

**ESTIMATES OF SUBSISTENCE SALMON HARVESTS
WITHIN THE YUKON RIVER DRAINAGE
IN ALASKA, 1994**

by

Russell R. Holder

and

Helen H. Hamner

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AUTHORS

Russell R. Holder is currently the AYK Resource Development Biologist for the Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, 1300 College Road, Fairbanks, Alaska 99701.

Helen H. Hamner is the Region III Assistant Regional Biometrician for the Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, 333 Raspberry Road, Anchorage, Alaska 99518.

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ABSTRACT

Successful management of the Yukon River fishery resources depends upon accurate estimates of subsistence harvests. Estimates of subsistence salmon harvests in the Alaska portion of the Yukon River drainage have been documented by the department since 1961. Survey methods and harvest reporting have varied. The number of salmon harvested in Yukon River subsistence fisheries in 1994 was estimated from a survey program, from subsistence fishing permit information, and from records on the number of department test fish given to the public. A total of 55,388 chinook *Oncorhynchus tshawytscha*, 147,413 summer chum *O. keta*, 123,565 fall chum, and 44,675 coho *O. kisutch* salmon were estimated to have been harvested by 1,438 fishing households in 1994.

The majority of households in the Yukon River drainage reside in villages in which there are no regulatory requirements concerning reporting of their subsistence salmon harvest. The department has implemented a survey program to estimate the salmon harvest from areas not requiring a permit. The 1994 subsistence survey database contained 2,530 households in 34 villages and included the villages of Hooper Bay and Scammon Bay. The survey program utilized subsistence catch calendars, postseason household interviews, and postseason household telephone interviews to improve the sampling frame and to estimate the harvest. Stratified random sampling techniques were used to select 1,140 households which were to be interviewed during the 1994 survey. The stratification of households was based on prior year harvest information.

A total of 934 households, 82 percent of the identified households, were contacted by personal interview, telephone interview, calendar receipt, or letter survey. Based on the household interviews (95 percent confidence intervals are in parenthesis), an estimated 1,109 (± 87) fishing households harvested a total of 43,369 ($\pm 3,637$) chinook salmon, 100,559 ($\pm 10,528$) summer chum salmon, 68,444 ($\pm 6,651$) fall chum salmon, and 12,146 ($\pm 2,942$) coho salmon. Not surveyed this year were 77 households in the three Koyukuk River communities of Hughes, Allakaket, and Alatna due to the disastrous floods they experienced in September 1994. To account for the probable summer season fishing effort and salmon harvest for these three villages, the previous 5-year averages were used. An estimated 33 fishing households with 188 dogs in Hughes, Allakaket, and Alatna, likely harvested 471 chinook and 6,639 summer chum salmon during the summer season of 1994.

Fishing households which fished in areas requiring a permit, documented their catch, and returned the permit upon expiration. A total of 469 (473 including Delta River carcass permits) subsistence permits were issued. Recipients included two households which were issued permits to fish in two different permit areas, and 37 Minto, 2 Fairbanks, and 1 Manley households that were issued Tolovana River subsistence pike permits and salmon permits. The catch reported by 457 permittees who had returned their permits as of March 20, 1995, was 8,536 chinook salmon,

7,555 summer chum salmon, 49,352 fall chum salmon, and 26,544 coho salmon. An additional four permittees collected 250 fall chum salmon carcasses from the Delta River floodplain.

Fish retained from commercial catches for subsistence use (excluding commercial-related salmon) were included in the subsistence salmon harvest estimate. A total of 1,486 chinook, 22,606 summer chum, and 2,900 coho salmon were retained from commercial catches as documented by a combination of fish ticket and survey information. Commercial-related salmon not included in the subsistence salmon harvest estimate were female salmon harvested to produce the roe sold in Districts 4, 5, and 6, and male summer chum salmon in District 4.

Department test fisheries gave away a total of 2,319 chinook salmon, 10,058 summer chum salmon, 5,817 fall chum salmon, and 3,085 coho salmon to households in the villages of Emmonak, Kotlik, Pilot Station, Tanana, and Nenana.

KEY WORDS: Salmon, chinook salmon, chum salmon, coho salmon, subsistence fishing, subsistence harvests, subsistence survey, subsistence permit, Yukon River

INTRODUCTION

Effective management of Yukon River salmon populations requires knowledge of the number of salmon harvested in subsistence fisheries. Although all five salmon species are harvested in both commercial and subsistence fisheries, chinook, chum, and coho salmon compose the bulk of all commercial and subsistence harvests. In portions of the drainage, subsistence harvests of some species, particularly chum and coho salmon, are substantial and frequently exceed commercial harvests.

Early exploration reports documented the importance of subsistence salmon harvests to people living in the Yukon River drainage (Zagoskin, [1847] 1967; Allen, 1887). Historically, large salmon harvests were used to support dogs for transportation, packing, and as draft animals (Richardson, [1900] 1964; Gilbert and O'Malley, 1921). Around 1930, the airplane began replacing the sled dog as a mail and supply order carrier, which contributed to a gradual reduction in subsistence harvests. During the early to mid-1960s an increased use of snow machines accelerated the decline of sled dog use. Subsistence salmon catches declined through the 1970s as increased welfare payments and employment opportunities, including commercial fishing activities, became available to rural residents (Alaska Department of Fish and Game, 1985). It is likely that the sale of subsistence-caught salmon roe (legal from 1974 through 1977) increased subsistence chum salmon catches in the Upper Yukon Area above normal use levels during the mid 1970s. Beginning in the early 1980s, due, in part, to a renewed interest in sled dog racing, the number of dogs per family increased in some portions of the drainage with a coincidental increase in the subsistence salmon harvest. In addition, the human population along the river continued to grow, which may also be directly related to increased subsistence salmon harvests. Excluding the greater Fairbanks area (population 74,000 in 1990), some 40 communities, with a total population of approximately 11,000 people of primarily Yupik Eskimo and Athapaskan Indian descent, are located within the drainage.

The primary fishing gear which households use to harvest subsistence salmon in the Yukon Area includes drift gillnets, set gillnets, and fish wheels (Table 6). Subsistence fishermen deploy gillnets in the main rivers and coastal marine waters. Fish wheels are used by subsistence fishermen in the upper Yukon and Tanana Rivers. Beach seines are occasionally used near spawning grounds to catch schooling or spawning salmon. Not all gear types are legal in all portions of the drainage.

Subsistence salmon fishing occurs from late May through October, although this varies throughout the drainage. Fishing activities are based either from a fish camp or home village. However, the degree to which one or the other is more prevalent varies from village to village. Some people from communities not located along the mainstem Yukon River, such as Shageluk and Birch Creek, may operate fish camps along the mainstem. Subsistence salmon fishing is often undertaken by extended family groups representing two or more households in a

community. These groups, as well as members of individual households, cooperate to harvest, cut, preserve, and store salmon for subsistence use.

There is usually little wastage of fish taken for subsistence purposes. A major portion of the fish taken are sun dried or smoked for later consumption, while the head and viscera may be fed to dogs. Wet weather may cause fish to spoil during the drying process. Chinook salmon are used mainly for human consumption. While chum and coho salmon also are used for human consumption, relatively large numbers are taken to feed sled dogs. It should be noted that the practice of keeping sled dogs is much more common in the Upper Yukon Area than in the Lower Yukon Area and is considered a major factor contributing to subsistence use of salmon.

Many people who fish for subsistence purposes are also commercial fishermen. In major commercial fishing areas it is necessary to place the subsistence fishery on a schedule in order to enforce commercial fishing regulations. During the fishing season, however, substantially more fishing time is allowed for subsistence fishing than for commercial purposes. Since the early 1960s, subsistence fishing has been managed and regulated to coincide with commercial fishing periods when the commercial fishing season is open. In all districts, additional subsistence-only fishing time is allowed during the commercial fishing season. Prior to and following the commercial fishing season, subsistence fishing is allowed seven days per week in Districts 1-5, and during two 42-hour periods per week in District 6.

Information concerning subsistence fishery harvests within the Alaskan portion of the drainage has been collected by the department since 1961 and is recorded in the Yukon Area Annual Management Reports. Since 1961, Division of Commercial Fisheries staff have conducted subsistence surveys, except for 1988, when Subsistence Division staff conducted the survey with the objective of improving survey data collection and analysis (Walker et al., 1989). Subsistence salmon catch data has been collected through the use of personal interviews, catch calendars, and mailed questionnaires. Although survey methodologies prior to 1988 were varied, the basic premise was that surveyors census all known "fishing families" (groups of households which fished together) in a village. The goal was and continues to be the documentation of the total fish killed and used for subsistence purposes. The basic methodology developed by the Subsistence Division in 1988 was to identify all households in each community and to stratify the updated community household lists by "usually fish" and "usually not fish" households (Walker et al., 1989). Substantially more fishing households were identified using this method compared to the fishing family survey lists used prior to 1988. Since the historical survey lists considered households in a broader sense (family units working together to harvest and process salmon), there is no direct correlation between fishing family and fishing household. Historical subsistence catch data was (and continues to be) expanded for non-contacted fishing families or households on a community basis. Total drainage and district level harvests were then estimated by summing the estimated community harvests.

The stratification system developed by the Subsistence Division was further refined in 1990 and 1991 to improve the accuracy and precision of the drainage-wide subsistence harvest estimate (Holder and Hamner, 1991, Bromaghin and Hamner, 1993). In 1990, households were classified into one of five catch strata based upon their level of subsistence harvest in 1988 and 1989. In subsequent years, household historical harvest levels were reviewed to ensure households were

categorized correctly. A stratified random sample (Cochran, 1977) was drawn from the household list with strata defined by a combination of village and harvest level. Assuming that households tend to harvest the same number of fish in the current year as they have historically, this stratification system allows households with the heaviest harvest of the resource to be sampled more intensively.

Since development of commercial salmon roe fisheries in 1978, identifying and categorizing subsistence and commercial catches in the Upper Yukon Area has been difficult because fish harvested for commercial roe sales are also utilized for subsistence purposes. This has increased the complexity of estimating the subsistence harvest and use. The largest commercial roe sales developed within the District 4 summer chum salmon fishery. Salmon roe sales in Districts 5 and 6 developed on a much smaller scale. It is believed that most of the carcasses produced as a byproduct of the District 5 and 6 commercial fishery replace salmon that would have been harvested under subsistence fishing regulations. The District 4 commercial carcass byproduct of the summer chum salmon roe fishery typically exceeds what can be absorbed by subsistence users of the area. Because of the difficulty in assigning a single use to the harvest, beginning in 1990, harvests were categorized as those taken during subsistence fishing (subsistence harvest) and those taken as a byproduct of a commercial fishery (hereafter referred to as commercial-related). Commercial-related salmon include only female salmon harvested to produce the roe sold in Districts 4, 5, and 6, and male summer chum salmon in District 4. Other salmon which commercial fishermen retained from commercial catches for subsistence use (whole fish) are not contained within the commercial-related category of this report. Whole fish retained from commercial catches for subsistence use (excluding commercial-related salmon) were included in the subsistence salmon harvest estimate.

Efforts to identify fish in the commercial-related category during surveys have varied historically. During the years 1981, 1982, 1983, and 1985, District 4 subsistence surveys did not delineate the amount of commercial-related summer chum salmon used for subsistence purposes and consequently the subsistence harvest estimate included commercial-related salmon. In 1984, when the Subsistence Division conducted subsistence surveys in the villages of Kaltag and Nulato, they excluded the commercial summer chum salmon used for subsistence purposes in those two villages, and, for this reason, summer chum salmon catch estimates for these villages were much lower than previous years. For 1986 through 1989, District 4 subsistence surveys were conducted to estimate both the number of subsistence caught summer chum salmon and the commercial-related salmon used for subsistence. Beginning in 1988, efforts were made to exclude commercial-related harvests from the subsistence harvest estimate and document the commercial-related salmon used for subsistence purposes separately.

During the 1990 and 1991 surveys, households were not asked to identify all commercial-related harvests used for subsistence purposes, but households were asked the number of salmon fed to dogs. Although the majority of salmon available for subsistence use from the commercial-related harvest are used for dog food, estimates of the number of summer chum salmon fed to dogs includes both subsistence caught fish and those obtained as a byproduct of the commercial fishery. Since an estimate of the salmon used for human consumption out of the commercial-related harvest was not generated, the total number of salmon used for subsistence during 1990 and 1991 cannot be calculated.

As stated earlier, the number of commercial-related summer chum salmon available from District 4 typically exceeds the subsistence use. To evaluate the number of fish potentially available for subsistence uses, and document the total fish harvested during the District 4 commercial fishery, harvest data were used from the commercial fishery instead of the survey program. Estimating the number of fish killed to produce the roe which was sold has required a department sampling program. The number of salmon harvested during a commercial fishing period was estimated from the pounds of roe sold (fish tickets), the average weight of roe per female (department sampling at the processing plants), and the sex ratio (department sampling of commercial fishing gear).

Since 1990, commercial fishermen in Subdistrict 4-A have been required by regulation to report the number of fish killed to produce the roe sold on their fish tickets. However, the reported number of fish harvested during the commercial fishery as reported on the fish tickets was less than the department estimate (roe weight expanded by weight per female and sex ratio). To quantify the number of males returned to the water and the number of carcasses Subdistrict 4-A commercial fishermen actually used themselves, gave away, or lost to spoilage or animals, a separate survey questionnaire was used for Subdistrict 4-A fishermen during the 1992 and 1993 surveys. This questionnaire was not used during the 1994 survey because the 1992 and 1993 survey information appeared to reflect the carcass disposition in below average return years—similar to 1994.

Recognizing that commercial-related salmon are available for utilization for both commercial and subsistence purposes resulted in three categories in the total utilization tables in the Annual Management Reports; commercial harvest, commercial-related harvest, and the subsistence harvest. This recognition is important for avoiding double counting when determining the actual number of fish killed. The outcome of this approach was that the reported subsistence harvest was reduced in some districts and years, because it was assumed, based on location and date of harvest, that they belonged within the commercial-related category. It was recognized that in removing the commercial-related subsistence salmon use from the subsistence catch information would result in an inaccurate reflection of the actual subsistence salmon use or need. Subsistence salmon use began to be separately estimated in 1992 to accurately reflect the drainage subsistence salmon use or need, which would be comparable to the historic subsistence salmon harvest information. Total subsistence salmon use differs from the subsistence harvest estimate because it not only includes the actual subsistence harvest but also the portion of the commercial-related harvest used for subsistence purposes and the salmon given away by the department test fish program. Subsistence salmon use is probably a better reflection of subsistence needs than the subsistence harvest estimate because the development of the commercial roe fishery and the departments test fish program have artificially depressed the subsistence harvest numbers. Total commercial utilization is the actual commercial harvest “fish in the round” sales summed with the estimated number of fish harvested to produce the roe sold, and must be taken into consideration when evaluating commercial guideline harvest ranges.

The issue of the number of salmon harvested to feed to dogs continues to resurface on an intermittent basis. Typically, this issue arises when a run size projection identifies that there will

not be enough salmon available to meet escapement and subsistence needs, or because individuals disagree on whether feeding salmon to dogs is a legitimate subsistence use. Appendix B.8 identifies information on numbers of dogs and salmon fed to dogs which was collected from the surveys and permits from 1990 to 1994.

In areas where subsistence salmon fishing permits are required, the department depends on the returned permits and reported harvest for subsistence information. Subsistence fishing permits have been required for three sections of the Upper Yukon Area: 1) since 1974 for the Yukon River near the Yukon River Bridge between Hess Creek and the Dall River; 2) since 1979 for the upper portion of District 5 between the upstream mouth of Twenty-Two Mile Slough and the U.S./Canada border; and 3) since 1964 for the Tanana River upstream of Wood River. Beginning in 1988 subsistence permits have been required for the entire Tanana River drainage.

METHODS

Data compiled from the department's survey project, permit program, department test fishery, and fish tickets (commercial-related salmon) are the primary sources used to estimate the number of salmon harvested and used in subsistence activities in the Alaskan portion of the Yukon River drainage. Typically, harvest information from permits and surveys are summed, although Stevens Village is an exception. Since many Stevens Village residents fish in non-permit areas, Stevens Village residents are surveyed even though some residents fish in an area requiring a permit. To obtain a village harvest estimate, the permit information is included as a portion of the survey harvest information. To avoid double counting when summing the survey and permit totals, the Stevens Village permit harvest information must be subtracted from the permit information totals.

Subsistence Survey

The 1994 survey program had several components. All components were intended to help generate an accurate and precise estimate of the number of salmon harvested by subsistence fishing households in surveyed villages. The primary components of the survey program were subsistence catch calendars, postseason personal household interviews, and postseason telephone or postal surveys of those households not personally contacted during the village visits.

The department mailed a total of 2,530 calendars during May 1994 to Yukon River subsistence households in our database. Separate calendars were mailed to 1,376 lower and 1,154 upper Yukon fishing households due to differences in months of harvest and local fish names (Appendix C.1 and C.2). Fishermen were asked to use the calendars during the 1994 fishing season to record their daily salmon catch by species. The total daily catch of salmon was to be

recorded regardless of whether they were given away or retained. A letter was enclosed with the calendars which thanked fishermen for their participation in the 1993 survey and contained a table which summarized the 1993 subsistence salmon harvest by village (Appendix C.3). Harvest information from the returned calendars was used to complete the harvest information for surveyed households. Catch information from calendars returned by households not in the 1994 survey was recorded to ensure households were placed in the correct strata for the 1995 survey. To improve calendar returns, catch calendar posters were sent to each village post office to be posted to remind fishermen to complete their catch calendars before department surveyors came to pick them up in the fall (Appendix C.4). Appendix C.5 is an example of the announcements sent to radio stations that broadcast in the area prior to the arrival of surveyors in the villages.

A list of households located in surveyed communities within the Yukon River drainage formed the sampling frame for the stratified random sampling program. The 1994 list of households was based on information surveyors collected from previous years and from the 1993 survey. Each household on the list was assigned a category of subsistence salmon harvest: unknown-, zero-, light-, medium-, and heavy-harvester. Households for which no previous harvest information was available were placed into the unknown category. Households which had historical harvest information were placed in the category of harvest based upon their average total annual harvest of salmon from 1989 through 1993. Households that harvested no salmon in those years were placed into the zero-harvest or do-not-harvest salmon category. Definitions of light-, medium-, and heavy-harvesters differed between the Lower and Upper Yukon Areas, reflecting differing patterns of harvest preferences and relative species abundance. In the Lower Yukon Area an average harvest of 1 to 200 salmon was considered to be a light-harvester, a harvest of 201 to 500 salmon was considered to be a medium-harvester, and a harvest greater than 500 salmon was considered to be a heavy-harvester. In the Upper Yukon Area an average harvest of 1 to 100 salmon was considered to be a light-harvester, a harvest of 101 to 700 salmon was considered to be a medium-harvester, and a harvest greater than 700 salmon was considered to be a heavy-harvester.

A stratified random sample (Cochran, 1977) of households was drawn from the stratified population; strata being defined by the combination of community residence and catch strata. In general, stratum sample sizes were established based upon the level of harvest. Medium- and heavy-harvest category households were censused, 30% of the light-harvest category households were sampled, 10% of the zero-harvest category households were sampled, and 20% of the unknown-harvest households were sampled. However, because of requests by management biologists, sample sizes were increased for some categories within some villages. In Emmonak, Pilot Station, and Tanana, 30% of the zero-harvest stratum and 50% of the light-harvest stratum were sampled. In Holy Cross, 50% of the light-harvest stratum was sampled. In addition, all households in communities with 35 or fewer households were censused. Further, if the stratum sample size was less than five households, all households in the strata were sampled.

Surveyors were provided with project orientation information and required to attend a half-day training seminar during which the 1994 survey form was thoroughly discussed. Appendix C.6 is a copy of the 1994 interview form surveyors used for each interview. Each interview determined whether or not members of the household participated in a subsistence fishery in 1994, the

number of each salmon species harvested, the number of each salmon species processed for their own household's use, the number of fish that were a byproduct of a commercial fishery, the type of fishing gear used, and where they caught their subsistence salmon (fishing district, subdistrict, or tributary river). All households were asked if they received any fish from another household, and whether it was from a commercial fishermen or from another subsistence fisherman, the number of people in the household, the number of dogs owned, the number of each salmon species fed to dogs, the number of subsistence salmon the household usually used during a year, and if the household had met their subsistence salmon needs in 1994. Households which said they had not met their salmon needs were asked to explain why they had not gotten enough salmon.

Households listed in the unknown-harvest category and not identified to be surveyed were printed on a separate list for surveyors to correctly catch categorize those households. Surveyors were to check with key village contacts or the listed household to enable placing the unknown-harvest households into the proper catch category and thereby decreasing the variance of the harvest estimates.

Telephone interviews were attempted for households which were to be surveyed but were not contacted during the village visits. In addition, a survey questionnaire with a postage-paid return envelope was mailed to all households which were not contacted during the personal interviews or by telephone.

The collection of personal and telephone interview responses was assumed to constitute a stratified random sample. Estimation was performed using classical, stratified random sampling methods (Cochran, 1977). During data analysis, if a strata contained only one household contact, the district variance was used to estimate the stratum variance. In addition, the district mean was used to estimate a strata mean if no households were contacted in the strata.

Based on our recommendation in 1992 to investigate some type of incentive program for increasing fishermen's participation in documenting their catch and returning completed subsistence salmon harvest calendars, we proposed some type of monetary reward for return of the calendars. This was not adopted for a number of reasons. Similar to the 1993 survey, we continued to give all survey or telephone survey participants a complimentary ballpoint pen in appreciation for participating in documenting the subsistence salmon harvest in Alaska for 1994. The pens were yellow, monogrammed in blue writing with "Alaska Department of Fish and Game - Yukon River - Subsistence Salmon Surveys".

Salmon harvested in test fisheries conducted by staff of the Division of Commercial Fisheries were frequently given to the public and were assumed to replace salmon obtained through more traditional fishing activities. Salmon given away as part of a department test fishery were, therefore, included with the reported subsistence harvest for the appropriate location.

Subsistence Permits

Subsistence fishing household permits were required of resident individuals who desired to fish in permit-required areas. The total permit harvest is the harvest reported on permits returned through March 20, 1995. Subsistence permit communities are located primarily within District 5 and District 6 (Subdistricts 6-A, 6-B, and 6-C) of the Upper Yukon Area. In 1994, a separate permit was issued for the Tolovana River drainage to subsistence fish for pike. Because of a recent court ruling, personal use areas in 1993 were redesignated as subsistence areas for the 1994 permitting season.

Permit applications were mailed, along with a letter (Appendix C.8), which explained how to apply by mail and gave the schedule of preseason permit issuing trips to all 1993 permittees who reported their 1993 salmon harvests and lived in the villages of Nenana, Manley, Minto, Central, Circle, and Eagle. These trips were also announced by posters (Appendix C.7) sent to village post offices for posting. Permits were also available throughout the season from the Fairbanks office. Appendix C.9 is a copy of the 1994 household application and permit form for subsistence fishing in areas requiring a permit. Appendix C.10 is a copy of the 1994 household application and permit for Tolovana River drainage subsistence pike fishing. Appendix C.11 is a copy of the 1994 household application and permit for subsistence whitefish and sucker fishing. News releases were used to inform fishermen of fishing period openings and closures.

Harvest was tabulated postseason for all permit holders who returned their permit and/or catch information. Permit holders were required to keep a record of their fish harvest and provide that information to the department when they were done fishing for the season or within 10 days of expiration of the permit. Nearly all the permits had an expiration date of October 15, 1994. Fishermen who had not reported their harvest as of January 4, 1995, were first sent a reminder letter (Appendix C.12). On February 17, 1995, a second reminder letter was sent to all permittees who had not yet reported their 1994 salmon harvest (Appendix C.13). Fishermen who complied at least once during the fishing season with the weekly reporting requirement (which applied to the upper portion of Subdistrict 6-B and all of Subdistrict 6-C) were sent first and second reminder letters. These letters thanked them for reporting inseason and asked them to confirm their season harvest (Appendix C.14 and C.15). The Tolovana River drainage subsistence pike permits expired December 31, 1994, and the first reporting reminder letter (Appendix C.16) was sent out on January 4, 1995. A second reminder letter was sent out on February 21, 1995 for Tolovana River pike (Appendix C.17).

Subsistence Salmon Obtained from the Commercial Fishery

Commercial fishermen were required to document the number of fish retained for subsistence use from their commercial catch on fish tickets, but compliance was poor. Since fish ticket reporting was poor, the estimate of salmon retained from commercial catches was the higher of either survey information or fish ticket records and is considered a minimal estimate. The salmon

carcasses which became available for subsistence use as a result of the commercial sale of roe were considered part of the commercial harvest and appear in the commercial-related harvest category of the total utilization tables in Appendix A of the Yukon Area Annual Management Report (Alaska Department of Fish and Game, 1995). Whole fish retained from commercial catches were included in the subsistence salmon harvest estimate of the total utilization tables in Appendix A of the Yukon Area Annual Management Report (Alaska Department of Fish and Game, 1995).

RESULTS

The 1994 subsistence salmon harvests as compiled from survey information (includes fish retained from commercial catches for subsistence use), permit reports, Department test fish records, for the Alaskan portion of the Yukon River drainage by 1,438 fishing households was estimated to total 55,388 chinook, 147,413 summer chum, 123,565 fall chum, and 44,675 coho salmon. For reporting consistency with Yukon Area Annual Management Reports, Table 1 summarizes the 1994 Alaskan Yukon River drainage subsistence salmon harvest and related information by fishing district and community of residence.

The 1994 subsistence salmon use as documented from survey information, permit reports, Department test fish records, and fish tickets receipts for the Alaskan portion of the Yukon River drainage was estimated to total 52,595 chinook, 212,983 summer chum, 131,381 fall chum, and 49,766 coho salmon (Table 2).

Subsistence Survey

The 1994 survey database contained 2,530 households in 34 village communities. The stratified random sampling design identified 1,140 of these households which were to be sampled in the survey villages. Staff from the Division of Commercial Fisheries traveled to each of these villages between August 31 and October 29, 1994, and attempted to interview a member of each household included in the sample. Table 3 contains a list of the communities visited and the dates when personal interviews were conducted. A total of 934 households, or 82% of the households which were to be sampled, were contacted. A total of 170 calendars were either picked up by surveyors during the personal interviews or mailed back to the department by subsistence fishermen. Table 4 contains a summary of the number of households, the sample size, the contact rate for each stratum, and the percentage of sample households that were contacted. The contact number does not reflect households which were contacted and declined to participate in the survey or did not respond to our telephone or mail inquiries. The majority of mail questionnaires were returned with incomplete answers and were not suitable for inclusion in the sample frame.

Table 5 contains a summary of the estimated number of households from which at least one member harvested subsistence salmon, organized by community of residence and catch stratum. A total of 1,109 households, or 45% of the 2,453 total households, was estimated to have participated in harvesting subsistence salmon. Table 6 contains a summary of the fishing gear used by surveyed subsistence households. A total of 9,593 people were estimated to populate the 31 surveyed villages (Table 7). Over two-thirds of these households were in strata associated with light-, medium-, or heavy-catch categories.

Salmon harvested by 1,109 fishing households of surveyed villages was estimated to total 43,369 chinook, 100,559 summer chum, 68,444 fall chum, and 12,146 coho salmon (excluding the five-year averages used for Hughes, Allakaket, and Alatna). The estimated total harvests of chinook, summer chum, fall chum, and coho salmon were organized by community of residence and catch group in Table 8 and Appendices A.1 through A.4. Tables 9 through 12 identify the salmon harvest by the reported fishing district, subdistrict, or tributary location of where the fish were caught. Ten miscellaneous fish species harvested by the surveyed villages are listed in Table 13. The three most utilized miscellaneous species harvested were estimated to total 28,515 pike, 84,734 whitefish, and 453,510 blackfish.

The estimated salmon use for fishing and non-fishing surveyed households totaled 41,864 chinook, 181,630 summer chum, 71,892 fall chum, and 12,906 coho salmon which included commercial-related salmon used for subsistence purposes. The estimated use totals of chinook, summer chum, fall chum, and coho salmon are organized by community of residence and catch strata in Table 14 and Appendices A.5 through A.8.

An estimated total of 927 chinook and 106,613 summer chum salmon were retained from commercial catches and used for subsistence purposes by Yukon River drainage surveyed households (Table 15). Since no fall season commercial fishery occurred in the main Yukon River in 1994, no fall chum salmon or coho salmon could have been retained from fall commercial fishing activities.

A total of 5,748 dogs were estimated to be owned by 1,640 households located in the surveyed communities (Table 16). These households estimated that they used 111,929 summer chum salmon, 57,191 fall chum salmon, and 10,354 coho salmon as dog food (Table 16). These estimates include salmon from subsistence and commercial-related harvests. Due to the rare use of chinook salmon for dog food, an estimate of the number of chinook salmon used for dog food was not attempted. The above estimates include summer chum salmon harvested in the District 4 commercial fishery which are primarily used for dog food since the flesh is available to fishermen after selling the roe to processors.

Of the households interviewed, a total of 345 households said they had not met their subsistence salmon needs for 1994. Based on the reasons people gave, it is estimated that 130 households tried to fish for salmon and did not get enough salmon to meet their needs, while the remaining 215 households did not attempt to fish for salmon (Table 17 and Appendix A.12).

Department test fish programs near Emmonak, Middle Mouth, Pilot Station, Tanana, and Nenana

gave away a total of 2,319 chinook, 10,058 summer chum, 5,817 fall chum, and 3,085 coho salmon to households in Emmonak, Kotlik, Pilot Station, Tanana, and Nenana for subsistence use according to department records (Table 23). The survey program estimated a total of 1,338 chinook, 6,787 summer chum salmon, 381 fall chum salmon, and 483 coho salmon given away by department test fishing programs to village households in Emmonak, Kotlik, and Pilot Station (Appendix A.11).

At the end of August, two large storms brought heavy rain to Northwest Alaska. They occurred approximately 8 days apart and their cumulative effect brought severe flooding to the Koyukuk River drainage. Most affected by this flooding were the villages of Allakaket, Alatna, and Hughes. The majority of structures in these villages were destroyed by flood waters. As a result these three villages were not surveyed during the 1994 subsistence survey. Five-year averages (1989-1993) for the 33 fishing households in the three villages were used to estimate chinook (471) and summer chum (6,639) salmon catches for 1994 (Table 1). Due to the inability of people to subsistence fish in the fall (no fall chum or coho salmon were harvested) because of the flood, 60,000 to 62,000 pounds of chum and coho salmon were donated from Manley, Nenana, Fairbanks, and a Valdez hatchery. These fish were distributed to the villages of Hughes, Allakaket, Alatna, and to people sheltered in Fairbanks (Table 22).

Subsistence Permits

A total of 473 subsistence fishing household permits were issued during the 1994 fishing season. A total of 431 households participated including 2 households which received permits to fish in two different permit areas and 37 Minto, 2 Fairbanks, and 1 Manley households were issued both a salmon permit and a Tolovana River drainage subsistence pike fishing permit. Households which fished in an area requiring a permit, obtained a permit, documented their catch, and returned the permit upon expiration. Permit issuing began in mid-May when a department representative traveled to six interior villages and issued 127 permits to village residents. The remainder of the permits were issued by mail or to individuals who applied for a permit at the Fairbanks office. The first permit was issued March 3, 1994, and the last permit was issued November 3, 1994.

Nearly all the permits had an expiration date of October 15, 1994, and permit holders were to return their permits within 10 days of the permit expiration. Approximately 55% of permit holders returned their permits prior to January 4, 1995. On January 4, 1995 the first reminder letter was sent to 215 households which had not returned any postseason harvest information. On February 17, 1995 a second reminder letter was sent to the remaining households which had not returned any postseason harvest information. As of March 20, 1995, a total of 457 permittees (97%) had reported their 1994 harvest information by either returning the original permit, returning either one of the reminder letters, or telephoning the office to report their harvest. The sum of subsistence harvests reported by permit holders as of March 20, 1995, was 8,536 chinook, 7,555 summer chum, 49,352 fall chum, and 26,544 coho salmon. Table 18 contains a summary of the number of salmon harvested by subsistence permittees organized by fishing

Table 5 contains a summary of the estimated number of households from which at least one member harvested subsistence salmon, organized by community of residence and catch stratum. A total of 1,109 households, or 45% of the 2,453 total households, was estimated to have participated in harvesting subsistence salmon. Table 6 contains a summary of the fishing gear used by surveyed subsistence households. A total of 9,593 people were estimated to populate the 31 surveyed villages (Table 7). Over two-thirds of these households were in strata associated with light-, medium-, or heavy-catch categories.

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Department test fish programs near Emmonak, Middle Mouth, Pilot Station, Tanana, and Nenana

DISCUSSION

The Department's purpose in documenting subsistence salmon harvests is to gather information which will allow us to provide for sustained yields of Yukon River salmon. Teamed with commercial fishing and escapement information, documenting the subsistence salmon harvest allows estimation of salmon run sizes, the within drainage spawner distribution, and the total harvest of salmon. Recent development of the Upper Yukon Area salmon roe fishery has confounded the number of salmon harvested and used for subsistence. We have focused on improving the estimation of both the subsistence catch, and use estimates. An estimate of chinook salmon use slightly less than the catch estimate is consistent with our knowledge that many Yukon River chinook salmon are harvested and exported outside of the drainage. Fish used for subsistence purposes from the commercial fishery has resulted in use estimates for summer chum, fall chum, and coho salmon which were higher than the harvest estimates.

Conducting a sample survey and administering a permit program in an area as large and diverse as the Yukon River drainage is a difficult and challenging task. This section will discuss problems which inhibited efforts to collect the data required to estimate a total subsistence salmon harvest, and will address any notable differences in survey or permit methodology that were used in 1994.

Subsistence Survey

Estimates of subsistence salmon survey harvests presented in this report are not strictly comparable to estimates obtained in some previous years for a number of reasons. Commercially harvested whole fish and fish carcasses from the roe fishery retained for subsistence purposes were included in the estimates of subsistence harvests prior to 1988. Surveys conducted prior to 1979 were conducted earlier in the season and undoubtedly documented only a portion of the fall chum and coho salmon harvest information since households fished for fall chum and coho salmon after the survey period. Additionally, the sampling design and questions have changed periodically throughout the history of the program (Brannian and Gnath, 1988; Holder and Hamner, 1990; Holder and Hamner, 1991; Bromaghin and Hamner, 1993).

During personal interviews, surveyors attempted to interview an adult member of each sampled household, preferably the primary fisherman. Quality of the harvest estimate is dependent upon the collection of complete and accurate data. Both the surveyor and the surveyed individual contribute to this estimate. Surveyors have a responsibility to contact all the households to be surveyed, to ensure that they ask all the questions clearly and understandably, and to foster a cooperative atmosphere. The household being interviewed has the responsibility to accurately answer the questions being asked.

Species identification is a concern in all portions of the drainage. For example, fishermen in the

Upper Yukon use the term "silver" to refer to any bright silvery fish; however, both fall chum and coho salmon remain bright late into the season. This problem must continue to be addressed by working with subsistence fishermen concerning species identification and training surveyors in the common species names for each local area. The most useful technique is for surveyors to know the local common names of the fish species. To assist future surveys, surveyors will continue to be provided with common species names on village information sheets.

During the 1991 subsistence survey, the questionnaire did not ask any dog or dog-related information of non-subsistence fishing households. Starting in 1992, all surveyed households were asked how many dogs they had and the number of whole salmon fed to those dogs. The difference in asking all households for dog information accounts for the significant increase in the number of dogs reported on surveys since 1992.

During the 1994 fishing season, rain-induced flooding in the Koyukuk River drainage and high water in other drainages to the east (Chandalar and Sheenjek) is known to have had an effect on subsistence fishing opportunities and efficiency. Appendix A.13 shows information on the 1994 water levels for Eagle, Galena, Russian Mission, and Nenana as compared to the historical range. Water levels at Russian Mission towards the end of August and into September reflect flooding in the Koyukuk drainage, while water levels at Galena during this time period reflect high water levels east of the Koyukuk drainage.

The summer chum salmon commercial fishery in District 4 poses a special challenge. The primary commercial product from this fishery is summer chum salmon roe which is processed into the luxury single egg caviar known as ikura and exported mainly to Japan. A problem with this fishery has been determining the amount of commercial summer chum salmon which has been used to meet subsistence needs, primarily the feeding of dogs. Although the flesh may be used for subsistence, these fish are considered part of the commercial harvest because the roe sale is documented on commercial fish tickets. For that reason, the 1992, 1993, and 1994 surveys categorized a fisherman's subsistence catch as either subsistence or a commercial-related byproduct.

Individuals may question accuracy of the survey in estimating the total subsistence harvest in the Yukon Area by comparing the documented numbers of fish given away from the department test fish program, with survey results. The survey is designed to estimate subsistence salmon harvest, and since many of the households that received fish from the department test fish program were probably nonfishing households it would be expected that the survey estimate would be conservative.

Subsistence Permits

In general, the subsistence fishing permit program is working smoothly. The spring permit issuing trips and the availability of permits distributed through the mail and at the local Tok and Delta department offices works well for most rural residents. Permit fishermen complying with

the weekly telephoning of their catches for Subdistrict 6-C and that portion of Subdistrict 6-B three miles upstream of Totchaket Slough does need attention as evidenced by the postseason harvest records.

Due to changes in the State subsistence law in 1986 which limited subsistence hunting and fishing to rural Alaskan residents, the Board of Fisheries created personal use salmon fisheries in the Yukon Area for non-rural state residents. These regulations primarily affected the greater Fairbanks area. Initially, only a fall chum salmon personal use fishery was implemented in 1987. In 1988, personal use fisheries were created for all salmon. However, the Alaska Supreme Court ruled that, effective July 1, 1990, every resident of the State of Alaska was an eligible subsistence user. In effect, this decision made the personal use category obsolete in the Yukon Area. From 1990 through 1992, all fishermen have fished under subsistence fishing regulations, and no personal use permits have been issued. In 1993, a new ruling created a personal use fishing area in the Fairbanks Non-Subsistence Use Zone, which applied to those fishing in waters on the Tanana River between the confluence with the Wood River and the confluence with the Volkmar River. However, in 1994 the State was required to provide for subsistence fishing in nonsubsistence areas during the 1994 season pending further litigation.

Subsistence Restrictions and Closure

It is common and usually necessary for subsistence fishing to be restricted during the commercial fishing season to enforce commercial fishing regulations. During 1994, the chinook and summer chum salmon subsistence fishing season progressed normally. After the early commercial fishing season, subsistence fishermen in Districts 1, 2, and 3 were placed on a seven-day-per-week subsistence fishing schedule; Subdistricts 4-B, 4-C, 5-A, 5-B, and 5-C were placed on a five-day-per-week subsistence fishing schedule; Subdistrict 4-A, which does not have a fall commercial fishing season, was placed on a seven-day-per-week fishing schedule beginning July 20, at the close of the commercial fishing season for 1994; District 6 remained on the regulatory schedule of two 42-hour subsistence fishing periods per week; and Subdistrict 5-D subsistence fishermen remained on their seven-day-per-week fishing schedule which was not altered during the commercial season due to the small number of commercial permits being fished in this subdistrict.

The department identified the need for approximately 600,000 fall chum salmon to provide for subsistence and escapement needs throughout the drainage in 1994. From approximately August 1 until August 20, inseason projections of fall chum salmon from the sonar project at Pilot Station were used in management decisions. Based on the guidelines laid out in the Yukon River Fall Chum Salmon Management Plan, when the inseason projection fell below the 600,000 fall chum salmon level, the department implemented sport and personal use fisheries closures and restrictions on the fall chum salmon subsistence fishery.

Based primarily on the Pilot Station run assessment, which was projecting a run size of less than 600,000 fish, the subsistence fishing schedule for fall chum salmon in Districts 1, 2, 3,

Subdistrict 4-A, and the Coastal District was reduced to five days per week on August 6, excluding the tributaries below the Koyukuk River and rivers in the Coastal District which remained open seven days per week. Very few fall chum salmon occur in tributaries below the Koyukuk River and in streams in the Coastal District, thus subsistence fishing in these areas was not affected. Sport fishing for chum salmon within the Yukon River below the confluence of the Koyukuk River was also closed on August 6. The directed fall chum salmon subsistence fishing schedule was reduced to 48-hours per week in Districts 1 through 4, and Subdistricts 5-B and 5-C on August 13; except for the Yukon River tributaries below the Koyukuk River and rivers in the Coastal District which continued to remain open seven days per week. In addition, sport fishing for chum salmon was closed in the Yukon River drainage above the confluence of the Koyukuk River on August 13.

Based on sonar passage estimates at Pilot Station which projected a run size of 417,00 fall chum salmon, the directed fall chum salmon fishery was further restricted on August 18, Districts 1 through 4 were closed, and Districts 5 and 6 were reduced to 24-hours per week. Districts 4, 5, and 6 were allowed to fish with liveboxes or livechutes for an additional 24-hours per week. The District 6-C personal use fishery was also closed on August 18. Although subsistence fishing for salmon was restricted, subsistence fishing for other species such as whitefish and pike continued to be allowed with gear restricted to gillnets with 4 inch or smaller mesh and 150 feet or less in length.

