

**Fishery Data Series No. 12-41**

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**Subsistence and Personal Use Salmon Harvests in the  
Alaska Portion of the Yukon River Drainage, 2007**

by

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and

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August 2012

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Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



## Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

<b>Weights and measures (metric)</b>		<b>General</b>		<b>Mathematics, statistics</b>	
centimeter	cm	Alaska Administrative Code	AAC	<i>all standard mathematical signs, symbols and abbreviations</i>	
deciliter	dL	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	alternate hypothesis	$H_A$
gram	g	all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.	base of natural logarithm	$e$
hectare	ha	at	@	catch per unit effort	CPUE
kilogram	kg	compass directions:		coefficient of variation	CV
kilometer	km	east	E	common test statistics	(F, t, $\chi^2$ , etc.)
liter	L	north	N	confidence interval	CI
meter	m	south	S	correlation coefficient (multiple)	R
milliliter	mL	west	W	correlation coefficient (simple)	r
millimeter	mm	copyright	©	covariance	cov
		corporate suffixes:		degree (angular)	$^\circ$
<b>Weights and measures (English)</b>		Company	Co.	degrees of freedom	df
cubic feet per second	ft <sup>3</sup> /s	Corporation	Corp.	expected value	$E$
foot	ft	Incorporated	Inc.	greater than	>
gallon	gal	Limited	Ltd.	greater than or equal to	$\geq$
inch	in	District of Columbia	D.C.	harvest per unit effort	HPUE
mile	mi	et alii (and others)	et al.	less than	<
nautical mile	nmi	et cetera (and so forth)	etc.	less than or equal to	$\leq$
ounce	oz	exempli gratia (for example)	e.g.	logarithm (natural)	ln
pound	lb	Federal Information Code	FIC	logarithm (base 10)	log
quart	qt	id est (that is)	i.e.	logarithm (specify base)	log <sub>2</sub> , etc.
yard	yd	latitude or longitude	lat. or long.	minute (angular)	'
		monetary symbols (U.S.)	\$, ¢	not significant	NS
<b>Time and temperature</b>		months (tables and figures): first three letters	Jan,...,Dec	null hypothesis	$H_0$
day	d	registered trademark	®	percent	%
degrees Celsius	°C	trademark	™	probability	P
degrees Fahrenheit	°F	United States (adjective)	U.S.	probability of a type I error (rejection of the null hypothesis when true)	$\alpha$
degrees kelvin	K	United States of America (noun)	USA	probability of a type II error (acceptance of the null hypothesis when false)	$\beta$
hour	h	U.S.C.	United States Code	second (angular)	"
minute	min	U.S. state	use two-letter abbreviations (e.g., AK, WA)	standard deviation	SD
second	s			standard error	SE
				variance	
<b>Physics and chemistry</b>				population sample	Var var
all atomic symbols					
alternating current	AC				
ampere	A				
calorie	cal				
direct current	DC				
hertz	Hz				
horsepower	hp				
hydrogen ion activity (negative log of)	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

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ALASKA PORTION OF THE YUKON RIVER DRAINAGE, 2007**

by

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## ABSTRACT

This annual study estimates subsistence and personal use salmon harvest within the Alaska portion of the Yukon River drainage. Most Yukon Area communities have no regulatory requirements to report their subsistence salmon harvest. For these remote communities, the Alaska Department of Fish and Game uses a voluntary survey program to estimate subsistence salmon harvest. Harvest information was collected through postseason household interviews, follow-up telephone interviews, postal questionnaires, and harvest calendars. Stratified random sampling techniques were used to select Yukon Area households to be interviewed. In 2007 a total of 1,086 households were contacted in 33 communities. Data from surveyed households were expanded to estimate the harvest of unsurveyed households. In more accessible portions of the Yukon Area, fishermen are required to document their harvest on a subsistence or personal use permit. In 2007, 508 subsistence and personal use permits were issued, with 94% returned. Of these returned permits, 274 reported fishing. This report also documents subsistence fish given to households from various test fish projects. The total subsistence and personal use harvest throughout the Yukon Area was estimated to be 55,310 Chinook *Oncorhynchus tshawytscha*, 93,110 summer chum *O. keta*, 101,394 fall chum *O. keta*, and 19,759 coho *O. kisutch* salmon. The primary fishing gear types used were set gillnets (50%), drift gillnets (41%), and fish wheels (9%). Approximately 1,494 households own 4,925 dogs and 255 households fed an estimated 89,839 salmon to dogs.

Key words: Tanana River, Yukon River, Chinook *Oncorhynchus tshawytscha*, chum *O. keta*, and coho salmon *O. kisutch*, northern pike *Esox lucius*, inconnu *Stenodus leucichthys*, whitefish *Coregonus* spp., harvest, personal use, subsistence.

## INTRODUCTION

Since 1961, the Alaska Department of Fish and Game (ADF&G) has collected information on subsistence salmon harvests in the Yukon Area (ADF&G 2002). Subsistence harvest estimates provide a record of historic harvest and trends. Annual documentation of the subsistence salmon harvest is used in conjunction with commercial, sport, and personal use harvests, and escapement estimates to calculate total run size. Harvest and escapement information combined with age composition are used to construct brood tables and estimate the number of returning offspring per spawner for some stocks. Subsistence harvests provide information that ADF&G uses to forecast future salmon returns and provide an outlook on subsistence fishing in the coming year.

The Yukon River drainage supports 5 species of Pacific salmon: Chinook *Oncorhynchus tshawytscha*, chum *O. keta*, coho *O. kisutch*, pink *O. gorbuscha*, and sockeye *O. nerka* salmon. The majority of subsistence and personal use harvests are made up of Chinook, chum, and coho salmon. The chum salmon return consists of 2 temporally and genetically distinct stocks: early or summer chum and late or fall chum. Subsistence salmon fishing activities in the Yukon Area typically begin in late May and continue through early October. Salmon fishing in May and October is highly dependent upon river ice conditions.

Yukon Area communities have a long tradition of harvesting salmon for subsistence use. Fishing activities are usually based from a fish camp or a home community. Extended family groups, representing 2 or more households, often work together to harvest, cut, and preserve salmon for subsistence use. Some households from Yukon River tributary communities, such as Shageluk and Venetie, may operate or share in the operation of fish camps along the mainstem Yukon River (Figure 1). Subsistence salmon harvested for human consumption are commonly dried, smoked, canned, or frozen.

Residents of the communities in the Yukon River drainage are primarily of Yupik Eskimo and Athabascan Indian descent. Excluding the greater Fairbanks area (approximately 91,500 people), the recent census estimates indicated the population of rural Yukon Area residents within the Denali Borough, Southeast Fairbanks, Yukon-Koyukuk, and Wade Hampton Census Areas was

approximately 22,100 people in 2007. The recent 5 year (2002–2006) average rural population in the Yukon Area has remained relatively stable at approximately 21,700 people<sup>1</sup>.

Subsistence and personal use fishermen in the Yukon Area primarily use drift gillnets, set gillnets, and fish wheels to harvest salmon. Set gillnets are used throughout the Yukon Area, whereas under state regulations, drift gillnets are only allowed from the mouth of the Yukon River to approximately 18 miles below the community of Galena (River Mile 530) to harvest salmon. Drift gillnets are allowed under federal permits in Subdistricts 4-B and 4-C (near the communities of Galena and Ruby). These drift areas are only open for a portion of the summer during regulatory openings. Although fish wheels are a legal gear type for subsistence fishing throughout the drainage, they are essentially used only in the Upper Yukon Area. Water conditions and fishing locations are more suitable for the operation of fish wheels in the Upper Yukon Area, which also contains a better supply of logs and young spruce trees used for fish wheel construction.

Portions of the Yukon Area are open for commercial fishing and residents may participate in both commercial and subsistence salmon fisheries. In some areas, subsistence fishing is separated from commercial fishing by closures before, during, and after commercial periods, while in other areas subsistence and commercial fishing may occur concurrently. Separation of fishing times allows for better enforcement of commercial regulations and management of the fisheries. Salmon or their eggs harvested during subsistence openings cannot be legally bought or sold under the State of Alaska regulations, but commercially harvested salmon may be retained for subsistence use. The regulatory requirement to mark Chinook salmon harvested for subsistence in Districts 1–3 was changed in 2007 from removal of the dorsal fin to removal of both lobes of the tail fin (Appendix C).

Subsistence fishermen are not required to have a fishing permit in most of the Yukon River drainage. However, permits are required for subsistence or personal use fishing in the Tanana River and parts of the Yukon River that are accessible by road (Figure 1). In the communities along the Yukon River covered by the survey, the selected households' harvests are used to estimate subsistence harvests for the entire community including unsurveyed households. In contrast, fishermen in permit areas are required as a condition of their permit to submit harvest records, and their reports are not expanded to estimate harvest from those that do not return permits. Fishermen in permit areas are more likely to be from other areas of the state and not reside in communities within permit areas, making a household survey ineffective.

A personal use fishery was implemented in 1986 and currently takes place in the Fairbanks Nonsubsistence Area (Figure 2). The nonsubsistence area was established in 1992 (Appendix C) due to the potential heavy demand urban fishermen could place on the resource. In the nonsubsistence area, fishermen must possess a personal use household permit and a resident sport fish license. State regulations dictate that personal use fishing has a lower priority than subsistence fishing similar to that of commercial and sport fisheries. The personal use fishery has a fishery limit of 750 Chinook and 5,000 chum salmon taken through August 15 and 5,200 chum and coho salmon combined taken after August 16. Fishermen who harvested salmon within a

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<sup>1</sup> Labor Department Releases State, Borough and Place 2008 Populations. [Internet]. Alaska Department of Labor and Workforce Development, Commissioner's Office Press Release No. 09-11 [issued 2009 Mar 16; cited 2010 Jan]. Available from: <http://labor.state.ak.us/news/2009/news09-11.pdf> (Accessed July 2012).

portion of Subdistrict 6-B, or all of Subdistrict 6-C, were required to call in their catch on a weekly basis for inseason fishery management purposes.

There is usually little wastage of fish taken for subsistence purposes, although poor weather conditions may cause some fish to spoil during processing and some fish are lost to disease (e.g. *Ichthyophonus*) or scavengers. Households may harvest additional salmon to make up for lost fish or be unable to meet subsistence needs if salmon were lost after the fishing season. Generally, the number of salmon lost each year is less than 2% of the total salmon harvest.

In addition to human consumption, salmon are fed to sled dogs and other dogs. Sled dogs are used for recreation, transportation, and as haul animals. Small Chinook (jacks), summer chum, fall chum, and coho salmon are primarily harvested to feed dogs in the Upper Yukon Area (Andersen and Scott 2010). Most of the subsistence salmon used for dog food are dried summer chum salmon or “cribbed” (frozen in the open air) fall chum and coho salmon. The practice of keeping sled dogs is more common in the Upper Yukon Area than in the Lower Yukon Area. During the active fishing season households in all areas feed scraps from salmon processing to dogs. Relatively few whole fresh salmon are fed to dogs in the Lower Yukon Area, but, due to the larger numbers of dogs in the Upper Yukon Area, harvesting salmon for dogs throughout the summer is more common. A gradual reduction in the need for salmon as dog food began around 1930, when airplanes began replacing sled dogs as the primary mail and supply carrier. This decline accelerated in the 1960s with the introduction of snow machines to Interior Alaska (Andersen and Scott 2010). Beginning in the early 1980s, there was a renewed interest in recreational use and racing of sled dogs, and the number of subsistence salmon harvested for dog food increased. However, from 1991 to present day there has been a decline in the number of households with dog teams (Andersen and Scott 2010). The decline is due in part to poor chum salmon runs from 1998 to 2002 combined with the steep rise in cost of equipment (boat, motor, nets, fuel) needed to harvest fish for dog food.

Concerns about subsistence harvests in the Yukon River drainage have existed since at least the 1920’s. Commercial fishing operations were first recorded in Canada from the Yukon Territory in 1903 and in the Lower Yukon Area in 1918 (Walker et al. 1989; Whitmore et al. 1988). Large commercial harvests from 1918 to 1922 prompted a complete closure of commercial fishing in the Lower Yukon Area from 1925 to 1931 to protect upriver subsistence fisheries. Starting in 1958, information on subsistence salmon harvests in the Yukon River was collected by the State of Alaska, however survey methods from 1958 to 1960 were not documented. Methods from 1961 to 1987 varied from year to year, and included a 1961 survey by 2 Fish and Game aides who traveled by boat from the mouth of the Yukon to Dawson City enumerating fish on drying racks and in smoke houses (Pennoyer et al. 1962). In 1989, survey methodology was implemented utilizing comprehensive household lists and harvest groups for households which were classified by whether or not they usually fished for salmon (Holder and Hamner 1990). In 1990, the current harvest groups were implemented, further categorizing fishing households as ‘Light’, ‘Medium’, or ‘Heavy’ harvesters and are based on each households harvest history (Holder and Hamner 1991).

The statistical methods and survey questionnaire have evolved over the years. An example of changes to a particular question addresses whether households were able to harvest enough salmon for subsistence. Beginning in 1992, ADF&G asked surveyed households whether subsistence salmon needs were met (yes/no), but did not ask about needs met by species. In 2000, a question was added about the quality of the run (very good, average, or very poor) by

species. A general assumption was made that the “needs met” and “run size” were linked, in that a higher percent needs met suggests that the run was sufficient to provide for most subsistence needs. In 2003, the “needs met” (yes/no) and “quality of run” questions were combined. Since 2003 households have been asked to estimate what percentage of their needs for each salmon species (Chinook, summer chum, fall chum and coho salmon) were met that year.

The 2007 subsistence salmon harvest survey and permit programs collected quantitative information on salmon harvest by species, gear types used to harvest salmon, harvest distribution, miscellaneous species harvest, number of dogs and salmon fed to dogs. Qualitative information was also collected from households about salmon health and quality, subsistence fishing success, and fishery concerns. The primary method of estimating Yukon Area subsistence harvest is the annual postseason salmon harvest survey. Using a combination of survey and permit information, this report documents the estimated subsistence and personal use harvests within the Alaska portion of the Yukon River drainage. State regulations dictate that subsistence is the highest priority use of salmon and subsistence is a primary consideration in fishery management actions.

## **STUDY AREA**

The Yukon Area includes all waters of Alaska within the Yukon River drainage and all coastal waters of Alaska from Point Romanof southward to the Naskonat Peninsula (Figure 1). For management purposes, the Yukon Area is divided into 7 districts and 10 subdistricts. The Lower Yukon Area consists of coastal waters and the Yukon River drainage from its mouth to Old Paradise Village (river mile 306) and is composed of Districts 1, 2, and 3. The Upper Yukon Area consists of the Yukon River drainage upstream of Old Paradise Village to the Canada border (river mile 1,224) and is divided into Districts 4, 5, and 6. Upper Yukon Area includes 3 large (>400 miles) silt laden tributaries where harvests occur: Koyukuk, Tanana and Porcupine rivers. The Coastal District includes the remainder of coastal Yukon Area waters not included in District 1. In this report the difference between the designations “Yukon River” and “Yukon Area” is that the Yukon Area includes the Coastal District. Yukon River totals apply to data considered for the U.S./Canada border commitments and Yukon Area refers to the management area for which this report applies. The harvest from Coastal District communities contain fish not necessarily Yukon River bound (Kerkvliet 1986). Two communities, within the Yukon Area, not included in this harvest survey include Chevak and Arctic Village which based on their proximity to the Yukon River proper harvest very few salmon.

## **OBJECTIVES**

The objectives of the study included the following.

1. Update community household lists to provide the basis for stratified random sampling of fishing and non-fishing households sufficient to support community harvest estimates, and estimate the number of people in each surveyed community.
2. Estimate the number of salmon and nonsalmon fish species harvested and used for subsistence in the Yukon Area, by community, using household surveys, harvest documented on subsistence and personal use permits, commercial fisheries reports of salmon taken but not sold, and counts of salmon given to communities from test fish projects.
3. Estimate the number of salmon harvested from each fishing district and subdistrict in the Yukon Area.

4. Document gear types used by Yukon Area subsistence and personal use fishermen in 2007.
5. Determine relative percent success of households in meeting subsistence salmon needs.
6. Document the number of dogs within Yukon Area communities and salmon fed to dogs.

In addition, the investigators documented comments and concerns conveyed by subsistence users during household surveys.

## **METHODS**

### **DEFINITION OF SUBSISTENCE AND PERSONAL USE HARVEST**

Total subsistence and personal use harvest in the Alaska portion of the Yukon River drainage includes fish harvested for direct personal or family consumption (Appendix C), fish distributed to individuals from various test fisheries, and “commercial related” fish commercially taken but not sold and retained for subsistence and personal use. Salmon that have been sold commercially and then returned to fishermen by the buyer/processor, such as carcasses with un-marketable flesh or left over from roe fisheries, are not added to household harvest totals.

### **HARVEST SURVEY INSTRUMENTS**

Total number of salmon harvested for subsistence and personal use fisheries was estimated using the permit programs, harvest calendars and postcards, and the household surveys. District 5 contains both survey and permit areas (Figure 1). A combination of data collection methods was used to estimate harvests in this area. Harvests from the community of Stevens Village were primarily estimated from surveys. In unsurveyed District 5 communities (Rampart, Circle, Central, Eagle) unexpanded permit information was used to assess harvest.

#### **Permit Program**

In communities along the entire Tanana River drainage (District 6) and where the Yukon River is accessible by the Alaska Highway road system (portions of District 5), households must obtain subsistence or personal use fishing permits issued at the ADF&G offices in Fairbanks, Delta Junction, and Tok. In addition, permit applications for the current season were mailed to all fishermen who returned their permits from the previous season. For residents of communities outside the Fairbanks area, subsistence permit applications were mailed with a postage paid return envelope and dates a department representative would visit their community. In 2007, permit issuing trips were conducted in the communities of Central, Circle, Delta Junction, Dot Lake, Eagle, Manley Hot Springs, Minto, Nenana, Northway, Rampart, Tanacross, and Tok (Figure 1).

Permit holders were required to keep a record of their daily fish harvest on the permit and return it to ADF&G within 10 days of the expiration date (October 15 for salmon and December 31 for non-salmon permits). Households that did not report their harvest were mailed up to 2 reminder letters. Additionally, households that did not respond to the reminder letters were contacted by telephone.

Harvests of permit communities were estimated by summing harvests of all permit holders who returned their permit, returned a completed reminder letter, or verbally reported their harvest information. These results were not expanded to estimate harvest by permit holders who did not

return their permits. Commercially harvested salmon reported as taken but not sold on fish tickets from permit areas were added to the community where the harvest occurred (Table 1).

Stevens Village is uniquely situated just outside the boundary of a permit area on the Yukon River. Many residents acquire a permit to fish between the Haul Road Bridge and the boundary downstream of the community; however, most residents fish outside of the permit area. Consequently, Stevens Village harvest is estimated by using both returned permits and the household survey. The household survey is used to estimate subsistence harvest; permits are occasionally used to supplement incomplete survey data. Information from Stevens Village permits is reported in permit tables and is not added to the subsistence harvest estimates.

Fishermen in the community of Eagle were asked to note on their permit how many salmon were harvested above and below the Eagle sonar project located near the community of Eagle in the permit area of Subdistrict 5-D (Figure 1). Follow-up phone calls were made to fishermen postseason to verify gear types and locations of harvest by species.

### **Subsistence Harvest Calendars and Postcards**

Prior to the salmon fishing season, subsistence harvest calendars were distributed to households in surveyed communities from the Coastal District, Districts 1–4, and a portion of District 5. Calendars, in which fishermen record their daily salmon harvest by species, were primarily used to help fishermen remember their harvest numbers and provide information on timing of subsistence harvests by species.

In May 2007, 1,510 calendars (920 to Lower Yukon Area and 590 to Upper Yukon Area) were mailed to all households except those in the *Do Not Fish* category. Calendars were also mailed to households with a history of subsistence fishing in the community of Rampart, and extra calendars were available upon request. In an effort to increase the number of calendars returned during community surveys, fliers were sent to community post offices, stores, schools, or city offices to remind fishermen to have their harvest calendars available for the surveyors. Everyone who returned a properly completed 2007 harvest calendar before January 1, 2008, became eligible to win one of six \$100 lottery prizes.

## **HOUSEHOLD SUBSISTENCE SURVEYS**

### **Survey Design**

The primary objective of the subsistence household survey is to estimate the total number of salmon harvested for subsistence and personal use by each community. The survey was based on stratified random sample design (Cochran 1977). In this design, the household within a community was the primary sampling unit; households were stratified into 5 groups based on the level of harvest and the level of survey coverage was designated for each group.

1. *Unknown*: Unknown harvest level. Survey coverage 100%.
2. *Do Not Fish*: Households that do not harvest salmon. Survey coverage 30%
3. *Light Harvester*: 1–100 total salmon harvest. Survey coverage 30%
4. *Medium Harvester*: 101–500 total salmon harvest. Survey coverage 100%
5. *Heavy Harvester*: >500 total salmon harvest. Survey coverage 100%.

Sampling of the Light Harvester and Do Not Fish groups was increased to 50% in Emmonak, Holy Cross, Pilot Station, and Tanana to improve the precision of harvest estimates in these

larger communities. When any stratum contained 5 or fewer households, the sample size was made equal to the stratum size (i.e. 100% coverage). In communities with less than 40 households, all households were selected to be surveyed (100% coverage). The harvest level of each household was determined based on the most recent 2-year harvest average from the previous 5 years. Total salmon harvest included Chinook, summer chum, fall chum, and coho salmon, and did not include pink or sockeye salmon. When 2 recent years of harvest data were unavailable, such as from new households, or households that have not participated in the survey, the household's harvest group designation was not updated.

A harvesting household was defined as a household that participated in subsistence fishing activities, such as harvesting or processing fish. The number of fish harvested by a fishing household was defined as the number of fish harvested or processed by the household for subsistence purposes. During the interview, a fishing household was identified by the question (survey question 3, Figure 3): "Did anyone in your household harvest salmon for subsistence use OR keep fish for subsistence use from commercial fishing?" The surveyor was instructed to clarify that "harvest" meant any participation in the subsistence fishery, such as cutting fish. Frequently, several households fish together at a fish camp as a group, not only for themselves, but also for other nonfishing households (e.g., their parents or relatives). Some households harvest salmon, while some only process the catch (i.e., clean, cut, dry, smoke). In these cases, fish brought home by each participating household were considered fish harvested by the household.

### **Household Updates**

A list of the Yukon Area households (*families* database) was updated annually using previous years' survey information. Prior to the community survey, the list was further updated by contacting knowledgeable individuals in each community. Community census lists, telephone and utility lists, and the Alaska Permanent Fund Dividend application list were also used in creating and maintaining the *families* database. Households that lived outside of the survey areas but traveled to the Yukon River to fish in or near a surveyed community were included on the household list in the community nearest their fishing location.

Since 2004, Subsistence Assistants (residents with local knowledge) have been employed by the Yukon River Drainage Fisheries Association (YRDFA) to assist with annually reviewing and updating the household list and community maps as well as acting as a guide within the communities. In a few cases Subsistence Assistants served as translators, but they did not conduct interviews. When assistants were unavailable, surveyors worked with other sources of local information such as tribal administrators or school principals to aid in community navigation. In some communities, more than one assistant was hired to work with each surveyor, or to complete the surveys if the first assistant was unavailable for the whole visit.

### **Household Survey Questionnaire**

To keep data comparable between years, the subsistence survey questions have been generally consistent from year to year (Figure 3). Questions included total number of salmon harvested by the household (questions 5 and 7), whether the household commercial fished and if any of the subsistence salmon were retained from commercial fishing (question 9), number of salmon used (question 11), fishing gear used (question 14), and area fished (question 13).

To determine distribution of salmon within a community, the survey addressed the number of households that fished together (question 6), total number of the group's catch (question 5), the number of salmon given to other families (question 12), the number of salmon received from other households, from commercial harvest, or from a test fishery project (question 16), and the number of salmon harvested for dog food (questions 18, 19, 20).

Households were asked to assess at what level their subsistence salmon needs were met for each species (question 21); responses were grouped into 4 categories: 0 to 25%, 26 to 50%, 51 to 75%, and greater than 75% of needs met. Households that caught no fish of a given salmon species were marked as having 0% of their needs met for that species, unless they indicated they had "No need" for that species. For example, the respondent indicated they did not need to harvest the species because the summer chum salmon run was sufficient, so the household did not fish for fall chum salmon. Other reasons for "No need" of a species could include that the species was not traditionally fished in a particular area due to species distribution, personal preference, or that some individuals in a household were allergic to the species. Comments (question 22) were recorded by surveyors relating to factors such as lack of fishing equipment or bad weather that affected a household's ability to meet their needs. If a household lost part of their subsistence catch (question 10), the surveyor asked about the reason for loss and verified that the lost fish were included in the harvest estimates.

Households were also asked about their harvest of miscellaneous fish species (question 15) and pink and sockeye salmon. For species that are commonly harvested in the winter and spring, households were asked about their harvest of that species throughout the previous winter, from the date of the previous year's survey to the current year's survey. Miscellaneous species include large whitefish over 4 pounds and small whitefish species less than 4 pounds (*Coregonus spp. and Prosopium cylindraceum*), sheefish (*Stenodus leucichthys*), burbot (*Lota lota*), northern pike (*Esox lucius*), Alaska blackfish (*Dallia pectoralis*), Arctic grayling (*Thymallus arcticus*), longnose sucker (*Catostomus catostomus*), Arctic char (*Salvelinus alpinus*), Arctic lamprey (*Lampetra camtschatica*) and saffron cod (*Eleginus gracilis*). For species that are commonly harvested in the winter and spring, households were asked about their harvest of that species throughout the previous winter, from the date of the previous year's survey to the current year's survey.

## **Household Survey**

Before conducting the survey, surveyors were trained in interviewing techniques, including learning the local names of salmon species and various ways to obtain the number of fish harvested. The surveyors were also briefed on current fishery issues and management actions related to the subsistence and commercial salmon fishing season. Surveyors were trained to ask questions consistently and foster a cooperative atmosphere so that interviewed household members were able to recall as accurately as possible their household harvest and use, and share any fishery related knowledge and concerns pertinent to the survey outcome.

Household surveys were conducted in September and October when the majority of salmon fishing activities had ended and fishermen could more easily recall their harvest numbers. In 2007, a total of 1,341 households were selected to be surveyed in 33 communities. A total of 31 Subsistence Assistants were hired in 29 of the surveyed communities. Surveyors attempted to contact all selected households, and noted households that were unavailable during the community visit to follow-up with later by phone or letter. After the interview was completed, survey participants were given a small token of appreciation (tape measure) for participating in the survey.

After the household surveys were conducted, survey forms were edited for clarity and completion. Households were called back when further clarification was needed or to reconcile conflicting information among households that harvested or shared salmon with each other. When fishermen reported amounts in alternative terms, such as the number of 5 gallon buckets, quart sized bags, gunny sacks, or pounds, a conversion sheet based on local approximate measures was used to estimate number of fish harvested. Calculations were made when the surveys were edited prior to database entry.

## DATA ANALYSIS AND ESTIMATION METHODS

Classical stratified random sampling methods (Cochran 1977) were used to estimate the average and total number of fish caught by each of the 5 harvest groups in each surveyed Yukon Area community.

Denote that:

$N_{kj}$  = the number of households in  $j$ th ( $j = 1 \dots 5$ ) harvest group of the  $k$ th community

$n_{kj}$  = the number of sample households in the  $j$ th harvest group of the  $k$ th community

$y_{kji}$  = response of  $i$ th sample household ( $i = 1 \dots n_{kj}$ ) in the  $j$ th harvest group of the  $k$ th community

Mean response (harvest) of the  $j$ th harvest group of the  $k$ th community ( $\bar{y}_{kj}$ ) was calculated as:

$$\bar{y}_{kj} = \frac{\sum_{i=1}^{n_{kj}} y_{kji}}{n_{kj}} ; \quad (1)$$

and its standard error ( $SE_{kj}$ ) was calculated as:

$$SE_{kj} = \sqrt{\frac{s_{kj}^2}{n_{kj}} \left( \frac{N_{kj} - n_{kj}}{N_{kj}} \right)} ; s_{kj}^2 = \frac{\sum_{i=1}^{n_{kj}} (y_{kji} - \bar{y}_{kj})^2}{n_{kj} - 1} . \quad (2)$$

The estimate of total responses (harvests) of the  $k$ th community ( $\hat{T}_k$ ) was calculated as:

$$\hat{T}_k = \sum_{j=1}^5 N_{kj} \bar{y}_{kj} ; \quad (3)$$

and its 95% confidence interval ( $95\%CI_k$ ) was calculated as:

$$95\%CI_k = 1.96 \cdot \sqrt{\hat{V}(T_k)} ; \hat{V}(T_k) = \sum_{j=1}^5 N_{kj}^2 \left( \frac{N_{kj} - n_{kj}}{N_{kj}} \right) \left( \frac{s_{kj}^2}{n_{kj}} \right) . \quad (4)$$

Because the estimates of the responses (harvests) in each community were independent from each other, the estimate of survey wide total ( $\hat{T}$ ) was calculated as:

$$\hat{T} = \sum_{k=1} \hat{T}_k \quad (5)$$

and its 95% confidence interval (95%CI) was calculated as:

$$95\%CI = 1.96 \cdot \sqrt{\hat{V}(\hat{T})} ; \hat{V}(T) = \sum_{k=1} \hat{V}(\hat{T}_k). \quad (6)$$

The estimation methods described above were used to estimate: the number of people in a community (question 2: Figure 3), the number of subsistence salmon harvested (question 7), the number of salmon used (question 11), the number of salmon given to the household (question 16), the number of dogs (question 17), the number of salmon retained for dog food (question 20). These methods were also used to estimate and the number of non-salmon fish harvested, including whitefish, northern pike, and sheefish (question 15).

Reported harvests of other miscellaneous fish species were not expanded because of limited harvest information. Harvest groups stratified for salmon are not adequate to estimate species captured with different harvest methods and at different times of year. Those fish species include Arctic grayling, Arctic char, Alaska blackfish, burbot, Arctic lamprey, longnose sucker, saffron cod. Unlike harvest of the targeted salmon species, the sockeye salmon harvest was also not expanded to estimate the harvest of households that were not surveyed. Sockeye salmon are caught infrequently in the lower and middle Yukon River drainage, but they are included on the survey because some fishermen have consistently reported incidental catches of sockeye salmon. The number of sockeye salmon harvested was typically too low to support stratified estimates, therefore only limited information about the harvest and utilization of sockeye salmon was obtained.

For estimation of the number of subsistence fishing households (question 3), households that own dogs, and households that feed salmon to dogs (questions 17, 18), the following expansion method was used:

Denote that:

$N_{kj}$  = the number of households in  $j$ th ( $j = 1 \dots 5$ ) harvest group of the  $k$ th community;

$n_{kj}$  = the number of sample households in the  $j$ th harvest group of the  $k$ th community;

$y_{kji}$  = response ( $y_{kji} = 1$  if subsistence fish or own dogs or feed salmon to dogs, 0 if not) of  $i$ th sample household ( $i=1 \dots n_{kj}$ ) in the  $j$ th harvest group of the  $k$ th community.

Proportion of households subsistence fish or own dogs or feed salmon to dogs in the  $j$ th harvest group of the  $k$ th community ( $\hat{p}_{kj}$ ) was calculated as:

$$\hat{p}_{kj} = \frac{\sum_{i=1}^{n_{kj}} y_{kji}}{n_{kj}} \quad (7)$$

Estimated number of households that subsistence fish or own dogs or feed salmon to dogs in the  $k$ th community ( $\hat{T}_k$ ) was calculated as:

$$\hat{T}_k = \sum_{j=1}^5 N_{kj} \hat{p}_{kj} ; \quad (8)$$

and its 95% confidence interval (95%CI<sub>k</sub>) was calculated as:

$$95\%CI_k = 1.96 \cdot \sqrt{\hat{V}(\hat{T}_k)} ; \hat{V}(\hat{T}_k) = \sum_{j=1}^5 N_{kj}^2 \left( \frac{N_{kj} - n_{kj}}{N_{kj}} \right) \left( \frac{\hat{p}_{kj}(1 - \hat{p}_{kj})}{n_{kj} - 1} \right). \quad (9)$$

Estimated number of households that subsistence fish or own dogs or feed salmon to dogs in the survey wide total ( $\hat{T}$ ) was calculated as:

$$\hat{T} = \sum_{k=1} \hat{T}_k ; \quad (10)$$

and its 95% confidence interval (95%CI) was calculated as:

$$95\%CI = 1.96 \cdot \sqrt{\hat{V}(\hat{T})} ; \hat{V}(\hat{T}) = \sum_{k=1} \hat{V}(\hat{T}_k). \quad (11)$$

The number of fish harvested at each fishing area by community (question 13) was estimated as follows:

Denote that:

$\hat{N}_k$  = Estimated number salmon harvested at the  $k$ th community

$y_{kjih}$  = the number of salmon harvested at the  $h$ th fishing area by the  $i$ th sample household ( $i = 1 \dots n_{kj}$ ) in the  $j$ th group of the  $k$ th community.

Proportion of salmon harvested at  $h$ th fishing area in the  $k$ th community ( $\hat{p}_{kh}$ ) was estimated as:

$$\hat{p}_{kh} = \frac{\sum_{i,j} y_{kjih}}{\sum_{i,j,h} y_{kjih}}. \quad (12)$$

The number of salmon harvested at the  $h$ th fishing area at the  $k$ th community ( $\hat{N}_{k,h}$ ) was calculated as:

$$\hat{N}_{k,h} = \hat{N}_k \hat{p}_{kh}. \quad (13)$$

Total number of salmon harvested at the  $h$ th fishing area ( $\hat{N}_h$ ) was estimated as:

$$\hat{N}_h = \sum_k \hat{N}_{k,h}. \quad (14)$$

# RESULTS

## OVERALL ESTIMATION OF HARVEST

An estimated 55,310 Chinook, 93,110 summer chum, 101,394 fall chum, and 19,759 coho salmon were harvested for subsistence by 1,470 households in the Yukon Area (Table 1). The total number of salmon harvested includes estimated postseason surveys results, reported harvest from returned permits (subsistence and personal use), salmon reported as distributed to communities from test fish projects and salmon reported on fish tickets in District 6 as retained from commercial fisheries. Reported harvests from Steven's Village permits are not included in the total harvest. Salmon retained from commercial fishing in surveyed communities are included in subsistence survey harvest estimates for each community. The number of fishing households does not include households that were issued non-salmon permits for pike in the Tolovana River.

The total number of salmon caught in subsistence fisheries was 268,945 salmon; consisting of 55,174 Chinook, 92,926 summer chum, 101,221 fall chum, and 19,624 coho salmon (Figure 4, Appendices B1–B4). This does not include harvests from personal use salmon permits which were issued in the Fairbanks Nonsubsistence Area (Figure 2). On average (1993–2006) Chinook salmon comprise 22% of the total subsistence harvest, summer chum 40%, fall chum 29%, and coho salmon 9% (Figure 4).

Test fish projects provided 1,965 Chinook, 2,359 summer chum, 3,028 fall chum, and 1,264 coho salmon to households for subsistence use (Table 1, Appendix A11). The primary gear types used for subsistence and personal use salmon fishing throughout the Yukon Area were 415 households using set gillnets (50%), 337 households using drift gillnets (41%), 76 households using fish wheels (9 %) and 4 households using other gear types (0.5%; Table 1). An estimated 255 households reported feeding subsistence caught salmon to their dogs (Tables 2 and 3). Surveyed and permit households throughout the Yukon Area retained an estimated 89,839 salmon for dog food from subsistence and commercial salmon harvests (Tables 3, 4 and 5; Appendix B10).

## SUBSISTENCE SURVEYS

Surveyors traveled to 33 Yukon Area communities between September 6 and November 6, 2007. Twenty-one unselected households from 14 communities were surveyed, either as new households, unselected households that requested to be surveyed, or that were misidentified as selected. The number of additional surveys was small and not statistically significant in regards to the stratified household selection; therefore their responses were entered along with the selected households responses. Surveys for 1,086 households were collected in person, via telephone, or from surveys and calendars returned by mail, about 81% of households initially selected for the survey (Table 6). Of the 2,353 total households identified in the survey area, an estimated 1,255 households (53%) participated in the 2007 subsistence fishery (Table 7). The estimated total population in surveyed communities was 8,956 people (Table 8).

An estimated 44,882 Chinook, 87,786 summer chum, 45,919 fall chum, and 10,439 coho salmon were harvested in the surveyed communities (Table 9). Fishermen from some communities fish in multiple districts, subdistricts, or tributaries and may harvest different salmon stocks. Stocks are mixed until they segregate by the left and right bank orientation (e.g. Subdistricts 4-B, 4-C, 5-A and 5-B), or enter tributaries or areas that predominantly have only one salmon species

present at a time (e.g. Subdistrict 5-D). Districts with the largest catches of subsistence salmon, including salmon retained from commercial harvest, were District 5, harvesting 12,543 Chinook salmon; District 1, harvesting 23,276 summer chum salmon; District 5, harvesting 31,347 fall chum salmon; and District 5, harvesting 3,290 coho salmon (Tables 10–13). Salmon retained for subsistence from commercial harvests included an estimated 210 Chinook, 5,708 summer chum, 185 fall chum, and 69 coho salmon. These fish are included within the estimated harvest totals for each surveyed community (Table 1).

Households reported receiving an estimated 5,183 Chinook, 7,650 summer chum, 2,365 fall chum, and 657 coho salmon from subsistence fishermen (Appendix A9). Households also reported being provided an estimated 8 Chinook, 623 summer chum, 1 fall chum, and 9 coho salmon from commercial fishermen (Appendix A10). In 2007, eight survey communities received a total of 8,601 salmon from test fish projects (Appendix A11, Appendix B8). Of the salmon harvested and/or given to households, an estimated 35,576 Chinook, 71,497 summer chum, 42,123 fall chum, and 9,396 coho salmon were used for subsistence (Table 14). This includes salmon used by fishing and nonfishing households in the surveyed communities, but the estimate may not include fish distributed to households outside the survey area.

The combined total estimated harvest of other subsistence fish including pink salmon, whitefish, northern pike, and sheefish in the Yukon Area was 105,606 fish (Table 15). Of the estimated harvest of 2,118 pink salmon, approximately 73% were harvested in the Coastal District communities of Scammon Bay and Hooper Bay. The pink salmon harvest was 54% above the odd-year average for 1997–2005 and 48% below the 10 year average (even and odd years) for 1997–2006 (Appendix B9). The reported harvest of other miscellaneous fish species, not expanded, in surveyed communities totaled 158,101 fish (Table 16). Alaska blackfish represented 83% of the reported harvest of miscellaneous fish species by number and were primarily taken in the Lower Yukon Area (Tables 16). Alaska blackfish are frequently reported by households in terms of pounds, sacks or buckets and are estimated to be 14 fish per pound. The reported harvest of sockeye salmon was 493 fish (Table 16, Appendix B11).

An estimated 1,267 households in surveyed communities in the Yukon Area owned 3,468 dogs (Table 2). Of the households with dogs, 144 (11%) fed whole fish to dogs (Table 2, Appendix B10). Surveyed households indicated dogs were fed an estimated 16,408 summer chum, 29,597 fall chum, and 4,352 coho salmon from subsistence harvests (Table 4). Dogs were fed an additional estimated 5,527 summer chum, 80 fall chum, and 39 coho salmon from commercial harvests (Table 5).

A total of 3,234 salmon (about 1.5% of the total salmon harvest) were reported as lost in the surveyed communities (Appendix A12). Lost salmon consisted of 539 Chinook, 2,087 summer chum, 389 fall chum, 199 coho, and 20 pink salmon. An additional 929 salmon, consisting of 65 Chinook, 798 summer chum, 10 fall chum, and 56 coho salmon, were unsuitable for human consumption but were fed to dogs. Lost salmon were included in household harvest estimates, but were not included in a household's use (question 11: Figure 3), unless they were fed to dogs.

Of the households contacted during the survey, 914 households replied to the 'needs met/usually get' question for Chinook salmon (question 21: Figure 3). Of these households, 46% met less than 50% of their Chinook salmon needs, and 47% met between 75% and 100% of their needs for Chinook salmon. Of the 706 households providing information on summer chum salmon, 47% of household met less than 50% of their needs and 48% were able to get 75% or their needs

for summer chum salmon. The number of responses for fall fish was much smaller than for summer species. Only 580 and 399 households answered the question for fall chum and coho salmon. The percentage of households meeting 50% or less of their subsistence needs was 69% for fall chum salmon and 68% for coho salmon, with 29% of households meeting 75% or more of their needs for both fall species (Table 17).

Of the 2,353 households in the surveyed communities, households with unknown harvest levels (138 households, 6%) and households that do not harvest salmon (845 households, 36%) made up 42% of households in surveyed communities. Some of these households did harvest salmon in 2007. Over half (58%, 1,370 households) were categorized as fishing households. The largest group of known fishing households was Light harvesters (986 households, 72% of fishing households). The Medium harvester group was 342 households (25% of fishing households). Heavy harvester households (42 households) made up the other 3% of fishing households. The group with the largest harvest of Chinook salmon was the Light harvesters, who harvested an estimated 45% of the total Chinook salmon subsistence harvest (Appendix A1). Light and Medium harvesters were estimated as harvesting similar amounts of summer chum salmon, with 41% and 37% of the harvest (Appendix A2). Heavy harvesters harvested 58% of the fall chum (Appendix A3) and 35% of the coho salmon (Appendix A4).

## **CALENDARS**

In 2007, fishermen returned a total of 316 subsistence harvest calendars (approximately 21% of total issued). A total of 285 calendars (90%) reported fishing activity. The remaining households that returned harvest calendars in 2007 either indicated they “did not fish” this season or the calendars were returned blank. Reported harvest on calendars was 18,478 Chinook, 28,655 summer chum, 15,091 fall chum, 2,034 coho, and 748 pink salmon (Figure 5). The timing and distribution of fishing effort by district and by day is shown based on returned calendars (Figure 6 top panel). More fishing effort is recorded on calendars during the summer season.

## **SUBSISTENCE PERMITS**

Total subsistence salmon harvests from permit areas in the Yukon and Tanana Rivers (Figure 1) were 8,728 Chinook, 2,786 summer chum, 52,577 fall chum, and 7,921 coho salmon. These totals include salmon harvested by permit holders in Stevens Village, test fish given to the permit communities of Eagle, and salmon retained from commercial fishing in District 6 (Tables 1, 18 and 19, Appendix 11). The 2007 permit harvest information was based on permits returned and entered by March 31, 2009. Of the 440 permits issued, 410 (93%) permits were returned and 242 households reported participating in salmon and nonsalmon subsistence fisheries (Tables 3, 18 and 19).

Salmon harvests reported on subsistence permits were 8,471 Chinook, 2,786 summer chum, 38,979 fall chum, and 6,723 coho salmon (Tables 18 and 19). The timing and distribution of fishing effort by district and by day is shown based on harvest recorded on permits (Figure 6 bottom panel) and shows a decrease in fishing effort between summer and fall salmon runs. Primary gear types from the 183 households that fished for subsistence salmon included 142 (77%) set gillnets, 36 (20%) fish wheels and 5 (3%) other gear (Table 1). This does not include permits fished in Stevens Village, on the Koyukuk or Kantishna Rivers. An additional 54 households used jigging gear in the Tolovana River pike fishery.

Fish tickets records indicated that 245 Chinook, 13,595 fall chum, and 1,198 coho salmon were retained from commercial fishing in District 6; these salmon were included in the community harvest from Nenana (Table 1). Additionally, 12 Chinook and 3 fall chum salmon were given to the community of Eagle from the sonar project (Table 1, Appendix A11, Appendix B8). Salmon retained from a test fish wheel in the Tanana River were included in the permit harvests from Nenana. Based on subsistence salmon permits (not including Tolovana pike permits which do not require the reporting of dog information), 114 households indicated that they fed salmon to dogs. These households reported retaining 33,836 whole salmon for dog food (Table 3, Appendix B10). The total harvest of other fish species included 3,326 whitefish, 82 sheefish, 99 burbot, 2,093 northern pike, 243 longnose suckers, and 525 Arctic grayling (Tables 18 and 19).

