

Annual Management Report Yukon Area, 2014

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Weights and measures (metric)		General		Mathematics, statistics	
centimeter	cm	Alaska Administrative Code		all standard mathematical signs, symbols and abbreviations	
deciliter	dL		AAC		
gram	g	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	alternate hypothesis	H _A
hectare	ha			base of natural logarithm	<i>e</i>
kilogram	kg	all commonly accepted		catch per unit effort	CPUE
kilometer	km	professional titles	e.g., Dr., Ph.D., R.N., etc.	coefficient of variation	CV
liter	L			common test statistics	(F, t, χ^2 , etc.)
meter	m	at	@	confidence interval	CI
milliliter	mL	compass directions:		correlation coefficient (multiple)	R
millimeter	mm	east	E	correlation coefficient (simple)	r
Weights and measures (English)		north	N	covariance	cov
cubic feet per second	ft ³ /s	south	S	degree (angular)	°
foot	ft	west	W	degrees of freedom	df
gallon	gal	copyright	©	expected value	<i>E</i>
inch	in	corporate suffixes:		greater than	>
mile	mi	Company	Co.	greater than or equal to	≥
nautical mile	nmi	Corporation	Corp.	harvest per unit effort	HPUE
ounce	oz	Incorporated	Inc.	less than	<
pound	lb	Limited	Ltd.	less than or equal to	≤
quart	qt	District of Columbia	D.C.	logarithm (natural)	ln
yard	yd	et alii (and others)	et al.	logarithm (base 10)	log
		et cetera (and so forth)	etc.	logarithm (specify base)	log ₂ , etc.
Time and temperature		exempli gratia		minute (angular)	'
day	d	(for example)	e.g.	not significant	NS
degrees Celsius	°C	Federal Information Code	FIC	null hypothesis	H ₀
degrees Fahrenheit	°F	id est (that is)	i.e.	percent	%
degrees kelvin	K	latitude or longitude	lat or long	probability	P
hour	h	monetary symbols		probability of a type I error	
minute	min	(U.S.)	\$, ¢	(rejection of the null hypothesis when true)	α
second	s	months (tables and figures): first three		probability of a type II error	
Physics and chemistry		letters	Jan,...,Dec	(acceptance of the null hypothesis when false)	β
all atomic symbols		registered trademark	®	second (angular)	"
alternating current	AC	trademark	™	standard deviation	SD
ampere	A	United States		standard error	SE
calorie	cal	(adjective)	U.S.	variance	
direct current	DC	United States of America (noun)	USA	population sample	Var var
hertz	Hz	U.S.C.	United States Code		
horsepower	hp				
hydrogen ion activity (negative log of)	pH	U.S. state	use two-letter abbreviations (e.g., AK, WA)		
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

FISHERY MANAGEMENT REPORT NO. 15-50

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PREFACE

This report summarizes the 2014 season and provides historical information concerning the management of the subsistence, commercial, and personal use fisheries of the Yukon Area within the Arctic–Yukon–Kuskokwim (AYK) Region. Data from selected management and research projects are included in this report. More complete documentation of project results are presented in separate reports.

Data presented in this report supersede information found in previous management reports. An attempt has been made to update information and correct errors in earlier reports.

This report is organized into 3 major sections:

1. Salmon Fishery
2. Other Marine and Freshwater Finfish Fisheries
3. Cape Romanzof Herring

Yukon Area salmon information is provided in Appendices A, B, C, D, and E; Yukon Area freshwater finfish information is provided in Appendix F; and Cape Romanzof herring information is provided in Appendix G.

ABSTRACT

The 2014 Yukon Area management report summarizes management activities of the Alaska Department of Fish and Game, Division of Commercial Fisheries in the Yukon Area of Alaska. The report provides the Yukon Area status of salmon stocks in 2014 with reference to historical data, presents an outlook for the 2015 fishing season, and provides data on the use of salmon species by commercial and subsistence (Aboriginal) harvests, personal use (domestic), and sport (recreational) fisheries. Alaska and Canada fisheries are summarized as the Yukon River is a transboundary river. The report further compiles summaries of selected Yukon River projects (complete documentation of these projects and results may appear in separate reports). Fisheries data in this report supersedes information in previous annual management reports. Some of the data presented are preliminary and may be presented with minor differences in future reports. The Yukon Area report is organized into the following sections: 1) Salmon Fishery: this section presents a description of the area, fishery resources, and fisheries management practices, and a comprehensive report of the 2014 salmon fisheries, by summer and fall season, and makes comparisons with previous years, 2) Other Marine and Freshwater Finfish Fisheries: this section presents a description of the fishery resources and freshwater finfish fisheries other than salmon, including whitefish, lamprey, and 3) the Cape Romanzof District Herring Fishery.

Key words Chinook salmon, *Oncorhynchus tshawytscha*, chum salmon, *Oncorhynchus keta*, coho salmon, *Oncorhynchus kisutch*, Pacific herring, *Clupea pallasii*, whitefish, *Coregonus*, Arctic lamprey, *Lethenteron camtschaticum*, escapement, commercial harvest, subsistence harvest, season outlook, Yukon River Salmon Agreement, Yukon River, Yukon Area, Annual Management Report (AMR).

INTRODUCTION

The Alaska Department of Fish and Game (ADF&G), Division of Commercial Fisheries is responsible for the management of state subsistence, personal use, and commercial fisheries in the Yukon Area. This annual management report details the activities of ADF&G in the Yukon Area during 2014.

The Yukon Area includes all waters of the Yukon River drainage in Alaska and all coastal waters of Alaska from Point Romanof southward to the Naskonat Peninsula (Figure 1).

SALMON FISHERIES

DESCRIPTION OF AREA AND DISTRICT BOUNDARIES

The Yukon River is the largest river in Alaska and the fifth largest drainage in North America. The river originates in British Columbia, Canada, within 30 miles of the Gulf of Alaska, and flows over 3,190 km (1,980 mi) through Yukon Territory, Canada and Alaska, United States before emptying into the Bering Sea at the Yukon–Kuskokwim Delta. It drains an area of approximately 832,700 km² (321,500 mi²) of which 195,200 mi² lies within Alaska. With the possible exception of a few fish taken in the adjacent coastal waters near the mouth, only salmon of Yukon River origin are harvested in the Yukon Area.

Excluding the greater Fairbanks area (approximately 97,580 residents), there are approximately 22,230 rural residents in the Alaska portion of the drainage (Hunsinger 2012), the majority of whom reside in 43 small communities scattered along the coast and major river systems. Most of these people are dependent, to varying degrees, on fish and game resources for their livelihood.

Commercial salmon fishing is allowed along the entire 1,200 mile length of the mainstem Yukon River in Alaska, the lower 225 miles of the Tanana River, and the lower 12 miles of the Anvik River. The Yukon Area is divided into 7 districts and 10 subdistricts for management and regulatory purposes (Figure 2). The Lower Yukon Area (Districts 1, 2, and 3) includes the Yukon River drainage from the mouth upriver to a point near Old Paradise Village at river mile

301 (Figures 3, 4, and 5). The Upper Yukon Area (Districts 4, 5, and 6) is that portion of the Yukon River drainage upstream of a point near Old Paradise Village at river mile 301 to the Canadian Border (Figures 6, 7, and 8). Subdistrict 5-D is divided into 3 areas (lower, middle, upper) for management purposes (Figure 9). The Coastal District was established in 1994, redefined in 1996, and is open only to subsistence fishing. Within the *Set Gillnet Only Area* (Figure 10), located along the coastal area of District 1, only set gillnets are allowed during fall season commercial fishing periods. Additional fishing areas include the Fairbanks Nonsubsistence Area (Figure 11) and the Anvik River (Figure 12). The districts and subdistricts are further divided into 28 statistical areas for management and reporting purposes. Yukon River mileages at specific locations are listed in Appendix A2.

In addition to the U.S. fisheries, Aboriginal, commercial, sport, and domestic salmon fisheries occur in the Canadian portion of the Yukon River drainage. The Canadian Department of Fisheries and Oceans Canada (DFO) conducts the corresponding fishery management activities. Details about fisheries management in the Canadian portion of the Yukon River drainage can be found in the annual *Yukon River salmon season summary and season outlook* by the Yukon River Panel Joint Technical Committee (e.g. JTC 2015).

FISHERY RESOURCES

There are 5 species of Pacific salmon found in the Yukon River drainage: Chinook salmon *Oncorhynchus tshawytscha*, chum salmon *O. keta*, coho salmon *O. kisutch*, pink salmon *O. gorbuscha*, and sockeye salmon *O. nerka*.

Chinook salmon are the largest salmon found in the Yukon River, ranging from 2 to 90 pounds. Spawning populations of Chinook salmon have been documented throughout the Yukon River drainage from the Archuelinguk River, located approximately 80 miles from the mouth, to nearly 2,000 miles upstream at the headwaters of the drainage in Canada. Chinook salmon begin entering the mouth of the Yukon River after ice breakup in late May or early June and continue to migrate upriver through mid-July.

Chum salmon returns are made up of 2 genetically distinct runs: an early summer chum salmon run and a later fall chum salmon run. Summer chum salmon are characterized by earlier run timing (entering Yukon River from early June to mid-July), rapid maturation in freshwater, and smaller body size (average weight is approximately 6 to 7 pounds). Summer chum salmon spawn primarily in run-off streams in the lower 700 miles of the drainage and in the Tanana River drainage. Fall chum salmon are distinguished by later run timing (entering Yukon River from mid-July to early September), robust body shape, and larger body size (average weight is approximately 7 to 8 pounds). Fall chum salmon primarily spawn in the upper portion of the drainage in streams that are spring fed. Major fall chum salmon spawning areas include the Tanana, Porcupine, and Chandalar river drainages, as well as various streams in Yukon Territory, Canada, including the mainstem Yukon River. Fall chum salmon run size is typically much smaller than that of summer chum salmon.

Coho salmon enter the Yukon River from late July through September. Coho salmon weigh an average about 7 pounds. Coho salmon spawn discontinuously throughout the Alaska portion of the drainage, primarily in tributaries in the lower 700 miles of the drainage and in the Tanana River drainage. Major spawning populations of coho salmon have been documented in tributaries of the Tanana River and in the Andreafsky River.

Pink salmon enter the lower river from late June to late July. Pink salmon weigh on average about 2 to 3 pounds. They primarily spawn in the lower portion of the drainage, downstream of the community of Grayling (river mile 336). However, pink salmon have been caught in the mainstem Yukon River upstream as far upriver as Fort Yukon which is located at river mile 1,002 (Jallen et al. 2015). In the past decade, pink salmon have exhibited an abundance cycle alternating between high and low every 2 years, with high abundance typically observed during even numbered years.

Sockeye salmon are uncommon in the Yukon River drainage and only a few fish are caught each year. Sockeye salmon have been reported in the mainstem Yukon River upstream of Rampart (river mile 763). Observations of sockeye salmon have occurred in the Innoko (ADF&G 1986), Kantishna (Louis Barton, Commercial Fisheries Biologist, ADF&G, Fairbanks; personal communication), Tanana River upstream of confluence with Kantishna River (Bonnie Borba, Commercial Fisheries Biologist, ADF&G, Fairbanks; personal communication), Anvik (Mike Parker, Commercial Fisheries Biologist, ADF&G, Fairbanks; personal communication), and Gisasa (Carlson 2013) river drainages. Sockeye salmon are annually counted at the Andreafsky River weir (Mears 2015).

FISHERIES OVERVIEW

A list of indigenous fishes found in the Yukon Area is provided in Appendix A1. Of the 5 species of Pacific salmon found in the Yukon Area, Chinook, chum, and coho salmon are predominantly harvested in the subsistence, commercial, personal use, and sport fisheries. Lamprey and whitefish are also commercially harvested. Other marine and freshwater finfish are harvested primarily for subsistence use.

Chinook salmon is the most targeted subsistence species by number of fishermen with total (Alaska and Canada) harvests since 2004 averaging about 45,000 fish (Appendix A13). Restrictions to subsistence fishing opportunity, because of poor Chinook salmon since 2007, have limited their harvest in recent years. Chum salmon (summer and fall) provide the largest subsistence harvest in terms of numbers, with an average Alaska harvest of summer chum salmon since 2004 of 79,000 fish (Appendix A14), and an average total (Alaska and Canada) harvest since 2004 of 89,000 fall chum salmon (Appendix A15). Total (Alaska and Canada) subsistence coho salmon harvests since 2004 have averaged about 18,000 fish (Appendix A16). Pink salmon are harvested for subsistence primarily in the lower river districts. Even year subsistence harvests for the entire drainage since 2004 has averaged 6,700 fish (Appendix D5).

Historically, Chinook, summer chum, and fall chum salmon were targeted in the commercial fisheries, whereas coho salmon were harvested incidentally during fall chum directed fisheries. Since 2009, ADF&G has had the flexibility to conduct a late season coho salmon directed commercial fishing if certain stipulations are met (such fisheries occurred in 2009–2011 and 2014). Since 2004, commercial harvests of Chinook salmon have averaged 19,000 fish (Appendix A13). Chinook salmon harvest has been limited by poor runs during that time. A Chinook salmon directed commercial fishery has not been prosecuted since 2007 and commercial harvest through 2011 was incidental during the summer and fall chum directed fisheries. The commercial sale of Chinook salmon has been prohibited since 2012. Summer chum and fall chum salmon harvests were limited by poor runs in the early 2000s and by poor market conditions in the mid-2000s. Since 2007, salmon markets have been improving. Summer chum salmon commercial harvests since 2004 have averaged 199,000 fish (Appendix A14). As a

result of summer chum salmon run timing overlapping with Chinook salmon runs, their harvests have been limited by recent measures to conserve Chinook salmon. Fall chum salmon commercial harvests (Alaska and Canada) since 2004 have averaged 141,000 fish (Appendix A15), and coho salmon harvests since 2004 have averaged 45,000 fish (Appendix A16).

MANAGEMENT

The policy of ADF&G is to manage salmon runs to the extent possible for maximum sustainable yield, unless otherwise directed by state regulation (*Policy for the Management of Sustainable Salmon Fisheries* (SSFP; 5 AAC 39.222.)). Over the past few decades, ADF&G has managed salmon fisheries in the Yukon Area with the dual goal of achieving desired escapements consistent with the SSFP and also maintaining important fisheries. The Alaska State Legislature and the BOF have designated subsistence use as the highest priority among beneficial uses of the resource. In order to maintain the subsistence priority and provide for spawning escapements to ensure sustainable yields, Yukon River salmon fisheries must be managed conservatively.

For management purposes, the summer season refers to the fishing associated with the Chinook and summer chum salmon migrations and fall season refers to the fishing associated with the fall chum and coho salmon migrations. Salmon fisheries within the Yukon River drainage may harvest stocks that are up to several weeks and over a thousand miles from their spawning grounds. Since the Yukon River subsistence and commercial fisheries are mixed stock fisheries, some tributary populations may be under- or over- exploited in relation to their actual abundance. Based on current knowledge, it is not possible to manage for individual stocks in most areas where fishing occurs. Fisheries within the Tanana and Anvik river drainages are managed as terminal areas.

Management of the Yukon River salmon fishery is complex due to overlapping multispecies salmon runs, increasing efficiency of the fishing fleet, allocation issues, and the immense geographic expanse of the Yukon River drainage. ADF&G uses an adaptive management strategy that evaluates run strength inseason to determine a harvestable surplus above escapement requirements and subsistence uses. The primary tools used by ADF&G to manage the salmon fisheries are management plans, guideline harvest ranges (GHR) established by the BOF, and EO authority, which is used to implement time and area openings, closures, and mesh size restrictions. Guideline harvest ranges have been established for Chinook, summer chum, and fall chum salmon commercial fisheries throughout the Alaska portion of the drainage (Table 1). ADF&G attempts to manage the commercial salmon fisheries so the harvest in each district or subdistrict is proportional to the respective guideline harvest ranges. Typically, the majority of the coho salmon harvest is incidental to the fall chum salmon fishery and their management is conditional to the abundance of fall chum salmon. ADF&G does have the option to conduct late season coho salmon directed commercial fishing if certain stipulations are met.

During the fishing season, management is based on preseason projections and inseason run assessment. Inseason run assessment includes abundance indices from test fisheries, passage estimates from various sonar projects, and spawning escapement and harvest data. Since 1995, the mainstem sonar project at Pilot Station has provided inseason estimates of salmon passage for fisheries management. The level of subsistence, commercial, sport, and personal use harvests can be adjusted through the use of EO to control time and area of openings and closures. News releases announcing EOs are broadcast on local radio stations, posted on the state web site (<http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.main>), VHF radio where available,

transmitted by fax, and emailed to select communities, processors, buyers, and fishermen. Additionally, most processors and buyers are notified of EOs by telephone.

In 2014, various government and non-government agencies operated projects in the Alaska and Canadian portions of the Yukon Area to obtain the biological information necessary for management of salmon runs (Appendices A20 and A21). The types of monitoring projects operating in the Alaska portion of the drainage include:

1. *Catch and effort assessment:* The harvest and effort of commercial, subsistence, personal use, and sport salmon fisheries were assessed for the Alaska portion of the Yukon River drainage. Commercial salmon fishing was monitored from June through October using fish tickets of commercial sales of salmon. In the majority of the Yukon Area, there is no regulatory requirement for fishermen to report their subsistence salmon harvest. The subsistence salmon harvest from communities is estimated through a voluntary household survey program. In areas of the drainage with road access, fishermen must obtain subsistence or personal use household permits on which their daily harvest is recorded. Similarly, sport fishing harvest and effort was estimated by Division of Sport Fish using mail-out questionnaires to sport fishing permit holders. Weekly teleconferences were held from June through August by the Yukon River Drainage Fisheries Association (YRDFA) as a forum for fishermen along the Yukon River to interact with state and federal managers and for the dissemination of fisheries information.
2. *Test fishing:* A test fishing project was operated in the lower Yukon River at the South and Middle (Middle and North combined) Mouths. The project utilized set gillnets from late May through July 15 to index the Chinook salmon run. Additionally, test fishing utilized drift gillnets from June through July 15 to provide an index of Chinook and summer chum salmon, and from July 16 through mid-September for fall chum and coho salmon runs. The test fisheries also provided run timing and age composition information. Finally, a test fish wheel equipped with video monitoring system was used to index passage of salmon and species other than salmon based on catch per unit effort (CPUE) at the area known as “Rapids” between the communities of Tanana and Rampart on the mainstem Yukon River. A test fish wheel was also used to collect CPUE data as part of species apportionment at the Tanana River sonar site based out of Manley Hot Springs.
3. *Mainstem sonar projects:* Hydroacoustic equipment was operated in the mainstem Yukon River at 2 locations; near Pilot Station to obtain inseason salmon passage estimates by species and near Eagle to estimate passage of Chinook and chum salmon into Canada.
4. *Tributary sonar projects:* Hydroacoustic equipment was operated in the Anvik River to estimate summer chum salmon escapement, and in the Chandalar and Porcupine rivers to estimate fall chum salmon spawning escapements. A sonar feasibility study on the Tanana River to estimate Chinook, chum and coho salmon was also conducted.
5. *Age, sex, and size composition:* Data were collected from salmon harvested in commercial and subsistence fisheries, as well as test fisheries and escapement projects located throughout the Yukon River drainage. Samples were collected using gillnets, fish wheels, beach seines, weir traps, and carcass surveys. Scales were collected from salmon harvested to determine age composition of the runs. Chum salmon carcass sampling uses vertebra instead of scales for aging because of

- resorption problems. Sex was determined by examining internal reproductive organs or external characteristics. Length was measured from mid eye to tail fork.
6. *Genetic stock identification:* Genetic samples were collected from Chinook and chum salmon caught in the select test fisheries throughout the drainage. Samples were also collected from subsistence caught Chinook salmon in District 4 and Subdistrict 5-D. In addition, genetic samples were collected from fall chum salmon harvested in the District 1 commercial fishery. Finally, inseason analysis of Chinook and chum salmon was conducted to identify various stocks for inseason management purposes.
 7. *Aerial and ground surveys of salmon spawning streams:* Aerial surveys were flown to monitor spawning escapements in major spawning tributaries throughout the Yukon River drainage. Surveys for Chinook and summer chum salmon were flown in July and August. Fall chum salmon foot surveys were conducted at selected areas in the Tanana River drainage in October and November. Additionally, aerial surveys were conducted in the Upper Tanana River and Nenana River drainage to estimate fall chum and coho salmon escapement in October and November.
 8. *Tower projects:* Tower counting projects were used on the Chena and Salcha rivers to estimate escapement of Chinook and summer chum salmon from July through August. A tower project was operated on the Goodpaster River in the Tanana River drainage to estimate Chinook salmon escapement during July.
 9. *Weir projects:* Weirs were operated on the East Fork Andreafsky River, Gisasa River, and Henshaw Creek from June to August to estimate Chinook and summer chum salmon escapement.
 10. *Juvenile studies:* Yukon Delta Smolt Project: 2-boat tow nets are used to assess juvenile salmon as they migrate out of the Yukon River Delta and into the marine environment. This is a short term study attempting to improve our understanding of outmigration timing, size, condition, diet and other factors that may affect salmon survival at this critical transition. Northern Bering Sea Juvenile Salmon Survey: A surface trawl survey is conducted in the northeastern Bering Sea (Nunivak Island north to Bering Strait and east of St. Lawrence Island) to assess abundance, size, diet and condition of juvenile salmon after they've spent their first summer in the ocean. Although this project assesses all salmon species, Chinook salmon are the primary focus. An adult run-size forecast has been developed for Canadian Yukon River Chinook salmon based on the abundance of juveniles observed in this survey.
 11. *Radiotelemetry:* A large-scale radiotelemetry project (ADF&G) was conducted to estimate abundance and distribution of summer chum salmon above Russian Mission in 2014 with an anticipated additional 3 years of study. The goal of this multi-year study was to determine the migratory characteristics, abundance, and spawning distribution of summer chum salmon. This project, in the first year, has provided population estimates that closely track with the mainstem Yukon River sonar near Pilot Station and the sonar on the Anvik River. Additionally several nominations to the anadromous waters catalog have come from this project thus expanding the range of documented spawning areas within the drainage. A separate (USFWS and TCC) radiotelemetry project was conducted on summer chum salmon within the Koyukuk River drainage proper and agency aerial survey flights were coordinated between the 2 projects to maximize the coverage. High water hindered tagging and recovery efforts throughout the first year of the 3 year study on the Koyukuk River.

Distribution was estimated throughout the drainage; however abundance estimates were not made. High water at the recapture sites (Gisasa River and Henshaw Creek weirs) prevented the weirs from operating for the entire summer. In addition to gaining distribution information, over 160 km of streams on 2 tributaries of the Koyukuk River (Billy Hawk and Hughes Creeks) were nominated to be included in ADFG's anadromous waters catalog.

The Yukon River Chinook salmon¹ run is managed according to the guidelines described in the *Yukon River King Salmon Management Plan* (5 AAC 05.360). The management plan provides for escapement needs and subsistence uses while aiming to reestablish the historic range of harvest levels by other users. Additionally, in response to guidelines established in the SSFP (5 AAC 39.222(f)(42)), the BOF classified Yukon River Chinook salmon as a yield concern at its September 2000 work session. A stock of yield concern is defined as “a concern arising from a chronic inability, despite the use of specific management measures, to maintain expected yields, or harvestable surpluses, above a stock's escapement needs; a yield concern is less severe than a management concern” (5 AAC 39.222(f)(42)). The SSFP defines chronic inability as “the continuing or anticipated inability to meet expected yields over a 4 to 5 year period”. This determination as a yield concern was originally based on low harvest levels for the previous 3year period (1998–2000) and anticipated low harvest in 2001. The classification as a yield concern was continued at the January 2004, January 2007, January 2010, and January 2013 BOF meetings (Schmidt and Newland 2012). Fishing restrictions necessary during poor runs have caused a dramatic decline in commercial harvests since 1998 and decreased subsistence harvests since 2007. Reduced fishing periods were implemented for the subsistence fishery throughout the drainage in 2008, marking the beginning of a trend of more active management for this fishery to conserve Chinook salmon to achieve escapement goals. Even greater restrictions were implemented in 2009, 2011, and 2012. Subsistence fishing time on the mainstem was reduced in all 3 years and gear restrictions were implemented in 2012, in addition to subsistence fishing closures. Closures and gear restrictions were even more extensive in 2013.

The Yukon River summer chum salmon run is managed according to the guidelines described in the *Yukon River Summer Chum Salmon Management Plan* (5 AAC 05.362). The intent of this plan is to conservatively manage harvests in order to provide for escapement needs and subsistence use as a priority over other consumptive uses such as commercial, sport, and personal use fishing. Since 2001, this management plan has allowed for varying levels of harvest opportunity depending on the run size projection. If the projected run is size is 700,000 to 1,000,000 summer chum salmon and a district, subdistrict, or tributary is projected to meet its escapement goals, then a directed commercial fishery may be opened in the immediate area. When the run size is projected to be greater than 1,000,000 fish based on the Pilot Station sonar project, a directed summer chum salmon commercial fishing may be opened to harvest the available surplus. When the projected commercial harvest range is 0–400,000 summer chum salmon, a specific percentage of harvest determined by the BOF should be allocated by district or subdistrict based on the low end of the established guideline harvest ranges. In 2010, the BOF modified the management plan to allow a commercial harvest of up to 50,000 fish if the run size

¹ In regulation, Chinook salmon and King salmon both refer to *Oncorhynchus tshawytscha*.

was between 900,000 and 1,000,000 fish, distributed by district or subdistrict in proportion to the guideline harvest levels.

Directed summer chum salmon commercial opportunity has been provided in 2007 through 2013. Unfortunately, despite harvestable surpluses available in these years, redevelopment of this fishery has been hindered by conservative management strategies taken in response to poor Chinook salmon runs which co-migrate with summer chum salmon.

The *Anvik River Chum Salmon Fishery Management Plan* (5 AAC 05.368.) allows a harvest of the available Anvik River summer chum salmon above spawning escapement goals and to decrease the harvest pressure on non-Anvik River summer chum salmon stocks located in the mainstem Yukon River. Under this plan, the Anvik River may be opened to summer chum salmon commercial fishing if a surplus beyond the escapement goal of 500,000 fish is available. All Chinook salmon taken in the Anvik River during commercial fishing periods must be returned to the water alive. Summer chum salmon were harvested in this terminal area only during the years 1994–1997.

Fall chum salmon runs have been mostly average to above average since 2005 and sufficient for meeting escapement and subsistence needs while providing for a limited commercial harvest (with the exceptions of 2009 and 2010). Management of the Yukon Area fall season commercial salmon fisheries is in accordance with the *Yukon River Drainage Fall Chum Salmon Management Plan* (5 ACC 01.249). The plan sets the threshold number of fall chum salmon needed to prosecute a commercial fishery at 500,000 fish and commercial fishing is allowed on the surplus above that level. The fall chum salmon plan incorporates the amount of fall chum salmon needed to meet U.S./Canada treaty objectives for border passage and provides guidelines necessary for escapement and prioritized uses. The intent of the plan is to align management objectives with the established escapement goals, provide flexibility in managing subsistence harvests when stocks are low, and bolster salmon escapement as run abundance increases. The sustainable escapement goal (SEG) range for the Yukon River drainage is 300,000 to 600,000 fall chum salmon. There are provisions in the plan to allow incremental levels of subsistence salmon fishing balanced with requirements to attain escapement objectives during low runs.

Coho salmon runs have been below average to average in recent years with escapement and subsistence needs being met. Coho salmon are primarily harvested incidentally during the fall chum directed commercial fishery. The *Yukon River Coho Salmon Management Plan* 5 ACC 05.369 allows a coho salmon directed commercial fishery in the absence of achieving the threshold number of fall chum salmon if a harvestable surplus of coho salmon exists and if a commercial fishery will not have a significant impact on fall chum salmon escapement and allocation.

Finally, under the *Tanana River Salmon Management Plan* 5 AAC 05.367 commercial fishing in Subdistrict 5-A and District 6 is based on the assessment and timing of salmon stocks bound for the Tanana River drainage.

Since 2001, the subsistence fishery has been based on a schedule implemented chronologically by ADF&G and consistent with migratory timing as the run progresses upstream. Subsistence fishing is open 7 days per week until the schedule is established. The subsistence salmon fishing schedule is based on current or past fishing and provides reasonable opportunity for subsistence during years of average to below average runs. The objectives of the schedule are to 1) reduce harvest early in the run when there is a higher level of uncertainty in run assessment, 2) spread

the harvest throughout the run to reduce harvest impacts on any particular component of the run, and 3) provide subsistence fishing opportunity among all user groups during years of low salmon runs.

The schedule for subsistence salmon fishing is as follows:

- (1) Coastal District, Innoko, Koyukuk, and Kantishna rivers, and Subdistrict 5-D: 7 days per week;
- (2) Districts 1, 2, 3: two 36-hour periods a week;
- (3) District 4 and Subdistricts 5-A, 5-B and 5-C: two 48-hour periods a week;
- (4) District 6: two 42-hour periods a week; and
- (5) Old Minto Area: 5 days per week.

ALASKA BOARD OF FISHERIES ACTIONS

The BOF met in Anchorage March 17–21, 2014 to consider statewide shellfish and supplemental proposals. Three proposals were adopted by the BOF affecting the Yukon Area commercial salmon fishery regulations. The following is a summary of the regulatory changes that will be effective for the 2014 fishing season.

Proposal 371 sought to remove dip net size restrictions for the Yukon Area Districts 1–3 commercial summer chum salmon fishery. This proposal was amended to provide a larger dip net frame for noncircular dip nets. Under the new regulation, fishermen in the Districts 1–3 commercial summer chum salmon dip net fishery are allowed to use a net frame that is non-circular, and a width-height dimensions not exceeding 6 feet by 3 feet. All other existing dip net specifications remained unaltered. A circular net frame could be up to 5 feet across, as measured through the net opening. The dip net bag depth must be at least one-half of the greatest straight-line distance, as measured through the net opening. Mesh size for dip nets is 4.5 in or less. A commercial permit holder can operate up to 4 dip nets at a time. Fishermen are required to immediately release incidentally caught Chinook salmon back to the water alive.

Proposal 372 proposal sought to modify the specifications and operations of commercial fish wheels in the Yukon Area by allowing the use of leads. Adoption of this proposal aligns regulations with current commercial fishing practices, authorizing a long standing practice.

Proposal 373, submitted by ADF&G, sought to remove the exception allowing for dead Chinook salmon to be taken, but not retained, in the Yukon Area Districts 1–3 dip net and beach seine commercial summer chum salmon fishery. Adoption of this proposal closed the loophole that may have allowed fishermen to illegally harvest Chinook salmon when commercial fishing and clearly ensures all Chinook salmon are returned immediately to the water alive.

Proposal 377, developed by the BOF from an emergency petition request from YDFDA, sought to authorize the use of purse seine gear for commercial harvest of Yukon River summer chum salmon in Districts 1–3 during times of Chinook salmon conservation. Secondly, it would allow monofilament purse seine web to be used in this fishery. This proposal failed. However, a test fishery will probably be conducted by ADF&G in 2015 in cooperation with the proponent to further evaluate the feasibility of harvesting summer chum and releasing live Chinook salmon from purse seine gear.

FEDERAL SUBSISTENCE MANAGEMENT

The Alaska National Interest Lands Conservation Act (ANILCA) of 1980 mandates that rural subsistence users have a priority over other users to take wildlife on federal public lands where recognized customary and traditional use patterns exist and required the creation of Regional Advisory Councils (RAC) to enable rural residents to have a meaningful role in federal subsistence management. On October 1, 1999, the Secretaries of Interior and Agriculture published regulations to expand federal management of subsistence fisheries to Alaska rivers, lakes, and limited marine waters within, and adjacent to, federal public lands. The Secretary of Interior and the Secretary of Agriculture delegated their authority in Alaska to the FSB to manage fish and wildlife resources for subsistence uses on federal public land, including waters running through or next to these lands. Federal subsistence fishing regulations are adopted by the FSB. The RACs provide recommendations and information to the FSB, review policies and management plans, provide a public forum, and deal with other matters relating to subsistence uses. The FSB or U.S. Fish and Wildlife Service (USFWS) may close fishing for other uses in these waters and implement a priority for federally qualified rural subsistence users if it is determined that state-managed fishery management is causing subsistence or conservation concerns (Ward and Horn 2003).

Federal subsistence fishing schedules, openings, closures, and fishing methods are established in regulations (Department of Interior 2011). In general, the regulations are the same as those issued for the subsistence taking of fish under Alaska Statutes (AS 16.05.060); however, differences in regulations do exist. In some cases, state regulations can be superseded by a Federal Special Action.

Federal subsistence management actions

The FSB met April 15–18, 2014, to review federal subsistence hunting and trapping proposals regarding regulation changes to the Code of Federal Regulation under the Federal Subsistence Management Program on federal public lands within the State of Alaska. Federal subsistence fish and shellfish proposals are introduced in even numbered years and acted on by the FSB and implemented in odd numbered years. During the meeting, the FSB took no action on several special actions requests for implementing a priority for federally qualified rural subsistence users and community quota permit system for Yukon River Chinook salmon.

Two Yukon River federal subsistence special action requests were submitted to the FSB in late June 2014. On June 24 the Native Village of Marshall submitted special action request FSA14-07 for a limited Chinook salmon harvest for Marshall and on June 25 the Iqurmiut Traditional Council submitted special action request FSA14-08 for a limited Chinook salmon harvest for Russian Mission.

Due to the timing of these requests and the number of communities involved the Office of Subsistence Management did not have the time required to appropriately conduct the ANILCA Section 804 analysis required to process these requests prior to the end of the 2014 Yukon River Chinook salmon fishing season. Therefore, the FSB took no action on either of these special action requests. In addition, following the submittal of these special action requests, inseason managers were able to provide a gillnet subsistence salmon fishing period for Marshall on 28 June and Russian Mission on 3 July.

The Yukon Area federal management staff work closely with ADF&G Commercial Fisheries Division Yukon Area managers, sharing information and coordinating management actions. Many public fisheries related meetings are attended throughout the year by both agencies jointly and individually that are preceded with considerable effort to provide consistent stock information, management strategy expectations, and rationale for enacted management actions. The State of Alaska area managers are the lead agency staff with authority throughout the entire Yukon Area whereas the federal management authority is primarily limited to overlapping waters adjacent to Federal Conservation Units. During the 2014 fishing season, federal managers issued 34 Streamlining Actions (28 summer; 6 fall) which aligned federal regulations with state regulations that were established through EO authority. Management of the Yukon Area commercial fishery by the state prompted issuance of 6 Federal Memorandums of Concurrence (5 summer; 1 fall). These memorandums documented federal consideration which resulted in concluding state actions taken in regulating the commercial fishery provided adequate assurances for escapement and federal subsistence needs. No Federal Special Actions were issued during the 2014 season which would be used to implement changes in federal rules that differ from state regulations. Drift gillnet subsistence fishing for Chinook salmon in federal public waters of Subdistricts 4-B and 4-C was closed for the entire Chinook salmon fishing season.

CANADIAN YUKON RIVER SALMON FISHERY

DFO has provided annual harvest data from the Canadian portion of the Yukon River drainage since 1962. Records indicate a Canadian commercial fishery occurred sporadically from 1903 to 1917 and continuously from 1918 to 1947. No harvest records are available from 1948 to 1957. Harvest records document the annual salmon harvest by species since 1958 and also by user group since 1961.

The Canadian portion of the Yukon River drainage maintains Aboriginal, domestic, commercial, and recreational fisheries for salmon. The Aboriginal and domestic fisheries are comparable to subsistence and personal use fisheries in Alaska, although the Aboriginal fishery is only open to native people. All of the commercial salmon harvests in Canada occur on the mainstem Yukon River. Canadian salmon harvests in the Porcupine River drainage consist only of an Aboriginal fishery.

U.S./Canada Yukon River salmon panel and treaty negotiations

Negotiations were initiated in 1985 between the U.S. and Canada regarding a Yukon River salmon treaty that would enhance the management coordination of salmon stocks spawning in the Canadian portion of the Yukon River drainage. Reaching a comprehensive long-term agreement posed a formidable challenge through the mid-1990s. In February 1995, an agreement was formalized resulting in an interim Yukon River Salmon Agreement (YRSA). A U.S./Canada Yukon River Panel (Panel) was formed to implement the YRSA. The focus of the Panel was on the salmon stocks that spawn in the Canadian portion of the Yukon River drainage.

In December 2002, the United States and Canada signed a formal YRSA that set salmon harvest share target ranges based on a postseason assessment of run strength for Chinook and fall chum salmon into the Canadian mainstem of the Yukon River. Under the YRSA, the Alaska and Canadian fisheries are managed consistent with conservation objectives that were jointly developed. The Yukon River Panel meets semi-annually to resume management recommendations. The Panel advises the United States and Canadian Governments on conservation and management of the salmon originating in the Canadian portion of the Yukon

River. In recognition of the changing dynamics of the fishery and the spirit of the agreement, interim management objectives are reviewed and agreed upon jointly each spring prior to the salmon returns.

For the 2014 season the Panel agreed to 1 year Canadian IMEG ranges of 42,500 to 55,000 Chinook salmon and 70,000 to 104,000 fall chum salmon based on the Eagle sonar project (JTC 2015). The agreed upon weir based IMEG range for the Fishing Branch River was a range of 22,000 to 49,000 fall chum salmon, however, the weir has not operated since 2013. In addition to escapement needs, Alaska is obligated to share harvestable surpluses of the Canadian run component, with Canada receiving 20% to 26% of the available total allowable catch (TAC) for Canadian bound Chinook salmon and 29% to 35% of the available TAC for Canadian bound fall chum salmon.

Canadian Chinook salmon

Cooperative U.S/Canada management of Canadian-origin Yukon River Chinook salmon was based on an agreed escapement goal range for rebuilding stocks of 33,000–43,000 fish from 1985 to 2007. This goal was developed from, and subsequently monitored by, a mark–recapture program located just upstream of the international border on the Yukon River. Since 2005, the parties have developed a new and improved technique, the Eagle sonar project, to assess the abundance of salmon migrating into Canada. Estimates derived from the mark–recapture program were consistently lower than those produced from the sonar project. Based on the disparity between the mark–recapture and sonar project estimates of Canadian border passage, it was inappropriate to continue to apply the longstanding escapement goal based on mark–recapture to escapement estimates derived from the sonar project.

The JTC recommended using the Eagle sonar project in 2008 as the primary assessment tool for the border passage estimate and reviewed the best approach to transition from the mark–recapture based escapement goal to a new goal based on and assessed by the sonar project. Considerable analyses were conducted to construct a new database of stock and recruitment information that was not solely based on mark–recapture estimates. These analyses included examining the relationships among aerial survey indices (3 scenarios: 3-area index; 4-area index; and a single index) and independent border passage estimates (2 scenarios: Eagle sonar project passage estimates; and passage estimates derived from a radiotelemetry program). A JTC working group reviewed extensive analyses undertaken by Gene Sandone with ADF&G and, after thorough discussion at the March 2008 JTC meeting, made proposals to the JTC as a whole.

The JTC discussed recommendations provided by the Chinook Salmon Escapement Goal working group for a minimum IMEG in 2008. Although working group members could justify IMEG targets ranging from 45,000 to 50,000, consensus was eventually achieved. The JTC recommended that the Panel adopt an IMEG of >45,000 Canadian-origin Yukon River Chinook salmon for 2008 to be assessed using information from the Eagle sonar project. This recommendation was established for 1 year, recognizing that further analysis of a biologically based escapement goal was required and additional factors such as habitat capacity had yet to be incorporated. In 2009, the JTC recommended that the minimum IMEG (>45,000) be used for a second year.

In 2010, the JTC recommended that the IMEG be established as a range to allow for the uncertainty of information from assessment projects. The JTC reached consensus for an upper bound of 55,000 and the Panel agreed to adopt a lower bound of 42,500. The IMEG range of

42,500 to 55,000 Chinook salmon has been retained since 2010. In the absence of a biological escapement goal (BEG), the JTC recommends retaining this IMEG range again in 2015, as per the intention of the Panel to retain this objective until 2016. The success of achieving this escapement goal is to be assessed using the Eagle sonar passage estimate minus catches from fisheries occurring upstream of the sonar, namely U.S. subsistence catch near the community of Eagle, Alaska and the catch data from Canadian fisheries. The JTC is continuing to examine other data and approaches that may be used in recommending a revised, biologically-based escapement goal for future years.

Canadian fall chum salmon

The upper Yukon River escapement goal specified within the YRSA is greater than 80,000 fall chum salmon. This goal was achieved 20 times during the period from 1982 to 2014. The DFO fall chum salmon mark-recapture program was conducted from 1982 to 2008 and the joint U.S./Canada sonar program at Eagle was conducted for fall chum salmon from 2006 to 2014. The mark-recapture estimates generally agreed with Eagle sonar estimates for fall chum salmon when the 2 programs were conducted concurrently (2006–2008). Therefore, the Eagle sonar project became the primary assessment tool for the Canadian border passage and has been applied from 2006 to present.

The upper Yukon River escapement goal was reviewed in 2001 and after considerable analysis of the available data a recommendation was made for a BEG of 60,000 to 129,000 fall chum salmon (Eggers 2001). However, due to concerns over the quality of the data and analytical issues, the BEG recommendation was not accepted during a Pacific Scientific Advice Review Committee (PSARC) review (Tanasichuk 2002).

For 2014, the JTC recommended that the upper Yukon IMEG remain as established in 2010 as a range from 70,000 to 104,000 fall chum salmon. This range was developed as 0.8 to 1.2 times the estimated spawners at maximum sustained yield of 86,600 fish. A range was established to offer more flexibility with respect to uncertainties associated with management. Low production from the very large escapement in 2005 has greatly increased the contrast in the spawner-recruit data, but the spawner-recruit analysis cannot be completed until estimates of the proportions of Canadian-origin fall chum salmon in Alaska harvests can be obtained. The JTC escapement goal subcommittee will continue to examine other data that may be used in recommending a revised escapement goal for future years, including genetic stock composition and age composition estimates for this stock.

Fishing Branch River fall chum salmon

The escapement goal specified within the YRSA is a range of 50,000 to 120,000 fall chum salmon to the Fishing Branch River. This goal has been achieved only 10 times from 1974 to 2012 and only 5 times from 1985 to 2012 when the weir program returned to operation. The Fishing Branch River escapement goal was reviewed in 2001 and after a thorough analysis of the available data a recommendation was made for a BEG of 27,000 to 56,000 fall chum salmon (Eggers 2001). However, because of concerns over the quality of the data and analytical issues, the BEG recommendation was also not accepted during a Pacific Scientific Advice Review Committee (PSARC) review (Tanasichuk 2002).

The YRSA goal of 50,000–120,000 fish was achieved only once over the 2 fall chum salmon 4year cycles preceding 2008 when escapements to the upper Yukon River in Canada were

rebuilding. This led the JTC to question whether the lack of success was related to an unrealistically high goal. A JTC escapement goal subcommittee reviewed the goal and attempted to address some of the issues raised during the PSARC review. However as with the mainstem goal, no harvest proportions are available to separately estimate the spawner-recruit relationship in the Canadian-origin stock.

In April 2008, the Panel accepted the JTC recommendation to adopt an IMEG range of 22,000 to 49,000 fall chum salmon for the Fishing Branch River for the 2008 to 2010 period. The percentile method (Clark et al. 2014) was used to determine the IMEG. The analysis used escapement contrast (i.e. ratio of maximum to minimum escapement) and harvest rate information to determine what percentile range of observed escapements is appropriate for the escapement goal range determination. In the Fishing Branch River fall chum salmon analysis, escapements from 1985 to 2007 (excluding 1990) were incorporated along with the high contrast ratio of 24:1. The escapement goal range reflects the approximate 25 and 75 percentiles of 22 years of Fishing Branch River weir counts.

This IMEG range was extended in 2010 for another 3 years, 2011–2013 (Appendix A19). The 2012 Fishing Branch weir count and run size estimate did not provide any indication that the 2008 IMEG required revision. The JTC recommended extending the Fishing Branch IMEG range (22,000 to 49,000 fall chum salmon) for another 3 years, 2014–2016. The Panel directed the JTC, at their fall 2014 meeting, to provide them with Fishing Branch River fall chum salmon rebuilding options. The options were presented to the Panel at the spring 2015 meeting. However, the Panel could not reach a consensus on adopting a rebuilding plan. The current IMEG will remain in effect through the 2016 season.

Assessment of the Fishing Branch River fall chum salmon IMEG can no longer be based on weir counts because the weir project was discontinued after the 2012 season. A new sonar project in combination with a radiotelemetry project located near the U.S./Canada border on the Porcupine River is being used to attempt to determine if the Fishing Branch River goal was achieved. The sonar estimate minus the aboriginal harvest from the community of Old Crow provides the escapement to the upper Porcupine River. Radiotelemetry was used to determine the proportion of the fish bound for the Fishing Branch River compared to other possible spawning locations (JTC 2014). However, because there are concerns about the tagging portion of this study, comparing it to the weir goal is not substantiated. The JTC is currently analyzing options including appropriate methods to substitute for the weir-based assessment in the Fishing Branch River, and a possible alternative Porcupine River border passage goal, which could be developed using the existing sonar project.

2014 SALMON MANAGEMENT AND HARVESTS

Total Yukon drainage salmon harvest

The total 2014 harvest for the Yukon River drainage, including Canada, was 2,822 Chinook, 598,466 summer chum, 212,911 fall chum, and 121,993 coho salmon (Table 2). The 2014 estimated total Yukon River drainage harvests compared to the recent 55-year (2009–2013) averages were as follows: Chinook salmon lowest on record and 92% below average (Appendix A13); summer chum salmon 57% above average (Appendix A14); fall chum salmon 15% below average (Appendix A15); and coho salmon 96% above average (Appendix A16). The subsistence harvest in the Alaska Coastal District (Scammon Bay and Hooper Bay) of 563 Chinook, 19,304 summer chum, 252 fall chum, and 204 coho salmon brought the total Yukon

River Area harvest, excluding Canadian harvest, to 3,282 Chinook salmon, 617,779 summer chum, 208,130 fall chum, and 122,064 coho salmon (Appendices A13–A16).

Alaska commercial fishery

A total of 5 salmon processors and/or catcher-sellers registered in the Alaska portion of the Yukon Area in 2014 (Table 3). The total 2014 commercial harvest for the Yukon Area in Alaska was 0 Chinook, 530,644 summer chum, 115,593 fall chum, and 104,638 coho salmon (Tables 4, 5, 6, and 7). The 2014 commercial harvest totals compared to the respective most recent 5-year averages (2009–2013) were as follows: summer chum salmon 79% above (Appendix A14); fall chum salmon 27% below (Appendix A15); and coho salmon 128% above (Appendix 16). The commercial sale of Chinook salmon was not allowed in 2014 (or in 2012–2013) because of conservation concerns (Appendix 13). A total of 482 permit holders participated in the 2014 commercial fishery compared to the 2009–2013 average of 454 permit holders (Appendix A8). Yukon River fishermen in Alaska received an estimated \$3.1 million for their salmon harvest in 2014 compared to the 2009–2013 average of \$2.4 million (Appendix A11).

Chinook and summer chum salmon season summary

ADF&G monitors a suite of assessment projects that provide critical salmon run timing, relative abundance, and stock composition information. Inseason run assessment included test fisheries, sonar passage estimates, subsistence and commercial harvest data, and age, sex, and length (ASL) data. In addition, genetic samples collected were analyzed inseason to investigate stock contribution for both summer chum and Chinook salmon. Information from multiple projects was corroborated when possible to provide the best run assessment.

Initial assessment in the lower river is critical to implementing an inseason management plan to operate an orderly fishery throughout the drainage. Three projects on the lower river provided estimated inseason abundance and timing information: the Lower Yukon test fishery (LYTF), a set net project primarily designed to assess Chinook salmon run timing operated in the Middle and South Mouths of the Yukon River; a summer chum salmon directed drift gillnet test fishery using 5.5 in mesh operated in the Middle and South Mouths of the Yukon River; and a sonar project near Pilot Station which provided mainstem abundance estimates for Chinook and summer chum salmon. As in recent years, additional drift gillnet test fishing was conducted throughout the season in the South Mouth with 8.25 in mesh gillnets for Chinook salmon to provide supplemental run timing and relative abundance information. Given the anticipated low run size, efforts were made by ADF&G to reduce Chinook salmon mortality in test fisheries by releasing Chinook salmon from drift test nets when their condition was deemed acceptable. Due to mortality rates, drift gillnet test fishing replaced set gillnet test fishing for Chinook salmon in the South Mouth early in the season.

Ice break up in the lower river occurred on May 9, which was considerably earlier than the average break up date of May 22 (Appendix A22). The first reported Chinook salmon harvest on the Yukon River occurred on May 19 which is the earliest reported Chinook salmon subsistence harvest in a decade. Test fishing operations were delayed until after subsistence fishing opportunity was discontinued. The LYTF was operational at the South Mouth site on May 27 and at the Middle Mouth site on June 7. The first Chinook salmon was caught in the test fishery on May 27. In an effort to reduce Chinook salmon mortality, the set net sites located in the Big Eddy area of the South Mouth were discontinued after June 6. Additionally, only 1 net operated in Middle Mouth in a further effort to reduce Chinook salmon mortality. The LYTF concluded

operations on July 7 with a cumulative CPUE of 36.55, which was well above the historical average CPUE of 26.08. The first quarter point, midpoint, and third quarter point were June 14, June 21, and June 25, respectively. The 8.25 in drift gillnet project for Chinook salmon operated in Big Eddy until July 15 and provided valuable supplemental assessment information for Chinook salmon entering the South Mouth of the Yukon River. In accordance with the goal of reducing Chinook salmon mortality, 622 Chinook salmon were released from the LYTF.

The preliminary cumulative passage estimate at the sonar project located near Pilot Station was approximately 137,985 Chinook salmon (Appendix E3), which was below the historical average² of 139,800, and below the average of 195,900 for years with early run timing³. Chinook salmon run assessment analysis was focused on making comparisons to other early run years in order to make informed management decisions. The first quarter point, midpoint, and third quarter point were on June 12, June 19, and June 24, respectively. Chinook salmon entered the river in 4 pulses consisting of 22,300 fish; 44,400 fish; 21,500 fish; and 4,700 fish.

Approximately 1.9 million (Appendix E3) summer chum salmon passed the sonar project near Pilot Station, which was on track with the historical median of 1.9 million for the project. The first quarter point, midpoint, and third quarter point were June 18, June 23, and June 30, respectively. Four large pulses of summer chum were detected with the largest group, approximately 341,800 fish, passing the sonar project from June 21 to June 23.

Summer season subsistence fishery summary

Based on the expectation that the 2014 Chinook salmon run could be near the lower end of the preseason projection range of 64,000 to 121,000, a conservative management plan was initiated early in the season. Gillnets were restricted to 6.0 in or smaller mesh size beginning May 16 in the lower river districts and the Coastal District. The intent was to have a gear restriction already in place when Chinook salmon began their migration and provide fishing opportunity for non-salmon species (e.g., sheefish) traditionally harvested in the Lower Yukon immediately following break up. Subsistence salmon fishing was closed in the Northern portion of the Coastal District and Districts 1–3 on May 26. Subsistence salmon fishing closures were similarly implemented in upriver districts chronologically as Chinook salmon migrated through these areas. Based on the expectation that the 2014 Chinook salmon run could potentially be one of the poorest runs on record, these closures were expected to be in place for nearly the entire duration of the Chinook salmon run. During the lengthy subsistence closures intended to protect Chinook salmon, gillnet with 4.0 in or smaller mesh and less than 60 feet long were allowed to be used to harvest non-salmon species such as sheefish and Northern pike. The opportunity to harvest non-salmon was provided 24 hours a day 7 days a week throughout the drainage.

When assessment information indicated that summer chum salmon were beginning to enter the river a subsistence fishing schedule was implemented that allowed summer chum salmon harvest in Districts 1–3 using dip nets only 7 days a week beginning June 1. Chinook salmon were required to be immediately released alive. On June 9, beach seine gear was allowed for subsistence fishing in Districts 1 and 2, due to concurrent commercial fishing openings with this gear type.

² Average includes years 1995, 1997– 2000, 2002–2008, and 2010–2013. The sonar project did not operate in 1996 and project difficulties occurred in 2001 and 2009.

³ Years with early run timing include 1995, 1997, 2003, and 2004.

Subsistence fishing opportunity for summer chum salmon with selective gear types, such as fish wheels, dip nets, and beach seines, was also provided in District 4. Subsistence fishing for summer chum salmon with beach seine and dip net gear only was allowed in the Anvik River Special Management Area, which includes the lower 12 miles of the Anvik River. As in previous years, Subdistrict 4-A was subdivided into 2 separate management areas allowing for more management precision and flexibility when altering the subsistence fishing schedule. Fish wheel and dip net opportunity coincided with the migration of summer chum salmon through Subdistricts 4-A, 4-B, and 4-C. As with the lower river districts, all Chinook salmon were required to be released alive from these selective gear types.

Whereas the subsistence salmon fishing closures were similarly implemented in Subdistricts 5-A, 5-B, 5-C, and 5-D, harvest opportunity with selective gear types was not provided as very few summer chum salmon migrate through these mainstem subdistricts. The most severe reductions in subsistence fishing opportunity occurred in these subdistricts to avoid offering opportunity that would primarily target Chinook salmon.

Conservative management actions were also taken in Yukon River tributaries in an effort to provide protection for the Alaska Chinook salmon stocks. In the Tanana River, subsistence salmon fishing was closed to protect Chinook salmon from June 29 to July 6 in Subdistricts 6-A and 6-B and from June 29 to July 7 in the Old Minto Area. Additionally, in Subdistrict 6-C, personal use salmon fishing was closed from June 25 to July 28, nearly spanning the entire duration of the Chinook salmon run. The Koyukuk and Innoko rivers were closed to subsistence salmon fishing from June 18 to July 28 and June 19 to July 2, respectively. Subsistence salmon fishing reopened with gillnets restricted to 6.0 in or smaller mesh to target summer chum salmon. This gear restriction was in place for the remainder of the Chinook salmon run in both tributaries.

As the Chinook salmon run progressed, inseason projections indicated that the run was on track to be near the high end of the preseason outlook. Although the 2014 Chinook salmon run was proving to be better than initially expected, assessment information indicated that the run was still on track to be below average in size. A Chinook salmon run size of that magnitude did not warrant Chinook salmon directed harvest opportunities; however, after liberal opportunity with selective gear types, limited gillnet opportunity was provided at the end of the Chinook salmon run to target the abundant summer chum salmon still present in the river. Subsistence only fishing periods were allowed with 6.0 in or smaller mesh gillnets in Districts 1–3 to maximize summer chum salmon harvest and minimizing the impact to Chinook salmon. The first of these periods began on June 28 in both District 1 and District 2. These fishing periods were extremely brief, only 3 hours in duration. Assessment information indicated the Chinook salmon run was coming to an end, therefore, incidental harvest of Chinook salmon was expected to be minimal during these periods.

When it was determined that the Chinook salmon run was more than 90% complete in a given district, subsistence fishing restrictions and closures were incrementally relaxed. Initially, districts were allowed to use 6.0 in gillnets and fish wheels, however, fish wheels were required to be manned and Chinook salmon were required to be released alive. At the same time the opportunity to use selective fishing gear, such as dip nets and beach seines, was discontinued. After approximately 1 week, these gillnet and fish wheel gear restrictions were lifted as the Chinook salmon run was essentially over.

The 2014 season will be marked as the most conservatively managed Chinook salmon season resulting in the lowest Chinook salmon harvest on record. Maintaining a management course that was focused on meeting escapement objectives would not have been possible without the full cooperation and understanding of the fishermen of the Yukon River. Over the course of the last several years, Yukon River fishermen have exhibited incredible flexibility, complying with schedule changes and gear restrictions. ADF&G acknowledges the continued commitment made by Yukon River fishermen to conserve the valuable Chinook salmon resource for future generations.

Summer season commercial fishery summary

For the seventh consecutive year, no commercial periods targeting Chinook salmon were allowed in the mainstem Yukon River or in the Tanana River. However, liberal commercial fishing opportunity was provided to target the available surplus of summer chum salmon in Districts 1 and 2, Subdistrict 4-A, and District 6. A suite of strategies were used to conservatively manage the commercial fishery to minimize the impact to the weak, overlapping Chinook salmon run. The sale of Chinook salmon was prohibited throughout both the summer and fall season fishery.

Lower Yukon districts

Utilizing new regulations adopted by the BOF in 2013, ADF&G allowed for the commercial harvest of summer chum salmon using dip nets and beach seines beginning June 9 in District 1 and District 2 (Table 4). The impact to Chinook salmon was expected to be minimal as fishermen were required to immediately release incidentally caught Chinook salmon back to the water alive. ADF&G allowed twenty-one 12 hour periods in District 1 and twenty-three 10 hour periods in District 2 using dip nets and beach seines only, for a combined harvest of approximately 427,347 summer chum salmon, with 5,439 Chinook salmon reported released alive (Table 4). Dip nets accounted for the majority of the summer chum harvest taken with these new gear types. Although effort increased in 2014, few fishermen used beach seines to commercially harvest summer chum salmon.

As in recent years, the use of gillnet gear was delayed until inseason assessment indicated the majority of the Chinook salmon run had migrated upriver in an effort to reduce incidental harvest of Chinook salmon. Gillnet opportunity in the summer chum salmon commercial fishery with 6.0 in gear began on July 3 in District 1 and July 6 in District 2. In both districts, 6.0 in gillnets were used for the last 6 commercial periods (Table 4).

Concurrent subsistence and commercial fishing periods were regularly instituted throughout the entire commercial fishing season. The use of these concurrent periods was most critical during the gillnet portion of the commercial season in Districts 1 and 2. Concurrent openings streamline commercial and subsistence fishing into a single event, therefore reducing the amount of time that Chinook salmon were susceptible to harvest.

The sale of incidentally caught Chinook salmon was prohibited by EO during the entire commercial fishing season. This action helped ensure fishermen would not target Chinook salmon during gillnet commercial fishing periods. Chinook salmon caught in gillnets could be released alive or used for subsistence purposes. It was required to report any Chinook salmon caught but not sold on fish tickets. A total of 470 Chinook salmon were reported incidentally

harvested in Districts 1 and 2 gillnet fishing periods during the summer season. A total of 30 Chinook salmon were caught but not sold in the fall season (Table 5).

The cumulative summer chum salmon commercial harvest for Districts 1 and 2 combined was 427,347 fish (Tables 2, 4, and 6), which is 79% above the 2009–2013 average harvest of 238,925 fish (Appendix A14). Dip net and beach seine harvest was a significant contributor in making the 2014 Lower Yukon summer chum salmon harvest the largest on record since 1989.

Upper Yukon districts

As in recent years, summer chum salmon directed commercial fishing periods in Subdistrict 4-A were allowed with fish wheels only. Commercial fishing began June 23 with the requirement that fish wheels be manned at all times of operation and that all Chinook salmon be released immediately to the water alive. After the majority of the Chinook salmon run migrated through the area, the requirement to man commercial fish wheels and release Chinook salmon alive was discontinued. A total of 840 fishing hours occurred during 24 hour openings over 35 commercial fishing periods (Table 4). The cumulative summer chum salmon commercial harvest for Subdistrict 4-A was 96,385 fish, with the majority of the harvest being female (Tables 2, 4, and 6). A total of 341 Chinook salmon were reported as caught and released alive back to the water, and no Chinook salmon were reported to have been kept for subsistence purposes (Table 4).

District 6 was managed using inseason assessment information provided by multiple projects that operated in the Tanana River drainage. A harvestable surplus of summer chum salmon was expected based upon sonar abundance estimates and genetic stock composition information. Given the available surplus and favorable market interest, ADF&G scheduled the first summer chum salmon-directed commercial fishing period in District 6 on July 11 (Table 4). As in Subdistrict 4-A, commercial fishing gear was initially restricted to manned fish wheels with the requirement that all Chinook salmon be immediately released to the water alive. These gear restrictions were relaxed on July 28 after the Chinook run in the Tanana River was nearly over. ADF&G scheduled 8 commercial fishing periods and the cumulative harvest was 6,912 summer chum salmon (Table 4). A total of 201 Chinook salmon were reported as caught but not sold, 190 were caught and released and 11 were kept for subsistence purposes.

Harvest, effort, and exvessel value

There were a total of 99 commercial periods (Table 4) in 2014 with the majority of commercial harvest occurring in the lower river districts (Tables 4, 6 and 7). The total commercial harvest for Districts 1, 2, 4, and 6 combined was 530,644 summer chum salmon, which is 166% above the 2004–2013 average harvest of 199,266 fish (Appendix A4).

A total of 416 permit holders participated in the summer chum salmon fishery, similar to the 2009–2013 average of 413 permit holders (Appendix A8). The Lower Yukon Area (Districts 1–3) and Upper Yukon Area (Districts 4–6) are separate Commercial Fisheries Entry Commission (CFEC) permit areas. A total of 405 permit holders fished in the Lower Yukon Area in 2014, which is similar to the 2009–2013 average of 403 permits fished. In the Upper Yukon Area, 11 permit holders fished, which was 10% above the 2009–2013 average of 10 permits fished. (Appendix A8).

Yukon River fishermen in Alaska received an estimated \$1.8 million for their summer chum salmon harvest in 2014, approximately 38% above the 2009–2013 average of approximately \$1.3 million (Appendix A11). Lower Yukon Area fishermen received an additional \$54,638 from the

sale of pink salmon. The Lower Yukon River exvessel value (including pink salmon) was estimated to be \$1.7 million. In 2014 fishermen received \$0.60 per pound for summer chum salmon and \$1.00 a fish for pink salmon. The estimated average income for Lower Yukon Area fishermen in 2014 was \$4,198.

In 2014, Upper Yukon Area fishermen received an average of \$0.29 per pound for summer chum salmon sold in the round which was slightly above the 2009–2013 average of \$0.28 per pound (Appendix A10). The Upper Yukon Area exvessel value for summer chum salmon was estimated to be \$157,211. The estimated average income for Upper Yukon Area fishermen in 2014 was \$14,292.

Fall season commercial fishery summary

By regulation the fall season began in District 1 on July 16. Chum salmon caught in the Lower Yukon River Drift Gillnet test fishery after July 16 were considered fall chum salmon. The mainstem Yukon River sonar operated near Pilot Station began counting chum salmon as fall chum salmon after July 18. The subsequent transition of upriver districts and subdistricts to the fall season was determined by the migration timing of fall chum salmon. All districts and subdistricts returned to their regulatory subsistence fishing schedules (Appendices D11–D13) commensurate with transitioning to fall management. Also, upon transitioning, subsistence fishermen were allowed the use of up to 7.5 in mesh gear. Of note, the use of drift gillnets in the upper portion of Subdistrict 4-A was permitted after July 28 rather than the regulatory date of August 3 because high water level and debris hindered the use of set gillnets. Also, the subsistence fishing schedules in District 4 (beginning August 5) and Subdistricts 5-A, 5-B, and 5-C (beginning August 12) were liberalized to 7 days per week to provide as much opportunity to harvest fall chum salmon as possible taking into consideration the lack of opportunity to target Chinook salmon during the summer season.

Based on a preseason projection of >850,000 fall chum salmon, Districts 1 and 2 started the fall season on a 2 period per week commercial fishing schedule. From mid-July through the end of July, the number of fall chum salmon that entered Yukon River was below average to average. The first pulse of approximately 76,000 fall chum salmon entered the river from July 20 through July 23. A smaller second pulse of approximately 63,500 fish entered the river from August 1 through August 2. At this time, the approximate first quarter point of the run based on historical information, fall chum salmon passage past the mainstem sonar was estimated to be 135,000 fish which was below the median passage of 177,500 fish. Through August 2, 4 commercial periods were announced in District 1 and 2 periods announced in District 2 (Table 5). Approximately 44,600 fall chum salmon and 1,000 coho salmon were commercially harvested during that time. ADF&G continued to base inseason management on the preseason projection for a run size of greater than 850,000 fish.

Unseasonably hot, dry, and calm weather in conjunction with above average water temperature in the lower Yukon River probably contributed to the low numbers of fall chum salmon entering Yukon River between August 3 and August 13. During this period, historically the midpoint of the run, the number of fall chum salmon passage at the mainstem sonar fell well below historical median passage and the run projection fell to between 480,000 and 550,000 fish. No commercial periods were announced in either district during this time.

A third pulse of fall chum entered Yukon River on August 13 and was estimated to be 92,000 fish in size. After this pulse passed the mainstem sonar, the fall chum salmon passage of 322,500

fish remained below the median passage of 368,000 fish. The fourth and largest fall chum salmon pulse was approximately 252,000 fish in size and entered Yukon River from August 18 through August 19. After the pulse passed the mainstem sonar, fall chum salmon passage was above median and the run projection remained at 850,000 to 950,000 fish for the remainder of the fall chum salmon season. Districts 1 and 2 went back to a 2 period per week commercial fishing schedule.

Coho salmon daily and cumulative passages past the mainstem sonar were mostly above average the entire season. The largest number of coho salmon passed the mainstem sonar from August 21 through August 23. The total estimated passage of coho salmon past the mainstem sonar of 247,000 fish was the second highest on record. Based on the Lower Yukon River test drift gillnet fishery which operated until September 20, no additional pulses of salmon were observed.

Coho salmon were harvested incidentally in fall chum salmon directed commercial openings and their combined commercial harvest in Districts 1 and 2 was the highest on record since 1994. A coho salmon directed commercial fishery was allowed in District 1 from September 1 through September 5. A total of 3 periods were announced with 5,841 coho salmon and 2,380 fall chum salmon being harvested in those periods.

Harvest, effort and exvessel value

A total of 38 commercial periods were announced in 2014; the majority of the commercial fishing periods and harvest occurred in Districts 1 and 2 (Table 5). The 2014 total commercial harvest for the Yukon River fall season in the Alaska portion of the drainage was 115,593 fall chum (Tables 6 and 7, Appendix A5) and 104,638 coho salmon (Tables 6 and 7, Appendices A6). The fall chum salmon harvest was below the most recent 10-year (2004–2013) average of 136,390 fish (Appendix A5) and the coho salmon harvest was the highest since 1994 (Appendix A6) and the second highest on record. All salmon were sold in the round and no salmon roe was sold separately. The average weight of fall chum salmon caught commercially in Districts 1 and 2 was 7.5 pounds and the average weight of coho salmon was 6.8 pounds (Appendix A12). The average price paid per pound in Districts 1 and 2 (Lower Yukon Area) was \$0.75 for fall chum and \$1.00 for coho salmon (Appendix A10). Both prices were below their respective most recent 5-year (2009–2013) averages. In Subdistricts 5-B and 5-C and in District 6 (Upper Yukon Area), the average price paid per pound was \$0.25 for fall chum and \$0.38 for coho salmon (Appendix A10). Both prices were above their respective most recent 5-year (2009–2013) averages. The exvessel value of the total fall season harvest was \$1,338,746: \$630,073 for fall chum and \$708,673 for coho salmon (Appendix A11). A total of 445 individual permit holders participated in the 2014 fall chum and coho salmon fishery; 441 in Districts 1 and 2 combined and 4 in Districts 5 and 6 combined (Appendix A8).

Subsistence harvest

Fishing closures and gear restrictions were enacted throughout the drainage during the Chinook and summer chum salmon migrations to conserve Chinook salmon. Subsistence and personal use fishing during the fall chum and coho salmon runs was open according to regulatory schedules (Appendices D11–D13). A total of 3,282 Chinook, 87,135 summer chum, 92,507 fall chum, 17,426 coho salmon (Table 8), and 6,812 pink salmon (Appendix D5) were estimated to have been harvested for subsistence in the Yukon Area. The Yukon Area includes the Alaska portion of the Yukon River drainage and the communities within the Coastal District. Harvest estimates included salmon given away by test fishing projects, retained from commercial fisheries for

subsistence, and salmon harvested by households with subsistence and personal use permits. An estimated 1,484 households participated in the Yukon Area subsistence and personal use fisheries in 2014 with 41%, 33% and 6% of households using set gillnets, drift gillnets and fish wheels respectively as their primary gear types (Table 8). The remaining 20% of households used other gear types such as beach seines and dip nets.

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. Subsistence permits are required in portions of the Yukon River Area that are road accessible, including all of the Tanana River drainage and segments of District 5. Personal Use permits are required in the non-subsistence area near Fairbanks (Figure 11).

Stratified random sampling techniques were used to select Yukon Area households to be interviewed during the 2014 postseason survey (Cochran 1977). The harvest surveys include salmon retained for subsistence from commercial fishing which are reported by households as part of their subsistence harvest. In 2014 a large number of households were estimated to use selective gear types such as dip nets and beach seines, or other gear types as their primary gear (301 households). Nearly equal numbers of surveyed households were estimated to use set gill nets (484) and drift gill nets (488) as their primary gear types. A total of 62 households were estimated to use fish wheels as their primary gear type (Table 8).

A total of 329 subsistence permits were issued in 2014 for the harvest of salmon and nonsalmon species. The number of subsistence fishing permits issued includes those issued for both salmon and non-salmon species and residents of Stevens Village where fishermen may participate in both a permit and/or non-permit required area. Harvest from the community of Stevens Village is primarily estimated using the subsistence survey program to avoid double counting salmon (Jallen et al. 2015). As of March 12, 2015, 97% percent of the permits issued were returned and 173 permits reported fishing information (Appendix D6). Information collected annually on the number of dogs owned by permit households and salmon harvested for dogs is included in the annual subsistence salmon harvest report (Jallen et al. 2015, Jallen et al. in prep/personal communication).

Households that returned subsistence permits reported harvesting 344 Chinook, 1,173 summer chum, 31,957 fall chum, and 7,681 coho salmon (Appendix D6). Salmon harvested commercially and reported as retained for subsistence on fish tickets are added to permit harvests in permit areas. In 2014, 11 Chinook, 121 fall chum, and 352 coho salmon were added to the community harvest totals of Fairbanks, Manley, and Nenana (Table 8).

The number of permits issued in the Yukon Area permit required areas in 2014 was 41% below the recent 5-year average (2009–2013) and 43% below the recent 10-year average (2004–2013). Harvest of Chinook salmon reported on permits was 98% below the recent 5-year average and recent 10-year average. The harvest of summer chum salmon in 2014 was 51% and 57% below the recent 5-year average and recent 10-year average. Fall chum salmon harvest was 10% above and 9% above the recent 5-year and 10-year averages, and coho salmon harvests were 260% and 244% above recent 5-year and 10-year averages (Appendix D7).

The number of permits issued in the Tanana River subsistence permit required areas in 2014 was 6% below the recent 5-year average (2009–2013) and recent 10-year average (2004–2013).

Harvest of Chinook salmon in Tanana River subsistence fisheries was 68% below the recent 5-year average and 74% below the recent 10-year average. The harvest of summer chum salmon was 13% below the recent 5-year average, and 40% below the recent 10-year average. Harvests of fall chum salmon were 6% and 13% below the recent 5-year and 10-year averages. Coho salmon harvests were 16% above recent 5-year average, and 6% below recent 10-year average (Appendix D8). These numbers do not include harvests from personal use permits or salmon retained from commercial fisheries for personal use.

In order to monitor and manage the Yukon Area salmon fisheries, ADF&G operates or oversees, several test fishing projects within the drainage. Fish harvested during operation of these projects are provided to the local community to supplement their subsistence harvests. In 2014, test fishery projects throughout the drainage provided a total of 954 Chinook, 4,381 summer chum, 2,533 fall chum, and 979 coho salmon to households for subsistence use (Deena Jallen, Commercial Fisheries Biologist, ADF&G, Fairbanks; personal communication). Residents of the communities of Alakanuk, Emmonak, Eagle, Kotlik, Manley, Pilot Station, and Scammon Bay were the primary recipients of these fish. Salmon caught in the test fisheries were assumed to replace fish that would have been obtained through normal fishing activities; therefore, salmon given away from the test fisheries were added into the subsistence harvest for that community. These totals include 13 Chinook salmon given to residents of the permit community of Eagle from the Eagle sonar project and 19 summer chum, 56 fall chum, and 33 coho salmon from the Manley sonar project that were mostly donated to Manley residents (Deena Jallen, Commercial Fisheries Biologist, ADF&G, Fairbanks; personal communication).

Historic trends and amounts necessary for subsistence

One method for assessing the relative success of Yukon Area fishermen is to compare the annual drainagewide estimated subsistence harvest to historic averages and to the “amounts (reasonably) necessary for subsistence” (ANS) harvest ranges established by the BOF (ADF&G 2001). The ANS levels outlined in 5 AAC 01.236 are 45,500–66,704 Chinook, 83,500–142,192 summer chum, 89,500–167,900 fall chum, 20,500–51,980 coho, and 2,100–9,700 pink salmon. The pink salmon ANS was established in 2013 (Estensen et al. 2015). Except for the harvests of summer chum and pink salmon which were within their ANS ranges, subsistence harvests of each of the other salmon species in 2014 were below the lower level of their ANS ranges.

Salmon harvest estimates based on survey results indicated the 2014 Chinook salmon subsistence harvest was 90% below the recent 5-year average (2009–2013) and 94% below the previous 5-year average (2004–2008) (Appendix D1). The summer chum salmon subsistence harvest was 14% below the recent 5-year average and 7% below the previous 5-year average (Appendix D2). The harvest of fall chum salmon was 8% above the recent 5-year and previous 5-year averages (Appendix D3). Coho salmon harvest was 11% above the recent 5-year average and 17% below the previous 5-year average (Appendix D4). Overall, the 2014 Yukon Area subsistence salmon harvest of 199,662 Chinook, summer chum, fall chum and coho salmon combined (Appendices D1–D4) was approximately 15% below the recent 5-year average (2009–2013) of 234,875 fish and 21% below the previous 5-year average (2004–2008) of 251,331 fish. This 10 year period includes years with very low harvests and fishing restrictions, such as closures during the summer season to protect Chinook salmon from 2009 through 2014. The 2014 harvest of Chinook salmon was the lowest ever recorded during the ADF&G subsistence estimates from 1975 to present.

Of the households that answered survey questions in 2014 about whether their subsistence needs were met, the majority of households reported meeting under 50% of their needs for Chinook salmon (93% of households), summer chum (54% of households), fall chum (69%) and coho salmon (69%). Only 7% of households that responded reported meeting over 50% of their needs for Chinook salmon, which was below each of the recent 5 years. The percentage of households meeting over 50% of their needs for each species in 2014 was less than the recent 5-year average (2009–2013) for all salmon species (Deena Jallen, Commercial Fisheries Biologist, ADF&G, Fairbanks; personal communication). Commonly mentioned reasons for not meeting needs included comments that the fishing was closed during the summer season, the run of Chinook salmon was poor, households did not have fishing equipment, regulations and schedules were confusing or hard to follow, fishing periods conflicted with work or were too short and families could not afford to travel back and forth to fish camps. Many fishermen reported they were unable to fish because they did not have dip nets, beach seines, or 6.0 in mesh gear to fish during restricted gear openings. Surveyed households mentioned other factors that contributed to the inability to meet subsistence salmon needs including expenses such as fuel or fishing equipment, river conditions, and health or other personal reasons (Deena Jallen, Commercial Fisheries Biologist, ADF&G, Fairbanks; personal communication).

Alaska personal use fishery

A household permit is required for personal use fishing in the portion of the Tanana River drainage within the Fairbanks Nonsubsistence Area (Figure 11). Fishermen are required to document their personal use harvest on household permits and return them to ADF&G at the end of the season.

In 2014, 71 personal use salmon permits were issued. As of March 20, 2015, all personal use salmon permits were returned and 33 reported fishing in 2014. The reported personal use harvest was 1 Chinook, 235 summer chum, 278 fall chum, and 174 coho salmon (Appendix D6). The number of personal use permits issued areas in 2014 was equal to the recent 5-year average (2009–2013) and 3% above the recent 10-year average (2004–2013). Harvest of Chinook salmon reported on permits was 99% below the recent 5-year and recent 10-year averages. The harvests of summer chum and fall chum salmon in 2014 were 23% and 69% below the recent 5-year average for each species, and 6% and 49% below the respective recent 10-year averages. Harvest of coho salmon was 45% below the recent 5-year average and 28% below the recent 10-year average (Appendix D9).

Sport fishery

In 2014, the sport fisheries for Chinook salmon were closed both in the Yukon and Tanana rivers on May 12. Alaska sport fishing effort and harvests are monitored annually through a statewide sport fishery postal survey. Harvest estimates are typically not available until approximately 1 calendar year after the fishing season. The recent 5-year (2009–2013) average Yukon River drainage sport salmon harvest was estimated at 464 Chinook, 669 summer chum and 554 coho salmon.

ENFORCEMENT

The primary enforcement authority for ADF&G subsistence, personal use, and commercial fishing regulations within the Yukon Area is the Division of Alaska Wildlife Troopers (AWT) with the Department of Public Safety.

In the lower and middle Yukon River, between June 10 and July 15, AWT generally used a team of 2 officers to patrol Yukon River Districts 1–4 utilizing 2 PA-18 Super Cubs and patrol skiffs located in Emmonak, Saint Marys and Galena. The Yukon River experienced a poor return of Chinook salmon; subsequently ADF&G placed limited gear restrictions and time periods for subsistence fishing. ADF&G did, however, open periods for the commercial harvest of chum salmon using dip net and beach seining in an effort to allow the harvest of chum salmon and allowing the release of Chinook salmon alive. Troopers reported a high desire on behalf of the public to comply regarding the relatively new dip netting regulations. AWT responded to reports of large mesh Chinook salmon gillnets in the marine waters near Cape Romanzof and upriver near Holy Cross/Anvik. Overt and covert AWT patrols in both those areas revealed wide spread compliance. AWT did locate an illegal large mesh gillnet at Neragon Island but were unable to identify and charge suspects. Boating safety patrols were conducted in conjunction with commercial and subsistence patrols and overall compliance was very high regarding boater safety. Patrols were spread thin and had limited assets in the middle river communities as Chinook salmon migrated up river. The commercial and subsistence enforcement efforts on the Yukon River resulted in 392 AWT man hours, 589 contacts, 58 warnings, and 36 citations.

In the upper Yukon River, in response to concern from ADF&G, who were fielding calls from the public regarding both gear restriction violations and suspected closure violations, AWT from the Fairbanks area conducted 2, 2 day boat patrol covering the portion of Yukon River from the bridge downriver to the village of Tanana. During the patrols they made fairly low volume of contacts and cited 1 fisherman for using oversize gear. Patrols farther upriver were not able to be conducted in conjunction with run timing in 2014 due to weather considerations. Although contacts were not numerous, AWT felt this was a positive patrol in that resource users were checked in a relatively infrequently patrolled area and compliance was confirmed to be very good overall.

In addition AWT conducted several patrols of the Tanana River near Nenana during various closures. Patrols were also conducted beyond Nenana to the Tolovana River area and all the way to the community of Tanana at least once. AWT responded to a complaint of illegal Chinook salmon fishing upstream of Tanana that resulted in charging 1 defendant for unlawful gear and seizing numerous illegal Chinook salmon. AWT also contacted a few fishermen by boat in conjunction with fall game patrols and in and around boat launches in Nenana. Again, contacts and participation were fairly low but AWT felt the patrols were worthwhile and will continue them next year.

Looking forward to 2015, AWT will remain committed to patrols in all these areas and will endeavor to continue to increase their patrol presence in the upriver areas as staffing and equipment allow. Also, the issue of potential salmon fishing closures in combination with concurrent smaller mesh gear methods and means will continue to be an enforcement challenge.

In 2014 Federal Wildlife Officers conducted numerous patrols on the Yukon River between Alakanuk and Fort Yukon in attempt to help preserve migrating stocks of Chinook salmon. Specifically, 2 FWOs were assigned to the lower Yukon between June 10 and June 24 based out of Emmonak and at various points between Alakanuk and Russian Mission. These 2 officers patrolled over 400 rivers miles checking numerous gillnets and groups of fishermen. Two additional FWOs were assigned to patrol the middle River between Kaltag and Ruby, June 14–28. The upper Yukon received regular and recurring patrols by the Ft Yukon based FWO throughout July and into August. Additionally there was an overflight patrol conducted in mid-

July from Ft. Yukon to the Dalton Highway bridge and back. FWS did not write any citations to fisherman on the Yukon River in 2014 for Chinook salmon related violations. Increased patrol efforts are expected in 2015 FWS enforcement officers intend to make preseason village visits in 2015.