From August 21 until September 4, the department used an adjusted sonar count management of the fisheries. The adjusted sonar count indicated that continued subsistence restrictions were necessary in order to meet escapement objectives. However, with the adjusted sonar passage projection, the department relaxed the restrictions in District 4 by reopening it for one 24-hour period per week on August 29. Additional subsistence salmon fishing periods were allowed in Districts 5 and 6, and Districts 1, 2, and 3 returned to a normal seven day per week schedule on September 1.

By early September, as preliminary spawning escapement information became available, it was obvious that the Pilot Station sonar significantly under-counted the run. On September 4, normal subsistence fishing schedules were allowed throughout the drainage, as well as reopening of the District 6 personal use fishery. Yukon River drainage sport fishing for chum salmon was reopened on September 6.

RECOMMENDATIONS

Although some surveyed individuals may accurately recall the numbers of salmon they harvested during the fishing season, others are only able to provide rough approximations. Minimizing this problem requires fishermen to accurately remember or record their subsistence salmon harvests. The department currently uses catch calendars which are mailed pre-season to all Yukon River households to encourage fishing households to record their harvests. Based on the low number of completed catch calendars which fishermen return to the department, complimentary pens or some other small practical gift should continue to be used as a reminder program to encourage reporting of the salmon harvest. Other incentive programs that might be successful need to be investigated.

Community household lists have formed the basis of the sampling frame since 1988 (Walker et al., 1989). Each year surveyors enlist knowledgeable individuals in each community to review and update the list. This process alone is not sufficient to maintain a complete and accurate community household list due to the dynamic nature of most community households. Because conclusions obtained from the sampling program are based on the collection of households from which it is drawn, it is necessary that the village household lists be as accurate as possible. Use of the 1991 Permanent Fund application list was extremely helpful in updating the 1992 and 1993 sampling frames, but because of confidentiality concerns by the Department of Revenue, Permanent Fund Dividend Division, we were no longer able to use this tool for cross-checking village residency. Several village organizations were willing to share their community household lists which they had prepared for village census purposes. Where available, other community lists such as telephone and utility lists were also reviewed. One of the major problems with the sampling frame is that, even though it is updated annually, a full year transpires between the update and when the next sampling occurs. Methods for updating and maintaining an accurate sampling frame must continually be explored. Additional effort should be expended to minimize the size of the unknown use strata. Printing a separate list to investigate the unknown-catch category households was successful, and should be continued annually.

Ambiguous or confusing questions on the interview form have been troublesome, however, continued peer review of the survey instrument by staff and additional training time provided to surveyors should minimize this problem.

Participation by subsistence fishing households in the subsistence survey program is completely voluntary. No regulation or statute exists that requires subsistence fishermen to record or report their subsistence salmon harvest. In general, the cooperation of fishermen has been good, but approximately one fisherman per village typically declines to participate in the survey. The department is responsible for managing salmon runs to provide for a sustained yield of the species, the greater the error in the estimate of the subsistence harvest, the more difficult it becomes to manage the fisheries for sustained yield. A regulatory or statutory requirement for fishermen to record and report their subsistence harvests might improve accuracy of the harvest estimate.

Another significant problem relating to the quality of the harvest estimate is the fact that only 82% of the households to be sampled were actually contacted. Spending more time in the villages appears to be the most practical method of increasing our contacts. Surveyors are to telephone ahead to ensure the village visit will not conflict with activities such as funerals or special meetings, which either can take people out of town or be an inappropriate time to survey the village, thereby making the village visit not as productive as it could be. Telephone contacts are constrained due to the limited availability of telephones in the villages and the reluctance of people to make a long distance telephone call, even when we have requested that they call collect. It is recommended that surveyors attempt telephone contact in the evening with those households that were not surveyed, and that those households without a phone should be sent a post card requesting them to call the department collect.

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Table 1. Subsistence salmon harvest estimates and related information for the Alaskan portion of the Yukon River drainage, 1994. a

Village	Survey Date	b	Fishing Households	Dogs	Chinook	Summer Chum	Fall Chum	Coho	Set Nets	Drift Nets	Fish Wheels
Hooper Bay	9/6-9/7	c	69	244	157	10,556	284	1	69	0	0
Scammon Bay	9/6		45	123	668	4,347	63	80	45	0	0
<i>Bering Sea Coast Subtotal</i>			114	367	825	14,903	347	81	114	0	0
Sheldon Pt.	9/2		18	45	606	1,941	25	52	17	1	0
Alakanuk	9/1-9/3		66	200	1,045	5,947	73	94	36	30	0
Emmonak	8/31-9/1, 9/3	d	64	278	2,384	13,060	3,441	959	23	41	0
Kotlik	8/31-9/1	c	71	296	2,505	11,197	1,348	2,167	39	32	0
Retained from Commercial		f			114	12,608	0	0			
<i>District 1 Subtotal</i>			219	819	6,654	44,753	4,887	3,272	115	104	0
Mt. Village	9/16-9/17		65	206	1,511	3,938	797	968	7	58	0
Pitkas Pt.	9/15		16	62	469	1,103	294	364	1	15	0
St. Marys	9/15, 9/17		72	260	2,722	10,128	1,062	614	9	63	0
Pilot Station	9/9-9/10	e	36	156	1,977	5,450	1,527	811	4	32	0
Marshall	9/12		45	390	2,277	2,288	471	1,124	20	25	0
Retained from Commercial					78	5,745	0	0			
<i>District 2 Subtotal</i>			234	1,074	9,034	28,652	4,151	3,881	41	193	0
Russian Mission	9/13		29	171	1,793	801	11	55	24	5	0
Holy Cross	9/9-9/10		49	138	4,040	1,479	665	171	15	34	0
Retained from Commercial					25	59	0	0			
<i>District 3 Subtotal</i>			78	309	5,858	2,339	676	226	39	39	0
Lower Yukon River Drainage Total			645	2,569	22,371	90,647	10,061	7,460	309	336	0
Azvik	9/12		15	76	424	907	155	95	11	0	4
Grayling	9/13-9/14		30	258	1,843	1,418	811	36	21	8	1
Kaltag	10/5-10/6		35	126	1,653	3,683	630	245	2	30	3
Nulato	10/4-10/5		56	250	1,735	975	1,109	27	14	42	0
Koyukuk	10/6		16	76	589	2,039	1,049	305	7	7	2
Galena	10/4-10/5		54	296	1,834	1,198	3,963	803	31	15	8
Ruby	10/6-10/7		23	281	1,539	4,586	5,553	1,957	10	0	13
Retained from Commercial		h			203	-	0	0			
<i>District 4 Yukon R. Subtotal</i>			229	1,363	9,820	14,806	13,270	3,468	96	102	31
Shageluk	10/6-10/7										
<i>Inocho R. Subtotal</i>			j	12	104	291	6,212	186	137	10	1
Huslia	10/6-10/7		14	189	239	6,014	55	47	12	0	2
Hughes	Did not survey.	k	9	48	107	1,581	-	-	9	0	0
Allakaket	Did not survey.	k	19	127	338	4,691	-	-	19	0	0
Alatna	Did not survey.	k	5	13	26	365	-	-	5	0	0
Bettles	10/30		3	97	0	45	0	0	3	0	0
<i>Koyukuk R. Subtotal</i>			50	474	710	12,698	55	47	48	0	2
<i>District 4 Subtotal</i>			291	1,941	10,821	33,716	13,511	3,652	154	103	34
Tavasa	10/21-10/23	l	45	474	2,999	7,022	34,681	2,587	19	0	26
Rampart	10/25-10/26		14	75	1,354	359	1,007	99	14	0	0
Fairbanks NSB	permits	m	29	230	1,920	360	2,870	25	26	0	3
Stevens Village	10/19	n	20	87	2,814	459	45	0	18	0	2
Birch Creek	10/25		3	11	119	0	0	0	3	0	0
Beaver	10/18		12	61	850	653	2,069	10	9	0	3
Ft. Yukon	10/27-10/29		77	384	4,727	2,043	6,827	963	35	0	42
Circle	permits	o	11	80	1,377	98	4,581	30	6	0	5
Central	permits	p	8	28	240	8	0	0	8	0	0
Eagle	permits	q	27	156	1,234	318	8,263	0	21	0	6
Other	permits	r	7	69	602	21	0	0	7	0	0
Retained from Commercial					868	676	0	0			
<i>District 5 Yukon R. Subtotal</i>			253	1,655	19,104	11,939	60,343	3,714	166	0	87

-Continued-

Table 1. (p. 2 of 2). a

Village	Survey Date	b	Fishing Households	Dogs	Chinook	Summer Chum	Fall Chum	Coho	Set Nets	Drift Nets	Fish Wheels	
Venetic	10/25-10/26		28	244	524	567	4,302	4	22	0	6	
Chalkyitsik	10/26-10/27		7	90	0	0	1,751	456	7	0	0	
<i>Chundalar/Black Rivers Subtotal</i>			35	334	524	567	6,053	460	29	0	6	
<i>District 5 Subtotal</i>			288	1,989	19,628	12,506	66,396	4,174	195	0	93	
Manley	permits	s	23	476	480	1,405	13,722	10,410	17	0	6	
Minto	permits	t	33	539	316	509	1,419	2,616	29	0	4	
Nenana	permits	u	26	419	759	1,352	11,201	9,387	11	0	15	
Healy	permits	v	3	91	0	0	2,002	1,958	2	0	1	
Fairbanks NSB	permits	w	118	702	775	3,693	5,006	2,103	102	0	16	
Delta Junction	permits	x	4	21	10	25	202	15	4	0	0	
Other	permits	y	7	21	30	42	45	0	7	0	0	
Retained from Commercial					198	3,518	0	2,900				
<i>District 6 Tanana R. Subtotal</i>			214	2,269	2,568	10,544	33,597	29,389	172	0	42	
Upper Yukon River Drainage Total			793	6,199	33,017	56,766	113,504	37,215	521	103	169	
Survey Subtotals			1,142	5,936	43,840	107,198	68,444	12,146	590	439	113	
Permit Subtotals			z	296	2,832	7,743	7,551	49,304	26,544	240	0	56
ADF&G Test Fish Subtotals					2,319	10,058	5,817	3,085				
Retained from Commercial Subtotals					1,486	22,606	0	2,900				
			1,438	8,768	55,388	147,413	123,565	44,675	830	439	169	
Alaska, Yukon River Drainage Total			1,438	8,768	55,388	147,413	123,565	44,675	830	439	169	

a Data collected by Commercial Fisheries Management and Development Division. Survey data is expanded for number of fishing households, number of dogs, and catch data. Permit data is unexpanded, the number of dogs is based on permits issued, while the number of fishing households and their catch is based on returned permits. Gear data represents the principal gear types used by fishing households, with the exception of gear types not listed.

b Estimated number of households that fished in surveyed communities or number of permittees who reported fishing in permit required areas.

c A tagging study conducted at Hooper Bay in 1986 by the Bering Sea Fishermen's Association concluded that harvests in the Nuek Spit area of Hooper Bay intercepted Yukon River and Norton Sound chum salmon stocks.

d Includes 1,001 chinook, 2,992 summer chum, 1,522 fall chum, and 823 coho salmon from ADF&G test fish catches.

e Includes 984 chinook, 4,068 summer chum, 1,044 fall chum, and 1,210 coho salmon from ADF&G test fish catches.

f Salmon retained from commercial catches and used for subsistence purposes as recorded on fish tickets, as reported during subsistence surveys, or as estimated in Dan Bergstrom memorandum dated 10/6/94, whichever District total was higher.

g Includes 334 chinook, 2,998 summer chum, 1,349 fall chum, and 786 coho salmon from ADF&G test fish catches.

h Summer chum salmon available for subsistence use as a product of the commercial roe fishery were recorded as commercial related harvest.

i Does not include 103,002 summer chum salmon taken during commercial roe fishery used for subsistence as documented by surveys.

j Shageluk harvest data from households fishing mainstem Yukon River and Innoko River.

k Villages of Hughes, Allakaket & Alatna were not surveyed due to floods in September 1994. 5 year average harvests of chinook and summer chum, 1989 to 1993, are shown.

l Includes 1895 fall chum and 266 coho from ADF&G test fish catches.

m Data from Fairbanks North Star Borough fishermen who fished the Yukon River in a permit required area.

Of the 42 permits issued, 42 returned their permits and 29 fished.

n Permit harvest information from Stevens Village residents was included in the survey data.

o Circle. Of the 22 permits issued, 21 returned their permits and 11 fished.

p Central. Of the 11 permits issued, 11 returned their permits and 8 fished.

q Eagle. Of the 37 permits issued, 35 returned their permits and 27 fished.

r Other includes residents of Manley, Minto, Nenana, Tok and Wasilla who fished the Yukon River in a permit area.

Of the 9 permits issued, 9 returned their permits and 7 fished.

s Manley. Of the 25 permits issued, 25 returned their permits and 23 fished.

t Minto. Of the 44 permits issued, 42 returned their permits and 33 fished. Includes 12 households that fished in two different permit areas.

u Nenana. Of the 46 permits issued, 39 returned their permits and 26 fished. Includes 7 fall chum from ADF&G test fish wheel.

v Healy. Of the 5 permits issued, 5 returned their permits and 3 fished.

w Data from Fairbanks North Star Borough fishermen who fished the Tanana River. Of the 158 permits issued,

156 returned their permits and 113 fished. Includes 2 households that fished in two different permit areas.

x Delta. Of the 5 permits issued, 5 returned their permits and 4 fished. Does not include 175 fall chum collected under three Delta River carcass permits.

y Other includes residents of Anchorage, Bettles, Birch Creek, Dot Lake, Eagle River, Juneau, Northway, and Tok who fished the Tanana River.

Of the 9 permits issued, 9 returned their permits and 7 fished. Does not include 75 fall chum carcasses collected under one Delta River carcass permit issued to a Northway household.

z Does not include Delta River carcass permits or Stevens Village.

Table 2. Subsistence salmon use estimates for the Alaskan portion of the Yukon River drainage, 1994.

	Chinook	Summer Chum	Fall Chum	Coho
Survey Use Subtotals a	41,864	181,630	71,892	12,906
Permit Subtotals b	7,743	7,551	49,304	26,544
ADF&G Test Fish Subtotals c	2,319	10,058	5,817	3,085
District 6 Whole Salmon Retained from Commercial Catches for subsistence use d	198	3,518	0	2,900
District 6 Commercial-Related e	471	10,226	4,368	4,331
Yukon River Area Use Totals	52,595	212,983	131,381	49,766

a From Table 14, Includes salmon retained from commercial catches and that portion of the commercial-related salmon harvest which was reported as used for subsistence purposes. Includes Scammon Bay and Hooper Bay but does not include estimates for Hughes, Allakaket, or Alatna.

b Assumes all fish reported as harvested under authority of a permit were used for subsistence. Does not include Stevens Village.

c Assumes all fish reported as given away from Department test fish programs were used for subsistence.

d From Table 21 and presumed to be primarily males.

e From 1994 AMR Appendix Tables A.20 to A.23. Estimated number of females to produce the roe sold.

Table 3. Yukon Area villages, surveyors, and dates villages were surveyed for subsistence salmon harvest and use, 1994.

Community	Surveyor(s)	Survey Date(s)
Hooper Bay	Chapell/Edmund	Sept. 6-7
Scammon Bay	Edmund	Sept. 6
Sheldon Point	Chapell/Edmund	Sept. 2
Alakanuk	Edmund	Sept. 1-3
Emmonak	Chapell/Edmund	Aug. 31-Sept. 1,3
Kotlik	Holder	Aug. 31-Sept. 1
Mountain Village	Chapell/Edmund	Sept. 16-17
Pitka's Point	Chapell/Edmund	Sept. 15
St. Mary's	Chapell/Edmund	Sept. 15,17
Pilot Station	Edmund	Sept. 9-10
Marshall	Edmund	Sept. 12
Russian Mission	Edmund	Sept. 13
Holy Cross	Chapell	Sept. 9-10
Anvik	Chapell	Sept. 12
Grayling	Chapell	Sept. 13-14
Kaltag	Chapell/Moore	Oct. 5-6
Nulato	Chapell/Moore	Oct. 4-5
Koyukuk	Holder	Oct. 6
Galena	Holder/Weker	Oct. 4-5
Ruby	Weker	Oct. 6-7
Shageluk	Chapell	Oct. 6-7
Huslia	Moore	Oct. 6-7
Hughes	Flooded	Not Surveyed
Allakaket	Flooded	Not Surveyed
Alatna	Flooded	Not Surveyed
Bettles	Hopler	Oct. 30
Tanana	Hopler/Chapell	Oct. 21-23
Rampart	Hopler	Oct. 25-26
Stevens Village	Chapell	Oct. 19
Birch Creek	Chapell	Oct. 25
Beaver	Chapell	Oct. 18
Fort Yukon	Hopler	Oct. 27-29
Venetie	Chapell	Oct. 25-26
Chalkyitsik	Chapell	Oct. 26-27

Table 4. The total number of households (N), the sample size (n), the number contacted (C) and the percentage of households on the sample list that were actually contacted (%C) by catch stratum with community, use category, district, and Yukon River totals, 1994.

Community	Catch Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Community Totals			
	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C
Hooper Bay	71	14	12	85.7	15	5	4	80.0	33	10	10	100.0	18	18	17	94.4	2	2	2	100.0	139	49	45	91.8
Scammon Bay	1	1	1	100.0	23	5	4	80.0	54	16	11	68.7	5	5	4	80.0	0	0	0	-	83	27	20	74.0
Sheldon's Point	1	1	1	100.0	4	4	3	75.0	16	16	14	87.5	8	8	8	100.0	0	0	0	-	29	29	26	89.6
Alakanuk	2	2	1	50.0	48	5	4	80.0	69	21	21	100.0	13	13	12	92.3	0	0	0	-	132	41	38	92.6
Emunonak	33	7	6	85.7	53	16	14	87.5	61	31	31	100.0	12	12	12	100.0	3	3	3	100.0	162	69	66	95.6
Kotlik	16	5	5	100.0	22	5	4	80.0	48	14	14	100.0	14	14	14	100.0	4	4	4	100.0	104	42	41	97.6
District 1	124	30	26	86.6	165	40	33	82.5	281	108	101	93.5	70	70	67	95.7	9	9	9	100.0	649	257	236	91.8
Mountain Village	27	5	5	100.0	40	5	4	80.0	73	22	20	90.9	16	16	16	100.0	1	1	1	100.0	157	49	46	93.8
Pitkas Point	0	0	0	-	11	11	11	100.0	14	14	14	100.0	7	7	5	71.4	0	0	0	-	32	32	30	93.7
St. Mary's	23	5	5	100.0	22	5	3	60.0	36	11	10	90.9	20	20	19	95.0	4	4	4	100.0	105	45	41	91.1
Pilot Station	3	3	3	100.0	34	10	6	60.0	48	24	22	91.6	4	4	4	100.0	1	1	1	100.0	90	42	36	85.7
Marshall	1	1	0	0.0	11	5	4	80.0	49	15	14	93.3	8	8	8	100.0	0	0	0	-	69	29	26	89.6
District 2	54	14	13	92.8	118	36	28	77.7	220	86	80	93.0	55	55	52	94.5	6	6	6	100.0	453	197	179	90.8
Russian Mission	4	4	2	50.0	19	5	5	100.0	27	8	7	87.5	0	6	6	100.0	1	1	0	0.0	57	24	20	83.3
Holy Cross	22	5	3	60.0	17	5	5	100.0	26	13	12	92.3	9	9	9	100.0	2	2	2	100.0	76	34	31	91.1
District 3	26	9	5	55.5	36	10	10	100.0	53	21	19	90.4	15	15	15	100.0	3	3	2	66.6	133	58	51	87.9
Anvik	0	0	0	-	14	5	4	80.0	16	5	5	100.0	6	6	6	100.0	2	2	2	100.0	38	18	17	94.4
Grayling	3	3	3	100.0	21	5	5	100.0	12	5	5	100.0	21	21	21	100.0	3	3	2	66.6	60	37	36	97.2
Kaltag	2	2	2	100.0	15	5	5	100.0	18	5	4	80.0	16	16	15	93.7	0	0	0	-	51	28	26	92.8
Nulato	22	5	3	60.0	35	5	2	40.0	23	7	5	71.4	13	13	10	76.9	1	1	1	100.0	94	31	21	67.7
Koyukuk	2	2	1	50.0	17	5	4	80.0	20	6	4	66.6	5	5	4	80.0	2	2	2	100.0	46	20	15	75.0
Galena	27	5	3	60.0	59	6	5	83.3	48	14	13	92.8	12	12	11	91.6	3	3	3	100.0	149	40	35	87.5
Ruby	11	5	4	80.0	36	5	3	60.0	18	5	4	80.0	11	11	10	90.9	3	3	3	100.0	79	29	24	82.7
Shageluk	2	2	2	100.0	17	5	2	40.0	13	5	5	100.0	8	8	7	87.5	3	3	2	66.6	43	23	18	78.2
Huslia	9	5	3	60.0	27	5	3	60.0	14	5	5	100.0	9	9	8	88.8	7	7	6	85.7	66	31	25	80.6
Hughes	1	1	0	0.0	11	11	0	0.0	8	8	0	0.0	5	5	0	0.0	0	0	0	-	25	25	0	0.0
Allakaket	1	1	0	0.0	18	5	0	0.0	12	5	0	0.0	11	11	0	0.0	2	2	0	0.0	44	24	0	0.0
Alatna	0	0	0	-	4	4	0	0.0	2	2	0	0.0	2	2	0	0.0	0	0	0	-	8	8	0	0.0
Bettles	3	3	1	33.3	23	23	17	73.9	6	6	5	83.3	0	0	0	-	0	0	0	-	32	32	23	71.8
District 4	83	34	22	64.7	297	89	50	56.1	210	78	55	70.5	119	119	92	77.3	26	26	21	80.7	735	346	240	69.3
Tanana	22	5	3	60.0	58	17	12	70.5	18	9	6	66.6	11	11	8	72.7	21	21	19	90.4	130	63	48	76.1
Rampart	0	0	0	-	8	8	7	87.5	4	4	3	75.0	9	9	9	100.0	4	4	4	100.0	25	25	23	92.0
Stevens Village	3	3	2	66.6	12	5	2	40.0	9	5	5	100.0	9	9	9	100.0	3	3	3	100.0	36	25	21	84.0
Birch Creek	0	0	0	-	8	8	6	75.0	7	7	5	71.4	0	0	0	-	0	0	0	-	15	15	11	73.3
Beaver	0	0	0	-	15	15	9	60.0	12	12	10	83.3	6	6	6	100.0	1	1	1	100.0	34	34	26	76.4
Fort Yukon	57	11	10	90.9	94	9	8	88.8	41	12	11	91.6	23	23	17	73.9	6	6	6	100.0	221	61	52	85.2
Venetie	26	5	2	40.0	23	5	3	60.0	6	5	5	100.0	9	9	9	100.0	0	0	0	-	64	24	19	79.1
Chalkyitsik	4	4	2	50.0	21	21	18	85.7	7	7	5	71.4	3	3	3	100.0	0	0	0	-	35	35	28	80.0
District 5	112	28	19	67.8	239	88	65	73.8	104	61	50	81.9	70	70	61	87.1	35	35	33	94.2	560	282	228	80.8
Survey Totals	399	115	85	73.9	855	263	186	70.7	868	354	305	86.1	329	329	287	87.2	79	79	71	89.8	2,530	1,140	934	81.9

Table 5. Estimated number of subsistence fishing households in Yukon Area surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households contacted, 1994.

Community	Catch Unknown				Does not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total N	Total n	Total Est	CI (95%) (+/-)
Hooper Bay	71	12	0.4	0.1	15	4	0.5	0.2	33	10	0.5	0.1	18	17	0.8	0.0	2	2	0.5	0.0	139	45	69	22
Scammon Bay	1	1	0.0	0.0	23	4	0.2	0.2	54	11	0.6	0.1	5	4	1.0	0.0	0	0	-	-	83	20	45	17
Sheldon's Point	1	1	1.0	0.0	4	3	0.0	0.0	16	14	0.6	0.0	8	8	0.8	0.0	0	0	-	-	29	26	18	1
Atakanuk	2	1	0.0	0.0	48	4	0.2	0.2	69	21	0.6	0.0	13	12	0.8	0.0	0	0	-	-	132	38	66	25
Emmonak	33	6	0.3	0.1	53	14	0.1	0.0	61	31	0.5	0.0	12	12	0.7	0.0	3	3	1.0	0.0	162	66	64	16
Kotlik	16	5	0.6	0.2	22	4	0.5	0.2	48	14	0.7	0.1	14	14	0.8	0.0	4	4	1.0	0.0	104	41	71	16
District 1	124	26	0.4	0.0	165	33	0.3	0.0	281	101	0.6	0.0	70	67	0.8	0.0	9	9	0.9	0.0	649	236	333	44
Mountain Village	27	5	0.2	0.1	40	4	0.0	0.0	73	20	0.6	0.0	16	16	0.9	0.0	1	1	1.0	0.0	157	46	65	16
Pitkas Point	0	0	-	-	11	11	0.0	0.0	14	14	0.6	0.0	7	5	0.8	0.1	0	0	-	-	32	30	16	1
St. Mary's	23	5	0.6	0.2	22	3	0.6	0.3	36	10	0.6	0.1	20	19	0.8	0.0	4	4	1.0	0.0	105	41	72	19
Pilot Station	3	3	0.0	0.0	34	6	0.0	0.0	48	22	0.6	0.0	4	4	1.0	0.0	1	1	1.0	0.0	90	36	36	7
Marshall	1	0	0.3	0.1	11	4	0.2	0.1	49	14	0.7	0.1	8	8	0.8	0.0	0	0	-	-	69	26	45	11
District 2	54	13	0.4	0.1	118	28	0.2	0.0	220	80	0.6	0.0	55	52	0.9	0.0	6	6	1.0	0.0	453	179	234	28
Russian Mission	4	2	0.0	0.0	19	5	0.6	0.2	27	7	0.4	0.1	6	6	0.8	0.0	1	0	1.0	0.0	57	20	29	12
Holy Cross	22	3	0.3	0.3	17	5	0.8	0.1	26	12	0.7	0.0	9	9	0.7	0.0	2	2	1.0	0.0	76	31	49	15
District 3	26	5	0.3	0.2	36	10	0.7	0.1	53	19	0.6	0.1	15	15	0.8	0.0	3	2	1.0	0.0	133	51	78	19
Anvik	0	0	-	-	14	4	0.0	0.0	16	5	0.6	0.1	6	6	0.6	0.0	2	2	0.5	0.0	38	17	15	6
Grayling	3	3	0.3	0.0	21	5	0.2	0.1	12	5	0.6	0.1	21	21	0.7	0.0	3	2	1.0	0.0	60	36	30	8
Kaltag	2	2	1.0	0.0	15	5	0.4	0.2	18	4	0.7	0.2	16	15	0.8	0.0	0	0	-	-	51	26	35	9
Nulato	22	3	0.3	0.3	35	2	0.5	0.4	23	5	0.8	0.1	13	10	0.9	0.0	1	1	1.0	0.0	94	21	56	36
Koyukuk	2	1	0.0	0.1	17	4	0.0	0.0	20	4	0.5	0.2	5	4	0.7	0.1	2	2	1.0	0.0	46	15	16	10
Galena	27	3	0.3	0.3	59	5	0.0	0.0	48	13	0.6	0.1	12	11	0.7	0.0	3	3	1.0	0.0	149	35	54	19
Ruby	11	4	0.5	0.2	36	3	0.0	0.0	18	4	0.5	0.2	11	10	0.6	0.0	3	3	0.6	0.0	79	24	23	10
Shageluk	2	2	0.0	0.0	17	2	0.0	0.0	13	5	0.2	0.1	8	7	0.8	0.0	3	2	1.0	0.0	43	18	12	4
Hustla	9	3	0.0	0.0	27	3	0.0	0.0	14	5	0.4	0.1	9	8	0.3	0.0	7	6	0.6	0.0	66	25	14	5
Hughes	Did not survey.																							
Allakaket	Did not survey.																							
Alatna	Did not survey.																							
Bettles	3	1	1.0	0.1	23	17	0.0	0.0	6	5	0.0	0.0	0	0	-	-	0	0	-	-	32	23	3	0
District 4	81	22	0.3	0.1	264	50	0.1	0.0	188	55	0.6	0.0	101	92	0.7	0.0	24	21	0.8	0.0	658	240	258	47
Tanana	22	3	0.0	0.0	58	12	0.1	0.1	18	6	0.5	0.1	11	8	0.5	0.0	21	19	1.0	0.0	130	48	45	13
Rampart	0	0	-	-	8	7	0.2	0.0	4	3	0.6	0.1	9	9	0.5	0.0	4	4	1.0	0.0	25	23	14	1
Stevens Village	3	2	0.5	0.2	12	2	0.5	0.4	9	5	0.6	0.1	9	9	0.5	0.0	3	3	0.6	0.0	36	21	20	11
Birch Creek	0	0	-	-	8	6	0.0	0.0	7	5	0.4	0.1	0	0	-	-	0	0	-	-	15	11	3	1
Beaver	0	0	-	-	15	9	0.0	0.0	12	10	0.6	0.0	6	6	0.8	0.0	1	1	0.0	0.0	34	26	12	1
Fort Yukon	57	10	0.1	0.0	94	8	0.2	0.1	41	11	0.5	0.1	23	17	0.9	0.0	6	6	0.6	0.0	221	52	77	32
Venette	26	2	0.5	0.4	23	3	0.3	0.3	6	5	0.4	0.1	9	9	0.5	0.0	0	0	-	-	64	19	28	28
Chalkyitsik	4	2	0.0	0.0	21	18	0.0	0.0	7	5	0.8	0.1	3	3	0.3	0.0	0	0	-	-	35	28	7	1
District 5	112	19	0.2	0.1	239	65	0.2	0.0	104	50	0.6	0.0	70	61	0.7	0.0	35	33	0.9	0.0	560	228	206	46
Survey Totals	397	85	0.3	0.0	822	186	0.2	0.0	846	305	0.6	0.0	311	287	0.8	0.0	77	71	0.9	0.0	2,453	934	1,109	87

Table 6. Reported use of fishing gear by surveyed subsistence fishing households, Yukon Area, 1994.

Community	Total Households	Households Surveyed	Subsistence Fished	Gear-type used			
				Set Gillnets	Drift Gillnets	Fishwheels	Rod & Reel
Hooper Bay	139	45 (32.3%)	27 (60.0%)	27 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Scammon Bay	83	20 (24.0%)	12 (60.0%)	12 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Sheldon's Point	29	26 (89.6%)	17 (65.3%)	15 (93.7%)	1 (6.2%)	0 (0.0%)	0 (0.0%)
Alakanuk	132	38 (28.7%)	24 (63.1%)	13 (54.1%)	11 (45.8%)	0 (0.0%)	0 (0.0%)
Emmonak	162	66 (40.7%)	33 (50.0%)	12 (36.3%)	21 (63.6%)	0 (0.0%)	0 (0.0%)
Kotlik	104	41 (39.4%)	31 (75.6%)	17 (54.8%)	14 (45.1%)	0 (0.0%)	0 (0.0%)
District 1	649	236 (36.3%)	144 (61.0%)	96 (67.1%)	47 (32.8%)	0 (0.0%)	0 (0.0%)
Mountain Village	157	46 (29.2%)	29 (63.0%)	3 (10.3%)	26 (89.6%)	0 (0.0%)	0 (0.0%)
Pitka's Point	32	30 (93.7%)	14 (46.6%)	1 (7.1%)	11 (78.5%)	0 (0.0%)	2 (14.2%)
St. Mary's	105	41 (39.0%)	32 (78.0%)	4 (12.5%)	28 (87.5%)	0 (0.0%)	0 (0.0%)
Pilot Station	90	36 (40.0%)	19 (52.7%)	2 (10.5%)	17 (89.4%)	0 (0.0%)	0 (0.0%)
Marshall	69	26 (37.6%)	18 (69.2%)	8 (44.4%)	10 (55.5%)	0 (0.0%)	0 (0.0%)
District 2	453	179 (39.5%)	112 (62.5%)	18 (16.0%)	92 (82.1%)	0 (0.0%)	2 (1.7%)
Russian Mission	57	20 (35.0%)	11 (55.0%)	9 (81.8%)	2 (18.1%)	0 (0.0%)	0 (0.0%)
Holy Cross	76	31 (40.7%)	23 (74.1%)	7 (30.4%)	16 (69.5%)	0 (0.0%)	0 (0.0%)
District 3	133	51 (38.3%)	34 (66.6%)	16 (47.0%)	18 (52.9%)	0 (0.0%)	0 (0.0%)
Anvik	38	17 (44.7%)	8 (47.0%)	6 (75.0%)	0 (0.0%)	2 (25.0%)	0 (0.0%)
Grayling	60	36 (60.0%)	22 (61.1%)	15 (68.1%)	6 (27.2%)	1 (4.5%)	0 (0.0%)
Katlag	51	26 (50.9%)	20 (76.9%)	1 (5.0%)	17 (85.0%)	2 (10.0%)	0 (0.0%)
Nulato	94	21 (22.3%)	16 (76.1%)	4 (25.0%)	12 (75.0%)	0 (0.0%)	0 (0.0%)
Koyukuk	46	15 (32.6%)	7 (46.6%)	3 (42.8%)	3 (42.8%)	1 (14.2%)	0 (0.0%)
Galena	149	35 (23.4%)	21 (60.0%)	12 (57.1%)	6 (28.5%)	3 (14.2%)	0 (0.0%)
Ruby	79	24 (30.3%)	12 (50.0%)	5 (41.6%)	0 (0.0%)	7 (58.3%)	0 (0.0%)
Shageluk	43	18 (41.8%)	9 (50.0%)	7 (77.7%)	1 (11.1%)	1 (11.1%)	0 (0.0%)
Huslia	66	25 (37.8%)	9 (36.0%)	8 (88.8%)	0 (0.0%)	1 (11.1%)	0 (0.0%)
Hughes	Did not survey.						
Allakaket	Did not survey.						
Alatna	Did not survey.						
Bettles	32	23 (71.8%)	1 (4.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)
District 4	658	240 (36.4%)	125 (52.0%)	61 (48.8%)	45 (36.0%)	18 (14.4%)	1 (0.8%)
Tanana	130	48 (36.9%)	28 (58.3%)	12 (42.8%)	0 (0.0%)	16 (57.1%)	0 (0.0%)
Rampart	25	23 (92.0%)	13 (56.5%)	13 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Stevens Village	36	21 (58.3%)	12 (57.1%)	11 (91.6%)	0 (0.0%)	1 (8.3%)	0 (0.0%)
Birch Creek	15	11 (73.3%)	2 (18.1%)	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Beaver	34	26 (76.4%)	11 (42.3%)	8 (72.7%)	0 (0.0%)	3 (27.2%)	0 (0.0%)
Fort Yukon	221	52 (23.5%)	29 (55.7%)	13 (44.8%)	0 (0.0%)	16 (55.1%)	0 (0.0%)
Venetie	64	19 (29.6%)	9 (47.3%)	7 (77.7%)	0 (0.0%)	2 (22.2%)	0 (0.0%)
Chalkyitsik	35	28 (80.0%)	5 (17.8%)	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
District 5	560	228 (40.7%)	109 (47.8%)	71 (65.1%)	0 (0.0%)	38 (34.8%)	0 (0.0%)
Survey Totals	2453	934 (38.0%)	524 (56.1%)	262 (50.0%)	202 (38.6%)	56 (10.7%)	3 (0.5%)

Table 7. Estimated number of people per household and total number of people by community, district, and catch stratum, for Yukon Area surveyed villages; N indicates the total number of households and n indicates the number of households contacted, 1994.

Community	Catch Unknown				Does not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined				
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total N	Total n	Total Est	CI (95%) (+/-)	
Hooper Bay	71	12	5.0	0.7	15	4	4.2	1.2	33	10	5.8	0.5	18	17	5.5	0.1	2	2	6.5	0.0	139	45	724	114	
Scanlon Bay	1	1	1.0	0.0	23	4	6.2	0.6	54	11	4.9	0.7	5	4	6.0	0.4	0	0	-	-	83	20	440	80	
Sheldon's Point	1	1	7.0	0.0	4	3	3.6	0.4	16	14	4.5	0.2	8	8	4.8	0.0	0	0	-	-	29	26	133	7	
Alakanuk	2	1	2.0	0.4	48	4	2.7	0.8	69	21	4.4	0.4	13	12	5.0	0.1	0	0	-	-	132	38	511	101	
Emunonak	33	6	4.6	0.7	53	14	3.5	0.4	61	31	4.7	0.2	12	12	4.1	0.0	3	3	5.0	0.0	162	66	696	73	
Kotlik	16	5	4.8	0.3	22	4	4.7	1.1	48	14	6.2	0.7	14	14	5.5	0.0	4	4	6.2	0.0	104	41	583	88	
District 1	124	26	4.8	0.4	165	33	3.9	0.3	281	101	5.1	0.2	70	67	5.2	0.0	9	9	5.9	0.0	649	236	3,085	208	
Mountain Village	27	5	3.2	0.8	40	4	4.5	1.1	73	20	4.4	0.4	16	16	5.0	0.0	1	1	4.0	0.0	157	46	676	120	
Pitkas Point	0	0	-	-	11	11	2.4	0.0	14	14	4.8	0.0	7	5	5.0	0.7	0	0	-	-	32	30	130	9	
St. Mary's	23	5	4.0	0.3	22	3	3.3	2.1	36	10	4.6	0.4	20	19	5.6	0.1	4	4	3.7	0.0	105	41	460	101	
Pilot Station	3	3	3.0	0.0	34	6	4.1	0.6	48	22	5.7	0.3	4	4	6.5	0.0	1	1	4.0	0.0	90	36	456	55	
Marshall	1	0	3.4	0.4	11	4	4.2	0.9	49	14	4.8	0.4	8	8	4.6	0.0	0	0	-	-	69	26	325	47	
District 2	54	13	3.5	0.4	118	28	4.0	0.5	220	80	4.9	0.2	55	52	5.3	0.1	6	6	3.8	0.0	453	179	2,047	173	
Russian Mission	4	2	2.5	1.0	19	5	5.0	1.0	27	7	5.1	0.5	6	6	5.0	0.0	1	0	4.0	1.0	57	20	278	50	
Holy Cross	22	3	2.3	0.8	17	5	4.2	0.9	26	12	3.7	0.4	9	9	3.1	0.0	2	2	4.0	0.0	76	31	256	52	
District 3	26	5	2.4	0.7	36	10	4.6	0.7	53	19	4.5	0.3	15	15	3.9	0.0	3	2	4.0	0.3	133	51	534	72	
Anvik	0	0	-	-	14	4	2.0	0.5	16	5	3.0	0.7	6	6	3.3	0.0	2	2	3.0	0.0	38	17	102	28	
Grayling	3	3	3.3	0.0	21	5	2.8	0.4	12	5	2.6	0.8	21	21	4.3	0.0	3	2	4.5	1.4	60	36	206	28	
Kaltag	2	2	5.0	0.0	15	5	3.2	0.6	18	4	5.2	1.2	16	15	4.4	0.1	0	0	-	-	51	26	224	47	
Nulato	22	3	4.6	0.8	35	2	4.0	0.0	23	5	4.6	0.8	13	10	4.9	0.3	1	1	4.0	0.0	94	21	416	52	
Koyukuk	2	1	3.0	0.3	17	4	3.0	0.7	20	4	4.5	1.1	5	4	3.5	0.1	2	2	5.0	0.0	46	15	175	51	
Galena	27	3	2.3	0.6	59	5	2.4	0.6	48	13	3.0	0.3	12	11	2.8	0.1	3	3	3.3	0.0	149	35	396	89	
Ruby	11	4	2.7	1.1	36	3	3.0	1.4	18	4	4.7	1.0	11	10	2.8	0.1	3	3	2.3	0.0	79	24	262	112	
Shageluk	2	2	3.0	0.0	17	2	4.5	2.3	13	5	3.6	0.8	8	7	4.0	0.2	3	2	4.0	0.5	43	18	173	81	
Huslia	9	3	1.6	0.2	27	3	2.3	1.2	14	5	2.6	0.6	9	8	4.6	0.2	7	6	4.8	0.3	66	25	190	69	
Hughes	Did not survey.																								
Allakaket	Did not survey.																								
Alatna	Did not survey.																								
Bettles	3	1	4.0	0.3	23	17	1.7	0.1	6	5	3.6	0.4	0	0	-	-	0	0	-	-	32	23	74	7	
District 4	81	22	3.1	0.3	264	50	2.9	0.3	188	55	3.8	0.2	101	92	4.0	0.0	24	21	4.0	0.2	658	240	2,217	203	
Tanana	22	3	2.3	0.6	58	12	2.4	0.5	18	6	3.0	0.5	11	8	2.3	0.2	21	19	3.2	0.1	130	48	339	68	
Rampart	0	0	-	-	8	7	2.0	0.1	4	3	3.0	0.5	9	9	2.2	0.0	4	4	4.2	0.0	25	23	65	4	
Sievens Village	3	2	5.0	0.5	12	2	4.0	0.0	9	5	2.6	0.4	9	9	3.7	0.0	3	3	3.5	0.0	36	21	130	7	
Birch Creek	0	0	-	-	8	6	1.8	0.2	7	5	3.4	0.3	0	0	-	-	0	0	-	-	15	11	38	5	
Beaver	0	0	-	-	15	9	3.2	0.4	12	10	2.7	0.2	6	6	2.1	0.0	1	1	2.0	0.0	34	26	96	13	
Fort Yukon	57	10	2.8	0.6	94	8	2.8	0.5	41	11	2.4	0.4	23	17	1.8	0.2	6	6	3.8	0.0	221	52	643	134	
Venetie	26	2	5.0	0.0	23	3	5.0	0.9	6	5	5.0	0.4	9	9	4.3	0.0	0	0	-	-	64	19	314	42	
Chalkyitsik	4	2	2.0	0.7	21	18	2.0	0.1	7	5	3.4	0.3	3	3	3.6	0.0	0	0	-	-	35	28	85	9	
District 5	112	19	3.2	0.3	239	65	2.9	0.2	104	50	2.9	0.2	70	61	3.3	0.0	35	33	3.4	0.0	560	228	1,710	157	
Survey Totals	397	85	3.7	0.2	822	186	3.3	0.1	846	305	4.4	0.1	311	287	4.3	0.0	77	71	3.9	0.0	2,453	934	9,593	380	

Table 8. Subsistence salmon harvest estimates and corresponding confidence intervals for Yukon Area surveyed villages; households contacted indicates the number of households with complete harvest information used in estimating the salmon harvest, 1994.