## **PERSONAL USE**

In 2007, 66 (97%) of the personal use permits issued were returned (Table 18). Of these, 32 permits reported fishing, and were all from the Tanana River personal use salmon fishery; none of the Tanana River whitefish/sucker permits reported fishing. Personal use permit holders reported harvesting 136 Chinook, 184 summer chum, 173 fall chum, 135 coho salmon; and 4 whitefish, 1 sheefish, and 1 northern pike (Table 18 and 19). Of the 32 households that reported fishing for personal use, primary gear types used included 31 households (97%) using set gillnets and 1 household using a fish wheel (3%) (Table 1).

## **DISCUSSION**

### **SALMON RUNS AND SUBSISTENCE FISHERIES MANAGEMENT**

The 2007 preliminary reconstructed Chinook salmon run size was 175,790, which was less than the 2006 run and below the 10 year and 5 year averages of 218,300 and 236,720 Chinook salmon (Kathrine Howard, Commercial Fishery Biologist, ADF&G, Anchorage; personal communication). While the 2.0 million summer chum salmon run in 2007 was half as large as the estimated run of 4.0 million summer chum in 2006, it was still the third largest summer chum salmon run of the last 10 years (K. Howard, Commercial Fishery Biologist, ADF&G, Anchorage, personal communication). Postseason assessment of the fall chum salmon run suggested the overall run abundance was near 1.0 million fish. All fall chum salmon escapement goals, including the Canadian escapement goal were met or exceeded. Strong fall chum salmon abundance prompted the relaxing of the subsistence fishing window schedule throughout the fall season. Pilot Station sonar estimates indicated the coho salmon run was early and above average, and the estimated cumulative passage by Pilot Station on August 31 was 173,000, about 14% higher than the 10 year historic average passage estimate of 151,000 coho salmon (JTC 2008).

In 2007, the Yukon River breakup in Alakanuk was on May 18, 4 days earlier than average timing (1983–2006) and 3 days earlier than the 10 year average (1997–2006)<sup>2</sup>. Water levels in the lower river in the early part of the season were characterized as being lower than normal. The first subsistence catch of Chinook salmon was reported near Emmonak on June 2, and the first test fish catch in the Lower Yukon Test Fishery was on June 3 (Hayes et al. 2012). The

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<sup>2</sup> Alaska Pacific River Forecast Center: Breakup database search results for Yukon River location Alakanuk. [Internet]. 1956– . Anchorage: NOAA Alaska Region Headquarters. [updated 2012 May 25; cited 2010 Mar 15]. Available from: <http://aprfc.arh.noaa.gov/php/brkupall.php?searcharea=Yukon&searchtermriv=Yukon&searchtermloc=Alakanuk>

regulatory “windowed” subsistence schedule was implemented on May 28 in the lower river, then implemented chronologically upriver based on migratory timing as the summer runs traveled upstream (JTC 2008). The window fishing schedule consists of weekly fishing openings and closures that are scheduled for each district at the start of the fishing season, and are subject to change depending on run strength. The Coastal District, Subdistrict 5-D, and the Innoko, Kantishna and Koyukuk rivers were open to subsistence fishing 7 days a week (Hayes et al. 2012).

The windows schedule of fishing openings was implemented by the BOF in 2001 as a response to poor runs and was intended as a conservation measure. The schedule was intended to provide sufficient opportunity for fishermen in each district to catch normal subsistence harvests, but also to distribute the harvest throughout the run and reduce harvest early in the run when there is a much higher level of uncertainty in projecting the total run abundance (ADF&G 2001). The window schedule also reduces the impact on any particular component of the run and spreads subsistence harvest opportunities among subsistence users throughout the drainage.

A new regulation adopted by the BOF was implemented in 2007 in Yukon Area Districts 1–3 requiring fishermen to remove both tips (lobes) of the tail fin of Chinook salmon taken for subsistence (Appendix C). Fishing schedule announcements were relayed to each community’s tribal and/or city office via fax or email, broadcast on local radio stations, and presented during weekly YR DFA teleconferences.

## **COMMERCIAL AND SUBSISTENCE FISHING**

In addition to salmon harvested during subsistence openings, commercial fishing households can retain salmon caught during commercial openings for subsistence purposes. During the survey, households were asked if they commercially fished, and if their subsistence harvest numbers included any salmon retained from commercial fishing periods. Income from commercial fishing is often used by households to help pay for the costs associated with subsistence harvesting activities, including fuel and fishing equipment.

During the summer season, commercial fishing periods occurred in Districts/Subdistricts 1, 2, 5-B, 5-C and 6. The total commercial harvest of Chinook salmon in the Alaska portion of the Yukon River drainage was 33,629, which was 30% below the 10 year (1997–2006) average of 48,254 Chinook salmon. The commercial harvest of 198,200 summer chum salmon was 274% above that the 10 year average, but was still the tenth lowest since 1967 (Hayes et al. 2012).

The commercial harvest of 90,677 fall chum salmon was approximately twice the previous 10 year average (1997–2006). Harvest opportunities of coho salmon were extended in the subsistence and commercial fisheries and the 2007 harvest of 44,575 coho salmon was 117% higher than the previous 10 year average (Hayes et al. 2012).

Salmon retained from commercial periods were included in the household harvest estimates in surveyed communities. In permit communities, salmon reported on fish tickets as ‘retained but not sold’ are added to community harvests as commercial related salmon (Table 1). Commercial fishing in District 6 in the fall season was primarily comprised of female fall chum and coho salmon harvested for roe (Hayes et al. 2012). Carcasses from roe fisheries that were given back to households are not included in harvest, but in surveyed communities, carcasses given back to subsistence fishermen were estimated under that household’s salmon use (Table 6).

## **SALMON HARVESTS AND AMOUNTS NECESSARY FOR SUBSISTENCE**

Several inseason and postseason methods were used for evaluating salmon runs and whether fishermen met their subsistence needs. Managers maintained inseason communication with fishermen to obtain information on fishing success in communities and as a means of assessing fishery openings and closures. Since 1992, YRDFA has facilitated weekly inseason teleconferences to provide fishermen in the entire Yukon River drainage (including Canada) an opportunity to discuss the ongoing runs with fisheries managers. Since 2003, the U.S. Fish and Wildlife Service conducted weekly inseason surveys during the Chinook salmon run in selected communities to help managers understand how the subsistence season was unfolding. The information was used to assess harvest goals, fishing conditions, and quality of subsistence catch through interviews of a subsample of fishermen each week to evaluate progress towards meeting subsistence needs (Gerken 2008). The results of these interviews were often summarized during the weekly teleconferences.

One method for assessing the relative success of Yukon Area fishermen is to compare the annual drainagewide estimated subsistence harvest to the “amounts (reasonably) necessary for subsistence” (ANS) harvest ranges established by the Alaska Board of Fisheries (BOF) (ADF&G 2001). The ANS levels outlined in regulation 5 AAC 01.236 are 45,500–66,704 Chinook, 83,500–142,192 summer chum, 89,500–167,900 fall chum, and 20,500–51,980 coho salmon (Figures 7–10). No ANS levels were established for pink or sockeye salmon. The annual harvest amounts used for comparison to ANS ranges include salmon harvests from permits, survey estimates, test fish and retained from commercial fisheries. Salmon harvested in the personal use fishery are not included. Coastal communities were included in determining Yukon Area ANS ranges as these communities harvest most of their salmon from Yukon River drainage salmon stocks. These levels may require periodic adjustments since the ANS cannot account for trends over time, such as changes in fishing patterns due to population shifts or changes in the fisheries. Except for the harvest of coho salmon, which was below its ANS range, subsistence harvests of each of the other salmon species in 2007 were within their respective ANS ranges.

Subsistence harvest averages from years 2002–2006 and 1997–2001 (Figures 7–10) show more recent trends in the fisheries whereas the ANS levels are based on historic harvest levels between 1990 and 1999. Averages for years 2002–2006 and 1997–2001 for Chinook and summer chum salmon have remained within the ANS levels. Subsistence harvests of Chinook salmon were 7% above both the recent 5 year (2002–2006) and previous 5 year (1997–2001) averages (Appendix B1; Figure 7). The summer chum salmon subsistence harvest was 2% above the recent 5 year (2002–2006) average and 7% above the previous 5 year (1997–2001) average (Appendix B2; Figure 8).

Fall chum salmon harvests were 61% above the recent 5 year (2001–2006) average and 67% above the previous 5 year (1997–2001) average (Appendix B3; Figure 9). These 5 year averages were well below the lower ANS level and reflect the weakness of fall chum salmon stocks and the management actions that were taken to protect escapement. Subsistence harvest of coho salmon was nearly 8% below the recent 5 year (2002–2006) average and 2% below the previous 5-year (1997–2001) average (Appendix B4; Figure 10). The 1997–2001 average for coho salmon was below the ANS and the 2002–2006 just surpassed the ANS levels. Coho salmon are not particularly targeted but are generally harvested along with or incidental to the fall chum salmon, since their runs overlap and the fish are of similar size. Therefore management of fall chum

salmon has an effect on the harvest of coho salmon even when there is no concern for the coho stocks.

While comparisons of the annual drainagewide harvest with ANS provides insight into the run strength and relative success of all fishermen, the survey results are unique in breaking down percent needs met by species and community (Table 17). Ideally a strong run would be reflected in a strong subsistence harvest of that species. However, it has been observed that approximately 20–30% of households report they were not able to get enough salmon even in years with very good escapement (Borba and Hamner 2001). In 2007, the summer chum, fall chum, and coho salmon runs were assessed to be large enough to support escapement, subsistence and commercial harvest, however the percentage of households that reported meeting over 50% of their needs for these species were lower than 2006, and lower than the recent 4 year average (2003–2006) for each species (Appendix B13).

An estimated 54% of surveyed households reported they met at least half of their subsistence needs for Chinook salmon; however individual communities ranged under 5% (Allakaket, Birch Creek, Chalkyitsik) to 80% (Holy Cross) of households meeting at least 50% of their subsistence needs for Chinook salmon. More than half of the households (53%) met over half of their subsistence needs for summer chum salmon. Although the fall chum salmon run was strong and the estimated harvest was above the recent 5 year (2002–2006) and previous 5 year (1997–2001) averages, only 31% of households reported they met more than half of their needs for fall chum salmon. Only 32% of households reported meeting over half of their subsistence needs for coho salmon (Table 17). Community success rates do not account for where individual households fished. In a tributary community, fishermen may travel to the mainstem Yukon River to fish, yet their success data are not differentiated from households who fish on the tributary.

ADF&G is especially interested in knowing if there was a fishery-related issue, such as run strength or management actions, that prevented households from meeting their needs. Harvest of salmon can be highly variable due to factors unrelated to run strength. Factors mentioned by households as contributing to subsistence needs not being met in 2007 included fishing schedules and adverse water conditions such as water levels, and floating debris. Fuel prices were mentioned by many households as a hardship in 2007. For those Yukon Area communities not located on the road system, gasoline prices increased from the already elevated 2005 prices. Among 19 communities in the Yukon Area, the average gasoline price increased from \$5.06 per gallon in 2006 to \$5.26 per gallon in 2007 (DCA 2007a, 2007b).

In addition to factors affecting a household's success in harvesting salmon, many households do not fish for salmon. Common reasons for not fishing included work schedules, lack of gear or equipment (e.g. no boat or motor), and poor health. Non-fishing households may receive fish throughout the year from friends and relatives, often receiving salmon after it has been processed. At the time of the survey, it may be hard for these households to assess whether their needs were met because they have not yet received their fish for the winter.

## **NONSALMON SPECIES**

Harvest of nonsalmon fish species was most likely underestimated by this project. The stratification and harvest estimation system is based on a household's historical "salmon" harvests and may not adequately represent households that fish predominantly for other species. The correlation between the level of salmon harvest and the level of nonsalmon harvest has not been determined. In order to improve the harvest estimates of nonsalmon species, additional

strata and sampling designs would need to be identified and developed (Borba and Hamner 1998). Additionally, the survey is timed to occur at the end of salmon fishing season, whereas nonsalmon species are often harvested throughout the fall and during the winter under the ice (Fall et al. 2009). During the annual survey, households are asked to estimate their harvest of nonsalmon species from the previous 12 months (question 15: Figure 3). The reported harvests in surveyed communities for most nonsalmon species were not expanded. However, catch totals were expanded for whitefish, sheefish, and northern pike which are often harvested concurrently with salmon.

Commercial fishing for Arctic lamprey is considered exploratory and experimental due to questions regarding life history and unknown abundance of lamprey on the Yukon River. In 2006, fishermen in St. Mary's, Mountain Village, and Grayling delivered 8,196 pounds (about 36,094 Arctic lamprey) to commercial processors in late November and early December (Maureen Horne-Brine, Lower Yukon Catch Monitor, Division of Commercial Fisheries, ADF&G, Anchorage, unpublished memorandum 15 January 2008).

## **DOGS**

In 2007, there was a 16% decrease in the number of dogs in the Yukon Area compared to the 2002–2006 average (Appendix B10). However, the estimated amount of all salmon species (summer chum, fall chum, and coho salmon) fed whole to dogs from surveyed communities and permit areas was 33% higher than the 2002–2006 average (Appendix B10). In a study conducted in 1991, salmon retained for dog food was found to constitute between 22% and 98% of all fish species fed to sled dogs among the 6 Yukon River communities of Fort Yukon, Huslia, Kaltag, Russian Mission, St. Mary's and Tanana (Anderson and Scott 2010). Nonsalmon species, commercial feeds and supplements are also fed to sled dogs. Fluctuation in the amount of salmon fed to dogs is likely due to dog owners increasing the amounts of salmon fed to dogs in years of good salmon harvests. The largest number of salmon estimated fed to dogs in the previous 10 years (1996–2006) was 157,884 salmon in 1997 (Appendix B10), and corresponded with the largest total salmon harvest for the same time period (Figure 4). The least number of salmon fed to dogs was 20,984 salmon (Appendix B10) from 2000, which corresponded to the lowest total subsistence salmon harvest (Figure 4).

## **CALENDARS**

Calendars are distributed to communities in the Alaska Yukon Area to assist in documenting harvest throughout the salmon season and aiding households in recalling their harvest. Like the in-person surveys, calendars provide information on harvest numbers, including proportions by species (Figure 5). Calendars also provide information on fishing effort throughout the season (Figure 6 top panel). Calendar return rates, however, are generally low and only 19% of the calendars in 2007 were returned with harvest information. While the calendars and surveys are meant to work in tandem (i.e., calendars keep a daily record of catch that can be reported to surveyors at the end of the season), it is worth noting that a large percentage of returned calendars are from non-selected (not surveyed) households, providing a degree of independence between the survey data and calendar data.

Recording harvest on calendars is voluntary. For the year 2007, it appears that reported calendar harvests by species were not, for the most part, representative of the overall expanded subsistence harvest. In comparing the proportions of harvest of individual salmon species from

combined totals, both calendars and surveys indicate summer chum salmon represented just below 45% of the total salmon harvest. However, some discrepancy was apparent between species proportions estimated through calendar records and those estimated from survey data: for Chinook, 29% versus 18%; for fall chum, 24% versus 31%; and for coho salmon 3% and 7%; (Figures 4 and 5). Generally, more fishing effort was recorded on calendars during the summer season (Figure 6).

## **SURVEY COMMENTS**

Survey interviews provided households an opportunity to comment to ADF&G on any topic related to fishing they felt was important. The most numerous comments from the survey concerned improving management, including improving sonar counts, choosing test fish sites with local input, and opening more drift gillnet fishing areas (36). Some fishermen were pleased with management and liked receiving test fish (24). More fishermen reported that salmon quality was good (38), than commented that fish were small or exhibited signs of disease (28). Several issues appeared to be more regional; lower river fishermen (3) did not like having to cut the fins of subsistence caught Chinook salmon, whereas upper river comments included concerns about whitefish health and abundance (6) and bycatch of Chinook salmon by Bering Sea, False Pass, and lower Yukon fishermen (13). Fishermen were also asked about fish loss and fish quality; in 2007 over 1,500 summer chum salmon were lost due to rain and bad weather during processing (Appendix A12).

The most numerous comments (90) from the survey regarded fishing schedules, and were primarily concerned with restrictions and closures when salmon were running by their fishing area. Many respondents felt that 7 day/week openings would be better. Fishermen commented that they only catch what they need for subsistence and then stop fishing, and that restrictions of subsistence fishing were unnecessary. For some fishermen, the windows schedule prevented them from catching all their fish at once, and affected their usual processing and storage of fish. Restricted fishing times also reduced the ability of fishermen to adapt to circumstances such as poor weather, water levels, debris, and work schedules. Short openings stretched out the season, an important consideration when gasoline costs and work schedules limited the number of possible trips to a fish camp. Fishermen also expressed concern that it was difficult to know when fishing was open, and that greater communication of schedules and management might help.

The estimated number of salmon used for subsistence in the surveyed communities was 158,592 Chinook, summer chum, fall chum and coho salmon (Table 6). The number of salmon used was 30,434 less than the combined salmon harvest estimate of 189,026 salmon (Appendix A1–A4), but within the range of the confidence intervals for both estimates. Salmon used for subsistence includes the number of salmon retained by fishing households for their own use, and the number of salmon given to households by other fishermen or test fisheries. The difference between the harvest and use amounts was likely due to the difficulty in estimating quantities of fish that have been transferred between households. Non-fishing households receiving salmon may use more fish throughout the winter than was reported to the surveyors in the fall, and may consume salmon as fillets, jars, or meals which were difficult to quantify. Salmon used for subsistence may also be given to family members in unsurveyed households outside of the survey area. The survey methodology was stratified to select and contact households to estimate the number of salmon harvested; this method may underestimate the number of salmon used by households particularly in the ‘Do Not Fish’ group.

The combined harvests of all salmon species were slightly greater in 2007 than in 2006 and were higher than the recent combined 5 year average (2002–2006) and previous 5 year average (1997–2001) (Appendices B1–B4). Poor Chinook salmon runs necessitated closures in the summer season and reduced opportunity for fishermen to harvest summer chum salmon commercially, but subsistence harvests of Chinook salmon were higher than the last 2 years and were above average for summer chum salmon as well. During inseason YRDFA teleconferences from August and early September, fishermen commented that water levels were low, and water temperatures were warmer than normal, which may have had an effect on movement of salmon inriver during the fall season. Fall chum and coho salmon runs were strong and subsistence fishing opportunities were extended in the fall season; while the subsistence harvest of fall chum salmon was above average, the harvest of coho salmon was below the 5 year average and below the lower ANS level.

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## **TABLES AND FIGURES**

Table 1.–Subsistence and personal use salmon harvest estimates, including commercially related and test fish harvests provided for subsistence use, and related information, Yukon Area, 2007.

Community	Survey Date, Permit Area <sup>a</sup>	Number of Fishing Households <sup>b</sup>	Number of Dogs <sup>c</sup>	Estimated Harvest				Primary Gear Used <sup>d</sup>		
				Chinook	Summer Chum	Fall Chum	Coho	Set Gillnet	Drift Gillnet	Fish Wheels
Hooper Bay	9/13-15	102	130	430	12,234	64	26	35	2	0
Scammon Bay	9/11-12	46	84	768	3,887	170	84	20	1	0
Coastal District Total		148	214	1,198	16,121	234	110	55	3	0
Nunam Iqua <sup>e</sup>	9/11-12	16	31	907	2,325	152	92	12	2	0
Alakanuk <sup>f</sup>	9/9-10	64	170	1,257	7,611	1,348	857	14	18	0
Emmonak <sup>f</sup>	9/6-8	88	156	2,326	9,256	2,360	1,032	6	51	0
Kotlik <sup>f</sup>	9/8-10	71	160	1,569	5,017	530	284	19	15	0
District 1 Subtotal		239	517	6,059	24,209	4,390	2,265	51	86	0
Mountain Village <sup>f</sup>	9/18-19	97	131	2,077	8,104	1,073	1,027	10	36	0
Pitkas Point	9/20	11	37	320	515	44	38	0	7	0
St. Mary's <sup>f</sup>	9/16-17, 21	105	140	3,573	8,107	825	97	2	48	1
Pilot Station <sup>f</sup>	9/22-24	58	65	2,028	3,711	741	263	2	24	0
Marshall <sup>f</sup>	9/25-27	50	148	2,555	3,070	789	922	1	23	0
District 2 Subtotal		321	521	10,553	23,507	3,472	2,347	15	138	1
Russian Mission	9/26-27	31	164	1,301	759	530	259	1	10	0
Holy Cross	9/22-23	37	55	2,902	320	248	213	10	15	0
Shageluk	9/24	31	66	448	977	147	267	5	8	0
District 3 Subtotal		99	285	4,651	2,056	925	739	16	33	0
Lower Yukon River Total		659	1,323	21,263	49,772	8,787	5,351	82	257	1
Anvik	9/25	19	96	1,321	5,250	429	807	8	8	2
Grayling	9/26-27	35	51	1,500	641	317	271	2	8	0
Kaltag <sup>f</sup>	10/8-9	43	29	1,456	109	910	204	1	11	0
Nulato	10/8-9	66	126	2,431	356	1,345	130	3	21	0
Koyukuk	10/10-11	17	69	811	995	927	189	3	9	0
Galena	10/4-7	71	89	2,511	571	1,471	425	7	18	1
Ruby	10/3-4	18	131	1,594	416	1,959	168	4	0	6
District 4 Yukon River Subtotal		269	591	11,624	8,338	7,358	2,194	28	75	9
Huslia	10/10-11	21	160	146	3,243	272	592	8	2	0
Hughes	10/11-12	9	46	8	1,213	0	100	6	0	0
Allakaket	10/12-14	9	110	53	3,451	939	66	9	0	0
Alatna	10/12-14	1	4	0	11	7	0	1	0	0
Bettles	10/15	0	71	0	0	0	0	0	0	0
Koyukuk River Subtotal		40	391	207	7,918	1,218	758	24	2	0
District 4 Subtotal		309	982	11,831	16,256	8,576	2,952	52	77	9

-continued-

Table 1.–Page 2 of 3.

Community	Survey Date, Permit Area <sup>a</sup>	Number of Fishing Households <sup>b</sup>	Number Of Dogs <sup>c</sup>	Estimated Harvest				Primary Gear Used <sup>d</sup>		
				Chinook	Summer Chum	Fall Chum	Coho	Set Gillnet	Drift Gillnet	Fish Wheels
Tanana	10/16-18	43	410	5,498	5,229	21,596	2,369	10	0	14
Rampart	permits	2	3	250	25	250	50	2	0	0
Fairbanks NSB <sup>g</sup>	permits	48	192	2,510	564	2,126	26	45	0	2
Stevens Village <sup>h</sup>	10/13-14, permits	15	79	610	254	199	0	14	0	0
Birch Creek	10/23-24	3	24	113	0	0	0	1	0	0
Beaver	10/17	18	31	1,244	41	354	354	10	0	3
Fort Yukon	10/18-21	44	296	4,076	2,365	8,264	567	10	0	11
Circle	permits	9	39	1,057	200	1,286	0	4	0	5
Central	permits	7	11	334	0	0	0	6	0	1
Eagle <sup>f</sup>	permits	29	235	1,999	15	18,676	0	20	0	9
Other District 5 <sup>i</sup>	permits	18	87	472	81	46	0	17	0	1
District 5 Yukon River Subtotal		236	1,407	18,163	8,774	52,797	3,366	139	0	46
Venetie	11/5-6	13	87	1,002	107	721	0	6	0	1
Chalkyitsik	10/22-23	3	22	0	0	213	0	2	0	0
Chandalar and Black Rivers Subtotal		16	109	1,002	107	934	0	8	0	1
District 5 Subtotal		252	1,516	19,165	8,881	53,731	3,366	147	0	47
Manley	permits	9	102	333	140	3,419	1,126	9	0	0
Minto	permits	8	97	82	82	155	155	7	0	1
Nenana <sup>f,j</sup>	permits	23	293	899	1,429	21,863	4,487	9	0	14
Healy	permits	3	40	0	0	1,090	1,463	3	0	0
Fairbanks NSB <sup>k</sup>	permits	40	202	539	429	3,480	744	37	0	3
Other District 6 <sup>l</sup>	permits	19	156	0	0	59	5	14	0	1
District 6 Tanana River Subtotal <sup>j</sup>		102	890	1,853	2,080	30,066	7,980	79	0	19
Upper Yukon River Total		662	3,388	32,849	27,217	92,373	14,298	278	77	75
Survey Village Subtotal		1,255	3,468	44,882	87,786	45,919	10,439	242	337	39
Subsistence Permit Subtotal <sup>m</sup>		183	1,457	8,082	2,781	38,679	6,723	142	0	36
Subsistence Test Fish Subtotal <sup>n</sup>		-	-	1,965	2,359	3,028	1,264	-	-	-
District 6 Commercial Related <sup>j</sup>				245	0	13,595	1,198	-	-	-
Subsistence Harvests Subtotal		1,438	4,925	55,174	92,926	101,221	19,624	384	337	75
Personal Use Permit Subtotals		32	-	136	184	173	135	31	0	1
Alaska, Yukon River Total <sup>o</sup>		1,322	4,711	54,112	76,989	101,160	19,649	360	334	76
Alaska, Yukon Area Total		1,470	4,925	55,310	93,110	101,394	19,759	415	337	76
AK, Yukon Area Percentages of the Total		-	-	21%	35%	38%	7%	50%	41%	9%

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Table 1.–Page 3 of 3.

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- <sup>a</sup> Data collected by Alaska Department of Fish and Game, Division of Commercial Fisheries. Survey data are expanded for number of fishing households, number of dogs, and harvest. Permit data are unexpanded, and are from all permits received as of March 31, 2009.
- <sup>b</sup> Estimated number of households that fished in surveyed communities or number of permit households who reported fishing in permit required areas.
- <sup>c</sup> The number of dogs is based on survey information or from permits issued.
- <sup>d</sup> Primary fishing gear used is based on survey information or from subsistence permits issued. Primary gear information for surveyed communities was not expanded for households that were not surveyed.
- <sup>e</sup> Formerly known as Sheldon or Sheldon's Point.
- <sup>f</sup> Test fish have been added to the total fish harvested in surveyed and permit required communities.
- <sup>g</sup> Fairbanks North Star Borough (FNSB) households that obtained a permit and indicated they fished in a Yukon River permit required area.
- <sup>h</sup> Permit harvest information from Stevens Village residents was used to complement information obtained by the survey.
- <sup>i</sup> "Other District 5" includes residents of Anchorage, Anderson, Big Lake, Healy, Manley, Minto, Nenana, Northway, Tok, and Wiseman that obtained a household permit and fished in a Yukon River permit required area.
- <sup>j</sup> Includes salmon reported on commercial fishing tickets as "caught but not sold".
- <sup>k</sup> FNSB households that obtained a subsistence and/or personal use permit and indicated they fished in a Tanana River permit required area.
- <sup>l</sup> "Other District 6" includes residents of the Upper Tanana River drainage communities of Delta Junction, Dot Lake, Northway, Tanacross, and Tok, and the communities of Circle and Chugiak who obtained a permit and fished in the Tanana River.
- <sup>m</sup> Subsistence permit subtotal does not include Stevens Village permit information or salmon caught but not sold from District 6.
- <sup>n</sup> Test fish given away for subsistence use. Includes 12 Chinook and 3 fall chum salmon given to the permit community of Eagle.
- <sup>o</sup> Does not include Coastal District.

Table 2.—Estimated number of households with dogs, households that feed fish to dogs, numbers of dogs, and corresponding confidence intervals (CI 95%) for surveyed communities, Yukon Area, 2007.

Community	Total Households	Households Contacted	Number of Households with Dogs		Number of Households that Feed Fish to Dogs		Number of Dogs	
			Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%
Hooper Bay	196	56	86	26	6	8	130	52
Scammon Bay	74	31	46	11	1	0	84	26
Coastal District	270	87	132	29	7	8	214	58
Nunam Iqua	35	24	14	2	3	1	31	5
Alakanuk	125	54	63	16	16	10	170	54
Emmonak	156	88	83	13	5	1	156	30
Kotlik	98	43	70	13	6	6	160	87
District 1	414	209	230	24	30	12	517	107
Mountain Village	146	60	86	18	7	1	131	30
Pitkas Point	27	18	15	2	0	0	37	14
St. Mary's	127	55	75	16	4	2	140	31
Pilot Station	102	45	45	11	0	0	65	18
Marshall	71	30	46	12	2	0	148	24
District 2	473	208	267	29	13	2	521	55
Russian Mission	57	19	34	11	1	1	164	89
Holy Cross	60	36	30	8	1	0	55	9
Shageluk	41	17	22	7	2	2	66	21
District 3	158	72	86	15	4	2	285	91
Anvik	34	28	25	3	4	1	96	13
Grayling	48	14	29	10	0	0	51	20
Kaltag	60	19	25	17	1	0	29	17
Nulato	86	30	63	13	1	0	126	32
Koyukuk	35	21	16	4	2	1	69	20
Galena	148	39	67	24	5	7	89	38
Ruby	57	20	18	9	4	0	131	89
Huslia	69	30	26	10	7	4	160	82
Hughes	29	17	8	3	3	0	46	6
Allakaket	38	35	21	2	8	1	110	5
Alatna	10	5	2	1	0	0	4	2
Bettles	24	10	5	3	0	0	71	3
District 4	638	268	305	37	35	8	982	136
Tanana	99	44	52	10	19	5	410	144
Stevens Village	25	19	17	3	2	1	79	12
Birch Creek	18	6	7	5	0	0	24	18
Beaver	29	18	18	5	2	0	31	9
Fort Yukon	150	49	111	18	21	10	296	69
Venetie	49	19	28	9	8	7	87	37
Chalkyitsik	30	20	14	3	3	2	22	5
District 5	400	175	247	24	55	13	949	166
Survey Totals	2,353	1,019	1,267	66	144	21	3,468	268

Note: The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 3.–Household and dog information reported by subsistence and personal use permits issued and returned, listed by fishery and by community of residence, Yukon Area, 2007.

Subsistence Permits	Permit Information <sup>a</sup>				Reported Household Information (based on permits issued)					
	Permits <sup>b</sup>		Percent Returned	Numbers of Permits Returned that Fished <sup>c</sup>	Number of People	Number of Fishermen	Number of Households with Dogs	Number of Dogs	Number of Households Feeding Whole Salmon to Dogs	Number of Whole Salmon Fed to Dogs
	Issued	Returned								
Central	10	10	100%	7	20	13	7	11	1	30
Circle	12	11	92%	9	37	24	12	39	7	1,287
Eagle	37	36	97%	29	104	73	32	235	22	16,574
Rampart	4	2	50%	2	12	10	1	3	1	0
Fairbanks (FNSB) <sup>d</sup>	217	200	92%	107	670	476	77	394	25	4,218
Healy	9	8	89%	6	33	20	6	43	4	1,490
Manley	14	14	100%	10	36	26	9	103	8	2,542
Minto	39	36	92%	16	123	67	19	146	10	54
Nenana	36	35	97%	22	118	72	28	294	24	7,641
Stevens Village <sup>e</sup>	6	6	100%	5	22	9	6	42	3	0
Upper Tanana Villages (UTV) <sup>f</sup>	42	38	90%	21	127	86	28	146	6	0
Other Subsistence <sup>g</sup>	14	14	100%	8	45	28	8	43	3	0
<b>Subsistence Permit Subtotal</b>	<b>440</b>	<b>410</b>	<b>93%</b>	<b>242</b>	<b>1,347</b>	<b>904</b>	<b>233</b>	<b>1,499</b>	<b>114</b>	<b>33,836</b>
<b>Personal Use Permits</b>										
Fairbanks (FNSB) <sup>d</sup>	63	61	97%	29	159	112	-	-	-	-
Other Personal Use <sup>h</sup>	5	5	100%	3	17	7	-	-	-	-
<b>Personal Use Subtotal</b>	<b>68</b>	<b>66</b>	<b>97%</b>	<b>32</b>	<b>176</b>	<b>119</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Permit Totals</b>	<b>508</b>	<b>476</b>	<b>94%</b>	<b>274</b>	<b>1,523</b>	<b>1,023</b>	<b>233</b>	<b>1,499</b>	<b>114</b>	<b>33,836</b>

<sup>a</sup> Permits returned as of March 31, 2009.

<sup>b</sup> Includes 33 households that were "issued" permits for more than one area, and includes one household that was issued duplicate permits for the same area.

<sup>c</sup> Includes 8 households that "fished" in 2 different permit areas.

<sup>d</sup> Fairbanks North Star Borough (FNSB) includes residents from the communities of Ester, Fairbanks, North Pole, Salcha, and Two Rivers.

<sup>e</sup> Does not include survey estimates, only information from permits issued to fishermen in Stevens Village.

<sup>f</sup> Upper Tanana River communities include residents from the communities of Delta Junction, Dot Lake, Northway, Tanacross, and Tok.

<sup>g</sup> Includes residents from Anchorage, Anderson, Big Lake, Chugiak, Denali Park, Homer, Gakona, Lake Minchumina, Juneau, and Wiseman who were issued a subsistence fishing permit for the Yukon, Tanana, Tolovana, Kantishna, and Upper Koyukuk Rivers.

<sup>h</sup> Includes residents of Circle, Delta Junction, and Nenana that applied for a personal use permit.

Table 4.–Estimated number of salmon retained for dog food from subsistence harvests with corresponding confidence intervals (CI 95%) for surveyed communities, Yukon Area, 2007.

Community	Total Households	Households Contacted <sup>b</sup>	Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon <sup>a</sup>
			Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total
Hooper Bay	196	61	122	208	0	0	0	0	122
Scammon Bay	74	31	20	0	0	0	0	0	20
Coastal District	270	92	142	208	0	0	0	0	142
Nunam Iqua	35	24	271	78	0	0	0	0	271
Alakanuk	125	54	739	853	0	0	58	42	797
Emmonak	156	88	15	5	38	17	1	0	54
Kotlik	98	43	18	14	0	0	0	0	18
District 1	414	209	1,043	856	38	17	59	42	1,140
Mountain Village	146	60	249	34	0	0	124	78	373
Pitkas Point	27	18	0	0	0	0	0	0	0
St. Mary's	127	56	26	11	0	0	0	0	26
Pilot Station	102	45	0	0	0	0	0	0	0
Marshall	71	30	288	0	152	0	280	0	720
District 2	473	209	563	35	152	0	404	78	1,119
Russian Mission	57	18	0	0	0	0	0	0	0
Holy Cross	60	36	0	0	0	0	30	0	30
Shageluk	41	17	375	424	0	0	0	0	375
District 3	158	71	375	424	0	0	30	0	405
Anvik	34	28	396	248	25	0	346	248	767
Grayling	48	14	0	0	0	0	0	0	0
Kaltag	60	19	3	0	10	0	0	0	13
Nulato	86	30	260	0	40	0	9	0	309
Koyukuk	35	21	932	532	260	0	74	0	1,266
Galena	148	40	73	123	0	0	0	0	73
Ruby	57	20	40	0	1,950	0	0	0	1,990
Huslia	69	30	2,336	1,048	98	0	567	261	3,001
Hughes	29	17	1,060	0	0	0	100	0	1,160
Allakaket	38	36	2,619	19	424	0	0	0	3,043
Alatna	10	5	0	0	0	0	0	0	0
Bettles	24	10	0	0	0	0	0	0	0
District 4	638	270	7,719	1,207	2,807	0	1,096	360	11,622
Tanana	99	45	4,294	1,766	19,574	5,602	2,363	1,317	26,231
Stevens Village	25	19	69	48	60	0	0	0	129
Birch Creek	18	6	0	0	0	0	0	0	0
Beaver	29	17	0	0	0	0	0	0	0
Fort Yukon	150	48	2,150	1,753	6,167	3,042	400	390	8,717
Venetie	49	19	53	83	586	98	0	0	639
Chalkyitsik	30	22	0	0	213	70	0	0	213
District 5	400	176	6,566	2,490	26,600	6,376	2,763	1,374	35,929
Survey Totals	2,353	1,027	16,408	2,935	29,597	6,376	4,352	1,423	50,357

<sup>a</sup> Does not include Chinook salmon not fit for human consumption but possibly fed to dogs.

<sup>b</sup> The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 5.—Estimated number of salmon retained for dog food from commercial harvests with corresponding confidence intervals (CI 95%) for surveyed communities, Yukon Area, 2007.

Community	Total Households	Households Contacted <sup>b</sup>	Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon <sup>a</sup>
			Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total
Hooper Bay	196	61	0	0	0	0	0	0	0
Scammon Bay	74	31	0	0	0	0	0	0	0
Coastal District	270	92	0	0	0	0	0	0	0
Nunam Iqua	35	24	0	0	0	0	0	0	0
Alakanuk	125	54	36	61	0	0	0	0	36
Emmonak	156	88	17	7	0	0	0	0	17
Kotlik	98	43	0	0	0	0	0	0	0
District 1	414	209	53	61	0	0	0	0	53
Mountain Village	146	60	0	0	0	0	9	6	9
Pitkas Point	27	18	0	0	0	0	0	0	0
St. Mary's	127	56	0	0	0	0	0	0	0
Pilot Station	102	45	0	0	0	0	0	0	0
Marshall	71	30	200	0	80	0	30	0	310
District 2	473	209	200	0	80	0	39	6	319
Russian Mission	57	19	0	0	0	0	0	0	0
Holy Cross	60	36	0	0	0	0	0	0	0
Shageluk	41	18	0	0	0	0	0	0	0
District 3	158	73	0	0	0	0	0	0	0
Anvik	34	29	4,607	813	0	0	0	0	4,607
Grayling	48	14	0	0	0	0	0	0	0
Kaltag	60	19	0	0	0	0	0	0	0
Nulato	86	30	0	0	0	0	0	0	0
Koyukuk	35	21	0	0	0	0	0	0	0
Galena	148	42	0	0	0	0	0	0	0
Ruby	57	20	0	0	0	0	0	0	0
Huslia	69	30	0	0	0	0	0	0	0
Hughes	29	17	0	0	0	0	0	0	0
Allakaket	38	36	0	0	0	0	0	0	0
Alatna	10	5	0	0	0	0	0	0	0
Bettles	24	10	0	0	0	0	0	0	0
District 4	638	273	4,607	813	0	0	0	0	4,607
Tanana	99	45	667	653	0	0	0	0	667
Stevens Village	25	19	0	0	0	0	0	0	0
Birch Creek	18	6	0	0	0	0	0	0	0
Beaver	29	19	0	0	0	0	0	0	0
Fort Yukon	150	49	0	0	0	0	0	0	0
Venetie	49	19	0	0	0	0	0	0	0
Chalkyitsik	30	22	0	0	0	0	0	0	0
District 5	400	179	667	653	0	0	0	0	667
Survey Totals	2,353	1,035	5,527	1,045	80	0	39	6	5,646

<sup>a</sup> Does not include Chinook salmon not fit for human consumption but possibly fed to dogs.

<sup>b</sup> The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 6.–Estimated total number of households in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2007.

Community	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	2	2	2	100%	64	20	15	75%	106	32	30	94%	24	24	22	92%	-	-	-	-	196	78	69	88%
Scammon Bay	2	2	1	50%	22	8	7	88%	40	12	14	117%	10	10	10	100%	-	-	-	-	74	32	32	100%
Coastal District	4	4	3	75%	86	28	22	79%	146	44	44	100%	34	34	32	94%	-	-	-	-	270	110	101	92%
Nunam Iqua	1	1	-	-	10	10	4	40%	10	10	8	80%	14	14	13	93%	-	-	-	-	35	35	25	71%
Alakanuk	10	10	9	90%	31	10	9	90%	62	19	17	89%	22	22	19	86%	-	-	-	-	125	61	54	89%
Emmonak	2	2	2	100%	54	27	22	81%	60	30	28	93%	39	39	37	95%	1	1	1	100%	156	99	90	91%
Kotlik	1	1	-	-	31	9	10	111%	43	13	12	92%	22	21	21	100%	1	1	1	100%	98	45	44	98%
District 1	14	14	11	79%	126	56	45	80%	175	72	65	90%	97	96	90	94%	2	2	2	100%	414	240	213	89%
Mountain Village	11	11	5	45%	33	11	10	91%	65	20	15	75%	35	35	32	91%	2	2	1	50%	146	79	63	80%
Pitkas Point	4	4	-	-	5	5	4	80%	12	12	10	83%	6	6	5	83%	-	-	-	-	27	27	19	70%
St. Mary's	14	14	9	64%	23	7	7	100%	58	18	16	89%	31	31	29	94%	1	1	1	100%	127	71	62	87%
Pilot Station	6	6	3	50%	34	18	15	83%	47	24	21	88%	15	15	9	60%	-	-	-	-	102	63	48	76%
Marshall	3	3	3	100%	17	6	5	83%	39	12	10	83%	11	11	11	100%	1	1	1	100%	71	33	30	91%
District 2	38	38	20	53%	112	47	41	87%	221	86	72	84%	98	98	86	88%	4	4	3	75%	473	273	222	81%
Russian Mission	-	-	-	-	13	5	4	80%	40	12	12	100%	4	4	3	75%	-	-	-	-	57	21	19	90%
Holy Cross	6	6	4	67%	13	7	6	86%	24	12	11	92%	17	17	17	100%	-	-	-	-	60	42	38	90%
Shageluk	12	12	6	50%	7	3	2	67%	12	4	2	50%	9	9	8	89%	1	1	1	100%	41	29	19	66%
District 3	18	18	10	56%	33	15	12	80%	76	28	25	89%	30	30	28	93%	1	1	1	100%	158	92	76	83%
Anvik	-	-	-	-	14	14	10	71%	15	15	14	93%	4	4	4	100%	1	1	1	100%	34	34	29	85%
Grayling	1	1	-	-	3	1	1	100%	39	12	10	83%	4	4	3	75%	1	1	-	-	48	19	14	74%
Kaltag	7	7	6	86%	8	3	3	100%	41	13	7	54%	4	4	4	100%	-	-	-	-	60	27	20	74%
Nulato	3	3	2	67%	23	7	6	86%	53	16	15	94%	6	6	6	100%	1	1	1	100%	86	33	30	91%
Koyukuk	4	4	1	25%	13	13	9	69%	13	13	9	69%	4	4	3	75%	1	1	1	100%	35	35	23	66%
Galena	5	5	5	100%	69	20	13	65%	66	21	20	95%	6	6	5	83%	2	2	2	100%	148	54	45	83%
Ruby	4	4	4	100%	36	11	9	82%	10	3	4	133%	4	4	3	75%	3	3	2	67%	57	25	22	88%
Huslia	5	5	4	80%	41	13	14	108%	17	6	7	117%	4	4	3	75%	2	2	2	100%	69	30	30	100%
Hughes	3	3	1	33%	18	18	10	56%	5	5	4	80%	1	1	1	100%	2	2	2	100%	29	29	18	62%
Allakaket	1	1	1	100%	23	23	21	91%	8	8	8	100%	3	3	3	100%	3	3	3	100%	38	38	36	95%
Alatna	1	1	-	-	6	6	5	83%	2	2	1	50%	1	1	-	-	-	-	-	-	10	10	6	60%
Bettles	4	4	-	-	17	17	10	59%	3	3	2	67%	-	-	-	-	-	-	-	-	24	24	12	50%
District 4	38	38	24	63%	271	146	111	76%	272	117	101	86%	41	41	35	85%	16	16	14	88%	638	358	285	80%

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Table 6.–Page 2 of 2.