CANADIAN FISHERIES

A total of 103 Chinook salmon, 5,033 fall chum salmon, and 133 coho salmon were harvested in the 2014 Canadian commercial, Aboriginal, recreational, and domestic fisheries combined (Table 5; Appendices A13, A15, and A16).

Canadian commercial fishery

A total of 2,485 fall chum salmon were harvested in the Canadian Yukon River commercial fishery in 2014 (Appendix 15). No other salmon species were harvested for commercial purposes (Table 5). The 2014 fall chum salmon commercial harvest was slightly below the 5-year (2009–2013) average of 2,873 fall chum (Appendix A15).

Chinook salmon harvest

The lower Canadian commercial fishery area is located downstream of the Stewart River. The most intensive fishing activity and catch monitoring is conducted in this area. Commercial fishermen are legally required to report catches and associated data no later than 8 hours after the closure of each fishery.

The inseason Chinook salmon run status indicated that there would not be a sufficient run to support a commercial fishery. As a result, the fishery remained closed throughout the 2014 Chinook salmon season. There were no Chinook salmon harvested incidentally during the early fall chum salmon opening in late August (JTC 2015).

The average commercial Chinook salmon catch for the 2004–2013 period, excluding years when the fishery was closed for conservation purposes, was 2,637 fish (JTC 2015). Since 1997, there has been a marked decrease in commercial catch of Chinook salmon in the upper Yukon River as a result of closures to protect weak runs and/or very limited fishing opportunities.

Fall chum salmon harvest

A strong return of fall chum salmon resulted in opportunities for commercial fishery openings throughout the fall season. A total of 2,485 fall chum salmon were harvested during 2 commercial fishery openings (JTC 2015). Since 1997, there has been a marked decrease in commercial catches of Upper Yukon River fall chum salmon as a result of a limited market as well as reduced fishing opportunities in some years due to below average run sizes.

The total 2014 commercial fall chum salmon catch of 2,485 fish was 49% below the 2004–2013 average of 4,893 fish and slightly above the 2009–2013 average of 2,873 fish (JTC 2015). Between 2004 and 2013, the commercial fall chum salmon catch ranged from 293 in 2009, when the run was late and the fishery was closed most of season due to conservation concerns, to 11,931 fall chum salmon in 2005.

The commercial harvest of coho salmon within the Upper Yukon River drainage is usually negligible. This is thought to be related to a combination of low abundance and limited availability of this species to fisheries due to late migration timing. There were no coho salmon harvested in 2014.

Aboriginal fishery

Upper Yukon Chinook salmon

Catch estimates of salmon in the aboriginal fishery on the Yukon and Porcupine rivers are determined from locally conducted inseason and postseason interviews using a catch calendar and a voluntary recording system.

Based on a preseason outlook for a below average run of 32,000 to 61,000 Upper Yukon Chinook salmon, the Yukon Salmon Sub-Committee recommended that the TAC be set to zero throughout the 2014 fishing season. Given that the Chinook salmon run surpassed the upper end of the preseason range, a TAC was available later in the season. However, Yukon First Nations Governments continued to follow a very conservative management plan that resulted in negligible harvested in 2014. The Upper Yukon River aboriginal Chinook salmon catch was estimated to be less than 100 fish harvested in 2 central Yukon locations (JTC 2015). The 2014 Chinook salmon aboriginal harvest is 96% reduction from the 5-year average harvest of 2,940 fish. The Vuntut Gwitch'in Government (VGG) reported a season total harvest of 3 Chinook salmon for 2014. The recent 5-year average (2009–2013) for Porcupine River Chinook salmon harvest is 289 Chinook salmon.

The 2014 total aboriginal harvest of Chinook salmon is a little over 1% of the 8,000 Chinook salmon that would probably be harvested in an unrestricted aboriginal fishery³ and 98% below the recent 10-year average (2004–2013) of 4,037 salmon. This represents the lowest harvest of Chinook salmon on record since 1980 (JTC 2015). It should be noted that although some records of catches in the aboriginal fishery do exist from 1961 to 1979, the information is not considered reliable because there was no consistent data collection method in place until 1980.

Upper Yukon fall chum salmon

The preseason outlook for Canadian-origin fall chum salmon to the upper Yukon River in 2014 indicated an average to above average run of 200,000 to 260,000 fish. The border passage estimate at this run projection would place Canadian Management in the green zone and therefore no restrictions were expected in the First Nation fishery. As inseason information became available, it became apparent that the run was strong, and would support an unrestricted First Nation fishery. This fishery is managed in a similar fashion to the Chinook salmon fishery using an abundance-based approach (JTC 2015).

The preliminary 2014 fall chum salmon harvest reported in the aboriginal fishery from the upper Yukon River was estimated to be approximately 546 chum salmon and is based on a 10-year average and limited information received to date (JTC 2015).

There was no harvest of fall chum salmon in the Dawson City area in 2014. Average catches of 433 and 460 fall chum salmon were derived from a 7 year harvest study conducted by LGL Limited from 1996 to 2002 in the Pelly and Carmacks areas, respectively. Recent information from these 2 communities suggests that interest in fall chum salmon has been significantly reduced since that time.

³ Interim basic needs allocation estimate as established from Yukon River salmon harvest study data from 1996 to 2002, excluding years where the fishery was restricted for conservation (1998–2000).

Porcupine River Chinook and fall chum salmon

VGG reported a season total harvest of 3 Chinook salmon for 2014. The recent 10-year average (2004–2013) was 289 Chinook salmon. A total of 1,983 fall chum salmon was harvested in the Old Crow First Nation fishery, which was 30% below the recent 10-year average harvest from 2004 to 2013 of 2,814 chum salmon. There were 133 coho salmon harvested on the Porcupine River in 2014, compared to the 2004–2013 average of 150 fish (JTC 2015).

Domestic fishery

The domestic fishery was closed during the Chinook salmon season and opened concurrently with the commercial fishery for 2 openings during the fall chum salmon season. There was a total reported domestic catch of 19 fall chum salmon in 2014. This compares to a long term average of 475 fish, from 1974 to 2014; domestic fishery catches were not recorded prior to 1974 (JTC 2015).

Recreational fishery

In 2014, in response to inseason projections for a poor return of Chinook salmon, the daily catch and possession limits in the recreational fishery were reduced to zero, effective June 25. On July 4, continued low border escapement projections and subsequent removal of a Total Allowable Catch in the First Nation fishery triggered the closure of the Yukon River in the vicinity of the Tatchun River to all angling. This action was taken to allow unimpeded passage of Chinook salmon through this popular fishing site. In addition, angling for salmon (i.e. using gear types that target salmon) was prohibited in the Yukon River and all of its tributaries from July 18 to September 19.

From catch card information received as of this publication, no Chinook salmon were either retained or caught and released in the Yukon River or its tributaries in the 2014 recreational fishery. Between 2004 and 2013, the average number of Chinook salmon harvest was 233 fish. For the 2014 season, the daily harvest and possession limits of fall chum salmon in the recreational fishery remained at 2 and 4, respectively. There were no reports of fall chum salmon caught.

SPAWNING ESCAPEMENT

An essential requirement for management of the Yukon River salmon fisheries is documentation of annual salmon spawning escapements. Such documentation provides for:

1. Determination of appropriate escapement levels or goals for selected spawning areas or management units;
2. Evaluation of escapement trends;
3. Evaluation of the effectiveness of the management program, which in turn forms the basis for proposing regulatory changes and management strategies; and
4. Evaluation of stock status for use in projecting subsequent returns.

Escapement goals

BEGs have been established for several Chinook, summer and fall chum, and coho salmon stocks or stock aggregates which spawn in Yukon River drainage streams or areas (Appendix E1). The EGs developed or modified through this process are primarily presented as ranges. The underlying principle in establishing an EG is that it should allow for escapements necessary to conserve and sustain potential salmon production, and be consistent with sustained yield (SSFP

and *Policy for Statewide Salmon Escapement Goals* (5 AAC 39.223.)). The use of EG ranges should allow for uncertainty associated with observed variability in measurement, changes in climate and oceanographic conditions, and varying abundance within related populations of the salmon stock being measured. ADF&G undertakes a triennial review of salmon escapement goals in conjunction with the BOF meeting cycle. Chinook, summer chum, fall chum, and coho salmon stocks were reviewed concurrently with the 2012 BOF cycle. Based on previous years' reviews and goals established during the previous BOF cycle, a BEG or SEG was recommended for each stock (ADF&G 2004; Brannian et al. 2006; Volk et al. 2009; and Conitz et al. 2012). BEG is defined as an escapement range that provides the highest potential to produce maximum sustained yield. SEG is defined as a level of escapement, determined through an index or range of escapement estimates that has provided for sustained yield over a 5 to 10 year period.

Most Arctic–Yukon–Kuskokwim (AYK) Region escapement goals were originally set in the late 1970s or early 1980s, many of which have been revised subsequently in accordance with updated policies and newer information and analytical methods. Yukon area escapement goals were first documented by Buklis (1993) as required under ADF&G's original escapement goal policy signed in 1992. These early goals were generally established using a simple escapement averaging methodology based on aerial survey counts. Following adoption of the new policies (SSFP and *Policy for Statewide Salmon Escapement Goals*), several new or revised BEGs were established. These included BEGs for Chena and Salcha River Chinook salmon (Evenson 2002), Anvik River summer chum salmon (Clark and Sandone 2001), and Andreafsky River summer chum salmon (Clark 2001), and Yukon River fall chum salmon (Eggers 2001). The Chena and Salcha Chinook salmon BEGs have been reanalyzed in subsequent review cycles but not changed (Volk et al. 2009). The goal range for Anvik River summer chum salmon was subsequently revised (ADF&G 2004). The goal for East Fork Andreafsky River summer chum salmon was changed to a lower bound SEG, based on a run reconstruction and spawner-recruitment analysis using a newer, Bayesian statistical analysis (Fleischman and Evenson 2010). The drainagewide BEG for fall chum salmon was reanalyzed based upon similar Bayesian methods with a new run reconstruction, and was revised to an SEG with the same range (Fleischman and Borba 2009). These 2 revisions from BEG to SEG were not due to lack of information; in fact, the newer analyses were more rigorous and better statistically defined. However, practical management considerations in both cases limit options for maintaining escapements below an upper bound. A few goals have been discontinued since 2001 (Volk et al. 2009; ADF&G 2004). The remaining goals are Chinook salmon in the West Fork Andreafsky, Nulato, and Anvik rivers based on aerial surveys and a coho salmon goal for the Delta Clearwater River based upon a boat survey (Conitz et al. 2012). Transboundary escapement goals for passage at the Alaska-Canada border have been established by agreement, according to provisions of the Yukon River Salmon Agreement, for mainstem Chinook salmon and mainstem and Porcupine River (Fishing Branch) fall chum salmon (JTC 2010). These goals are termed IMEG because they were provisionally established until the 2 parties could agree upon formal BEG analyses.

Current escapement goals were established during the 2013 BOF cycle (Conitz et al. 2012; Appendix E1) and were unchanged from those in the previous cycle (2010; Volk et al. 2009). In May 2014, ADF&G began the current escapement goal review cycle to prepare for the January 2016 BOF meeting. Analyses and preliminary escapement goal recommendations were presented at a meeting open to the public on February 2, 2015. Following discussion and public input, preliminary escapement goal recommendations were outlined in a letter to stakeholders dated

April 1, 2015. The review team recommended the addition of a drainagewide summer chum salmon goal, and the discontinuation of 2 existing fall chum goals: the Sheenjek River and the Upper Yukon Tributary aggregate goal.

Genetics

Scale pattern analysis, age composition estimates, and geographic distribution has been used by ADF&G on an annual basis from 1981 through 2003 to estimate stock composition of Chinook and chum salmon in Yukon River harvests and estimating total run abundance. In 2004, the feasibility of using genetic analysis in replacement of scale pattern analysis to assess Chinook salmon stock composition was first tested (JTC 2012). Since that time, the development of genetic methods and techniques for Chinook and chum salmon stock identification in the Yukon River drainage has been ongoing (Flannery et al. 2013). Salmon stock composition using genetic techniques has been a useful tool for inseason fisheries management on the Yukon River.

Three region-of-origin groupings (also referred to as stock groups) have been identified for Chinook salmon within the Yukon River drainage. The Lower and Middle Yukon River stock groups spawn in Alaska and the Upper Yukon River stock group spawns in Canada. Genetic tissue samples were analyzed inseason for mixed stock analysis (MSA) from 419 Chinook salmon collected from the test fishery associated with the mainstem Yukon River sonar project at Pilot Station. Genetic MSA on the first pulse of Chinook salmon (June 1–11) indicated that 50% were Canadian-origin Chinook salmon. Genetic MSA on the second pulse of Chinook salmon (June 12–20) indicated that 52% were Canadian-origin Chinook salmon. Samples analyzed from June 21 to 27 indicated that 24% were from Canadian-origin Chinook salmon (ADF&G 2015). These analyses were used to help project whether the Border escapement objectives would be achieved and were considered in management actions in regards to U.S. fisheries (in particular, when to relax subsistence restrictions). MSA analysis of the samples collected ($N = 708$) at the mainstem sonar operated near Eagle, Alaska were analyzed by DFO for their management of Canadian conservation units (JTC 2015).

Scale pattern analysis, age composition estimates, and geographic distribution were used by ADF&G from 1981 through 2003 to estimate Chinook salmon stock composition in Yukon River harvests. From 2004 to present, genetic analysis has been the primary method for stock identification. In 2014 tissue samples were collected from fish in mixed stock harvests in Districts 1 through 5. Results from these analyses were combined with harvest age composition to provide stock composition of the various harvest components. Genetic stock estimates for Chinook salmon sampled in the incidental commercial and subsistence harvests in 2014 are still under review by ADF&G Gene Conservation Laboratory and will be published in future reports. Proportions of Chinook salmon by stock group in the harvest are currently reported in the annual JTC report (JTC 2015).

Chum salmon genetic tissue samples were collected (June 1–September 7) from 3,980 summer and 1,857 fall run chum salmon from the test fishery at the mainstem Yukon River sonar project at Pilot Station. Results from the MSA were reported for each pulse or time stratum and distributed by email to fishery managers to be considered during resource assessment (JTC 2015). For summer chum salmon, the lower river stock group made up 75% of the run and the middle river stock group made up 25%. The Tanana component of the middle river stock group made up about 6% of the total summer chum salmon run, and peaked in passage past the mainstem Yukon River sonar at Pilot Station during the sampling period of June 30 to July 6. For

fall chum salmon, 67% of the run was of U.S. origin and 33% of Canadian origin. The composition of the U.S. contribution was 31% Tanana and 36% U.S. border (Chandalar, Sheenjek, and Black rivers). The composition of the Canadian contribution was 13% mainstem Yukon, 1% Porcupine, 18% White, and 1% Teslin rivers. Stock abundance estimates were derived by combining the Pilot Station sonar passage estimates with the stock composition estimates. To evaluate the concordance of various data sources, an analysis was conducted to compare these stock specific abundance estimates against escapement and harvest estimates. The level of agreement between the genetic/sonar and escapement/harvest methods for fall chum salmon appears to be related, in part, to the late run timing of some of the fall runs and the overlap between summer and fall runs observed at various escapement projects (Flannery and Wenburg 2013). Additionally, MSA analysis of samples collected ($N = 944$) at the mainstem sonar operated near Eagle, Alaska were analyzed by DFO for management of Canadian conservation units (JTC 2015).

Genetic sampling of chum salmon harvest for MSA analysis is in its infancy within the majority of the Yukon River drainage fisheries. The summer chum salmon stock groups are similar to the western Alaska stocks (Eggers et al. 2011) however the fall chum salmon can be separated into distinct stock groups including a partition of Canadian-origin stocks which are of importance in regards to meeting treaty obligations. Two ongoing R&E projects (JTC 2015) are currently collecting chum salmon MSA harvest samples: 1 project is focused on sampling the large commercial fishery in District 1 particularly during pulses of chum salmon that move quickly through the area; the second project is focused on the relatively large District 5 subsistence harvest between the communities of Tanana and Rampart. Results will be available after the projects have analyzed approximately 3 years' worth of data.

Aerial survey escapement assessment methods

The Yukon River drainage is too extensive for complete comprehensive escapement coverage of all salmon spawning streams. Consequently, low-level aerial surveys from single-engine, fixed-wing aircraft form an integral component of the escapement assessment program. The greatest advantage of aerial surveys is the cost-effectiveness of obtaining escapement information throughout an extremely vast and remote area. Another advantage to aerial surveillance is that current or potential habitat-related problems arising from natural or man-induced causes can be identified. Among the disadvantages are that results may be highly variable if non-standardized procedures are used. Recently helicopters have been used more often to increase accuracy of counts because of the aircrafts maneuverability, but they are still limited on range and are more costly.

Variability in aerial survey accuracy is dependent upon a number of factors such as weather, water turbidity, timing of surveys with respect to peak spawning, aircraft type, survey altitude, experience of both pilot and observer, and species of salmon being assessed. It is recognized that aerial estimates are lower than actual stream abundance due to these factors. Further, peak abundance measured by aerial survey methods is significantly lower than total spawning abundance due to the die-off of early spawners and arrival of fish after the survey. Aerial estimates in a given stream may demonstrate a wide range in the proportion of fish being estimated from year to year. To the extent that this variability can be controlled, peak aerial counts may serve as indices of relative abundance for examination of annual trends in escapement.

Aerial escapement estimates are obtained from as many spawning streams as possible within the confines of fiscal, personnel, and weather constraints. However, selected spawning streams or "index areas" which represent a larger geographic area have been identified and receive highest priority. Index areas have been designated due to their importance as spawning areas and/or by their geographic location with respect to other unsurveyable salmon spawning streams in the general area.

2014 summer season escapement

Chinook salmon escapement

Although below average, the 2014 Chinook salmon run came in above the upper end of the preseason outlook range and all escapement goals that could be assessed were achieved. These include the escapement goals for the East Fork Andreafsky River weir, West Fork Andreafsky aerial, Anvik River aerial index, Chena River tower (Appendix E4 and E5) and Border Passage (Appendix E6). High water conditions limited assessment at some escapement projects (detailed below) in 2014.

Only 2 aerial surveys for Chinook salmon occurred in 2014, one each on the West Fork Andreafsky and Anvik rivers (with 1,695 and 1,584 Chinook counted respectively; Appendices E2 and E4). Both aerial surveys in the lower Yukon River drainage were conducted under fair conditions. Overall, water, river bottom, and weather conditions were suitable for surveys. However, the lower portion of the Anvik River (below the sonar site) was murky and had poor visibility in the deeper sections. The 2014 lower Yukon River aerial surveys for Chinook salmon were conducted at or just past peak spawning. 2014 is the first year in the last 5 years that the aerial Anvik River SEG of 1,100–1,700 Chinook salmon was met in the last 5 years. But it was the fourth of 5 years that the SEG (640–1,600) for the West Fork Andreafsky has been met. Unfortunately, the SEG of 940–1,900 on the Nulato River could not be assessed due to run timing and/or water conditions, but this goal has been met for 3 of the last 5 years (Appendix E.4).

A weir was operated on the East Fork Andreafsky River by USFWS. The estimated passage in 2014 was 5,949 Chinook salmon, which exceeds the upper end of the SEG (2,100–4,900) by over 1,000 fish. This goal has been met for 4 of the last 5 years (Appendix E5). Age, sex, and length data were collected from 317 Chinook salmon caught in the weir trap. The estimated age composition was 1.1% (age 3), 6.9% (age 4), 80.9% (age 5), 11.1% (age 6), and 0% (age 7) fish. The sex composition of fish sampled was 44.3% female and 55.7% male (JTC 2015).

The Gisasa River weir was operated by USFWS, and the passage estimate was 1,589 Chinook salmon (Appendix E5). The 2014 cumulative count on the Gisasa River was below the 10-year (2004–2013) average of 1,969 Chinook salmon. Age, sex, and length data were collected from 130 Chinook salmon caught in the weir trap. The estimated age composition from scale samples was 0.8% age-3, 17.7% age-4, 66.2% age-5, 13.8% age-6, and 1.5% age-7. The sex composition of fish sampled was 19.2% female and 80.8% male (JTC 2015).

No escapement counts are available from the Henshaw Creek weir because the project could not operate in 2014 due to high water hindering weir installation.

There are established BEGs for the Chena and Salcha rivers located on the Tanana River, which are the 2 largest spawning tributaries for Chinook salmon in the Yukon River drainage. Escapement on the Chena and Salcha rivers is usually monitored by tower counts. However,

tower operations on both the Chena and Salcha rivers were hindered by high water conditions for nearly the entire season.

The 2014 Chena tower escapement estimate was based on DIDSON sonar counts and preliminary species apportionment. Additionally, anecdotal information from the project leader during boat and carcass surveys indicated a healthy Chinook salmon population. An estimated 4,358 Chinook salmon were counted in the Chena River, which is within the escapement goal range of 2,800–5,700 (Appendix E5). The last time this BEG was achieved was in 2009. No estimate of Chinook salmon escapement is available for Salcha River because of high water conditions. However, a helicopter survey conducted on July 22 provided useful Chinook salmon counts on the upper third of the Salcha River. Based on this helicopter survey and that in all years of operations, the Salcha River escapement has exceeded the Chena River escapement, the escapement goal of 3,300–6,500 Chinook salmon on the Salcha River appears to have been achieved or exceeded. The BEG for the Salcha river has been met for 4 of the last 5 years (Appendix E5). The Goodpaster River tower counted an estimated 1,236 Chinook but the project only operated for 18 days because of high water in 2014.

Age, sex, and length information for Chinook salmon were collected from the Chena and Salcha rivers using carcass surveys conducted by ADF&G and Bering Sea Fishermen's Association, respectively. The estimated age composition of 284 Chinook salmon sampled in the Chena River was 1.4% age-3, 3.5% age-4, 83.1% age-5, 11.6% age-6, and 0.4% age-7 fish. The sex composition was 33.1% female and 66.9% male (JTC 2015). The estimated age composition of 403 Chinook salmon sampled in the Salcha River was 1.5% age-3, 14.6% age-4, 59.8% age-5, 22.6% age-6, and 1.5% age-7 fish. The sex composition of fish sampled was 32.0% female and 68.0% male (JTC 2015).

The Canadian Upper Yukon River border passage estimate for 2014 is 63,431 Chinook salmon. This is calculated using the Eagle sonar project estimate of 63,482 minus an estimated 51 fish harvested by Alaska subsistence fishermen upstream of the sonar project site (Appendix E6). After subtracting the Canadian Yukon River mainstem harvest of 100 fish, a total of 63,331 Chinook salmon are estimated to have reached Canadian spawning areas (Appendix E6). The spawning escapement surpassed the low end of the IMEG range of 42,500 to 55,000 which is the second time that the goal has been achieved because it was adopted by the Yukon River Panel in 2010 (Appendix E1).

A drift gillnet test fishery is operated as a component of the Eagle sonar project to monitor species composition and to collect biological information, including ASL and genetic samples, from fish passing the sonar project site. Four different mesh size gillnets (5.25, 6.5, 7.5, and 8.5) are fished daily to collect samples. The estimated age composition of 606 Chinook salmon caught in the test fishery was 0.2% age-3, 6.6% age-4, 50.5% age-5, 40.1% age-6, and 2.7% age-7 fish. The sex composition of fish sampled was 35.1% female and 64.9% male (Shane Eaton, Commercial Fisheries Biologist, ADF&G, Anchorage; personal communication).

In Canada, the Big Salmon River was enumerated using long-range dual frequency sonar between July 11 and August 18 located approximately 1.5 km upstream of the confluence with the Yukon River. The 2014 Big Salmon count of 6,321 Chinook salmon was 33% above the previous 9-year average passage of 4,754 Chinook salmon (Appendices E2 and E6). The escapement of Chinook salmon to the Big Salmon River based on sonar represented 10.0% of the mainstem Yukon River sonar passage estimate near Eagle, Alaska. Carcass samples were

collected August 15–25, over approximately 145 km of the Big Salmon River, yielding 143 Chinook salmon samples. Of the total, 73 (51%) fish were female and 70 (49%) fish were male. The mean mid eye to fork (MEF) of females and males sampled was 852 mm and 745 mm, respectively. Of the 114 samples which were successfully aged, 3.5% (7.8% of the males and 0.0% of the females) were age-4, 34.2% (66.7% of the males and 7.9% of the females) were age-5, 59.6% (21.6% of the males and 90.5% of the females) were age-6, and 0.9% (0.0% of the males and 1.6% of the females) were age-7 (JTC 2015).

The Teslin River was assessed using multiple beam high resolution ARIS sonar on each bank between July 13 and through August 28 approximately 12 km upstream of the confluence with the Yukon River. A total of 17,507 targets identified as Chinook salmon were counted during the period of operation (Appendices E2 and E6) and was the highest in the 3 years of this projects operation. The escapement of Chinook salmon to the Teslin River based on sonar represented 27.6% of the mainstem Yukon River sonar passage estimate near Eagle Alaska. Carcass samples were collected September 1–5, over approximately 120 km of the mainstem Teslin River, yielding 504 Chinook salmon samples. Of these, 304 (60%) fish were female and 200 (40%) fish were male. The MEF of females and males sampled was 848 mm and 742 mm, respectively. Of the 443 samples which were successfully aged, 0.5% (1.1% of males and no females) were age 3, 6.3% (16.1% of the males and no females) were age 4, 28.4% (48.9% of the males and 15.2% of the females) were age 5, 63.4% (32.8% of the males and 63.4% of the females) were age 6, and 1.4% (1.1% of the males and 1.5% of the females) were age 7 (JTC 2015).

The Blind Creek weir project in 2014 enumerated Chinook salmon escapement and obtain biological information from the stock. The weir was set up approximately 1 km upstream of the confluence with the Pelly River. A total of 602 Chinook salmon were counted between July 13 and August 17 (Appendices E2 and E6). The 2014 escapement was approximately 37% higher than the 10-year average escapement of 439 fish. Age sex length samples were randomly collected from migrating Chinook salmon throughout the period of weir operation. A total of 219 Chinook salmon (36% of the run) were live sampled, 89 (41%) were female and 130 (59%) were male. The mean MEF length of females and males sampled was 803.5 mm and 682.8 mm, respectively. Scale samples were analyzed by the Pacific Biological Station fish ageing lab in Nanaimo, British Columbia. The age composition of 186 samples that were successfully aged was 12.4% age-4, 45.2% age-5, 37.6% age-6, and 4.8% age-7 (JTC 2015).

The Whitehorse Rapids Fishway is a fish ladder that bypasses the Whitehorse dam. It has a viewing window and fish trap that allows for salmon counts without handling fish. Staff at Whitehorse Rapids Fishway counted 1,601 Chinook salmon between July 21 and September 2 (Appendices E2 and E6). Of the 1,601 adult Chinook salmon counted, 1,248 were of hatchery origin (approximately 78% of the return). The hatchery component included 305 females (24%) and 943 males (76%). The wild component included 127 females (36%) and 226 males (64%). Female Chinook salmon made up 27% of the total run.

Hatchery personnel collected biological samples from 56 male (21 wild and 35 hatchery origin) and 40 female (15 wild and 25 hatchery origin) Chinook salmon taken from the Whitehorse Rapids Fishway for broodstock. Additional samples were collected from 2 wild male Chinook salmon and 1 head from a hatchery male were collected during carcass surveys in Wolf Creek. No weirs (Wolf or Michie Creek) were operated in the drainage upstream of the Whitehorse Rapids Fishway in 2014.

Summer chum salmon escapement

Summer chum salmon escapement counts for selected spawning areas in the Alaska portion of the Yukon River drainage can be found in Appendix E7. Summer chum salmon escapement was below average in most tributaries that were monitored in 2014. The summer chum salmon goal for East Fork Andreafsky River weir was not met, however, the Anvik River sonar goal was achieved. High water and run timing affecting monitoring at the Salcha River tower, Henshaw Creek weir, and hindered some aerial surveys in 2014.

The East Fork Andreafsky River weir escapement estimate for chum salmon was 37,793 which is below the SEG of > 40,000 fish and this is first time because it was established in 2010 that this goal has not been met (Appendix E7). The 2014 summer chum escapement at the weir was 37% lower than the 5-year average of (2009–2013) of 60,010 fish. Age, sex, and length data were collected from 592 fish caught in the weir trap. The estimated age composition was 0.8% age-3, 70.5% age-4, 21.5% age-5, and 7.1% age-6 fish. The sex composition of the fish sampled was 32.9% female and 67.1% male.

The Anvik River sonar escapement count of 399,796 summer chum salmon was within the BEG range of 350,000 to 700,000 fish (Appendix E7) and was 13% below the 5-year average of (2009–2013) of 457,492 fish. The BEG for the Anvik River has been met or exceeded each year because the goal was established in 2005 (Appendix E7). Age, sex, and length samples in 2014 were collected for 152 summer chum salmon. The estimated age composition was 0.0% age-3, 44.8% age-4, and 48.3% age-5, and 6.9% age-6 fish. The sex composition of the fish sampled was 54.6% female and 45.4% male.

The escapement estimate of summer chum salmon through the Gisasa River weir was 32,137 fish, approximately 52% lower than the 5-year average (2009–2013) of 66,569 fish (Appendix E7). Age, sex, and length data were collected from 249 fish caught in the weir trap. The age composition of samples was 1.8% age-3, 47.8% age-4, 47.0% age-5, and 3.4% age-6 fish. The sex composition of the fish sampled was 50.3% female and 49.7% male.

Escapement on the Chena River was difficult to assess because of high water conditions in 2014. A DIDSON sonar was implemented on the Chena River to assess summer chum salmon escapement and used in place of tower counts. Approximately 17,076 summer chum passed the Chena River sonar which is 30% above the 5-year average (2009–2013) of 13,086 fish. The Salcha River tower project did not operate due to high water conditions. However, age, sex, and length information was collected from 160 summer chum salmon in the Salcha River using carcass surveys conducted by Bering Sea Fishermen's Association. The estimated age composition of summer chum salmon was 0.0% age-3, 26.3% age-4, 68.8% age-5, and 5.0% age-6. The sex composition of fish sampled was 62.5% female and 37.5% male.

The Henshaw Creek weir escapement project did not operate in 2014 because of high water conditions.

2014 fall season escapement

Fall chum salmon escapement

Historical fall chum salmon escapement information in addition to 2014 escapement, results are presented in Appendices E2, E8, E9, and E11. Fall chum salmon are discrete spawners choosing areas of upwelling and relatively warmer water to incubate their eggs in a shorter time when

compared to other species. Major fall chum salmon spawning areas are located in the Tanana, Chandalar, and Porcupine River drainages and within the Canadian portion of the mainstem Yukon River drainage, monitoring projects concentrate on these areas. Drainagewide run size was determined based on coverage of spawner distribution (escapement estimates), age composition, and estimates of harvest.

Current escapement goals for the Yukon River drainagewide and individual tributaries or stock groups were developed based on the analysis done by Eggers (2001) with a recent modification of the drainagewide goal from a BEG to a SEG based on Fleischman and Borba (2009). From 2000 through 2013, the postseason run reconstruction and resulting drainagewide escapement estimate were derived from Eggers' (2001) method. In 2014, Bayesian analysis was used to determine the drainagewide escapement similar to that reported in Fleischman and Borba 2009. The estimates of escapement in 2014 showed that the escapements were generally above the upper end of the individual escapement goals (Appendix E8, E9 and E10), with a drainagewide escapement estimate of 800,000 fall chum salmon which exceeds the drainagewide SEG goal of 300,000–600,000 fall chum salmon. Adding the U.S. and Canada harvests (205,000 fish) to the estimated escapement, results in a total run size estimate of slightly greater than 1,000,000 fall chum salmon.

The drainagewide escapement goal was not achieved from 1998 to 2000 even with restrictions to fisheries reducing exploitation to as low as 11%. Four even-numbered years between 1976 and 1984 also had extremely low escapements (based on current measures) but were mostly caused by high harvests of fall chum salmon, with exploitation as high as 60%. The current drainagewide goal for fall chum salmon has been achieved 90% of the last 41 years and all 11 years because the range was established in 2004.

The historical (1974–2013) average drainagewide run size is 977,000 fall chum salmon and ranges between 251,000 fish in 2000 to 2,200,000 fish in 2005. From 1974 to 1991, fall chum salmon run sizes alternated consistently between lower even-numbered years and higher odd-numbered years (averaging 801,000 and 1,200,000 respectively). Since 1992, there appears to be a decadal cycle occurring where the fall chum salmon run peaked in 1995 and 2005 and was at lows in the cycles in 1992, 2000, and 2010. Both the record low and record high abundances occurred in the last decade. The 2014 fall chum salmon run could be characterized overall as being above average for both the all year average and the even-numbered year average from 1974 to 2013.

The Tanana River produces the largest component of the drainagewide fall chum salmon run. Based on abundance estimates from mark–recaptures studies conducted from 1995 to 2007 (Cleary and Hamazaki 2008), the Tanana River drainage contributes 21% to 41% of the overall run, averaging 32%. Estimated escapement in those years averaged 184,000 fall chum salmon with a range of 56,000 in 2000 fish to 373,000 fish in 2005. In 2014, inseason assessment of the fall chum salmon run into the Tanana River drainage consisted of monitoring run timing and catch at a test fish wheel located near the village of Manley. In addition, subsistence and commercial harvest in the fisheries were assessed. Mixed Stock Analysis (MSA), based on genetics, was also used to assess the fall chum salmon run into the Tanana River drainage and compared well with the preliminary estimate from the Tanana sonar feasibility project operated near Manley Hot Springs. The estimate for the Tanana River was greater than 220,000 chum salmon after July 19 and considering upriver harvests it was likely that the Tanana River BEG range of 61,000 to 136,000 fall chum salmon was exceeded.

Evaluation of the fall chum salmon run to the Delta River, an index tributary of the Tanana River, was based on 9 replicate foot surveys conducted between September 30 and November 26, 2014. The Delta River escapement was estimated to be 32,480 fall chum salmon (Table 9) based on the peak survey count conducted November 13. This level of escapement exceeded the upper end of the BEG range of 6,000 to 13,000 fall chum salmon. Escapement into the Delta River in 2014 was the second highest on record in 43 years, only slightly below that observed in 1991. The high population estimate is partly attributed to the relatively warm conditions allowing continued access particularly to the large middle channel and lack of snow covering carcasses throughout the surveys. Timing for the middle channel was considered late whereas the east and west channels had more normal timing.

Chandalar River is the second largest component of overall Yukon River drainage fall chum salmon run. Since 1995, the Chandalar River contribution of fall chum salmon has ranged from 23% to 41%, averaging 30%. The project has used various sonar types (split beam 1995–2006 and DIDSON 2007 to present) to enumerate fall chum salmon passage (Melegari 2014). After applying the end of the season expansions to the historical data back to 1995, passage estimates of fall chum salmon have ranged from a low of 71,000 fish in 2000 to 527,000 fish in 2005. In 2014, the project operated from August 6 through September 27 and ended with a cumulative count of 212,159 fish. However, because the project was still passing more than 4,000 fish a day when the project ceased operation, an expansion of passage through October 9 was made. The resulting escapement estimate was 226,489 fall chum salmon (Table 9; Appendices E2 and E8) and was 5% above the 2009–2014 5-year average of 215,000 fish. The 2014 estimate was well above the upper end of the BEG of 74,000 to 152,000 fish. Since 1995, fall chum salmon passage has met or exceeded the BEG in all years except 2000.

Estimates of the Canadian component included the operation of a sonar project located downstream of Old Crow in lieu of the Fishing Branch River weir (last operated in 2012). The passage estimate of 17,756 targets attributed to fall chum salmon suggests that the Fishing Branch River goal would not have been achieved in 2014. The mainstem Yukon River border passage was assessed using sonars located downstream of Eagle Alaska in 2014. After removal of U.S. and Canada harvests the 2014 escapement was estimated to be approximately 157,000 fall chum salmon, well above the upper end of the IMEG of 70,000–104,000. The low end of the goal has been achieved for the past 13 years (since 2002) and exceeded the upper end in all but 2 of those years (Appendices E2 and E9).

The upper Yukon River tributary escapement goal of 152,000 to 312,000 is a combination of Chandalar, Sheenjek and Fishing Branch rivers (Eggers 2001) and is generally met during years of high abundance. Preliminary assessment indicates escapement was within the upper tributary goal for 2014. The Porcupine River systems, including the Sheenjek and Fishing Branch rivers, have consistently been the weakest contributors to the overall drainagewide run. The upper tributary goal has been achieved primarily because the Chandalar River has been exceeding the upper end of its goal in 9 of the last 10 years.

Coho salmon escapement

Assessment of coho salmon spawning escapement is constrained in the Yukon River drainage because of funding limitations and marginal survey conditions during periods of peak spawning. Historic coho salmon escapement information along with the most current 2014 escapement results are presented in Appendix E11. The mainstem Yukon River sonar operated near Pilot

Station does not provide complete estimate of coho salmon passage because the project ceases operations on September 7, before the end of the run. The passage estimate of coho salmon at mainstem Yukon River sonar was 247,047 (Appendices E3 and E11). Tributary escapement estimate information was limited to portions of the Tanana River drainage and did not support the near record run that was indicated by the mainstem Yukon River sonar.

Presently, only 1 escapement goal has been established for coho salmon in the Yukon River drainage. The Delta Clearwater River, in the Tanana River drainage, has an SEG range of 5,200 to 17,000 fish (ADF&G 2004). The Delta Clearwater River spawning count was 4,285 coho salmon (Table 9) and was conducted by boat survey on November 11, 2014. This escapement estimate did not achieve the low end of the escapement goal range. Coho salmon escapements in the Nenana River and the upper Tanana River evaluated by aerial surveys were all below the historical long term averages (1972–2013) however a few were above the recent 5-year average (2009–2013).

In recent years, a coho salmon run reconstruction index has been developed that expands the mainstem Yukon River sonar (operated near Pilot Station) passage estimates by comparing timing of the next closest monitoring project in the Lower Yukon (LYTF or Mountain Village) using the appropriate lag for travel time. Further, commercial and subsistence harvests below the sonar site are included to provide an index of coho salmon abundance for the Yukon River. Subsistence harvest in this area is fairly stable averaging 3,000 coho salmon annually. However, the commercial harvest can vary drastically (<1,000 to 95,000) depending on management of the fall chum salmon fishery. Currently the data used for run reconstruction of coho salmon is based on the years 1995 and 1997 to present (excluding 2009 and 2014) when the mainstem sonar was operational. This model results in an average run size of 193,000 coho salmon in the Yukon River. An index of Yukon River drainagewide escapement is derived from the run reconstruction minus the total harvest of coho salmon providing an average escapement of 140,000 fish. In 2014 because of the unsubstantiated mainstem sonar estimate no index of run size could be developed.

2015 SALMON OUTLOOK

Chinook salmon

The total Yukon River Chinook salmon run was estimated by applying historical average proportions of Canadian-origin fish in the total run to the outlook estimated for the Canadian component of the run. The average proportion of Canadian origin fish in the total run is approximately 50%. The drainagewide run outlook based on the adjusted Canadian-origin model estimate, which attempts to account for low productivity since 2007, is 118,000–140,000 Chinook salmon. Thus, the 2015 Yukon River Chinook salmon run will probably be below average.

Summer chum salmon

The strength of the summer chum salmon run in 2015 will be dependent on production from the 2011 (age-4 fish) and 2010 (age-5 fish) escapements, as these age classes generally dominate the run. The total runs during 2010 and 2011 were approximately 1.6 and 2.2 million summer chum salmon, respectively, and tributary escapement goals for the Anvik River and the East Fork Andreafsky River were met or exceeded in 2010 and 2011. However, it is worth noting that poor runs have resulted from large escapements. Yukon River summer chum salmon generally exhibit

strong run size correlations among adjacent years, and it is expected that the 2015 total run in the Yukon River will be slightly lower than the 2014 run of approximately 2.4 million fish.

The 2015 run is anticipated to provide for escapements, a normal subsistence harvest, and a surplus for commercial harvest. Summer chum salmon runs have provided for a harvestable surplus in each of the last 12 years (2003–2014). If inseason indicators of run strength suggest sufficient abundance exists to allow for a commercial fishery, the commercially harvestable surplus could range from 800,000 to 1,400,000 summer chum salmon. Similar to the last 2 years, the actual commercial harvest of summer chum salmon in 2015 will probably be affected by a potentially below average Chinook salmon run, as Chinook salmon are incidentally harvested in summer chum salmon-directed fisheries.

Fall chum salmon

The 2015 run will be made up of fish returning from the parent years 2009 through 2012. Estimates of returns per spawner (R/S), based on brood year return, and were used to estimate production for 2009 and 2010. An auto-regressive Ricker spawner-recruit model was used to predict returns from 2011 and 2012. The point projection in 2015 used the 1974 to 2008 complete brood year returns applied odd/even maturity schedule for the same time period. The result is a point estimate of 1,060,000 fall chum salmon. The 2015 run size forecast is expressed as a range from 944,000 to 1,176,000 fall chum salmon. This forecasted run size is average for odd-numbered year run.

The contributing dominate parent year escapements from 2010 exceeded the midpoint and the 2011 exceeded the upper end of the drainagewide escapement goal range 300,000 to 600,000 fall chum salmon (Appendix E10). All parent years are estimated to be exceeding 1.0 return per spawner. The 2009 parent year R/S is estimated to be the highest since the 2005 record low. The major contributor to the 2015 fall chum salmon run is anticipated to be age-0.3 fish returning from 2011 parent year (Appendix E10). The combination of good sized escapements and improved production has resulted in above average runs since 2011 however production may be leveling off.

With this projected run size for fall chum salmon escapement goals would be anticipated to be met while supporting normal subsistence fishing activities. Commercial harvest could be between 394,000 and 626,000 fall chum salmon.

Coho salmon

Although there is little comprehensive escapement information for Yukon River drainage coho salmon, it is known that coho salmon primarily return as age-2.1 fish (4-year-old, age in European notation) and overlap in run timing with fall chum salmon. The major contributor to the 2015 coho salmon run will be age-4 fish returning from the 2011 parent year. Based on the run reconstruction index (1995–2013, excluding 1996 and 2009) the 2011 escapement was estimated to be 122,000 coho salmon which was below average (140,000).

Escapements are mostly monitored in the Tanana River drainage. The Delta Clearwater River (DCR) is a major producer of coho salmon in the upper Tanana River drainage with comparative escapement monitoring data since 1972. The parent year escapement of 6,180 fish in 2011 was above the lower end of the SEG range of 5,200 to 17,000 coho salmon. However, this escapement count is considered a minimum as the survey was probably conducted early and may not represent a peak spawning count. Six locations in the Tanana River drainage were surveyed for coho salmon

specifically, 2 were above average, 2 were below average and 1 was average when compared to the recent 5-year average (2009–2013). Assuming average survival, the 2015 coho salmon run is anticipated to be average based on escapements observed in 2011. Commercial harvest could be between 60,000 and 80,000 coho salmon caught incidentally in the fall chum salmon directed fishery.

OTHER MARINE AND FRESHWATER FINFISH FISHERIES

SUBSISTENCE AND PERSONAL USE FISHERY

The estimated subsistence and personal use harvest of non-salmon species in 2014 was 88,636 whitefish (*Coregonus* spp. and *Prosopium cylindraceum*), 15,217 northern pike (*Esox lucius*), and 12,738 sheefish (*Stenodus leucichthys*) (Appendix D10). Other species are only reported by total harvest as they are harvested in small amounts or do not occur during salmon season and include a total of 2,043 burbot (*Lota lota*), 1,722 Arctic lamprey (*Lampetra camtschatica*), 10,020 tomcod (*Eleginus gracilis*), 1,847 Arctic grayling (*Thymallus arcticus*), 460 longnose suckers (*Catostomus catostomus*), and 92,068 Alaska blackfish (*Dallia pectoralis*) (Appendix D10). Arctic lampreys are harvested after the surveys are conducted in September, therefore the lamprey reported on the subsistence surveys were harvested the previous winter. Subsistence and personal use catches of freshwater finfish taken under authority of a permit in the Upper Yukon Area are presented in Appendices D7–D9.

Non-salmon species (e.g. pike, sheefish, whitefish, blackfish, etc.) are an important subsistence resource for people in most areas throughout the Yukon River drainage, largely because they are available for harvest all season (Brown et al. 2005; Andersen et al. 2004). Many subsistence users harvest marine and freshwater finfish other than salmon either as incidental bycatch while fishing for salmon or by directly targeting those species. Subsistence users particularly rely on non-salmon species during the winter and spring and when other sources of fish or wildlife are unavailable.

Estimates of non-salmon harvest is poorly understood at a species level throughout the Yukon River drainage, thus a comprehensive assessment of non-salmon harvest and use by species has been identified as a research priority for the Yukon Area (Brown et al. 2011). Information about non-salmon species is collected during the annual ADF&G postseason subsistence salmon harvest surveys but is ancillary to salmon specific surveys and usually does not include species distinctions. Survey projects have begun to identify whitefish harvest by species in the Koyukuk River drainage and lower-middle communities of Grayling, Anvik, Shageluk, and Holy Cross (Brown et al. 2005, Andersen et al. 2004). In previous years households have commented about harvest of herring and halibut; starting in 2012 (Deena Jallen, Commercial Fisheries Biologist, ADF&G, Fairbanks; personal communication), households in the Lower Yukon including the Coastal District were asked about harvest of these species. The 2014 household harvest totals of 17,164 Pacific herring (*Clupea pallasii*) may include smelt (*Osmeridae* spp.) and unspecified species, or unspecified flounder (*Pleuronectidae* spp.) species (Appendix D10). Questions about the harvest of sockeye salmon (*Oncorhynchus nerka*) and Arctic char (*Salvelinus alpinus*) were removed from the postseason survey in 2014 to simplify the survey due to the low annual counts of these species (Appendix D10).

A variety of fishing methods are used in the main rivers and coastal marine waters to harvest non-salmon finfish. Beach seines are occasionally used near spawning grounds to capture salmon and other species of schooling fish. In the fall and winter months, various designs of fyke nets and fish weirs are used to capture whitefish, blackfish, and burbot. In the winter and spring months, hand lines are used through the ice to take sheefish, northern pike, and "tomcod" (saffron cod). A limited number of sheefish are also harvested during the upriver migration of Chinook salmon. In the spring and early summer, smelt are harvested in the Yukon River Delta area using dip nets. During the fall months, dip nets and "eel sticks" are used to harvest Arctic lamprey in the mainstem Yukon River downstream of Grayling. Whitefish and sheefish are also harvested in fish wheels located in the Upper Yukon and Tanana rivers during salmon fishing.

COMMERCIAL FISHERY

Regulations allow ADF&G to issue Commissioner's permits for the commercial harvest of non-salmon freshwater fish, including whitefish, burbot, northern pike, blackfish, and Arctic lamprey, throughout the Yukon and Tanana River drainages. Commissioner's permits allow for the commercial harvest of species not managed under existing commercial fishing regulations. Permits are issued as limited or experimental permits and operate in discrete time periods throughout the year. Following the decline in salmon runs, an interest in non-salmon commercial fisheries emerged on the Yukon River. Despite the strengthening chum salmon returns in recent years, the interest in freshwater fisheries has remained, particularly for Bering cisco *Coregonus laurettae*, and Arctic lamprey.

Whitefish fishery summary

An experimental whitefish commercial fishery has occurred in the lower Yukon River since 2005. Commissioner's permits were issued annually from 2005 to 2012 which allowed for the harvest of 10,000–15,000 pounds of coregonid (whitefish) species in Districts 1 and 2 (Sabrina Garcia, Division of Commercial Fisheries, ADF&G; Anchorage; February 2, 2015, memorandum). In 2013, the quota allocation switched from pounds of fish to numbers of fish. The reasons for the change in quota units are twofold: it is easier to track numbers of fish instead of pounds of fish, and the assumption that a whitefish weighs 1 pound no longer stands true. Gear restrictions were implemented in 2007 to reduce the stretch-mesh size from a maximum of 6.0 in (allowed in 2005 and 2006) to a maximum of 4.0 in. The smaller mesh size would target cisco species and reduce the incidental harvest of sheefish and broad whitefish. In response to market preference, commercial permits were issued for the specific harvest of Bering cisco, and to a lesser extent least cisco, *Coregonus sardinella*, beginning in 2009. The exact dates of the fishery have varied each year in response to the seasonal movements of whitefish and river conditions; however, the commercial harvest generally occurs in September and October. The original harvest cap was based on the historical commercial harvest of sheefish and other whitefish species in the Lower Yukon Area from 1980 to 1990.

In 2014, 1 permit was issued to Kwik'pak Fisheries, LLC for the commercial harvest of cisco, including primarily Bering cisco. The permit authorized a maximum harvest of 25,000 cisco in District 1 from September 4 through November 1. The allowable harvest in 2014 was raised from 20,000 cisco authorized in 2013. The decision to increase the allowable harvest was largely based on new genetic information that indicated the commercial fishery targets almost entirely Yukon-origin Bering cisco (Schlei et al. 2013). In previous years there was concern that Kuskokwim River Bering cisco stocks may have been present in the Lower Yukon delta and

susceptible to harvest in this fishery. No further increase to the harvest quota is likely to occur over the next several years unless warranted by population abundance information.

The fishery permit stipulated that fishing gear was restricted to 1 set or drift gillnet up to 150 feet in length with a maximum stretch-mesh size of 4.0 in or 1 hand line/hook and line. Additionally, commercial fishing was prohibited in designated areas around the village of Kotlik to prevent commercial fishing from potentially impacting subsistence fishing. Closures were instated in the waters of Apoon pass from its confluence with Chaniliut Slough to the northern shoreline of Apoon Mouth, including the Pastolik and Pastoliak rivers.

The 2014 commercial fishery occurred from September 11 to September 22, approximately 1 week earlier than in 2013. Twenty-five fishermen made 123 deliveries totaling 31,318 pounds of cisco (Appendix F1). The commercial harvest included 25,604 Bering cisco and 42 least cisco.

The harvest was 104% above the 5-year (2009–2013) average for Bering cisco and 87% below the 5-year (2009–2013) average for least cisco. The price paid to fishermen was \$1.50 per pound, resulting in an estimated total harvest value of \$46,977. The average price paid to each fisherman was approximately \$1,879. The majority of the Bering cisco commercial harvest occurred in Kotlik (81%) followed by Emmonak (13%).

In the Upper Yukon Area, commercial freshwater fisheries targeting whitefish occurred primarily through the late 1970s. Since 1980 there has been a sporadic and small commercial harvest of whitefish in the upriver districts. In 2014 no whitefish permits were requested possibly due to high operational costs and limited market interest; however, some whitefish were sold in the commercial salmon fishery. Permit authorization is not required for the sale of whitefish species taken incidentally during commercial salmon fishing in any district. In upper river districts, whitefish have been taken incidentally to the salmon harvest and sold since the early 1990s. In 2014, a total of 42 whitefish (37 sheefish and 5 unidentified whitefish) were incidentally harvested and sold in District 5 during the commercial salmon season (Appendix F3).

Harvest sampling

Fish were identified by species at the processing facility in Emmonak prior to shipment to Anchorage. A total of 240 Bering cisco were sampled for age, sex, and length. A small incision was made on the ventral side of each specimen to identify reproductive organs. Fork length (tip of snout to fork of tail) was measured to the nearest millimeter. The sample was approximately even between the sexes (52% female and 48% male). Similar to previous years, females were generally larger than males, 350 mm and 329 mm, respectively. Otoliths were collected from all fish sampled and will be processed in the future for age classification.

Arctic lamprey fishery summary

Beginning in 2003, a developmental commercial Arctic lamprey (lamprey) fishery emerged on the Yukon River. A Commissioner's permit has been issued annually allowing for total harvests between 5,000 and 49,080 pounds of lamprey (Sabrina Garcia, Division of Commercial Fisheries, ADF&G; Anchorage; April 22, 2015, memorandum). The exact dates of the fishery have varied each year in response to run timing and ice conditions; however, the commercial harvest has generally occurred in mid- to late-November.

Fishing effort and run timing

The 2014 lamprey fishery was monitored by department staff via phone and email communications for the entire lamprey commercial fishery. Community contacts were established with local subsistence fishermen in the villages of Alakanuk, Emmonak, Mountain Village, Pilot Station, Marshall, Russian Mission, Holy Cross, Anvik, and Grayling. Information regarding subsistence fishing effort, harvest rates, local weather, river conditions, and run timing was gathered during these communication events. An ADF&G representative also communicated with the processor for updates on harvest and quality.

Similar to previous years, local fishermen with the Yukon Delta Fisheries Development Association set up test fishing sites to assess lamprey presence and run timing. Test fishing in 2014 began earlier due to the assumption that a later start date may have missed a portion of the lamprey run in 2013. Fyke nets were the only gear used for test fishing in 2014 due to their high success rate and the lack of lamprey caught in hoop nets during test fishing in 2013. Fyke nets were operated near the villages of Alakanuk and Emmonak from October 8 to 26. A total of 1,589 lamprey were caught during test fishing with most of the lamprey caught at Munson Island in the south mouth. The number of nets set each day and the duration of time between net checks varied among the nets fished. Although the aim was for nets to be checked approximately every 24 hours, some nets, due to poor weather, fished for several days between checks.

Agents from the processing plant and subsistence users test fished around Mountain Village starting October 20 in an attempt to locate lamprey. Substantial numbers of lamprey were found in Mountain Village on October 31. Lamprey detected passing through Mountain Village during late October were expected to arrive in Grayling roughly around the third week of November assuming a travel speed of 10–13 miles per day. The lamprey migration timing appeared to be approximately 13 miles per day, and they were present at Pilot Station from November 2 to November 4. On November 5, subsistence fishermen reported lamprey had spread from Mountain Village to Pilot Station although in small numbers. On November 7 lamprey had reached Marshall, but were still present at Pitkas Point. On November 11 a school of lamprey arrived at Russian Mission that appeared to be scattered and less concentrated than reported downriver. A second run of lamprey arrived at Russian Mission on November 16, and fishermen reported that the lamprey in this group were bigger and darker than the first school. Lampreys were present in high numbers in Grayling on November 21 and November 22. On average, lamprey traveled at approximately 11 miles per day given their progression from the mouth of the river to Grayling.

Subsistence fishing

Based on anecdotal information, subsistence fishermen from most lower and middle Yukon River communities were successful at meeting their subsistence needs. Subsistence fishermen primarily used dip nets and eel sticks from the beach or edge of shorefast ice to harvest lamprey. Fishermen commented that this year's lamprey run was strong, that it was reminiscent of "the old days," and that it was the largest run in 10 years. Subsistence users from Mountain Village, Pitkas Point, St. Marys, Pilot Station, and Marshall reported meeting their subsistence needs, on average 1 or 2 buckets per family. For families with dogs a typical harvest is between 3 and 5 buckets. In spite of their efforts, subsistence fishermen in Holy Cross were unable to intercept the lamprey run.

Subsistence lamprey harvest will be assessed postseason. In early December, ADF&G sent lamprey subsistence harvest surveys to 809 households in the communities of Anvik, Grayling, Holy Cross, Marshall, Mountain Village, Pilot Station, Pitkas Point, Russian Mission, and St. Marys. Results from these surveys will be made available in an annual subsistence harvest report by ADF&G.

Commercial fishery

In 2014, 1 freshwater commercial fishery permit was issued to Kwik'pak Fisheries, LLC allowing a harvest of up to 44,080 pounds (20 metric tons) of Arctic lamprey. The permit was valid October 9 through December 15, 2014, or until the harvest limit was reached. The processor established buying stations in Emmonak, Mountain Village, and Grayling.

Commercial fishermen in Mountain Village were successful with catches ranging from 120 to 1,897 pounds and totaling 15,386 pounds. The processor suspended buying operations in Marshall to save quota for Grayling, where most of the commercial harvest occurred historically. Commercial harvest at Grayling occurred on November 21 and 22 and totaled 28,734 pounds. Due to the high harvest success rate, the processor requested an additional 5,000 pounds of lamprey on November 24. ADF&G agreed to increase the quota 1 time only based on the large run.

A total of 30 commercial freshwater permit holders delivered a harvest of 44,120 pounds to the commercial processor, equal to approximately 146,000 lamprey (Appendix F2). The buyer paid \$1.50 per pound of lamprey. The estimated commercial value of the fishery was \$66,180 and the average price paid to each fisherman was \$2,206. The 2014 commercial fishery was the most profitable since the fishery started in 2003.

Harvest sampling

A total of 305 lamprey, 185 from Mountain Village and 120 from Grayling, were sampled for sex, length, and weight in Anchorage. Reproductive organs were identified by making a small incision on the ventral side of each specimen. Total length was measured from the tip of the snout to the tip of the tail to the nearest millimeter, and weight was measured to the nearest gram. The average length was 444 mm, the average weight was 137 grams, and approximately 42% of the lampreys sampled were female. Additionally, reproductive organs from 29 female lamprey were weighed to calculate the gonadosomatic index (GSI), the proportion of gonad weight to total weight, which assesses sexual maturity. Average gonad weight was 9.20 grams and GSI ranged from 4.84 to 7.91%.

CAPE ROMANZOF HERRING FISHERY

The Cape Romanzof Herring District consists of all state waters from Dall Point to 62 degrees north latitude (Appendix G1). Pacific herring are present in coastal waters of the Yukon Area during May and June. Spawning populations occur primarily in the Cape Romanzof area in Kokechik Bay and Scammon Bay where spawning habitat consists of rocky beaches and rockweed *Fucus* sp. The arrival of herring on the spawning grounds is influenced by ocean water temperature and ice conditions. Typically, herring appear immediately after ice breakup. Spawning usually occurs between mid-May and mid-June.

Local residents harvest herring in Hooper Bay, Kokechik Bay, and Scammon Bay for subsistence purposes. Additionally, a few fishermen in the Yukon River Delta report harvesting

herring along the coast near Black River and Kwiguk Pass for subsistence use. It is speculated that these herring are migrating toward southern Norton Sound. Additionally, some Yukon River Delta residents harvest herring spawn-on-kelp (*Fucus* sp.) north of Stebbins in southern Norton Sound.

A commercial herring sac-rope fishery was initiated in the Cape Romanzof District in 1980. Since 1993, commercial harvests have ranged from 25 tons in 2004 to 879 tons in 1997 (Appendix G2). The exvessel value of the fishery has ranged from \$10,000 in 2001–2004 to \$1.1 million in 1986. The number of permit holders participating has ranged from 8 in 2006 to 157 in 1987. The commercial fishery saw an increasing trend in effort, harvests, and value from the inception of the fishery in 1980 until its peak in 1986. Declining market value after 1986 through 1990s kept effort, harvest, and exvessel values below early 1980s numbers, eventually leading to record low harvests and effort in the 2000s. Because of poor market conditions and a lack of commercial interest from buyers, no commercial openings occurred in the district from 2007 through 2012. A small commercial herring fishery, not targeting roe, operated in 2013 and a total of 54.3 tons were harvested from 11 permit holders (Appendix G2). Price paid per ton was \$150 and the approximate exvessel value of the 2013 harvest was \$8,000 (Appendix G2).

Historically, short commercial herring fishing openings have been scheduled around high tide events in the Cape Romanzof District. Beginning with the 2004 season, opening and closing the commercial herring fishery based on tide events was modified by opening fishing in the district on a continuous basis. Opening the commercial fishery on a continual basis was justified based on the reduced commercial fishing effort, limited tendering capacity, and decreased processor interest in the area. Conducting commercial fisheries this way allows fishermen the maximum opportunity to explore the district to find marketable quality of sac roe herring and allows the buyer to direct when fishing will occur based on current harvest information.

For the first time since 2006 a registered buyer operated in the Cape Romanzof District in 2013 (Estensen et al. 2015).

2014 SEASON SUMMARY

In 2014, there was not any commercial herring fishery in the Cape Romanzof Herring District, due to a lack of buyers.

SUBSISTENCE FISHERY

The subsistence harvest and effort figures represent only the harvest which was reported (Appendix G3). Therefore, the reported harvest is a minimum estimate because not all fishing families were contacted and not all households who received questionnaires returned them. Subsistence herring harvest questionnaires were not mailed out in 2011 or 2012. Harvest of herring was not estimated in 2011. Beginning in 2012, residents of Scammon Bay and Hooper Bay were asked to report their subsistence harvest of herring during the Yukon Area postseason subsistence harvest surveys. Households reported a subsistence harvest of 17,164 herring in 2014 (Appendix D10). Presently, the subsistence harvest of herring by Chevak residents is not estimated.

STOCK STATUS

Because of turbid water in the Cape Romanzof area, it is typically not possible to estimate herring biomass using aerial survey techniques. Herring biomass has been estimated using a

combination of information from aerial surveys, test and commercial catches, spawn deposition, and age composition. Qualitative spawn deposition surveys were conducted from 1992 through 2003 (Bue et al. 2011). Although these surveys were discontinued in 2004 because of budget limitations, ADF&G continues to make periodic observations of herring biomass and spawn deposition. No observation flights were flown in 2014.

VARIABLE MESH GILLNET TEST FISHERY

Test fishing with variable mesh gillnets has been conducted since 1978 to determine distribution, timing and relative abundance of spawning herring, and to collect samples for age, sex, size, and relative maturity information (Bue et al. 2011). Due to the recent lack of market interest a test fishery has not occurred at Cape Romanzof since 2006.

HERRING OUTLOOK 2015

Projections of herring abundance in the upcoming year are made annually. Estimates of survival rates are applied to age-specific estimates of herring escapement to project the number of herring which will survive until the next year. Assumptions of age-specific recruitment rates are used in combination with age-specific abundance to project the number of herring of each age that will recruit to the fishery for the first time (Wespestad 1982). Projections of abundance are converted to units of biomass using data on mean weights at age from the current year. In cases where age-specific abundance or mean weights were not empirically measured, projections from the previous year were applied.

The 2015 projected biomass for the Cape Romanzof District is expected to be 4,813 tons and the minimum biomass threshold is 1,500 tons. Based on the *Bering Sea Herring Fishery Management Plan* (5AAC 27.060), the exploitation rate shall not exceed 20% of the estimated biomass. Therefore, the allowable harvest is 963 tons.

A commercial buyer is not anticipated to be available in 2015. If a commercial market develops, ADF&G will monitor the fishery. Inseason assessment of stock abundance will be determined using information collected from test fishing, commercial harvest rates if available, herring distribution, age composition, and if possible, aerial surveys. Commercial fishing periods will be determined by the amount of fishing effort present and roe quality. ADF&G will probably open the fishery on a continuous basis until the quota is landed or there is no longer market interest. Commercial fishing may be opened when it is determined that marketable percentage of sac roe herring and a commercial buyer is present. Fishermen are encouraged to bring more than 1 mesh size of gillnet if they are available. The quality of roe is dependent on size and maturity of the herring, thus it would benefit fishermen to have some flexibility. It is important that fishermen, buyers, and ADF&G obtain the highest roe recovery possible.

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TABLES AND FIGURES

Table 1.—Guideline harvest ranges and midpoints for commercial harvest of Chinook, summer chum, and fall chum salmon, Yukon Area, Alaska, 2014.

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

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

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

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

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

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

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

Table 2.—Total utilization in numbers of salmon by district and country, Yukon River drainage, 2014.

District	Fishery	Chinook ^a	Summer Chum ^a	Fall Chum ^a	Coho ^a	Pink ^a
1	Subsistence ^b	1,356	23,894	4,072	1,782	3,187
	Commercial	—	198,240	51,823	54,750	49,317
	Test Fish Sales	—	0	30	0	0
	Total	1,356	222,134	55,925	56,532	52,504
2	Subsistence ^b	616	26,134	5,817	1,769	905
	Commercial	—	229,107	59,138	48,602	5,434
	Test Fish Sales	—	0	0	0	0
	Total	616	255,241	64,955	50,371	6,339
3	Subsistence ^b	48	3,748	2,457	340	11
	Commercial	—	0	—	—	—
	Total	48	3,748	2,457	340	11
Total	Subsistence ^b	2,020	53,776	12,346	3,891	4,103
Lower Yukon Area	Commercial	—	427,347	110,961	103,352	54,751
	Test Fish Sales	—	0	30	0	0
	Total	2,020	481,123	123,337	107,243	58,854
4	Subsistence ^b	132	9,981	15,936	3,062	66
	Commercial	—	96,385	—	—	—
	Total	132	106,366	15,936	3,062	66
5	Subsistence ^b	283	3,108	51,197	2,384	8
	Commercial	—	—	1,264	0	—
	Total	283	3,108	52,461	2,384	8
6	Subsistence ^b	283	731	12,498	7,711	0
	Commercial	—	6,912	3,368	1,286	0
	Personal use	1	226	278	174	0
	Total	284	7,869	16,144	9,171	0
Total	Subsistence ^b	699	20,239	72,344	13,157	74
Upper Yukon Area	Commercial	—	103,297	4,632	1,286	0
	Personal use	1	226	278	174	0
	Total	700	123,762	77,254	14,617	74
Total	Subsistence ^b	2,718	67,596	91,977	17,048	4,177
Yukon River (Alaska)	Commercial	—	530,644	115,593	104,638	54,751
	Personal use	1	226	278	174	0
	Test Fish sales	—	0	30	0	0
	Sport Fish ^c	^d	^d	^d	^d	^d
	Total	2,720	598,466	207,878	121,860	58,928
Total Canada	Domestic	0	0	19	0	0
	Aboriginal (mainstem)	100	0	546	0	0
	Sport Fish	—	0	0	0	0
	Test Fish harvest	—	—	—	—	0
	Commercial	—	0	2,485	0	0
	Subtotal	100	0	3,050	0	0
	Porcupine Aboriginal	3	0	1,983	133	0
	Total	103	0	5,033	133	0
Grand Total		2,822	598,466	212,911	121,993	58,928

Note: En dash indicates fishery did not occur.

^a Commercial harvest includes only fish sold in the round. Does not include subsistence harvest from coastal communities of Hooper Bay and Scammon Bay.

^b Data are preliminary.

^c Assume majority of chum salmon harvested during summer season.

^d Data not available.

Table 3.—Salmon processors, buyers, catcher-sellers, and associated data, Yukon Area, 2014.

Commercial operation (Processing location/buying station)	Product	District
Kwik'pak Fisheries 1016 West Sixth Avenue, Suite 301 Anchorage, AK 99501 (Emmonak/St. Marys)	Fresh Salmon Frozen Salmon Salmon Roe	1 and 2
Yukon River Gold LLC. PO BOX 4347 Bellingham, WA 98227 (Kaltag)	Fresh Salmon Frozen Salmon Salmon Roe	4
Interior Alaska Fish Processors 2400 Davis Rd. Fairbanks, AK 99709 (Fairbanks, Yukon Bridge, Nenana)	Fresh/Frozen Salmon Salmon Roe Salted/Brined Salmon Smoked Salmon	5 and 6
Stephen O'Brien P.O. Box 42 Manley, AK 99756 (Manley Hot Springs)	Fresh Salmon	6
David Dausel P.O. Box 80291 Fairbanks, AK 99708 (Fairbanks)	Fresh Salmon	6

Table 4.—Chinook and summer chum salmon commercial harvest by district or subdistrict and by period, dip nets, beach seines, and gillnets combined for Districts 1 and 2, and set gillnets and fish wheels combined for Districts 4 and 6, Yukon Area, 2014.

District 1														
Period	Starting time	Start date	Ending time	End date	Hours fished	Gear type ^a	Mesh size	Number of fishermen	Chinook salmon		Summer chum salmon			Pink salmon
									Number caught and released	Number caught but not sold	Number	Pounds	Avg wt	Number
1	12:00 PM	9 Jun	12:00 AM	9 Jun	12	DN/BS		85	111		4,214	28,843	6.8	
2	12:00 PM	10 Jun	12:00 AM	10 Jun	12	DN/BS		51	18		1,969	13,158	6.7	
3	12:00 PM	11 Jun	12:00 AM	11 Jun	12	DN/BS		74	167		4,150	28,400	6.8	
4	12:00 PM	12 Jun	12:00 AM	12 Jun	12	DN/BS		45	27		1,582	10,351	6.5	
5	12:00 PM	13 Jun	12:00 AM	13 Jun	12	DN/BS		20	15		958	6,184	6.5	
6	12:00 PM	15 Jun	12:00 AM	15 Jun	12	DN/BS		93	201		7,777	49,416	6.4	
7	12:00 PM	16 Jun	12:00 AM	16 Jun	12	DN/BS		71	89		3,431	21,664	6.3	
8	12:00 PM	17 Jun	12:00 AM	17 Jun	12	DN/BS		92	220		8,912	58,038	6.5	67
9	12:00 PM	18 Jun	12:00 AM	18 Jun	12	DN/BS		90	197		9,002	57,974	6.4	559
10	12:00 PM	19 Jun	12:00 AM	19 Jun	12	DN/BS		87	168		7,690	48,485	6.3	689
11	12:00 PM	20 Jun	12:00 AM	20 Jun	12	DN/BS		102	178		12,101	78,043	6.5	1,202
12	12:00 PM	22 Jun	12:00 AM	22 Jun	12	DN/BS		111	143		9,824	60,715	6.2	196
13	12:00 PM	23 Jun	12:00 AM	23 Jun	12	DN/BS		105	154		9,625	58,328	6.1	
14	12:00 PM	24 Jun	12:00 AM	24 Jun	12	DN/BS		85	52		6,101	36,583	6.0	
15	12:00 PM	25 Jun	12:00 AM	25 Jun	12	DN/BS		3	2		128	738	5.8	
16	12:00 PM	26 Jun	12:00 AM	26 Jun	12	DN/BS		68	45		4,426	25,464	5.8	
17	12:00 PM	27 Jun	12:00 AM	27 Jun	12	DN/BS		109	86		6,998	40,032	5.7	
18	12:00 PM	29 Jun	12:00 AM	29 Jun	12	DN/BS		78	30		4,686	27,383	5.8	
19	12:00 PM	30 Jun	12:00 AM	30 Jun	12	DN/BS		31	4		1,083	6,267	5.8	
20	12:00 PM	1 Jul	12:00 AM	1 Jul	12	DN/BS		51	14		1,666	9,238	5.6	7,626
21	12:00 PM	2 Jul	12:00 AM	2 Jul	12	DN/BS		67	13		4,733	28,602	6.0	6,005
22	8:00 PM	3 Jul	12:00 AM	3 Jul	4	GN	6.0	143		34	13,677	88,904	6.5	3,048
23	^b 3:00 PM	7 Jul	12:00 AM	7 Jul	9	GN	6.0	137		13	7,204	44,943	6.2	7,769
24	3:00 PM	9 Jul	12:00 AM	9 Jul	9	GN	6.0	134		23	9,732	61,643	6.3	6,385
25	3:00 PM	11 Jul	12:00 AM	11 Jul	9	GN	6.0	159		24	21,624	143,036	6.6	5,938
26	^b 12:00 PM	13 Jul	12:00 AM	13 Jul	12	GN	6.0	130		21	13,831	93,485	6.8	6,225
27	^b 12:00 PM	15 Jul	12:00 AM	15 Jul	12	GN	6.0	132		11	21,116	155,049	7.3	3,580
										13 ^c				
District 1 subtotal:					307			231	1,934	139	198,240	1,280,966	6.5	49,289

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District 2																
Period	Starting time	Start date	Ending time	End date	Hours fished	Gear type ^a	Mesh size	Number fishermen	Chinook salmon		Summer chum salmon			Pink salmon		
									Number caught and released	Number caught but not sold	Number	Pounds	Avg wt	Number		
1	12:00 PM	9 Jun	10:00 PM	9 Jun	10	DN/BS		38	30		2,634	18,487	7.0			
2	12:00 PM	10 Jun	10:00 PM	10 Jun	10	DN/BS		56	15		4,018	27,758	6.9			
3	12:00 PM	11 Jun	10:00 PM	11 Jun	10	DN/BS		69	113		6,232	42,608	6.8			
4	12:00 PM	12 Jun	10:00 PM	12 Jun	10	DN/BS		61	63		4,408	29,175	6.6			
5	12:00 PM	13 Jun	10:00 PM	13 Jun	10	DN/BS		48	27		2,117	14,184	6.7			
6	12:00 PM	15 Jun	10:00 PM	15 Jun	10	DN/BS		39	99		1,618	10,778	6.7			
7	12:00 PM	16 Jun	10:00 PM	16 Jun	10	DN/BS		63	164		4,291	28,972	6.8			
8	12:00 PM	17 Jun	10:00 PM	17 Jun	10	DN/BS		79	273		5,902	38,649	6.6	6		
9	12:00 PM	18 Jun	10:00 PM	18 Jun	10	DN/BS		94	450		10,026	66,145	6.6	47		
10	12:00 PM	19 Jun	10:00 PM	19 Jun	10	DN/BS		101	416		13,333	88,886	6.7	102		
11	12:00 PM	20 Jun	10:00 PM	20 Jun	10	DN/BS		110	361		15,412	100,539	6.5	388		
12	12:00 PM	22 Jun	10:00 PM	22 Jun	10	DN/BS		92	289		10,560	68,195	6.5	490		
13	12:00 PM	23 Jun	10:00 PM	23 Jun	10	DN/BS		91	245		10,839	69183	6.4	103		
14	12:00 PM	24 Jun	10:00 PM	24 Jun	10	DN/BS		87	217		8,727	54,649	6.3			
15	12:00 PM	25 Jun	10:00 PM	25 Jun	10	DN/BS		69	142		6,936	42,484	6.1			
16	12:00 PM	26 Jun	10:00 PM	26 Jun	10	DN/BS		63	107		5,231	31,332	6.0			
17	12:00 PM	27 Jun	10:00 PM	27 Jun	10	DN/BS		75	90		4,953	28,797	5.8			
18	12:00 PM	29 Jun	10:00 PM	29 Jun	10	DN/BS		95	66		8,298	48,590	5.9			
19	12:00 PM	30 Jun	10:00 PM	30 Jun	10	DN/BS		109	95		12,029	71,064	5.9			
20	12:00 PM	1 Jul	10:00 PM	1 Jul	10	DN/BS		94	97		9,196	53,157	5.8	10		
21	12:00 PM	2 Jul	10:00 PM	2 Jul	10	DN/BS		64	77		6,253	35,559	5.7	24		
22	12:00 PM	3 Jul	10:00 PM	3 Jul	10	DN/BS		53	46		4,198	24,966	6.0	18		
23	12:00 PM	4 Jul	10:00 PM	4 Jul	10	DN/BS		60	23		4,582	27,476	6.0	180		
24	4:00 PM	6 Jul	10:00 PM	6 Jul	6	GN	6.0	130		110	16,358	105,133	6.4	462		
25	4:00 PM	8 Jul	10:00 PM	8 Jul	6	GN	6.0	129		83	9,679	60,737	6.3	912		
26	4:00 PM	10 Jul	10:00 PM	10 Jul	6	GN	6.0	105		37	5,493	34,839	6.3	655		
27	2:00 PM	12 Jul	11:00 PM	12 Jul	9	GN	6.0	79		42	6,814	44,247	6.5	860		
28	2:00 PM	14 Jul	11:00 PM	14 Jul	9	GN	6.0	112		34	13,396	90,765	6.8	514		
29	^b 2:00 PM	16 Jul	11:00 PM	16 Jul	9	GN	6.0	123		8	15,574	109,800	7.0	609		
District 2 subtotal:									275	183	3,505	331	229,107	1,467,154	6.4	5,380
Lower Yukon Area, summer season,																
Districts 1, 2, and 3 subtotal ^d :					582			405	5,439	470	427,347	2,748,120	6.4	54,669		

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District 4															
Period		Starting time	Start date	Ending time	End date	Hours	Gear type	Mesh size	Number fishermen	Chinook salmon		Summer chum salmon			Pink salmon
						Fished 4-A				Number caught and released	Number caught but not sold	Number	Pounds	Avg wt	Number
1	e	12:01 AM	23 Jun	12:00 AM	23 Jun	24	FW		0						
2	e	12:01 AM	24 Jun	12:00 AM	24 Jun	24	FW		1			277	1,884	6.8	
3	e	12:01 AM	25 Jun	12:00 AM	25 Jun	24	FW		0						
4	e	12:01 AM	26 Jun	12:00 AM	26 Jun	24	FW		0						
5	e	12:01 AM	27 Jun	12:00 AM	27 Jun	24	FW		4	13		2,525	14,494	5.7	
6	e	12:01 AM	28 Jun	12:00 AM	28 Jun	24	FW		6	16		5,406	32,977	6.1	
7	e	12:01 AM	29 Jun	12:00 AM	29 Jun	24	FW		7	22		10,634	57,424	5.4	
8	e	12:01 AM	30 Jun	12:00 AM	30 Jun	24	FW		6	8		3,860	22,774	5.9	
9	e	12:01 AM	1 Jul	12:00 AM	1 Jul	24	FW		7	8		4,034	22,590	5.6	
10	e	12:01 AM	2 Jul	12:00 AM	2 Jul	24	FW		6	17		4,132	24,379	5.9	
11	e	12:01 AM	3 Jul	12:00 AM	3 Jul	24	FW		8	20		4,211	22,739	5.4	
12	e	12:01 AM	4 Jul	12:00 AM	4 Jul	24	FW		9	30		4,667	22,868	4.9	
13	e	12:01 AM	5 Jul	12:00 AM	5 Jul	24	FW		9	27		4,511	23,006	5.1	
14	e	12:01 AM	6 Jul	12:00 AM	6 Jul	24	FW		9	28		3,478	18,086	5.2	
15	e	12:01 AM	7 Jul	12:00 AM	7 Jul	24	FW		7	20		2,994	14,970	5.0	
16	e	12:01 AM	8 Jul	12:00 AM	8 Jul	24	FW		8	1		2,585	14,476	5.6	
17	e	12:01 AM	9 Jul	12:00 AM	9 Jul	24	FW		8	17		4,523	20,354	4.5	
18	e	12:01 AM	10 Jul	12:00 AM	10 Jul	24	FW		10	20		4,479	22,395	5.0	
19	e	12:01 AM	11 Jul	12:00 AM	11 Jul	24	FW		9	18		5,036	26,187	5.2	
20	e	12:01 AM	12 Jul	12:00 AM	12 Jul	24	FW		10	27		4,112	19,326	4.7	
21	e	12:01 AM	13 Jul	12:00 AM	13 Jul	24	FW		9	18		4,123	20,203	4.9	
22	e	12:01 AM	14 Jul	12:00 AM	14 Jul	24	FW		6	9		2,379	11,657	4.9	
23	e	12:01 AM	15 Jul	12:00 AM	15 Jul	24	FW		5	10		2,997	15,584	5.2	
24	e	12:01 AM	16 Jul	12:00 AM	16 Jul	24	FW		7	5		2,762	12,705	4.6	
25	e	12:01 AM	17 Jul	12:00 AM	17 Jul	24	FW		7	4		2,297	10,566	4.6	
26	e	12:01 AM	18 Jul	12:00 AM	18 Jul	24	FW		6			1,560	7,488	4.8	
27	e	12:01 AM	19 Jul	12:00 AM	19 Jul	24	FW		7			1,464	6,881	4.7	
28	e	12:01 AM	20 Jul	12:00 AM	20 Jul	24	FW		6	2		982	4,517	4.6	
29		12:01 AM	21 Jul	12:00 AM	21 Jul	24	FW/GN	6.0	6	1		1,311	5,768	4.4	
30		12:01 AM	22 Jul	12:00 AM	22 Jul	24	FW/GN	6.0	5			1,011	4,550	4.5	
31		12:01 AM	23 Jul	12:00 AM	23 Jul	24	FW/GN	6.0	5			745	3,427	4.6	
32		12:01 AM	24 Jul	12:00 AM	24 Jul	24	FW/GN	6.0	4			664	2,855	4.3	
33		12:01 AM	25 Jul	12:00 AM	25 Jul	24	FW/GN	6.0	5			1,065	5,112	4.8	
34		12:01 AM	26 Jul	12:00 AM	26 Jul	24	FW/GN	6.0	6			1,561	7,337	4.7	
35		12:01 AM	27 Jul	12:00 AM	27 Jul	24	FW/GN	6.0	0						
District 4 subtotal:						840			10	341	0	96,385	499,579	5.2	0

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Subdistricts 6-A, 6-B, and 6-C														
Period	Starting time	Start date	Ending time	End date	Hours	Gear type	Mesh size	Number fishermen	Chinook salmon		Summer chum salmon			Pink salmon
					fished 6-AB				Number caught and released	Number caught but not sold	Number	Pounds	Avg wt	Number
1 ^e	6:00 PM	11 Jul	12:00 PM	13 Jul	42	FW		1	83		666	4,222	6.3	
2 ^e	6:00 PM	14 Jul	12:00 PM	16 Jul	42	FW		1	57		935	4,963	5.3	
3 ^e	6:00 PM	18 Jul	12:00 PM	20 Jul	42	FW		1	29		1,021	6,708	6.6	
4 ^e	6:00 PM	23 Jul	12:00 PM	23 Jul	42	FW		1	11		506	3,305	6.5	
5	6:00 PM	25 Jul	12:00 PM	27 Jul	42	FW		1	7		1,188	7,605	6.4	
6	6:00 PM	28 Jul	12:00 PM	30 Jul	42	FW/GN		1	3	6	1,589	9,596	6.0	
7	6:00 PM	1 Aug	12:00 PM	3 Aug	42	FW/GN		1		5	1,007	6,129	6.1	
8	6:00 PM	4 Aug	12:00 PM	6 Aug	42	FW/GN								
District 6 subtotal:					336			1	190	11	6,912	42,528	6.2	0
Upper Yukon Area, summer season,														
Districts 4, 5, and 6 subtotal:					1,176			11	531	11	103,297	542,107	5.2	0
Yukon Area, summer season,														
Districts 1 through 6 total ^c :					1,758			416	5,970	481	530,644	3,290,227	6.2	54,669

Note: Chinook salmon caught in gillnets were not allowed to be sold throughout the summer and fall season. Chinook salmon caught in dip nets, beach seines and fish wheels were required to be immediately released alive. DN = dip net; BS = beach seine; GN = gillnet; FW = fish wheel. No commercial fishing occurred in Districts 3 and 5.