Community	Catch Strata Combined		Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon	
	Total Households	Households Contacted ^a	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)
Hooper Bay	139	44	157	73	10,556	4,132	284	448	1	0
Scammon Bay	83	20	668	337	4,347	2,603	63	54	80	62
Sheldon's Point	29	26	606	52	1,941	202	25	3	52	14
Alakanuk	132	38	1,045	393	5,947	1,611	73	70	94	53
Emmonak	162	66	1,383	513	10,068	3,024	1,919	2,934	136	77
Kotlik	104	41	1,521	317	7,129	2,589	304	93	957	564
<i>DISTRICT 1</i>	<i>649</i>	<i>235</i>	<i>5,380</i>	<i>801</i>	<i>39,988</i>	<i>6,506</i>	<i>2,668</i>	<i>2,977</i>	<i>1,320</i>	<i>576</i>
Mountain Village	157	46	1,511	527	3,938	1,406	797	1,217	968	60
Pitkas Point	32	30	469	143	1,103	358	294	191	364	182
St. Mary's	105	41	2,722	969	10,128	3,687	1,062	821	614	138
Pilot Station	90	36	1,643	579	2,452	843	178	189	25	15
Marshall	69	26	2,277	1,079	2,288	972	471	173	1,124	1,159
<i>DISTRICT 2</i>	<i>453</i>	<i>179</i>	<i>8,622</i>	<i>1,654</i>	<i>19,909</i>	<i>4,166</i>	<i>2,802</i>	<i>1,503</i>	<i>3,095</i>	<i>1,183</i>
Russian Mission	57	20	1,793	644	801	316	11	0	55	0
Holy Cross	76	31	4,040	1,270	1,479	1,012	665	256	171	190
<i>DISTRICT 3</i>	<i>133</i>	<i>51</i>	<i>5,833</i>	<i>1,425</i>	<i>2,280</i>	<i>1,060</i>	<i>676</i>	<i>256</i>	<i>226</i>	<i>190</i>
Anvik	38	17	424	312	907	104	155	0	95	0
Grayling	60	36	1,843	353	1,418	718	811	402	36	7
Kaltag	51	26	1,653	552	3,683	1,169	630	251	245	104
Nulato	94	21	1,735	568	975	832	1,109	626	27	13
Koyukuk	46	15	589	198	2,039	878	1,049	791	305	91
Galena	149	35	1,834	649	1,198	1,182	3,963	1,587	803	815
Ruby	79	24	1,539	846	4,586	5,324	5,553	2,647	1,957	2,221
Shageluk	43	18	291	110	6,212	1,948	186	71	137	78
Huslia	66	25	239	88	6,014	2,351	55	33	47	30
Hughes		Did not survey.								
Allakaket		Did not survey.								
Alatna		Did not survey.								
Bettles	32	23	0	15	45	0	0	0	0	137
<i>DISTRICT 4</i>	<i>658</i>	<i>240</i>	<i>10,147</i>	<i>1,431</i>	<i>27,077</i>	<i>6,513</i>	<i>13,511</i>	<i>3,282</i>	<i>3,652</i>	<i>2,376</i>
Tanana	130	48	2,999	647	7,022	1,553	32,786	3,582	2,321	567
Rampart	25	23	1,354	39	559	63	1,007	237	99	26
Stevens Village	36	21	2,814	1,180	459	0	45	0	0	0
Birch Creek	15	11	119	107	0	0	0	0	0	0
Beaver	34	26	850	167	655	183	2,069	71	10	0
Fort Yukon	221	52	4,727	1,851	2,043	2,270	6,827	2,473	963	856
Venetie	64	19	524	700	567	0	4,302	1,773	4	0
Chalkyitsik	35	28	0	0	0	0	1,751	381	456	433
<i>DISTRICT 5</i>	<i>560</i>	<i>228</i>	<i>13,387</i>	<i>2,403</i>	<i>11,305</i>	<i>2,757</i>	<i>48,787</i>	<i>4,273</i>	<i>3,853</i>	<i>1,115</i>
Survey Totals	2,453	933	43,369	3,637	100,559	10,528	68,444	6,651	12,146	2,942

^a Only households with complete harvest information were used in estimating the salmon harvest.

Table 9. Surveyed villages' estimated Yukon Area chinook salmon subsistence catch by fishing location, 1994.

Villages	Ocean	Y-1	Y-2	Y-3	Y-4A	Y-4B	Y-4C	Y-5A	Y-5B	Y-5C	Y-5D	Innoko	Koyukuk	Porcupine	Chandalar	Black River (Porcupine)	Total by Community
Hooper Bay	155	2															157
Scammon Bay	0	668															668
Sheldon's Point	0	606															606
Alakamak	0	1,045															1,045
Emmonak	0	1,383															1,383
Kotlik	135	1,386															1,521
<i>DISTRICT 1</i>	290	5,090															5,380
Mountain Village		465	1,046														1,511
Prkas Point		20	449														469
St. Mary's		409	2,313														2,722
Pilot Station		150	1,493														1,643
Marshall		0	2,277														2,277
<i>DISTRICT 2</i>		1,044	2,578														3,622
Russian Mission			0	1,793													1,793
Holy Cross			0	4,040													4,040
<i>DISTRICT 3</i>			0	5,833													5,833
Anvik				0	424	0	0					0	0				424
Grayling				5	1,838	0	0					0	0				1,843
Kahag				0	1,653	0	0					0	0				1,653
Nulato				0	1,735	0	0					0	0				1,735
Koyukuk				0	337	80	172					0	0				589
Galena				0	991	829	14					0	0				1,834
Ruby				0	0	315	1,224					0	0				1,539
Shageluk				83	28	0	0					180	0				291
Hutia				0	0	0	0					0	239				239
Hughes	Did not survey.																
Altakaket	Did not survey.																
Alama	Did not survey.																
Bettles				0	0	0	0					0	0				0
<i>DISTRICT 4</i>				88	7,006	1,224	1,410					180	239				10,147
Tanana								110	2,889	0	0			0	0	0	2,999
Rampart								0	1,006	311	37			0	0	0	1,354
Stevens Village								0	0	1,401	1,413			0	0	0	2,814
Birch Creek								0	0	0	119			0	0	0	119
Beaver								0	0	0	850			0	0	0	850
Fort Yukon								0	0	0	4,388			339	0	0	4,727
Venetie								0	0	0	50			384	90	0	524
Chalkyitsik								0	0	0	0			0	0	0	0
<i>DISTRICT 5</i>								110	3,895	1,712	6,857			723	90	0	13,387
Survey Totals	290	6,134	7,578	5,921	7,006	1,224	1,410	110	3,895	1,712	6,857	180	239	723	90	0	43,269

Table 10. Surveyed villages' estimated Yukon Area summer chum salmon subsistence catch by fishing location, 1994.

Villages	Ocean	Y-1	Y-2	Y-3	Y-4A	Y-4B	Y-4C	Y-5A	Y-5B	Y-5C	Y-5D	Innoko	Koyukuk	Porcupine	Chandalar	Black River (Porcupine)	Total by Community
Hooper Bay	10,380	176															10,556
Scammon Bay	0	4,347															4,347
Sheldon's Point	0	1,941															1,941
Alakanuk	0	5,947															5,947
Emmonak	0	10,068															10,068
Kotlik	469	6,660															7,129
DISTRICT 1	10,849	29,139															39,988
Mountain Village		1,838	2,100														3,938
Pitkas Point		200	903														1,103
St. Mary's		1,244	8,884														10,128
Pilot Station		165	2,287														2,452
Marshall		0	2,288														2,288
DISTRICT 2		3,447	16,462														19,909
Russian Mission			0	801													801
Holy Cross			0	1,479													1,479
DISTRICT 3			0	2,280													2,280
Anvik					907	0	0					0	0				907
Grayling					1,418	0	0					0	0				1,418
Kaltag					3,683	0	0					0	0				3,683
Nulato					975	0	0					0	0				975
Koyukuk					1,977	0	62					0	0				2,039
Galena					18	1,180	0					0	0				1,198
Ruby					0	3,391	1,195					0	0				4,586
Shageluk					0	0	0					6,212	0				6,212
Hustla					0	0	0					0	6,014				6,014
Hughes	Did not survey.																
Allakaket	Did not survey.																
Alatna	Did not survey.																
Bettles					0	0	0					0	45				45
DISTRICT 4					8,978	4,571	1,257					6,212	6,059				27,077
Tanana								110	6,912	0	0			0	0	0	7,022
Rampart								0	405	154	0			0	0	0	559
Sevens Village								0	0	456	3			0	0	0	459
Birch Creek								0	0	0	0			0	0	0	0
Beaver								0	0	0	655			0	0	0	655
Fort Yukon								0	0	0	1,967			32	0	44	2,043
Venette								0	0	0	0			0	567	0	567
Chalkyitik								0	0	0	0			0	0	0	0
DISTRICT 5								110	7,317	610	2,625			32	567	44	11,305
Survey Totals	10,849	32,586	16,462	2,280	8,978	4,571	1,257	110	7,317	610	2,625	6,212	6,059	32	567	44	100,559

Table 11. Surveyed villages' estimated Yukon Area fall chum salmon subsistence catch by fishing location, 1994.

Villages	Ocean	Y-1	Y-2	Y-3	Y-4A	Y-4B	Y-4C	Y-5A	Y-5B	Y-5C	Y-5D	Innoko	Koyukuk	Porcupine	Chandalar	Black River (Porcupine)	Total by Community
Hooper Bay	284	0															284
Scammon Bay	0	63															63
Sheldon's Point	0	25															25
Alakanuk	0	73															73
Eumonak	0	1,919															1,919
Kotlik	0	304															304
DISTRICT 1	284	2,384															2,668
Mountain Village		67	730														797
Pitkas Point		0	294														294
St. Mary's		0	1,062														1,062
Pilot Station		131	47														178
Marshall		0	471														471
DISTRICT 2		198	2,604														2,802
Russian Mission			0	11													11
Holy Cross			0	665													665
DISTRICT 3			0	676													676
Anvik				0	155	0	0					0	0				155
Grayling				0	811	0	0					0	0				811
Kotikag				0	630	0	0					0	0				630
Niutato				0	1,109	0	0					0	0				1,109
Koyukuk				0	757	220	72					0	0				1,049
Galena				0	369	3,022	572					0	0				3,963
Ruby				0	0	1,869	3,684					0	0				5,553
Shageluk				26	138	0	0					22	0				186
Hustla				0	0	0	0					0	55				55
Hughes		Did not survey.															
Alakaker		Did not survey.															
Alatna		Did not survey.															
Bettles				0	0	0	0					0	0				0
DISTRICT 4				26	3,969	5,111	4,328					22	55				13,511
Tanana								1,436	31,350	0	0			0	0	0	32,786
Rampart								0	833	174	0			0	0	0	1,007
Stevens Village								0	0	45	0			0	0	0	45
Birch Creek								0	0	0	0			0	0	0	0
Beaver								0	0	0	2,069			0	0	0	2,069
Fort Yukon								0	0	0	5,625			1,202	0	0	6,827
Venetie								0	0	0	20			920	3,362	0	4,302
Chalkyitsik								0	0	0	0			4	280	1,467	1,751
DISTRICT 5								1,436	32,183	219	7,714			2,126	3,642	1,467	48,787
Survey Totals	284	2,582	2,604	702	3,969	5,111	4,328	1,436	32,183	219	7,714	22	55	2,126	3,642	1,467	68,444

Table 12. Surveyed villages' estimated Yukon Area coho salmon subsistence catch by fishing location, 1994.

Villages	Ocean	Y-1	Y-2	Y-3	Y-4A	Y-4B	Y-4C	Y-5A	Y-5B	Y-5C	Y-5D	Innoko	Koyukuk	Porcupine	Chandalar	Black River (Porcupine)	Total by Community
Hooper Bay	1	0															1
Scammon Bay	0	80															80
Sheldon's Point	0	52															52
Alakanuk	0	94															94
Emmonak	0	136															136
Kotlik	20	937															957
<i>DISTRICT 1</i>	<u>21</u>	<u>1,299</u>															<u>1,320</u>
Mountain Village		247	721														968
Pitkas Point		0	364														364
St. Mary's		0	614														614
Pilot Station		0	25														25
Marshall		0	1,124														1,124
<i>DISTRICT 2</i>		<u>247</u>	<u>2,848</u>														<u>3,095</u>
Russian Mission			0	55													55
Holy Cross			0	171													171
<i>DISTRICT 3</i>			<u>0</u>	<u>226</u>													<u>226</u>
Anvik					95	0	0					0	0				95
Grayling					36	0	0					0	0				36
Kaltag					245	0	0					0	0				245
Nulato					27	0	0					0	0				27
Koyukuk					301	4	0					0	0				305
Galena					525	278	0					0	0				803
Ruby					0	1,414	543					0	0				1,957
Stapeluk					0	0	0					137	0				137
Huslia					0	0	0					0	47				47
Hughes	Did not survey.																
Allakaket	Did not survey.																
Alatna	Did not survey.																
Bettles					0	0	0					0	0				0
<i>DISTRICT 4</i>					<u>1,229</u>	<u>1,696</u>	<u>543</u>					<u>137</u>	<u>47</u>				<u>3,652</u>
Tanana								497	1,824	0	0			0	0	0	2,321
Rampart								0	57	42	0			0	0	0	99
Stevens Village								0	0	0	0			0	0	0	0
Birch Creek								0	0	0	0			0	0	0	0
Beaver								0	0	0	10			0	0	0	10
Fort Yukon								0	0	0	955			8	0	0	963
Venetie								0	0	0	0			0	4	0	4
Chalkyitsik								0	0	0	0			0	28	428	456
<i>DISTRICT 5</i>								<u>497</u>	<u>1,881</u>	<u>42</u>	<u>965</u>			<u>8</u>	<u>32</u>	<u>428</u>	<u>3,853</u>
Survey Totals	21	1,546	2,848	226	1,229	1,696	543	497	1,881	42	965	137	47	8	32	428	12,146

Table 13. Subsistence harvest of miscellaneous fish species by surveyed households, Yukon Area villages, 1994.

Community	Estimated Subsistence Harvest with Corresponding Confidence Intervals														Reported Numbers of Miscellaneous Fish Species, Not Expanded				
	Catch Strata Combined		Pink Salmon		Whitefish		Pike		Sheefish		Burbot		Blackfish		Lamprey	Tomcod	Grayling	Sucker	Arctic Char
	Total Households	Households Contacted	Estimated Total	CI(95% +/-)	Estimated Total	CI(95% +/-)	Estimated Total	CI(95% +/-)	Estimated Total	CI(95% +/-)	Estimated Total	CI(95% +/-)	Estimated Total	CI(95% +/-)	Total	Total	Total	Total	Total
Hooper Bay	139	45	734	760	2,642	1,171	2	0	0	0	82	36	19,254	22,705	0	1,875	0	0	0
Scammon Bay	83	20	1,319	1,063	4,080	3,988	1,716	1,755	0	0	15	25	47,155	65,549	0	0	0	0	3
Sheldon's Point	29	26	1,388	218	1,479	394	144	27	458	79	240	37	9,686	1,502	0	0	0	0	0
Alakanuk	132	38	54	31	2,203	1,217	508	352	1,616	1,275	2,611	1,316	64,381	65,905	0	0	10	0	0
Emmonak	162	66	1,451	821	3,357	1,740	2,211	803	2,302	992	483	213	114,472	78,362	0	0	0	0	0
Kotlik	104	41	1,340	1,279	975	556	1,357	1,117	5,114	2,955	501	407	24,350	23,971	1	0	2	0	0
DISTRICT 1	649	236	6,286	2,017	14,736	4,717	5,938	2,258	9,490	3,369	3,932	1,395	279,298	125,990	1	1,875	12	0	3
Mountain Village	157	46	806	280	1,791	834	1,447	1,226	687	205	2,222	2,481	44,583	43,355	0	0	110	0	10
Pitkas Point	32	30	163	142	234	71	220	59	164	111	56	23	3,850	1,026	0	0	47	0	0
St. Mary's	105	41	850	327	9,834	8,934	8,166	8,881	799	265	1,832	577	26,325	18,585	0	0	26	0	0
Pilot Station	90	36	32	31	2,928	1,166	1,516	872	477	210	766	406	11,726	8,328	2,000	0	0	0	0
Marshall	69	26	880	1,159	4,926	2,697	2,615	963	738	570	8,700	8,604	13,941	18,797	1	0	9	0	8
DISTRICT 2	453	179	2,731	1,245	19,713	9,442	13,964	9,059	2,865	703	13,576	8,983	100,425	51,467	2,001	0	192	0	18
Russian Mission	57	20	200	0	1,075	809	1,528	663	448	252	754	644	67,340	85,691	333	0	0	0	0
Holy Cross	76	31	89	93	1,660	1,613	542	428	79	47	94	92	858	1,090	210	0	11	0	0
DISTRICT 3	133	51	289	93	2,735	1,805	2,070	790	527	257	848	651	68,198	85,698	543	0	11	0	0
Anvik	38	17	475	520	586	156	400	0	166	156	52	78	0	0	20	0	0	6	6
Grayling	60	36	451	574	677	209	183	25	134	51	213	7	0	0	0	0	55	8	16
Kaltag	51	26	0	0	976	234	27	10	500	207	6	2	0	0	0	0	392	85	30
Nulato	94	21	4	2	1,385	1,101	64	78	189	215	53	41	0	0	0	0	220	0	97
Koyukuk	46	15	4	0	2,354	117	291	246	65	43	31	17	0	0	0	0	0	2	0
Galena	149	35	61	6	7,058	4,239	245	92	258	168	279	85	5,589	4,693	0	0	35	44	2
Ruby	79	24	0	0	2,665	575	0	0	100	44	6	2	0	0	0	0	0	0	0
Shageluk	43	18	0	0	6,985	2,880	2,330	1,761	168	107	14	12	0	0	0	0	2	0	0
Huslia	66	25	0	0	1,001	345	1,108	467	222	101	78	50	0	0	0	0	66	6	0
Hughes	Did not survey.																		
Allakaket	Did not survey.																		
Alatna	Did not survey.																		
Bettles	32	23	0	0	12	15	41	17	31	20	0	0	0	0	0	0	76	0	0
DISTRICT 4	658	240	995	775	23,699	5,297	4,689	1,843	1,833	413	732	134	5,589	4,693	20	0	846	151	151
Tanana	130	48	0	0	16,819	4,959	73	16	1,038	309	98	19	0	0	0	0	0	57	0
Rampart	25	23	0	0	540	39	17	0	13	0	31	19	0	0	0	0	30	0	0
Stevens Village	36	21	0	0	80	0	0	0	10	0	5	0	0	0	0	0	0	0	0
Birch Creek	15	11	0	0	56	58	70	46	0	0	0	0	0	0	0	0	6	0	0
Beaver	34	26	0	0	327	9	236	107	248	2	0	0	0	0	0	0	0	0	0
Fort Yukon	221	52	0	0	5,043	3,890	147	157	437	279	150	102	0	0	0	0	0	66	0
Venerie	64	19	0	0	607	560	521	840	460	840	31	56	0	0	0	0	390	0	2
Chalkyitsik	35	28	0	0	379	259	790	435	196	144	13	8	0	0	0	0	72	30	0
DISTRICT 5	560	228	0	0	23,851	6,333	1,854	967	2,402	949	328	320	0	0	0	0	498	153	2
Survey Totals	2,453	934	10,301	2,496	84,734	13,522	28,515	9,598	17,117	3,603	19,416	9,115	452,510	160,899	2,565	1,875	1,559	304	174

Table 14. Estimated number of salmon used for subsistence purposes and corresponding confidence intervals for Yukon Area surveyed villages; households contacted indicates the number of households with complete subsistence use information used in estimating the number of salmon used for subsistence purposes, 1994. a

Community	Catch Strata Combined		Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon	
	Total Households	Households Contacted	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)
Hooper Bay	139	44	106	46	11,640	4,891	278	448	1	0
Scammon Bay	83	20	678	327	4,488	2,516	63	54	80	62
Sheldon's Point	29	25	586	63	2,181	244	17	8	57	18
Alakamik	132	38	918	305	6,229	1,569	88	71	105	54
Eumonak	162	66	1,814	467	13,423	2,258	767	753	131	69
Kotlik	104	41	1,866	581	7,311	1,974	450	164	1,255	666
DISTRICT 1	649	234	5,968	873	45,272	6,471	1,663	896	1,629	675
Mountain Village	157	46	1,646	558	5,143	1,652	812	1,216	967	60
Pinkas Point	32	30	475	164	1,347	273	305	191	304	182
St. Mary's	105	41	2,089	513	8,127	1,437	629	301	466	120
Pilot Station	90	36	1,709	508	3,799	1,025	295	219	167	111
Marshall	69	26	2,724	1,015	3,586	1,281	471	173	1,124	1,159
DISTRICT 2	453	179	8,643	1,375	22,002	2,750	2,512	1,298	3,028	1,186
Russian Mission	57	20	3,082	961	1,390	506	11	0	55	0
Holy Cross	76	31	3,025	1,019	1,332	1,018	508	143	131	95
DISTRICT 3	133	51	6,107	1,401	2,722	1,137	519	143	186	95
Anvik	38	17	772	355	17,148	7,998	250	104	95	0
Grayling	60	36	1,530	195	31,052	15,108	1,008	440	27	1
Katag	51	26	1,501	475	13,337	3,954	470	148	245	104
Nulato	94	21	1,235	478	3,216	2,243	754	483	27	13
Koyukuk	46	15	587	106	2,838	616	1,327	749	308	2
Galena	149	35	1,488	613	9,568	11,549	2,830	1,423	704	813
Ruby	79	24	1,388	817	7,404	5,354	5,686	2,644	1,981	2,222
Shageluk	43	18	371	143	6,415	2,227	201	53	137	78
Huatla	66	25	379	78	9,025	2,868	71	41	47	30
Hughes		Did not survey.								
Allakaket		Did not survey.								
Alatna		Did not survey.								
Bettles	32	23	13	6	26	14	1	0	0	0
DISTRICT 4	658	240	9,264	1,304	100,029	22,103	12,598	3,169	3,571	2,370
Tanana	130	48	3,027	541	7,677	1,518	39,529	3,766	2,936	649
Rampart	25	23	1,132	45	478	7	732	14	99	26
Stevens Village	36	21	1,738	462	318	0	4	0	0	0
Birch Creek	15	11	53	35	0	0	0	0	0	0
Beaver	34	26	449	68	652	183	1,943	17	10	0
Fort Yukon	221	52	4,698	1,731	1,913	2,267	6,339	1,558	963	856
Venetie	64	19	744	612	567	0	4,302	1,773	28	19
Chalkyitsik	35	28	41	7	0	0	1,751	381	456	433
DISTRICT 5	560	278	11,882	1,971	11,605	2,734	54,600	4,461	4,492	1,159
Survey Totals	2,453	932	41,864	3,194	181,630	23,382	71,892	5,697	12,906	2,972

a Includes salmon retained from commercial catches for subsistence use, see Table 15.

Table 15. Estimated number of salmon retained from commercial catches for subsistence use and corresponding confidence intervals for Yukon Area surveyed villages; households contacted indicates the number of households with complete commercial retention information used in estimating the number of salmon retained from commercial catches, 1994.

Community	Catch Strata Combined		Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon	
	Total Households	Households Contacted	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)
Hooper Bay	139	45	0	0	0	0				
Scammon Bay	83	20	0	0	0	0				
Sheldon's Point	29	25	69	47	496	202				
Alakanuk	132	38	0	0	25	32				
Emmonak	162	66	35	30	1,313	1,418				
Kotik	104	41	10	12	212	153				
<i>DISTRICT 1</i>	<i>649</i>	<i>235</i>	<i>114</i>	<i>57</i>	<i>2,046</i>	<i>1,441</i>				
Mountain Village	157	46	22	36	696	171				
Pitkas Point	32	30	0	0	4	0				
St. Mary's	105	41	20	20	157	34				
Pilot Station	90	36	11	15	0	0				
Marshall	69	26	7	11	28	46				
<i>DISTRICT 2</i>	<i>453</i>	<i>179</i>	<i>60</i>	<i>46</i>	<i>885</i>	<i>181</i>				
Russian Mission	57	20	25	0	4	0				
Holy Cross	76	31	0	0	0	0				
<i>DISTRICT 3</i>	<i>133</i>	<i>51</i>	<i>25</i>	<i>0</i>	<i>4</i>	<i>0</i>				
Anvik	38	17	173	151	40,312	31,028				
Grayling	60	36	0	0	16,145	3,760				
Kaltag	51	26	0	0	16,403	3,876				
Nulato	94	21	9	15	13,800	23,928				
Koyukuk	46	15	0	0	1,000	0				
Galena	149	35	0	0	10,539	10,520				
Ruby	79	24	37	0	720	0				
Shageluk	43	18	0	0	0	0				
Huslia	66	25	0	0	4,083	3,024				
Hughes		Did not survey.								
Ahakaket		Did not survey.								
Alatna		Did not survey.								
Betles	32	23	0	0	0	0				
<i>DISTRICT 4</i>	<i>658</i>	<i>240</i>	<i>219</i>	<i>152</i>	<i>103,002</i>	<i>41,040</i>				
Tanana	130	48	326	89	676	375				
Rampart	25	23	21	13	0	0				
Stevens Village	36	21	0	0	0	0				
Birch Creek	15	11	0	0	0	0				
Beaver	34	26	0	0	0	0				
Fort Yukon	221	52	162	162	0	0				
Venetie	64	19	0	0	0	0				
Chalkyitsik	35	28	0	0	0	0				
<i>DISTRICT 5</i>	<i>560</i>	<i>228</i>	<i>509</i>	<i>185</i>	<i>676</i>	<i>375</i>				
Survey Totals	2,453	933	927	251	106,613	41,067	0	0	0	0

There was no fall season commercial fishing in the survey area.

Table 16. Estimated households with dogs, numbers of dogs, salmon fed to dogs and corresponding confidence intervals for Yukon Area surveyed villages, 1994.

Community	Catch Strata Combined		Number of Households with Dogs		Number of Dogs		Summer Chum Salmon Fed to Dogs				Fall Chum Salmon Fed to Dogs		Coho Salmon Fed to Dogs	
	Total Households	Households Contacted	Estimated Total	CI(95% (+/-))	Estimated Total	CI(95% (+/-))	Subsistence		Commercial		Estimated Total	CI(95% (+/-))	Estimated Total	CI(95% (+/-))
							Estimated Total	CI(95% (+/-))	Estimated Total	CI(95% (+/-))				
Hooper Bay	139	45	93	20	244	176	1,287	2,118	0	0	0	0	0	0
Scammon Bay	83	20	68	13	123	44	0	0	0	0	0	0	0	0
Sheldon's Point	29	25	18	2	45	14	17	9	0	0	0	0	0	0
Alakanuk	132	38	86	28	200	115	0	30	0	0	0	0	0	0
Enmonak	162	66	100	19	278	109	25	0	0	0	8	0	40	0
Kotlik	104	41	84	13	296	127	225	0	0	0	136	141	344	422
DISTRICT 1	649	233	449	44	1,186	274	1,534	2,118	0	0	144	141	384	422
Mountain Village	157	46	90	28	206	78	0	0	0	0	0	0	720	0
Pitkas Point	32	30	17	1	62	27	0	0	0	0	175	183	175	183
St. Mary's	105	41	59	13	260	181	524	239	292	92	32	13	645	160
Pilot Station	90	36	62	14	156	71	33	47	0	0	0	0	0	0
Marshall	69	26	58	9	390	159	217	116	0	0	446	173	930	869
DISTRICT 2	453	179	286	33	1,074	264	774	270	292	92	653	253	2,470	903
Russian Mission	57	20	45	9	171	78	100	0	0	0	0	0	25	0
Holy Cross	76	31	51	15	338	62	1,018	1,001	0	0	0	0	0	0
DISTRICT 3	133	51	97	18	309	100	1,118	1,001	0	0	0	0	25	0
Anvik	38	17	19	9	76	22	564	104	15,698	7,651	0	0	35	0
Grayling	60	36	49	8	258	178	1,605	718	29,237	14,898	155	174	0	0
Katag	51	26	40	5	126	27	4,612	1,647	9,893	3,772	128	52	213	104
Nulato	94	21	74	33	250	112	753	714	2,300	2,522	0	0	20	13
Koyukuk	46	15	36	8	76	22	1,625	377	1,000	0	0	0	300	0
Galena	149	35	87	33	296	202	1,613	1,186	8,424	10,378	499	177	546	815
Ruby	79	24	67	4	281	68	6,677	5,346	733	0	3,938	2,164	1,802	2,221
Shageluk	43	18	26	16	104	49	5,161	1,959	0	0	0	0	137	78
Huslia	66	25	32	17	189	34	5,058	1,951	2,917	2,160	0	0	0	0
Hughes	Did not survey.													
Allakaket	Did not survey.													
Alatna	Did not survey.													
Bettles	32	23	23	2	97	38	18	329	0	0	0	0	0	0
DISTRICT 4	658	240	453	33	1,753	310	27,086	6,453	70,202	20,344	4,720	2,179	2,053	2,370
Tanana	130	48	76	21	474	41	6,850	1,526	400	209	38,557	3,650	2,614	592
Rampart	25	23	16	1	75	3	180	0	0	0	500	0	50	0
Stevens Village	36	21	23	11	87	22	457	0	0	0	41	0	0	0
Birch Creek	15	11	4	2	11	6	0	0	0	0	0	0	0	0
Beaver	34	26	21	3	61	7	651	783	0	0	1,980	72	5	0
Fort Yukon	221	52	133	37	384	109	1,798	2,267	0	0	4,589	938	1,270	900
Venetie	64	19	62	0	244	102	567	0	0	0	4,302	1,773	28	19
Chalkyitsik	35	28	20	3	90	23	0	0	0	0	1,705	367	455	433
DISTRICT 5	560	228	335	44	1,426	159	10,503	2,739	400	209	51,674	4,182	4,422	1,162
Survey Totals	2,453	933	1,640	93	5,748	526	41,035	3,395	70,894	20,335	57,191	4,724	10,354	2,822

Table 17. Summary of responses of surveyed individuals who said their household subsistence salmon needs were not met in 1994, and answered the question "Why didn't you meet your salmon needs this year?"

Category	Response Summary	Number of Responses in this Category	Percent Responses in this Category
1	Mother Nature i.e. high water.	42	12.2%
2	Working in another occupation.	52	15.1%
3	No gear - boat, net, motor, gas.	32	9.2%
4	No helper to harvest or process fish.	19	5.5%
5	Busy doing other things.	15	4.3%
6	Medical reasons or elderly.	20	5.8%
7	Poor run of fish.	4	1.2%
8	Out of town.	13	3.8%
9	Will buy or be given more fish.	1	0.3%
10	Not enough fish caught.	11	3.2%
11	Miscellaneous reasons not in other categories.	36	10.4%
12	Still fishing.	3	0.9%
13	Department closed fishing.	70	20.3%
14	Didn't fish - normally don't use fish.	27	7.8%
Totals ^a	934 households were surveyed.	345	100.0%

^a This table was generated from the individual responses in Appendix A.12.

Table 18. Reported Yukon Area subsistence salmon catches taken under authority of a permit, listed by fishing location, 1994. a

Permit Fishing Area	Permit Type	Issued	Returned	Percent Returned	Fished b	Reported Harvest									
						Chinook	Summer Chum	Fall Chum	Coho	Whitefish	Sheefish	Burbot	Pike	Suckers	Grayling
Yukon River near Haul Road Bridge	SY-#-94	50	49	98%	36	3,073	384	2,911	25	118	277	1	11	0	0
Yukon River near Circle and Eagle	SE-#-94	79	76	96%	51	3,093	145	12,844	30	356	5	7	44	0	0
Tanana River Fishing Subdistrict 6A	SA-#-94	34	34	100%	28	570	3,793	17,286	11,879	1,432	0	34	92	0	0
Tanana River Fishing Subdistrict 6B c	SB-#-94	102	94	92%	49	1,337	2,035	13,726	12,480	785	0	36	51	0	0
Tanana River Fishing Subdistrict 6C	SC-#-94	145	142	98%	107	457	1,195	1,600	1,545	97	3	13	9	0	0
Tanana River Upstream of Subdistrict 6C	SU-#-94	7	7	100%	3	0	0	202	15	151	0	8	51	0	0
Kantishna River Fishing Subdistrict 6A	SK-#-94	3	3	100%	2	6	0	790	570	15	0	0	1	0	0
Tolovana River Pike	ST-#-94	48	47	98%	24	0	0	0	0	472	76	97	995	68	3
Tanana River Whitefish	SW-#-94	1	1	100%	1	0	0	0	0	83	0	0	0	0	0
<i>Subsistence Permit Subtotals</i>		469	453	97%	301	8,536	7,555	49,359	26,544	3,509	361	196	1,214	68	3
Delta River Carcasses	SD-#-94	4	4	100%	4	0	0	250	0	0	0	0	0	0	0
Permit Totals		473 d	457	97%	305 e	8,536	7,555	49,609	26,544	3,509	361	196	1,214	68	3

a Does not include permit information returned after March 20, 1995.

b The number of fishermen who fished based on returned permits.

c Includes 7 fall chum given away as part of the Department's Nenana test fish wheel program.

d Includes 43 households that were issued permits for two different areas and includes 45 Minto households who were issued salmon permits.

e Includes 14 households that fished in two different permit areas.

Table 19. Reported Yukon Area subsistence salmon catches taken under authority of a permit, listed by community of residence, 1994. a

Community	Harvest by River	Permits		Percent Returned	Fished b	Chinook	Summer Chum	Fall Chum	Reported Harvest						
		Issued	Returned						Coho	Whitefish	Sheefish	Barbot	Pike	Suckers	Grayling
Central	Yukon River	11	11	1	8	240	8	0	0	0	0	0	0	0	0
Circle	Yukon River	22	21	1	11	1,377	98	4,581	30	248	1	0	0	0	0
Delta Junction	Tanana River	5	5	1	4	10	25	202	15	102	0	8	1	0	0
Eagle	Yukon River	37	35	1	27	1,234	38	8,263	0	76	3	7	26	0	0
Fairbanks North Star Borough d	Yukon River	42	42		29	1,920	360	2,870	25	140	271	1	29	0	0
	Tanana River	158	156		113	775	3,693	5,006	2,103	106	3	14	20	0	0
	Tolovana River	10	10		5	0	0	0	0	0	0	0	84	0	0
	<i>Subtotal</i>	210	208	1	147	2,695	4,053	7,876	2,128	246	274	15	133	0	0
Healy	Tanana River	4	4		2	0	0	1,232	1,416	193	0	9	18	0	0
	Kantishna River	1	1		1	0	0	770	542	2	0	0	1	0	0
	<i>Subtotal</i>	5	5	1	3	0	0	2,002	1,958	195	0	9	19	0	0
Manley	Yukon River	2	2		2	106	0	0	0	10	5	0	0	0	0
	Tanana River	25	25		23	480	1,405	13,722	10,410	1,415	0	33	39	0	0
	Tolovana River	1	1		0	0	0	0	0	0	0	0	0	0	0
	<i>Subtotal</i>	28	28	1	25	586	1,405	13,722	10,410	1,425	5	33	39	0	0
Mimo	Yukon River	1	1		1	200	0	0	0	0	0	0	0	0	0
	Tanana River	44	42		15	316	509	1,419	2,616	279	0	0	22	0	0
	Tolovana River	37	36		18	0	0	0	0	472	76	97	911	68	3
	<i>Subtotal</i>	82	79	1	34	516	509	1,419	2,616	751	76	97	933	68	3
Nenana e	Yukon River	1	1		1	259	20	0	0	0	0	0	0	0	0
	Tanana River	44	37		25	753	1,352	11,181	9,359	321	0	27	13	0	0
	Kantishna River	2	2		1	6	0	20	28	13	0	0	0	0	0
	<i>Subtotal</i>	47	40	1	27	1,018	1,372	11,201	9,387	334	0	27	13	0	0
Stevens Village	Yukon River	8	7	1	5	793	4	41	0	0	0	0	0	0	0
Tok	Yukon River	4	4		2	37	1	0	0	0	1	0	0	0	0
	Tanana River	3	3		1	0	0	0	0	0	0	0	0	0	0
	<i>Subtotal</i>	7	7	1	3	37	1	0	0	0	1	0	0	0	0
Other f	Yukon River	1	1		1	0	0	0	0	0	1	0	0	0	0
	Tanana River	6	6		6	30	42	45	0	132	0	0	50	0	0
	<i>Subtotal</i>	7	7	1	7	30	42	45	0	132	1	0	50	0	0
<i>Subsistence Permit Subtotal</i>		469	453	1	201	8,536	7,555	49,352	26,544	3,509	361	196	1,214	68	3
Delta Carcass	Delta River	4	4	1	4	0	0	250	0	0	0	0	0	0	0
Permit Totals		473 g	457	1	205 h	8,536	7,555	49,602	26,544	3,509	361	196	1,214	68	3

a Does not include permit information returned after March 20, 1995.

b The number of fishermen who fished based on returned permits.

d Includes residents from the communities of Fairbanks, College, Ester, Ft. Wainwright, North Pole, and Salcha.

e Includes 7 fall chum given away as part of the Department's Nenana test fish wheel program.

f Includes residents from the communities of Anchorage, Beufes (fishing Tanana R.), Birch Creek (fishing Tanana R.), Dot Lake, Eagle River, Juneau, Northway and Wasilla.

g Includes 43 households that were issued permits for two different areas.

h Includes 14 households that fished in two different areas.

Table 20. Yukon Area household and dog information reported by subsistence permits issued and returned, listed by community of residence, 1994. a

Community					Permit Issue Information				Permit Return Information	
	Permits		Percent Returned	Fished b	Number of People in Households that obtained a Permit	Number of Household Fishermen	Number of Dogs Reported by Permits Issued	Number of Households that said they fed whole salmon to dogs	Number of Households that Reported Feeding Whole Salmon To Dogs	Number of Whole Salmon Fed or Put Up For Dog Food
	Issued	Returned								
Central	11	11	100%	8	24	18	28	2	1	50
Circle	22	21	95%	11	67	37	80	10	5	4,542
Delta Junction c	8	8	100%	7	19	14	21	5	4	179
Eagle	37	35	95%	27	106	71	156	14	6	4,911
Fairbanks North Star Borough d	210	208	99%	147	678	390	932	43	14	6,904
Healy	5	5	100%	3	19	13	91	4	2	2,279
Mauley e	28	28	100%	25	61	38	483	24	8	13,457
Minto	82	79	96%	34	291	144	539	33	2	700
Nenana	47	40	85%	27	188	78	421	31	6	10,912
Sevens Village	8	7	88%	5	16	12	29	1	1	50
Tok	7	7	100%	3	22	16	12	2	0	0
Other f	8	8	100%	8	23	16	40	2	1	1
Permit Totals	473 g	457	97%	305 h	1,514	847	2,832	171	50	43,985

a Does not include permit information returned after March 20, 1995.

b The number of fishermen who fished based on returned permits.

c Includes three Delta River carcass permits.

d Includes residents of the communities of Fairbanks, College, Ester, Ft. Wainwright, North Pole, and Saicha.

e Includes 7 fall chum salmon given away as part of the Department's Nenana test fish wheel program.

f Includes residents of the communities of Anchorage, Bettles (fishing Tanana R.), Birch Creek (fishing Tanana R.), Dot Lake, Eagle River, Juneau, Northway (one Delta River carcass permit), and Wasilla.

g Includes 43 households that were issued permits for two different areas.

h Includes 14 households that fished in two permit areas.

