. This process resulted in a projection of 646,000 fall chum salmon with the following approximate age composition:

Age-3 fish	9,100	(1999 Brood Year)	1.4 %
Age-4 fish	362,800	(1998 Brood Year)	56.2 %
Age-5 fish	258,500	(1997 Brood Year)	40.0 %
Age-6 fish	15,200	(1996 Brood Year)	2.4 %
Totals	646,000	Four Brood Years	100 %

There is a level of uncertainty associated with the 2002 Yukon River fall chum salmon outlook. Very dramatic declines in fall chum salmon returns to western Alaska were realized in 1997 through 2000. This trend continued to most areas in 2001. While exact reasons for the region-wide failure are unknown, it has

been speculated that it is likely an artifact of poor marine survival resulting from or accentuated by localized conditions in the Bering Sea. Weakness in the salmon runs at the beginning of this downward trend has been attributed to reduced productivity and not completely the result of low levels of parental escapement.

Although a very strong fall chum salmon run was realized in 1996 it contributes little to the 2002 projection as age-6 fish. The return in 1997 was below the odd-year average run size. In 1997, the lower ends of the escapement goal ranges were met in all areas with exception of the Fishing Branch River. The major contributor to the 2002 fall chum salmon run is anticipated to be age-4 fish returning from the parent year 1998. Since 1998 the majority of the fall chum salmon escapement goals have not been met, particularly in the upper Yukon River drainage. Should the factor(s) that affected the productivity of fish from the parent years that returned in 1997 and 1998 carry over to fish expected to return in 2002, then a weak return is once again likely to materialize.

Since 1999 the fall chum salmon projection has been presented as a range that includes the normal point projection as a high end. The lower end for 2002 was determined by reducing the normal point projection by the average ratio of observed to predicted returns for 1998 through 2001. During this time period the observed return averaged only 32% of the predicted. Thus, the projection for 2002 is presented as a range of 209,000 to 646,000 fall chum salmon.

The potential for another weak return is not unreasonable given there has been speculation that longer-term climatic changes taking place in the North Pacific Ocean and Bering Sea may result in lowering future salmon production. The return of age-4 fish from even-numbered brood years during the most recent decade typically averages 412,000 chum salmon, and ranges from 175,000 for brood year 1988 to a high of 668,000 for brood year 1992. The average run size for even-numbered years is 651,000 chum salmon and the total run size has only reached one million chum salmon in one year, 1996. Should the productivity continue to be poor it is likely that total run size in 2002 will materialize toward the lower end of the projected range.

At a projected run size of less than 646,000 fall chum salmon the run is unlikely to support a commercial harvest. Run assessment will primarily be based on inseason indicators and subsistence harvest opportunities may be reduced to provide for escapement based on the levels stipulated in the Alaska Yukon River Drainage Fall Chum Salmon Management Plan.

2.4 COHO SALMON

Although comprehensive escapement information on Yukon River drainage coho salmon is lacking, it is known that coho salmon primarily return as age-4 fish and overlap in run timing with fall chum salmon. An average return of coho salmon would be anticipated in 2002, based upon parental escapement levels observed in several spawning streams in 1998 and assuming average survival. However, should mortality factors that contributed to recent Western Alaska salmon run failures in recent years also affect marine survival of coho salmon from the 1998 brood year, then a below average run of coho salmon could be expected in 2002.

The Alaska Yukon River coho salmon management plan allows for a directed commercial coho salmon fishery, but only under very unique conditions. Directed coho salmon fishing is dependent on the assessed levels of return for both coho and fall chum salmon since they commonly return mixed together. A directed commercial coho salmon fishery is not likely to occur in 2002 because of the poor outlook for fall chum salmon combined with an average coho salmon return.

3.0 MANAGEMENT STRATEGY FOR 2002

The department manages Yukon Area salmon according to policies and regulations established by the Alaska Board of Fisheries (BOF). Management of the Yukon Area commercial salmon fishery is complex due to the inability to determine stock specific run size and timing, increased efficiency of the commercial fleet, allocation issues, and dual management of the subsistence fishery. The Yukon River Drainage Subsistence Salmon Fishery Management Protocol provides guidelines for coordinated management with federal agencies concerning subsistence fisheries on waters under federal jurisdiction. However, state and federal managers may not agree on specific management actions, which could result in differing regulations for waters under state or federal jurisdiction.

In 2001, the department completed a review of escapement goals for several Yukon River chinook, summer chum, and fall chum salmon stocks where long-term escapement, catch, and age composition data exist. This enabled the development of BEG's based on analysis of production consistent with the department's Escapement Goal Policy. The stocks for which BEGs were established and will be used in management this season include the Salcha and Chena River chinook salmon, the Anvik and Andreafsky River summer chum salmon, and the Toklat, Delta, Chandalar, Sheenjek, and Tanana River fall chum salmon. In addition, a Yukon River drainage-wide escapement goal review was also completed. Fall chum salmon escapement goals for the Fishing Branch and Canadian Yukon River mainstem are currently under review.

In addition to establishing new escapement goals for certain stocks, the department also changed some existing BEGs to sustainable escapement goals (SEGs) based on the Escapement Goal Policy and the Sustainable Fisheries Policy. The Sustainable Salmon Fisheries Policy defines various levels of escapement in a manner consistent with sustained yield. Previous BEGs that were estimated in the absence of a stock specific catch estimate and were used as an index or an escapement estimate are now defined as an SEG. The following is a list of BEGs and SEGs that will be used for management this season.

List of current BEGs or SEGs for chinook salmon.

Stream	Goal
East Fork Andreafsky River Aerial Survey	> 1,500 SEG
West Fork Andreafsky River Aerial Survey	> 1,400 SEG
Anvik River Aerial Survey	> 1,300 SEG
Nulato River Aerial Survey	> 1,300 SEG
Gisasa River Aerial Survey	> 600 SEG
Chena River Tower	2,800-5,700 BEG
Salcha River Tower	3,300-6,500 BEG
Canada Mainstem Tagging Rebuilding Goal	>25,000 or > 28,000 *

* If the 2002 chinook salmon run is only large enough to meet escapement and subsistence/aboriginal needs, then the agreed spawning escapement goal into Canada is 25,000 fish. If the 2002 chinook run is large enough to provide for a limited commercial harvest, then the agreed spawning escapement goal into Canada is 28,000 fish.

List of BEGs or SEGs for summer chum salmon.

Stream	Goal
East Fork Andreafsky River Aerial Survey	35,000 – 70,000 BEG
East Fork Andreafsky River Weir	65,000 – 135,000 BEG
West Fork Andreafsky River Aerial Survey	35,000 – 70,000 BEG
Anvik River Sonar	400,000 – 800,000 BEG
Drainage-wide Escapement (Above Pilot Station)	800,000 – 1,600,000 *

* Inriver run goal – this is a specific management objective for salmon stocks that are subject to harvest upstream of the point where escapement is estimated.

List of BEGs for fall chum salmon.

Stream	Biological Escapement Goal
Drainage-wide Escapement	300,000-600,000
Tanana River drainage	61,000-136,000
Upper Tanana River	46,000-103,000
Delta River	6,000-13,000
Toklat River	15,000-30,000
Chandalar River	74,000-152,000
Sheenjok River	50,000-104,000
Fishing Branch	27,000-56,000*
Canadian Yukon River Mainstem *	>60,000 **

*Currently in review.

** For 2002, the Canadian Yukon River mainstem goal is greater than 60,000.

3.1 ALASKA BOARD OF FISHERIES ACTIONS

In response to the guidelines established in the Sustainable Salmon Fisheries Policy, the BOF classified the Yukon River chinook and fall chum salmon stocks as yield concerns during the September, 2000 work session. This determination was based on the inability, despite the use of specific management measures, to maintain expected yields, or harvestable surpluses, above the stock's escapement needs since 1998 and the anticipated low harvest level in 2001. In addition, the BOF classified the Yukon River summer chum and fall chum Toklat and Fishing Branch River salmon stocks as management concerns. The determination of the management concerns was based on the chronic inability to meet existing escapement goals for the summer chum stock since 1998 and for the Toklat and Fishing Branch Rivers fall chum salmon stocks since 1997.

Action plans were developed through the BOF process to guide the department in managing each stock of concern. The action plans contained goals, measurable and implementable objectives, and provisions including fishery management actions needed to achieve rebuilding goals and objectives, in proportion to each fishery's use of, and hazards posed to, a salmon stock.

Regulatory actions adopted by the board to protect the Yukon River stocks of concern included a 70% reduction of the Area M/False Pass commercial fishing time, an expansion of the Yukon River king salmon and summer chum salmon management plans, and development of a subsistence salmon fishing schedule. Other notable regulatory changes included Emergency Order (EO) authority to restrict subsistence gillnets to no greater than 6-inch mesh size; allow the use of dip nets; and EO authority to establish methods, means, and seasons or bag limits for the rod and reel subsistence fishery in the AVCP Region. Most of the Board of Fish actions during that meeting directly affected subsistence fishing in the Yukon River drainage.

Additional regulatory changes made during an out-of-cycle BOF meeting in March 2002 provided the department EO authority to remove the requirement for clipping the dorsal fin of subsistence caught king salmon during times when there is no commercial fishing. In addition, ADF&G managers were given authority to regulate personal use fishing gear during times of conservation, including the addition of dip net gear. A complete summary of the most recent BOF actions affecting the Yukon River drainage can be found in Appendix C.

3.2 SUBSISTENCE FISHERY

Subsistence fishing occurs throughout most of the Yukon Area and has the highest priority among all uses of the resource. When the salmon stocks are abundant, it is necessary to place some restrictions on the subsistence fishery in order to enforce commercial fishing regulations. For example, subsistence salmon fishing is closed in most areas 24 hours prior to the commercial salmon season to discourage the illegal sale of subsistence caught salmon or salmon roe. However, substantially more fishing time is allowed throughout the fishing season for subsistence than for commercial purposes. Since the 2002 chinook salmon return is projected to be low, only a small commercial harvest may be possible. The chum salmon runs are expected to be poor and it is unlikely there will be any directed commercial fishing periods, therefore management will be focused on subsistence fishing.

In January 2001, the BOF adopted a subsistence salmon fishing schedule to increase the quality of escapement, spread the harvest throughout the run to reduce the impact on any particular component of the run and spread subsistence harvest opportunity among users throughout the Yukon drainage. When there are no commercial salmon fishing periods, the subsistence salmon fishery will be based on a schedule implemented chronologically by the department, consistent with migratory timing as the run progresses upstream. The schedule is based on current or past fishing schedules and should provide reasonable opportunity for subsistence during years of normal to below average runs. The goal of the schedule listed below is to provide windows of time during which salmon may migrate upriver unexploited. This schedule is in regulation (5AAC 01.210 & 5AAC 05.360). Subsistence fishing is open 7 days/week until the schedule is implemented.

Regulatory Subsistence Salmon Fishing Schedule

<i>Area</i>	Regulatory subsistence fishing periods	Schedule Begins	Days of the week
District 1	Two 36-hour periods/week	May 30, 2002	Mon 8pm to Wed 8 am /Thu 8pm to Sat 8am
District 2	Two 36-hour periods/week	June 2, 2002	Sun 8pm to Tue 8am /Wed 8pm to Fri 8am
District 3	Two 36-hour periods/week	June 5, 2002	Sun 8pm to Tue 8am /Wed 8pm to Fri 8am
District 4	Two 48-hour periods/week	June 12, 2002	Sun 6pm to Tue 6pm /Wed 6pm to Fri 6pm
Subdistricts 5-B, C	Two 48-hour periods/week	June 21, 2002	Tue 6pm to Thu 6pm /Fri 6pm to Sun 6pm
Subdistrict 5-A	Two 42-hour periods/week	June 21, 2002	Tue 6pm to Thu Noon /Fri 6pm to Sun Noon
Subdistrict 6-A, B*	Two 42-hour periods/week	By regulation	Mon 6pm to Wed Noon /Fri 6pm to Sun Noon
Old Minto Area	5 days/week	By regulation	Friday 6pm to Wednesday 6pm
Coastal District	7 days/week	By regulation	M/T/W/TH/F/SA/SU – 24 hours
Koyukuk River	7 days/week	By regulation	M/T/W/TH/F/SA/SU – 24 hours
Subdistrict 5-D	7 days/week	By regulation	M/T/W/TH/F/SA/SU – 24 hours

* Subdistrict 6-C (Personal Use Area) is on the Subdistrict 6-A, B fishing schedule.

If inseason run strength suggests a sufficient abundance is present and a commercial fishery is allowed, then the subsistence fishing schedule shall revert to the schedule specified in 5 AAC 01.210 FISHING SEASONS AND PERIODS, unless modified by emergency order.

During closed subsistence salmon fishing periods, subsistence fishing for whitefish, suckers, and other non-salmon species will continue to be allowed throughout the drainage. To direct the harvest to non-salmon species during subsistence salmon fishing closed periods, gear restrictions will be announced inseason limiting mesh size to 4 inches or less and gillnet length to a maximum of 60 feet, and prohibiting the use of fish wheels. This opportunity to target non-salmon species while protecting the salmon stocks concern may be discontinued if found ineffective at reducing salmon harvest. Subsistence whitefish and sucker permits are

required for the Tanana River drainage upstream of the Wood River, portions of District 5 in the upper Yukon River drainage near the Haul Road Bridge, and from above the village of Fort Yukon to the U.S./Canada border.

If any of the 2002 salmon runs are unable to provide for minimum spawning escapements, the subsistence salmon harvest will need to be reduced in order to protect the resource. The summer and fall chum salmon management plans adopted by the BOF provide guidelines for managing subsistence salmon fisheries based on inseason run projections. If subsistence harvest reductions are necessary, efforts will be made to spread the burden of conservation throughout the drainage. Potential harvest reduction measures include gear restrictions, reductions in fishing time, or extended periods of closed fishing. An example of a reduced schedule that was used in 2001 is shown below.

An Example of a Reduced Subsistence Fishing Schedule

<i>Area</i>	Reduced subsistence fishing periods	Days of the week
District 1	Two 24-hour periods/week	Mon 8pm to Tue 8pm /Thu 8pm to Fri 8pm
District 2	Two 24-hour periods/week	Sun 8pm to Mon 8pm /Wed 8pm to Thu 8pm
District 3	Two 24-hour periods/week	Sun 8pm to Mon 8pm /Wed 8pm to Thu 8pm
Subdistrict 4-A	Two 36-hour periods/week	Sun 6pm to Tue 6am /Wed 6pm to Fri. 6am
Subdistricts 4-B, C	Two 36-hour periods/week	Sun 6pm to Tue 6am /Wed 6pm to Fri 6am
Subdistricts 5-B, C	Two 36-hour periods/week	Tue 6pm to Thu 6am /Fri 6pm to Sun 6am
Subdistrict 5-A	Two 36-hour periods/week	Tue 6pm to Thu 6am /Fri 6pm to Sun 6am
District 6	Two 36-hour periods/week	Mon 6pm to Wed 6am /Fri 6pm to Sun 6am
Coastal District	Four days/week	Tue 6pm to Sat 6pm
Koyukuk River	Four days/week *	Tue 6pm to Sat 6pm
Subdistrict 5-D	Two 48-hour periods/week	Tue 6pm to Thu 6pm /Fri 6pm to Sun 6pm

* Altered from two 48-hr periods/week based upon input from area fishers.

If a reduction in subsistence harvest is necessary for a particular species, it may be possible to accomplish this by closing a scheduled fishing period or through gear restrictions rather than a reduction in fishing time. If conservation measures need to be taken for summer chum salmon, gillnet mesh size may be restricted to 8 inches or greater. Conservation of fall chum salmon may require fish wheels to be equipped with a live box or live chute. The department will attempt to provide the opportunity to harvest a species for which a surplus has been identified while allowing the conservation of another species.

The department encourages fishermen to keep track of their subsistence salmon harvest on their subsistence catch calendar or subsistence fishing permit. Non-permitted fishermen who do not receive a subsistence salmon calendar by mail may obtain one by contacting the department in either Emmonak or Fairbanks. In an effort to encourage fishermen to use and return catch calendars, return postage for the 2002 calendar has been prepaid by the department. Additionally, a \$200 lottery will be conducted following the season for which all households that have returned properly filled out calendars will be entered.