^a Under new commercial fishing regulations adopted by the Alaska Board of Fisheries in 2013, ADF&G may allow the use of dip nets and beach seines.

^b Coho salmon were sold commercially during these periods.

^c Includes Chinook salmon caught but not sold in the fall season.

^d No commercial fishing occurred in Districts 3.

^e Fish wheels were to be manned at all times. Chinook salmon caught in fish wheels were to be released immediately back to the water alive.

Table 5.–Fall chum and coho salmon commercial harvest by district or subdistrict and by period, set and drift gillnets combined for Districts 1, 2, and 3, and set gillnets and fish wheels combined for Districts 4, 5, and 6, Yukon Area, 2014.

District 1															
Period	Starting time	Start date	Ending time	End date	Hours fished		Mesh size	Number fishermen	Fall chum salmon			Coho salmon			Chinook salmon
					Drift	Set			Number	Pounds	Avg wt	Number	Pounds	Avg wt	Number caught but not sold ^a
1 ^b	4:00 PM	7/17	10:00 PM	7/17	6	6	6	171	12,524	94,798	7.6	52	349	6.7	10
2	6:00 PM	7/21	12:00 AM	7/21	6	6	6	159	8,520	64,282	7.5	89	538	6.0	1
3	4:00 PM	7/25	10:00 PM	7/25	6	6	6	121	3,746	28,166	7.5	123	710	5.8	0
4	4:00 PM	7/28	10:00 PM	7/28	6	6	6	87	1,694	12,382	7.3	608	3,750	6.2	2
5	4:00 PM	8/15	10:00 PM	8/15	6	6	6	112	1,048	8,116	7.7	3,869	25,401	6.6	0
6	5:00 PM	8/19	11:00 PM	8/19	6	6	6	178	10,011	74,039	7.4	20,925	144,392	6.9	0
7	12:00 PM	8/25	9:00 PM	8/25	9	9	6	172	3,994	29,250	7.3	10,307	72,751	7.1	0
8	5:00 PM	8/26	9:00 PM	8/26	4	4	6	142	4,342	32,441	7.5	4,854	33,514	6.9	0
9	12:00 PM	8/28	9:00 PM	8/28	9	9	6	153	3,564	25,547	7.2	8,070	56,137	7.0	0
10	12:00 PM	9/1	9:00 PM	9/1	9	9	6	110	1,529	11,151	7.3	3,069	21,176	6.9	0
11	9:00 AM	9/3	6:00 PM	9/3	9	9	6	81	484	3,305	6.8	1,816	12,255	6.8	0
12	11:00 AM	9/5	8:00 PM	9/5	9	9	6	62	373	2,643	7.1	956	6,481	6.8	0
Coho salmon sold in the summer season												12	75	6.3	
District 1 subtotal:					85	85		256	51,829	386,120	7.4	54,750	377,529	6.9	13
District 2															
Period	Starting time	Start date	Ending time	End date	Hours fished		Mesh	Number fishermen	Fall chum salmon			Coho salmon			Chinook salmon
					Drift	Set			Number	Pounds	Avg wt	Number	Pounds	Avg wt	Number caught but not sold ^a
1 ^b	2:00 PM	7/20	8:00 PM	7/20	6	6	6	141	12,812	95,900	7.5	9	51	5.7	12
2	2:00 PM	7/27	8:00 PM	7/27	6	6	6	113	5,363	39,888	7.4	130	726	5.6	5
3	2:00 PM	8/3	7:00 PM	8/3	5	6	6	114	8,014	61,061	7.6	872	5,081	5.8	0
4	2:00 PM	8/18	7:00 PM	8/18	5	6	6	126	6,416	50,303	7.8	5,086	33,620	6.6	0
5	2:00 PM	8/22	8:00 PM	8/22	6	6	6	155	15,233	114,303	7.5	17,768	121,031	6.8	0
6	2:00 PM	8/24	6:00 PM	8/24	4	6	6	141	2,440	17,605	7.2	9,435	63,706	6.8	0
7	1:00 PM	8/27	7:00 PM	8/27	6	6	6	143	3,630	26,763	7.4	7,692	52,802	6.9	0
8	1:00 PM	8/30	7:00 PM	8/30	6	6	6	144	5,230	37,315	7.1	7,606	51,676	6.8	0
Coho salmon sold in the summer season												4	21	5.3	
District 2 subtotal:					44			199	59,138	443,138	7.5	48,602	328,714	6.8	17
Lower Yukon Area, fall season, Districts 1, 2, and 3 subtotal:					Hours fished			Number fishermen	Fall chum salmon			Coho salmon			Chinook salmon
					Drift	Set			Number	Pounds	Avg wt	Number	Pounds	Avg wt	Number caught but not sold ^a
					129	85		441	110,967	829,258	7.5	103,352	706,243	6.8	30

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Table 5.–Page 2 of 2.

Subdistricts 5-B and 5-C												
Period	Starting time	Start date	Ending time	End date	Hours fished	Number fishermen	Fall chum salmon			Coho salmon		
							Number	Pounds	Avg wt	Number	Pounds	Avg wt
1	6:00 PM	8/12	6:00 PM	8/17	120	2	1,264	9,477	7.5	0	0	0
2	6:00 PM	8/19	6:00 PM	8/24	120	–	–	–	–	–	–	–
3	6:00 PM	8/26	6:00 PM	8/31	120	–	–	–	–	–	–	–
4	6:00 PM	9/2	6:00 PM	9/7	120	–	–	–	–	–	–	–
5	6:00 PM	9/9	6:00 PM	9/14	120	–	–	–	–	–	–	–
6	6:00 PM	9/16	6:00 PM	9/21	120	–	–	–	–	–	–	–
7	6:00 PM	9/23	6:00 PM	9/28	120	–	–	–	–	–	–	–
District 5 subtotal:					840	2	1,264	9,477	7.5	0	0	0
Subdistricts 6-A, 6-B, and 6-C												
Period	Starting time	Start date	Ending time	End date	Hours fished	Number fishermen	Fall chum salmon			Coho salmon		
							Number	Pounds	Avg wt	Number	Pounds	Avg wt
1	6:00 PM	8/22	12:00 PM	8/24	42	1	305	2,043	6.7	55	258	4.7
2	6:00 PM	8/25	12:00 PM	8/27	42	1	224	1,500	6.7	82	385	4.7
3	6:00 PM	8/29	12:00 PM	8/31	42	1	263	1,920	7.3	180	954	5.3
4	6:00 PM	9/1	12:00 PM	9/3	42	–	–	–	–	–	–	–
5	6:00 PM	9/5	12:00 PM	9/7	42	1	203	1,362	6.7	189	888	4.7
6	6:00 PM	9/8	12:00 PM	9/10	42	–	–	–	–	–	–	–
7	6:00 PM	9/12	12:00 PM	9/14	42	2	523	3,491	6.7	167	788	4.7
8	6:00 PM	9/15	12:00 PM	9/17	42	1	452	3,164	7.0	54	260	4.8
9	6:00 PM	9/19	12:00 PM	9/21	42	2	823	5,626	6.8	359	1,696	4.7
10	6:00 PM	9/22	12:00 PM	9/24	42	1	386	2,618	6.8	61	294	4.8
11	6:00 PM	9/26	12:00 PM	9/28	42	1	189	1,323	7.0	139	700	5.0
District 6 subtotal:					462	2	3,368	23,047	6.8	1,286	6,224	4.8
Upper Yukon Area, fall season,												
Districts 4, 5, and 6 subtotals:					1,302	4	4,632	32,524	7.0	1,286	6,224	4.8
Yukon Area, fall season,												
Districts 1 through 6 total:					1,431	445	115,599	861,782	7.5	104,638	712,467	6.8

Note: No commercial fishing occurred in Districts 3 and 4 and Subdistricts 5-A and 5-D. En dash indicates no commercial fishing activity occurred.

^a Chinook salmon caught but not sold during fall season are added in summer season harvest.

^b Pink salmon were sold commercially during these periods. A total of 82 pink salmon were sold during the fall season.

Table 6.—Commercial sales in number of salmon by statistical area, Yukon Area, 2014.

Statistical Area	Chinook ^a	Summer chum ^a	Fall chum ^a	Coho ^a	Pink ^a	Total salmon
334-11	0	16,781	658	712	7,531	25,682
12	0	52,300	8,509	5,380	26,685	92,874
13	0	14,698	2,659	3,441	2,265	23,063
14	0	27,699	6,092	4,648	3,391	41,830
15	0	12,182	6,193	9,127	3,318	30,820
16	0	761	2,643	5,286	56	8,746
17	0	61,940	19,391	20,007	5,678	107,016
18	0	11,879	5,684	6,203	393	24,159
Subtotal District 1	0	198,240	51,829	54,804	49,317	354,190
334-21	0	22,806	5,949	5,397	1,216	35,368
22	0	94,595	19,112	19,757	4,213	137,677
23	0	50,069	11,186	12,310	5	73,570
24	0	61,637	22,891	11,138	0	95,666
25	0	—	—	—	—	0
Subtotal District 2	0	229,107	59,138	48,602	5,434	342,281
334-31	—	—	—	—	—	—
32	—	—	—	—	—	—
Subtotal District 3	—	—	—	—	—	—
Total Lower Yukon	0	427,347	110,967	103,406	54,751	696,471
334-42	—	—	—	—	—	—
43	—	—	—	—	—	—
44	0	0	—	—	0	0
45	0	0	—	—	0	0
46	0	96,385	—	—	0	96,385
47	—	—	—	—	—	—
Subtotal District 4	0	96,385	—	—	0	96,385
334-51	—	—	—	—	—	—
52	—	—	1,264	0	—	1,264
53	—	—	—	—	—	—
54	—	—	—	—	—	—
55	—	—	—	—	—	—
Subtotal District 5	—	—	1,264	0	—	1,264
334-61	0	0	1,568	318	0	1,886
62	0	6,912	1,800	968	0	9,680
63	0	0	—	—	0	—
Subtotal District 6	0	6,912	3,368	1,286	0	11,566
Total Upper Yukon	0	103,297	4,632	1,286	0	109,215
Grand Total Yukon Area	0	530,644	115,599	104,692	54,751	805,686

Note: En dash indicates no commercial fishing activity occurred.

^a Sales reported in numbers of fish sold in the round. Does not include ADF&G test fishery sales.

Table 7.—Commercial salmon sales and estimated harvest by district and country, Yukon River drainage, 2014.

District/ Subdistrict	Number of fishermen ^a	Chinook	Summer chum	Fall chum	Coho	Pink
1	277	0	198,240	51,823	54,750	49,317
2	216	0	229,107	59,138	48,602	5,434
Subtotal	468	0	427,347	110,961	103,352	54,751
3	—	—	—	—	—	—
Total Lower Yukon	468	0	427,347	110,961	103,352	54,751
Anvik River	—	—	—	—	—	—
4-A	10	0	96,385	—	—	0
4-BC	—	—	—	—	—	—
Subtotal						
District 4	10	0	96,385	—	—	0
5-ABC	2	—	—	1,264	0	—
5-D	—	—	—	—	—	—
Subtotal						
District 5	2	—	—	1,264	0	—
6	2	0	6,912	3,368	1,286	0
Total Upper Yukon	14	0	103,297	4,632	1,286	0
Total Alaska	482	0	530,644	115,593	104,638	54,751
Total Canada		0	—	2,485	0	0
Grand Total	482	0	530,644	118,078	104,638	54,751

Note: En dash indicates no commercial fishing activity occurred.

^a Number of unique permits fished by district, subdistrict or area. Totals by area may not add up due to transfers between districts or subdistricts.

Table 8.—Subsistence and personal use salmon harvest estimates, including commercially related and test fishery harvests provided for subsistence use, and related information, Yukon Area, 2014.

Community	Survey date or permit	Number of fishing households ^b	Number of dogs ^c	Estimated harvest				Primary gear used ^a		
				Chinook	Summer chum	Fall chum	Coho	Set gillnet	Drift gillnet	Fish wheels
Hooper Bay	9/12-15	146	382	455	13,236	137	118	137	9	0
Scammon Bay	9/10-12	71	108	108	6,068	115	86	61	0	0
Coastal District total		217	490	563	19,304	252	204	198	9	0
Nunam Iqua	9/10-12	23	53	62	2,010	128	153	12	1	0
Alakanuk ^c	9/8-10	121	168	214	9,120	593	443	26	45	0
Emmonak ^c	9/4-7	79	197	463	7,143	2,465	613	7	53	0
Kotlik ^c	9/9	76	132	617	5,621	886	573	29	31	0
District 1 subtotal		299	550	1,356	23,894	4,072	1,782	74	130	0
Mountain Village	9/16-18	103	168	178	7,059	1,484	202	12	71	0
Pitkas Point	9/18	20	66	79	1,588	400	123	2	14	0
St. Marys	9/19-21	94	104	68	5,570	2,037	408	4	46	0
Pilot Station ^c	9/14-15	36	87	163	5,728	796	568	1	21	0
Marshall	Inseason	80	150	128	6,189	1,100	468	0	22	0
District 2 subtotal		333	575	616	26,134	5,817	1,769	19	174	0
Russian Mission	9/22-24	58	179	16	3,181	365	124	15	15	0
Holy Cross	9/25-9/26	23	62	0	97	1,840	103	9	12	0
Shageluk	9/23-24	7	51	32	470	252	113	6	1	0
District 3 subtotal		88	292	48	3,748	2,457	340	30	28	0
Lower Yukon River total		720	1,417	2,020	53,776	12,346	3,891	123	332	0
Anvik	9/25-26	23	84	0	2,052	1,028	197	15	8	0
Grayling	9/24-25	43	152	3	1,617	1,451	403	23	3	0
Kaltag	10/3-5	47	96	10	954	2,828	514	0	42	5
Nulato	9/30-10/3	67	124	0	158	3,839	454	8	56	3
Koyukuk	10/8-9	23	53	52	300	998	50	0	23	0
Galena	10/5-9	42	173	1	377	3,368	718	31	10	1
Ruby	10/9-11	12	81	6	29	972	335	9	0	1
District 4 Yukon River subtotal		257	763	72	5,487	14,484	2,671	86	142	10
Huslia	10/19-21	12	178	38	2,325	579	265	12	0	0
Hughes	10/10-12	3	71	13	889	348	17	2	0	1
Allakaket	10/1-3	16	97	8	1,276	510	109	16	0	0
Alatna	10/3	5	24	0	0	15	0	5	0	0
Bettles	9/30	1	38	1	4	0	0	0	1	0
Koyukuk River subtotal		37	408	60	4,494	1,452	391	35	1	1
District 4 subtotal		294	1,171	132	9,981	15,936	3,062	121	143	11

-continued-

Table 8.–Page 2 of 3.

Community	Survey date or permit	Number of fishing households ^b	Number of dogs ^c	Estimated harvest				Primary gear used ^a		
				Chinook	Summer chum	Fall chum	Coho	Set gillnet	Drift gillnet	Fish wheels
Tanana	10/12-15	33	331	88	2,612	14,131	1,788	12	0	21
Rampart ^d	permits	3	6	0	70	0	0	3	0	0
Fairbanks NSB ^d	permits	21	133	9	300	1,406	134	20	0	1
Stevens Village	10/14-15	3	106	0	0	6,700	0	1	0	2
Birch Creek	10/20-21	0	25	0	0	0	0	0	0	0
Beaver	10/15-17	5	21	0	0	323	2	5	0	0
Fort Yukon	10/21-23	46	418	93	19	8,025	201	18	0	28
Circle ^d	permits	6	79	0	0	1,277	210	1	0	5
Central ^d	permits	2	5	0	0	0	0	2	0	0
Eagle ^{c, d, e}	permits	12	170	76	0	17,450	1	7	0	5
Other district 5 ^{d, f}	permits	6	23	0	91	222	10	6	0	0
District 5 Yukon River subtotal		137	1,317	266	3,092	49,534	2,346	75	0	62
Venetie	10/23-24	14	221	12	0	1,538	0	7	0	0
Chalkyitsik	10/22-10/23	3	32	5	16	125	38	3	0	0
Chandalar and Black Rivers subtotal		17	253	17	16	1,663	38	10	0	0
District 5 subtotal		154	1,570	283	3,108	51,197	2,384	85	0	62
Manley ^{d, c}	permits	9	51	92	239	2,579	1,177	6	0	3
Minto ^{d, g}	permits	6	61	0	24	472	37	4	0	2
Nenana ^d	permits	19	157	139	275	2,510	1,938	11	0	8
Healy ^d	permits	3	31	0	0	1,735	864	3	0	0
Fairbanks NSB ^d	permits	49	415	41	415	5,468	3,863	37	0	9
Other District 6 ^{d, h}	permits	13	25	12	13	12	6	10	0	0
District 6 Tanana River subtotal		99	740	284	966	12,776	7,885	71	0	22
Upper Yukon River Total		547	3,481	699	14,055	79,909	13,331	277	143	95
Survey community subtotal		1,335	4,232	1,972	81,346	56,899	8,240	488	484	62
Subsistence permit subtotal		120	1,156	344	1,173	31,957	7,681	75	0	32
Subsistence test fishery subtotal		-	-	954	4,381	2,533	979	-	-	-
District 6 commercial retained		-	-	11	0	840	352	-	-	-
Subsistence harvests subtotal		1,455	5,388	3,281	86,900	92,229	17,252	563	484	94
Personal use permit subtotals		29	-	1	235	278	174	35	0	1
Alaska, Yukon River total ⁱ		1,267	4,898	2,719	67,831	92,255	17,222	400	475	95
Alaska, Yukon Area total		1,484	5,388	3,282	87,135	92,507	17,426	598	484	95
AK, Yukon Area percentages of the total		-	-	2%	43%	46%	9%	41%	33%	6%

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Table 8.–Page 3 of 3.

- ^a Totals for gear and household may not be equal due to the number of fishermen using unknown or Other gear types. In 2014 an estimated total of 301 surveyed households used dip nets, beach seines, or other gear types as their primary gear.
- ^b Does not include 57 households with Tolovana River pike permits. Includes 9 households that fished more than 1 permit in District 5 or District 6 permit areas.
- ^c Includes salmon distributed from test fishery projects.
- ^d Permit data from permits returned by March 12, 2015.
- ^e Permit holders harvested 152 Chinook, 50 summer chum, and 12,642 fall chum salmon above the Eagle sonar project.
- ^f Other District 5 includes residents of Anchorage, Manley, Minto, Nenana, Tanana, Wasilla, Willow, and Wiseman, and the Upper Tanana River drainage community of Tok who obtained a household permit and fished in a Yukon River permit required area.
- ^g Includes the harvest of 1 coho salmon from Tolovana River pike permits.
- ^h Other District 6 includes residents of the Upper Tanana River drainage communities of Delta Junction, Dot Lake, Northway, Tanacross, and Tok, and the community of Anderson who obtained a permit and fished in the Tanana River.
- ⁱ Total excluding Coastal District is used to assess objectives under the Yukon River Salmon Agreement.

Table 9.—Summary of 2014 salmon escapement counts, in comparison with existing goals.

Location	Assessment method	Escapement goal (type)	2014 escapement
<u>Chinook salmon</u>			
E. Fork Andreafsky	Weir	2,100–4,900 (SEG)	5,949
W. Fork Andreafsky	Aerial survey	640–1,600 (SEG)	1,695
Anvik	Aerial survey	1,100–1,700 (SEG)	1,584
Gisasa	Weir	none	1,570
Henshaw ^a	Weir	none	—
Chena ^b	Tower/Sonar	2,800–5,700 (BEG)	4,358
Salcha ^a	Tower	3,300–6,500 (BEG)	—
Goodpaster	Tower	none	1,236
Upper Yukon River mainstem	Sonar-harvest	42,500–55,000	63,331
<u>Summer chum salmon</u>			
E. Fork Andreafsky	Weir	>40,000 (BEG)	37,793
Anvik	Sonar	350,000–700,000 (BEG)	399,223
Gisasa	Weir	none	32,137
Henshaw ^a	Weir	none	—
Chena ^b	Tower/Sonar	none	17,076
Salcha ^a	Tower	none	—
<u>Fall chum salmon</u>			
Drainagewide	Run Reconstruction	300,000–600,000 (SEG)	800,000
Chandalar River	Sonar	74,000–152,000 (BEG)	226,489
Sheenjek River ^a	Regression	50,000–104,000 (BEG)	—
Upper tributary ^c	Sonars	152,000–312,000 (BEG)	—
Tanana River	M/R regressions	61,000–136,000 (BEG)	—
Delta River	Ground Surveys	6,000–13,000 (BEG)	32,480
Fishing Branch River ^a	X-Weir	22,000–49,000 (IMEG)	—
Upper Yukon River mainstem	Sonar-Harvest	70,000–104,000 (IMEG)	156,796
<u>Coho Salmon</u>			
Delta Clearwater River	Boat survey	5,200–17,000	4,285

Source: JTC 2015.

Note: Biological escapement goal (BEG) and sustainable escapement goal (SEG). En dash indicates data are not available.

^a Project did not operate in 2014.

^b Due to high water for most of the season, estimate based on DIDSON sonar counts and preliminary species apportionment using average timing.

^c Not measurable because Fishing Branch River and Sheenjek River projects did not operate in 2014.

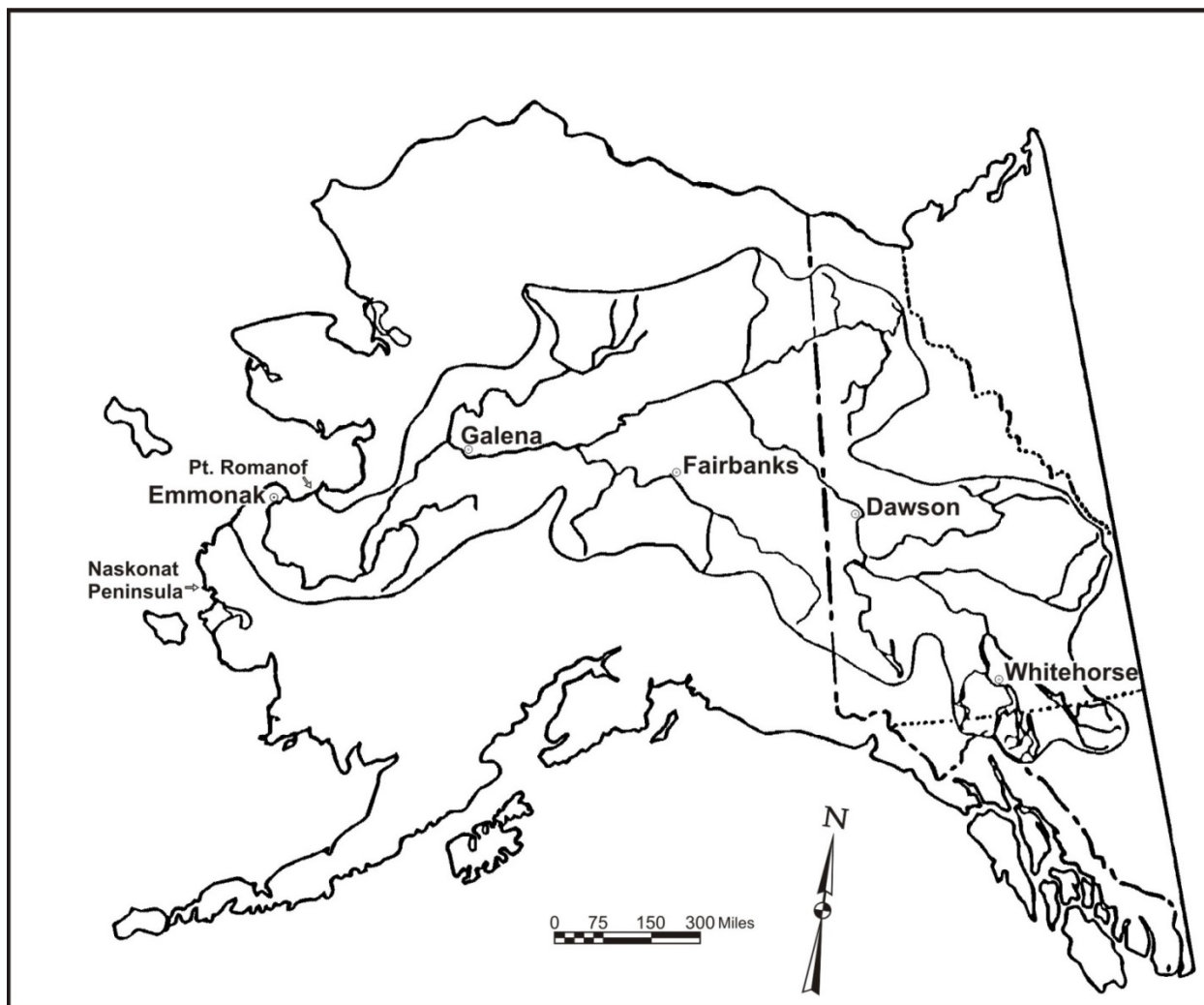


Figure 1.—Map of the Yukon River drainage.

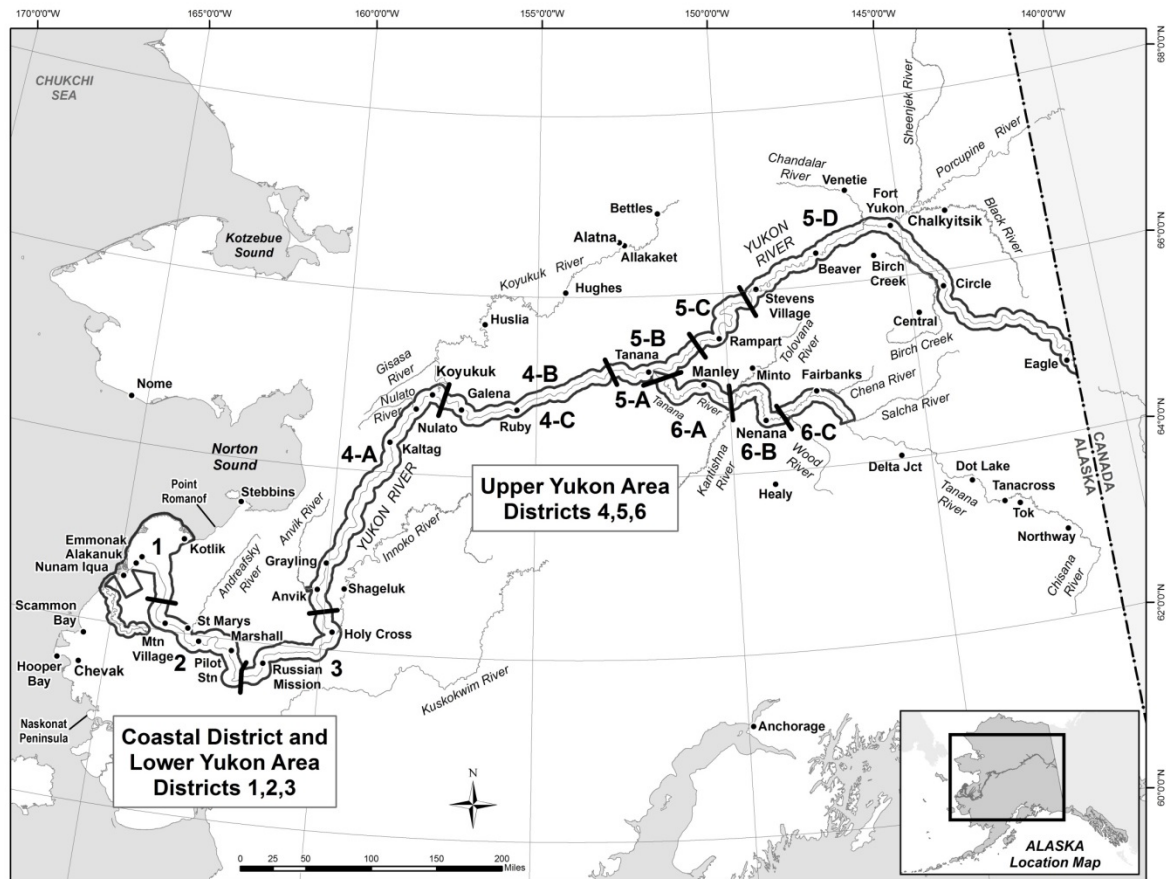


Figure 2.—Map of the Alaska portion of the Yukon River drainage showing communities and fishing districts.

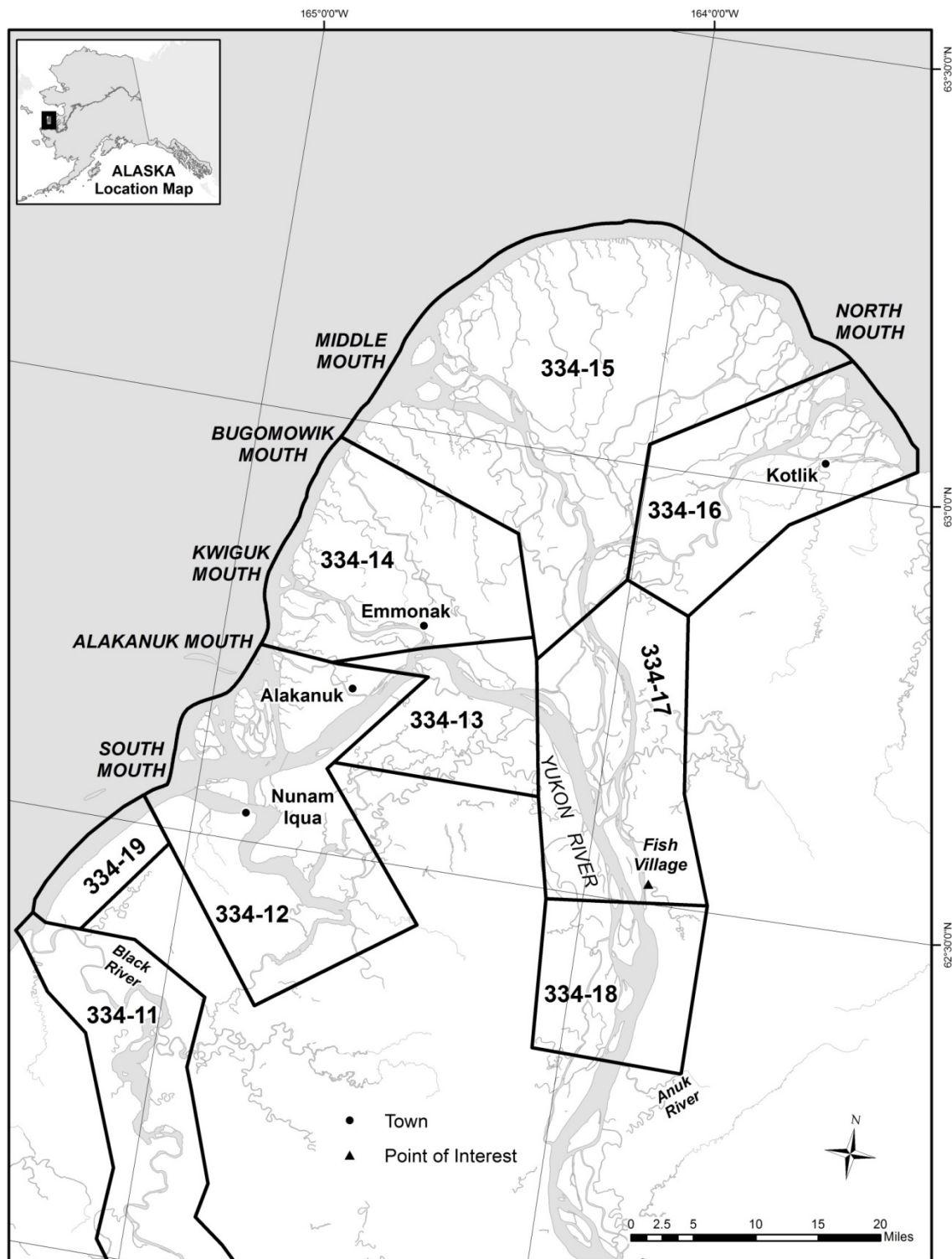


Figure 3.—District 1 showing statistical areas, Yukon area.

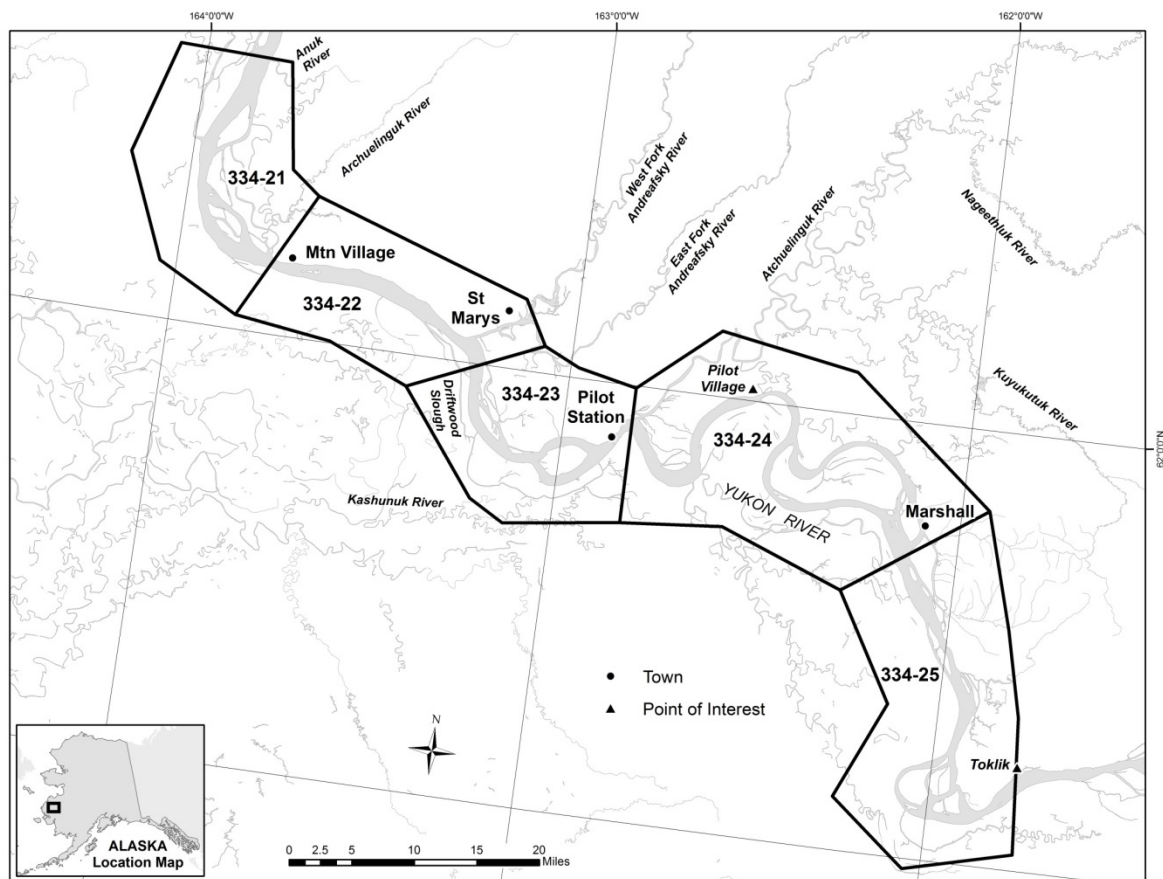


Figure 4.—District 2 showing statistical areas, Yukon area.

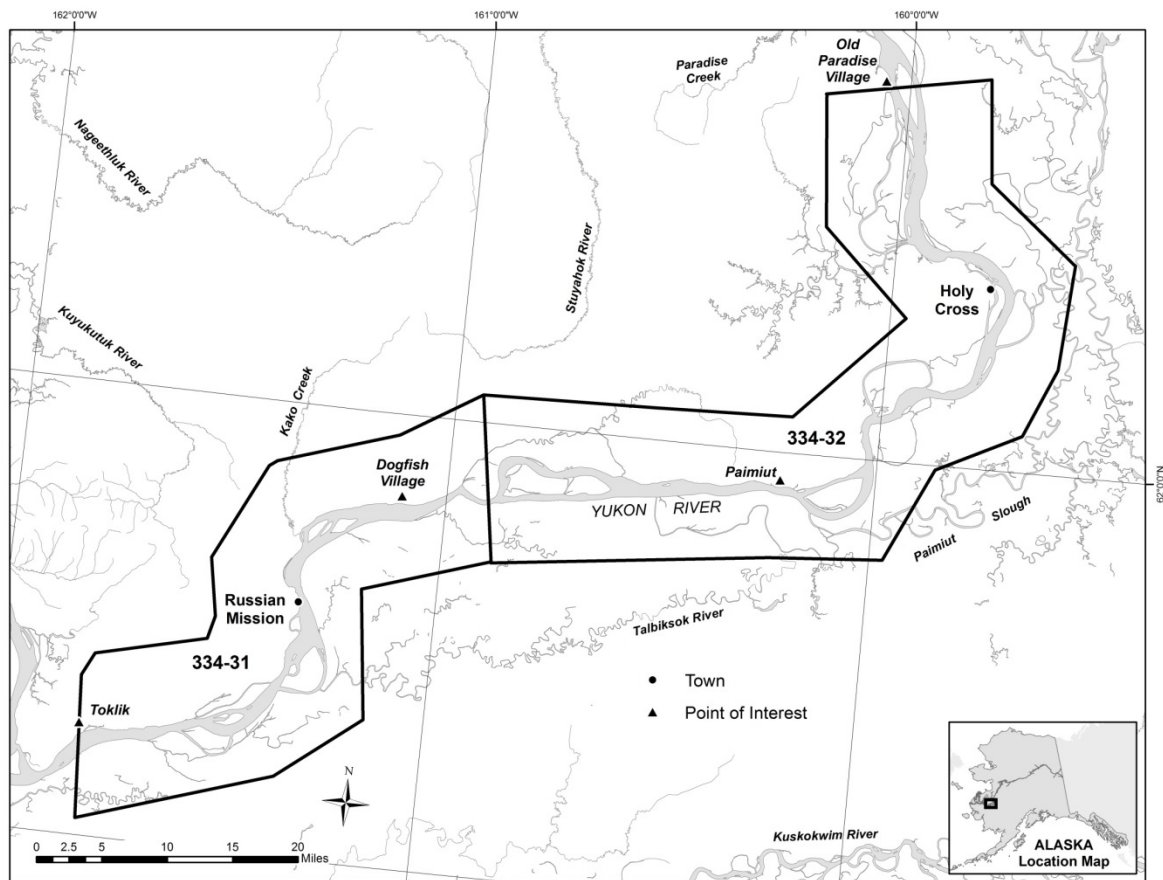


Figure 5.—District 3 showing statistical areas, Yukon area.

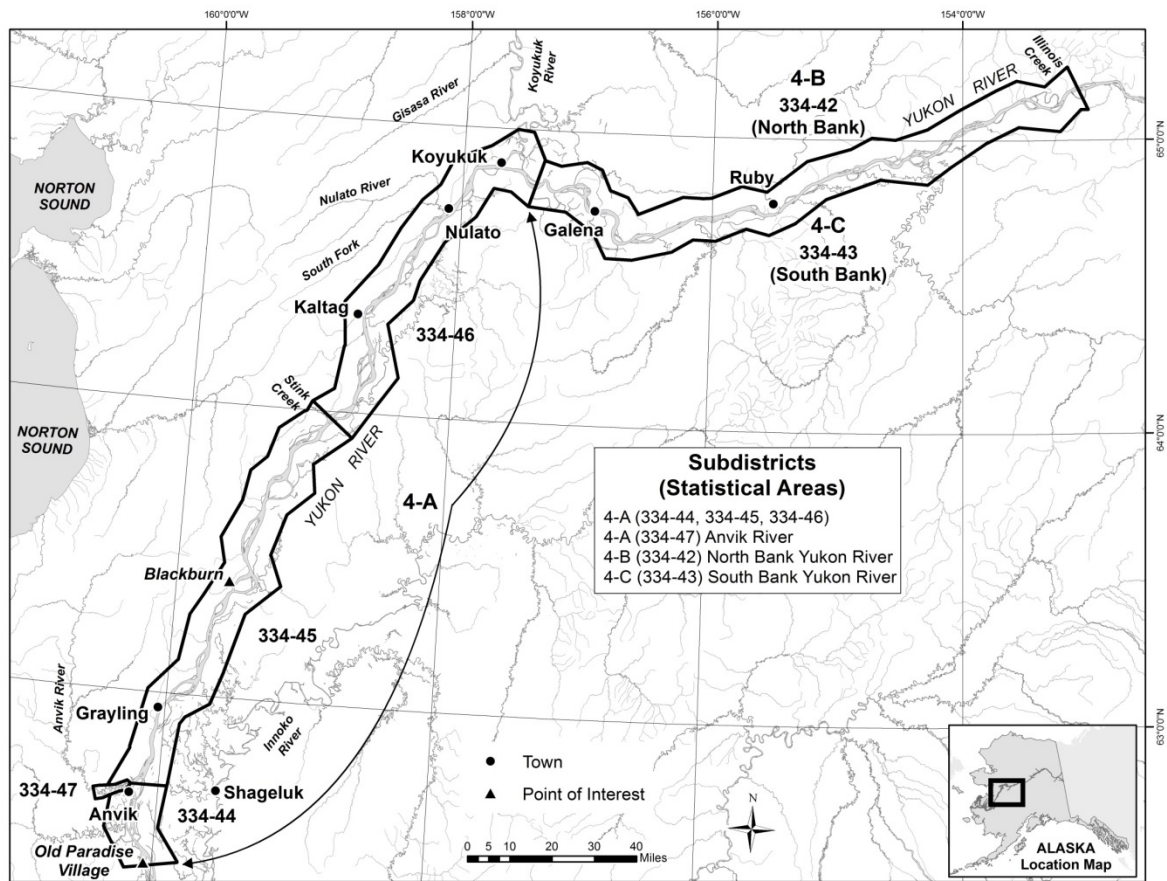


Figure 6.—District 4 showing statistical areas, Yukon area.

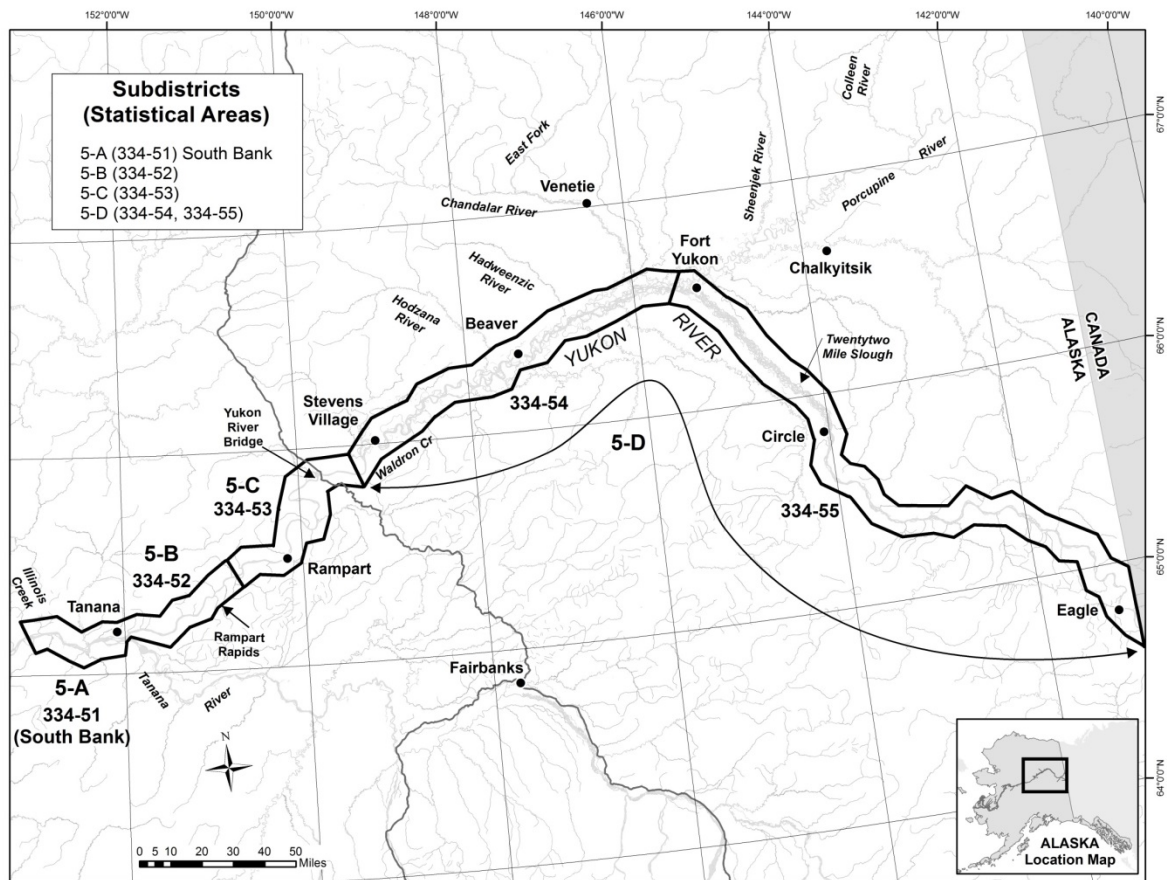


Figure 7.—District 5 showing statistical areas, Yukon area.

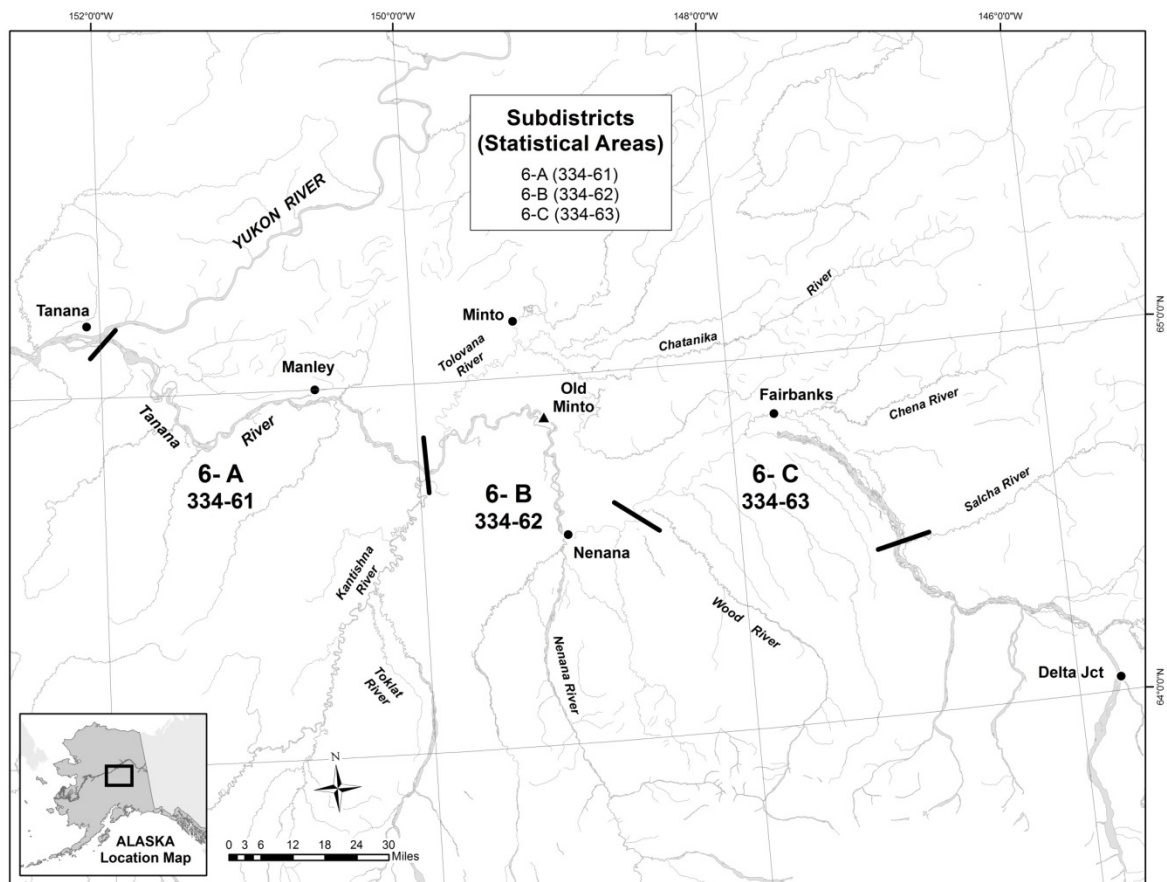


Figure 8.—District 6 showing statistical areas, Yukon area.

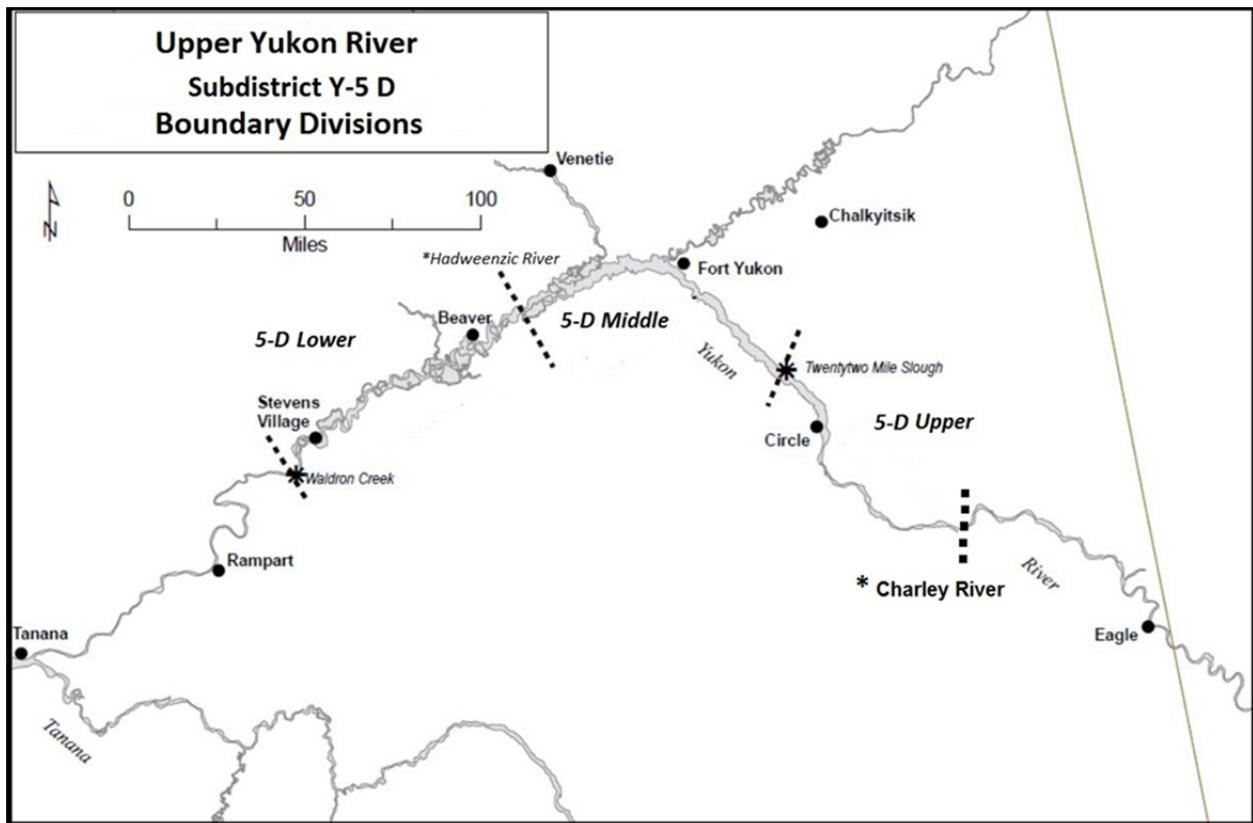


Figure 9.—Subdistrict 5-D boundary divisions, Yukon Area.

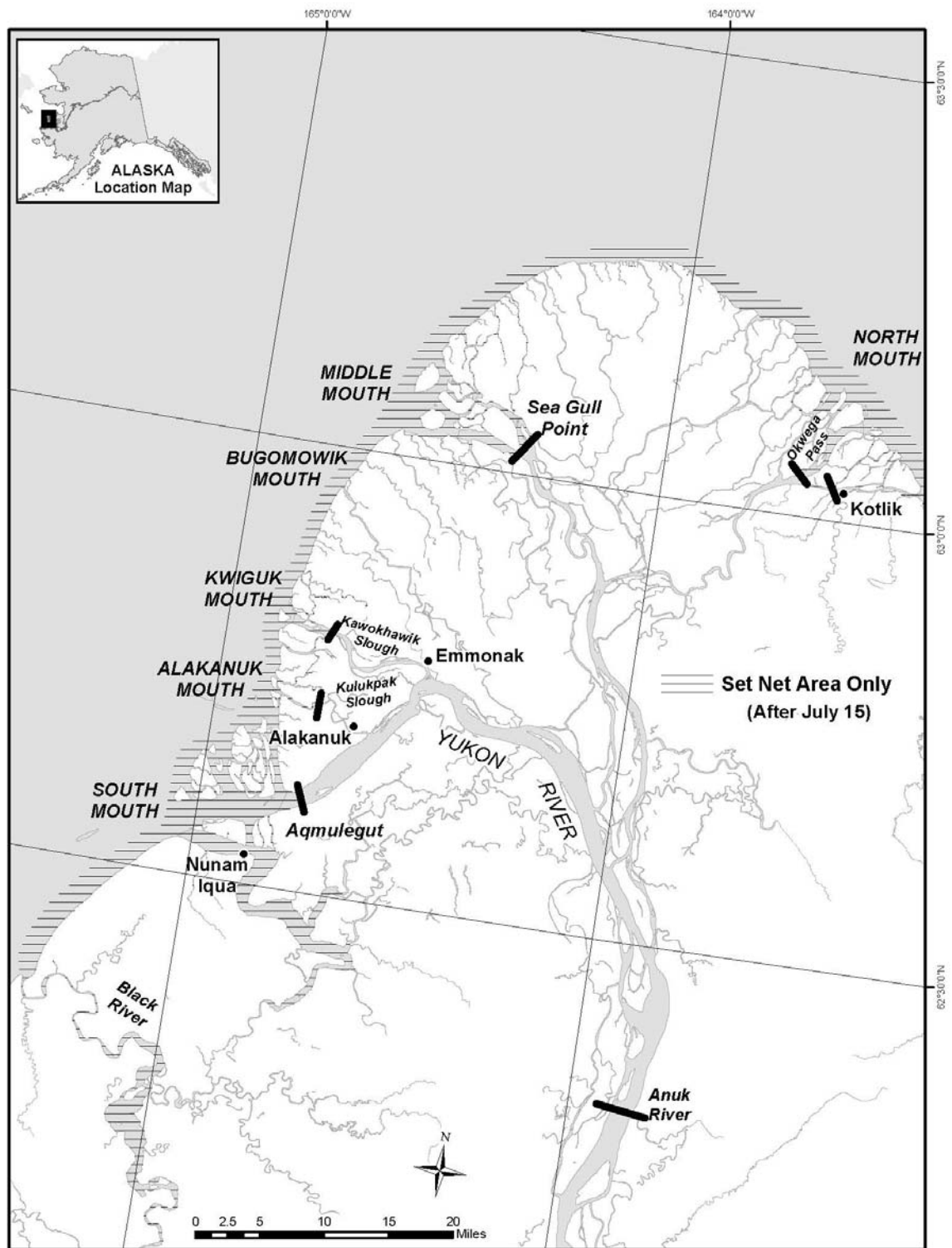


Figure 10.—Set Gillnet Only area of District 1, Yukon Area.

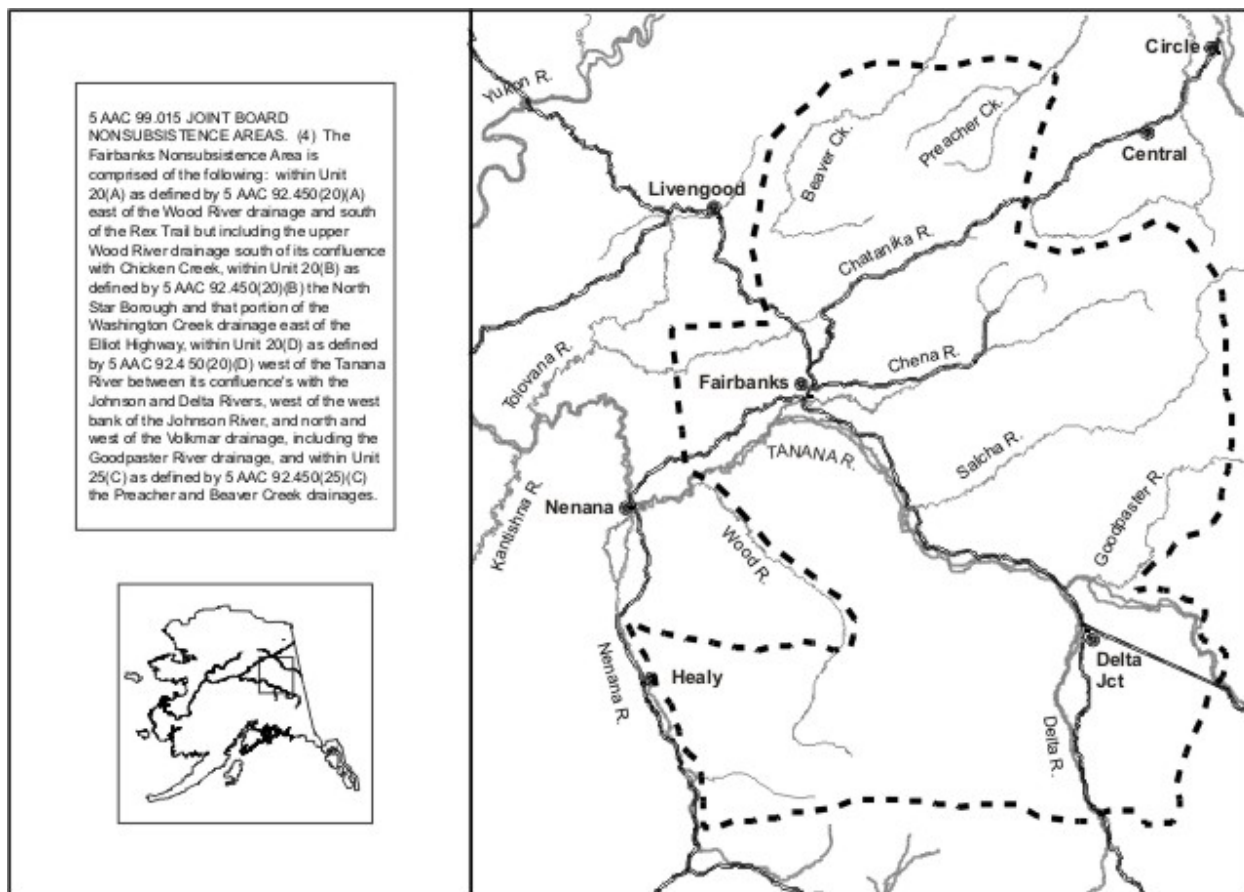


Figure 11.–The Fairbanks Nonsubsistence Area.

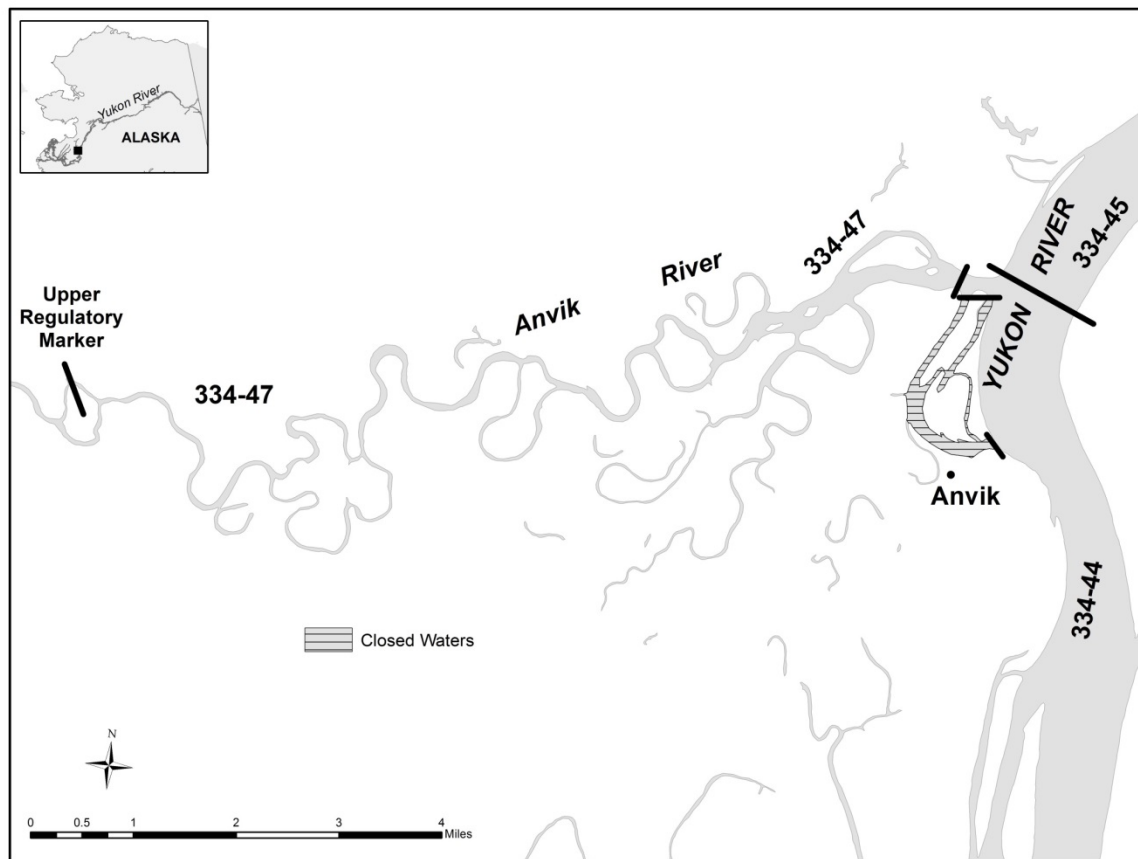


Figure 12.—Anvik River management area, Yukon Area.

APPENDIX A: YUKON RIVER DRAINAGE SALMON

Appendix A1.–List of indigenous fishes found in the Yukon Area.

Species Code ^a	Scientific Name	Common Name
601	<i>Lampetra camtschatic</i>	Arctic Lamprey
570	<i>Stenodus leucichthys</i>	Inconnu (Sheefish)
588	<i>Coregonus nasus</i>	Broad Whitefish
589	<i>Coregonus pidschian</i>	Humpback Whitefish
583	<i>Coregonus sardinella</i>	Least Cisco
585	<i>Coregonus laurettae</i>	Bering Cisco
586	<i>Prosopium cylindraceum</i>	Round Whitefish
587	<i>Prosopium coulteri</i>	Pygmy Whitefish
610	<i>Thymallus arcticus</i>	Arctic Grayling
550	<i>Salvelinus namaycush</i>	Lake Trout
520	<i>Salvelinus alpinus</i>	Arctic Char
530	<i>Salvelinus malma</i>	Dolly Varden
410	<i>Oncorhynchus tshawytscha</i>	Chinook Salmon
420	<i>Oncorhynchus nerka</i>	Sockeye Salmon
430	<i>Oncorhynchus kisutch</i>	Coho Salmon
440	<i>Oncorhynchus gorbuscha</i>	Pink Salmon
450	<i>Oncorhynchus keta</i>	Chum Salmon
513	<i>Osmerus mordax</i>	Rainbow Smelt
514	<i>Hypomesus olidus</i>	Pond Smelt
500	<i>Esox lucius</i>	Northern Pike
630	<i>Dallia pectoralis</i>	Alaska Blackfish
650	<i>Couesius plumbeus</i>	Lake Chub
640	<i>Catostomus catostomus</i>	Longnose Sucker
670	<i>Percopsis omiscomaycus</i>	Trout Perch
590	<i>Lota lota</i>	Burbot (lush)
661	<i>Pungitius pungitius</i>	Ninespine Stickleback
162	<i>Cottus cognatus</i>	Slimy Sculpin
ESTUARINE		
113	<i>Eleginus gracilis</i>	Saffron Cod
122	<i>Liopsetta glacialis</i>	Arctic Flounder
127	<i>Limanda aspera</i>	Yellowfin Sole
129	<i>Platichthys stellatus</i>	Starry Flounder
192	<i>Hexagrammos stelleri</i>	Whitespotted Greenling
230	<i>Clupea harengus pallas</i>	Pacific Herring
516	<i>Mallotus villosus</i>	Capelin
NA	<i>Megalocottus platycephalus</i>	Belligerent Sculpin

Note: Includes fishes found in the Yukon River drainage in Canada.

^a The species code is a 3-digit number that identifies the type of fish caught on harvest fish tickets.

Appendix A2.–Yukon River drainage mileages.

<u>Location</u>	<u>Mileage from Mouth</u>	<u>Location</u>	<u>Mileage from Mouth</u>
NORTH MOUTH (APOON PASS)		Holy Cross	279
Kotlik	6	Mouth, Koserefski River	286
Hamilton	26	Old Paradise Village	301
MIDDLE MOUTH (KWIKPAK,KAWANAK PASS)			
Choolunawick	16		
Akers Camp	26		
New Hamilton	34		
SOUTH MOUTH (KWIKLUAK PASS)			
Mouth, Black River	-18		
Flat Island	0		
Sheldon Point	5		
Tin Can Point	8		
Alakanuk	17		
Emmonak-Kwiguk (Kwiguk Pass)	24		
Sunshine Bay	24		
Aproka Pass (upstream mouth)	35		
Kwipak Pass (upstream mouth)	44		
Head of Passes	48		
Fish Village	52		
Mouth, Anuk River	63		
<u>(District 1/2 Boundary)</u>			
Patsys Cabin	71		
Mountain Village	87		
Old Andreafsky	97		
Pitkas Point	103		
Mouth, Andreafsky River	104		
St. Marys	107		
Pilot Station	122		
Mouth, Atcheulinguk (Chulinak) River	126		
Pilot Village	138		
Marshall (Fortuna Ledge)	161		
Upstream Mouth Owl Slough	163		
Ingrihak	170		
Ohogamuit	185		
Toklik	191		
<u>(District 2/3 Boundary)</u>			
Kakamut	193		
Russian Mission	213		
Dogfish Village	227		
Paimuit	251		
Mouth, Innoko River (South Slough)	274		
Shageluk	328		
Holikachuk	383		
		<u>(District 3/4 Boundary)</u>	
		Mouth, Bonasila River	306
		Anvik	317
		Mouth, Anvik River	318
		Grayling	336
		Mouth, Thompson Creek	349
		Blackburn	370
		Eagle Slide	402
		Mouth, Rodo River	447
		Kaltag	450
		Mouth, Nulato River	483
		Nulato	484
		Koyukuk	502
		Mouth, Koyukuk River	508
		Mouth, Gisasa River	564
		Huslia	711
		Mouth, Dakli River	755
		Mouth, Hogatza River	780
		Hughes	881
		Mouth, Kanuti River	935
		Alatna (Mouth, Alatna R.)	956
		Allakaket	956
		Mouth, South Fork	986
		Mouth, John River	1,117
		Bettles	1,121
		Middle Fork	1,141
		Cold Foot	1,174
		Wiseman	1,186
		Bishop Rock	514
		Prospect Point	519
		Galena	530
		Whiskey Creek	555
		Mouth, Yuki River	562
		Ruby	581
		Mouth, Melozitna River	583
		Horner Hot Springs	605
		Kokrines	608
		Mouth, Nowitna River	612
		Birches	647
		Kallands-Mouth of Illinois Creek	664

-continued-

<u>Location</u>	<u>Mileage from Mouth</u>	<u>Location</u>	<u>Mileage from Mouth</u>
<u>(District 4/5 Boundary)</u>			
Mouth, Tozitna River	681	Fort Yukon	1,002
Tanana Village	695	Mouth, Porcupine River	1,002
Mouth, Tanana River	695	Mouth, Black River	1,026
		Chalkyitsik	1,084
		Mouth, Salmon Fork R.	1,142
<u>(District 5/6 Boundary)</u>		Mouth, Sheenjek River	1,054
Manley Hot Springs	765	Mouth, Coleen River	1,157
Mouth, Kantishna River	793	Mouth, Salmon Trout R.	1,193
Mouth, Toklat River	838	U.S. - Canadian Border	1,219
Mouth, Sushana R.	850	Old Crow	1,259
Mouth, Bearpaw River	887	Fishing Branch R.	1,600
Outlet, L. Minchumina	959	spawning area	
Minto	835	Circle	1,061
Nenana	860	Woodchopper	1,110
Mouth, Nenana River	860	Mouth, Charley River	1,124
Mouth, Wood River	894	Mouth, Kandik River	1,135
Rosie Creek Bluffs	912	Mouth, Nation River	1,166
Mouth, Chena R.(Fairbanks)	920	Mouth, Tatonduk River	1,186
		Mouth, Seventymile River	1,194
		Eagle	1,213
Mouth, Salcha River	965		
Benchmark #735 Slough	991		
Mouth, Little Delta R.	1,000	<u>U.S.-Canadian border</u>	<u>1,224</u>
Mouth, Delta Creek	1,014	Mouth, Fortymile River	1,269
Mouth, Clear Creek	1,015	Dawson	1,319
(Richardson-Clearwater)		Mouth, Klondike River	1,320
Mouth, Shaw Creek	1,021	Mouth, Sixty Mile River	1,369
Mouth, Delta River	1,031	Mouth, Stewart River	1,375
(Big Delta)		McQuesten	1,455
Delta Junction	1,041	Stewart Crossing	1,491
Mouth, Goodpaster River	1,049	Mayo	1,520
Bluff Cabin Slough	1,050	Mouth, Hess River	1,594
Outlet, Clearwater Lake	1,052	Mouth, White River	1,386
Outlet, Clearwater Crk	1,053	Mouth, Donjek River	1,455
(Delta Clearwater)		Mouth Kluane River	1,541
Mouth, Gerstle River	1,059	Outlet Kluane L.	1,587
Outlet, Healy Lake	1,071	Burwash Landing	1,595
Outlet, Lake George	1,086	Kluane	1,625
Tanacross	1,128	Fort Selkirk	1,477
Outlet, Tetlin Lake	1,188	Mouth, Pelly River	1,478
Mouth, Nabesna River	1,210	Pelly Crossing	1,510
Northway Junction	1,214	Mouth, MacMillan River	1,542
Mouth, Chisana River	1,215	Ross River	1,602
Mouth, Sheep Creek	1,297	Minto	1,499
Rampart Rapids	731	Mouth Tatchun Creek	1,530
Rampart	763	Carmacks	1,547
Mouth, Hess Creek	789	Mouth, Little Salmon River	1,583
Mouth, Ray River	817	Mouth, Big Salmon River	1,621
Highway Bridge -	820	Mouth, N. Big Salmon R.	1,641
Pipeline Crossing		Mouth, S. Big Salmon R.	1,657
Mouth, Dall River	841	Outlet, Big Salmon Lake	1,714
Stevens Village	847	Mouth, Teslin River	1,654
Mouth, Hodzana River	897	Roaring Bull Rapids	1,707
Beaver	932	Johnson's Crossing	
Mouth Hadweenzic River	952	(Outlet, Teslin L.)	1,756
Mouth, Chandalar River		Teslin	1,780
(Venetie Landing)	982		
Venetie	1,025		

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<u>Location</u>	<u>Mileage from Mouth</u>
Mouth Nisutlin River	1,788
Mouth, Sidney Creek	1,837
Mouth, Hundred Mi. Creek	1,851
Mouth, McNeil River	1,887
Outlet, Nisutlin Lake	1,892
Outlet, Lake Laberge	1,679
Inlet, Lake Laberge	1,712
Mouth, Takhini River	1,718
Whitehorse	1,745
Outlet, Marsh Lake	1,764
Mouth, M'Clintock River	1,769
Outlet, Little Atlin L.	1,788
Outlet, Atlin Lake	1,812
Atlin	1,844
Tagish	1,786
Outlet, Tagish Lake	1,788
Carcross	1,810
(Outlet L.Bennett)	
Bennett	1,835

Appendix A3.—Commercial Chinook salmon sales and estimated harvest by area, district, and country, Yukon River drainage, 1994–2014.

Lower Yukon Area ^a				
Year	District 1	District 2	District 3	Subtotal
1994	62,241	41,692	1,114	105,047
1995	76,106	41,458	—	117,564
1996	56,642	30,209	0	86,851
1997	66,384	39,363	—	105,747
1998	25,413	16,806	0	42,219
1999	37,161	27,133	538	64,832
2000	4,735	3,783	—	8,518
2001	—	—	—	—
2002	11,089	11,440	—	22,529
2003	22,709	14,220	—	36,929
2004	28,403	24,145	—	52,548
2005	16,694	13,413	—	30,107
2006	23,748	19,843	315	43,906
2007	18,616	13,306	190	32,112
2008	2,530	2,111	—	4,641
2009	90	226	—	316
2010	5,744	4,153	—	9,897
2011	^b 36	46	—	82
2012	^b 0	0	—	0
2013	^b 0	0	—	0
2014	^b 0	0	—	0
2009–2013				
Average	1,174	885		2,059
2004–2013				
Average	9,586	7,724	253	17,361

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Year	Upper Yukon Area ^c								
	District 4			District 5			District 6		
	Number	Roe	Estimated Harvest ^d	Number	Roe	Estimated Harvest ^d	Number	Roe	Estimated Harvest ^d
1994	2,216	564	2,443	3,739	10	3,744	2,135	1,820	2,606
1995	262	626	499	3,242	0	3,242	1,660	4,731	2,747
1996	45	202	137	2,497	518	2,757	278	750	447
1997	1,450	14	1,457	3,678	0	3,678	1,966	3,211	2,728
1998	–	–	–	517	0	517	882	260	963
1999	1,437	0	1,437	2,604	0	2,604	402	1,096	689
2000	0	–	–	–	–	–	–	–	–
2001	–	–	–	–	–	–	–	–	–
2002	–	–	–	771	0	771	836	896	1,066
2003	562	0	562	1,134	0	1,134	1,813	0	1,813
2004	–	–	–	1,546	0	1,546	2,057	0	2,057
2005	–	–	–	1,469	0	1,469	453	0	453
2006	–	–	–	1,839	0	1,839	84	0	84
2007	0	0	0	1,241	0	1,241	281	0	281
2008	0	0	0	–	–	–	0	0	0
2009	0	0	0	–	–	–	0	0	0
2010	0	0	0	–	–	–	0	0	0
2011	–	–	–	–	–	–	0	0	0
2012	0	0	0	–	–	–	0	0	0
2013	0	0	0	–	–	–	0	0	0
2014	0	0	0	–	–	–	0	0	0
2009–2013									0
Average	0	0	0				0	0	0
2004–2013									
Average	0	0	0	1,524	0	1,524	288	0	288

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Year	Upper Yukon Area subtotal ^c			Total		
	Number	Roe	Estimated harvest ^d	Estimated harvest ^d	Canada harvest	Yukon River
1994	8,090	2,394	8,793	113,840	12,028	125,868
1995	5,164	5,357	6,488	124,052	11,146	135,198
1996	2,820	1,470	3,341	90,192	10,164	100,356
1997	7,094	3,225	7,863	113,610	5,311	118,921
1998	1,399	260	1,480	43,699	390	44,089
1999	4,443	1,096	4,730	69,562	3,160	72,722
2000	–	–	–	8,518	–	8,518
2001	–	–	–	–	1,351	1,351
2002	1,607	896	1,837	24,366	708	25,074
2003	3,509	0	3,509	40,438	2,672	43,110
2004	3,603	0	3,603	56,151	3,785	59,936
2005	1,922	0	1,922	32,029	4,066	36,095
2006	1,923	0	1,923	45,829	2,332	48,161
2007	1,522	0	1,522	33,634	–	33,634
2008	0	0	0	4,641	1	4,642
2009	0	0	0	316	364	680
2010	0	0	0	9,897	0	9,897
2011	0	0	0	82	4	86
2012	0	0	0	0	0	0
2013	0	0	0	0	2	2
2014	0	0	0	0	0	0
2009–2013						
Average	0	0	0	2,059	74	2,133
2004–2013						
Average	897	0	897	18,258	1,055	19,313

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a All fish sold in the round.

^b In an effort to conserve Chinook salmon, commercial sales was prohibited during the summer season.

^c Harvest reported in numbers of fish sold in the round and pounds of roe sold. Since 1990, efforts were made to separate Chinook salmon roe from summer chum salmon roe. Does not include ADF&G test fishery sales.

^d The estimated harvest is the fish sold in the round plus the estimated number of females to produce the roe sold.

Appendix A4.—Commercial summer chum salmon sales and estimated harvest by area and district, Yukon River drainage in Alaska, 1994–2014.