Community	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
Tanana	3	3	-	-	48	24	22	92%	25	13	10	77%	11	11	9	82%	12	12	10	83%	99	63	51	81%
Stevens Village	1	1	-	-	9	9	5	56%	8	8	7	88%	7	7	7	100%	-	-	-	-	25	25	19	76%
Birch Creek	6	6	1	17%	7	7	3	43%	5	5	2	40%	-	-	-	-	-	-	-	-	18	18	6	33%
Beaver	-	-	-	-	13	13	6	46%	12	12	9	75%	4	4	4	100%	-	-	-	-	29	29	19	66%
Fort Yukon	7	7	3	43%	88	27	22	81%	35	11	11	100%	14	14	13	93%	6	6	4	67%	150	65	53	82%
Venetie	7	7	2	29%	29	9	9	100%	8	3	3	100%	4	4	4	100%	1	1	1	100%	49	24	19	79%
Chalkyitsik	2	2	1	50%	23	23	18	78%	3	3	2	67%	2	2	1	50%	-	-	-	-	30	30	22	73%
District 5	26	26	7	27%	217	112	85	76%	96	55	44	80%	42	42	38	90%	19	19	15	79%	400	254	189	74%
Survey Totals	138	138	75	54%	845	404	316	78%	986	402	351	87%	342	341	309	91%	42	42	35	83%	2,353	1,327	1,086	82%

Note: Total number of households (N), the sample size (n), the number of households contacted (C), and the percent of the sampled households that were contacted (%C) in each harvest group in surveyed communities. Households contacted (C) may include some households not pre-selected resulting in a household contacted percentage (%C) greater than 100%. Dashes indicate indefinable values.

Table 7.—Estimated total number of subsistence fishing households in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2007.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	PF	SE	N	n	PF	SE	N	n	PF	SE	N	n	PF	SE	N	n	PF	SE	Total		CI	
																					N	n		Total
Hooper Bay	2	2	0.5	0.0	64	13	0.2	0.1	106	28	0.6	0.1	24	20	0.8	0.0	-	-	-	-	196	63	102	21
Scammon Bay	2	1	0.0	-	22	7	0.4	0.2	40	13	0.7	0.1	10	10	0.9	0.0	-	-	-	-	74	31	46	11
Coastal District	4	3	0.3	0.0	86	20	0.3	0.1	146	41	0.7	0.1	34	30	0.8	0.0	-	-	-	-	270	94	148	24
Nunam Iqua	1	0	-	-	10	4	0.0	0.0	10	7	0.4	0.1	14	13	0.8	0.0	-	-	-	-	35	24	16	2
Alakanuk	10	9	0.4	0.1	31	9	0.1	0.1	62	17	0.6	0.1	22	19	0.9	0.0	-	-	-	-	125	54	64	14
Emmonak	2	2	0.5	0.0	54	22	0.3	0.1	60	27	0.6	0.1	39	37	0.9	0.0	1	1	1.0	-	156	89	88	11
Kotlik	1	0	-	-	31	10	0.3	0.1	43	12	0.9	0.1	22	20	1.0	0.0	1	1	1.0	-	98	43	71	10
District 1	14	11	0.5	0.0	126	45	0.2	0.1	175	63	0.7	0.0	97	89	0.9	0.0	2	2	1.0	-	414	210	239	21
Mountain Village	11	5	0.6	0.2	33	9	0.2	0.1	65	15	0.7	0.1	35	31	1.0	0.0	2	1	1.0	-	146	61	97	16
Pitkas Point	4	0	-	-	5	4	0.0	0.0	12	10	0.5	0.1	6	5	0.8	0.1	-	-	-	-	27	19	11	2
St. Mary's	14	8	0.6	0.1	23	6	0.7	0.2	58	16	0.9	0.1	31	28	0.9	0.0	1	1	1.0	-	127	59	105	12
Pilot Station	6	3	0.7	0.2	34	14	0.2	0.1	47	21	0.7	0.1	15	8	1.0	0.0	-	-	-	-	102	46	58	10
Marshall	3	3	1.0	0.0	17	5	0.2	0.2	39	10	0.8	0.1	11	11	1.0	0.0	1	1	1.0	-	71	30	50	10
District 2	38	19	0.7	0.1	112	38	0.3	0.1	221	72	0.8	0.0	98	83	1.0	0.0	4	3	1.0	-	473	215	321	25
Russian Mission	-	-	-	-	13	4	0.5	0.2	40	12	0.5	0.1	4	3	1.0	0.0	-	-	-	-	57	19	31	12
Holy Cross	6	3	0.3	0.2	13	6	0.0	0.0	24	10	0.8	0.1	17	17	0.9	0.0	-	-	-	-	60	36	37	6
Shageluk	12	6	0.7	0.1	7	2	0.5	0.4	12	2	1.0	0.0	9	7	0.7	0.1	1	1	1.0	-	41	18	31	7
District 3	18	9	0.6	0.1	33	12	0.3	0.1	76	24	0.7	0.1	30	27	0.9	0.0	1	1	1.0	-	158	73	99	15
Anvik	-	-	-	-	14	10	0.1	0.1	15	14	0.9	0.0	4	4	1.0	0.0	1	1	1.0	-	34	29	19	2
Grayling	1	0	-	-	3	1	0.0	-	39	10	0.8	0.1	4	3	1.0	0.0	1	0	-	-	48	14	35	9
Kaltag	7	6	0.3	0.1	8	3	0.3	0.3	41	6	0.8	0.2	4	4	1.0	0.0	-	-	-	-	60	19	43	13
Nulato	3	2	0.5	0.3	23	6	0.5	0.2	53	15	0.9	0.1	6	6	1.0	0.0	1	1	1.0	-	86	30	66	12
Koyukuk	4	1	0.0	-	13	9	0.1	0.1	13	9	0.8	0.1	4	3	1.0	0.0	1	1	1.0	-	35	23	17	3
Galena	5	5	0.6	0.0	69	12	0.3	0.1	66	20	0.7	0.1	6	5	1.0	0.0	2	2	1.0	0.0	148	44	71	20
Ruby	4	4	0.5	0.0	36	9	0.0	0.0	10	4	1.0	0.0	4	3	1.0	0.0	3	2	0.5	0.3	57	22	18	2
Huslia	5	4	0.0	0.0	41	14	0.2	0.1	17	7	0.4	0.2	4	3	0.7	0.2	2	2	1.0	0.0	69	30	21	9
Hughes	3	1	1.0	-	18	10	0.0	0.0	5	4	0.5	0.1	1	1	1.0	-	2	2	1.0	0.0	29	18	9	1
Allakaket	1	1	0.0	-	23	21	0.1	0.0	8	8	0.1	0.0	3	3	0.7	0.0	3	3	1.0	0.0	38	36	9	1
Alatna	1	0	-	-	6	5	0.2	0.1	2	1	0.0	-	1	0	-	-	-	-	-	-	10	6	1	1
Bettles	4	0	-	-	17	10	0.0	0.0	3	1	0.0	-	-	-	-	-	-	-	-	-	24	11	0	0
District 4	38	24	0.4	0.0	271	110	0.2	0.0	272	99	0.7	0.0	41	35	0.9	0.0	16	14	0.9	0.1	638	282	309	30

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Table 7.–Page 2 of 2.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined									
	N		n		PF		SE		N		n		PF		SE		N		n		PF		SE		Total		Est		CI	
	N	n	PF	SE	N	n	PF	SE	N	n	PF	SE	N	n	PF	SE	N	n	PF	SE	N	n	PF	SE	N	n	Total	95%		
Tanana	3	0	-	-	48	22	0.0	0.0	25	10	0.8	0.1	11	7	1.0	0.0	12	9	1.0	0.0	99	48	43	5						
Stevens Village	1	0	-	-	9	5	0.4	0.2	8	7	0.9	0.1	7	7	0.7	0.0	-	-	-	-	25	19	15	3						
Birch Creek	6	1	0.0	-	7	3	0.0	0.0	5	2	0.5	0.4	-	-	-	-	-	-	-	-	18	6	3	4						
Beaver	-	-	-	-	13	6	0.3	0.2	12	9	0.8	0.1	4	4	1.0	0.0	-	-	-	-	29	19	18	4						
Fort Yukon	7	3	0.3	0.3	88	22	0.1	0.1	35	11	0.5	0.1	14	13	0.7	0.0	6	4	0.8	0.1	150	53	44	15						
Venetie	7	2	0.0	0.0	29	9	0.1	0.1	8	3	0.7	0.3	4	4	0.8	0.0	1	1	1.0	-	49	19	13	7						
Chalkyitsik	2	1	0.0	-	23	18	0.1	0.0	3	2	0.0	0.0	2	1	1.0	-	-	-	-	-	30	22	3	1						
District 5	26	7	0.1	0.1	217	85	0.1	0.0	96	44	0.6	0.1	42	36	0.8	0.0	19	14	0.9	0.0	400	186	139	18						
Survey Totals	138	73	0.4	0.0	845	310	0.2	0.0	986	343	0.7	0.0	342	300	0.9	0.0	42	34	0.9	0.0	2,353	1,060	1,255	55						

Note: The number of fishing households was estimated from the total number of households (N), the number of households contacted (n), the proportion of households that fished (PF), and the standard error (SE) for each harvest group in each community. Estimated total number of fishing households includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Table 8.—Estimated number of people in households in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2007.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined									
	N		n		Mean		SE		N		n		Mean		SE		N		n		Mean		SE		Total		Est		CI	
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%		
Hooper Bay	2	2	1.5	0.0	64	13	5.6	0.8	106	28	5.3	0.4	24	20	5.2	0.3	-	-	-	-	196	63	1,050	130						
Scammon Bay	2	1	5.0	-	22	7	4.7	0.7	40	13	6.8	0.7	10	10	8.0	0.0	-	-	-	-	74	31	468	63						
Coastal District	4	3	3.3	0.0	86	20	5.4	0.6	146	41	5.7	0.3	34	30	6.0	0.2	-	-	-	-	270	94	1,518	145						
Nunam Iqua	1	0	-	-	10	4	3.5	1.0	10	7	5.3	0.7	14	13	4.0	0.2	-	-	-	-	35	24	144	24						
Alakanuk	10	9	4.1	0.1	31	9	3.9	0.6	62	17	4.7	0.6	22	19	5.2	0.2	-	-	-	-	125	54	567	78						
Emmonak	2	2	1.5	0.0	54	21	4.2	0.4	60	27	4.8	0.4	39	37	5.5	0.1	1	1	7.0	-	156	88	739	66						
Kotlik	1	0	-	-	31	10	5.6	0.6	43	12	4.7	0.5	22	20	5.6	0.1	1	1	3.0	-	98	43	499	56						
District 1	14	11	3.7	0.1	126	44	4.4	0.3	175	63	4.8	0.3	97	89	5.2	0.1	2	2	5.0	-	414	209	1,949	119						
Mountain Village	11	5	6.0	0.5	33	9	3.2	0.7	65	15	5.1	0.7	35	31	5.5	0.1	2	1	11.0	-	146	61	720	102						
Pitkas Point	4	0	-	-	5	4	2.5	0.3	12	10	4.4	0.3	6	5	4.4	0.3	-	-	-	-	27	19	92	9						
St. Mary's	14	8	3.1	0.5	23	5	4.4	1.0	58	16	4.3	0.6	31	27	4.4	0.1	1	1	2.0	-	127	57	529	82						
Pilot Station	6	3	4.3	0.8	34	14	3.9	0.5	47	21	6.0	0.4	15	8	5.9	0.5	-	-	-	-	102	46	525	57						
Marshall	3	3	3.7	0.0	17	5	4.4	1.6	39	10	4.2	0.3	11	11	6.0	0.0	1	1	5.0	-	71	30	321	56						
District 2	38	19	4.3	0.3	112	37	3.8	0.4	221	72	4.9	0.3	98	82	5.2	0.1	4	3	7.3	-	473	213	2,187	153						
Russian Mission	-	-	-	-	13	4	4.8	1.8	40	12	4.7	0.7	4	3	5.0	0.8	-	-	-	-	57	19	268	70						
Holy Cross	6	3	2.3	0.5	13	6	2.2	0.6	24	10	3.0	0.4	17	17	3.6	0.0	-	-	-	-	60	36	176	25						
Shageluk	12	6	3.0	0.5	7	2	1.5	0.4	12	2	1.5	0.5	9	7	3.1	0.3	1	1	2.0	-	41	18	95	18						
District 3	18	9	2.8	0.4	33	12	3.0	0.7	76	24	3.6	0.4	30	27	3.7	0.1	1	1	2.0	-	158	73	539	76						
Anvik	-	-	-	-	14	10	1.7	0.1	15	14	3.7	0.2	4	4	4.0	0.0	1	1	5.0	-	34	29	101	6						
Grayling	1	0	-	-	3	1	1.0	-	39	10	3.5	0.4	4	3	3.7	0.7	1	0	-	-	48	14	154	32						
Kaltag	7	6	1.3	0.1	8	3	2.7	0.5	41	6	2.3	0.4	4	4	2.8	0.0	-	-	-	-	60	19	137	32						
Nulato	3	2	2.5	0.3	23	6	2.3	0.5	53	15	3.7	0.3	6	6	2.8	0.0	1	1	4.0	-	86	30	280	41						
Koyukuk	4	1	1.0	-	13	9	2.1	0.2	13	8	1.6	0.2	4	2	4.0	0.7	1	1	2.0	-	35	21	71	10						
Galena	5	5	2.4	0.0	69	12	1.8	0.2	66	20	3.4	0.3	6	4	3.8	0.5	2	2	3.5	0.0	148	43	383	47						
Ruby	4	4	3.3	0.0	36	9	2.7	0.5	10	4	3.5	1.0	4	3	3.0	0.5	3	2	1.5	0.3	57	22	161	41						
Huslia	5	4	2.8	0.3	41	14	2.6	0.4	17	7	2.1	0.4	4	3	3.0	0.8	2	2	3.0	0.0	69	30	174	39						
Hughes	3	1	3.0	-	18	10	2.1	0.3	5	4	2.3	0.6	1	1	3.0	-	2	2	4.5	0.0	29	18	70	11						
Allakaket	1	1	1.0	-	23	21	2.8	0.1	8	8	3.1	0.0	3	3	2.7	0.0	3	3	3.3	0.0	38	36	109	5						
Alatna	1	0	-	-	6	5	3.0	0.4	2	0	-	-	1	0	-	-	-	-	-	-	10	5	18	5						
Bettles	4	0	-	-	17	9	1.6	0.2	3	1	3.0	-	-	-	-	-	-	-	-	-	24	10	35	6						
District 4	38	24	2.2	0.1	271	109	2.2	0.1	272	97	3.1	0.1	41	33	3.3	0.2	16	14	3.2	0.1	638	277	1,693	97						

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Table 8.–Page 2 of 2.

Community	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	Est	CI	95%
Tanana	3	0	-	-	48	21	1.8	0.2	25	10	3.2	0.4	11	7	2.6	0.3	12	9	3.0	0.3	99	47	229	26
Stevens Village	1	0	-	-	9	5	2.2	0.5	8	7	2.9	0.2	7	7	2.6	0.0	-	-	-	-	25	19	61	9
Birch Creek	6	1	2.0	-	7	3	1.3	0.3	5	2	2.0	0.0	-	-	-	-	-	-	-	-	18	6	31	3
Beaver	-	-	-	-	13	6	1.8	0.4	12	9	6.7	2.4	4	4	1.5	0.0	-	-	-	-	29	19	110	57
Fort Yukon	7	3	2.3	0.7	88	19	2.8	0.4	35	11	2.0	0.2	14	12	2.9	0.3	6	3	3.7	0.2	150	48	395	73
Venetie	7	2	4.0	0.8	29	9	3.1	0.6	8	3	2.3	0.7	4	4	5.0	0.0	1	1	6.0	-	49	19	163	37
Chalkyitsik	2	1	3.0	-	23	18	2.7	0.2	3	2	2.0	0.0	2	1	4.0	-	-	-	-	-	30	22	81	8
District 5	26	7	2.8	0.3	217	81	2.5	0.2	96	44	3.0	0.3	42	35	2.9	0.1	19	13	3.4	0.2	400	180	1,070	104
Survey Totals	138	73	3.2	0.1	845	303	3.2	0.1	986	341	4.2	0.1	342	296	4.6	0.0	42	33	3.7	0.1	2,353	1,046	8,956	291

Note: The total number of people in surveyed communities was estimated from the total number of households (N), the number of households contacted (n), average number of people in households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Table 9.—Subsistence salmon harvest estimates including commercially retained (not including test fish) and corresponding confidence intervals (CI 95%) for surveyed communities, Yukon Area, 2007.

Community	Total Households	Households Contacted <sup>a</sup>	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
			Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total
Hooper Bay	196	63	430	169	12,234	3,148	64	48	26	22	12,754
Scammon Bay	74	31	768	239	3,887	992	170	152	84	39	4,909
Coastal District	270	94	1,198	292	16,121	3,300	234	159	110	45	17,663
Nunam Iqua	35	25	907	162	2,325	240	152	32	92	27	3,476
Alakanuk	125	54	1,202	182	7,456	2,442	1,291	899	827	484	10,776
Emmonak	156	89	1,580	390	8,486	1,891	1,359	298	650	266	12,075
Kotlik	98	43	1,155	368	5,009	1,336	369	232	230	93	6,763
District 1	414	211	4,844	589	23,276	3,374	3,171	976	1,799	560	33,090
Mountain Village	146	60	2,076	521	7,904	2,332	506	344	593	385	11,079
Pitkas Point	27	19	320	106	515	151	44	15	38	17	917
St. Mary's	127	59	3,548	629	8,107	1,792	825	288	97	42	12,577
Pilot Station	102	45	1,580	391	2,611	599	38	30	32	30	4,261
Marshall	71	30	2,293	792	2,944	1,165	789	267	922	522	6,948
District 2	473	213	9,817	1,208	22,081	3,223	2,202	523	1,682	651	35,782
Russian Mission	57	19	1,301	594	759	433	530	380	259	152	2,849
Holy Cross	60	36	2,902	410	320	139	248	180	213	180	3,683
Shageluk	41	18	448	190	977	527	147	122	267	246	1,839
District 3	158	73	4,651	746	2,056	696	925	438	739	340	8,371
Anvik	34	29	1,321	95	5,250	826	429	124	807	275	7,807
Grayling	48	14	1,500	524	641	313	317	278	271	329	2,729
Kaltag	60	19	1,454	494	109	124	374	372	71	100	2,008
Nulato	86	30	2,431	671	356	116	1,345	809	130	93	4,262
Koyukuk	35	23	811	188	995	514	927	243	189	103	2,922
Galena	148	44	2,511	863	571	272	1,471	304	425	387	4,978
Ruby	57	22	1,594	927	416	156	1,959	1,368	168	111	4,137
Huslia	69	30	146	131	3,243	1,190	272	130	592	263	4,253
Hughes	29	18	8	2	1,213	32	0	0	100	0	1,321
Allakaket	38	36	53	1	3,451	48	939	0	66	0	4,509
Alatna	10	6	0	0	11	9	7	6	0	0	18
Bettles	24	11	0	0	0	0	0	0	0	0	0
District 4	638	282	11,829	1,623	16,256	1,609	8,040	1,710	2,819	666	38,944

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Table 9.–Page 2 of 2.

Community	Total Households	Households Contacted <sup>a</sup>	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
			Estimated	CI	Estimated	CI	Estimated	CI	Estimated	CI	Estimated
			Total	95%	Total	95%	Total	95%	Total	95%	Total
Tanana	99	48	5,498	1,467	5,229	2,159	21,596	6,048	2,369	1,316	34,692
Stevens Village	25	19	610	103	254	117	199	48	0	0	1,063
Birch Creek	18	6	113	171	0	0	0	0	0	0	113
Beaver	29	19	1,244	386	41	4	354	414	354	414	1,993
Fort Yukon	150	53	4,076	1,869	2,365	1,757	8,264	3,957	567	437	15,272
Venetie	49	19	1,002	1,081	107	83	721	134	0	0	1,830
Chalkyitsik	30	22	0	0	0	0	213	70	0	0	213
District 5	400	186	12,543	2,646	7,996	2,787	31,347	7,241	3,290	1,447	55,176
Survey Totals	2,353	1,059	44,882	3,476	87,786	6,596	45,919	7,537	10,439	1,842	189,026

Note: Commercially retained fish are salmon harvested during commercial fishing that were not sold, but retained and used for subsistence purposes.

<sup>a</sup> The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 10.—Estimated subsistence harvest including commercially retained (not including test fish) of Chinook salmon by fishing location in surveyed communities, Yukon Area, 2007.

Community	Coastal District	Districts			Subdistricts <sup>a</sup>								River Drainages				Total by Community <sup>b</sup>	
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine Black		
Hooper Bay	430	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	430
Scammon Bay	174	594	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	768
Coastal District	604	594	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,198
Nunam Iqua	0	907	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	907
Alakanuk	221	964	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,202
Emmonak	11	1,569	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,580
Kotlik	57	1,098	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,155
District 1	289	4,538	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,844
Mountain Village	0	362	1,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,076
Pitkas Point	0	19	301	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320
St. Mary's	0	611	2,937	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,548
Pilot Station	0	24	1,556	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,580
Marshall	0	0	2,293	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,293
District 2	0	1,016	8,801	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,817
Russian Mission	0	0	200	1,101	0	0	0	0	0	0	0	0	0	0	0	0	0	1,301
Holy Cross	0	0	281	2,621	0	0	0	0	0	0	0	0	0	0	0	0	0	2,902
Shageluk	0	0	46	356	0	0	0	0	0	0	0	46	0	0	0	0	0	448
District 3	0	0	527	4,078	0	0	0	0	0	0	0	46	0	0	0	0	0	4,651
Anvik	0	0	0	0	1,321	0	0	0	0	0	0	0	0	0	0	0	0	1,321
Grayling	0	0	0	0	1,500	0	0	0	0	0	0	0	0	0	0	0	0	1,500
Kaltag	0	0	0	0	1,454	0	0	0	0	0	0	0	0	0	0	0	0	1,454
Nulato	0	0	0	0	2,431	0	0	0	0	0	0	0	0	0	0	0	0	2,431
Koyukuk	0	0	0	0	811	0	0	0	0	0	0	0	0	0	0	0	0	811
Galena	0	0	0	0	1,936	472	103	0	0	0	0	0	0	0	0	0	0	2,511
Ruby	0	0	0	0	0	219	1,375	0	0	0	0	0	0	0	0	0	0	1,594
Huslia	0	0	0	0	91	0	0	0	0	0	0	0	55	0	0	0	0	146
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	0	0	53
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	0	9,544	691	1,478	0	0	0	0	0	116	0	0	0	0	11,829

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Table 10.–Page 2 of 2.

Community	Coastal District	Districts			Subdistricts <sup>a</sup>								River Drainages				Total by Community <sup>b</sup>		
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine		Black	
Tanana	0	0	0	0	0	0	0	108	5,390	0	0	0	0	0	0	0	0	0	5,498
Stevens Village	0	0	0	0	0	0	0	0	0	233	371	6	0	0	0	0	0	0	610
Birch Creek	0	0	0	0	0	0	0	0	0	0	113	0	0	0	0	0	0	0	113
Beaver	0	0	0	0	0	0	0	0	0	0	1,244	0	0	0	0	0	0	0	1,244
Fort Yukon	0	0	0	0	0	0	0	0	0	0	1,951	2,120	0	0	0	5	0	0	4,076
Venetie	0	0	0	0	0	0	0	0	0	0	107	0	0	0	895	0	0	0	1,002
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	0	0	108	5,390	233	3,786	2,126	0	0	895	5	0	0	12,543
Survey Totals	893	6,148	9,345	4,078	9,544	691	1,478	108	5,390	233	3,786	2,126	46	116	895	5	0	0	44,882

Note: Commercially retained fish are salmon harvested during commercial fishing periods that were not sold, but retained and used for subsistence.

<sup>a</sup> Harvest in Subdistrict 5D near Ft. Yukon is divided according to whether harvest occurred downriver (5D-down) or upriver (5D-up) of the confluence of the Porcupine River with the Yukon River.

<sup>b</sup> Totals may not add in both directions due to decimal rounding.

Table 11.–Estimated subsistence harvest including commercially retained (not including test fish) of summer chum salmon by fishing location in surveyed communities, Yukon Area, 2007.

Community	Coastal District	Districts			Subdistricts <sup>a</sup>								River Drainages				Total by Community <sup>b</sup>		
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine		Black	
Hooper Bay	11,477	0	0	757	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12,234
Scammon Bay	1,102	2,785	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,887
Coastal District	12,579	2,785	0	757	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16,121
Nunam Iqua	0	2,325	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,325
Alakanuk	2,148	5,294	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,456
Emmonak	105	8,381	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8,486
Kotlik	410	4,599	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,009
District 1	2,663	20,599	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23,276
Mountain Village	0	2,017	5,887	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,904
Pitkas Point	0	19	496	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	515
St. Mary's	0	1,706	6,401	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8,107
Pilot Station	0	90	2,521	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,611
Marshall	0	0	2,944	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,944
District 2	0	3,832	18,249	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22,081
Russian Mission	0	0	233	526	0	0	0	0	0	0	0	0	0	0	0	0	0	0	759
Holy Cross	0	0	8	312	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320
Shageluk	0	0	0	396	0	0	0	0	0	0	0	0	581	0	0	0	0	0	977
District 3	0	0	241	1,234	0	0	0	0	0	0	0	0	581	0	0	0	0	0	2,056
Anvik	0	0	0	0	5,250	0	0	0	0	0	0	0	0	0	0	0	0	0	5,250
Grayling	0	0	0	0	641	0	0	0	0	0	0	0	0	0	0	0	0	0	641
Kaltag	0	0	0	0	109	0	0	0	0	0	0	0	0	0	0	0	0	0	109
Nulato	0	0	0	0	356	0	0	0	0	0	0	0	0	0	0	0	0	0	356
Koyukuk	0	0	0	0	995	0	0	0	0	0	0	0	0	0	0	0	0	0	995
Galena	0	0	0	0	242	216	113	0	0	0	0	0	0	0	0	0	0	0	571
Ruby	0	0	0	0	0	69	347	0	0	0	0	0	0	0	0	0	0	0	416
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	0	3,243	0	0	0	0	3,243
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	0	1,213	0	0	0	0	1,213
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	0	3,451	0	0	0	0	3,451
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	0	7,593	285	460	0	0	0	0	0	0	7,918	0	0	0	0	16,256

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Table 11.–Page 2 of 2.

Community	Coastal District	Districts			Subdistricts <sup>a</sup>								River Drainages					Total by Community <sup>b</sup>	
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black		
Tanana	0	0	0	0	0	0	0	0	0	5,229	0	0	0	0	0	0	0	0	5,229
Stevens Village	0	0	0	0	0	0	0	0	0	0	32	222	0	0	0	0	0	0	254
Birch Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	0	0	0	41
Fort Yukon	0	0	0	0	0	0	0	0	0	0	0	1,050	1,315	0	0	0	0	0	2,365
Venetie	0	0	0	0	0	0	0	0	0	0	0	54	0	0	0	53	0	0	107
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	0	0	0	0	5,229	32	1,367	1,315	0	0	53	0	0	7,996
Survey Totals	15,242	27,216	18,504	1,991	7,593	285	460	0	5,229	32	1,367	1,315	581	7,918	53	0	0	87,786	

*Note:* Commercially retained fish are salmon harvested during commercial fishing periods that were not sold, but retained and used for subsistence.

<sup>a</sup> Harvest in Subdistrict 5D near Ft. Yukon is divided according to whether harvest occurred downriver (5D-down) or upriver (5D-up) of the confluence of the Porcupine River with the Yukon River.

<sup>b</sup> Totals may not add in both directions due to decimal rounding.

Table 12.—Estimated subsistence harvest including commercially retained (not including test fish) of fall chum salmon by fishing location in surveyed communities, Yukon Area, 2007.

Community	Coastal District	Districts			Subdistricts <sup>a</sup>								River Drainages				Total by Community <sup>b</sup>		
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine		Black	
Hooper Bay	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64
Scammon Bay	97	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170
Coastal District	161	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	234
Nunam Iqua	0	152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	152
Alakanuk	212	1,068	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,291
Emmonak	0	1,359	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,359
Kotlik	5	364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	369
District 1	217	2,943	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,171
Mountain Village	0	63	443	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	506
Pitkas Point	0	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
St. Mary's	0	25	800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	825
Pilot Station	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
Marshall	0	0	789	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	789
District 2	0	88	2,114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,202
Russian Mission	0	0	0	530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	530
Holy Cross	0	0	28	220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	248
Shageluk	0	0	0	80	0	0	0	0	0	0	0	67	0	0	0	0	0	0	147
District 3	0	0	28	830	0	0	0	0	0	0	0	67	0	0	0	0	0	0	925
Anvik	0	0	0	0	429	0	0	0	0	0	0	0	0	0	0	0	0	0	429
Grayling	0	0	0	0	317	0	0	0	0	0	0	0	0	0	0	0	0	0	317
Kaltag	0	0	0	0	374	0	0	0	0	0	0	0	0	0	0	0	0	0	374
Nulato	0	0	0	65	1,280	0	0	0	0	0	0	0	0	0	0	0	0	0	1,345
Koyukuk	0	0	0	0	927	0	0	0	0	0	0	0	0	0	0	0	0	0	927
Galena	0	0	0	0	476	130	865	0	0	0	0	0	0	0	0	0	0	0	1,471
Ruby	0	0	0	0	0	868	1,091	0	0	0	0	0	0	0	0	0	0	0	1,959
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	272	0	0	0	0	0	272
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	939	0	0	0	0	0	939
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	65	3,803	998	1,956	0	0	0	0	0	1,218	0	0	0	0	0	8,040

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Table 12.–Page 2 of 2.

Community	Coastal	Districts			Subdistricts <sup>a</sup>							River Drainages					Total by	
	District	1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black	Community <sup>b</sup>
Tanana	0	0	0	0	0	0	0	0	21,596	0	0	0	0	0	0	0	0	21,596
Stevens Village	0	0	0	0	0	0	0	0	0	0	199	0	0	0	0	0	0	199
Birch Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0	354	0	0	0	0	0	0	354
Fort Yukon	0	0	0	0	0	0	0	0	0	0	2,156	4,320	0	0	0	1,788	0	8,264
Venetie	0	0	0	0	0	0	0	0	0	0	53	0	0	0	668	0	0	721
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	213	213
District 5	0	0	0	0	0	0	0	0	21,596	0	2,762	4,320	0	0	668	1,788	213	31,347
Survey Totals	378	3,104	2,153	895	3,803	998	1,956	0	21,596	0	2,762	4,320	67	1,218	668	1,788	213	45,919

*Note:* Commercially retained fish are salmon harvested during commercial fishing periods that were not sold, but retained and used for subsistence.

<sup>a</sup> Harvest in Subdistrict 5D near Ft. Yukon is divided according to whether harvest occurred downriver (5D-down) or upriver (5D-up) of the confluence of the Porcupine River with the Yukon River.

<sup>b</sup> Totals may not add in both directions due to decimal rounding.

Table 13.–Estimated subsistence harvest including commercially retained (not including test fish) of coho salmon by fishing location in surveyed communities, Yukon Area, 2007.

Community	Coastal District	Districts			Subdistricts <sup>a</sup>								River Drainages				Total by Community <sup>b</sup>	
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine Black		
Hooper Bay	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Scammon Bay	56	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84
Coastal District	82	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110
Nunam Iqua	0	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92
Alakanuk	134	693	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	827
Emmonak	0	650	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	650
Kotlik	36	194	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230
District 1	170	1,629	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,799
Mountain Village	0	256	337	0	0	0	0	0	0	0	0	0	0	0	0	0	0	593
Pitkas Point	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
St. Mary's	0	25	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97
Pilot Station	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Marshall	0	0	922	0	0	0	0	0	0	0	0	0	0	0	0	0	0	922
District 2	0	281	1,401	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,682
Russian Mission	0	0	0	259	0	0	0	0	0	0	0	0	0	0	0	0	0	259
Holy Cross	0	0	0	213	0	0	0	0	0	0	0	0	0	0	0	0	0	213
Shageluk	0	0	0	64	203	0	0	0	0	0	0	0	0	0	0	0	0	267
District 3	0	0	0	536	203	0	0	0	0	0	0	0	0	0	0	0	0	739
Anvik	0	0	0	0	807	0	0	0	0	0	0	0	0	0	0	0	0	807
Grayling	0	0	0	0	271	0	0	0	0	0	0	0	0	0	0	0	0	271
Kaltag	0	0	0	0	71	0	0	0	0	0	0	0	0	0	0	0	0	71
Nulato	0	0	0	6	124	0	0	0	0	0	0	0	0	0	0	0	0	130
Koyukuk	0	0	0	0	189	0	0	0	0	0	0	0	0	0	0	0	0	189
Galena	0	0	0	0	325	100	0	0	0	0	0	0	0	0	0	0	0	425
Ruby	0	0	0	0	0	0	168	0	0	0	0	0	0	0	0	0	0	168
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	592	0	0	0	0	592
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	100
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	66	0	0	0	0	66
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	6	1,787	100	168	0	0	0	0	0	758	0	0	0	0	2,819

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Community	Coastal	Districts			Subdistricts <sup>a</sup>								River Drainages					Total by
	District	1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black	Community <sup>b</sup>
Tanana	0	0	0	0	0	0	0	0	2,369	0	0	0	0	0	0	0	0	2,369
Stevens Village	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Birch Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0	354	0	0	0	0	0	0	354
Fort Yukon	0	0	0	0	0	0	0	0	0	0	223	340	0	0	0	4	0	567
Venetie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	0	0	0	2,369	0	577	340	0	0	0	4	0	3,290
Survey Totals	252	1,938	1,401	542	1,990	100	168	0	2,369	0	577	340	0	758	0	4	0	10,439

Note: Commercially retained fish are salmon harvested during commercial fishing periods that were not sold, but retained and used for subsistence.

<sup>a</sup> Harvest in Subdistrict 5D near Ft. Yukon is divided according to whether harvest occurred downriver (5D-down) or upriver (5D-up) of the confluence of the Porcupine River with the Yukon River.

<sup>b</sup> Totals may not add in both directions due to decimal rounding.

Table 14.–Estimated number of salmon used for subsistence purposes and corresponding confidence intervals (CI 95%) for surveyed communities, Yukon Area, 2007.

Community	Total Households	Households Contacted <sup>a</sup>	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
			Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total
Hooper Bay	196	63	331	127	8,347	2,589	34	24	26	22	8,738
Scammon Bay	74	31	709	234	3,428	877	170	152	66	38	4,373
Coastal District	270	94	1,040	266	11,775	2,733	204	153	92	44	13,111
Nunam Iqua	35	25	717	158	1,821	215	150	32	39	9	2,727
Alakanuk	125	54	1,007	165	5,831	2,166	866	496	648	309	8,352
Emmonak	156	89	1,089	301	7,043	1,630	1,236	294	576	264	9,944
Kotlik	98	43	1,037	357	3,813	891	459	340	215	92	5,524
District 1	414	211	3,850	520	18,508	2,861	2,711	670	1,478	417	26,547
Mountain Village	146	60	1,804	454	6,186	991	375	240	394	204	8,759
Pitkas Point	27	19	316	124	471	167	38	17	41	21	866
St. Mary's	127	59	2,702	532	6,025	1,166	744	266	97	52	9,568
Pilot Station	102	45	1,455	383	2,045	390	38	30	32	30	3,570
Marshall	71	30	2,103	745	2,694	1,207	774	260	922	522	6,493
District 2	473	213	8,380	1,098	17,421	1,994	1,969	444	1,486	565	29,256
Russian Mission	57	19	1,094	506	736	432	330	217	259	152	2,419
Holy Cross	60	36	2,299	335	209	70	176	72	60	0	2,744
Shageluk	41	18	377	136	766	355	147	122	202	171	1,492
District 3	158	73	3,770	622	1,711	564	653	259	521	228	6,655
Anvik	34	29	1,072	84	5,200	826	381	124	788	275	7,441
Grayling	48	14	1,228	495	563	314	317	278	466	498	2,574
Kaltag	60	19	1,025	354	109	124	359	372	71	100	1,564
Nulato	86	30	2,076	563	323	58	914	441	160	93	3,473
Koyukuk	35	23	461	74	954	528	685	127	95	21	2,195
Galena	148	44	1,691	589	377	124	1,234	244	294	289	3,596
Ruby	57	22	1,420	910	338	156	1,959	1,368	145	95	3,862
Huslia	69	30	113	86	2,812	1,197	270	130	592	263	3,787
Hughes	29	18	8	2	953	32	0	0	100	0	1,061
Allakaket	38	36	41	1	2,670	13	732	0	58	0	3,501
Alatna	10	6	0	0	6	5	7	6	0	0	13
Bettles	24	11	0	0	0	0	0	0	0	0	0
District 4	638	282	9,135	1,372	14,305	1,597	6,858	1,546	2,769	710	33,067

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Community	Total Households	Households Contacted <sup>a</sup>	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
			Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total
Tanana	99	48	4,291	1,347	5,096	2,191	20,883	5,884	2,369	1,316	32,639
Stevens Village	25	19	591	101	183	71	183	38	0	0	957
Birch Creek	18	6	50	76	0	0	0	0	0	0	50
Beaver	29	19	1,047	387	26	4	187	175	187	175	1,447
Fort Yukon	150	52	2,884	1,319	2,365	1,757	7,641	2,027	494	1,817	13,384
Venetie	49	19	538	488	107	83	621	134	0	0	1,266
Chalkyitsik	30	22	0	0	0	0	213	70	0	0	213
District 5	400	185	9,401	1,990	7,777	2,810	29,728	6,751	3,050	1,376	49,956
Survey Totals	2,353	1,053	35,576	2,788	71,497	5,514	42,123	6,979	9,396	1,716	158,592

*Note:* A number of salmon used by a household for subsistence includes fish harvested for subsistence or retained from commercial fisheries that were kept by the household, and fish received by the household from another subsistence fisherman, commercial fisherman, or test fish project.

<sup>a</sup> The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 15.—Estimated subsistence harvest of pink salmon, whitefish, northern pike, and sheefish by surveyed communities, Yukon Area, 2007.

Community	Estimated Subsistence Harvest												Total Expanded Miscellaneous Fish Harvest
	Total Households	Households Contacted <sup>b</sup>	Pink Salmon		Large Whitefish <sup>a</sup>		Small Whitefish		Northern Pike		Sheefish		
			Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	
Hooper Bay	196	62	113	178	45	67	4,712	2,153	764	562	124	199	5,758
Scammon Bay	74	31	1,435	702	511	197	1,590	323	1,640	1,000	105	76	5,281
Coastal District	270	93	1,548	724	556	208	6,302	2,177	2,404	1,147	229	213	11,039
Nunam Iqua	35	24	170	60	179	55	1,385	317	639	229	1,147	152	3,520
Alakanuk	125	54	32	15	1,396	603	4,756	2,063	2,904	1,364	1,424	599	10,512
Emmonak	156	88	51	17	543	208	3,113	1,770	2,315	550	1,287	321	7,309
Kotlik	98	43	129	121	504	215	4,309	1,913	2,788	1,541	2,327	1,070	10,057
District 1	414	209	382	137	2,622	675	13,563	3,339	8,646	2,142	6,185	1,277	31,398
Mountain Village	146	59	87	15	1,895	835	2,370	920	2,321	761	1,094	385	7,767
Pitkas Point	27	18	66	53	132	96	655	300	111	67	104	51	1,068
St. Mary's	127	55	32	16	1,969	838	1,424	646	2,522	795	447	194	6,394
Pilot Station	102	44	0	0	1,379	1,005	1,184	986	638	383	721	373	3,922
Marshall	71	30	0	0	676	149	468	153	1,619	1,013	267	60	3,030
District 2	473	206	185	57	6,051	1,562	6,101	1,533	7,211	1,545	2,633	575	22,181
Russian Mission	57	19	3	5	463	349	389	310	715	597	143	107	1,713
Holy Cross	60	35	0	0	1,016	1,248	438	106	482	191	53	13	1,989
Shageluk	41	17	0	0	278	142	228	55	577	437	157	124	1,240
District 3	158	71	3	5	1,757	1,304	1,055	332	1,774	764	353	164	4,942
Anvik	34	28	0	0	210	59	124	6	140	16	110	43	584
Grayling	48	14	0	0	552	413	274	270	308	227	519	270	1,653
Kaltag	60	19	0	0	15	0	6	0	42	25	70	62	133
Nulato	86	30	0	0	274	87	826	1,170	385	323	448	315	1,933
Koyukuk	35	22	0	0	78	50	19	9	231	44	134	43	462
Galena	148	41	0	0	518	186	451	159	157	74	131	57	1,257
Ruby	57	21	0	0	287	380	192	168	64	76	74	72	617
Huslia	69	30	0	0	399	378	408	371	2,901	3,659	102	64	3,810
Hughes	29	17	0	0	941	47	10,586	47	309	4	245	235	12,081
Allakaket	38	36	0	0	1,372	29	1,115	17	234	16	582	28	3,303
Alatna	10	5	0	0	0	0	0	0	0	0	6	3	6
Bettles	24	11	0	0	0	0	0	0	26	32	16	6	42
District 4	638	274	0	0	4,646	714	14,001	1,279	4,797	3,683	2,437	498	25,881

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Table 15–Page 2 of 2.

Community	Estimated Subsistence Harvest												Total Expanded Miscellaneous Fish Harvest
	Total Households	Households Contacted <sup>b</sup>	Pink Salmon		Large Whitefish <sup>a</sup>		Small Whitefish		Northern Pike		Sheefish		
			Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	
Tanana	99	45	0	0	2,442	1,147	3,084	1,459	43	32	963	409	6,532
Stevens Village	25	18	0	0	61	34	11	8	61	25	39	26	172
Birch Creek	18	6	0	0	257	330	0	0	141	73	131	163	529
Beaver	29	19	0	0	37	7	6	0	107	94	11	3	161
Fort Yukon	150	49	0	0	1,000	989	443	495	426	382	140	88	2,009
Venetie	49	19	0	0	267	413	0	0	215	196	0	0	482
Chalkyitsik	30	22	0	0	12	0	64	58	122	64	82	37	280
District 5	400	178	0	0	4,076	1,604	3,608	1,541	1,115	452	1,366	451	10,165
Survey Totals	2,353	1,031	2,118	739	19,708	2,779	44,630	4,729	25,947	4,758	13,203	1,576	105,606

*Note:* The estimated harvest in surveyed communities is based on a stratified random sample of households as designated for the estimation of subsistence salmon harvests. Estimates include a 95% confidence interval (CI 95%).

<sup>a</sup> Large whitefish are considered those 4 pounds or larger and small whitefish are less than 4 pounds.

<sup>b</sup> The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 16.—Reported subsistence harvest of other miscellaneous fish species by surveyed communities, Yukon Area, 2007.