3.2.1 Districts 1, 2, and 3

The subsistence salmon fishing schedule in Districts 1, 2, and 3 is two 36-hour periods per week throughout the entire fishing season as previously stated unless inseason run strength suggests a sufficient abundance is present and a commercial fishery is opened. In years when commercial fishing occurs, subsistence fishing is allowed only between commercial periods. During the chinook and summer chum salmon commercial

fishing season, subsistence salmon fishing will be closed 18 hours before, during, and 12 hours following a commercial salmon fishing period. During the fall chum season, subsistence salmon fishing will be closed 12 hours before, during, and 12 hours following each District 1, 2 or 3 commercial salmon fishing period. However, the 2002 chum salmon runs are anticipated to be poor and subsistence fishing time may be reduced to attain minimum spawning escapements.

In 2002, the BOF provided the department with EO authority to suspend the dorsal fin clip marking requirement for subsistence taken chinook salmon in Districts 1, 2, and 3 during times when there is no commercial fishery. If a commercial fishery should open, the marking requirement will be reinstated.

3.2.2 District 4

The subsistence salmon fishing schedule in District 4, is two 48-hour periods per week throughout the fishing season. However, the 2002 chum salmon runs are anticipated to be poor and subsistence fishing time may be reduced to attain minimum spawning escapements. Regulations also separate subsistence fishing periods with set gillnet, fish wheel, and beach seine gear from commercial fishing periods in Subdistrict 4-A. During the commercial salmon fishing season, subsistence salmon fishing with set gillnet, fish wheel, and beach seine gear will be closed 12 hours before, during, and 12 hours following a Subdistrict 4-A commercial salmon fishing period. However, chinook salmon may be taken with drift gillnet gear only for two 48-hour periods per week during the commercial salmon fishing season from 6:00 p.m. Sunday until 6:00 p.m. Tuesday, and from 6:00 p.m. Wednesday until 6:00 p.m. Friday.

If the commercial salmon fishing season is opened in Subdistricts 4-B and 4-C, managers will attempt to coincide allowable commercial salmon fishing periods with the traditional subsistence salmon fishing schedule. When the department announces a commercial fishing closure that will last longer than five days in duration during the commercial salmon season, subsistence salmon fishing will revert back to the standard of two 48-hour periods/week.

3.2.3 District 5

In Subdistrict 5-D, subsistence salmon fishermen may take salmon seven days per week throughout the season. The subsistence salmon fishing schedule in Subdistricts 5-B and 5-C is two 48-hour periods per week with fishing times from Tuesdays at 6 p.m. through Thursdays at 6 p.m. and from Fridays at 6 p.m. through Sundays at 6 p.m. Subdistrict 5-A has a subsistence salmon fishing schedule of two 42-hour periods per week from Tuesdays at 6 p.m. to noon on Thursdays and from Fridays at 6 p.m. to noon on Sundays. Subdistrict 5-A is managed using the Tanana River Salmon Management Plan. As in the other districts, subsistence salmon fishing may be reduced in an effort to conserve chinook and chum salmon, if inseason indicators of run strength suggest this is necessary.

If the commercial salmon fishing season were to open, attempts will be made to coincide the subsistence salmon fishing schedule with commercial periods. Additionally, subsistence only salmon fishing periods may also be scheduled. When the department announces a commercial fishing closure that will last longer than five days in duration during the commercial salmon season in Subdistricts 5-A, 5-B and 5-C, subsistence salmon fishing may be taken five days per week from 6:00 p.m. Tuesday until 6:00 p.m. Sunday, unless modified by emergency order.

In portions of District 5, regulations require subsistence fishermen to obtain subsistence fishing permits. Permit areas include the "Yukon River bridge area" and the Yukon River drainage from Twenty-two Mile Slough, located upstream of Fort Yukon, to the Canadian border. The Yukon River bridge area includes the Yukon River drainage from Hess Creek to the Dall River. Subsistence fishermen may obtain a permit by

contacting the department's office in Fairbanks. Permits may be issued in person or by mail. All permit holders are required to report harvest information on their permits and to return their permits to the department at the end of the fishing season.

3.2.4 District 6

Within the majority of Subdistricts 6-A and 6-B, the subsistence salmon fishing schedule is two 42-hour periods per week from 6:00 p.m. Monday until 12 noon Wednesday and from 6:00 p.m. Friday until 12 noon Sunday. One exception is within the Old Minto Area where subsistence salmon fishing is allowed five days a week from 6:00 p.m. Friday until 6:00 p.m. Wednesday. The Board of Fisheries changed the Old Minto Area lower boundary in January 2001. The area was extended downstream and now includes that portion of the Tanana River drainage from the downstream end of the Upper Tolovana Island up to a line three miles upstream from the mouth of Totchaket Slough. These subsistence salmon fishing schedules may be altered by emergency order if inseason indicators of run strength suggest this is necessary.

Regulations require subsistence salmon permits in District 6, the Tanana River drainage, except for Subdistrict 6-C, which is managed under personal use regulations (see Section 3.3). Subsistence salmon fishermen can obtain a permit by contacting the department's office in Fairbanks. Subsistence permit holders in that portion of Subdistrict 6-B, from a point three miles upstream of the mouth of Totchaket Slough to the upper boundary of Subdistrict 6-B, are required to report to the department each week the number of salmon taken. Permit holders can report their weekly catch on a message recording at (907) 459-7388. All Tanana River subsistence permit holders are required to record their harvest information on their permit and return expired permits to the department's office in Fairbanks at the end of the fishing season.

3.3 PERSONAL USE FISHERY

Subdistrict 6-C falls entirely within the Fairbanks Nonsubsistence Area and is managed under personal use regulations. Personal use salmon fishing permits are required in Subdistrict 6-C and can be obtained from the department's office in Fairbanks. Personal use fishermen must possess a valid State of Alaska resident sport fishing license and report their harvests to the department each week. There are fishery harvest limits in Subdistrict 6-C of 750 chinook, 5,000 summer chum, and 5,200 fall chum and coho salmon combined. If a harvest limit is reached inseason, the Subdistrict 6-C personal use fishery will be closed. However, the 2002 chum salmon runs are anticipated to be poor and personal use fishing time may be reduced to attain minimum spawning escapements.

The BOF has amended the regulation on lawful gear for personal use salmon fishing in order to provide the department EO authority to restrict gear type (e.g. mesh size of gillnets) and include dip nets as legal gear for the conservation of a salmon species. Without the ability to restrict gear type for the conservation of a salmon species, the personal use salmon fishery would likely forgo the opportunity to selectively harvest a specific salmon species for which a surplus has been identified. Whitefish and suckers may also be taken with dip nets under personal use fishing regulations.

3.4 COMMERCIAL FISHERY AND REPORTING REQUIREMENTS

One of the primary tools used in management of the commercial salmon fishery is the guideline harvest range established by the Alaska Board of Fisheries (Table 1). The department attempts to manage the commercial fisheries so that each district's harvest is proportionally similar to their respective guideline harvest range.

Emergency orders are used to open and close the commercial fishing seasons, establish fishing periods, and implement gear specifications.

All processors, buyers, and catcher/sellers of salmon are required to register with the department before operating in the Yukon Area. Processors, buyers, and catcher/sellers in Districts 1, 2, and 3 must register with the department's office in Emmonak. Processors, buyers, and catcher/sellers in Districts 4, 5, and 6 must register with the department's office in Fairbanks. Registered salmon buyers are required to provide a verbal report of their salmon purchases within 18 hours following the closure of a commercial fishing period. Buyers may verbally report harvest information in the Upper Yukon Area after office hours by calling a 24-hour message recording at (907) 459-7388. Buyers are also required to mail or deliver fish tickets to the department within 24 hours following closure of a commercial fishing period in the Lower Yukon Area. In the Upper Yukon Area, buyers are required to mail or deliver fish tickets to the department within 36 hours following the closure of a commercial fishing period. If there is incomplete reporting, the department may delay additional commercial fishing until the needed harvest reports are received. In addition, it is very important for buyers to accurately report on each fish ticket the statistical area where salmon were harvested.

All salmon caught by CFEC permit holders during commercial periods in which salmon roe was sold shall be reported as numbers of fish on fish tickets. Buyers are requested to ensure this information is reported on fish tickets. Regulations also require commercial fishermen in Subdistrict 6-C to report, on each fish ticket, the number of salmon harvested but not sold during commercial fishing periods.

3.5 CHINOOK AND SUMMER CHUM SALMON COMMERCIAL SEASON

The Yukon River chinook salmon run will be managed to achieve escapement goals established for selected streams in the Alaska portion of the drainage. The conservation and stock rebuilding efforts developed between the U.S. and Canada will continue by managing the fishery with a view to delivering to the Canadian border the agreed spawning escapement objective plus the midpoint of the Canadian guideline harvest range. The Canadian mainstem spawning escapement goal of 33,000 to 43,000 chinook salmon has been suspended by the US/Canada Yukon River Panel for the 2002 season to allow for a normal subsistence and aboriginal harvest by Alaska and Canadian fishermen, and increase the possibility of a limited commercial harvest. Two Canadian mainstem chinook salmon spawning escapement goals were agreed to for the 2002 run. If the 2002 chinook salmon run is only large enough to meet escapement and subsistence/aboriginal needs, then the agreed minimum spawning escapement goal into Canada is 25,000 fish. If the 2002 chinook run is large enough to provide for a limited commercial harvest, then the agreed minimum spawning escapement goal into Canada is 28,000 fish.

Inseason chinook salmon run assessment will be based on lower river test fisheries, subsistence catch reports, age and sex composition, and preliminary escapement monitoring information. As in years past, the department will participate in Yukon River Drainage Fisheries Association (YRDFA) teleconferences inseason to gather information from the public and to discuss run status and management actions.

The department will take a conservative management approach for chinook salmon based upon the unexpectedly poor returns the last four years. The age composition of the 2002 chinook run will be closely monitored to determine the strength of the 6-year-old return. If the abundance of chinook salmon in 2002 is identified to be similar to that in 2001, there may be an opportunity for a limited commercial harvest. The commercial harvest outlook is zero to 20,000 chinook salmon for Districts 1-6 combined. This harvest is well below the lower end of each districts guideline harvest range.

The Yukon River summer chum salmon run will be managed according to [5 AAC 05.362] *Yukon River Summer Chum Salmon Management Plan*. This plan was modified at the January 2001 Alaska Board of

Fisheries meeting to manage the summer chum salmon fisheries based on in-river run goals. The department shall use the best available data, including preseason run projections, test fishing indices, age and sex composition, subsistence and commercial fishing reports, and passage estimates from Pilot Station sonar and escapement monitoring projects to assess the run size for the purpose of implementing this plan as follows:

Summer Chum Salmon Management Plan Overview					
Projected Run Size ¹	RECOMMENDED MANAGEMENT ACTION				Targeted Drainagewide Escapement
	Commercial	Personal Use	Sport	Subsistence	
600,000 or less	Closure	Closure	Closure	Closure ²	≥600,000
600,01 to 700,000	Closure	Closure	Closure	Possible Restrictions ²	
700,001 to 1,000,000	Restrictions ²	Restrictions ²	Restrictions ²	Normal Fishing Schedules	
Greater than 1,000,000	Open ³	Open	Open	Normal Fishing Schedules	≥800,000

¹ PROJECTED RUN SIZES use the best available data (including preseason projections, mainstem river sonar passage estimates, test fisheries indices, subsistence and commercial fishing reports, and passage estimates from escapement monitoring projects)

² The fishery may be opened or less restrictive in areas that indicator(s) suggest the escapement goal(s) in that area will be achieved.

³ DRAINAGE-WIDE COMMERCIAL FISHERIES may be open and the harvestable surplus will be distributed by district or subdistrict (in proportion to the guidelines harvest levels established in 5AAC 05.362 (f) and (g) and 5 AAC 05.365).

Escapement monitoring projects include Pilot Station sonar, Anvik River sonar, the Kaltag River tower operated by the Alaska Cooperative Extension Service 4-H Fisheries and Bering Sea Fishermen's Association (BSFA); the Nulato River tower funded by BSFA and the department; weirs on the East Fork Andreafsky, Gisasa Rivers, and Henshaw Creek all operated by the United States Fish and Wildlife Service (USFWS); and Clear Creek weir operated by the Bureau of Land Management (BLM). USFWS will also be operating a new weir project on the Kateel River. In addition, BLM and Tanana Tribal Council will cooperatively operate a new weir on the Tozitna River.

The department will manage the summer chum salmon run conservatively, based upon the assumption that poor marine productivity will continue in 2002. The commercial harvest outlook is zero to 150,000 summer chum salmon for Districts 1-6 combined. If the abundance of summer chum salmon in 2002 is similar to that in 2001, any summer chum salmon commercial harvest would be taken entirely incidental during fishing directed at chinook salmon.

3.5.1 Districts 1, 2, and 3

If the chinook salmon run in 2002 is similar to the run in 2001, a limited chinook salmon directed commercial fishery may be possible. If a harvestable surplus beyond escapement and subsistence needs is identified, it is anticipated the chinook salmon directed the commercial fishery would open on a staggered basis, beginning

with District 1, near the midpoint of the run. Typically, the first commercial opening occurs just after the first quarter point of the run. This management strategy provides for passage of a portion of the early run segment through the lower river districts before commercial fishing starts. Lower Yukon River set net test fishing catch per unit effort (CPUE) data will be used for relative timing and abundance information. The opening of the fishing season is normally announced 48 hours in advance to provide fishermen and buyers adequate time to prepare.

Initially, directed chinook salmon commercial fishing periods with unrestricted mesh size gillnets are anticipated to be six hours in duration, but may be as short as four hours. In general, fishing periods are expected to begin at 6:00 p.m. Monday and Thursday in District 1, and at 6:00 p.m. Wednesday and Sunday in District 2. However, fishing periods may be delayed depending on run assessment and run timing. Since Districts 1 and 2 have a combined guideline harvest range, the overall harvest level will determine when the directed chinook salmon fishery and the commercial salmon summer season will end. It may not be possible to allow an equal amount of fishing time for each district.

Large mesh size gillnets utilized during unrestricted mesh size openings target older, larger chinook salmon, which includes a much larger proportion of females than small mesh size periods. Fishing periods restricted to six inch or smaller mesh size gillnets result in much higher catches of smaller, predominantly male chinook salmon and summer chum salmon. A management issue is for the quality of escapements, that is, not only escapement abundance, but the proportion of female salmon in the escapements. Therefore, the amount of harvest taken with the larger mesh chinook salmon gear and smaller mesh gear will be carefully considered.

It is anticipated the summer chum salmon directed commercial fishery will not open in 2002. In managing the 2002 summer chum salmon run, the department will follow the guidelines provided by the Board in 5AAC 05.362 Yukon River Summer Chum Salmon Management Plan. In accordance with the management plan, directed summer chum salmon commercial fishing will be allowed when the run size projection is greater than 1,000,000 summer chum salmon for the entire Yukon River Drainage. If the requirements to allow directed summer chum salmon commercial fishing are met, six-inch maximum mesh size directed summer chum salmon fishing periods will likely be 4 to 12 hours in duration. Shorter, summer chum salmon directed fishing periods might be scheduled based on run assessment and market considerations. In addition, short periods targeting summer chum salmon would be easier to establish between unrestricted mesh size periods and would reduce the harvest of chinook salmon during such periods. The actual summer chum salmon harvest will be dependent on inseason run assessment and market conditions.

The USFWS will be operating a weir on the East Fork Andreafsky River in 2002. Historical escapement timing information will be used to assess the 2002 summer chum salmon spawning escapement inseason. The department will use the assessment of spawning escapement in the East Fork Andreafsky River to regulate the size of the area closed to commercial fishing near the mouth of the Andreafsky River.

An attempt will be made to establish commercial fishing periods in District 3 based on input from buyers and fishermen. Regulations allow a permit holder registered in District 3 to transfer to District 1 or 2 following a 72-hour waiting period. Only one district transfer is allowed in the Lower Yukon Area prior to July 15.

Regulations require identification of any vessel used by commercial salmon fishermen in Districts 1, 2, and 3. A vessel must display either the ADF&G vessel license number or the fisherman's 5-digit Commercial Fisheries Entry Commission (CFEC) permit serial number and the letter that follows. Symbols must be at least 12 inches high and 1 inch wide and displayed on both sides of the hull or cabin.