Table 21. Salmon retained from commercial catches for subsistence use; these salmon were caught by commercial fishermen and not sold, 1994.

Source: Survey Information (Table 15).

District	Chinook	Summer Chum	Fall Chum	Coho
1	114	2,046		
2	60	885	There was no fall season commercial fishing in the survey area.	
3	25	4		
4	203	103,002		
5	509	676		
6	Permit Required Area			

Source: Fish Ticket Information.

District	Chinook	Summer Chum	Fall Chum	Coho
1	0	12,608 a		
2	78	5,745 b	There was no fall season commercial fishing in the survey area.	
3	18	59		
4	0	53,803 c		
5	868	327		
6	198	3,518	0	2,900

Source: Highest of either Survey or Fish Ticket Information as shown in bold print above.

District	Chinook	Summer Chum	Fall Chum	Coho
1	114	12,608		
2	78	5,745	There was no fall season commercial fishing in the survey area.	
3	25	59		
4	203	d		
5	868	676		
6	198	3,518	0	2,900
Total	1,486	22,606	0	2,900

a Includes estimated unreported 10,817 summer chum caught but not sold per Dan Bergstrom memo dated 10/6/94.

b Includes estimated unreported 4,556 summer chum caught but not sold per Dan Bergstrom memo dated 10/6/94.

c Reported fish harvested to produce roe sold in Subdistrict Y4A only. No fish reported in Subdistricts Y4B&C.

d District 4 summer chum salmon are documented in the commercial-related category of the annual management reports, since the fish were harvested for the primary purpose of commercial roe sales.

Table 22. Salmon distributed to residents of Hughes, Allakaket, and Alatna during the fall of 1994 as a result of the September 1994 Koyukuk River flood.

Donation Source	Pounds of salmon	Comments
Manley	10,000 #'s chum	Most good for human use
Fairbanks	6,160 #'s chum	Most good for human use
Nenana	5,000 #'s chum	Most good for human use
Valdez Hatchery	43,000 #'s coho	Most good for human use
Valdez Hatchery	10,500 #'s	For dogfood
Totals ^a	74,660 #'s	

a 60,000-62,000 pounds of salmon were distributed to Hughes, Allakaket, Alatna, and sheltered victims of these villages in Fairbanks. 12,000-15,000 pounds of Valdez hatchery salmon were distributed to local non-profits.

Table 23. Yukon Area department test fish reported given away for subsistence purposes as documented by department records, 1994.

	Chinook	Summer Chum	Fall Chum	Coho
Emmonak ^a	1,001	2,992	1,522	823
Kotlik ^b	984	4,068	1,044	1,210
Pilot Station ^c	334	2,998	1,349	786
Manley ^d	0	0	0	0
Nenana ^e	0	0	7	0
Tanana North ^f	0	0	342	0
Tanana South ^g	0	0	1,553	266
Total	2,319	10,058	5,817	3,085

^a Big Eddy set net test fishing project.

^b Middle Mouth set net test fishing project.

^c Pilot Station Sonar drift net test fishing project.

^d Manley fishwheel test fishing project.

^e Nenana fishwheel test fishing project.

^f Tanana North Bank fishwheel test fishing project.

^g Tanana South Bank fishwheel test fishing project.

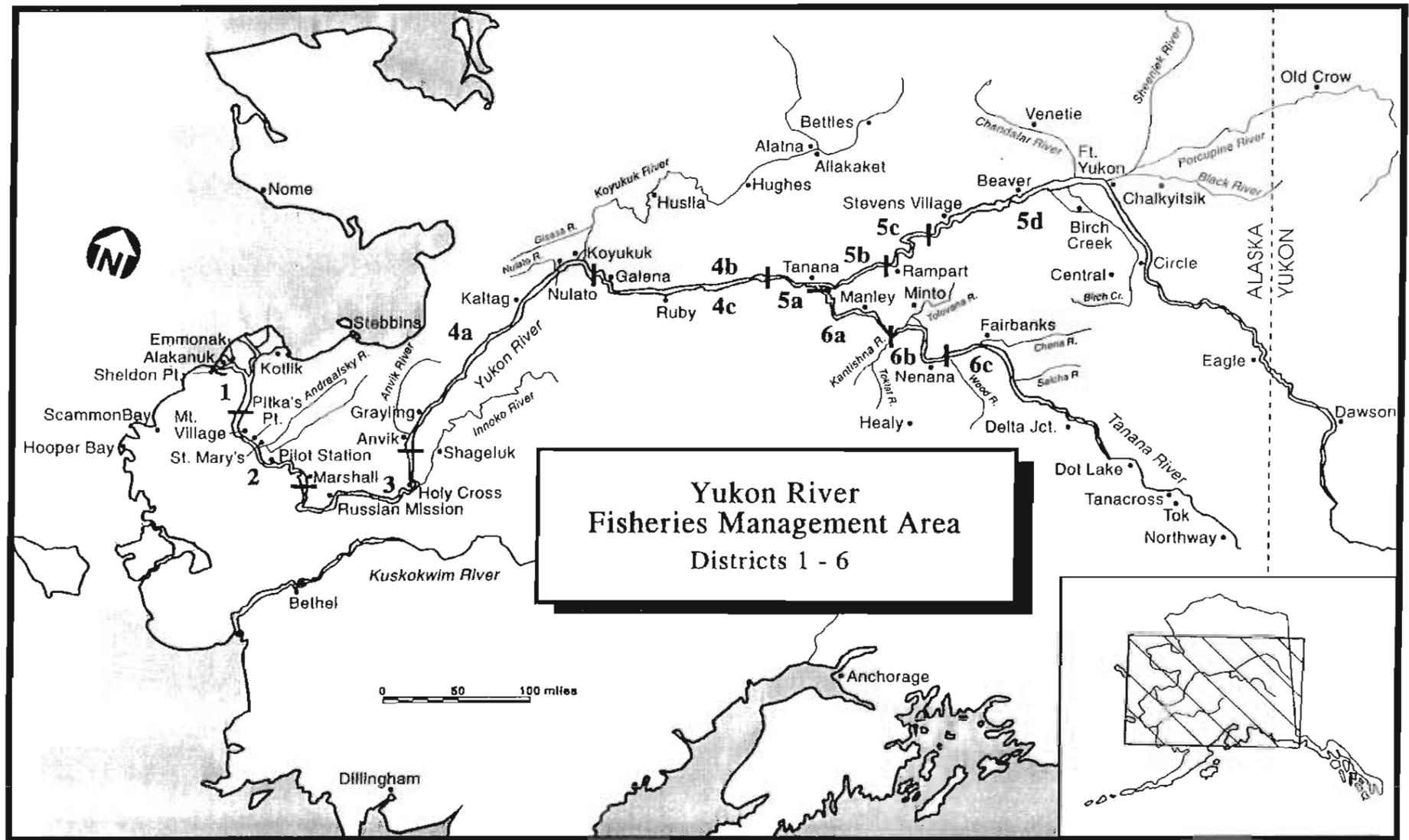
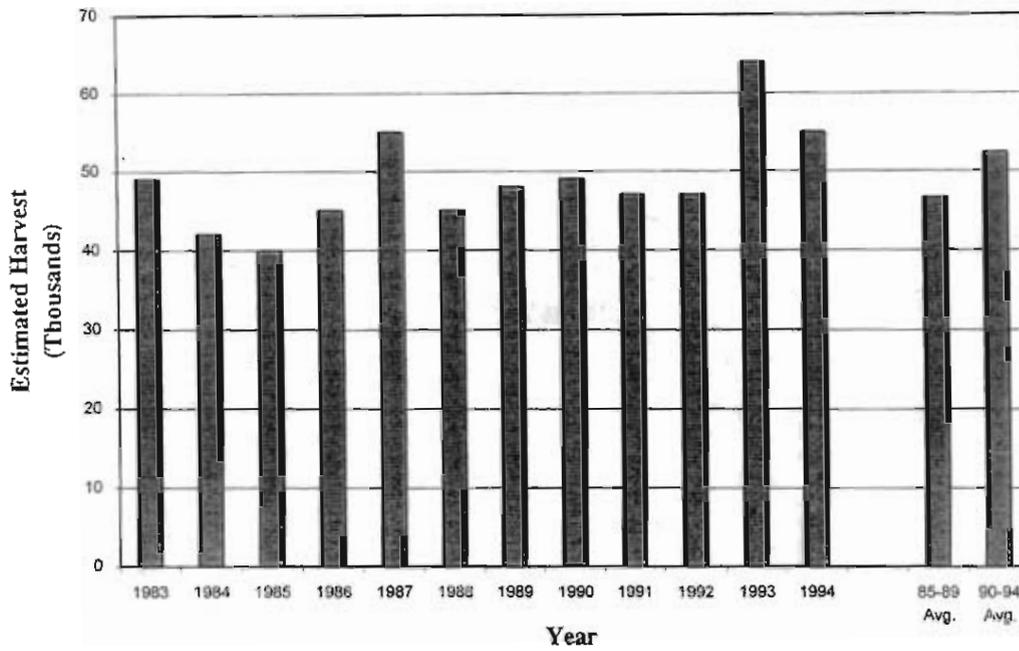


Figure 1. The Alaskan portion of the Yukon River Drainage, showing communities and fishing districts.

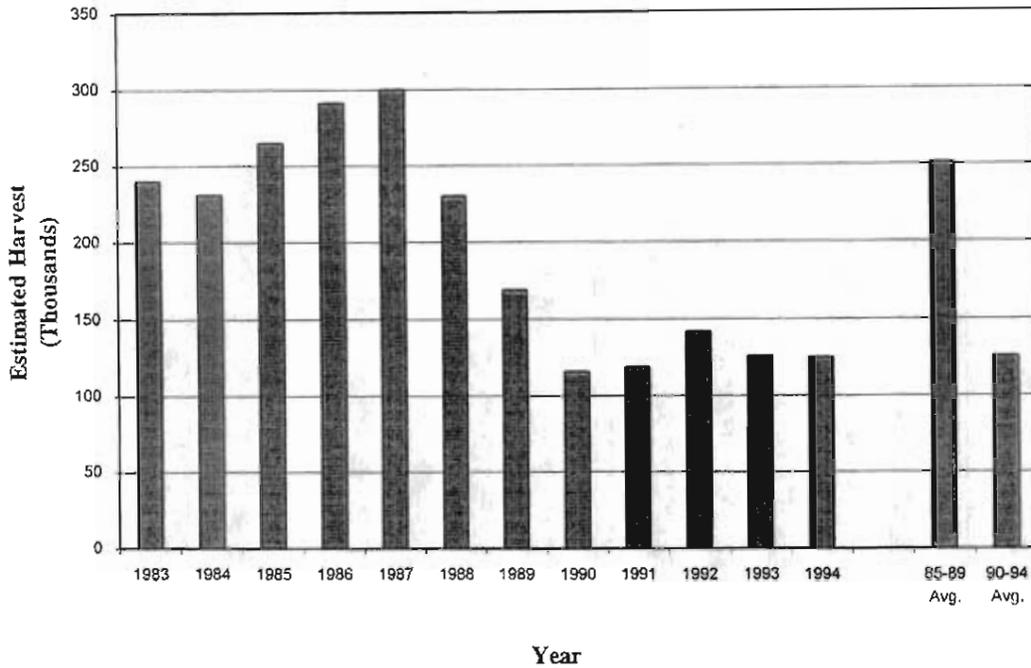
**Estimated Chinook Salmon
Subsistence Harvests
Yukon River Drainage**



Beginning in 1988, subsistence salmon harvest estimates have been generated from a stratified random sample of village households.

Figure 2. The estimated number of chinook salmon harvested in the subsistence salmon fisheries, Yukon Area, 1983-1994.

**Estimated Summer Chum Salmon
Subsistence Harvests
Yukon River Drainage**

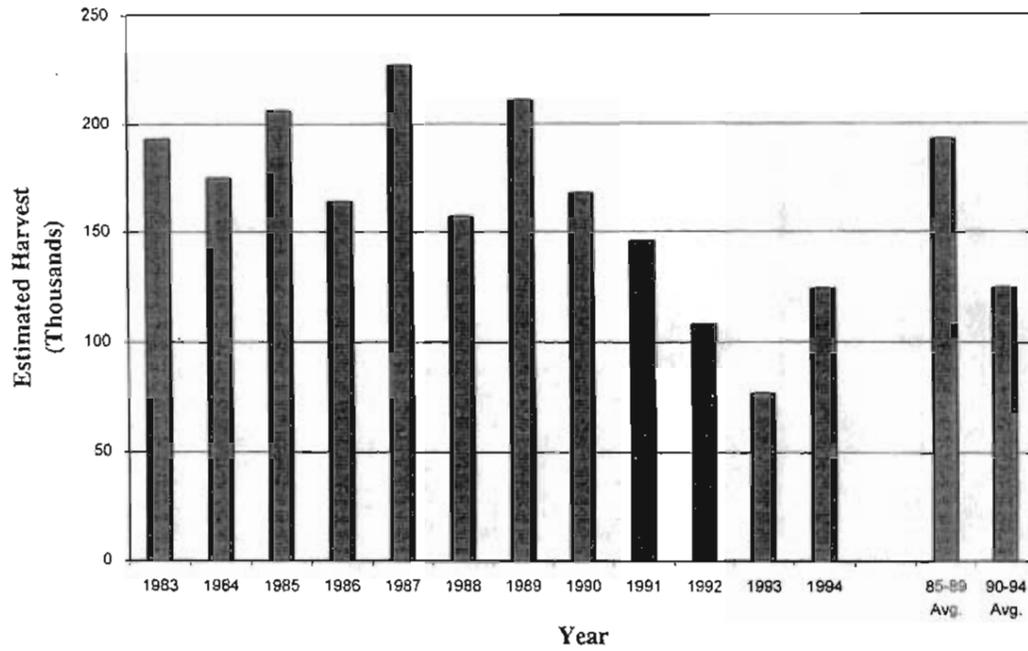


Summer chum salmon harvest estimates prior to 1998 include commercial caught summer chum salmon carcasses retained for subsistence use.

Beginning in 1988, subsistence salmon harvest estimates have been generated from a stratified random sample of village households.

Figure 3. The estimated number of summer chum salmon harvested in the subsistence salmon fisheries, Yukon Area, 1983-1994.

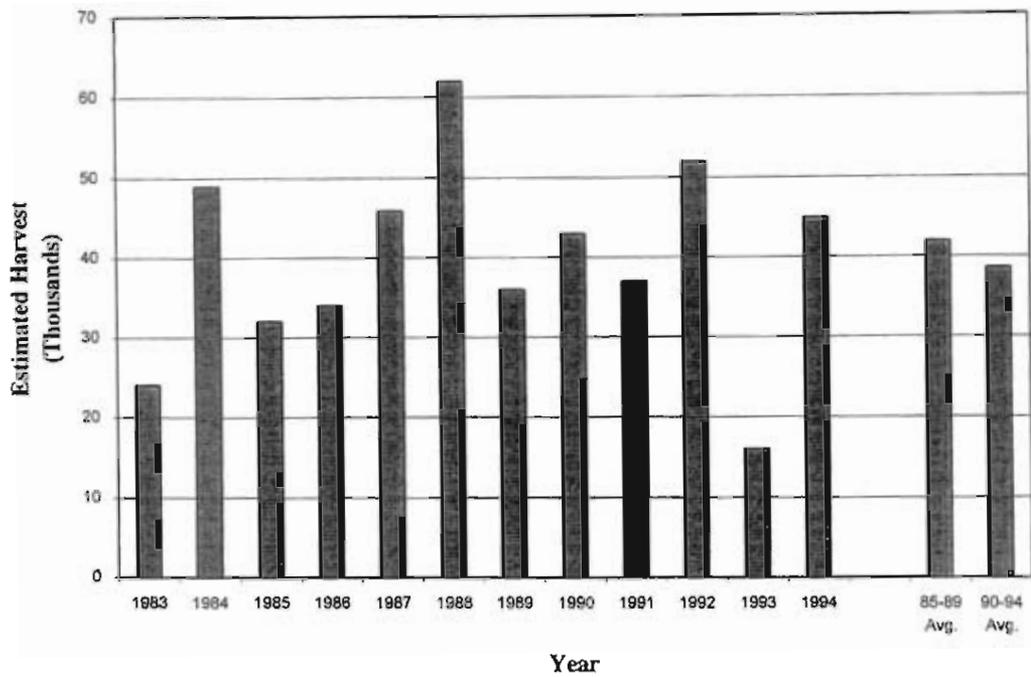
**Estimated Fall Chum Salmon
Subsistence Harvests
Yukon River Drainage**



Beginning in 1988, subsistence salmon harvest estimates have been generated from a stratified random sample of village households.

Figure 4. The estimated number of fall chum salmon harvested in the subsistence salmon fisheries, Yukon Area, 1983-1994.

Estimated Coho Salmon
Subsistence Harvests
Yukon River Drainage



Beginning in 1988, subsistence salmon harvest estimates have been generated from a stratified random sample of village households.

Figure 5. The estimated number of coho salmon harvested in the subsistence salmon fisheries, Yukon Area, 1983-1994.

APPENDIX A

DETAILED YUKON RIVER SALMON HARVEST
ESTIMATES AND RELATED INFORMATION

Appendix A.1. Estimated Yukon River chinook salmon subsistence harvest by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households with complete harvest information, 1994.

Community	Catch Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total N	Est	CI (95%) (+/-)	
Hooper Bay	71	11	0.8	0.4	15	4	0.5	0.4	33	10	1.1	0.6	18	17	2.8	0.1	2	2	1.5	0.0	139	44	157	73
Scammon Bay	1	1	0.0	0.0	23	4	3.7	3.4	54	11	9.6	2.8	5	4	12.2	4.1	0	0	-	-	83	20	668	337
Sheldon's Point	1	1	0.0	0.0	4	3	0.0	0.0	16	14	11.8	1.6	8	8	52.0	0.0	0	0	-	-	29	26	606	52
Alakanuk	2	1	0.0	1.6	48	4	0.0	0.0	69	21	11.2	2.9	13	12	20.7	1.1	0	0	-	-	132	38	1,045	393
Emmonak	33	6	6.6	4.4	53	14	4.2	3.6	61	31	6.0	1.5	12	12	19.5	0.0	3	3	109.6	0.0	162	66	1,383	513
Kotlik	16	5	10.2	4.0	22	4	9.2	5.0	48	14	5.5	2.0	14	14	34.7	0.0	4	4	100.0	0.0	104	41	1,521	317
District 1	124	25	3.6	1.3	165	33	3.2	1.4	281	101	7.7	1.0	70	67	21.7	0.3	9	9	81.3	0.0	649	235	5,380	801
Mountain Village	27	5	3.4	3.0	40	4	0.0	0.0	73	20	12.0	3.5	16	16	31.7	0.0	1	1	35.0	0.0	157	46	1,511	527
Pitkas Point	0	0	-	-	11	11	0.0	0.0	14	14	13.5	0.0	7	5	39.8	10.4	0	0	-	-	32	30	469	163
St. Mary's	23	5	6.0	3.5	22	3	25.0	18.7	36	10	19.9	7.0	20	19	45.4	2.2	4	4	102.2	0.0	105	41	2,722	969
Pilot Station	3	3	0.0	0.0	34	6	0.0	0.0	48	22	29.3	6.1	4	4	54.0	0.0	1	1	20.0	0.0	90	36	1,643	579
Marshall	1	0	3.6	1.9	11	4	0.5	0.3	49	14	37.9	11.2	8	8	51.1	0.0	0	0	-	-	69	26	2,277	1,079
District 2	54	13	4.3	2.1	118	28	4.7	3.5	220	80	22.9	3.2	55	52	42.2	1.5	6	6	77.3	0.0	453	179	8,622	1,654
Russian Mission	4	2	0.0	0.0	19	5	26.4	10.9	27	7	22.2	9.3	6	6	88.5	0.0	1	0	159.0	39.0	57	20	1,793	644
Holy Cross	22	3	23.3	21.6	17	5	50.8	15.9	26	12	71.0	13.2	9	9	55.2	0.0	2	2	159.0	0.0	76	31	4,040	1,270
District 3	26	5	19.7	18.3	36	10	37.9	9.4	53	19	46.2	8.0	15	15	68.5	0.0	3	2	159.0	13.0	133	51	5,833	1,425
Anvik	0	0	-	-	14	4	0.0	0.0	16	5	12.0	9.9	6	6	27.8	0.0	2	2	32.5	0.0	38	17	424	312
Grayling	3	3	1.6	0.0	21	5	0.0	0.0	12	5	44.0	15.0	21	21	54.5	0.0	3	2	55.0	2.8	60	36	1,843	353
Kaitag	2	2	40.0	0.0	15	5	14.4	10.7	18	4	33.7	12.6	16	15	46.8	2.6	0	0	-	-	51	26	1,653	552
Nulato	22	3	6.6	6.1	35	2	3.5	3.3	23	5	23.2	8.4	13	10	64.0	8.9	1	1	100.0	0.0	94	21	1,735	568
Koyukuk	2	1	0.0	2.6	17	4	0.0	0.0	20	4	8.7	4.6	5	4	22.0	8.4	2	2	152.0	0.0	46	15	589	198
Galena	27	3	3.3	3.1	59	5	0.0	0.0	48	13	21.7	6.6	12	11	23.6	2.5	3	3	138.3	0.0	149	35	1,834	649
Ruby	11	4	4.2	2.4	36	3	0.0	0.0	18	4	40.5	23.4	11	10	61.8	7.8	3	3	27.6	0.0	79	24	1,539	846
Shageluk	2	2	0.0	0.0	17	2	0.0	0.0	13	5	4.0	3.1	8	7	27.0	4.8	3	2	7.5	1.4	43	18	291	110
Huslia	9	3	0.0	0.0	27	3	0.0	0.0	14	5	2.4	1.2	9	8	13.3	3.9	7	6	12.1	3.1	66	25	239	88
Hughes	Did not survey.																							
Allakaket	Did not survey.																							
Alatna	Did not survey.																							
Bettles	3	1	0.0	2.6	23	17	0.0	0.0	6	5	0.0	0.0	0	0	-	-	0	0	-	-	32	23	0	15
District 4	81	22	4.5	2.0	264	50	1.3	0.7	188	55	20.7	3.5	101	92	42.6	1.6	24	21	51.7	0.9	658	240	10,147	1,431
Tanana	22	3	0.0	0.0	58	12	4.5	3.3	18	6	18.6	9.7	11	8	20.6	6.7	21	19	103.3	8.8	130	48	2,999	647
Rampart	0	0	-	-	8	7	6.1	1.6	4	3	7.6	3.8	9	9	77.6	0.0	4	4	143.7	0.0	25	23	1,354	39
Stevens Village	3	2	50.0	28.8	12	2	28.5	26.0	9	5	151.4	56.4	9	9	70.8	0.0	3	3	107.0	0.0	36	21	2,814	1,180
Birch Creek	0	0	-	-	8	6	0.0	0.0	7	5	17.0	7.8	0	0	-	-	0	0	-	-	15	11	119	107
Beaver	0	0	-	-	15	9	0.0	0.0	12	10	41.8	7.1	6	6	58.0	0.0	1	1	0.0	0.0	34	26	850	167
Fort Yukon	57	10	5.0	4.5	94	8	9.7	6.3	41	11	29.2	14.8	23	17	84.8	13.9	6	6	62.1	0.0	221	52	4,727	1,851
Venetie	26	2	0.0	0.0	23	3	16.6	15.5	6	5	1.2	0.4	9	9	14.7	0.0	0	0	-	-	64	19	524	700
Chatkyltsik	4	2	0.0	0.0	21	18	0.0	0.0	7	5	0.0	0.0	3	3	0.0	0.0	0	0	-	-	35	28	0	0
District 5	112	19	3.9	2.4	239	65	8.2	3.2	104	50	34.2	7.8	70	61	57.1	4.7	35	33	98.3	5.3	560	228	13,387	2,403
Survey Totals	397	84	5.0	1.5	822	186	5.8	1.2	846	305	20.2	1.6	311	287	42.3	1.2	77	71	82.5	2.4	2,453	933	43,369	3,637

Appendix A.2. Estimated Yukon River summer chum salmon subsistence harvest by residents of surveyed villages, by catch stratum, with village and district totals; n indicates the total number of households and n indicates the number of households with complete harvest information, 1994.

Community	Catch Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total		Combined	
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	Est. CI (95%)
Booper Bay	71	11	58.1	26.2	15	4	62.5	32.1	33	10	53.6	25.0	18	17	194.1	12.6	2	2	112.5	0.0	139	44	10,556	4,132
Scammon Bay	1	1	0.0	0.0	23	4	50.0	45.4	54	11	48.0	15.0	5	4	120.0	20.7	0	0	-	-	83	20	4,347	2,603
Sheldon's Point	1	1	0.0	0.0	4	3	0.0	0.0	16	14	54.7	6.4	8	8	113.0	0.0	0	0	-	-	29	26	1,941	202
Alakanuk	2	1	0.0	0.0	48	4	2.0	1.9	69	21	82.9	11.7	13	12	116.4	6.5	0	0	-	-	132	38	5,947	1,611
Emmonak	33	6	55.8	32.8	53	14	15.0	12.8	61	31	72.3	14.1	12	12	158.9	0.0	3	3	370.6	0.0	162	66	10,068	3,024
Kalik	16	5	7.0	3.6	22	4	88.7	51.1	48	14	51.2	14.3	14	14	137.1	0.0	4	4	171.5	0.0	104	41	7,179	2,589
District 1	124	25	49.1	17.3	165	33	29.9	10.6	281	101	59.1	6.3	70	67	147.7	3.7	9	9	224.8	0.0	649	235	39,988	6,506
Mountain Village	27	5	2.4	2.1	40	4	0.0	0.0	73	20	31.5	9.7	16	16	98.1	0.0	1	1	0.0	0.0	157	46	1,948	1,406
Titkas Point	0	0	-	-	11	11	0.9	0.0	14	14	29.3	0.0	7	5	97.4	26.1	0	0	-	-	32	30	1,101	358
St. Mary's	23	5	78.8	49.6	22	3	100.0	64.7	36	10	34.9	11.8	20	19	162.5	7.6	4	4	402.2	0.0	105	41	10,128	3,687
Pilot Station	3	3	0.0	0.0	34	6	0.0	0.0	48	22	47.2	8.9	4	4	43.2	0.0	1	1	10.0	0.0	90	36	2,452	843
Marshall	1	0	-	0.0	11	4	2.5	1.9	49	14	35.5	10.1	8	8	64.6	0.0	0	0	-	-	69	26	2,288	872
District 2	54	13	34.8	21.1	118	28	19.0	12.0	220	80	36.3	4.8	55	52	112.6	4.3	6	6	269.8	0.0	453	179	19,909	4,166
Russian Mission	4	2	0.0	0.0	19	5	9.2	4.9	27	7	7.2	4.8	6	6	71.5	0.0	1	0	-	0.0	57	20	801	316
Holy Cross	22	3	1.0	0.9	17	5	5.2	1.8	26	12	48.0	19.8	9	9	6.7	0.0	2	2	28.5	0.0	75	31	1,479	1,012
District 3	26	5	0.8	0.7	36	10	7.3	2.7	53	19	27.3	10.0	15	15	32.7	0.0	3	2	19.0	0.0	133	51	2,280	1,060
Asvik	0	0	-	-	14	4	0.0	0.0	16	5	4.0	3.3	6	6	57.1	0.0	2	2	250.0	0.0	38	17	907	104
Grayling	3	3	0.0	0.0	21	5	20.0	17.4	12	5	0.8	0.6	21	21	47.0	0.0	3	2	0.0	0.0	60	36	1,418	718
Kaltag	2	2	0.0	0.0	15	5	4.0	2.0	18	4	18.5	14.8	16	15	205.6	33.2	0	0	-	-	51	26	3,683	1,169
Mulato	22	3	6.6	6.1	35	2	0.0	0.0	23	5	26.0	17.1	13	10	16.0	6.0	1	1	22.0	0.0	94	21	975	832
Koyukuk	2	1	0.0	0.0	17	4	0.0	0.0	20	4	25.0	22.3	5	4	12.5	5.5	2	2	738.0	0.0	46	15	2,039	978
Galena	27	3	0.0	0.0	59	5	0.0	0.0	48	13	17.0	12.5	12	11	10.7	2.5	3	3	83.3	0.0	149	35	1,198	1,182
Ruby	11	4	308.0	245.6	36	3	0.0	0.0	18	4	0.0	0.0	11	10	102.1	24.7	3	3	25.0	0.0	70	24	4,586	5,324
Shageluk	2	2	0.0	0.0	17	2	0.0	0.0	13	5	60.0	47.0	8	7	426.8	96.4	3	2	672.5	44.7	43	18	6,212	1,948
Huslia	9	3	0.0	0.0	27	3	0.0	0.0	14	5	85.6	68.0	9	8	227.3	53.0	7	6	395.6	78.8	66	25	6,014	2,351
Hughes	Did not survey.																							
Allakaket	Did not survey.																							
Alatna	Did not survey.																							
Bettles	3	1	15.0	0.0	23	17	0.0	0.0	6	5	0.0	0.0	0	0	-	-	0	0	-	-	32	23	45	0
District 4	81	22	44.2	33.4	264	50	1.8	1.3	188	55	22.9	7.6	101	92	114.9	10.7	24	21	296.3	23.6	658	240	27,077	6,513
Tanana	22	3	0.0	0.0	58	12	0.0	0.0	18	6	0.0	0.0	11	8	30.0	12.9	21	19	318.6	37.1	130	49	7,022	1,553
Rampart	0	0	-	-	8	7	11.4	4.0	4	3	0.0	0.0	9	9	44.4	0.0	4	4	17.0	0.0	25	23	559	63
Stevens Village	3	2	0.0	0.0	12	2	0.0	0.0	9	5	0.0	0.0	9	9	0.0	0.0	3	3	153.0	0.0	36	21	459	0
Birch Creek	0	0	-	-	8	6	0.0	0.0	7	5	0.0	0.0	0	0	-	-	0	0	-	-	15	11	0	0
Beaver	0	0	-	-	15	9	0.0	0.0	12	19	19.3	7.7	6	6	70.5	0.0	1	1	0.0	0.0	34	26	655	183
Fort Yukon	57	10	0.0	0.0	94	8	12.5	11.9	41	11	7.0	3.5	23	17	25.1	10.4	6	6	0.0	0.0	221	52	2,043	2,270
Venetie	26	2	0.0	0.0	23	3	0.0	0.0	6	5	0.0	0.0	9	9	63.0	0.0	0	0	-	-	64	19	567	0
Chalkyitsik	4	2	0.0	0.0	21	18	0.0	0.0	7	5	0.0	0.0	3	3	0.0	0.0	0	0	-	-	35	28	0	0
District 5	112	19	0.0	0.0	239	65	5.3	4.7	104	50	5.0	1.6	70	61	32.8	4.0	35	33	206.3	22.2	560	228	11,305	2,757
Survey Totals	397	84	29.1	9.1	822	186	11.2	3.1	846	305	36.5	3.0	311	287	99.4	3.7	77	71	234.1	12.5	2,453	933	100,559	10,528

Appendix A.3. Estimated Yukon River fall chum salmon subsistence harvest by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households with complete harvest information, 1994.

Community	Catch Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total N	Total n	Est Total	CI (95%) (+/-)
Hooper Bay	71	11	0.0	0.0	15	4	0.0	0.0	33	10	8.3	6.9	18	17	0.5	0.1	2	2	0.0	0.0	139	44	284	448
Scaamom Bay	1	1	0.0	0.0	23	4	0.0	0.0	54	11	0.0	0.0	5	4	12.5	5.5	0	0	-	-	83	20	63	54
Sheldon's Point	1	1	0.0	0.0	4	3	0.0	0.0	16	14	0.2	0.1	8	8	2.5	0.0	0	0	-	-	29	26	25	3
Alakanuk	2	1	0.0	0.0	48	4	0.0	0.0	69	21	0.9	0.5	13	12	0.8	0.2	0	0	-	-	132	38	73	70
Emmonak	33	6	50.0	45.2	53	14	0.0	0.0	61	31	3.8	1.9	12	12	2.7	0.0	3	3	0.0	0.0	162	66	1,919	2,934
Kotlik	16	5	0.4	0.3	22	4	1.0	0.9	48	14	1.0	0.9	14	14	1.7	0.8	4	4	50.0	0.0	104	41	304	93
District 1	124	25	13.4	12.0	165	33	0.1	0.1	281	101	2.2	0.9	70	67	2.3	0.4	9	9	22.2	0.0	649	235	2,668	2,971
Mountain Village	27	5	0.0	0.0	40	4	0.0	0.0	73	20	10.2	8.5	16	16	3.0	0.0	1	1	0.0	0.0	157	46	797	1,217
Pitkas Point	0	0	-	-	11	11	0.0	0.0	14	14	0.5	0.0	7	5	41.0	13.9	0	0	-	-	32	30	294	191
St. Mary's	23	5	20.0	17.6	22	3	0.0	0.0	36	10	2.8	2.1	20	19	23.0	3.2	4	4	10.0	0.0	105	41	1,062	821
Pilot Station	3	3	0.0	0.0	34	6	0.0	0.0	48	22	3.1	2.0	4	4	6.2	0.0	1	1	0.0	0.0	90	36	178	189
Marshall	1	0	-	0.0	11	4	0.0	0.0	49	14	2.1	1.8	8	8	45.7	0.0	0	0	-	-	69	26	471	173
District 2	54	13	8.5	7.5	118	28	0.0	0.0	220	80	5.1	2.9	55	52	21.6	2.1	6	6	6.7	0.0	453	179	2,802	1,503
Russian Mission	4	2	0.0	0.0	19	5	0.0	0.0	27	7	0.0	0.0	6	6	1.8	0.0	1	0	-	0.0	57	20	11	0
Holy Cross	22	3	0.0	0.0	17	5	9.6	5.2	26	12	9.1	3.6	9	9	29.2	0.0	2	2	0.0	0.0	76	31	665	256
District 3	26	5	0.0	0.0	36	10	4.5	2.4	53	19	4.5	1.7	15	15	18.3	0.0	3	2	0.0	0.0	133	51	676	256
Anvik	0	0	-	-	14	4	0.0	0.0	16	5	0.0	0.0	6	6	15.8	0.0	2	2	30.0	0.0	38	17	155	0
Grayling	3	3	0.0	0.0	21	5	10.0	8.7	12	5	10.0	4.8	21	21	14.0	0.0	3	2	61.5	23.9	60	36	811	402
Kaltag	2	2	13.5	0.0	15	5	0.0	0.0	18	4	7.5	6.6	16	15	29.2	3.0	0	0	-	-	51	26	630	251
Nulato	22	3	0.0	0.0	35	2	5.0	4.8	23	5	18.0	10.6	13	10	48.0	8.9	1	1	0.0	0.0	94	21	1,109	626
Koyukuk	2	1	0.0	0.0	17	4	0.0	0.0	20	4	22.5	20.1	5	4	15.7	6.3	2	2	260.0	0.0	46	15	1,049	791
Galena	27	3	0.0	0.0	59	5	0.0	0.0	48	13	34.6	15.5	12	11	116.4	26.0	3	3	300.0	0.0	149	35	3,963	1,587
Ruby	11	4	151.7	105.7	36	3	0.0	0.0	18	4	47.0	24.4	11	10	186.1	47.9	3	3	330.3	0.0	79	24	5,553	2,647
Shageluk	2	2	0.0	0.0	17	2	0.0	0.0	13	5	2.0	1.5	8	7	20.0	3.7	3	2	0.0	0.0	43	18	186	71
Huslia	9	3	0.0	0.0	27	3	0.0	0.0	14	5	0.2	0.1	9	8	5.6	1.8	7	6	0.1	0.0	66	25	55	33
Hughes	Did not survey.																							
Allakaket	Did not survey.																							
Alatna	Did not survey.																							
Bettles	3	1	0.0	0.0	23	17	0.0	0.0	6	5	0.0	0.0	0	0	-	-	0	0	-	-	32	23	0	0
District 4	81	22	20.9	14.3	264	50	1.5	0.9	188	55	19.5	5.2	101	92	50.6	6.2	24	21	110.7	2.9	658	240	13,511	3,282
Tarana	22	3	0.0	0.0	58	12	0.0	0.0	18	6	4.1	3.4	11	8	60.6	17.7	21	19	1,525.8	86.4	130	48	32,786	3,582
Rampart	0	0	-	-	8	7	42.8	15.1	4	3	0.0	0.0	9	9	19.3	0.0	4	4	122.5	0.0	25	23	1,007	237
Stevens Village	3	2	0.0	0.0	12	2	0.0	0.0	9	5	0.0	0.0	9	9	5.0	0.0	3	3	0.0	0.0	36	21	45	0
Birch Creek	0	0	-	-	8	6	0.0	0.0	7	5	0.0	0.0	0	0	-	-	0	0	-	-	15	11	0	0
Beaver	0	0	-	-	15	9	0.0	0.0	12	10	7.8	3.0	6	6	329.1	0.0	1	1	0.0	0.0	34	26	2,069	71
Fort Yukon	57	10	1.5	1.3	94	8	12.5	11.9	41	11	3.7	3.1	23	17	154.9	24.0	6	6	308.3	0.0	221	52	6,827	2,473
Venetie	26	2	10.0	9.6	23	3	40.0	37.3	6	5	80.0	23.8	9	9	293.5	0.0	0	0	-	-	64	19	4,302	1,773
Chalkyitsik	4	2	0.0	0.0	21	18	0.0	0.0	7	5	164.4	27.8	3	3	200.0	0.0	0	0	-	-	35	28	1,751	381
District 5	112	19	3.1	2.3	239	65	10.2	5.9	104	50	18.8	2.7	70	61	138.1	8.3	35	33	982.4	51.8	560	228	48,787	4,723
Survey Totals	397	84	10.5	4.9	822	186	3.7	1.7	846	305	9.0	1.4	311	287	52.7	2.7	77	71	484.2	23.6	2,453	933	68,444	6,651

Appendix A.4. Estimated Yukon River coho salmon subsistence harvest by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicated the number of households with complete harvest information, 1994.