Lower Yukon Area				
Year	District 1 ^a	District 2 ^a	District 3	Subtotal
1994	42,332	12,869	35	55,236
1995	142,266	83,817	—	226,083
1996	92,506	30,727	1,534 ^b	124,767
1997	59,915	18,242	—	78,157
1998	21,270	6,848	0	28,118
1999	16,181	11,702	0	27,883
2000	3,315	3,309	—	6,624
2001	—	—	—	—
2002	6,327	4,027	—	10,354
2003	3,579	2,583	—	6,162
2004	13,993	5,782	—	19,775
2005	23,965	8,313	—	32,278
2006	21,816	25,543	116	47,475
2007	106,790	69,432	1	176,223
2008	67,459	58,139	—	125,598
2009	71,335	86,571	—	157,906
2010	102,267	80,948	—	183,215
2011	163,439	103,071	—	266,510
2012	150,800	57,049	—	207,849
2013	207,871	171,272	—	379,143
2014	198,240	229,107	—	427,347
2009–2013				
Average	139,142	99,782		238,925
2004–2013				
Average	92,974	66,612	59	159,597

-continued-

Year	Upper Yukon Area ^c								
	District 4			District 5			District 6		
	Number	Roe	Estimated harvest ^d	Number	Roe	Estimated harvest ^d	Number	Roe	Estimated harvest ^d
1994	3,611	89,717	171,607	229	212	464	21,208	7,828	31,434
1995	8,873	281,074	554,587	107	188	316	24,711	9,475	37,428
1996	0	295,190	510,240	0	302	336	22,360	18,332	46,890
1997	2,062	74,231	124,671	137	0	137	14,886	9,036	25,287
1998	–	–	–	96	13	110	397	140	570
1999	1,267	0	1,267	115	0	115	124	24	148
2000	–	–	–	–	–	–	–	–	–
2001	–	–	–	–	–	–	–	–	–
2002	–	–	–	6	0	6	3,198	16	3,218
2003	62	0	62	0	0	0	4,461	0	4,461
2004	–	–	–	25	0	25	6,610	0	6,610
2005	–	–	–	0	0	0	8,986	0	8,986
2006	–	–	–	20	0	20	44,621	0	44,621
2007	7,304	0	7,304 ^e	0	0	0	14,674	0	14,674
2008	23,746	0	23,746 ^e	–	–	–	1,842	0	1,842
2009	4,589	0	4,589 ^e	–	–	–	7,777	0	7,777
2010	44,207	0	44,207 ^f	–	–	–	5,466	0	5,466
2011	–	–	–	–	–	–	8,651	0	8,651
2012	108,222	0	108,222	–	–	–	3,504	0	3,504
2013	100,507	0	100,507	–	–	–	5,937	0	5,937
2014	96,385	0	96,385	–	–	–	6,912	0	6,912
2009–2013									
Average	64,381	0	64,381				6,267	0	6,267
2004–2013									
Average	48,096	0	48,096	11	0	11	10,807	0	10,807

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Year	Upper Yukon Area Subtotal ^c			Total		
	Number	Roe	Estimated harvest ^d	Number	Roe	Estimated harvest ^d
1994	25,048	97,757	203,505	80,284	97,757	258,741
1995	33,691	290,737	592,331	259,774	290,737	818,414
1996	22,360	313,824	557,466	147,127	313,824	682,233
1997	17,085	83,267	150,095	95,242	83,267	228,252
1998	493	153	680	28,611	153	28,798
1999	1,506	24	1,530	29,389	24	29,413
2000	–	–	–	6,624	–	6,624
2001	–	–	–	–	–	–
2002	3,204	16	3,224	13,558	16	13,578
2003	4,523	0	4,523	10,685	0	10,685
2004	6,635	0	6,635	26,410	0	26,410
2005	8,986	0	8,986	41,264	0	41,264
2006	44,641	0	44,641	92,116	0	92,116
2007	21,978	0	21,978	198,201	0	198,201
2008	25,588	0	25,588	151,186	0	151,186
2009	12,366	0	12,366	170,272	0	170,272
2010	49,673	0	49,673	232,888	0	232,888
2011	8,651	0	8,651	275,161	0	275,161
2012	111,726	0	111,726	319,575	0	319,575
2013	106,444	0	106,444	485,587	0	485,587
2014	103,297	0	103,297	530,644	0	530,644
2009–2013						
Average	57,772	0	57,772	296,697	0	296,697
2004–2013						
Average	39,669	0	39,669	199,266	0	199,266

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a All sales are fish in the round in District 1 and 2.

^b Number of males and females harvested to produce 935 pounds of roe.

^c Harvest reported in numbers of fish sold in the round and pounds of roe. Roe sales may include some pink and Chinook salmon roe. Does not include ADF&G test fishery sales.

^d From 1990 to 2006, the estimated harvest is the fish sold in the round plus the estimated number of females caught to produce the roe sold. In addition, the estimated harvest for Districts 3 and 4 includes the estimated number of unsold males.

^e The number of female fish from which roe was extracted is the number harvested. Males not purchased and recorded as caught but not sold are included in personal use totals. Roe information is included in Zephyr as both numbers of fish and pounds of roe.

^f Both males and females were purchased and are included in the number harvested.

Appendix A5.–Commercial fall chum salmon sales and estimated harvest by area, district, and country, Yukon River drainage, 1994–2014.

Lower Yukon Area				
Year	District 1 ^a	District 2 ^a	District 3 ^a	Subtotal
1994	–	–	–	–
1995	79,378	90,831	–	170,209
1996	33,629	29,651	–	63,280
1997	27,483	24,326	–	51,809
1998	–	–	–	–
1999	9,987	9,703	–	19,690
2000	–	–	–	–
2001	–	–	–	–
2002	–	–	–	–
2003	5,586	–	–	5,586
2004	660	–	–	660
2005	130,525	–	–	130,525
2006	101,254	39,905	–	141,159
2007	38,852	35,826	–	74,678
2008	67,704	41,270	–	108,974
2009	11,911	12,072	–	23,983
2010	545	270	–	815
2011	127,735	100,731	–	228,466
2012	139,842	129,284	–	269,126
2013	106,588	106,274	–	212,862
2014	51,823	59,138	–	110,961
2009-2013				
Average	77,324	69,726		147,050
2004-2013				
Average	72,562	46,563		119,125

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Year	Upper Yukon Area								
	District 4			District 5			District 6		
	Numbers ^a	Roe ^b	Estimated harvest ^c	Numbers ^a	Roe ^b	Estimated harvest ^c	Numbers ^a	Roe ^b	Estimated harvest ^c
1994	–	–	–	3,630	0	3,630	1	4,368	4,369
1995	2,924	4,126	8,731	9,778	18,816	30,033	67,855	9,560	74,117
1996	2,918	0	2,918	11,878	8,498	20,376	10,266	6,173	17,574
1997	2,458	0	2,458	2,446	1,194	3,640	–	–	–
1998	–	–	–	–	–	–	–	–	–
1999	681	0	681	–	–	–	–	–	–
2000	–	–	–	–	–	–	–	–	–
2001	–	–	–	–	–	–	–	–	–
2002	–	–	–	–	–	–	–	–	–
2003	1,315	0	1,315	–	–	–	4,095	0	4,095
2004	–	–	–	0	0	0	3,450	0	3,450
2005	–	–	–	0	0	0	49,637	0	49,637
2006	–	–	–	10,030	0	10,030	23,353	0	23,353
2007	–	–	–	427	0	427	15,572	0	15,572
2008	0	0	0	4,556	0	4,556	5,735	0	5,735
2009	–	–	–	–	–	–	1,286	545	1,893
2010	–	–	–	–	–	–	1,735	0	1,735
2011	–	–	–	1,246	0	1,246	9,267	0	9,267
2012	811	0	811	2,419	0	2,419	17,336	0	17,336
2013	–	–	–	1,041	0	1,041	24,148	0	24,148
2014	–	–	–	1,264	0	1,264	3,368	0	3,368
2009-2013									
Average				1,569	0	1,569	10,754	109	10,876
2004-2013									
Average	406	0	406	2,465	0	2,465	15,152	55	15,213

-continued-

Upper Yukon Area						
Year	Numbers ^a	Roe ^b	Subtotal estimated harvest ^c	Total estimated harvest	Canada total	Grand total
1994	3,631	4,368	7,999	7,999	30,035	38,034
1995	80,557	32,502	112,881	283,090	39,012	322,102
1996	25,062	14,671	40,868	104,148	20,069	124,217
1997	4,904	1,194	6,098	57,907	8,068	65,975
1998	–	–	–	–	–	–
1999	681	0	681	20,371	10,402	30,773
2000	–	–	–	–	1,319	1,319
2001	–	–	–	–	2,198	2,198
2002	–	–	–	–	3,065	3,065
2003	5,410	0	5,410	10,996	9,030	20,026
2004	3,450	0	3,450	4,110	7,365	11,475
2005	49,637	0	49,637	180,162	11,931	192,093
2006	33,383	0	33,383	174,542	4,096	178,638
2007	15,999	0	15,999	90,677	7,109	97,786
2008	10,291	0	10,291	119,265	4,062	123,327
2009	1,286	545	1,893	25,876	293	26,169
2010	1,735	0	1,735	2,550	2,186	4,736
2011	10,513	0	10,513	238,979	5,312	244,291
2012	20,566	0	20,566	289,692	3,205	292,897
2013	25,189	0	25,189	238,051	3,369	241,420
2014	4,632	0	4,632	115,593	2,485	118,078
2009-2013						
Average	11,858	109	11,979	159,030	2,873	161,903
2004-2013						
Average	17,205	55	17,266	136,390	4,893	141,283

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to calculate average.

^a Harvest reports in numbers of fish sold in the round.

^b Sales reported in numbers of fish sold in the round and pounds of unprocessed roe, which may include small amounts of coho salmon roe. Since 1990, efforts were made to separate coho roe from fall chum salmon roe.

^c The estimated harvest is the fish sold in the round plus the estimated number of females to produce the roe sold.

Appendix A6.—Commercial coho salmon sales and estimated harvest by area and district, Yukon River drainage in Alaska, 1994–2014.

Lower Yukon Area				
Year	District 1 ^a	District 2 ^a	District 3 ^a	Subtotal
1994	—	—	—	—
1995	21,678	18,488	—	40,166
1996	27,705	20,974	—	48,679
1997	21,450	13,056	—	34,506
1998	—	1	—	1
1999	855	746	—	1,601
2000	—	—	—	—
2001	—	—	—	—
2002	—	—	—	—
2003	9,757	—	—	9,757
2004	1,583	—	—	1,583
2005	36,533	—	—	36,533
2006	39,323	14,482	—	53,805
2007	21,720	21,487	—	43,207
2008	13,946	19,246	—	33,192
2009	5,994	1,582	—	7,576
2010	1,027	1,028	—	2,055
2011	45,336	24,195	—	69,531
2012	39,757	29,063	—	68,820
2013	27,306	31,458	—	58,764
2014	54,750	48,602	—	103,352
2009–2013				
Average	23,884	17,465		41,349
2004–2013				
Average	23,253	17,818		37,507

-continued-

Year	Upper Yukon Area								
	District 4			District 5			District 6		
	Numbers ^a	Roe ^b	Estimated harvest ^c	Numbers ^a	Roe ^b	Estimated harvest ^c	Numbers ^a	Roe ^b	Estimated harvest ^c
1994	–	–	–	–	–	–	120	5,588	4,451
1995	–	–	–	–	–	–	5,824	2,229	6,900
1996	161	0	161	–	–	–	3,803	4,829	7,142
1997	814	0	814	–	–	–	–	–	–
1998	–	–	–	–	–	–	–	–	–
1999	–	–	–	–	–	–	–	–	–
2000	–	–	–	–	–	–	–	–	–
2001	–	–	–	–	–	–	–	–	–
2002	–	–	–	–	–	–	–	–	–
2003	367	0	367	–	–	–	15,119	0	15,119
2004	–	–	–	0	0	0	18,649	0	18,649
2005	–	–	–	0	0	0	21,778	0	21,778
2006	–	–	–	–	–	–	11,137	0	11,137
2007	–	–	–	–	–	–	1,368	0	1,368
2008	0	0	0	91	0	91	2,408	0	2,408
2009	–	–	–	–	–	–	457	258	742
2010	–	–	–	–	–	–	1,700	0	1,700
2011	–	–	–	0	0	0	6,784	0	6,784
2012	0	0	0	634	0	634	5,335	0	5,335
2013	–	–	–	0	0	0	7,439	0	7,439
2014	–	–	–	0	0	0	1,286	0	1,286
2009–2013									
Average				211	0	211	4,343	52	4,400
2004–2013									
Average	0	0	0	121	0	121	7,706	26	7,734

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	Upper Yukon Area			Alaska total harvest
	Subtotal		Estimated harvest ^c	
Year	Numbers ^a	Roe ^b		
1994	120	5,588	4,451	4,451
1995	5,824	2,229	6,900	47,066
1996	3,964	4,829	7,303	55,982
1997	814	0	814	35,320
1998	—	—	—	1
1999	—	—	—	1,601
2000	—	—	—	0
2001	—	—	—	0
2002	—	—	—	0
2003	15,486	0	15,486	25,243
2004	18,649	0	18,649	20,232
2005	21,778	0	21,778	58,311
2006	11,137	0	11,137	64,942
2007	1,368	0	1,368	44,575
2008	2,499	0	2,499	35,691
2009	457	258	742	8,318
2010	1,700	0	1,700	3,755
2011	6,784	0	6,784	76,315
2012	5,969	0	5,969	74,789
2013	7,439	0	7,439	66,203
2014	1,286	0	1,286	104,638
2009–2013				
Average	4,470	52	4,527	45,876
2004–2013				
Average	7,778	26	7,807	45,313

Note: En dash indicates no commercial fishing activity occurred.
Blank cells indicate insufficient information to calculate average.

^a Harvest reports in numbers of fish sold in the round.

^b Pounds of salmon roe sold. Since 1990, efforts were made to separate coho salmon roe from the fall chum salmon roe sold.

^c Estimated harvest is the number of fish sold in the round plus the estimated number of females to produce the roe sold. Prior to 1990, the ratio of pounds of roe to females to produce roe was calculated at 1:1.

Appendix A7.—Commercial Fisheries Entry Commission (CFEC) salmon permits issued by gear type, Yukon Area, 1994–2014.

Year	Lower Yukon Area Set or drift gillnet		Upper Yukon Area Set gillnet		Upper Yukon Area Fish wheel		Total	
	Permits issued ^a	Permits fished ^b	Permits issued ^a	Permits fished ^b	Permits issued ^a	Permits fished ^b	Permits issued ^a	Permits fished
1994	707	659	72	30	165	73	944	762
1995	707	663	73	36	166	106	946	805
1996	707	627	72	28	165	107	944	762
1997	705	640	72	22	163	63	940	725
1998	704	643	72	6	160	22	936	671
1999	704	632	72	13	162	25	938	670
2000	704	560	72	0	160	0	936	560
2001	700	0	72	0	156	0	928	0
2002	702	539	72	12	156	12	930	563
2003	703	557	72	7	157	20	932	584
2004	692	551	67	9	137	14	896	574
2005	691	579	67	6	135	15	893	600
2006	686	574	66	10	128	26	880	610
2007	684	565	66	6	124	24	874	595
2008	681	473	64	2	124	20	869	495
2009	678	391	61	2	122	10	861	403
2010	670	444	58	0	115	11	843	455
2011	665	437	55	0	115	9	835	446
2012	662	475	52	0	106	19	828	494
2013	653	451	51	0	103	16	807	467
2014	653	468	47	0	100	14	800	482
2009–2013								
Average	666	440	55	0	112	13	835	453

^a Information obtained from CFEC.

^b Data obtained from ADF&G fish ticket database.

Appendix A8.—Number of commercial salmon fishing permit holders making at least one delivery by district and season, Yukon Area, 1994–2014.

Chinook and summer chum salmon season									
Year	Lower Yukon Area				Upper Yukon Area				Yukon Area
	District 1	District 2	District 3	Subtotal ^a	District 4	District 5	District 6	Subtotal	total
1994	414	250	7	659	55	28	20	103	762
1995	439	233	0	661	87	28	21	136	797
1996	448	189	9	627	87	23	15	125	752
1997	457	188	0	639	39	29	15	83	722
1998	434	231	0	643	0	18	10	28	671
1999	412	217	5	631	5	26	6	37	668
2000	350	214	0	562	0	0	0	0	562
2001	—	—	—	—	—	—	—	—	—
2002	322	223	0	540	0	18	6	24	564
2003	351	217	0	556	3	16	7	26	582
2004	396	212	0	549	0	14	6	20	569
2005	370	228	0	578	0	12	5	17	595
2006	379	214	6	569	0	15	10	25	594
2007	359	220	3	564	5	12	10	27	591
2008	266	181	0	444	8	0	5	13	457
2009	213	166	0	376	6	0	5	11	387
2010	264	181	0	440	5	0	5	10	450
2011	228	182	0	403	0	0	5	5	408
2012	242	178	0	413	11	0	3	14	427
2013	220	174	0	384	9	0	2	11	395
2014	231	183	0	405	10	0	1	11	416
2009–2013									
Average	233	176	0	403	6	0	4	10	413

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Fall chum and coho salmon season									
Year	Lower Yukon Area				Upper Yukon Area				Yukon Area
	District 1	District 2	District 3	Subtotal ^a	District 4	District 5	District 6	Subtotal	total
1994	0	0	0	0	0	1	11	12	12
1995	189	172	0	357	4	12	20	36	393
1996	158	109	0	263	1	17	17	35	298
1997	176	130	0	304	3	8	0	11	315
1998	0	0	0	0	0	0	0	0	0
1999	146	110	0	254	4	0	0	4	258
2000	0	0	0	0	0	0	0	0	0
2001	–	–	–	–	–	–	–	–	–
2002	0	0	0	0	0	0	0	0	0
2003	75	0	0	75	2	0	5	7	82
2004	26	0	0	26	0	0	6	6	32
2005	177	0	0	177	0	0	7	7	184
2006	219	71	0	286	0	4	11	15	301
2007	181	122	0	300	0	2	8	10	310
2008	251	177	0	428	0	3	8	11	439
2009	165	130	0	292	0	0	2	2	294
2010	72	18	0	90	0	0	4	4	94
2011	234	169	0	395	0	2	5	7	402
2012	267	201	0	449	4	3	5	13	462
2013	251	197	0	436	0	1	6	7	443
2014	256	199	0	441	0	2	2	4	445
2009–2013									
Average	198	143	0	332	1	1	4	7	339

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Combined season ^b									
Year	Lower Yukon Area				Upper Yukon Area				Yukon Area
	District 1	District 2	District 3	Subtotal ^a	District 4	District 5	District 6	Subtotal	total
1994	414	250	7	659	55	28	20	103	762
1995	446	254	0	664	87	31	24	142	806
1996	455	217	9	628	87	29	19	135	763
1997	463	221	0	640	39	31	15	85	725
1998	434	231	0	643	0	18	10	28	671
1999	422	238	5	632	6	26	6	38	670
2000	349	214	0	561	0	0	0	0	561
2001	–	–	–	–	–	–	–	–	–
2002	322	223	0	540	0	18	6	24	564
2003	358	217	0	557	3	16	8	27	584
2004	399	212	0	551	0	14	9	23	574
2005	392	228	0	581	0	12	9	21	602
2006	396	224	6	574	0	20	16	36	610
2007	366	236	3	566	5	13	12	30	596
2008	297	208	0	474	8	3	11	22	496
2009	226	172	0	391	6	0	6	12	403
2010	274	183	0	444	5	0	6	11	455
2011	260	201	0	437	0	2	7	9	446
2012	284	210	0	475	11	3	5	23	498
2013	264	211	0	451	9	1	6	16	467
2014	277	216	0	468	10	2	2	14	482
2009–2013									
Average	262	195	0	440	6	1	6	14	454

Source: JTC 2015.

Note: En dash indicates no commercial fishing activity occurred.

^a Since 1984 the subtotal for the Lower Yukon Area was the unique number of permits fished. Some individual fishermen in the Lower Yukon Area may have operated in more than one district during the year.

^b Combined seasons numbers will differ as the data represent the total number of unique permits fished during the entire season.

Appendix A9.—Commercial salmon pack by species and type of processing, Yukon Area, 1994–2014.

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Year	Cases (48#)			Fresh-frozen (round wt. in lb)			Cured Chinook		Cured chum		Salmon roe (lbs.)
	Chinook	Coho	Chum	Chinook	Coho	Chum	Tierces	Half tierces	Tierces	Half tierces	
1994	0	0	0	2,260,301	744	528,666	0	0	0	0	183,873
1995	0	0	0	2,635,972	317,357	3,524,754	0	0	0	0	498,925
1996	0	0	0	1,836,242	400,960	1,733,129	0	0	0	0	443,939
1997	0	0	0	2,324,306	255,228	1,089,678	0	0	0	0	190,359
1998	0	0	0	779,936	9	191,692	0	0	0	0	28,919
1999	0	0	0	1,368,658	10,342	352,970	0	0	0	0	50,696
2000	0	0	0	158,776	0	50,782	0	0	0	0	6,286
2001	—	—	—	—	—	—	—	—	—	—	—
2002	0	0	0	472,678	—	93,416 ^a	0	0	0	0	931
2003	0	0	0	841,748	165,757	144,942	0	0	0	0	0
2004	0	0	0	1,142,053	117,295	165,587	0	0	0	0	0
2005	0	0	0	597,191	410,398	1,637,483	0	0	0	0	273
2006	0	0	0	857,552	390,502	1,844,981	0	0	0	0	0
2007	0	0	0	594,003	331,412	1,890,820	0	0	0	0	5,939
2008	0	0	0	65,558	243,030	1,877,347	0	0	0	0	29,094
2009	0	0	0	4,194	55,464	1,260,795	0	0	0	0	4,709
2010	0	0	0	127,846	23,986	1,457,912	0	0	0	0	0
2011	0	0	0	985	516,498	3,483,462	0	0	0	0	0
2012	—	0	0	—	457,466	3,810,797	—	—	0	0	0
2013	—	0	0	—	454,839	4,497,391	—	—	0	0	0
2014	—	0	0	—	712,467	4,152,008	—	—	0	0	0

Note: En dash indicates no commercial fishing activity occurred. Pack represents type of processing when fish were shipped out of districts; roe includes unprocessed roe sold by fishermen and estimated production of roe from in the round purchases.

^a Chum salmon sold during summer season only.

Appendix A10.—Estimated average price per pound paid to fishermen, Yukon Area, 1994–2014.

Year	Lower Yukon Area					Upper Yukon Area							
	Chinook	Summer chum	Fall chum	Coho	Pink	Chinook	Chinook roe	Summer chum	Summer chum roe	Fall chum	Fall chum roe	Coho	Coho roe
1994	2.07	0.21	—	—	—	0.92	3.11	0.20	3.77	0.16	1.50	0.48	1.50
1995	2.09	0.16	0.15	0.29	—	0.77	2.64	0.13	3.57	0.13	2.96	0.14	2.51
1996	1.95	0.09	0.10	0.26	—	0.95	2.57	0.07	3.05	0.13	1.71	0.09	2.16
1997	2.46	0.10	0.22	0.32	—	0.97	1.62	0.07	1.08	0.17	1.75	0.20	—
1998	2.51	0.14	—	—	—	0.91	2.00	0.18	1.90	—	—	—	—
1999	3.80	0.10	0.25	0.35	—	1.10	2.11	0.18	2.25	0.20	—	—	—
2000	4.57	0.17	—	—	—	—	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—	—	—	—	—
2002	3.77	0.06	—	—	—	0.75	1.75	0.32	2.25	—	—	—	—
2003	2.37	0.05	0.15	0.10	—	0.80	—	0.27	—	0.10	—	0.05	—
2004	2.80	0.05	0.25	0.05	—	0.77	—	0.27	—	0.05	—	0.06	—
2005	3.43	0.05	0.32	0.32	—	0.87	—	0.25	—	0.14	—	0.12	—
2006	3.94	0.05	0.20	0.20	—	1.30	—	0.16	—	0.14	—	0.19	—
2007	3.73	0.19	0.27	0.39	—	1.33	—	0.25	2.36	0.20	—	0.20	—
2008	4.64	0.40	0.55	0.97	0.10	—	—	0.25	3.00	0.27	—	0.20	—
2009	5.00	0.50	0.70	1.00	—	—	—	0.26	3.00	0.19	—	0.15	—
2010	5.00	0.70	1.00	1.50	—	—	—	0.23	—	0.23	—	0.26	—
2011	5.00 ^a	0.75	1.00	1.00	—	—	—	0.26	—	0.22	—	0.15	—
2012	—	0.75	1.00	1.25	—	—	—	0.37	—	0.19	—	0.25	—
2013	—	0.75	0.75	1.10	—	—	—	0.30	—	0.16	—	0.17	—
2014	—	0.60	0.75	1.00	0.07	—	—	0.29	—	0.25	—	0.38	—
2009 – 2013													
Average	5.00	0.69	0.89	1.17	0.07			0.28	3.00	0.20		0.20	

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a Chinook salmon sold in fall season only.

Appendix A11.–Value of commercial salmon fishery to Yukon Area fishermen, 1994–2014.

Year	Summer season							
	Chinook			Summer chum			Pink	Total season
	Lower Yukon value	Upper Yukon value	Subtotal	Lower Yukon value	Upper Yukon value	Subtotal	Lower Yukon value	
1994	4,169,270	124,270	4,293,540	79,206	396,685	475,891	–	4,769,431
1995	5,317,508	87,059	5,404,567	241,598	1,060,322	1,301,920	–	6,706,487
1996	3,491,582	47,282	3,538,864	89,020	966,277	1,055,297	–	4,594,161
1997	5,450,433	110,713	5,561,146	56,535	96,806	153,341	–	5,714,487
1998	1,911,370	17,285	1,928,655	26,415	821	27,236	–	1,955,891
1999	4,950,522	74,475	5,024,997	19,687	1,720	21,407	–	5,046,404
2000	725,606	–	725,606	8,633	–	8,633	–	734,239
2001	–	–	–	–	–	–	–	–
2002	1,781,996	20,744	1,802,740	4,342	6,176	10,518	–	1,813,258
2003	1,871,202	40,957	1,912,159	1,585	6,879	8,464	–	1,920,623
2004	3,063,667	38,290	3,101,957	8,884	9,645	18,529	–	3,120,486
2005	1,952,109	24,415	1,976,524	11,004	13,479	24,483	–	2,001,007
2006	3,290,367	32,631	3,322,998	23,862	42,988	66,850	–	3,389,848
2007	1,939,114	27,190	1,966,304	220,715	34,421	255,136	–	2,221,440
2008	325,470	–	325,470	326,930	65,840	392,770	4,656	718,240
2009	20,970	–	20,970	514,856	20,430	535,286	–	556,256
2010	639,230	–	639,230	823,967	61,534	885,501	–	1,524,731
2011	4,925	–	4,925	1,301,008	12,966	1,313,974	–	1,318,899
2012	–	–	–	980,424	137,817	1,118,241	–	1,118,241
2013	–	–	–	1,721,524	152,110	1,873,634	–	1,873,634
2014	–	–	–	1,648,872	157,211	1,806,083	13,689 ^a	1,819,772
2009–2013								
Average	221,708		221,708	1,068,356	76,971	1,145,327		1,278,352

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Fall season								
Year	Fall chum			Coho			Total season	Total value
	Lower Yukon value	Upper Yukon value	Subtotal	Lower Yukon value	Upper Yukon value	Subtotal		
1994	0	8,517	8,517	0	8,739	8,739	17,256	4,786,687
1995	185,036	167,571	352,607	80,019	11,292	91,311	443,918	7,150,405
1996	48,579	45,438	94,017	96,795	13,020	109,815	203,832	4,797,993
1997	86,526	7,252	93,778	79,973	1,062	81,035	174,813	5,889,300
1998	—	—	—	—	—	—	—	1,955,891
1999	35,639	876	36,515	3,620	0	3,620	40,135	5,086,539
2000	—	—	—	—	—	—	—	734,239
2001	—	—	—	—	—	—	—	—
2002	—	—	—	—	—	—	—	1,813,258
2003	5,993	3,398	9,391	18,168	5,095	23,263	32,654	1,953,277
2004	1,126	848	1,974	2,774	6,372	9,146	11,120	3,131,606
2005	316,698	48,159	364,857	83,793	19,182	102,975	467,832	2,468,839
2006	202,637	33,806	236,443	50,299	11,137	61,436	297,879	3,687,727
2007	144,256	16,907	161,163	127,869	1,368	129,237	290,400	2,511,840
2008	428,969	22,089	451,058	216,777	3,717	220,494	671,552	1,389,792
2009	108,778	1,286	110,064	52,176	457	52,633	162,697	718,953
2010	5,428	2,761	8,189	20,535	442	20,977	29,166	1,553,897
2011	1,628,329	16,115	1,644,444	472,199	6,792	478,991	2,123,435	3,442,334
2012	1,385,498	28,355	1,413,853	534,523	7,428	541,951	1,955,804	3,074,045
2013	1,154,172	25,744	1,179,916	453,998	7,115	461,113	1,641,029	3,514,663
2014	621,917	8,156	630,073	706,293	2,380	708,673	1,338,746	3,158,518
2009–2013								
Average	856,441	14,852	871,293	306,686	4,447	311,133	1,182,426	2,460,778

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a Includes \$19 of pink salmon sales from Districts 1 and 2 in the fall season.

Appendix A12.—Average weight of salmon harvested in the commercial fishery, Yukon Area, 1994–2014.

Year	Lower Yukon Area ^a					Upper Yukon Area ^a			
	Chinook	Summer chum	Fall chum	Coho	Pink	Chinook	Summer chum	Fall chum	Coho
1994	20.3	6.5	—	—	—	15.7	5.8	6.2	6.2
1995	21.6	6.7	7.5	6.9	—	17.8	5.4	7.0	7.0
1996	20.6	7.8	7.7	7.6	—	16.2	6.0	6.2	7.2
1997	20.9	7.2	7.6	7.3	—	15.4	5.9	6.4	6.5
1998	18.0	6.7	—	—	—	13.2	6.1	—	—
1999	20.1	7.1	7.2	6.5	—	14.8	6.1	6.4	—
2000	18.0	7.7	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—
2002	19.9	7.2	—	—	—	15.9	6.0	—	—
2003	21.4	7.3	7.2	7.4	—	14.6	6.1	6.1	6.0
2004	20.8	6.9	6.8	7.0	—	13.8	5.7	4.9	5.7
2005	18.9	6.8	7.8	7.1	—	14.6	6.0	7.1	6.9
2006	19.0	6.8	7.2	6.2	—	13.1	6.1	7.0	5.1
2007	17.9	6.5	7.1	7.5	—	13.5	5.8	5.4	5.0
2008	14.1	6.6	7.2	6.8	3.3	—	7.3	7.8	7.6
2009	13.3	6.5	6.6	6.9	—	—	5.4	5.2	6.8
2010	12.9	6.4	6.7	6.7	—	—	5.3	6.9	6.0
2011	12.0	6.5	7.1	6.8	—	—	5.7	6.8	6.5
2012	—	6.3	6.9	6.2	—	—	4.6	7.0	5.0
2013	—	6.1	7.2	7.0	—	—	4.8	6.2	5.6
2014	—	6.4	7.5	6.8	3.5	—	5.2	7.0	4.8
2004–2013									
Average	12.9	6.5	7.1	6.8	3.4	13.7	5.7	6.4	6.0

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a Data obtained from weight samples or from fish ticket information.

Appendix A13.—Chinook salmon total utilization in numbers of fish by district, area, and country, Yukon River drainage, 1994–2014.

Year	District 1				District 2				
	Subsistence ^a	Commercial ^b	Personal use ^c	Test fish sales	Total	Subsistence	Commercial ^b	Test fish sales	Total
1994	6,540	62,241		1,561	70,342	8,956	41,692	70	50,718
1995	5,960	76,106		2,078	84,144	9,037	41,458	74	50,569
1996	3,646	56,642		1,698	61,986	7,780	30,209	0	37,989
1997	7,550	66,384		2,791	76,725	9,350	39,363	20	48,733
1998	7,242	25,413		878	33,533	9,455	16,806	48	26,309
1999	6,848	37,161		1,049	45,058	10,439	27,133	156	37,728
2000	5,891	4,735		275	10,901	9,935	3,783	322	14,040
2001	7,089	—		0	7,089	13,442	—	0	13,442
2002	5,603	11,089		494	17,186	8,954	11,440	34	20,428
2003	6,332	22,709		619	29,660	9,668	14,220	61	23,949
2004	5,880	28,403		722	35,005	9,724	24,145	70	33,939
2005	5,058	16,694		310	22,062	9,156	13,413	0	22,569
2006	5,122	23,748		817	29,687	8,039	19,843	0	27,882
2007	6,059	18,616		792	25,467	10,553	13,306	57	23,916
2008	6,163	2,530		0	8,693	8,826	2,111	0	10,937
2009	4,125	90		0	4,215	6,135	226	0	6,361
2010	5,856	5,744		0	11,600	8,676	4,153	0	12,829
2011	6,255	36		0	6,291	8,069	46	0	8,115
2012	4,313	0		0	4,313	6,881	0	0	6,881
2013	1,634 ^d	0		0	1,634	1,104 ^d	0	0	1,104
2014	1,356 ^d	0		0	1,356	616 ^d	0	0	616
2009–2013									
Average	4,437	1,174		0	5,611	6,173	885	0	7,058
2004–2013									
Average	5,047	9,586		264	14,897	7,716	7,724	13	15,453

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Year	District 3			Lower Yukon Area subtotals				
	Subsistence	Commercial	Total	Subsistence ^a	Commercial	Personal use ^c	Test fish sales	Total
1994	6,124	1,114	7,238	21,620	105,047		1,631	128,298
1995	5,419	–	5,419	20,416	117,564		2,152	140,132
1996	6,783	0	6,783	18,209	86,851		1,698	106,758
1997	6,311	–	6,311	23,211	105,747		2,811	131,769
1998	4,514	0	4,514	21,211	42,219		926	64,356
1999	7,715	538	8,253	25,002	64,832		1,205	91,039
2000	3,914	–	3,914	19,740	8,518		597	28,855
2001	6,361	–	6,361	26,892	–		0	26,892
2002	4,139	–	4,139	18,696	22,529		528	41,753
2003	5,002	–	5,002	21,002	36,929		680	58,611
2004	4,748	–	4,748	20,352	52,548		792	73,692
2005	5,131	–	5,131	19,345	30,107		310	49,762
2006	5,374	315	5,689	18,535	43,906		817	63,258
2007	4,651	190	4,841	21,263	32,112		849	54,224
2008	5,855	–	5,855	20,844	4,641		0	25,485
2009	2,924	–	2,924	13,184	316		0	13,500
2010	4,299	–	4,299	18,831	9,897		0	28,728
2011	4,134	–	4,134	18,458	82		0	18,540
2012	2,362	–	2,362	13,556	0		0	13,556
2013	444 ^d	–	444	3,182 ^d	0		0	3,182
2014	48 ^d	–	48	2,020 ^d	0		0	2,020
2009–2013								
Average	2,833		2,833	13,442	2,059		0	15,501
2004–2013								
Average	3,992	253	4,043	16,755	17,361		277	34,393

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Year	District 4				District 5				
	Subsistence	Commercial	Commercial related ^e	Total	Subsistence	Commercial	Commercial related ^e	Personal use ^c	Total
1994	10,327	2,216	227	12,770	18,760	3,739	5		22,504
1995	9,474	262	237	9,973	16,866	3,242	0		20,108
1996	8,193	45	92	8,330	15,727	2,497	260		18,484
1997	12,006	1,450	7	13,463	18,049	3,678	0		21,727
1998	15,801	–	–	15,801	14,802	517	0		15,319
1999	11,238	1,437	0	12,675	14,330	2,604	0		16,934
2000	6,264	–	–	6,264	8,854	–	–		8,854
2001	10,152	–	–	10,152	13,566	–	–		13,566
2002	9,456	–	–	9,456	13,401	771	0		14,172
2003	12,771	562	0	13,333	19,191	1,134	0		20,325
2004	16,269	–	–	16,269	15,666	1,546	0		17,212
2005	13,964	–	–	13,964	17,424	1,469	0		18,893
2006	12,022	–	–	12,022	15,924	1,839	0		17,763
2007	11,831	0	0	11,831	19,165	1,241	0		20,406
2008	10,619	0	0	10,619	11,626	–	–		11,626
2009	9,514	0	0	9,514	8,917	–	–		8,917
2010	12,888	0	0	12,888	10,397	–	–		10,397
2011	9,893	–	–	9,893	10,493	–	–		10,493
2012	7,662	0	0	7,662	6,466	–	–		6,466
2013	2,901 ^d	0	0	2,901	4,541 ^d	–	–		4,541
2014	132 ^d	0	0	132	283 ^d	–	–		284
2009–2013									
Average	8,572	0	0	8,572	8,163				8,163
2004–2013									
Average	10,756	0	0	10,756	12,062	1,524	0		12,671

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Year	District 6						Upper Yukon Area subtotals					
	Subsistence	Commercial	Commercial related ^e	Personal use ^c	Test fish sales	Total	Subsistence	Commercial	Commercial related ^e	Personal use ^c	Test fish sales	Total
1994	2,370	2,135	471	0	0	4,976	31,457	8,090	703	0	0	40,250
1995	1,779	1,660	1,087	399	0	4,925	28,119	5,164	1,324	399	0	35,006
1996	1,177	278	169	215	0	1,839	25,097	2,820	521	215	0	28,653
1997	2,712	1,966	762	313	0	5,753	32,767	7,094	769	313	0	40,943
1998	1,919	882	81	357	0	3,239	32,522	1,399	81	357	0	34,359
1999	1,624	402	288	331	0	2,645	27,192	4,443	288	331	0	32,254
2000	983	–	–	75	0	1,058	16,101	0	0	75	0	16,176
2001	2,327	–	–	122	0	2,449	26,045	0	0	122	0	26,167
2002	1,067	836	230	126	0	2,259	23,924	1,607	230	126	0	25,887
2003	2,145	1,813	0	204	0	4,162	34,107	3,509	0	204	0	37,820
2004	1,388	2,057	0	201	0	3,646	33,323	3,603	0	201	0	37,127
2005	1,828	453	0	138	0	2,419	33,216	1,922	0	138	0	35,276
2006	1,229	84	0	89	0	1,402	29,175	1,923	0	89	0	31,187
2007	1,717	281	0	136	0	2,134	32,713	1,522	0	136	0	34,371
2008	605	0	0	126	0	731	22,850	0	0	126	0	22,976
2009	1,285	0	0	127	0	1,412	19,716	0	0	127	0	19,843
2010	1,143	0	0	162	0	1,305	24,428	0	0	162	0	24,590
2011	1,367	0	0	89	0	1,456	21,753	0	0	89	0	21,842
2012	627	0	0	71	0	698	14,755	0	0	71	0	14,826
2013	367 ^d	0	0	42	0	409	7,809 ^d	0	0	42	0	7,851
2014	283 ^d	0	0	1	0	284	698 ^d	0	0	1	0	699
2009–2013												
Average	958	0	0	98	0	1,056	17,692	0	0	98	0	17,790
2004–2013												
Average	1,156	288	0	118	0	1,561	23,974	897	0	118	0	24,989

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Alaska Yukon River totals							
Year	Subsistence ^a	Commercial	Commercial related ^e	Personal use ^c	Test fish sales	Sport fish ^f	Total
1994	53,077	113,137	703	0	1,631	2,281	170,829
1995	48,535	122,728	1,324	399	2,152	2,525	177,663
1996	43,306	89,671	521	215	1,698	3,873	139,284
1997	55,978	112,841	769	313	2,811	2,174	174,886
1998	53,733	43,618	81	357	926	654	99,369
1999	52,194	69,275	288	331	1,205	1,023	124,316
2000	35,841	8,518	0	75	597	276	45,307
2001	52,937	0	0	122	0	679	53,738
2002	42,620	24,136	230	126	528	486	68,126
2003	55,109	40,438	0	204	680	2,719	99,150
2004	53,675	56,151	0	201	792	1,513	112,332
2005	52,561	32,029	0	138	310	483	85,521
2006	47,710	45,829	0	89	817	739	95,184
2007	53,976	33,634	0	136	849	960	89,555
2008	43,694	4,641	0	126	0	409	48,870
2009	32,900	316	0	127	0	863	34,206
2010	43,259	9,897	0	162	0	474	53,792
2011	40,211	82	0	89	0	474	40,856
2012	28,311	0	0	71	0	345	28,727
2013	10,991 ^d	0	0	42	0	166	11,199
2014	2,718 ^d	0	0	1	0	^g	2,719
2009–2013							
Average	31,134	2,059	0	98	0	464	33,756
2004–2013							
Average	40,729	18,258	0	118	277	643	60,024

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Canada: Yukon Territories totals								
Year	Mainstem Yukon						Porcupine Aboriginal	Total Canadian
	Non-commercial			Test fish ^h	Commercial	Subtotal		
	Domestic	Aboriginal	Sport					
1994	373	8,069	300		12,028	20,770	428	21,198
1995	300	7,942	700		11,146	20,088	796	20,884
1996	141	8,451	790		10,164	19,546	66	19,612
1997	288	8,888	1,230		5,311	15,717	811	16,528
1998	24	4,687	0	737	390	5,838	99	5,937
1999	213	8,804	177	–	3,160	12,354	114	12,468
2000	0	4,068	0	761	–	4,829	50	4,879
2001	89	7,421	146	767	1,351	9,774	370	10,144
2002	59	7,139	128	1,036	708	9,070	188	9,258
2003	115	6,121	275	263	2,672	9,446	173	9,619
2004	88	6,483	423	167	3,785	10,946	292	11,238
2005	99	6,376	436	–	4,066	10,977	394	11,371
2006	63	5,757	606	–	2,332	8,758	314	9,072
2007	0	4,175	2	617	–	4,794	300	5,094
2008	0	2,885	0	513	1	3,399	314	3,713
2009	17	3,791	125	–	364	4,297	461	4,758
2010	0	2,455	1	–	–	2,456	250	2,706
2011	0	4,550	40	–	4	4,594	290	4,884
2012	0	2,000	0	–	0	2,000	200	2,200
2013	0	1,902	0	–	2	1,904	242	2,146
2014	0	100	0	–	–	100	3	103
<hr/>								
2009–2013 Average	3	2,940	33		93	3,050	289	3,339
2004–2013 Average	27	4,037	163	432	1,319	5,413	306	5,718

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Year	Yukon River drainage (Alaska/Canada) totals							Total Alaska Yukon area		
	Subsistence ^{a,i}	Commercial	Commercial related ^e	Personal use ^c	Alaska test fish	Sport fish	Total	Coastal District	Alaska total	Yukon Area total
1994	61,947	125,165	703	0	1,631	2,581	192,027	825	170,829	171,654
1995	57,573	133,874	1,324	399	2,152	3,225	198,547	2,085	177,663	179,748
1996	51,964	99,835	521	215	1,698	4,663	158,896	2,365	139,284	141,649
1997	65,965	118,152	769	313	2,811	3,404	191,414	1,139	174,886	176,025
1998	59,280	44,008	81	357	926	654	105,306	391	99,369	99,760
1999	61,325	72,435	288	331	1,205	1,200	136,784	1,111	124,316	125,427
2000	40,720	8,518	0	75	597	276	50,186	563	45,307	45,870
2001	61,584	1,351	0	122	0	825	63,882	2,882	53,738	56,620
2002	51,042	24,844	230	126	528	614	77,384	1,122	68,126	69,248
2003	61,781	43,110	0	204	680	2,994	108,769	1,850	99,150	101,000
2004	60,705	59,936	0	201	792	1,936	123,570	2,038	112,332	114,370
2005	59,430	36,095	0	138	310	919	96,892	848	85,521	86,369
2006	53,844	48,161	0	89	817	1,345	104,256	883	95,184	96,067
2007	59,068	33,634	0	136	849	962	94,649	1,198	89,555	90,753
2008	47,406	4,642	0	126	0	409	52,583	1,492	48,870	50,362
2009	37,169	680	0	127	0	988	38,964	905	34,206	35,111
2010	45,964	9,897	0	162	0	475	56,498	1,300	53,792	55,092
2011	45,051	86	0	89	0	514	45,740	769	40,856	41,625
2012	30,511	0	0	71	0	345	30,927	2,104	28,727	30,831
2013	13,135 ^d	2	0	42	0	166	13,345	1,542 ^d	11,199	12,741
2014	2,821 ^d	0	0	1	0	^g	2,822	563 ^d	2,719	3,282
2009–2013										
Average	34,366	2,133	0	98	0	498	37,095	1,324	33,756	35,080
2004–2013										
Average	45,228	19,313	0	118	277	806	65,742	1,308	60,024	61,332

Source: JTC 2015.

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a Does not include coastal subsistence harvest in Hooper Bay and Scammon Bay.

^b Includes estimates of illegal sales.

^c Prior to 1987 and in 1991, 1992, and 1994, personal use was considered part of subsistence. Between 1987 and 1990, personal use fishing was defined by the fisherman's location of residence versus fishing location. In 1992, the Fairbanks nonsubsistence area was created as the only personal use area in the Yukon River drainage.

^d Subsistence harvest information is considered preliminary.

^e Commercial related refers to the estimated harvest of female Chinook salmon to produce roe sold.

^f Estimated sport fish harvest for the Alaska portion of the Yukon River drainage. The majority of sport fish harvest occurs in the Tanana River drainage (District 6).

^g Sport fish harvest information is not available.

^h Canadian Chinook test fishery is conducted for management purposes, the fish harvested are retained and given to Aboriginal or Domestic users, but are not reported under those categories.

ⁱ Includes Alaska subsistence harvest and Canadian Domestic, test fish, and Aboriginal harvests.

Appendix A14.–Summer chum salmon total utilization in numbers of fish by district, area, and country, Yukon River drainage, 1994–2014.

Year	District 1				District 2				
	Subsistence ^a	Commercial	Personal use ^b	Test fish sales	Total	Subsistence	Commercial	Test fish sales	Total
1994	32,145	42,332		2,769	77,246	22,907	12,869	443	36,219
1995	34,990	142,266		5,672	182,928	27,190	83,817	401	111,408
1996	27,289	92,506		7,309	127,104	28,426	30,727	0	59,153
1997	27,248	59,915		2,557	89,720	26,971	18,242	33	45,246
1998	26,888	21,270		2,935	51,093	26,280	6,848	84	33,212
1999	20,169	16,181		799	37,149	24,137	11,702	37	35,876
2000	24,079	3,315		561	27,955	25,331	3,309	87	28,727
2001	22,771	–		0	22,771	26,303	–	0	26,303
2002	24,107	6,327		164	30,598	23,554	4,027	54	27,635
2003	19,701	3,579		37	23,317	16,773	2,583	82	19,438
2004	20,620	13,993		217	34,830	25,931	5,782	0	31,713
2005	27,695	23,965		134	51,794	24,277	8,313	0	32,590
2006	27,881	21,816		456	50,153	31,655	25,543	0	57,198
2007	24,209	106,790		10	131,009	23,507	69,432	0	92,939
2008	22,767	67,459		80	90,306	24,291	58,139	0	82,430
2009	23,998	71,335		0	95,333	21,089	86,571	0	107,660
2010	25,172	102,267		0	127,439	23,738	80,948	0	104,686
2011	28,590	163,439		0	192,029	24,692	103,071	0	127,763
2012	35,370	150,800		1,274	187,444	32,566	57,049	1,138	90,753
2013	28,516 ^c	207,871		2,304	238,691	32,499 ^c	171,272	0	203,771
2014	23,894 ^c	198,240		0	222,134	26,134 ^c	229,107	0	255,241
2009–2013									
Average	28,329	139,142		716	168,187	26,917	99,782	228	126,927
2004–2013									
Average	26,482	92,974		448	119,903	26,425	66,612	114	93,150

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Year	District 3			Lower Yukon Area subtotals				
	Subsistence	Commercial	Total	Subsistence ^a	Commercial	Personal use ^b	Test fish sales	Total
1994	8,492	35	8,527	63,544	55,236		3,212	121,992
1995	12,143	–	12,143	74,323	226,083		6,073	306,479
1996	11,368	1,534	12,902	67,083	124,767		7,309	199,159
1997	10,316	–	10,316	64,535	78,157		2,590	145,282
1998	6,472	0	6,472	59,640	28,118		3,019	90,777
1999	5,748	0	5,748	50,054	27,883		836	78,773
2000	3,687	–	3,687	53,097	6,624		648	60,369
2001	1,309	–	1,309	50,383	–		0	50,383
2002	2,506	–	2,506	50,167	10,354		218	60,739
2003	5,858	–	5,858	42,332	6,162		119	48,613
2004	2,958	–	2,958	49,509	19,775		217	69,501
2005	5,766	–	5,766	57,738	32,278		134	90,150
2006	3,534	116	3,650	63,070	47,475		456	111,001
2007	2,056	1	2,057	49,772	176,223		10	226,005
2008	2,971	–	2,971	50,029	125,598		80	175,707
2009	1,146	–	1,146	46,233	157,906		0	204,139
2010	1,341	–	1,341	50,251	183,215		0	233,466
2011	2,733	–	2,733	56,015	266,510		0	322,525
2012	8,690	–	8,690	76,626	207,849		2,412	286,887
2013	4,692 ^c	–	4,692	65,707 ^c	379,143		2,304	447,154
2014	3,748 ^c	–	3,748	53,776 ^c	427,347		0	481,123
2009–2013								
Average	3,720		3,720	58,966	238,925		943	298,834
2004–2013								
Average	3,589	59	3,600	56,495	159,597		561	216,654

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Year	District 4					District 5				
	Subsistence	Commercial	Commercial related ^d	Anvik River ^e	Total	Subsistence	Commercial	Commercial related ^d	Personal use ^b	Total
1994	27,504	3,611	145,423	22,573	199,111	11,830	229	235		12,294
1995	25,084	8,873	490,970	54,744	579,671	7,655	107	209		7,971
1996	16,425	0	425,607	84,633	526,665	11,509	0	336		11,845
1997	24,230	2,062	109,061	13,548	148,901	4,520	137	0		4,657
1998	18,046	–	–	–	18,046	2,314	96	14		2,424
1999	15,339	1,267	0	–	16,606	2,276	115	0		2,391
2000	7,046	–	–	–	7,046	3,641	–	–		3,641
2001	4,588	–	–	–	4,588	2,856	–	–		2,856
2002	15,971	–	–	–	15,971	5,610	6	0		5,616
2003	17,513	62	0	–	17,575	5,545	0	0		5,545
2004	14,959	–	–	–	14,959	3,411	25	0		3,436
2005	12,350	–	–	–	12,350	6,800	0	0		6,800
2006	14,997	–	–	–	-	11,845	20	0		11,865
2007	16,256	7,304	0	–	23,560	8,846	0	0		8,846
2008	13,517	23,746	0	–	37,263	3,537	–	–		3,537
2009	14,958	4,589	0	–	19,547	5,298	–	–		5,298
2010	11,720	44,207	0	–	55,927	3,555	–	–		3,555
2011	13,166	–	–	–	13,166	7,709	–	–		7,709
2012	21,555	108,222	0	–	129,777	4,892	–	–		4,892
2013	13,761 ^c	100,507	0	–	114,268	11,417 ^c	–	–		11,417
2014	9,981 ^c	96,385	0	–	106,366	3,108 ^c	–	–		3,108
2009–2013										
Average	15,032	64,381	0		66,537	6,574				6,574
2004–2013										
Average	14,724	48,096	0		46,757	6,731	11	0		6,736

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	District 6						Upper Yukon Area Subtotals						
	Year	Subsistence	Commercial	Commercial related ^d	Personal use ^b	Test fish sales	Total	Subsistence	Commercial	Commercial related ^d	Personal use ^b	Test fish sales	Total
1994		7,026	21,208	10,226	—	0	38,460	46,360	25,048	178,457	0	0	249,865
1995		11,661	24,711	12,717	780	0	49,869	44,400	33,691	558,640	780	0	637,511
1996		7,486	22,360	24,530	905	0	55,281	35,420	22,360	535,106	905	0	593,791
1997		3,824	14,886	10,401	391	0	29,502	32,574	17,085	133,010	391	0	183,060
1998		6,004	397	173	84	0	6,658	26,364	493	187	84	0	27,128
1999		2,654	124	24	382	0	3,184	20,269	1,506	24	382	0	22,181
2000		1,111	—	—	30	0	1,141	11,798	0	0	30	0	11,828
2001		412	—	—	146	0	558	7,856	—	—	146	0	8,002
2002		512	3,198	19	175	0	3,904	22,093	3,204	19	175	0	25,491
2003		2,914	4,461	0	148	0	7,523	25,972	4,523	0	148	0	30,643
2004		1,793	6,610	0	231	0	8,634	20,163	6,635	0	231	0	27,029
2005		2,014	8,986	0	152	0	11,152	21,164	8,986	0	152	0	30,302
2006		1,010	44,621	0	262	0	45,893	27,852	44,641	0	262	0	57,758
2007		1,896	14,674	0	184	0	16,754	26,998	21,978	0	184	0	49,160
2008		1,311	1,842	0	138	0	3,291	18,365	25,588	0	138	0	44,091
2009		1,253	7,777	0	308	0	9,338	21,509	12,366	0	308	0	34,183
2010		422	5,466	0	319	0	6,207	15,697	49,673	0	319	0	65,689
2011		825	8,651	0	439	0	9,915	21,700	8,651	0	439	0	30,790
2012		678	3,504	0	321	0	4,503	27,125	111,726	0	321	0	139,172
2013		1,094 ^c	5,937	0	138	0	7,169	26,272 ^c	106,444	0	138	0	132,854
2014		731 ^c	6,912	0	235	0	7,878	13,820 ^c	103,297	0	235	0	117,352
2009–2013													
Average		854	6,267	0	305	0	7,426	22,461	57,772	0	305	0	80,538
2004–2013													
Average		1,230	10,807	0	249	0	12,286	22,685	39,669	0	249	0	61,103

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Year	Alaska Yukon River totals							Total Alaska Yukon Area	
	Subsistence ^a	Commercial	Commercial related ^d	Personal use ^b	Test fish sales	Sport fish ^f	Total	Coastal District	Yukon Area total
1994	109,904	80,284	178,457	0	3,212	350	372,207	14,903	387,110
1995	118,723	259,774	558,640	780	6,073	1,174	945,164	17,360	962,524
1996	102,503	147,127	535,106	905	7,309	1,946	794,896	22,235	817,131
1997	97,109	95,242	133,010	391	2,590	662	329,004	15,711	344,715
1998	86,004	28,611	187	84	3,019	421	118,326	1,362	119,688
1999	70,323	29,389	24	382	836	555	101,509	13,461	114,970
2000	64,895	6,624	0	30	648	161	72,358	13,177	85,535
2001	58,239	–	0	146	0	82	58,467	13,916	72,383
2002	72,260	13,558	19	175	218	384	86,614	14,796	101,410
2003	68,304	10,685	0	148	119	1,638	80,894	13,968	94,862
2004	69,672	26,410	0	231	217	203	96,733	8,262	104,995
2005	78,902	41,264	0	152	134	435	120,887	14,357	135,244
2006	90,922	92,116	0	262	456	583	184,339	24,171	208,510
2007	76,770	198,201	0	184	10	245	275,410	16,121	291,531
2008	68,394	151,186	0	138	80	371	220,169	18,120	238,289
2009	67,742	170,272	0	308	0	174	238,496	12,797	251,293
2010	65,948	232,888	0	319	0	1,183	300,338	22,425	322,763
2011	77,715	275,161	0	439	0	294	353,609	18,305	371,914
2012	103,751	319,575	0	321	2,412	271	426,330	23,241	449,571
2013	91,979 ^c	485,587	0	138	2,304	1,423	581,431	23,135 ^c	604,566
2014	67,596 ^c	530,644	0	235	0	^g	598,475	19,304 ^c	617,779
2009–2013									
Average	81,427	296,697	0	305	943	669	380,041	19,981	400,021
2004–2013									
Average	79,180	199,266	0	249	561	518	279,774	18,093	297,868

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Source: JTC 2105.

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

- ^a Does not include coastal subsistence harvest in Hooper Bay and Scammon Bay.
- ^b Prior to 1987 and in 1991, 1992, and 1994, personal use was considered part of subsistence. Between 1987 and 1990, personal use fishing was defined by the fisherman's location of residence versus fishing location. In 1992, the Fairbanks nonsubsistence area was created as the only personal use area in the Yukon River drainage.
- ^c Subsistence harvest information is considered preliminary.
- ^d Commercial related refers to the estimated number of females and incidental males harvested to produce roe sold, excluding the Anvik River. Beginning in 2006, the numbers of females harvested are included in the total commercial harvest.
- ^e Only roe has been sold in the Anvik River commercial fishery. The commercial related harvest shown is the estimated number of females harvested to produce roe sold.
- ^f Estimated sport fish harvest for all chum salmon (assumes majority of fish were caught during summer season) in the Alaska portion of the drainage. A majority of the sport fish harvest occurs in the Tanana River drainage (District 6).
- ^g Sport fish harvest information is not available.

Appendix A15.–Fall chum salmon total utilization in numbers of fish by district, area, and country, Yukon River drainage, 1994–2014.

Year	District 1				District 2			
	Subsistence ^a	Commercial	Test fish sales ^b	Total	Subsistence	Commercial	Test fish sales ^b	Total
1994	4,887	–	–	4,887	4,151	–	–	4,151
1995	4,698	79,378	1,121	85,197	3,317	90,831	0	94,148
1996	4,147	33,629	1,717	39,493	5,287	29,651	0	34,938
1997	3,132	27,483	867	31,482	4,680	24,326	0	29,006
1998	3,163	–	–	3,163	4,482	–	–	4,482
1999	6,502	9,987	1,149	17,638	4,594	9,703	22	14,319
2000	5,294	–	–	5,294	1,425	–	–	1,425
2001	3,437	–	–	3,437	3,256	–	–	3,256
2002	1,881	–	–	1,881	1,618	–	–	1,618
2003	2,139	5,586	0	7,725	2,901	–	–	2,901
2004	2,067	660	0	2,727	2,421	–	–	2,421
2005	2,889	130,525	87	133,501	3,257	–	–	3,257
2006	3,902	101,254	0	105,156	4,015	39,905	0	43,920
2007	4,390	38,852	0	43,242	3,472	35,826	0	39,298
2008	2,823	67,704	0	70,527	3,522	41,270	0	44,792
2009	1,917	11,911	0	13,828	1,563	12,072	0	13,635
2010	3,202	545	0	3,747	1,419	270	0	1,689
2011	3,434	127,735	0	131,169	2,578	100,731	0	103,309
2012	7,622	139,842	74	147,538	3,332	129,284	0	132,616
2013	3,673 ^c	106,588	121	110,382	4,878 ^c	106,274	0	111,152
2014	4,072 ^c	51,823	30	55,925	5,817 ^c	59,138	0	64,955
2009-2013								
Average	3,970	77,324	39	81,333	2,754	69,726	0	72,480
2004-2013								
Average	3,592	72,562	28	76,182	3,046	58,204	0	49,609

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Year	District 3			Lower Yukon Area Subtotals			
	Subsistence	Commercial	Total	Subsistence ^a	Commercial	Test fish sales ^b	Total
1994	862	–	862	9,900	–	–	9,900
1995	1,672	–	1,672	9,687	170,209	1,121	181,017
1996	2,706	–	2,706	12,140	63,280	1,717	77,137
1997	787	–	787	8,599	51,809	867	61,275
1998	1,561	–	1,561	9,206	–	–	9,206
1999	415	–	415	11,511	19,690	1,171	32,372
2000	598	–	598	7,317	–	–	7,317
2001	700	–	700	7,393	–	–	7,393
2002	164	–	164	3,663	–	–	3,663
2003	738	–	738	5,778	5,586	0	11,364
2004	298	–	298	4,786	660	0	5,446
2005	1,304	–	1,304	7,450	130,525	87	138,062
2006	480	–	480	8,397	141,159	0	149,556
2007	925	–	925	8,787	74,678	0	83,465
2008	1,821	–	1,821	8,166	108,974	0	117,140
2009	937	–	937	4,417	23,983	0	28,400
2010	1,325	–	1,325	5,946	815	0	6,761
2011	354	–	354	6,366	228,466	0	234,832
2012	637	–	637	11,591	269,126	74	280,791
2013	1,764 ^c	–	1,764	10,315 ^c	212,862	121	223,298
2014	2,457 ^c	–	2,457	12,346 ^c	110,961	30	123,337
2009-2013							
Average	1,140		1,140	7,800	140,704	33	148,537
2004-2013							
Average	985		985	7,622	119,125	28	126,775

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Year	District 4				District 5			
	Subsistence	Commercial	Commercial related ^d	Total	Subsistence	Commercial	Commercial related ^d	Total
1994	13,325	–	–	13,325	66,396	3,630	0	70,026
1995	14,057	2,924	5,807	22,788	57,594	9,778	20,255	87,627
1996	16,786	2,918	0	19,704	63,473	11,878	9,980	85,331
1997	11,734	2,458	0	14,192	55,258	2,446	1,474	59,178
1998	7,898	–	–	7,898	31,393	–	–	31,393
1999	9,174	681	0	9,855	53,580	–	–	53,580
2000	1,759	–	–	1,759	9,920	–	–	9,920
2001	3,352	–	–	3,352	20,873	–	–	20,873
2002	1,549	–	–	1,549	10,976	–	–	10,976
2003	9,750	1,315	0	11,065	28,270	–	–	28,270
2004	7,797	–	–	7,797	40,670	0	0	40,670
2005	9,405	–	–	9,405	51,663	0	0	51,663
2006	6,335	–	–	6,335	52,158	10,030	0	62,188
2007	8,576	–	–	8,576	53,731	427	0	54,158
2008	7,412	0	0	7,412	57,258	4,556	0	61,814
2009	7,382	–	–	7,382	38,083	–	–	38,083
2010	6,788	–	–	6,788	44,334	–	–	44,334
2011	7,260	–	–	7,260	51,885	1,246	0	53,131
2012	18,055	811	0	18,866	54,350	2,419	0	56,769
2013	15,191 ^c	–	–	15,191	76,098 ^c	1,041	0	77,139
2014	15,936 ^c	–	–	0	51,197 ^c	1,264	0	52,461
2009-2013								
Average	10,935	811	0	11,097	52,950	1,569	0	53,891
2004-2013								
Average	9,420	406	0	9,501	52,023	2,465	0	53,995

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Year	District 6					Upper Yukon Area subtotals						
	Subsistence ^e	Commercial	Commercial related ^d	Personal use ^e	Test fish sales ^b	Total	Subsistence ^e	Commercial	Commercial related ^d	Personal use ^e	Test fish sales ^b	Total
1994	33,597	1	4,368	0		37,966	113,318	3,631	4,368	0		121,317
1995	49,168	67,855	6,262	863		124,148	120,819	80,557	32,324	863		234,563
1996	36,467	10,266	7,308	356		54,397	116,726	25,062	17,288	356		159,432
1997	19,550	—	—	284		19,834	86,542	4,904	1,474	284		93,204
1998	14,370	—	—	2		14,372	53,661	—	—	2		53,663
1999	15,471	—	—	261		15,732	78,225	681	0	261		79,167
2000	310	—	—	1		311	11,989	—	—	1		11,990
2001	3,526	—	—	10		3,536	27,751	—	—	10		27,761
2002	3,202	—	—	3		3,205	15,727	—	—	3		15,730
2003	12,986	4,095	0	394		17,475	51,006	5,410	0	394		56,810
2004	8,953	3,450	0	230		12,633	57,420	3,450	0	230		61,100
2005	22,946	49,637	0	133		72,716	84,014	49,637	0	133		133,784
2006	16,925	23,353	0	333		40,611	75,418	33,383	0	333		109,134
2007	29,893	15,572	0	173		45,638	92,200	15,999	0	173		108,372
2008	16,135	5,735	0	181		22,051	80,805	10,291	0	181		91,277
2009	15,099	1,286	607	78		17,070	60,564	1,286	607	78		62,535
2010	11,391	1,735	0	3,209		16,335	62,513	1,735	0	3,209		67,457
2011	14,376	9,267	0	347		23,990	73,521	10,513	0	347		84,381
2012	15,302	17,336	0	410		33,048	87,707	20,566	0	410		108,683
2013	11,631 ^c	24,148	0	383 ^c		36,162	102,920 ^c	25,189	0	383 ^c		128,492
2014	12,498 ^c	3,368	0	278 ^c		16,144	79,631 ^c	4,632	0	278 ^c		84,541
2009-2013												
Average	13,560	10,754	121	885		25,321	77,445	11,858	121	885		90,310
2004-2013												
Average	16,265	15,152	61	548		32,025	77,708	17,205	61	548		95,522

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Year	Alaska Yukon River totals						Canada: Yukon Area totals					
	Subsistence ^{a,e}	Commercial	Commercial related ^d	Personal use ^e	Test fish sales ^b	Total	Mainstem Yukon River				Porcupine	
							Domestic	Aboriginal	Commercial	Subtotal	Aboriginal	Total
1994	123,218	3,631	4,368	0	0	131,217	0	5,319	30,035	35,354	2,654	38,008
1995	130,506	250,766	32,324	863	1,121	415,580	0	1,099	39,012	40,111	5,489	45,600
1996	128,866	88,342	17,288	356	1,717	236,569	0	1,260	20,069	21,329	3,025	24,354
1997	95,141	56,713	1,474	284	867	154,479	0	1,218	8,068	9,286	6,294	15,580
1998	62,867	–	–	2	–	62,869	0	1,745	0	1,745	6,159	7,904
1999	89,736	20,371	0	261	1,171	111,539	0	3,234	10,402	13,636	6,000	19,636
2000	19,306	–	–	1	–	19,307	0	2,927	1,319	4,246	5,000	9,246
2001	35,144	–	–	10	–	35,154	3	3,077	2,198	5,278	4,594	9,872
2002	19,390	–	–	3	–	19,393	0	3,109	3,065	6,174	1,860	8,034
2003	56,784	10,996	0	394	0	68,174	0	1,943	9,030	10,973	382	11,355
2004	62,206	4,110	0	230	0	66,546	0	2,180	7,365	9,545	205	9,750
2005	91,464	180,162	0	133	87	271,846	13	2,035	11,931	13,979	4,593	18,572
2006	83,815	174,542	0	333	0	258,690	0	2,521	4,096	6,617	5,179	11,796
2007	100,987	90,677	0	173	0	191,837	0	2,221	7,109	9,330	4,500	13,830
2008	88,971	119,265	0	181	0	208,417	0	2,068	4,062	6,130	3,436	9,566
2009	64,981	25,269	607	78	0	90,935	0	820	293	1,113	898	2,011
2010	68,459	2,550	0	3,209	0	74,218	0	1,523	2,186	3,709	2,078	5,787
2011	79,887	238,979	0	347	0	319,213	0	1,000	5,312	6,312	1,851	8,163
2012	99,298	289,692	0	410	74	389,474	0	700	3,205	3,905	3,118	7,023
2013	113,235 ^c	238,051	0	383 ^c	121	351,790	18	500	3,369	3,887	2,283	6,170
2014	91,977 ^c	115,593	0	278 ^c	30	207,878	19	546	2,485	3,050	1,983	5,033
2009-2013												
Average	85,172	158,908	121	885	39	245,126	4	909	2,873	3,785	2,046	5,831
2004-2013												
Average	85,330	136,330	61	548	28	222,297	3	1,557	4,893	6,453	2,814	9,267

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Year	Yukon River Drainage (Alaska/Canada) totals						Total Alaska Yukon Area		
	Subsistence ^{a,c,f}	Commercial	Commercial related ^d	Personal use ^e	Alaska test fish ^b	Total	Coastal District	Alaska total	Yukon Area total
1994	131,191	33,666	4,368	0	0	169,225	347	131,217	131,564
1995	137,094	289,778	32,324	863	1,121	461,180	354	415,580	415,934
1996	133,151	108,411	17,288	356	1,717	260,923	392	236,569	236,961
1997	102,653	64,781	1,474	284	867	170,059	0	154,479	154,479
1998	70,771	0	0	2	–	70,773	34	62,869	62,903
1999	98,970	30,773	0	261	1,171	131,175	204	111,539	111,743
2000	27,233	1,319	0	1	–	28,553	89	19,307	19,396
2001	42,818	2,198	0	10	–	45,026	559	35,154	35,713
2002	24,359	3,065	0	3	–	27,427	284	19,393	19,677
2003	59,109	20,026	0	394	0	79,529	146	68,174	68,320
2004	64,591	11,475	0	230	0	76,296	320	66,546	66,866
2005	98,105	192,093	0	133	87	290,418	70	271,846	271,916
2006	91,515	178,638	0	333	0	270,486	187	258,690	258,877
2007	107,708	97,786	0	173	0	205,667	234	191,837	192,071
2008	94,475	123,327	0	181	0	217,983	386	208,417	208,803
2009	66,699	25,562	607	78	0	92,946	158	90,935	91,093
2010	72,060	4,736	0	3,209	0	80,005	186	74,218	74,404
2011	80,887	244,291	0	347	0	325,525	315	319,213	319,528
2012	99,998	292,897	0	410	74	393,379	11	389,474	389,485
2013	116,036 ^c	241,420	0	383	121	357,960	149 ^c	351,790	351,939
2014	94,525 ^c	118,078	0	278	30	212,911	252 ^c	207,878	208,130
2009-2013									
Average	87,136	161,781	121	885	39	249,963	164	245,126	245,290
2004-2013									
Average	89,207	141,223	61	548	28	231,067	202	222,297	222,498

Source: JTC 2015.

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a Does not include coastal subsistence harvest in Hooper Bay and Scammon Bay.

^b The number of salmon sold by ADF&G test fisheries.

^c Subsistence harvest information is considered preliminary.

^d Estimated number of females harvested to produce roe sold.

^e In District 6, prior to 1987 and in 1991, 1992, and 1994, personal use was considered part of subsistence. In 1992, the Fairbanks nonsubsistence area was created as the only personal use area in the Yukon River drainage.

^f Includes Alaska Yukon River subsistence and Canadian Domestic and Aboriginal harvests.

Appendix A16.–Coho salmon total utilization in numbers of fish by district, area, and country, Yukon River drainage, 1994–2014.

Year	District 1				District 2			
	Subsistence ^a	Commercial	Test fish sales ^b	Total	Subsistence	Commercial	Sales ^b	Test fish total
1994	3,272	–	–	3,272	3,881	–	–	3,881
1995	2,251	21,625	193	24,069	2,142	18,488	0	20,630
1996	2,445	27,705	1,728	31,878	3,475	20,974	0	24,449
1997	1,823	21,450	498	23,771	2,424	13,056	0	15,480
1998	2,171	–	–	2,171	2,297	1	0	2,298
1999	1,730	855	236	2,821	2,793	746	0	3,539
2000	1,067	–	–	1,067	2,351	–	–	2,351
2001	1,274	–	–	1,274	1,440	–	–	1,440
2002	1,295	–	–	1,295	1,233	–	–	1,233
2003	1,260	9,757	0	11,017	1,586	–	–	1,586
2004	1,175	1,583	0	2,758	1,500	–	–	1,500
2005	976	36,533	0	37,509	1,110	–	–	1,110
2006	1,177	39,323	0	40,500	2,459	14,482	0	16,941
2007	2,265	21,720	0	23,985	2,347	21,487	0	23,834
2008	1,211	13,946	0	15,157	1,997	19,246	0	21,243
2009	847	5,994	0	6,841	1,057	1,582	0	2,639
2010	1,122	1,027	0	2,149	557	1,023	0	1,580
2011	1,127	45,335	0	46,462	823	24,184	0	25,007
2012	3,350	39,757	39	43,146	1,346	29,063	0	30,409
2013	1,224 ^c	27,306	1	28,531	1,080 ^c	31,458	0	32,538
2014	1,782 ^c	54,750	0	56,532	1,769 ^c	48,602	0	50,371
2009-2013								
Average	1,534	23,884	8	25,426	973	17,462	0	18,435
2004-2013								
Average	1,447	23,252	4	24,704	1,428	17,816	0	15,680

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Year	District 3			Lower Yukon Area subtotals			
	Subsistence	Commercial	Total	Subsistence ^a	Commercial	Test fish sales ^b	Total
1994	363	–	363	7,516	–	–	7,516
1995	891	–	891	5,284	40,113	193	45,590
1996	444	–	444	6,364	48,679	1,728	56,771
1997	766	–	766	5,013	34,506	498	40,017
1998	400	–	400	4,868	1	0	4,869
1999	610	–	610	5,133	1,601	236	6,970
2000	94	–	94	3,512	–	–	3,512
2001	0	–	0	2,714	–	–	2,714
2002	115	–	115	2,643	–	–	2,643
2003	711	–	711	3,557	9,757	0	13,314
2004	284	–	284	2,959	1,583	0	4,542
2005	217	–	217	2,303	36,533	0	38,836
2006	83	–	83	3,719	53,805	0	57,524
2007	739	–	739	5,351	43,207	0	48,558
2008	410	–	410	3,618	33,192	0	36,810
2009	321	–	321	2,225	7,576	0	9,801
2010	353	–	353	2,032	2,050	0	4,082
2011	36	–	36	1,986	69,519	0	71,505
2012	556	–	556	5,252	68,820	39	74,111
2013	371 ^c	–	371	2,675 ^c	58,764	1	61,440
2014	340 ^c	–	340	3,891 ^c	103,352	0	107,243
2009-2013							
Average	327		327	2,834	41,346	8	44,188
2004-2013							
Average	337		337	3,212	37,505	4	40,721

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Year	District 4				District 5			
	Subsistence	Commercial	Commercial related ^d	Total	Subsistence	Commercial	Commercial related ^d	Total
1994	3,515	–	–	3,515	4,174	–	–	4,174
1995	1,934	–	–	1,934	2,205	–	–	2,205
1996	2,467	161	0	2,628	6,588	–	–	6,588
1997	3,754	814	0	4,568	3,583	–	–	3,583
1998	2,593	–	–	2,593	2,839	–	–	2,839
1999	2,049	–	–	2,049	4,241	–	–	4,241
2000	1,068	–	–	1,068	4,987	–	–	4,987
2001	2,266	–	–	2,266	7,674	–	–	7,674
2002	1,023	–	–	1,023	2,076	–	–	2,076
2003	5,773	367	0	6,140	3,887	–	–	3,887
2004	4,766	–	–	4,766	1,423	–	–	1,423
2005	2,971	–	–	2,971	2,159	–	–	2,159
2006	1,302	–	–	1,302	3,779	–	–	3,779
2007	2,952	–	–	2,952	3,366	–	–	3,366
2008	1,490	0	0	1,490	3,203	91	–	3,294
2009	3,986	–	–	3,986	2,498	–	–	2,498
2010	1,730	–	–	1,730	3,604	–	–	3,604
2011	2,072	–	–	2,072	1,389	–	–	1,389
2012	3,556	0	0	3,556	3,092	634	0	3,726
2013	4,940 ^c	–	–	4,940	1,298 ^c	0	0	1,298
2014	3,062 ^c	–	–	3,062	2,384 ^c	0	0	2,384
2009-2013								
Average	3,257	0	0	3,257	2,376	317	0	2,902
2004-2013								
Average	2,977	0	0	2,977	2,581	242	0	2,913

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Year	District 6					Upper Yukon Area subtotals					
	Subsistence	Commercial		Personal	Test fish	Subsistence	Commercial		Personal	Test fish	Total
		related ^d	use ^e	sales ^b	Total		related ^d	use ^e	sales ^b	Total	
1994	26,489	120	4,331	–	30,940	34,178	120	4,331	–	38,629	
1995	18,802	5,826	1,074	417	26,119	22,941	5,826	1,074	417	30,258	
1996	14,893	3,803	3,339	198	22,233	23,948	3,964	3,339	198	31,449	
1997	11,595	–	–	350	11,945	18,932	814	0	350	20,096	
1998	7,472	–	–	9	7,481	12,904	–	–	9	12,913	
1999	9,394	–	–	147	9,541	15,684	–	–	147	15,831	
2000	5,150	–	–	0	5,150	11,205	–	–	0	11,205	
2001	8,966	–	–	34	9,000	18,906	–	–	34	18,940	
2002	9,499	–	–	20	9,519	12,598	–	–	20	12,618	
2003	10,363	15,119	0	549	26,031	20,023	15,486	0	549	36,058	
2004	11,584	18,649	0	233	30,466	17,773	18,649	0	233	36,655	
2005	19,538	21,778	0	107	41,423	24,668	21,778	0	107	46,553	
2006	10,571	11,137	0	279	21,987	15,652	11,137	0	279	27,068	
2007	7,845	1,368	0	135	9,348	14,163	1,368	0	135	15,666	
2008	8,428	2,408	0	50	10,886	13,121	2,499	0	50	15,670	
2009	7,051	457	285	70	7,863	13,535	457	285	70	14,347	
2010	5,555	1,700	0	1,062	8,317	10,889	1,700	0	1,062	13,651	
2011	6,842	6,784	0	232	13,858	10,303	6,784	0	232	17,319	
2012	9,540	5,335	0	100	14,975	16,188	5,969	0	100	22,257	
2013	5,257 ^c	7,439	0	109 ^c	12,805	11,495 ^c	7,439	0	109 ^c	19,043	
2014	7,711 ^c	1,286	0	174 ^c	9,171	13,157 ^c	1,286	0	174 ^c	14,617	
2009-2013											
Average	6,849	4,343	57	315	11,564	12,482	4,470	57	315	17,323	
2004-2013											
Average	9,221	7,706	29	238	17,193	14,779	7,778	29	238	22,823	

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Year	Alaska Yukon River totals							Mainstem Yukon river ^g	Canada: Yukon Territories totals	
	Subsistence ^{a,e}	Commercial	Personal	Test fish	Sport	Total	Porcupine			
		related ^d	use	sales ^b	fish ^f		Aboriginal		Total	
1994	41,694	120	4,331	0	0	2,174	48,319	2	332	334
1995	28,225	45,939	1,074	417	193	1,278	77,126	0	509	509
1996	30,312	52,643	3,339	198	1,728	1,588	89,808	0	41	41
1997	23,945	35,320	0	350	498	1,470	61,583	2	298	300
1998	17,772	1	0	9	0	758	18,540	0	214	214
1999	20,817	1,601	0	147	236	609	23,410	0	100	100
2000	14,717	–	–	0	–	554	15,271	0	37	37
2001	21,620	–	–	34	–	1,202	22,856	0	0	0
2002	15,241	–	–	20	–	1,092	16,353	26	449	475
2003	23,580	25,243	0	549	0	1,477	50,849	7	523	530
2004	20,732	20,232	0	233	0	1,623	42,820	5	175	180
2005	26,971	58,311	0	107	0	627	86,016	0	11	11
2006	19,371	64,942	0	279	0	1,000	85,592	1	111	112
2007	19,514	44,575	0	135	0	597	64,821	2	500	502
2008	16,739	35,691	0	50	0	341	52,821	0	200	200
2009	15,760	8,033	285	70	0	964	25,112	0	0	0
2010	12,921	3,750	0	1,062	0	944	18,677	0	12	12
2011	12,289	76,303	0	232	0	463	89,287	0	63	63
2012	21,440	74,789	0	100	39	131	96,499	0	10	10
2013	14,170 ^c	66,203	0	109 ^c	1	266	80,749	0	10	10
2014	17,048 ^c	104,638	0	174 ^c	0	^h	121,860	0	133	133
2009-2013										
Average	15,316	45,816	57	315	8	554	62,065	0	19	19
2004-2013										
Average	17,991	45,283	29	238	4	696	64,239	1	109	110

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Year	Yukon River Drainage (Alaska/Canada) totals							Total Alaska Yukon Area		
	Subsistence ^{a,i}	Commercial	Commercial related ^d	Personal use	Alaska test fish ^b	Sport fish	Total	Coastal District	Alaska total	Yukon Area total
1994	42,026	122	4,331	0	0	2,174	48,653	81	48,319	48,400
1995	28,734	45,939	1,074	417	193	1,278	77,635	152	77,126	77,278
1996	30,353	52,643	3,339	198	1,728	1,588	89,849	92	89,808	89,900
1997	24,243	35,322	0	350	498	1,470	61,883	0	61,583	61,583
1998	17,986	1	0	9	0	758	18,754	349	18,540	18,889
1999	20,917	1,601	0	147	236	609	23,510	74	23,410	23,484
2000	14,754	0	0	0	0	554	15,308	222	15,271	15,493
2001	21,620	0	0	34	0	1,202	22,856	548	22,856	23,404
2002	15,690	17	0	20	0	1,101	16,828	248	16,353	16,601
2003	24,103	25,243	0	549	0	1,484	51,379	292	50,849	51,141
2004	20,907	20,236	0	233	0	1,624	43,000	63	42,820	42,883
2005	26,982	58,311	0	107	0	627	86,027	279	86,016	86,295
2006	19,482	64,942	0	279	0	1,001	85,704	335	85,592	85,927
2007	20,014	44,575	0	135	0	599	65,323	110	64,821	64,931
2008	16,939	35,691	0	50	0	341	53,021	116	52,821	52,937
2009	15,760	8,033	285	70	0	964	25,112	246	25,112	25,358
2010	12,933	3,750	0	1,062	0	944	18,689	124	18,677	18,801
2011	12,352	76,303	0	232	0	463	89,350	55	89,287	89,342
2012	21,450	74,789	0	100	39	131	96,509	93	96,499	96,592
2013	14,180 ^c	66,203	0	109 ^c	1	266	80,759	287 ^c	80,749	81,036
2014	17,181 ^c	104,638	0	174 ^c	0	^h	121,993	204 ^c	121,860	122,064
2009-2013										
Average	15,335	45,816	57	315	8	554	62,084	161	62,065	62,226
2004-2013										
Average	18,100	45,283	29	238	4	696	64,349	171	64,239	64,410

Source: JTC 2015.

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a Does not include coastal subsistence harvest in Hooper Bay and Scammon Bay.