Gillnet depth regulations for commercial fishing in Districts 1, 2, and 3 require that gillnets with greater than 6-inch mesh size may not be more than 45 meshes in depth and gillnets with mesh size of 6 inches or less may not be more than 50 meshes in depth.

3.5.2 District 4

In years with average returns and run timing, the first District 4 commercial fishing period usually occurs between June 18 and June 25. If the only commercial fishery allowable were a directed chinook salmon fishery, then no openings would be anticipated in Subdistrict 4-A because of the high incidental take of summer chum salmon in this location. Although a summer chum salmon directed commercial fishery it is not anticipated in 2002, commercial fishing periods in Subdistrict 4-A would likely begin at 6:00 p.m. Sunday and 6:00 p.m. Wednesday and be no longer than 18 hours in duration. However, the frequency and duration of Subdistrict 4-A fishing periods will be based on summer chum salmon run abundance. Management will be based, in part, on summer chum salmon spawning escapements and sex ratios monitored in the Anvik, Kaltag, Nulato, and Gisasa Rivers and Clear Creek.

If commercial fishing is allowed, it is anticipated Subdistricts 4-B and 4-C would initially be placed on a limited schedule of one or two 48-hour periods per week beginning at 6:00 p.m. Sunday and/or 6:00 p.m. Wednesday. Subdistricts 4-B and 4-C may open earlier than Subdistrict 4-A to allow harvest of earlier migrating chinook salmon. Historically, there is a much lower harvest of summer chum salmon in Subdistricts 4-B and 4-C than in Subdistrict 4-A when directing the harvest at chinook salmon. If subsistence salmon fishing opportunities in District 4 are not sufficient to meet subsistence needs due to the commercial fishing schedule, additional subsistence-only fishing time will be allowed.

3.5.3 Anvik River Management Area

Although a summer chum salmon directed commercial fishery is not anticipated in 2002, the Anvik River may be opened to summer chum salmon commercial fishing if the escapement exceeds 500,000 fish. Fishing periods in the Anvik River will be based upon size of the surplus available for commercial harvest. The intent is to allow a harvest of Anvik River summer chum salmon that is in excess of the spawning escapement goal and to decrease harvest pressure on non-Anvik River summer chum salmon stocks. Permit holders are reminded that all chinook salmon caught during Anvik River commercial fishing periods must be released alive.

3.5.4 District 5

The District 5 commercial salmon fishing season will open by EO once the chinook salmon run is distributed throughout the area and a harvestable surplus beyond escapement and subsistence needs is identified. Assessment of run abundance and timing from downstream districts, along with subsistence catch reports, will be used to determine a season opening. By regulation, no commercial fishing will be allowed in Subdistrict 5-A during the chinook and summer chum salmon fishing season.

If commercial fishing is allowed, it is anticipated Subdistricts 5-B and 5-C fishing periods during the early season would initially be 12 to 24-hours in duration. For Subdistrict 5-D, 24- or 36-hour commercial fishing periods are typical. This will allow the department to better monitor and maintain the harvest within guideline harvest ranges. In years with average returns and run timing, the first commercial fishing period usually occurs between June 25 and July 5 in Subdistricts 5-B and 5-C, and between July 1 and July 10 in Subdistrict 5-D. It is anticipated that the chinook run will be below average, therefore it is likely that commercial fishing periods will be limited and later than normal as a conservative measure to provide for escapement and subsistence needs.

Few summer chum salmon are present or harvested in Subdistricts 5-B, 5-C, and 5-D. The commercial harvest of summer chum salmon will largely be a function of management actions taken for chinook salmon.

3.5.6 District 6

Due to the poor outlook and limited management tools available, the department will be conservative in management of District 6. District 6 may be opened to commercial fishing if a harvestable surplus beyond escapement and subsistence needs is identified. Inseason salmon run strength and timing indicators in the Tanana River drainage include test fish wheel catches near the village of Nenana, aerial surveys, and performance of subsistence fisheries. In addition, chinook and summer chum salmon escapement information collected by tower counting projects on the Chena and Salcha Rivers will be used for inseason run assessment.

If it is determined that escapement goals and subsistence needs will be met, the District 6 commercial fishing season would likely open in early to mid-July. During the early season, there may be up to two 42-hour commercial fishing periods per week, from 6:00 p.m. Friday until 12:00 noon Sunday and from 6:00 p.m. Monday until 12:00 noon Wednesday. The directed chinook salmon commercial fishery is expected to close once the chinook salmon guideline harvest range of 600 to 800 chinook salmon is reached. The department can exceed the upper end of the guideline harvest ranges only in years it determines that additional commercial fishing will not jeopardize achieving escapement goals and subsistence needs will be met.

Although a summer chum salmon directed commercial fishery it is not anticipated in 2002, directed summer chum salmon commercial fishing periods would likely occur later in July and into August and will depend on inseason run assessment.

3.6 FALL CHUM AND COHO SALMON COMMERCIAL SEASON

The 2002 outlook for fall chum salmon is poor and a commercial fishery for either chum or coho salmon is unlikely. In managing the 2002 Yukon River fall chum salmon run, the department will follow guidelines provided by the Board in 5 AAC 01.249. *Yukon River Drainage Fall Chum Salmon Management Plan*. This plan incorporates U.S. / Canada treaty obligations for border passage of fall chum salmon agreed to be necessary for escapement and prioritized uses. The plan stipulates that directed fall chum salmon commercial fisheries will only be allowed when the run size projection is greater than 675,000 fall chum salmon for the entire Yukon River drainage (Appendix Table B.5). Additionally, only the harvestable surplus above 625,000 fall chum salmon may be targeted in the Alaska commercial fisheries. The department is anticipating a run of less than 500,000 fall chum salmon drainage-wide. Since the 2002 preseason projection is below 675,000, no commercial fall chum salmon fishery is anticipated and subsistence restrictions may be necessary to meet minimum spawning escapements.

The department will rely primarily on inseason run assessment tools to determine the 2002 fall chum salmon run size. As in past years, the department will participate in weekly YRDFA teleconference calls to gather information from the public and to discuss the status of the run and possible management actions. In accordance with the management plan, inseason indicators should project that the 2002 run will be greater than 675,000 fall chum salmon prior to allowing commercial fishing activities. Therefore, given the recent run failures, fishermen and processors should be prepared for no commercial openings during the 2002 fall salmon season.

The 2002 coho salmon fishery will be managed consistent with regulation 5 AAC 05.369. *Yukon River Drainage Coho Salmon Management Plan*. The Yukon River coho salmon fishery is complex because coho salmon have a slightly later, but overlapping, run timing with that of fall chum salmon. The coho salmon management plan allows a directed coho salmon commercial fishery only under very special and unique

situations. Fall chum salmon will continue to be the primary species of management concern during the fall season and will likely pre-empt any possible commercial coho salmon fishing activity in 2002.

The coho salmon management plan allows a directed coho salmon fishery in years when the return of coho salmon is above average, the fall chum salmon run size is greater than 625,000 and no directed fall chum salmon commercial fishing has occurred or is expected to occur. According to the fall chum salmon management plan, a run size of 675,000 fall chum salmon or greater is needed prior to consideration of a directed fall chum salmon commercial fishery. The commercial harvest of coho salmon is based upon the timing, frequency, and duration of periods established for the more numerous fall chum salmon. When the conditions of the coho salmon management plan are applied to past years, directed coho salmon commercial fisheries would have been allowed in only one of the past 20 years. Any commercial harvest of coho salmon in 2002 will likely be dependent upon the abundance of fall chum salmon and accompanying management strategies used to harvest fall chum salmon.

3.6.1 Districts 1, 2, and 3

The department will monitor the fall run inseason by using the lower Yukon River drift gillnet test fishery near Emmonak, the Mountain Village drift gillnet test fishery (operated by Asacarsarmut Traditional Council), Pilot Station sonar passage estimates, subsistence catch reports, and, if available, commercial catch statistics. This information, in combination with the preseason expectation and the performance of the summer chum salmon run, will be the basis for initial management decisions for Districts 1, 2 and 3 commercial fisheries. If poor marine survival conditions affect the 2002 fall chum salmon similarly to the effects in the past four years, a run size similar to last year is expected in 2002, which would not allow a commercial harvest and may require subsistence restrictions.

The department relies heavily on inseason run assessment tools to determine the returning fall chum salmon run size. In addition to the performance of earlier running summer chum salmon, returns of chum salmon stocks in Norton Sound and the Kuskokwim River will also be monitored. If the 2002 returns of these other stocks indicate poor marine survival conditions are continuing, a poor fall chum salmon return to the Yukon River will also be assumed. Conversely, if the returns of these other stocks are larger than expected, indicating better survival, the department may become more optimistic for the return of Yukon River fall chum salmon beginning to enter the Yukon River in mid-July. The first projection based on inseason indicators will not be made until late July or early August.

As a reminder to fishermen, if fall chum salmon return much stronger than expected, regulations require District 1 commercial fishermen to register for the Coastal Set Net Only Area prior to opening of the fall commercial season. Registration "sign-in" sheets will be available at Lower Yukon Area village post offices and at the department's field office in Emmonak. A regulation adopted prior to the 1998 season allows fishermen to transfer into and out of the Set Net Only Area. After initial registration for the Set Net Only Area, a permit holder may not commercially fish for salmon in the remainder of District 1, or in another district, until 72 hours after re-registration with the department. After the first fall season commercial fishing period, a permit holder not registered for the Set Net Only Area may transfer to the Set Net Only Area after re-registration with the department. The re-registration and 72-hour waiting period begins at the time the notification is received and noted by the department.

3.6.2 District 4

In January 2001, the BOF took regulatory action to include Subdistrict 4-A with the Subdistricts 4-B and 4-C guideline harvest range, which remains at 5,000 to 40,000 fall chum salmon. In managing the District 4 commercial fishery, the department will initially use the assessment of the overall Yukon River fall chum salmon run size and timing. In years with average run timing and a commercially harvestable surplus, the first

fall season commercial fishing period normally occurs in early to mid-August. In the unlikely event a directed coho salmon commercial fishery is allowed, a commercial fishing period in Subdistrict 4-A may only occur on or after August 20 and would close by September 15. No more than 32 hours of commercial fishing time may be allowed per week. With the expectation of a poor fall chum salmon run, no commercial fishery for either fall chum or coho salmon is anticipated during the 2002 season.

3.6.3 Subdistrict 5-A

Management of Subdistrict 5-A is outlined in regulation 5 AAC 05.367, *Tanana River Salmon Management Plan*. This management plan directs the department to manage Subdistrict 5-A based on the stock status and timing of salmon bound for the Tanana River because it is believed the majority of fall chum and coho salmon harvested in Subdistrict 5-A are bound for the Tanana River. The allocative elements of the amendments to the Tanana River management plan adopted by the Board were originally developed by Subdistrict 5-A and District 6 fishermen and supported by YR DFA.

The amendments to the Tanana River management plan adopted by the BOF allow Subdistrict 5-A commercial activities only during the fall season. Additionally, commercial fishing is only allowed in years when it is assessed that a harvestable surplus of fall chum salmon is available. In most years, the Subdistrict 5-A commercial fishery would be managed for a guideline harvest range of 0 to 4,000 pounds of fall chum salmon roe. No waste of carcasses would be permitted. In adopting this regulation, the Board recognized that the carcasses produced by this commercial roe fishery should be easily incorporated into the relatively large subsistence take of households in the village of Tanana.

The department will initially manage the fall season in Subdistrict 5-A based on the run strength and timing of the overall Yukon River fall chum salmon run. Depending on the inseason Tanana River fall chum salmon run strength and timing indicators, the department does have the authority to manage Subdistrict 5-A for a different harvest level within the guideline harvest range or to exceed the guideline harvest range. Due to the limited inseason run assessment tools currently available, the department will be conservative in management of Subdistrict 5-A fisheries.

In years with average run timing and a commercially harvestable surplus, the first fall season commercial salmon fishing period normally occurs in early to mid-September. The 2002 fall chum salmon run is also expected to be poor for the Tanana River drainage and therefore no commercial fall fishery is anticipated.

3.6.4 Subdistricts 5-B, 5-C and 5-D

In managing the commercial fishery, the department will initially use the assessment of the overall Yukon River fall chum salmon run size and timing. The USFWS Rapids/Rampart mark and recapture project, along with upper Yukon River drainage escapement monitoring projects, will be reviewed when determining the targeted commercial harvest levels for the subdistricts. In years with average run timing and a commercially harvestable surplus, the first fall season commercial fishing period in Subdistricts 5-B and 5-C normally occurs in mid-August with Subdistrict 5-D starting later in August or early September. There will likely be no commercial fall salmon fishery in these subdistricts during the 2002 season because of the anticipated poor fall chum salmon runs throughout the drainage.

3.6.5 District 6

Tanana River inseason run strength indicators include test fish catches from a fish wheel located on the south (left) bank of the Yukon River near the village of Tanana and from Tanana River test fish wheels located near the mouth of the Kantishna River and near the village of Nenana. In addition, the Tanana River tagging project will provide periodic late season estimates of fall chum salmon for both the upper Tanana River and

the Kantishna River. The performance of subsistence, personal use, and if available, commercial fisheries is also taken into consideration when they occur. Postseason, ground surveys are conducted on the Toklat and Delta Rivers to assess escapement.

The department will initially manage the fall season in District 6 based on fall chum salmon guideline harvest ranges along with the run strength and timing of the overall Yukon River fall chum salmon return. Depending on inseason Tanana River fall chum salmon run strength and timing indicators, the department does have the authority to manage District 6 for a different level within the guideline harvest range or to exceed the guideline harvest range. Due to the limited inseason run assessment tools currently available and the expectations of a poor fall chum salmon run, the department will be conservative in management of District 6 fisheries. The first fall season commercial salmon fishing period normally occurs in early to mid-September, but no periods are likely during the 2002 fall salmon season.

4.0 U.S./CANADA YUKON RIVER SALMON PANEL AND NEGOTIATIONS

Negotiations were initiated in 1985 between the U.S. and Canada regarding a Yukon River salmon treaty. On March 29, 2001 the United States and Canada initialed an agreement that set salmon harvest share target ranges based on a post-season assessment of run strength for chinook and fall chum salmon into the Canadian mainstem of the Yukon River. Furthermore, in 2002, the Alaska and Canadian fisheries will be managed consistent with stock rebuilding and conservation objectives that had been jointly developed out of concerns for the health of these salmon stocks. The escapement objective and harvest sharing of Canadian-origin Yukon River chinook salmon is:

1. The Parties agree that the spawning escapement objective for the rebuilt chinook salmon stock in the Mainstem Yukon River shall be 33,000 to 43,000 chinook salmon.
2. Harvest of Mainstem Yukon River chinook salmon shall be shared beginning in 2001, and continuing until amended by the Parties, on the following basis:
 - a. when the Total Allowable Catch (TAC) is between zero and 110,000 chinook salmon, the guideline harvest range for Canada shall be between 20% and 26% of the TAC;
 - b. when the TAC is above 110,000 chinook salmon, the guideline harvest range for Canada shall be between 20% and 26% of 110,000, i.e., 22,000 and 28,600 chinook salmon, plus 50% of the portion of TAC greater than 110,000 chinook salmon.

The escapement objective and harvest sharing of Canadian-origin Yukon River fall chum salmon is:

1. The Parties agree that the escapement objective for the rebuilt chum salmon stock:
 - a. in the Mainstem Yukon River in Canada shall be greater than 80,000 chum salmon; and
 - b. upstream from the Fishing Branch River weir site shall be 50,000 to 120,000 chum salmon.
2. Harvest of Mainstem Yukon River chum salmon shall be shared beginning in 2001, and continuing until amended by the Parties, on the following basis:

- a. when the Total Allowable Catch (TAC) is between zero and 120,000 chum salmon, the guideline harvest range for Canada shall be between 29% and 35% of the TAC;
- b. when the TAC is above 120,000 chum salmon, the guideline harvest range shall be between 29% and 35% of 120,000, i.e., 34,800 and 42,000 chum salmon, plus 50% of the portion of the TAC greater than 120,000 chum salmon.