Community	Catch Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Est Total	CI (95%) (+/-)
Hooper Bay	71	11	0.0	0.0	15	4	0.0	0.0	33	10	0.0	0.0	18	17	0.0	0.0	2	2	0.0	0.0	139	44	1	0
Scannon Bay	1	1	0.0	0.0	23	4	0.7	0.6	54	11	0.0	0.0	5	4	12.5	5.5	0	0	-	-	83	20	80	62
Sheldon's Point	1	1	0.0	0.0	4	3	0.0	0.0	16	14	2.0	0.4	8	8	2.3	0.0	0	0	-	-	29	26	52	14
Alakanuk	2	1	0.0	0.2	48	4	0.0	0.0	69	21	0.5	0.3	13	12	4.1	0.7	0	0	-	-	132	38	94	53
Eamonak	33	6	0.8	0.7	53	14	0.0	0.0	61	31	1.0	0.5	12	12	3.5	0.0	3	3	0.0	0.0	162	66	136	77
Kotlik	16	5	1.2	0.8	22	4	8.0	7.2	48	14	8.6	4.9	14	14	3.3	0.0	4	4	75.0	0.0	104	41	957	564
District 1	124	25	0.4	0.2	165	33	1.2	0.9	281	101	2.0	0.8	70	67	3.2	0.4	9	9	33.3	0.0	649	235	1,320	576
Mountain Village	27	5	0.0	0.0	40	4	0.0	0.0	73	20	0.5	0.4	16	16	58.1	0.0	1	1	0.0	0.0	157	46	968	60
Pitkas Point	0	0	-	-	11	11	0.0	0.0	14	14	7.5	0.0	7	5	37.0	13.2	0	0	-	-	32	30	364	182
St. Mary's	23	5	0.0	0.0	22	3	0.0	0.0	36	10	0.0	0.0	20	19	30.6	3.5	4	4	0.0	0.0	105	41	614	138
Pilot Station	3	3	0.0	0.0	34	6	0.0	0.0	48	22	0.2	0.1	4	4	3.5	0.0	1	1	0.0	0.0	90	36	25	15
Marshall	1	0	0.0	0.0	11	4	0.0	0.0	49	14	14.3	12.0	8	8	52.5	0.0	0	0	-	-	69	26	1,124	1,159
District 2	54	13	0.0	0.0	118	28	0.0	0.0	220	80	3.9	2.6	55	52	40.7	2.1	6	6	0.0	0.0	453	179	3,095	1,183
Russian Mission	4	2	0.0	0.0	19	5	0.0	0.0	27	7	0.0	0.0	6	6	9.1	0.0	1	0	0.0	0.0	57	20	55	0
Holy Cross	22	3	0.0	0.0	17	5	1.4	1.1	26	12	5.6	3.6	9	9	0.0	0.0	2	2	0.0	0.0	76	31	171	190
District 3	26	5	0.0	0.0	36	10	0.7	0.5	53	19	2.8	1.7	15	15	3.7	0.0	3	2	0.0	0.0	133	51	226	190
Anvik	0	0	-	-	14	4	0.0	0.0	16	5	0.0	0.0	6	6	10.0	0.0	2	2	17.5	0.0	38	17	95	0
Grayling	3	3	0.0	0.0	21	5	0.0	0.0	12	5	0.4	0.3	21	21	1.3	0.0	3	2	1.0	0.5	60	30	36	7
Kaltag	2	2	0.0	0.0	15	5	0.0	0.0	18	4	0.0	0.0	16	15	15.3	3.3	0	0	-	-	51	26	245	104
Nulato	22	3	0.0	0.0	35	2	0.0	0.0	23	5	0.0	0.0	13	10	2.1	0.5	1	1	0.0	0.0	94	11	27	13
Koyukuk	2	1	0.0	23.3	17	4	0.0	0.0	20	4	0.0	0.0	5	4	0.2	0.1	2	2	152.0	0.0	46	15	305	91
Galena	27	3	0.0	0.0	59	5	0.0	0.0	48	13	10.9	8.6	12	11	12.7	2.7	3	3	42.0	0.0	149	35	803	815
Ruby	11	4	128.5	102.5	36	3	0.0	0.0	18	4	0.0	0.0	11	10	35.3	10.6	3	3	51.6	0.0	79	24	1,957	2,221
Shageluk	2	2	0.0	0.0	17	2	0.0	0.0	13	5	0.0	0.0	8	7	17.1	4.9	3	2	0.0	0.0	43	18	137	78
Huslia	9	3	0.0	0.0	27	3	0.0	0.0	14	5	0.0	0.0	9	8	5.2	1.7	7	6	0.0	0.0	66	25	47	30
Hughes	Did not survey.																							
Allakaket	Did not survey.																							
Alatna	Did not survey.																							
Bettles	3	1	0.0	23.3	23	17	0.0	0.0	6	5	0.0	0.0	0	0	-	-	0	0	-	-	32	23	0	137
District 4	81	22	17.5	13.9	264	50	0.0	0.0	188	55	2.8	2.2	101	92	10.8	1.3	24	21	26.0	0.0	658	240	3,652	2,376
Tanana	22	3	0.0	0.0	58	12	0.0	0.0	18	6	4.1	3.4	11	8	28.1	14.6	21	19	92.2	11.0	130	48	2,321	567
Rampart	0	0	-	-	8	7	0.0	0.0	4	3	6.6	3.3	9	9	4.6	0.0	4	4	7.5	0.0	25	23	99	26
Stevens Village	3	2	0.0	0.0	12	2	0.0	0.0	9	5	0.0	0.0	9	9	0.0	0.0	3	3	0.0	0.0	36	21	0	0
Birch Creek	0	0	-	-	8	6	0.0	0.0	7	5	0.0	0.0	0	0	-	-	0	0	-	-	15	11	0	0
Beaver	0	0	-	-	15	9	0.0	0.0	12	10	0.0	0.0	6	6	1.6	0.0	1	1	0.0	0.0	34	26	10	0
Fort Yukon	57	10	0.0	0.0	94	8	0.0	0.0	41	11	0.0	0.0	23	17	41.7	18.9	6	6	0.6	0.0	221	52	963	856
Venetie	26	2	0.0	0.0	23	3	0.0	0.0	6	5	0.0	0.0	9	9	0.4	0.0	0	0	-	-	64	19	4	0
Chalkyltsik	4	2	0.0	0.0	21	18	0.0	0.0	7	5	64.2	31.5	3	3	2.3	0.0	0	0	-	-	35	28	456	433
District 5	112	19	0.0	0.0	239	65	0.0	0.0	104	50	5.3	2.2	70	61	19.0	6.6	35	33	56.3	6.6	560	228	3,853	1,115
Survey Totals	397	84	3.7	2.8	822	186	0.3	0.1	846	305	3.1	0.9	311	287	15.9	1.6	77	71	37.6	3.0	2,453	933	12,146	2,942

Appendix A.5. Estimated Yukon River chinook salmon subsistence use by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households with complete subsistence use information, 1994.

Community	Catch Unknown				Does not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined				
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	Est	CI (95%) (+/-)
Hooper Bay	71	11	0.3	0.1	15	4	0.0	0.0	33	10	1.4	0.6	18	17	1.7	0.1	2	2	1.0	0.0	139	44	106	46	
Scammon Bay	1	1	0.0	0.0	23	4	3.7	3.4	54	11	9.8	2.7	5	4	12.2	4.1	0	0	-	-	83	20	678	327	
Sheldon's Point	1	1	0.0	0.0	4	3	3.0	1.2	16	14	11.5	1.4	8	7	48.5	2.7	0	0	-	-	29	25	586	63	
Alakanuk	2	1	0.0	0.0	48	4	0.5	0.4	69	21	9.6	2.2	13	12	17.7	0.9	0	0	-	-	132	38	918	305	
Emmonak	33	6	7.5	4.6	53	14	5.8	2.1	61	31	13.5	2.3	12	12	25.1	0.0	3	3	42.6	0.0	162	66	1,814	467	
Kotlik	16	5	19.2	14.6	22	4	5.2	3.2	48	14	10.6	3.4	14	14	32.2	0.0	4	4	120.2	0.0	104	41	1,866	581	
District 1	124	25	4.7	2.2	165	33	3.3	0.9	281	101	9.8	1.0	70	66	20.9	0.4	9	9	67.9	0.0	649	234	5,968	873	
Mountain Village	27	5	3.8	2.9	40	4	0.5	0.2	73	20	13.6	3.7	16	16	30.7	0.0	1	1	35.0	0.0	157	46	1,646	558	
Pitkas Point	0	0	-	-	11	11	3.6	0.0	14	14	9.7	0.0	7	5	42.6	11.9	0	0	-	-	32	30	475	164	
St. Mary's	23	5	4.0	1.7	22	3	8.6	4.3	36	10	19.9	6.6	20	19	41.0	1.8	4	4	67.5	0.0	105	41	2,089	513	
Pilot Station	3	3	10.3	0.0	34	6	3.3	3.0	48	22	29.1	4.9	4	4	36.0	0.0	1	1	20.0	0.0	90	36	1,709	508	
Marshall	1	0	-	0.0	11	4	4.2	2.8	49	14	46.0	10.5	8	8	52.8	0.0	0	0	-	-	69	26	2,724	1,015	
District 2	54	13	4.2	1.6	118	28	3.5	1.2	220	80	25.0	3.0	55	52	39.6	1.6	6	6	54.2	0.0	453	179	8,643	1,375	
Russian Mission	4	2	0.0	0.0	19	5	54.8	20.9	27	7	58.0	10.6	6	6	79.1	0.0	1	0	-	0.0	57	20	3,082	961	
Holy Cross	22	3	23.3	21.6	17	5	44.8	5.2	26	12	47.6	7.1	9	9	46.7	0.0	2	2	45.0	0.0	76	31	3,025	1,019	
District 3	26	5	19.7	18.3	36	10	50.1	11.3	53	19	52.9	6.4	15	15	59.7	0.0	3	2	30.0	0.0	133	51	6,107	1,401	
Anvik	0	0	-	-	14	4	0.5	0.4	16	5	27.2	11.3	6	6	27.5	0.0	2	2	82.5	0.0	38	17	772	355	
Grayling	3	3	3.3	0.0	21	5	10.2	3.8	12	5	28.6	4.2	21	21	39.7	0.0	3	2	42.5	10.1	60	36	1,530	195	
Kaltag	2	2	40.0	0.0	15	5	15.4	10.5	18	4	33.7	10.1	16	15	36.4	1.6	0	0	-	-	51	26	1,501	475	
Nulato	22	3	11.6	5.2	35	2	3.5	3.3	23	5	18.4	7.4	13	10	28.2	4.2	1	1	66.0	0.0	94	21	1,235	478	
Koyukuk	2	1	0.0	0.0	17	4	3.2	1.2	20	4	5.5	1.4	5	4	30.2	8.0	2	2	135.0	0.0	46	15	587	106	
Galena	27	3	3.3	3.1	59	5	0.0	0.0	48	13	20.0	6.2	12	11	16.0	1.8	3	3	81.6	0.0	149	35	1,488	613	
Ruby	11	4	4.2	2.4	36	3	0.6	0.6	18	4	42.0	22.8	11	10	40.1	6.0	3	3	40.0	0.0	79	24	1,388	817	
Shageluk	2	2	0.5	0.0	17	2	2.5	2.3	13	5	7.0	3.6	8	7	26.7	4.8	3	2	7.5	1.4	43	18	371	143	
Huslia	9	3	2.3	1.1	27	3	2.6	0.3	14	5	2.8	0.9	9	8	17.8	3.0	7	6	12.3	3.0	66	25	379	78	
Hughes	Did not survey.																								
Allakaket	Did not survey.																								
Alatna	Did not survey.																								
Bettles	3	1	0.0	0.0	23	17	0.3	0.1	6	5	0.8	0.3	0	0	-	-	0	0	-	-	32	23	13	6	
District 4	81	22	6.2	1.7	264	50	2.9	0.8	188	55	20.1	3.1	101	92	30.8	1.1	24	21	45.9	1.5	658	240	9,264	1,304	
Tanana	22	3	3.6	2.9	58	12	5.1	2.0	18	6	23.1	8.1	11	8	12.0	3.0	21	19	99.8	8.8	130	48	3,027	541	
Rampart	0	0	-	-	8	7	7.2	1.5	4	3	14.3	4.8	9	9	52.3	0.0	4	4	136.2	0.0	25	23	1,132	45	
Stevens Village	3	2	54.5	29.1	12	2	12.5	4.1	9	5	69.0	23.6	9	9	53.5	0.0	3	3	107.0	0.0	36	21	1,738	462	
Birch Creek	0	0	-	-	8	6	0.3	0.1	7	5	7.2	2.5	0	0	-	-	0	0	-	-	15	11	53	35	
Beaver	0	0	-	-	15	9	1.6	0.3	12	10	23.0	2.8	6	6	24.6	0.0	1	1	0.0	0.0	34	26	449	68	
Fort Yukon	57	10	8.3	4.5	94	8	11.5	6.0	41	11	26.4	14.1	23	17	77.6	10.4	6	6	45.5	0.0	221	52	4,698	1,731	
Venetie	26	2	3.5	1.4	23	3	21.3	13.4	6	5	9.2	2.5	9	9	11.8	0.0	0	0	-	-	64	19	744	612	
Chalkyitsik	4	2	0.0	0.0	21	18	1.0	0.1	7	5	1.8	0.3	3	3	2.0	0.0	0	0	-	-	35	28	41	7	
District 5	112	19	7.2	2.5	239	65	8.9	2.7	104	50	24.8	6.1	70	61	44.7	3.4	35	33	92.5	5.3	560	228	11,882	1,971	
Survey Totals	397	84	6.6	1.6	822	186	6.9	1.0	846	305	20.6	1.4	311	286	34.7	0.9	77	71	69.7	2.4	2,453	932	41,864	3,194	

Appendix A.6. Estimated Yukon River summer chum salmon subsistence use by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households with complete subsistence use information, 1994.

Community	Catch Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total N	Total n	Total	Est CI (95%) (+/-)
Hooper Bay	71	11	95.8	32.7	15	4	25.0	8.9	33	10	86.8	26.9	18	17	77.7	4.1	2	2	99.0	0.0	139	44	11,640	4,891
Scammon Bay	1	1	0.0	0.0	23	4	50.0	45.4	54	11	54.2	14.0	5	4	81.5	17.1	0	0	-	-	83	20	4,488	2,536
Sheldon's Point	1	1	0.0	0.0	4	3	0.6	0.3	16	14	61.7	5.7	8	7	148.8	10.4	0	0	-	-	29	25	2,181	244
Alakanuk	2	1	0.0	0.0	48	4	19.7	6.3	69	21	56.5	10.6	13	12	106.0	5.9	0	0	-	-	132	38	6,229	1,569
Emmonak	33	6	52.0	11.5	53	14	35.5	13.8	61	31	113.6	13.1	12	12	168.5	0.0	3	3	289.0	0.0	162	66	13,423	2,258
Kotlik	16	5	45.2	26.8	22	4	51.0	26.7	48	14	61.3	14.5	14	14	116.0	0.0	4	4	224.0	0.0	104	41	7,311	1,974
District 1	124	25	74.5	19.3	165	33	33.2	8.7	281	101	73.2	6.2	70	66	114.6	2.2	9	9	217.9	0.0	649	234	45,272	6,471
Mountain Village	27	5	3.2	2.0	40	4	7.2	5.9	73	20	41.8	11.0	16	16	107.1	0.0	1	1	0.0	0.0	157	46	5,143	1,652
Pitkas Point	0	0	-	-	11	11	23.9	0.0	14	14	33.7	0.0	7	5	87.4	19.9	0	0	-	-	32	30	1,347	273
St. Mary's	23	5	39.8	17.1	22	3	39.3	18.6	36	10	44.8	12.2	20	19	183.1	7.1	4	4	267.5	0.0	105	41	8,127	1,437
Pilot Station	3	3	59.0	0.0	34	6	5.0	2.7	48	22	66.6	10.7	4	4	67.2	0.0	1	1	78.0	0.0	90	36	3,799	1,025
Marshall	1	0	-	0.0	11	4	10.5	6.0	49	14	56.9	13.2	8	8	85.1	0.0	0	0	-	-	69	26	3,586	1,281
District 2	54	13	21.8	7.3	118	28	14.4	4.1	220	80	50.1	5.6	55	52	126.2	3.6	6	6	191.3	0.0	453	179	22,002	2,750
Russian Mission	4	2	1.0	0.7	19	5	23.2	11.0	27	7	20.2	5.6	6	6	66.1	0.0	1	0	-	0.0	57	20	1,390	506
Holy Cross	22	3	1.0	0.9	17	5	5.4	1.3	26	12	43.9	19.9	9	9	6.6	0.0	2	2	8.0	0.0	76	31	1,332	1,018
District 3	26	5	1.0	0.7	36	10	14.8	5.8	53	19	31.9	10.1	15	15	30.5	0.0	3	2	5.3	0.0	133	51	2,722	1,137
Anvik	0	0	-	-	14	4	1.0	0.8	16	5	350.4	255.0	6	6	919.3	0.0	2	2	3,006.0	0.0	38	17	17,148	7,998
Grayling	3	3	105.3	0.0	21	5	240.0	188.4	12	5	313.2	141.1	21	21	463.9	0.0	3	2	4,062.0	2,131.5	60	36	31,052	15,108
Katag	2	2	0.0	0.0	15	5	2.0	1.6	18	4	18.7	15.0	16	15	810.6	124.9	0	0	-	-	51	26	13,337	3,954
Nulato	22	3	6.6	6.1	35	2	0.0	0.0	23	5	124.0	49.3	13	10	15.0	6.0	1	1	22.0	0.0	94	21	3,216	2,243
Koyukuk	2	1	0.0	0.0	17	4	0.0	0.0	20	4	17.5	15.6	5	4	12.5	5.5	2	2	1,212.5	0.0	46	15	2,838	616
Galena	27	3	0.0	0.0	59	5	0.0	0.0	48	13	150.3	122.7	12	11	57.2	13.6	3	3	555.3	0.0	149	35	9,568	11,549
Ruby	11	4	308.0	245.6	36	3	0.0	0.0	18	4	0.0	0.0	11	10	201.9	36.2	3	3	598.3	0.0	79	24	7,404	5,354
Shageluk	2	2	0.0	0.0	17	2	2.0	1.8	13	5	80.0	62.7	8	7	415.4	97.3	3	2	672.5	44.7	43	18	6,415	2,227
Huslia	9	3	0.0	0.0	27	3	5.0	4.7	14	5	82.6	65.6	9	8	226.1	53.0	7	6	814.0	146.6	66	25	9,025	2,868
Hughes	Did not survey.																							
Allakaket	Did not survey.																							
Alatna	Did not survey.																							
Bettles	3	1	0.0	0.0	23	17	0.0	0.0	6	5	4.4	1.2	0	0	-	-	0	0	-	-	32	23	26	14
District 4	81	22	47.7	33.4	264	50	19.9	14.9	188	55	118.8	40.2	101	92	363.9	22.1	24	21	1,325.9	269.9	658	240	100,029	22,103
Tanana	22	3	0.0	0.0	58	12	0.0	0.0	18	6	0.0	0.0	11	8	30.0	12.9	21	19	349.8	36.2	130	48	7,677	1,518
Rampart	0	0	-	-	8	7	1.2	0.4	4	3	0.0	0.0	9	9	44.4	0.0	4	4	17.0	0.0	25	23	478	7
Stevens Village	3	2	0.0	0.0	12	2	0.0	0.0	9	5	0.0	0.0	9	9	4.5	0.0	3	3	92.3	0.0	36	21	318	0
Birch Creek	0	0	-	-	8	6	0.0	0.0	7	5	0.0	0.0	0	0	-	-	0	0	-	-	15	11	0	0
Beaver	0	0	-	-	15	9	0.0	0.0	12	10	19.1	7.7	6	6	70.5	0.0	1	1	0.0	0.0	34	26	652	183
Fort Yukon	57	10	0.0	0.0	94	8	12.5	11.9	41	11	4.7	3.1	23	17	23.6	10.4	6	6	0.0	0.0	221	52	1,913	2,267
Venetie	26	2	0.0	0.0	23	3	0.0	0.0	6	5	0.0	0.0	9	9	63.0	0.0	0	0	-	-	64	19	567	0
Chalkyitsik	4	2	0.0	0.0	21	18	0.0	0.0	7	5	0.0	0.0	3	3	0.0	0.0	0	0	-	-	35	28	0	0
District 5	112	19	0.0	0.0	239	65	5.0	4.7	104	50	4.1	1.5	70	61	32.9	3.9	35	33	219.8	21.7	560	228	11,605	2,734
Survey Totals	397	84	36.0	9.1	822	186	17.2	5.3	846	305	66.3	9.3	311	286	175.2	7.3	77	71	553.7	84.7	2,453	932	181,630	23,382

Appendix A.7. Estimated Yukon River fall chum salmon subsistence use by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households with complete subsistence use information, 1994.

Community	Catch Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total N	Total n	Total Est	CI (95%) (+/-)
Hooper Bay	71	11	0.0	0.0	15	4	0.0	0.0	33	10	8.3	6.9	18	17	0.2	0.0	2	2	0.0	0.0	139	44	278	448
Scammon Bay	1	1	0.0	0.0	23	4	0.0	0.0	54	11	0.0	0.0	5	4	12.5	5.5	0	0	-	-	83	20	63	54
Sheldon's Point	1	1	0.0	0.0	4	3	0.0	0.0	16	14	0.3	0.1	8	7	1.4	0.5	0	0	-	-	29	25	17	8
Alakanuk	2	1	0.0	0.0	48	4	0.0	0.0	69	21	0.9	0.5	13	12	2.0	0.5	0	0	-	-	132	38	88	71
Emmonak	33	6	14.1	11.1	53	14	1.2	0.6	61	31	3.5	1.7	12	12	1.5	0.0	3	3	0.0	0.0	162	66	767	753
Kotlik	16	5	0.8	0.4	22	4	2.5	1.1	48	14	3.5	1.6	14	14	0.7	0.0	4	4	50.0	0.0	104	41	450	164
District 1	124	25	3.9	2.9	165	33	0.7	0.2	281	101	2.6	0.9	70	66	1.9	0.4	9	9	22.2	0.0	649	234	1,663	896
Mountain Village	27	5	0.0	0.0	40	4	0.0	0.0	73	20	10.5	8.5	16	16	2.6	0.0	1	1	0.0	0.0	157	46	812	1,216
Pitkas Point	0	0	-	-	11	11	0.0	0.0	14	14	1.2	0.0	7	5	41.0	13.9	0	0	-	-	32	30	305	191
St. Mary's	23	5	6.6	5.8	22	3	0.0	0.0	36	10	2.0	1.4	20	19	19.2	2.7	4	4	5.0	0.0	105	41	629	301
Pilot Station	3	3	1.0	0.0	34	6	2.0	1.4	48	22	4.1	2.0	4	4	6.2	0.0	1	1	0.0	0.0	90	36	295	219
Marshall	1	0	-	0.0	11	4	0.0	0.0	49	14	2.1	1.8	8	8	45.7	0.0	0	0	-	-	69	26	471	173
District 2	54	13	2.9	2.4	118	28	0.6	0.4	220	80	5.3	2.8	55	52	20.1	2.0	6	6	3.3	0.0	453	179	2,512	1,298
Russian Mission	4	2	0.0	0.0	19	5	0.0	0.0	27	7	0.0	0.0	6	6	1.8	0.0	1	0	-	0.0	57	20	11	0
Holy Cross	22	3	0.0	0.0	17	5	6.6	3.3	26	12	5.5	1.7	9	9	28.1	0.0	2	2	0.0	0.0	76	31	508	143
District 3	26	5	0.0	0.0	36	10	3.1	1.6	53	19	2.7	0.8	15	15	17.6	0.0	3	2	0.0	0.0	133	51	519	143
Anvik	0	0	-	-	14	4	0.0	0.0	16	5	4.0	3.3	6	6	16.8	0.0	2	2	42.5	0.0	38	17	250	104
Grayling	3	3	0.6	0.0	21	5	22.4	10.0	12	5	9.0	1.9	21	21	11.9	0.0	3	2	59.0	25.4	60	36	1,008	440
Kaltag	2	2	0.0	0.0	15	5	0.0	0.0	18	4	7.5	3.8	16	15	20.9	2.0	0	0	-	-	51	26	470	148
Nulato	22	3	0.0	0.0	35	2	5.0	4.8	23	5	13.0	7.3	13	10	21.5	4.4	1	1	0.0	0.0	94	21	754	483
Koyukuk	2	1	0.0	0.0	17	4	1.5	1.3	20	4	30.0	18.9	5	4	36.2	8.0	2	2	260.0	0.0	46	15	1,327	749
Galena	27	3	8.3	7.8	59	5	0.4	0.3	48	13	31.6	14.2	12	11	51.1	8.8	3	3	150.0	0.0	149	35	2,830	1,423
Ruby	11	4	151.7	105.7	36	3	6.6	3.1	18	4	47.0	24.4	11	10	180.9	46.4	3	3	313.6	0.0	79	24	5,686	2,644
Shageluk	2	2	7.5	0.0	17	2	0.0	0.0	13	5	2.0	1.5	8	7	20.0	2.3	3	2	0.0	0.0	43	18	201	53
Huslia	9	3	1.6	1.3	27	3	0.0	0.0	14	5	0.2	0.1	9	8	5.6	1.8	7	6	0.3	0.1	66	25	71	41
Hughes	Did not survey.																							
Allakaket	Did not survey.																							
Alatna	Did not survey.																							
Bettles	3	1	0.0	0.0	23	17	0.0	0.0	6	5	0.2	0.0	0	0	-	-	0	0	-	-	32	23	1	0
District 4	81	22	23.8	14.5	264	50	3.5	1.1	188	55	19.1	4.8	101	92	39.2	5.2	24	21	90.6	3.1	658	240	12,598	3,169
Tanana	22	3	0.0	0.0	58	12	0.0	0.0	18	6	4.6	3.3	11	8	60.6	17.7	21	19	1,846.5	90.9	130	48	39,529	3,766
Rampart	0	0	-	-	8	7	1.2	0.3	4	3	3.3	1.6	9	9	24.2	0.0	4	4	122.5	0.0	25	23	732	14
Stevens Village	3	2	0.0	0.0	12	2	0.0	0.0	9	5	0.0	0.0	9	9	0.4	0.0	3	3	0.0	0.0	36	21	4	0
Birch Creek	0	0	-	-	8	6	0.0	0.0	7	5	0.0	0.0	0	0	-	-	0	0	-	-	15	11	0	0
Beaver	0	0	-	-	15	9	0.0	0.0	12	10	2.1	0.7	6	6	319.6	0.0	1	1	0.0	0.0	34	26	1,943	17
Fort Yukon	57	10	4.5	2.9	94	8	6.2	5.9	41	11	0.0	0.0	23	17	154.8	23.3	6	6	321.6	0.0	221	52	6,339	1,558
Venetie	26	2	10.0	9.6	23	3	40.0	37.3	6	5	80.0	23.8	9	9	293.5	0.0	0	0	-	-	64	19	4,302	1,773
Chalkyitsik	4	2	0.0	0.0	21	18	0.0	0.0	7	5	164.4	27.8	3	3	200.0	0.0	0	0	-	-	35	28	1,751	381
District 5	112	19	4.6	2.6	239	65	6.4	4.2	104	50	16.9	2.3	70	61	137.3	8.1	35	33	1,177.1	54.5	560	228	54,600	4,461
Survey Totals	397	84	7.8	3.2	822	186	3.3	1.3	846	305	8.7	1.3	311	286	48.5	2.5	77	71	566.1	24.8	2,453	952	71,892	5,697.

Appendix A.6. Estimated Yukon River coho salmon subsistence use by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households with complete subsistence use information, 1994.

Community	Catch Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total N	Total n	Est Total	CI (95%) (+/-)
	Hooper Bay	71	11	0.0	0.0	15	4	0.0	0.0	33	10	0.0	0.0	18	17	0.0	0.0	2	2	0.0	0.0	139	44	1
Scammon Bay	1	1	0.0	0.0	23	4	0.7	0.6	54	11	0.0	0.0	5	4	12.5	5.5	0	0	-	-	83	20	80	62
Sheldon's Point	1	1	0.0	0.0	4	3	0.0	0.0	16	14	2.2	0.4	8	7	2.7	0.7	0	0	-	-	29	25	57	18
Alakanuk	2	1	0.0	0.0	48	4	0.0	0.0	69	21	0.7	0.3	13	12	4.2	0.7	0	0	-	-	132	38	105	54
Eamonak	33	6	0.1	0.1	53	14	0.6	0.3	61	31	1.0	0.4	12	12	2.1	0.0	3	3	0.0	0.0	162	66	131	69
Kotlik	16	5	1.2	0.8	22	4	8.5	7.0	48	14	14.7	6.2	14	14	3.0	0.0	4	4	75.0	0.0	104	41	1,255	666
District 1	124	25	0.2	0.1	165	33	1.4	0.9	281	101	3.0	1.0	70	66	3.0	0.4	9	9	33.3	0.0	649	234	1,629	675
Mountain Village	27	5	0.0	0.0	40	4	0.0	0.0	73	20	0.5	0.4	16	16	58.1	0.0	1	1	0.0	0.0	157	46	967	60
Pitkas Point	0	0	-	-	11	11	0.1	0.0	14	14	3.0	0.0	7	5	37.0	13.2	0	0	-	-	32	30	304	182
St. Mary's	23	5	0.0	0.0	22	3	0.0	0.0	36	10	0.0	0.0	20	19	23.3	3.0	4	4	0.0	0.0	105	41	466	120
Pilot Station	3	3	0.0	0.0	34	6	2.0	1.4	48	22	1.7	0.5	4	4	3.5	0.0	1	1	0.0	0.0	90	36	167	111
Marshall	1	0	-	0.0	11	4	0.0	0.0	49	14	14.3	12.0	8	8	52.5	0.0	0	0	-	-	69	26	1,124	1,159
District 2	54	13	0.0	0.0	118	28	0.6	0.4	220	80	3.9	2.6	55	52	38.0	2.0	6	6	0.0	0.0	453	179	3,028	1,186
Russian Mission	4	2	0.0	0.0	19	5	0.0	0.0	27	7	0.0	0.0	6	6	9.1	0.0	1	0	-	0.0	57	20	55	0
Holy Cross	22	3	0.0	0.0	17	5	0.6	0.5	26	12	4.0	1.8	9	9	1.6	0.0	2	2	0.0	0.0	76	31	131	95
District 3	26	5	0.0	0.0	36	10	0.3	0.2	53	19	2.0	0.9	15	15	4.7	0.0	3	2	0.0	0.0	133	51	186	95
Anvik	0	0	-	-	14	4	0.0	0.0	16	5	0.0	0.0	6	6	10.0	0.0	2	2	17.5	0.0	38	17	95	0
Grayling	3	3	0.0	0.0	21	5	0.0	0.0	12	5	0.0	0.0	21	21	1.1	0.0	3	2	0.5	0.2	60	36	27	1
Kaltag	2	2	0.0	0.0	15	5	0.0	0.0	18	4	0.0	0.0	16	15	15.3	3.3	0	0	-	-	51	26	245	104
Nulato	22	3	0.0	0.0	35	2	0.0	0.0	23	5	0.0	0.0	13	10	2.1	0.5	1	1	0.0	0.0	94	21	27	13
Koyukuk	2	1	0.0	0.0	17	4	0.0	0.0	20	4	0.0	0.0	5	4	0.7	0.2	2	2	152.0	0.0	46	15	308	2
Galena	27	3	0.0	0.0	59	5	0.0	0.0	48	13	10.9	8.6	12	11	4.3	1.0	3	3	42.3	0.0	149	35	704	813
Ruby	11	4	128.5	102.5	36	3	0.6	0.6	18	4	0.0	0.0	11	10	35.3	10.6	3	3	51.6	0.0	79	24	1,981	2,222
Shageluk	2	2	0.0	0.0	17	2	0.0	0.0	13	5	0.0	0.0	8	7	17.1	4.9	3	2	0.0	0.0	43	18	137	78
Huslia	9	3	0.0	0.0	27	3	0.0	0.0	14	5	0.0	0.0	9	8	5.2	1.7	7	6	0.0	0.0	66	25	47	30
Hughes	did not survey.																							
Allakaket	did not survey.																							
Alatna	did not survey.																							
Bettles	3	1	0.0	0.0	23	17	0.0	0.0	6	5	0.0	0.0	0	0	-	-	0	0	-	-	32	23	0	0
District 4	81	22	17.5	13.9	264	50	0.1	0.0	188	55	2.8	2.2	101	92	9.8	1.3	24	21	25.9	0.0	658	240	3,571	2,370
Tanana	22	3	0.0	0.0	58	12	0.0	0.0	18	6	4.1	3.4	11	8	28.1	14.6	21	19	121.5	13.4	130	48	2,936	649
Rampart	0	0	-	-	8	7	0.0	0.0	4	3	6.6	3.3	9	9	4.6	0.0	4	4	7.5	0.0	25	23	99	26
Stevens Village	3	2	0.0	0.0	12	2	0.0	0.0	9	5	0.0	0.0	9	9	0.0	0.0	3	3	0.0	0.0	36	21	0	0
Birch Creek	0	0	-	-	8	6	0.0	0.0	7	5	0.0	0.0	0	0	-	-	0	0	-	-	15	11	0	0
Beaver	0	0	-	-	15	9	0.0	0.0	12	10	0.0	0.0	6	6	1.6	0.0	1	1	0.0	0.0	34	26	10	0
Fort Yukon	57	10	0.0	0.0	94	8	0.0	0.0	41	11	0.0	0.0	23	17	41.7	18.9	6	6	0.6	0.0	221	52	963	856
Venetie	26	2	0.0	0.0	23	3	0.0	0.0	6	5	4.0	1.6	9	9	0.4	0.0	0	0	-	-	64	19	28	19
Chatkylitsik	4	2	0.0	0.0	21	18	0.0	0.0	7	5	64.2	31.5	3	3	2.3	0.0	0	0	-	-	35	28	456	433
District 5	112	19	0.0	0.0	239	65	0.0	0.0	104	50	5.5	2.2	70	61	19.0	6.6	35	33	73.9	8.0	560	228	4,492	1,159
Survey Totals	397	84	3.6	2.8	822	186	0.4	0.2	846	305	3.5	0.9	311	286	15.1	1.6	77	71	45.6	3.6	2,453	932	12,906	2,972

Appendix A.9. Estimated number of salmon given away by commercial fishermen to subsistence households and corresponding confidence intervals for Yukon Area surveyed villages; households contacted indicates households with complete information regarding salmon received from commercial fishermen, 1994.

Community	Catch Strata Combined		Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon	
	Total Households	Households Contacted	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)
Hooper Bay	139	45	0	0	0	0				
Scammon Bay	83	20	0	0	0	0				
Sheldon's Point	29	25	1	0	0	0				
Alakanuk	132	38	0	0	43	23				
Emmonak	162	66	0	0	372	473				
Kotlik	104	41	0	0	0	0				
<i>DISTRICT 1</i>	<i>649</i>	<i>233</i>	<i>1</i>	<i>0</i>	<i>415</i>	<i>473</i>				
Mountain Village	157	46	0	0	0	0				
Pitkas Point	32	30	0	0	0	0				
St. Mary's	105	41	0	0	211	92				
Pilot Station	90	36	0	0	0	0				
Marshall	69	26	41	64	88	137				
<i>DISTRICT 2</i>	<i>453</i>	<i>179</i>	<i>41</i>	<i>0</i>	<i>299</i>	<i>0</i>				
Russian Mission	57	20	0	0	0	0				
Holy Cross	76	31	0	0	0	0				
<i>DISTRICT 3</i>	<i>133</i>	<i>51</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>				
Anvik	38	17	0	0	3,300	0				
Grayling	60	36	0	0	20,926	11,106				
Kaltag	51	26	0	0	3,509	1,555				
Nulato	94	21	0	0	1,380	2,392				
Koyukuk	46	15	0	0	0	0				
Galena	149	35	0	0	185	308				
Ruby	79	24	0	0	0	0				
Shageluk	43	18	0	0	0	0				
Hustla	66	25	0	0	0	0				
Hughes	Did not survey.									
Allakaket	Did not survey.									
Alatna	Did not survey.									
Bettles	32	23	9	5	0	0				
<i>DISTRICT 4</i>	<i>638</i>	<i>240</i>	<i>9</i>	<i>5</i>	<i>29,300</i>	<i>11,471</i>				
Tanana	130	48	121	210	0	0				
Rampart	25	23	0	0	0	0				
Stevens Village	36	21	0	0	0	0				
Birch Creek	15	11	0	0	0	0				
Beaver	34	26	0	0	0	0				
Fort Yukon	221	52	0	0	0	0				
Venetie	64	19	0	0	0	0				
Chaikytisik	35	28	2	1	0	0				
<i>DISTRICT 5</i>	<i>560</i>	<i>228</i>	<i>123</i>	<i>210</i>	<i>0</i>	<i>0</i>				
Survey Totals	2,453	933	174	220	30,014	11,482	0	0	0	0

There was no fall season commercial fishing in the survey area.

Appendix A.10. Estimated number of salmon given away by subsistence fishermen to another subsistence household and corresponding confidence intervals for Yukon Area surveyed villages; households contacted indicates households with complete information regarding salmon received from another subsistence fishermen, 1994.

Community	Catch Strata Combined		Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon	
	Total Households	Households Contacted	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)
Hooper Bay	139	45	10	16	6,038	4,729	0	0	0	0
Scanmon Bay	83	20	83	128	530	583	0	0	0	0
Sheldon's Point	29	26	43	10	186	39	1	0	2	1
Alakanuk	132	38	63	70	1,011	558	15	8	11	11
Emmonak	162	66	434	254	2,598	1,134	4	0	2	3
Kotlik	104	41	64	59	247	58	21	23	0	0
<i>DISTRICT 1</i>	<i>649</i>	<i>236</i>	<i>697</i>	<i>299</i>	<i>10,610</i>	<i>4,930</i>	<i>41</i>	<i>27</i>	<i>15</i>	<i>17</i>
Mountain Village	157	44	198	229	912	746	23	38	0	0
Pitkas Point	32	30	94	29	410	36	11	0	2	0
St. Mary's	105	41	137	92	767	659	0	0	0	0
Pilot Station	90	35	140	107	284	199	0	0	0	0
Marshall	69	25	452	497	1,226	1,204	0	0	0	0
<i>DISTRICT 2</i>	<i>453</i>	<i>175</i>	<i>1,021</i>	<i>366</i>	<i>3,599</i>	<i>1,576</i>	<i>24</i>	<i>38</i>	<i>2</i>	<i>0</i>
Russian Mission	57	19	1,504	1,203	621	536	0	0	0	0
Holy Cross	76	31	399	359	62	58	50	52	58	62
<i>DISTRICT 3</i>	<i>133</i>	<i>50</i>	<i>1,903</i>	<i>1,255</i>	<i>683</i>	<i>539</i>	<i>50</i>	<i>52</i>	<i>58</i>	<i>62</i>
Anvik	38	17	367	246	138	129	55	0	0	0
Grayling	60	36	470	190	475	0	375	351	2	0
Katig	51	26	150	164	5	7	68	116	0	0
Nulato	94	21	117	180	0	0	0	0	0	0
Koyukok	46	15	145	73	0	0	278	278	3	3
Galena	149	35	35	32	0	0	365	422	1	0
Rusby	79	24	77	65	2,100	650	246	235	24	43
Shageluk	43	18	81	81	34	62	61	20	0	0
Huslia	66	25	171	34	147	249	15	24	0	0
Hughes		Did not survey.								
Allakaket		Did not survey.								
Alatna		Did not survey.								
Bettles	32	23	4	2	26	14	1	0	0	0
<i>DISTRICT 4</i>	<i>658</i>	<i>240</i>	<i>1,617</i>	<i>419</i>	<i>2,925</i>	<i>711</i>	<i>1,464</i>	<i>666</i>	<i>30</i>	<i>45</i>
Tanana	130	48	265	183	254	153	6,500	2,348	294	169
Rampart	25	23	29	13	0	0	104	13	0	0
Stevens Village	36	21	263	88	0	0	0	0	0	0
Birch Creek	15	11	4	2	0	0	0	0	0	0
Beaver	34	26	56	13	0	0	0	0	0	0
Fort Yukon	221	48	407	259	0	0	352	317	0	0
Venetie	64	19	246	145	0	0	0	0	24	19
Chalkyitsik	35	28	38	7	0	0	0	0	0	0
<i>DISTRICT 5</i>	<i>560</i>	<i>224</i>	<i>1,308</i>	<i>361</i>	<i>254</i>	<i>157</i>	<i>6,956</i>	<i>2,370</i>	<i>318</i>	<i>170</i>
Survey Totals	2,453	925	6,550	1,514	18,071	5,255	8,545	2,463	423	187

Appendix A.11. Estimated number of salmon given away by ADF&G to subsistence households and corresponding confidence intervals for Yukon Area surveyed villages; households contacted indicates households with complete information regarding salmon received from ADF&G, 1994.

Community	Catch Strata Combined		Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon	
	Total Households	Households Contacted	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)	Estimated Total	CI(95%) (+/-)
Hooper Bay	139	45	0	0	0	0	0	0	0	0
Scammon Bay	83	20	0	0	0	0	0	0	0	0
Sheldon's Point	29	26	0	0	0	0	0	0	0	0
Alakanuk	132	38	0	0	0	0	0	0	0	0
Enmonak	162	66	578	296	3,933	1,763	122	121	39	34
Kotlik	104	41	562	519	1,535	1,154	142	143	302	424
<i>DISTRICT 1</i>	<i>649</i>	<i>236</i>	<i>1,140</i>	<i>597</i>	<i>5,468</i>	<i>2,107</i>	<i>264</i>	<i>187</i>	<i>341</i>	<i>425</i>
Mountain Village	157	46	0	0	0	0	0	0	0	0
Pitkas Point	32	30	0	0	0	0	0	0	0	0
St. Mary's	105	41	0	0	0	0	0	0	0	0
Pilot Station	90	36	198	212	1,319	520	117	106	142	108
Marshall	69	26	0	0	0	0	0	0	0	0
<i>DISTRICT 2</i>	<i>453</i>	<i>179</i>	<i>198</i>	<i>212</i>	<i>1,319</i>	<i>520</i>	<i>117</i>	<i>106</i>	<i>142</i>	<i>108</i>
Russian Mission	57	20	0	0	0	0	0	0	0	0
Holy Cross	76	31	0	0	0	0	0	0	0	0
<i>DISTRICT 3</i>	<i>133</i>	<i>57</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Anvik	38	17	0	0	0	0	0	0	0	0
Grayling	60	36	0	0	0	0	0	0	0	0
Kaltag	51	26	0	0	0	0	0	0	0	0
Nuiato	94	21	0	0	0	0	0	0	0	0
Koyukuk	46	15	0	0	0	0	0	0	0	0
Galena	149	35	0	0	0	0	0	0	0	0
Ruby	79	24	0	0	0	0	0	0	0	0
Shageluk	43	18	0	0	0	0	0	0	0	0
Huslia	66	25	0	0	0	0	0	0	0	0
Hughes	Did not survey.									
Allakaket	Did not survey.									
Alatna	Did not survey.									
Bentley	32	23	0	0	0	0	0	0	0	0
<i>DISTRICT 4</i>	<i>658</i>	<i>240</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Tanana	130	48	0	0	0	0	0	0	0	0
Rampart	25	23	0	0	0	0	0	0	0	0
Stevens Village	36	21	0	0	0	0	0	0	0	0
Birch Creek	15	11	0	0	0	0	0	0	0	0
Beaver	34	26	0	0	0	0	0	0	0	0
Fort Yukon	221	52	0	0	0	0	0	0	0	0
Venetie	64	19	0	0	0	0	0	0	0	0
Chalkyitsik	35	28	0	0	0	0	0	0	0	0
<i>DISTRICT 5</i>	<i>569</i>	<i>228</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Survey Totals	2,453	934	1,338	634	6,787	2,171	381	215	483	439

Appendix A.12. Summary of responses of surveyed individuals who said their household subsistence needs were not met in 1994 and answered the question "Why didn't you meet your salmon needs this year?"