^b The number of fish sold by ADF&G test fisheries.

^c Subsistence harvest information is considered preliminary.

^d Estimated number of females harvested to produce roe sold.

^e In District 6, prior to 1987 and in 1991, 1992, and 1994, personal use was considered part of subsistence. In 1992, the Fairbanks nonsubsistence area was created as the only personal use area in the Yukon River drainage.

^f Estimated sport fish harvest for the Alaska portion of the Yukon River drainage. A majority of the sport fish harvest occurs in the Tanana River drainage, District 6.

^g Includes domestic, commercial, test, sport, and Aboriginal harvest from the Mainstem Yukon River.

^h Sport fish harvest for the U.S. portion of the Yukon Area was not available.

ⁱ Includes Alaska Yukon River subsistence harvest and Canadian Aboriginal harvest.

Appendix A17.—Yukon Area pink salmon total utilization in numbers of fish, by district and area, 1994–2014.

Year	Coastal District			District 1			District 2		
	Subsistence ^a	Commercial	Total	Subsistence ^a	Commercial	Total	Subsistence ^a	Commercial	Total
1994	2,053	0	2,053	4,233	0	4,233	2,731	0	2,731
1995	385	0	385	132	0	132	15	0	15
1996	3,517	0	3,517	443	0	443	933	0	933
1997	265	0	265	69	0	69	115	0	115
1998	3,732	0	3,732	1,590	0	1,590	1,550	0	1,550
1999	626	0	626	32	0	32	21	0	21
2000	998	0	998	301	0	301	235	0	235
2001	394	—	394	9	—	9	0	—	0
2002	5,892	0	5,892	1,028	0	1,028	1,282	0	1,282
2003	1,470	0	1,470	207	0	207	117	0	117
2004	7,926	0	7,926	615	0	615	1,138	0	1,138
2005	2,505	0	2,505	390	0	390	230	0	230
2006	2,814	0	2,814	1,114	0	1,114	900	0	900
2007	1,548	0	1,548	382	0	382	185	0	185
2008	3,779	0	3,779	3,053	13,391	16,444	942	709	1,651
2009	2,143	0	2,143	132	0	132	14	0	14
2010	2,464	0	2,464	787	0	787	946	0	946
2011	2,098	0	2,098	53	0	53	91	0	91
2012	2,444	0	2,444	1,619	0	1,619	880	0	880
2013	809	0	809	115	0	115	140	0	140
2014	2,635	0	2,635	3,187	49,317	52,504	905	5,434	6,339
2009–2013									
Average	1,992	0	1,992	541	0	541	414	0	414
2004–2013									
Average	2,853	0	2,853	826	1,339	2,165	547	71	618

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Year	District 3				Lower Yukon Area subtotals			
	Subsistence ^a	Commercial	Commercial related ^b	Total	Subsistence	Commercial	Commercial related ^b	Total
1994	289	0	0	289	7,253	0	0	7,253
1995	0	–	0	0	147	0	0	147
1996	180	0	100	280	1,556	0	100	1,656
1997	0	–	0	0	184	0	0	184
1998	1,617	0	0	1,617	4,757	0	0	4,757
1999	0	0	0	0	53	0	0	53
2000	28	–	0	28	564	0	0	564
2001	0	–	–	0	9	–	–	9
2002	0	–	0	0	8,202	0	0	8,202
2003	130	–	0	130	1,924	0	0	1,924
2004	6	–	0	6	9,685	0	0	9,685
2005	0	–	0	0	3,125	0	0	3,125
2006	25	0	0	25	4,853	0	0	4,853
2007	3	0	0	3	2,118	0	0	2,118
2008	456	–	0	456	8,230	14,100	0	22,330
2009	9	–	0	9	2,298	0	0	2,298
2010	2	–	0	2	4,199	0	0	4,199
2011	9	–	0	9	2,251	0	0	2,251
2012	100	–	0	100	5,043	0	0	5,043
2013	12	–	0	12	1,076	0	0	1,076
2014	11	–	0	11	6,738	54,751	0	61,489
2009–2013								
Average	26	0	0	26	2,973	0	0	2,973
2004–2013								
Average	62	0	0	62	4,288	1,410	0	5,698

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	District 4				District 5			
	Year	Subsistence ^a	Commercial related ^b	Total	Subsistence ^a	Commercial	Commercial related ^b	Total
	1994	995	0	66	1,061	0	0	0
	1995	0	0	0	0	0	0	0
	1996	59	0	0	59	0	0	0
	1997	34	0	0	34	0	0	0
	1998	700	–	0	700	0	0	0
	1999	2	0	0	2	0	0	0
	2000	31	–	–	31	0	–	0
	2001	0	–	–	0	–	–	0
	2002	221	–	–	221	0	0	0
	2003	243	0	0	243	0	0	0
	2004	12	–	–	12	0	0	0
	2005	7	–	–	7	0	0	0
	2006	1	–	–	1	0	0	0
	2007	0	0	0	0	0	0	0
	2008	1,023	0	0	1,023	276	0	0
	2009	2	0	0	2	0	–	0
	2010	0	0	0	0	–	–	0
	2011	40	–	–	40	0	0	0
	2012	104	0	0	104	3	0	0
	2013	0	0	0	0	0	0	0
	2014	66	–	0	66	8	0	8
	2009–2013							
	Average	29	0	0	29	1	0	0
	2004–2013							
	Average	119	0	0	119	28	0	0

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Year	District 6				Upper Yukon Area subtotals			
	Subsistence ^a	Commercial	Commercial related ^b	Total	Subsistence ^a	Commercial	Commercial related ^b	Total
1994	0	0	0	0	995	0	66	1,061
1995	0	0	0	0	0	0	0	0
1996	0	0	0	0	59	0	0	59
1997	0	0	0	0	34	0	0	34
1998	0	0	0	0	700	0	0	700
1999	0	0	0	0	2	0	0	2
2000	0	–	–	0	31	0	0	31
2001	0	–	–	0	0	–	0	0
2002	0	0	0	0	221	0	0	221
2003	0	0	0	0	243	0	0	243
2004	0	0	0	0	12	0	0	12
2005	0	0	0	0	7	0	0	7
2006	0	0	0	0	1	0	0	1
2007	0	0	0	0	0	0	0	0
2008	0	0	0	0	1,299	0	0	1,299
2009	0	0	0	0	2	0	0	2
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	40	0	0	40
2012	0	0	0	0	107	0	0	107
2013	0	0	0	0	0	0	0	0
2014	0	0	0	0	74	0	0	74
2009–2013								
Average	0	0	0	0	30	0	0	30
2004–2013								
Average	0	0	0	0	147	0	0	147

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Alaska Yukon Area totals					
Year	Subsistence ^a	Commercial	Commercial related ^b	Sport fish	Total
1994	8,248	0	66	0	8,314
1995	147	0	0	0	147
1996	1,615	0	100	30	1,745
1997	218	0	0	0	218
1998	5,457	0	0	85	5,542
1999	55	0	0	0	55
2000	595	0	0	0	595
2001	9	–	0	0	9
2002	8,423	0	0	0	8,423
2003	2,167	0	0	24	2,191
2004	9,697	0	0	33	9,730
2005	3,132	0	0	0	3,132
2006	4,854	0	0	54	4,908
2007	2,118	0	0	0	2,118
2008	9,529	14,100	0	0	23,629
2009	2,300	0	0	0	2,300
2010	4,199	0	0	0	4,199
2011	2,291	0	0	0	2,291
2012	5,150	0	0	51	5,201
2013	1,076	0	0	0	1,076
2014	6,812	54,751	0	^c	61,563
2009–2013					
Average	3,003	0	0	10	3,013
2004–2013					
Average	4,435	1,410	0	14	5,858

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a Subsistence harvest estimates for pink salmon not available until 1994. Subsistence harvests of chum salmon below Kaltag prior to 1995 may include some pink salmon.

^b Commercial related refers to the estimated number of females and males harvested to produce roe sold.

^c Sport fish harvest for the U.S. portion of the Yukon Area not available.

Appendix A18.—Percent of age composition of combined commercial and subsistence salmon harvest by species in the Alaska portion of Yukon River drainage, 1994–2014.

Species/Run	Year	Sample size	Age in years (percent)					
			3	4	5	6	7	8
Chinook salmon	1994	3,692	0.3	4.1	47.2	44.5	3.8	0.0
	1995	5,559	0.0	7.8	13.7	74.7	3.6	0.2
	1996	5,861	0.0	2.4	44.0	35.6	17.9	0.2
	1997	5,134	0.0	7.5	17.8	70.5	4.2	0.1
	1998	3,122	0.7	5.2	55.1	31.4	7.6	0.0
	1999	4,285	0.1	3.8	17.7	76.7	1.7	0.0
	2000	1,201	0.0	1.0	29.9	60.5	8.6	0.0
	2001 ^a	1,182	0.1	9.0	27.2	57.6	6.1	0.0
	2002	3,580	0.0	8.2	27.0	53.9	10.9	0.0
	2003	3,850	0.1	3.4	32.3	56.5	7.7	0.0
	2004	6,556	0.0	9.9	23.3	63.1	3.6	0.0
	2005	4,515	0.0	5.8	43.0	48.5	2.6	0.0
	2006	4,470	0.0	4.2	53.6	40.7	1.5	0.0
	2007	7,095	0.0	11.0	26.8	60.0	2.1	0.0
	2008	4,431	0.1	5.6	60.9	30.9	2.5	0.0
	2009	5,232	0.1	14.8	20.2	63.8	1.1	0.0
	2010	4,244	0.2	15.4	52.3	29.2	3.0	0.0
	2011	5,679	0.0	10.3	51.0	35.7	2.9	0.0
	2012	3,885	0.2	7.0	54.7	36.8	1.3	0.0
	2013	1,552	0.1	17.4	39.1	42.3	1.2	0.0
	2014 ^b							
	2008–2012							
	Average	4,694	0.1	10.6	47.8	39.3	2.2	0.0
Chum salmon/ summer	1994	3,820	0.1	51.3	46.6	2.0	0.0	
	1995	4,740	0.6	51.9	45.3	2.1	0.0	
	1996	3,863	0.4	46.2	48.8	4.5	0.1	
	1997	3,195	0.2	29.0	67.2	3.6	0.0	
	1998	1,147	0.3	62.8	34.2	2.7	0.0	
	1999	1,627	0.2	40.7	58.2	0.9	0.0	
	2000	442	0.0	44.2	53.4	2.4	0.0	
	2001 ^a	586	0.0	15.4	81.9	2.7	0.0	
	2002	1,103	0.1	52.9	44.4	2.6	0.0	
	2003	1,144	0.3	55.4	39.2	5.1	0.0	
	2004	2,742	1.3	37.2	60.4	1.0	0.1	
	2005	2,381	0.2	83.2	15.2	1.5	0.0	
	2006	2,799	0.1	18.6	81.1	0.2	0.0	
	2007	4,356	0.0	34.5	50.5	14.9	0.1	
	2008	2,292	0.1	35.0	58.6	6.1	0.2	
	2009	4,087	1.3	49.0	47.5	2.1	0.2	
	2010	4,303	5.8	69.1	24.1	1.0	0.0	
	2011	3,744	0.1	51.3	47.9	0.7	0.0	
	2012	2,950	0.2	74.2	21.1	4.5	0.0	
	2013	3,869	0.1	50.4	48.2	1.2	0.1	
	2014 ^b							
	2008–2012							
	Average	3,475	1.5	55.7	39.8	2.9	0.1	

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Species/Run	Year	Sample size	Age in years (percent)			
			3	4	5	6
Chum salmon/ fall	1994	1,295	2.4	66.4	31.1	0.1
	1995	1,731	0.8	59.2	37.4	2.6
	1996	1,391	0.3	52.3	43.9	3.5
	1997	1,245	0.3	57.2	41.6	0.9
	1998 ^c	0	–	–	–	–
	1999	371	0.0	79.2	20.5	0.3
	2000 ^c	0	–	–	–	–
	2001 ^a	295	0.0	54.2	45.4	0.3
	2002 ^c	0	–	–	–	–
	2003	1,596	0.1	79.6	19.4	0.9
	2004	1,449	19.6	54.7	25.7	0.0
	2005	4,754	0.0	97.6	2.1	0.3
	2006	2,340	1.4	43.1	55.4	0.1
	2007	3,064	0.7	75.4	22.2	1.8
	2008	1,557	0.6	45.5	51.9	2.1
	2009	1,901	2.5	71.6	23.5	2.3
	2010	1,394	14.8	68.3	16.5	0.3
	2011	3,492	1.1	72.6	26.1	0.3
	2012	2,470	0.6	79.6	17.6	2.3
	2013	2,578	0.1	71.0	28.6	0.3
	2014 ^b					
	2008–2012 Average	2,163	3.9	67.5	27.1	1.4
Coho salmon	1994	752	22.9	76.2	0.9	
	1995	664	41.7	58.0	0.3	
	1996	944	10.4	87.2	2.4	
	1997	516	6.1	92.0	2.0	
	1998 ^c	0	–	–	–	
	1999	40	7.5	85.0	7.5	
	2000 ^c	0	–	–	–	
	2001 ^a	18	22.2	77.8	0.0	
	2002 ^c	0	–	–	–	
	2003	753	25.1	69.8	5.1	
	2004	590	22.3	75.0	2.7	
	2005	1,921	8.3	84.8	6.8	
	2006	1,231	14.7	80.7	4.6	
	2007	1,234	11.6	85.6	2.8	
	2008	978	14.4	75.3	10.3	
	2009	430	9.3	81.9	8.8	
	2010	608	8.7	87.5	3.9	
	2011	995	19.7	76.0	4.3	
	2012	458	25.1	68.5	6.4	
	2013	794	12.2	82.2	5.6	
	2014 ^b					
	2008–2012 Average	694	15.4	77.8	6.7	

Note: Ages were estimated from samples collected from each gear type, by district and fishery, or from adjacent fisheries with similar gear. Fisheries for which no appropriate samples were available were not included.

^a No commercial fishing, samples were from subsistence harvests.

^b Data are not available.

^c No commercial fishing occurred and subsistence harvests for fall chum and coho salmon were not sampled.

Appendix A19.—Yukon River Chinook salmon historical harvest percentage by stock group for the United States and Canada, 1990–2014.

Year	Lower	Middle	Upper		Total
			U.S.	Canada	
1990	20.2	25.2	43.3	11.4	54.7
1991	28.0	25.3	34.9	11.8	46.7
1992	16.3	21.8	52.3	9.6	61.9
1993	21.5	25.4	43.9	9.2	53.1
1994	18.2	21.4	49.4	11.0	60.4
1995	17.9	22.4	49.2	10.5	59.7
1996	21.0	10.4	56.2	12.4	68.6
1997	26.4	16.8	48.2	8.6	56.9
1998	32.7	17.4	44.2	5.6	49.8
1999	40.1	6.3	44.5	9.1	53.6
2000	33.9	12.3	44.1	9.7	53.8
2001	31.6	16.0	36.5	15.9	52.4
2002	19.4	29.2	39.3	12.1	51.4
2003	6.8	28.9	55.4	8.9	64.3
2004	15.3	28.8	46.8	9.1	55.9
2005	20.7	21.4	46.4	11.5	57.9
2006	17.6	27.6	46.1	8.7	54.9
2007	13.0	30.6	51.1	5.4	56.4
2008	17.0	28.0	48.4	6.6	55.0
2009	11.1	31.4	45.3	12.2	57.5
2010	17.8	32.7	44.8	4.7	49.5
2011	13.9	29.8	45.6	10.7	56.3
2012	13.3	34.8	44.8	7.1	51.9
2013	13.4	21.0	49.5	16.1	65.6
2014 ^a					
1990–2012					
Average	20.6	23.6	46.1	9.6	55.8
2003–2012					
Average	14.7	29.4	47.5	8.5	56.0
2008–2012					
Average	14.6	31.3	45.8	8.3	54.0

Source: JTC 2015.

^a Data not available.

Appendix A20.—Salmon fishery projects conducted in the Alaska portion of the Yukon River drainage in 2014.

Project Name	Location, River Mile (RM)	Primary Objective(s)	Duration	Agency	Responsibility
Commercial Catch and Effort Assessment	Alaska portion of the Yukon River drainage	Document and estimate the catch and effort of Alaska commercial salmon fisheries via receipts (fish tickets) of commercial sales.	June-Oct.	ADF&G	All aspects
Commercial Catch Sampling and Monitoring	Alaska portion of the Yukon River drainage	1) Determine age, sex, and size of Chinook, chum, and coho salmon harvested in Alaska Yukon River commercial fisheries and, 2) Monitor Alaska commercial fishery openings and closures.	June-Oct.	ADF&G, ADPS	All aspects Enforcement
Subsistence and Personal Use Catch and Effort Assessment	Alaska portion of the Yukon River drainage	1) Document and estimate the catch and associated effort of the Alaska Yukon River subsistence salmon fishery via interviews, catch calendars, mail-out questionnaires, telephone interviews, and subsistence fishing permits and, 2) Document and estimate the catch and effort of the personal use fishery based on fishery permits.	Ongoing	ADF&G, YRDFA	All aspects Assistants in Communities
Sport Catch, Harvest, and Effort Assessment	Alaska portion of the Yukon River drainage	Document and estimate the catch, harvest, and associated effort of the Alaska Yukon River sport fishery via post-season mail-out questionnaires.	Postseason	ADF&G	All aspects
Yukon River Salmon Stock Identification	Yukon River drainage	Estimate Chinook salmon stock composition of the various Yukon River drainage harvests through genetic stock identification, age compositions, and geographical distribution of catches and escapements.	Ongoing	ADF&G	All aspects R&M Funding
Yukon Delta Smolt	Yukon Delta (mouths and delta platform)	1) Describe catch rates and distribution of juvenile Chinook, 2) Update existing juvenile life-history information with current data on size and timing of marine entry, 3) Describe fish communities in Yukon Delta tributary, tidal channel, and delta front/prodelta habitats, 4) Investigate competition between fish species and predation of juvenile Chinook salmon, and 5) Describe temporal and spatial patterns in juvenile Chinook salmon nutritional status.	May-August	ADF&G, NOAA	All aspects, AYKSSI Funding, CSRI Funding
Yukon River Chum Salmon Mixed-Stock Analysis	Pilot Station, RM 123	Estimate the stock compositions of chum salmon using samples collected from Pilot Station sonar test fisheries.	May – Aug.	USFWS	All aspects R&M Funding summer, OSM Funding -fall
YRDFA Weekly Teleconferences	Yukon River drainage	Acts as a forum for fishermen along the Yukon River to interact with state and federal managers for the collection and dissemination of fisheries information.	May – Sept.	YRDFA	All aspects R&M Funding

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Project Name	Location, River Mile (RM)	Primary Objective(s)	Duration	Agency	Responsibility
Lower Yukon River Set Gillnet Test Fishing	South, Middle, and North mouths of the Yukon River Delta, RM 20	1) Index Chinook salmon run timing and abundance using set gillnets and, 2) Sample captured salmon for age, sex, and size composition information.	June – Aug.	ADF&G, YDFDA	All aspects
Lower Yukon River Drift Test Fishing	South, Middle, and North mouths of the Yukon River Delta, RM 20	1) Index Chinook, summer and fall chum, and coho salmon run timing and abundance using drift gillnets and, 2) Sample captured salmon for age, sex, and size composition information.	June – Aug.	ADF&G, YDFDA	All aspects
East Fork Weir, Andreafsky River	RM 20 East Fork, Yukon RM 124	1) Estimate daily escapement of Chinook and summer chum salmon into the East Fork of the Andreafsky River, 2) Sample Chinook and summer chum salmon for age, sex, and size composition.	June – Aug.	USFWS	All aspects OSM Funding
Anvik River Sonar	RM 40 Anvik River, Yukon RM 358	1) Estimate daily escapement of summer chum salmon to the Anvik River and, 2) Estimate age, sex, and size composition of the summer chum salmon escapement.	June – July	ADF&G	All aspects OSM Funding
Pilot Inseason Monitoring of Subsistence Salmon Harvests	Grayling, Yukon RM 336	Test methods for inseason data collection by conducting door-to-door salmon harvest surveys during the fishing season to: 1) Hire a local research assistant, 2) determine project costs, 3) assess community willingness to respond, provide regular updates to managers; and 4) produce report outlining results.	May – Jan.	ADF&G	All aspects, CSRI Funding
Yukon River Sonar	Pilot Station, RM 123	1) Estimate Chinook, summer and fall chum, and coho salmon passage in the mainstem Yukon River and, 2) Apportion sonar passage by species based on test fishing.	May – Sept.	ADF&G	All aspects R&M funded
Gisasa River Weir	RM 3 Gisasa River, Koyukuk River drainage, RM 567	1) Estimate daily escapement of Chinook and summer chum salmon into the Gisasa River and, 2) Estimate age, sex, and size composition of the Chinook and summer chum salmon escapements.	June – Aug.	USFWS	All aspects OSM Funding
Chandalar River Sonar	RM 14 Chandalar River, Yukon RM 996	1) Estimate fall chum salmon passage using DIDSON sonar in the Chandalar River.	Aug. – Sept.	USFWS	All aspects TI Funding, R&M Funding-ASL
Yukon River Sonar	Eagle, RM 1,213	1) Estimate daily passage of Chinook and chum salmon in the mainstem Yukon River using both split-beam and DIDSON and, 2) Estimate age, sex, and size composition of salmon captured in the test nets.	July – Oct.	ADF&G, DFO	All aspects, technical support, TI Funding, R&E Funding

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Project Name	Location, River Mile (RM)	Primary Objective(s)	Duration	Agency	Responsibility
Middle Yukon River Chinook Sampling Project	Mainstem Yukon River Kaltag, RM 451	Estimate age, sex, and size composition of Chinook salmon harvested in middle Yukon River subsistence fisheries.	June – July	City of Kaltag	All aspects OSM Funding
Rapids Test Fish Wheel	Mainstem Yukon River, RM 730	1) Index run timing of Chinook and fall chum salmon runs as well as non-salmon species using video monitoring techniques and; 2) Collect data on the sex, weight, and girth composition of Chinook salmon.	June – Sept.	Zuray USFWS	All aspects R&E funding
Tanana River Sonar	Mainstem Tanana River, RM 765	1) Estimate daily passage of Chinook, chum, and coho salmon in the mainstem Tanana River using both split-beam and DIDSON and, 2) Estimate age, sex, and size composition of salmon captured in test nets and the fish wheel.	Jul. – Sept.	ADF&G	All aspects
Nenana River Escapement Surveys	Nenana River drainage, RM 860	Aerial surveys for numbers and distribution of coho and chum salmon in 10 tributaries of the Nenana River below Healy Creek.	Sept. – Oct.	ADF&G	All aspects
Delta River Ground Surveys	Tanana River drainage RM 1,031	1) Estimate fall chum salmon spawning escapement in Delta River and, 2) Sample fall chum salmon carcasses for age, sex, and size composition information.	Oct. – Dec.	ADF&G	All aspects
Chena River Tower	RM 45 Chena River, Tanana River drainage, RM 921	Estimate daily escapement of Chinook and summer chum salmon into the Chena River.	July – Aug.	ADF&G	All aspects AKSSF Funding
Upper Tanana Escapement Surveys	Tanana River drainage, RM 991-1,053	Aerial surveys for numbers and distribution of coho and chum salmon in the side sloughs and tributaries of the Tanana River drainage.	Nov.	ADF&G	All aspects
Upper Yukon River Chum Salmon Genetic Stock Identification	Yukon River drainage	Establish the feasibility of using DNA markers for genetic stock identification of chum salmon in the Yukon River.	June – Oct.	USFWS	All aspects
Yukon River Inseason Salmon Harvest Interviews	Alakanuk, Marshall, Russian Mission, Holy Cross, Kaltag, Huslia, Galena, Nenana, Ft. Yukon and Eagle	Collect qualitative inseason subsistence salmon harvest information through weekly interviews.	June – Sept.	YRDFA, USFWS	All aspects OSM funding
Migratory Timing and Harvest Information of Chinook Salmon Stocks	Yukon River drainage	Enlarge existing allozyme and develop a DNA database to characterize the genetic diversity of Chinook salmon in the Yukon River within the U.S. and Canada. U.S. collections include microsatellites and allozyme. Canadian collections include microsatellites.	June – Aug.	USFWS- OSM, ADF&G, DFO	All aspects

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Acronyms:

ADF&G	= Alaska Department of Fish and Game
ADPS	= Alaska Department of Public Safety
AVCP	= Association of Village Council Presidents, Inc.
AKSSF	= Alaska Sustainable Salmon Fund
AYKSSI	= Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative
BSFA	= Bering Sea Fishermen's Association
CSRI	= Chinook Salmon Research Initiative
DFO	= Department of Fisheries and Oceans (Canada)
DNA	= Deoxyribonucleic acid
NPS	= National Park Service
OSM	= Office of Subsistence Management
R&E	=Yukon River Panel Restoration and Enhancement Program
R&M	=Research and Management Fund
TCC	= Tanana Chiefs Conference, Inc.
UAF	= University of Alaska Fairbanks
USFWS	= United States Fish and Wildlife Service
USFWS-OSM	= United States Fish and Wildlife Service, Office of Subsistence Management
YDFDA	=Yukon Delta Fisheries Development Association
YRDFA	= Yukon River Drainage Fisheries Association

Appendix A21.–List of harvest/escapement monitoring and incubation/rearing projects involving salmon in the Canadian portion of the Yukon River drainage in 2014.

Project Name	Location, River Mile (RM)	Primary Objective(s)	Duration	Agency	Responsibility
Aboriginal Catch Monitoring	Yukon communities	1) To determine weekly catches and effort in the aboriginal fishery, and; 2) To implement components of the UFA and AFS.	July – Oct.	YFN's DFO	Joint Project
Recreational Catch Monitoring	Yukon River mainstem and tributaries	1) To determine the recreational harvest by species including the date, sex, whether released or retained, and fishing location, and; 2) Salmon caught are reported through the Yukon Salmon Conservation Catch Card (YSCCC) program.	July – Oct.	DFO	All aspects
Commercial Catch Monitoring	Yukon River mainstem	1) To determine weekly catches and effort in the Canadian commercial fishery (Chinook and chum) and; 2) to collect other information as required	July – Oct.	DFO	All aspects
Escapement Surveys and Biological Sampling	Throughout upper Yukon River drainage	1) To conduct surveys of spawning fish by foot, boat, air etc.; 2) To collect ASL and genetic tissue samples from spawning population, and; 3) To enumerate and recover tags in terminal areas.	July – Oct.	R&E Projects DFO YFNs AFS	All aspects
Porcupine River Chum Salmon Radio Tagging and Telemetry	Porcupine River and tributaries (Including Fishing Branch) upstream of Old Crow.	1) To estimate the % of Porcupine River chum salmon spawning upstream of the Fishing Branch weir site, to allow comparison of Old Crow hydroacoustic estimates to historic weir counts; and 2) To identify chum spawning locations in the Porcupine River upstream of Old Crow.	Aug. – Oct.	VGG & EDI & DFO	Joint Project
Porcupine River Sonar	Old Crow	1) Installation and operation of two ARIS sonar program for chum salmon, 2) Conduct biological sampling for species apportionment, age, sex and length, and; 3) To provide inseason projections of run strength.	Aug. – Oct.	DFO & VGG	Joint Project
Whitehorse Rapids Fishway	Whitehorse	1) To enumerate wild and hatchery reared Chinook salmon returns to the Whitehorse fishway area and; 2) obtain age, size, sex and tag data.	July – Aug.	YF&GA	All aspects
Blind Creek Weir	Pelly River	1) To enumerate Chinook salmon escapement, recover tags and; 2) collect ASL data and DNA samples.	July – Aug.	JW&A	All aspects
Big Salmon Sonar	Big Salmon River	1) Installation and operation of a DIDSON sonar program for Chinook salmon, and; 2) obtain carcass survey, ASL, and genetic samples.	July – Aug.	JW&A	All aspects

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Project Name	Location, River Mile (RM)	Primary Objective(s)	Duration	Agency	Responsibility
Teslin River Sonar	Teslin River	Installation and operation of a DIDSON sonar program for Chinook salmon enumeration.	July – Oct.	BM&A	All aspects
Whitehorse Rapids Fish Hatchery and Coded-Wire Tagging Project	Whitehorse	1) To rear and release ~150K Chinook salmon fry produced from Whitehorse Rapids Fishway broodstock, and; 2) To mark fry with a CWT, adipose clip, and release upstream of the Whitehorse hydroelectric facility.	Ongoing	GY and YEC, YF&GA	All aspects Coded-wire tagging
McIntyre Incubation Facility and Coded-Wired Tagging Project	Whitehorse	1) To incubate up to 120K CK salmon eggs from brood stock collected at Tatchun R, and/or the Whitehorse Rapids fishway, and; 2) To rear, mark with CWT, adipose clip, and release fry to natal sites.	Ongoing	DFO, YC, YRC	Technical support, field work, project monitoring
Fox Creek Restoration Program	Whitehorse Area	Rear, tag and release Whitehorse Rapids CK to Fox Creek.	Ongoing	TKC	All aspects

Acronyms:

ASL = Age Sex Length- term that refers to the collection of biological information
 AFS = Aboriginal Fisheries Strategy
 BM&A = B. Mercer and Associates
 CWT = Coded Wire Tag
 DFO = Department of Fisheries and Oceans Canada
 DNA = Deoxyribonucleic acid
 EDI = Environmental Dynamics Incorporated
 GY = Government of Yukon-Environment Yukon
 JW&A = Jane Wilson & Associates
 NRI = Northern Research Institute
 R&E = Yukon Panel Restoration and Enhancement Program
 TKC = Ta'an Kwa'chin Council
 VGG = Vuntut Gwitchin Government
 YC = Yukon College
 YEC = Yukon Energy Corporation
 YFN's = Yukon First Nation's
 YF&GA = Yukon Fish and Game Association

Appendix A22.—Selected environmental and salmon catch information, Yukon River drainage, 1994–2014.

Year	Average Nome April air temp (°F)	Tanana River Nenana ice breakup	Iceout Yukon Delta Area	First Chinook caught Yukon Delta Area ^a	First summer chum caught Yukon Delta Area ^a	First District 1 commercial period
1994	20	4/29	5/22	5/24	5/28	6/13
1995	26	4/26	5/18	5/24	5/26	6/12
1996	21	5/5	5/19	5/24	5/24	6/10
1997	27 ^b	4/30	5/15	5/22	5/25	6/11
1998	26	4/20	5/22	5/28	5/25	6/15
1999	17	4/29 ^c	5/29	6/6	6/13	6/22
2000	21	5/1	5/29	6/3	6/5	6/24
2001	22	5/8	6/5	6/7	6/9	N/A
2002	20	5/7	5/24	5/31	5/30	6/20
2003	26	4/29	5/17	5/22	5/30	6/16
2004	29	4/24	5/8	5/18	5/27	6/17
2005	15	4/28	5/17	5/25	6/1	6/24
2006	12 ^d	5/2	5/29	6/6	6/7	6/19
2007	27 ^d	4/27	5/18	6/3	6/12	6/18
2008	15 ^d	5/5	5/24	6/3	6/16	7/2
2009	17 ^d	5/1	5/26	6/5	6/10	6/20
2010	20 ^d	4/29	5/22 ^e	6/9	6/10	6/28
2011	18 ^f	5/4	5/22	5/31	6/4	6/24
2012	20 ^f	4/23	5/25	6/8	6/9	6/29
2013	21 ^f	5/20	6/3	6/10	6/10	6/18
2014	28	4/25	5/9	5/19	5/15	6/9
1994–2013						
Average	21	4/30	5/22	5/30	6/3	6/19

^a Subsistence or test fishery.

^b Average April air temperature was 9 degrees fahrenheit above normal.

^c The Nenana Ice Classic tripod moved on 4/29, but the ice did not move out for several more days.

^d Source: http://climate.gi.alaska.edu/AKCityClimo/AK_Climate_Sum.html

^e Though breakup on the Lower River occurred May 22, shore-fast sea ice persisted until later than usual in the season.

^f Source: http://akclimate.org/AKCityClimo/2011/Apr/Apr_2011.html

Appendix A23.–List of emergency orders and their descriptions for Districts 1–6 in the Chinook and summer chum salmon fishery, Yukon area, 2014.

EO Number: 3-S-SY-01-14

Effective Date: May 16, 2014

At 8:00 p.m. Friday, May 16, gillnet size in the Coastal District of the Yukon area is restricted to 6-inch or smaller mesh.

EO Number: 3-S-SY-02-14

Effective Date: May 16, 2014

At 8:00 p.m. Friday, May, 16, gillnets are restricted to 6-inch or smaller mesh size in Districts 1 and 2 in order to conserve Chinook salmon.

EO Number: 3-S-SY-03-14

Effective Date: May 26, 2014

Effective at 8:00 p.m. Monday, May 26, gillnets with a mesh size of 4-inches or less may not be longer than 60 feet in length when fishing for non-salmon species during subsistence salmon closures in Districts 1-6.

EO Number: 3-S-SY-04-14

Effective Date: May 26, 2014

At 8:00 p.m. Monday, May 26, subsistence fishing closes in the Coastal District, District 1 (including all marine waters beyond the District 1 boundary), District 2, and District 3 until 8:00 a.m. Tuesday, July 15.

EO Number: 3-S-SY-05-14

Effective Date: May 31, 2014

Subsistence salmon fishing closes in the lower portion of Subdistrict 4-A, from $\frac{3}{4}$ mile downstream of Old Paradise Village to Stink Creek, effective at 8:00 p.m. Saturday, May 31, in the upper portion of Subdistrict 4-A, from Stink Creek to Cone Point, at 8:00 p.m. Monday, June 2, and in Subdistricts 4-B and 4-C at 8:00 p.m. Wednesday, June 4.

EO Number: 3-S-SY-06-14

Effective Date: June 1, 2014

Dip nets can be used for subsistence salmon fishing in Districts 1 and 2 from 8:00 a.m. Sunday, June 1 until 12:00 noon Monday, June 9. All Chinook salmon caught in dip nets must immediately be released alive.

EO Number: 3-S-SY-07-14

Effective Date: June 1, 2014

Dip nets can be used for subsistence salmon fishing in District 3 from 8:00 a.m. Sunday, June 1, until 12:00 noon Friday, July 18. All Chinook salmon caught in dip nets must immediately be released alive.

EO Number: 3-S-SY-08-14

Effective Date: June 7, 2014

Subsistence salmon fishing closes in Subdistricts 5-A, 5-B, and 5-C effective at 8:00 p.m. Saturday, June 7.

EO Number: 3-S-SY-09-14

Effective Date: June 9, 2014

Commercial salmon fishing opens in Districts 1 and 2 effective 12:00 noon Monday, June 9. The sale of Chinook salmon is prohibited.

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EO Number: 3-S-SY-10-14

Effective Date: June 9, 2014

Six 12-hour commercial fishing periods are scheduled in District 1 which allow the taking of salmon by CFEC permit holders with beach seine or dip net gear only. Effective 12:00 noon Monday, June 9, commercial salmon fishing in District 1 will be open from 12:00 noon until 12:00 midnight, each day, from Sunday through Friday. All Chinook salmon caught using dip nets or beach seine gear must be released alive and recorded on a fish ticket.

Effective 12:00 noon Monday, June 9, subsistence fishing in District 1 will open concurrently with commercial fishing with dip net or beach seine gear only. Additionally, subsistence fishing will be open from 6:00 a.m. to 12:00 midnight each Saturday, each week. All Chinook salmon caught using dip nets or beach seine gear must be released alive.

EO Number: 3-S-SY-11-14

Effective Date: June 9, 2014

Six 10-hour commercial fishing periods are scheduled for District 2 which allow the taking of salmon by CFEC permit holders with beach seine or dip net gear only. Effective 12:00 noon Monday, June 9, commercial salmon fishing in District 2 will be open from 12:00 noon until 10:00 p.m., each day, from Sunday through Friday. All Chinook salmon caught using dip nets or beach seine gear must be released alive and recorded on a fish ticket.

Effective 12:00 noon Monday, June 9, subsistence fishing in District 2 will open concurrently with commercial fishing with dip net or beach seine gear only. Additionally, subsistence fishing will be open from 6:00 a.m. to 12:00 midnight each Saturday, each week. All Chinook salmon caught using dip nets or beach seine gear must be released alive.

EO Number: 3-S-SY-12-14

Effective Date: June 11, 2014

Subsistence salmon fishing closes in the lower, middle, and upper portions of Subdistrict 5-D. The lower portion closes at 8:00 p.m. Wednesday, June 11, the middle portion closes at 8:00 p.m. Sunday, June 15, and the upper portion closes at 8:00 p.m. Tuesday, June 17.

EO Number: 3-S-SY-13-14

Effective Date: June 18, 2014

Subsistence salmon fishing closes in the Koyukuk River, including adjacent tributaries, effective 8:00 p.m. Wednesday, June 18.

EO Number: 3-S-SY-14-14

Effective Date: June 19, 2014

Subsistence salmon fishing closes in the Innoko River, including adjacent tributaries, effective 8:00 p.m. Thursday, June 19.

EO Number: 3-S-SY-15-14

Effective Date: June 18, 2014

In the lower portion of Subdistrict 4-A, subsistence fishing is allowed 7 days a week, 24 hours per day with dip nets and live-release fish wheels from 8:00 a.m. Wednesday, June 18, until 6:00 p.m. Thursday, July 10. Within the Anvik River Special Management Area subsistence fishing is allowed 7 days a week, 24 hours per day with dip net and beach seine gear from 8:00 a.m. Wednesday, June 18, until 6:00 p.m. Thursday, July 10. In the upper portion of Subdistrict 4-A subsistence fishing is allowed 7 days a week, 24 hours per day with dip net gear and live-release fish wheels from 8:00 a.m. Monday, June 23, until 6:00 p.m. Monday, July 14.

Subsistence fishing is allowed 7 days a week, 24 hours per day with dip net gear and live-release fish wheels in Subdistricts 4-B and 4-C effective at 8:00 a.m. Thursday, June 26, until 6:00 p.m. Wednesday, July 16.

All king salmon caught using these gear types must be released alive.

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EO Number: 3-S-SY-16-14

Effective Date: June 23, 2014

Commercial salmon fishing opens in District 4 effective 12:01 a.m. midnight Monday, June 23. The sale of Chinook salmon is prohibited.

EO Number: 3-S-SY-17-14

Effective Date: June 23, 2014

Seven 24-hour fishing periods are scheduled in Subdistrict 4-A from 12:01 a.m. Monday, June 23, until 12:00 midnight Sunday, June 29, with manned fish wheels only. All Chinook salmon caught in fish wheels must be returned to the water alive immediately.

EO Number: 3-S-SY-18-14

Effective Date: June 25, 2014

Personal use salmon fishing in Subdistrict 6-C, from the mouth of the Wood River upstream to the downstream mouth of the Salcha River, is closed effective at 12:00 noon Wednesday, June 25.

EO Number: 3-S-SY-19-14

Effective Date: June 29, 2014

Two subsistence salmon fishing periods in Subdistricts 6-A and 6-B scheduled for 6:00 p.m. Monday, June 30, and 6:00 p.m. Friday, July 4, are canceled. Subsistence salmon fishing in the Old Minto area is closed from 12:00 noon Sunday, June 29, until 6:00 p.m. Monday, July 7.

EO Number: 3-S-SY-20-14

Effective Date: June 28, 2014

Salmon may be taken in District 1 with gillnets of 6-inch or smaller mesh size for subsistence purposes from 4:00 p.m. until 7:00 p.m. on Saturday, June 28. Subsistence fishing will not be allowed with dip net or beach seines from 6:00 a.m. until 12:00 midnight Saturday, June 28.

EO Number: 3-S-SY-21-14

Effective Date: June 28, 2014

Salmon may be taken in District 2 with gillnets of 6-inch or smaller mesh size for subsistence purposes from 1:00 p.m. until 4:00 p.m. on Saturday, June 28. Subsistence fishing will not be allowed with dip net or beach seines from 6:00 a.m. until 12:00 midnight Saturday, June 28.

EO Number: 3-S-SY-22-14

Effective Date: June 28, 2014

Gillnets are restricted to 6-inch or smaller mesh size for subsistence salmon fishing in the Innoko River in order to conserve Chinook salmon.

EO Number: 3-S-SY-23-14

Effective Date: June 30, 2014

Subsistence fishing for non-salmon species in Subdistricts 5-A, 5-B, and 5-C is closed from 8:00 p.m. Monday, June 30, until 8:00 a.m. Monday, July 7.

EO Number: 3-S-SY-24-14

Effective Date: June 30, 2014

Seven 24-hour fishing periods are scheduled in Subdistrict 4-A from 12:01 a.m. Monday, June 30, until 12:00 midnight Sunday, July 6, with manned fish wheels only. All Chinook salmon must be released alive immediately.

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EO Number: 3-S-SY-25-14

Effective Date: July 2, 2014

Effective at 8:00 p.m. on Wednesday, July 2, subsistence salmon fishing in the Koyukuk River is restricted to 6-inch or smaller mesh size gillnets to conserve Chinook salmon.

EO Number: 3-S-SY-26-14

Effective Date: July 3, 2014

Subsistence salmon fishing with 6-inch or smaller mesh size gillnets opens in District 3 from 6:00 p.m. to 9:00 p.m. Thursday, July 3.

EO Number: 3-S-SY-27-14

Effective Date: July 3, 2014

One 4-hour commercial fishing period with 6-inch or smaller mesh size gillnets is scheduled from 8:00 p.m. until 12:00 midnight Thursday, July 3, in District 1. Chinook salmon may be retained but not sold.

District 1 subsistence salmon fishing will be open concurrently with commercial salmon fishing from 8:00 p.m. until 12:00 midnight Thursday, July 3. Subsistence fishing will also be open from 10:00 a.m. to 2:00 p.m. Saturday, July 5, with 6-inch or smaller mesh size gillnets.

EO Number: 3-S-SY-28-14

Effective Date: July 5, 2014

Salmon may be taken for subsistence purposes with 6-inch or smaller mesh size gillnets in District 2 from 1:00 p.m. until 5:00 p.m. on Saturday, July 5. Dip nets and beach seines may not be used for subsistence fishing from 6:00 a.m. until 12:00 midnight Saturday, July 5.

EO Number: 3-S-SY-29-14

Effective Date: July 5, 2014

Effective at 8:00 a.m. Saturday, July 5, salmon may be taken for subsistence purposes with gillnets of 7.5-inch or smaller mesh size in the Coastal District from the Naskonat Peninsula north to 62 degrees latitude.

EO Number: 3-S-SY-30-14

Effective Date: July 7, 2014

Seven 24-hour commercial fishing periods in Subdistrict 4-A are scheduled from 12:01 a.m. Monday, July 7, until 12:00 midnight Sunday, July 13, with manned fish wheels only. Chinook salmon must be returned to the water alive.

EO Number: 3-S-SY-31-14

Effective Date: July 9, 2014

Effective at 8:00 p.m. Wednesday, July 9, District 3 will be on its regulatory subsistence schedule consisting of two 36-hour periods each week from 8:00 p.m. Wednesdays until 8:00 a.m. Fridays and from 8:00 p.m. Sundays until 8:00 a.m. Tuesdays. Gillnets of 6-inch or smaller mesh size may be used for subsistence fishing.

EO Number: 3-S-SY-32-14

Effective Date: July 6, 2014

One 6-hour concurrent commercial and subsistence fishing period using 6-inch or smaller mesh size gillnets is scheduled from 4:00 p.m. until 10:00 p.m. Sunday, July 6, in District 2. Chinook salmon may be retained but not sold.

Effective at 12:00 noon Sunday, July 6, the use of dip nets and beach seines for subsistence fishing is discontinued. Effective at 4:00 a.m. Monday, July 7, subsistence salmon fishing in District 2 will be open seven days per week, 24 hours a day with 6-inch or smaller mesh size gillnets except for 6 hours before, during, and after a commercial fishing period.

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EO Number: 3-S-SY-33-14

Effective Date: July 6, 2014

One 9-hour commercial fishing period using 6-inch or smaller mesh size gillnets is scheduled from 3:00 p.m. until 12:00 midnight Monday, July 7, in District 1. Chinook salmon may be retained but not sold.

Effective 12:00 noon Sunday, July 6, subsistence salmon fishing in District 1 will be open seven days per week, 24 hours a day with 6-inch or smaller mesh size gillnets except for 6 hours before, during, and after a commercial fishing period.

EO Number: 3-S-SY-34-14

Effective Date: July 8, 2014

Two 6-hour commercial fishing periods are scheduled from 4:00 p.m. until 10:00 p.m. Tuesday, July 8, and from 4:00 p.m. until 10:00 p.m. Thursday, July 10, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. Chinook salmon may be retained but not sold.

EO Number: 3-S-SY-35-14

Effective Date: July 9, 2014

Two 9-hour commercial fishing periods are scheduled from 3:00 p.m. until 12:00 midnight Wednesday, July 9, and from 3:00 p.m. until 12:00 midnight Friday, July 11, in District 1. Gillnets are restricted to 6-inch or smaller mesh size. Chinook salmon may be retained but not sold.

EO Number: 3-S-SY-36-14

Effective Date: July 8, 2014

Subsistence salmon fishing is open seven days per week, 24 hours a day with 7.5-inch or smaller mesh size gillnets in the Coastal District, from 62 degrees North latitude to Point Romanzof, effective at 8:00 a.m. Tuesday, July 8.

EO Number: 3-S-SY-37-14

Effective Date: July 10, 2014

Subdistricts 4-A, 4-B, and 4-C will return to their regulatory subsistence schedule consisting of two 48-hour periods each week from 6:00 p.m. Wednesdays until 6:00 p.m. Fridays and from 6:00 p.m. Sundays until 6:00 p.m. Tuesdays. Fishermen may use 6-inch or smaller mesh size gillnets and live-release fish wheels. All Chinook salmon caught in fish wheels must be released alive. The subsistence schedules becomes effective at 6:00 p.m. Thursday, July 10, in the lower portion of Subdistrict 4-A, at 6:00 p.m. Monday, July 14, in the upper portion of Subdistrict 4-A, and at 6:00 p.m. Wednesday, July 16, in Subdistricts 4-B and 4-C.

EO Number: 3-S-SY-38-14

Effective Date: July 12, 2014

Four 9-hour commercial salmon fishing periods are scheduled in District 2 from 2:00 p.m. until 11:00 p.m. on Saturday, July 12, Monday, July 14, Wednesday, July 16, and Friday, July 18. Gillnets are restricted to 6-inch or smaller mesh size. Chinook salmon may be retained but not sold.

EO Number: 3-S-SY-39-14

Effective Date: July 13, 2014

Two 12-hour commercial salmon fishing periods are scheduled in District 1 from 12:00 noon until 12:00 midnight on Sunday, July 13, and Tuesday, July 15. Gillnets are restricted to 6-inch or smaller mesh size. Chinook salmon may be retained but not sold.

EO Number: 3-S-SY-40-14

Effective Date: July 11, 2014

The commercial salmon fishing season opens in District 6 effective at 6:00 p.m. Friday, July 11. The sale of Chinook salmon is prohibited.

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EO Number: 3-S-SY-41-14

Effective Date: July 11, 2014

Two 42-hour commercial fishing periods are scheduled in Subdistricts 6-A and 6-B from 6:00 p.m. Friday, July 11, until 12:00 noon Sunday, July 13, and from 6:00 p.m. Monday, July 14, until 12:00 noon Wednesday, July 16, with manned fish wheels only. Chinook salmon must be released alive.

EO Number: 3-S-SY-42-14

Effective Date: July 14, 2014

Seven 24-hour commercial salmon fishing periods are scheduled in Subdistrict 4-A from 12:01 a.m. Monday, July 14, until 12:00 midnight Sunday, July 20, with manned fish wheels only. Chinook salmon must be returned back to the water alive.

EO Number: 3-S-SY-43-14

Effective Date: July 18, 2014

Two 42-hour commercial fishing periods are scheduled in Subdistricts 6-A and 6-B from 6:00 p.m. Friday, July 18, until 12:00 noon Sunday, July 20, and from 6:00 p.m. Monday, July 21, until 12:00 noon Wednesday, July 23, with manned fish wheels only. Chinook salmon must be released alive.

EO Number: 3-S-SY-44-14

Effective Date: July 20, 2014

Subsistence fishermen using fish wheels are no longer required to release king salmon alive effective at 6:00 p.m. Sunday, July 20, in Subdistrict 4-A and at 6:00 p.m. Wednesday, July 23, in Subdistricts 4-B and 4-C. Additionally, fishermen may use gillnets with a mesh size of 7.5- inches or less. The regulatory subsistence schedule remains unchanged.

EO Number: 3-S-SY-45-14

Effective Date: July 21, 2014

Seven 24-hour fishing periods are scheduled in Subdistrict 4-A from 12:01 a.m. Monday, July 21, until 12:00 midnight Sunday, July 27, using fish wheels or 6-inch or smaller mesh size set nets. Effective at 12:01 a.m. Monday, July 21, the requirements to man commercial fish wheels and release Chinook salmon caught in fish wheels are discontinued. Commercial fishermen can release incidentally caught Chinook salmon or retain them for subsistence purposes.

EO Number: 3-S-SY-46-14

Effective Date: July 19, 2014

Effective at 6:00 p.m. Tuesday, July 22, subsistence fishing in Subdistricts 5-A, 5-B, and 5-C will return to the regulatory subsistence schedule consisting of two 48-hour periods per week from 6:00 p.m. Tuesdays until 6:00 p.m. Thursdays and from 6:00 p.m. Fridays until 6:00 p.m. Sundays. Fishermen may use 6-inch or smaller mesh size gillnets or fish wheels equipped with a chute or live box. Chinook salmon caught in fish wheels must be released alive.

EO Number: 3-S-SY-47-14

Effective Date: July 25, 2014

Subsistence fishing is open for seven days a week, 24 hours per day effective at 6:00 p.m. Friday, July 25, in the lower portion of Subdistrict 5-D, at 6:00 p.m. Monday, July 28, in the middle portion of Subdistrict 5-D, and 6:00 p.m. Friday, August 1, in the upper portion of Subdistrict 5-D. Fishermen may use 6-inch or smaller mesh size gillnets or fish wheels equipped with a chute or live box. Chinook salmon caught in fish wheels must be released alive.

EO Number: 3-S-SY-48-14

Effective Date: July 28, 2014

Effective at 6:00 p.m. Friday, July 28, personal use salmon fishing in Subdistrict 6-C will be on a normal schedule consisting of two 42-hour periods each week, from 6:00 p.m. Mondays until 12:00 noon Wednesdays and from 6:00 p.m. Fridays until 12:00 noon Sundays. Fishermen may use fish wheels or gillnets with a mesh size of 7.5 inches or less.

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EO Number: 3-S-SY-49-14

Effective Date: July 25, 2014

Two 42-hour commercial fishing periods are scheduled in Subdistricts 6-A and 6-B. The first period opens at 6:00 p.m. Friday, July 25, until 12:00 noon Sunday, July 27. Chinook salmon caught in fish wheels must be released alive. The second period opens at 6:00 p.m. Monday, July 28, until 12:00 noon Wednesday, July 30. For this second period only, fishermen may use fish wheels or 6-inch or smaller mesh size gillnets and Chinook salmon may be released alive or retained for subsistence purposes.

EO Number: 3-S-SY-50-14

Effective Date: July 29, 2014

Effective at 6:00 p.m. Tuesday, July 29, subsistence fishermen in Subdistricts 5-A, 5-B, and 5-C may use fish wheels or gillnets with a mesh size of 7.5-inches or less. Chinook salmon may be released alive or retained for subsistence purposes.

EO Number: 3-S-SY-51-14

Effective Date: July 30, 2014

Effective at 6:00 p.m. Friday, July 30, in the lower portion of Subdistrict 5-D and at 6:00 p.m. Saturday, August 2, in the middle portion of Subdistrict 5-D, subsistence fishing is open seven days a week, 24 hours per day with fish wheels or 7.5-inch or smaller mesh size gillnets. Chinook salmon may be released alive or retained for subsistence purposes.

Effective at 6:00 p.m. Friday, August 1, subsistence fishing in the upper portion of Subdistrict 5-D is open seven days a week, 24 hours per day with gillnets restricted to 6-inch or smaller mesh size gillnets or fish wheels equipped with a chute or live box. Fish wheels must be closely attended and all Chinook salmon caught in fish wheels must be released alive.

EO Number: 3-S-SY-52-14

Effective Date: August 1, 2014

Two 42-hour commercial salmon fishing periods are scheduled in Subdistricts 6-A and 6-B from 6:00 p.m. Friday, August 1, until 12:00 noon Sunday, August 3, and from 6:00 p.m. Monday, August 4, until 12:00 noon Wednesday, August 6. Fishermen may use fish wheels or 6-inch or smaller mesh size gillnets. Chinook salmon may be retained for subsistence purposes or released alive.

EO Number: 3-S-SY-53-14

Effective Date: August 5, 2014

Effective at 6:00 p.m. Friday, August 1, subsistence fishing in the upper portion of Subdistrict 5-D is open seven days a week, 24 hours per day with fish wheels or 7.5-inch or smaller mesh size gillnets. Chinook salmon may be retained for subsistence purposes or released alive.

Appendix A24.–List of emergency orders pertaining to the Fall Yukon in Districts 1-6 fall chum and coho salmon fishery, Yukon Area, 2014.

EO Number: 3-S-FY-01-14

Effective Date: July 16, 2014

Effective 12:00 noon Wednesday, July 16, subsistence salmon fishing in District 1 is open seven days per week, 24 hours a day except for 12 hours before, during, and 12 hours after a commercial fishing period. Gillnets are restricted to 7.5 inch mesh or smaller.

EO Number: 3-S-FY-02-14

Effective Date: July 19, 2014

Effective 11:00 a.m. Saturday, July 19, subsistence salmon fishing in District 2 is open seven days per week, 24 hours a day except for 12 hours before, during, and 12 hours after a commercial fishing period. Gillnets are restricted to 7.5 inch mesh or smaller.

EO Number: 3-S-FY-03-14

Effective Date: July 20, 2014

Effective 8:00 p.m. Sunday, July 20, subsistence salmon fishing in District 3 is open seven days per week, 24 hours a day. Gillnets are restricted to 7.5 inch mesh or smaller.

EO Number: 3-S-FY-04-14

Effective date: July 17, 2014

A 6-hour commercial salmon fishing period is scheduled from 4:00 p.m. until 10:00 p.m. on Thursday, July 17, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-05-14

Effective Date: July 18, 2014

A 6-hour commercial salmon fishing period is scheduled from 2:00 p.m. until 8:00 p.m. on Sunday, July 20, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-06-14

Effective Date: July 21, 2014

A 6-hour commercial salmon fishing period is scheduled from 6:00 p.m. until 12:00 midnight on Monday, July 21, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-07-14

Effective Date: July 25, 2014

This emergency order rescinds emergency order 3-S-SY-5-14 and places Subdistrict 4-A on a 5 day per week subsistence salmon fishing schedule. The current subsistence salmon fishing period in Subdistrict 4-A is scheduled to close at 6:00 p.m. Friday, July 25. Instead, subsistence fishing will remain open until 6:00 p.m. Sunday, July 27. After that, Subdistrict 4-A will be on a 5 day per week subsistence salmon fishing schedule with fishing open from 6:00 p.m. Tuesdays through 6:00 p.m. Sundays.

Effective 6:00 p.m. Tuesday, July 29, the use of subsistence drift gillnet gear will be allowed during subsistence salmon fishing periods in the portion of Subdistrict 4-A upstream from the mouth of Stink Creek. Fishermen may use gillnets with a mesh size of 7.5 inches or less.

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EO Number: 3-S-FY-08-14

Effective Date: July 27, 2014

This emergency order rescinds that portion of emergency order 3-S-SY-44-14 that placed Subdistricts 4-A and 4-B on a two 48-hour per week subsistence salmon fishing schedule. This emergency order places Subdistricts 4-B and 4-C on a 5 day per week subsistence salmon fishing schedule. Effective 6:00 p.m. Sunday, July 27, Subdistricts 4-B and 4-C will be on 5 day per week subsistence salmon fishing schedule from 6:00 p.m. Sundays until 6:00 p.m. Fridays. All other provisions in emergency order 3-S-SY-44-14 remain in effect.

EO Number: 3-S-FY-09-14

Effective Date: July 25, 2014

A 6-hour commercial salmon fishing period is scheduled from 4:00 p.m. Friday, July 25, until 10:00 p.m. Friday, July 25, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-10-14

Effective Date: July 27, 2014

A 6-hour commercial salmon fishing period is scheduled from 2:00 p.m. Sunday, July 27, until 8:00 p.m. Sunday, July 27, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-11-14

Effective Date: July 28, 2014

A 6-hour commercial salmon fishing period is scheduled from 4:00 p.m. Monday, July 28, until 10:00 p.m. Monday, July 28, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-12-14

Effective Date: July 31, 2014

This emergency order rescinds that portion of emergency order 3-S-SY-51-14 that placed Subdistricts 5-A, 5-B, and 5-C on a two 48-hour period per week schedule. Effective 6:00 p.m. Thursday, July 31, Subdistricts 5-A, 5-B, and 5-C will remain open until 6:00 p.m. Sunday, August 3. After that, Subdistricts 5-A, 5-B, and 5-C will be on a 5-day per week schedule from 6:00 p.m. Tuesdays until 6:00 p.m. Sundays. The provision in emergency order 3-S-SY-51-14 allowing the use of fish wheels or gillnets with a mesh size of 7.5 inches or smaller remains in effect.

EO Number: 3-S-FY-13-14

Effective Date: August 3, 2014

A 5-hour commercial salmon fishing period is scheduled from 2:00 p.m. Sunday, August 3, until 7:00 p.m. Sunday, August 3, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-14-14

Effective Date: August 8, 2014

This emergency order rescinds emergency orders 3-S-FY-07-14 and 3-S-FY-08-14 that placed Subdistricts 4-A, 4-B, and 4-C on a 5 day per week schedule. Effective 6:00 p.m. Friday, August 8, subsistence fishing in District 4 is open to 7 days per week, 24 hours per day. All other provisions in emergency orders 3-S-FY-07-14 and 3-S-FY-08-14 remain in effect.

EO Number: 3-S-FY-15-14

Effective Date: August 12, 2014

This emergency order rescinds that portion of emergency order 3-S-FY-13-14 that placed Subdistricts 5-A, 5-B, and 5-C on a two 48-hour period per week schedule. Effective 6:00 p.m. Tuesday, August 12, Subdistricts 5-A, 5-B, and 5-C will be open to subsistence fishing 7 days per week, 24 hours per day. All other provisions in emergency order 3-S-FY-13-14 remain in effect.

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EO Number: 3-S-FY-16-14

Effective Date: August 12, 2014

A 120-hour commercial salmon fishing period is scheduled from 6:00 p.m. Tuesday, August 12, until 6:00 p.m. Sunday, August 17, in Subdistricts 5-B and 5-C. Gillnets will be restricted to 6 inch or smaller mesh. This commercial fishing period will occur concurrently with the current subsistence fishing period. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-17-14

Effective Date: August 15, 2014

A 6-hour commercial salmon fishing period is scheduled from 4:00 p.m. Friday, August 15, until 10:00 p.m. Friday, August 15, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

This emergency order also amends emergency order 3-S-FY-01-14 which closes commercial fishing 12 hours before, during, and 12 hours after commercial fishing. For this commercial period, subsistence fishing closes at 1:00 p.m. on Friday, August 15, and reopens at 10:00 a.m. on Saturday, August 16.

EO Number: 3-S-FY-18-14

Effective Date: August 19, 2014

A 120-hour commercial salmon fishing period is scheduled from 6:00 p.m. Tuesday, August 19, until 6:00 p.m. Sunday, August 24, in Subdistricts 5-B and 5-C. Gillnets will be restricted to 6 inch or smaller mesh size. This commercial fishing period will occur concurrently with the current subsistence fishing period. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-19-14

Effective Date: August 18, 2014

A 5-hour commercial salmon fishing period is scheduled from 2:00 p.m. Monday, August 18, until 7:00 p.m. Monday, August 18, in District 2. Gillnets will be restricted to 6 inch or smaller mesh size. This emergency order also amends emergency order 3-S-FY-01-14 which closes commercial fishing 12 hours before, during, and 12 hours after commercial fishing. For this commercial period, subsistence fishing closes at 12:00 noon Monday, August 18, and reopens at 7:00 a.m. Tuesday, August 19. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-20-14

Effective Date: August 19, 2014

A 6-hour commercial salmon fishing period is scheduled from 5:00 p.m. Tuesday, August 19, until 11:00 p.m. Tuesday, August 19, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-21-14

Effective Date: August 22, 2014

This emergency order establishes a commercial salmon fishing schedule in District 6 of two 42-hour periods from 6:00 p.m. Friday, August 22, until 12:00 noon Sunday, August 24, and from 6:00 pm Monday, August 25, until 12:00 noon Wednesday, August 27. Gillnets will be restricted to 6 inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-22-14

Effective Date: August 22, 2014

A 6-hour commercial salmon fishing period is scheduled from Friday, August 22, from 2:00 p.m. until 8:00 p.m., in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

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EO Number: 3-S-FY-23-14

Effective Date: August 24, 2014

A 4-hour commercial salmon fishing period is scheduled from 2:00 p.m. Sunday, August 24, until 6:00 p.m. Sunday, August 24, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-24-14

Effective Date: August 25, 2014

A 9-hour commercial salmon fishing period is scheduled from Monday, August 25, from 12:00 noon until 9:00 p.m. in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-25-14

Effective Date: August 26, 2014

This emergency order establishes a 5-day per week commercial salmon fishing schedule in Subdistricts 5-B and 5-C. Salmon may be taken in Subdistricts 5-B and 5-C from 6:00 p.m. Tuesdays until 6:00 p.m. Sundays. Gillnets will be restricted to 6 inch or smaller mesh. Commercial fishing will occur concurrently with the current subsistence fishing period. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-26-14

Effective Date: August 26, 2014

A 4-hour commercial salmon fishing period is scheduled from Tuesday, August 26, from 5:00 p.m. until 9:00 p.m., in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

This emergency order also amends emergency order 3-S-FY-01-14 which closes commercial fishing 12 hours before, during, and 12 hours after commercial fishing. For this commercial period, subsistence fishing will close on Tuesday, August 26, at 12:00 noon and reopen at 9:00 a.m. on Wednesday, August 27.

EO Number: 3-S-FY-27-14

Effective Date: August 29, 2014

This emergency order establishes a commercial salmon fishing schedule in District 6 of two 42-hour periods per week from 6:00 p.m. Fridays until 12:00 noon Sundays and from 6:00 pm Mondays until 12:00 noon Wednesdays. Gillnets will be restricted to 6 inch or smaller mesh size. These commercial fishing periods do not affect the current subsistence or personal use fishing schedules. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-28-14

Effective Date: August 28, 2014

A 9-hour commercial salmon fishing period is scheduled Thursday, August 28, from 12:00 noon until 9:00 p.m. in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

For this commercial period, subsistence fishing will close on Thursday, August 28 at 12:00 midnight and reopen at 9:00 a.m. on Friday, August 29. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14).

EO Number: 3-S-FY-29-14

Effective Date: August 27, 2014

A 6-hour commercial salmon fishing period is scheduled from Wednesday, August 27, from 1:00 p.m. until 7:00 p.m. in District 2. Gillnets will be restricted to 6 inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14). For this commercial period, subsistence fishing will close on Wednesday, August 27 at 1:00 a.m. and reopen at 7:00 a.m. on Thursday, August 28.

-continued-

EO Number: 3-S-FY-30-14

Effective Date: August 30, 2014

A 6-hour commercial salmon fishing period is scheduled from Saturday, August 30, from 1:00 p.m. until 7:00 p.m. in District 2. Gillnets will be restricted to 6 inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14). For this commercial period, subsistence fishing will close on Saturday, August 30 at 1:00 a.m. and reopen at 7:00 a.m. on Sunday, August 31.

EO Number: 3-S-FY-31-14

Effective Date: September 1, 2014

A 9-hour commercial salmon fishing period is scheduled from Monday, September 1, from 12:00 noon until 9:00 p.m. in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14). For this commercial period, subsistence fishing will close on Sunday, August 31 at 12:00 midnight and reopen at 9:00 a.m. on Tuesday, September 2.

EO Number: 3-S-FY-32-14

Effective Date: September 3, 2014

A 9-hour commercial salmon fishing period is scheduled from Wednesday, September 3, from 9:00 a.m. until 6:00 p.m. in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14). For this commercial period, subsistence fishing will close on Tuesday, September 2 at 9:00 p.m. and reopen at 6:00 a.m. on Thursday, September 4.

EO Number: 3-S-FY-33-14

Effective Date: September 5, 2014

A 9-hour commercial salmon fishing period is scheduled from Friday, September 5, from 11:00 a.m. until 8:00 p.m. in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of incidentally caught Chinook salmon is prohibited (3-S-SY-09-14). For this commercial period, subsistence fishing will close on Thursday, September 4 at 11:00 p.m. and reopen at 8:00 a.m. on Saturday, September 6.

EO Number: 3-S-FY-34-14

Effective Date: October 1, 2014

This emergency order places Subdistricts 6-A and 6-B (including the Old Minto Area) on a seven days per week, 24 hours per day subsistence salmon fishing schedule effective 12:00 noon Wednesday, October 1, 2014. Personal use fishing in Subdistrict 6-C will remain on the schedule of two 42-hour periods per week, open from 6:00 p.m. Fridays until 12:00 noon Sundays and 6:00 p.m. Mondays until 12:00 noon Wednesdays.

Appendix A25.—Commercial Fisheries Entry
Commission salmon gear permits issued by
residence, Yukon Area, 2013.

District	Residence	Gillnet permits (S04Y)
1, 2, and 3	Alakanuk	78
	Anchorage	33
	Auke Bay	1
	Bethel	13
	Chevak	2
	Eagle River	1
	Elim	1
	Emmonak	109
	Ester	1
	Fairbanks	8
	Fortuna Ledge	2
	Holy Cross	6
	Homer	3
	Hooper Bay	3
	Kalskag	1
	Kotlik	76
	Kwethluk	2
	Marshall	38
	Mcgrath	1
	Mountain Village	73
	Newhalen	1
	Nome	1
	North Pole	1
	Nunam Iqua	12
	Palmer	1
	Pilot Station	58
	Russian Mission	15
	Saint Marys	76
	Saint Michael	3
	Sand Point	2
	Scammon Bay	27
	Shaktoolik	1
	Sitka	1
	Stebbins	5
	Tuluksak	1
	Wasilla	13
	De Pere, WI	1
	Ft. Campbell, KY	1
	Painted Post, NY	1
	Snohomish, WA	1
Total Lower Yukon Area		674

-continued-

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District	Residence	Gillnet permits (S04P)	Fish wheel permits (S08P)	Total
4, 5, and 6	Anchorage	3	2	5
	Aniak	1		1
	Anvik	1	5	6
	Circle City		1	1
	Dot Lake		1	1
	Eagle River		1	1
	Fairbanks	23	19	42
	Fort Yukon		1	1
	Galena	2	8	10
	Grayling	4	4	8
	Hughes		1	1
	Kaltag	1	9	10
	Koyukuk		1	1
	Manley Hot Springs	2	5	7
	Mcgrath	1	1	2
	Minto		1	1
	Nenana	6	16	22
	North Pole	2	2	4
	Nulato		8	8
	Palmer		1	1
	Rampart	1		1
	Ruby	1	4	5
	Salcha	1		1
	Stevens Village		2	2
	Tanana	1	9	10
	Valdez		1	1
	Wasilla		2	2
	Lusk, WY	1	1	2
Total Upper Yukon Area		51	106	157
Grand Total Yukon Area		725	106	831 ^a

Note: Counts are for initial issues only and do not include transfers; includes interim entry permits but not interim use or test fishery permits.

^a Total applies to number of permits.

APPENDIX B: LOWER YUKON AREA SALMON

Appendix B1.—Commercial catches of Chinook and summer chum salmon by mesh size, Districts 1 and 2, Lower Yukon Area, 1994–2014.

Year ^e	Unrestricted mesh size ^{a,b}				7.5 inch maximum mesh size ^{a,c}				6 inch maximum mesh size ^{a,d}	
	Chinook			Summer chum	Chinook			Summer chum	Chinook	Summer chum
	District 1	District 2	Total	Districts 1 and 2	District 1	District 2	Total	Districts 1 and 2	Districts 1 and 2	Districts 1 and 2
1994 ^f	61,633	41,692	103,325	39,832					608	15,369
1995	74,827	39,607	114,434	113,860					3,098	112,223
1996	56,642	30,209	86,851	123,233						
1997	63,062	39,052	102,114	49,953					3,611	28,204
1998	24,202	16,806	41,008	20,314					1,211	7,804
1999	37,145	27,119	64,264	27,883						
2000	4,735	3,783	8,518	6,624						
2001	—	—	—	—	—	—	—	—	—	—
2002	11,089	11,440	22,529	10,354						
2003	22,708	14,220	36,928	6,162						
2004	28,401	24,145	52,546	19,775						
2005	16,619	13,413	30,032	32,278						
2006	23,728	19,356	43,084	35,574					478	11,785
2007	13,558	9,238	22,796	11,311					9,121	164,911
2008 ^g									4,348	125,598
2009 ^h									131	157,906
2010									9,897	183,215
2011 ^h									0	266,510
2012 ^h									0	207,849
2013 ^{h,i}									0	379,143
2014 ^{g,h,i}									0	154,498
2009–2013										
Average									2,006	238,925
2004–2013										
Average	20,577	16,538	37,115	24,735					2,997	187,115

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Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate either insufficient information to generate average, or commercial fishing did occur but gear type was not allowed.

^a Does not include Chinook salmon caught during the fall season fishery.

^b Primarily 8.0 to 8.5 inch mesh size used during early June to early July.

^c In 2010, the BOF adopted new regulation stating the maximum mesh size of gillnets to be used within the Yukon River drainage was 7.5 inches. This went into effect for the 2011 fishing season.

^d Chinook and summer chum salmon harvested from July 15 to 20, relatively few Chinook and summer chum salmon taken after these dates.

^e ADF&G test fishery sales are not included in total.

^f To reduce summer chum salmon harvest 8.0 inch or greater mesh size restriction was in effect until June 27 and fishermen were requested to take chum salmon home for subsistence use until June 22.

^g Does include pink salmon sold in Districts 1 and 2 during the summer season.

^h In summer chum directed commercial fisheries with gillnets restricted to 6.0 inch maximum mesh size, the sale of incidentally caught Chinook salmon was prohibited throughout portions or all of the summer season.

ⁱ In 2013, the Alaska Board of Fisheries adopted new gear types for use in the summer chum salmon directed commercial fishery: dip nets, beach seines, and 5.5 inch mesh gillnets not exceeding 30 meshes in depth.

Appendix B2.—Commercial Chinook salmon harvest (in numbers of fish) by statistical area, Lower Yukon Area, 1994–2014.

Year	District 1								Total
	334-11	334-12	334-13	334-14	334-15	334-16	334-17	334-18	
1994	4,176	6,723	5,037	3,888	14,580	1,686	17,575	8,576	62,241
1995	3,719	6,939	6,181	5,430	22,357	3,790	18,980	8,710	76,106
1996	6,079	6,858	3,791	3,297	8,850	4,478	16,789	6,500	56,642
1997	4,570	5,865	2,844	6,648	12,460	4,703	21,443	7,851	66,384
1998	226	1,741	654	1,591	7,264	1,934	7,822	4,181	25,413
1999	1,454	2,604	3,112	3,798	4,057	935	13,130	8,071	37,161
2000	78	1,057	144	389	640	85	1,259	1,083	4,735
2001	—	—	—	—	—	—	—	—	—
2002	1,001	1,271	449	742	2,993	69	2,338	2,224	11,087
2003	1,601	4,714	1,089	1,514	4,756	437	3,518	5,080	22,709
2004	975	2,505	1,965	1,502	4,285	1,783	9,270	6,118	28,403
2005	2,137	1,531	944	592	2,580	1,650	3,926	3,334	16,694
2006	2,252	2,106	1,558	928	3,507	2,476	6,201	4,720	23,748
2007	1,116	1,419	1,555	855	4,890	1,168	5,828	1,785	18,616
2008	50	440	209	263	372	226	628	342	2,530
2009	1	16	4	3	36	17	10	3	90
2010	252	824	213	358	1,266	985	1,570	276	5,744
2011	1	8	1	0	4	17	4	1	36
2012	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0
2009–2013									
Average	51	170	44	72	261	204	317	56	1,174
2004–2013									
Average	678	885	645	450	1,694	832	2,744	1,658	9,586

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Year	District 2						District 3		
	334-21	334-22	334-23	334-24	334-25	Total	334-31	334-32	Total
1994	9,223	14,350	4,514	8,734	4,871	41,692	1,114	0	1,114
1995	7,832	14,041	4,841	5,887	8,857	41,458	–	–	–
1996	8,265	9,134	2,749	3,626	6,435	30,209	0	0	0
1997	13,939	13,344	2,280	6,104	3,696	39,363	–	–	–
1998	2,203	6,081	2,245	4,613	1,664	16,806	0	0	0
1999	4,666	8,565	2,623	6,923	4,356	27,133	0	538	538
2000	1,433	964	415	457	511	3,780	–	–	–
2001	–	–	–	–	–	–	–	–	–
2002	2,140	3,044	1,992	2,712	1,546	11,434	–	–	–
2003	2,965	5,454	993	2,104	2,704	14,220	–	–	–
2004	5,879	8,326	3,459	3,819	2,662	24,145	–	–	–
2005	3,292	5,905	1,397	347	2,472	13,413	–	–	–
2006	3,750	8,457	2,700	3,425	1,511	19,843	315	0	315
2007	2,818	5,509	2,458	1,375	1,146	13,306	190	0	190
2008	420	654	670	252	115	2,111	–	–	–
2009	39	106	56	2	23	226	–	–	–
2010	389	1,690	890	1,184	0	4,153	–	–	–
2011	2	16	6	22	0	46	–	–	–
2012	0	0	0	0	0	0	–	–	–
2013	0	0	0	0	0	0	–	–	–
2014	0	0	0	0	0	0	–	–	–
2009–2013									
Average	86	362	190	242	5	885			
2004–2013									
Average	1,659	3,066	1,164	1,043	793	7,724	253	0	253

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average. ADF&G test fishery sales not included. Values include Chinook salmon harvested in both summer and fall seasons. ADF&G test fishery sales not included.

Appendix B3.—Commercial summer chum salmon harvest (in numbers of fish) by statistical area, Lower Yukon Area, 1994–2014.

Year	District 1								Total
	334-11	334-12	334-13	334-14	334-15	334-16	334-17	334-18	
1994	11,208	6,340	5,165	2,389	3,602	290	8,693	4,645	42,332
1995	32,084	23,420	15,834	19,154	15,919	3,150	24,349	8,356	142,266
1996	19,432	17,769	6,837	5,611	13,111	2,831	17,864	9,051	92,506
1997	10,764	9,519	6,190	10,374	5,429	1,650	10,719	5,270	59,915
1998	54	2,583	441	2,275	5,115	730	6,601	3,471	21,270
1999	1,128	1,667	1,653	2,979	816	141	3,845	3,952	16,181
2000	146	537	207	650	631	60	546	538	3,315
2001	—	—	—	—	—	—	—	—	—
2002	193	1,303	374	1,519	858	4	1,277	799	6,327
2003	90	588	117	292	690	188	566	1,048	3,579
2004	667	885	1,446	904	2,694	870	4,171	2,356	13,993
2005	4,260	2,791	1,658	2,697	3,631	1,985	3,970	2,973	23,965
2006	4,310	3,181	1,915	899	2,315	1,441	4,382	3,373	21,816
2007	3,724	15,690	14,297	10,746	15,816	8,801	25,753	11,963	106,790
2008	1,200	9,216	5,521	9,224	6,219	5,937	17,423	12,719	67,459
2009	730	7,457	9,120	9,569	12,979	4,930	23,532	3,018	71,335
2010	3,881	19,138	5,707	12,405	12,116	9,484	32,994	6,542	102,267
2011	150	28,715	20,807	39,517	19,948	10,720	35,634	7,948	163,439
2012	4,240	43,096	21,516	25,364	1,126	432	53,037	1,989	150,800
2013	36	55,130	20,303	35,431	19,303	6,198	67,662	3,808	207,871
2014	16,781	52,300	14,698	27,699	12,182	761	61,940	11,879	198,240
2009–2013									
Average	1,807	30,707	15,491	24,457	13,094	6,353	42,572	4,661	139,142
2004–2013									
Average	2,320	18,530	10,229	14,676	9,615	5,080	26,856	5,669	92,974

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Year	District 2						District 3		
							334-31		Estimated harvest ^a
	334-21	334-22	334-23	334-24	334-25	Total	Number	Roe	
1994	4,100	5,314	1,435	1,395	625	12,869	35		35
1995	23,794	38,808	11,541	7,257	2,417	83,817	–	–	–
1996	9,177	13,056	4,965	2,479	1,050	30,727	0	162	465
1997	7,126	7,938	673	1,667	838	18,242	–	–	–
1998	710	2,350	1,079	2,351	358	6,848	0	0	0
1999	1,758	3,269	1,457	3,415	1,803	11,702	0	0	0
2000	1,552	961	327	220	249	3,309	–	–	–
2001	–	–	–	–	–	–	–	–	–
2002	1,105	997	862	794	269	4,027	–	–	–
2003	1,153	855	218	181	176	2,583	–	–	–
2004	1,724	1,439	1,350	1,061	208	5,782	–	–	–
2005	2,852	3,978	850	105	528	8,313	–	–	–
2006	6,325	10,523	2,080	5,805	810	25,543	116	0	116
2007	21,356	32,583	9,310	1,740	4,443	69,432	1	0	1
2008	15,326	14,017	16,781	10,145	1,870	58,139	–	–	–
2009	13,583	48,571	19,717	3,053	1,647	86,571	–	–	–
2010	9,575	23,029	14,474	33,870	0	80,948	–	–	–
2011	15,959	27,109	20,506	37,868	1,629	103,071	–	–	–
2012	12,129	20,952	12,317	11,651	0	57,049	–	–	–
2013	10,458	96,662	29,860	34,292	0	171,272	–	–	–
2014	22,806	94,595	50,069	61,637	0	229,107	–	–	–
2009–2013									
Average	12,341	43,265	19,375	24,147	655	99,782			
2004–2013									
Average	10,929	27,886	12,725	13,959	1,114	66,612	59	0	59

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average. ADF&G test fishery sales not included.

^a Estimated harvest includes both males and females harvested to produce roe sold.

Appendix B4.–Commercial fall chum salmon harvest (in numbers of fish) by statistical area, Lower Yukon Area, 1994–2014.