Under the agreement, the U.S./Canada Yukon River Panel (Panel) was established to implement the agreement. The focus of the Panel is on the salmon stocks that spawn in the Canadian portion of the Yukon River drainage. The Panel makes recommendations to the management agencies in Alaska and Canada. The Panel also administers a Yukon River Salmon Restoration and Enhancement Fund (Fund).

A key component of the Agreement is administration of the Fund by the Panel to address the restoration and enhancement of Canadian spawned salmon stocks. The U.S. will contribute \$1,200,000 per year into the Fund. Monies from the Restoration and Enhancement Fund shall be disbursed by the Yukon River Panel according to the following rules:

1. 50% of the annual available funds shall be disbursed on Canadian programs and projects approved by the Canadian section of the Yukon River Panel based on recommendations by the Canadian section of the JTC and found by the Yukon River Panel as a whole to be consistent with the **Principles and Guidelines for Restoration, Conservation and Enhancement Programs and Projects** until amended by the parties; and
2. The balance of annual available funds shall be disbursed at the direction of the Yukon River Panel as a whole based on recommendations by the JTC as a whole.

In 2002, the monies from the original Fund (\$1,200,000) have been allocated to projects in both the Alaska and Canada portion of the drainage.

While the agreement text will be reviewed in Washington D.C. and Ottawa before the final paper is signed, the Delegations agreed that their intent was to apply the elements of the initialed text as soon as possible for organizational and planning purposes. The Yukon River Panel will meet each year to resume management recommendations. The Panel advises the United States and Canadian Governments on conservation and management of the salmon originating in the Canadian portion of the Yukon River.

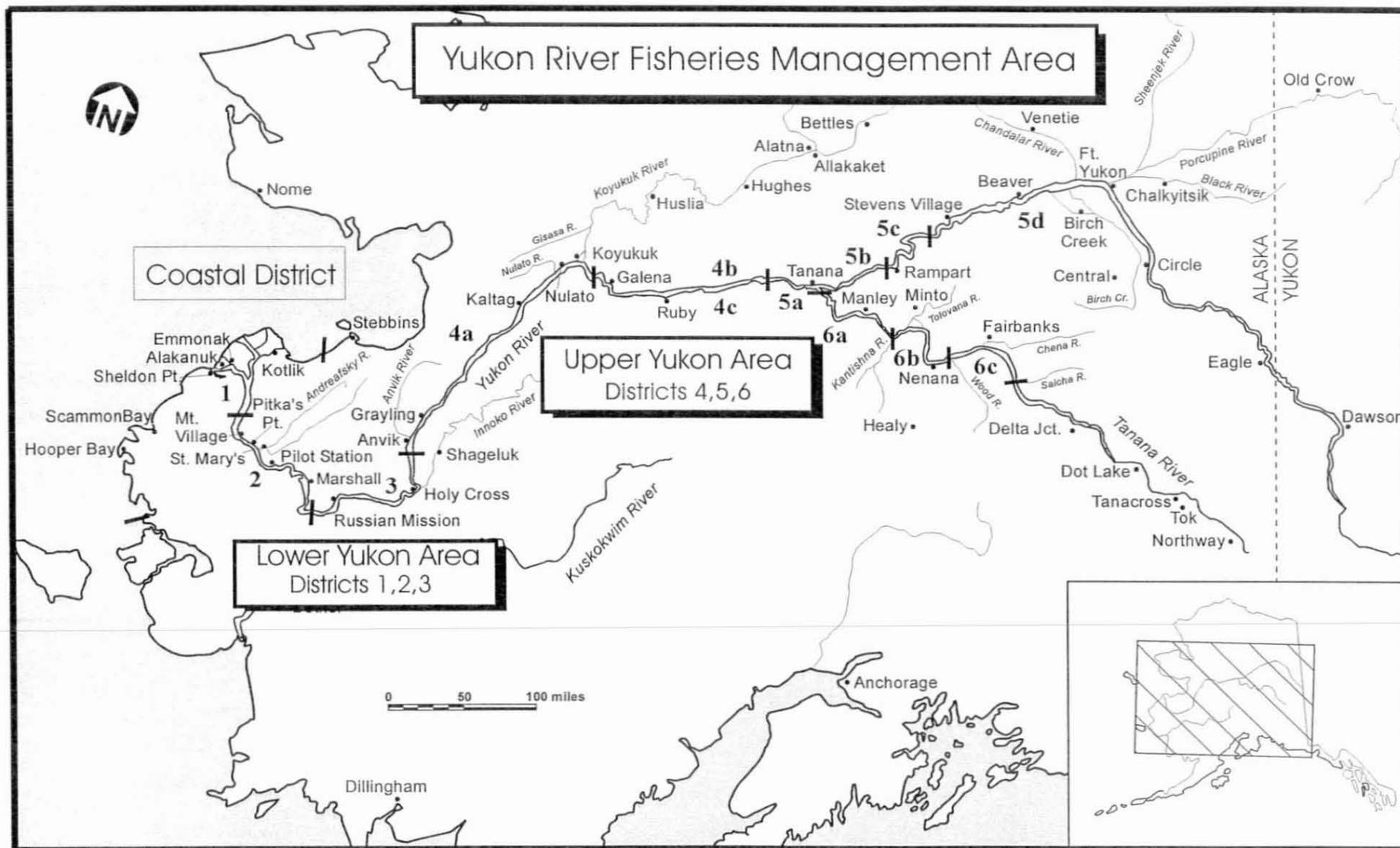


Figure 1. Alaska portion of the Yukon River drainage showing communities and fishing districts.

5 AAC 99.015 JOINT BOARD
 NONSUBSISTENCE AREAS. (4) The
 Fairbanks Nonsubsistence Area is
 comprised of the following: within Unit
 20(A) as defined by 5 AAC 92.450(20)(A)
 east of the Wood River drainage and south
 of the Rex Trail but including the upper
 Wood River drainage south of its confluence
 with Chicken Creek, within Unit 20(B) as
 defined by 5 AAC 92.450(20)(B) the North
 Star Borough and that portion of the
 Washington Creek drainage east of the
 Elliot Highway, within Unit 20(D) as defined
 by 5 AAC 92.450(20)(D) west of the Tanana
 River between its confluence's with the
 Johnson and Delta Rivers, west of the west
 bank of the Johnson River, and north and
 west of the Volkmar drainage, including the
 Goodpaster River drainage, and within Unit
 25(C) as defined by 5 AAC 92.450(25)(C)
 the Preacher and Beaver Creek drainages.

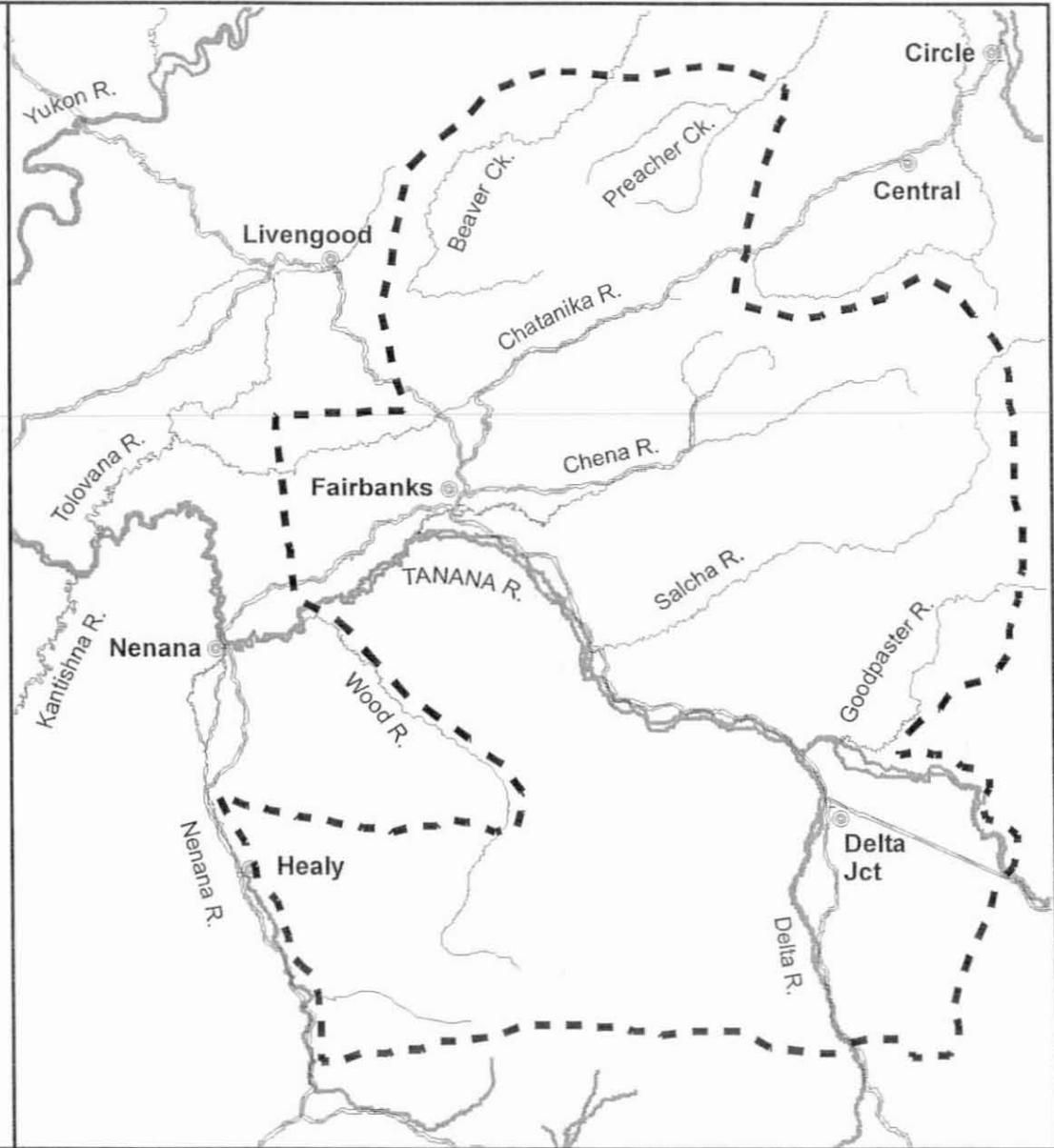
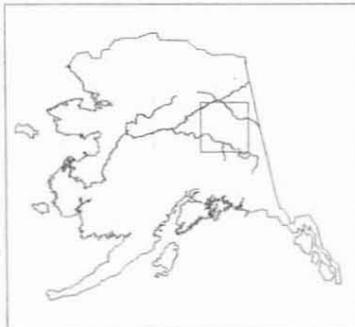


Figure 2. Map of the Fairbanks Nonsubsistence Area.

Table 1. Guideline harvest ranges and mid-points for commercial harvest of Yukon River chinook, summer chum and fall chum salmon in Alaska, 2002.

Chinook Salmon						
District or Subdistrict	Guideline Harvest Range a					
	Lower		Mid-Point		Upper	
	Numbers	Percent	Numbers	Percent	Numbers	Percent
1 and 2	0 to 60,000	89.1	90,000	91.6	120,000	92.9
3	0 to 1,800	2.7	2,000	2.0	2,200	1.7
4	0 to 2,250	3.3	2,550	2.6	2,850	2.2
5B and C	0 to 2,400	3.6	2,600	2.6	2,800	2.2
5D	0 to 300	0.4	400	0.4	500	0.4
6	0 to 600	0.9	700	0.7	800	0.6
Total	67,350	100.0	98,250	100.0	129,150	100.0
Summer Chum Salmon						
District or Subdistrict	Guideline Harvest Range b					
	Lower		Mid-Point		Upper	
	Numbers	Percent	Numbers	Percent	Numbers	Percent
1 and 2	0 to 251,000	62.8	503,000	62.9	755,000	62.9
3	0 to 6,000	1.5	12,500	1.6	19,000	1.6
4A ^c	0 to 113,000	28.3	225,500	28.2	338,000	28.2
4B, C	0 to 16,000	4.0	31,500	3.9	47,000	3.9
5B, C, D	0 to 1,000	0.3	2,000	0.3	3,000	0.3
6	0 to 13,000	3.3	25,500	3.2	38,000	3.2
Total	400,000	100.0	800,000	100.0	1,200,000	100.0
Anvik River Management Area roe cap of 100,000 pounds ^d						
Fall Chum Salmon						
District or Subdistrict	Guideline Harvest Range e					
	Lower		Mid-Point		Upper	
	Numbers	Percent	Numbers	Percent	Numbers	Percent
1, 2, and 3	60,000	82.5	140,000	71.2	220,000	68.6
4B, C	5,000	6.9	22,500	11.4	40,000	12.5
5B and C	4,000	5.5	20,000	10.2	36,000	11.2
5D	1,000	1.4	2,500	1.3	4,000	1.2
6	2,750	3.8	11,625	5.9	20,500	6.4
Total	72,750	100.0	196,625	100.0	320,500	100.0
Subdistrict 5A range of 0 to 4,000 pounds of roe ^f						

a The chinook salmon guideline harvest ranges have been in effect since 1981.

b Summer chum salmon guideline harvest ranges were established in February 1990 based on the average harvest shares from 1975-1989.

c Or the equivalent roe poundage of 61,000 to 183,000 pounds or some combination of fish and pounds of roe.

d The current Anvik River Management Area roe cap was established in March 1996.

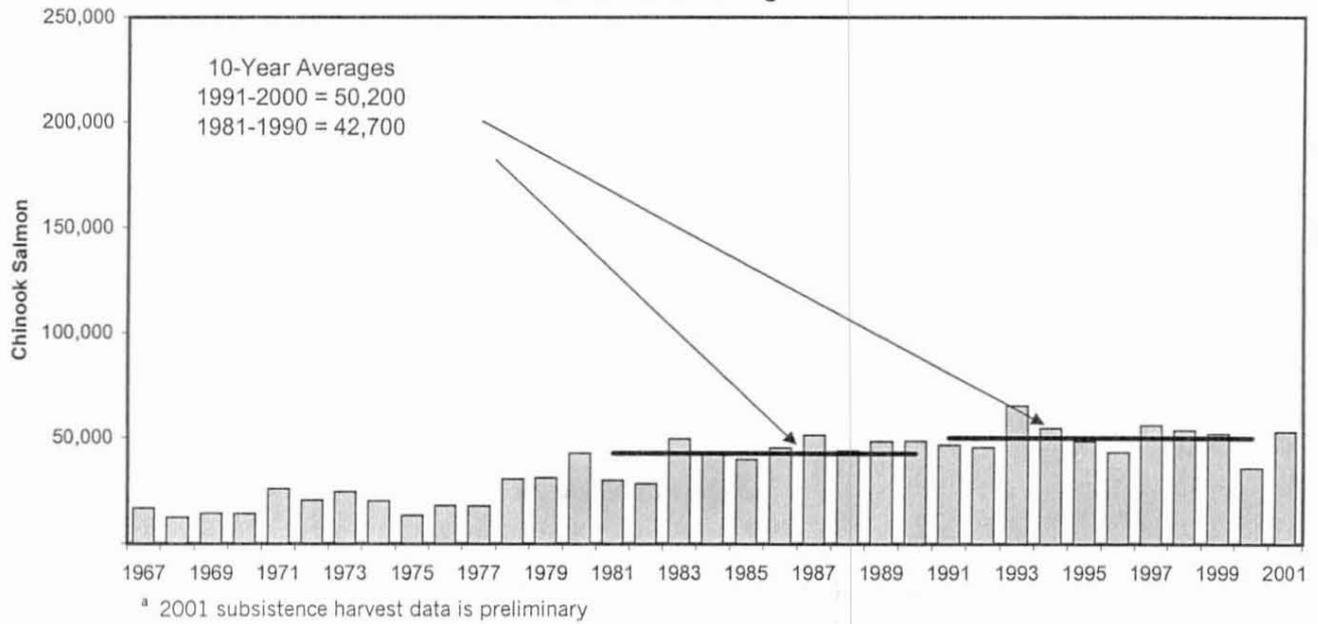
e The current fall chum salmon guideline harvest ranges were established in 1990.

f Subdistrict 5A was removed from the guideline harvest ranges for chinook and summer chum and a separate guideline harvest range of 0-4,000 pounds of fall chum salmon roe was established in November 1998.