VILLAGE	CATEGORY ^a	RESPONSE
Alakanuk	1	Raining during season-lack of fish during fall run.
Alakanuk	1	Too much rain.
Alakanuk	2	Too busy working Community Development Quota.
Alakanuk	2	Too busy working construction at the time.
Alakanuk	3	No boat, motor or gear.
Alakanuk	4	Nobody cut fish for me.
Alakanuk	4	No husband to fish for her.
Alakanuk	4	Wife was sick all summer.
Alakanuk	4	Son was crabbing with Community Development Quota program in June-July.
Alakanuk	6	Jacob is too old, has poor boat.
Alakanuk	11	Could not do any subsistence due to Native Traditions.
Alakanuk	11	Short notice of subsistence fishing, also lack of hours.
Alakanuk	11	Lack of income during commercial openings.
Alakanuk	13	Due to ADF&G lack of allowing subsistence fishing.
Alakanuk	13	ADF&G closure of subsistence.
Alakanuk	14	Does not fish, no gear.
Anvik	8	Didn't get enough fall chum, but not because of ADF&G, but because I wasn't here.
Anvik	11	No one gave her any.
Anvik	13	Fall chum season closed.
Anvik	13	Not enough subsistence fish for dog food. Fall chum closure and too much commercial time, little opportunity for subsistence.
Anvik	13	Fall chum fishing closed.
Beaver	2	Husband working for BLM all summer.
Beaver	6	Injured, couldn't fish.
Beaver	8	Out of town seeing doctors.
Beaver	13	No, closed fall chum.
Beaver	14	Doesn't fish.
Beaver	14	Didn't fish.
Bettles	1	Because of flood.
Bettles	1	Lost fish in flood.
Bettles	1	Eddy washed out and poor run.
Bettles	10	Not enough fish.
Bettles	11	Answered "no", but gave no reason.
Birch Creek	3	No net.
Chalkyitsik	10	Didn't fish the right spot, high water made for bad fishing.
Chalkyitsik	11	Nobody gave them enough, usually get fish as gifts.
Chalkyitsik	11	Not on the Yukon where fishing is better.
Emmonak	11	Answered "no", but gave no reason.
Emmonak	2	Otherwise occupied, job.
Emmonak	2	Too busy working.
Emmonak	2	Because had jobs, no time.
Emmonak	3	Broken motor, would have fished for silvers.
Emmonak	3	No gas, bad motor.

-Continued-

VILLAGE	CATEGORY ³	RESPONSE
Emmonak	3	Motor broke, would have fished for silvers.
Emmonak	3	No boat or motor.
Emmonak	3	No boat, motor.
Emmonak	6	Felt sick all summer.
Emmonak	11	Answered "no", but gave no reason.
Emmonak	12	Still fishing for silvers.
Emmonak	13	Not enough commercial fishing.
Emmonak	13	Closed fall chum season.
Emmonak	13	Closed during fall chum.
Emmonak	14	Didn't fish.
Emmonak	14	Nobody fished for her.
Fort Yukon	1	High water.
Fort Yukon	1	High water.
Fort Yukon	3	Not enough nets, used to have a wheel.
Fort Yukon	7	Poor run.
Fort Yukon	7	Bad run.
Fort Yukon	8	Just moved back into town.
Fort Yukon	10	Not enough fish this far upstream.
Fort Yukon	11	Not enough openings. On vacation for 2 weeks.
Fort Yukon	11	Answered "no", but gave no reason.
Fort Yukon	13	Not enough openings.
Fort Yukon	13	Not enough openings.
Fort Yukon	13	Not enough openings.
Fort Yukon	13	Not enough openings.
Fort Yukon	13	Not enough openings.
Fort Yukon	13	Not enough openings.
Fort Yukon	13	Not enough openings.
Fort Yukon	13	Because ADF&G closed subsistence season and ADF&G was wrong.
Fort Yukon	14	No fishermen in the household.
Galena	1	Bad weather and father had to leave.
Galena	2	Working at another job.
Galena	2	Working at Air Force base.
Galena	2	Working.
Galena	3	No net.
Galena	4	Not enough for dogs, no help, not well, didn't feel that good.
Galena	6	Broken leg prohibited fishing.
Galena	11	Lost fishwheel, other projects, closure stopped me from getting eating fish.
Galena	13	Hoping to get fall salmon, season closed, kings didn't dry right.
Galena	13	Not enough good fall chum, when allowed to fish late Sept. fish not very good.
Galena	13	Short 200 for potlach, closure.
Galena	13	Closed season.
Galena	13	Season closed.
Galena	13	No silvers due to closure and drift.
Galena	13	ADF&G closed fishery.
Galena	13	ADF&G closed season.
Galena	14	Didn't fish.

-Continued-

VILLAGE	CATEGORY ³	RESPONSE
Galena	14	Didn't fish.
Galena	14	I never fish.
Galena	14	Didn't fish.
Grayling	1	Bad weather for drying fish.
Grayling	1	Bad drying weather.
Grayling	1	Too rainy to dry fish.
Grayling	2	Busy working.
Grayling	2	Wasn't around, went fire fighting.
Grayling	2	Went fire fighting.
Grayling	3	No net, no nothing to go and get fish.
Grayling	4	No family to fish for her.
Grayling	5	Parents didn't have time to fish.
Grayling	9	Haven't acquired 6 bundles of dog salmon yet.
Grayling	10	Didn't fish enough.
Grayling	13	Fall chum fishing closed.
Grayling	13	Closed too much this summer, closures during commercial fishing are too confusing.
Grayling	13	Closed for fall chum fishing, too short commercial fishing, too poor counting by ADF&G.
Grayling	13	They always close us.
Grayling	14	Didn't fish for dog salmon.
Grayling	14	Didn't fish.
Holy Cross	1	Bad drying season.
Holy Cross	1	Poor drying season.
Holy Cross	2	Busy working.
Holy Cross	3	Didn't go out fishing, no boat, motor.
Holy Cross	7	Slow fishing.
Holy Cross	10	Slow fishing.
Holy Cross	11	Family emergency.
Holy Cross	11	Didn't fish enough for dogs.
Holy Cross	14	Didn't fish, people usually give them salmon.
Hooper Bay	6	Was on crutches, could not do anything.
Hooper Bay	6	Sons went fire fighting and didn't fish for him.
Hooper Bay	8	Not in town.
Hooper Bay	8	Out hunting, no motor.
Hooper Bay	8	Husband is in jail.
Hooper Bay	11	Didn't catch many.
Hooper Bay	11	Didn't have a freezer.
Hooper Bay	14	Didn't fish, visited brother in Cooper Landing.
Hooper Bay	14	Didn't go fishing.
Huslia	1	Too high water, no eddy for net.
Huslia	2	Working.
Huslia	3	No boat.
Huslia	4	Husband out of town.
Huslia	4	Son was working.
Huslia	5	No time.
Huslia	5	Didn't have time.
Huslia	13	ADF&G closed down too fast.

-Continued-

VILLAGE	CATEGORY ^a	RESPONSE
Huslia	13	ADF&G closed it, then was working.
Huslia	13	ADF&G closed fishing so his family couldn't fish for him.
Huslia	13	Because ADF&G closed it.
Huslia	13	Closed subsistence fish in August. Busy working earlier.
Huslia	13	ADF&G closed it down (fall chum).
Kaltag	1	Need more fall chum, bad weather when open.
Kaltag	2	Fire fighting during silver season.
Kaltag	2	Bad weather and working.
Kaltag	2	Both fire fighting, not enough time.
Kaltag	2	Husband working in Golovin this summer.
Kaltag	6	Too old to fish.
Kaltag	6	Too old to fish anymore.
Kaltag	6	Too old to fish.
Kaltag	11	Death in the family.
Kaltag	13	ADF&G closed fall chum. Nothing will take the place of silvers.
Kaltag	13	ADF&G closed fall chum, afraid of having boat and net confiscated.
Kaltag	13	Not enough of a silver season, bad weather when it was open. Usually gets more dog fish from commercial fishermen.
Kaltag	13	ADF&G closed season on fall chum, their main source of food.
Kaltag	13	Too little opportunity for silver salmon.
Kotlik	1	Bad weather and didn't want to waste it, too wet.
Kotlik	1	Getting ready for commercial fish, weather, fall closure, bear broke into smokehouse.
Kotlik	1	Put it off, then bad weather.
Kotlik	1	Too rainy weather, fish spoiled.
Kotlik	1	Fish spoiled in smokehouse, too much work.
Kotlik	1	Would like more, bad weather, sick grandson.
Kotlik	2	Because of regulations and travel for work.
Kotlik	2	Husband was training and I was working.
Kotlik	2	No time, working.
Kotlik	4	Wife was sick and couldn't handle any fish.
Kotlik	4	Because my daughter couldn't take care of the fish.
Kotlik	4	My boy was working, husband disabled.
Kotlik	5	Didn't have smoke house, not enough time to put up.
Kotlik	5	We eat them faster than we fix them, I didn't have enough time.
Kotlik	5	Taking care of parents.
Kotlik	5	Didn't get a chance, weather and other obligations.
Kotlik	10	Waiting for fall chum and they never hit around here (Kotlik).
Kotlik	11	Gas money to expensive, commercial over too soon and came back to town from camp, weather.
Kotlik	11	Still expect to get some.
Kotlik	13	Regulation closure this fall.
Kotlik	14	I haven't fished yet.
Koyukuk	3	Don't have net, husband works up north and can't fish by my myself.
Koyukuk	3	Don't have fishnet.
Koyukuk	8	Gone all summer, just got back in October.
Koyukuk	11	Answered "no", but gave no reason.

-Continued-

VILLAGE	CATEGORY ³	RESPONSE
Koyukuk	13	Not enough kings, wasn't open enough to get enough fall chum.
Koyukuk	14	Cause we didn't fish.
Marshall	1	Too much rain during season.
Marshall	1	Too much rain.
Marshall	1	Weather was not cooperative- rain, windy.
Marshall	1	Rain too much.
Marshall	1	Rain too much during season.
Marshall	1	While drying, smoking a lot of chums got wet, ruined-(rain).
Marshall	1	Too much rain.
Marshall	6	Motor problems all summer and health problems also.
Marshall	6	Daughter was in hospital throughout season.
Marshall	8	Was out of town.
Marshall	11	Smokehouse is a little bit small.
Marshall	11	Started cutting fish too late.
Marshall	11	Could not process fish due to new child.
Marshall	12	Have not begun subsistence fishing yet.
Marshall	13	Fall chum subsistence fishing was closed.
Marshall	14	Don't subsistence fish.
Mtn. Village	1	Bad weather for fish drying.
Mtn. Village	1	Bad weather.
Mtn. Village	2	Tendered fish for processor all season.
Mtn. Village	3	No gear.
Mtn. Village	3	No boat, motor, gear.
Mtn. Village	4	No wife to cut fish.
Mtn. Village	4	No use for salmon, nobody to cut or dry fish with.
Mtn. Village	4	Nobody to cut fish for her, no gear.
Mtn. Village	5	Too busy taking care of family.
Mtn. Village	8	Wasn't here this summer.
Mtn. Village	11	Not into it.
Mtn. Village	11	Did not know when subsistence was open during commercial season.
Mtn. Village	12	Will catch more.
Mtn. Village	13	Because of ADF&G closing fishing when there was fish.
Mtn. Village	13	Subsistence was closed too much.
Mtn. Village	13	Too many closures.
Mtn. Village	13	Too much rain. Would have fished fall chum.
Mtn. Village	14	Didn't fish for subsistence.
Nulato	1	Too much high water, not a good eddy.
Nulato	1	Bad weather, fishing closed during commercial fishing.
Nulato	2	Working 12 hrs. per day on water and sewer project.
Nulato	2	Working, death in the family.
Nulato	2	Working, did not have time.
Nulato	2	Busy working.
Nulato	2	Was working, did not have time.
Nulato	3	No boat.
Nulato	13	ADF&G shut down, bad weather when open. Not enough opportunity.
Nulato	13	Could have used more fall chum, but ADF&G closed it.

-Continued-

VILLAGE	CATEGORY ^a	RESPONSE
Nulato	14	Did not fish.
Pilot Station	1	Just didn't fish anymore, rain too much.
Pilot Station	1	Too much rain.
Pilot Station	1	Rain too much.
Pilot Station	2	Too busy working.
Pilot Station	2	Too busy working.
Pilot Station	2	Too busy working at store.
Pilot Station	3	Don't have smoke house.
Pilot Station	3	No boat, no motor, no gear.
Pilot Station	4	Did not have any help.
Pilot Station	4	No one to help cut fish, no gear.
Pilot Station	5	Too busy with other things.
Pilot Station	6	Due to stroke.
Pilot Station	13	ADF&G closures and bad weather when it was open.
Pilot Station	14	Did not subsistence fish, was raining too much.
Pitkas Point	1	Bad weather, not good for fishing or drying.
Pitkas Point	1	Rain too much.
Pitkas Point	1	Rain too much during season.
Pitkas Point	1	Too much rain.
Pitkas Point	1	Raining too much during season.
Pitkas Point	2	Both working in Bethel all summer.
Pitkas Point	2	Busy working.
Pitkas Point	2	Rain too much, busy working.
Pitkas Point	2	Too busy working.
Pitkas Point	2	Too busy working for Lower Yukon School District.
Pitkas Point	3	No boat, motor, gear.
Pitkas Point	3	No boat.
Pitkas Point	4	No one to fish for her.
Pitkas Point	6	Can't fish. Muscle problem.
Pitkas Point	8	Husband was always gone.
Pitkas Point	10	Gave all the chums away, didn't catch enough using a king net.
Pitkas Point	11	Answered "no", but gave no reason.
Pitkas Point	11	Extra people staying here.
Rampart	3	Boat broke down.
Rampart	13	Not enough openings.
Rampart	13	Not enough fall chum openings.
Rampart	13	Not enough openings.
Rampart	13	Openings too short.
Rampart	13	Cut off too early on fall chums. Not enough openings for kings, either.
Rampart	13	Not enough openings.
Ruby	2	Firefighting for pay.
Ruby	3	No fishwheel. ADF&G closed season.
Ruby	3	No wheel.
Ruby	3	No boat or net, working.
Ruby	6	Old age, too old to do this anymore.
Ruby	13	ADF&G closed season.

-Continued-

VILLAGE	CATEGORY ^a	RESPONSE
Ruby	13	ADF&G closed season.
Ruby	13	ADF&G closed season.
Ruby	13	ADF&G closed season.
Ruby	14	Didn't fish.
Ruby	14	Didn't fish.
Russian Mission	3	No boat, motor, gear.
Russian Mission	11	Will fish for cohos at end of month.
Russian Mission	13	Closure from ADF&G.
Scammon Bay	2	Working at fish processor Sea Fisheries.
Scammon Bay	2	Too busy working.
Scammon Bay	3	Does not subsistence fish, no boat or gear.
Scammon Bay	5	Too busy with work.
Scammon Bay	5	Too busy with commercial fishing- lack of fish.
Scammon Bay	6	Too old to cut fish, nobody to fish for her.
Scammon Bay	14	Didn't fish.
Shageluk	2	No time to fish, working.
Shageluk	2	Husband was working.
Shageluk	2	Too busy working, no net.
Shageluk	4	Father in Anchorage, usually fishes.
Shageluk	8	Out of town.
Sheldon's Point	1	Too much rain to put away fish in August.
Sheldon's Point	2	Commercial fishing.
Sheldon's Point	2	Too busy working.
Sheldon's Point	2	Working, no time to go Fall fishing.
Sheldon's Point	2	Husband works for electric company, busy working.
Sheldon's Point	2	Too busy working.
Sheldon's Point	2	Too busy working.
Sheldon's Point	2	Too busy working, timing was off.
Sheldon's Point	3	No boat, motor, too busy w/tribal work load.
Sheldon's Point	5	Busy at work, with children.
Sheldon's Point	6	Health problems, both parents were ill.
Sheldon's Point	6	Elderly, can't fish.
Sheldon's Point	6	Husband can't fish, has cancer.
Sheldon's Point	7	Poor fishing.
Sheldon's Point	8	Wasn't here in summer.
Sheldon's Point	14	Didn't do any subsistence fishing.
Sheldon's Point	14	Didn't make any effort.
St. Mary's	1	Too much rain during season.
St. Mary's	2	Too busy working.
St. Mary's	2	Busy working, need other income, commercial fishing income too small.
St. Mary's	3	No motor.
St. Mary's	5	Busy working and taking care of baby, don't have fish camp yet.
St. Mary's	5	Busy with work and home building.
St. Mary's	11	Bear destroyed stored fish.
St. Mary's	11	No wife, so he didn't go fishing.
St. Mary's	13	Too few subsistence openings during good weather, schedule too restrictive.

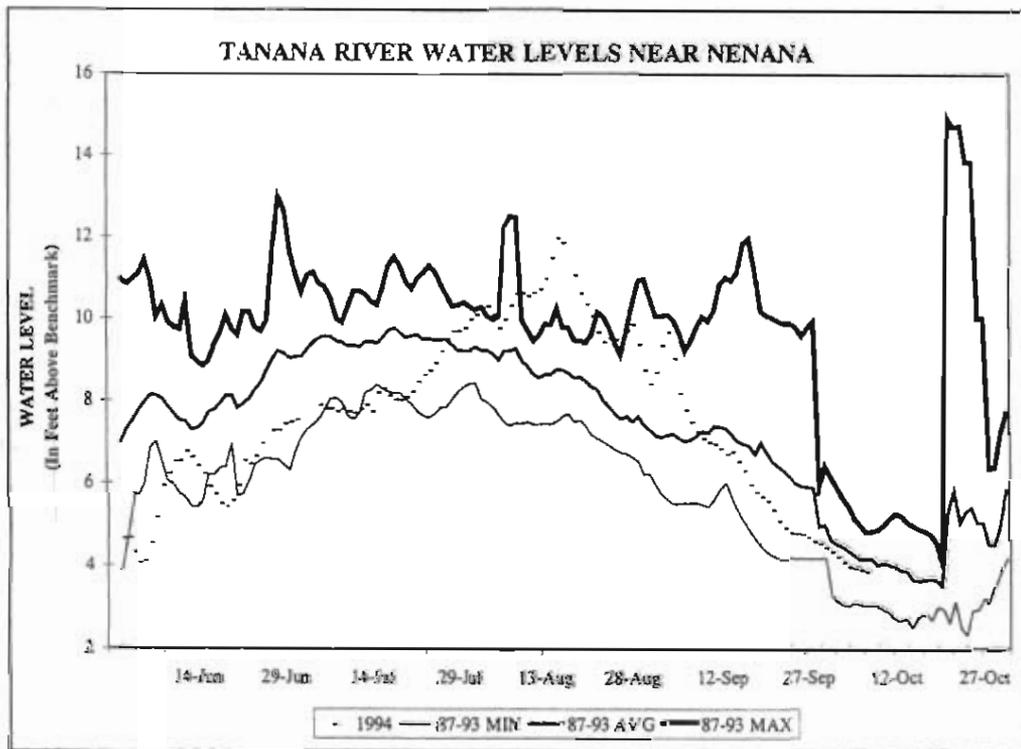
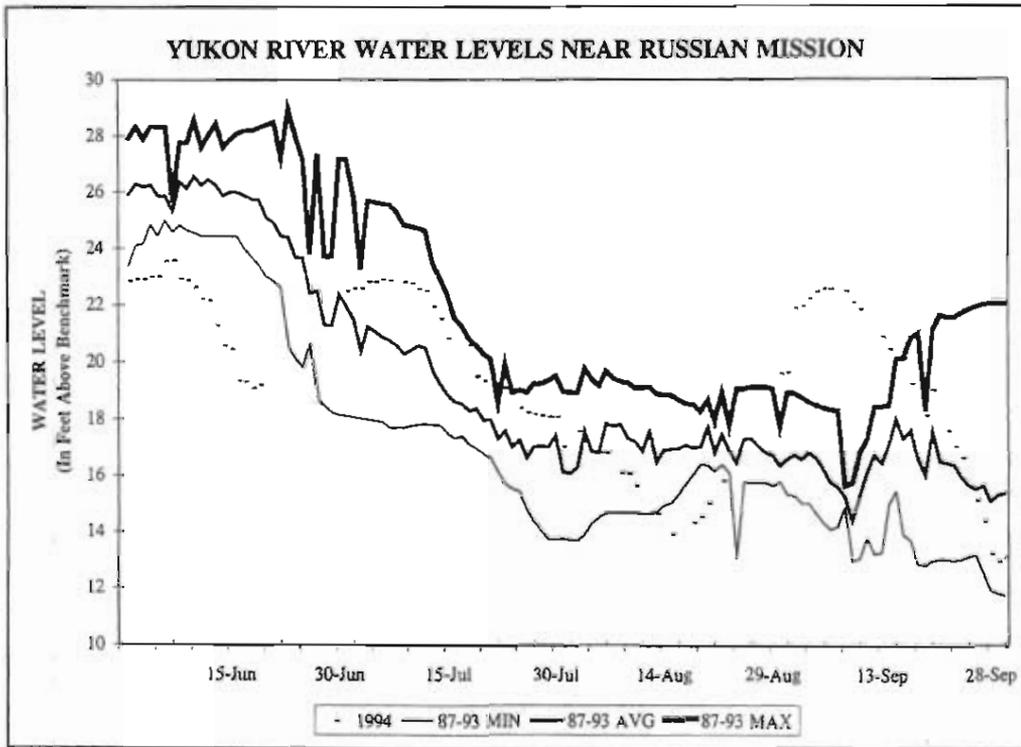
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VILLAGE	CATEGORY ^a	RESPONSE
St. Mary's	13	Fall chum closure.
St. Mary's	13	Closure. Opened too late again, silvers were gone.
Stevens Village	4	No one to help her.
Stevens Village	10	Shared catch too many ways.
Stevens Village	11	Answered "no", but gave no reason.
Stevens Village	11	Son fished with a partner, but wasn't given any fish for dogs.
Stevens Village	11	In jail.
Stevens Village	13	Limited fishing time in Subdistrict 5C.
Stevens Village	14	Didn't fish.
Tanana	2	Both working.
Tanana	3	No boat and motor. Not enough sharing in the village.
Tanana	3	Wheel floated away.
Tanana	5	Not enough time off from work to fish for silvers (fall chum).
Tanana	8	Out of town, fire fighting, would have fished kings more.
Tanana	11	Didn't fish enough, own fault.
Tanana	13	Not enough openings.
Tanana	13	Sonar screw up.
Tanana	13	Not enough commercial openings. "We don't waste fish around here!"
Tanana	13	Not enough openings.
Venetie	2	Didn't fish long enough, went back to work.
Venetie	3	No boat.
Venetie	6	Didn't go down to fish at Yukon River, getting too old.
Venetie	6	Sick with cancer, couldn't fish.
Venetie	10	Didn't fish long enough.
Venetie	10	Didn't fish enough.
Venetie	10	Didn't go to the Yukon to fish for kings. None for human consumption.
Venetie	11	Started fishing late, shared fishnet with two other households.
Venetie	11	Went to fish camp late.
Venetie	13	Were going to fish for fall chum, but heard it was closed and didn't go down to Yukon. Had to share with parents.

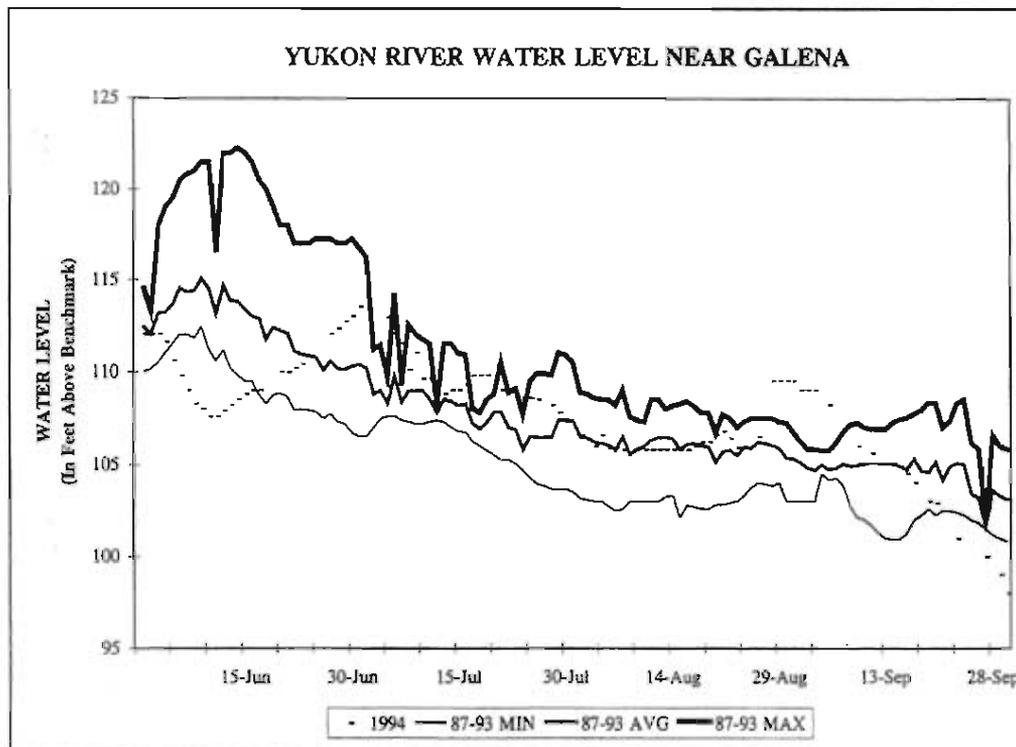
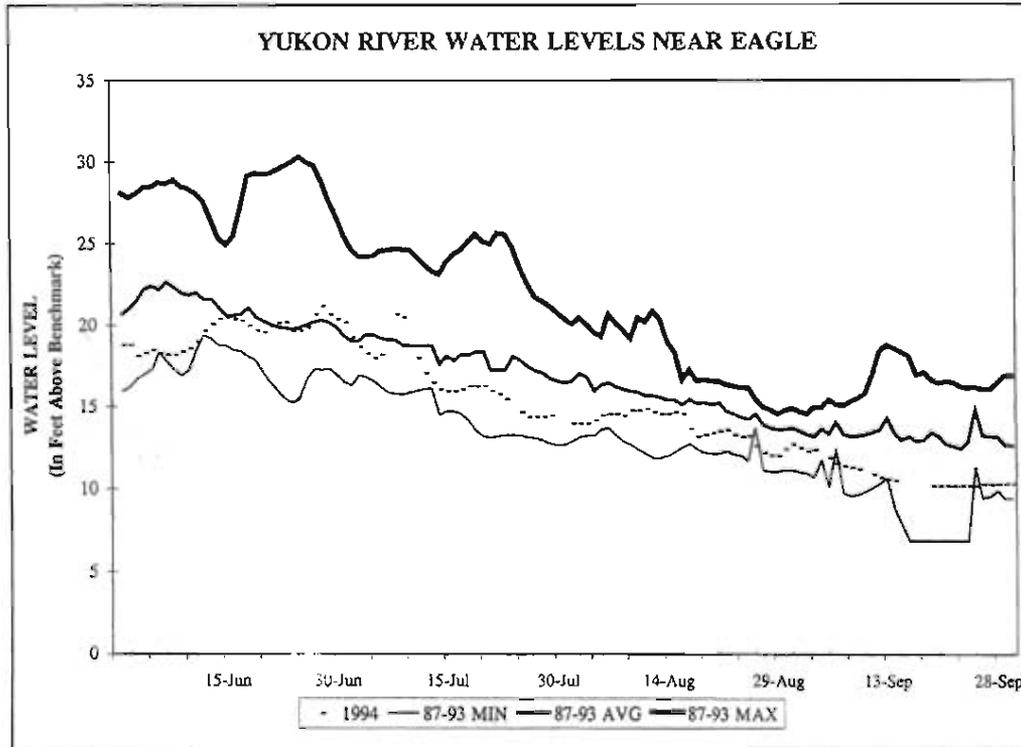
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CATEGORY	Response Summary
1	Mother Nature.
2	Another occupation.
3	No gear, boat, net, motor, gas.
4	No helper for harvest, process.
5	Busy with other things, no time.
6	Medical or elderly.
7	Poor run of fish.
8	Out of town.
9	Will buy or be given fish.
10	Not enough fish caught.
11	Miscellaneous reasons.
12	Still fishing.
13	Department closed fishing.
14	Didn't fish, normally don't.
15	Not enough to share or barter.



Appendix A.13. Water levels for the Yukon and Tanana Rivers near the communities indicated.



-Continued-

APPENDIX B

YUKON RIVER DRAINAGE HISTORICAL SUBSISTENCE
SALMON HARVESTS

Appendix B.1. Estimated Yukon Area chinook salmon subsistence harvest in numbers of fish by village, 1982-1994. Blanks indicate harvest information was not collected. a

Village	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1983-1989 Average	1990-1994 Average
Hooper Bay						2,783	1,099 b	14 b			593	230	668	1,941 c	467 d
Scammon Bay						838	489 b	2 b			948	1,199	157	664 c	768 d
<i>Coastal District Subtotal</i>						3,621	1,588	16			1,451	1,429	825	2,605	1,235
Sheldon Pt.	79	1,021	802	143	592	1,173	302	165	756	445	388	561	606	475	551
Alakanuk	336	1,582	1,038	517	1,027	1,180	738	830	871	1,044	623	2,562	1,045	856	1,229
Emmonak	1,328	2,436	2,099	1,382	1,754	2,518	1,786	1,598	1,873	1,311	2,336	4,372	2,384	1,808	2,455
Kotlik	568	1,224	695	1,029	1,902	2,407	1,112	1,982	3,119	3,125	1,794	2,913	2,505	1,686	2,691
Retained From Commercial												15	114		
<i>Mouth to Anuk River Subtotal</i>	2,311	6,263	4,624	3,071	5,275	7,278	3,938	4,565	6,619	5,925	5,141	10,423	6,654	4,825	6,927
Mt. Village	218	1,875	1,317	672	1,367	2,252	740	2,001	1,792	1,171	1,249	3,217	1,511	1,406	1,788
Pitkas Pt./St. Marys	985	2,432	2,663	778	1,717	2,457	1,378	2,184	2,476	2,488	2,604	3,043	3,191	1,703	2,760
Pilot Station	428	2,703	1,116	896	1,452	2,593	674	1,498	3,786	2,681	1,818	2,661	1,818	1,423	2,585
Marshall	478	2,055	2,176	1,122	1,947	2,564	1,031	1,464	1,492	1,277	1,403	2,592	2,277	1,626	1,808
Retained From Commercial												3	78		
<i>Anuk River to Owl Slough Subtotal</i>	2,109	9,065	7,172	3,468	6,483	9,866	3,823	7,147	9,546	7,617	7,074	11,516	9,034	6,157	8,941
Russian Mission	1,628	2,634	1,938	974	1,747	2,036	1,850	2,367	1,694	1,349	1,282	3,273	1,793	1,795	1,878
Holy Cross	1,731	2,276	2,456	2,368	2,505	2,625	2,593	2,379	2,337	1,649	3,491	3,191	4,040	2,494	2,942
Retained From Commercial												10	25		
<i>Owl Slough to Bonasila R. Subtotal</i>	3,359	4,910	4,394	3,342	4,252	4,661	4,443	4,746	4,031	2,998	4,773	6,474	5,858	4,289	4,820
Lower Yukon Area Total	7,779	20,238	16,190	9,881	16,010	25,426	13,792 c	16,474 c	20,196 c	16,540	18,439	29,842	22,371	17,876	21,923
Anvik	354	744	576	405	959	428	211	418	481	619	389	663	424	484	515
Grayling	294	951	879	903	1,837	1,322	1,571	1,082	144	874	1,074	1,045	1,843	1,343	996
Katag	344	652	487	669	1,080	1,117	1,168	1,306	2,244	1,866	1,084	1,260	1,653	1,068	1,621
Nulato	811	1,135	966	1,063	1,835	1,573	1,986	2,079	2,788	2,500	1,596	1,660	1,735	1,707	2,056
Koyukuk	493	966	1,009	194	569	609	711	1,003	876	885	510	853	589	617	743
Galena	735	1,477	1,226	1,329	1,046	1,270	1,982	1,374	3,134	2,574	1,870	1,732	1,834	1,400	2,229
Ruby/Kokrine	1,168	2,346	1,107	1,657	1,263	927	1,482	1,016	811	971	498	3,263	1,539	1,253	1,416
Retained From Commercial												978	203		
<i>Bonasila R. to Hlinois Cr. Subtotal</i>	4,199	8,271	6,250	6,220	8,589	7,246	9,031	8,278	10,478	10,289	7,021	11,454	9,820	7,873	9,576
Shageluk															
<i>Innoko River Subtotal</i>					53	47	104	32	62	189	218	128	291	47	178
Hustla	125	459	169	144	82	182	89	177	198	198	751	232	239	135	324
Hughes	479	318	856	778	296	177	29	181	90	146	29	88	107 f	292	92
Allakaket/Alatna g	274	706	375	283	563	309	366	438	356	451	437	139	364 f	392	349
Bettles								0	0	16	53	1	0		14
<i>Koyukuk River Subtotal</i>	878	1,483	1,400	1,205	941	668	484	796	644	811	1,270	460	710	819	779
District 4 Subtotal	5,077	9,754	7,650	7,425	9,983	7,961	9,619	9,106	11,184	11,289	8,509	12,042	10,821	8,739	10,533

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Village	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1985-1989 Average	1990-1994 Average
Tanana	2,230	5,547	2,682	1,248	1,672	4,021	3,537	3,008	2,288	2,483	2,477	3,362	2,999	2,697	2,721
Rampart	887	1,070	876	1,302	1,700	2,815	3,145	3,177	1,481	988	1,802	1,956	1,354	2,428	1,716
Fairbanks (permits) h i	1935	2672	2499	1,865	1762	613 e	0 e	200 e	420 e	982	1,394	1,514	1,920	888	1,246
Stevens Village	1,810	2,531	2,177	2,763	2,839	2,076	2,845	3,101	1,795	2,035	1,887	1,754	2,814	2,725	1,957
Birch Creek							0 b	0		196	44	0	119	0	72
Beaver	250	220	553	506	708	466	940	1,694	721	713	1,564	1,557	850	863	1,081
Ft. Yukon	1,894	1,887	3,608	2,900	3,083	3,950	2,245	4,898	4,051	5,585	4,122	6,361	4,727	3,415	4,969
Circle/Central (permits) i	969	648	545	2,259	2,233	1,614	2,034	1,785	1,951	1,871	1,752	955	1,617	1,985	1,629
Eagle (permits) i	2,864	2,183	1,998	2,247	1,915	1,988	2,333	2,385	1,742	1,193	1,040	753	1234	2,174	1,192
Other (permits) i j									615	374	571	437	602	0	520
Retained From Commercial												746	868		
<i>Hiloin Cr. to U.S. Can. Border</i>															
<i>Subtotal</i>	12,839	16,758	14,938	15,090	15,912	17,543	17,079	20,248	14,560	16,420	17,653	19,395	19,104	17,174	17,104
Venetie	20	22	51		32	13	121	88	29	9	35	2,716	524	51	663
Chalkyitsik					0	0	0	0	0	0	3	0	0	0	1
<i>Chandalar/Black Rivers</i>															
<i>Subtotal</i>	20	22	51		32	13	121	88	29	9	38	2,716	524	51	663
<i>District 5 Subtotal</i>	12,859	16,780	14,989	15,090	15,944	17,556	17,200	20,336	14,589	16,429	17,691	22,111	19,628	17,225	18,090
Manley k	386	990	282	744	621	40	572	992	1,169	401	551	238	480	594	568
Minto k	411	275	440	1,386	350	374	466	366	100	134	142	468	316	588	232
Nemana k	1,195	966	2,556	4,919	2,093	3,151	3,846	1,188	1,265	1,599	1,267	693	759	3,039	1,117
Fairbanks (permits) i l	451	475	321	326	617	531	0 e	0 e	84 e	378	402	699 e	775	299	468
Other k m							0	0	0	3	76	0	40	0	24
Retained From Commercial												1,036	198		
<i>Tanana River</i>															
<i>Subtotal</i>	2,443	2,706	3,599	7,375	3,701	4,096	4,884	2,546	2,618	2,515	2,438	3,134	2,568	4,520	2,408
Upper Yukon Area Total	20,379	29,240	26,238	29,890	29,228	29,613	31,703	31,988	28,391 n	30,233 n	28,638 n	37,287 n	33,017	30,484	31,030
Alaska Yukon Area Total	28,158	49,478	42,428	39,771	45,238	55,039	45,495	48,462	48,587	46,773	47,077	67,129	55,388	48,361	52,953

a 1961-1981 data available from 1981 Yukon Area Annual Management Report. Beginning in 1988 subsistence salmon harvest estimates have been generated from a stratified random sample of village households.

b The village was not surveyed, harvest estimates were calculated from calendar and post card replies.

c 1987 and 1988 average harvest.

d 1992-1994 average harvest.

e Additional harvest was documented under personal use salmon harvest tables.

f Due to floods in 1994, Hughes, Allakaket, and Alaina were not surveyed. 1994 chinook salmon harvest is estimated using 5 year average 1989-1993.

g Alaina combined with Allakaket.

h Catches by Fairbanks subsistence permit holders that fished in District 5 of the Yukon River.

i Salmon catches expanded for permits not returned and household interviews (1981-1989). Beginning in 1990, reported harvest is from returned permits only.

j Other permit holders that fished in District 5 but did not reside in the villages listed.

k Permits required beginning in 1988 for Subdistricts 6-A and 6-B. In 1988 and 1989, permit and household interview data were expanded. Beginning in 1990, reported harvest is from returned permits only.

l Catches by Fairbanks subsistence permit holders that fished in the Tanana River. Permits required beginning in 1964 for the Tanana River upstream of the Wood River.

m Other permit holders that fished in District 6 but did not reside in the villages listed.

n Estimated chinook salmon carcasses available for subsistence use as a byproduct of the commercial fishery are documented in the total utilization tables of the Yukon Area Annual Management Report.