Community	Total Households	Households Contacted <sup>a</sup>	Reported Harvest of Miscellaneous Fish Species (Not Expanded)								Total Not Expanded Miscellaneous Fish Harvest
			Burbot	Arctic Lamprey <sup>b</sup>	Tomcod	Arctic Grayling	Longnose Sucker	Arctic Char	Alaska Blackfish	Sockeye Salmon <sup>c</sup>	
Hooper Bay	196	62	36	0	2,034	0	0	1	4,620	38	6,729
Scammon Bay	74	31	20	0	2,375	0	0	2	13,880	40	16,317
Coastal District	270	93	56	0	4,409	0	0	3	18,500	78	23,046
Nunam Iqua	35	24	335	0	506	0	0	0	13,650	7	14,498
Alakanuk	125	54	176	150	590	0	1	0	20,690	52	21,659
Emmonak	156	88	408	0	1,225	20	0	0	24,613	58	26,324
Kotlik	98	43	220	0	385	18	0	6	9,669	28	10,326
District 1	414	209	1,139	150	2,706	38	1	6	68,622	145	72,807
Mountain Village	146	59	585	3,841	0	204	0	5	12,160	25	16,820
Pitkas Point	27	18	26	483	0	35	0	0	2,590	10	3,144
St. Mary's	127	55	262	1,915	6	14	0	0	20,050	18	22,265
Pilot Station	102	44	84	285	0	15	0	1	4,200	6	4,591
Marshall	71	30	750	4,140	0	0	0	0	0	4	4,894
District 2	473	206	1,707	10,664	6	268	0	6	39,000	63	51,714
Russian Mission	57	19	37	750	0	1	0	0	1,890	0	2,678
Holy Cross	60	35	57	220	0	8	0	0	1,400	5	1,690
Shageluk	41	17	21	0	0	3	0	0	0	0	24
District 3	158	71	115	970	0	12	0	0	3,290	5	4,392
Anvik	34	28	6	0	0	12	0	0	0	0	18
Grayling	48	14	76	800	0	10	0	0	0	16	902
Kaltag	60	19	0	0	0	60	0	45	0	0	105
Nulato	86	30	48	0	0	463	0	105	0	14	630
Koyukuk	35	22	10	0	0	6	0	1	0	0	17
Galena	148	41	76	0	0	17	30	0	2,100	32	2,255
Ruby	57	21	7	0	0	0	6	0	0	3	16
Huslia	69	30	61	0	0	13	4	0	200	5	283
Hughes	29	17	3	0	0	160	50	0	0	0	213
Allakaket	38	36	138	0	0	441	110	0	0	121	810
Alatna	10	5	0	0	0	1	0	0	0	0	1
Bettles	24	11	0	0	0	15	0	15	0	0	30
District 4	638	274	425	800	0	1,198	200	166	2,300	191	5,280

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Table 16.–Page 2 of 2.

Community	Total Households	Households Contacted <sup>a</sup>	Reported Harvest of Miscellaneous Fish Species (Not Expanded)								Total Not Expanded Miscellaneous Fish Harvest
			Burbot	Arctic Lamprey <sup>b</sup>	Tomcod	Arctic Grayling	Longnose Sucker	Arctic Char	Alaska Blackfish	Sockeye Salmon <sup>c</sup>	
Tanana	99	45	53	0	0	2	16	0	0	0	82
Stevens Village	25	18	0	0	0	0	0	0	0	0	0
Birch Creek	18	6	0	0	0	0	0	0	0	0	0
Beaver	29	19	1	0	0	6	0	0	0	0	7
Fort Yukon	150	49	0	0	0	310	8	0	0	11	329
Venetie	49	19	0	0	0	436	0	0	0	0	436
Chalkyitsik	30	22	4	0	0	15	0	0	0	0	19
District 5	400	178	58	0	0	769	24	0	0	11	862
Survey Totals	2,353	1,031	3,500	12,584	7,121	2,285	225	181	131,712	493	158,101

<sup>a</sup> The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

<sup>b</sup> Surveys are conducted before the Arctic lamprey fishery occurs in November and December. Consequently Arctic lamprey totals are for previous year harvest, i.e., the 2007 reported harvest is for the calendar year 2006.

<sup>c</sup> Due to low harvest numbers of sockeye salmon and difficulties with identification by fishermen, the harvest is not estimated. Sockeye salmon harvest information was included in the postseason survey beginning in 2004.

Table 17.—Responses to survey question assessing percentage of subsistence salmon needs being met, by community, by species, Yukon Area, 2007.

Percent of Households (HH's) That Responded to Subsistence Needs Met Question, By Community, By Species						
Community	Total Households	Chinook Salmon				
		Total Number of Household Responses	% HH's Responses 0% to 25%	% HH's Responses 26% to 50%	% HH's Responses 51% to 75%	% HH's Responses 76% to 100%
Hooper Bay	196	55	60%	11%	2%	27%
Scammon Bay	74	29	24%	14%	7%	55%
Coastal District	270	84	48%	12%	4%	37%
Nunam Iqua	35	20	10%	25%	10%	55%
Alakanuk	125	52	33%	12%	4%	52%
Emmonak	156	83	23%	14%	8%	54%
Kotlik	98	41	27%	7%	5%	61%
District 1	414	196	25%	13%	7%	55%
Mountain Village	146	56	36%	14%	9%	41%
Pitkas Point	27	17	35%	18%	0%	47%
St. Mary's	127	56	16%	16%	4%	64%
Pilot Station	102	38	21%	16%	0%	63%
Marshall	71	26	15%	12%	19%	54%
District 2	473	193	24%	15%	6%	54%
Russian Mission	57	19	37%	11%	0%	53%
Holy Cross	60	35	17%	3%	6%	74%
Shageluk	41	16	13%	13%	25%	50%
District 3	158	70	21%	7%	9%	63%
Anvik	34	24	21%	8%	17%	54%
Grayling	48	14	0%	21%	36%	43%
Kaltag	60	18	39%	17%	11%	33%
Nulato	86	30	27%	13%	10%	50%
Koyukuk	35	19	37%	11%	21%	32%
Galena	148	38	29%	18%	21%	32%
Ruby	57	17	41%	12%	18%	29%
Huslia	69	23	83%	0%	9%	9%
Hughes	29	6	83%	0%	0%	17%
Allakaket	38	32	91%	6%	0%	3%
Alatna	10	4	75%	0%	25%	0%
Bettles	24	9	78%	11%	0%	11%
District 4	638	234	46%	11%	14%	29%
Tanana	99	34	29%	9%	3%	59%
Stevens Village	25	18	39%	11%	6%	44%
Birch Creek	18	3	67%	33%	0%	0%
Beaver	29	18	17%	22%	6%	56%
Fort Yukon	150	46	37%	11%	7%	46%
Venetie	49	12	50%	8%	8%	33%
Chalkyitsik	30	6	100%	0%	0%	0%
District 5	400	137	37%	12%	5%	46%
Survey Totals	2,353	914	34%	12%	7%	47%

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Percent of Households (HH's) That Responded to Subsistence Needs Met Question, By Community, By Species						
Summer Chum Salmon						
Community	Total Households	Total Number of Household Responses	% HH's Responses 0% to 25%	% HH's Responses 26% to 50%	% HH's Responses 51% to 75%	% HH's Responses 76% to 100%
Hooper Bay	196	62	24%	11%	6%	58%
Scammon Bay	74	28	25%	4%	4%	68%
Coastal District	270	90	24%	9%	6%	61%
Nunam Iqua	35	21	5%	19%	5%	71%
Alakanuk	125	52	31%	6%	10%	54%
Emmonak	156	84	11%	11%	8%	70%
Kotlik	98	42	19%	10%	2%	69%
District 1	414	199	17%	10%	7%	66%
Mountain Village	146	55	24%	18%	13%	45%
Pitkas Point	27	17	47%	12%	0%	41%
St. Mary's	127	55	20%	7%	5%	67%
Pilot Station	102	39	26%	13%	0%	62%
Marshall	71	25	28%	4%	8%	60%
District 2	473	191	26%	12%	6%	57%
Russian Mission	57	16	56%	0%	6%	38%
Holy Cross	60	20	60%	0%	0%	40%
Shageluk	41	12	42%	0%	8%	50%
District 3	158	48	54%	0%	4%	42%
Anvik	34	13	38%	23%	0%	38%
Grayling	48	10	40%	0%	10%	50%
Kaltag	60	11	82%	0%	9%	9%
Nulato	86	6	33%	17%	0%	50%
Koyukuk	35	11	64%	9%	0%	27%
Galena	148	19	47%	0%	5%	47%
Ruby	57	11	55%	0%	18%	27%
Huslia	69	12	67%	0%	0%	33%
Hughes	29	7	43%	0%	29%	29%
Allakaket	38	28	89%	4%	0%	7%
Alatna	10	3	100%	0%	0%	0%
Bettles	24	7	100%	0%	0%	0%
District 4	638	138	64%	4%	5%	27%
Tanana	99	13	31%	0%	8%	62%
Stevens Village	25	8	75%	13%	0%	13%
Birch Creek	18	-	-	-	-	-
Beaver	29	2	50%	0%	0%	50%
Fort Yukon	150	11	73%	0%	0%	27%
Venetie	49	6	67%	0%	0%	33%
Chalkyitsik	30	-	-	-	-	-
District 5	400	40	60%	2%	2%	37%
Survey Totals	2,353	706	41%	6%	5%	48%

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Table 17.–Page 3 of 4.

Percent of Households (HH's) That Responded to Subsistence Needs Met Question, By Community, By Species						
Community	Total Households	Fall Chum Salmon				
		Total Number of Household Responses	% HH's Responses 0% to 25%	% HH's Responses 26% to 50%	% HH's Responses 51% to 75%	% HH's Responses 76% to 100%
Hooper Bay	196	18	94%	0%	6%	0%
Scammon Bay	74	16	69%	6%	0%	25%
Coastal District	270	34	82%	3%	3%	12%
Nunam Iqua	35	12	42%	8%	0%	50%
Alakanuk	125	40	60%	20%	5%	15%
Emmonak	156	56	34%	13%	5%	48%
Kotlik	98	21	62%	0%	0%	38%
District 1	414	129	47%	12%	4%	36%
Mountain Village	146	43	65%	19%	0%	16%
Pitkas Point	27	11	64%	0%	0%	36%
St. Mary's	127	34	53%	9%	3%	35%
Pilot Station	102	15	80%	0%	0%	20%
Marshall	71	21	52%	0%	0%	48%
District 2	473	124	61%	9%	1%	29%
Russian Mission	57	12	58%	0%	0%	42%
Holy Cross	60	17	76%	0%	0%	24%
Shageluk	41	7	57%	0%	0%	43%
District 3	158	36	67%	0%	0%	33%
Anvik	34	21	43%	5%	5%	48%
Grayling	48	9	78%	11%	0%	11%
Kaltag	60	13	77%	0%	0%	23%
Nulato	86	26	54%	12%	0%	35%
Koyukuk	35	18	50%	11%	6%	33%
Galena	148	28	50%	7%	11%	32%
Ruby	57	9	67%	11%	0%	22%
Huslia	69	22	82%	5%	5%	9%
Hughes	29	3	100%	0%	0%	0%
Allakaket	38	29	100%	0%	0%	0%
Alatna	10	3	100%	0%	0%	0%
Bettles	24	7	100%	0%	0%	0%
District 4	638	188	69%	6%	3%	22%
Tanana	99	19	47%	0%	5%	47%
Stevens Village	25	9	78%	11%	0%	11%
Birch Creek	18	1	100%	0%	0%	0%
Beaver	29	5	40%	0%	20%	40%
Fort Yukon	150	22	45%	5%	5%	45%
Venetie	49	10	60%	10%	0%	30%
Chalkyitsik	30	3	33%	0%	0%	67%
District 5	400	69	52%	4%	4%	39%
Survey Totals	2,353	580	63%	6%	2%	29%

-continued-

Table 17.–Page 4 of 4.

Percent of Households (HH's) That Responded to Subsistence Needs Met Question, By Community, By Species						
Community	Total Households	Coho Salmon				
		Total Number of Household Responses	% HH's Responses 0% to 25%	% HH's Responses 26% to 50%	% HH's Responses 51% to 75%	% HH's Responses 76% to 100%
Hooper Bay	196	17	94%	0%	0%	6%
Scammon Bay	74	17	71%	0%	0%	29%
Coastal District	270	34	82%	0%	0%	18%
Nunam Iqua	35	12	42%	8%	0%	50%
Alakanuk	125	35	71%	20%	0%	9%
Emmonak	156	44	45%	5%	7%	43%
Kotlik	98	20	55%	0%	0%	45%
District 1	414	111	55%	9%	3%	33%
Mountain Village	146	19	79%	0%	0%	21%
Pitkas Point	27	7	57%	0%	0%	43%
St. Mary's	127	21	71%	10%	5%	14%
Pilot Station	102	4	100%	0%	0%	0%
Marshall	71	12	42%	0%	0%	58%
District 2	473	63	68%	3%	2%	27%
Russian Mission	57	9	78%	0%	0%	22%
Holy Cross	60	17	76%	0%	0%	24%
Shageluk	41	13	54%	8%	0%	38%
District 3	158	39	69%	3%	0%	28%
Anvik	34	16	56%	0%	0%	44%
Grayling	48	11	64%	9%	9%	18%
Kaltag	60	14	71%	0%	14%	14%
Nulato	86	7	71%	14%	0%	14%
Koyukuk	35	12	83%	0%	8%	8%
Galena	148	20	70%	0%	15%	15%
Ruby	57	8	75%	13%	0%	13%
Huslia	69	6	67%	0%	0%	33%
Hughes	29	1	0%	0%	0%	100%
Allakaket	38	25	100%	0%	0%	0%
Alatna	10	3	100%	0%	0%	0%
Bettles	24	5	100%	0%	0%	0%
District 4	638	128	77%	2%	5%	16%
Tanana	99	7	14%	0%	0%	86%
Stevens Village	25	-	-	-	-	-
Birch Creek	18	-	-	-	-	-
Beaver	29	4	50%	0%	25%	25%
Fort Yukon	150	13	46%	8%	8%	38%
Venetie	49	-	-	-	-	-
Chalkyitsik	30	-	-	-	-	-
District 5	400	24	37%	3%	11%	50%
Survey Totals	2,353	399	65%	3%	3%	29%

Note: Dashes indicate indefinable values.

Table 18.—Reported subsistence and personal use fish harvested under the authority of a permit, listed by permit area, Yukon Area, 2007.

Permit Fishing Area	Permit <sup>a</sup>		Percent Returned	Number of Permits Returned that Fished <sup>c</sup>	Reported Harvest										
	Type	Issued <sup>b</sup>			Returned	Chinook <sup>d</sup>	Summer Chum	Fall Chum <sup>d</sup>	Coho	Whitefish	Sheefish	Burbot	Northern Pike	Longnose Suckers	Arctic Grayling
Subsistence Permit															
Koyukuk Middle and South Fork Rivers	SF	1	1	100%	1	0	0	0	0	5	0	0	0	1	10
Yukon River Rampart Area	SR	23	19	83%	15	1,744	495	2,050	50	75	0	11	20	3	0
Yukon River near Haul Road Bridge	SY	85	80	94%	51	1,707	177	626	26	61	26	25	43	0	0
Yukon River near Circle and Eagle <sup>e</sup>	SE	78	71	91%	51	3,548	218	20,005	0	582	32	11	21	189	478
Tanana River Subdistrict 6A	SA	17	17	100%	12	333	144	3,779	1,482	24	3	4	8	0	0
Tanana River Subdistrict 6B <sup>f</sup>	SB	79	75	95%	39	1,127	1,750	12,477	4,521	656	17	32	108	26	2
Tanana River Upstream of Subdistrict 6C	SU	34	33	97%	17	0	0	41	5	1,786	0	15	19	24	35
Kantishna River Subdistrict 6A	SK	5	5	100%	2	0	0	0	639	0	0	0	37	0	0
Tolovana River Pike Subdistrict 6B	ST	118	109	92%	54	12	2	1	0	137	4	1	1,837	0	0
Subsistence Permit Subtotals		440	410	93%	242	8,471	2,786	38,979	6,723	3,326	82	99	2,093	243	525
Personal Use Permit															
Tanana River Salmon Subdistrict 6C	PC	65	63	97%	32	136	184	173	135	4	1	0	1	0	0
Tanana River Whitefish Upstream of Subdistrict 6C	PW	3	3	100%	0	0	0	0	0	0	0	0	0	0	0
Personal Use Permit Subtotals		68	66	97%	32	136	184	173	135	4	1	0	1	0	0
Permit Totals		508	476	94%	274	8,607	2,970	39,152	6,858	3,330	83	99	2,094	243	525

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Table 18.–Page 2 of 2.

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- <sup>a</sup> Permits returned as of March 31, 2009.
- <sup>b</sup> Includes 33 households that were "issued" permits for more than one area, and includes one household that was issued duplicate permits for the same area..
- <sup>c</sup> Includes 8 households that "fished" in two different permit areas.
- <sup>d</sup> Does not include District 6 commercial related harvest of 245 Chinook, 13,595 fall chum, and 1,198 coho salmon caught but "not sold" during commercial fishing and retained for subsistence use.
- <sup>e</sup> Does not include fish distributed to community households from ADF&G Eagle sonar test fish project (12 Chinook and 3 fall chum salmon).
- <sup>f</sup> Includes an unknown number of fish distributed to community households from ADF&G Nenana test fish wheel project that were included with other salmon harvested on the contractor's subsistence permit.

Table 19.—Reported subsistence and personal use fish harvested under the authority of a permit, listed by fishery, by community of residence, and by drainage, Yukon Area, 2007.

Community	Harvest by Drainage	Permits <sup>a</sup>		Percent Returned	Number of Permits Returned that Fished <sup>c</sup>	Reported Harvest									
		Issued <sup>b</sup>	Returned			Summer Chinook <sup>d</sup>	Fall Chum <sup>d</sup>	Chum <sup>d</sup>	Coho	Whitefish	Sheefish	Burbot	Pike	Northern Longnose Suckers	Arctic Grayling
Subsistence Permit															
Central	Yukon River	10	10	100%	7	334	0	0	0	0	0	0	0	0	0
Circle	Yukon River	12	12	100%	9	1,057	200	1,286	0	68	8	2	0	11	0
Eagle <sup>e</sup>	Yukon River	37	36	97%	29	1,987	15	18,673	0	479	22	9	17	158	453
Fairbanks (FNSB) <sup>f</sup>	Yukon River	91	83	91%	48	2,510	564	2,126	26	151	26	36	44	23	0
	Tanana River	25	23	92%	11	409	255	3,325	609	202	0	2	4	9	2
	Tolovana River	100	93	93%	47	0	0	0	0	0	0	0	1,605	0	0
	Kantishna River	1	1	100%	1	0	0	0	0	0	0	0	0	37	0
	FNSB Subtotal	217	200	92%	107	2,919	819	5,451	635	353	26	38	1,690	32	2
Healy	Yukon River	3	3	100%	3	25	0	0	0	0	0	0	0	0	0
	Tanana River	6	5	83%	3	0	0	1,090	1,463	102	0	21	5	0	0
	Healy Subtotal	9	8	89%	6	25	0	1,090	1,463	102	0	21	5	0	0
Manley	Yukon River	1	1	100%	1	143	9	0	0	0	0	0	0	0	0
	Tanana River	12	12	100%	9	333	140	3,419	1,126	19	3	4	4	0	0
	Kantishna River	1	1	100%	0	0	0	0	0	0	0	0	0	0	0
	Manley Subtotal	14	14	100%	10	476	149	3,419	1,126	19	3	4	4	0	0
Minto	Yukon River	4	3	75%	2	76	8	0	0	0	0	0	0	0	0
	Tanana River	19	19	100%	8	70	80	154	155	128	16	1	86	7	0
	Tolovana River	16	14	88%	6	12	2	1	0	137	4	1	231	0	0
	Minto Subtotal	39	36	92%	16	158	90	155	155	265	20	2	317	7	0
Nenana <sup>g</sup>	Yukon River	1	1	100%	1	23	0	0	0	0	0	0	0	0	0
	Tanana River	33	32	97%	20	648	1,419	8,268	2,650	229	1	8	17	10	0
	Kantishna River	2	2	100%	1	0	0	0	639	0	0	0	0	0	0
	Nenana Subtotal	36	35	97%	22	671	1,419	8,268	3,289	229	1	8	17	10	0
Rampart	Yukon River	4	2	50%	2	250	25	250	50	0	0	0	0	0	0
Stevens Village Villages (UTV) <sup>h</sup>	Yukon River	6	6	100%	5	389	5	300	0	10	0	0	22	0	0
	Yukon River	10	7	70%	4	50	3	26	0	10	2	0	0	0	25
	Tanana River	32	31	97%	17	0	0	41	5	1,786	0	15	19	24	35
	UTV Subtotal	42	38	90%	21	50	3	67	5	1,796	2	15	19	24	60

-continued-

Table 19.–Page 2 of 2.

Community	Harvest by Drainage	Permits <sup>a</sup>		Percent Returned	Number of Permits Returned that Fished <sup>c</sup>	Reported Harvest									
		Issued <sup>b</sup>	Returned			Summer Chinook <sup>d</sup>	Fall Chum	Chum	Coho	Whitefish	Sheefish	Burbot	Northern Pike	Longnose Suckers	Arctic Grayling
Other Subsistence <sup>1</sup>	Yukon River	8	7	88%	7	155	61	20	0	5	0	0	1	1	10
	Tanana River	3	3	100%	0	0	0	0	0	0	0	0	0	0	0
	Tolovana River	2	2	100%	1	0	0	0	0	0	0	0	1	0	0
	Kantishna River	1	1	100%	0	0	0	0	0	0	0	0	0	0	0
	Other Subtotal	14	13	93%	8	155	61	20	0	5	0	0	2	1	10
Subsistence Permit Subtotals		440	410	93%	242	8,471	2,786	38,979	6,723	3,326	82	99	2,093	243	525
Personal Use Permit															
Fairbanks (FNSB) <sup>f</sup>	Tanana River	63	61	97%	29	130	174	155	135	4	1	0	1	0	0
Others Personal Use <sup>j</sup>	Tanana River	5	5	100%	3	6	10	18	0	0	0	0	0	0	0
Personal Use Permit Subtotals		68	66	97%	32	136	184	173	135	4	1	0	1	0	0
Permit Totals		508	476	94%	274	8,607	2,970	39,152	6,858	3,330	83	99	2,094	243	525

<sup>a</sup> Permits returned as of March 31, 2009.

<sup>b</sup> Includes 33 households that were "issued" permits for more than one area, and includes one household that was issued duplicate permits for the same area.

<sup>c</sup> Includes 8 households that "fished" in 2 different permit areas.

<sup>d</sup> Does not include District 6 commercial related harvest of 245 Chinook, 13,595 fall chum, and 1,198 coho salmon caught but "not sold" during commercial fishing and retained for subsistence use.

<sup>e</sup> Does not include fish distributed to community households from ADF&G Eagle Sonar test fish project (12 Chinook and 3 fall chum salmon).

<sup>f</sup> Includes residents from the Fairbanks North Star Borough (FNSB) communities of Ester, Fairbanks, North Pole, Salcha, and Two Rivers.

<sup>g</sup> Includes some fish distributed to community households from ADF&G Nenana test fish wheel project that were documented on the contractor's subsistence permit.

<sup>h</sup> Includes residents from the Upper Tanana Villages (UTV) communities of Delta Junction, Dot Lake, Northway, Tanacross, and Tok.

<sup>i</sup> Includes residents from Anchorage, Anderson, Big Lake, Chugiak, Denali Park, Gakona, Homer, Juneau, Lake Minchumina, Soldotna, and Wiseman that applied for a subsistence fishing permit for Yukon, Tanana, Tolovana, Kantishna, and Upper Koyukuk Rivers.

<sup>j</sup> Includes residents from Circle, Delta Junction, and Nenana that applied for a personal use permit for the Tanana River.



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

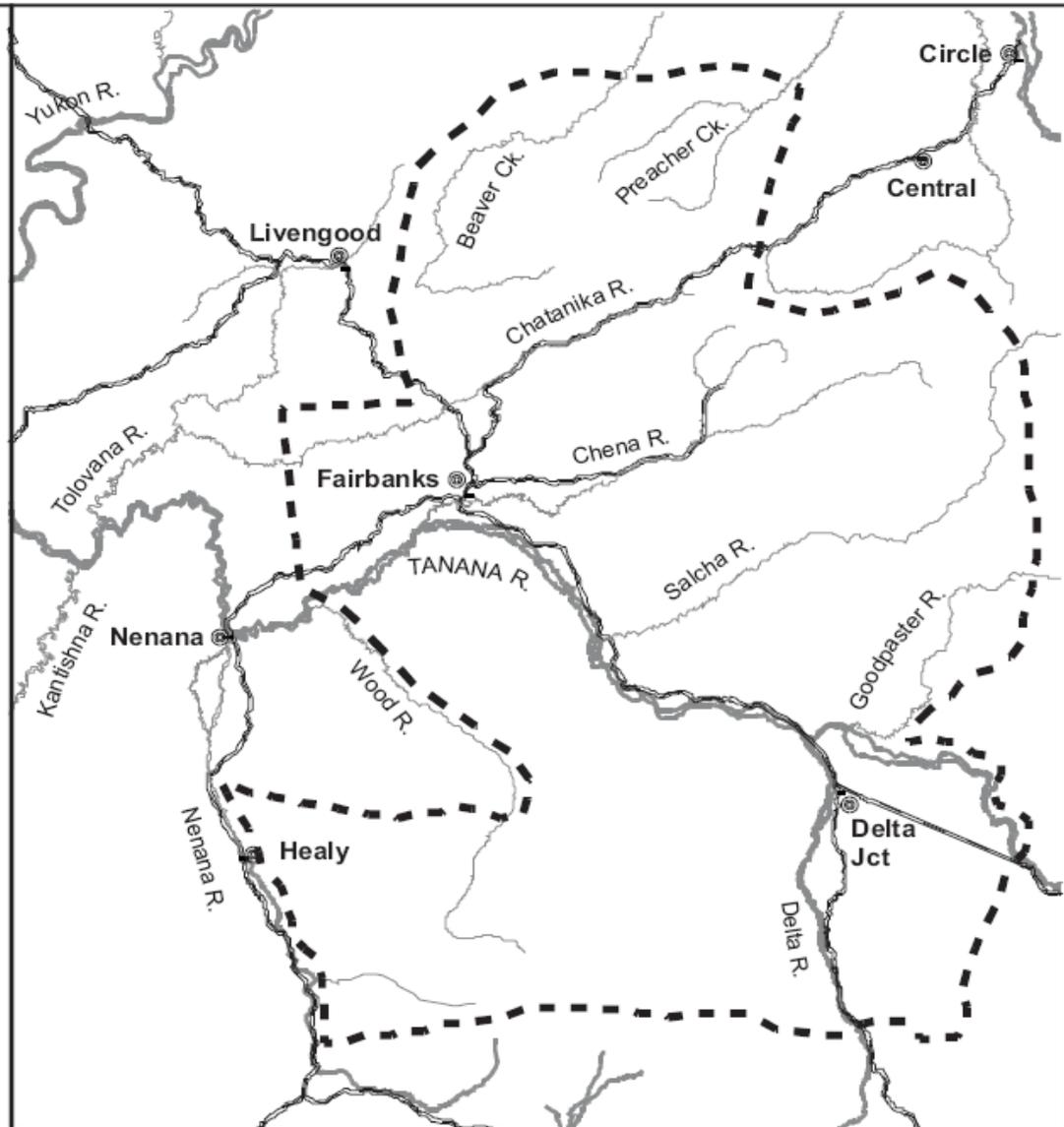
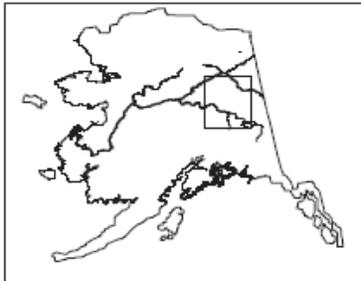


Figure 2.—Map of the Fairbanks Nonsubsistence Area.

Date of Survey \_\_\_\_\_  
 Person Interviewed \_\_\_\_\_  
 Relation to HH \_\_\_\_\_  
 Interviewer \_\_\_\_\_

Community	LABEL	HHID#
Head of Household	LABEL	
Mailing Address	LABEL	Telephone#
Significant Other	LABEL	

**2007 Yukon Area Post-Season Subsistence Salmon Harvest Survey**  
**CONFIDENTIAL INFORMATION**

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

Head of Household \_\_\_\_\_  
 Mailing Address \_\_\_\_\_ Telephone \_\_\_\_\_  
 Permanent Note \_\_\_\_\_  
 Significant Other \_\_\_\_\_  
 Permanent Note \_\_\_\_\_

2. How many people live in your household? \_\_\_\_\_

3. Did anyone in your household catch salmon for subsistence use this year? Yes \_\_\_ No \_\_\_ (If "No," go to area II)  
 Includes salmon caught during commercial openings but retained for subsistence. IF YES, COMPLETE ALL OF PART ONE.

Adult household member declined to be interviewed. [ ] Reason given: \_\_\_\_\_

**I. HOUSEHOLDS THAT CAUGHT SALMON**

4. May I have your salmon catch calendar? Yes \_\_\_ No \_\_\_ Already sent in \_\_\_ (Are all fish harvested on calendar?)

5. How many total salmon did you or your fishing group catch this year? (Group may include other households)  
 CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ PINK \_\_\_\_\_

6. How many households help catch these fish? \_\_\_\_\_ (Names) \_\_\_\_\_

\*7. How many total salmon did your household catch for subsistence purposes this year?  
 (Include only fish caught by this household, not the group, includes fish kept from commercial periods.)  
 CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ PINK \_\_\_\_\_

8. Did you or anyone in this household commercial fish this year? Yes \_\_\_ No \_\_\_

9. If Yes. How many salmon caught during commercial openings did your household keep for subsistence use?  
 CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ PINK \_\_\_\_\_

10. Did your household "lose" any salmon? (e.g. to bears, birds, spoilage, diseased fish, Ichthyophonus, etc.)  
 (If fish was not fit for humans but was fed to dogs, then it was not "lost.")  
 CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ PINK \_\_\_\_\_

\*\*11. How many salmon did you keep for your household's use? (do not include fish given away or "lost")  
 CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ PINK \_\_\_\_\_

12. Did your household share the salmon catch with any other households? (names, species and numbers)  
 \_\_\_\_\_

13. Where do you catch your subsistence salmon? (Circle all that apply and show harvest by area if more than one)  
 Ocean 1 2 3 4A 4B 4C 5A 5B 5C 5D (Ft Yukon ↑ or ↓) Innoko Koyukuk Chandalar Porcupine Black  
 Area \_\_\_\_\_ CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ PINK \_\_\_\_\_  
 Area \_\_\_\_\_ CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ PINK \_\_\_\_\_

14. What is your household's primary type of salmon fishing gear? (In order of importance 1= primary)  
 SET NET \_\_\_\_\_ DRIFT NET \_\_\_\_\_ FISH WHEEL \_\_\_\_\_ HOOK & LINE \_\_\_\_\_ DIPNET \_\_\_\_\_ OTHER \_\_\_\_\_

Figure 3.—Yukon Area postseason subsistence salmon harvest survey form, 2007.

II. ALL HOUSEHOLDS

15. Did your household catch any other fish besides salmon? Yes \_\_\_\_\_ No \_\_\_\_\_  
 (Harvest numbers should include from September/October of last year to now. Large Whitefish are 4 pounds or greater.)  
 LG WHITEFISH \_\_\_\_\_ SM WHITEFISH \_\_\_\_\_ SHEEFISH \_\_\_\_\_ BURBOT \_\_\_\_\_ PIKE \_\_\_\_\_ BLACKFISH \_\_\_\_\_  
 GRAYLING \_\_\_\_\_ SUCKERS \_\_\_\_\_ TROUT (Arctic Char) \_\_\_\_\_ EELS (Lamprey) \_\_\_\_\_ TOMCOD (Saffron) \_\_\_\_\_

Did your household catch any sockeye (red) salmon this year? Yes \_\_\_\_\_ No \_\_\_\_\_ How many? \_\_\_\_\_

\*\*16. Was your household given any salmon? Yes \_\_\_\_\_ No \_\_\_\_\_ Code: S=Subsistence, C=Commercial, T=Test Fish  
 Code: \_\_\_\_\_ Fishermen/Project (Name) \_\_\_\_\_  
 CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ PINK \_\_\_\_\_  
 Code: \_\_\_\_\_ Fishermen/Project (Name) \_\_\_\_\_  
 CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ PINK \_\_\_\_\_

17. How many dogs (including puppies) does your household have? \_\_\_\_\_ (if "No" on questions 3 and 16 go to question 22)

18. Do you feed whole salmon to your dogs? Yes \_\_\_\_\_ No \_\_\_\_\_ Only Feed Scraps \_\_\_\_\_ (if "No" go to question 21)

19. Were any of the salmon put up for the dogs from the commercial fishery? Yes \_\_\_\_\_ No \_\_\_\_\_

20. Estimate harvest of salmon put up for dogs this year by fishery (numbers should represent whole fish, not scraps):  
 (subsistence) CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_  
 (commercial) CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_

21. How successful was your household in meeting its subsistence salmon needs? (indicate percent success with "x")  
 "No Need" means there was no harvest or use of a species because there was no need for the species, e.g. species may not be traditionally fished in that area or respondent may not wish to harvest the species.  
 (No Need)  
 Chinook \_\_\_\_\_ (100%) \_\_\_\_\_ (75%) \_\_\_\_\_ (50%) \_\_\_\_\_ (25%) \_\_\_\_\_ (0%) If poor, why? \_\_\_\_\_  
 Summer Chum \_\_\_\_\_ (100%) \_\_\_\_\_ (75%) \_\_\_\_\_ (50%) \_\_\_\_\_ (25%) \_\_\_\_\_ (0%) If poor, why? \_\_\_\_\_  
 Fall Chum \_\_\_\_\_ (100%) \_\_\_\_\_ (75%) \_\_\_\_\_ (50%) \_\_\_\_\_ (25%) \_\_\_\_\_ (0%) If poor, why? \_\_\_\_\_  
 Coho \_\_\_\_\_ (100%) \_\_\_\_\_ (75%) \_\_\_\_\_ (50%) \_\_\_\_\_ (25%) \_\_\_\_\_ (0%) If poor, why? \_\_\_\_\_

22. Additional Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

THANK YOU! THIS INFORMATION IS USED TO DOCUMENT THE SUBSISTENCE SALMON HARVEST WITHIN THE YUKON RIVER DRAINAGE AND TO TRY TO ENSURE THERE WILL BE ENOUGH SALMON FOR THE FUTURE.

Surveyor Comments:

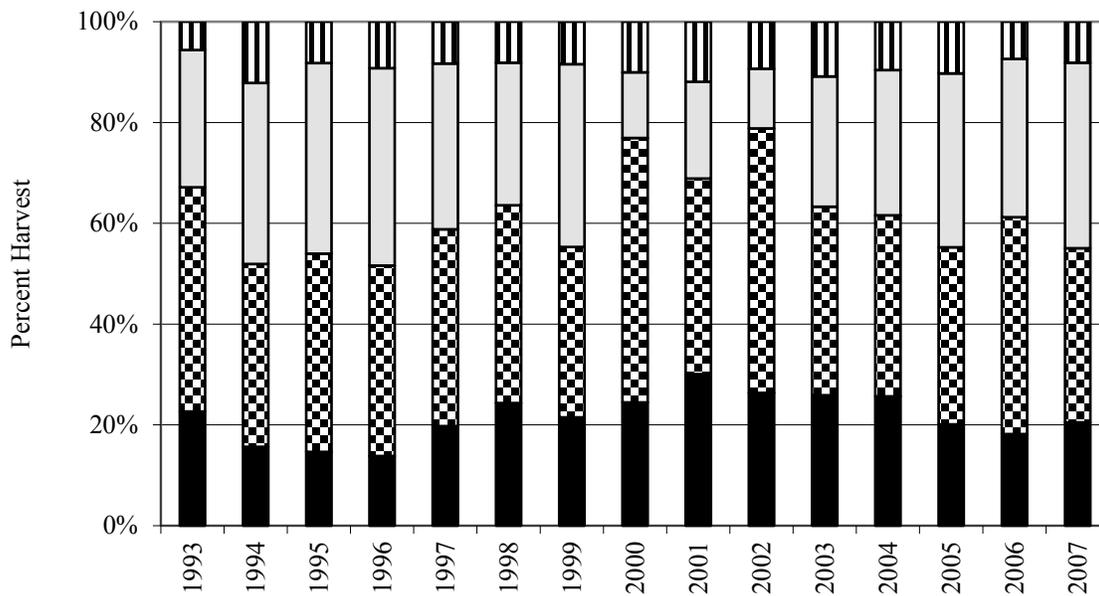
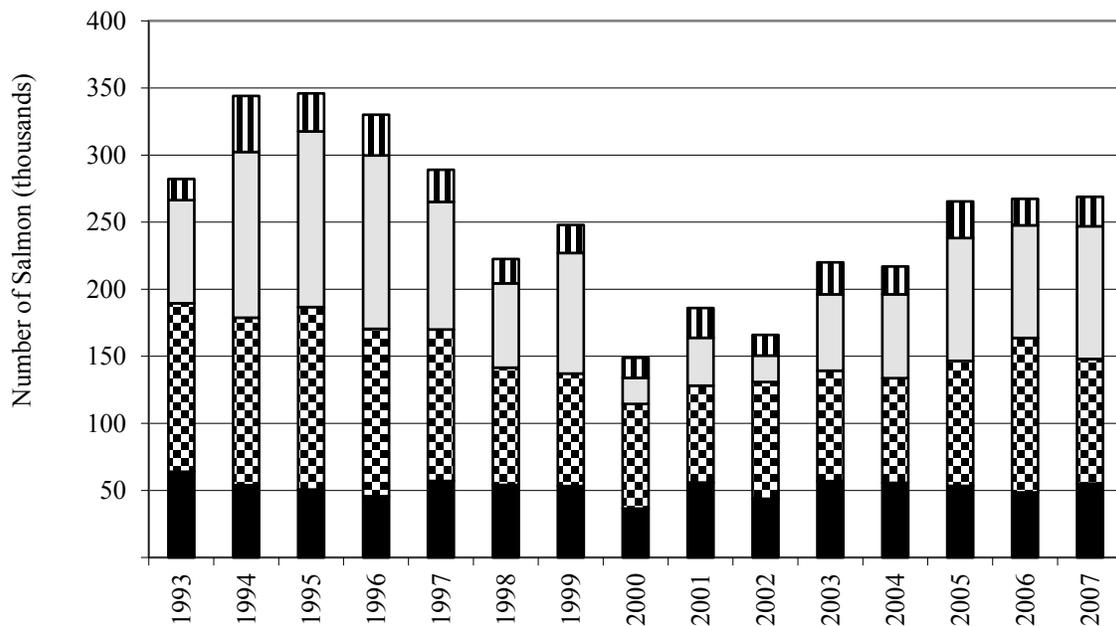
Official Use - This area is to be filled in by Fish and Game.

**HOUSEHOLD'S TOTAL SUBSISTENCE SALMON CATCH** (Totals from question \*7)  
 CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ PINK \_\_\_\_\_

**HOUSEHOLD'S TOTAL SUBSISTENCE SALMON USE** (Add totals from questions \*\*11 and \*\*16)  
 CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ PINK \_\_\_\_\_

Complete Survey \_\_\_\_\_ Partial Survey \_\_\_\_\_ No Survey \_\_\_\_\_

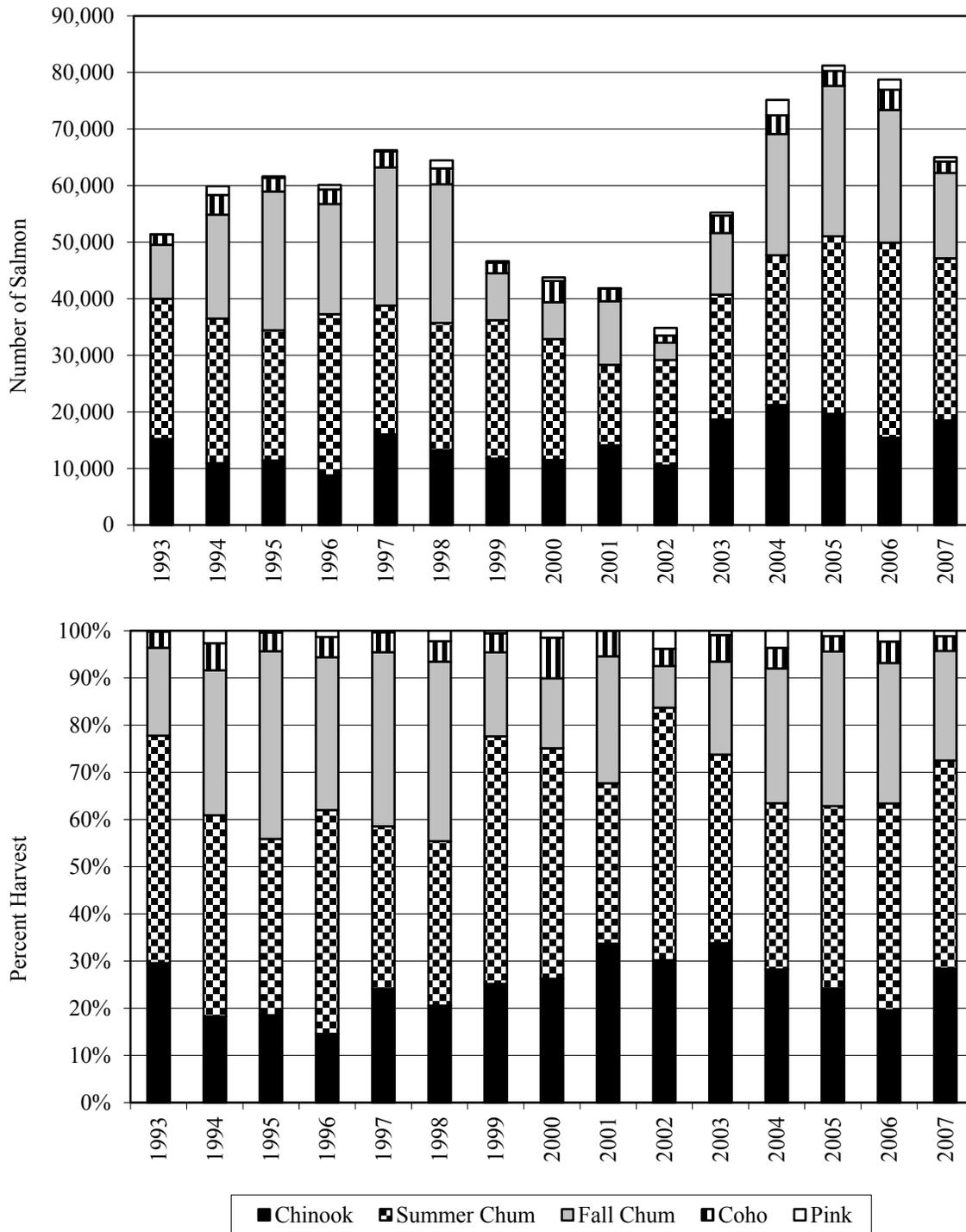
Figure 3.-Page 2 of 2.