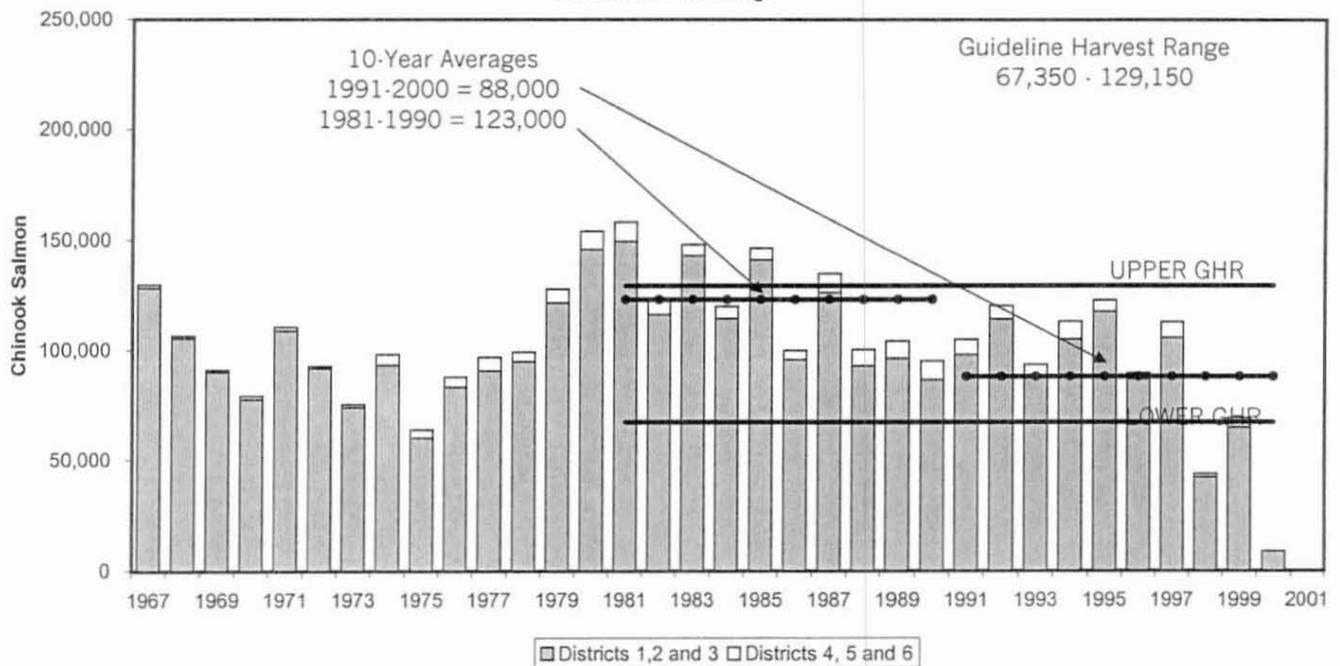
Appendix A

Historical Chinook and Summer Chum Salmon Harvest and Escapement Information

Chinook Salmon Subsistence Harvest ^a Yukon River Drainage



Chinook Salmon Commercial Harvest Yukon River Drainage

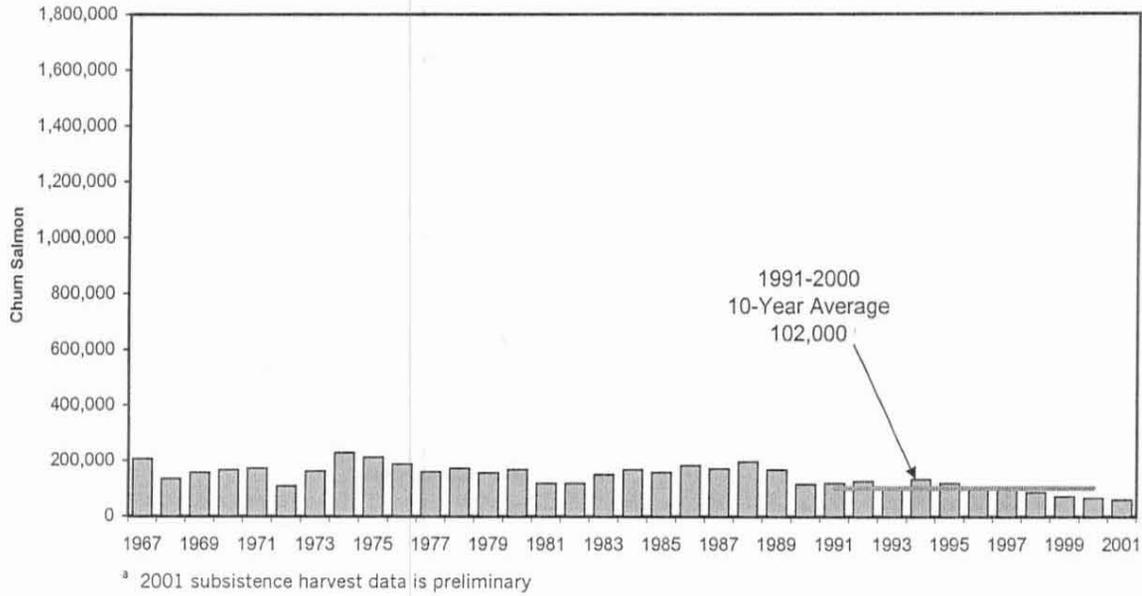


Appendix A.1. Subsistence and commercial harvest of chinook salmon, Yukon Area, 1967-2001.

Summer Chum Salmon Subsistence Harvest ^a

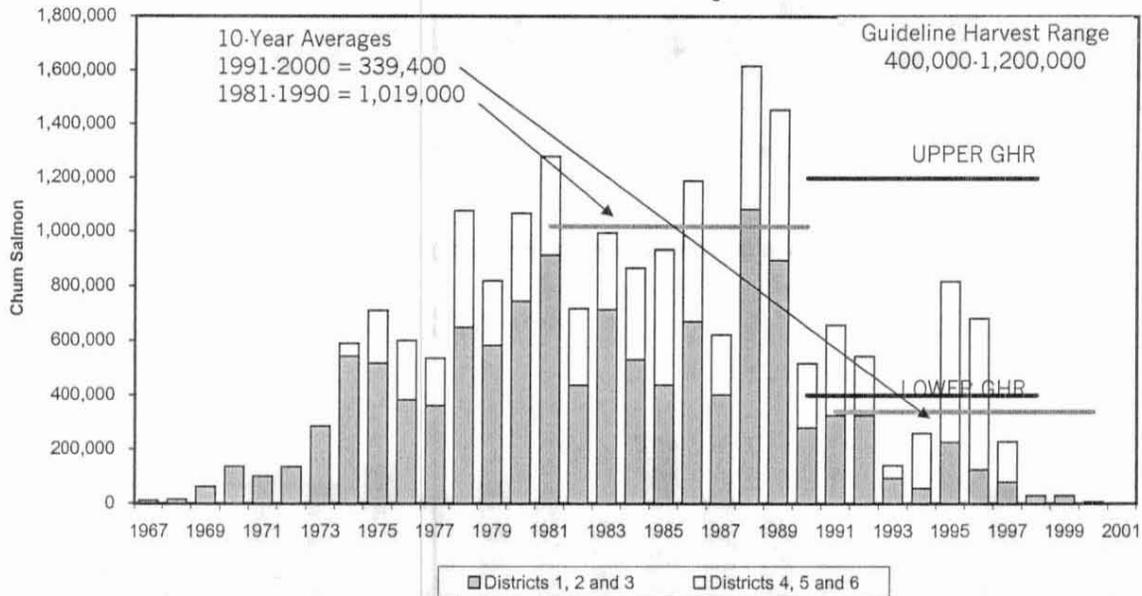
Yukon River Drainage

(Does not include use from commercial related harvest)



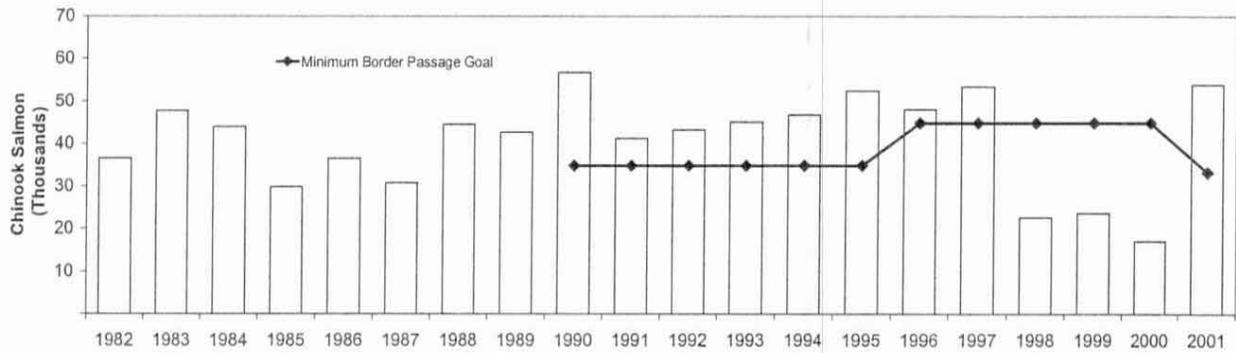
Summer Chum Salmon Commercial Harvest

Yukon River Drainage

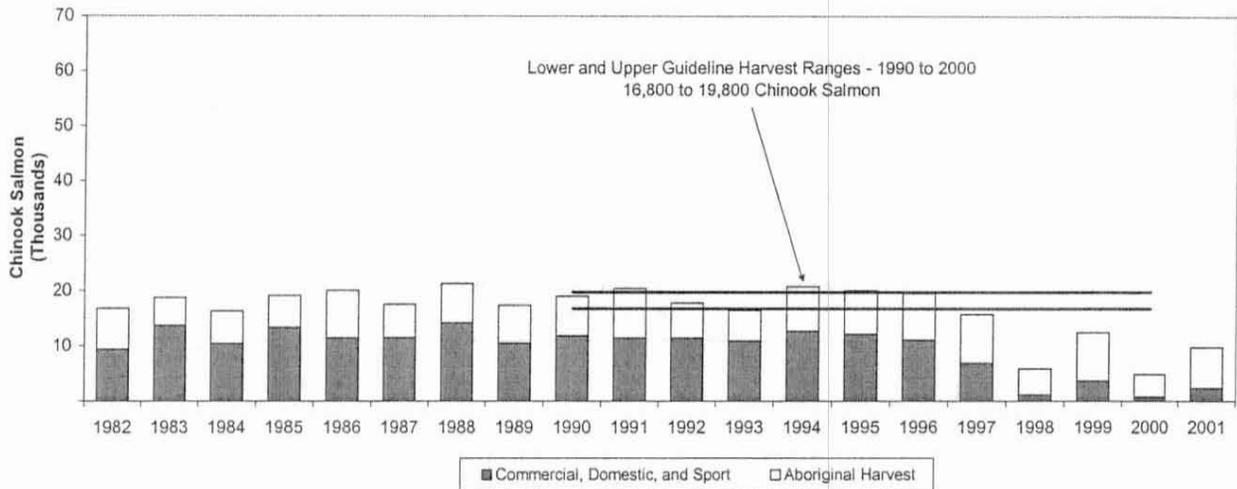


Appendix A.2. Subsistence and commercial harvest of summer chum salmon, Yukon Area, 1967-2001.

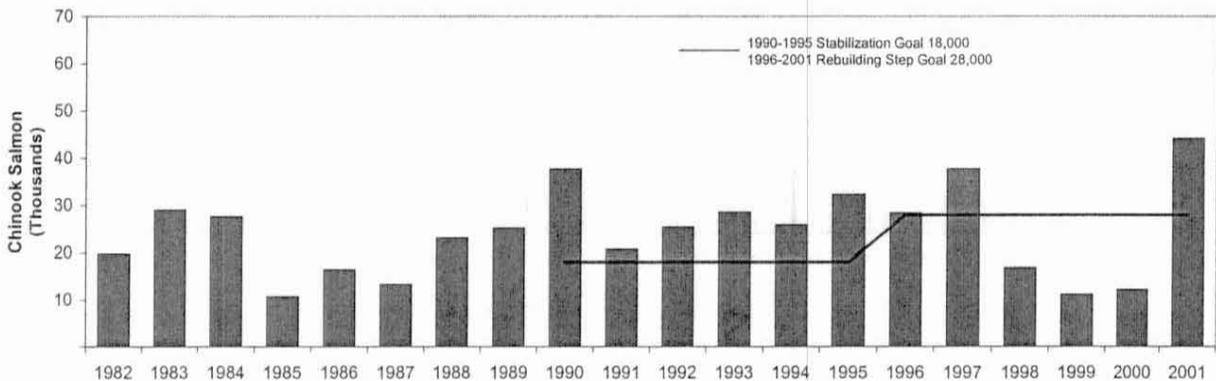
**CANADIAN MAINSTEM YUKON RIVER
Chinook Salmon Border Passage**



**Canadian Chinook Salmon Harvest
(Includes Aboriginal, Commercial, Domestic, and Sport Harvests)**

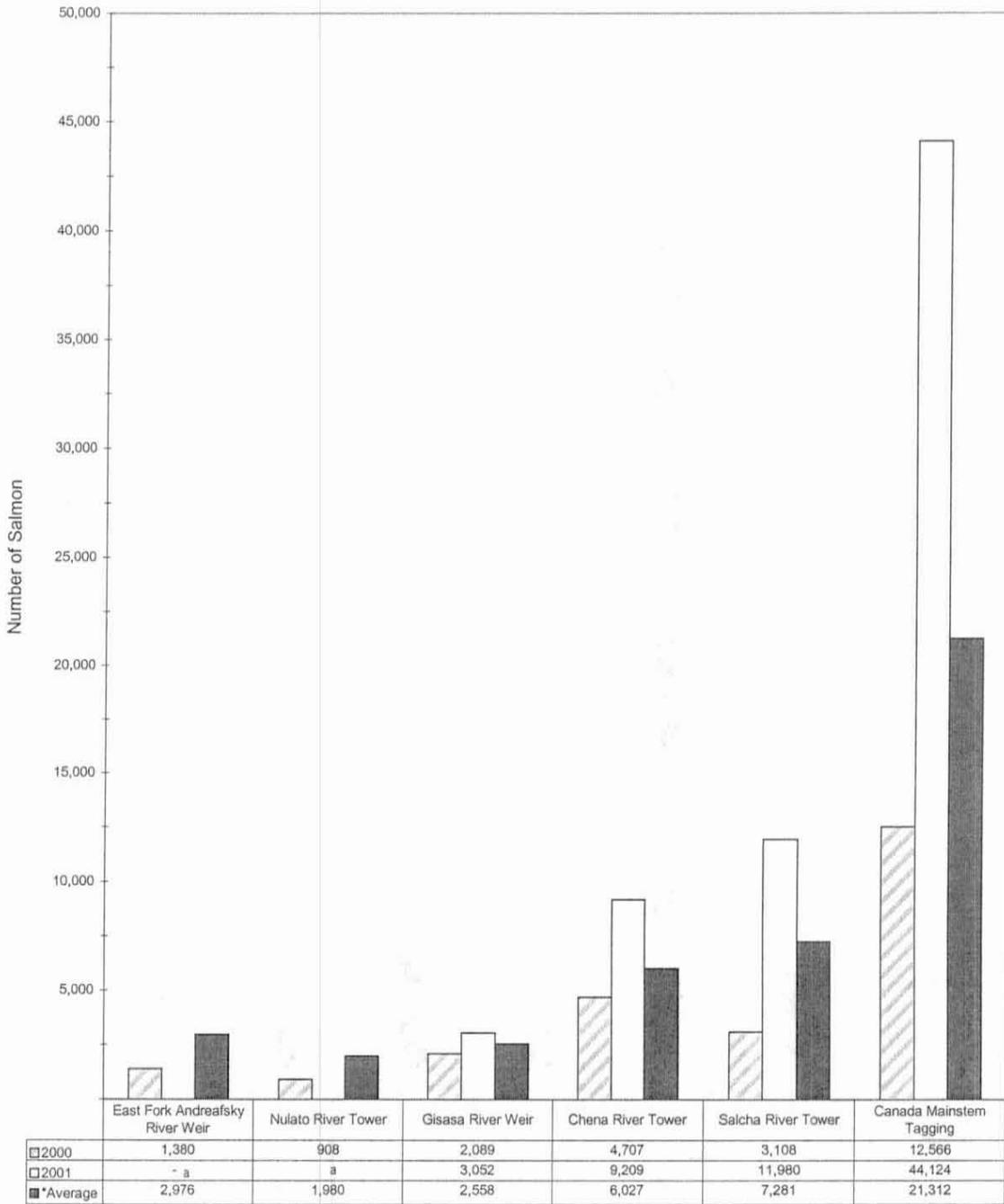


Canadian Chinook Salmon Spawning Escapement



Appendix A.3. Canadian mainstem border passage, harvest and escapement estimates, 1982-2001; and stabilization and rebuilding step escapement goals.