Year ^a	District 1									Total
	334-11	334-12	334-13	334-14	334-15	334-16	334-17	334-18	334-19	
1994	–	–	–	–	–	–	–	–	–	–
1995	1,674	6,766	6,892	11,909	16,450	1,696	23,722	10,236	–	79,345
1996	0	2,686	2,333	1,243	4,561	9,976	8,504	4,326	–	33,629
1997	0	2,870	3,452	3,768	3,943	1,596	6,747	5,107	–	27,483
1998	–	–	–	–	–	–	–	–	–	–
1999	4	1,931	474	1,182	1,934	1,439	1,103	1,920	–	9,987
2000	–	–	–	–	–	–	–	–	–	–
2001	–	–	–	–	–	–	–	–	–	–
2002	–	–	–	–	–	–	–	–	–	–
2003	0	2,784	177	310	958	0	381	976	–	5,586
2004	0	509	25	67	0	0	19	40	–	660
2005	117	16,840	8,735	25,330	8,253	31,864	29,546	9,840	–	130,525
2006	163	16,212	9,929	9,973	7,538	9,568	32,200	15,671	–	101,254
2007	0	6,395	8,550	4,951	1,423	2,130	12,562	2,841	–	38,852
2008	22	16,471	6,018	9,138	5,152	7,090	16,072	7,741	–	67,704
2009	66	1,355	457	301	4,576	2,118	2,415	623	–	11,911
2010	0	211	0	13	83	10	167	61	–	545
2011	11	10,019	3,673	10,142	34,153	35,432	27,230	7,075	–	127,735
2012	2,068	34,698	4,039	12,305	23,870	11,351	37,810	13,701	–	139,842
2013	240	21,188	7,304	11,192	12,175	5,484	43,824	5,181	–	106,588
2014 ^b	658	8,509	2,659	6,092	6,193	2,643	19,385	5,684	–	51,823
2009-2013										
Average	477	13,494	3,095	6,791	14,971	10,879	22,289	5,328		77,324
2004-2013										
Average	269	12,390	4,873	8,341	9,722	10,505	20,185	6,277		72,562

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Year ^a	District 2					Total	District 3		
	334-21	334-22	334-23	334-24	334-25		334-31	334-32	Total
1994	–	–	–	–	–	–	–	–	–
1995	147	54,231	20,018	16,435	0	90,831	–	–	–
1996	1,960	14,349	4,184	7,634	1,524	29,651	–	–	–
1997	5,040	9,827	2,316	5,972	1,171	24,326	–	–	–
1998	–	–	–	–	–	–	–	–	–
1999	1,536	2,836	3,254	1,910	167	9,703	–	–	–
2000	–	–	–	–	–	–	–	–	–
2001	–	–	–	–	–	–	–	–	–
2002	–	–	–	–	–	–	–	–	–
2003	–	–	–	–	–	–	–	–	–
2004	–	–	–	–	–	–	–	–	–
2005	–	–	–	–	–	–	–	–	–
2006	3,362	21,069	11,060	4,414	0	39,905	–	–	–
2007	8,619	17,068	8,245	1,894	0	35,826	–	–	–
2008	10,027	11,630	11,507	7,424	682	41,270	–	–	–
2009	1,107	7,988	1,593	235	1,149	12,072	–	–	–
2010	3	27	165	0	75	270	–	–	–
2011	14,239	33,639	18,123	32,063	2,667	100,731	–	–	–
2012	14,454	34,658	26,646	53,526	–	129,284	–	–	–
2013	18,476	27,663	16,379	40,955	2,801	106,274	–	–	–
2014 ^b	5,949	19,112	11,186	22,891	–	59,138	–	–	–
2009-2013									
Average	9,656	20,795	12,581	25,356	1,673	69,726			
2004-2013									
Average	8,786	19,218	11,715	17,564	1,053	58,204			

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average. ADF&G test fishery sales not included.

^a Estimated harvest includes reported harvest of both males and females harvested to produce roe sold.

^b Does not include 82 pink salmon sold in Districts 1 and 2 during the fall season.

Appendix B5.—Commercial coho salmon harvest (in numbers of fish) by statistical area, Lower Yukon Area, 1994–2014.

Year ^a	District 1								Total
	334-11	334-12	334-13	334-14	334-15	334-16	334-17	334-18	
1994	—	—	—	—	—	—	—	—	—
1995	883	2,472	1,833	2,439	2,454	1,006	8,953	1,585	21,625
1996	0	1,555	1,564	854	3,995	9,634	8,068	2,035	27,705
1997	0	1,355	2,322	2,414	2,742	4,153	5,180	3,284	21,450
1998	—	—	—	—	—	—	—	—	—
1999	3	261	36	45	184	176	88	62	855
2000	—	—	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—
2002	—	—	—	—	—	—	—	—	—
2003	0	4,890	305	656	1,939	0	576	1,391	9,757
2004	128	772	201	290	0	0	50	142	1,583
2005	98	4,249	1,069	4,020	1,560	17,728	6,615	1,194	36,533
2006	7	3,034	2,467	2,315	3,508	15,280	10,196	2,516	39,323
2007	0	1,320	2,361	1,983	993	6,331	7,091	1,641	21,720
2008	35	3,122	1,024	1,274	838	2,456	3,712	1,485	13,946
2009	0	227	124	11	1,566	2,486	1,493	87	5,994
2010	0	204	5	6	142	102	445	123	1,027
2011	21	5,257	1,851	4,696	9,424	9,101	12,724	2,261	45,335
2012	33	3,739	331	1,229	8,683	7,241	14,523	3,978	39,757
2013	33	4,995	1,248	2,360	4,810	2,609	9,993	1,258	27,306
2014	712	5,380	3,441	4,648	9,127	5,286	19,953	6,203	54,750
2009-2013									
Average	17	2,884	712	1,660	4,925	4,308	7,836	1,541	23,884
2004-2013									
Average	36	2,692	1,068	1,818	3,152	6,333	6,684	1,469	23,252

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Year ^a	District 2					District 3			
	334-21	334-22	334-23	334-24	334-25	Total	334-31	334-32	Total
1994	–	–	–	–	–	–	–	–	–
1995	115	12,154	2,951	3,268	0	18,488	–	–	–
1996	761	12,155	2,755	4,409	894	20,974	–	–	–
1997	2,197	6,449	1,238	3,025	147	13,056	–	–	–
1998	–	–	–	–	–	–	–	–	–
1999	147	238	248	65	48	746	–	–	–
2000	–	–	–	–	–	–	–	–	–
2001	–	–	–	–	–	–	–	–	–
2002	–	–	–	–	–	–	–	–	–
2003	–	–	–	–	–	–	–	–	–
2004	–	–	–	–	–	–	–	–	–
2005	–	–	–	–	–	–	–	–	–
2006	2,138	7,250	3,745	1,349	0	14,482	–	–	–
2007	4,195	12,354	3,253	1,685	0	21,487	–	–	–
2008	3,275	6,076	4,594	4,680	621	19,246	–	–	–
2009	370	1,085	100	8	19	1,582	–	–	–
2010	7	105	606	0	305	1,023	–	–	–
2011	6,184	8,091	3,705	5,987	217	24,184	–	–	–
2012	4,748	10,750	5,584	7,981	–	29,063	–	–	–
2013	3,951	11,041	7,225	8,911	330	31,458	–	–	–
2014	5,397	19,757	12,310	11,138	–	48,602	–	–	–
2009-2013									
Average	3,052	6,214	3,444	4,577	218	17,462			
2004-2013									
Average	3,109	7,094	3,602	3,825	213	17,816			

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average. ADF&G test fishery sales not included.

^a Estimated harvest includes reported harvest of both males and females harvested to produce roe sold.

Appendix B6.–Daily and cumulative CPUE for Chinook salmon in the set gillnet test fishery, lower Yukon River, 2014.

Chinook salmon in 8.5-inch set gillnets							
Date	2014				Average 1989–2013 ^a		
	Daily catch	Daily CPUE	Cumulative CPUE	Proportion	Commercial hours fished ^b	Proportion	Cumulative CPUE
26 May	3	0.13	0.13	0.00			
27 May	1	0.02	0.15	0.00		0.00	0.03
28 May	13	0.27	0.42	0.01		0.00	0.04
29 May	9	0.19	0.60	0.02		0.00	0.06
30 May	10	0.21	0.81	0.02		0.00	0.11
31 May	25	0.52	1.33	0.04		0.01	0.16
1 Jun	44	0.92	2.25	0.06		0.01	0.22
2 Jun	24	0.50	2.75	0.08		0.01	0.30
3 Jun	13	0.24	2.99	0.08		0.02	0.44
4 Jun	10	0.21	3.20	0.09		0.03	0.61
5 Jun	4	0.08	3.28	0.09		0.04	0.78
6 Jun	13	0.27	3.55	0.10		0.05	1.02
7 Jun	19	0.79	4.34	0.12		0.06	1.30
8 Jun	12	0.50	4.84	0.13		0.07	1.63
9 Jun	2	0.08	4.93	0.13	12	0.10	2.17
10 Jun	2	0.08	5.01	0.14	12	0.12	2.64
11 Jun	8	0.33	5.34	0.15	12	0.14	3.00
12 Jun	37	1.54	6.89	0.19	12	0.16	3.58
13 Jun	25	0.96	7.85	0.21	12	0.20	4.27
14 Jun	31	1.41	9.26	0.25		0.23	4.95
15 Jun	30	1.25	10.51	0.29	12	0.26	5.63
16 Jun	31	1.29	11.80	0.32	12	0.30	6.49
17 Jun	39	1.63	13.42	0.37	12	0.33	7.29
18 Jun	36	1.50	14.92	0.41	12	0.37	8.11
19 Jun	26	1.08	16.01	0.44	12	0.41	8.90
20 Jun	41	1.71	17.72	0.48	12	0.44	9.63
21 Jun	38	1.58	19.30	0.53		0.48	10.52
22 Jun	38	1.58	20.88	0.57	12	0.52	11.43
23 Jun	99	4.13	25.01	0.68	12	0.56	12.28
24 Jun	48	2.00	27.01	0.74	12	0.61	13.25
25 Jun	26	1.08	28.09	0.77	12	0.64	14.09
26 Jun	31	1.29	29.38	0.80	12	0.68	14.92
27 Jun	46	1.92	31.30	0.86	12	0.72	15.65
28 Jun	37	1.54	32.84	0.90		0.75	16.35
29 Jun	23	0.96	33.80	0.92	12	0.78	17.00
30 Jun	12	0.50	34.30	0.94	12	0.80	17.51

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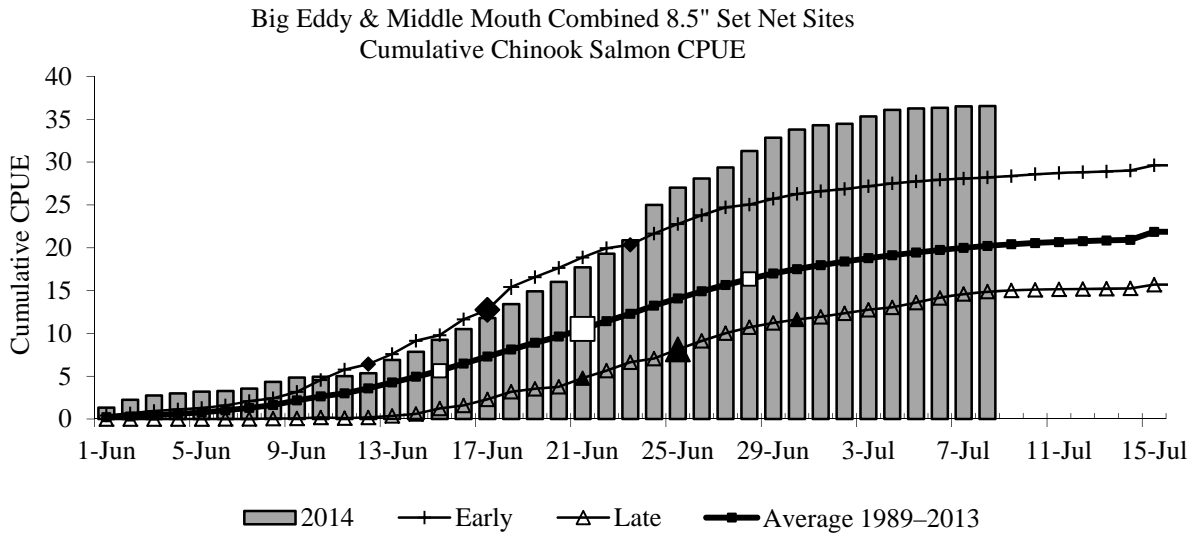
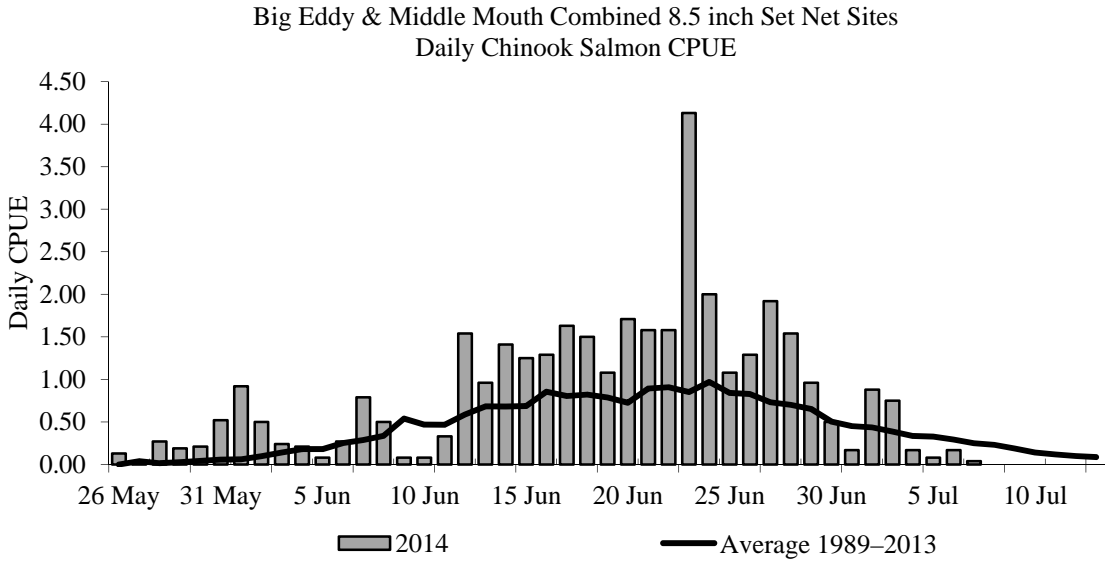
Chinook salmon in 8.5-inch set gillnets							
Date	2014					Average 1989–2013 ^a	
	Daily catch	Daily CPUE	Cumulative CPUE	Proportion	Comm/period hours fished ^b	Proportion	Cumulative CPUE
1 Jul	4	0.17	34.47	0.94	12	0.82	17.96
2 Jul	21	0.88	35.34	0.97	12	0.84	18.40
3 Jul	18	0.75	36.09	0.99	4	0.86	18.78
4 Jul	4	0.17	36.26	0.99		0.87	19.12
5 Jul	2	0.08	36.34	0.99		0.89	19.45
6 Jul	4	0.17	36.51	1.00		0.90	19.74
7 Jul	1	0.04	36.55	1.00	9 ^c	0.91	19.99
8 Jul						0.92	20.22
9 Jul					9	0.93	20.41
10 Jul						0.94	20.55
11 Jul					9	0.95	20.67
12 Jul						0.95	20.76
13 Jul					12	0.95	20.85
14 Jul						0.96	20.92
15 Jul					12	1.00	21.86
Total	960		36.55		307		21.86

Note: The box within the cumulative index column indicates the first quarter point, midpoint, and third quarter point of the cumulative index.

^a 2009 not included because high water and debris caused considerable difficulty for the project.

^b No directed Chinook salmon commercial fishing periods were executed in 2014.

^c Set net sites in Big Eddy and South Mouth were discontinued after June 6. Only 1 set net operated in Middle Mouth and was removed on July 7.



Appendix B7.—Daily and cumulative catch per unit effort (CPUE) for the 2014 Chinook salmon set gillnet test fishery compared to the average daily and cumulative CPUE, 1989–2013.

Appendix B8.—Daily and cumulative CPUE for summer chum salmon in the cooperative 5.5-inch mesh drift gillnet test fishery, Big Eddy and Middle Mouth, lower Yukon River, 2014.

Summer chum salmon in 5.5-inch drift gillnet												
Date	Big Eddy Drift				Middle Mouth Drift				Big Eddy and Middle Mouth Combined			
	Daily catch	Daily index	Proportion	Cumulative index	Daily catch	Daily index	Proportion	Cumulative index	Daily catch	Daily index	Proportion	Cumulative index
24 May	1	1.58	0.00	1.58					1	1.58	0.00	1.58 ^a
25 May	3	4.54	0.00	6.12					3	4.54	0.00	6.12 ^a
26 May	11	16.51	0.00	22.63					11	16.51	0.00	22.63 ^a
27 May	4	5.57	0.00	28.20					4	5.57	0.00	28.20 ^a
28 May	18	26.82	0.01	55.02					18	26.82	0.01	55.02 ^a
29 May	33	49.57	0.02	104.59					33	49.57	0.01	104.59 ^a
30 May	21	30.23	0.02	134.82					21	30.23	0.02	134.82 ^a
31 May	62	95.44	0.03	230.26					62	95.44	0.03	230.26 ^a
1 Jun	30	43.78	0.04	274.04					30	43.78	0.03	274.04 ^a
2 Jun	31	47.20	0.05	321.24					31	47.20	0.04	321.24 ^a
3 Jun	13	19.94	0.05	341.18					13	19.94	0.04	341.18 ^a
4 Jun	9	13.74	0.05	354.92					9	13.74	0.04	354.92 ^a
5 Jun	3	4.74	0.05	359.66					3	4.74	0.04	359.66 ^a
6 Jun	18	26.64	0.06	386.30					18	26.64	0.04	386.30 ^a
7 Jun	128	730.94	0.16	1,117.24	23	31.26	0.01	31.26	151	762.20	0.13	1,148.50 ^b
8 Jun	70	326.33	0.21	1,443.57	28	37.28	0.03	68.54	98	363.61	0.17	1,512.11
9 Jun	44	545.45	0.29	1,989.02	9	13.66	0.04	82.2	53	559.11	0.23	2,071.22 ^b
10 Jun	15	68.83	0.30	2,057.85	1	3.00	0.04	85.2	16	71.83	0.24	2,143.05 ^{b,c}
11 Jun	19	58.46	0.31	2,116.31	2	6.15	0.04	91.35	21	64.61	0.25	2,207.66 ^{b,c}
12 Jun	11	34.49	0.32	2,150.80	3	8.00	0.05	99.35	14	42.49	0.25	2,250.15 ^{b,c}
13 Jun	8	24.16	0.32	2,174.96	5	15.44	0.05	114.79	13	39.61	0.26	2,289.76 ^{b,c}
14 Jun	92	264.27	0.36	2,439.23	28	39.36	0.07	154.15	120	303.63	0.29	2,593.39
15 Jun	40	444.76	0.42	2,883.99	23	72.16	0.11	226.31	63	516.92	0.35	3,110.31 ^{b,c}
16 Jun	20	135.38	0.44	3,019.37	34	100.90	0.15	327.21	54	236.29	0.38	3,346.60 ^{b,c}
17 Jun	44	193.08	0.47	3,212.45	54	161.57	0.23	488.78	98	354.65	0.41	3,701.25 ^{b,c}
18 Jun	30	201.32	0.50	3,413.77	44	147.25	0.30	636.03	74	348.56	0.45	4,049.81 ^{b,c}
19 Jun	47	514.74	0.58	3,928.51	16	39.51	0.32	675.54	63	554.24	0.52	4,604.05 ^{b,c}

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Summer chum salmon in 5.5-inch drift gillnet												
Date	Big Eddy Drift				Middle Mouth Drift				Big Eddy and Middle Mouth Combined			
	Daily catch	Daily index	Proportion	Cumulative index	Daily catch	Daily index	Proportion	Cumulative index	Daily catch	Daily index	Proportion	Cumulative index
20 Jun	62	294.00	0.62	4,222.51	67	285.85	0.45	961.39	129	579.85	0.58	5,183.90 ^{b,c}
21 Jun	55	150.08	0.64	4,372.59	65	82.77	0.49	1,044.16	120	232.85	0.61	5,416.75
22 Jun	20	190.83	0.67	4,563.42	24	34.04	0.51	1,078.20	44	224.88	0.63	5,641.63 ^b
23 Jun	–	–	0.67	4,563.42	37	73.88	0.54	1,152.08	37	73.88	0.64	5,715.51 ^{c,d}
24 Jun	34	176.41	0.70	4,739.83	31	75.97	0.58	1,228.05	65	252.38	0.67	5,967.89 ^{b,c}
25 Jun	38	81.50	0.71	4,821.33	1	1.43	0.58	1,229.48	39	82.93	0.68	6,050.82
26 Jun	29	89.23	0.72	4,910.56	0	0.00	0.58	1,229.48	29	89.23	0.69	6,140.05 ^{b,c}
27 Jun	83	410.11	0.78	5,320.67	69	199.77	0.67	1,429.25	152	609.88	0.76	6,749.93 ^{b,c}
28 Jun	46	138.00	0.80	5,458.67	28	99.26	0.72	1,528.51	74	237.26	0.78	6,987.19 ^{b,c}
29 Jun	54	299.49	0.85	5,758.16	10	28.99	0.73	1,557.50	64	328.48	0.82	7,315.67 ^{b,c}
30 Jun	9	27.38	0.85	5,785.54	17	56.68	0.76	1,614.18	26	84.07	0.83	7,399.74 ^{b,c}
1 Jul	20	62.35	0.86	5,847.89	3	4.19	0.76	1,618.37	23	66.53	0.84	7,466.27 ^b
2 Jul	42	203.86	0.89	6,051.75	119	327.13	0.91	1,945.50	161	530.98	0.90	7,997.25 ^b
3 Jul	19	60.00	0.90	6,111.75	22	67.69	0.95	2,013.19	41	127.69	0.91	8,124.94 ^{b,c}
4 Jul	19	29.45	0.90	6,141.20	9	11.97	0.95	2,025.16	28	41.42	0.92	8,166.36
5 Jul	26	41.05	0.91	6,182.25	4	6.36	0.95	2,031.52	30	47.42	0.92	8,213.78
6 Jul	59	111.96	0.93	6,294.21	18	26.50	0.97	2,058.02	77	138.46	0.94	8,352.24
7 Jul	12	37.89	0.93	6,332.10	0	0.00	0.97	2,058.02	12	37.89	0.94	8,390.13 ^{b,c}
8 Jul	16	24.16	0.94	6,356.26	8	11.71	0.97	2,069.73	24	35.87	0.94	8,426.00
9 Jul	19	60.00	0.94	6,416.26	1	3.16	0.97	2,072.89	20	63.16	0.95	8,489.16 ^{b,c}
10 Jul	11	17.37	0.95	6,433.63	0	0.00	0.97	2,072.89	11	17.37	0.95	8,506.53
11 Jul	34	107.37	0.96	6,541.00	1	2.86	0.98	2,075.75	35	110.23	0.97	8,616.76 ^{b,c}
12 Jul	46	212.50	0.99	6,753.50	2	6.00	0.98	2,081.75	48	218.50	0.99	8,835.26 ^c
13 Jul	12	37.89	1.00	6,791.39	3	9.00	0.98	2,090.75	15	46.89	1.00	8,882.15 ^{b,c}
14 Jul	–	–	1.00	6,791.39	–	–	0.98	2,090.75	–	–	1.00	8,882.15 ^e
15 Jul	–	–	1.00	6,791.39	13	36.81	1.00	2,127.56	13	36.81	1.00	8,918.96 ^{c,d}
Total	1,590	6,791.39		6,791.39	822	2,127.56		2,127.56	2,412	8,918.96		8,918.96

Note: The box within the cumulative index column indicates the first quarter point, midpoint, and third quarter point of the cumulative index.

^a Big Eddy Site 1 and 2 only. Middle Mouth not operational.

^b Drift schedule was altered. Only 2 drifts at Big Eddy.

^c Drift schedule was altered. Only 2 drifts at Middle Mouth.

^d Big Eddy not operational.

^e Drifts cancelled due to inclement weather.

Appendix B9.–Fall chum and coho salmon, daily and cumulative cat per unit effort (CPUE), cooperative drift gillnet (6.0 inch) test fishery, Big Eddy and Middle Mouth sites combined, Lower Yukon River, 2001 to 2013 compared to 2014.

Date	Historical median cumulative percent ^a	Fall chum salmon							
		2001 to 2013 Median				2014			
		Daily catch	Daily index	%	Cumulative index	Daily catch	Daily index	%	Cumulative index ^a
7/16	0.01	18	15.82	0.01	15.82	153	112.07	0.04	112.07
7/17	0.04	19	14.11	0.02	44.23	63	109.52	0.09	221.59 ^b
7/18	0.06	4	3.81	0.04	66.41	37	27.38	0.10	248.97
7/19	0.09	4	3.01	0.06	67.20	5	7.55	0.10	256.52 ^c
7/20	0.11	5	3.32	0.07	83.93	99	72.63	0.13	329.14
7/21	0.13	5	3.66	0.08	95.72	68	49.10	0.15	378.25
7/22	0.15	3	2.25	0.09	117.10	125	89.50	0.19	467.74
7/23	0.17	4	2.97	0.10	132.19	43	28.01	0.20	495.75
7/24	0.19	8	5.05	0.11	141.94	22	17.69	0.20	513.45 ^d
7/25	0.23	6	7.24	0.12	144.23	13	19.11	0.21	532.56 ^b
7/26	0.25	5	3.79	0.12	150.84	22	16.14	0.22	548.70
7/27	0.30	12	9.29	0.14	235.66	4	3.08	0.22	551.77
7/28	0.32	37	25.61	0.17	274.94	6	9.00	0.22	560.77 ^b
7/29	0.34	29	17.68	0.21	311.25	24	18.17	0.23	578.95
7/30	0.35	10	7.54	0.22	316.83	4	3.15	0.23	582.10
7/31	0.37	24	18.01	0.24	321.69	0	0.00	0.23	582.10 ^{e,f}
8/1	0.38	29	30.13	0.34	324.04	136	174.18	0.30	756.28
8/2	0.39	10	11.59	0.38	328.52	76	101.82	0.34	858.10
8/3	0.41	12	12.56	0.39	490.42	12	9.35	0.34	867.45
8/4	0.45	4	2.13	0.43	548.32	2	1.48	0.34	868.93
8/5	0.49	10	7.00	0.43	560.31	6	4.48	0.35	873.41
8/6	0.53	12	8.86	0.46	588.66	5	3.81	0.35	877.22
8/7	0.55	26	18.10	0.49	601.44	1	0.70	0.35	877.92
8/8	0.58	35	24.62	0.49	610.51	2	1.46	0.35	879.38
8/9	0.62	25	19.44	0.50	614.30	0	0.00	0.35	879.38
8/10	0.66	17	12.46	0.53	694.78	3	2.20	0.35	881.58
8/11	0.69	3	2.20	0.54	709.20	0	0.00	0.35	881.58
8/12	0.70	28	19.80	0.60	784.44	1	0.75	0.35	882.33
8/13	0.72	13	14.46	0.63	784.44	248	483.33	0.54	1,365.66
8/14	0.74	21	17.26	0.66	839.56	18	13.86	0.55	1,379.52
8/15	0.77	15	10.83	0.67	877.32	1	1.58	0.55	1,381.10 ^b
8/16	0.82	13	11.03	0.74	920.23	46	48.20	0.57	1,429.29
8/17	0.83	14	12.61	0.77	1,014.99	23	17.72	0.57	1,447.02
8/18	0.85	9	5.87	0.81	1,069.58	283	597.73	0.81	2,044.74 ^b
8/19	0.87	44	35.38	0.84	1,116.13	59	114.35	0.85	2,159.10
8/20	0.89	19	16.92	0.87	1,124.41	20	14.37	0.86	2,173.47
8/21	0.91	8	5.66	0.89	1,128.18	2	1.43	0.86	2,174.90
8/22	0.93	17	13.04	0.90	1,139.80	6	4.42	0.86	2,179.31
8/23	0.94	11	9.23	0.92	1,176.44	10	7.29	0.87	2,186.61
8/24	0.96	12	9.36	0.94	1,196.31	5	3.56	0.87	2,190.16
8/25	0.97	6	4.71	0.94	1,199.36	74	130.59	0.92	2,320.76 ^b
8/26	0.98	7	5.86	0.96	1,200.94	53	88.71	0.95	2,409.47 ^b
8/27	0.99	6	6.60	0.99	1,204.69	59	40.75	0.97	2,450.22
8/28	1.00	6	6.11	1.00	1,230.42	1	5.92	0.97	2,456.14 ^{b,e,f}
Total		624			1,230.42	1,840			2,456.14

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Date	Historical median cumulative percent ^a	Coho salmon							
		2001 to 2013 Median				2014			
		Daily catch	Daily index	%	Cumulative Index	Daily catch	Daily index	%	Cumulative index
7/16	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00
7/17	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00 ^b
7/18	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00
7/19	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00 ^c
7/20	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00
7/21	0.00	0	0.00	0.00	0.00	1	0.73	0.00	0.73
7/22	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.73
7/23	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.73
7/24	0.00	0	0.00	0.00	0.00	2	1.79	0.00	2.53 ^d
7/25	0.00	0	0.00	0.00	0.00	2	3.00	0.01	5.53 ^b
7/26	0.00	0	0.00	0.00	0.72	0	0.00	0.01	5.53
7/27	0.00	0	0.00	0.00	0.72	2	2.20	0.01	7.73
7/28	0.00	1	0.75	0.00	2.52	1	1.50	0.01	9.23 ^b
7/29	0.00	1	0.72	0.01	3.64	6	4.52	0.02	13.75
7/30	0.01	2	1.46	0.02	4.17	0	0.00	0.02	13.75
7/31	0.01	2	1.60	0.03	6.93	0	0.00	0.02	13.75 ^{e,f}
8/1	0.01	2	1.90	0.03	9.46	10	11.50	0.03	25.24
8/2	0.01	1	1.40	0.03	11.79	12	13.59	0.05	38.83
8/3	0.02	3	2.20	0.06	17.34	2	1.58	0.05	40.41
8/4	0.02	1	0.70	0.06	18.73	9	6.68	0.06	47.09
8/5	0.04	4	4.37	0.07	21.38	8	6.00	0.07	53.09
8/6	0.04	4	2.91	0.11	26.10	2	1.54	0.07	54.62
8/7	0.06	4	4.82	0.14	32.42	1	0.79	0.07	55.41
8/8	0.08	7	5.18	0.15	34.67	6	4.41	0.08	59.82
8/9	0.11	7	5.63	0.16	45.35	0	0.00	0.08	59.82
8/10	0.13	6	4.41	0.19	62.12	0	0.00	0.08	59.82
8/11	0.15	10	7.62	0.20	68.06	0	0.00	0.08	59.82
8/12	0.20	13	10.21	0.26	103.59	4	2.95	0.08	62.77
8/13	0.23	16	11.60	0.29	111.06	40	65.69	0.16	128.46
8/14	0.34	13	10.42	0.34	118.09	22	17.19	0.19	145.65
8/15	0.39	7	7.30	0.37	128.36	1	1.58	0.19	147.22 ^b
8/16	0.45	18	10.10	0.44	151.40	41	41.37	0.24	188.60
8/17	0.51	14	11.14	0.49	175.74	46	34.10	0.29	222.70
8/18	0.58	10	9.23	0.53	181.68	68	137.10	0.46	359.80
8/19	0.62	18	17.75	0.66	202.71	58	131.92	0.63	491.72 ^b
8/20	0.68	17	13.46	0.71	243.71	25	18.20	0.65	509.92
8/21	0.70	11	8.26	0.76	249.59	10	7.25	0.66	517.18
8/22	0.75	20	13.87	0.80	258.45	6	4.32	0.67	521.50
8/23	0.80	5	5.97	0.83	276.74	29	21.71	0.70	543.21
8/24	0.87	8	6.08	0.85	283.71	28	21.69	0.72	564.90
8/25	0.89	7	5.20	0.88	292.17	19	35.63	0.77	600.53 ^b
8/26	0.91	5	3.71	0.92	293.67	9	14.36	0.79	614.89 ^b
8/27	0.97	4	4.28	0.96	299.55	26	18.13	0.81	633.02
8/28	1.00	5	4.18	1.00	307.09	2	4.46	0.82	637.48 ^{b,e,f}
Total		245			307.09	498			637.48

Note: The box within the cumulative index column indicates the first quarter point, midpoint, and third quarter point of the cumulative index.

^a Historical percent passage is based on the median from the set net test fishery 1980 to 1993 and 1995 to 2000.

^b One or more drifts cancelled due to commercial period.

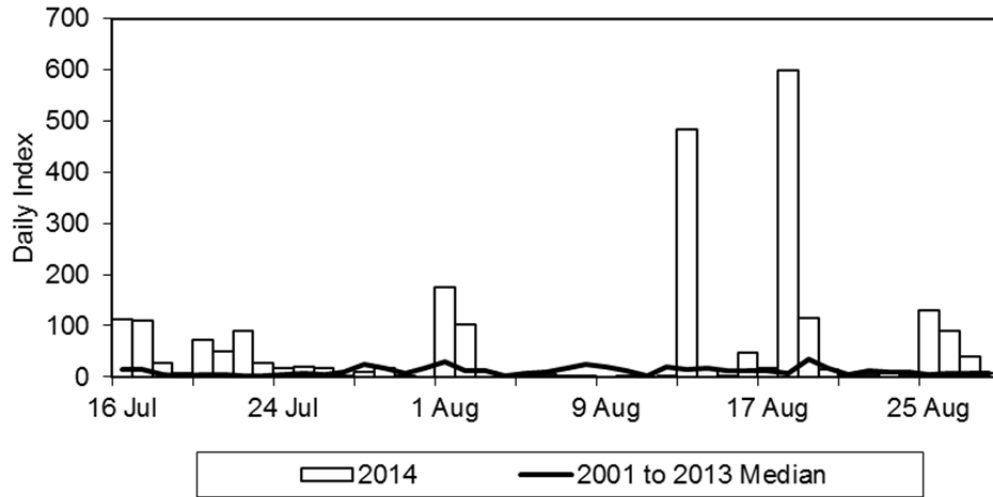
^c One or more drifts cancelled due to hazardous weather.

^d One or more drifts cancelled due to mechanical problems at Middle Mouth.

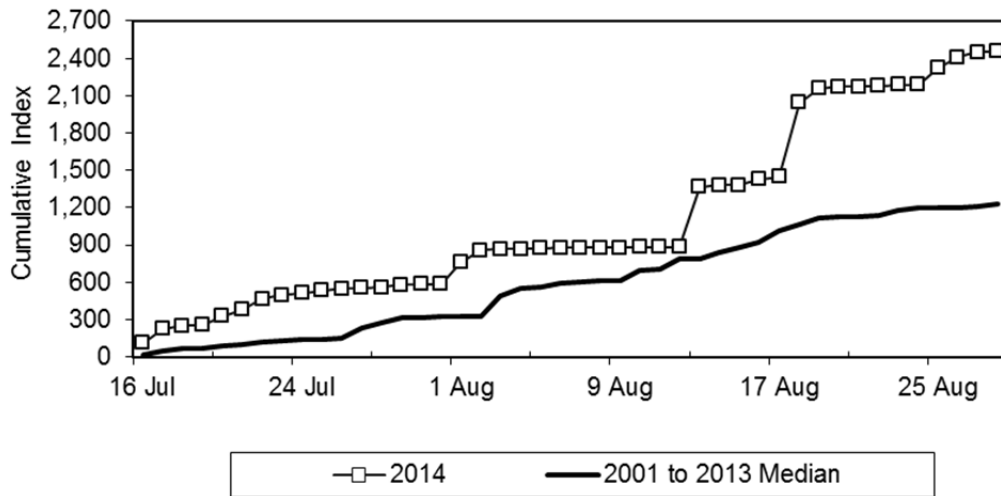
^e Data interpolated for Middle Mouth.

^f Drifts cancelled at Middle Mouth.

Big Eddy & Middle Mouth Combined 6.0" Test Net Sites
Daily Fall Chum Salmon Index

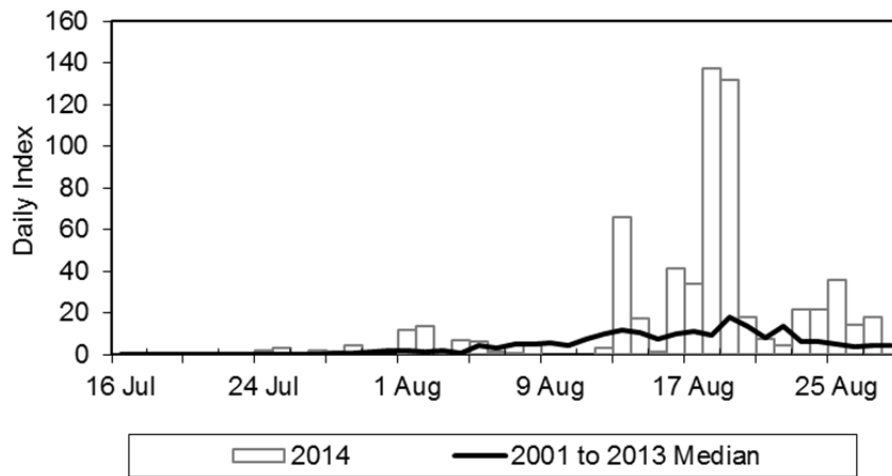


Big Eddy & Middle Mouth Combined 6.0" Test Net Sites
Cumulative Fall Chum Salmon Index

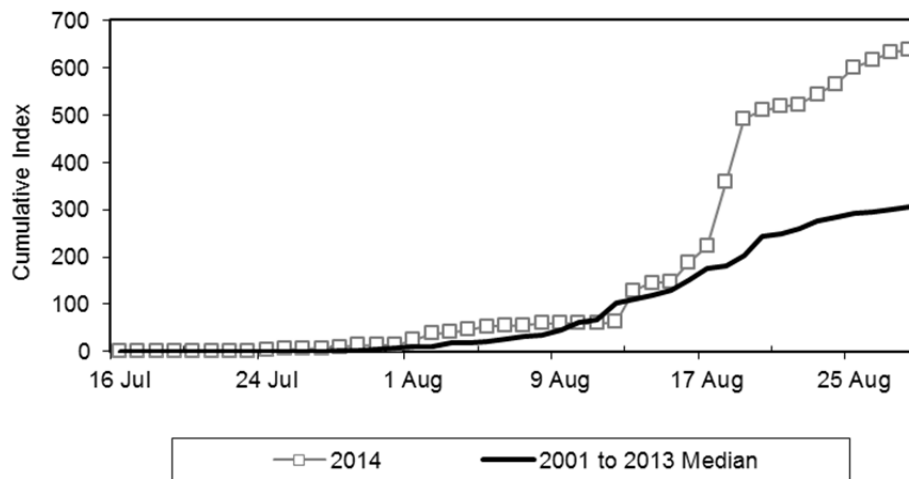


Appendix B10.—Fall chum salmon daily and cumulative catch per unit effort (CPUE), Big Eddy and Middle Mouth sites combined, cooperative drift net test fishery, Lower Yukon River, 2001–2013 compared to 2014.

Big Eddy & Middle Mouth Combined 6.0" Test Net Sites
Daily Coho Salmon Index



Big Eddy & Middle Mouth Combined 6.0" Test Net Sites
Cumulative Coho Salmon Index



Appendix B11.—Coho salmon daily and cumulative catch per unit effort (CPUE), Big Eddy and Middle Mouth sites combined, cooperative drift net test fishery, Lower Yukon River, 2001–2013 compared to 2014.

APPENDIX C: UPPER YUKON AREA SALMON

Appendix C1.—Commercial salmon sales and estimated harvest by statistical area, all gears combined, Upper Yukon Area, 2014.

Set gillnet and fish wheel combined													
Statistical area	Number of fishermen ^a	Chinook			Summer chum			Fall chum			Coho		
		Number	Roe	Estimated harvest	Number	Roe	Estimated harvest	Number	Roe	Estimated harvest	Number	Roe	Estimated harvest
334-42	—	—	—	—	—	—	—	—	—	—	—	—	—
334-43	—	—	—	—	—	—	—	—	—	—	—	—	—
334-44	—	—	—	—	—	—	—	—	—	—	—	—	—
334-45	—	—	—	—	—	—	—	—	—	—	—	—	—
334-46	10	0	0	0	96,385	0	96,385	—	—	—	—	—	—
334-47	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal													
District 4	10	0	0	0	96,385	0	96,385	—	—	—	—	—	—
334-51	—	—	—	—	—	—	—	—	—	—	—	—	—
334-52	2	—	—	—	—	—	—	1,264	0	1,264	0	0	0
334-53	—	—	—	—	—	—	—	—	—	—	—	—	—
334-54	—	—	—	—	—	—	—	—	—	—	—	—	—
334-55	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal													
District 5	—	—	—	—	—	—	—	1,264	0	1,264	0	0	0
334-61	1	—	—	—	—	—	—	1,568	0	1,568	318	0	318
334-62	1	0	0	0	6,912	0	6,912	1,800	0	1,800	968	0	968
334-63	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal													
District 6	1	0	0	0	6,912	0	6,912	3,368	0	3,368	1,286	0	1,286
Upper Yukon													
Area Total	11	0	0	0	103,297	0	103,297	4,632	0	4,632	1,286	0	1,286

Note: En dash indicates no commercial fishing activity occurred.

^a The number of fishermen is the unique number of permits fished.

Appendix C2.—Commercial set gillnet salmon sales and estimated harvest by statistical area, Upper Yukon Area, 2014.

Set gillnet ^a													
Statistical area	Number of fishermen ^b	Chinook			Summer chum			Fall chum			Coho		
		Number	Roe	Estimated harvest	Number	Roe	Estimated harvest	Number	Roe	Estimated harvest	Number	Roe	Estimated harvest
334-42	—	—	—	—	—	—	—	—	—	—	—	—	—
334-43	—	—	—	—	—	—	—	—	—	—	—	—	—
334-44	—	—	—	—	—	—	—	—	—	—	—	—	—
334-45	—	—	—	—	—	—	—	—	—	—	—	—	—
334-46	0	0	0	0	0	0	0	—	—	—	—	—	—
334-47	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal													
District 4	0	0	0	0	0	0	0	—	—	—	—	—	—
334-51	—	—	—	—	—	—	—	—	—	—	—	—	—
334-52	—	—	—	—	—	—	—	0	0	0	0	0	0
334-53	—	—	—	—	—	—	—	—	—	—	—	—	—
334-54	—	—	—	—	—	—	—	—	—	—	—	—	—
334-55	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal													
District 5	—	—	—	—	—	—	—	0	0	0	0	0	0
334-61	0	—	—	—	—	—	—	0	0	0	0	0	0
334-62	0	0	0	0	0	0	0	0	0	0	0	0	0
334-63	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal													
District 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Upper Yukon													
Area Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: En dash indicates no commercial fishing activity occurred.

^a Set net gear was allowed but not used by permit holders in 2014.

^b The number of fishermen is the unique number of permits fished.

Appendix C3.—Commercial fish wheel salmon sales and estimated harvest by statistical area, Upper Yukon Area, 2014.

Statistical area	Number of fishermen ^a	Chinook			Summer chum			Fall chum			Coho		
		Number	Roe	Estimated harvest	Number	Roe	Estimated harvest	Number	Roe	Estimated harvest	Number	Roe	Estimated harvest
334-42	—	—	—	—	—	—	—	—	—	—	—	—	—
334-43	—	—	—	—	—	—	—	—	—	—	—	—	—
334-44	—	—	—	—	—	—	—	—	—	—	—	—	—
334-45	—	—	—	—	—	—	—	—	—	—	—	—	—
334-46	10	0	0	0	96,385	0	96,385	—	—	—	—	—	—
334-47	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal													
District 4	10	0	0	0	96,385	0	96,385	—	—	—	—	—	—
334-51	—	—	—	—	—	—	—	—	—	—	—	—	—
334-52	2	—	—	—	—	—	—	1,264	0	1,264	0	0	0
334-53	—	—	—	—	—	—	—	—	—	—	—	—	—
334-54	—	—	—	—	—	—	—	—	—	—	—	—	—
334-55	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal													
District 5	—	—	—	—	—	—	—	1,264	0	1,264	0	0	0
334-61	1	—	—	—	—	—	—	1,568	0	1,568	318	0	318
334-62	1	0	0	0	6,912	0	6,912	1,800	0	1,800	968	0	968
334-63	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal													
District 6	1	0	0	0	6,912	0	6,912	3,368	0	3,368	1,286	0	1,286
Upper Yukon													
Area Total	11	0	0	0	103,297	0	103,297	4,632	0	4,632	1,286	0	1,286

Note: En dash indicates no commercial fishing activity occurred.

^a The number of fishermen is the unique number of permits fished.

Appendix C4.—Commercial Chinook salmon sales and estimated harvest by statistical area, Subdistrict 4-A, Upper Yukon Area, 1994–2014.

Year ^a	334-44			334-45			334-46			Total		
	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c
1994	0	0	0	0	0	0	0	14	7	0	14	7
1995	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0
1998	–	–	–	–	–	–	–	–	–	–	–	–
1999	–	–	–	–	–	–	–	–	–	–	–	–
2000	–	–	–	–	–	–	–	–	–	–	–	–
2001	–	–	–	–	–	–	–	–	–	–	–	–
2002	0	0	0	0	0	0	0	0	0	0	0	0
2003	–	–	–	–	–	–	–	–	–	–	–	–
2004	–	–	–	–	–	–	–	–	–	–	–	–
2005	–	–	–	–	–	–	–	–	–	–	–	–
2006	–	–	–	–	–	–	–	–	–	–	–	–
2007	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	0	0	0
2011	–	–	–	–	–	–	–	–	–	–	–	–
2012	0	0	0	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0	0

Note: En dash indicates no commercial fishing activity occurred.

^a Reported as numbers of fish sold in the round.

^b Pounds of salmon roe sold. Since 1990, efforts were made to separate Chinook salmon roe from summer chum salmon roe.

^c The estimated harvest is the fish sold in the round plus the number of females estimated to have produced the roe sold. Since 1990, the estimated number of females is based on a District 4 sampling program that estimated average roe weight per female by statistical area, period, and gear type.

Appendix C5.—Commercial Chinook salmon sales and estimated harvest by statistical area, Subdistricts 4-B and 4-C, Upper Yukon Area, 1994–2014.

Year	334-42			334-43			Total		
	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c
1994	389	374	539	1,827	176	1,897	2,216	550	2,436
1995	262	30	262	0	596	237	262	626	499
1996	11	202	103	34	0	34	45	202	137
1997	326	14	333	1,124	0	1,124	1,450	14	1,457
1998	—	—	—	—	—	—	—	—	—
1999	233	0	233	1,204	0	1,204	1,437	0	1,437
2000	—	—	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—
2002	0	0	0	0	0	0	0	0	0
2003	0	0	0	562	0	562	562	0	562
2004	—	—	—	—	—	—	—	—	—
2005	—	—	—	—	—	—	—	—	—
2006	—	—	—	—	—	—	—	—	—
2007	—	—	—	—	—	—	—	—	—
2008	—	—	—	—	—	—	—	—	—
2009	—	—	—	—	—	—	—	—	—
2010	—	—	—	—	—	—	—	—	—
2011	—	—	—	—	—	—	—	—	—
2012	—	—	—	—	—	—	—	—	—
2013	—	—	—	—	—	—	—	—	—
2014	—	—	—	—	—	—	—	—	—

Note: En dash indicates no commercial fishing activity occurred.

^a Reported as numbers of fish sold in the round.

^b Pounds of salmon roe sold. Since 1990, efforts were made to separate Chinook salmon roe from summer chum salmon roe.

^c The estimated harvest is the fish sold in the round plus the number of females estimated to have produced the roe sold. Since 1990, the estimated number of females is based on a District 4 sampling program that estimated average roe weight per female by statistical area, period, and gear type.

Appendix C6.—Commercial Chinook salmon sales and estimated harvest by statistical area, Subdistricts 5-A, 5-B, and 5-C, Upper Yukon Area, 1994–2014.

Year	334-51			334-52			334-53			Total		
	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c
1994	0	0	0	1,648	10	1,653	1,641	0	1,641	3,289	10	3,294
1995	0	0	0	1,519	0	1,519	1,234	0	1,234	2,753	0	2,753
1996	0	0	0	898	455	1,216	1,151	63	1,183	2,049	518	2,399
1997	0	0	0	1,314	0	1,314	1,757	0	1,757	3,071	0	3,071
1998	0	0	0	279	0	279	196	0	196	475	0	475
1999	–	–	–	1,468	0	1,468	721	0	721	2,189	0	2,189
2000	–	–	–	–	–	–	–	–	–	–	–	–
2001	–	–	–	–	–	–	–	–	–	–	–	–
2002	–	–	–	307	0	307	257	0	257	564	0	564
2003	–	–	–	711	0	711	197	0	197	908	0	908
2004	–	–	–	1,317	0	1,317	229	0	229	1,546	0	1,546
2005	–	–	–	1,297	0	1,297	172	0	172	1,469	0	1,469
2006	–	–	–	1,358	0	1,358	481	0	481	1,839	0	1,839
2007	–	–	–	1,064	0	1,064	177	0	177	1,241	0	1,241
2008	–	–	–	–	–	–	–	–	–	–	–	–
2009	–	–	–	–	–	–	–	–	–	–	–	–
2010	–	–	–	–	–	–	–	–	–	–	–	–
2011	–	–	–	–	–	–	–	–	–	–	–	–
2012	–	–	–	–	–	–	–	–	–	–	–	–
2013	–	–	–	–	–	–	–	–	–	–	–	–
2014	–	–	–	–	–	–	–	–	–	–	–	–

Note: En dash indicates no commercial fishing activity occurred.

^a Reported as numbers of fish sold in the round.

^b Pounds of salmon roe sold. Since 1990, efforts were made to separate Chinook salmon roe from summer chum salmon roe.

^c The estimated harvest is the fish sold in the round plus the number of females estimated to have produced the roe sold. Since 1990, the estimated number of females is based on a District 4 sampling program that estimated average roe weight per female by statistical area, period, and gear type.

Appendix C7.—Commercial Chinook salmon sales and estimated harvest by statistical area, Subdistrict 5-D, Upper Yukon Area, 1994–2014.

Year ^a	334-54			334-55			Total		
	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c
1994	0	0	0	450	0	450	450	0	450
1995	0	0	0	489	0	489	489	0	489
1996	58	0	58	390	0	390	448	0	448
1997	262	0	262	345	0	345	607	0	607
1998	11	0	11	31	0	31	42	0	42
1999	81	0	81	334	0	334	415	0	415
2000	—	—	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—
2002	0	0	0	207	0	207	207	0	207
2003	0	0	0	226	0	226	226	0	226
2004	—	—	—	—	—	—	—	—	—
2005	—	—	—	—	—	—	—	—	—
2006	—	—	—	—	—	—	—	—	—
2007	—	—	—	—	—	—	—	—	—
2008	—	—	—	—	—	—	—	—	—
2009	—	—	—	—	—	—	—	—	—
2010	—	—	—	—	—	—	—	—	—
2011	—	—	—	—	—	—	—	—	—
2012	—	—	—	—	—	—	—	—	—
2013	—	—	—	—	—	—	—	—	—
2014	—	—	—	—	—	—	—	—	—

Note: En dash indicates no commercial fishing activity occurred.

^a Reported as numbers of fish sold in the round.

^b Pounds of salmon roe sold. Since 1990, efforts were made to separate Chinook salmon roe from summer chum salmon roe.

^c The estimated harvest is the fish sold in the round plus the number of females estimated to have produced the roe sold. Since 1990, the estimated number of females is based on a District 4 sampling program that estimated average roe weight per female by statistical area, period, and gear type.

Appendix C8.—Commercial Chinook salmon sales and estimated harvest by statistical area, District 6, Upper Yukon Area, 1994–2014.

Year	334-61			334-62			334-63			Total		
	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c
1994	0	0	0	1,941	1,513	2,333	194	307	273	2,135	1,820	2,606
1995	0	110	26	1,418	3,783	2,287	242	838	434	1,660	4,731	2,747
1996	0	0	0	110	645	255	168	105	192	278	750	447
1997	38	0	38	1,662	2,816	2,334	266	395	356	1,966	3,211	2,728
1998	217	0	217	431	208	496	234	52	250	882	260	963
1999	0	0	0	269	734	462	133	362	228	402	1,096	690
2000	—	—	—	—	—	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—	—	—	—
2002	0	0	0	732	896	962	104	0	104	836	896	1,066
2003	0	0	0	1,445	0	1,445	368	0	368	1,813	0	1,813
2004	0	0	0	1,542	0	1,542	515	0	515	2,057	0	2,057
2005	0	0	0	391	0	391	62	0	62	453	0	453
2006	0	0	0	0	0	0	84	0	84	84	0	84
2007	0	0	0	106	0	106	175	0	175	281	0	281
2008	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0	0
2009–2013												
Average	0	0	0	0	0	0	0	0	0	0	0	0
2004–2013												
Average	0	0	0	204	0	204	84	0	84	288	0	288

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a Reported as numbers of fish sold in the round.

^b Pounds of salmon roe sold. Since 1990, efforts were made to separate Chinook salmon roe from summer chum salmon roe.

^c The estimated harvest is the fish sold in the round plus the estimated number of females to produce the roe sold. Since 1990, the estimated number of females that produce the roe sold is based on a District 6 sampling program that estimated average roe weight per female by period.

Appendix C9.—Commercial summer chum salmon sales and estimated harvest by statistical area, Subdistrict 4–A, Upper Yukon Area, 1994–2014.

Year	Roe expansion				Estimated harvest ^e	Roe expansion				Estimated harvest ^e
	Number ^a	Roe ^b	Males ^c	Females ^d		Number ^a	Roe ^b	Males ^c	Females ^d	
1994 ^f	0	18,095	12,937	22,606	35,543	0	15,091	11,031	19,276	30,307
1995	0	37,595	37,575	46,084	83,659	0	49,577	49,149	56,667	105,816
1996	0	31,186	26,210	34,592	60,802	0	40,692	30,785	45,483	76,268
1997	0	14,188	10,905	15,118	26,023	0	526	342	570	912
1998	–	–	–	–	–	–	–	–	–	–
1999	–	–	–	–	–	–	–	–	–	–
2000	–	–	–	–	–	–	–	–	–	–
2001	–	–	–	–	–	–	–	–	–	–
2002	–	–	–	–	–	–	–	–	–	–
2003	–	–	–	–	–	–	–	–	–	–
2004	–	–	–	–	–	–	–	–	–	–
2005	–	–	–	–	–	–	–	–	–	–
2006	–	–	–	–	–	–	–	–	–	–
2007 ^g	5,359	–	–	–	5,359	–	–	–	–	–
2008 ^g	–	–	–	–	–	–	–	–	–	–
2009 ^g	3,890	–	–	–	3,890	699	–	–	699	699
2010 ^h	–	–	–	–	–	–	–	–	–	–
2011	–	–	–	–	–	–	–	–	–	–
2012 ^h	–	–	–	–	–	–	–	–	–	–
2013 ^h	–	–	–	–	–	–	–	–	–	–
2014 ^h	–	–	–	–	–	–	–	–	–	–
2009–2013										
Average	3,890				3,890	699			699	699
2004–2013										
Average	4,625				4,625	699			699	699

-continued-

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		334-46					Subtotal 334-44, 45, and 46				
		Roe expansion				Estimated harvest ^e	Roe expansion				Estimated harvest ^e
Year		Number ^a	Roe ^b	Males ^c	Females ^d		Number ^a	Roe ^b	Males ^c	Females ^d	
1994	^f	0	29,615	28,825	37,119	65,944	0	62,801	52,794	79,000	131,794
1995		0	102,080	105,663	124,550	230,213	0	189,252	192,387	227,301	419,688
1996		0	109,172	98,926	120,942	219,868	0	181,050	155,921	201,017	356,938
1997		0	41,587	29,207	44,247	73,454	0	56,301	40,454	59,935	100,389
1998		–	–	–	–	–	–	–	–	–	–
1999		–	–	–	–	–	–	–	–	–	–
2000		–	–	–	–	–	–	–	–	–	–
2001		–	–	–	–	–	–	–	–	–	–
2002		–	–	–	–	–	–	–	–	–	–
2003		–	–	–	–	–	–	–	–	–	–
2004		–	–	–	–	–	–	–	–	–	–
2005		–	–	–	–	–	–	–	–	–	–
2006		–	–	–	–	–	–	–	–	–	–
2007	^g	1,945	–	–	–	1,945	7,304	–	–	–	7,304
2008	^g	23,746	–	–	–	23,746	23,746	–	–	–	23,746
2009	^g	–	–	–	–	–	4,589	–	–	–	4,589
2010	^h	44,207	–	–	–	44,207	44,207	–	–	–	44,207
2011		–	–	–	–	–	–	–	–	–	–
2012	^h	108,222	–	–	–	108,222	108,222	–	–	–	108,222
2013	^h	100,507	–	–	–	100,507	100,507	–	–	–	100,507
2014	^h	96,385	–	–	–	96,385	96,385	–	–	–	96,385
2009–2013											
Average		84,312				84,312	64,381				64,381
2004–2013											
Average		55,725				55,725	48,096				48,096

-continued-

		334-47 (Anvik River)				Total (Subdistrict 4-A and Anvik)				
		Roe expansion				Roe expansion				
Year		Number ^a	Roe ^b	Females ^d	Estimated harvest ^e	Number ^a	Roe ^b	Males ^c	Females ^d	Estimated harvest ^e
1994	^f	0	19,532	22,574	22,574	0	82,333	52,794	101,574	154,368
1995		0	48,477	54,744	54,744	0	237,729	192,387	282,045	474,432
1996		0	76,318	84,663	84,663	0	257,368	155,921	285,680	441,601
1997		0	13,067	13,548	13,548	0	69,368	40,454	73,483	113,937
1998		–	–	–	–	–	–	–	–	–
1999		–	–	–	–	–	–	–	–	–
2000		–	–	–	–	–	–	–	–	–
2001		–	–	–	–	–	–	–	–	–
2002		–	–	–	–	–	–	–	–	–
2003		–	–	–	–	–	–	–	–	–
2004		–	–	–	–	–	–	–	–	–
2005		–	–	–	–	–	–	–	–	–
2006		–	–	–	–	–	–	–	–	–
2007	^g	–	–	–	–	7,304	–	–	–	7,304
2008	^g	–	–	–	–	23,746	–	–	–	23,746
2009	^g	–	–	–	–	4,589	–	–	–	4,589
2010	^h	–	–	–	–	44,207	–	–	–	44,207
2011		–	–	–	–	–	–	–	–	–
2012	^h	–	–	–	–	108,222	–	–	–	108,222
2013	^h	–	–	–	–	100,507	–	–	–	100,507
2014	^h	–	–	–	–	96,385	–	–	–	96,385
2009–2013										
Average						64,381				
2004–2013										
Average						48,096				

-continued-

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a Reported as numbers of fish sold in the round.

^b Pounds of salmon roe sold. Prior to 1990, roe production may include small amounts of Chinook salmon roe. Since 1990, efforts were made to separate Chinook salmon roe from summer chum salmon roe.

^c The estimated number of unsold males that were caught and not sold while harvesting the females that produced the roe sold. Since 1990, the estimated number is based on a District 4 sampling program that estimated average percent males in the harvest by statistical area, period, and gear type.

^d The estimated number of females to produce the roe sold. Since 1991, the estimated number of females that produce the roe sold is based on a District 4 sample roe weight per female by statistical area, period, and gear type.

^e From 1990 to 2006 the estimated harvest is the number of fish sold in the round plus the estimated number of females and the estimated number of unsold males harvested to produce the roe sold. Beginning in 2007 the actual numbers of female fish from which roe were extracted are included in the total harvest. Males were recorded as caught but not sold, thus are accounted for in personal use totals.

^f In 1994, Statistical Area 334-47 was included in Subdistrict 4-A representing the Anvik River Management Area.

^g The number of female fish from which roe were extracted is the number harvested. Males were not purchased and are accounted for in personal use totals.

^h Both males and females were purchased and are included in the number harvested.

Appendix C10.—Commercial summer chum salmon sales and estimated harvest by statistical area, Subdistricts 4-B and 4-C, Upper Yukon Area, 1994–2014.

Year	334-42				334-43				Total				
	Roe expansion				Roe expansion				Roe expansion				
	Number ^a	Roe ^b	Females ^c	Harvest ^d	Number ^a	Roe ^b	Females ^c	Harvest ^d	Number ^a	Roe ^b	Females ^c	Males ^e	Harvest ^d
1994	2,844	6,455		14,803	767	929		2,436	3,611	7,384			17,239
1995	8,873	39,699		73,570	0	3,646		6,585	8,873	43,345			80,155
1996	0	36,927	39,156	67,012	0	895	939	1,627	0	37,822	40,095	28,544	68,639
1997	1,942	4,786	5,199	10,484	120	77	81	250	2,062	4,863	5,280	5,454	12,796
1998	—	—	—	—	—	—	—	—	—	—	—	—	—
1999	153	0	0	153	1,114	0	0	1,114	1,267	0	0	0	1,267
2000	—	—	—	—	—	—	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—	—	—	—	—
2002	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	62	0	0	62	62	0	0	0	62
2004	—	—	—	—	—	—	—	—	—	—	—	—	—
2005	—	—	—	—	—	—	—	—	—	—	—	—	—
2006	—	—	—	—	—	—	—	—	—	—	—	—	—
2007	—	—	—	—	—	—	—	—	—	—	—	—	—
2008	—	—	—	—	—	—	—	—	—	—	—	—	—
2009	—	—	—	—	—	—	—	—	—	—	—	—	—
2010	—	—	—	—	—	—	—	—	—	—	—	—	—
2011	—	—	—	—	—	—	—	—	—	—	—	—	—
2012	—	—	—	—	—	—	—	—	—	—	—	—	—
2013	—	—	—	—	—	—	—	—	—	—	—	—	—
2014	—	—	—	—	—	—	—	—	—	—	—	—	—

Note: En dash indicates no commercial fishing activity occurred.

^a Reported as numbers of fish sold in the round.

^b Pounds of salmon roe sold. Prior to 1990, roe production may include small amounts of Chinook salmon roe. Since 1990, efforts were made to separate Chinook salmon roe from the summer chum salmon sold.

^c The estimated number of females to produce the roe sold. Unless otherwise noted, prior to 1991, the roe expansion assumed 1.0 pound of roe per female. Since 1990, the estimated number of females that produced the roe sold is based on a District 4 sampling program that estimated average roe weight per female by statistical area, period, and gear type.

^d The total estimated harvest is the number of fish sold in the round plus the estimated number of females harvested to produce roe sold plus the estimated number of males caught but not sold.

^e The estimated number of unsold males that were caught and not sold while harvesting the females that produced the roe sold. Since 1990, the estimated number is based on a District 4 sampling program that estimated average percent males in the harvest by statistical area, period, and gear type.

Appendix C11.—Commercial summer chum salmon sales and estimated harvest by statistical area, Subdistricts 5-A, 5-B, and 5-C, Upper Yukon Area, 1994–2014.

Year	334-51			334-52			334-53			Total		
	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c
1994	0	0	0	133	212	368	96	0	96	229	212	464
1995	0	0	0	0	188	209	107	0	107	107	188	316
1996	0	0	0	0	0	0	0	188	209	0	188	209
1997	0	0	0	0	0	0	125	0	125	125	0	125
1998	0	0	0	37	13	51	59	0	59	96	13	110
1999	0	0	0	74	0	74	40	0	40	114	0	114
2000	—	—	—	—	—	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—	—	—	—
2002	0	0	0	0	0	0	6	0	6	6	0	6
2003	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	3	0	3	22	0	22	25	0	25
2005	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	20	0	0	0	0	0	20	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0
2008	—	—	—	—	—	—	—	—	—	—	—	—
2009	—	—	—	—	—	—	—	—	—	—	—	—
2010	—	—	—	—	—	—	—	—	—	—	—	—
2011	—	—	—	—	—	—	—	—	—	—	—	—
2012	—	—	—	—	—	—	—	—	—	—	—	—
2013	—	—	—	—	—	—	—	—	—	—	—	—
2014	—	—	—	—	—	—	—	—	—	—	—	—

Note: En dash indicates no commercial fishing activity occurred.

^a Reported as numbers of fish sold in the round.

^b Pounds of salmon roe sold.

^c The estimated harvest is the fish sold in the round plus the estimated number of females to produce the roe sold.

Appendix C12.—Commercial summer chum salmon sales and estimated harvest by statistical area, Subdistrict 5-D, Upper Yukon Area, 1994–2014.

Year	334-54			334-55			Total		
	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c
1994	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0
1996	0	114	127	0	0	0	0	114	127
1997	12	0	12	0	0	0	12	0	12
1998	0	0	0	0	0	0	0	0	0
1999	0	0	0	1	0	1	1	0	1
2000	–	–	–	–	–	–	–	–	–
2001	–	–	–	–	–	–	–	–	–
2002	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0
2004	–	–	–	–	–	–	–	–	–
2005	–	–	–	–	–	–	–	–	–
2006	–	–	–	–	–	–	–	–	–
2007	–	–	–	–	–	–	–	–	–
2008	–	–	–	–	–	–	–	–	–
2009	–	–	–	–	–	–	–	–	–
2010	–	–	–	–	–	–	–	–	–
2011	–	–	–	–	–	–	–	–	–
2012	–	–	–	–	–	–	–	–	–
2013	–	–	–	–	–	–	–	–	–
2014	–	–	–	–	–	–	–	–	–

Note: En dash indicates no commercial fishing activity occurred.

^a Reported as numbers of fish sold in the round.

^b Pounds of salmon roe sold. Prior to 1990, roe production may include small amounts of Chinook salmon roe. Since 1990, efforts were made to separate Chinook salmon roe from the summer chum salmon roe sold.

^c The estimated harvest is the fish sold in the round plus the estimated number of females needed to produce the roe sold. Prior to 1990, the roe expansion assumed 1.0 pound of roe per female. Since 1990, the estimated number of females needed to produce the roe sold is based on a District 5 sampling program that estimated average roe weight per female by period.

Appendix C13.—Commercial summer chum salmon sales and estimated harvest by statistical area, District 6, Upper Yukon Area, 1994–2014.

Year	334-61			334-62			334-63			Total		
	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c
1994	5,114	0	5,114	13,805	5,643	21,182	2,289	2,185	5,138	21,208	7,828	31,434
1995	5,894	0	5,894	16,020	6,731	25,112	2,797	2,744	6,422	24,711	9,475	37,428
1996	3,194	0	3,194	12,632	13,139	30,206	6,534	5,193	13,490	22,360	18,332	46,890
1997	3,162	0	3,162	9,168	6,525	16,709	2,556	2,511	5,416	14,886	9,036	25,287
1998	56	0	56	202	109	337	139	31	177	397	140	570
1999	0	0	0	102	0	102	22	24	46	124	24	148
2000	—	—	—	—	—	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—	—	—	—
2002	0	0	0	2,711	16	2,731	487	0	487	3,198	16	3,218
2003	0	0	0	3,953	0	3,953	508	0	508	4,461	0	4,461
2004	0	0	0	2,447	0	2,447	4,163	0	4,163	6,610	0	6,610
2005	0	0	0	5,404	0	5,404	3,582	0	3,582	8,986	0	8,986
2006	0	0	0	37,758	0	37,758	6,863	0	6,863	44,621	0	44,621
2007	0	0	0	10,627	0	10,627	4,047	0	4,047	14,674	0	14,674
2008	0	0	0	1,194	0	1,194	648	4	652	1,842	4	1,846
2009	590	0	590	4,979	0	4,979	2,208	0	2,208	7,777	0	7,777
2010	0	0	0	5,466	0	5,466	0	0	0	5,466	0	5,466
2011	0	0	0	4,964	0	4,964	3,687	0	3,687	8,651	0	8,651
2012	0	0	0	3,151	0	3,151	353	0	353	3,504	0	3,504
2013	0	0	0	5,937	0	5,937	0	0	0	5,937	0	5,937
2014	0	0	0	6,912	0	6,912	0	0	0	6,912	0	6,912
2009–2013												
Average	118	0	118	4,899	0	4,899	1,250	0	1,250	6,267	0	6,267
2004–2013												
Average	59	0	59	8,193	0	8,193	2,555	0	2,556	10,807	0	10,807

Note: En dash indicates no commercial fishing activity occurred.

^a Reported as numbers of fish sold in the round.

^b Pounds of salmon roe sold. Prior to 1990, roe production may include small amounts of Chinook salmon roe. Since 1990, efforts were made to separate Chinook salmon roe from summer chum salmon roe.

^c The estimated harvest is the fish sold in the round plus the estimated number of females to produce the roe sold. Prior to 1990, the roe expansion assumed 1.0 pound of roe per female. Since 1990, the estimated number of females that produce the roe sold is based on a District 6 sampling program that estimated average roe weight per female by period.

Appendix C14.–Commercial fall chum salmon sales and estimated harvest by statistical area, District 4, Upper Yukon Area, 1994–2014.

Year	334-41 ^a			334-42			334-43			Total		
	Number ^b	Roe ^c	Harvest ^d	Number ^b	Roe ^c	Harvest ^d	Number ^b	Roe ^c	Harvest ^d	Number ^b	Roe ^c	Harvest ^d
1994	–	–	–	–	–	–	–	–	–	–	–	–
1995	–	–	–	2,924	225	3,249	0	3,901	5,482	2,924	4,126	8,731
1996	–	–	–	2,918	0	2,918	0	0	0	2,918	0	2,918
1997	–	–	–	463	0	463	1,995	0	1,995	2,458	0	2,458
1998	–	–	–	–	–	–	–	–	–	–	–	–
1999	–	–	–	104	0	104	577	0	577	681	0	681
2000	–	–	–	–	–	–	–	–	–	–	–	–
2001 ^e	–	–	–	–	–	–	–	–	–	–	–	–
2002	–	–	–	–	–	–	–	–	–	–	–	–
2003	–	–	–	–	–	–	1,315	0	1,315	1,315	0	1,315
2004	–	–	–	–	–	–	–	–	–	–	–	–
2005	–	–	–	–	–	–	–	–	–	–	–	–
2006	0	0	0	–	–	–	–	–	–	–	–	–
2007	–	–	–	–	–	–	–	–	–	–	–	–
2008	0	0	0	–	–	–	–	–	–	–	–	–
2009	–	–	–	–	–	–	–	–	–	–	–	–
2010	–	–	–	–	–	–	–	–	–	–	–	–
2011	–	–	–	–	–	–	–	–	–	–	–	–
2012	811 ^f	0	811 ^f	–	–	–	–	–	–	–	–	–
2013	–	–	–	–	–	–	–	–	–	–	–	–
2014	–	–	–	–	–	–	–	–	–	–	–	–

Note: En dash indicates no commercial fishing activity occurred.

^a In Subdistrict 4-A (Statistical Area 334-41), from 1977 to 2001, commercial fishing, by regulation, was not allowed during fall season. Additionally, in 1990, Subdistrict 4-A Statistical Area 334-41) was subdivided into Statistical Areas 334-44, 334-45 and 334-46. Because this is the same area and because no harvest has occurred in Subdistrict 4-A, all data is recorded under Statistical Area 334-41.

^b Harvest reported in numbers of fish sold in the round.

^c Pounds of salmon roe sold.

^d The estimated harvest is the fish sold in the round plus the estimated number of females to produce the roe sold. Since 1990, the estimated number of females that produce the roe sold is based on a District 4 sampling program that estimated average roe weight per female by period, by statistical area and gear type.

^e Guideline harvest range (GHR) included Subdistrict 4-A.

^f Harvest occurred in Statistical 334-46.

Appendix C15.—Commercial fall chum salmon sales and estimated harvest by statistical area, Subdistricts 5-A, 5-B, and 5-C, Upper Yukon Area, 1994–2014.

Year	334-51			334-52			334-53			Unapportioned		Total		
	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Harvest ^c	Number ^a	Roe ^b	Harvest ^c
1994	—	—	—	—	—	—	—	—	—	—	1	0	0	—
1995	0	2,513	3,159	1,785	13,091	18,397	4,014	389	4,498	0	0	5,799	15,993	26,054
1996	0	181	208	5,898	8,317	15,670	1,583	0	1,583	0	0	7,481	8,498	17,461
1997	0	0	0	1,595	1,194	3,069	0	0	0	0	0	1,595	1,194	3,069
1998	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1999	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004	0	0	0	—	—	—	—	—	—	—	—	0	0	0
2005	—	—	—	0	0	0	0	0	0	—	—	0	0	0
2006	—	—	—	—	—	—	10,030	—	10,030	—	—	10,030	0	10,030
2007	—	—	—	385	—	385	42	—	42	—	—	427	0	427
2008	—	—	—	4,556	—	4,556	—	—	—	—	—	4,556	0	4,556
2009	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2011	—	—	—	1,246	—	1,246	—	—	—	—	—	1,246	0	1,246
2012	—	—	—	2,419	—	2,419	—	—	—	—	—	2,419	0	2,419
2013	—	—	—	1,041	—	1,041	—	—	—	—	—	1,041	0	1,041
2014	—	—	—	1,264	—	1,264	—	—	—	—	—	1,264	0	1,264
2009-2013														
Average				1,569		1,569						1,569	0	1,569
2004-2013														
Average				1,608		1,608	3,357		3,357			2,465	0	2,465

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a Harvest reported in numbers of fish sold in the round.

^b Pounds of salmon roe sold.

^c The estimated harvest is the fish sold in the round plus the estimated number of females to produce the roe sold. Since 1990, the estimated number of females that produce the roe sold is based on a District 5 sampling program that estimated average roe weight per female by period.

Appendix C16.—Commercial fall chum salmon sales and estimated harvest by statistical area, Subdistricts 5-D, Upper Yukon Area, 1994–2014.

Year	334-54			334-55			Total		
	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c
1994	—	—	—	3,630	0	3,630	3,630	0	3,630
1995 ^d	0	0	0	3,979	2,823	3,979	3,979	2,823	3,979
1996	890	0	890	3,507	0	3,507	4,397	0	4,397
1997	40	0	40	811	0	811	851	0	851
1998	—	—	—	—	—	—	—	—	—
1999	—	—	—	—	—	—	—	—	—
2000	—	—	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—
2002	—	—	—	—	—	—	—	—	—
2003	—	—	—	—	—	—	—	—	—
2004	—	—	—	—	—	—	—	—	—
2005	—	—	—	—	—	—	—	—	—
2006	—	—	—	—	—	—	—	—	—
2007	—	—	—	—	—	—	—	—	—
2008	—	—	—	—	—	—	—	—	—
2009	—	—	—	—	—	—	—	—	—
2010	—	—	—	—	—	—	—	—	—
2011	—	—	—	—	—	—	—	—	—
2012	—	—	—	—	—	—	—	—	—
2013	—	—	—	—	—	—	—	—	—
2014	—	—	—	—	—	—	—	—	—

Note: En dash indicates no commercial fishing activity occurred.

^a Harvest reported in numbers of fish sold in the round.

^b Pounds of salmon roe sold. Since 1990, efforts were made to separate coho salmon roe from fall chum salmon roe.

^c The estimated harvest is the fish sold in the round plus the estimated number of females to produce the roe sold. Since 1990, the estimated number of females that produce the roe sold is based on a District 5 sampling program that estimated average roe weight per female by period.

^d Estimated harvest equals fish sold in round. The roe came from fish sold in the round, therefore, not included in estimated harvest to avoid duplicate counting.

Appendix C17.—Commercial fall chum salmon sales and estimated harvest by statistical area, District 6, Upper Yukon Area, 1994–2014.

Year	334-61			334-62			334-63			Total		
	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c
1994	—	—	—	0	4,319	4,319	1	49	50	1	4,368	4,369
1995	6,170	—	6,170	60,466	8,164	65,051	1,219	1,396	2,896	67,855	9,560	74,117
1996	663	236	934	8,491	4,906	14,332	1,112	1,031	2,308	10,266	6,173	17,574
1997	—	—	—	—	—	—	—	—	—	—	—	—
1998	—	—	—	—	—	—	—	—	—	—	—	—
1999	—	—	—	—	—	—	—	—	—	—	—	—
2000	—	—	—	—	—	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—	—	—	—
2002	—	—	—	—	—	—	—	—	—	—	—	—
2003	—	—	—	3,778	0	3,778	317	0	317	4,095	0	4,095
2004	—	—	—	3,450	0	3,450	—	—	—	3,450	0	3,450
2005	—	—	—	49,637	0	49,637	—	—	—	49,637	0	49,637
2006	—	—	—	23,353	0	23,353	—	—	—	23,353	0	23,353
2007	—	—	—	15,572	0	15,572	—	—	—	15,572	0	15,572
2008	4,029	—	4,029	1,706	0	1,706	—	—	—	5,735	0	5,735
2009	1286	545	1,893	—	—	—	—	—	—	1,286	545	1,893
2010	—	—	—	1,735	0	1,735	—	—	—	1,735	0	1,735
2011	—	—	—	9,267	0	9,267	—	—	—	9,267	0	9,267
2012	—	—	—	17,336	0	17,336	—	—	—	17,336	0	17,336
2013	—	—	—	24,148	0	24,148	—	—	—	24,148	0	24,148
2014	1,568	0	1,568	1,800	0	1,800	—	—	—	3,368	0	3,368
2009-2013												
Average	1,286		1,893	13,122	0	13,122				10,754	109	10,876
2004-2013												
Average	2,658		2,961	16,245	0	16,245				15,152	55	15,213

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a Harvest reported in numbers of fish sold in the round.

^b Pounds of salmon roe sold.

^c The estimated harvest is the fish sold in the round plus the estimated number of females to produce the roe sold. Since 1990, the estimated number of females that produce the roe sold is based on a District 6 sampling program that estimated average roe weight per female by period.

Appendix C18.—Commercial coho salmon sales and estimated harvest by statistical area, District 4, Upper Yukon Area, 1994–2014.

Year	334-41			334-42			334-43			Total		
	Number ^a	Roe ^b	Harvest ^c	Number	Roe	Harvest	Number	Roe	Harvest	Number	Roe	Harvest
1994	—	—	—	—	—	—	—	—	—	—	—	—
1995	—	—	—	—	—	—	—	—	—	—	—	—
1996	—	—	—	161	0	161	0	0	0	161	0	161
1997	—	—	—	19	0	19	795	0	795	814	0	814
1998	—	—	—	—	—	—	—	—	—	—	—	—
1999	—	—	—	—	—	—	—	—	—	—	—	—
2000	—	—	—	—	—	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—	—	—	—
2002	—	—	—	—	—	—	—	—	—	—	—	—
2003	—	—	—	—	—	—	367	0	367	367	0	367
2004	—	—	—	—	—	—	—	—	—	—	—	—
2005	—	—	—	—	—	—	—	—	—	—	—	—
2006	0	0	0	—	—	—	—	—	—	—	—	—
2007	—	—	—	—	—	—	—	—	—	—	—	—
2008	0	0	0	—	—	—	—	—	—	—	—	—
2009	—	—	—	—	—	—	—	—	—	—	—	—
2010	—	—	—	—	—	—	—	—	—	—	—	—
2011	—	—	—	—	—	—	—	—	—	—	—	—
2012	0	0	0	—	—	—	—	—	—	—	—	—
2013	—	—	—	—	—	—	—	—	—	—	—	—
2014	—	—	—	—	—	—	—	—	—	—	—	—

Note: En dash indicates no commercial fishing activity occurred.

^a Harvest reports in numbers of fish sold in the round.

^b Pounds of salmon roe sold.

^c The estimated harvest is the fish sold in the round plus the estimated number of females to produce the roe sold. Since 1990, the estimated number of females that produce the roe sold is based on a District 4 sampling program that estimated average roe weight per female by period.

Appendix C19.—Commercial coho salmon sales and estimated harvest by statistical area, District 6, Upper Yukon Area, 1994–2014.

Year	334-61			334-62			334-63			Total		
	Number ^a	Roe ^b	Harvest ^c	Number	Roe	Harvest	Number	Roe	Harvest	Number	Roe	Harvest
1994	—	—	—	0	5,398	4,184	120	190	267	120	5,588	4,451
1995	1,475	0	1,475	4,209	2,072	5,156	142	157	269	5,826	2,229	6,900
1996	182	0	182	3,403	4,571	6,557	218	258	403	3,803	4,829	7,142
1997	—	—	—	—	—	—	—	—	—	—	—	—
1998	—	—	—	—	—	—	—	—	—	—	—	—
1999	—	—	—	—	—	—	—	—	—	—	—	—
2000	—	—	—	—	—	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—	—	—	—
2002	—	—	—	—	—	—	—	—	—	—	—	—
2003	—	—	—	14,984	0	14,984	135	0	135	15,119	0	15,119
2004	—	—	—	18,649	0	18,649	—	—	—	18,649	0	18,649
2005	—	—	—	21,778	0	21,778	—	—	—	21,778	0	21,778
2006	—	—	—	11,137	0	11,137	—	—	—	11,137	0	11,137
2007	—	—	—	1,368	0	1,368	—	—	—	1,368	0	1,368
2008	2,160	0	2,160	248	0	248	—	—	—	2,408	0	2,408
2009	457	258	742	—	—	—	—	—	—	457	258	742
2010	—	—	—	1,700	0	1,700	—	—	—	1,700	0	1,700
2011	—	—	—	6,784	0	6,784	—	—	—	6,784	0	6,784
2012	—	—	—	5,335	0	5,335	—	—	—	5,335	0	5,335
2013	—	—	—	7,439	0	7,439	—	—	—	7,439	0	7,439
2014	318	0	318	968	0	968	—	—	—	1,286	0	1,286
2009-2013												
Average	457	258	742	5,315	0	5,315				4,343	52	4,400
2004-2013												
Average	1,309	129	1,451	8,271	0	8,271				7,706	26	7,734

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a Harvest reports in numbers of fish sold in the round.