■ Chinook Salmon    ▣ Summer Chum Salmon    □ Fall Chum Salmon    ▤ Coho Salmon

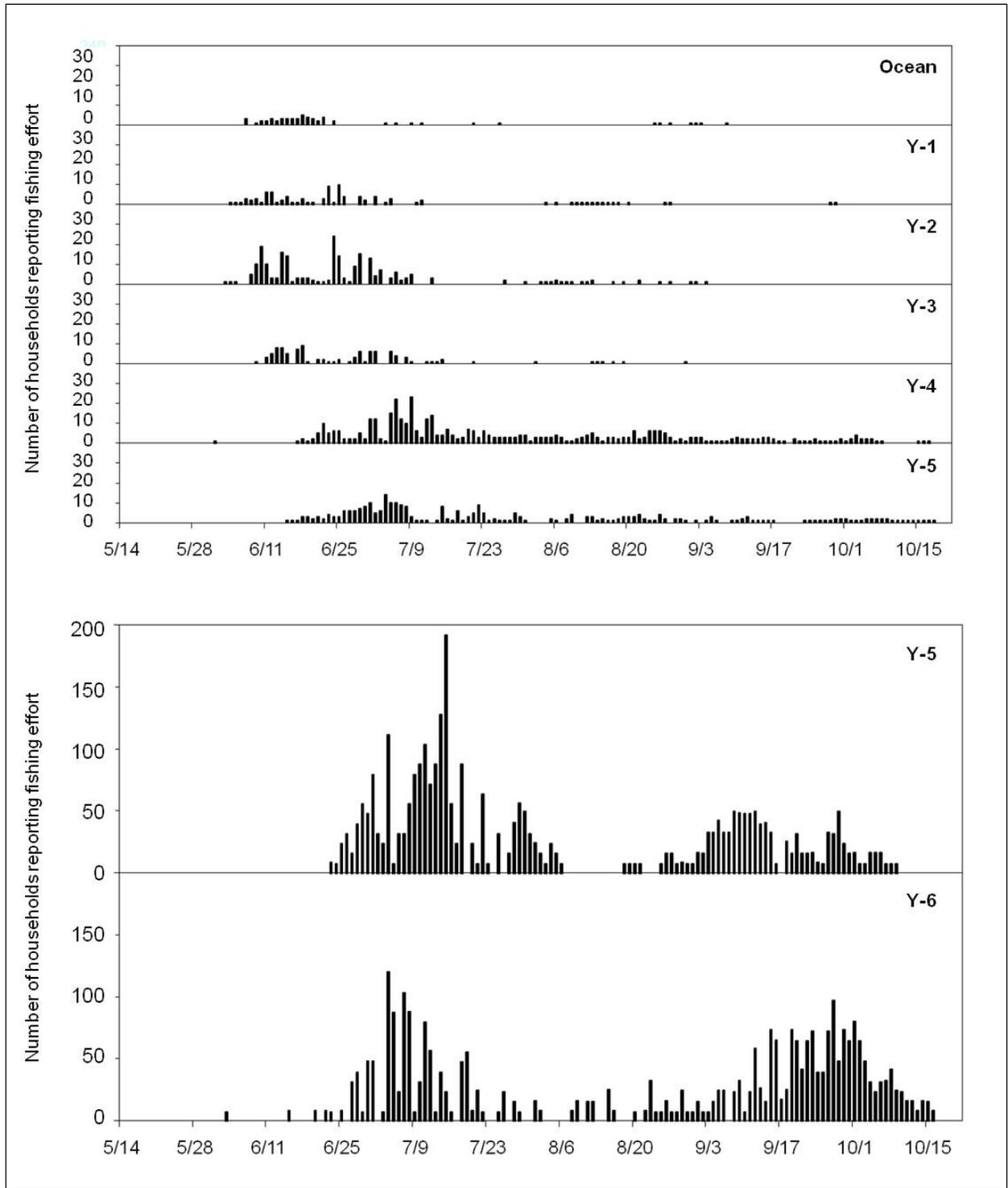
*Note:* Harvest of salmon species by number (upper panel) and proportion (lower panel). Totals include survey, permit, test fish and retained from commercial. Does not include salmon caught in the personal use fishery, or summer chum, fall chum, and coho salmon carcasses retained from the commercial fishery and used for subsistence. Does not include approximately 14,500 to 15,000 coho salmon obtained from Valdez Fisheries Development Association as part of Eagle's replacement subsistence salmon fishery in 2001 and 2003.

Figure 4.—Estimated total subsistence salmon harvest by species, Yukon Area, 1993–2007.



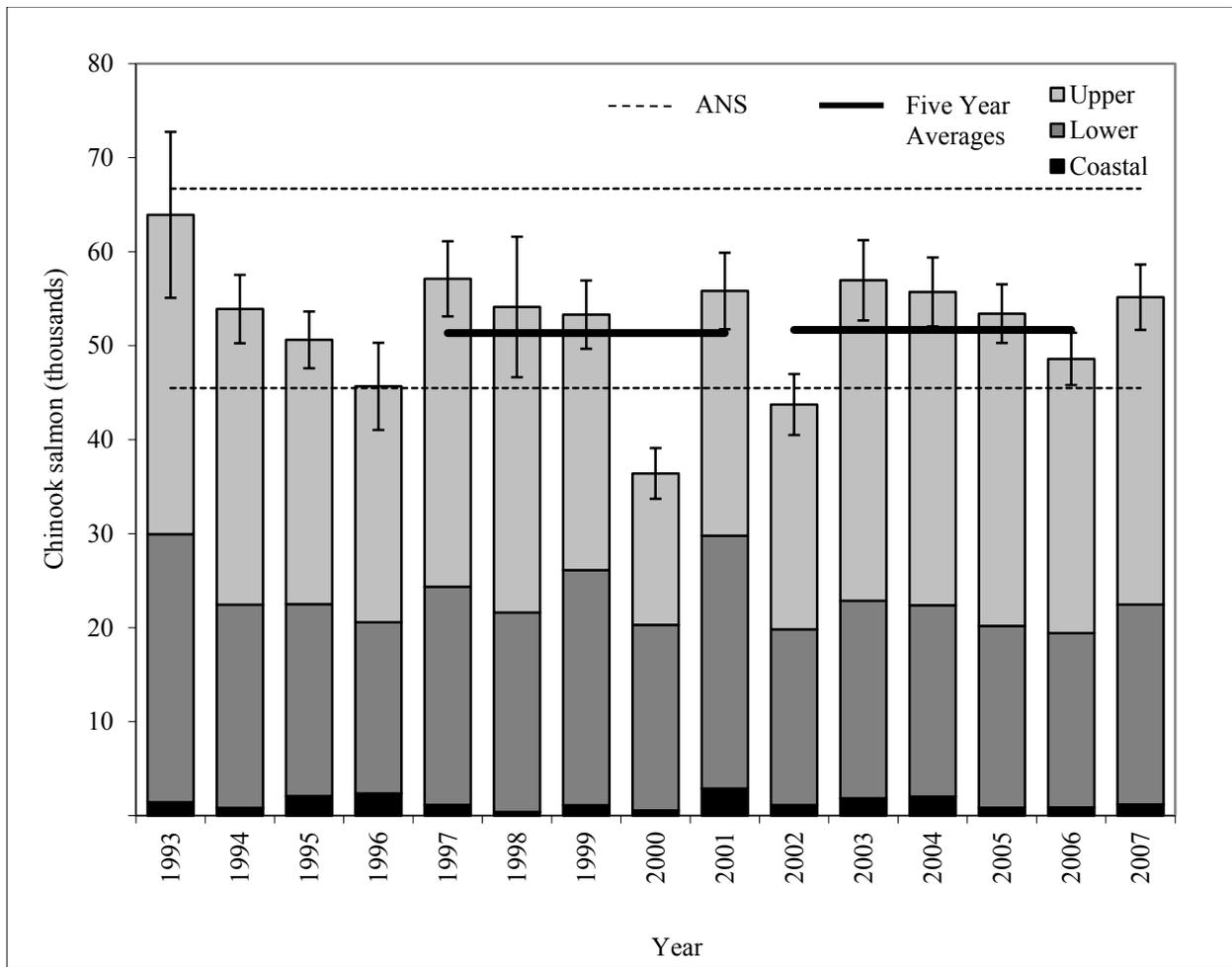
Note: Salmon harvest by number (upper panel) and proportion (lower panel).

Figure 5.—Subsistence salmon harvest reported on catch calendars by species from Districts 1–4 and a portion of District 5, Yukon Area, 1993–2007.



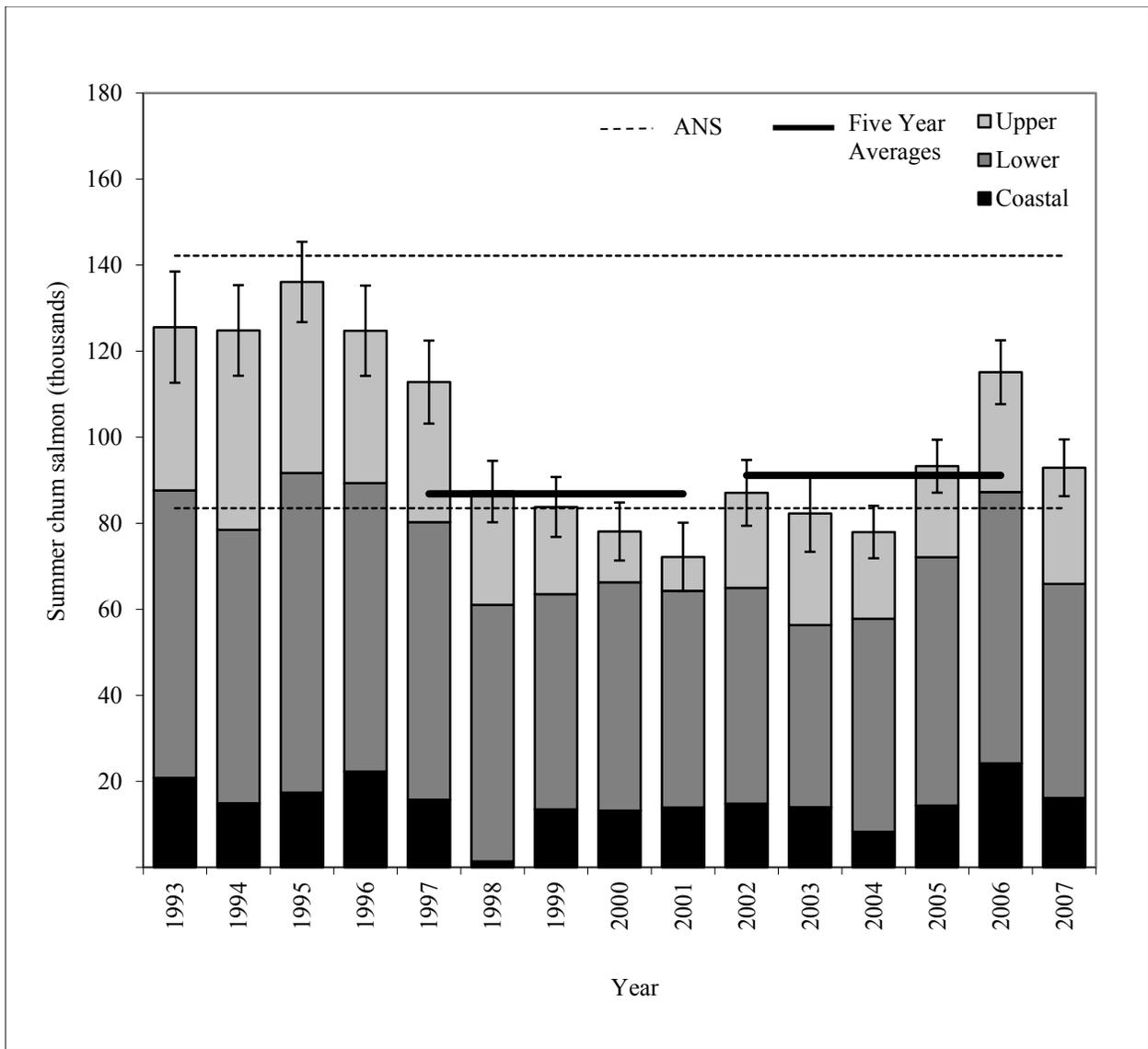
Note: Effort by day as recorded on returned harvest calendars (upper panel), and subsistence salmon permits (lower panel) Yukon Area 2007. District 5 contains calendars from surveyed communities and permit areas.

Figure 6.—Number of households reporting fishing effort by day and by district.



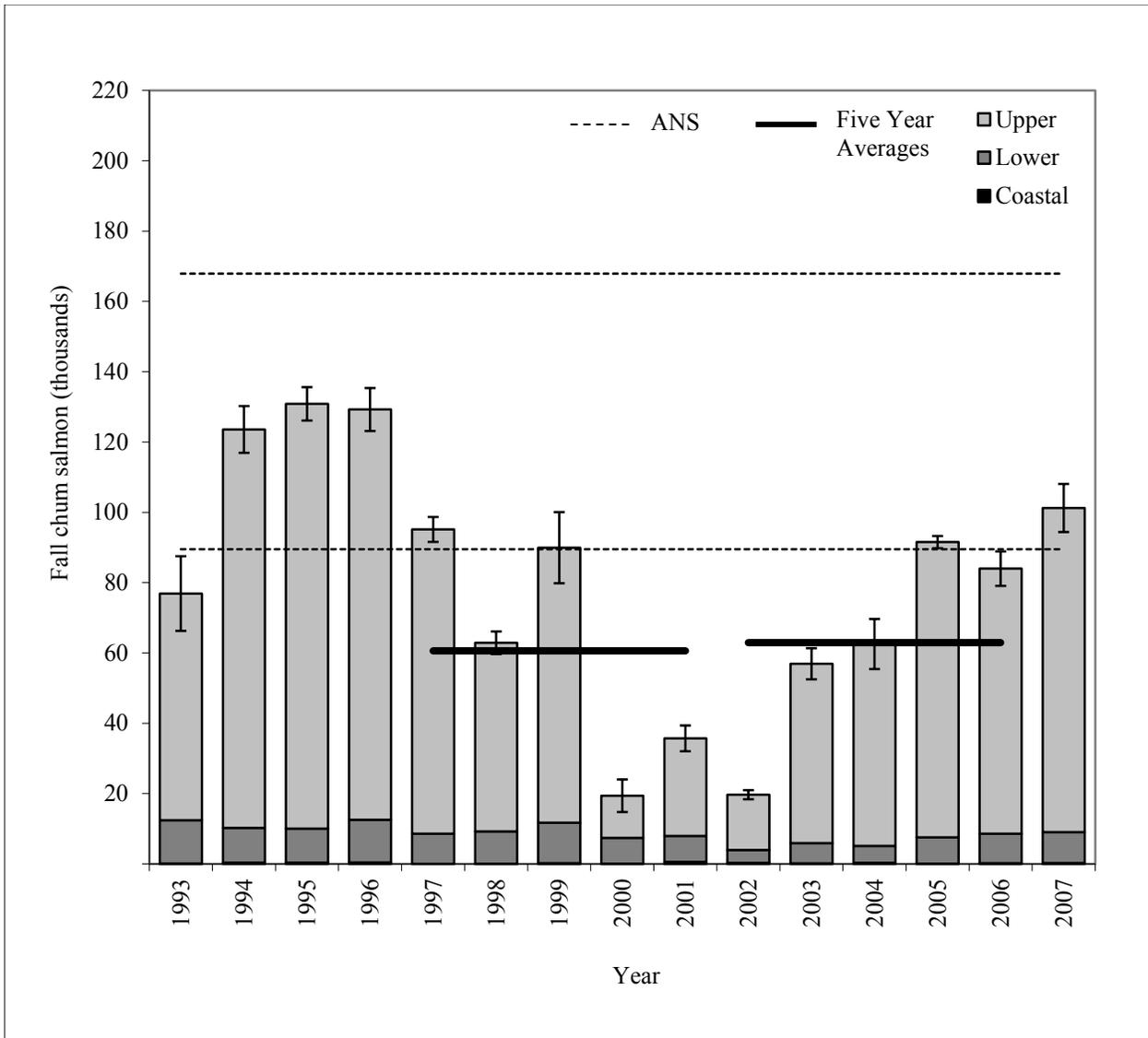
*Note:* Harvest estimates and 95% confidence interval are provided. In 2001 the Alaska Board of Fisheries defined the amount necessary for subsistence (ANS) as 45,500 to 66,704 Chinook salmon. ANS ranges and harvest amounts do not include salmon from the personal use fishery.

Figure 7.—Estimated Chinook salmon subsistence harvest, Yukon Area, 1993–2007.



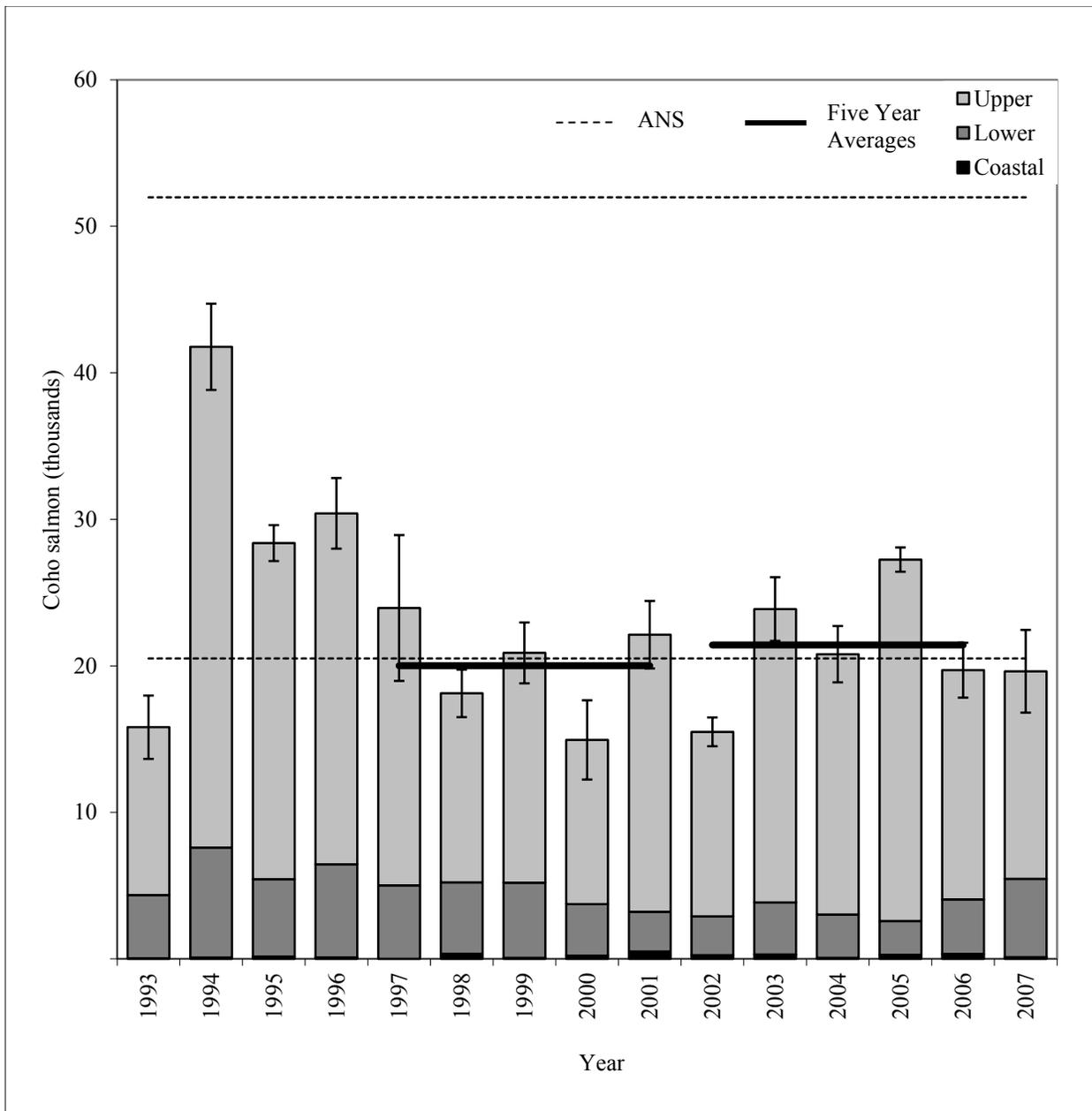
Note: Harvest estimates and 95% confidence interval are provided. In 2001, the Alaska Board of Fisheries defined the amount necessary for subsistence (ANS) as 83,500 to 142,192 summer chum salmon. Does not include summer chum salmon carcasses retained from the commercial roe fishery (most significant in 1995 and 1996) and used for subsistence. ANS ranges and harvest amounts do not include salmon from the personal use fishery.

Figure 8.—Estimated summer chum salmon subsistence harvest, Yukon Area, 1993–2007.



Note: Harvest estimates and 95% confidence interval are provided. In 2001, the Alaska Board of Fisheries defined the amount necessary for subsistence (ANS) as 89,500 to 167,900 fall chum salmon. Does not include fall chum salmon sold commercially for roe and carcasses returned to fishermen in District 6. ANS ranges and harvest amounts do not include salmon from the personal use fishery.

Figure 9.—Estimated fall chum salmon subsistence harvest, Yukon Area, 1993–2007.



Note: Harvest estimates and 95% confidence interval are provided. In 2001, the Alaska Board of Fisheries defined the amount necessary for subsistence (ANS) as 20,500 to 51,980 coho salmon. Does not include carcasses returned to fishermen from coho salmon sold commercially for roe in District 6. Does include approximately 14,500 to 15,000 coho salmon obtained from Valdez Fisheries Development Association as part of Eagle's replacement subsistence salmon fishery in 2003. ANS ranges and harvest amounts do not include salmon from the personal use fishery.

Figure 10.—Estimated coho salmon subsistence harvest, Yukon Area, 1993–2007.



## **APPENDIX A. 2007 HARVEST INFORMATION**

Appendix A1.—Estimated Chinook salmon subsistence harvest in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2007.

Community	Does Not																Combined							
	Unknown				Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total		Est	CI
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	2	2	5.0	0.0	64	13	0.9	0.6	106	28	2.1	0.7	24	20	5.8	1.4	-	-	-	-	196	63	430	169
Scammon Bay	2	1	0.0	-	22	7	3.0	1.6	40	13	12.4	2.9	10	10	20.7	0.0	-	-	-	-	74	31	768	239
Coastal District	4	3	2.5	0.0	86	20	1.5	0.6	146	41	4.9	0.9	34	30	10.1	1.0	-	-	-	-	270	94	1,198	292
Nunam Iqua	1	0	-	-	10	4	0.0	0.0	10	8	8.9	2.0	14	13	58.5	5.7	-	-	-	-	35	25	907	162
Alakanuk	10	9	9.3	1.5	31	9	0.0	0.0	62	17	5.1	1.1	22	19	36.2	2.8	-	-	-	-	125	54	1,202	182
Emmonak	2	2	4.5	0.0	54	22	5.7	2.3	60	27	7.4	2.4	39	37	20.7	1.3	1	1	7.0	-	156	89	1,580	390
Kotlik	1	0	-	-	31	10	2.3	1.6	43	12	13.0	4.2	22	20	21.1	1.0	1	1	60.0	-	98	43	1,155	368
District 1	14	11	8.5	1.3	126	45	3.0	1.1	175	64	8.0	1.4	97	89	29.8	1.2	2	2	33.5	-	414	211	4,844	589
Mountain Village	11	5	2.0	0.7	33	8	1.5	1.3	65	15	14.7	4.0	35	31	29.6	1.5	2	1	8.0	-	146	60	2,076	521
Pitkas Point	4	0	-	-	5	4	0.0	0.0	12	10	12.9	2.8	6	5	27.6	7.1	-	-	-	-	27	19	320	106
St. Mary's	14	8	15.6	4.1	23	6	13.8	4.6	58	16	28.6	5.0	31	28	38.8	1.8	1	1	150.0	-	127	59	3,548	629
Pilot Station	6	3	7.3	2.6	34	14	2.4	1.3	47	20	20.6	3.7	15	8	32.4	5.4	-	-	-	-	102	45	1,580	391
Marshall	3	3	37.7	0.0	17	5	9.0	7.6	39	10	35.5	9.8	11	11	54.3	0.0	1	1	45.0	-	71	30	2,293	792
District 2	38	19	11.7	1.8	112	37	5.4	1.6	221	71	23.2	2.6	98	83	35.6	1.2	4	3	52.8	-	473	213	9,817	1,208
Russian Mission	-	-	-	-	13	4	25.8	13.1	40	12	20.4	6.2	4	3	37.3	6.9	-	-	-	-	57	19	1,301	594
Holy Cross	6	3	4.3	3.1	13	6	0.0	0.0	24	10	46.1	8.7	17	17	104.1	0.0	-	-	-	-	60	36	2,902	410
Shageluk	12	6	7.7	2.6	7	2	1.5	1.3	12	2	16.0	7.3	9	7	17.0	2.9	1	1	0.0	-	41	18	448	190
District 3	18	9	6.6	2.0	33	12	10.5	5.2	76	24	27.8	4.4	30	27	69.1	1.3	1	1	0.0	-	158	73	4,651	746
Anvik	-	-	-	-	14	10	4.1	2.2	15	14	34.4	2.5	4	4	175.5	0.0	1	1	45.0	-	34	29	1,321	95
Grayling	1	0	-	-	3	1	0.0	-	39	10	34.4	6.8	4	3	39.7	4.9	1	0	-	-	48	14	1,500	524
Kaltag	7	6	3.7	0.9	8	3	5.0	4.0	41	6	25.7	6.1	4	4	84.0	0.0	-	-	-	-	60	19	1,454	494
Nulato	3	2	6.5	3.8	23	6	12.5	8.3	53	15	34.5	5.4	6	6	47.3	0.0	1	1	10.0	-	86	30	2,431	671
Koyukuk	4	1	0.0	-	13	9	0.0	0.0	13	9	19.8	5.9	4	3	93.0	14.3	1	1	182.0	-	35	23	811	188
Galena	5	5	15.0	0.0	69	12	4.2	2.1	66	20	26.0	6.3	6	5	40.4	7.2	2	2	95.0	0.0	148	44	2,511	863
Ruby	4	4	25.8	0.0	36	9	0.0	0.0	10	4	72.3	38.5	4	3	79.7	22.8	3	2	150.0	86.6	57	22	1,594	927
Huslia	5	4	0.0	0.0	41	14	2.4	1.6	17	7	1.0	0.5	4	3	6.3	1.7	2	2	2.0	0.0	69	30	146	131
Hughes	3	1	1.0	-	18	10	0.0	0.0	5	4	0.8	0.2	1	1	0.0	-	2	2	0.5	0.0	29	18	8	2
Allakaket	1	1	0.0	-	23	21	0.1	0.0	8	8	0.1	0.0	3	3	5.0	0.0	3	3	11.7	0.0	38	36	53	1
Alatna	1	0	-	-	6	5	0.0	0.0	2	1	0.0	-	1	0	-	-	-	-	-	-	10	6	0	0
Bettles	4	0	-	-	17	10	0.0	0.0	3	1	0.0	-	-	-	-	-	-	-	-	-	24	11	0	0
District 4	38	24	7.1	0.4	271	110	2.9	0.9	272	99	27.4	2.7	41	35	61.4	2.9	16	14	61.1	17.3	638	282	11,829	1,623

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Community	Does Not																Combined							
	Unknown				Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total		Est	CI
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Tanana	3	0	-	-	48	22	0.0	0.0	25	10	22.7	6.9	11	7	132.9	27.3	12	9	289.1	55.3	99	48	5,498	1,467
Stevens Village	1	0	-	-	9	5	10.4	4.3	8	7	28.1	4.5	7	7	41.6	0.0	-	-	-	-	25	19	610	103
Birch Creek	6	1	0.0	-	7	3	0.0	0.0	5	2	22.5	17.4	-	-	-	-	-	-	-	-	18	6	113	171
Beaver	-	-	-	-	13	6	20.5	14.2	12	9	40.8	5.8	4	4	122.0	0.0	-	-	-	-	29	19	1,244	386
Fort Yukon	7	3	100.0	75.6	88	22	8.3	4.5	35	11	31.8	18.8	14	13	72.1	7.3	6	4	87.5	29.8	150	53	4,076	1,869
Venetie	7	2	0.0	0.0	29	9	2.2	1.8	8	3	106.0	68.6	4	4	12.5	0.0	1	1	40.0	-	49	19	1,002	1,081
Chalkyitsik	2	1	0.0	-	23	18	0.0	0.0	3	2	0.0	0.0	2	1	0.0	-	-	-	-	-	30	22	0	0
District 5	26	7	31.8	24.1	217	85	5.3	2.0	96	44	35.0	9.2	42	36	78.6	7.6	19	14	212.3	36.2	400	186	12,543	2,646
Survey Totals	138	73	12.7	4.4	845	309	4.0	0.7	986	343	20.5	1.4	342	300	42.6	1.1	42	34	127.5	17.9	2,353	1,059	44,882	3,476

Note: The number of Chinook salmon harvested was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon harvested by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A2.—Estimated summer chum salmon subsistence harvest in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2007.

Community	Does Not																Combined							
	Unknown				Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total		Est	CI
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	2	2	71.5	0.0	64	13	10.5	9.1	106	28	82.3	13.9	24	20	112.1	10.4	-	-	-	-	196	63	12,234	3,148
Scammon Bay	2	1	0.0	-	22	7	11.9	5.0	40	13	58.3	12.3	10	10	129.4	0.0	-	-	-	-	74	31	3,887	992
Coastal District	4	3	35.8	0.0	86	20	10.9	6.9	146	41	75.7	10.7	34	30	117.2	7.3	-	-	-	-	270	94	16,121	3,300
Nunam Iqua	1	0	-	-	10	4	0.0	0.0	10	8	17.5	4.5	14	13	153.5	8.1	-	-	-	-	35	25	2,325	240
Alakanuk	10	9	37.8	6.9	31	9	0.0	0.0	62	17	66.8	19.8	22	19	133.4	9.1	-	-	-	-	125	54	7,456	2,442
Emmonak	2	2	50.0	0.0	54	22	4.0	2.4	60	27	68.2	15.8	39	37	97.4	2.8	1	1	275.0	-	156	89	8,486	1,891
Kotlik	1	0	-	-	31	10	11.8	6.2	43	12	54.2	15.0	22	20	103.5	5.4	1	1	38.0	-	98	43	5,009	1,336
District 1	14	11	39.8	5.8	126	45	4.6	1.8	175	64	61.4	9.6	97	89	115.0	2.9	2	2	156.5	-	414	211	23,276	3,374
Mountain Village	11	5	33.6	10.5	33	8	0.0	0.0	65	15	50.1	18.0	35	31	110.9	4.6	2	1	199.0	-	146	60	7,904	2,332
Pitkas Point	4	0	-	-	5	4	0.0	0.0	12	10	18.2	3.6	6	5	49.4	10.7	-	-	-	-	27	19	515	151
St. Mary's	14	8	43.0	12.7	23	6	24.7	10.0	58	16	56.6	14.7	31	28	105.0	5.0	1	1	400.0	-	127	59	8,107	1,792
Pilot Station	6	3	15.0	10.6	34	14	12.2	5.9	47	20	13.8	2.5	15	8	97.1	12.6	-	-	-	-	102	45	2,611	599
Marshall	3	3	21.0	0.0	17	5	3.0	2.5	39	10	40.0	15.2	11	11	97.3	0.0	1	1	200.0	-	71	30	2,944	1,165
District 2	38	19	33.1	6.5	112	37	9.2	2.8	221	71	40.6	7.1	98	83	101.6	3.1	4	3	249.5	-	473	213	22,081	3,223
Russian Mission	-	-	-	-	13	4	13.8	6.6	40	12	10.9	5.0	4	3	36.0	6.1	-	-	-	-	57	19	759	433
Holy Cross	6	3	0.0	0.0	13	6	0.0	0.0	24	10	5.8	3.0	17	17	10.6	0.0	-	-	-	-	60	36	320	139
Shageluk	12	6	34.3	18.2	7	2	6.0	5.1	12	2	2.5	2.3	9	7	40.0	16.6	1	1	133.0	-	41	18	977	527
District 3	18	9	22.9	12.1	33	12	6.7	2.8	76	24	8.0	2.8	30	27	22.8	5.1	1	1	133.0	-	158	73	2,056	696
Anvik	-	-	-	-	14	10	3.5	1.9	15	14	137.6	28.0	4	4	784.0	0.0	1	1	0.0	-	34	29	5,250	826
Grayling	1	0	-	-	3	1	0.0	-	39	10	11.3	3.2	4	3	50.0	25.0	1	0	-	-	48	14	641	313
Kaltag	7	6	0.0	0.0	8	3	10.0	7.9	41	6	0.0	0.0	4	4	7.3	0.0	-	-	-	-	60	19	109	124
Nulato	3	2	0.0	0.0	23	6	0.0	0.0	53	15	1.7	1.1	6	6	44.0	0.0	1	1	0.0	-	86	30	356	116
Koyukuk	4	1	0.0	-	13	9	0.0	0.0	13	9	1.9	0.6	4	3	145.3	65.6	1	1	389.0	-	35	23	995	514
Galena	5	5	0.0	0.0	69	12	0.2	0.2	66	20	5.6	2.1	6	5	15.6	3.1	2	2	50.0	0.0	148	44	571	272
Ruby	4	4	42.0	0.0	36	9	0.0	0.0	10	4	10.0	7.7	4	3	37.0	4.8	3	2	0.0	0.0	57	22	416	156
Huslia	5	4	0.0	0.0	41	14	1.1	0.9	17	7	46.4	22.3	4	3	350.0	118.1	2	2	505.0	0.0	69	30	3,243	1,190
Hughes	3	1	100.0	-	18	10	0.0	0.0	5	4	12.5	3.2	1	1	100.0	-	2	2	375.0	0.0	29	18	1,213	32
Allakaket	1	1	0.0	-	23	21	4.6	1.1	8	8	11.9	0.0	3	3	161.7	0.0	3	3	921.7	0.0	38	36	3,451	48
Alatna	1	0	-	-	6	5	1.8	0.7	2	1	0.0	-	1	0	-	-	-	-	-	-	10	6	11	9
Bettles	4	0	-	-	17	10	0.0	0.0	3	1	0.0	-	-	-	-	-	-	-	-	-	24	11	0	0
District 4	38	24	14.6	0.0	271	110	1.1	0.3	272	99	14.8	2.2	41	35	160.9	13.8	16	14	334.3	0.0	638	282	16,256	1,609

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Community	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		Est		CI
																					N	n	Total	95%	
Tanana	3	0	-	-	48	22	0.0	0.0	25	10	4.7	2.2	11	7	7.7	2.6	12	9	418.9	91.6	99	48	5,229	2,159	
Stevens Village	1	0	-	-	9	5	0.0	0.0	8	7	24.9	7.5	7	7	7.9	0.0	-	-	-	-	25	19	254	117	
Birch Creek	6	1	0.0	-	7	3	0.0	0.0	5	2	0.0	0.0	-	-	-	-	-	-	-	-	18	6	0	0	
Beaver	-	-	-	-	13	6	0.0	0.0	12	9	0.3	0.2	4	4	9.3	0.0	-	-	-	-	29	19	41	4	
Fort Yukon	7	3	150.0	113.4	88	22	0.0	0.0	35	11	0.0	0.0	14	13	15.4	4.1	6	4	183.3	68.7	150	53	2,365	1,757	
Venetie	7	2	0.0	0.0	29	9	0.0	0.0	8	3	13.3	5.3	4	4	0.0	0.0	1	1	0.0	-	49	19	107	83	
Chalkyitsik	2	1	0.0	-	23	18	0.0	0.0	3	2	0.0	0.0	2	1	0.0	-	-	-	-	-	30	22	0	0	
District 5	26	7	47.7	36.1	217	85	0.0	0.0	96	44	4.4	1.0	42	36	9.3	1.5	19	14	322.4	61.8	400	186	7,996	2,787	
Survey Totals	138	73	30.1	7.0	845	309	3.6	0.8	986	343	36.3	2.9	342	300	95.7	2.2	42	34	306.9	28.6	2,353	1,059	87,786	6,596	

Note: The number of summer chum salmon harvested was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon harvested by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values

Appendix A3.—Estimated fall chum salmon subsistence harvest in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2007.

Community	Does Not																Combined							
	Unknown				Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total		Est	CI
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	2	2	0.0	0.0	64	13	0.0	0.0	106	28	0.0	0.0	24	20	2.7	1.0	-	-	-	-	196	63	64	48
Scammon Bay	2	1	0.0	-	22	7	0.0	0.0	40	13	3.0	1.9	10	10	5.0	0.0	-	-	-	-	74	31	170	152
Coastal District	4	3	0.0	0.0	86	20	0.0	0.0	146	41	0.8	0.5	34	30	3.3	0.7	-	-	-	-	270	94	234	159
Nunam Iqua	1	0	-	-	10	4	0.0	0.0	10	8	0.3	0.1	14	13	10.7	1.2	-	-	-	-	35	25	152	32
Alakanuk	10	9	1.2	0.3	31	9	0.0	0.0	62	17	15.2	7.3	22	19	15.4	2.6	-	-	-	-	125	54	1,291	899
Emmonak	2	2	0.0	0.0	54	22	2.0	1.4	60	27	6.5	1.9	39	37	21.6	1.6	1	1	22.0	-	156	89	1,359	298
Kotlik	1	0	-	-	31	10	0.3	0.2	43	12	4.7	2.6	22	20	7.3	1.5	1	1	0.0	-	98	43	369	232
District 1	14	11	1.0	0.3	126	45	0.9	0.6	175	64	8.8	2.8	97	89	15.4	0.9	2	2	11.0	-	414	211	3,171	976
Mountain Village	11	5	0.0	0.0	33	8	0.0	0.0	65	15	4.9	2.7	35	31	5.4	0.8	2	1	0.0	-	146	60	506	344
Pitkas Point	4	0	-	-	5	4	0.0	0.0	12	10	1.9	0.5	6	5	3.6	0.9	-	-	-	-	27	19	44	15
St. Mary's	14	8	1.6	1.1	23	6	1.0	0.9	58	16	4.1	2.0	31	28	16.6	2.8	1	1	25.0	-	127	59	825	288
Pilot Station	6	3	0.7	0.5	34	14	0.0	0.0	47	20	0.0	0.0	15	8	2.3	1.0	-	-	-	-	102	45	38	30
Marshall	3	3	5.7	0.0	17	5	3.0	2.5	39	10	6.9	3.3	11	11	32.0	0.0	1	1	100.0	-	71	30	789	267
District 2	38	19	1.3	0.4	112	37	0.7	0.4	221	71	3.8	1.1	98	83	11.3	0.9	4	3	31.3	-	473	213	2,202	523
Russian Mission	-	-	-	-	13	4	10.0	5.1	40	12	7.5	4.5	4	3	25.0	7.2	-	-	-	-	57	19	530	380
Holy Cross	6	3	0.0	0.0	13	6	0.0	0.0	24	10	5.0	3.8	17	17	7.5	0.0	-	-	-	-	60	36	248	180
Shageluk	12	6	7.3	4.6	7	2	0.0	0.0	12	2	0.0	0.0	9	7	6.6	3.1	1	1	0.0	-	41	18	147	122
District 3	18	9	4.9	3.1	33	12	3.9	2.0	76	24	5.5	2.7	30	27	9.6	1.3	1	1	0.0	-	158	73	925	438
Anvik	-	-	-	-	14	10	8.2	4.4	15	14	10.1	1.1	4	4	40.5	0.0	1	1	0.0	-	34	29	429	124
Grayling	1	0	-	-	3	1	0.0	-	39	10	3.0	2.6	4	3	50.0	25.0	1	0	-	-	48	14	317	278
Kaltag	7	6	0.8	0.3	8	3	2.3	1.8	41	6	5.0	4.6	4	4	36.0	0.0	-	-	-	-	60	19	374	372
Nulato	3	2	0.0	0.0	23	6	0.0	0.0	53	15	22.7	7.8	6	6	23.3	0.0	1	1	0.0	-	86	30	1,345	809
Koyukuk	4	1	0.0	-	13	9	3.3	1.8	13	9	9.7	3.7	4	3	112.3	27.9	1	1	309.0	-	35	23	927	243
Galena	5	5	7.6	0.0	69	12	0.8	0.8	66	20	3.2	1.5	6	5	52.4	17.6	2	2	425.0	0.0	148	44	1,471	304
Ruby	4	4	0.0	0.0	36	9	0.0	0.0	10	4	2.0	1.5	4	3	241.0	103.0	3	2	325.0	187.6	57	22	1,959	1,368
Huslia	5	4	0.0	0.0	41	14	0.0	0.0	17	7	1.4	1.1	4	3	36.7	15.9	2	2	50.5	0.0	69	30	272	130
Hughes	3	1	0.0	-	18	10	0.0	0.0	5	4	0.0	0.0	1	1	0.0	-	2	2	0.0	0.0	29	18	0	0
Allakaket	1	1	0.0	-	23	21	0.0	0.0	8	8	2.5	0.0	3	3	31.0	0.0	3	3	275.3	0.0	38	36	939	0
Alatna	1	0	-	-	6	5	1.2	0.5	2	1	0.0	-	1	0	-	-	-	-	-	-	10	6	7	6
Bettles	4	0	-	-	17	10	0.0	0.0	3	1	0.0	-	-	-	-	-	-	-	-	-	24	11	0	0
District 4	38	24	1.4	0.1	271	110	0.9	0.3	272	99	7.6	1.8	41	35	65.3	11.4	16	14	204.1	37.5	638	282	8,040	1,710

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Community	Does Not																				Combined			
	Unknown				Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total		Est	CI
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Tanana	3	0	-	-	48	22	0.0	0.0	25	10	5.2	4.0	11	7	66.0	39.8	12	9	1728.3	254.4	99	48	21,596	6,048
Stevens Village	1	0	-	-	9	5	0.0	0.0	8	7	8.6	3.0	7	7	18.6	0.0	-	-	-	-	25	19	199	48
Birch Creek	6	1	0.0	-	7	3	0.0	0.0	5	2	0.0	0.0	-	-	-	-	-	-	-	-	18	6	0	0
Beaver	-	-	-	-	13	6	22.2	16.3	12	9	0.0	0.0	4	4	16.5	0.0	-	-	-	-	29	19	354	414
Fort Yukon	7	3	0.0	0.0	88	22	1.4	1.2	35	11	102.7	55.0	14	13	156.4	24.5	6	4	393.3	82.8	150	53	8,264	3,957
Venetie	7	2	0.0	0.0	29	9	2.2	1.8	8	3	6.7	5.3	4	4	50.8	0.0	1	1	400.0	-	49	19	721	134
Chalkyitsik	2	1	0.0	-	23	18	3.3	1.6	3	2	0.0	0.0	2	1	68.0	-	-	-	-	-	30	22	213	70
District 5	26	7	0.0	0.0	217	85	2.5	1.1	96	44	24.2	11.1	42	36	80.1	13.2	19	14	1203.1	162.4	400	186	31,347	7,241
Survey Totals	138	73	1.5	0.5	845	309	1.3	0.3	986	343	7.4	1.3	342	300	26.3	2.1	42	34	635.8	76.5	2,353	1,059	45,919	7,537

Note: The number of fall chum salmon harvested was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon harvested by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A4.—Estimated coho salmon subsistence harvest in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2007.