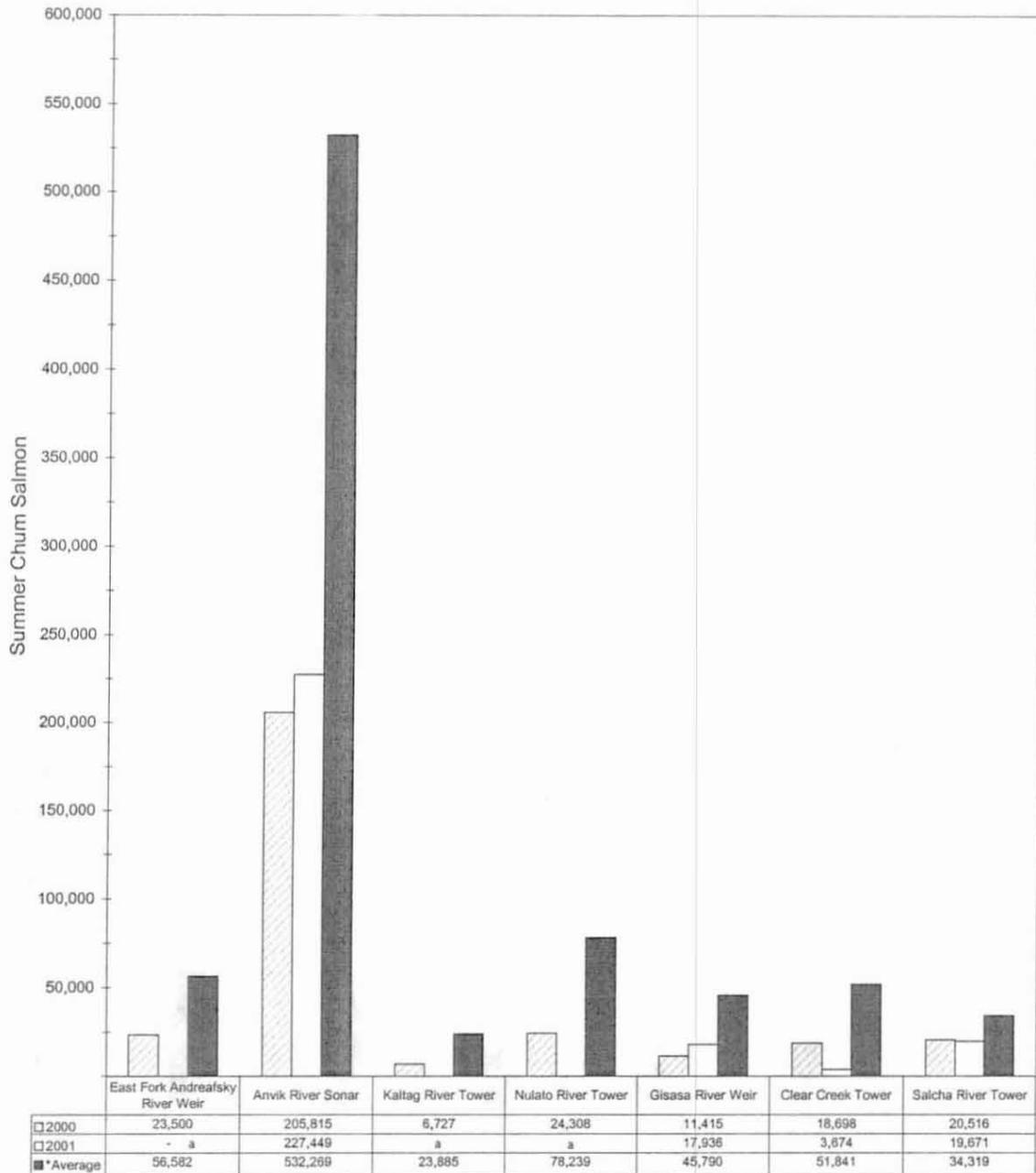
Yukon River Drainage Chinook Salmon Escapement



*Recent 5-Year Average (1996-2000)
 a No data due to incomplete operations.

Appendix A.4. Selected chinook salmon escapements, 5-year average compared to 2001, Yukon River drainage.

**Yukon River Drainage
Summer Chum Salmon Escapement**



*Recent 5-Year Average (1996-2000)
a No data due to incomplete operations.

Appendix A.5. Selected summer chum salmon escapements, 5-year average compared to 2001, Yukon River drainage.

Appendix A.6. Chinook salmon commercial harvest and escapement comparisons, Yukon River, 1995-2001.

Updated May 7, 2001

Chinook Salmon Commercial Harvest a										
District/Subdistrict	Guideline Harvest Range	1995	1996	1997	1998	1999	2000	2001	Comparison of 2001 to 5-Yr. Average	Recent 5-Year Average (1996-2000)
Y-1		76,106	56,642	66,384	25,413	37,145	4,735	0	-100%	38,064
Y-2		41,458	30,209	39,363	16,806	27,070	3,783	0	-100%	23,446
Subtotal Y1 & Y2	60,000-120,000	117,564	86,851	105,747	42,219	64,215	8,518	0	-100%	61,510
Y-3	1,800-2,200	0	0	0	0	538	0	0		108
Y-4A		0	0	0	0	0	0	0		0
Y-4BC		499	137	1,457	0	1,437	0	0		606
Subtotal Y-4	2,250-2,850	499	137	1,457	0	1,437	0	0		606
Y-5ABC	2,400-2,800	2,753	2,309	3,071	475	2,189	0	0		1,609
Y-5D	300-500	489	448	607	42	415	0	0		302
Subtotal Y-5		3,242	2,757	3,678	517	2,604	0	0		1,911
Y-6	600-800	2,747	447	2,728	963	689	0	0		965
Total Alaska	67,350-129,150	124,052	90,192	113,610	43,699	69,483	8,518	0	-100%	65,100
Canada b	16,800-19,800	20,091	19,546	15,717	5,101	12,455	4,068	1,351	-88%	11,377

Chinook Salmon Escapement										
Project	Escapement Goal	1995	1996	1997	1998	1999	2000	2001 m	Comparison of 2001 to 5-Yr. Average	Recent 5-Year Average (1996-2000)
East Fork Andreafsky River Weir		5,841	2,955	3,186	4,011	3,347	1,380	n	-100%	2,976
East Fork Andreafsky River Aerial c	>1,500 SEG j	1,635		1,140	1,027		1,018	1,065		N/A
West Fork Andreafsky River Aerial c	>1,400 SEG j	1,108	624	1,510	1,249 g	870 g	427	570		N/A
Pilot Station Sonar		254,142		200,120	134,243	187,523	70,112	137,453		N/A
Anvik River Index Aerial c	>500 SEG j	1,147	709	2,690	648 g	950 g	1,394	1,430		N/A
Nulato River Tower		1,412	756	4,766	1,536	1,932	908	o		1,980
Nulato River Aerial c	>1,300 SEG j	1,649			1,053			1,884		N/A
Gisasa River Weir		4,023	1,952	3,764	2,356	2,631	2,089	3,052	19%	2,558
Gisasa River Aerial c	>600 SEG j	410		144 g	889 g			1,298		N/A
Chena River Tower/MR Tagging	2,800-5,700 BEG k	9,680 f	6,833 f	13,390	4,745	6,485	4,707 f	9,209 f	53%	6,027
Chena River Index Aerial c		3,039	2,112	3,303	386 g	2,412	934 g	1,487 g		N/A
Salcha River Tower/MR Tagging	3,300-6,500 BEG k	13,643	7,958 f	18,396	5,027	9,198	3,108	11,980 m	65%	7,281
Salcha River Index Aerial c		3,734	4,800	3,457 g	1,923 g	3,608	2,478 g	2,990 g		N/A
Canada Mainstem Tagging	>28,000	32,262	28,409	37,683	16,750	11,153	12,566	44,124	107%	21,312
ESCAPEMENT INDEX h		66,861	48,863	81,185	34,425	34,746	24,758	68,365	53%	44,795

a Commercial harvest includes the estimated harvest of females to produce roe sold.

b Total harvest for all fisheries in Canadian mainstem Yukon River.

c Aerial surveys rated good to fair unless noted otherwise.

d Two year average, 1996-1997.

f Mark and recapture tagging estimate; tower counts were minimum/incomplete due to late installation and/or early removal of project, or high water events/weather conditions.

g Aerial surveys rated poor/incomplete; data not comparable to other years.

h The escapement index is the summed escapements for East Fork Andreafsky weir, Nulato tower, Gisasa weir, Chena and Salcha towers, and Canada mainstem tagging.

j SEG = "Sustainable escapement goal", as defined by the Sustainable Fisheries Policy

k BEG = "Biological escapement goal", as defined by the Sustainable Fisheries Policy. Range established in 2001.

m DATA ARE PRELIMINARY.

n Weir counts incomplete due to late start-up. On average, missed approximately 75% of chinook passage. Total counts for 2001 were 1,148 chinook salmon.

o No data due to incomplete operations.

Appendix A.7. Summer chum salmon commercial harvest and escapement comparisons, Yukon River, 1995-2001.

Updated May 7, 2001

Summer Chum Salmon Commercial Harvest a										
District/Subdistrict	Guideline Harvest Range	1995	1996	1997	1998	1999	2000	2001	Comparison of 2001 to 5-Yr. Average	Recent 5-Year Average (1996-2000)
Y-1		142,266	92,506	59,915	21,270	16,181	3,315	0	-100%	38,637
Y-2		83,817	30,727	18,242	6,848	11,702	3,309	0	-100%	14,166
Subtotal Y-1 & Y-2	251,000-755,000	226,083	123,233	78,157	28,118	27,883	6,624	0	-100%	52,803
Y-3	6,000-19,000	0	1,534	0	0	0	0	0		307
Anvik River	Est. Fish	54,744	84,663	13,548	0	0	0	0		19,642
	lbs. Roe	100,000	48,477	76,318	13,067	0	0	0		17,877
Y-4A	Est. Fish	419,688	356,938	100,389	0	0	0	0		91,465
	lbs. Roe	61,000-183,000	189,252	181,050	56,301	0	0	0		47,470
Y-4BC	Est. Fish	80,155	68,639	10,734	0	1,267	0	0		16,128
	lbs. Roe	16,000-47,000	43,345	37,882	4,863	0	0	0		21,373
Subtotal Y-4		554,587	425,577	111,123	0	1,267	0	0		107,593
Y-5ABC		316	209	125	110	114	0	0		112
Y-5D		0	127	12	0	1	0	0		28
Subtotal Y-5	1,000-3,000	316	336	137	110	115	0	0		140
Y-6	Est. Fish	37,428	46,890	25,287	570	148	0	0		14,579
	lbs. Roe	13,000-38,000	9,475	18,332	9,036	140	24	0		5,506
Total	400,000-1,200,000	818,414	682,233	228,252	28,798	29,413	6,624	0	-97%	195,064

Summer Chum Salmon Escapement										
Project	Escapement Goal	1995	1996	1997	1998	1999	2000	2001 m	Comparison of 2001 to 5-Yr. Average	Recent 5-Year Average (1996-2000)
East Fork Andreafsky River Weir	65,000-135,000 BEG k	172,148	108,450	51,139	67,591	32,229	23,500	n	-100%	56,582
Pilot Station Sonar		3,438,655		1,342,650	745,919	939,348	410,528	394,078		N/A
Anvik River Sonar	400,000-800,000 BEG k	1,339,418	933,240	609,118	471,865	441,305	205,815	227,449	-57%	532,269
Kaltag River Tower		77,193	51,269	48,018	8,113	5,300	6,727	o		23,885
Nulato River Tower		236,890	129,694	157,975	49,140	30,076	24,308	o		78,239
Gisasa River Weir		136,886	157,589	31,800	18,228	9,920	11,415	17,936	-61%	45,790
Clear Creek Tower		116,735	100,912	76,454	212 c	11,300	18,698	3,674	-93%	51,841 d
Chena River Tower		3,519 c	12,810 c	9,439 c	5,901 c	9,165 c	3,515 c	4,209 c		N/A
Chena River Aerial b		185 f	2,061	594 f	24 f	520 f	107 f	f		N/A
Salcha River Tower		30,784	74,827	35,741	17,289	23,221	20,516	19,671	-43%	34,319
Salcha River Aerial b		934 f	9,722	3,968 f	370 f	150 f	124 f	f		N/A
ESCAPEMENT INDEX g		1,993,319	1,455,069	933,791	632,226	551,216	295,796	269,265	-65%	773,620

a Commercial harvest includes the estimated harvest of females to produce roe sold, except for Districts 3 and 4, which also includes the estimated number of males harvested to produce roe sold.

b Aerial surveys rated good to fair unless noted otherwise.

c Project counts not comparable to other years; incomplete counts due to early removal of project or high water events/weather conditions.

d Four year average 1996-1997, 1999-2000.

f Aerial surveys rated poor/incomplete; data not comparable to other years.

g The escapement index is the summed escapements for East Fork Andreafsky weir, Anvik sonar, Gisasa weir, Kaltag, Nulato, and Salcha towers.

k BEG = "Biological escapement goal", as defined by the Sustainable Fisheries Policy. Range established in 2001.

m DATA ARE PRELIMINARY.

n Weir counts incomplete due to late start-up. On average, missed approximately 75% of chum salmon passage. Total counts for 2001 were 2,086 summer chum salmon.

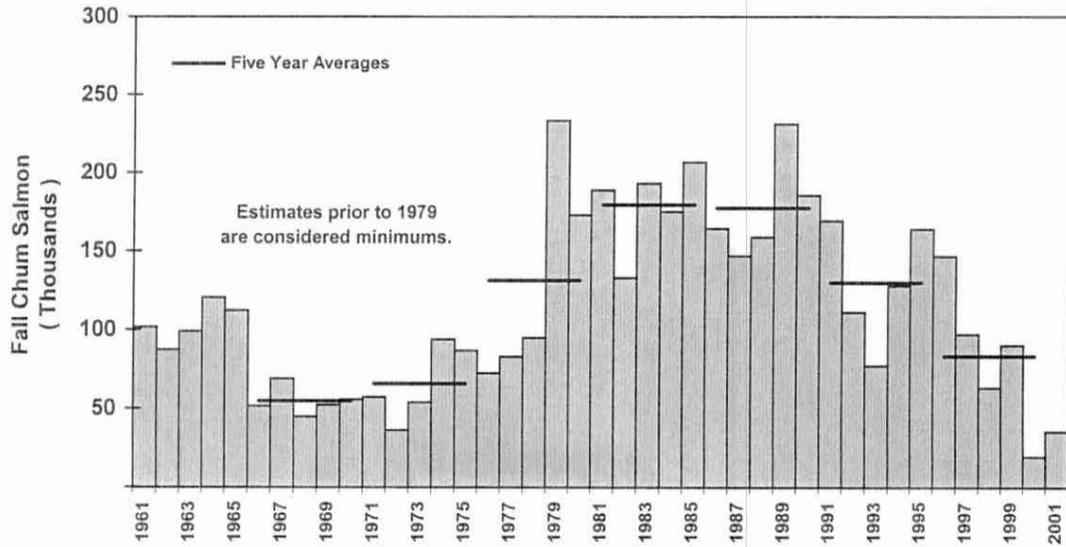
o No data due to incomplete operations.