Appendix B.2. Estimated Yukon Area summer chum salmon subsistence harvest in numbers of fish by village, 1982-1994. Note: District 4 summer chum salmon subsistence harvest estimates prior to 1988 and Districts 5 and 6 prior to 1989 included commercially caught summer chum salmon carcasses retained for subsistence use. Beginning in 1988 and 1989, efforts were made to exclude commercial carcasses from subsistence harvest estimates. Blanks indicate harvest information was not collected. a

Village	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1985-1989 Average	1990-1994 Average
Hooper Bay						23,468	23,059 b	2,293 b			12,900	16,106	4,347	23,264 c	11,118 d
Scammon Bay						6,200	8,171 b	48 b			3,795	4,692	10,556	7,186 c	6,348 d
<i>Coastal District Subtotal</i>						29,668	31,230	2,341			16,695	20,798	14,903	30,449	17,465
Sheldon Pt.	885	1,090	2,701	1,717	4,755	2,460	2,589	4,314	1,458	2,226	1,415	2,362	1,941	3,167	1,880
Atkasuk	5,225	9,347	10,093	7,702	11,280	9,913	6,992	12,108	7,265	8,058	9,951	8,935	5,947	9,599	8,031
Emmonak	8,426	8,401	10,053	8,742	12,618	11,177	10,528	22,985	15,215	8,401	12,296	15,568	13,060	13,210	12,908
Kotik	3,916	5,241	5,610	6,188	10,201	7,210	8,825	13,437	13,061	9,105	9,577	7,121	11,197	9,172	10,012
Retained From Commercial												299	12,608		
<i>Mouth to Anuk River Subtotal</i>	18,452	24,679	28,459	24,349	38,854	30,760	28,934	52,844	36,999	27,790	33,239	34,285	44,753	35,148	32,832
Mt. Village	3,854	10,183	8,665	6,745	11,468	12,456	9,248	15,869	9,950	4,743	7,864	10,505	3,938	11,157	7,400
Pikas Pt./St. Marys	9,405	8,569	11,019	7,556	14,986	12,402	10,501	13,124	9,515	9,284	8,555	7,406	11,231	11,714	9,198
Pilot Station	2,135	4,683	3,236	3,133	7,870	4,279	4,242	6,783	6,698	4,634	6,236	5,641	5,450	5,261	5,732
Marshall	3,048	3,961	4,076	2,361	7,172	3,997	4,796	3,927	2,290	2,042	2,076	1,745	2,288	4,451	2,088
Retained From Commercial												120	5,745		
<i>Anuk River to Owl Slough Subtotal</i>	18,442	27,396	26,996	19,795	41,496	33,134	28,787	39,703	28,453	20,703	24,731	25,417	28,652	32,583	24,418
Russlan Mission	1,419	1,576	2,227	1,817	3,136	2,283	2,794	2,229	2,146	837	3,331	1,838	801	2,452	1,791
Holy Cross	4,421	3,033	5,124	1,870	2,192	1,878	3,036	1,753	857	1,028	1,001	1,517	1,479	2,186	1,176
Retained From Commercial												21	59		
<i>Owl Slough to Bonasila R. Subtotal</i>	5,840	4,609	7,351	3,687	5,528	4,161	5,830	3,982	3,003	1,865	4,332	3,376	2,339	4,638	2,967
Lower Yukon Area Total	42,734	56,684	62,806	47,831	85,878	97,723	94,781 e	98,870 e	68,457 e	50,358	78,997	83,876	90,647	102,818	77,682
Anvik	27,087	20,592	22,433	24,950	41,581	28,887	12,607	410	2,032	876	1,142	1,735	907	21,087	1,338
Grayling	47,006	22,958	28,060	23,937	35,284	21,264	22,634	14,570	1,430	8,094	3,605	1,137	1,418	23,538	3,137
Kaltag	37,125	27,674	1,800	26,965	24,667	28,550	3,592	632	6,956	2,287	1,204	1,116	3,681	16,881	3,049
Nulato	19,740	11,130	232	16,315	10,349	16,299	10,201	200	502	159	889	15	975	10,673	504
Koyukuk	18,149	14,440	5,215	9,666	6,259	9,718	284	381	283	2,326	1,130	230	2,039	5,260	1,202
Galena	20,434	5,789	19,480	16,212	6,618	11,776	7,413	6,216	1,760	3,493	3,232	2,477	1,198	9,647	2,432
Ruby/Kokzines	7,539	8,804	4,282	13,556	7,883	8,786	4,010	1,844	351	1,352	2,420	1,459	4,586	7,216	2,034
Retained From Commercial															
<i>Bonasila R. to Illinois Cr. Subtotal</i>	177,080	111,387	81,502	131,601	132,632	125,280	60,741	24,253	13,314	18,587	13,622	8,169	14,806	94,901	13,700
Shageluk					6,710	8,015	8,779	8,842	6,518	3,680	5,267	4,183	6,212	6,469	5,172
<i>Innoko River Subtotal</i>															
Hustla	6,809	18,588	12,550	13,430	10,516	11,042	14,895	10,005	7,368	2,857	13,670	8,343	6,014	11,978	8,650
Hughes	8,409	1,905	14,744	12,788	7,280	4,369	2,445	3,687	509	1,257	1,625	827	1,581 f	6,114	1,160
Allakaket/Alama g	7,687	4,165	4,169	7,564	8,934	8,700	8,524	2,915	5,319	7,413	6,858	2,703	5,058 f	7,327	5,470
Bentley								75	24	155	37	34	45	15	59
<i>Koyukuk River Subtotal</i>	22,905	24,658	31,463	33,782	26,730	24,111	25,864	16,682	13,220	16,682	22,190	11,907	12,698	25,434	15,339
District 4 Subtotal	199,985	136,045	112,965	165,383	166,072	157,406	95,384	49,777	33,052	38,949	41,079	24,259	33,716	126,804	34,211

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Village	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1985-1989 Average	1990-1994 Average
Tarana	3,214	5,552	10,620	11,148	11,646	10,876	13,972	7,756	5,903	2,779	4,553	4,245	7,022	11,080	4,901
Rampart	0	3,698	7,650	5,133	1,450	2,434	3,383	28	58	20	4,494	1,489	559	2,486	1,324
Fairbanks (permits) h i	2,056	2,194	4,065	2,027	1,382	1,493 c	0 e	0 e	25 e	1,068	706	465	369	980	525
Stevens Village	666	5,051	5,952	3,046	3,116	1,466	865	2,375	1,671	1,385	460	653	459	2,170	926
Beaver	534	100	167	263	0	687	214	124	108	2,355	12	134	655	252	653
Ft. Yukon	1,434	7,142	3,632	4,410	3,264	1,187	7,717	1,760	145	11,974	1,700	3,830	2,043	3,668	3,938
Circle/Central (permits) j	0	73	0	930	459	2,078	871	161	1,267	51	356	85	106	940	373
Eagle (permits) j	1,887	133	49	39	516	417	1,273	547	361	607	23	32	38	558	212
Other (permits) j j									187	32	291	24	21	0	111
Retained From Commercial												159	676		
<i>Hills Cr. to U.S. Can. Border</i>															
Subtotal	9,791	23,943	31,535	26,996	21,833	20,588	28,295	12,951	9,727	20,271	12,595	11,116	11,939	22,133	12,963
Venise	0	0	0	0	0	0	701	30	0	3,393	0	129	567	146	818
Chalkylnik					0	0	327	0	90	500	17	0	0	65	121
<i>Chandalar/Black Rivers</i>															
Subtotal	0	0	0	0	0	0	1,028	30	90	3,893	17	129	567	212	939
<i>District 5 Subtotal</i>	9,791	23,943	31,535	26,996	21,833	20,588	29,323	12,981	9,817	24,164	12,612	11,245	12,506	22,344	13,902
Manley k	971	7,245	1,260	856	604	267	3,731	2,457	2,250	1,716	850	1,310	1,405	1,583	1,506
Minto k	808	7,414	5,042	5,291	1,587	1,383	947	1,425	500	748	625	367	509	2,127	550
Nenana k	3,972	6,779	13,962	15,825	10,827	21,214	5,654	3,986	1,383	1,499	6,372	5,019	1,352	11,501	3,125
Fairbanks i l	2,708	2,276	3,177	2,646	4,024	1,461	0 c	0 c	152 c	1,096	1,342	771 c	3,693	1,626	1,411
Other k m							0	0	0	10	315	0	67	0	78
Retained From Commercial												5	3,318		
<i>Tanana River</i>															
Subtotal	8,459	23,714	23,441	24,618	17,042	24,325	10,332	7,868	4,283	5,069	9,504	7,472	10,544	16,837	6,670
Upper Yukon Area Total	218,235 n	183,702 n	167,941 n	216,997 n	204,947 n	202,319 n	135,039 n	70,626 n	47,154 n	68,182 n	63,105 n	42,976 n	56,766	165,986	54,783
Alaska Yukon Area Total	260,969	240,386	230,747	264,828	290,825	300,042	229,820	169,496	115,609	118,540	142,192	126,852	147,413	268,803	132,465

a 1961-1981 chum salmon data available from 1981 Yukon Annual Management Report. Beginning in 1988 subsistence salmon harvest estimates have been generated from a stratified random sample of village households.

b The village was not surveyed, harvest estimates were calculated from calendar and post card replies.

c 1987 and 1988 average harvest.

d 1992-1994 average harvest.

e Additional salmon harvest was documented under personal use salmon harvest tables.

f Due to floods in 1994, Hughes, Allakaket, and Alana were not surveyed. 1994 summer chum salmon harvest is estimated using 5 year average 1989-1993.

g Alana combined with Allakaket.

h Catches by Fairbanks subsistence use permit holders that fished in District 5 of the Yukon River.

i Salmon catches expanded for permits not returned and household interviews (1981-1989). Beginning in 1990, reported harvest is from returned permits only.

j Other permit holders that fished in District 5 but did not reside in the villages listed.

k Permits required beginning in 1988 for Subdistricts 6-A and 6-B. In 1988 and 1989, permit and household interview data were expanded. Beginning in 1990, reported harvest is from returned permits only.

l Catches by Fairbanks subsistence use permit holders that fished in the Tanana River. Permits required beginning in 1964 for the Tanana River upstream of the Wood River.

m Other permit holders that fished in District 5 but did not reside in the villages listed.

n Estimated summer chum carcasses available for subsistence use as a byproduct of the commercial fishery are documented in the total utilization tables of the Yukon Area Annual Management Report.

Appendix B.3. Estimated Yukon Area fall chum salmon subsistence harvest in numbers of fish by village, 1982-1994. Blanks indicate harvest information was not collected. Includes commercial related harvest to produce roe sold, 1982-1988. a

Village	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1985-1989 Average	1990-1994 Average
Hooper Bay						105	1,711 b	146 b			127	113	63	908 c	101 d
Scammon Bay						117	551 b	10 b			79	7	284	334 c	123 d
<i>Coastal District Subtotal</i>						222	2,262	156			206	120	347	1,242	224
Sheldon Pt.	886	233	555	713	259	882	289	586	102	84	490	158	25	546	172
Alakanuk	1,336	903	1,219	2,603	2,030	3,748	1,194	430	267	193	401	182	73	2,001	223
Emmonak	4,458	2,715	3,329	4,539	2,746	8,160	1,792	840	2,353	2,027	1,628	1,507	3,441	3,615	2,191
Kotlik	3,336	4,387	3,782	5,420	3,965	5,677	2,200	3,058	2,613	1,631	2,697	5,923	1,348	4,064	2,842
<i>Mouth to Anuk River Subtotal</i>	10,016	8,238	8,885	13,275	9,000	18,467	5,475	4,914	5,335	3,935	5,216	7,770	4,887	10,226	5,429
Mt. Village	2,810	4,065	3,497	3,591	2,947	4,897	1,880	4,641	1,566	1,473	1,052	1,113	797	3,591	1,200
Pitkas Pt./St. Marys	2,386	3,138	3,927	3,315	5,401	3,966	2,533	1,970	956	2,202	77	708	1,356	3,437	1,060
Pilot Station	1,568	1,302	832	1,957	1,663	583	1,372	1,872	1,941	1,062	3,526	1,017	1,527	1,489	1,815
Marshall	2,747	1,836	3,138	2,681	3,472	4,008	2,815	1,532	1,724	891	2,727	256	471	2,902	1,214
<i>Anuk River to Owl Slough Subtotal</i>	9,511	10,341	11,394	11,544	13,483	13,454	8,600	10,015	6,187	5,628	7,382	3,094	4,151	11,419	5,288
Russian Mission	630	773	860	1,266	637	1,255	1,151	308	878	425	648	172	11	923	427
Holy Cross	1,029	2,090	1,373	1,024	1,148	1,598	596	711	1,178	190	845	1,066	665	1,015	789
<i>Owl Slough to Bonasila R. Subtotal</i>	1,659	2,863	2,233	2,290	1,785	2,853	1,747	1,019	2,056	615	1,493	1,238	676	1,939	1,216
Lower Yukon Area Total	21,186	21,442	22,512	27,109	24,268	34,996	18,084 e	16,104 e	13,578 e	10,178	14,297	12,222	10,061	24,826	12,157
Anvik	4,088	902	720	2,125	913	394	136	168	583	452	894	420	155	747	501
Grading	2,972	3,847	1,950	3,106	4,204	4,750	1,760	830	1,405	3,616	2,993	2,083	811	2,930	2,182
Kaliag	812	2,833	1,330	1,570	2,024	7,474	2,293	1,654	2,327	2,834	2,522	704	630	3,003	1,803
Nulato	217	3,159	1,675	4,240	1,762	2,200	1,673	2,436	3,546	1,637	1,910	571	1,109	2,462	1,755
Koyukuk	1,355	1,120	1,560	798	2,195	2,492	587	2,460	860	2,761	2,817	2,052	1,049	1,706	1,908
Gaena	2,164	4,259	7,270	4,476	4,819	10,509	4,308	6,436	3,202	5,525	2,393	3,255	3,963	6,110	3,668
Ruby/Kokrines	6,662	12,319	8,505	6,717	7,101	11,000	5,171	6,599	3,352	2,856	4,499	1,085	5,553	7,318	3,469
<i>Bonasila R. to Illinois Cr. Subtotal</i>	18,270	28,439	23,010	23,032	23,018	38,819	15,928	20,583	15,275	19,681	18,028	10,170	13,270	24,276	15,285
Shagehek															
<i>Innoko River Subtotal</i>				0	370	434	0	4	0	0	865	211	186	162	252
Huslia	102	3,528	6,306	276	808	585	1,697	1,728	846	411	1,286	258	55	1,019	571
Hughes	1,231	327	1,280	1,260	1,422	586	311	260	70	270	325	169	0 f	768	167
Allakaket/Alatna g	716	1,915	556	707	878	1,477	443	1,969	3,050	513	1,579	235	0 f	1,095	1,075
Bettles								0	0	0	14	0	0	0	3
<i>Koyukuk River Subtotal</i>	2,049	5,770	8,142	2,243	3,108	2,648	2,451	3,957	3,966	1,194	3,204	662	55	2,881	1,816
<i>District 4 Subtotal</i>	20,319	34,209	31,152	25,275	26,496	41,901	18,379	24,544	19,241	20,875	22,097	11,043	13,511	27,319	17,353

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Village	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1983-1989 Average	1990-1994 Average
Tanana	31,470	41,630	42,690	28,113	32,049	41,825	55,998	40,845	41,145	40,868	19,365	23,103	34,681	39,766	31,332
Rampart	5,495	5,627	4,395	19,619	3,950	5,092	3,600	2,472	10,818	5,801	5,701	3,272	1,007	6,947	5,320
Fairbanks (permits) h i	9,272	12,865	12,920	13,874	11,708	5,264 c	0 c	7 e	82 e	2,022	2,491	930	2,870	6,171	1,679
Stevens Village	7,392	3,502	4,932	11,679	4,150	7,538	1,451	6,633	3,857	2,481	150	862	45	6,290	1,479
Beaver	1,878	6,004	0	1,761	3,321	5,750	96	7,242	757	7	361	692	2,069	3,634	777
Ft. Yukon	1,926	3,967	7,525	12,719	8,543	15,200	2,766	27,790	11,627	7,467	2,284	2,380	6,827	13,404	6,117
Circle/Central (permits) i	290	3,687	3,107	4,096	3,650	7,691	4,396	4,478	6,804	6,413	6,379	349	4,581	4,862	4,905
Eagle (permits) l	13,255	20,021	18,519	25,264	16,027	19,678	14,800	11,557	8,027	7,985	5,630	2,070	8,263	17,465	6,395
Other (permits) l j									529	100	0	1,750	0	0	476
<i>Illinois Cr. to U.S. Can. Border</i>															
<i>Subtotal</i>	70,978	97,303	94,088	117,125	83,398	108,038	83,107	101,024	83,646	73,144	42,361	35,408	60,343	98,538	58,980
<i>Venette</i>	850	7,800	4,345		3,193	2,774	34	7,977	5,377	758	3,066	7,881	4,302	2,796	4,277
<i>Chalkyitsik</i>					1,533	2,686	1,068	3,000	1,490	100	274	475	1,751	1,657	818
<i>Chandalar/Black Rivers</i>															
<i>Subtotal</i>	850	7,800	4,345		4,726	5,460	1,102	10,977	6,867	858	3,340	8,356	6,053	4,453	5,095
<i>District 5 Subtotal</i>	71,828	105,103	98,433	117,125	88,124	113,498	84,209	112,001	90,513	74,002	45,701	43,764	66,396	102,991	64,075
<i>Manley k</i>	4,444	11,400	2,196	6,560	5,905	4,267	6,899	21,087	25,860	13,243	7,010	3,150	13,722	8,944	12,597
<i>Minto k</i>	3,568	6,489	4,025	4,642	545	5,419	2,615	2,005	3,652	5,276	3,017	301	1,419	3,045	2,733
<i>Nenana k</i>	9,034	11,685	13,520	22,901	15,902	26,909	26,889	25,340	12,464	17,932	13,253	5,929	11,201	23,588	12,156
<i>Fairbanks (permits) i l</i>	2,518	2,600	2,985	2,860	2,803	0 c	0 c	0 c	309 e	1,671	1,394	219	5,006 c	1,133	1,720
<i>Other k m</i>								10,222	2,283	2,347	1,039	352	2,249	2,044	1,654
<i>Tanana River</i>															
<i>Subtotal</i>	19,564	32,174	22,726	36,963	25,155	36,595	36,403	58,654	44,568	40,469	25,713	9,951	33,597	38,754	30,860
Upper Yukon Area Total	111,711 n	171,486 n	152,311 n	179,363 n	139,775 n	191,994	138,991 n	195,199 n	154,322 n	135,346 n	93,511 n	64,758	113,504	169,064	112,288
Alaska Yukon Area Total	132,897	192,928	174,823	206,472	164,043	226,990	157,075	211,303	167,900	145,524	107,808	76,980	123,565	193,891	124,445

a 1961-1981 chum salmon data available from 1981 Yukon Annual Management Report. Beginning in 1988 subsistence salmon harvest estimates have been generated from a stratified random sample of village households.

b The village was not surveyed. Harvest estimates were calculated from calendar and post card replies.

c 1987 and 1988 average harvest.

d 1992-1994 average harvest.

e Additional salmon harvest was documented under personal use salmon harvest tables.

f Due to floods in 1994, Hughes, Allakaket, and Alatna were not surveyed.

g Alatna combined with Allakaket.

h Catches by Fairbanks subsistence use permit holders that fished in District 5 of the Yukon River.

i Salmon catches expanded for permits not returned and household interviews (1981-1989). Beginning 1990, reported harvest is from returned permits only.

j Other permit holders that fished in District 5 but did not reside in the villages listed.

k Permits required beginning in 1988 for Subdistricts 6-A and 6-B. In 1988 and 1989, permit and household interview data were expanded. Beginning in 1990, reported harvest is from returned permits only.

l Catches by Fairbanks subsistence permit holders that fished in the Tanana River. Permits required beginning in 1964 for the Tanana River upstream of the Wood River.

m Other permit holders that fished in District 6 but did not reside in the villages listed.

n Estimated fall chum salmon carcasses available for subsistence use as a byproduct of the commercial fishery are documented in the total utilization tables of the Yukon Area Annual Management Report.

Appendix B.4. Estimated Yukon Area coho salmon subsistence harvest in numbers of fish by village, 1982-1994. Blanks indicate harvest information was not collected. a

Village	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1985-1989 Average	1990-1994 Average
Hooper Bay						69	1,523 b	211 b			28	0	80	796 c	36 d
Scammon Bay						64	326 b	2 b			31	40	1	195 c	24 d
<i>Coastal District Subtotal</i>						133	1,849	213			59	40	81	991	60
Sheldon Pt.	1,770	170	245	49	237	308	169	487	78	35	441	78	52	250	137
Alakanuk	1,313	438	776	894	1,318	1,116	634	334	156	391	966	138	94	899	349
Emmonak	4,795	1,290	3,659	1,552	732	3,497	1,578	1,239	1,283	801	666	196	959	1,734	781
Kotlik	3,314	1,692	1,415	751	238	1,475	2,008	2,997	1,784	581	3,353	1,931	2,167	1,494	1,963
<i>Mouth to Anuk River Subtotal</i>	11,192	3,590	6,095	3,246	2,725	6,396	4,389	5,077	3,301	1,808	5,426	2,343	3,272	4,367	3,230
Mt. Village	3,025	2,500	982	1,527	828	2,481	1,314	2,385	1,754	868	1,971	447	968	1,707	1,202
Pitkas Pt./St. Marys	2,783	1,529	2,024	1,113	4,832	1,740	3,147	971	515	1,617	2,771	451	978	2,361	1,266
Pilot Station	2,644	638	1,114	710	1,514	300	876	379	1,968	553	300	477	811	756	822
Marshall	1,777	1,405	2,946	1,484	1,966	2,373	1,767	1,304	2,107	259	1,545	320	1,124	1,779	1,071
<i>Anuk River to Owl Slough Subtotal</i>	10,229	6,072	7,066	4,834	9,140	6,894	7,104	5,039	6,344	3,297	6,587	1,695	3,881	6,602	4,361
Russian Mission	156	540	740	276	679	423	604	20	688	396	1,148	152	55	400	488
Holy Cross	519	377	0	100	102	259	935	517	338	944	105	88	171	383	329
<i>Owl Slough to Bonasila R. Subtotal</i>	675	917	740	376	781	682	1,539	537	1,026	1,340	1,253	240	226	783	817
Lower Yukon Area Total	22,096	10,579	13,901	8,456	12,646	14,105	14,881	10,866 e	10,671 e	6,445	13,325	4,318	7,460	12,743	8,468
Anvik	58	250	40	272	296	405	97	40	236	347	202	115	95	222	199
Grayling	1,014	1,275	97	0	860	599	692	969	10	1,363	859	164	36	624	486
Katag	62	0	0	0	229	0	0	792	501	1,260	2,105	334	245	204	889
Nulato	76	0	0	510	69	85	234	276	845	75	435	37	27	235	284
Koyukuk	187	40	200	120	154	894	10	110	162	307	1,877	70	305	258	544
Chilena	347	759	452	1,072	465	1,349	1,029	415	572	422	1,398	124	803	866	664
Ruby/Kokrines	867	1,122	1,631	1,719	339	0	2,169	1,069	974	410	1,299	308	1,957	1,059	990
<i>Bonasila R. to Illinois Cr. Subtotal</i>	2,611	3,446	2,420	3,693	2,412	3,332	4,231	3,671	3,300	4,184	8,175	1,152	3,468	3,468	4,056
Shageluk															
<i>Innoko River Subtotal</i>					173	72	128	0	0	0	296	39	137	75	94
Huslia	17	475	12	0	31	124	201	150	235	150	233	9	47	101	135
Hughes	0	0	400	138	0	0	104	91	43	9	21	3	0 f	67	15
Allakaket/Alatna g	324	25	35	118	15	23	178	118	36	108	0	3	0 f	90	29
Bettles								0	0	0	0	0	0	0	0
<i>Koyukuk River Subtotal</i>	341	500	447	256	46	147	483	359	314	267	254	15	47	258	179
<i>District 4 Subtotal</i>	2,952	3,946	2,867	3,949	2,631	3,551	4,842	4,030	3,614	4,451	8,725	1,206	3,652	3,801	4,330

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Village	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1985-1989 Average	1990-1994 Average
Tanana	3,260	2,312	16,898	7,384	4,691	6,680	16,922	5,518	8,580	4,448	11,406	5,576	2,587	8,239	6,519
Rampart	0	47	120	513	110	81	842	87	591	58	75	38	99	327	172
Fairbanks (permits) h i	20	78	254	13	709	6 e	0 c	0 c	5 e	8	34	0	25	146	14
Stevens Village	23	0	145	182	67	0	604	208	479	0	20	0	0	212	100
Beaver	0	0	0	1	124	0	164	774	172	1	398	135	10	213	143
Ft. Yukon	125	11	33	3	118	41	370	406	727	380	341	5	963	188	483
Circle/Central (permits) i	0	0	0	0	37	0	41	1	206	5	54	10	30	16	61
Eagle (permits) i	0	0	17	2	6	0	11	0	0	0	3	85	0	4	18
Other (permits) i j							0	165	450	12	0	0	0	33	92
<i>Illinois Cr. to U.S. Can. Border</i>															
<i>Subtotal</i>	3,428	2,448	17,467	8,098	5,862	6,808	18,954	7,159	11,210	4,912	12,331	5,849	3,714	9,376	7,603
Venetie	0	0	0		0	17	0	2	348	12	45	135	4	4	109
Chalkyitsik					8	2	801	26	4	7	0	0	456	167	93
<i>Chandalar/Black River</i>															
<i>Subtotal</i>	0	0	0		8	19	801	28	352	19	45	135	460	171	202
<i>District 5 Subtotal</i>	3,428	2,448	17,467	8,098	5,870	6,827	19,755	7,187	11,562	4,931	12,376	5,984	4,174	9,547	7,805
Manley k	837	1,350	1,566	1,926	538	1,467	2,103	5,310	7,574	6,361	4,725	1,535	10,410	2,269	6,121
Minto k	1,500	0	800	1,144	1,058	671	2,729	1,179	818	526	614	300	2,616	1,356	975
Nenana k	3,078	4,352	10,270	7,614	10,090	19,592	25,369	7,593	7,381	10,171	8,895	1,314	9,387	14,052	7,430
Fairbanks (permits) l l	2,003	1,230	2,149	1,077	1,635	0 c	0 c	0 c	66 c	2,501	2,281	0	2,103	542	1,390
Other k m								4,759	1,774	2,002	1,039	1,155		1,973	1,589
Retained From Commercial													2,900		
<i>Tanana River</i>															
<i>Subtotal</i>	7,418	6,932	14,785	11,761	13,321	21,730	30,201	18,841	17,613	21,561	17,554	4,304	29,389	19,171	17,504
Upper Yukon Area Total	13,798	13,326	35,119	23,808	21,822	32,108	54,798	30,058	32,789 n	30,943 n	38,655 n	11,494	37,215	32,519	29,639
Alaska Yukon Area Total	35,894	23,905	49,020	32,264	34,468	46,213	69,679	40,924	43,460	37,388	51,980	15,812	44,675	45,262	38,107

a 1961-1981 coho salmon data available from 1981 Yukon Annual Management Report. Beginning in 1988 subsistence salmon harvest estimates have been generated from a stratified random sample of village households.

b The village was not surveyed, harvest estimates were calculated from calendar and post card replies.

c 1987 and 1988 average harvest.

d 1992-1994 average harvest.

e Additional salmon harvest was documented under personal use salmon harvest tables.

f Due to floods in 1994, Hughes, Allakaket, and Alatna were not surveyed.

g Alatna combined with Allakaket.

h Catches by Fairbanks subsistence use permit holders that fished in District 5 of the Yukon River.

i Salmon catches expanded for permits not returned and household interviews (1981-1989). Beginning 1990, reported harvest is from returned permits only.

j Other permit holders that fished in District 5 but did not reside in the villages listed.

k Permits required beginning in 1988 for Subdistricts 6-A and 6-B. In 1988 and 1989, permit and household interview data were expanded. Beginning in 1990, reported harvest is from returned permits only.

l Catches by Fairbanks subsistence use permit holders that fished in the Tanana River. Permits required beginning in 1964 for the Tanana river upstream of the Wood River.

m Other permit holders that fished in District 6 but did not reside in the villages listed.

n Estimated coho salmon carcasses available for subsistence use as a byproduct of the commercial fishery are documented in the total utilization tables of the Yukon Area Annual Management Report.

Appendix B.5. Subsistence salmon catches taken under authority of a permit in District 5, Upper Yukon Area, 1974-1994. a

Upper Yukon River (Hess Creek to Dall River) Subsistence Salmon Fishery b							
Year	No. of Permits Issued	No. of Permits Returned	Number Reporting Catches c	Chinook	Summer Chum d	Fall Chum d	Coho
1974	29	e	e	591		1,857	1,271
1975	19	c	c	727		778	70
1976	28	e	18	531		974	c
1977	38	e	e	467		2,567	c
1978	57	e	c	1,333		9,735	c
1979	55	e	41	2,194		12,374	c
1980	70	c	67	1,350		6,488	36
1981	57	e	24	1,095		12,034	c
1982	64	e	44	1,935		11,328	20
1983	68	e	46	2,672		15,059	e
1984	67	e	54	4,676		27,869	399
1985	55	e	42	2,618		21,832	33
1986	76	e	58	3,827		18,690	759
1987 f	16	e	14	1,818	2,091	7,631	6
1988	24	21	18	1,747	2,097	3,183	606
1989	26	20	13	2,483	574	1,157	309
1990 g	26	25	16	2,033	3,493	1,109	455
1991	52	46	34	2,529	1,295	3,953	20
1992	45	42	33	2,241	975	2,491	34
1993	49	47	36	3,767	492	2,915	16
1994	50	49	36	3,073	384	2,911	25

Upper Yukon River (22 Mi Slough to U.S./Canada Border) Subsistence Salmon Fishery							
Year	No. of Permits Issued	No. of Permits Returned	Number Reporting Catches c	Chinook	Summer Chum d	Fall Chum d	Coho
1979	75	e	6	4,063		30,475	114
1980	48	e	39	3,649		18,477	6
1981	71	e	51	4,510		38,333	e
1982	60	e	61	3,833		15,432	e
1983	53	e	52	2,831		23,708	c
1984	58	e	54	2,543		21,675	17
1985	59	e	36	2,419		19,059	2
1986	40	e	52	4,148		20,701	43
1987 f	51	51	58	3,602	2,495	27,369	0
1988	58	57	50	2,783	2,134	9,078	101
1989	59	56	42	1,186	68	7,515	1
1990 g	81	75	54	3,746	1,629	14,992	206
1991	70	69	48	3,219	658	14,898	5
1992	85	79	54	2,984	409	12,009	57
1993	79	79	49	1,910	118	2,419	95
1994	79	76	51	3,093	145	12,844	30

a Salmon catches expanded for permits not returned (1974-1987). Beginning in 1988, reported harvest from returned permits only.

b Includes catches from Stevens Village and Rampart.

c Some fishermen reporting catches did not have permits.

d Summer chum and fall chum salmon undifferentiated from 1974-1986.

e Information not available.

f Personal use fishery established only for fall chum salmon in 1987.

g Some fishermen may have had personal use catches due to changes in the subsistence law. No personal use permits have been issued since 1990.

Appendix B.5. Subsistence salmon catches taken under authority of a permit in the Tanana River drainage, 1973-1994. a

Tanana River (Subdistrict 6-A) Subsistence Salmon Fishery b c							
Year	No. of Permits Issued	No. of Permits Returned	Number Reporting Catches	Chinook	Summer Chum	Fall Chum	Coho
1988	28	24	18	845	1,389	9,165	3,455
1989 d	29	28	24 e	651	1,918	25,266	5,292
1990 d	42	36	26	1,369	2,250	27,957	8,408
1991	45	41	31	420	1,716	17,472	8,486
1992	38	35	26	508	450	5,999	5,028
1993 d	42	41	22	331	784	2,617	1,317
1994	37	37	30	576	3,793	18,076	12,449

Tanana River (Subdistrict 6-B) Subsistence Salmon Fishery							
Year	No. of Permits Issued	No. of Permits Returned	Number Reporting Catches	Chinook	Summer Chum	Fall Chum	Coho
1988	75	66	52	3,721	3,167	18,902	18,906
1989 f	60	51	37 e	455	363	18,506	8,453
1990 f	70	58	38	1,234	1,966	16,332	9,155
1991 f	87	78	51	1,796	2,373	21,629	11,971
1992 f	98	89	57	1,587	7,820	18,782	11,409
1993	99	89	38	1,341	5,976	7,166	2,987
1994	102	94	49	1,337	2,035	13,179	12,840

Upper Tanana River (Upstream of Wood River) Subsistence Salmon Fishery							
Year	No. of Permits Issued	No. of Permits Returned	Number Reporting Catches	Chinook	Summer Chum	Fall Chum	Coho
1973	22	g	4	26	771	886	h
1974	70	g	g	38	1,373	1,580	h
1975	36	g	g	32	751	864	h
1976	110	g	g	31	1,314	1,512	h
1977	89	g	33	81	118	607	h
1978	160	g	126	126	2,729	1,188	h
1979	246	g	199	264	2,384	4,459	h
1980	315	g	254	282	3,729	4,059	h
1981	346	g	228	440	3,239	5,770	h
1982	330	g	209	451	2,708	4,521	h
1983	259	g	147	475	2,276	3,830	h
1984	308	g	212	321	3,177	5,134	h
1985	291	g	155	326	2,646	3,937	h
1986	323	g	211	637	4,031	4,437	h
1987 i	217	g	123	531	2,739	0	0
1988	0	0	0	0	0	0	0
1989	2	2	2	5	0	39	0
1990 j	20	19	6	15	69	279	50
1991	157	149	104	299	980	1,368	1,103
1992	160	157	94	343	1,234	932	1,117
1993 k	10	10	8	0	0	5	0
1994 l	145	142	107	457	1,198	1,600	1,545

a Salmon catches expanded for permits not returned (1973-1987). Beginning in 1988, reported harvest from returned permits only.

b Includes Kamishna River catches.

c Permit requirement for Subdistricts 6-A and 6-B went into effect in 1988; however, very few permits were issued in 1988, and not all fishermen had permits in 1989.

d Includes salmon given away as part of the Departments test fishing projects in Manley.

e Some fishermen reporting catches did not have permits.

f Includes salmon given away as part of the Departments test fishing projects in Nerana.

g Information not available.

h Fall chum and coho salmon were not reported as separate species from 1973-1987.

i Personal use fishery established for nonrural residents beginning in July of 1987.

j Some fishermen had both personal use and subsistence permits since the McDowell Decision which became effective July 1990 stated that all Alaskan residents were eligible subsistence participants.

k Personal use fishery established for those fishing for salmon in this area (fall chum are from incidental subsistence whitefish and sucker permits).

l No personal use fishery in this area in 1994.

Appendix B.7. Subsistence and personal use chum salmon carcasses taken under authority of a permit,
Tanana River drainage, 1973-1994.

Upper Tanana R. (Big Delta area) Subsistence and Personal Use Chum Salmon Carcass Fishery

Year	No. of Permits Issued	No. of Permits Returned	Number Reporting Catches	Fall Chum Carcasses
1973	16	a	8	1,561
1974	21	a	a	1,974
1975	26	a	a	2,573
1976	36	a	a	3,441
1977	46	a	29	5,816
1978	70	a	43	2,517
1979	32	a	25	4,582
1980	57	a	36	4,915
1981	43	a	27	5,030
1982	37	a	13	1,690
1983	45	a	29	5,357
1984	31	a	14	2,353
1985	30	a	14	2,111
1986	27	a	19	2,276
1987 b	20	17	13	1,931
1988 b	22	20	15	2,100
1989 b	12	12	10	1,785
1990 b	7	7	3	750
1991	8	4	3	741
1992	10	10	9	1,897
1993 b c	0	0	0	0
1994	4	4	4	250

a Information not available.

b Personal use permits 1987-1990 and 1993, all other years subsistence permits.

c The department chose not to issue any carcass permits to reduce spawning habitat disturbances.

Appendix B.8. Households with dogs, number of dogs, and salmon fed to dogs for Yukon Area villages, as estimated in surveyed villages or reported in permit areas, 1990-1994.

Year	Districts Surveyed or Permit	Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs
1990	Survey District 1	-	457	2,859	372	0	3,231
	Survey District 2	-	778	3,279	415	3,667	7,361
	Survey District 3	-	191	3,232	120	166	3,518
	Survey District 4	-	1,469	96,273	6,911	2,512	105,696
	Survey District 5	-	1,288	5,697	72,426	9,120	87,243
	Permits District 5 a	-	-	-	-	-	-
	Permits District 6	-	-	-	-	-	-
Totals		0	4,183	111,340	80,244	13,465	207,049
1991	Survey District 1	-	352	30	0	16	46
	Survey District 2	-	546	724	652	875	2,251
	Survey District 3	-	104	360	150	0	510
	Survey District 4	-	1,706	171,258	903	591	172,752
	Survey District 5	-	1,522	28,521	54,658	2,755	85,934
	Permits District 5 a	49	299	-	-	-	11,024
	Permits District 6	220	2,081	-	-	-	19,977
Totals		269	6,610	200,893	56,363	4,237	292,494
1992	Survey District 1	395	1,130	1,171	1,000	153	2,324
	Survey District 2	285	971	694	247	2,237	3,178
	Survey District 3	90	395	657	74	37	768
	Survey District 4	459	2,177	143,749	6,950	3,323	154,022
	Survey District 5	323	1,577	12,897	38,529	14,529	65,955
	Permits District 5 a	52	372	-	-	-	7,026
	Permits District 6	255	2,586	-	-	-	18,115
Totals		1,859	9,208	159,168	46,800	20,279	251,388
1993	Survey District 1	430	1,081	654	70	22	746
	Survey District 2	232	880	794	260	670	1,724
	Survey District 3	90	342	1,421	234	152	1,807
	Survey District 4	463	1,750	46,043	4,405	589	51,037
	Survey District 5	348	1,840	5,490	38,888	5,147	49,525
	Permits District 5 a	54	293	-	-	-	1,133
	Permits District 6	143	2,595	-	-	-	1,547
Totals		1,760	8,781	54,402	43,857	6,580	107,519
1994	Survey District 1	449	1,186	1,554	144	384	2,082
	Survey District 2	286	1,074	1,066 b	653	2,470	4,189
	Survey District 3	97	309	309	1,118	0	25
	Survey District 4 c	453	1,753	97,288 d	6,899	5,423	109,610
	Survey District 5	355	1,426	10,903 e	51,674	4,422	66,999
	Permits District 5 a	103	563	-	-	-	9,874
	Permits District 6	212	2,269	-	-	-	34,111
Totals		1,955	8,580	111,120	60,488	12,699	236,890

a Permit totals do not include the community of Stevens Village, because it was also surveyed.

b Includes 292 summer chum from the commercial fishery retained for subsistence use.

c Does not include the villages of Hughes, Allakaket, Alatna, which were not surveyed due to floods.

d Includes 70,202 summer chum from the commercial fishery retained for subsistence use.

e Includes 400 summer chum from the commercial fishery retained for subsistence use.

APPENDIX C

YUKON RIVER DRAINAGE SUBSISTENCE SALMON
SURVEY AND PERMIT HARVEST FORMS

Appendix C.1. Example of the salmon catch calendar mailed to Lower Yukon Area fishermen (reduced from original 11x17-inch size), 1994.

PLEASE WRITE THE NUMBER OF ALL SALMON CAUGHT EACH DAY BY PEOPLE LIVING IN YOUR HOUSE. PLEASE INCLUDE SALMON THAT WERE GIVEN TO PEOPLE WHO LIVE IN OTHER HOUSES AND SALMON THAT WERE CAUGHT FOR DOGFOOD. DO NOT INCLUDE SALMON SOLD WHEN COMMERCIAL FISHING.

Commercial Fisheries Management and Development Division
Alaska Department of Fish and Game
1300 College Road

Bulk Rate
U.S. Postage
Paid
Fairbanks, Ak
Permit No. 554

WHEN DONE SALMON FISHING FOR THE YEAR, PLEASE HAVE THE CALENDAR AVAILABLE FOR PICK UP BY SURVEYOR OR MAIL IT BACK TO FISH AND GAME.

NAME

Lower Yukon

THANK YOU
 Please check this box if you did not fish for salmon in 1994.

This calendar is sent to you by the Alaska Department of Fish and Game in Fairbanks.

JUNE 1994 SUBSISTENCE SALMON CALENDAR

PLEASE RECORD ANY SALMON CATCHES FROM MAY HERE:

MAY KINGS _____ MAY DOGS _____

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1 KING _____ DOG _____ HUMPY _____	2 KING _____ DOG _____ HUMPY _____	3 KING _____ DOG _____ HUMPY _____	4 KING _____ DOG _____ HUMPY _____
5 KING _____ DOG _____ HUMPY _____	6 KING _____ DOG _____ HUMPY _____	7 KING _____ DOG _____ HUMPY _____	8 KING _____ DOG _____ HUMPY _____	9 KING _____ DOG _____ HUMPY _____	10 KING _____ DOG _____ HUMPY _____	11 KING _____ DOG _____ HUMPY _____
12 KING _____ DOG _____ HUMPY _____	13 KING _____ DOG _____ HUMPY _____	14 KING _____ DOG _____ HUMPY _____	15 KING _____ DOG _____ HUMPY _____	16 KING _____ DOG _____ HUMPY _____	17 KING _____ DOG _____ HUMPY _____	18 KING _____ DOG _____ HUMPY _____
19 KING _____ DOG _____ HUMPY _____	20 KING _____ DOG _____ HUMPY _____	21 KING _____ DOG _____ HUMPY _____	22 KING _____ DOG _____ HUMPY _____	23 KING _____ DOG _____ HUMPY _____	24 KING _____ DOG _____ HUMPY _____	25 KING _____ DOG _____ HUMPY _____
26 KING _____ DOG _____ HUMPY _____	27 KING _____ DOG _____ HUMPY _____	28 KING _____ DOG _____ HUMPY _____	29 KING _____ DOG _____ HUMPY _____	30 KING _____ DOG _____ HUMPY _____		

Summer Chum =
Pink =

JULY 1994 SUBSISTENCE SALMON CALENDAR

Bering Sea  *Northern Peninsula* 

Catch date when if any occurs

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	2 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____
3 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	4 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	5 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	6 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	7 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	8 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	9 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____
10 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	11 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	12 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	13 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	14 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	15 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	16 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____
17 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	18 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	19 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	20 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	21 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	22 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	23 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____
24 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	25 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	26 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	27 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	28 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	29 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____	30 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____
31 KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____						

Summer Chum =
Coke =
Pink =

AUGUST 1994 SUBSISTENCE SALMON CALENDAR

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____			
7	8	9	10	11	12	13
FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____
14	15	16	17	18	19	20
FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____
21	22	23	24	25	26	27
FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____
28	29	30	31			
FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____			

SEPTEMBER 1994 SUBSISTENCE SALMON CALENDAR

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
 Breeding Run Common Names Chin salmon				1	2	3
				FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____
4	5	6	7	8	9	10
FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____
11	12	13	14	15	16	17
FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____
18	19	20	21	22	23	24
FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____
25	26	27	28	29	30	
FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	FALL CHUM _____ SILVER _____	

THANK YOU AGAIN.