Community	Does Not																Combined							
	Unknown				Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total		Est	CI
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	2	2	0.0	0.0	64	13	0.2	0.1	106	28	0.1	0.1	24	20	0.4	0.1	-	-	-	-	196	63	26	22
Scammon Bay	2	1	0.0	-	22	7	0.0	0.0	40	13	1.2	0.5	10	10	3.5	0.0	-	-	-	-	74	31	84	39
Coastal District	4	3	0.0	0.0	86	20	0.1	0.1	146	41	0.4	0.1	34	30	1.3	0.1	-	-	-	-	270	94	110	45
Nunam Iqua	1	0	-	-	10	4	0.0	0.0	10	8	1.6	0.7	14	13	5.4	0.8	-	-	-	-	35	25	92	27
Alakanuk	10	9	0.0	0.0	31	9	0.9	0.7	62	17	8.6	3.8	22	19	11.9	2.7	-	-	-	-	125	54	827	484
Emmonak	2	2	0.0	0.0	54	22	0.3	0.2	60	27	6.6	2.2	39	37	6.0	0.5	1	1	4.0	-	156	89	650	266
Kotlik	1	0	-	-	31	10	0.0	0.0	43	12	1.5	0.8	22	20	7.5	1.5	1	1	0.0	-	98	43	230	93
District 1	14	11	0.0	0.0	126	45	0.4	0.2	175	64	5.8	1.6	97	89	7.6	0.7	2	2	2.0	-	414	211	1,799	560
Mountain Village	11	5	0.0	0.0	33	8	0.0	0.0	65	15	4.0	2.7	35	31	9.5	2.5	2	1	0.0	-	146	60	593	385
Pitkas Point	4	0	-	-	5	4	0.0	0.0	12	10	2.2	0.6	6	5	2.0	0.8	-	-	-	-	27	19	38	17
St. Mary's	14	8	0.0	0.0	23	6	1.3	0.9	58	16	0.1	0.1	31	28	1.1	0.2	1	1	25.0	-	127	59	97	42
Pilot Station	6	3	0.3	0.2	34	14	0.0	0.0	47	20	0.4	0.3	15	8	0.9	0.6	-	-	-	-	102	45	32	30
Marshall	3	3	3.0	0.0	17	5	0.0	0.0	39	10	11.6	6.8	11	11	14.6	0.0	1	1	300.0	-	71	30	922	522
District 2	38	19	0.3	0.0	112	37	0.3	0.2	221	71	3.5	1.4	98	83	5.6	0.9	4	3	81.3	-	473	213	1,682	651
Russian Mission	-	-	-	-	13	4	3.8	2.0	40	12	1.6	0.9	4	3	36.7	15.9	-	-	-	-	57	19	259	152
Holy Cross	6	3	0.0	0.0	13	6	0.0	0.0	24	10	5.0	3.8	17	17	5.5	0.0	-	-	-	-	60	36	213	180
Shageluk	12	6	14.5	10.3	7	2	0.0	0.0	12	2	0.0	0.0	9	7	10.3	2.8	1	1	0.0	-	41	18	267	246
District 3	18	9	9.7	6.8	33	12	1.5	0.8	76	24	2.4	1.3	30	27	11.1	2.3	1	1	0.0	-	158	73	739	340
Anvik	-	-	-	-	14	10	11.7	6.3	15	14	33.7	7.3	4	4	34.3	0.0	1	1	0.0	-	34	29	807	275
Grayling	1	0	-	-	3	1	0.0	-	39	10	6.1	4.3	4	3	8.3	3.0	1	0	-	-	48	14	271	329
Kaltag	7	6	0.0	0.0	8	3	1.0	0.8	41	6	1.3	1.2	4	4	2.0	0.0	-	-	-	-	60	19	71	100
Nulato	3	2	0.0	0.0	23	6	0.0	0.0	53	15	1.5	0.9	6	6	8.2	0.0	1	1	0.0	-	86	30	130	93
Koyukuk	4	1	0.0	-	13	9	0.0	0.0	13	9	0.0	0.0	4	3	26.3	13.2	1	1	84.0	-	35	23	189	103
Galena	5	5	0.2	0.0	69	12	0.8	0.8	66	20	3.6	2.9	6	5	4.8	2.0	2	2	50.0	0.0	148	44	425	387
Ruby	4	4	2.5	0.0	36	9	0.0	0.0	10	4	1.0	0.8	4	3	22.0	11.0	3	2	20.0	11.5	57	22	168	111
Huslia	5	4	0.0	0.0	41	14	0.0	0.0	17	7	1.4	1.1	4	3	67.0	33.3	2	2	150.0	0.0	69	30	592	263
Hughes	3	1	0.0	-	18	10	0.0	0.0	5	4	0.0	0.0	1	1	0.0	-	2	2	50.0	0.0	29	18	100	0
Allakaket	1	1	0.0	-	23	21	0.0	0.0	8	8	0.4	0.0	3	3	0.0	0.0	3	3	21.0	0.0	38	36	66	0
Alatna	1	0	-	-	6	5	0.0	0.0	2	1	0.0	-	1	0	-	-	-	-	-	-	10	6	0	0
Bettles	4	0	-	-	17	10	0.0	0.0	3	1	0.0	-	-	-	-	-	-	-	-	-	24	11	0	0
District 4	38	24	0.3	0.0	271	110	0.8	0.4	272	99	4.2	1.0	41	35	17.9	3.8	16	14	47.1	2.3	638	282	2,819	666

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Community	Does Not																				Combined			
	Unknown				Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total		Est	CI
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Tanana	3	0	-	-	48	22	0.0	0.0	25	10	0.0	0.0	11	7	0.0	0.0	12	9	197.4	55.9	99	48	2,369	1,316
Stevens Village	1	0	-	-	9	5	0.0	0.0	8	7	0.0	0.0	7	7	0.0	0.0	-	-	-	-	25	19	0	0
Birch Creek	6	1	0.0	-	7	3	0.0	0.0	5	2	0.0	0.0	-	-	-	-	-	-	-	-	18	6	0	0
Beaver	-	-	-	-	13	6	22.2	16.3	12	9	0.0	0.0	4	4	16.5	0.0	-	-	-	-	29	19	354	414
Fort Yukon	7	3	0.0	0.0	88	22	0.0	0.0	35	11	10.9	6.2	14	13	1.8	0.4	6	4	26.5	9.3	150	53	567	437
Venetie	7	2	0.0	0.0	29	9	0.0	0.0	8	3	0.0	0.0	4	4	0.0	0.0	1	1	0.0	-	49	19	0	0
District 5	26	7	0.0	0.0	217	85	1.3	1.0	96	44	4.0	2.2	42	36	2.2	0.1	19	14	133.1	35.5	400	186	3,290	1,447
Survey Totals	138	73	1.6	1.0	845	309	0.8	0.3	986	343	3.6	0.6	342	300	7.3	0.6	42	34	86.9	16.5	2,353	1,059	10,439	1,842

Note: The number of coho salmon harvested was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon harvested by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A5.—Estimated Chinook salmon subsistence use in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2007.

Community	Does Not																Combined							
	Unknown				Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total		Est	CI
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	2	2	2.5	0.0	64	13	0.9	0.6	106	28	1.5	0.4	24	20	4.5	1.3	-	-	-	-	196	63	331	127
Scammon Bay	2	1	0.0	-	22	7	2.0	1.1	40	13	11.8	2.9	10	10	19.1	0.0	-	-	-	-	74	31	709	234
Coastal District	4	3	1.3	0.0	86	20	1.2	0.5	146	41	4.3	0.9	34	30	8.8	0.9	-	-	-	-	270	94	1,040	266
Nunam Iqua	1	0	-	-	10	4	0.0	0.0	10	8	3.5	0.9	14	13	48.7	5.7	-	-	-	-	35	25	717	158
Alakanuk	10	9	5.4	0.8	31	9	0.0	0.0	62	17	5.1	1.1	22	19	29.1	2.2	-	-	-	-	125	54	1,007	165
Emmonak	2	2	4.5	0.0	54	22	2.9	1.0	60	27	6.1	2.4	39	37	14.1	0.5	1	1	7.0	-	156	89	1,089	301
Kotlik	1	0	-	-	31	10	1.7	1.2	43	12	12.4	4.1	22	20	17.8	0.9	1	1	60.0	-	98	43	1,037	357
District 1	14	11	5.3	0.6	126	45	1.6	0.5	175	64	7.2	1.4	97	89	23.3	1.0	2	2	33.5	-	414	211	3,850	520
Mountain Village	11	5	2.0	0.7	33	8	0.4	0.3	65	15	12.1	3.5	35	31	27.6	1.4	2	1	8.0	-	146	60	1,804	454
Pitkas Point	4	0	-	-	5	4	0.0	0.0	12	9	12.6	3.9	6	5	27.6	7.1	-	-	-	-	27	18	316	124
St. Mary's	14	8	7.8	2.5	23	5	14.2	5.7	58	16	20.1	3.9	31	27	30.6	1.9	1	1	150.0	-	127	57	2,702	532
Pilot Station	6	3	6.7	2.4	34	14	1.0	0.6	47	20	19.3	3.8	15	8	31.8	5.3	-	-	-	-	102	45	1,455	383
Marshall	3	3	30.7	0.0	17	5	9.0	7.6	39	10	32.2	9.2	11	11	53.4	0.0	1	1	15.0	-	71	30	2,103	745
District 2	38	19	7.7	1.1	112	36	4.7	1.7	221	70	19.3	2.3	98	82	32.1	1.2	4	3	45.3	-	473	210	8,380	1,098
Russian Mission	-	-	-	-	13	4	24.8	12.9	40	12	16.3	4.8	4	3	30.7	8.4	-	-	-	-	57	19	1,094	506
Holy Cross	6	3	2.7	1.9	13	6	0.0	0.0	24	10	33.4	7.1	17	17	87.1	0.0	-	-	-	-	60	36	2,299	335
Shageluk	12	6	6.8	2.1	7	2	1.5	1.3	12	2	13.5	5.0	9	7	13.6	2.5	1	1	0.0	-	41	18	377	136
District 3	18	9	5.4	1.5	33	12	10.1	5.1	76	24	21.2	3.5	30	27	57.5	1.3	1	1	0.0	-	158	73	3,770	622
Anvik	-	-	-	-	14	10	4.1	2.2	15	14	30.4	2.0	4	4	133.8	0.0	1	1	23.0	-	34	29	1,072	84
Grayling	1	0	-	-	3	1	0.0	-	39	10	27.8	6.4	4	3	36.0	6.8	1	0	-	-	48	14	1,228	495
Kaltag	7	6	3.7	0.9	8	3	5.0	4.0	41	6	16.2	4.3	4	4	74.0	0.0	-	-	-	-	60	19	1,025	354
Nulato	3	2	0.0	0.0	23	6	4.0	1.8	53	15	31.5	5.4	6	6	51.0	0.0	1	1	10.0	-	86	30	2,076	563
Koyukuk	4	1	0.0	-	13	9	0.0	0.0	13	8	9.5	2.5	4	3	42.0	4.9	1	1	169.0	-	35	22	461	74
Galena	5	5	13.0	0.0	69	12	2.5	1.6	66	19	18.4	4.2	6	5	26.6	3.3	2	2	41.0	0.0	148	43	1,691	589
Ruby	4	4	25.3	0.0	36	9	0.0	0.0	10	4	72.3	38.5	4	3	37.3	8.8	3	2	149.0	86.0	57	22	1,420	910
Huslia	5	4	0.0	0.0	41	14	1.7	1.0	17	7	0.9	0.4	4	3	6.3	1.7	2	2	1.5	0.0	69	30	113	86
Hughes	3	1	1.0	-	18	10	0.0	0.0	5	4	0.8	0.2	1	1	0.0	-	2	2	0.5	0.0	29	18	8	2
Allakaket	1	1	0.0	-	23	21	0.1	0.0	8	8	0.1	0.0	3	3	2.0	0.0	3	3	10.7	0.0	38	36	41	1
Alatna	1	0	-	-	6	5	0.0	0.0	2	1	0.0	-	1	0	-	-	-	-	-	-	10	6	0	0
Bettles	4	0	-	-	17	10	0.0	0.0	3	1	0.0	-	-	-	-	-	-	-	-	-	24	11	0	0
District 4	38	24	6.1	0.2	271	110	1.6	0.5	272	97	21.9	2.3	41	35	44.7	1.3	16	14	51.1	17.2	638	280	9,135	1,372

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Community	Does Not																Combined							
	Unknown				Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total		Est	CI
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Tanana	3	0	-	-	48	22	0.0	0.0	25	10	14.1	3.5	11	7	113.3	24.3	12	9	224.3	52.3	99	48	4,291	1,347
Stevens Village	1	0	-	-	9	5	10.0	4.1	8	7	28.1	4.5	7	7	39.4	0.0	-	-	-	-	25	19	591	101
Birch Creek	6	1	0.0	-	7	3	0.0	0.0	5	2	10.0	7.7	-	-	-	-	-	-	-	-	18	6	50	76
Beaver	-	-	-	-	13	6	20.0	14.2	12	9	37.3	5.7	4	4	84.8	0.0	-	-	-	-	29	19	1,047	387
Fort Yukon	7	3	81.7	61.7	88	21	3.6	2.3	35	11	23.0	12.5	14	13	51.7	5.7	6	4	78.3	28.0	150	52	2,884	1,319
Venetie	7	2	0.0	0.0	29	9	2.2	1.8	8	3	48.0	30.4	4	4	12.5	0.0	1	1	40.0	-	49	19	538	488
Chalkyitsik	2	1	0.0	-	23	18	0.0	0.0	3	2	0.0	0.0	2	1	0.0	-	-	-	-	-	30	22	0	0
District 5	26	7	26.0	19.6	217	84	3.4	1.3	96	44	23.6	5.4	42	36	62.7	6.6	19	14	168.5	34.2	400	185	9,401	1,990
Survey Totals	138	73	9.8	3.6	845	307	2.8	0.5	986	340	16.2	1.1	342	299	34.8	1.0	42	34	102.8	17.0	2,353	1,053	35,576	2,788

Note: The number of Chinook salmon used for subsistence was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon used by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A6.—Estimated summer chum salmon subsistence use in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2007.

Community	Does Not																Combined							
	Unknown				Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total		Est	CI
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	2	2	7.0	0.0	64	13	9.5	8.2	106	28	53.3	11.3	24	20	86.3	8.0	-	-	-	-	196	63	8,347	2,589
Scammon Bay	2	1	0.0	-	22	7	10.0	4.7	40	13	52.7	10.9	10	10	110.0	0.0	-	-	-	-	74	31	3,428	877
Coastal District	4	3	3.5	0.0	86	20	9.7	6.2	146	41	53.1	8.7	34	30	93.2	5.6	-	-	-	-	270	94	11,775	2,733
Nunam Iqua	1	0	-	-	10	4	0.0	0.0	10	8	7.8	2.2	14	13	124.5	7.7	-	-	-	-	35	25	1,821	215
Alakanuk	10	9	9.1	1.6	31	9	0.0	0.0	62	17	57.1	17.6	22	19	100.1	7.2	-	-	-	-	125	54	5,831	2,166
Emmonak	2	2	50.0	0.0	54	22	4.0	2.4	60	27	52.2	13.6	39	37	85.1	2.5	1	1	275.0	-	156	89	7,043	1,630
Kotlik	1	0	-	-	31	10	9.8	5.1	43	12	37.2	9.7	22	20	85.2	4.2	1	1	38.0	-	98	43	3,813	891
District 1	14	11	15.9	1.4	126	45	4.1	1.6	175	64	47.7	8.2	97	89	94.2	2.4	2	2	156.5	-	414	211	18,508	2,861
Mountain Village	11	5	31.2	10.3	33	8	0.0	0.0	65	15	30.8	7.3	35	31	98.4	4.1	2	1	199.0	-	146	60	6,186	991
Pitkas Point	4	0	-	-	5	4	0.0	0.0	12	9	15.6	4.7	6	5	47.4	10.7	-	-	-	-	27	18	471	167
St. Mary's	14	8	25.6	9.8	23	5	18.8	10.9	58	16	36.4	8.6	31	27	87.9	4.7	1	1	398.0	-	127	57	6,025	1,166
Pilot Station	6	3	10.0	7.1	34	14	4.6	2.2	47	20	10.8	2.0	15	8	88.1	10.3	-	-	-	-	102	45	2,045	390
Marshall	3	3	9.0	0.0	17	5	3.0	2.5	39	10	35.8	15.8	11	11	92.7	0.0	1	1	200.0	-	71	30	2,694	1,207
District 2	38	19	23.2	5.4	112	36	5.7	2.4	221	70	28.1	4.2	98	82	89.7	2.7	4	3	249.0	-	473	210	17,421	1,994
Russian Mission	-	-	-	-	13	4	13.3	6.4	40	12	10.9	5.0	4	3	31.7	7.7	-	-	-	-	57	19	736	432
Holy Cross	6	3	0.0	0.0	13	6	0.0	0.0	24	10	3.8	1.5	17	17	6.9	0.0	-	-	-	-	60	36	209	70
Shageluk	12	6	17.7	7.7	7	2	6.0	5.1	12	2	2.5	2.3	9	7	39.3	16.6	1	1	128.0	-	41	18	766	355
District 3	18	9	11.8	5.1	33	12	6.5	2.7	76	24	7.3	2.7	30	27	19.9	5.1	1	1	128.0	-	158	73	1,711	564
Anvik	-	-	-	-	14	10	3.5	1.9	15	14	137.6	28.0	4	4	771.5	0.0	1	1	0.0	-	34	29	5,200	826
Grayling	1	0	-	-	3	1	0.0	-	39	10	9.3	3.2	4	3	50.0	25.0	1	0	-	-	48	14	563	314
Kaltag	7	6	0.0	0.0	8	3	10.0	7.9	41	6	0.0	0.0	4	4	7.3	0.0	-	-	-	-	60	19	109	124
Nulato	3	2	0.0	0.0	23	5	0.0	0.0	53	15	1.1	0.6	6	6	44.3	0.0	1	1	0.0	-	86	29	323	58
Koyukuk	4	1	0.0	-	13	9	0.0	0.0	13	8	1.1	0.5	4	3	137.7	67.3	1	1	389.0	-	35	22	954	528
Galena	5	5	0.0	0.0	69	12	0.2	0.2	66	19	3.1	0.9	6	5	10.8	1.7	2	2	48.0	0.0	148	43	377	124
Ruby	4	4	22.5	0.0	36	9	0.0	0.0	10	4	10.0	7.7	4	3	37.0	4.8	3	2	0.0	0.0	57	22	338	156
Huslia	5	4	0.0	0.0	41	14	0.0	0.0	17	7	46.0	22.0	4	3	280.0	120.6	2	2	455.0	0.0	69	30	2,812	1,197
Hughes	3	1	20.0	-	18	10	0.0	0.0	5	4	12.5	3.2	1	1	100.0	-	2	2	365.0	0.0	29	18	953	32
Allakaket	1	1	0.0	-	23	21	1.0	0.3	8	8	6.3	0.0	3	3	53.7	0.0	3	3	811.7	0.0	38	36	2,670	13
Alatna	1	0	-	-	6	5	1.0	0.4	2	1	0.0	-	1	0	-	-	-	-	-	-	10	6	6	5
Bettles	4	0	-	-	17	10	0.0	0.0	3	1	0.0	-	-	-	-	-	-	-	-	-	24	11	0	0
District 4	38	24	4.7	0.0	271	109	0.6	0.3	272	97	13.6	2.2	41	35	143.1	14.0	16	14	304.0	0.0	638	279	14,305	1,597

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Community	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		Est		CI
																					N	n	Total	95%	
Tanana	3	0	-	-	48	22	0.0	0.0	25	10	4.7	2.2	11	7	7.7	2.6	12	9	407.8	93.0	99	48	5,096	2,191	
Stevens Village	1	0	-	-	9	5	0.0	0.0	8	7	16.3	4.5	7	7	7.6	0.0	-	-	-	-	25	19	183	71	
Birch Creek	6	1	0.0	-	7	3	0.0	0.0	5	2	0.0	0.0	-	-	-	-	-	-	-	-	18	6	0	0	
Beaver	-	-	-	-	13	6	0.0	0.0	12	9	0.3	0.2	4	4	5.5	0.0	-	-	-	-	29	19	26	4	
Fort Yukon	7	3	150.0	113.4	88	21	0.0	0.0	35	11	0.0	0.0	14	13	15.4	4.1	6	4	183.3	68.7	150	52	2,365	1,757	
Venetie	7	2	0.0	0.0	29	9	0.0	0.0	8	3	13.3	5.3	4	4	0.0	0.0	1	1	0.0	-	49	19	107	83	
Chalkyitsik	2	1	0.0	-	23	18	0.0	0.0	3	2	0.0	0.0	2	1	0.0	-	-	-	-	-	30	22	0	0	
District 5	26	7	47.7	36.1	217	84	0.0	0.0	96	44	3.7	0.8	42	36	8.9	1.5	19	14	315.4	62.6	400	185	7,777	2,810	
Survey Totals	138	73	19.7	6.7	845	306	2.8	0.8	986	340	27.3	2.2	342	299	81.5	2.1	42	34	292.4	29.0	2,353	1,052	71,497	5,514	

Note: The number of summer chum salmon used for subsistence was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon used by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A7.—Estimated fall chum salmon subsistence use in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2007.

Community	Does Not																		Combined					
	Unknown				Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total		Est	CI
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	2	2	0.0	0.0	64	13	0.0	0.0	106	28	0.0	0.0	24	20	1.4	0.5	-	-	-	-	196	63	34	24
Scammon Bay	2	1	0.0	-	22	7	0.0	0.0	40	13	3.0	1.9	10	10	5.0	0.0	-	-	-	-	74	31	170	152
Coastal District	4	3	0.0	0.0	86	20	0.0	0.0	146	41	0.8	0.5	34	30	2.5	0.4	-	-	-	-	270	94	204	153
Nunam Iqua	1	0	-	-	10	4	0.0	0.0	10	8	0.0	0.0	14	13	10.7	1.2	-	-	-	-	35	25	150	32
Alakanuk	10	9	0.8	0.2	31	9	0.0	0.0	62	17	8.8	4.0	22	19	14.3	2.5	-	-	-	-	125	54	866	496
Emmonak	2	2	0.0	0.0	54	22	2.0	1.4	60	27	6.4	1.9	39	37	18.6	1.4	1	1	22.0	-	156	89	1,236	294
Kotlik	1	0	-	-	31	10	0.3	0.2	43	12	6.8	3.9	22	20	7.3	1.5	1	1	0.0	-	98	43	459	340
District 1	14	11	0.6	0.2	126	45	0.9	0.6	175	64	7.0	1.8	97	89	13.9	0.9	2	2	11.0	-	414	211	2,711	670
Mountain Village	11	5	0.0	0.0	33	8	0.0	0.0	65	15	3.2	1.8	35	31	4.8	0.7	2	1	0.0	-	146	60	375	240
Pitkas Point	4	0	-	-	5	4	0.0	0.0	12	9	1.3	0.6	6	5	3.6	0.9	-	-	-	-	27	18	38	17
St. Mary's	14	8	0.0	0.0	23	5	0.0	0.0	58	16	3.2	1.5	31	27	17.2	3.4	1	1	25.0	-	127	57	744	266
Pilot Station	6	3	0.7	0.5	34	14	0.0	0.0	47	20	0.0	0.0	15	8	2.3	1.0	-	-	-	-	102	45	38	30
Marshall	3	3	5.7	0.0	17	5	3.0	2.5	39	10	6.5	3.2	11	11	32.0	0.0	1	1	100.0	-	71	30	774	260
District 2	38	19	0.6	0.1	112	36	0.5	0.4	221	70	3.0	0.9	98	82	11.3	1.1	4	3	31.3	-	473	210	1,969	444
Russian Mission	-	-	-	-	13	4	10.0	5.1	40	12	2.5	2.1	4	3	25.0	7.2	-	-	-	-	57	19	330	217
Holy Cross	6	3	0.0	0.0	13	6	0.0	0.0	24	10	2.0	1.5	17	17	7.5	0.0	-	-	-	-	60	36	176	72
Shageluk	12	6	7.3	4.6	7	2	0.0	0.0	12	2	0.0	0.0	9	7	6.6	3.1	1	1	0.0	-	41	18	147	122
District 3	18	9	4.9	3.1	33	12	3.9	2.0	76	24	1.9	1.2	30	27	9.6	1.3	1	1	0.0	-	158	73	653	259
Anvik	-	-	-	-	14	10	8.2	4.4	15	14	8.6	1.0	4	4	34.3	0.0	1	1	0.0	-	34	29	381	124
Grayling	1	0	-	-	3	1	0.0	-	39	10	3.0	2.6	4	3	50.0	25.0	1	0	-	-	48	14	317	278
Kaltag	7	6	0.8	0.3	8	3	2.3	1.8	41	6	5.0	4.6	4	4	32.3	0.0	-	-	-	-	60	19	359	372
Nulato	3	2	0.0	0.0	23	5	0.0	0.0	53	15	14.3	4.2	6	6	25.7	0.0	1	1	0.0	-	86	29	914	441
Koyukuk	4	1	0.0	-	13	9	3.3	1.8	13	8	10.9	4.6	4	3	52.7	2.2	1	1	290.0	-	35	22	685	127
Galena	5	5	7.6	0.0	69	12	0.8	0.8	66	19	3.2	1.6	6	5	22.0	5.8	2	2	399.0	0.0	148	43	1,234	244
Ruby	4	4	0.0	0.0	36	9	0.0	0.0	10	4	2.0	1.5	4	3	241.0	103.0	3	2	325.0	187.6	57	22	1,959	1,368
Huslia	5	4	0.0	0.0	41	14	0.0	0.0	17	7	1.4	1.1	4	3	36.7	15.9	2	2	49.5	0.0	69	30	270	130
Hughes	3	1	0.0	-	18	10	0.0	0.0	5	4	0.0	0.0	1	1	0.0	-	2	2	0.0	0.0	29	18	0	0
Allakaket	1	1	0.0	-	23	21	0.0	0.0	8	8	1.9	0.0	3	3	10.3	0.0	3	3	228.7	0.0	38	36	732	0
Alatna	1	0	-	-	6	5	1.2	0.5	2	1	0.0	-	1	0	-	-	-	-	-	-	10	6	7	6
Bettles	4	0	-	-	17	10	0.0	0.0	3	1	0.0	-	-	-	-	-	-	-	-	-	24	11	0	0
District 4	38	24	1.4	0.1	271	109	0.9	0.3	272	97	6.0	1.2	41	35	52.6	10.8	16	14	189.9	37.5	638	279	6,858	1,546

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Community	Does Not																				Combined			
	Unknown				Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total		Est	CI
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Tanana	3	0	-	-	48	22	0.0	0.0	25	10	5.2	4.0	11	7	66.0	39.8	12	9	1,668.9	247.3	99	48	20,883	5,884
Stevens Village	1	0	-	-	9	5	0.0	0.0	8	7	6.9	2.4	7	7	18.3	0.0	-	-	-	-	25	19	183	38
Birch Creek	6	1	0.0	-	7	3	0.0	0.0	5	2	0.0	0.0	-	-	-	-	-	-	-	-	18	6	0	0
Beaver	-	-	-	-	13	6	9.3	6.8	12	9	0.0	0.0	4	4	16.5	0.0	-	-	-	-	29	19	187	175
Fort Yukon	7	3	0.0	0.0	88	21	1.4	1.2	35	11	86.4	45.0	14	13	155.7	24.5	6	4	385.5	80.6	150	52	7,641	3,303
Venetie	7	2	0.0	0.0	29	9	2.2	1.8	8	3	6.7	5.3	4	4	25.8	0.0	1	1	400.0	-	49	19	621	134
Chalkyitsik	2	1	0.0	-	23	18	3.3	1.6	3	2	0.0	0.0	2	1	68.0	-	-	-	-	-	30	22	213	70
District 5	26	7	0.0	0.0	217	84	1.8	0.7	96	44	34.0	16.4	42	36	79.5	13.2	19	14	1,196.8	158.3	400	185	29,728	6,751
Survey Totals	138	73	1.3	0.5	845	306	1.1	0.2	986	340	7.1	1.7	342	299	24.3	2.1	42	34	627.7	74.6	2,353	1,052	42,123	6,979

Note: The number of fall chum salmon used for subsistence was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon used by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A8.—Estimated coho salmon subsistence use in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2007.

Community	Does Not																Combined							
	Unknown				Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total		Est	CI
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	95%
Hooper Bay	2	2	0.0	0.0	64	13	0.2	0.1	106	28	0.1	0.1	24	20	0.4	0.1	-	-	-	-	196	63	26	22
Scammon Bay	2	1	0.0	-	22	7	0.0	0.0	40	13	1.2	0.5	10	10	2.0	0.0	-	-	-	-	74	31	66	38
Coastal District	4	3	0.0	0.0	86	20	0.1	0.1	146	41	0.4	0.1	34	30	0.8	0.1	-	-	-	-	270	94	92	44
Nunam Iqua	1	0	-	-	10	4	0.0	0.0	10	8	0.0	0.0	14	13	2.8	0.3	-	-	-	-	35	25	39	9
Alakanuk	10	9	0.0	0.0	31	9	0.9	0.7	62	17	6.2	2.3	22	19	10.8	2.5	-	-	-	-	125	54	648	309
Emmonak	2	2	0.0	0.0	54	22	0.3	0.2	60	27	6.6	2.2	39	37	4.1	0.4	1	1	4.0	-	156	89	576	264
Kotlik	1	0	-	-	31	10	0.0	0.0	43	12	1.5	0.8	22	20	6.9	1.5	1	1	0.0	-	98	43	215	92
District 1	14	11	0.0	0.0	126	45	0.4	0.2	175	64	4.8	1.1	97	89	6.0	0.7	2	2	2.0	-	414	211	1,478	417
Mountain Village	11	5	0.0	0.0	33	8	0.0	0.0	65	15	1.2	0.9	35	31	9.0	2.5	2	1	0.0	-	146	60	394	204
Pitkas Point	4	0	-	-	5	4	0.0	0.0	12	9	2.4	0.8	6	5	2.0	0.8	-	-	-	-	27	18	41	21
St. Mary's	14	8	0.0	0.0	23	5	1.2	1.1	58	16	0.1	0.1	31	26	1.2	0.3	1	1	25.0	-	127	56	97	52
Pilot Station	6	3	0.3	0.2	34	14	0.0	0.0	47	20	0.4	0.3	15	8	0.9	0.6	-	-	-	-	102	45	32	30
Marshall	3	3	3.0	0.0	17	5	0.0	0.0	39	10	11.6	6.8	11	11	14.6	0.0	1	1	300.0	-	71	30	922	522
District 2	38	19	0.3	0.0	112	36	0.2	0.2	221	70	2.6	1.2	98	81	5.5	0.9	4	3	81.3	-	473	209	1,486	565
Russian Mission	-	-	-	-	13	4	3.8	2.0	40	12	1.6	0.9	4	3	36.7	15.9	-	-	-	-	57	19	259	152
Holy Cross	6	3	0.0	0.0	13	6	0.0	0.0	24	10	0.0	0.0	17	17	3.5	0.0	-	-	-	-	60	36	60	0
Shageluk	12	6	9.8	7.0	7	2	0.0	0.0	12	2	0.0	0.0	9	7	9.3	2.7	1	1	0.0	-	41	18	202	171
District 3	18	9	6.6	4.6	33	12	1.5	0.8	76	24	0.8	0.5	30	27	9.7	2.3	1	1	0.0	-	158	73	521	228
Anvik	-	-	-	-	14	10	11.7	6.3	15	14	32.5	7.3	4	4	34.3	0.0	1	1	0.0	-	34	29	788	275
Grayling	1	0	-	-	3	1	0.0	-	39	10	11.1	6.5	4	3	8.3	3.0	1	0	-	-	48	14	466	498
Kaltag	7	6	0.0	0.0	8	3	1.0	0.8	41	6	1.3	1.2	4	4	2.0	0.0	-	-	-	-	60	19	71	100
Nulato	3	2	0.0	0.0	23	5	0.0	0.0	53	15	1.5	0.9	6	6	13.2	0.0	1	1	0.0	-	86	29	160	93
Koyukuk	4	1	0.0	-	13	9	0.0	0.0	13	8	0.0	0.0	4	3	5.3	2.7	1	1	74.0	-	35	22	95	21
Galena	5	5	0.2	0.0	69	12	0.8	0.8	66	19	2.6	2.1	6	5	2.0	0.8	2	2	25.0	0.0	148	43	294	289
Ruby	4	4	2.5	0.0	36	9	0.0	0.0	10	4	1.0	0.8	4	3	16.3	8.2	3	2	20.0	11.5	57	22	145	95
Huslia	5	4	0.0	0.0	41	14	0.0	0.0	17	7	1.4	1.1	4	3	67.0	33.3	2	2	150.0	0.0	69	30	592	263
Hughes	3	1	0.0	-	18	10	0.0	0.0	5	4	0.0	0.0	1	1	0.0	-	2	2	50.0	0.0	29	18	100	0
Allakaket	1	1	0.0	-	23	21	0.0	0.0	8	8	0.4	0.0	3	3	0.0	0.0	3	3	18.3	0.0	38	36	58	0
Alatna	1	0	-	-	6	5	0.0	0.0	2	1	0.0	-	1	0	-	-	-	-	-	-	10	6	0	0
Bettles	4	0	-	-	17	10	0.0	0.0	3	1	0.0	-	-	-	-	-	-	-	-	-	24	11	0	0
District 4	38	24	0.3	0.0	271	109	0.8	0.4	272	97	4.7	1.2	41	35	15.6	3.4	16	14	42.6	2.3	638	279	2,769	710

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Community	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
Tanana	3	0	-	-	48	22	0.0	0.0	25	10	0.0	0.0	11	7	0.0	0.0	12	9	197.4	55.9	99	48	2,369	1,316
Stevens Village	1	0	-	-	9	5	0.0	0.0	8	7	0.0	0.0	7	7	0.0	0.0	-	-	-	-	25	19	0	0
Birch Creek	6	1	0.0	-	7	3	0.0	0.0	5	2	0.0	0.0	-	-	-	-	-	-	-	-	18	6	0	0
Beaver	-	-	-	-	13	6	9.3	6.8	12	9	0.0	0.0	4	4	16.5	0.0	-	-	-	-	29	19	187	175
Fort Yukon	7	3	0.0	0.0	88	21	0.0	0.0	35	11	9.1	5.0	14	13	1.8	0.4	6	4	25.3	8.8	150	52	494	362
Venetie	7	2	0.0	0.0	29	9	0.0	0.0	8	3	0.0	0.0	4	4	0.0	0.0	1	1	0.0	-	49	19	0	0
Chalkyitsik	2	1	0.0	-	23	18	0.0	0.0	3	2	0.0	0.0	2	1	0.0	-	-	-	-	-	30	22	0	0
District 5	26	7	0.0	0.0	217	84	0.6	0.4	96	44	3.3	1.8	42	36	2.2	0.1	19	14	132.7	35.4	400	185	3,050	1,376
Survey Totals	138	73	1.1	0.7	845	306	0.6	0.2	986	340	3.2	0.5	342	298	6.3	0.6	42	34	85.1	16.4	2,353	1,051	9,396	1,716

Note: The number of coho salmon used for subsistence was estimated using the total number of households (N), the number of households contacted (n), the average number of salmon used by households (Mean), standard error (SE), and includes 95% confidence interval (CI 95%). Dashes indicate indefinable values.

Appendix A9.—Estimated number of salmon given away by subsistence fishermen to other subsistence households and corresponding confidence intervals (CI 95%) for surveyed communities, Yukon Area, 2007.

Community	Total Households	Households Contacted <sup>a</sup>	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
			Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total
Hooper Bay	196	62	69	43	1,219	605	0	0	54	71	1,342
Scammon Bay	74	31	155	115	381	383	16	25	16	7	568
Coastal District	270	93	224	123	1,600	716	16	25	70	72	1,910
Nunam Iqua	35	24	48	19	342	110	0	0	0	0	390
Alakanuk	125	54	263	158	1,199	626	214	306	7	11	1,683
Emmonak	156	88	359	330	1,489	1,070	55	55	20	23	1,923
Kotlik	98	42	129	74	246	180	72	119	82	119	529
District 1	414	208	799	374	3,276	1,258	341	333	109	122	4,525
Mountain Village	146	60	132	187	209	117	0	0	0	0	341
Pitkas Point	27	18	43	12	65	27	11	10	21	14	140
St. Mary's	127	54	141	88	729	425	99	71	27	19	996
Pilot Station	102	45	109	109	79	78	0	0	0	0	188
Marshall	71	30	215	182	154	158	34	7	0	0	403
District 2	473	207	640	297	1,236	475	144	72	48	23	2,068
Russian Mission	57	19	386	326	133	219	20	33	10	16	549
Holy Cross	60	35	162	37	0	0	20	21	76	42	258
Shageluk	41	18	71	29	73	59	0	0	35	18	179
District 3	158	72	619	329	206	227	40	39	121	48	986
Anvik	34	28	48	18	356	248	45	19	0	0	449
Grayling	48	14	159	136	78	132	0	0	39	66	276
Kaltag	60	19	45	33	0	0	0	0	0	0	45
Nulato	86	30	414	404	0	0	676	455	0	0	1,090
Koyukuk	35	21	47	23	81	99	35	17	0	0	163
Galena	148	42	396	234	52	82	324	247	60	34	832
Ruby	57	21	75	42	40	0	0	0	0	0	115
Huslia	69	30	49	42	127	121	181	121	0	0	357
Hughes	29	17	16	8	230	0	0	0	0	0	246
Allakaket	38	36	52	9	281	22	16	7	0	0	349
Alatna	10	5	12	7	0	0	0	0	0	0	12
Bettles	24	11	7	6	0	0	2	2	0	0	9
District 4	638	274	1,320	492	1,245	332	1,279	532	99	74	3,943

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Community	Total Households	Households Contacted <sup>a</sup>	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
			Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total
Tanana	99	46	330	171	18	15	48	61	0	0	396
Stevens Village	25	18	21	9	69	48	14	10	0	0	104
Birch Creek	18	6	0	0	0	0	42	32	0	0	42
Beaver	29	19	28	14	0	0	74	34	0	0	102
Fort Yukon	150	50	1,141	518	0	0	354	323	210	289	1,705
Venetie	49	19	42	23	0	0	0	0	0	0	42
Chalkyitsik	30	22	19	7	0	0	13	12	0	0	32
District 5	400	180	1,581	546	87	50	545	332	210	289	2,423
Survey Totals	2,353	1,034	5,183	944	7,650	1,576	2,365	716	657	335	15,855

<sup>a</sup> The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Appendix A10.—Estimated number of salmon given away by commercial fishermen to subsistence households and corresponding confidence intervals (CI 95%) for surveyed communities, Yukon Area, 2007.

Community	Total Households	Households Contacted <sup>a</sup>	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
			Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total	CI 95%	Estimated Total
Hooper Bay	196	62	0	0	0	0	0	0	0	0	0
Scammon Bay	74	31	0	0	0	0	0	0	0	0	0
Coastal District	270	93	0	0	0	0	0	0	0	0	0
Nunam Iqua	35	24	0	0	0	0	0	0	0	0	0
Alakanuk	125	54	0	0	12	8	0	0	0	0	12
Emmonak	156	88	8	4	315	217	0	0	0	0	323
Kotlik	98	42	0	0	0	0	0	0	0	0	0
District 1	414	208	8	4	327	217	0	0	0	0	335
Mountain Village	146	60	0	0	0	0	1	1	9	6	10
Pitkas Point	27	18	0	0	76	74	0	0	0	0	76
St. Mary's	127	55	0	0	0	0	0	0	0	0	0
Pilot Station	102	45	0	0	0	0	0	0	0	0	0
Marshall	71	30	0	0	220	0	0	0	0	0	220
District 2	473	208	0	0	296	74	1	1	9	6	306
Russian Mission	57	19	0	0	0	0	0	0	0	0	0
Holy Cross	60	35	0	0	0	0	0	0	0	0	0
Shageluk	41	18	0	0	0	0	0	0	0	0	0
District 3	158	72	0	0	0	0	0	0	0	0	0
Anvik	34	28	0	0	0	0	0	0	0	0	0
Grayling	48	14	0	0	0	0	0	0	0	0	0
Kaltag	60	19	0	0	0	0	0	0	0	0	0
Nulato	86	30	0	0	0	0	0	0	0	0	0
Koyukuk	35	21	0	0	0	0	0	0	0	0	0
Galena	148	42	0	0	0	0	0	0	0	0	0
Ruby	57	21	0	0	0	0	0	0	0	0	0
Huslia	69	30	0	0	0	0	0	0	0	0	0
Hughes	29	17	0	0	0	0	0	0	0	0	0
Allakaket	38	36	0	0	0	0	0	0	0	0	0
Alatna	10	5	0	0	0	0	0	0	0	0	0
Bettles	24	11	0	0	0	0	0	0	0	0	0
District 4	638	274	0	0	0	0	0	0	0	0	0

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Community	Households		Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
			Estimated	CI	Estimated	CI	Estimated	CI	Estimated	CI	Estimated
	Total	Contacted <sup>a</sup>	Total	95%	Total	95%	Total	95%	Total	95%	Total
Tanana	99	46	0	0	0	0	0	0	0	0	0
Stevens Village	25	18	0	0	0	0	0	0	0	0	0
Birch Creek	18	6	0	0	0	0	0	0	0	0	0
Beaver	29	19	0	0	0	0	0	0	0	0	0
Fort Yukon	150	50	0	0	0	0	0	0	0	0	0
Venetie	49	19	0	0	0	0	0	0	0	0	0
Chalkyitsik	30	22	0	0	0	0	0	0	0	0	0
District 5	400	180	0	0	0	0	0	0	0	0	0
Survey Totals	2,353	1,035	8	4	623	229	1	1	9	6	641

<sup>a</sup> The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Appendix A11.—Estimated number of salmon provided to communities for subsistence use by test fish programs, Yukon Area, 2007.

Yukon River Test Fishery Sites	Village where fish were distributed	Chinook Salmon	Summer Chum Salmon	Fall Chum Salmon	Coho Salmon	Total Salmon
Lower Yukon Test Fish Drift Gillnet (LYTF) <sup>a</sup>	Emmonak	746	770	1,001	382	2,899
	Kotlik	414	8	161	54	637
	Alakanuk	55	155	57	30	297
	St. Mary's	25	0	0	0	25
LYTF Project Subtotal:		1,240	933	1,219	466	3,858
Mountain Village Test Fish Drift Gillnet	Mountain Village	1	200	567	434	1,202
Pilot Station Sonar Test Fish Drift Gillnet	Pilot Station	448	1,100	703	231	2,482
Marshall Test Fish Drift Gillnet	Marshall	262	126	0	0	388
Kaltag Test Fish Drift Gillnet	Kaltag	2	0	536	133	671
Eagle Sonar Test Fish Gillnet	Eagle	12	0	3	0	15
Other Test Fish Subtotal: <sup>b</sup>		725	1,426	1,809	798	4,758
Test Fish Totals <sup>b</sup>		1,965	2,359	3,028	1,264	8,616

<sup>a</sup> A drift test fishery operates both summer and fall seasons, however numbers include some fish from the summer season set gillnet test fishery.

<sup>b</sup> Test fish catch totals as reported in Table 1. Includes salmon from the Eagle Sonar test fishery given to the permit community of Eagle.

Appendix A12.–Salmon reported lost in surveyed communities due to disease, weather, scavengers, and unknown causes, Yukon Area, 2007.

Reasons Given For Salmon Lost	Salmon Lost										Total Reported Salmon Lost		
	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Pink Salmon				
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
<b>LOST DUE TO SICK FISH</b>													
Ichthyophonus h.	74	12.3%	191	6.6%	5	1.3%	3	1.2%	0	0.0%	273	6.6%	
Bad meat, blemishes, worms	53	8.8%	293	10.2%	107	26.8%	7	2.7%	0	0.0%	460	11.0%	
Subtotal	127	21.0%	484	16.8%	112	28.1%	10	3.9%	0	0.0%	733	17.6%	
<b>LOST DUE TO WEATHER / SPOILAGE</b>													
Rain/Bad Weather	137	22.7%	1,576	54.6%	30	7.5%	50	19.6%	0	0.0%	1,793	43.1%	
Insects	19	3.1%	15	0.5%	0	0.0%	9	3.5%	0	0.0%	43	1.0%	
Unplugged Freezer	30	5.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	30	0.7%	
Broken motor - unable to tend smokehouse	0	0.0%	99	3.4%	0	0.0%	0	0.0%	0	0.0%	99	2.4%	
Subtotal	186	30.8%	1,690	58.6%	30	7.5%	59	23.1%	0	0.0%	1,965	47.2%	
<b>LOST DUE TO ANIMALS</b>													
Bears	56	9.3%	69	2.4%	50	12.5%	50	19.6%	0	0.0%	225	5.4%	
Birds	0	0.0%	11	0.4%	20	5.0%	0	0.0%	0	0.0%	31	0.7%	
Stolen (Humans)	12	2.0%	15	0.5%	0	0.0%	0	0.0%	0	0.0%	27	0.6%	
Wolves	0	0.0%	0	0.0%	20	5.0%	0	0.0%	0	0.0%	20	0.5%	
Subtotal	68	11.3%	95	3.3%	90	22.6%	50	19.6%	0	0.0%	303	7.3%	
LOST UNKNOWN	Subtotal	223	36.9%	616	21.4%	167	41.9%	136	53.3%	20	100.0%	1,162	27.9%
<b>SALMON REPORTED LOST</b>	<b>Total</b>	<b>604</b>		<b>2,885</b>		<b>399</b>		<b>255</b>		<b>20</b>		<b>4,163</b>	
<b>USE OF LOST SALMON</b>													
Salmon Fed to Dogs <sup>a</sup>	65	1.6%	798	19.2%	10	0.2%	56	1.3%	0	0.0%	929	22.3%	
Salmon Lost to Humans and Dogs <sup>b</sup>	539	12.9%	2,087	50.1%	389	9.3%	199	4.8%	20	0.5%	3,234	77.7%	
Total Salmon Lost <sup>c</sup>	604	14.5%	2,885	69.3%	399	9.6%	255	6.1%	20	0.5%	4,163	100.0%	

<sup>a</sup> Salmon unfit for human consumption, but reported retained for dog food.