Appendix B

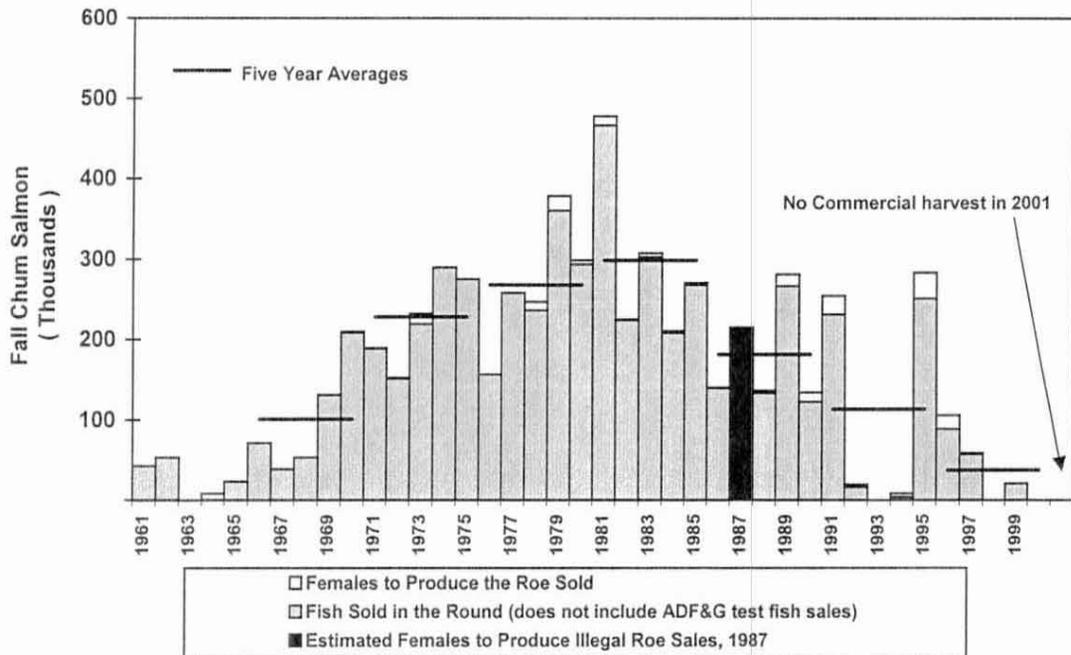
Historical Fall Chum and Coho Salmon Harvest and Escapement Information

ALASKAN PORTION OF YUKON RIVER DRAINAGE AREA, FALL CHUM SALMON

SUBSISTENCE AND PERSONAL USE HARVEST



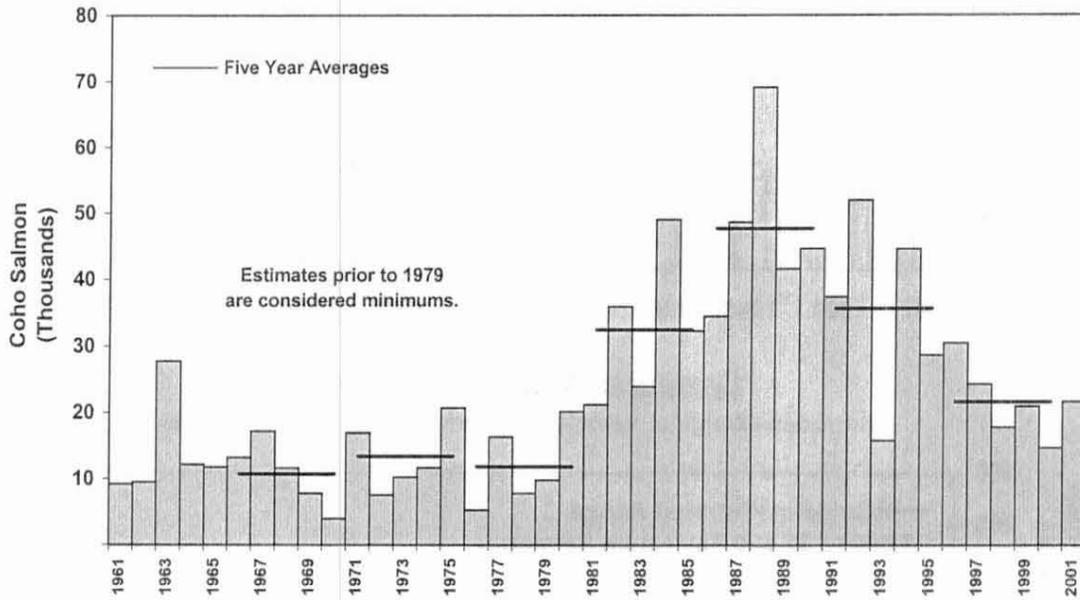
COMMERCIAL HARVEST



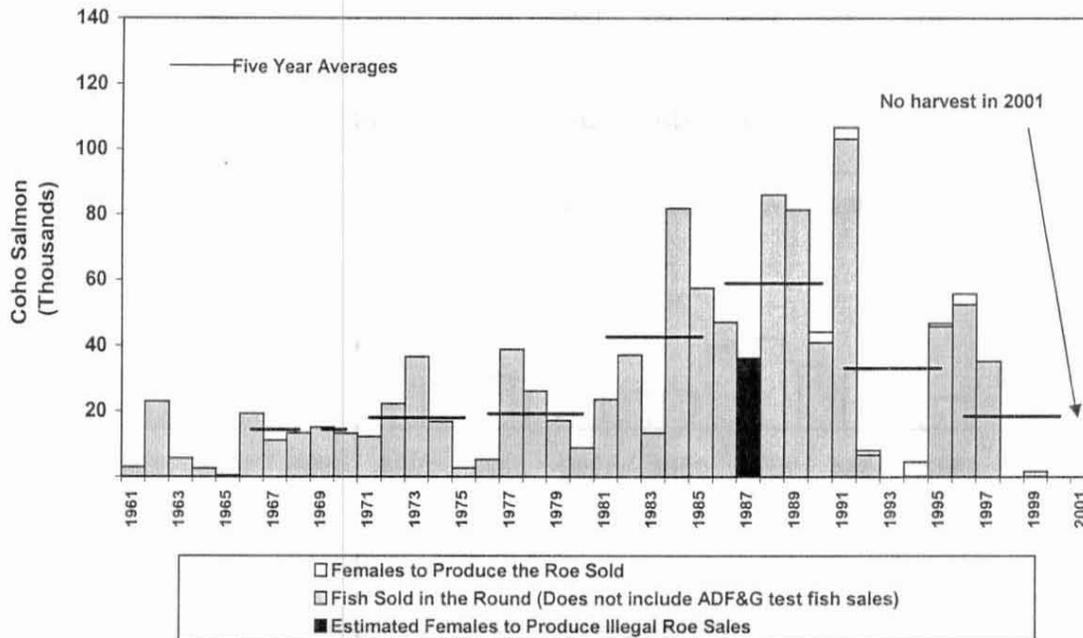
Appendix B.1. Subsistence, personal use, and commercial harvest of fall chum salmon, Yukon River Drainage, Alaska, 1961 to 2001.

ALASKAN PORTION OF YUKON RIVER DRAINAGE COHO SALMON

SUBSISTENCE AND PERSONAL USE HARVEST

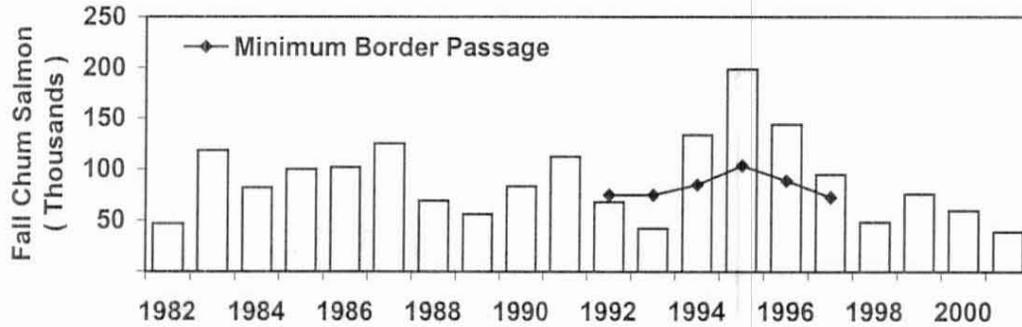


COMMERCIAL HARVEST



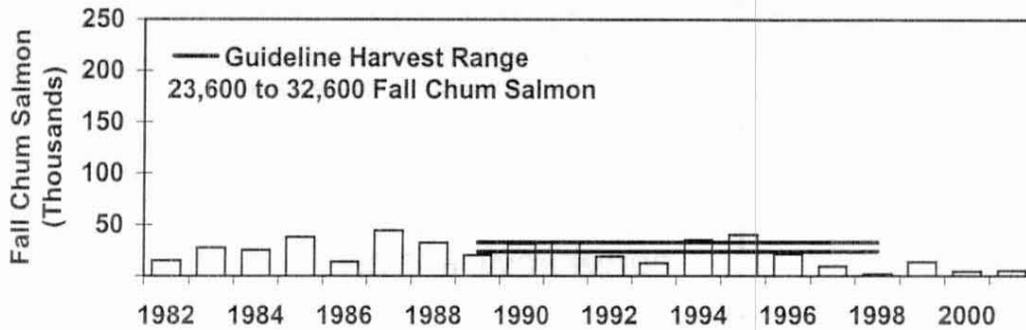
Appendix B.2. Subsistence, personal use, and commercial harvest of coho salmon, Yukon River Drainage, Alaska, 1961-2001.

CANADIAN MAINSTEM YUKON RIVER Fall Chum Salmon Canadian Border Passage

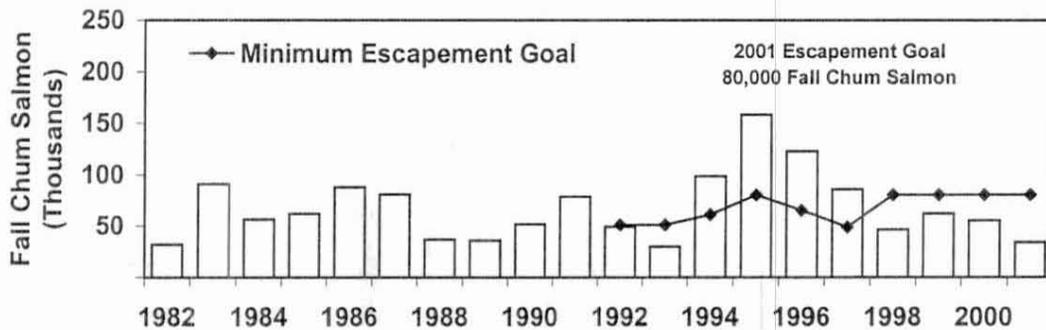


Canadian Mainstem Harvest

(Includes aboriginal, commercial, domestic, and sport harvests)



Canadian Spawning Escapement

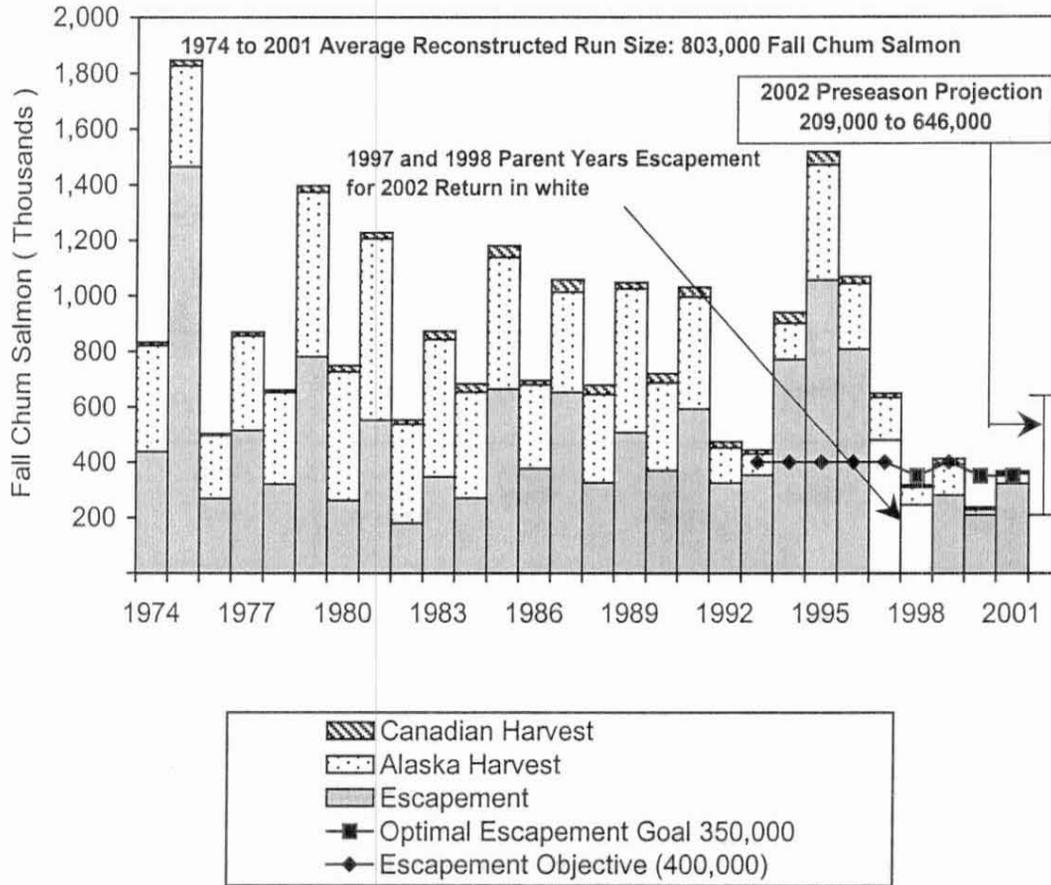


Appendix B.3. Canadian mainstem border passage, harvest and escapement estimates, 1982 to 2001, and targeted goals for the rebuilding period from 1992 through 1997, along with the minimum escapement goals for 1998 to 2001.

YUKON RIVER DRAINAGE

ALASKA AND CANADA

FALL CHUM SALMON HARVEST AND ESCAPEMENT



The drainage wide escapement goal is 400,000 fall chum salmon established in 1993. In 1996 an optimal escapement goal of 350,000 fall chum salmon was established in the Yukon River Fall Chum Salmon Management Plan and has been utilized in 1998, 2000, and 2001. Historical escapement and harvest estimates as provided in Eggers 2001 Report, and the Yukon River Fall Chum Salmon Run Size, 2002, Memorandum, by B. Borba, in prep.

Appendix B.4. Estimated harvest and escapement of fall chum salmon, Yukon River drainage, 1974 to 2001, and the 2002 preseason projection.