^b Pounds of salmon roe sold.

^c The estimated harvest is the fish sold in the round plus the estimated number of females to produce the roe sold. Since 1990, the estimated number of females that produce the roe sold is based on a District 6 sampling program that estimated average roe weight per female by period.

Appendix C20.—Summary of test fishery wheel projects conducted in the Upper Yukon Area, 2014.

Test fish wheel projects	Contractor/ operator	River mile ^b	Operational dates	Total days of operation	Estimated total salmon captured ^a				Historical data/comments		
					Chinook	Summer chum	Fall chum	Coho			
Yukon River											
Tanana Village											
Left Bank	Pat Moore	690	8/11 to 9/30	50	5	–	17,390	5,945	Wheel uses 24 hour video counts.		
Yukon River (Rapids)											
Left Bank ^c	Stan Zuray	731	6/14 to 9/22	100	2,872	2,808	21,801	–	Wheel uses 24 hour video counts.		
Tanana River											
Nenana											
Right Bank	ADF&G Jack Duyck	859	7/3 to 8/5 8/16 to 9/28	33 43	465 –	2,093 –	– 4,793	– 2,993	Project started in 1988 for CPUE. Video counts since 2003.		

^a Unless otherwise noted, fish wheel catch are adjusted to estimate total catch per day (i.e., less than or greater than 24 hour catches adjusted to reflect a 24 hour catch).

^b Estimated river miles from the mouth of the Yukon River.

^c Estimated summer chum salmon totals include all chum salmon caught through July 30.

APPENDIX D: YUKON RIVER SALMON SUBSISTENCE AND PERSONAL USE

Appendix D1.—Chinook salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fishery projects, Yukon Area, 2004–2014.

												2004-2008	2009-2013
Community	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average	Average
Hooper Bay	1,042	157	376	430	388	183	584	252	1,090	1,210	455	479	664
Scammon Bay	996	691	507	768	1,104	722	716	517	1,014	332	108	813	660
Coastal District total	2,038	848	883	1,198	1,492	905	1,300	769	2,104	1,542	563	1,292	1,324
Nunam Iqua	647	338	371	907	163	200	404	250	195	12	62	485	212
Alakanuk	1,317	860	690	1,257	1,238	634	944	1,464	1,081	275	214	1,072	880
Emmonak	2,768	1,730	2,311	2,326	2,696	1,634	2,194	2,172	1,864	553	463	2,366	1,683
Kotlik	1,148	2,130	1,750	1,569	2,066	1,657	2,314	2,369	1,173	794	617	1,733	1,661
District 1 subtotal	5,880	5,058	5,122	6,059	6,163	4,125	5,856	6,255	4,313	1,634	1,356	5,656	4,437
Mountain Village	2,362	2,383	1,659	2,077	1,645	1,482	1,601	2,063	1,789	266	178	2,025	1,440
Pitkas Point	609	618	274	320	544	265	580	246	261	37	79	473	278
St. Marys	2,357	2,693	2,233	3,573	1,756	1,929	2,800	1,734	2,344	215	68	2,522	1,804
Pilot Station	2,406	1,658	1,976	2,028	1,597	1,258	1,585	1,340	1,078	258	163	1,933	1,104
Marshall	1,990	1,804	1,897	2,555	3,284	1,201	2,110	2,686	1,409	328	128	2,306	1,547
District 2 subtotal	9,724	9,156	8,039	10,553	8,826	6,135	8,676	8,069	6,881	1,104	616	9,260	6,173
Russian Mission	2,337	1,894	1,851	1,301	2,949	978	924	1,550	1,711	236	16	2,066	1,080
Holy Cross	1,993	2,817	3,165	2,902	2,509	1,745	3,098	2,231	576	204	0	2,677	1,571
Shageluk	418	420	358	448	397	201	277	353	75	4	32	408	182
District 3 subtotal	4,748	5,131	5,374	4,651	5,855	2,924	4,299	4,134	2,362	444	48	5,152	2,833
Lower Yukon River total	20,352	19,345	18,535	21,263	20,844	13,184	18,831	18,458	13,556	3,182	2,020	20,068	13,442
Anvik	1,588	1,206	958	1,321	1,433	796	1,069	1,052	435	121	0	1,301	695
Grayling	1,869	1,878	1,702	1,500	1,761	1,133	2,122	1,374	1,081	226	3	1,742	1,187
Kaltag	1,656	3,367	2,833	1,456	2,403	1,970	3,191	2,488	1,346	348	10	2,343	1,869
Nulato	5,199	2,749	2,707	2,431	1,250	1,551	2,989	1,538	1,955	602	0	2,867	1,727
Koyukuk	400	396	835	811	513	982	867	1,349	614	898	52	591	942
Galena	3,296	2,864	2,380	2,511	2,232	1,370	1,357	1,434	742	275	1	2,657	1,036
Ruby/Kokrines	1,620	1,193	304	1,594	637	542	1,102	482	1,316	357	6	1,070	760
District 4 subtotal	15,628	13,653	11,719	11,624	10,229	8,344	12,697	9,717	7,489	2,827	72	12,571	8,215
Huslia	285	207	258	146	255	969	65	121	165	62	38	230	276
Hughes	291	33	8	8	61	101	63	10	0	6	13	80	36
Allakaket	65	68	23	53	58	90	63	42	5	6	8	53	41
Alatna	0	0	14	0	16	10	0	3	0	0	0	6	3
Bettles	0	3	0	0	0	0	0	0	3	0	1	1	1
Koyukuk River subtotal	641	311	303	207	390	1,170	191	176	173	74	60	370	357
District 4 total (incl. Koyukuk R.)	16,269	13,964	12,022	11,831	10,619	9,514	12,888	9,893	7,662	2,901	132	12,941	8,572

-continued-

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Community	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2004-2008	2009-2013
												Average	Average
Tanana	2,689	3,729	3,794	5,498	3,981	2,950	3,215	2,936	2,100	1,200	88	3,938	2,480
Rampart ^a	287	411	429	250	136	528	262	201	190	35	0	303	243
Fairbanks ^b	1,997	2,584	2,184	2,510	1,898	1,509	1,670	2,186	558	610	9	2,235	1,307
Stevens Village	2,394	1,570	1,245	610	753	405	469	415	330	239	0	1,314	372
Birch Creek	82	131	174	113	32	15	73	49	0	0	0	106	27
Beaver	858	957	830	1,244	546	516	198	356	71	107	0	887	250
Fort Yukon	4,430	3,591	3,144	4,076	1,991	846	1,683	2,472	2,141	1,561	93	3,446	1,741
Circle	565	1,283	694	1,057	519	372	324	297	280	157	0	824	286
Central	83	175	130	334	48	167	90	66	66	21	0	154	82
Eagle	1,512	2,566	2,303	1,999	1,068	446	867	728	167	175	76	1,890	477
Other ^c	357	315	330	472	362	541	779	777	477	125	0	367	540
District 5 subtotal (Excluding Chandalar and Black rivers)	15,254	17,312	15,257	18,163	11,334	8,295	9,630	10,483	6,380	4,230	266	15,464	7,804
Venetie	352	59	667	1,002	292	622	767	10	86	311	12	474	359
Chalkyitsik	60	53	0	0	0	0	0	0	0	0	5	23	0
Chandalar/Black River Subtotal	412	112	667	1,002	292	622	767	10	86	311	17	497	359
District 5 total	15,666	17,424	15,924	19,165	11,626	8,917	10,397	10,493	6,466	4,541	283	15,961	8,163
Manley	239	289	361	333	106	345	337	287	174	165	92	266	262
Minto	35	35	31	82	12	0	43	61	99	60	0	39	53
Nenana	633	533	712	893	322	458	658	681	296	87	139	619	436
Fairbanks ^d	449	971	125	409	108	396	91	330	58	49	41	412	185
Other ^e	32	0	0	0	57	86	14	8	0	6	11	18	23
District 6 Tanana R. total	1,388	1,828	1,229	1,717	605	1,285	1,143	1,367	627	367	283	1,353	958
Upper Yukon River total	33,323	33,216	29,175	32,713	22,850	19,716	24,428	21,753	14,755	7,809	698	30,255	17,692
Alaska, Yukon River total ^f	53,675	52,561	47,710	53,976	43,694	32,900	43,259	40,211	28,311	10,991	2,718	50,323	31,134
Alaska, Yukon Area total	55,713	53,409	48,593	55,174	45,186	33,805	44,559	40,980	30,415	12,533	3,281	51,615	32,458
Not included in communities or totals above													
Personal use (District 6) ^g	201	138	89	136	126	127	162	89	71	42	1	138	98

^a Rampart area harvest as reported from subsistence fishing permits. Subsistence surveys were conducted 2001–2003 and permits were used 2004 to present.

^b Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

^c Other permit holders who fished in District 5 but did not reside in the communities listed.

^d Harvest by Fairbanks subsistence permit holders who fished in the Tanana River.

^e Other permit holders who fished in District 6 but did not reside in the communities listed.

^f Does not include the Coastal District for use in U.S./Canada negotiations.

^g Harvest from the personal use fishing area on the Tanana River near Fairbanks.

Appendix D2.—Summer chum salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fishery projects, Yukon Area, 2004–2014.

Community	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2004-2008	2009-2013
												Average	Average
Hooper Bay	3,242	9,771	19,468	12,234	12,007	9,195	17,020	13,460	15,799	13,629	13,236	11,344	13,821
Scammon Bay	5,020	4,586	4,703	3,887	6,113	3,602	5,405	4,845	7,442	9,506	6,068	4,862	6,160
Coastal District total	8,262	14,357	24,171	16,121	18,120	12,797	22,425	18,305	23,241	23,135	19,304	16,206	19,981
Nunam Iqua	2,698	2,794	2,903	2,325	1,949	2,280	2,267	2,077	1,977	2,651	2,010	2,534	2,250
Alakanuk	6,555	5,687	7,790	7,611	6,881	5,152	7,722	7,447	9,012	7,520	9,120	6,905	7,371
Emmonak	8,618	12,594	11,899	9,256	9,646	9,038	10,918	12,468	15,829	8,209	7,143	10,403	11,292
Kotlik	2,749	6,620	5,289	5,017	4,291	7,528	4,265	6,598	8,552	10,136	5,621	4,793	7,416
District 1 subtotal	20,620	27,695	27,881	24,209	22,767	23,998	25,172	28,590	35,370	28,516	23,894	24,634	28,329
Mountain Village	10,676	8,861	13,119	8,104	7,559	7,204	7,071	9,355	9,031	11,861	7,059	9,664	8,904
Pitkas Point	717	1,023	680	515	1,246	994	633	585	1,153	2,186	1,588	836	1,110
St. Marys	6,994	6,877	7,394	8,107	6,451	5,831	7,443	6,760	10,763	9,167	5,570	7,165	7,993
Pilot Station	5,779	4,333	6,070	3,711	6,012	4,888	6,196	4,182	5,716	5,299	5,728	5,181	5,256
Marshall	1,765	3,183	4,392	3,070	3,023	2,172	2,395	3,810	5,903	3,986	6,189	3,087	3,653
District 2 subtotal	25,931	24,277	31,655	23,507	24,291	21,089	23,738	24,692	32,566	32,499	26,134	25,932	26,917
Russian Mission	884	925	1,328	759	2,400	849	528	1,225	2,508	3,967	3,181	1,259	1,815
Holy Cross	276	760	825	320	441	194	463	363	1,147	262	97	524	486
Shageluk	1,798	4,081	1,381	977	130	103	350	1,145	5,035	463	470	1,673	1,419
District 3 subtotal	2,958	5,766	3,534	2,056	2,971	1,146	1,341	2,733	8,690	4,692	3,748	3,457	3,720
Lower Yukon River total	49,509	57,738	63,070	49,772	50,029	46,233	50,251	56,015	76,626	65,707	53,776	54,024	58,966
Anvik	248	529	387	5,250	340	277	451	220	1,371	830	2,052	1,351	630
Grayling	1,129	783	644	641	660	1,429	1,612	838	2,616	618	1,617	771	1,423
Kaltag	213	680	159	109	916	50	102	163	186	67	954	415	114
Nulato	198	634	838	356	468	133	416	246	254	401	158	499	290
Koyukuk	329	537	394	995	1,104	1,378	352	890	828	4,459	300	672	1,581
Galena	782	1,013	1,205	571	758	1,718	1,702	3,414	718	179	377	866	1,546
Ruby/Kokrines	2,010	967	1,714	416	655	603	1,971	775	3,891	681	29	1,152	1,584
District 4 subtotal	4,909	5,143	5,341	8,338	4,901	5,588	6,606	6,546	9,864	7,235	5,487	5,726	7,168
Huslia	3,844	2,433	1,122	3,243	4,377	2,554	1,349	3,166	7,306	3,241	2,325	3,004	3,523
Hughes	3,823	2,230	3,254	1,213	944	1,723	878	954	428	829	889	2,293	962
Allakaket	2,367	2,535	5,170	3,451	3,229	4,924	2,864	2,368	3,850	2,116	1,276	3,350	3,224
Alatna	16	5	110	11	66	163	23	132	100	340	0	42	152
Bettles	0	4	0	0	0	6	0	0	7	0	4	1	3
Koyukuk River subtotal	10,050	7,207	9,656	7,918	8,616	9,370	5,114	6,620	11,691	6,526	4,494	8,689	7,864
District 4 total (incl. Koyukuk R)	14,959	12,350	14,997	16,256	13,517	14,958	11,720	13,166	21,555	13,761	9,981	14,416	15,032

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Community	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2004-2008 Average	2009-2013 Average
Tanana	1,490	4,832	5,474	5,229	2,877	4,665	1,856	4,381	4,333	9,565	2,612	3,980	4,960
Rampart ^a	103	315	135	25	27	112	161	67	71	5	70	121	83
Fairbanks ^b	280	780	1,341	564	119	44	427	688	172	1,350	300	617	536
Stevens Village	108	442	972	254	163	6	28	43	188	50	0	388	63
Beaver	2	68	117	41	27	22	22	393	27	12	0	51	95
Fort Yukon	1,187	67	2,165	2,365	230	275	722	1,297	0	225	19	1,203	504
Circle	52	3	58	200	5	0	37	48	0	66	0	64	30
Central	0	5	2	0	0	2	0	0	0	0	0	1	0
Eagle	171	235	974	15	14	0	25	2	0	50	0	282	15
Other ^c	3	53	117	81	25	29	144	790	101	94	91	56	232
District 5 subtotal (excluding Chandalar and Black rivers)	3,396	6,800	11,355	8,774	3,487	5,155	3,422	7,709	4,892	11,417	3,092	6,762	6,519
Venetie	15	0	475	107	50	143	0	0	0	0	0	129	29
Chalkyitsik	0	0	0	0	0	0	133	0	0	0	16	0	27
Chandalar/Black River Subtotal	15	0	475	107	50	143	133	0	0	0	16	129	55
District 5 total	3,411	6,800	11,830	8,881	3,537	5,298	3,555	7,709	4,892	11,417	3,108	6,892	6,574
Manley	296	163	89	140	144	367	102	142	58	45	182	166	143
Minto	7	21	460	82	9	1	8	27	64	258	24	116	72
Nenana	1,171	1,771	388	1,419	753	506	83	471	370	642	275	1,100	414
Fairbanks ^d	308	45	73	255	94	372	183	185	114	143	237	155	199
Other ^e	11	14	0	0	311	7	46	0	72	6	13	67	26
District 6 Tanana R. total	1,793	2,014	1,010	1,896	1,311	1,253	422	825	678	1,094	731	1,605	854
Upper Yukon River total	20,163	21,164	27,837	27,033	18,365	21,509	15,697	21,700	27,125	26,272	13,820	22,912	22,461
Alaska, Yukon River total ^f	69,672	78,902	90,907	76,805	68,394	67,742	65,948	77,715	103,751	91,979	67,596	76,936	81,427
Alaska, Yukon Area total	77,934	93,259	115,078	92,926	86,514	80,539	88,373	96,020	126,992	115,114	86,900	93,142	101,408
Not included in communities or totals above													
Personal use (District 6) ^g	231	152	262	184	138	308	319	439	321	138	235	193	305

^a Rampart area harvest as reported from subsistence fishing permits. Subsistence surveys were conducted 2001–2003 and permits were used 2004 to present.

^b Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

^c Other permit holders who fished in District 5 but did not reside in the communities listed.

^d Fairbanks North Star Borough residents who subsistence fished in the Tanana River.

^e Other permit holders who fished in District 6 but did not reside in the communities listed.

^f Does not include the Coastal District for use in U.S./Canada negotiations.

^g Harvest from the personal use fishing area on the Tanana River near Fairbanks.

Appendix D3.–Fall chum salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits, and test fishery projects, Yukon Area, 2004–2014.

Community	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2004-2008	2009-2013
												Average	Average
Hooper Bay	264	1	146	64	329	41	116	267	1	91	137	161	103
Scammon Bay	56	69	41	170	57	117	70	48	10	58	115	79	61
Coastal District total	320	70	187	234	386	158	186	315	11	149	252	239	164
Nunam Iqua	49	310	735	152	59	41	143	51	210	93	128	261	108
Alakanuk	953	627	624	1,348	423	116	860	881	449	328	593	795	527
Emmonak	785	1,436	2,056	2,360	1,670	1,589	1,718	1,540	5,890	2,165	2,465	1,661	2,580
Kotlik	280	516	487	530	671	171	481	962	1,073	1,087	886	497	755
District 1 subtotal	2,067	2,889	3,902	4,390	2,823	1,917	3,202	3,434	7,622	3,673	4,072	3,214	3,970
Mountain Village	918	1,290	2,398	1,073	926	926	133	800	685	2,174	1,484	1,321	944
Pitkas Point	0	6	5	44	101	76	10	30	9	65	400	31	38
St. Marys	104	490	417	825	830	106	387	611	1,423	1,009	2,037	533	707
Pilot Station	1,108	838	785	741	917	265	833	575	1,031	777	796	878	696
Marshall	291	633	410	789	748	190	56	562	184	853	1,100	574	369
District 2 subtotal	2,421	3,257	4,015	3,472	3,522	1,563	1,419	2,578	3,332	4,878	5,817	3,337	2,754
Russian Mission	172	667	251	530	578	205	104	11	282	804	365	440	281
Holy Cross	76	582	224	248	920	627	21	94	339	855	1,840	410	387
Shageluk	50	55	5	147	323	105	1,200	249	16	105	252	116	335
District 3 subtotal	298	1,304	480	925	1,821	937	1,325	354	637	1,764	2,457	966	1,003
Lower Yukon River total	4,786	7,450	8,397	8,787	8,166	4,417	5,946	6,366	11,591	10,315	12,346	7,517	7,727
Anvik	398	497	118	429	317	176	169	202	569	763	1,028	352	376
Grayling	267	1,009	691	317	1,012	490	202	1,152	804	471	1,451	659	624
Kaltag	687	1,089	823	910	620	200	658	196	2,830	583	2,828	826	893
Nulato	1,246	421	751	1,345	729	552	1,049	652	2,729	2,995	3,839	898	1,595
Koyukuk	344	803	1,147	927	1,177	578	792	1,388	1,331	5,308	998	880	1,879
Galena	1,587	2,695	1,632	1,471	1,364	4,306	1,968	2,739	2,947	602	3,368	1,750	2,512
Ruby/Kokrines	1,064	559	227	1,959	657	134	1,026	592	4,408	2,505	972	893	1,733
District 4 subtotal	5,593	7,073	5,389	7,358	5,876	6,436	5,864	6,921	15,618	13,227	14,484	6,258	9,613
Huslia	1,139	1,614	313	272	64	86	403	183	1,909	722	579	680	661
Hughes	97	111	240	0	127	288	0	64	2	535	348	115	178
Allakaket	968	557	393	939	1,345	572	521	92	508	687	510	840	476
Alatna	0	0	0	7	0	0	0	0	18	20	15	1	8
Bettles	0	50	0	0	0	0	0	0	0	0	0	10	0
Koyukuk River subtotal	2,204	2,332	946	1,218	1,536	946	924	339	2,437	1,964	1,452	1,647	1,322
District 4 total (incl. Koyukuk R.)	7,797	9,405	6,335	8,576	7,412	7,382	6,788	7,260	18,055	15,191	15,936	7,905	10,935

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Community	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2004-2008	2009-2013
												Average	Average
Tanana	23,118	20,545	23,167	21,596	17,478	19,595	14,984	21,728	20,465	31,546	14,131	21,181	21,664
Rampart ^a	0	358	250	250	1,000	1,000	735	340	190	100	0	372	473
Fairbanks ^b	43	1,682	5,269	2,126	659	229	822	1,696	793	1,160	1,406	1,956	940
Stevens Village	1,080	246	50	199	643	770	2,706	911	277	840	6,700	444	1,101
Beaver	48	179	0	354	13	120	37	122	174	21	323	119	95
Ft. Yukon	7,302	8,088	5,178	8,264	14,252	2,829	6,006	7,188	12,659	16,453	8,025	8,617	9,027
Circle	1,022	918	664	1,286	3,198	110	927	299	161	1,397	1,277	1,418	579
Central	0	36	0	0	0	0	0	0	0	0	0	7	0
Eagle	5,482	17,356	16,801	18,676	15,269	10,941	15,008	17,455	18,731	18,871	17,450	14,717	16,201
Other ^c	13	117	44	46	3,183	71	120	208	443	121	222	681	193
District 5 subtotal (excluding Chandalar and Black rivers)	38,108	49,525	51,423	52,797	55,695	35,665	41,345	49,947	53,893	70,509	49,534	49,510	50,272
Venetie	2,083	1,801	520	721	1,563	2,373	2,989	1,938	295	5,340	1,538	1,338	2,587
Chalkyitsik	479	337	215	213	0	45	0	0	162	249	125	249	91
Chandalar/Black River subtotal	2,562	2,138	735	934	1,563	2,418	2,989	1,938	457	5,589	1,663	1,586	2,678
District 5 total	40,670	51,663	52,158	53,731	57,258	38,083	44,334	51,885	54,350	76,098	51,197	51,096	52,950
Manley	1,504	2,985	3,374	3,419	2,490	4,126	2,696	2,333	2,164	1,539	2,579	2,754	2,572
Minto	0	600	242	155	28	0	70	1,500	2	593	472	205	433
Nenana	5,367	10,594	10,530	21,863	6,585	7,623	6,802	5,268	8,665	3,112	2,510	10,988	6,294
Fairbanks ^d	1,024	6,691	1,311	3,325	340	3,460	678	4,317	3,876	5,651	5,190	2,538	3,596
Other ^e	1,058	2,076	1,468	1,131	6,692	870	1,145	958	595	736	1,747	2,485	861
District 6 Tanana R. total	8,953	22,946	16,925	29,893	16,135	16,079	11,391	14,376	15,302	11,631	12,498	18,970	13,756
Upper Yukon River total	57,420	84,014	75,418	92,200	80,805	61,544	62,513	73,521	87,707	102,920	79,631	77,971	77,641
Alaska, Yukon River total ^f	62,206	91,464	83,815	100,987	88,971	65,961	68,459	79,887	99,298	113,235	91,977	85,489	85,368
Alaska, Yukon Area total	62,526	91,534	84,002	101,221	89,357	66,119	68,645	80,202	99,309	113,384	92,229	85,728	85,532
Not included in communities or totals above													
Personal use (District 6) ^g	230	133	333	173	181	78	3,209	347	410	383	278	210	885

^a Rampart area harvest as reported from subsistence fishing permits. Subsistence surveys were conducted 2001–2003 and permits were used 2004 to present.

^b Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

^c Other permit holders who fished in District 5 but did not reside in the communities listed.

^d Harvests by Fairbanks subsistence permit holders who fished in the Tanana River.

^e Other permits holders who fished in District 6 but did not reside in the communities listed.

^f Does not include the Coastal District for use in U.S./Canada negotiations.

^g Harvest from the personal use fishing area on the Tanana River near Fairbanks.

Appendix D4.—Coho salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fishery projects, Yukon Area, 2004–2014.

Community	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2004-2008	2009-2013
												Average	Average
Hooper Bay	9	0	175	26	66	24	45	0	7	73	118	55	30
Scammon Bay	54	279	160	84	50	222	79	55	86	214	86	125	131
Coastal District total	63	279	335	110	116	246	124	55	93	287	204	181	161
Nunam Iqua	79	241	392	92	24	71	73	23	18	83	153	166	54
Alakanuk	207	322	101	857	157	194	449	431	252	167	443	329	299
Emmonak	296	191	450	1,032	717	401	362	472	2,660	517	613	537	882
Kotlik	593	222	234	284	313	181	238	201	420	457	573	329	299
District 1 subtotal	1,175	976	1,177	2,265	1,211	847	1,122	1,127	3,350	1,224	1,782	1,361	1,534
Mountain Village	521	246	1,856	1,027	518	413	127	261	256	271	202	834	266
Pitkas Point	0	30	16	38	130	45	116	37	53	41	123	43	58
St. Marys	258	252	171	97	591	151	92	230	141	124	408	274	148
Pilot Station	296	241	225	263	268	203	189	145	329	136	568	259	200
Marshall	425	341	191	922	490	245	33	150	567	508	468	474	301
District 2 subtotal	1,500	1,110	2,459	2,347	1,997	1,057	557	823	1,346	1,080	1,769	1,883	973
Russian Mission	151	133	19	259	372	96	300	0	319	152	124	187	173
Holy Cross	27	84	16	213	38	120	0	0	237	0	103	76	71
Shageluk	106	0	48	267	0	105	53	36	0	219	113	84	83
District 3 subtotal	284	217	83	739	410	321	353	36	556	371	340	347	327
Lower Yukon River total	2,959	2,303	3,719	5,351	3,618	2,225	2,032	1,986	5,252	2,675	3,891	3,590	2,834
Anvik	288	406	0	807	40	137	28	19	214	97	197	308	99
Grayling	233	234	224	271	25	318	132	119	26	34	403	197	126
Kaltag	138	307	106	204	45	40	0	258	928	306	514	160	306
Nulato	203	60	214	130	195	171	242	118	41	125	454	160	139
Koyukuk	166	37	330	189	84	198	254	137	62	3,267	50	161	784
Galena	1,307	607	137	425	558	2,353	549	1,013	276	170	718	607	872
Ruby/Kokrines	1,540	361	11	168	291	314	148	312	1,806	345	335	474	585
District 4 subtotal	3,875	2,012	1,022	2,194	1,238	3,531	1,353	1,976	3,353	4,344	2,671	2,068	2,911
Huslia	764	734	105	592	100	323	289	70	165	342	265	459	238
Hughes	110	20	150	100	0	89	0	13	0	18	17	76	24
Allakaket	17	205	25	66	152	43	88	13	38	236	109	93	84
Alatna	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
Koyukuk River subtotal	891	959	280	758	252	455	377	96	203	596	391	628	345
District 4 total (incl. Koyukuk R.)	4,766	2,971	1,302	2,952	1,490	3,986	1,730	2,072	3,556	4,940	3,062	2,696	3,257

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Community	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2004-2008 Average	2009-2013 Average
Tanana	1,049	1,616	3,619	2,369	1,511	2,373	2,314	312	3,060	1,135	1,788	2,033	1,839
Rampart ^a	0	10	0	50	0	0	24	0	0	0	0	12	5
Fairbanks ^b	91	10	79	26	7	13	2	2	0	0	134	43	3
Stevens Village	100	0	0	0	0	90	428	0	0	0	0	20	104
Beaver	0	0	0	354	6	0	1	0	2	0	2	72	1
Fort Yukon ^c	19	394	35	567	1,618	2	244	1,040	4	7	201	527	259
Circle	100	100	22	0	0	13	164	0	5	150	210	44	66
Central	0	1	0	0	0	0	0	0	0	0	0	0	0
Eagle	14	15	0	0	0	0	1	1	0	0	1	6	0
Other ^c	0	13	0	0	61	7	0	0	21	0	10	15	6
District 5 subtotal (excluding Chandalar and Black rivers)	1,373	2,159	3,755	3,366	3,203	2,498	3,178	1,355	3,092	1,292	2,346	2,771	2,283
Venetie	5	0	24	0	0	0	159	34	0	6	0	6	40
Chalkyitsik	45	0	0	0	0	0	267	0	0	0	38	9	53
Chandalar/Black River Subtotal	50	0	24	0	0	0	426	34	0	6	38	15	93
District 5 Total	1,423	2,159	3,779	3,366	3,203	2,498	3,604	1,389	3,092	1,298	2,384	2,786	2,376
Manley	1,384	2,510	1,671	1,126	1,901	2,308	1,832	1,482	1,374	447	1,177	1,718	1,489
Minto	5	0	14	155	0	0	0	0	0	266	37	35	53
Nenana	6,494	12,395	7,032	4,487	2,775	3,475	2,313	3,304	5,904	1,762	1,938	6,637	3,352
Fairbanks ^d	1,435	3,032	745	609	230	577	212	1,109	1,502	2,576	3,689	1,210	1,195
Other ^e	2,266	1,601	1,109	1,468	3,522	691	1,198	947	760	206	870	1,993	760
District 6 Tanana River Total	11,584	19,538	10,571	7,845	8,428	7,051	5,555	6,842	9,540	5,257	7,711	11,593	6,849
Upper Yukon Area Total	17,773	24,668	15,652	14,163	13,121	13,535	10,889	10,303	16,188	11,495	13,157	17,075	12,482
Alaska, Yukon River Total ^f	20,732	26,971	19,371	19,514	16,739	15,760	12,921	12,289	21,440	14,170	17,048	20,665	15,316
Alaska, Yukon Area Total	20,795	27,250	19,706	19,624	16,855	16,006	13,045	12,344	21,533	14,457	17,252	20,846	15,477
Not included in communities or totals above													
Personal use (District 6) ^g	233	107	279	135	50	70	1,062	232	100	109	174	161	315

^a Rampart area harvest as reported from subsistence fishing permits. Subsistence surveys were conducted 2001–2003 and permits were used 2004 to present.

^b Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

^c Other permit holders who fished in District 5 but did not reside in the communities listed.

^d Harvests by Fairbanks subsistence permit holders who fished in the Tanana River.

^e Other permits holders who fished in District 6 but did not reside in the communities listed.

^f Does not include the Coastal District for use in U.S./Canada negotiations.

^g Harvest from the personal use fishing area on the Tanana River near Fairbanks.

Appendix D5.—Estimated pink salmon subsistence harvest by residents of surveyed communities, with community and district totals, Yukon Area, 2004–2014.

Community	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Estimated total		
												Even years average	Odd years average	All years average
Hooper Bay	5,418	860	1,433	113	1,013	957	219	210	1,101 ^a	302	712	1,837	457	1,163
Scammon Bay	2,508	1,645	1,381	1,435	2,766	1,186	2,245	1,888	1,343	507	1,923	2,049	1,195	1,690
Coastal District	7,926	2,505	2,814	1,548	3,779	2,143	2,464	2,098	2,444	809	2,635	3,885	1,652	2,853
Nunam Iqua	32	132	555	170	757	61	306	8	1,051	0	670	540	62	307
Alakanuk	233	49	115	32	494	24	151	13	174 ^a	92	970	233	50	138
Emmonak	32	54	225	51	641	5	206	0	199 ^a	0	512	261	18	141
Kotlik	318	155	219	129	1,161	42	124	32	195 ^a	23	1,035	403	67	240
District 1	615	390	1,114	382	3,053	132	787	53	1,619	115	3,187	1,438	198	826
Mountain Village	891	78	616	87	500	6	217	24	207	0	233	486	33	263
Pitkas Point	0	2	44	66	15	0	143	0	2	2	45	41	12	27
St. Marys	137	144	236	32	367	5	543	1	643	0	614	385	30	211
Pilot Station	5	0	1	0	34	3	22	0	23 ^a	131	12	17	44	22
Marshall	105	6	3	0	26	0	21	66	5	7	1	32	14	24
District 2	1,138	230	900	185	942	14	946	91	880	140	905	961	133	547
Russian Mission	6	0	8	3	436	0	2	0	76	12	8	106	5	54
Holy Cross	0	0	17	0	20	0	0	0	0	0	0	7	0	4
Shageluk	0	0	0	0	0	9	0	9	24	0	3	5	3	4
District 3	6	0	25	3	456	9	2	9	100	12	11	118	8	62
Anvik	0	0	0	0	23	2	0	0	0	0	0	5	0	3
Grayling	0	3	0	0	200	0	0	40	0	0	39	40	7	24
Kaltag	10	4	0	0	383	0	0	0	0	0	0	79	1	40
Nulato	0	0	1	0	35	0	0	0	0	0	8	7	0	4
Koyukuk	0	0	0	0	67	0	0	0	0	0	0	13	0	7
Galena	0	0	0	0	31	0	0	0	3	0	6	7	0	3
Ruby	2	0	0	0	184	0	0	0	0	0	13	37	0	19
Huslia	0	0	0	0	100	0	0	0	101	0	0	40	0	20
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	12	7	1	0	1,023	2	0	40	104	0	66	228	8	119

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Community	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Estimated total		
												Even years average	Odd years average	All years average
Tanana	0	0	0	0	80	0	0	0	3	0	8	17	0	8
Stevens Village	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
Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Yukon	0	0	0	0	196	0	0	0	0	0	0	39	0	20
Venetie	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
District 5	0	0	0	0	276	0	0	0	3	0	8	56	0	28
Survey Totals	9,697	3,132	4,854	2,118	9,529	2,300	4,199	2,291	5,150	1,076	6,812	6,686	2,183	4,435
CI (95%)	2,829	1,521	990	739	1,818	1,184	1,209	918	1,155	387	1,356	–	–	–

Note: Averages do not include the current year. CI (95%) is the annual 95% confidence interval.

^a Includes pink salmon given to communities from test fishery projects. A total of 216 pink salmon were distributed from test fishery projects in these communities.

Appendix D6.—Reported subsistence and personal use fish harvested under the authority of a permit, listed by permit area, Yukon Area, 2014.

Permit fishing area	Type	Permit ^a		Percent returned	Number of permits returned that fished ^c	Reported harvest									
		Issued ^b	Returned			Chinook ^d	Summer chum ^d	Fall chum ^d	Coho ^d	Whitefish	Sheefish	Burbot	Northern pike	Longnose sucker	Arctic grayling
Subsistence permit															
Koyukuk Middle & South Fork rivers	SF	1	1	100%	1	0	0	0	0	9	0	3	0	8	18
Yukon River Rampart Area	SR	18	17	94%	9	6	240	797	32	398	0	0	0	0	0
Yukon River near Haul Road Bridge ^e	SY	42	41	98%	20	3	221	798	112	142	16	2	27	0	0
Yukon River near Circle and Eagle ^f	SE	24	21	88%	9	8	0	5,185	210	87	16	1	2	0	2
	SEU	15	15	100%	11	55	0	13,575	1	102	109	2	2	2	47
Tanana River Subdistrict 6A	SA	22	22	100%	16	104	179	3,450	1,420	100	3	1	1	0	0
Tanana River Subdistrict 6B	SB	81	77	95%	37	168	533	8,081	5,777	1,510	8	15	64	28	16
Tanana River upstream of Subdistrict 6C	SU	15	15	100%	10	0	0	0	0	1,495	0	3	62	62	0
Kantishna River Subdistrict 6A	SK	5	5	100%	3	0	0	70	129	10	0	0	6	0	0
Tolovana River Pike Subdistrict 6B	ST	106	104	98%	57	0	0	1	0	3	0	0	471	0	0
Subsistence Permit Subtotals		329	318	97%	173	344	1,173	31,957	7,681	3,602	152	27	635	100	83

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Permit fishing area	Permit ^a		Percent returned	Number of permits returned that fished ^c	Reported harvest									
	Type	Issued ^b			Chinook ^d	Summer chum ^d	Fall chum ^d	Coho ^d	Whitefish	Sheefish	Burbot	Northern pike	Longnose sucker	Arctic grayling
Personal use permit														
Tanana River														
Salmon	PC	50	50	100%	23	1	235	278	174	39	3	0	0	0
Subdistrict 6C														
Tanana River														
Whitefish	PW	21	21	100%	10	0	0	0	0	106	0	0	0	270
Upstream of														
Subdistrict 6C														
Personal use permit subtotals		71	71	100%	33	1	235	278	174	145	3	0	0	270
Permit totals		400	389	97%	206	345	1,408	32,235	7,855	3,747	155	27	635	370

Note: Permit types include PC for personal use salmon and PW for personal use whitefish, SA (Subdistrict 6-A), SB (Subdistrict 6-B), SE (Circle/Eagle Area) and SEU (Eagle Area to U.S./Canada border), SF (South Fork of the Koyukuk River), SK (Kantishna River), SR (Rampart Area), ST (Tolovana River pike fishery), and SU (Upper Tanana River) SY (Yukon River bridge area).

^a Permits returned as of March 12, 2015.

^b Includes 38 households that were issued permits for more than one area.

^c Includes 10 households that fished in 2 different permit areas.

^d Does not include District 6 commercial related harvest of 1 Chinook, 226 summer chum, 211 fall chum, and 155 coho salmon caught but not sold during commercial fishing and retained for subsistence use in 2014.

^e Includes harvest from Stevens Village.

^f Does not include 13 Chinook, 19 summer chum, 56 fall chum or 33 coho salmon that could not be released live from the ADF&G Eagle sonar or Manley sonar test fishery projects and were given to residents of Eagle, Manley or Minto. Harvest taking place between the Eagle sonar and the U.S./Canada border are reported on those permits issued specifically for use upstream of the Eagle sonar (abbreviated as SEU in the table).

Appendix D7.—Reported harvest of salmon and other fish species from subsistence permits issued in the Yukon and Koyukuk rivers, 2004–2014.

Year			Percent returned	Number of permits returned that fished	Reported harvest									
	Issued	Returned			Chinook	Summer chum	Fall chum	Coho	Whitefish	Sheefish	Burbot	Northern pike	Longnose sucker	Arctic grayling
2004	173	162	94%	111	5,168	636	6,560	205	441	22	33	48	249	942
2005	189	173	92%	130	7,572	1,547	20,467	149	325	87	50	79	129	767
2006	173	168	97%	129	6,243	2,744	23,133	101	437	60	35	72	93	419
2007	187	171	91%	118	6,999	890	22,681	76	723	58	47	84	193	488
2008 ^a	188	175	93%	111	4,313	192	20,581	7	420	105	71	73	93	395
2009	167	162	97%	94	3,794	189	13,117	123	519	46	46	74	76	265
2010	207	198	96%	122	4,059	814	17,612	191	491	68	22	73	40	157
2011	191	188	98%	117	4,276	1,619	20,447	3	723	70	17	119	160	395
2012	164	159	97%	87	1,749	344	20,316	26	663	100	11	30	21	59
2013	124	114	92%	72	1,196	1,715	21,449	150	283	37	15	23	39	107
2014	100	95	95%	50	72	461	20,355	355	729	141	8	31	10	67
2009-2013														
Average	171	164	96%	98	3,015	936	18,588	99	536	64	22	64	67	197
2004-2013														
Average	176	167	95%	109	4,537	1,069	18,636	103	503	65	35	68	109	399

Note: Reported information from permits issued in the Yukon River (portions of Subdistricts 5-C and 5-D) and the South Fork of the Koyukuk River. Permit types include SF (South Fork of the Koyukuk River), SR (Rampart Area), SY (Yukon River bridge area), SE (Circle/Eagle Area) and SEU (Eagle Area to U.S./Canada border).

^a Permits have been issued above and below the Eagle sonar project to document harvest of salmon between the sonar site and U.S./Canada border from 2008 to present.

Appendix D8.—Reported harvest of salmon and other fish species from subsistence permits issued in Subdistricts 6-A, 6-B and 6-D of the Tanana River, 2004–2014.

Year			Percent returned	Number of permits returned that fished	Reported harvest									
					Chinook	Summer chum	Fall chum	Coho	Whitefish	Sheefish	Burbot	Northern pike	Longnose sucker	Arctic grayling
2004	217	200	92%	98	1,388	1,793	8,953	11,584	3,406	74	94	558	91	89
2005	202	182	90%	88	1,828	2,014	19,699	12,318	3,262	65	21	560	162	30
2006	226	219	97%	133	926	1,010	16,766	10,182	2,675	15	88	934	493	87
2007	253	239	94%	125	1,472	1,896	16,298	6,647	2,603	24	52	2,009	50	37
2008	315	292	93%	152	601	1,000	10,510	6,017	2,942	4	18	1,603	48	93
2009	252	243	96%	125	1,273	1,253	13,845	6,744	3,472	29	73	662	127	98
2010	256	235	92%	107	954	422	10,813	5,415	2,343	52	20	177	64	39
2011	227	219	96%	112	1,015	825	12,726	6,124	4,072	32	122	200	118	80
2012	242	221	91%	110	603	494	12,881	8,099	3,281	47	47	795	142	45
2013	245	215	88%	112	366	1,094	11,425	5,190	2,394	10	52	377	190	100
2014	229	223	97%	123	272	712	11,602	7,326	2,873	11	19	604	90	16
2009-2013														
Average	244	227	93%	113	842	818	12,338	6,314	3,112	34	63	442	128	72
2004-2013														
Average	244	227	93%	116	1,043	1,180	13,392	7,832	3,044	35	59	788	149	70

Note: Permit types include SA (Subdistrict 6-A), SB (Subdistrict 6-B), SK (Kantishna River), ST (Tolovana River pike fishery), and SU (Upper Tanana River).

Appendix D9.—Reported harvest of salmon and other fish species from personal use permits issued in Subdistrict 6-C of the Tanana River, 2004–2014.

Year	Issued Returned		Percent returned	Number of permits returned that fished	Reported harvest									
					Chinook	Summer chum	Fall chum	Coho	Whitefish	Sheefish	Burbot	Northern pike	Longnose sucker	Arctic grayling
2004	71	68	96%	36	201	231	230	233	51	1	0	0	1	0
2005	73	69	95%	32	138	152	133	107	84	3	7	2	403	3
2006	67	67	100%	39	89	262	333	279	287	5	4	2	184	1
2007	68	66	97%	32	136	184	173	135	4	1	0	1	0	0
2008	57	56	98%	29	126	138	181	50	41	2	0	2	157	0
2009	68	68	100%	28	127	308	78	70	48	1	0	0	315	0
2010	75	73	97%	41	162	319	3,209	1,062	206	1	3	7	66	5
2011	74	71	96%	38	89	439	347	232	62	1	1	0	142	0
2012	72	70	97%	32	71	321	410	100	22	0	0	0	233	0
2013	67	65	97%	36	42	138	383	132	89	1	1	3	118	0
2014	71	71	100%	33	1	235	278	174	145	3	0	0	270	0
2009-2013														
Average	71	69	98%	35	98	305	885	319	85	1	1	2	175	1
2004-2013														
Average	69	67	97%	34	118	249	548	240	89	2	2	2	162	1

Note: Permit types include PC for personal use salmon and PW for personal use whitefish.

Appendix D10.—Estimated and reported subsistence and personal use harvest of miscellaneous fish species, Yukon Area, 2004–2014.

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2004-2008	2009-2013
Survey estimates ^a													
Whitefish ^b	64,039	48,862	60,923	64,338	54,729	51,778	50,232	44,890	70,486	64,766	84,889	58,578	56,430
Northern pike	18,738	29,799	28,133	25,947	16,053	8,061	14,086	14,270	18,450	11,264	14,582	23,734	13,226
Sheefish	16,896	13,764	12,745	13,203	10,154	7,861	9,231	10,139	17,094	15,553	12,583	13,352	11,976
Survey reported													
Burbot	2,628	3,138	5,069	3,500	3,273	2,027	2,743	2,477	2,422	2,115	2,016	3,522	2,357
Arctic lamprey ^c	33,919	38,115	2,092	12,584	803	1,699	10,863	6,037	1,243	2,608	1,722	17,503	4,490
Tomcod	5,649	4,988	13,652	7,121	6,391	2,709	3,978	6,797	4,023	5,221	10,020	7,560	4,546
Arctic grayling	1,645	1,258	1,145	2,296	857	667	1,571	1,273	2,674	1,435	1,764	1,440	1,524
Longnose suckers	178	1,452	105	225	25	59	273	286	95	180	90	397	179
Arctic char ^d	116	217	345	181	184	43	148	205	216	167	—	209	156
Alaska													
blackfish	229,833	259,874	218,695	131,712	110,356	47,320	68,873	87,064	62,731	63,235	92,068	190,094	65,845
Sockeye ^e	787	648	333	493	213	216	263	279	405	258	—	495	284
Herring ^e	—	—	—	—	—	—	—	—	10,449	9,082	17,164	—	9,766
Halibut ^e	—	—	—	—	—	—	—	—	21	551	444	—	286
Permit reported													
Whitefish ^b	4,402	3,671	3,399	3,328	3,402	4,039	3,040	4,851	3,966	2,766	3,747	3,640	3,732
Northern pike	606	641	1,008	2,094	1,678	733	257	319	825	403	635	1,205	507
Sheefish	97	155	80	83	111	76	121	103	147	48	155	105	99
Burbot	127	78	127	99	89	119	45	140	58	68	27	104	86
Arctic grayling	1,032	800	507	525	488	363	201	475	104	207	83	670	270
Longnose suckers	341	694	770	243	298	518	170	414	396	347	370	469	369
Yukon Area totals													
Whitefish ^b	68,441	52,533	64,322	67,666	58,131	55,817	53,272	49,741	74,452	67,532	88,636	62,219	60,163
Northern pike	19,344	30,440	29,141	28,041	17,731	8,794	14,343	14,589	19,275	11,667	15,217	24,939	13,734
Sheefish	16,993	13,919	12,825	13,286	10,265	7,937	9,352	10,242	17,241	15,601	12,738	13,458	12,075
Burbot	2,755	3,216	5,196	3,599	3,362	2,146	2,788	2,617	2,480	2,183	2,043	3,626	2,443
Arctic lamprey	33,919	38,115	2,092	12,584	803	1,699	10,863	6,037	1,243	2,608	1,722	17,503	4,490
Tomcod	5,649	4,988	13,652	7,121	6,391	2,709	3,978	6,797	4,023	5,221	10,020	7,560	4,546
Arctic grayling	2,677	2,058	1,652	2,821	1,345	1,030	1,772	1,748	2,778	1,642	1,847	2,111	1,794
Longnose suckers	519	2,146	875	468	323	577	443	700	491	527	460	866	548
Arctic char	116	217	345	181	184	43	148	205	216	167	—	209	156
Alaska													
blackfish	229,833	259,874	218,695	131,712	110,356	47,320	68,873	87,064	62,731	63,235	92,068	190,094	65,845
Sockeye	787	648	333	493	213	216	263	279	405	258	—	—	275

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- ^a Subsistence whitefish, pike, and a sheefish estimates in surveyed communities is based on a stratified random sample of households as designated for the estimation of subsistence salmon harvests, and may not reflect harvest of those households targeting non-salmon species.
- ^b Whitefish includes various *Coregonus* species and round whitefish (*Prosopium cylindraceum*).
- ^c Arctic lamprey are harvested after the survey season; fish reported in 2014 were harvested in the winter of 2013.
- ^d In 2014 harvest information was not collected about these species due to their historically low harvest numbers.
- ^e Starting in 2012, households in the Lower Yukon including the Coastal District were asked about harvest of herring and halibut. Household responses for herring include smelt and unspecified species, responses for halibut include unspecified flounder species.

Appendix D11.—Subsistence salmon fishing closures and gear restrictions, Lower Yukon Area, 2014.

	Coastal District ^a		District 1	District 2	District 3	Innoko
	Southern ^b	Northern ^c				
5/9	Open - no schedule		Open - no schedule	Open - no schedule	Open - no schedule	Open
5/10	Open 7.5" mesh		Open 7.5" mesh	Open 7.5" mesh	Open 7.5" mesh	7.5" mesh
5/11	Open	Open	Open	Open	Open	Open
5/12	Open	Open	Open	Open	Open	Open
5/13	Open	Open	Open	Open	Open	Open
5/14	Open	Open	Open	Open	Open	Open
5/15	Open	Open	Open	Open	Open	Open
5/16	8 pm 6" mesh	8 pm 6" mesh	8 pm 6" mesh	8pm 6" mesh	Open	Open
5/17	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open	Open
5/18	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open	Open
5/19	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open	Open
5/20	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open	Open
5/21	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open	Open
5/22	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open	Open
5/23	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open	Open
5/24	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open	Open
5/25	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open 6" mesh	Open	Open
5/26	Open 6" mesh	Close 8 pm	Close 8 pm	Close 8 pm	Close 8 pm	Open
5/27	Open 6" mesh	Closed	Closed	Closed	Closed	Open
5/28	Open 6" mesh	Closed	Closed	Closed	Closed	Open
5/29	Open 6" mesh	Closed	Closed	Closed	Closed	Open
5/30	Open 6" mesh	Closed	Closed	Closed	Closed	Open
5/31	Open 6" mesh	Closed	Closed	Closed	Closed	Open
6/1	Open 6" mesh	Closed	Open 8 am Dip net only	Open 8 am Dip net only	Open 8 am Dip net only	Open
6/2	Open 6" mesh	Closed	Open Dip net only	Open Dip net only	Open Dip net only	Open
6/3	Open 6" mesh	Closed	Open Dip net only	Open Dip net only	Open Dip net only	Open
6/4	Open 6" mesh	Closed	Open Dip net only	Open Dip net only	Open Dip net only	Open
6/5	Open 6" mesh	Closed	Open Dip net only	Open Dip net only	Open Dip net only	Open
6/6	Open 6" mesh	Closed	Open Dip net only	Open Dip net only	Open Dip net only	Open
6/7	Open 6" mesh	Closed	Open Dip net only	Open Dip net only	Open Dip net only	Open

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Coastal District ^a						
Southern ^a		Northern ^b	District 1	District 2	District 3	Innoko
6/8	Open 6" mesh	Closed	Open Dip net only	Open Dip net only	Open Dip net only	Open
6/9	Open 6" mesh	Closed	Close 12 am ^d . Comm. 12 pm-12 am	Open ^d close 10 pm	Open Dip net only	Open
6/10	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Open
6/11	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Open
6/12	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Open
6/13	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Open
6/14	Open 6" mesh	Closed	Dip net, b.seine; 6 am-12 am ^f	Dip net, b.seine; 6 am-12 am ^f	Open Dip net only	Open
6/15	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Open
6/16	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Open
6/17	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Open
6/18	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Open
6/19	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Close 8 pm
6/20	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Closed
6/21	Open 6" mesh	Closed	Dip net, b.seine; 6 am-12 am ^f	Dip net, b.seine; 6 am-12 am ^f	Open Dip net only	Closed
6/22	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Closed
6/23	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Closed
6/24	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Closed
6/25	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Closed
6/26	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Closed
6/27	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Closed
6/28	Open 6" mesh	Closed	6" mesh only 4 pm-7 pm	6" mesh only 1 pm-4 pm	Open Dip net only	6" mesh 6 pm
6/29	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Open 6" mesh
6/30	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Open 6" mesh
7/1	Open 6" mesh	Closed	Dip net, b. seine; Noon-12 am ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Open 6" mesh
7/2	Open 6" mesh	Closed	Dip net, b. seine; Noon-8 pm ^e	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Open 6" mesh
7/3	Open 6" mesh	Closed	Open 8 pm-12 am 6" mesh only ^g	Dip net, b. seine; Noon-10 pm ^e	6" mesh 6 pm-9 pm ^h	Open 6" mesh
7/4	Open 6" mesh	Closed	Closed	Dip net, b. seine; Noon-10 pm ^e	Open Dip net only	Open 6" mesh
7/5	8 am 7.5" mesh	Closed	Open 10 am-2 pm 6" mesh only	Open 1 pm-5 pm 6" mesh only	Open Dip net only	Open 6" mesh
7/6	Open	Closed	Open Noon 6" mesh	Open 4 pm-10 pm Subs. & Comm.	Open Dip net only	Open 6" mesh
7/7	Open	Closed	Close 9 am. Open 3 pm-12 am	Open 4 am 6" mesh	Open Dip net only	Open 6" mesh

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Coastal District ^a						
	Southern ^a	Northern ^b	District 1	District 2	District 3	Innoko
7/8	Open	8 am 7.5" mesh	Open 6 am 6" mesh	Close 8 am. Open 4 pm-10 pm	Open Dip net only	Open 6" mesh
7/9	Open	Open 7.5" mesh	Close 9 am. Open 3 pm-12 am	Open 4 am 6" mesh	8pm 6" mesh only	Open 6" mesh
7/10	Open	Open	Open 6 am 6" mesh	Close 10 am. Open 4 pm-10 pm	Open 6" mesh	Open 6" mesh
7/11	Open	Open	Close 9 am. Open 3 pm-12 am	Open 4 am 6" mesh	Close 8 am	Open 6" mesh
7/12	Open	Open	Open 6 am 6" mesh	Close 8 am. Open 2 pm-11 pm	Closed	Open 6" mesh
7/13	Open	Open	Close 6 am. Open Noon-12 am	Open 5 am 6" mesh	Open 8 pm 6" mesh	Open 6" mesh
7/14	Open	Open	Open 6 am 6" mesh	Close 8 am. Open 2 pm-11 pm	Open 6" mesh	Open 6" mesh
7/15	Open	Open	Close 6 am. Open Noon-12 am	Open 5 am 6" mesh	Close 8 am	Open 6" mesh
7/16	Open	Open	Open 12 pm 7.5" mesh	Close 8 am. Open 2 pm-11 pm	Open 8 pm 6" mesh	Open 6" mesh
7/17	Open	Open	Close 4 am. Open 4 pm-10 pm ⁱ	Open 5 am 6" mesh	Open 6" mesh	Open 6" mesh
7/18	Open	Open	Open 10 am	Open	Close 8 am	Open 6" mesh
7/19	Open	Open	Open	11 am 7.5" mesh	Closed	6 pm 7.5" mesh
7/20	Open	Open	Open	Close 2 am. Open 2 pm-8 pm	Open 8 pm 7.5" mesh	Open
7/21	Open	Open	Close 6 am. Open 6 pm-12 am ⁱ	Open 8 am 7.5" mesh	Open	Open
7/22	Open	Open	Open Noon	Open	Open	Open
7/23	Open	Open	Open	Open	Open	Open
7/24	Open	Open	Open	Open	Open	Open
7/25	Open	Open	Close 4 am. Open 4 pm-10 pm ⁱ	Open	Open	Open
7/26	Open	Open	Open 10 am	Open	Open	Open
7/27	Open	Open	Open	Close 2 am. Open 2 pm-8 pm	Open	Open
7/28	Open	Open	Close 4 am. Open 4 pm-10 pm ⁱ	Open 8am	Open	Open
7/29	Open	Open	Open 10am	Open	Open	Open
7/30	Open	Open	Open	Open	Open	Open
7/31	Open	Open	Open	Open	Open	Open
8/1	Open	Open	Open	Open	Open	Open
8/2	Open	Open	Open	Open	Open	Open
8/3	Open	Open	Open	Close 2 am. Open 2 pm-7 pm	Open	Open
8/4	Open	Open	Open	Open 7 am	Open	Open
8/5	Open	Open	Open	Open	Open	Open
8/6	Open	Open	Open	Open	Open	Open
8/7	Open	Open	Open	Open	Open	Open

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Coastal District ^a		District 1	District 2	District 3	Innoko
Southern ^a	Northern ^b				
8/8	Open	Open	Open	Open	Open
8/9	Open	Open	Open	Open	Open
8/10	Open	Open	Open	Open	Open
8/11	Open	Open	Open	Open	Open
8/12	Open	Open	Open	Open	Open
8/13	Open	Open	Open	Open	Open
8/14	Open	Open	Open	Open	Open
8/15	Open	Close 1 pm. Open 4 pm-10 pmⁱ	Open	Open	Open
8/16	Open	Open 10 am	Open	Open	Open
8/17	Open	Open	Open	Open	Open
8/18	Open	Open	Close 12 pm. Open 2 pm-7 pm	Open	Open
8/19	Open	Close 11 am. Open 5 pm-11 pmⁱ	Open 7 am	Open	Open
8/20	Open	Open 11 am	Open	Open	Open
8/21	Open	Open	Open	Open	Open
8/22	Open	Open	Close 2 am. Open 2 pm-8 pm	Open	Open
8/23	Open	Open	Open 8 am	Open	Open
8/24	Open	Open	Close 2 am. Open 2 pm-6 pm	Open	Open
8/25	Open	Close Midnight. Open 12 pm-9 pmⁱ	Open 6 am	Open	Open
8/26	Open	Open 9 am - 12 pm Open 5 pm-9 pmⁱ	Open	Open	Open
8/27	Open	Open 9 am	Close 1 am. Open 1 pm-7 pm	Open	Open
8/28	Open	Close Midnight. Open 12 pm-9 pmⁱ	Open 7 am	Open	Open
8/29	Open	Open 9 am	Open	Open	Open
8/30	Open	Open	Close 1 am. Open 1 pm-7 pm	Open	Open
8/31	Open	Open	Open	Open	Open
9/1	Open	Close Midnight. Open 12 pm-9 pmⁱ	Open	Open	Open
9/2	Open	Open 9 am. Close 9 pm	Open	Open	Open
9/3	Open	Open 9 am-6 pmⁱ	Open	Open	Open
9/4	Open	Open 6 am. Close 11 pm	Open	Open	Open
9/5	Open	Open 11 am-8 pmⁱ	Open	Open	Open
9/6	Open	Open 8 am	Open	Open	Open
9/7	Open	Open	Open	Open	Open

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Note: Shaded areas indicate fishery closures and outlined shaded days were closed to protect pulses of Chinook salmon. Dates with double lines on the left contain concurrent subsistence and commercial fishery openings limited to dip nets only or dip nets and beach seines only with no retention of Chinook salmon allowed. Dates with dark shading were closed for subsistence fishing for 12 hours before, during and 12 hours after commercial fishing periods. Unless noted, mesh size was restricted to 7.5 inch or less in all districts and subdistricts. Beach seine (abbreviated as b. seine) is restricted to 4.0 inch or smaller mesh. During subsistence salmon fishing closures, all gillnets with a mesh size greater than four inches and a length greater than 60 feet must be removed from the water.

- ^a The Coastal District was split for management purposes based on which mouths various salmon species were entering the delta.
- ^b The portion of the Coastal District from the Naskonat Peninsula north to 62 degrees North latitude and three miles offshore, including communities of Chevak, Hooper Bay, and Scammon Bay.
- ^c The portion of the Coastal District from 62 degrees North latitude to Point Romanoff and 3 miles offshore.
- ^d Subsistence only opening with dip nets until noon. Subsistence and commercial fishing with dip nets and beach seines open concurrently from 12:00 pm to 12:00 am (District 1) or 10:00 pm (District 2).
- ^e Subsistence and commercial fishing with dip nets and beach seines for summer chum salmon open concurrently for 12 hour periods from 12:00 pm to 12:00 am (District 1) or 10 hour periods from 12:00 pm to 10:00 pm (District 2). Chinook salmon must be released alive from subsistence and commercial gear.
- ^f Subsistence only opening with dip nets and beach seines. Chinook salmon must be released alive.
- ^g Subsistence and commercial fishing open for 4 hours with 6.0 inch or smaller mesh only.
- ^h Subsistence fishing open with 6.0 inch mesh for 3 hours. Subsistence fishing open 24 hours a day with dip nets.
- ⁱ Commercial fishing open in Set Net Only area of District Y-1 concurrent with commercial fishing in the remainder of District Y-1.

Appendix D12.—Subsistence salmon fishing closures and gear restrictions, Upper Yukon Area, 2014.

	Subdistrict 4-A ^a		Sub 4-B / 4-C ^b	5-A/5-B / 5-C	Subdistrict 5-D ^c		
	Lower	Upper			Lower	Middle	Upper
5/12	Open - no schedule		Open - no schedule		Open - no schedule		
5/13	Open 7.5"	Open 7.5"	Open 7.5"	Open 7.5"	Open 7.5"	Open 7.5"	Open 7.5"
5/14	Open	Open	Open	Open	Open	Open	Open
5/15	Open	Open	Open	Open	Open	Open	Open
5/16	Open	Open	Open	Open	Open	Open	Open
5/17	Open	Open	Open	Open	Open	Open	Open
5/18	Open	Open	Open	Open	Open	Open	Open
5/19	Open	Open	Open	Open	Open	Open	Open
5/20	Open	Open	Open	Open	Open	Open	Open
5/21	Open	Open	Open	Open	Open	Open	Open
5/22	Open	Open	Open	Open	Open	Open	Open
5/23	Open	Open	Open	Open	Open	Open	Open
5/24	Open	Open	Open	Open	Open	Open	Open
5/25	Open	Open	Open	Open	Open	Open	Open
5/26	Open	Open	Open	Open	Open	Open	Open
5/27	Open	Open	Open	Open	Open	Open	Open
5/28	Open	Open	Open	Open	Open	Open	Open
5/29	Open	Open	Open	Open	Open	Open	Open
5/30	Open	Open	Open	Open	Open	Open	Open
5/31	Close 8 pm	Open	Open	Open	Open	Open	Open
6/1		Open	Open	Open	Open	Open	Open
6/2		Close 8 pm	Open	Open	Open	Open	Open
6/3			Open	Open	Open	Open	Open
6/4			Close 8 pm	Open	Open	Open	Open
6/5	Open	Open		Open	Open	Open	
6/6	Open	Open		Open	Open	Open	
6/7	Closed	Closed	Closed	Close 8 pm	Open	Open	Open
6/8	Closed	Closed	Closed		Open	Open	Open
6/9	Closed	Closed	Closed	Closed	Open	Open	Open
6/10	Closed	Closed	Closed	Closed	Open	Open	Open
6/11	Closed	Closed	Closed	Closed	Close 8 pm	Open	Open

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Subdistrict 4-A ^a			Sub 4-B /	5-A/5-B /	Subdistrict 5-D ^c		
	Lower	Upper	4-C ^b	5-C	Lower	Middle	Upper
6/12	Closed	Closed	Closed	Closed	Closed	Open	Open
6/13	Closed	Closed	Closed	Closed	Closed	Open	Open
6/14	Closed	Closed	Closed	Closed	Closed	Open	Open
6/15	Closed	Closed	Closed	Closed	Closed	Close 8 pm	Open
6/16	Closed	Closed	Closed	Closed	Closed	Closed	Open
6/17	Closed	Closed	Closed	Closed	Closed	Closed	Close 8 pm
6/18	Open 8 am: Gear ^d	Closed	Closed	Closed	Closed	Closed	Closed
6/19	Open Dip net, b.seine	Closed	Closed	Closed	Closed	Closed	Closed
6/20	Open Dip net, b.seine	Closed	Closed	Closed	Closed	Closed	Closed
6/21	Open Dip net, b.seine	Closed	Closed	Closed	Closed	Closed	Closed
6/22	Open Dip net, b.seine	Closed	Closed	Closed	Closed	Closed	Closed
6/23	Open Dip net, b.seine ^{d, e}	Open 8 am: Gear ^{e, f}	Closed	Closed	Closed	Closed	Closed
6/24	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Closed	Closed	Closed	Closed	Closed
6/25	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Closed	Closed	Closed	Closed	Closed
6/26	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Open 8 am: Gear ^f	Closed	Closed	Closed	Closed
6/27	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	Closed	Closed	Closed	Closed
6/28	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	Closed	Closed	Closed	Closed
6/29	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	Closed	Closed	Closed	Closed
6/30	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	All gear 8 pm ^g	Closed	Closed	Closed
7/1	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	All gear	Closed	Closed	Closed
7/2	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	All gear	Closed	Closed	Closed
7/3	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	All gear	Closed	Closed	Closed
7/4	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	All gear	Closed	Closed	Closed
7/5	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	All gear	Closed	Closed	Closed
7/6	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	All gear	Closed	Closed	Closed
7/7	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	All gear 8 am	Closed	Closed	Closed
7/8	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	Closed	Closed	Closed	Closed
7/9	Open Dip net, b.seine ^{d, e}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	Closed	Closed	Closed	Closed
7/10	Open 6 pm 6" mesh ^{d, e, h}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	Closed	Closed	Closed	Closed
7/11	Close 6 pm ^e	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	Closed	Closed	Closed	Closed
7/12	Closed ^e	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	Closed	Closed	Closed	Closed

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	Subdistrict 4-A ^a		Sub 4-B /	5-A/5-B /	Subdistrict 5-D ^c		
	Lower	Upper	4-C ^b	5-C	Lower	Middle	Upper
7/13	Open 6 pm ^{e, h}	Open Dip net, fish wheel ^e	Open D. net, f. wheel ^f	Closed	Closed	Closed	Closed
7/14	Open ^h	6 pm 6" mesh ^h	Open D. net, f. wheel ^f	Closed	Closed	Closed	Closed
7/15	Close 6 pm	Close 6 pm	Open D. net, f. wheel ^f	Closed	Closed	Closed	Closed
7/16	Open 6 pm ^h	Open 6 pm ^h	6 pm 6" mesh ^h	Closed	Closed	Closed	Closed
7/17	Open ^h	Open ^h	Open ^h	Closed	Closed	Closed	Closed
7/18	Close 6 pm ^e	Close 6 pm ^e	Close 6 pm	Closed	Closed	Closed	Closed
7/19	Closed ^e	Closed ^e	Closed	Closed	Closed	Closed	Closed
7/20	Open 6 pm 7.5" mesh ^e	Open 6 pm 7.5" mesh ^e	Open 6 pm ^h	Closed	Closed	Closed	Closed
7/21	Open 7.5" mesh ⁱ	Open 7.5" mesh ⁱ	Open ^h	Closed	Closed	Closed	Closed
7/22	Close 6 pm ⁱ	Close 6 pm ⁱ	Close 6 pm	6 pm 6" mesh ^j	Closed	Closed	Closed
7/23	Open 6 pm ⁱ	Open 6 pm ⁱ	Open 6 pm 7.5" mesh	Open 6" mesh ^j	Closed	Closed	Closed
7/24	Open ⁱ	Open ⁱ	Open 7.5" mesh	Close 6 pm	Closed	Closed	Closed
7/25	Open ⁱ	Open ⁱ	Close 6 pm	Open 6 pm 6" ^j	6 pm 6" mesh ^j	Closed	Closed
7/26	Open	Open	Closed	Open 6" mesh ^j	Open 6" mesh ^j	Closed	Closed
7/27	Close 6 pm	Close 6 pm	Open 6 pm	Close 6 pm	Open 6" mesh ^j	Closed	Closed
7/28	Closed	Closed	Open	Closed	Open 6" mesh ^j	6 pm 6" mesh ^j	Closed
7/29	Open 6 pm	Open 6 pm	Open	Open 6 pm 7.5"	Open 6" mesh ^j	Open 6" mesh ^j	Closed
7/30	Open	Open	Open	Open 7.5" mesh	6 pm 7.5" mesh	Open 6" mesh ^j	Closed
7/31	Open	Open	Open	Close 6 pm	Open	Open 6" mesh ^j	Closed
8/1	Open	Open	Close 6 pm	Open 6 pm	Open	Open 6" mesh ^j	6 pm 6" mesh ^j
8/2	Open	Open	Closed	Open	Open	6 pm 7.5" mesh	Open 6" mesh ^j
8/3	Close 6 pm	Close 6 pm	Open 6 pm	Close 6 pm	Open	Open	Open 6" mesh ^j
8/4	Closed	Closed	Open	Closed	Open	Open	Open 6" mesh ^j
8/5	Open 6 pm	Open 6 pm	Open	Open 6 pm	Open	Open	6 pm 7.5" mesh
8/6	Open	Open	Open	Open	Open	Open	Open
8/7	Open	Open	Open	Open	Open	Open	Open
8/8	Open	Open	Open	Open	Open	Open	Open
8/9	Open	Open	Open	Open	Open	Open	Open
8/10	Open	Open	Open	Close 6 pm	Open	Open	Open
8/11	Open	Open	Open	Closed	Open	Open	Open
8/12	Open	Open	Open	Open 6 pm ^k	Open	Open	Open

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	Subdistrict 4-A ^a		Sub 4-B / 4-C ^b	5-A/5-B / 5-C	Subdistrict 5-D ^c		
	Lower	Upper			Lower	Middle	Upper
8/13	Open	Open	Open	Open ^k	Open	Open	Open
8/14	Open	Open	Open	Open ^k	Open	Open	Open
8/15	Open	Open	Open	Open ^k	Open	Open	Open
8/16	Open	Open	Open	Open ^k	Open	Open	Open
8/17	Open	Open	Open	Open ^k	Open	Open	Open
8/18	Open	Open	Open	Open	Open	Open	Open
8/19	Open	Open	Open	Open 6 pm ^k	Open	Open	Open
8/20	Open	Open	Open	Open ^k	Open	Open	Open
8/21	Open	Open	Open	Open ^k	Open	Open	Open
8/22	Open	Open	Open	Open ^k	Open	Open	Open
8/23	Open	Open	Open	Open ^k	Open	Open	Open
8/24	Open	Open	Open	Open ^k	Open	Open	Open
8/25	Open	Open	Open	Open	Open	Open	Open
8/26	Open	Open	Open	Open ¹	Open	Open	Open
8/27	Open	Open	Open	Open ¹	Open	Open	Open
8/28	Open	Open	Open	Open ¹	Open	Open	Open
8/29	Open	Open	Open	Open ¹	Open	Open	Open
8/30	Open	Open	Open	Open ¹	Open	Open	Open
8/31	Open	Open	Open	Open ¹	Open	Open	Open
9/1	Open	Open	Open	Open	Open	Open	Open
9/2	Open	Open	Open	Open	Open	Open	Open
9/3	Open	Open	Open	Open	Open	Open	Open
9/4	Open	Open	Open	Open	Open	Open	Open
9/5	Open	Open	Open	Open	Open	Open	Open
9/6	Open	Open	Open	Open	Open	Open	Open
9/7	Open	Open	Open	Open	Open	Open	Open
9/8	Open	Open	Open	Open	Open	Open	Open
9/9	Open	Open	Open	Open	Open	Open	Open
9/10	Open	Open	Open	Open	Open	Open	Open
9/11	Open	Open	Open	Open	Open	Open	Open

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Note: Shaded areas indicate fishery closures following the regulatory schedule. Outlined shaded days were closed to protect pulses of Chinook salmon. Unless noted, mesh size was restricted to 7.5 inch or less in all districts and subdistricts. The Koyukuk River was closed from 8:00 pm June 18 to 8:00 pm July 2, and restricted to 6.0 inch or smaller mesh from 8:00 pm July 2 to 6:00 pm July 28.

- ^a Subdistrict 4-A was divided into 2 separate areas above and below Stink Creek to protect the first pulse of Chinook salmon as it passed through this long section of river.
- ^b State regulations do not allow the use of drift gillnets in State waters of Subdistrict 4-B and 4-C. Federal regulations allow the use of drift gillnets in Federal waters of Subdistricts 4-B and 4-C.
- ^c Subdistrict 5-D was divided into three separate areas to protect the first pulse of Chinook salmon as it passed through this long section of river. Subdistrict 5-D Lower: from the ADF&G marker 2 miles downstream of Waldron Creek upstream to the Hadweenzic River, Subdistrict 5-D Middle: from the Hadweenzic River upstream to 22 Mile Slough, Subdistrict 5-D Upper: from 22 Mile Slough to the U.S./Canada border.
- ^d Subsistence fishing for summer chum salmon open in the Anvik River Special Management Area (lower 12 miles of Anvik River upstream from regulatory markers) with dip nets and beach seine gear only. Remainder of Subdistrict 4-A Lower open for dip net gear and live-release fish wheels only.
- ^e Commercial fishing open concurrently with subsistence for 24 hour fishing periods. Commercial fishing gear restricted to fish wheels that must be manned at all times and all Chinook salmon immediately released to the water alive.
- ^f Subsistence fishing for summer chum salmon with dip net gear and live-release fish wheels only. Subsistence dip net fishermen were required to immediately release Chinook salmon alive from this gear type. Fish wheels must be equipped with a chute or a live box and closely attended while in operation and all Chinook salmon caught in fish wheels must be returned to the water alive.
- ^g Fishing closed for all gear types, including 4.0 inch or smaller mesh, from 8:00 pm June 30 to 8:00 am July 7.
- ^h Fishing open for 6.0 inch mesh and live release fish wheels only. Fishing with beach seine and dip net gear discontinued. Chinook salmon caught in fish wheels must be returned to the water alive.
- ⁱ Commercial fishing allowed concurrent with subsistence fishing with fish wheels and 6.0 inch or smaller mesh. Chinook salmon may be retained and must be recorded on fish tickets if caught but not sold.
- ^j Subsistence fishing allowed with 6.0 inch or smaller mesh and fish wheels equipped with a chute or live box that must be closely attended and all Chinook salmon caught in fish wheels must be returned to the water alive.
- ^k Commercial fishing open in 5-B and 5-C concurrent with subsistence fishing periods. Gill nets used for commercial fishing restricted to 6.0 inch or smaller mesh. Chinook salmon cannot be sold but may be released or retained for subsistence.
- ^l Commercial fishing open in 5-B and 5-C from 6 pm Tuesday until 6:00 pm Sunday concurrent with subsistence fishing. Gill nets used for commercial fishing restricted to 6.0 inch or smaller mesh.

Appendix D13.—Subsistence, personal use, and commercial salmon fishing schedule and gear restrictions, Tanana River permit areas, 2014.

Tanana River subdistricts				Old Minto	Tanana River subdistricts				Old Minto
Date	6A	6B	6C	Area	Date	6A	6B	6C	Area
5/13	Open ^a	Open ^a	Open ^a	Open ^a	6/13	Open 6 pm	Open 6 pm	Open 6 pm	Open 6 pm
5/14	Close noon	Close noon	Close noon	Close 6 pm	6/14	Open	Open	Open	Open
5/15	Closed	Closed	Closed	Closed	6/15	Close noon	Close noon	Close noon	Open
5/16	Open 6 pm	Open 6 pm	Open 6 pm	Open 6 pm	6/16	Open 6 pm	Open 6 pm	Open 6 pm	Open
5/17	Open	Open	Open	Open	6/17	Open	Open	Open	Open
5/18	Close noon	Close noon	Close noon	Open	6/18	Close noon	Close noon	Close noon	Close 6 pm
5/19	Open 6 pm	Open 6 pm	Open 6 pm	Open	6/19	Closed	Closed	Closed	Closed
5/20	Open	Open	Open	Open	6/20	Open 6 pm	Open 6 pm	Open 6 pm	Open 6 pm
5/21	Close noon	Close noon	Close noon	Close 6 pm	6/21	Open	Open	Open	Open
5/22	Closed	Closed	Closed	Closed	6/22	Close noon	Close noon	Close noon	Open
5/23	Open 6 pm	Open 6 pm	Open 6 pm	Open 6 pm	6/23	Open 6 pm	Open 6 pm	Open 6 pm	Open
5/24	Open	Open	Open	Open	6/24	Open	Open	Open	Open
5/25	Close noon	Close noon	Close noon	Open	6/25	Close noon	Close noon	Close noon	Close 6 pm
5/26	Open 6 pm	Open 6 pm	Open 6 pm	Open	6/26	Closed	Closed	Closed	Closed
5/27	Open	Open	Open	Open	6/27	Open 6 pm	Open 6 pm	Closed	Open 6 pm
5/28	Close noon	Close noon	Close noon	Close 6 pm	6/28	Open	Open	Closed	Open
5/29	Closed	Closed	Closed	Closed	6/29	Close noon	Close noon	Closed	Close 12 pm
5/30	Open 6 pm	Open 6 pm	Open 6 pm	Open 6 pm	6/30	Closed	Closed	Closed	Closed
5/31	Open	Open	Open	Open	7/1	Closed	Closed	Closed	Closed
6/1	Close noon	Close noon	Close noon	Open	7/2	Closed	Closed	Closed	Close 6 pm
6/2	Open 6 pm	Open 6 pm	Open 6 pm	Open	7/3	Closed	Closed	Closed	Closed
6/3	Open	Open	Open	Open	7/4	Closed	Closed	Closed	Closed
6/4	Close noon	Close noon	Close noon	Close 6 pm	7/5	Closed	Closed	Closed	Closed
6/5	Closed	Closed	Closed	Closed	7/6	Close noon	Close noon	Close noon	Closed
6/6	Open 6 pm	Open 6 pm	Open 6 pm	Open 6 pm	7/7	Open 6 pm	Open 6 pm	Closed	Open 6 pm
6/7	Open	Open	Open	Open	7/8	Open	Open	Closed	Open
6/8	Close noon	Close noon	Close noon	Open	7/9	Close noon	Close noon	Closed	Close 6 pm
6/9	Open 6 pm	Open 6 pm	Open 6 pm	Open	7/10	Closed	Closed	Closed	Closed
6/10	Open	Open	Open	Open	7/11	Open 6 pm ^b	Open 6 pm ^b	Closed	Open 6 pm
6/11	Close noon	Close noon	Close noon	Close 6 pm	7/12	Open ^b	Open ^b	Closed	Open
6/12	Closed	Closed	Closed	Closed	7/13	Close noon	Close noon	Close noon	Open

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Tanana River subdistricts					Old Minto				
Date	6A	6B	6C	Area	Date	6A	6B	6C	Area
7/14	Open 6 pm ^b	Open 6 pm ^b	Closed	Open	8/14	Closed	Closed	Closed	Closed
7/15	Open ^b	Open ^b	Closed	Open	8/15	Open 6 pm	Open 6 pm	Open 6 pm	Open 6
7/16	Close noon	Close noon	Closed	Close 6 pm	8/16	Open	Open	Open	Open
7/17	Closed	Closed	Closed	Closed	8/17	Close noon	Close noon	Close noon	Open
7/18	Open 6 pm ^b	Open 6 pm ^b	Closed	Open 6 pm	8/18	Open 6 pm	Open 6 pm	Open 6 pm	Open
7/19	Open ^b	Open ^b	Closed	Open	8/19	Open	Open	Open	Open
7/20	Close noon	Close noon	Closed	Open	8/20	Close noon	Close noon	Close noon	Close 6
7/21	Open 6 pm ^b	Open 6 pm ^b	Closed	Open	8/21	Closed	Closed	Closed	Closed
7/22	Open ^b	Open ^b	Closed	Open	8/22	Open 6 pm ^d	Open 6 pm ^d	Open 6 pm ^d	Open 6
7/23	Close noon	Close noon	Closed	Close 6 pm	8/23	Open ^d	Open ^d	Open ^d	Open
7/24	Closed	Closed	Closed	Closed	8/24	Close noon	Close noon	Close noon	Open
7/25	Open 6 pm ^b	Open 6 pm ^b	Closed	Open 6 pm	8/25	Open 6 pm ^d	Open 6 pm ^d	Open 6 pm ^d	Open
7/26	Open ^b	Open ^b	Closed	Open	8/26	Open ^d	Open ^d	Open ^d	Open
7/27	Close noon	Close noon	Closed	Open	8/27	Close noon	Close noon	Close noon	Close 6
7/28	Open 6 pm ^c	Open 6 pm ^c	Open 6 pm	Open	8/28	Closed	Closed	Closed	Closed
7/29	Open ^c	Open ^c	Open	Open	8/29	Open 6 pm ^d	Open 6 pm ^d	Open 6 pm ^d	Open 6
7/30	Close noon	Close noon	Close noon	Close 6 pm	8/30	Open ^d	Open ^d	Open ^d	Open
7/31	Closed	Closed	Closed	Closed	8/31	Close noon	Close noon	Close noon	Open
8/1	Open 6 pm ^d	Open 6 pm ^d	Open 6 pm	Open 6 pm	9/1	Open 6 pm ^d	Open 6 pm ^d	Open 6 pm ^d	Open
8/2	Open ^d	Open ^d	Open	Open	9/2	Open ^d	Open ^d	Open ^d	Open
8/3	Close noon	Close noon	Close noon	Open	9/3	Close noon	Close noon	Close noon	Close 6
8/4	Open 6 pm ^d	Open 6 pm ^d	Open 6 pm	Open	9/4	Closed	Closed	Closed	Closed
8/5	Open ^d	Open ^d	Open	Open	9/5	Open 6 pm	Open 6 pm	Open 6 pm	Open 6
8/6	Close noon	Close noon	Close noon	Close 6 pm	9/6	Open	Open	Open	Open
8/7	Closed	Closed	Closed	Closed	9/7	Close noon	Close noon	Close noon	Open
8/8	Open 6 pm	Open 6 pm	Open 6 pm	Open 6 pm	9/8	Open 6 pm	Open 6 pm	Open 6 pm	Open
8/9	Open	Open	Open	Open	9/9	Open	Open	Open	Open
8/10	Close noon	Close noon	Close noon	Open	9/10	Close noon	Close noon	Close noon	Open
8/11	Open 6 pm	Open 6 pm	Open 6 pm	Open	9/11	Closed	Closed	Closed	Open
8/12	Open	Open	Open	Open	9/12	Open 6 pm	Open 6 pm	Open 6 pm	Open
8/13	Close noon	Close noon	Close noon	Close 6 pm	9/13	Open	Open	Open	Open

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Tanana River subdistricts				Old Minto	Tanana River subdistricts				Old Minto
Date	6A	6B	6C	Area	Date	6A	6B	6C	Area
9/14	Close noon	Close noon	Close noon	Open	9/24	Close noon	Close noon	Close noon	Open
9/15	Open 6 pm	Open 6 pm	Open 6 pm	Open	9/25	Closed	Closed	Closed	Open
9/16	Open	Open	Open	Open	9/26	Open 6 pm	Open 6 pm	Open 6 pm	Open
9/17	Close noon	Close noon	Close noon	Open	9/27	Open	Open	Open	Open
9/18	Closed	Closed	Closed	Open	9/28	Close noon	Close noon	Close noon	Open
9/19	Open 6 pm	Open 6 pm	Open 6 pm	Open	9/29	Open 6 pm	Open 6 pm	Open 6 pm	Open
9/20	Open	Open	Open	Open	9/30	Open	Open	Open	Open
9/21	Close noon	Close noon	Close noon	Open	10/1	Open	Open	Close noon	Open
9/22	Open 6 pm	Open 6 pm	Open 6 pm	Open	10/2	Open	Open	Closed	Open
9/23	Open	Open	Open	Open	10/3	Open	Open	Open 6 pm	Open

Note: Shaded areas indicate fishery closures following regulatory schedule, outlined shaded days were closed to protect pulses of Chinook salmon. Unless noted, mesh size was restricted to 7.5 inch or less in all districts and subdistricts. The Upper Tanana river remained open all season for 7.5 inch or smaller mesh.