<sup>b</sup> Salmon lost and unfit for human consumptions and for dog food.

<sup>c</sup> A total of 142 surveyed households reported losing salmon.



## **APPENDIX B. HISTORICAL INFORMATION**

Appendix B1.—Chinook salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1997–2007.

Community	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	1997-2001	2002-2006
												Average	Average
Hooper Bay	613	13	173	114	2,150	282	722	1,042	157	376	430	613	516
Scammon Bay	526	378	938	449	732	840	1,128	996	691	507	768	605	832
Coastal District Total	1,139	391	1,111	563	2,882	1,122	1,850	2,038	848	883	1,198	1,217	1,348
Nunam Iqua	970	527	855	684	550	393	925	647	338	371	907	717	535
Alakanuk	2,058	1,930	1,236	1,109	973	1,773	1,707	1,317	860	690	1,257	1,461	1,269
Emmonak	3,080	2,396	3,337	2,205	2,473	1,751	2,763	2,768	1,730	2,311	2,326	2,698	2,265
Kotlik	1,442	2,389	1,420	1,893	3,093	1,686	937	1,148	2,130	1,750	1,569	2,047	1,530
District 1 Subtotal	7,550	7,242	6,848	5,891	7,089	5,603	6,332	5,880	5,058	5,122	6,059	6,924	5,599
Mountain Village	2,081	2,533	2,162	1,715	1,864	1,523	2,174	2,362	2,383	1,659	2,077	2,071	2,020
Pitkas Point	793	817	632	753	651	566	633	609	618	274	320	729	540
St. Mary's	2,592	2,679	2,150	1,810	3,815	2,045	1,916	2,357	2,693	2,233	3,573	2,609	2,249
Pilot Station	2,373	1,715	2,715	2,378	2,614	2,530	2,886	2,406	1,658	1,976	2,028	2,359	2,291
Marshall	1,511	1,711	2,780	3,279	4,498	2,290	2,059	1,990	1,804	1,897	2,555	2,756	2,008
District 2 Subtotal	9,350	9,455	10,439	9,935	13,442	8,954	9,668	9,724	9,156	8,039	10,553	10,524	9,108
Russian Mission	1,459	1,314	2,722	1,860	3,428	1,887	2,057	2,337	1,894	1,851	1,301	2,157	2,005
Holy Cross	3,472	2,648	4,581	1,249	2,711	1,813	2,395	1,993	2,817	3,165	2,902	2,932	2,437
Shageluk	1,380	552	412	805	222	439	550	418	420	358	448	674	437
District 3 Subtotal	6,311	4,514	7,715	3,914	6,361	4,139	5,002	4,748	5,131	5,374	4,651	5,763	4,879
Lower Yukon River Total	23,211	21,211	25,002	19,740	26,892	18,696	21,002	20,352	19,345	18,535	21,263	23,211	19,586
Anvik	951	1,025	776	205	608	708	1,286	1,588	1,206	958	1,321	713	1,149
Grayling	2,391	2,177	2,476	839	1,077	2,249	1,613	1,869	1,878	1,702	1,500	1,792	1,862
Kaltag	1,036	1,870	2,051	1,074	1,506	1,435	1,838	1,656	3,367	2,833	1,456	1,507	2,226
Nulato	1,576	4,147	1,799	1,083	2,127	1,773	2,531	5,199	2,749	2,707	2,431	2,146	2,992
Koyukuk	851	800	506	175	449	323	860	400	396	835	811	556	563
Galena	2,350	1,668	2,539	788	1,755	1,522	3,112	3,296	2,864	2,380	2,511	1,820	2,635
Ruby/Kokrines	2,260	3,891	777	1,577	2,033	954	631	1,620	1,193	304	1,594	2,108	940
District 4 Subtotal (Excluding Koyukuk River)	11,415	15,578	10,924	5,741	9,555	8,964	11,871	15,628	13,653	11,719	11,624	10,643	12,367
Huslia	57	23	90	424	377	222	469	285	207	258	146	194	288
Hughes	34	91	105	50	144	67	113	291	33	8	8	85	102
Allakaket	423	85	108	41	76	200	306	65	68	23	53	147	132
Alatna	38	4	10	8	0	3	12	0	0	14	0	12	6
Bettles	39	20	1	0	0	0	0	0	3	0	0	12	1
Koyukuk River Subtotal	591	223	314	523	597	492	900	641	311	303	207	450	529
District 4 Total	12,006	15,801	11,238	6,264	10,152	9,456	12,771	16,269	13,964	12,022	11,831	11,092	12,896

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Community	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	1997-2001 Average	2002-2006 Average
Tanana	3,596	5,212	3,388	2,895	4,112	2,379	5,332	2,689	3,729	3,794	5,498	3,841	3,585
Rampart <sup>a</sup>	2,203	885	2,018	847	1,857	852	1,411	287	411	429	250	1,562	678
Fairbanks <sup>b</sup>	955	1,231	851	1,342	1,125	1,767	1,932	1,997	2,584	2,184	2,510	1,101	2,093
Stevens Village	2,070	1,232	1,214	466	1,111	1,334	1,121	2,394	1,570	1,245	610	1,219	1,533
Birch Creek	373	48	24	72	0	67	78	82	131	174	113	103	106
Beaver	1,859	470	473	196	1,368	702	1,156	858	957	830	1,244	873	901
Fort Yukon	3,145	1,771	2,539	988	2,361	2,348	4,004	4,430	3,591	3,144	4,076	2,161	3,503
Circle	1,091	685	524	627	447	1,533	895	565	1,283	694	1,057	675	994
Central	146	170	91	26	84	58	144	83	175	130	334	103	118
Eagle	1,534	2,473	2,558	1,087	1,033	1,910	2,081	1,512	2,566	2,303	1,999	1,737	2,074
Other <sup>c</sup>	763	446	488	205	40	348	862	357	315	330	472	388	442
District 5 Subtotal (Excluding Chandalar and Black Rivers)	17,735	14,623	14,168	8,751	13,538	13,298	19,016	15,254	17,312	15,257	18,163	13,763	16,027
Venetie	314	168	127	103	28	77	125	352	59	667	1,002	148	256
Chalkyitsik	0	11	35	0	0	26	50	60	53	0	0	9	38
Chandalar/Black River Subtotal	314	179	162	103	28	103	175	412	112	667	1,002	157	294
District 5 Total	18,049	14,802	14,330	8,854	13,566	13,401	19,191	15,666	17,424	15,924	19,165	13,920	16,321
Manley	242	209	136	58	534	336	213	239	289	361	333	236	288
Minto	1,208	275	317	0	197	19	317	35	35	31	82	399	87
Nenana	1,082	1,187	975	541	1,405	509	1,193	633	533	712	893	1,038	716
Fairbanks <sup>d</sup>	176	230	195	360	191	159	392	449	971	125	409	230	419
Other <sup>e</sup>	4	18	1	24	0	44	30	32	0	0	0	9	21
District 6 Tanana R. Total	2,712	1,919	1,624	983	2,327	1,067	2,145	1,388	1,828	1,229	1,717	1,913	1,531
Upper Yukon River Total	32,767	32,522	27,192	16,101	26,045	23,924	34,107	33,323	33,216	29,175	32,713	26,925	30,749
Alaska, Yukon River Total <sup>f</sup>	55,978	53,733	52,194	35,841	52,937	42,620	55,109	53,675	52,561	47,710	53,976	50,137	50,335
Alaska, Yukon Area Total	57,117	54,124	53,305	36,404	55,819	43,742	56,959	55,713	53,409	48,593	55,174	51,354	51,683

<sup>a</sup> Harvest estimated by subsistence surveys prior to 2004. The BOF established a permit area in 2004; after 2003 harvests are reported from returned permits.

<sup>b</sup> Harvests of subsistence permit holders from the Fairbanks North Star Borough who fished in District 5 near the Yukon River bridge crossing.

<sup>c</sup> Other permit holders who fished in District 5 but did not reside in the communities listed.

<sup>d</sup> Harvest of subsistence permit holders from the Fairbanks North Star Borough who fished in the Tanana River. Does not include harvest by personal use permit holders.

<sup>e</sup> Other permit holders who fished in District 6 but did not reside in the communities listed.

<sup>f</sup> Does not include the Coastal District.

Appendix B2.–Summer chum salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1997–2007.

Community	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	1997-2001	2002-2006
												Average	Average
Hooper Bay	12,310	261	10,146	9,301	12,593	9,780	10,658	3,242	9,771	19,468	12,234	8,922	10,584
Scammon Bay	3,401	1,101	3,315	3,876	1,323	5,016	3,310	5,020	4,586	4,703	3,887	2,603	4,527
Coastal District Total	15,711	1,362	13,461	13,177	13,916	14,796	13,968	8,262	14,357	24,171	16,121	11,525	15,111
Nunam Iqua	2,603	1,872	1,343	3,309	1,942	1,897	2,561	2,698	2,794	2,903	2,325	2,214	2,571
Alakanuk	7,443	5,643	3,808	6,259	5,992	7,637	5,287	6,555	5,687	7,790	7,611	5,829	6,591
Emmonak	12,399	9,558	10,310	8,338	8,242	8,458	7,644	8,618	12,594	11,899	9,256	9,769	9,843
Kotlik	4,803	9,815	4,708	6,173	6,595	6,115	4,209	2,749	6,620	5,289	5,017	6,419	4,996
District 1 Subtotal	27,248	26,888	20,169	24,079	22,771	24,107	19,701	20,620	27,695	27,881	24,209	24,231	24,001
Mountain Village	11,310	9,596	10,059	7,074	8,484	6,657	6,497	10,676	8,861	13,119	8,104	9,305	9,162
Pitkas Point	747	1,302	849	1,728	862	639	800	717	1,023	680	515	1,098	772
St. Mary's	8,874	9,047	6,752	8,094	10,026	7,284	4,521	6,994	6,877	7,394	8,107	8,559	6,614
Pilot Station	4,532	5,042	5,265	5,223	5,329	6,490	4,163	5,779	4,333	6,070	3,711	5,078	5,367
Marshall	1,508	1,293	1,212	3,212	1,602	2,484	792	1,765	3,183	4,392	3,070	1,765	2,523
District 2 Subtotal	26,971	26,280	24,137	25,331	26,303	23,554	16,773	25,931	24,277	31,655	23,507	25,804	24,438
Russian Mission	585	702	616	1,318	165	395	171	884	925	1,328	759	677	741
Holy Cross	487	269	264	569	460	155	214	276	760	825	320	410	446
Shageluk	9,244	5,501	4,868	1,800	684	1,956	5,473	1,798	4,081	1,381	977	4,419	2,938
District 3 Subtotal	10,316	6,472	5,748	3,687	1,309	2,506	5,858	2,958	5,766	3,534	2,056	5,506	4,124
Lower Yukon River Total	64,535	59,640	50,054	53,097	50,383	50,167	42,332	49,509	57,738	63,070	49,772	55,542	52,563
Anvik	6,306	2,139	848	425	94	1,089	844	248	529	387	5,250	1,962	619
Grayling	2,446	4,032	4,126	474	92	1,311	1,072	1,129	783	644	641	2,234	988
Kaltag	73	175	625	169	10	234	1,028	213	680	159	109	210	463
Nulato	115	3,518	1,945	377	208	269	180	198	634	838	356	1,233	424
Koyukuk	739	1,819	197	204	118	426	1,339	329	537	394	995	615	605
Galena	4,575	2,333	1,688	820	53	712	289	782	1,013	1,205	571	1,894	800
Ruby/Kokrines	3,286	2,251	1,697	1,233	1,025	1,406	876	2,010	967	1,714	416	1,898	1,395
District 4 Subtotal (Excluding Koyukuk River)	17,540	16,267	11,126	3,702	1,600	5,447	5,628	4,909	5,143	5,341	8,338	10,047	5,294
Huslia	840	449	1,192	745	833	3,178	6,187	3,844	2,433	1,122	3,243	812	3,353
Hughes	1,579	334	577	1,079	551	1,089	1,265	3,823	2,230	3,254	1,213	824	2,332
Allakaket	3,916	901	2,245	1,520	1,604	6,242	4,383	2,367	2,535	5,170	3,451	2,037	4,139
Alatna	145	13	99	0	0	15	50	16	5	110	11	51	39
Bettles	210	82	100	0	0	0	0	0	4	0	0	78	1
Koyukuk River Subtotal	6,690	1,779	4,213	3,344	2,988	10,524	11,885	10,050	7,207	9,656	7,918	3,803	9,864
District 4 Total	24,230	18,046	15,339	7,046	4,588	15,971	17,513	14,959	12,350	14,997	16,256	13,850	15,158

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Community	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997-2001		2002-2006	
											2007	Average	Average	Average
Tanana	2,526	1,966	1,214	2,848	1,407	3,321	3,075	1,490	4,832	5,474	5,229	1,992	3,638	
Rampart <sup>a</sup>	738	19	60	47	0	14	9	103	315	135	25	173	115	
Fairbanks <sup>b</sup>	424	57	346	275	165	295	89	280	780	1,341	564	253	557	
Stevens Village	191	171	26	50	0	12	0	108	442	972	254	88	307	
Beaver	2	15	91	7	328	77	7	2	68	117	41	89	54	
Fort Yukon <sup>c</sup>	134	30	0	0	289	1,832	2,176	1,187	67	2,165	2,365	91	1,485	
Circle	257	1	60	109	6	5	85	52	3	58	200	87	41	
Central	25	1	0	1	0	0	0	0	5	2	0	5	1	
Eagle	17	52	271	121	555	24	104	171	235	974	15	203	302	
Other <sup>d</sup>	130	2	42	51	0	17	0	3	53	117	81	45	38	
District 5 Subtotal (Excluding Chandalar and Black Rivers)	4,444	2,314	2,110	3,509	2,750	5,597	5,545	3,396	6,800	11,355	8,774	3,025	6,539	
Venetie	76	0	166	0	106	13	0	15	0	475	107	70	101	
Chalkyitsik	0	0	0	132	0	0	0	0	0	0	0	26	0	
Chandalar/Black River Subtotal	76	0	166	132	106	13	0	15	0	475	107	96	101	
District 5 Total	4,520	2,314	2,276	3,641	2,856	5,610	5,545	3,411	6,800	11,830	8,881	3,121	6,639	
Manley	576	211	272	240	338	93	65	296	163	89	140	327	141	
Minto	1,056	148	173	3	19	10	625	7	21	460	82	280	225	
Nenana	1,899	5,041	1,894	775	19	360	2,193	1,171	1,771	388	1,419	1,926	1,177	
Fairbanks <sup>e</sup>	271	604	315	90	36	47	31	308	45	73	255	263	101	
Other <sup>f</sup>	22	0	0	3	0	2	0	11	14	0	0	5	5	
District 6 Tanana R. Total	3,824	6,004	2,654	1,111	412	512	2,914	1,793	2,014	1,010	1,896	2,801	1,649	
Upper Yukon River Total	32,574	26,364	20,269	11,798	7,856	22,093	25,972	20,163	21,164	27,837	27,033	19,772	23,446	
Alaska, Yukon River Total <sup>g</sup>	97,109	86,004	70,323	64,895	58,239	72,260	68,304	69,672	78,902	90,907	76,805	75,314	76,009	
Alaska, Yukon Area Total	112,820	87,366	83,784	78,072	72,155	87,056	82,272	77,934	93,259	115,078	92,926	86,839	91,120	

<sup>a</sup> Harvest estimated by subsistence surveys prior to 2004. The BOF established a permit area in 2004; after 2003 harvests are reported from returned permits.

<sup>b</sup> Harvests of subsistence permit holders from the Fairbanks North Star Borough who fished in District 5 near the Yukon River bridge crossing.

<sup>c</sup> Includes the harvest of one summer chum salmon from Birch Creek in 1997.

<sup>d</sup> Other permit holders who fished in District 5 but did not reside in the communities listed.

<sup>e</sup> Harvest of subsistence permit holders from the Fairbanks North Star Borough who fished in the Tanana River. Does not include harvest by personal use permit holders.

<sup>f</sup> Other permit holders who fished in District 6 but did not reside in the communities listed.

<sup>g</sup> Does not include the Coastal District.

Appendix B3.–Fall chum salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1997–2007.

Community	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	1997-2001 Average	2002-06 Average
Hooper Bay	0	0	0	78	364	44	40	264	1	146	64	88	99
Scammon Bay	0	34	204	11	195	240	106	56	69	41	170	89	102
Coastal District Total	0	34	204	89	559	284	146	320	70	187	234	177	201
Nunam Iqua	337	266	115	105	176	284	127	49	310	735	152	200	301
Alakanuk	900	665	558	505	1,032	222	348	953	627	624	1,348	732	555
Emmonak	1,039	867	1,849	1,165	1,272	1,261	1,257	785	1,436	2,056	2,360	1,238	1,359
Kotlik	856	1,365	3,980	3,519	957	114	407	280	516	487	530	2,135	361
District 1 Subtotal	3,132	3,163	6,502	5,294	3,437	1,881	2,139	2,067	2,889	3,902	4,390	4,306	2,576
Mountain Village	2,698	2,031	1,968	313	470	478	873	918	1,290	2,398	1,073	1,496	1,191
Pitkas Point	178	233	53	5	34	16	49	0	6	5	44	101	15
St. Mary's	310	416	722	255	227	103	762	104	490	417	825	386	375
Pilot Station	1,106	1,162	1,155	852	1,522	680	823	1,108	838	785	741	1,159	847
Marshall	388	640	696	0	1,003	341	394	291	633	410	789	545	414
District 2 Subtotal	4,680	4,482	4,594	1,425	3,256	1,618	2,901	2,421	3,257	4,015	3,472	3,687	2,842
Russian Mission	0	137	100	37	76	164	615	172	667	251	530	70	374
Holy Cross	420	1,095	239	523	624	0	9	76	582	224	248	580	178
Shageluk	367	329	76	38	0	0	114	50	55	5	147	162	45
District 3 Subtotal	787	1,561	415	598	700	164	738	298	1,304	480	925	812	597
Lower Yukon River Total	8,599	9,206	11,511	7,317	7,393	3,663	5,778	4,786	7,450	8,397	8,787	8,805	6,015
Anvik	514	388	126	175	29	401	179	398	497	118	429	246	319
Grayling	1,531	648	1,370	284	314	52	441	267	1,009	691	317	829	492
Kaltag	1,142	499	764	190	607	314	725	687	1,089	823	910	640	728
Nulato	697	367	2,338	0	151	0	1,341	1,246	421	751	1,345	711	752
Koyukuk	1,954	1,583	1,544	239	517	255	835	344	803	1,147	927	1,167	677
Galena	3,370	1,915	1,932	564	420	349	1,510	1,587	2,695	1,632	1,471	1,640	1,555
Ruby/Kokrines	2,195	2,427	907	64	581	78	2,331	1,064	559	227	1,959	1,235	852
Dist. 4 Subtotal (Excluding Koyukuk R.)	11,403	7,827	8,981	1,516	2,619	1,449	7,362	5,593	7,073	5,389	7,358	6,469	5,373
Huslia	10	0	89	35	683	0	1,786	1,139	1,614	313	272	163	970
Hughes	51	60	84	157	0	0	497	97	111	240	0	70	189
Allakaket	270	11	20	36	50	100	105	968	557	393	939	77	425
Alatna	0	0	0	15	0	0	0	0	0	0	7	3	0
Bettles	0	0	0	0	0	0	0	0	50	0	0	0	10
Koyukuk River Subtotal	331	71	193	243	733	100	2,388	2,204	2,332	946	1,218	314	1,594
District 4 Total	11,734	7,898	9,174	1,759	3,352	1,549	9,750	7,797	9,405	6,335	8,576	6,783	6,967

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Community	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997-2001		2002-2006	
											2007	Average	Average	Average
Tanana	25,058	24,956	22,305	9,384	9,779	6,255	14,308	23,118	20,545	23,167	21,596	18,296	17,479	
Rampart <sup>a</sup>	646	100	4,324	0	183	0	365	0	358	250	250	1,051	195	
Fairbanks <sup>b</sup>	491	96	681	8	0	0	105	43	1,682	5,269	2,126	255	1,420	
Stevens Village	1,585	1,076	20	10	20	0	857	1,080	246	50	199	542	447	
Beaver	243	409	16	0	21	1	192	48	179	0	354	138	84	
Ft. Yukon	6,119	3,035	9,702	355	2,209	3,523	7,963	7,302	8,088	5,178	8,264	4,284	6,411	
Circle	3,707	37	2,722	0	2,588	74	499	1,022	918	664	1,286	1,811	635	
Central	0	0	0	0	0	0	0	0	36	0	0	0	7	
Eagle	14,488	543	11,292	32	2,714	339	2,871	5,482	17,356	16,801	18,676	5,814	8,570	
Other <sup>c</sup>	421	50	65	1	0	100	0	13	117	44	46	107	55	
District 5 Subtotal (Excluding Chandalar and Black Rivers)	52,758	30,302	51,127	9,790	17,514	10,292	27,160	38,108	49,525	51,423	52,797	32,298	35,302	
Venetie	1,564	658	2,011	130	3,286	680	770	2,083	1,801	520	721	1,530	1,171	
Chalkyitsik	936	433	442	0	73	4	340	479	337	215	213	377	275	
Chandalar/Black River Subtotal	2,500	1,091	2,453	130	3,359	684	1,110	2,562	2,138	735	934	1,907	1,446	
District 5 Total	55,258	31,393	53,580	9,920	20,873	10,976	28,270	40,670	51,663	52,158	53,731	34,205	36,747	
Manley	5,887	4,411	5,172	0	1,230	947	1,303	1,504	2,985	3,374	3,419	3,340	2,023	
Minto	2,361	505	781	2	251	100	675	0	600	242	155	780	323	
Nenana	3,799	6,781	5,619	8	999	1,070	7,802	5,367	10,594	10,530	21,863	3,441	7,073	
Fairbanks <sup>d</sup>	4,031	960	1,630	0	191	229	1,949	1,024	6,691	1,311	3,325	1,362	2,241	
Other <sup>e</sup>	3,472	1,713	2,269	300	855	856	1,257	1,058	2,076	1,468	1,131	1,722	1,343	
District 6 Tanana R. Total	19,550	14,370	15,471	310	3,526	3,202	12,986	8,953	22,946	16,925	29,893	10,645	13,002	
Upper Yukon River Total	86,542	53,661	78,225	11,989	27,751	15,727	51,006	57,420	84,014	75,418	92,200	51,634	56,717	
Alaska, Yukon River Total <sup>f</sup>	95,141	62,867	89,736	19,306	35,144	19,390	56,784	62,206	91,464	83,815	100,987	60,439	62,732	
Alaska, Yukon Area Total	95,141	62,901	89,940	19,395	35,703	19,674	56,930	62,526	91,534	84,002	101,221	60,616	62,933	

<sup>a</sup> Harvest estimated by subsistence surveys prior to 2004. The BOF established a permit area in 2004; after 2003 harvests are reported from returned permits.

<sup>b</sup> Harvests of subsistence permit holders from the Fairbanks North Star Borough who fished in District 5 near the Yukon River bridge crossing.

<sup>c</sup> Other permit holders who fished in District 5 but did not reside in the communities listed.

<sup>d</sup> Harvest of subsistence permit holders from the Fairbanks North Star Borough who fished in the Tanana River. Does not include harvest by personal use permit holders.

<sup>e</sup> Other permit holders who fished in District 6 but did not reside in the communities listed.

<sup>f</sup> Does not include the Coastal District.

Appendix B4.–Coho salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1997–2007.

Community	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	1997-2001 Average	2002-2006 Average
Hooper Bay	0	145	68	218	439	125	244	9	0	175	26	174	111
Scammon Bay	0	204	0	4	63	123	48	54	279	160	84	54	133
Coastal District Total	0	349	68	222	502	248	292	63	279	335	110	228	243
Nunam Iqua	51	229	51	5	32	56	117	79	241	392	92	74	177
Alakanuk	882	292	108	84	414	183	193	207	322	101	857	356	201
Emmonak	356	696	525	191	342	514	547	296	191	450	1,032	422	400
Kotlik	534	954	1,046	787	486	542	403	593	222	234	284	761	399
District 1 Subtotal	1,823	2,171	1,730	1,067	1,274	1,295	1,260	1,175	976	1,177	2,265	1,613	1,177
Mountain Village	1,089	954	665	376	423	361	745	521	246	1,856	1,027	701	746
Pitkas Point	427	305	302	139	112	47	130	0	30	16	38	257	45
St. Mary's	329	290	536	117	610	209	276	258	252	171	97	376	233
Pilot Station	323	413	249	1,708	222	230	371	296	241	225	263	583	273
Marshall	256	335	1,041	11	73	386	64	425	341	191	922	343	281
District 2 Subtotal	2,424	2,297	2,793	2,351	1,440	1,233	1,586	1,500	1,110	2,459	2,347	2,261	1,578
Russian Mission	10	233	542	24	0	115	178	151	133	19	259	162	119
Holy Cross	20	100	62	70	0	0	498	27	84	16	213	50	125
Shageluk	736	67	6	0	0	0	35	106	0	48	267	162	38
District 3 Subtotal	766	400	610	94	0	115	711	284	217	83	739	374	282
Lower Yukon River Total	5,013	4,868	5,133	3,512	2,714	2,643	3,557	2,959	2,303	3,719	5,351	4,248	3,036
Anvik	24	20	282	0	13	0	12	288	406	0	807	68	141
Grayling	1,055	133	201	372	144	30	559	233	234	224	271	381	256
Kaltag	60	71	333	110	533	212	463	138	307	106	204	221	245
Nulato	444	34	170	60	258	78	928	203	60	214	130	193	297
Koyukuk	345	421	295	138	80	249	1,155	166	37	330	189	256	387
Galena	1,002	322	123	71	142	169	1,507	1,307	607	137	425	332	745
Ruby/Kokrines	474	1,459	620	173	871	69	648	1,540	361	11	168	719	526
District 4 Subtotal (Excluding Koyukuk River)	3,404	2,460	2,024	924	2,041	807	5,272	3,875	2,012	1,022	2,194	2,171	2,598
Huslia	50	128	15	132	83	60	375	764	734	105	592	82	408
Hughes	250	5	10	12	117	100	20	110	20	150	100	79	80
Allakaket	50	0	0	0	25	56	99	17	205	25	66	15	80
Alatna	0	0	0	0	0	0	7	0	0	0	0	0	1
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0
Koyukuk River Subtotal	350	133	25	144	225	216	501	891	959	280	758	175	569
District 4 Total	3,754	2,593	2,049	1,068	2,266	1,023	5,773	4,766	2,971	1,302	2,952	2,346	3,167

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Community	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	1997-2001 Average	2002-2006 Average
Tanana	3,045	2,572	3,989	4,826	6,675	2,032	3,480	1,049	1,616	3,619	2,369	4,221	2,359
Rampart <sup>a</sup>	34	20	126	0	0	0	0	0	10	0	50	36	2
Fairbanks <sup>b</sup>	26	11	0	2	11	0	120	91	10	79	26	10	60
Stevens Village	1	63	0	0	2	0	0	100	0	0	0	13	20
Beaver	0	0	0	0	0	17	0	0	0	0	354	0	3
Fort Yukon <sup>c</sup>	251	39	124	129	972	14	0	19	394	35	567	303	92
Circle	210	0	0	0	0	0	244	100	100	22	0	42	93
Central	0	0	0	0	0	0	0	0	1	0	0	0	0
Eagle	2	132	0	0	0	1	0	14	15	0	0	27	6
Other <sup>d</sup>	0	2	2	30	0	0	25	0	13	0	0	7	8
District 5 Subtotal (Excluding Chandalar and Black Rivers)	3,569	2,839	4,241	4,987	7,660	2,064	3,869	1,373	2,159	3,755	3,366	4,659	2,644
Venetie	7	0	0	0	10	12	11	5	0	24	0	3	10
Chalkyitsik	7	0	0	0	4	0	7	45	0	0	0	2	10
Chandalar/Black River Subtotal	14	0	0	0	14	12	18	50	0	24	0	6	21
District 5 Total	3,583	2,839	4,241	4,987	7,674	2,076	3,887	1,423	2,159	3,779	3,366	4,665	2,665
Manley	3,236	2,362	3,244	2,180	2,637	1,617	886	1,384	2,510	1,671	1,126	2,732	1,614
Minto	364	31	0	3	0	250	423	5	0	14	155	80	138
Nenana	5,147	3,519	4,023	1,767	4,443	3,574	5,431	6,494	12,395	7,032	4,487	3,780	6,985
Fairbanks <sup>e</sup>	1,230	786	868	0	68	1,024	1,049	1,435	3,032	745	609	590	1,457
Other <sup>f</sup>	1,618	774	1,259	1,200	1,818	3,034	2,574	2,266	1,601	1,109	1,468	1,334	2,117
District 6 Tanana River Total	11,595	7,472	9,394	5,150	8,966	9,499	10,363	11,584	19,538	10,571	7,845	8,515	12,311
Upper Yukon Area Total	18,932	12,904	15,684	11,205	18,906	12,598	20,023	17,773	24,668	15,652	14,163	15,526	18,143
Alaska, Yukon River Total <sup>g</sup>	23,945	17,772	20,817	14,717	21,620	15,241	23,580	20,732	26,971	19,371	19,514	19,774	21,179
Alaska, Yukon Area Total	23,945	18,121	20,885	14,939	22,122	15,489	23,872	20,795	27,250	19,706	19,624	20,002	21,422

<sup>a</sup> Harvest estimated by subsistence surveys prior to 2004. The BOF established a permit area in 2004; after 2003 harvests are reported from returned permits.

<sup>b</sup> Harvests of subsistence permit holders from the Fairbanks North Star Borough who fished in District 5 near the Yukon River bridge crossing.

<sup>c</sup> Includes Birch Creek harvest of 3 coho salmon in 1997.

<sup>d</sup> Other permit holders who fished in District 5 but did not reside in the communities listed.

<sup>e</sup> Harvest of subsistence permit holders from the Fairbanks North Star Borough who fished in the Tanana River. Does not include harvest by personal use permit holders.

<sup>f</sup> Other permits holders who fished in District 6 but did not reside in the communities listed.

<sup>g</sup> Does not include the Coastal District.

Appendix B5.—Personal use salmon harvests taken under authority of a permit, Tanana River drainage, 1987–2007.

Subdistrict 6-C Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	132 <sup>a</sup>	-	60 <sup>b</sup>			3,316	2,465
1988	208	162	120	317	1,182	2,074	1,125
1989	175	160	112	397	991	1,770	731
1990	152	144	102	442	918	1,353	1,120
1991 <sup>c</sup>	-	-	-	-	-	-	-
1992 <sup>c</sup>	-	-	-	-	-	-	-
1993	133	131	79	426	674	163	0
1994 <sup>c</sup>	-	-	-	-	-	-	-
1995	139	138	91	399	780	863	417
1996	129	125	73	215	905	356	198
1997	112	109	61	313	391	284	350
1998	103	101	52	357	84	2	9
1999 <sup>d</sup>	103	103	67	331	382	261	147
2000	70	69	16	75	30	1	0
2001	54	51	24	122	146	10	34
2002	57	55	29	126	175	3	20
2003	67	67	32	204	148	394	549
2004	68	66	35	201	231	230	233
2005	63	59	27	138	152	133	107
2006	60	60	35	89	262	333	279
2007	65	63	32	136	184	173	135
Five Year Average							
2002-2006	63	61	32	152	194	219	238
Ten Year Average							
1997-2006	76	74	38	196	200	165	173
Subdistrict 6-A Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	no permits issued						
1988	1	1	0	0	0	0	0
1989	1	1	1	0	4	0	0
1990	1	1	0	0	0	0	0
1991	no permits issued						
1992	no permits issued						
1993	no permits issued						
1994	no permits issued						
1995	no permits issued						
1996	no permits issued						
1997 <sup>e</sup>	no permits issued						
1988-1990							
Average	1	1	0	0	1	0	0

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Subdistrict 6-B Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	no permits issued						
1988	1	1	1	306	60	40	22
1989	1	1	1	56	220	0	0
1990	4	4	3	9	12	40	35
1991	no permits issued						
1992	no permits issued						
1993	no permits issued						
1994	no permits issued						
1995	no permits issued						
1996	no permits issued						
1997 <sup>e</sup>	no permits issued						
1988-1990							
Average	2	2	2	124	97	27	19

Upper Tanana River Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	no permits issued						
1988	no permits issued						
1989	no permits issued						
1990	no permits issued						
1991 <sup>f</sup>	no permits issued						

Note: Dashes indicate information was not collected.

<sup>a</sup> Includes 60 former subsistence fishermen who were reissued personal use permits to fish for fall chum and coho salmon.

<sup>b</sup> Some fishing households used both subsistence and personal use permits.

<sup>c</sup> From July 1, 1990 through 1992, and in 1994, the regulations did not provide for a personal use fishery in this area.

<sup>d</sup> Does not include 4 whitefish and longnose sucker fishery permit holders, 2 of which fished, that reported a total harvest of one fall chum and 6 coho salmon in 1999.

<sup>e</sup> After 1997 the regulations did not provide for a personal use fishery in this areas.

<sup>f</sup> After July 1, 1991 the regulations did not provide for a personal use salmon fishery in this area.

Appendix B6.—Subsistence salmon harvests taken under authority of a permit in portions of District 5, Yukon Area, 1974–2007.

Yukon River "Bridge" Area Subsistence Salmon Fishery <sup>a</sup>							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum <sup>b</sup>	Fall Chum <sup>b</sup>	Coho
1974	29	-	-	591	-	1,857	1,271
1975	19	-	-	727	-	778	70
1976	28	-	18	531	-	974	-
1977	38	-	-	467	-	2,567	-
1978	57	-	-	1,333	-	9,735	-
1979	55	-	41	2,194	-	12,374	-
1980	70	-	67	1,350	-	6,488	36
1981	57	-	24	1,095	-	12,034	-
1982	64	-	44	1,935	-	11,328	20
1983	68	-	46	2,672	-	15,059	-
1984	67	-	54	4,676	-	27,869	399
1985	55	-	42	2,618	-	21,832	33
1986	76	-	58	3,827	-	18,690	759
1987	16	-	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	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
1995	59	59	39	3,253	954	2,244	59
1996	47	45	31	1,157	3,475	2,727	42
1997	44	42	28	1,588	683	491	26
1998	48	47	31	1,685	103	156	15
1999	66	64	47	1,653	356	701	2
2000	56	52	33	1,607	324	8	32
2001	65	62	38	1,819	176	0	13
2002	60	58	45	2,285	320	100	0
2003	86	80	62	2,670	89	104	145
2004	69	67	51	2,032	164	43	91
2005	76	72	57	1,847	643	17	9
2006	68	66	53	1,952	1,063	4,855	79
2007	85	80	51	1,707	177	626	26
Five Year Average							
2002-2006	72	69	54	2,157	456	1,024	65
Ten Year Average							
1997-2006	64	61	45	1,914	392	648	41
Yukon River "Rampart Village" Area Subsistence Salmon Fishery <sup>c</sup>							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
2004	14	11	9	832	249	0	0
2005	22	19	17	1,721	663	2,023	10
2006	19	19	16	1,083	647	318	0
2007	23	19	15	1,744	495	2,050	50
Three Year Average							
2004-2006	18	16	14	1,212	520	780	3

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Year	Upper Yukon River "Circle-Eagle" Area Subsistence Salmon Fishery <sup>d</sup>						
	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum <sup>b</sup>	Fall Chum <sup>b</sup>	Coho
1979	75	-	6	4,063	-	30,475	114
1980	48	-	39	3,649	-	18,477	6
1981	71	-	51	4,510	-	38,333	-
1982	60	-	61	3,833	-	15,432	-
1983	53	-	52	2,831	-	23,708	-
1984	58	-	54	2,543	-	21,675	17
1985	59	-	36	2,419	-	19,059	2
1986	40	-	52	4,148	-	20,701	43
1987	51	51	58 <sup>e</sup>	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	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
1995	87	87	53	3,628	129	19,047	1
1996	86	84	51	3,458	528	20,861	1
1997	98	93	60	3,148	393	18,616	212
1998	101	95	54	3,562	55	630	132
1999	119	116	71	3,404	364	14,079	0
2000	121	118	47	1,806	233	33	0
2001	98	93	33	1,688	561	5,322	0
2002	94	87	42	3,877	29	418	1
2003	95	85	58	3,406	189	3,374	0
2004	89	83	50	2,304	223	6,517	114
2005	89	81	55	4,004	241	18,427	130
2006	85	82	59	3,302	1,034	17,866	22
2007	78	71	51	3,548	218	20,005	0
Five Year Average							
2002-2006	90	84	53	3,379	343	9,320	53
Ten Year Average							
1997-2006	99	93	53	3,050	332	8,528	61

Note: Prior to 1988, reported harvest was expanded for unreturned permits. Beginning in 1988, reported harvest was not expanded. Dashes indicate information was not collected.

<sup>a</sup> That portion of the Yukon River drainage from Hess Creek to Dall River.

<sup>b</sup> Summer chum and fall chum salmon were undifferentiated prior to 1986.

<sup>c</sup> That portion of the Yukon River drainage from Garnet Island to Hess Creek. Permits were not required in this area until 2004.

<sup>d</sup> That portion of the Yukon River drainage from the upstream mouth of Twenty-Two Mile Slough (downstream of Circle) to the United States/Canada border.

<sup>e</sup> Harvest was reported from some fishermen who did not have permits.

Appendix B7.—Subsistence salmon harvests taken under authority of a permit, Tanana River drainage, 1973–2007.

Subdistrict 6-A Subsistence Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1988 <sup>a</sup>	28	24	18	845	1,389	9,165	3,455
1989 <sup>a, b</sup>	29	28	24 <sup>c</sup>	651	1,918	25,266	5,292
1990 <sup>b</sup>	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 <sup>b</sup>	42	41	22	331	784	2,617	1,317
1994 <sup>d</sup>	37	37	30	576	3,793	18,076	12,449
1995	41	38	29	456	4,898	23,522	11,344
1996	31	29	23	209	1,338	18,931	5,959
1997	33	32	21	887	542	10,621	3,703
1998	31	31	19	512	519	4,726	1,526
1999	24	24	14	137	525	5,712	3,464
2000	24	24	12	80	240	0	2,441
2001	26	24	14	398	327	1,541	3,319
2002	24	23	20	542	101	1,341	2,246
2003	23	21	13	276	65	2,445	2,514
2004	23	23	12	339	308	2,148	2,004
2005	24	22	15	424	168	4,317	2,659
2006	24	24	18	503	114	3,694	2,283
2007	22	22	14	333	144	3,779	2,121
Five Year Average 2002-2006	24	23	16	417	151	2,789	2,341
Ten Year Average 1997-2006	26	25	16	410	291	3,655	2,616
Subdistrict 6-B Subsistence Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest <sup>e</sup>			
				Chinook	Summer Chum	Fall Chum	Coho
1988	75	66	52	3,721	3,167	18,902	18,906
1989 <sup>f</sup>	60	51	37 <sup>d</sup>	455	363	18,506	8,453
1990 <sup>f</sup>	70	58	38	1,234	1,966	16,332	9,155
1991 <sup>f</sup>	87	78	51	1,796	2,373	21,629	11,971
1992 <sup>f</sup>	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	13,726	12,480
1995	98	98	59	1,322	6,712	25,364	7,458
1996	105	96	59	968	6,138	17,439	8,934
1997	103	95	55	1,825	3,282	8,729	7,892
1998	94	84	46	1,407	5,485	9,573	5,937
1999	83	79	47	1,487	2,129	9,757	5,930
2000	81	79	33	903	869	210	2,709
2001	87	81	44	1,511	74	1,983	5,646
2002	62	60	25	525	711	2,193	8,032
2003	77	72	40	1,839	2,849	10,537	7,849
2004	60	56	30	1,049	1,485	6,805	9,580
2005	70	67	29	1,404	1,846	15,367	9,659
2006	78	76	42	423	885	13,047	7,897
2007	79	75	39	1,139	1,752	12,478	4,521
Five Year Average 2002-2006	69	66	33	1,048	1,555	9,590	8,603
Ten Year Average 1997-2006	80	75	39	1,237	1,962	7,820	7,113

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Upper Tanana River Drainage Subsistence Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			Coho
				Chinook	Summer Chum	Fall Chum	
1988	0	0	0	0	0	0	0
1989	2	2	2	5	0	39	0
1990	1	1	0	0	0	0	0
1991	8	7	6	0	0	288	14
1992	11	11	4	0	0	36	1
1993	10	10	8	0	0	5	0
1994	7	7	3	0	0	202	15
1995	50	46	12	0	0	88	0
1996	42	39	15	0	10	97	0
1997	61	58	26	0	0	200	0
1998	46	46	17	0	0	71	9
1999	29	29	13	0	0	2	0
2000	41	36	16	0	2	100	0
2001	57	50	22	0	0	2	1
2002	32	31	16	0	0	25	0
2003	38	32	17	30	0	4	0
2004	35	30	14	0	0	0	0
2005	29	24	13	0	0	15	0
2006	23	22	17	0	0	10	0
2007	34	33	17	0	0	41	5
Five Year Average 2002-2006	31	28	15	6	0	11	0
Ten Year Average 1997-2006	39	36	17	3	0	43	1
Subdistrict 6-C Subsistence Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			Coho <sup>g</sup>
				Chinook	Summer Chum	Fall Chum	
1973	22	-	4	26	771	886	-
1974	70	-	-	38	1,373	1,580	-
1975	36	-	-	32	751	864	-
1976	110	-	-	31	1,314	1,512	-
1977	89	-	33	81	118	607	-
1978	160	-	126	126	2,729	1,188	-
1979	246	-	199	264	2,384	4,459	-
1980	315	-	254	282	3,729	4,059	-
1981	346	-	228	440	3,239	5,770	-
1982	330	-	209	451	2,708	4,521	-
1983	259	-	147	475	2,276	3,830	-
1984	308	-	212	321	3,177	5,134	-
1985	291	-	155	326	2,646	3,937	-
1986	323	-	211	637	4,031	4,437	-
1987 <sup>h</sup>	217	-	123	531	2,739	0	-
1988	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0
1990 <sup>i</sup>	19	18	6	15	69	279	50
1991	149	142	98	299	980	1,080	1,089
1992	149	146	90	343	1,234	896	1,116
1993 <sup>j</sup>	0	0	0	0	0	0	0
1994 <sup>k, l</sup>	145	142	107	457	1,198	1,600	1,545
All Years Average	163	64	116	235	1,703	2,120	543

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*Note:* Prior to 1988 reported harvest was expanded for unreturned permits. Beginning in 1988, reported harvest was not expanded. Dashes in the table indicate the information is not available.

- <sup>a</sup> Many Subdistrict 6-A fishermen did not obtain a permit in 1988 and 1989.
- <sup>b</sup> Includes salmon given away as part of an ADF&G test fishery project in Manley.
- <sup>c</sup> Harvest was reported from some fishermen who did not have permits.
- <sup>d</sup> Beginning in 1994, a separate Kantishna River drainage permit was required. The Subdistrict 6-A harvest totals include permits from the Kantishna River drainage.
- <sup>e</sup> Includes small numbers of salmon harvested and reported on the Tolovana River drainage (Subdistrict 6-B) subsistence pike permit, established in 1993.
- <sup>f</sup> Includes salmon given away as part of an ADF&G test fishery project in Nenana.
- <sup>g</sup> Prior to 1988, fall chum and coho salmon were not reported as separate species.
- <sup>h</sup> Personal use fishery established for nonrural residents beginning in July of 1987.
- <sup>i</sup> Some fishermen had both personal use and subsistence permits. The McDowell Decision (Appendix C) became effective July 1990 (midway through the season), and stated that all Alaskan residents were eligible subsistence participants.
- <sup>j</sup> Personal use fishery was established for those fishing for salmon in the Fairbanks Nonsubsistence Area, which includes Subdistrict 6-C.
- <sup>k</sup> No personal use permits were issued in 1994 for this area.
- <sup>l</sup> After 1994, subsistence regulations were repealed within the Fairbanks Nonsubsistence Area, which includes Subdistrict 6-C.