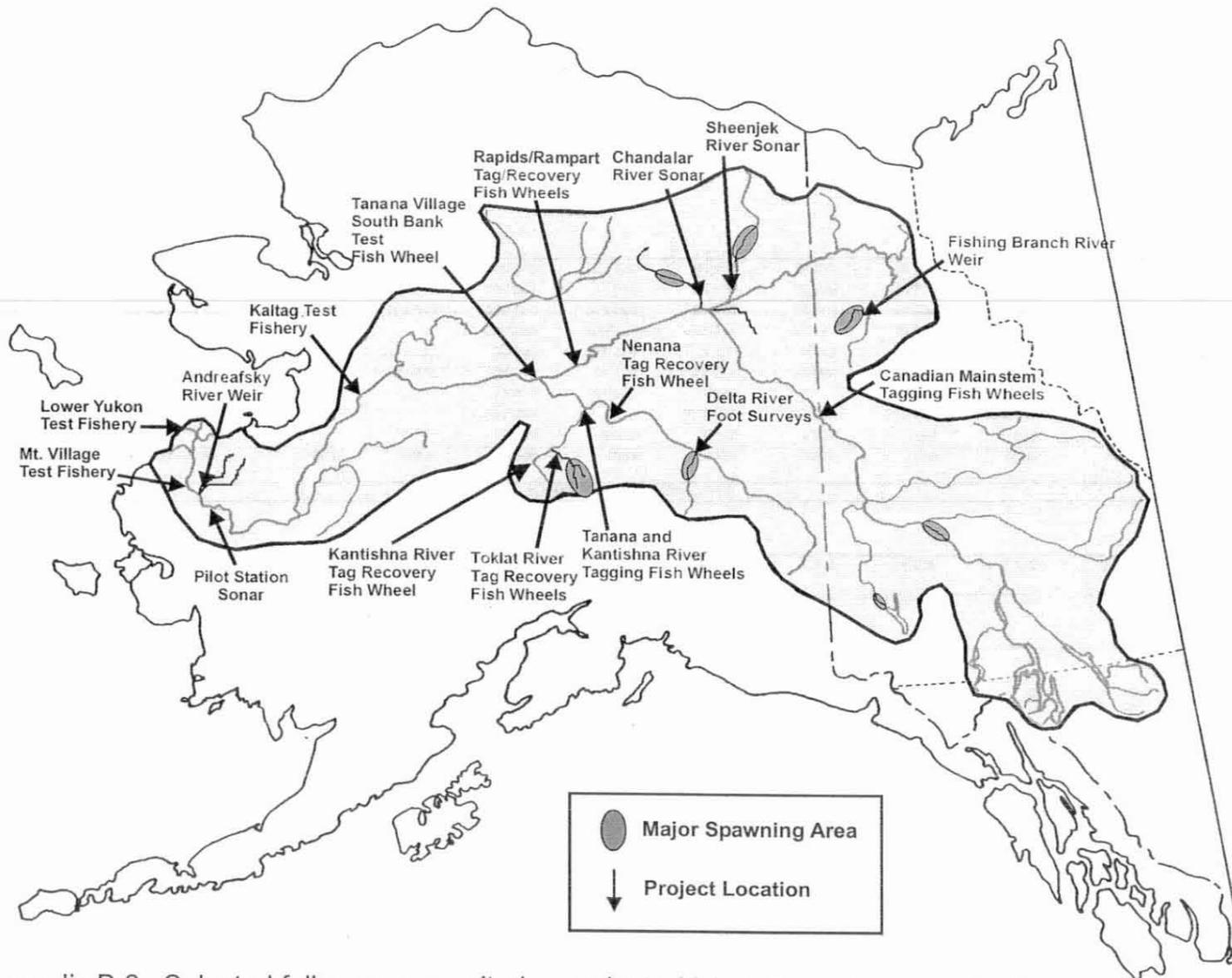
Appendix B.5. The Yukon River drainage fall chum salmon management plan, 5 AAC 01.249.

Run Size Estimate <i>b</i> (Point Estimate)	Recommended Management Action <i>a</i> Fall Chum Salmon Directed Fisheries				Targeted Drainagewide Escapement
	Commercial	Personal Use	Sport	Subsistence	
350,000 or Less	Closure	Closure	Closure	Closure <i>c</i>	350,000
350,001 to 450,000	Closure	Closure	Closure	Restrictions <i>d</i>	350,000
450,001 to 550,000	Closure	Closure	Closure	Restrictions <i>d</i>	375,000
550,001 to 600,000	Closure	Closure <i>e</i>	Closure <i>e</i>	Restrictions <i>d</i>	400,000
600,001 to 675,000	Closure	Normal Fishing Schedules	Retention Allowed	Normal Fishing Schedules	400,000 or More
Greater Than 675,000	Commercial Fishing Considered <i>f</i>	Normal Fishing Schedules	Retention Allowed	Normal Fishing Schedules	400,000 or More

- a* Considerations for the Toklat River and Canadian Mainstem rebuilding plans may require more restrictive management actions.
- b* The department will use the best available data including preseason projections, mainstem river sonar passage estimates, test fisheries indices, subsistence and commercial fishing reports, and passage estimates from escapement monitoring projects to assess the run size.
- c* The department may, by emergency order, allow subsistence chum salmon directed fisheries where indicator(s) suggest that the escapement goal(s) in that area will be achieved.
- d* The department may, by emergency order, allow a less restrictive or a normal subsistence fishing schedule in areas that indicator(s) suggest that the escapement goal(s) in that area will be achieved.
- e* The department may, by emergency order, allow personal use and sport fishing in areas that have normal subsistence fishing schedules and indicator(s) that suggest the escapement goal(s) in that area will be achieved.
- f* When the projected run size is more than 675,000 chum salmon, the department may allow for a drainage-wide commercial fishery with the targeted harvest of the surplus above 625,000 chum salmon distributed by district or subdistrict proportional to the guideline established in harvest range 5 AAC 05.365. The department shall distribute the harvest at levels below the low end of the guideline harvest range by district or subdistrict proportional to the mid-point of the guideline harvest range.

5 AAC 05.365. (4) manage the commercial fishery during the fall chum salmon season for a guideline harvest range of 72,750 to 320,500 chum salmon, distributed as follows:

- | | |
|-------------------------------|------------------------------------|
| (A) Districts 1, 2 and 3: | 60,000 to 220,000 chum salmon; |
| (B) Subdistricts 4-B and 4-C: | 5,000 to 40,000 chum salmon; |
| (C) Subdistrict 5-A: | 0 to 4,000 pounds chum salmon roe; |
| (D) Subdistricts 5-B and 5-C: | 4,000 to 36,000 chum salmon; |
| (E) Subdistrict 5-D: | 1,000 to 4,000 chum salmon; |
| (F) District 6: | 2,750 to 20,500 chum salmon. |



Appendix B.6. Selected fall season monitoring projects, Yukon River drainage, 2002.

Appendix B.7. Preliminary fall chum salmon commercial harvest and escapement comparison, Yukon River drainage, 2001. a

Fall Chum Salmon Commercial Harvest b												
District/Subdistrict	Guideline Harvest Range	1993	1994	1995	1996	1997	1998	1999	2000	2001	Comparison to Average	5 Year Average (1996 to 2000)
Y-1		0	0	79,345	33,629	27,483	0	9,987	0	0	N/A	14,220
Y-2		0	0	90,831	29,651	24,326	0	9,703	0	0	N/A	12,736
Y-3		0	0	0	0	0	0	0	0	0	N/A	0
Subtotal Y-1, Y-2, & Y-3	60,000-220,000	0	0	170,176	63,280	51,809	0	19,690	0	0	-	26,956
Y-4BC	5,000-40,000	0	0	8,731	2,918	2,458	0	681	0	0	N/A	1,211
Subtotal Y-4	5,000-40,000	0	0	8,731	2,918	2,458	0	681	0	0	-	1,211
Y-5ABC	4,000-36,000	0	0	26,054	17,461	3,069	0	0	0	0	N/A	4,106
Y-5D	1,000-4,000	0	3,630	3,979	4,397	851	0	0	0	0	N/A	1,050
Subtotal Y-5	5,000-40,000	0	3,630	30,033	21,858	3,920	0	0	0	0	-	5,156
Y-6	2,750-20,500	0	4,369	74,117	17,574	0	0	0	0	0	N/A	3,515
Subtotal Y-6		0	4,369	74,117	17,574	0	0	0	0	0	-	3,515
Total Alaska	72,750-320,500	0	7,999	283,057	105,630	58,187	0	20,371	0	0	N/A	36,838
Canada c		12,422	35,354	40,111	21,329	9,286	1,742	13,506	3,795	2,198	-	9,932

Fall Chum Salmon Escapements												
Project	BEG Range	1993	1994	1995	1996	1997	1998	1999	2000	2001	Comparison to Average	5 Year Average (1996 to 2000)
East Fork Andreafsky River Weir d		-	-	2,584	2,978	2,048	1,276	763	619	302	-80%	1,537
Pilot Station Sonar		295,303	-	1,247,541	-	623,367	397,157	510,891	253,512	360,356	-19%	446,232 f
South Fork Koyukuk River Weir		-	-	19,485	21,651	11,340	-	-	-	-	-	17,492 g
Toklat River	15,000-33,000	27,838	76,057	54,513	18,264	14,511	15,605	4,551	5,095	5,804	-50%	11,605
Delta River	6,000-13,000	19,857	23,777	20,587	19,758	7,705	7,804	16,534	3,777	13,611	22%	11,116
Chandalar River Sonar	74,000-152,000	-	-	280,999	208,170	199,874	75,811	88,662	65,894	109,829	-14%	127,682
Sheenjek River Sonar	50,000-104,000	42,922	153,013	235,269	247,965	80,423	32,894	14,229	30,022	54,433	-33%	81,107
Canada Fishing Branch River Weir	50,000-120,000	28,707	65,247	51,971	77,278	26,959	13,248	12,904	5,053	21,556	-20%	27,088
Canada Mainstem Tagging	>80,000	29,743	98,358	158,092	122,429	85,439	46,305	62,035	55,362	33,989	-54%	74,314

a Data from the 2000 AMR and 2001 JTC used when available.

b Commercial harvest includes the estimated harvest of females to produce roe sold.

c Total harvest for all fisheries in Canadian mainstem Yukon River (Aboriginal, Domestic, and Commercial).

d (1993-2001) Data taken from 2002 Yukon Area Fall Season Data Notebook (Table C.1).

f Four year average 1997 to 2000.

g Three year average 1995 to 1997.

Appendix B.8. Preliminary coho salmon commercial harvest and escapement comparison, Yukon River drainage, 2001. a

Coho Salmon Commercial Harvest											
District/Subdistrict	1993	1994	1995	1996	1997	1998	1999	2000	2001	Comparison to Average	5 Year Average (1996 to 2000)
Y-1	0	0	21,625	27,705	21,450	0	855	0	0	N/A	10,002
Y-2	0	0	18,488	20,974	13,056	1	746	0	0	N/A	6,955
Y-3	0	0	0	0	0	0	0	0	0	N/A	0
Subtotal Y-1, Y-2, & Y-3	0	0	40,113	48,679	34,506	1	1,601	0	0	-	16,957
Y-4A	0	0	0	0	0	0	0	0	0	N/A	0
Y-4BC	0	0	0	161	814	0	0	0	0	N/A	195
Subtotal Y-4	0	0	0	161	814	0	0	0	0	-	195
Y-5ABC	0	0	0	0	0	0	0	0	0	N/A	0
Y-5D	0	0	0	0	0	0	0	0	0	N/A	0
Subtotal Y-5	0	0	0	0	0	0	0	0	0	-	0
Y-6	0	4,451	6,900	7,142	0	0	0	0	0	N/A	1,428
Subtotal Y-6	0	4,451	6,900	7,142	0	0	0	0	0	-	1,428
Total Alaska	0	4,451	47,013	55,982	35,320	1	1,601	0	0	-	18,581

Coho Salmon Escapements												
Project	BEG Range	1993	1994	1995	1996	1997	1998	1999	2000	2001	Comparison to Average	5 Year Average (1996 to 2000)
East Fork Andreafsky River Weir		-	-	10,901	8,037	9,462	5,417	2,963	8,199	9,054	33%	6,816
Pilot Station Sonar		41,620	-	154,462	-	153,502	176,792	94,532	183,192	143,213	-6%	152,005 ^b
Geiger Creek		138	410	142	233	274	157	29	142	578	246%	167
Barton Creek Weir		141	2,000	192	0	-	-	-	-	-	N/A	583 ^c
Lost Slough		484	944	4,169	2,040	1,524	1,360	1,002	55	242	-80%	1,196
Mainstem Nenana		419	1,648	2,218	2,171	1,446	2,771	745	66	855	-41%	1,440
Wood Creek		666	1,317	500	2,416	1,464	353	-	385	699	-39%	1,155 ^d
Seventeen Mile Slough		581	2,909	2,972	3,668	1,996	1,413	662	879	3,741	117%	1,724
Delta Clearwater River	>9,000	10,875	62,675	20,100	14,075	11,525	11,100	10,975	9,225	46,875	312%	11,380
Clearwater Lake & Outlet		3,525	3,425	3,625	1,125	2,775	2,775	-	1,025	4,425	130%	1,925 ^d

a Data from the 2000 AMR and 2001 JTC used when available.

b Four year average, 1997 to 2000.

c Four year average, 1993 to 1996.

d Four year average 1996 to 1998, and 2000.

Appendix C

Yukon Area Fishery Regulation Changes

Appendix C.1. Yukon Area fishery regulation changes adopted at the 2002 Alaska Board of Fisheries meeting.

YUKON AREA FISHERY REGULATION CHANGES

To keep Yukon Area salmon fishermen, processors, and other interested individuals informed of current fishing regulations, the Department of Fish and Game (department) is providing this partial summary of regulatory changes recently taken by the Alaska Board of Fisheries (Board). For more information concerning these or other regulations, contact the Alaska Department of Fish and Game, Division of Commercial Fisheries office in Anchorage at 907-267-2131 or in Fairbanks at 907-459-7274. *The following summary is for informational purposes only and is not intended to detail, reflect, or fully interpret reasons for the Board's actions.*

5 AAC 01.240 MARKING AND USE OF SUBSISTENCE TAKEN SALMON. The Board provided the department with emergency order authority to suspend the requirement for Districts 1-3 to mark king salmon taken for subsistence uses when there is no commercial fishing season. If there is no commercial fishing season, king salmon taken for subsistence uses may have the dorsal fin left intact.

5 AAC 01.220. LAWFUL GEAR AND GEAR SPECIFICATIONS, 5 AAC 77.171. LAWFUL GEAR FOR PERSONAL USE FINFISH FISHING. Personal use salmon fishing gear changes included restricting gear type during times of salmon conservation and adding dip nets as a gear type to be available during times of salmon conservation. During times when it is necessary for the conservation of a salmon species, gear limitations, such as gillnet mesh size limits and/or live box/live chute requirements on fish wheels, will apply to allow for personal use fishing for a more abundant species.

..... (b) Notwithstanding (1) – (5) of this section, during times when the commissioner determines it to be necessary for the conservation of chum salmon, the commissioner may, by emergency order, close the Yukon Area Subdistrict 6-C personal use salmon fishing season and immediately reopen the season during which the following gear limitations apply:

- (1) a gillnet used to take salmon
 - (A) must be of four inch or less mesh or eight inch or greater mesh;
 - (B) of four inch or less mesh, may not exceed the length and depth specified by the commissioner; and
 - (C) of eight inch or greater mesh, may not exceed the length and depth specified by the commissioner.
- (2) fish wheels,
 - (A) a fish wheel used to take salmon must be equipped with a live box that is constructed so that it contains no less than 45 cubic feet of water volume while it is in operation;
 - (B) the live box of a fish wheel must be checked no less than once every

- six hours while the fish wheel is in operation, and all chum salmon caught in the livebox must be returned to the water alive;
- (C) for the purposes of this paragraph "livebox" is a submerged container that is attached to a fish wheel and that will keep fish caught by the fish wheel alive;
- (D) a person may operate a fish wheel without a livebox only if
 - (i) the fish wheel is equipped with a chute that returns fish captured by the fish wheel to the water alive;
 - (ii) the person closely attends the fish wheel while it is in operation; and
 - (iii) the person returns all chum salmon caught to the water alive;
- (3) dip nets may be used, however all chum salmon caught must be released to the water alive.

(c) Notwithstanding (1) – (5) of this section, during times when the commissioner determines it to be necessary for the conservation of king salmon, the commissioner may, by emergency order, close the Yukon Area Subdistrict 6-C personal use salmon fishing season and immediately reopen the season during which the following gear limitations apply:

- (1) a gillnet used to take salmon
 - (A) must be of six inch or less mesh;
 - (B) may not exceed the length and depth specified by the commissioner.
- (2) fish wheels,
 - (A) a fish wheel used to take salmon must be equipped with a live box that is constructed so that it contains no less than 45 cubic feet of water volume while it is in operation;
 - (B) the live box of a fish wheel must be checked no less than once every six hours while the fish wheel is in operation, and all king salmon caught in the livebox must be returned to the water unharmed;
 - (C) for the purposes of this paragraph "livebox" is a submerged container that is attached to a fish wheel and that will keep fish caught by the fish wheel alive;
 - (D) a person may operate a fish wheel without a livebox only if
 - (i) the fish wheel is equipped with a chute that returns fish captured by the fish wheel to the water alive;
 - (ii) the person closely attends the fish wheel while it is in operation; and
 - (iii) the person returns all king salmon caught to the water alive;
- (3) dip nets may be used, however all king salmon caught must be released to the water alive.