This information is used to try to make sure there will be enough salmon for subsistence for Yukon River drainage families.

IF NOT PICKED UP BY OCTOBER 31, PLEASE RETURN TO.

Commercial Fisheries Management
and Development Division
Alaska Department of Fish and Game
1300 College Road
Fairbanks, Alaska 99701

Appendix C.2. Example of the salmon catch calendar mailed to Upper Yukon Area fishermen (reduced from original 11x17-inch size), 1994.

PLEASE WRITE THE NUMBER OF ALL SALMON CAUGHT EACH DAY BY PEOPLE LIVING IN YOUR HOUSE. PLEASE INCLUDE SALMON THAT WERE GIVEN TO PEOPLE WHO LIVE IN OTHER HOUSES AND SALMON THAT WERE CAUGHT FOR DOGFOOD. DO NOT INCLUDE SALMON SOLD WHEN COMMERCIAL FISHING.

WHEN DONE SALMON FISHING FOR THE YEAR, PLEASE HAVE THE CALENDAR AVAILABLE FOR PICK UP BY SURVEYOR OR MAIL IT BACK TO FISH AND GAME.

THANK YOU
 Please check this box if you did not fish for salmon in 1994.

Commercial Fisheries Management and Development Division
 Alaska Department of Fish and Game
 1300 College Road

NAME
 Upper Yukon

This calendar is sent to you by the Alaska Department of Fish and Game in Fairbanks.

Russ Rice
 U.S. Postage
 Paid
 Fairbanks, AK
 Permit No. 59

JULY 1994 SUBSISTENCE SALMON CALENDAR

PLEASE RECORD ANY SALMON CATCHES FROM JUNE HERE:

JUNE KINGS JUNE DOGS

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
 Common name: King salmon		 		1	2	
					KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____
3	4	5	6	7	8	9
KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____
10	11	12	13	14	15	16
KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____
17	18	19	20	21	22	23
KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____
24	25	26	27	28	29	30
KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____
31						
KING _____ DOG _____ SILVER _____						

Summer Chum =
Fall Chum =

AUGUST 1994 SUBSISTENCE SALMON CALENDAR

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1	2	3	4	5	6
	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)			
7	8	9	10	11	12	13
KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)
14	15	16	17	18	19	20
KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)
21	22	23	24	25	26	27
KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)
28	29	30	31			
KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)	KING _____ DOG _____ SILVER _____ CHUM _____ (Class)			

Summer Chum =
Fall Chum =

SEPTEMBER 1994 SUBSISTENCE SALMON CALENDAR

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
 <p>Breeding date</p> <p>Common name: Chum salmon</p>				1	2	3
<p>Fall Chum =</p>				4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

OCTOBER 1994 SUBSISTENCE SALMON CALENDAR

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1
<p>Fall Chum =</p>						2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

THANK YOU AGAIN.

This information is used to try to make sure there will be enough salmon for subsistence for Yukon River drainage families.

Commercial Fisheries Management
and Development Division
Alaska Department of Fish and Game
1300 College Road
Fairbanks, Alaska 99701

IF NOT PICKED UP BY OCTOBER 31, PLEASE RETURN TO:

Appendix C.3. Example of the preseason letter mailed with the 1994 catch calendars to Yukon River households.

STATE OF ALASKA

WALTER J. HICKEL, GOVERNOR

DEPARTMENT OF FISH AND GAME

1300 COLLEGE ROAD
FAIRBANKS, ALASKA 99701-1599

May 15, 1994

Dear Subsistence Salmon Fishermen:

The 1994 salmon fishing season is rapidly approaching. Each year we strive to improve the accuracy of the subsistence salmon harvest estimate for the Yukon River drainage and its communities in Alaska. These estimates are very important because they are used in regulation decisions by the Alaska Board of Fisheries and in the international treaty negotiations with Canada.

During our community visits and interviews with fishing households last fall. Many of you expressed an interest in the results of the survey. We interviewed 979 households of the approximately 2,581 households in the surveyed area of the Yukon River drainage. We estimated 1,152 Yukon River households participated in Yukon River subsistence fisheries in 1993. Additional Yukon River Area subsistence and personal use salmon harvests were compiled from the 442 households who were issued permits to fish in areas of the Yukon or Tanana Rivers where permits were required.

A total of 64,341 chinook salmon, 126,214 summer chum salmon, 76,980 fall chum salmon, and 15,812 coho salmon were estimated to have been harvested in both surveyed and permit areas of the Yukon River subsistence and personal use fisheries during the 1993 fishing season. The total Yukon River drainage subsistence and personal use salmon harvest has been estimated by community and fishing district on the attached table. To help us understand the role of the subsistence fishery to households and communities, we also recorded the size of fishing households, fishing gear information, the number of dogs, and the number of fish fed to dogs.

I would like to personally thank you for your participation in the 1993 survey. The project is continuing for the 1994 fishing season, and I have attached a 1994 fishing calendar for you to record your daily harvest of subsistence fish. In addition to our normal subsistence questions for 1994, we will be mapping subsistence fishing locations. If you fish in more than one location, please keep track of the fish you catch by location.

Thank you again for your cooperation!

Sincerely,



Russ Holder
Fishery Biologist
Commercial Fisheries Management
and Development Division
(907) 456-4286

Appendix C.3. (Page 2 of 2)

1993 ALASKAN YUKON RIVER DRAINAGE SUBSISTENCE & PERSONAL USE SALMON HARVESTS ^{a/}

Village	Estimation Method b/	Total Households or Permits Issued	Households Contacted or Permits Returned	Estimated Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
Kooper Bay	Survey	140	42	230	16,106	113	0
Scammon Bay	Survey	90	26	1,199	4,692	7	40
Sheldon Pt.	Survey	30	27	561	2,362	158	78
Alakanuk	Survey	122	35	2,562	8,935	182	138
Eamonak c/	Survey	156	53	4,372	15,568	1,507	196
Kotlik d/	Survey	103	36	2,913	7,121	5,923	1,931
District 1 Subtotal		641	219	11,837	54,784	7,890	2,383
Mt. Village	Survey	155	40	3,217	10,505	1,113	447
Pitkas Pt.	Survey	27	24	1,001	1,481	268	349
St. Marys	Survey	108	43	2,042	5,925	440	102
Pilot Station e/	Survey	96	40	2,661	5,640	1,017	477
Marshall	Survey	71	29	2,592	1,745	256	320
District 2 Subtotal		457	176	11,513	25,296	3,094	1,695
Russian Mission	Survey	59	22	3,275	1,838	172	152
Holy Cross	Survey	82	29	3,191	1,517	1,046	88
District 3 Subtotal		141	51	6,466	3,355	1,238	260
Anvik	Survey	39	18	643	1,735	420	115
Shageluk	Survey	40	27	128	4,183	211	39
Grayling	Survey	54	34	1,045	1,137	2,083	164
Katag	Survey	53	26	1,260	1,116	704	334
Kulato	Survey	95	29	1,660	15	571	37
Koyukuk	Survey	43	19	853	230	2,052	70
Galena	Survey	176	45	1,732	2,477	3,255	124
Ruby	Survey	87	25	3,263	1,459	1,085	308
District 4 Subtotal		587	223	10,604	12,352	10,381	1,191
Huslia	Survey	71	29	232	8,343	258	9
Hughes	Survey	19	19	88	827	169	3
Allakaket	Survey	43	27	133	2,651	233	3
Alatna	Survey	11	10	4	32	2	0
Bettles	Survey	33	30	1	34	0	0
Koyukuk River Subtotal		177	115	460	11,907	642	15
Tanana	Survey	134	37	3,342	4,245	23,103	5,576
Rampart	Survey	27	23	1,954	1,489	3,272	38
Stevens Village	Survey	33	26	1,754	633	862	0
Birch Creek	Survey	19	10	0	0	0	0
Beaver	Survey	33	22	1,557	134	692	135
Ft. Yukon	Survey	228	42	6,361	3,830	2,380	5
Fairbanks NSB	Permit	39	39	1,514	465	930	0
Circle	Permit	19	19	745	83	349	10
Central	Permit	14	14	210	2	0	0
Eagle	Permit	35	35	753	32	2,070	85
Other f/	Permit	9	8	437	24	1,750	0
District 5 Subtotal		590	275	18,649	10,957	35,408	5,849
Venetie	Survey	70	16	2,716	129	7,881	135
Chalkyitsik	Survey	34	19	0	0	475	0
Chandalar/Black R. Subtotal		104	35	2,716	129	8,356	135
Hanley g/	Permit	26	25	238	1,277	3,150	1,535
Kinto	Permit	40	33	648	367	301	300
Henderson	Permit	51	48	693	5,019	5,929	1,314
Healy	Permit	5	5	0	0	351	1,155
Fairbanks NSB	Permit	153	151	699	771	219	0
Delta Junction	Permit	4	4	0	0	1	0
Other h/	Permit	9	9	0	0	0	0
Tanana River Subtotal		288	275	2,098	7,434	9,951	4,304
Survey Subtotal		2,581	979	58,584	118,174	61,930	11,413
Permit Subtotal		404	390	5,757	8,040	15,050	4,399
Alaska Yukon River Drainage Total		2,985	1,369	64,341	126,214	76,980	15,812

a/ Source: "Estimates of Subsistence Salmon Harvests in the Yukon River Drainage 1993" (draft, June 1994) by Russell R. Bolder and Helen H. Hammer, Alaska Department of Fish and Game. Harvests are listed by fisherman's community of residence.

b/ Does not include permit information received after February 14, 1994.

c/ Includes 1,284 chinook, 2,846 summer chum, 1,364 fall chum, and 180 coho salmon harvested in ADF&G test fishery and given away for subsistence use.

d/ Includes 300 chinook, 1,265 summer chum, 2,328 fall chum, and 1,030 coho salmon harvested in ADF&G test fishery and given away for subsistence use.

e/ Includes 471 chinook, 2,098 summer chum, 652 fall chum, and 222 coho salmon harvested in ADF&G test fishery and given away for subsistence use.

f/ Includes information from permits issued to residents of other communities who fished the Upper Yukon Area.

g/ Includes 33 summer chum and 65 fall chum salmon harvested in ADF&G test fishery and given away for subsistence use.

h/ Includes information from permits issued to residents of other communities who fished the Tanana River Area.

Appendix C.4. Example of the salmon catch poster mailed to all Yukon Area post offices (reduced from original 11x17-inch size), 1994.

ATTENTION SUBSISTENCE SALMON FISHERMEN

**PLEASE COMPLETE YOUR CATCH
CALENDAR THIS SUMMER.**

PLEASE WRITE THE NAMES OF ALL SALMON CATCHERS EACH DAY BY PEOPLE LIVING IN YOUR HOUSE. PLEASE INCLUDE SALMON THAT WERE GIVEN TO PEOPLE WHO LIVE IN OTHER HOUSES AND SALMON THAT WERE CATCHED FOR CONSUMPTION. DO NOT INCLUDE SALMON SOLD TO OTHER COMMERCIAL PERSONS.

PLEASE PRINT SOME SALMON FISHING FOR THE YEAR. PLEASE HAVE THE CALENDAR AVAILABLE FOR PICK UP BY RAVENOR OR MAIL IT BACK TO THE AFSB OFFICE.

PLEASE YOU:
 Please attach this form if you did not get the address in 1994.

Commercial Fisheries Management and Subsistence Activities
Alaska Department of Fish and Game
1300 College Road

MAIL BOX
U.S. POSTAGE
Paid
Fairbanks, AK
Permit No. 10

NAME _____
 LAST FIRST _____

This calendar is not to sell for the Alaska Department of Fish and Game or Private.

JULY 1994 SUBSISTENCE SALMON CALENDAR

PLEASE RECORD ANY SALMON CATCHES FROM ABOVE HOUSES

		AUG 1993		AUG 1994			
		1	2	3	4	5	6
	CATCH						
	WEIGHT						
		7	8	9	10	11	12
	CATCH						
	WEIGHT						
		13	14	15	16	17	18
	CATCH						
	WEIGHT						
		19	20	21	22	23	24
	CATCH						
	WEIGHT						
		25	26	27	28	29	30
	CATCH						
	WEIGHT						

AUGUST 1994 SUBSISTENCE SALMON CALENDAR

		1	2	3	4	5	6	7
	CATCH							
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Appendix C.5. Example of the announcements faxed to radio stations in the areas to be surveyed, 1994.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME
DIVISION OF COMMERCIAL FISHERIES
MANAGEMENT AND DEVELOPMENT

WALTER J. HICKEL, GOVERNOR

1300 COLLEGE ROAD
FAIRBANKS, ALASKA 99701-1599
PHONE: (907) 456-4286
FAX: (907) 452-1668

October 1, 1994

KIYU
656-1488
FAX 656-1734
Galena, Alaska

Please read the following message over the air on October 2 and 3:

"The Alaska Department of Fish & Game will be conducting its annual subsistence salmon survey next week in the villages of Shageluk, Kaltag, Nulato, Koyukuk, Galena, Huslia, and Ruby. Surveyors will be picking up the bright pink subsistence fishing calendars and interviewing subsistence fishermen. Fish and Game thanks you for helping them count the salmon harvest on the Yukon River."

FAXED
10/1/94
RCC

Thanks for your help,

Richard S. Chapell
Richard Chapell
AK Dept. of Fish & Game
1300 College Road
Fairbanks, AK 99701
456-4286

Appendix C.6. Example of the Yukon River subsistence salmon postseason interview form, 1994.

Community _____ HHID# _____
 Date of Survey _____ Person interviewed _____
 Interviewer _____ Relation to HH _____

YUKON AREA
 1994 Post-Season Subsistence Salmon Harvest Survey
 CONFIDENTIAL INFORMATION

1. We would like to make sure we have the correct name and address for this household.

Correct name of household head _____
 Occupational or Permanent Note _____
 Significant Other _____
 Occupational or Permanent Note _____
 Mailing address _____ Phone _____
 Adult household member was contacted and declined to be interviewed () _____

2. Did anyone in this household catch salmon for subsistence this year? Yes ___ No ___ (If no go to area II.)
 Fish use includes fish eaten fresh, frozen, dried, smoked, and those used for dog food. Include all salmon kept for subsistence use. Include female carcasses with roe removed and roe sold commercially.

I. HOUSEHOLD FISHED

3. May I have your fish catch calendar?
 Picked up by interviewer ___ Didn't get one ___ Didn't use ___ Not Available ___ Already sent in ___

How many total salmon did you or your whole fishing group catch this year? (are all fish on calendar?)
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____ Could not estimate _____

How many households help catch these fish? _____ (Names) _____

4. Portion of catch for this household.
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____ Could not estimate _____

5. Where do you catch your subsistence salmon? (Circle all that apply and divide harvest by area)
 Ocean | 2 | 3 | 4A | 4B | 4C | 5A | 5B | 5C | 5D | Porcupine, Koyukuk, Innoko, Chandalar, Black
 1st Area ___ CHINOOK ___ SUMMER CHUM ___ FALL CHUM ___ COHO ___ Could not estimate ___
 2nd Area ___ CHINOOK ___ SUMMER CHUM ___ FALL CHUM ___ COHO ___ Could not estimate ___

6. How many of these salmon did you process ("put up") for your household's use?
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____

If this household did not process ("put up") all the salmon they caught, ask who they shared with.
 7. Did this household share the salmon catch with any other households? (Names, HHIDs, Species and Numbers)

8. How many of these fish were commercially caught? (i.e. retained by a commercial fisherman during a commercial fishing period for subsistence use. Include female carcasses with roe removed and sold separately and all male salmon in Districts 4, 5, and 6)
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____

9. What is this households' primary type of subsistence fishing gear? (In order of importance 1 = primary)
 Set net ___ Drift net ___ Fishwheel ___ Rod & Reel ___ Other _____

II. ALL HOUSEHOLDS

10. Did this household catch any other fish this year? (From Sept/Oct of last year to now.)
 WHITEFISH _____ SHEEFISH _____ BURBOT(Lish) _____ PKE _____ BLACKFISH _____ GRAYLING _____ SUCKERS _____

11. Was this household given any salmon? Yes ___ No ___

Subsistence Fishermen (Name) _____
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____

Subsistence Fishermen (Name) _____
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____

Commercial Fisherman (Name) (Use only fish wanted for subsistence use while commercial fishing) _____
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____

From Fish and Game (Where) _____
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____

12. How many people live in this household? _____ People

13. How many dogs does this household have? _____

Do you feed whole salmon to your dogs? Yes ___ No ___ Scraps _____

How many whole salmon will you feed to your dogs this year? (These can be subsistence and commercial, especially Arvik, Grayling, Kahag, and Nulato / numbers should represent whole fish, not scraps.)
 Are these salmon from the commercial fishery yes ___ no ___ some _____

(subsistence #'s) SUMMER CHUM (dog) _____ FALL CHUM (silver) _____ COHO (silver) _____
 (commercial #'s) SUMMER CHUM (dog) _____ FALL CHUM (silver) _____ COHO (silver) _____

14. Did your household get enough subsistence salmon this year? Yes ___ No ___ (Continue) Could not estimate ___
 If the answer is no ask:
 Why didn't you meet your salmon needs this year? _____

 What food are you planning to substitute for the salmon you didn't get? _____

THIS HOUSEHOLD'S TOTAL SUBSISTENCE SALMON CATCH (This area filled in by the surveyor after the interview)
 Subtract numbers of question 8 from question 4 (i.e. 4-8)
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____

THIS HOUSEHOLD'S TOTAL SUBSISTENCE SALMON USE (This area filled in by the surveyor after the interview)
 (Add numbers from questions 6 and question 11 (i.e. 6+11))
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____

THANK YOU VERY MUCH FOR YOUR HELP. THIS HARVEST INFORMATION WILL BE USED TO MAKE SURE THERE WILL BE ENOUGH SUBSISTENCE SALMON FOR FAMILIES ALONG THE RIVER.
 Interviewer comments about this interview or anything of value for assisting data analysis.

Appendix C.7. Example of the poster sent to the Upper Yukon Area post offices announcing the dates and times of village permit issuance, 1994.



ATTENTION SUBSISTENCE SALMON FISHERMEN

IF YOU ARE PLANNING TO FISH IN 1994 IN THE TANANA RIVER, EAGLE OR CIRCLE AREAS, OR IN THE VICINITY OF THE YUKON RIVER BRIDGE, YOU WILL NEED TO OBTAIN A SUBSISTENCE PERMIT. A REPRESENTATIVE FROM THE COMMERCIAL FISHERIES MANAGEMENT AND DEVELOPMENT DIVISION WILL BE IN YOUR AREA ISSUING PERMITS IN THE FOLLOWING PLACES AND TIMES:

<u>VILLAGE</u>	<u>DATE</u>	<u>TIME</u>	<u>PLACE</u>
Eagle	5/25/94	4pm to 7pm	Post Office
Minto	5/31/94	noon to 3pm	Lake V. Lodge
Manley	6/01/94	10am to 1pm	City Park
Nenana	6/02/94	11am to 2pm	Boat Landing
Central	6/02/94	noon to 3pm	Post Office
Circle	6/03/94	11am to 2pm	Boat Landing



PLEASE POST

Appendix C.8. Example of the letter sent to all subsistence fishermen from the listed villages that complied with 1993 reporting requirements, announcing the dates and times for 1994 permit issuance.

STATE OF ALASKA

WALTER J. HICKEL, GOVERNOR

DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES
MANAGEMENT AND DEVELOPMENT

1300 COLLEGE ROAD
FAIRBANKS, ALASKA 99701-1599
PHONE: (907) 456-4286
FAX: (907) 452-1668

May 20, 1994

Dear Subsistence Fishermen:

Current regulations identify three areas in the upper Yukon River drainage for which salmon fishermen are required to obtain a subsistence permit. Subsistence fishing permits are required for fishing in the Eagle and Circle areas, near the Yukon River Bridge (between Hess Creek and the Dall River), and in the Tanana River drainage. Our records indicate that you were issued a 1993 subsistence permit for one of the above areas. If you are planning to fish in 1994 in one of the regulated areas, you will again need to obtain a permit. We are writing to you prior to the 1994 fishing season to give you an opportunity to complete a subsistence permit for the 1994 season at one of the following places and times:

<u>Village</u>	<u>Date</u>	<u>Time</u>	<u>Place</u>
Eagle	5/25/94	4pm to 7pm	Post Office
Minto	5/31/94	noon to 3pm	City Office
Manley	6/01/94	10am to 1pm	City Park
Nenana	6/02/94	11am to 2pm	Boat Landing
Central	6/02/94	noon to 3pm	Post Office
Circle	6/03/94	11am to 2pm	Boat Landing

If you would like to be personally issued a permit, please complete the top portion of the enclosed "Application and Permit" form and bring this with you to meet us when we come to your area. We will be completing the "Issuing Officer" portion of your application and returning the completed subsistence permit to you.

If you would like to be issued a permit by mail, please complete the top portion of the enclosed "Application and Permit" form, indicate any changes to your address, fill in the requested information, sign it, and return the "Application and Permit" forms to us. We will complete the "Issuing Officer" section, sign it, and mail it back to you. The application form is not a permit until you have completed and signed the top portion, and we have completed the "Issuing Officer" portion and signed it.

If you have any questions or comments, please feel free to contact this office.

Sincerely,

Bonnie M. Borba

Bonnie Borba
Fishery Biologist
Commercial Fisheries Management
and Development Division
(907)456-4286

Appendix C.9. Example of the Upper Yukon Area subsistence fishing permit application, 1994.

Household Application and Permit
for Subsistence Fishing

Dept. of Fish and Game, Commercial Fisheries Management and Development Division
1300 College Road, Fairbanks, AK 99701 Phone 456-4286



Name _____ Phone _____
(PLEASE PRINT) (Home, Work, Message)

Mailing Address _____
City State Zipcode

Number in your Household _____ Household Fishermen _____
(Include yourself) (Names of other household members authorized to fish this household's gear)

Number of Dogs in Household _____ Do you feed whole salmon to dogs? (not scraps) yes no
(Circle one)

Area to be Fished: (Circle one) Tanana 6A. Tanana 6B. Tanana 6C. Yukon River Bridge, Circle/Eagle

Gear: Fish Wheel _____ and/or Set Gillnet _____ length _____ stretch mesh size _____

Conditions of Permit: All regulations pertaining to subsistence fishing in the area to be fished are to be observed. Anyone fishing this household's gear must be named above as a fisherman and carry this permit on their person during any fishing activity. A summary of subsistence fishing regulations is available from the Fairbanks office. It is unlawful to sell or buy fish or their eggs caught for subsistence use. For a 24-hour recording of subsistence, personal use, and commercial salmon fishing schedules, call 452-4387.

An accurate record of fish taken under authority of this permit must be kept and recorded in the appropriate spaces on the reverse side of this permit. PERMITTEES FISHING IN SUBDISTRICT 6-C AND SUBDISTRICT 6-B (three miles upstream of Totchaket Slough) ARE REQUIRED TO REPORT THEIR WEEKLY CATCHES BY CALLING THE DEPARTMENT OF FISH AND GAME AT 452-7466 BY 4:30 P.M. EVERY THURSDAY. Return this permit with your completed catch information to the Alaska Department of Fish and Game, 1300 College Road, Fairbanks, Alaska, 99701 within 10 days after permit expiration date. FAILURE TO RETURN YOUR PERMIT OR REPORT YOUR CATCH INFORMATION WILL RESULT IN YOUR NOT BEING ISSUED A PERMIT NEXT YEAR.

X _____ Date _____ Birthdate or Drivers License # _____

Signature of Permittee: I hereby claim the information contained on this permit is a true statement as witnessed by my signature above and I further state that I am a resident of Alaska.

TO BE COMPLETED BY ISSUING OFFICER: The above named person(s) is authorized to take fish according to the following stipulations: Permit is valid for one location only and expires October 15, 1994, unless otherwise noted.

- Tanana 6A/SA Under authority of this permit 60 chinook salmon and 500 chum salmon may be taken from the date of issue through August 15, 1994, and from August 16 through October 15, 1994. 2,000 chum/coho salmon combined may be taken (excluding the Kantishna River).
- Tanana 6B/SB
- Tanana 6C/SC Under authority of this permit 10 chinook and 75 chum salmon may be taken from the date of issue through August 15, 1994, and from August 16, 1994 through October 15, 1994. 75 chum/coho salmon combined may be taken.
- Yukon Bridge/SY Under authority of this permit fish may be taken from the Yukon River from the mouth of Hess Creek to the mouth of the Dall River.
- Circle, Eagle/SE Under authority of this permit fish may be taken from the Yukon River from the mouth of 22 mile slough upstream to the U.S.-Canada border.

Signature of Issuing Officer _____ Date issued _____ Permit Number _____

Appendix C.10. Example of the Tolovana River Drainage subsistence pike fishing permit application, 1994.

**Household Application and Permit
for Subsistence Fishing**
Dept. of Fish and Game, Commercial Fisheries Management and Development Division
1300 College Road, Fairbanks, AK 99701 Phone 456-4286



Name _____ Phone _____
(PLEASE PRINT) (Home, Work, Message)

Mailing Address _____
City State Zipcode

Number in your Household _____ Household Fishermen _____
(include yourself) (Names of other household members authorized to fish this household's gear)

Number of Dogs in Household _____ Do you feed whole salmon to dogs? (not scraps) yes no
(Circle one) (Circle one)

Area to be Fished: (Circle one) Tolovana River, Kantishna River, Delta River

Gear: Fish Wheel _____ and/or Set Gillnet _____ length _____ stretch mesh size _____

Conditions of Permit: All regulations pertaining to subsistence fishing in the area to be fished are to be observed. Anyone fishing this household's gear must be named above as a fisherman and carry this permit on their person during any fishing activity. A summary of subsistence fishing regulations is available from the Fairbanks office. It is unlawful to sell or buy fish or their eggs caught for subsistence use. For a 24-hour recording of subsistence, personal use, and commercial salmon fishing schedules, call 452-4387.

An accurate record of fish taken under authority of this permit must be kept and recorded in the appropriate spaces on the reverse side of this permit. PERMITTEES FISHING IN CHATANIKA RIVER DRAINAGE ARE REQUIRED TO REPORT THEIR WEEKLY CATCHES BY CALLING THE DEPARTMENT OF FISH AND GAME AT 452-7466 BY 4:30 P.M. EVERY WEDNESDAY. Return this permit with your completed catch information to the Alaska Department of Fish and Game, 1300 College Road, Fairbanks, Alaska, 99701 within 10 days after permit expiration date. FAILURE TO RETURN YOUR PERMIT OR REPORT YOUR CATCH INFORMATION WILL RESULT IN YOUR NOT BEING ISSUED A PERMIT NEXT YEAR.

X _____ Birthdate or
Date Drivers License#

Signature of Permittee - I hereby claim the information contained on this permit is a true statement as witnessed by my signature above and I further state that I am a resident of Alaska.

TO BE COMPLETED BY ISSUING OFFICER: The above named person(s) is authorized to take fish according to the following stipulations: Permit is valid for one location only and expires December 31, 1994, unless otherwise noted.

- Tolovana River:ST Under authority of this permit pike from the Tolovana River drainage may be taken from the date of issue through December 31, 1994. Expiration date is December 31, 1994.
- Kantishna River:SK Under authority of this permit 60 chinook and 500 chum salmon may be taken from the date of issue through August 15, 1994 from Subdistrict 6-A. From August 16 through December 31, 1994, 450 chum salmon may be taken from the Kantishna River and fishermen are required to keep daily and cumulative harvest information at the fishing site that is accessible to department personnel. The Kantishna River fishery limit is 2,000 fall chum salmon, once the fishery limit is taken, the subsistence fishery will close by emergency order. Expiration date is December 31, 1994.
- Delta River:SD Under authority of this permit 75 salmon carcasses may be taken from the Delta River after November 20, 1994 by hand, gaff, or rake. Permit expires December 15, 1994.

Signature of Issuing Officer _____ Date Issued _____ Permit Number _____

Appendix C.11. Example of the Upper Yukon Area subsistence whitefish and sucker fishing permit application, 1994.

**Household Application and Permit
for Subsistence Whitefish & Sucker Fishing**
Dept. of Fish and Game, Commercial Fisheries Management and Development Division
1300 College Road, Fairbanks, AK 99701 Phone 456-4236



(PLEASE PRINT)

Name _____ Phone _____

(Some Work Message)

Mailing Address _____

City State Zipcode

Number in your Household _____ Household Fishermen _____
(Include yourself) (Names of other household members authorized to fish this household's gear)

Number of Dogs in Household _____ Do you feed whole fish to dogs? (not scraps) yes no (Circle one)

Describe in detail the exact area to be fished. Include tributary streams and/or river mile designations. You may substitute a USGS map with your fishing area clearly designated.

Dates you plan to fish: From _____ To _____

Gear: Fish Wheel _____ and/or Set Gillnet _____ length _____ stretch mesh size _____
Other (describe) _____

Number or pounds of whitefish and/or suckers to be harvested: _____

Conditions of Permit: Subsistence whitefish and sucker applications may go through a review process which usually takes 15 working days. All regulations pertaining to subsistence fishing in the area to be fished are to be observed. Anyone fishing this household's gear must be named above as a fisherman and carry this permit on their person during any fishing activity. A summary of subsistence fishing regulations is available from the Fairbanks office. For a 24-hour recording of subsistence, personal use, and commercial salmon fishing schedules, call 452-4387.

An accurate record of fish taken under authority of this permit must be kept and recorded in the appropriate spaces on the provided catch sheet. Return this permit with your completed catch information to the Alaska Department of Fish and Game, 1300 College Road, Fairbanks, Alaska, 99701 within 10 days after permit expiration date. FAILURE TO RETURN YOUR PERMIT AND CATCH FORM WILL RESULT IN YOUR NOT BEING ISSUED A PERMIT NEXT YEAR.

Birthdate

or

X _____ Date _____ Drivers License # _____

Signature of Permittee - I hereby claim the information contained on this permit is a true statement as witnessed by my signature above and I further state that I am a resident of Alaska.

TO BE COMPLETED BY ISSUING OFFICER: The above named person(s) is authorized to take fish according to the stipulations below and those in the attached letter:

Valid fishing location is _____

Valid fishing dates begin _____ and the permit expires on _____

Valid fishing gear is _____

Under authority of this permit _____ whitefish and _____ suckers may be taken.

Signature of issuing Officer _____ Date issued _____ Permit Number _____

Appendix C.12. Example of the first Upper Yukon Area subsistence fishing permit reminder letter, 1994.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES

January 4, 1995 MANAGEMENT AND DEVELOPMENT

TONY KNOWLES, GOVERNOR

1300 COLLEGE ROAD
FAIRBANKS, ALASKA 99701-1599
PHONE: (907) 456-4288
FAX: (907) 452-1668

██████████
██████████
████████████████████

Dear ████████:

The department issued fishing permit SC-████-94 to you for the 1994 season. To date, the department has not received your expired permit and catch information for the 1994 season. Regulations require you to keep an accurate record of your catch and to return the expired permit with the catch record at the end of the season. Even if you did not fish, or caught no fish, you must return your permit. FAILURE TO RETURN YOUR PERMIT AND CATCH INFORMATION WILL RESULT IN YOUR NOT BEING ISSUED A PERMIT NEXT YEAR.

Please return your expired permit and catch information immediately. If you are unable to locate the expired permit, please fill out the following questions and return this letter to: Department of Fish and Game, Commercial Fisheries Management and Development Division, 1300 College Road, Fairbanks, Alaska, 99701-1599.

I fished in 1994. Yes No (Circle one)

If you fished in 1994, please fill in the number you caught below.

Chinook/Kings _____ Fall Chums _____ Whitefish _____

Summer Chums _____ Coho _____ Other _____

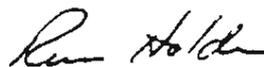
Whole salmon fed to dogs or put up for dog food _____

Signature

Date

Your catch information is needed to accurately document last seasons harvest. Thank you in advance for your cooperation.

Sincerely,



Russ Holder
Fishery Biologist
Commercial Fisheries Management
and Development Division
(907) 459-7274

Appendix C.13. Example of the second Upper Yukon Area subsistence fishing permit reminder letter, 1994.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES MANAGEMENT AND DEVELOPMENT

TONY KNOWLES, GOVERNOR

1300 COLLEGE ROAD
FAIRBANKS, ALASKA 99701-1599
PHONE: (907) 459-7274
FAX: (907) 452-1668

February 17, 1995

[REDACTED]

Dear [REDACTED]:

The department issued fishing permit SA- [REDACTED] 94 to you for the 1994 season. To date, the department has not received your expired permit and catch information for the 1994 season. Regulations require you to keep an accurate record of your catch and to return the expired permit with the catch record at the end of the season. Even if you did not fish, or caught no fish, you must return your permit. **FAILURE TO RETURN YOUR PERMIT AND CATCH INFORMATION WILL RESULT IN YOUR NOT BEING ISSUED A PERMIT NEXT YEAR.**

Please return your expired permit and catch information immediately. If you are unable to locate the expired permit, please fill out the following questions and return this letter to: Department of Fish and Game, Commercial Fisheries Management and Development Division, 1300 College Road, Fairbanks, Alaska, 99701. I have enclosed a self-addressed stamped envelope for your use.

I fished in 1994. Yes No (Circle one)

If you fished in 1994, please fill in the number you caught below.

Chinook/Kings _____ Fall Chums _____ Whitefish _____

Summer Chums _____ Coho _____ Other _____

Whole salmon fed to dogs or put up for dog food _____

Signature

Date

We need your catch information to help us make an accurate assessment of the run and the harvest. This is your second and **FINAL** notice that we have not received any information from you. To get a permit next year, you must report your catch for last season.

Sincerely,



Russ Holder
Fishery Biologist
Commercial Fisheries Management
and Development Division
(907) 459-7274

Appendix C.14. Example of the first Upper Yukon Area subsistence fishing permit reminder letter sent to households which had complied with the inseason reporting requirement but had not reported postseason, 1994.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES
MANAGEMENT AND DEVELOPMENT

TONY KNOWLES, GOVERNOR

1300 COLLEGE ROAD
FAIRBANKS, ALASKA 99701-1599
PHONE: (907) 456-4286
FAX: (907) 452-1668

January 4, 1995

[REDACTED]

Dear [REDACTED]:

The department issued subsistence fishing permit SC- [REDACTED]-94 to you for the 1994 season. We appreciate and use your inseason telephone reporting. My summary of your telephone reports indicate that you harvested the number of fish indicated below:

Chinook	0	Fall Chum	163
Summer Chum	0	Coho	14

Although you may feel that you have completed your reporting requirement, we have not received your expired permit. A condition of the permit you were issued requires that you keep an accurate record of your catch and return your expired permit with the catch information at the end of the season. I need your expired permit to confirm the total number of fish you harvested this past season.

Please return your expired permit and catch information immediately. If you are unable to locate the expired permit, please fill in the number of fish you caught last season and return this letter to: Department of Fish and Game, Commercial Fisheries Management and Development Division, 1300 College Road, Fairbanks, Alaska, 99701-1599.

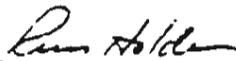
Chinook/Kings _____ Fall Chums _____ Whitefish _____
 Summer Chums _____ Coho _____ Other _____
 Whole salmon fed to dogs or put up for dog food _____

Signature

Date

Your catch information is needed to accurately document last seasons harvest. Thank you in advance for your cooperation.

Sincerely,


Russ Holder
Fishery Biologist
Commercial Fisheries Management
and Development Division
(907) 459-7274

Appendix C.15. Example of the second Upper Yukon Area subsistence fishing permit reminder letter sent to households which had complied with the inseason reporting requirement but had not reported postseason, 1994.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES MANAGEMENT AND DEVELOPMENT

TONY KNOWLES, GOVERNOR

1300 COLLEGE ROAD
FAIRBANKS, ALASKA 99701-1599
PHONE: (907) 459-7274
FAX: (907) 452-1668

February 17, 1995

██████████
██████████
██████████ AK ██████████

Dear ██████████:

The department issued subsistence fishing permit SA-██████████-94 to you for the 1994 season. We appreciate and use your inseason telephone reporting. My summary of your telephone reports indicates that you harvested the number of fish indicated below:

Chinook 40 Summer Chum 0 Fall Chum 0 Coho 0

Although you may feel that you have completed your reporting requirement, we have not received your expired permit. A condition of the permit you were issued requires that you keep an accurate record of your catch, and that you return your expired permit with the catch information at the end of the season. I need your expired permit to confirm the total number of fish you harvested this past summer. I have enclosed a self-addressed stamped envelope for your use.

Please return your expired permit and catch information immediately. If you are unable to locate the expired permit, please fill in the number of fish you caught last season and return this letter to: Department of Fish and Game, Commercial Fisheries Management and Development Division, 1300 College Road, Fairbanks, Alaska, 99701-1599.

Chinook/Kings _____ Fall Chums _____ Whitefish _____

Summer Chums _____ Coho _____ Other _____

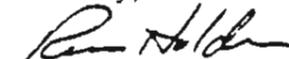
Whole salmon fed to dogs or put up for dog food _____

Signature

Date

We need your catch information to help us make an accurate assessment of the run and the harvest. This is your second and FINAL notice that we have not received your expired permit or confirmation of your season's harvest. TO GET A PERMIT NEXT YEAR, YOU MUST REPORT YOUR CATCH FOR LAST SEASON.

Sincerely,



Russ Holder
Fishery Biologist
Commercial Fisheries Management
and Development Division
(907) 459-7274

Appendix C.16. Example of the first Tolovana River drainage subsistence pike fishing permit reminder letter, 1994.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES
MANAGEMENT AND DEVELOPMENT

January 4, 1995

TONY KNOWLES, GOVERNOR

1300 COLLEGE ROAD
FAIRBANKS, ALASKA 99701-1599
PHONE: (907) 456-4298
FAX: (907) 452-1668

[REDACTED]
[REDACTED]
[REDACTED]

Dear [REDACTED]:

The department issued PIKE fishing permit ST- [REDACTED]-94 to you for the 1994 season. To date, the department has not received your expired permit and catch information for the 1994 season. Regulations require you to keep an accurate record of your catch and to return the expired permit with the catch record at the end of the season. Even if you did not fish, or caught no fish, you must return your permit. **FAILURE TO RETURN YOUR PERMIT AND CATCH INFORMATION WILL RESULT IN YOUR NOT BEING ISSUED A PERMIT NEXT YEAR.**

Please return your expired permit and catch information immediately. If you are unable to locate the expired permit, please fill out the following questions and return this letter to me. I have enclosed a self-addressed stamped envelope for your use.

I fished in the Tolovana River drainage in 1994. Yes No (Circle one)

If you fished in 1994, please fill in the number you caught below.

Pike _____ Whitefish _____ Burbot _____

Suckers _____ Sheefish _____ Grayling _____

Signature

Date

Your catch information is needed to accurately document last season's harvest. Thank you in advance for your cooperation.

Sincerely,

Bonnie Borba

Bonnie Borba
Fishery Biologist
CFMD Division
(907) 459-7274

Appendix C.17. Example of the second Tolovana River drainage subsistence pike permit reminder letter, 1994.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES MANAGEMENT AND DEVELOPMENT

TONY KNOWLES, GOVERNOR

1300 COLLEGE ROAD
FAIRBANKS, ALASKA 99701-1598
PHONE: (907) 459-7274
FAX: (907) 452-1668

February 21, 1995

██████████
██████████
██████████

Dear ██████:

The department issued PIKE fishing permit ST-████-94 to you for the 1994 season. To date, the department has not received your expired permit and catch information for the 1994 season. Regulations require you to keep an accurate record of your catch and to return the expired permit with the catch record at the end of the season. Even if you did not fish, or caught no fish, you must return your permit.

Please return your expired permit and catch information immediately. If you are unable to locate the expired permit, please fill out the following questions and return this letter to me. I have enclosed a self-addressed stamped envelope for your use.

I fished in the Tolovana River drainage in 1994. Yes No (Circle one)

If you fished in 1994, please fill in the number you caught below.

Pike _____ Whitefish _____ Burbot _____

Suckers _____ Sheefish _____ Grayling _____

Signature

Date

Your catch information is needed to accurately document last season's harvest. This is your second and FINAL notice that we have not received any information from you. TO GET A PERMIT NEXT YEAR, YOU MUST REPORT YOUR CATCH FOR LAST SEASON.

Sincerely,



Russ Holder
Fishery Biologist
Commercial Fisheries Management
and Development Division
(907) 459-7274

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