Appendix B8.—Reported number of salmon distributed from test fish projects, Yukon Area, 1992–2007.

Year	Chinook Salmon																	Total
	Set Gillnet	Drift Gillnet Test Fish Projects										Test Fish Wheel Projects						
	Test Fish	Lower Yukon	Mountain Yukon	Pilot Village	Station	Marshall	Marshall <sup>a</sup>	Russian Mission <sup>a</sup>	Kaltag	Rampart	Eagle	Galena	Manley	Kantishna	Nenana	Tanana	Fort Yukon	
1992	1,715	-	-	-	-	-	-	-	-	-	-	0	-	113	-	-	-	1,828
1993	1,584	-	-	471	-	-	-	-	-	-	-	0	-	0	0	-	-	2,055
1994	1,985	-	-	334	-	-	-	-	-	-	-	0	-	0	0	-	-	2,319
1995	1,715	-	1	166	-	-	-	-	-	-	2	1	-	0	0	0	0	1,885
1996	1,355	-	0	0	-	-	-	-	-	-	-	0	-	0	0	0	0	1,355
1997	1,825	-	2	330	-	-	-	-	-	-	-	0	-	0	0	-	-	2,157
1998	1,035	-	8	435	-	-	-	-	-	-	-	0	-	0	0	-	-	1,478
1999	1,656	-	1	359	773	-	-	1	-	-	-	0	-	0	0	-	-	2,790
2000	1,344	-	0	450	1,024	11	23	0	-	-	-	-	0	0	0	-	-	2,852
2001	1,379	535	0	561	-	27	11	0	-	-	-	-	0	0	-	-	-	2,513
2002	1,268	253	0	545	-	8	18	0	-	-	-	-	0	0	0	-	-	2,092
2003	<sup>b</sup> 374	0	846	-	-	-	33	0	0	-	-	-	0	0	0	-	-	1,253
2004	<sup>b</sup> 1,158	0	665	-	-	-	20	0	-	-	-	-	0	0	0	-	-	1,843
2005	<sup>b</sup> 1,430	0	699	-	-	-	-	0	-	179	-	-	0	0	0	-	-	2,308
2006	<sup>b</sup> 1,367	0	366	362	-	-	-	0	-	20	-	-	0	38	0	-	-	2,153
2007	<sup>b</sup> 1,240	1	448	262	-	-	-	2	-	12	-	-	-	-	-	-	-	1,965
Five Year Average																		
2002 to 2006	1,268	916	0	624	362	8	24	0	0	100	-	-	0	8	0	-	-	1,930

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Year	Summer Chum Salmon																Total	
	Set Gillnet	Drift Gillnet Test Fish Projects									Test Fish Wheel Projects							
	Test Fish	Lower Yukon	Yukon	Mountain Village	Pilot Station	Marshall	Marshall <sup>a</sup>	Russian Mission <sup>a</sup>	Kaltag	Rampart	Eagle	Galena	Manley	Kantishna	Nenana	Tanana		Fort Yukon
1992	3,989	-	-	-	-	-	-	-	-	-	-	-	0	-	112	-	-	4,101
1993	4,111	-	-	2,098	-	-	-	-	-	-	-	33	-	0	0	0	-	6,242
1994	7,060	-	-	2,998	-	-	-	-	-	-	-	0	-	0	0	0	-	10,058
1995	6,382	-	0	1,875	-	-	-	-	-	-	57	50	-	0	0	0	0	8,364
1996	7,052	-	0	276	-	-	-	-	-	-	-	0	-	0	0	0	0	7,328
1997	4,539	-	0	2,420	-	-	-	-	-	-	-	0	-	0	0	0	-	6,959
1998	2,290	-	0	2,209	-	-	-	-	-	-	-	0	-	0	0	147	-	4,646
1999	2,717	-	0	1,636	181	-	-	0	-	-	-	0	-	0	0	0	-	4,534
2000	2,499	-	0	2,141	335	0	0	0	-	-	-	-	5	0	0	0	-	4,980
2001	211	1,787	0	1,696	-	1	2	0	-	-	-	-	0	0	-	-	-	3,697
2002	199	2,209	0	2,174	-	10	0	0	-	-	-	-	0	0	0	0	-	4,592
2003	<sup>b</sup>	1,801	0	2,060	-	-	5	0	0	-	-	-	0	0	0	0	-	3,866
2004	<sup>b</sup>	868	0	1,848	-	-	29	0	-	-	-	-	0	0	0	0	-	2,745
2005	<sup>b</sup>	1,765	0	1,612	-	-	-	0	-	2	-	-	0	0	0	0	-	3,379
2006	<sup>b</sup>	2,192	0	1,175	238	-	-	0	-	0	-	-	0	0	0	0	-	3,605
2007	<sup>b</sup>	933	200	1,100	126	-	-	0	-	0	-	-	-	-	-	-	-	2,359
Five Year Average																		
2002 to 2006	199	1,767	0	1,774	238	10	11	0	0	1	-	-	0	0	0	0	-	3,637

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Year	Fall Chum Salmon																
	Set Gillnet	Drift Gillnet Test Fish Projects									Test Fish Wheel Projects						
	Test Fish	Lower	Mountain	Pilot	Russian					Fort							
Lower Yukon	Yukon	Village	Station	Marshall	Marshall <sup>a</sup>	Mission <sup>a</sup>	Kaltag	Rampart	Eagle	Galena	Manley	Kantishna	Nenana	Tanana	Yukon	Total	
1992	2,462	-	-	-	-	-	-	-	-	-	-	0	-	110	-	-	2,572
1993	3,692	-	-	652	-	-	-	-	-	-	-	65	-	0	0	-	4,409
1994	2,566	-	-	1,349	-	-	-	-	-	-	-	0	-	7	1,895	-	5,817
1995	2,408	-	523	541	-	-	-	-	-	-	199	194	-	0	1,876	1,570	7,311
1996	1,421	-	319	150	-	-	-	-	-	-	-	0	-	0	0	1,081	2,971
1997	1,466	-	962	997	-	-	-	-	-	-	-	0	-	0	0	-	3,425
1998	2,000	-	664	1,110	-	-	-	-	-	-	-	0	-	0	0	-	3,774
1999	4,061	-	1,008	968	0	-	-	483	-	-	-	0	-	0	0	-	6,520
2000	2,921	-	269	834	0	0	0	190	-	-	-	-	-	0	0	0	4,214
2001	-	1,694	339	1,492	-	0	0	494	-	-	-	-	-	0	0	0	4,019
2002	-	1,050	175	680	-	0	0	314	-	-	-	-	-	0	0	0	2,219
2003	-	1,247	328	823	-	-	0	457	873	-	-	-	-	0	0	0	3,728
2004	-	635	425	726	-	-	0	592	-	-	-	-	-	0	0	0	2,378
2005	-	1,118	758	821	-	-	-	744	-	0	-	-	-	0	0	0	3,441
2006	-	880	621	664	0	-	-	672	-	15	-	-	-	0	159	0	3,011
2007	-	1,219	567	703	0	-	-	536	-	3	-	-	-	-	-	-	3,028
Five Year Average																	
2002 to 2006	-	986	461	743	0	0	0	556	873	8	-	-	0	32	0	-	2,955

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Year	Coho Salmon																Total	
	Set Gillnet	Drift Gillnet Test Fish Projects									Test Fish Wheel Projects							
	Test Fish	Lower Yukon	Yukon	Mountain Village	Pilot Station	Marshall	Marshall <sup>a</sup>	Russian Mission <sup>a</sup>	Kaltag	Rampart	Eagle	Galena	Manley	Kantishna	Nenana	Tanana		Fort Yukon
1992	2,557	-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	-	2,557
1993	1,210	-	-	222	-	-	-	-	-	-	-	0	-	0	0	0	-	1,432
1994	2,033	-	-	786	-	-	-	-	-	-	-	0	-	0	266	-	-	3,085
1995	579	-	559	205	-	-	-	-	-	-	0	0	-	0	164	0	0	1,507
1996	755	-	228	25	-	-	-	-	-	-	-	0	-	0	0	0	0	1,008
1997	593	-	309	283	-	-	-	-	-	-	-	0	-	0	0	0	-	1,185
1998	792	-	567	364	-	-	-	-	-	-	-	0	-	0	0	0	-	1,723
1999	649	-	2	180	0	-	-	70	-	-	-	0	-	0	0	0	-	901
2000	949	-	313	1,705	0	0	0	110	-	-	-	-	322	0	0	0	-	3,399
2001	-	492	302	180	-	0	0	251	-	-	-	-	0	0	0	0	-	1,225
2002	-	374	155	225	-	0	0	158	-	-	-	-	0	0	0	0	-	912
2003	-	635	362	371	-	-	0	23	0	-	-	-	0	0	0	0	-	1,391
2004	-	152	285	236	-	-	0	128	-	-	-	-	0	0	0	0	-	801
2005	-	112	107	241	-	-	-	120	-	0	-	-	0	0	0	0	-	580
2006	-	144	204	193	0	-	-	37	-	0	-	-	0	389	0	0	-	967
2007	-	466	434	231	0	-	-	133	-	0	-	-	-	-	-	-	-	1,264
Five Year Average																		
2002 to 2006	-	283	223	253	0	0	0	93	0	0	-	-	0	78	0	0	-	930

*Note:* Dashes indicate test fish project was not in operation. Test fish numbers are reported from each project, and do not include salmon that were recorded as test fish on surveys or permits.

<sup>a</sup> Chinook salmon radiotelemetry project.

<sup>b</sup> Salmon caught in the Lower Yukon “set” gillnet test fishery are included with Lower Yukon “drift” gillnet totals.

Appendix B9.—Estimated pink salmon subsistence harvest by residents of surveyed communities, with community and district totals, Yukon Area, 1997–2007.

Community	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Estimated Total		
												Even Years Average	Odd Years Average	1997 to 2006 Average
Hooper Bay	265	1,941	99	902	32	5,475	473	5,418	860	1,433	113	3,034	346	1,690
Scammon Bay	0	1,791	527	96	362	417	997	2,508	1,645	1,381	1,435	1,239	706	972
Coastal District	265	3,732	626	998	394	5,892	1,470	7,926	2,505	2,814	1,548	4,272	1,052	2,662
Nunam Iqua	1	299	0	0	0	10	5	32	132	555	170	179	28	103
Alakanuk	33	239	0	38	0	130	0	233	49	115	32	151	16	84
Emmonak	35	145	17	0	9	39	4	32	54	225	51	88	24	56
Kotlik	0	907	15	263	0	849	198	318	155	219	129	511	74	292
District 1	69	1,590	32	301	9	1,028	207	615	390	1,114	382	930	141	535
Mountain Village	10	753	0	61	0	745	117	891	78	616	87	613	41	327
Pitkas Point	101	330	12	114	0	35	0	0	2	44	66	105	23	64
St. Mary's	4	467	1	54	0	7	0	137	144	236	32	180	30	105
Pilot Station	0	0	8	6	0	22	0	5	0	1	0	7	2	4
Marshall	0	0	0	0	0	473	0	105	6	3	0	116	1	59
District 2	115	1,550	21	235	0	1,282	117	1,138	230	900	185	1,021	97	559
Russian Mission	0	211	0	8	0	0	0	6	0	8	3	47	0	23
Holy Cross	0	150	0	20	0	0	0	0	0	17	0	37	0	19
Shageluk	0	1,256	0	0	0	0	130	0	0	0	0	251	26	139
District 3	0	1,617	0	28	0	0	130	6	0	25	3	335	26	181
Anvik	0	50	0	30	0	0	240	0	0	0	0	16	48	32
Grayling	0	649	1	0	0	30	3	0	3	0	0	136	1	69
Kaltag	11	1	1	0	0	0	0	10	4	0	0	2	3	3
Nulato	0	0	0	0	0	50	0	0	0	1	0	10	0	5
Koyukuk	23	0	0	0	0	4	0	0	0	0	0	1	5	3
Galena	0	0	0	0	0	50	0	0	0	0	0	10	0	5
Ruby	0	0	0	1	0	87	0	2	0	0	0	18	0	9
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	34	700	2	31	0	221	243	12	7	1	0	193	57	125

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Community	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Estimated Total			
												Even Years Average	Odd Years Average	1997 to 2006 Average	
Tanana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stevens Village	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Birch Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Yukon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Venetie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Survey Totals	483	9,189	681	1,593	403	8,423	2,167	9,697	3,132	4,854	2,118	6,751	1,373	4,062	
CI (95%) <sup>a</sup>	290	2,511	621	559	416	4,091	964	2,829	1,521	990	739	-	-	-	

Note: Odd year average does not include the current year.

<sup>a</sup> Annual 95% confidence interval.

Appendix B10.–Households with dogs, number of dogs, and salmon fed to dogs, as estimated in surveyed communities or reported in permit areas, Yukon Area, 1990–2007.

Districts Survey or Permit and Year	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						
Coastal District Survey	-	-	-	-	-	-
District 1 Survey	-	455	2,859	372	0	3,231
District 2 Survey	-	775	3,278	415	3,665	7,358
District 3 Survey	-	272	8,248	120	166	8,534
District 4 Survey	-	1,385	91,256	6,911	2,511	100,678
District 5 Survey	-	1,286	5,697	72,424	9,118	87,239
District 5 Permit <sup>a</sup>	-	-	-	-	-	-
District 6 Permit	-	-	-	-	-	-
Totals	0	4,173	111,338	80,242	15,460	207,040
1991						
Coastal District Survey	-	-	-	-	-	-
District 1 Survey	-	349	30	0	16	46
District 2 Survey	-	543	723	652	874	2,249
District 3 Survey	-	145	1,747	150	0	1,897
District 4 Survey	-	1,660	169,866	903	591	171,360
District 5 Survey	-	1,520	28,518	54,657	2,754	85,929
District 5 Permit <sup>a</sup>	49	400	-	-	-	11,522
District 6 Permit	220	1,980	-	-	-	19,479
Totals	269	6,597	200,884	56,362	4,235	292,482
1992						
Coastal District Survey	133	513	659	0	0	659
District 1 Survey	262	617	512	1,000	153	1,665
District 2 Survey	285	971	694	247	2,237	3,178
District 3 Survey	113	507	4,893	74	37	5,004
District 4 Survey	436	2,065	139,513	6,950	3,323	149,786
District 5 Survey	323	1,577	12,897	38,529	14,529	65,955
District 5 Permit <sup>a</sup>	52	492	-	-	-	7,026
District 6 Permit	255	2,270	-	-	-	18,115
Totals	1,859	9,012	159,168	46,800	20,279	251,388
1993						
Coastal District Survey	150	391	0	0	0	0
District 1 Survey	280	690	654	70	22	746
District 2 Survey	232	880	794	260	670	1,724
District 3 Survey	118	447	2,671	734	162	3,567
District 4 Survey	435	1,645	44,793	3,905	579	49,277
District 5 Survey	348	1,840	5,490	38,888	5,147	49,525
District 5 Permit <sup>a</sup>	54	1,031	-	-	-	1,133
District 6 Permit	143	1,857	-	-	-	1,547
Totals	1,760	8,781	54,402	43,857	6,580	107,519
1994						
Coastal District Survey	161	367	1,287	0	0	1,287
District 1 Survey	288	819	267	144	384	795
District 2 Survey	286	1,074	1,066	653	2,470	4,189
District 3 Survey	123	413	5,279	0	162	5,441
District 4 Survey <sup>b</sup>	427	1,649	92,127	4,720	2,916	99,763
District 5 Survey	355	1,426	10,903	51,674	4,422	66,999
District 5 Permit <sup>a</sup>	103	534	-	-	-	9,824
District 6 Permit	212	2,269	-	-	-	34,111
Totals	1,955	8,551	110,929	57,191	10,354	222,409

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Districts Survey or Permit and Year	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
1995						
Coastal District Survey	158	596	2,919	214	0	3,133
District 1 Survey	223	391	531	43	7	581
District 2 Survey	213	677	1,587	436	979	3,002
District 3 Survey	111	347	8,450	265	100	8,815
District 4 Survey	423	1,830	183,386	9,092	1,151	193,629
District 5 Survey	356	1,442	6,222	50,680	2,107	59,009
District 5 Permit <sup>a</sup>	54	495	-	-	-	17,980
District 6 Permit	103	1,723	-	-	-	50,731
Totals	1,641	7,501	203,095	60,730	4,344	336,880
1996						
Coastal District Survey	159	406	0	0	0	0
District 1 Survey	298	682	1,847	250	38	2,135
District 2 Survey	251	1,044	1,460	1,724	1,423	4,607
District 3 Survey	134	513	3,558	0	0	3,558
District 4 Survey	468	1,607	130,575	5,771	1,324	137,670
District 5 Survey	325	1,289	10,155	48,836	5,966	64,957
District 5 Permit <sup>a</sup>	53	293	-	-	-	14,345
District 6 Permit	176	1,907	-	-	-	43,590
Totals	1,864	7,741	147,595	56,581	8,751	270,862
1997						
Coastal District Survey	174	494	837	0	0	837
District 1 Survey	255	683	103	0	0	103
District 2 Survey	301	1,075	779	498	142	1,419
District 3 Survey	111	492	11,418	400	746	12,564
District 4 Survey	430	1,209	63,850	4,481	3,141	71,472
District 5 Survey	254	1,146	2,943	33,188	2,961	39,092
District 5 Permit <sup>a</sup>	95	569	-	-	-	19,584
District 6 Permit	156	1,898	-	-	-	12,813
Totals	1,776	7,566	79,930	38,567	6,990	157,884
1998						
Coastal District Survey	185	503	0	0	0	0
District 1 Survey	259	555	1,711	270	0	1,981
District 2 Survey	293	966	682	110	137	929
District 3 Survey	106	394	4,288	32	202	4,522
District 4 Survey	560	1,731	14,468	3,394	1,935	19,797
District 5 Survey	356	1,342	2,029	29,448	2,680	34,157
District 5 Permit <sup>a</sup>	113	598	-	-	-	1,262
District 6 Permit	136	1,610	-	-	-	22,311
Totals	2,008	7,699	23,178	33,254	4,954	84,959
1999						
Coastal District Survey	163	276	135	0	0	135
District 1 Survey	252	451	254	20	25	299
District 2 Survey	312	982	778	52	1,277	2,107
District 3 Survey	95	374	4,153	50	240	4,443
District 4 Survey	481	1,502	15,546	3,399	1,513	20,458
District 5 Survey	273	1,233	1,436	36,006	3,844	41,286
District 5 Permit <sup>a</sup>	141	739	-	-	-	11,013
District 6 Permit	107	1,321	-	-	-	13,256
Totals	1,824	6,878	22,302	39,527	6,899	92,997

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Districts Survey or Permit and Year	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
2000						
Coastal District Survey	215	451	0	0	0	0
District 1 Survey	247	552	1,240	741	0	1,981
District 2 Survey	307	941	467	30	30	527
District 3 Survey	111	374	419	150	70	639
District 4 Survey	441	1,318	4,237	846	329	5,412
District 5 Survey	236	811	1,263	5,972	1,791	9,026
District 5 Permit <sup>a, c</sup>	67	568	-	-	-	317
District 6 Permit <sup>c</sup>	70	1,327	-	-	-	3,082
Totals	1,694	6,342	7,626	7,739	2,220	20,984
2001						
Coastal District Survey	234	495	0	0	0	0
District 1 Survey	318	609	223	100	0	323
District 2 Survey	331	926	255	210	80	545
District 3 Survey	114	610	873	111	25	1,009
District 4 Survey	553	2,074	4,571	2,014	1,263	7,848
District 5 Survey	293	1,026	1,649	10,629	5,976	18,254
District 6 Permit <sup>c</sup>	121	583	-	-	-	8,065
District 6 Permit <sup>d</sup>	130	1,266	-	-	-	7,506
Totals	2,094	7,589	7,571	13,064	7,344	43,550
2002						
Coastal District Survey	207	399	0	0	67	67
District 1 Survey	282	655	14	59	30	103
District 2 Survey	327	847	410	38	379	827
District 3 Survey	88	312	620	0	0	620
District 4 Survey	437	1,502	8,286	848	697	9,831
District 5 Survey	197	677	2,256	6,324	1,393	9,973
District 5 Permit <sup>a, c</sup>	81	546	-	-	-	689
District 6 Permit <sup>c</sup>	111	806	-	-	-	11,722
Totals	1,730	5,744	11,586	7,269	2,566	33,832
2003						
Coastal District Survey	132	365	0	0	0	0
District 1 Survey	239	483	115	0	38	153
District 2 Survey	236	729	635	0	58	693
District 3 Survey	87	298	3,650	0	0	3,650
District 4 Survey	384	1,728	15,648	4,118	3,271	23,037
District 5 Survey	221	864	3,268	19,267	2,862	25,397
District 5 Permit <sup>a, c</sup>	59	672	-	-	-	1,614
District 6 Permit <sup>c</sup>	161	866	-	-	-	12,717
Totals	1,519	6,005	23,316	23,385	6,229	67,261
2004						
Coastal District Survey	151	300	13	0	0	13
District 1 Survey	235	505	534	21	0	555
District 2 Survey	270	630	1,114	62	376	1,552
District 3 Survey	97	272	1,228	0	0	1,228
District 4 Survey	421	1,424	12,608	3,382	3,232	19,222
District 5 Survey	241	853	2,134	31,266	1,103	34,503
District 5 Permit <sup>a, c</sup>	60	644	-	-	-	3,428
District 6 Permit <sup>c</sup>	149	1,003	-	-	-	18,261
Totals	1,624	5,631	17,631	34,731	4,711	78,762

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Appendix B10.–Page 4 of 4.

Districts Survey or Permit and Year	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
2005						
Coastal District Survey	190	375	0	0	0	0
District 1 Survey	262	482	302	46	34	382
District 2 Survey	281	563	1,315	137	104	1,556
District 3 Survey	78	214	2,288	342	70	2,700
District 4 Survey	364	1,325	5,993	3,236	1,464	10,693
District 5 Survey	277	1,229	4,566	24,982	1,498	31,046
District 5 Permit <sup>a, c</sup>	59	609	-	-	-	8,316
District 6 Permit <sup>c</sup>	143	1,175	-	-	-	27,179
Totals	1,654	5,972	14,464	28,743	3,170	81,872
2006						
Coastal District Survey	197	397	0	37	63	100
District 1 Survey	272	457	270	147	0	417
District 2 Survey	294	612	373	355	318	1,046
District 3 Survey	109	288	95	95	0	190
District 4 Survey	426	1,251	9,885	1,298	77	11,260
District 5 Survey	238	1,257	7,664	23,607	3,236	34,507
District 5 Permit <sup>a, c</sup>	62	596	-	-	-	12,934
District 6 Permit <sup>c</sup>	140	1,027	-	-	-	15,194
Totals	1,738	5,885	18,287	25,539	3,694	75,648
2007						
Coastal District Survey	132	214	142	0	0	142
District 1 Survey	230	517	1,096	38	59	1,193
District 2 Survey	267	521	763	232	443	1,438
District 3 Survey	86	285	375	0	30	405
District 4 Survey	305	982	12,326	2,807	1,096	16,229
District 5 Survey	247	949	7,233	26,600	2,763	36,596
District 5 Permit <sup>a, c</sup>	52	567	-	-	-	17,891
District 6 Permit <sup>c</sup>	175	890	-	-	-	15,945
Totals	1,494	4,925	21,935	29,677	4,391	89,839
Five Year Average 2002 to 2006						
	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
Coastal District Survey	175	367	3	7	26	36
District 1 Survey	258	516	247	55	20	322
District 2 Survey	282	676	769	118	247	1,135
District 3 Survey	92	277	1,576	87	14	1,678
District 4 Survey	406	1,446	10,484	2,576	1,748	14,809
District 5 Survey	235	976	3,978	21,089	2,018	27,085
District 5 Permit <sup>a, c</sup>	64	613	-	-	-	5,396
District 6 Permit <sup>c</sup>	141	975	-	-	-	17,015
Totals	1,653	5,847	17,057	23,933	4,074	67,475

Note: Beginning in 1993, the estimated number of salmon included those retained from subsistence and commercial-related harvests. Prior to 1992, information for the community of Shageluk was included in District 4 totals. Shageluk is now included in District 3. Beginning 2004, the community of Rampart was included in District 5 permit totals, not in District 5 survey totals. Dashes indicate information was not collected.

<sup>a</sup> Permit totals do not include the community of Stevens Village.

<sup>b</sup> Does not include the communities of Hughes, Allakaket and Alatna which were not surveyed due to a major flood event.

<sup>c</sup> Does not include duplicate information from households with more than one permit.

Appendix B11.—Estimated and reported subsistence and personal use harvest of miscellaneous fish species, Yukon Area, 1997–2007.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Five Year Average 1997-2001	Five Year Average 2002-2006
Survey Estimates <sup>a</sup>													
Whitefish	77,630	70,261	50,748	45,292	86,200	78,489	68,416	64,039	48,862	60,923	64,338	66,026	64,146
Pike	29,540	22,459	16,928	9,174	16,753	18,906	22,341	18,738	29,799	28,133	25,947	18,971	23,583
Sheefish	19,538	19,159	12,550	6,581	14,384	15,960	14,280	16,896	13,764	12,745	13,203	14,442	14,729
Survey Reported													
Burbot	6,381	6,704	11,545	2,168	2,836	5,809	3,000	2,628	3,138	5,069	3,500	5,927	3,929
Lamprey	2,533	2,580	30,536	785	4,520	623	29,886	33,919	38,115	2,092	12,584	8,191	20,927
Tomcod	6,088	5,401	2,399	2,999	7,278	4,497	4,608	5,649	4,988	13,652	7,121	4,833	6,679
Grayling	1,600	1,578	1,476	346	1,503	1,408	2,421	1,645	1,258	1,145	2,285	1,301	1,575
Suckers	667	128	104	364	277	546	234	178	1,452	105	225	308	503
Arctic Char	131	206	131	32	251	198	376	116	217	345	181	150	250
Blackfish	275,469	302,623	165,252	42,110	85,938	432,967	161,703	229,833	259,874	218,695	131,712	174,278	260,614
Sockeye Salmon	-	-	-	-	-	-	-	787	648	333	493	-	589
Permit Reported													
Whitefish	5,157	4,019	3,734	3,205	2,430	2,856	5,508	4,402	3,671	3,399	3,330	3,709	3,967
Pike	1,978	793	812	687	451	791	1,266	606	641	1,008	2,094	944	862
Sheefish	190	137	176	85	75	66	203	97	155	80	83	133	120
Burbot	215	137	101	95	124	65	129	127	78	127	99	134	105
Grayling	154	55	439	521	51	138	1,228	1,032	800	507	525	244	741
Suckers	858	459	986	739	236	344	978	341	694	770	243	656	625
Yukon Area Totals													
Whitefish	82,787	74,280	54,482	48,497	88,630	81,345	73,924	68,441	52,533	64,322	67,668	69,735	68,113
Pike	31,518	23,252	17,740	9,861	17,204	19,697	23,607	19,344	30,440	29,141	28,041	19,915	24,446
Sheefish	19,728	19,296	12,726	6,666	14,459	16,026	14,483	16,993	13,919	12,825	13,286	14,575	14,849
Burbot	6,596	6,841	11,646	2,263	2,960	5,874	3,129	2,755	3,216	5,196	3,599	6,061	4,034
Lamprey	2,533	2,580	30,536	785	4,520	623	29,886	33,919	38,115	2,092	12,584	8,191	20,927
Tomcod	6,088	5,401	2,399	2,999	7,278	4,497	4,608	5,649	4,988	13,652	7,121	4,833	6,679
Grayling	1,754	1,633	1,915	867	1,554	1,546	3,649	2,677	2,058	1,652	2,810	1,545	2,316
Suckers	1,525	587	1,090	1,103	513	890	1,212	519	2,146	875	468	964	1,128
Arctic Char	131	206	131	32	251	198	376	116	217	345	181	150	250
Blackfish	275,469	302,623	165,252	42,110	85,938	432,967	161,703	229,833	259,874	218,695	131,712	174,278	260,614
Sockeye Salmon	-	-	-	-	-	-	-	787	648	333	493	-	589
All Species Totals	428,129	436,699	297,917	115,183	223,307	563,663	316,577	381,033	408,154	349,128	267,963	300,247	403,947

Note: Dashes indicate information was not collected.

<sup>a</sup> Subsistence harvest of whitefish, pike, and sheefish in surveyed communities is estimated based on a stratified random sample of households as designated for the estimation of subsistence salmon harvests.

Appendix B12.–Surveyed households which indicated that their subsistence salmon needs were not met, Yukon Area, 1992–2002.

Year	Total Number of Households Contacted	Total Number of Responses Indicating Needs Were not Met	Percent of Responses Indicating Needs Were not Met	Percent of Responses Indicating Poor Salmon Returns
1992	870	272	31%	7%
1993	979	514	53%	8%
1994	933	345	37%	1%
1995	1,011	207	20%	1%
1996	951	230	24%	6%
1997	915	213	23%	6%
1998	970	593	61%	47%
1999	1,024	385	38%	18%
2000 <sup>a</sup>	932	592	64%	77%
2001 <sup>a</sup>	885 <sup>b</sup>	496	56%	27%
2002 <sup>a</sup>	799 <sup>b</sup>	437	55%	25%
Eleven Year Average				
1992-2002	934	389	42%	20%

*Note:* This question was altered after 2002 season. Subsequent results are included in Appendix B13.

<sup>a</sup> A different method was used from 2000 to 2002 to provide an indication of the quality of the salmon runs by species. The method used was a weighted average expressed in percent of Chinook, summer chum, fall chum, and coho salmon responses from households that indicated poor salmon runs by species contributed to not meeting their needs.

<sup>b</sup> Total number of contacted households that answered this survey question.

Appendix B13.–Households responses assessing their success of subsistence salmon needs being met (in percent), by species, Yukon Area, 2003–2007.

Chinook Salmon								
Year	Total Households		Total Number of Household Responses <sup>a</sup>	Household Responses Indicated ≤ 50% Needs Met		Household Responses Indicated > 50% Needs Met		
	Households	Contacted		Responses	Percent	Responses	Percent	
2003 <sup>b</sup>	2,351	920	639	223	35%	416	65%	
2004	2,274	1,055	693	203	29%	490	71%	
2005	2,231	1,022	749	223	30%	526	70%	
2006	2,398	1,057	856	401	47%	455	53%	
2007	2,353	1,086	914	422	46%	492	54%	
2003-2006 Avg	2,314	1,014	734	263	36%	472	64%	

Summer Chum Salmon								
Year	Total Households		Total Number of Household Responses <sup>a</sup>	Household Responses Indicated ≤ 50% Needs Met		Household Responses Indicated > 50% Needs Met		
	Households	Contacted		Responses	Percent	Responses	Percent	
2003 <sup>b</sup>	2,351	920	421	152	36%	269	64%	
2004	2,274	1,055	542	187	35%	355	65%	
2005	2,231	1,022	570	165	29%	405	71%	
2006	2,398	1,057	686	247	36%	439	64%	
2007	2,353	1,086	706	299	42%	407	58%	
2003-2006 Avg	2,314	1,014	555	188	34%	367	66%	

Fall Chum Salmon								
Year	Total Households		Total Number of Household Responses <sup>a</sup>	Household Responses Indicated ≤ 50% Needs Met		Household Responses Indicated > 50% Needs Met		
	Households	Contacted		Responses	Percent	Responses	Percent	
2003 <sup>b</sup>	2,351	920	181	58	32%	123	68%	
2004	2,274	1,055	210	81	39%	129	61%	
2005	2,231	1,022	380	145	38%	235	62%	
2006	2,398	1,057	408	220	54%	188	46%	
2007	2,353	1,086	580	396	68%	184	32%	
2003-2006 Avg	2,314	1,014	295	126	43%	169	57%	

Coho Salmon								
Year	Total Households		Total Number of Household Responses <sup>a</sup>	Household Responses Indicated ≤ 50% Needs Met		Household Responses Indicated > 50% Needs Met		
	Households	Contacted		Responses	Percent	Responses	Percent	
2003 <sup>b</sup>	2,351	920	116	40	34%	76	66%	
2004	2,274	1,055	177	71	40%	106	60%	
2005	2,231	1,022	226	104	46%	122	54%	
2006	2,398	1,057	181	109	60%	72	40%	
2007	2,353	1,086	399	283	71%	116	29%	
2003-2006 Avg	2,314	1,014	175	81	46%	94	54%	

<sup>a</sup> Total number of households surveyed who answered this question for each species.

<sup>b</sup> In 2003, the survey question “How successful was your household in meeting its subsistence salmon needs?” (indicated by percent success) targeted primarily only those households selected to be surveyed that indicated they subsistence fished for salmon.

## **APPENDIX C. HISTORY OF REGULATORY CHANGES**

Appendix C1.–Definitions and a brief history of regulatory changes made to the Yukon Area Alaska subsistence and personal use salmon fisheries since 1960.

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**Definitions:** Sec. 16.05.940. In AS 16.05 - AS 16.40

(25) "personal use fishing" means the taking, fishing for, or possession of finfish, shellfish, or other fishery resources, by Alaska residents for personal use and not for sale or barter, with gill or dip net, seine, fish wheel, long line, or other means defined by the Board of Fisheries

(31) "subsistence fishing" means the taking of, fishing for, or possession of fish, shellfish, or other fisheries resources by a resident domiciled in a rural area of the state for subsistence uses with gill net, seine, fish wheel, long line, or other means defined by the Board of Fisheries;

(33) "subsistence uses" means the noncommercial, customary and traditional uses of wild, renewable resources by a resident domiciled in a rural area of the state for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation, for the making and selling of handicraft articles out of nonedible by-products of fish and wildlife resources taken for personal or family consumption, and for the customary trade, barter, or sharing for personal or family consumption; in this paragraph, "family" means persons related by blood, marriage, or adoption, and a person living in the household on a permanent basis

**History of regulatory changes:**

1960

- Alaska Department of Fish and Game is given responsibility to manage all Alaska subsistence and commercial fisheries.
- Commercial fishing is open six days per week, subsistence fishing is open 5.5 days per week.
- Once commercial fishing season ends, subsistence fishing is open 7 days per week.

1961

- Lower Yukon Area (Districts 1 – 3) commercial fisheries are open 4 days per week.
- Directed fall chum salmon fishery begins.

1962

- Four commercial fishing districts established within Alaska portion of the Yukon River drainage.
- Subsistence fishing in the Lower Yukon Area is reduced to 4 days per week (concurrent with commercial).

1974

- Six commercial fishing districts established within Alaska portion of the Yukon River drainage.
- Subsistence fishing restrictions are implemented along the southern portion of the Dalton Highway.
- Upper Yukon Area (Districts 4 – 6) begins concurrent subsistence and commercial fishing 5 days per week.
- Subsistence fishing schedules are linked to commercial fishing schedules in Districts 1-6.

1974–77

- Legalized sale of salmon roe from Yukon Area subsistence caught salmon.

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1976

- Limited entry begins for Yukon River commercial fisheries.
- Streams crossing the Dalton Highway north of the Yukon River are closed to subsistence fishing.

1977

- Lower Yukon Area is reduced to subsistence/commercial fishing 3 days per week during the commercial Chinook salmon season.
- Lower Yukon Area is reduced to subsistence/commercial fishing 3.5 days per week during the fall chum salmon season.

1978

- Passage of the *State of Alaska Subsistence Act*, which provides a rural subsistence priority in times of shortage.
- Commercial salmon roe fishery begins in the Upper Yukon Area.

1979

- Lower Yukon Area is reduced to subsistence/commercial fishing 3 days per week during the fall chum salmon season.

1980

- ANILCA (*Alaska National Interest Lands Conservation Act*) provides for a rural subsistence priority on Federal lands.

1980–89

- Unified management of subsistence fishing by the State of Alaska consistent with ANILCA and the *State of Alaska Subsistence Act*.

1981

- Commercial fishing periods in the Lower Yukon Area can be established inseason by state emergency order.

1982

- Tanana River Subdistrict 6-C Subsistence Management Plan established.

1983–84

- Lower Yukon Area subsistence periods established inseason by emergency order.

1986

- Personal use fisheries created for Alaska residents living in non-rural areas. Non-rural residents are classified as “personal use” fishermen rather than subsistence fishermen regardless of where they fish.

1987

- Regulations for a personal use fall chum salmon fishery established in the Yukon Area.
- Regulatory *Yukon Area Fall Chum Salmon Management Plan* established.

1988

- Subdistricts 6-A, 6-B and 6-C subsistence and personal use periods are limited to two 42 hour periods per week.
- “Old Minto Area” is open to subsistence salmon fishing 5 days per week.
- Upper Tanana Area remains open to subsistence fishing 7 days per week.
- Regulations for personal use fisheries for all salmon species established in the Yukon Area.

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1990

- Court case removes rural residency requirement for subsistence participation (*McDowell v. State*).
- Regulatory *Yukon River Summer Chum Salmon Management Plan* established.
- Regulatory *Tanana River Salmon Management Plan* established.

1992

- Alaska divided into subsistence and non-subsistence areas. Personal use fishing only allowed within the non-subsistence areas.
- Upper Yukon Area commercial periods established in season by emergency order.

1993

- Regulations implemented separating subsistence and commercial salmon fishing times in Districts 1-3 and Subdistrict 4-A (prior to 1993 subsistence and commercial periods coincided).
  - In Districts 1-3 subsistence salmon fishing is open 24 hours/day until commercial season begins. Once commercial fishing begins subsistence fishing is closed 18 hours before, during and 12 hours after each commercial period. Additional periods for subsistence salmon fishing may be authorized.
  - Subdistricts 4-B, 4-C, 5-B and 5-C subsistence salmon fishing is open 7 days per week until commercial season begins, then commercial and subsistence periods coincide. Additional periods for subsistence salmon fishing may be authorized.
  - Koyukuk River, Kantishna River and Subdistrict 5-D remain open to subsistence salmon fishing 7 days per week.
- Court case declares subsistence and non-subsistence areas are unconstitutional and subsistence salmon fishing again allowed statewide (*State v. Kenaitze Indian Tribe*).
- Regulatory *Toklat River Fall Chum Salmon Rebuilding Management Plan* established.
- Amounts necessary for subsistence was defined for Yukon-Northern Area:
  - 348,000–503,000 (all salmon species combined).

1994

- Subdistrict 5-A subsistence salmon fishing is allowed 5 days per week once commercial season ends.
- Regulatory *Anvik River Chum Salmon Fishery Management Plan* established.

1995

- Alaska Supreme Court reverses decision in *Kenaitze* case and Alaska is again divided into subsistence and non-subsistence areas. Personal use fishing is only allowed within the non-subsistence areas.
- Ninth Circuit Court finds that Federal jurisdiction for fisheries should be extended to navigable waters on Federal lands (*State of Alaska v. Babbitt a.k.a. Katie John decision*). US Senator Stevens delays implementation.

1998

- Subdistrict 5-A subsistence salmon fishing is allowed 7 days per week once commercial season ends.
- Regulatory *Yukon River King Salmon Management Plan* established.

1999

- Subdistrict 5-A subsistence salmon fishing is returned to 5 days per week once commercial season ends because in 1998 Toklat River escapement goals were not met.
- Regulatory *Yukon River Coho Salmon Management Plan* established.

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2000

- U.S. Fish and Wildlife Service begins first season of joint subsistence fisheries management authority with ADF&G in portions of the Yukon Area.

2001

- Subsistence fishing schedule “windows” established for times of conservation implemented throughout the entire Yukon River Area when there is no commercial fishing season:
  - Districts 1-3 area open to subsistence salmon fishing for two 36 hour periods per week.
  - District 4 and Subdistricts 5-B and 5-C are open to subsistence salmon fishing for two 48 hour periods per week.
  - Subdistrict 5-A, 6-A and 6-B (includes the Kantishna River) are open to subsistence salmon fishing for two 42 hour periods per week.
  - The “Old Minto Area” is open to subsistence salmon fishing 5 days per week.
  - The Coastal District, Koyukuk River and Subdistrict 5-D are open to subsistence salmon fishing 7 days per week.
  - Subdistrict 6-C is open to personal use salmon fishing for two 42 hour periods per week.
- Amounts necessary for subsistence defined by salmon species for Yukon Area:
  - Chinook salmon: 45,500–66,704 fish
  - Summer chum salmon: 83,500–142,192 fish
  - Fall chum salmon: 89,500–167,900 fish
  - Coho salmon: 20,500–51,980 fish

2004

- *Yukon River King Salmon Management Plan.*
  - During times of chum salmon conservation, the commercial fish wheel season may be closed by emergency order and immediately reopen the season during which set gillnet gear may be used instead of a fish wheel.
- *Yukon River Drainage Fall Chum Salmon Management Plan* revised.
  - Plan to be implemented from July 16 through December 31 to ensure adequate escapement for fall chum salmon into the Yukon River drainage and to provide management guidelines to ADF&G.
  - Subsistence fishing schedule of seven days a week fishing in the Kantishna River.
  - Returned Subdistrict 5-A to two 48-hour periods per week from 6:00 pm. Tuesdays until 6:00 p.m. Thursdays and from 6:00 pm. Fridays until 6:00 p.m. Sundays.
- *Toklat River Fall Chum Salmon Rebuilding Management Plan* repealed and elements of the plan incorporated into the *Yukon River Drainage Fall Chum Salmon Management Plan.*
- *Tanana River Salmon Management Plan.*
  - In Subdistricts 6-A and 6-B, through September 30, the subsistence salmon fishing periods are from 6:00 p.m. Fridays until 12:00 noon Sundays and from 6:00 p.m. Mondays until 12:00 Wednesdays, unless altered by emergency order. This allows for possible seven days a week subsistence fishing beginning October 1.
- In Subdistrict 4-A, king salmon may be taken during the commercial fishing season with drift gillnet gear only for two 48-hour fishing periods per week, by emergency order from 6:00 p.m. Sundays until 6:00 p.m. Tuesdays and from 6:00 p.m. Wednesdays until 6:00 p.m. Fridays.

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- New subsistence required permit areas in portions of the Koyukuk River along the Dalton Highway and Yukon River drainage from Garnet Island to Hess Creek:
  - South Fork of the Koyukuk River drainage upstream from the mouth of the Jim River and the Middle Fork of the Koyukuk River drainage upstream from the mouth of the North Fork. The Koyukuk River areas along the Dalton Highway were closed but are now opened for subsistence fishing for nonsalmon species with permit and gear stipulations. Gillnets gear may be used only from November 1 through June 30 and a gillnet mesh size may not exceed three and one-half inches.
  - Yukon River drainage upstream from the westernmost tip of Garnet Island to the mouth of Hess Creek of Subdistrict 5-C (encompassing the community or Rampart) in an effort to document harvest by transient fishermen. This change now requires a subsistence fishing permit in the entire Subdistrict 5-C.

2007

- Chinook salmon harvested for subsistence in Districts 1 through 3 between June 1 and July 15 must be marked by the removal of both lobes of the tail. This was a change from the requirement to remove the dorsal fin, which was more difficult to remove, and potentially exposed the flesh.
  - Coho salmon management plan was revised.
    - Must be projected to provide a harvestable surplus.
    - Linked to Yukon River Drainage fall chum salmon management plan. Was adjusted from assessment of 625,000 to 550,000 fall chum salmon.
    - Fall chum salmon are considered incidental harvest during coho salmon openings.
    - End dates of plan in districts and subdistricts were adjusted.
-