^a The regulatory schedule is always in place in the Tanana River District and does not have a start date.

^b Commercial fishing open concurrent with subsistence and restricted to fish wheels only. Fish wheels were required to be constructed in a manner that reduces the potential for injury to Chinook salmon, manned at all times and any Chinook salmon caught were to be immediately released alive.

^c Commercial fishing open concurrent with subsistence openings. Commercial fishermen may use either set gillnets with 6.0 inch or smaller mesh or fish wheels. Sale of Chinook salmon is prohibited; fishermen may retain them for subsistence purposes.

^d Commercial fishing open concurrent with subsistence fishing. Commercial fishermen restricted to fish wheels or 6.0 inch or smaller mesh. Chinook salmon may be retained for subsistence.

APPENDIX E: YUKON RIVER SALMON ESCAPEMENT

Appendix E1.—Yukon River drainage salmon spawning escapement goals for selected species and streams, 2014.

Chinook salmon stock	Goals	Goal type	Year established	Primary source
E. Fork Andreafsky River	2,100 – 4,900	SEG	2010	Volk et al. (2009)
W. Fork Andreafsky River	640 – 1,600	SEG	2005	ADF&G (2004)
Anvik River	1,100 – 1,700	SEG	2005	ADF&G (2004)
Nulato R.—N. and S. combined	940 – 1,900	SEG	2005	ADF&G (2004)
Chena River	2,800 – 5,700	BEG	2001	Evenson (2002)
Salcha River	3,300 – 6,500	BEG	2001	Evenson (2002)
Canadian Upper Yukon River	42,500 – 55,000	Interim management escapement goal	2010	JTC (2010)
<hr/>				
Summer chum salmon stock				
E. Fork Andreafsky River	>40,000	SEG	2010	Fleischman and Evenson (2010)
Anvik River	350,000 – 700,000	BEG	2005	ADF&G (2004)
<hr/>				
Fall chum salmon stock				
Yukon River drainage	300,000–600,000	SEG	2010	Fleischman and Borba (2009)
Tanana River	61,000–136,000	BEG	2001	Eggers (2001)
Delta River	6,000–13,000	BEG	2001	Eggers (2001)
Upper Yukon R. tributaries	152,000–312,000	BEG	2001	Eggers (2001)
Chandalar River	74,000–152,000	BEG	2001	Eggers (2001)
Sheenjek River	50,000–104,000	BEG	2001	Eggers (2001)
Canadian Upper Yukon River	70,000–104,000	Interim management escapement goal	2010	JTC (2010)
Fishing Branch River	22,000–49,000	Interim management escapement goal	2008	JTC (2008)
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Coho salmon stock				
Delta Clearwater River	5,200–17,000	SEG	2004	ADF&G (2004)

Note: Secondary sources include subsequent JTC reports.

Appendix E2.—Detailed preliminary salmon spawning escapement estimates for the Yukon River drainage, 2014.

Stream (method)	Date	Survey rating	Chinook	Summer chum	Fall chum	Coho	Agency
Andreafsky River ^a							
East Fork (weir count)	6/17–7/31	–	5,949	37,793	–	–	USFWS
West Fork (fixed wing)	8/3	Fair	1,695	9,650	–	–	ADF&G
Andreafsky subtotal			7,644	47,443	–	–	
Yukon River near Pilot Station (sonar)	6/3–9/7	–	(134,798)	(1,924,425)	(650,808)	(247,047)	ADF&G
Anvik River (sonar)	6/17–7/26	–	–	399,223	–	–	ADF&G
Anvik River (fixed wing) ^{b,c}							
Goblet Creek to sonar site	8/4	Fair	5	(8,188)	–	–	ADF&G
Sonar site to Yellow River	8/4	Fair	111	(27,196)	–	–	ADF&G
Yellow River to Otter Creek	8/4	Fair	533	(7,294)			ADF&G
Otter Creek to McDonald Creek	8/4	Fair	267	(1,261)			ADF&G
Upstream of McDonald Creek	8/4	Fair	0	(3)			ADF&G
Beaver Creek	8/4	Fair	49	(977)	–	–	ADF&G
Yellow River	8/4	Fair	528	(5,561)			ADF&G
Swift River	8/4	Fair	12	(3,055)	–	–	ADF&G
Otter Creek	8/4	Fair	79	(526)	–	–	ADF&G
Anvik subtotal			1,584	399,223	–	–	
Total Lower Yukon River (downstream of Koyukuk River)			9,228	446,666	–	–	
Koyukuk River drainage							
Gisasa River (weir project)	7/2–7/26	–	1,570	32,137	–	–	USFWS
Total Yukon River (downstream of Tanana River)			10,798	478,803	–	–	
Tanana River drainage							
Kantishna River drainage (helicopter)							
Bearpaw River	7/30	Fair	58	0	–	–	ADF&G
Kantishna subtotal			58	0	–	–	
Nenana River drainage (helicopter)							
Nenana River (Teklanika R.—upstream 8 miles)	11/7	Fair	–	–	0	378	
Seventeen Mile Slough	7/30, 11/7	Fair	22	0	0	886	ADF&G
Unanamed Creek 4021	7/30, 11/7	Fair, Poor	4	0	0	0	ADF&G
Julius Creek	11/7	Fair	–	–	0	0	ADF&G
Clear Creek	7/30, 11/7	Fair	62	0	0	25	ADF&G
Glacier Creek	7/30, 11/7	Fair	25	0	0	0	ADF&G
Wood Creek	11/7	Fair	–	–	0	649	ADF&G
Lost Slough (eastern floodplain)	11/7	Fair	–	–	0	333	ADF&G
Lignite Springs (foot survey)	9/25	Good	–	–	0	37	ADF&G
June Creek	9/25	Incomplete	–	–	0	3	ADF&G
Nenana subtotal			113	0	0	2,308	
Chena River (counting tower)	7/10–8/8	–	4,358	17,076	–	–	ADF&G
Chena River (aerial index area- helicopter)	7/27	Fair	(852)	(1,232)	–	–	ADF&G

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Stream (drainage)	Date	Survey rating	Chinook	Summer chum	Fall chum	Coho	Agency
Chena River (outside index area—helicopter)	7/27	Fair	(553)	(85)	—	—	ADF&G
Salchaket Slough							
McDonald Creek (helicopter)	11/11	Incomplete	—	—	—	210	ADF&G
Salcha River (aerial index area—helicopter)	7/22	Poor	1,313	523	—	—	BSFA
Salcha River (outside index area—helicopter)	7/22	Poor	231	1,470	—	—	BSFA
Five Mile Clearwater Creek (helicopter)	11/11	Incomplete	—	—	—	41	ADF&G
Richardson Clearwater River (helicopter)	11/17	Fair	—	—	280	1,941	ADF&G
Mainstem Tanana Sloughs (helicopter)							
Benchmark 735 Slough to Little Delta River	11/17	Fair	—	—	1,121	425	ADF&G
Little Delta River mouth to Kiana Creek	11/17	Fair	—	—	0	0	ADF&G
Andersen Slough to Whitestone Slough	11/17	Fair	—	—	42	0	ADF&G
Rika's Roadhouse vicinity	11/17	Fair	—	—	1,720	0	ADF&G
Bluff Cabin Slough (helicopter)	11/17	Fair	—	—	4,095	0	ADF&G
Clearwater Lake Outlet Slough	11/17	Fair	—	—	2,560	42	ADF&G
One Mile Slough (OMS)	11/17	Poor	—	—	0	0	ADF&G
Pearse Slough and vicinity (OMS to Pearse Sl.)	11/17	Fair	—	—	0	0	ADF&G
Delta River							
Foot Survey (peak count)	11/20	Good	—	—	32,480	184	ADF&G
Blue Creek (foot survey)	11/6	Good	—	—	481	(42)	ADF&G
Blue Creek (helicopter)	11/17	Fair	—	—	(249)	53	ADF&G
Bluff Cabin Creek (helicopter)	11/17	Good	—	—	0	267	ADF&G
Delta Clearwater River index area (boat survey)	9/26	Fair	—	—	—	(480)	ADF&G
Delta Clearwater River index area (boat survey)	10/1	Fair	—	—	—	(2,705)	ADF&G
Delta Clearwater River index area (boat survey)	11/4	Good	—	—	—	4,285	ADF&G
Delta Clearwater Lake							
Clearwater Lake Outlet (boat)	9/26	Fair	—	—	—	(55)	ADF&G
Clearwater Lake Outlet (helicopter)	11/17	Fair	—	—	260	434	ADF&G
Mainstem Tanana subtotal			5,902	19,069	43,039	7,882	
Total Tanana River			6,073	19,069	43,039	10,190	
Chandalar River (sonar) ^d	8/8–9/27, 10/9	—	—	—	226,489	—	USFWS
Yukon River near Eagle (sonar) ^d	6/27–10/6, 10/18	—	(63,482)	—	(167,715)	—	ADF&G/DFO
Total Alaska portion of drainage observed escapements			16,871	497,872	269,528	10,190	
Porcupine River drainage							
Porcupine River (sonar)	8/12–10/13	—	—	—	17,756	—	DFO ^e

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Stream (drainage)	Date	Survey rating	Chinook	Summer chum	Fall chum	Coho	Agency
Yukon Territory streams ^f							
Blind Creek (weir)	7/16–8/16	–	602	–	–	–	DFO ^e
Big Salmon River (sonar)	7/11–8/18	–	6,321	–	–	–	DFO ^e
Teslin River drainage							
Teslin River (sonar)	7/13–8/28	–	17,507	–	–	–	DFO
Whitehorse fishway (fish ladder with window)	7/20–9/2	–	1,601	–	–	–	DFO ^e
Subtotal mainstem sites			26,031	–	17,756	–	
Canadian mainstem Yukon River							
Border passage estimate (Eagle sonar minus U.S. harvest)			(63,482)	–	(159,846)	–	ADF&G/DFO
Canadian escapement estimate (Border Passage minus Canada Harvest)			63,331	–	156,796	–	ADF&G/DFO
Total Yukon Territory ^g			63,331	–	174,552	–	DFO
Yukon River drainage total observed escapements			80,202	497,872	426,324	10,190	

Note: Data in parentheses are not included in subtotals or totals. Surveys rated anything other than “Good or Fair” should not be used without reviewing the entire history of the system to determine relevance. (<http://sf.adfg.state.ak.us/CommFishR3/WebSite/AYKDBMSWebsite/Default.aspx>). En dash indicates no data available.

^a East Fork Andreafsky River survey documented 100 live sockeye salmon, August 17, 2014.

^b Anvik River chum salmon index area includes mainstem counts between Goblet Creek and McDonald Creek.

^c Anvik River Chinook salmon index area includes mainstem counts between Yellow River and McDonald Creek. However, the sustainable escapement goal (SEG) is for the entire drainage.

^d Yukon Territory counts provided by Canada Department of Fisheries but are operated by various contractors mostly funded by Restoration and Enhancement Funds.

^e Canadian “border passage” estimate for Yukon Territory streams (excluding the Porcupine River). Canadian harvest has not been removed.

^f Yukon Territory counts include Canadian mainstem Yukon River escapement estimate plus Porcupine River.

Appendix E3.–Pilot Station sonar project estimates, Yukon River drainage, 1995 and 1997–2014.

Year ^{a, b}	Chinook			Chum			Coho ^d	Pink	Other ^e	Total
	Large ^c	Small	Total	Summer	Fall ^d	Total				
1995	130,271	32,674	162,945	3,556,445	1,053,245	4,609,690	101,806	24,604	1,011,855	5,910,900
1997	118,121	77,526	195,647	1,415,641	506,621	1,922,262	104,343	2,379	621,857	2,846,488
1998	71,177	16,675	87,852	826,385	372,927	1,199,312	136,906	66,751	277,566	1,768,387
1999	127,809	16,914	144,723	973,708	379,493	1,353,201	62,521	1,801	465,515	2,027,761
2000	39,233	5,195	44,428	456,271	247,935	704,206	175,421	35,501	361,222	1,320,778
2001 ^f	85,511	13,892	99,403	441,450	376,182	817,632	137,769	665	353,431	1,408,900
2002	92,584	30,629	123,213	1,088,463	326,858	1,415,321	122,566	64,891	557,779	2,283,770
2003	245,037	23,500	268,537	1,168,518	889,778	2,058,296	269,081	4,656	502,878	3,103,448
2004	110,236	46,370	156,606	1,357,826	594,060	1,951,886	188,350	243,375	637,257	3,177,474
2005 ^g	142,007	17,434	159,441	2,439,616	1,813,589	4,253,205	184,718	37,932	593,248	5,228,544
2006	145,553	23,850	169,403	3,767,044	790,563	4,557,607	131,919	115,624	875,899	5,850,452
2007	90,184	35,369	125,553	1,726,885	684,011	2,410,896	173,289	71,699	1,085,316	3,866,753
2008	106,708	23,935	130,643	1,665,667	615,127	2,280,794	135,570	558,050	585,303	3,690,360
2009 ^f	108,361	35,688	144,049	1,421,646	233,307	1,654,953	206,620	23,679	765,140	2,794,441
2010	100,699	19,476	120,175	1,405,533	393,326	1,798,859	155,784	747,297	862,034	3,684,149
2011	100,217	23,152	123,369	1,977,808	764,194	2,742,002	124,931	6,526	694,700	3,691,528
2012	90,936	15,790	106,726	2,130,404	682,510	2,812,914	106,782	352,518	678,382	4,057,322
2013	105,433	11,726	117,159	2,747,218	716,727	3,463,945	84,795	4,624	1,029,900	4,700,423
2014	103,613	34,372	137,985	1,924,425	650,808	2,575,233	247,047	513,599	964,350	4,438,214

Source: JTC 2015.

^a Estimates for all years were generated with the most current apportionment model and may differ from earlier estimates.

^b The Yukon River sonar project did not operate at full capacity in 1996 thus there are no passage estimates for this year.

^c Chinook salmon >655 mm MEFL.

^d Estimate may not include entire run. From 2008 to present, operations were extended to September 7, instead of the usual end date of August 31.

^e Includes sockeye salmon, cisco, whitefish, sheefish, burbot, suckers, Dolly Varden, and northern pike.

^f High water levels were experienced at Pilot Station, therefore, passage estimates are considered conservative.

^g Estimates include extrapolations for the dates June 10 to June 18 to account for the time before the DIDSON was deployed.

Appendix E4.—Chinook salmon aerial survey indices for selected spawning areas in the Alaska portion of the Yukon River drainage, 1994–2014.

Year	Andreafsky River		Anvik River		Nulato River		Gisasa River	
	East fork	West fork	Drainagewide total	Index area ^a	North fork ^b	South fork	Both forks	
1994	300 ^c	213 ^c	^d	913 ^c	^d	^d	^d	2,775
1995	1,635	1,108	1,996	1,147	968	681	1,649	410
1996	^d	624	839	709	^d	100 ^c	100	
1997	1,140	1,510	3,979	2,690	^d	^d	^d	144 ^c
1998	1,027	1,249 ^c	709 ^c	648 ^c	507	546	1,053	889 ^c
1999	^c	870 ^c	950 ^c	950 ^c	^d	^d	^d	^d
2000	1,018	427	1,721	1,394	^d	^d	^d	^d
2001	1,059	565	1,420	1,177	1,116	768	1,884 ^e	1,298
2002	1,447	917	1,713	1,329	687	897	1,584	506
2003	1,116 ^c	1,578 ^c	1,100 ^c	973 ^c	^d	^d	^d	^d
2004	2,879	1,317	3,679	3,304	856	465	1,321	731
2005	1,715	1,492	2,421	1,922	323	230	553	958
2006	591 ^c	824	1,886	1,776 ^f	620	672	1,292	843
2007	1,758	976	1,529	1,497	1,928	1,078	2,583	593
2008	278 ^c	262 ^c	992 ^c	827 ^c	463	543	922	487
2009	84 ^c	1,678	832	590	1,418	842	2,260	515
2010	537	858	974	721	356	355	711	264
2011	620	1,173	642	501	788	613	1,401	906
2012	^c	227 ^c	722	451	682	692	1,374	^d
2013	1,441	1,090	940	656	586	532	1,118	201 ^c
2014	^d	1,695	1,584	800	^d	^d	^d	^d
SEG ^g	^h	640–1,600	1,100–1,700		^e		940–1,900	^h
Average								
1994–2013	1,097	948	1,529	1,209	807	601	1,320	768
2004–2013	1,100	990	1,462	1,225	802	602	1,354	611
2009–2013	671	1,005	822	584	766	607	1,373	472

Source: JTC 2015.

^a Anvik River Index Area includes mainstem counts between Yellow River and McDonald Creek. The SEG is for the entire drainage.

^b Nulato River mainstem aerial survey counts below the forks are included with the North Fork.

^c Incomplete, poor timing, and/or poor survey conditions resulting in minimal or inaccurate counts.

^d Aerial survey was not flown due to run timing and/or water/weather conditions.

^e In 2001, the Nulato River escapement goal was established for both forks combined.

^f Index area includes counts from Beaver Creek to McDonald Creek.

^g Sustainable escapement goal.

^h Aerial escapement goal was discontinued in 2010. Note: weir-based goal replaced East Fork Andreafsky River aerial survey goal.

Appendix E5.—Chinook salmon escapement counts for selected spawning areas in the Alaska portion of the Yukon River drainage, 1994–2014.

Year	East Fork Andreafsky River weir		Nulato River tower	Henshaw Creek weir		Gisasa River weir		Chena River tower		Salcha River tower		Goodpaster River tower	
	No. fish	% fem.	No. fish	No. fish	% fem.	No. fish	% fem.	No. fish	% fem. ^a	No. fish	% fem. ^a	No. fish	
1994	7,801	35.5 ^b	1,795 ^b			2,888	^b	11,877	32.4	18,399	40.4		
1995	5,841	43.7 ^c	1,412			4,023	46.0	9,680 ^d	51.7	13,643	48.4		
1996	2,955	41.9 ^c	756			1,991	19.5	7,153 ^d	26.8	7,570	26.2		
1997	3,186	36.8 ^c	4,766			3,764	26.0	13,390 ^d	25.6	18,514	41.8		
1998	4,034	29.0 ^c	1,536			2,414	16.2	4,745	28.4	5,027	26.1		
1999	3,444	28.6 ^c	1,932			2,644	26.4	6,485	45.6	9,198	44.6		
2000	1,609	54.3 ^c	908	244	29.7	2,089	34.4	4,694 ^d	21.7	4,595	34.3		
2001		^b	^b	1,103	36.3	3,052	49.2 ^b	9,696	30.1	13,328	32.1		
2002	4,123	21.1 ^c	2,696	649	30.8	2,025	20.7	6,967 ^d	27.3	9,000 ^c	29.8		
2003	4,336	45.3 ^c	1,716 ^c	763	38.4	1,901	38.1	11,100 ^f	31.8	15,500 ^c	36.6		
2004	8,045	37.3	^g	1,248	21.3	1,774	30.1	9,645	43.9	15,761	54.2	3,673	
2005	2,239	50.2	^g	1,059	41.4	3,111	34.0	^b	30.6	5,988	47.5	1,184	
2006	6,463	42.6	^g		^b	3,030	28.2	2,936	32.1	10,679	38.1	2,479	
2007	4,504	44.7	^g	740	24.9	1,425	39.0	3,806	27.3	6,425	31.0	1,581	
2008	4,242	34.8	^g	766	27.7	1,735	16.2	3,208	29.0	5,415 ^c	33.7	1,880	
2009	3,004	46.0	^g	1,637	49.0	1,955	29.3	5,253	40.0	12,774	33.9	4,280	
2010	2,413	48.6	^g	857	49.6	1,516	29.0	2,382	20.6	6,135	26.6	1,167	
2011	5,213	20.2	^g	1,796	33.9	2,692	19.5	^b	22.7 ^h	ⁱ	42.1	1,325	
2012	2,517	28.0	^g	922	43.0	1,323	17.0	2,220 ^j	39.1	7,165	50.9	752	
2013	1,998	40.4	^g	772	44.8	1,126	34.1	1,859 ^b	40.3	5,465	50.5	723	
2014 ^k	5,949	44.3	^g		^b	1,589	19.2	4,358 ^{b,l}	33.1	^b	32.0	1,236 ^g	
BEG ^m								2,800–5,700		3,300–6,500			
SEG ⁿ	2,100–4,900												
Average													
1994–2013	4,104	38.4	1,946	966	36.2	2,324	29.1	6,505	32.4	10,031	38.4	1,844	
2004–2013	4,064	39.3	–	1,089	37.3	1,969	27.6	3,914	32.6	8,423	40.9	1,844	
2009–2013	3,029	36.6	–	1,197	44.1	1,722	25.8	2,929	32.5	7,885	40.8	1,649	

-continued-

Source: JTC 2015.

Note: Unless otherwise noted blank cells indicate years prior to the project being operational. En dash indicates no data available.

- ^a In years when only carcass surveys were conducted, proportions of males and females were adjusted based on the average of ratios of unbiased estimates from mark–recapture experiments to estimates from carcass samples over those years when mark–recapture studies were conducted. In years when mark–recapture experiments were conducted, proportions of males and females were estimated as the ratio of the abundance estimate of each gender to the abundance estimate of all fish.
- ^b Project operations were hindered by high water conditions for much of the season.
- ^c Estimate includes an expansion for missed counting days based on average run timing. Minimum documented abundances from successful counting days were 4,644 in 2002, 11,758 in 2003, and 5,415 in 2008.
- ^d Mark–recapture population estimate.
- ^e Weir counts.
- ^f Estimate includes an expansion for missed counting days based on average run timing. Minimum documented abundance during successful counting days was 8,739 (SE=653) fish.
- ^g Project operated for 18 days due to high water.
- ^h Adjusted percent female based upon 8 years of paired electrofishing and carcass survey data, which indicated percent female from carcass surveys were biased high.
- ⁱ No estimate due to high water; however, an aerial survey flown July 25 counted a total of 3,537 Chinook salmon.
- ^j Estimate includes an expansion for missed counting days based on using two DIDSON sonars to assess Chinook salmon passage.
- ^k Data are preliminary.
- ^l Due to high water, DIDSON sonar was used and preliminary species apportionment was estimated using average run timing.
- ^m Biological escapement goals (BEG) established by the Alaska Board of Fisheries, January 2001.
- ⁿ Sustainable escapement goal (SEG).

Appendix E6.—Chinook salmon escapements for selected spawning areas in the Canadian portion of the Yukon River drainage, 1994–2014.

Year	Tincup Creek ^a	Tatchun Creek ^b	Little Salmon River ^a	Big Salmon River ^{a,c}	Nisutlin River ^{a,d}	Ross River ^{a,e}	Wolf River ^{a,f}	Blind Creek	Chandindu River	Big Salmon sonar	Klondike River sonar	Teslin River sonar
1994	101 ^g	477	726	1,764	389	506	393 ^h					
1995	121	397	781	1,314	274	253 ^g	229 ^h					
1996	150	423	1,150	2,565	719	102 ^g	705 ^h					
1997	193	1,198	1,025	1,345	277		322 ⁱ	957				
1998	53	405	361	523	145		66	373	132			
1999		252	495	353	330		131	892	239			
2000	19 ^j	276 ^j	46	113	20		32		4 ^k			
2001	39 ^j		1,035	1,020	481		154		129 ^l			
2002			526	1,149	280		84		^k			
2003			1,658	3,075	687		292	1,115	185 ^m			
2004			1,140	762	330		226	792				
2005			1,519	952	807	363	260	525		5,584		
2006			1,381	1,140	601		114	677		7,308		
2007			451	601	137		54	304		4,450		
2008			93	303			22	276		1,329		
2009			821	1,827	497		134	716		9,261	5,147	
2010			63 ⁿ	656	288		94	270		3,817	803	
2011			38 ⁿ	405			81	360		5,156	1,181	
2012								157		2,553		3,396
2013								312		3,239		9,916
2014								602		6,321		17,507
IMEG												
Averages												
1994–2013	97	490	739	1,104	391	306	189	552	138	4,744	2,377	6,656
2004–2013	–	–	688	831	443	363	123	439	–	4,744	2,377	6,656
2009–2013	–	–	307	963	393	–	103	363	–	4,805	2,377	6,656

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Year	Whitehorse fishway ^o		Canadian mainstem		
	Count	Percent hatchery contribution	Border passage estimate ^p	Harvest	Spawning escapement estimate ^q
1994	1,577	54	77,219	20,770	56,449
1995	2,103	57	70,761	20,088	50,673
1996	2,958	35	93,606	19,546	74,060
1997	2,084	24	69,538	15,717	53,821
1998	777	95	41,335	5,838	35,497
1999	1,118	74	49,538	12,354	37,184
2000	677	69	30,699	4,829	25,870
2001	988	36	62,333	9,774	52,559
2002	605	39	51,428	9,070	42,358
2003	1,443	70	90,037	9,446	80,591
2004	1,989	76	59,415	10,946	48,469
2005	2,632	57	78,962	10,977	67,985
2006	1,720	47	71,388	8,758	62,630
2007	427	56	39,698	4,794	34,904
2008	399	54	37,282	3,399	33,883
2009	828	47	69,575	4,297	65,278
2010	672	49	34,470	2,456	32,014
2011	1,534	48	50,901	4,594	46,307
2012	1,030	59	34,656	2,000	32,656
2013	1,139	67	30,573	1,904	28,669
2014	1,601	78	63,431	100	63,331
IMEG					42,500–55,000 ^r
Averages					
1993–2013	1,335	56	57,171	9,078	48,093
2004–2013	1,237	56	50,692	5,413	45,280
2009–2013	1,041	54	44,035	3,050	40,985

-continued-

Source: JTC 2015.

Note: Blank cells indicate no data. En dashes indicate not enough information to generate an average.

- ^a Data obtained by aerial survey unless otherwise noted. Only peak counts are listed. Survey rating is fair to good, unless otherwise noted.
- ^b All foot surveys prior to 1997 except 1978 (boat survey) and 1986 (aerial survey). The 1997–2000 data were from weir counts.
- ^c For 1968, 1970, and 1971 counts are from mainstem Big Salmon River. For all other years counts are from the mainstem Big Salmon River between Big Salmon Lake and the vicinity of Souch Creek.
- ^d One Hundred Mile Creek to Sidney Creek.
- ^e Big Timber Creek to Lewis Lake.
- ^f Wolf Lake to Fish Lake outlet except where otherwise indicated.
- ^g Counts for Big Timber Creek to Sheldon Lake.
- ^h Resistance board weir tested for 3 weeks.
- ⁱ Foot survey.
- ^j Conventional weir July 1 to September 8, but was breached from July 31 to August 7.
- ^k Combination resistance board weir and conduit weir tested and operational from July 10 to July 30.
- ^l Incomplete and/or poor survey conditions resulting in minimal or inaccurate counts.
- ⁿ Total escapement estimated using weir to aerial survey expansion factor of 2.72 because only half of the spawning area was surveyed.
- ^o Counts and estimated percentages may be slightly exaggerated. In some or all of these years a number of adipose-clipped fish ascended the fishway, and were counted more than once. These fish would have been released into the fishway as fry between 1989 and 1994, inclusive.
- ^p Estimated total border passage excluding Porcupine River based on 3 area index (Little Salmon, Big Salmon and Nisutlin aerial survey) plus Canadian harvest from 1982 to 2001, on radio tagging proportion study from 2002 to 2004, and on Eagle sonar for 2005 to 2014.
- ^q Estimated total spawning escapement excluding Porcupine River based on 3 area index for 1982–2001, and on border passage estimate minus Canadian harvest for 2002–2014.
- ^r Interim management escapement goal (IMEG) range of 42,500–55,000 was established in 2010 and continued in 2011. This replaced the IMEG of 45,000 used in 2008 and 2009. These goals are based on Eagle sonar project estimates.

Appendix E7.—Summer chum salmon escapements for selected spawning areas in the Alaska portion of the Yukon River drainage, 1994–2014.

Year	Andreafsky River				Nulato River				
	East fork		West fork	Anvik River	Rodo River	Kaltag Creek	South fork	North fork ^a	Mainstem
	Aerial ^b	Weir	Aerial ^b	Sonar	Aerial ^b	Tower	Aerial ^b	Aerial ^b	Tower
1994	—	200,981 ^c	—	1,124,689	—	47,295	—	—	148,762 ^c
1995	—	172,148	—	1,339,418	12,849	77,193	10,875	29,949	236,890
1996	—	108,450	—	933,240	4,380	51,269	8,490 ^{d,e}	—	129,694
1997	—	51,139	—	605,752	2,775 ^d	48,018	—	—	157,975
1998	—	67,720	—	487,301	—	8,113	—	—	49,140
1999	—	32,587	—	437,356	—	5,339	—	—	30,076
2000	2,094 ^d	24,785	18,989 ^d	196,349	—	6,727	—	—	24,308
2001	—	2,134 ^c	—	224,058	—	— ^f	—	—	— ^g
2002	—	44,194	—	459,058	—	13,583	—	—	72,232
2003	—	22,461	—	256,920	—	3,056	—	—	19,590 ^c
2004	—	64,883	—	365,353	—	5,247	—	—	— ^f
2005	—	20,127	—	525,391	—	22,093	—	—	— ^f
2006	3,100 ^d	102,260	617	605,485	—	— ^f	7,772	11,658	— ^f
2007	—	69,642	—	460,121	—	— ^f	21,825	15,277	— ^f
2008	9,300	57,259	25,850	374,928	—	— ^f	12,070	10,715	— ^f
2009	736	8,770	3,877	193,099	621	— ^f	2,120	567	— ^f
2010	1,982	72,893	24,380	396,173	—	— ^f	1,891	1,038	— ^f
2011	12,889	100,473	10,020	642,528	6,011	— ^f	9,454	8,493	— ^f
2012	— ^d	56,680	— ^d	483,972	15,606	— ^f	20,600	14,948	— ^f
2013	10,965	61,234	9,685	571,690	—	— ^f	13,695	13,230	— ^f
2014 ^h	— ^f	37,793	— ^f	399,796	—	— ^f	— ^f	— ^f	— ^f
Escapement objective									
>40 ⁱ				350–700 ^j					
Averages									
1994–2013	5,867	67,041	13,345	534,144	7,040	26,176	10,879	11,764	96,519
2004–2013	6,495	61,422	12,405	461,874	7,413	13,670	11,178	9,491	—
2009–2013	6,643	60,010	11,991	457,492	7,413	—	9,552	7,655	—

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	Henshaw Creek	Gisasa River		Hogatza River		Tozitna River	Chena River		Salcha River	
				Clear & Caribou Cr.	Clear Creek					
Year	Weir	Aerial ^b	Weir	Aerial ^b	Tower	Weir and aerial ^b	Aerial ^b	Tower	Aerial ^b	Tower
1994		6,827	51,116 ^c	8,247 ^k		–	1,137	9,984	4,916	39,450
1995		6,458	136,886	–	116,735	4,985	185 ^d	3,519 ^c	934 ^d	30,784
1996		–	158,752	27,090 ^k	100,912	2,310	2,061	12,810 ^c	9,722	74,827
1997		686 ^d	31,800	1,821 ^d	76,454	428 ^c	594 ^d	9,439 ^c	3,968 ^d	35,741
1998		–	21,142	120 ^{d,1}	212 ^c	7 ^c	24 ^d	5,901	370 ^d	17,289
1999		–	10,155	–	11,283	–	520	9,165	150	23,221
2000	27,281	–	11,410	–	19,376	480	105	3,515	228	20,516
2001	35,031	–	17,946	–	3,674	12,527	2	4,773	–	14,900
2002	25,249	–	33,481	–	13,150	18,789	–	1,021 ^c	78	20,837
2003	22,556	–	25,999	–	6,159	8,487	–	573 ^c	–	–
2004	86,474	–	37,851	–	15,661	25,003	–	15,162 ^c	–	47,861
2005	237,481	–	172,259	–	26,420	39,700	219	2,928 ^c	4320	193,085
2006	–	1,000	261,305	–	29,166 ^m	22,629	469	35,109 ^c	152	111,869
2007	44,425	–	46,257	–	6,029 ^m	8,470	–	4,999	– ^d	13,069
2008	97,281	20,470	36,938	–	– ^f	9,133	37	1,300 ^c	– ^d	2,212 ^c
2009	156,201	1,060	25,904	3,981 ⁿ	– ^f	8,434	–	16,516	–	31,035
2010	105,398	1,096	47,669	840 ⁿ	– ^f	–	–	7,560	–	22,185
2011	248,247	13,228	95,796	3,665 ⁿ	– ^f	11,351	4,600	– ^o	819	– ^o
2012	292,082	– ^c	83,423	23,022 ⁿ	– ^f	–	– ^d	6,882	– ^d	46,251
2013	285,008	9,300 ^c	80,055	– ^f	– ^d	– ^f	– ^d	21,385	– ^d	59,188
2014	– ^c	– ^f	32,137	– ^f	– ^f	– ^f	– ^f	17,076 ^p	– ^f	– ^c
Escapement objective										
	127,901	6,681	67,537	8,598	32,710	11,516	829	9,481	2,332	44,684
	172,511	7,692	88,746	7,877	19,319	17,817	1,331	12,427	1,764	58,528
	217,387	6,171	66,569	7,877	–	9,893	4,600	13,086	819	39,665

-continued-

Source: JTC 2015.

Note: Unless otherwise noted blank cells indicate years prior to the project being operational. En dash indicates years in which no information was collected.

- ^a Includes mainstem counts below the confluence of the North and South Forks, unless otherwise noted.
- ^b Aerial survey counts are peak counts only, survey rating is fair or good unless otherwise noted.
- ^c Incomplete count due to late installation and/or early removal of project or high water events.
- ^d Incomplete survey and/or poor survey timing or conditions resulted in minimal or inaccurate count.
- ^e Weir count.
- ^f Project did not operate.
- ^g No counts due to incomplete operations.
- ^h Data are preliminary.
- ⁱ Sustainable escapement goal (in thousands of fish) established by the Alaska Board of Fisheries, January 2010.
- ^j Biological escapement goal (in thousands of fish) established by the Alaska Board of Fisheries, 2005.
- ^k BLM helicopter survey.
- ^l Consists of Clear Creek only.
- ^m Project operated as a video monitoring system on Clear Creek. Video was also conducted on Caribou Creek from 2004 to 2007 (15,345, 14,605, 24,039, and 17,728 respectively).
- ⁿ Consists of Clear Creek only.
- ^o No estimates due to high water conditions that prevented counting for much of the season.
- ^p Due to high water, DIDSON sonar was used and preliminary species apportionment was estimated using average run timing.

Appendix E8.–Fall chum salmon abundance estimates or escapement estimates for selected spawning areas in Alaska portions of the Yukon River drainage, 1994–2014.

Year	Yukon River mainstem sonar estimate	Alaska							
		Tanana River drainage						Upper Yukon River drainage	
		Toklat River ^a	Kantishna River abundance estimate ^b	Delta River ^c	Bluff Cabin Slough ^d	Upper Tanana River abundance estimate ^e	Tanana River estimate ^f	Chandalar River ^g	Sheenjek River ^h
1994		76,057		23,777	2,277				150,565
1995	1,053,245	54,513 ⁱ		20,587 ^j	19,460 ^k	268,173	230,643	280,999	241,855
1996		18,264		19,758	7,074 ^c	134,563	132,922	208,170	246,889
1997	506,621	14,511		7,705	5,707 ^c	71,661	88,641	199,874	80,423 ^l
1998	372,927	15,605		7,804	3,549 ^c	62,384	82,475	75,811	33,058
1999	379,493	4,551	27,199	16,534	7,037 ^c	97,843	109,309	88,662	14,229
2000	247,935	8,911	21,450	3,001	1,595 ^k	34,844	55,983	65,894	30,084 ^m
2001	376,182	6,007 ⁿ	22,992	8,103	1,808	96,556 ^o	116,012	110,971	53,932
2002	326,858	28,519	56,719	11,992	3,116 ^k	109,970	163,421	89,850	31,642
2003	889,778	21,492	87,359	22,582	10,600	193,418	263,302	214,416	44,047 ^p
2004	594,060	35,480	76,163	25,073	10,270	123,879	187,409	136,706	37,878
2005	1,813,589	17,779 ⁱ	107,719	28,132	11,964	337,755	372,758	496,484	561,863 ^{q,r,s}
2006	790,563		71,135	14,055		202,669	233,193	245,090	160,178 ^{q,r}
2007	684,011		81,843	18,610		320,811	357,016	243,805 ^t	65,435 ^{q,r}
2008	615,127			23,055	1,198			178,278 ^t	50,348 ^{q,r,t}
2009	233,307 ^u			13,492	2,900				54,126 ^{q,r,t}
2010	393,326			17,933	1,610			167,532 ^t	22,048
2011	764,194			23,639	2,655			298,223 ^t	97,976 ^{q,r,t}
2012	682,510			9,377 ^k				205,791 ^t	104,701 ^{q,r,t}
2013	716,727			31,955				252,710 ^t	
2014	^v 650,808			32,480 ^k				226,489 ^t	
Escapement	^w 300,000	15,000 ^x		6,000		46,000 ^y	61,000	74,000	50,000
objective	600,000	33,000		13,000		103,000	136,000	152,000	104,000
Average									
1994–2013	659,244 ^z	25,141	61,398	17,358	5,801	158,040	184,083	197,737	109,541
2004–2013	783,790 ^z	26,630	84,215	20,532	5,100	246,279	287,594	247,180	128,284
2009–2013	639,189 ^z	–	–	19,279	2,388	–	–	231,064	69,713

-continued-

Source: JTC 2015.

- ^a Expanded total abundance estimates for upper Toklat River index area using stream life curve (SLC) developed with 1987–1993 data. Index area includes Geiger Creek, Sushana River, and mainstem floodplain sloughs from approximately 0.25 mile upstream of roadhouse.
- ^b Fall chum salmon abundance estimate for the Kantishna and Toklat River drainages is based on a mark-recapture program. Tag deployment occurred at a fish wheel located near the mouth of the Kantishna River and recaptures are collected at four fish wheels; two located 8 miles upstream of the mouth of the Toklat River (1999–2005) and one fish wheel on the upper Kantishna River (2000–2002, 2006–2007) and two fish wheels in 2003–2005.
- ^c Population estimate generated from replicate foot surveys and stream life data (area under the curve method), unless otherwise noted.
- ^d Aerial survey count, unless otherwise indicated.
- ^e Fall chum salmon abundance estimate for the upper Tanana River drainage is based on a mark-recapture program. Tag deployment occurs from a fish wheel (two fish wheels in 1995) located just upstream of the Kantishna River and recaptures are collected from one fish wheel (two fish wheels in 1995) located downstream from the village of Nenana.
- ^f Tanana River abundance estimates prior to 1995 can be found in Eggers (2001) but are based on Upper Tanana plus Toklat River escapement. Estimates from 1995 to 1998 are based on the relationship of the Upper Tanana to the Kantishna river abundance estimates, and 2008–2012 are based on the relationship of the Tanana estimate (1995–2007) with the Delta River escapements. The estimates for 2013 and 2014 are based on regression with Mainstem Yukon 1995–2012 (excluding 2005) minus Tanana River harvests.
- ^g Single-beam sonar estimate from 1986 to 1990, split-beam sonar estimate 1995 to 2006, DIDSON in since 2007, project was aborted in 2009.
- ^h Single-beam sonar estimate beginning in 1981, split-beam sonar estimate 2002 to 2004, DIDSON from 2005 to 2012.
- ⁱ Minimal estimate because of late timing of ground surveys with respect to peak of spawning.
- ^j Estimates are a total spawner abundance, using migratory time density curves and stream life data.
- ^k Peak foot survey count.
- ^l Data interpolated due to high water from 29 August until 3 September 1997, during buildup to peak passage.
- ^m Project ended early (September 12) because of low water.
- ⁿ Minimal estimate because Sushana River was breached by the main channel and uncountable.
- ^o Low numbers of tags deployed and recovered resulted in an estimate with an extremely large confidence interval (95% CI +/- 41,072).
- ^p Project ended on peak daily passages due to late run timing, estimate was expanded based on run timing (87%) at Rampart.
- ^q Sonar counts include both banks in 1985–1987, 2005–2009, and 2011–2012.
- ^r In addition to the historical right bank count, the left bank was enumerated with DIDSON (right bank count for 2005–2009 and 2011–2012 was 266,963, 106,397, 39,548, 35,912, 28,480, 49,080 and 57,823, respectively, not including end of season expansions).
- ^s Project ended while still counting >10,000 fish per day, estimate was expanded based on run timing (73%) at Rampart.
- ^t Counts were expanded to represent the remainder of the run after the project was terminated for the season.
- ^u Mainstem Yukon River sonar project (located near Pilot Station) encountered record low water levels during the fall season causing difficulties with species apportionment and catchability. Fall chum salmon estimate is suspected of being conservative and should not be used in averages or run reconstructions.
- ^v Data are preliminary.
- ^w Escapement goal (EG) includes individual tributary BEG and drainagewide SEG.
- ^x EG discontinued in 2010.
- ^y The BEG for the Tanana River as a whole is 61,000 to 136,000. However it includes the Toklat plus and the Upper Tanana which was broke out for comparison to the upper Tanana River abundance estimates.
- ^z Does not include 2009.

Appendix E9.—Fall chum salmon abundance estimates or escapement estimates for selected spawning areas in Canadian portions of the Yukon River drainage, 1994–2014.

Year	Porcupine drainage		Canadian mainstem					
	Fishing Branch River ^a	Porcupine River sonar	Mainstem Yukon River index ^b	Kluane River ^{b, c}	Teslin River ^{b, d}	Border passage estimate ^e	Harvest	Spawning escapement estimate ^f
1994	65,247		1,429 ^g	10,734	209 ^g	133,712	35,354	98,358
1995	51,971 ^h		4,701	16,456	633	198,203	40,111	158,092
1996	77,302		4,977	14,431	315	143,758	21,329	122,429
1997	27,031		2,189	3,350	207	94,725	9,306	85,419
1998	13,687		7,292	7,337	235	48,047	1,795	46,252
1999	12,958			5,136	19 ^g	72,188	13,636	58,552
2000	5,057		933 ^g	1,442	204	57,978 ⁱ	4,246	53,732
2001	21,737		2,453	4,884	5	38,769 ⁱ	5,278	33,491
2002	13,636		973	7,147	64	104,853 ⁱ	6,174	98,679
2003	29,713		7,982	39,347	390	153,656 ⁱ	10,523	143,133
2004	20,417		3,440	18,982	167	163,625 ⁱ	9,545	154,080
2005	119,058		16,425	34,600	585	451,477	13,979	437,733
2006	30,954		6,553	18,208	620	227,515 ^j	6,617	220,898
2007	32,150					246,317 ^j	9,330	236,987
2008	19,086 ^h					174,028 ^j	6,130	167,898
2009	25,828					94,739	1,113	93,626
2010	15,413					121,981	3,709	118,272
2011	13,085 ^h					211,878	6,312	205,566
2012	22,399					141,567	3,905	137,662
2013	^k	35,615				204,149	3,887	200,262
2014	^l	^k 17,756				159,846	3,050	156,796
EO ^m	50,000-120,000							>80,000
IMEG	22,000-49,000 ⁿ							70,000-104,000 ^o
Average								
1994-2013	32,459	—	4,946	14,004	281	154,158	10,614	143,556
2004-2013	33,154	—	8,806	23,930	457	203,728	6,453	197,298
2009-2013	19,181	35,615	—	—	—	154,863	3,785	151,078

-continued-

Source: JTC 2015.

- ^a Weir counts with expansions through October 25, unless otherwise indicated.
- ^b Aerial survey count, unless otherwise indicated.
- ^c Index area includes Duke River to end of spawning sloughs below Swede Johnston Creek.
- ^d Index area includes Boswell Creek area (5 km below to 5 km above confluence).
- ^e Border passage estimate is based on mark–recapture from 1980 to 2005, 2006 to present is based on sonar minus harvest from Eagle residents upstream of deployment.
- ^f Excludes Fishing Branch River escapement (estimated border passage minus Canadian mainstem harvest).
- ^g Incomplete and/or poor survey conditions resulting in minimal or inaccurate counts.
- ^h Incomplete count caused by late installation and/or early removal of project or high water events.
- ⁱ 1999 to 2004 border passage estimates were revised using a stratified SPAS analysis.
- ^j Mark–recapture border passage estimates include 217,810, 235,956, and 132,048 from 2006 to 2008 respectively, during transition to sonar.
- ^k Fishing Branch River weir did not operate but escapement was estimated at a sonar operated on the upper Porcupine River. A tentative estimate for Fishing Branch River could be obtained by subtracting Old Crow harvest and applying the proportion of tagged fish located in Fishing Branch River (25,376 and 7,304 in 2013 and 2014).
- ^l Preliminary data.
- ^m Escapement objective (EO) based on U.S./Canada Treaty Obligations, some years stabilization or rebuilding goals are applied.
- ⁿ Interim management escapement goal (IMEG) established for 2008–2010 based on percentile method.
- ^o IMEG established for 2010 based on brood table of Canadian origin mainstem stocks (1982 to 2003).

Appendix E10.—Yukon River fall chum salmon estimated brood year production and return per spawner estimates 1974–2014.

Year	(P)		Estimated annual totals		Estimated brood year return								(R)	(R/P)
	Escapement ^b		Catch	Run	Number of salmon ^a				Percent				Total brood year return ^a	Return/ spawner
					Age 3	Age 4	Age 5	Age 6	Age 3	Age 4	Age 5	Age 6		
1974	658,200		478,875	1,137,075	111,350	649,033	96,106	0	0.13	0.76	0.11	0.00	856,489	1.30
1975	2,216,000		473,062	2,689,062	196,176	1,714,479	67,327	124.47	0.10	0.87	0.03	0.00	1,978,106	0.89
1976	548,900		339,043	887,943	142,792	644,178	138,161	4,832	0.15	0.69	0.15	0.01	929,963	1.69
1977	720,500		447,918	1,168,418	112,568	1,084,001	196,697	4,984	0.08	0.78	0.14	0.00	1,398,251	1.94
1978	549,800		434,030	983,830	22,404	371,959	107,784	0	0.04	0.74	0.21	0.00	502,148	0.91
1979	1,338,000		615,377	1,953,377	46,030	915,648	310,112	4,005	0.04	0.72	0.24	0.00	1,275,795	0.95
1980	335,700		488,373	824,073	9,968	409,471	214,943	3,834	0.02	0.64	0.34	0.01	638,217	1.90
1981	561,300		683,391	1,244,691	51,840	983,082	341,578	9,465	0.04	0.71	0.25	0.01	1,385,964	2.47
1982	246,000		373,519	619,519	11,651	491,194	177,575	705.19	0.02	0.72	0.26	0.00	681,125	2.77
1983	512,900		525,485	1,038,385	15,422	932,154	232,147	2,383	0.01	0.79	0.20	0.00	1,182,106	2.30
1984	359,100		412,323	771,423	7,549	423,887	179,514	10,036	0.01	0.68	0.29	0.02	620,986	1.73
1985	698,200		515,481	1,213,681	48,446	901,469	319,365	3,214	0.04	0.71	0.25	0.00	1,272,495	1.82
1986	534,000		318,028	852,028	0	506,477	370,898	5,200	0.00	0.57	0.42	0.01	882,575	1.65
1987	720,600		406,143	1,126,743	14,629	621,515	347,400	8,187	0.01	0.63	0.35	0.01	991,731	1.38
1988	351,500		353,685	705,185	41,268	209,367	161,575	12,947 ^c	0.10	0.49	0.38	0.03	425,157	1.21
1989	538,200		545,166	1,083,366	3,278	300,000	410,176 ^c	22,192	0.00	0.41	0.56	0.03	735,647	1.37
1990	498,500		352,007	850,507	752.824	688,649 ^c	457,679	32,650	0.00	0.58	0.39	0.03	1,179,730	2.37
1991	597,800		439,096	1,036,896	4,353 ^c	1,120,878	395,779	12,879	0.00	0.73	0.26	0.01	1,533,889	2.57
1992	416,400		148,846	565,246	7,397	700,890	208,594	4,106	0.01	0.76	0.23	0.00	920,987	2.21
1993	379,500		91,015	470,515	8,305	477,712	107,627	3,208	0.01	0.80	0.18	0.01	596,852	1.57
1994	946,900		169,225	1,116,125	4,574	236,696	148,295	1,683 ^c	0.01	0.60	0.38	0.00	391,247	0.41
1995	1,147,000		461,147	1,608,147	2,492	264,755	72,329 ^c	373.08	0.01	0.78	0.21	0.00	339,949	0.30
1996	876,700		260,923	1,137,623	416.675	173,891 ^c	133,449	8,278	0.00	0.55	0.42	0.03	316,035	0.36

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Year	(P) Escapement ^b	Estimated annual totals Catch Run		Estimated brood year return								(R) Total brood year return ^a	(R/P) Return/ spawner
				Number of salmon ^a				Percent				year return ^a	Return/ spawner
				Age 3	Age 4	Age 5	Age 6	Age 3	Age 4	Age 5	Age 6		
1997	533,700	170,059	703,759	3,240 ^c	238,619	118,099	3,396	0.01	0.66	0.33	0.01	363,354	0.68
1998	280,100	70,820	350,920	634,229	269,098	59,079	7,089	0.00	0.80	0.18	0.02	335,900	1.20
1999	285,500	131,175	416,675	29,037	718,744	184,712	12,967	0.03	0.76	0.20	0.01	945,461	3.31
2000	222,600	28,543	251,143	8,609	314,532	109,140	0	0.02	0.73	0.25	0.00	432,280	1.94
2001	328,100	44,976	373,076	144,063	2,039,076	703,276	33,437	0.05	0.70	0.24	0.01	2,919,852	8.90
2002	397,100	27,411	424,511	0	462,657	235,508	13,850	0.00	0.65	0.33	0.02	712,015	1.79
2003	710,300	79,529	789,829	25,253	845,622	460,702	17,197	0.02	0.63	0.34	0.01	1,348,774	1.90
2004	574,100	76,296	650,396	0	352,390	155,967	2,039	0.00	0.69	0.31	0.00	510,396	0.89
2005	1,871,000	290,183	2,161,183	2,405	397,801	92,777	5,349	0.00	0.80	0.19	0.01	498,332	0.27
2006	920,700	270,486	1,191,186	26,154	389,517	344,398	30,168	0.03	0.49	0.44	0.04	790,237	0.86
2007	908,900	205,667	1,114,567	82,072	855,829	189,216	7,036	0.07	0.75	0.17	0.01	1,134,153	1.25
2008	611,400	217,947	829,347	10,090	844,087	434,539	8,305	0.01	0.65	0.34	0.01	1,297,021	2.12
2009	503,800	93,319	597,119	12,018	837,399	450,838	10,457	0.01	0.64	0.34		1,310,712 ^d	>2.60
2010	486,400	80,005	566,405	2,052	535,433	244,631						782,116 ^e	>1.61
2011	890,000	325,666	1,215,666	26,125									
2012	678,900	396,589	1,075,489										
2013	923,400	357,626	1,281,026										
2014	800,000	220,701	1,020,701										
Average-13	671,943	304,961	976,904										
Min-08	222,600	27,411	251,143	0	173,891	59,079	0	0.00	0.41	0.03	0.00	316,035	0.27
Max-08	2,216,000	683,391	2,689,062	196,176	2,039,076	703,276	33,437	0.15	0.87	0.56	0.04	2,919,852	8.90
	668,434	All brood years (1974-2008)		34,149	644,267	236,644	8,461	0.03	0.69	0.27	0.01	923,521	1.75
	518,206	Even brood years (1974-2008)		22,534	452,109	207,400	8,096	0.03	0.66	0.30	0.01	690,139	1.52
	827,500	Odd brood years (1974-2008)		46,447	847,729	267,607	8,847	0.03	0.72	0.24	0.01	1,170,630	1.99

Note: Minimum and maximum indicate year with the lowest and highest values through 2008. Current brood year data is preliminary as is 2014 harvest estimate. In 2014 estimates of escapement were based on Bayesian analysis.

Source: JTC 2015.

^a The estimated number of salmon which returned are based upon annual age composition observed in lower Yukon test gillnets each year, weighted by test fishery catch per unit effort (CPUE).

^b Contrast in escapement data is 9.96.

^c Based upon expanded test fishery age composition estimates for years in which the test fishery terminated early both in 1994 and 2000.

^d Brood year return for 3, 4, and 5 year fish, indicate that production (R/P) from brood year 2009 was at least 2.60. Recruits estimated for incomplete brood year.

^e Brood year return for 3 and 4 year fish, indicate that production (R/P) from brood year 2010 was at least 1.61. Recruits estimated for incomplete brood year.

Appendix E11.—Coho salmon passage estimates or escapement estimates for selected spawning areas in the Alaska portion of the Yukon River drainage, 1994–2014.

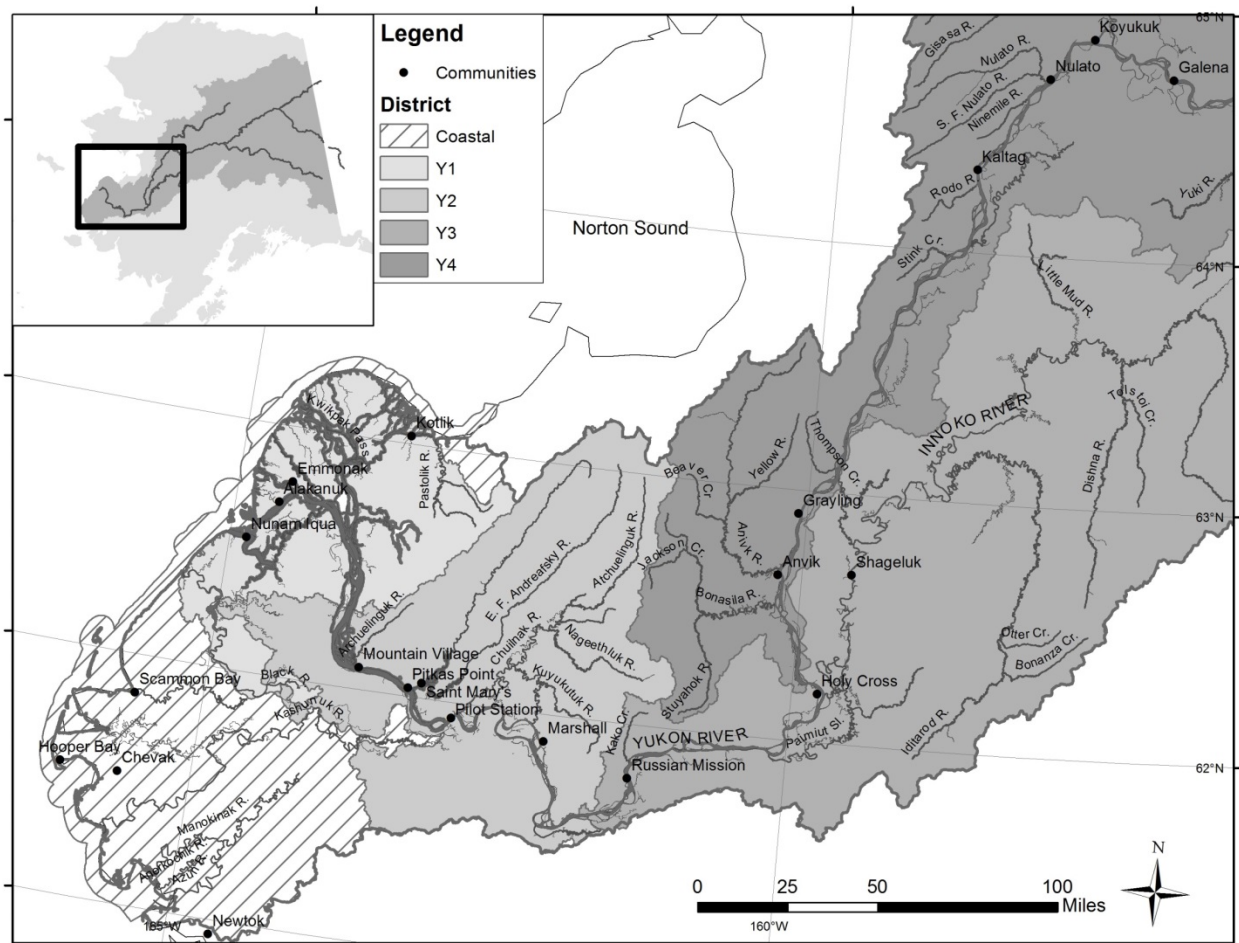
Year	Yukon River mainstem sonar estimate ^a	Nenana River drainage								Upper Tanana River drainage					
	Lost Slough	Nenana mainstem ^b		Wood Creek		Seventeen Mile Slough		Delta		Clearwater		Richardson			
								Clearwater River ^c		Lake and outlet		Clearwater River			
1994		944 (h)	1,648 (h)	1,317 (w) ^d	2,909 (h)	62,675 (b)	3,425 (b)	5,800 (f)							
1995	101,806	4,169 (f)	2,218 (h)	500 (w)	1,512 (h)	20,100 (b)	3,625 (b)								
1996		2,040 (h)	2,171 (h)	201 (u) ^e	3,668 (g/b)	14,075 (b)	1,125 (b) ^e								
1997	104,343	1,524 (h)	1,446 (h)	^f	1,996 (h)	11,525 (b)	2,775 (b)								
1998	136,906	1,360 (h) ^e	2,771 (h) ^e	^f	1,413 (g/b)	11,100 (b)	2,775 (b)								
1999	62,521	1,002 (h) ^e	745 (h) ^e	370 (h)	662 (h) ^e	10,975 (b)									
2000	175,421	55 (h) ^e	68 (h) ^e	^f	879 (h) ^e	9,225 (b)	1,025 (b)	2,175 (h)							
2001	137,769	242 (h)	859 (h)	699 (h)	3,753 (h)	46,985 (b)	4,425 (b)	1,531 (f)							
2002	122,566	0 (h)	328 (h)	935 (h)	1,910 (h)	38,625 (b)	5,900 (b)	874 (f)							
2003	269,081	85 (h)	658 (h)	3,055 (h)	4,535 (h)	102,800 (b)	8,800 (b)	6,232 (h)							
2004	188,350	220 (h)	450 (h)	840 (h)	3,370 (h)	37,550 (b)	2,925 (b)	8,626 (h)							
2005	184,718	430 (h)	325 (h)	1,030 (h)	3,890 (h)	34,293 (b)	2,100 (b)	2,024 (h)							
2006	131,919	194 (h)	160 (h)	634 (h)	1,916 (h)	16,748 (b)	4,375 (b)	271 (h)							
2007	173,289	63 (h)	520 (h)	605 (h)	1,733 (h)	14,650 (b)	2,075 (b)	553 (h)							
2008	135,570	1,342 (h)	1,539 (h)	578 (h)	1,652 (h)	7,500 (b)	1,275 (b)	265 (h)							
2009	206,620 ^g	410 (h)		470 (h)	680 (h)	16,850 (b)	5,450 (b)	155 (h)							
2010	155,784	1,110 (h)	280 (h)	340 (h)	720 (h)	5,867 (b)	813 (b)	1,002 (h)							
2011	124,931	369 (h)			912 (h)	6,180 (b)	2,092 (b)	575 (h)							
2012	106,782		106 (h)		405 (h)	5,230 (b)	396 (h)	515 (h)							
2013	84,795	721 (h)		55 (h)	425 (h)	6,222 (b)	2,221 (h)	647 (h)							
2014 ^h	247,047	333 (h)	378 (h)	649 (h)	886 (h)	4,285 (b)	434 (h)	1,941 (h)							
SEG ⁱ						5,200-17,000 ⁱ									
Averages															
1994-2013	144,621	831	958	775	1,947	23,959	2,902	2,083							
2004-2013	149,276	540	483	569	1,570	15,109	2,372	1,463							
2009-2013	118,073 ^j	653	193	288	628	8,070	2,194	579							

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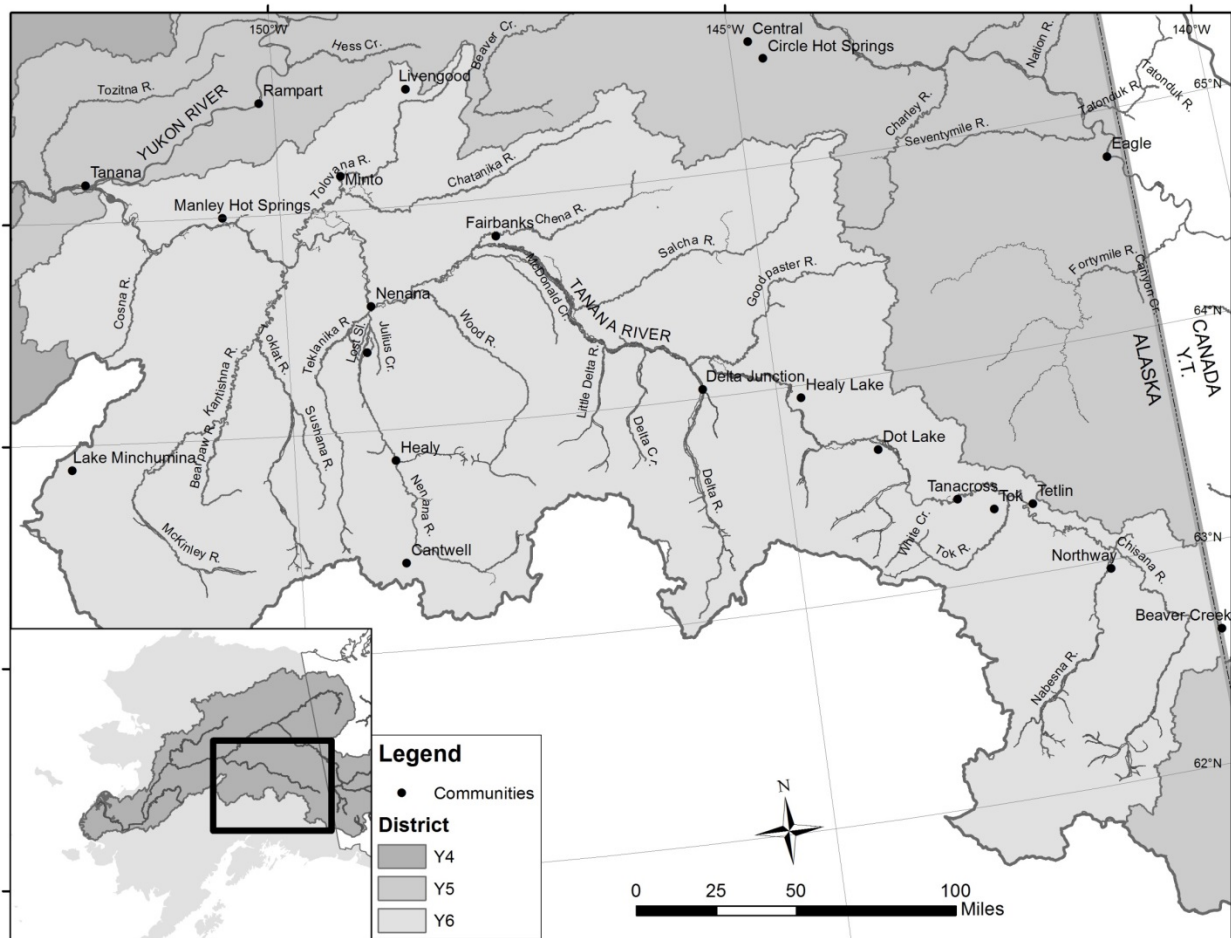
Appendix E11.–Page 2 of 2.

Note: Only peak counts presented. Survey rating is fair to good, unless otherwise noted. Denotations of survey methods include: (b) = boat, (f) = fixed wing, (g) = ground/foot, (h) = helicopter, and (u) = undocumented.

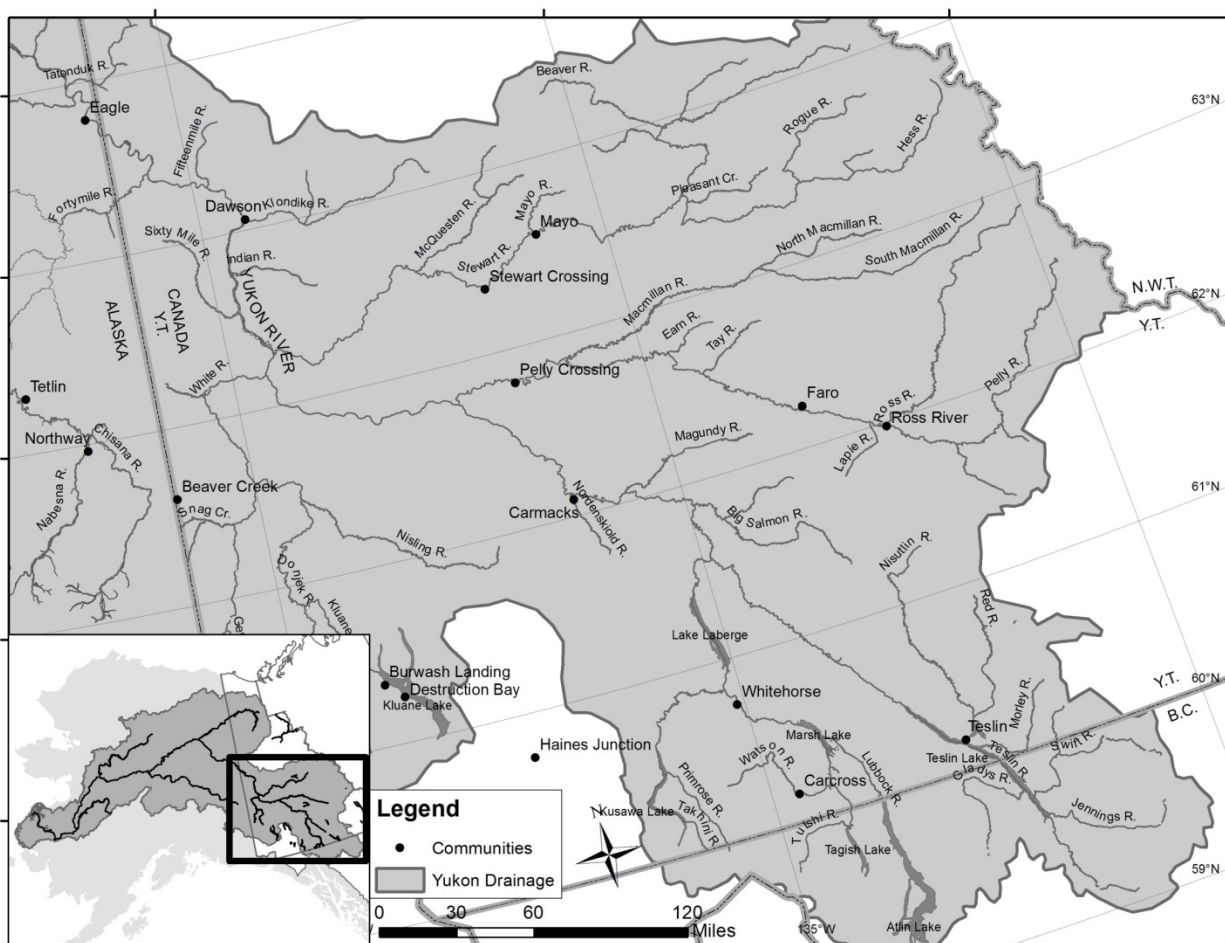
- ^a Passage estimates for coho salmon are incomplete. The sonar project is terminated prior to the end of the coho salmon run.
- ^b Index area includes mainstem Nenana River between confluence's of Lost Slough and Teklanika River.
- ^c Index area is lower 17.5 miles of system.
- ^d Weir project terminated September 27, 1994. Weir normally operated until mid-October.
- ^e Poor survey.
- ^f No survey of Wood Creek due to obstructions in creek.
- ^g Pilot Station sonar project encountered record low water levels during the fall season causing difficulties with species apportionment and catchability. Coho salmon are suspected of being over estimated therefore this value should not be used in averages or run reconstructions.
- ^h Data are preliminary.
- ⁱ Sustainable escapement goal (SEG) established January 2004, (replaces BEG of greater than 9,000 fish established March 1993) based on boat survey counts of coho salmon in the lower 17.5 river miles during the period October 21 through October 27.



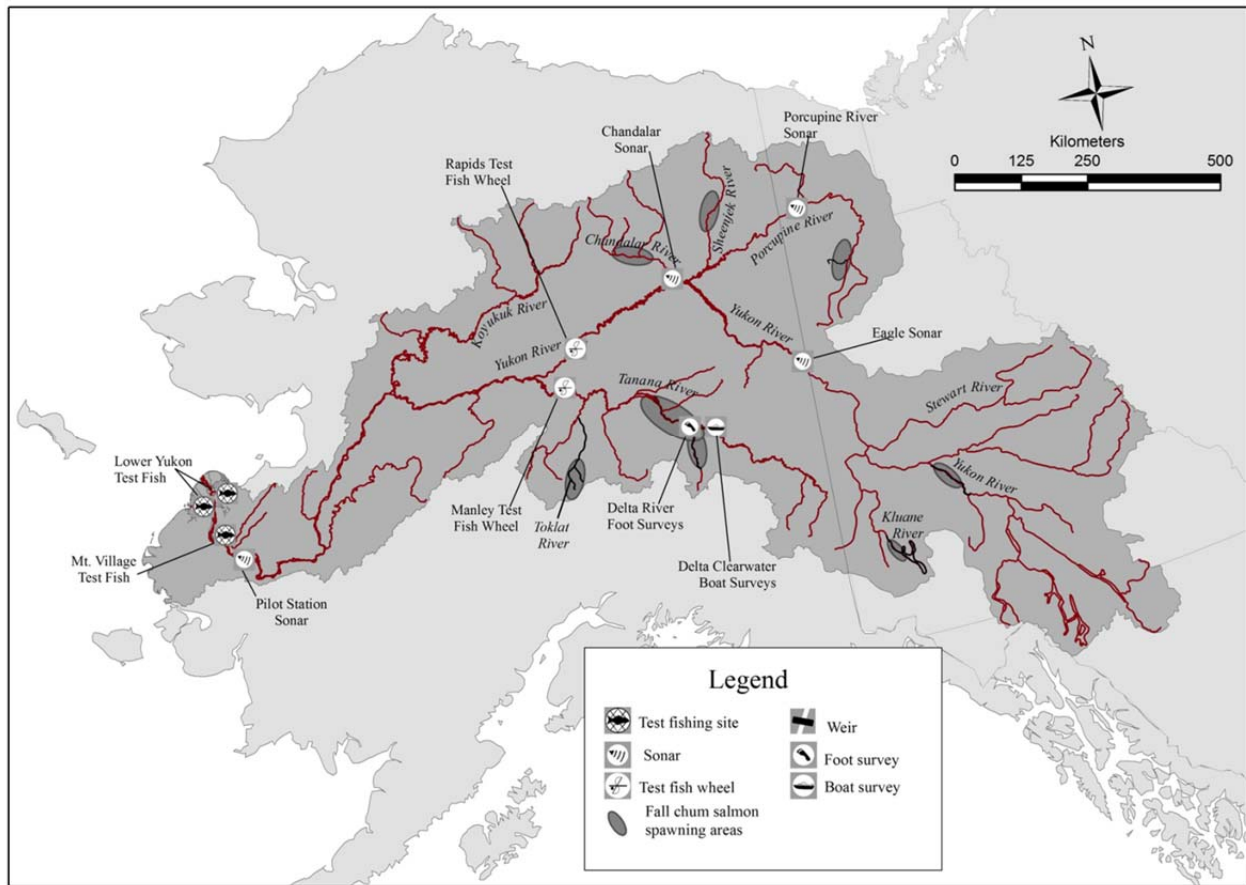
Appendix E12.—The Lower Yukon River drainage.



Appendix E14.—The Tanana River drainage.



Appendix E16.—The Upper Yukon River drainage.



Appendix E17.—Select fall chum salmon monitoring projects, Yukon River drainage.

APPENDIX F: YUKON AREA FRESHWATER FISHERIES

Appendix F1.—Commercial freshwater finfish harvest, Lower Yukon Area, 1994–2014.

Year	Sheefish		Bering cisco		Other whitefish ^a		Burbot		Pike	Lamprey		Blackfish
	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Pounds	Number	Pounds	Pounds
1994	0	0			157	471	0	0	0	0	0	0
1995	–	–	–	–	–	–	–	–	–	–	–	–
1996	–	–	–	–	–	–	–	–	–	–	–	–
1997	–	–	–	–	–	–	–	–	–	–	–	–
1998	–	–	–	–	–	–	–	–	–	–	–	–
1999	–	–	–	–	–	–	–	–	–	–	–	–
2000	–	–	–	–	–	–	–	–	–	–	–	–
2001	–	–	–	–	–	–	–	–	–	–	–	–
2002	–	–	–	–	–	–	–	–	–	–	–	–
2003	0	0			0	0	0	0	0	84,665 ^b	23,960	0
2004	–	–	–	–	–	–	–	–	–	–	–	–
2005	266	1,688	241	362 ^c	2,669	4,265	0	0	0	0	0	0
2006	472	2,912	4,497	5,519	1,932	2,832	0	0	0	3,149 ^d	715	0
2007	445	3,363 ^e	2,451	2,951	1,748	3,145	0	0	0	0	0	0
2008	0	0	8,642	9,380	695	692	0	0	0	0	0	0
2009	0	0	9,066	9,743	750	763	0	0	0	1,520 ^f	465	0
2010	0	0	13,922	14,784 ^g	418	437	0	0	0	0	0	0
2011	0	0	11,386	12,523	253	258	0	0	0	0	0	0
2012	0	0	11,099	12,705	233	237	0	0	0	0	0	0
2013	0	0	16,901	19,442	120	123	0	0	0	0	0	0
2014	0	0	25,604	31,268	42	50	0	0	0	50,947 ^h	15,386	0
2009–2013												
Average	0	0	12,475	13,839	355	364	0	0	0	304	93	0
2004–2013												
Average	131	885	8,689	9,712	980	1,417	0	0	0	519	131	0

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a Based on ADF&G fish ticket system categorizations other whitefish species include: general whitefish, least cisco, broad whitefish, and humpback whitefish.

^b Number of lamprey equals pounds of lamprey divided by the average lamprey weight (0.283 pounds). Harvest took place in St. Marys area.

^c In response to market conditions commercial whitefish fishing began to target Bering Cisco, therefore harvest of this species are separated from other whitefish species.

^d Number of lamprey equals pounds of lamprey divided by the average lamprey weight (0.227 pounds). A few deliveries were made in Mountain Village and St. Marys.

^e Includes 416 sheefish (2,906 pounds) sold in the whitefish-directed commercial fishery and 29 sheefish (457 pounds) sold in the salmon-directed commercial fishery.

^f Number of lamprey equals pounds of lamprey divided by the average lamprey weight (0.306 pounds). A few deliveries were made in Marshall.

^g Includes 160 pounds of Bering cisco harvested in January 2010 under permit authorized in fall 2009.

^h Number of lamprey equals pounds of lamprey divided by the average lamprey weight (0.302 pounds). Harvest took place in Marshall and Grayling.

Appendix F2.—Commercial freshwater finfish harvest, Upper Yukon Area, 1994–2014.

Year	Healy Lake		Lake Minchumina		Tanana River				Yukon River							
	Whitefish ^a		Whitefish ^a		Burbot ^a		Whitefish ^a		Burbot ^a		Bering cisco ^a		Other whitefish ^b		Lamprey	
	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
1994	0	0	0	0	0	0	921	1,400	0	0	0	0	0	0	—	—
1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1996	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1997	0	0	0	0	0	0	908	1,160	0	0	0	0	0	0	—	—
1998	—	—	—	—	—	—	—	— ^c	—	—	—	—	—	—	—	—
1999	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	99,988 ^d	25,697
2004	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	0
2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	0
2006	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32,943 ^e	7,481
2007	—	—	—	—	—	—	—	—	—	—	—	—	—	—	163 ^f	42
2008	—	—	—	—	—	—	—	—	—	—	—	—	—	—	41,750 ^g	11,137
2009	—	—	—	—	—	—	—	—	—	—	—	—	—	—	48,117 ^h	14,745
2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	108,838 ⁱ	30,713
2011	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,888 ^j	783
2012	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,539 ^k	336
2013	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45,803 ^l	11,613
2014	—	—	—	—	—	—	—	—	—	—	—	—	—	—	95,146 ^m	28,734
2009–2013																
Average															41,437	11,638
2004–2013																
Average															28,204	7,685

-continued-

Appendix F2.–Page 2 of 2.

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

- ^a Numbers reflect fish harvested with the intent of commercial sale.
- ^b Based on Zephyr categorizations other whitefish species include: general whitefish, least cisco, broad whitefish, and humpback whitefish.
- ^c Requests for commercial whitefish fishing permits were denied because of the additional pressure placed on non-salmon species during poor salmon runs.
- ^d Number of lamprey equals pounds of lamprey divided by the average lamprey weight (0.257 pounds). Harvest took place in Grayling area.
- ^e Number of lamprey equals pounds of lamprey divided by the average lamprey weight (0.227 pounds). The majority of the harvest took place in the Grayling area.
- ^f Number of lamprey equals pounds of lamprey divided by an average lamprey weight (0.258 pounds). All of the harvest took place near Grayling and no samples were collected. An average weight was calculated from samples taken in Grayling in 2003, 2004, and 2006.
- ^g Number of lamprey equals pounds of lamprey divided by the average lamprey weight (0.267 pounds). Harvest took place in Grayling area.
- ^h Number of lamprey equals pounds of lamprey divided by the average lamprey weight (0.306 pounds). Harvest took place in Grayling area.
- ⁱ Number of lamprey equals pounds of lamprey divided by the average lamprey weight (0.282 pounds). Harvest took place in Grayling area.
- ^j Number of lamprey equals pounds of lamprey divided by the historical average sample weight collected from harvests in Grayling. No lamprey were sampled in 2011.
- ^k Number of lamprey equals pounds of lamprey divided by the average lamprey weight (0.218 pounds). Harvest took place in Grayling area.
- ^l Number of lamprey equals pounds of lamprey divided by the average lamprey weight (0.253 pounds). Harvest took place in Grayling area.
- ^m Number of lamprey equals pounds of lamprey divided by the average lamprey weight (0.302 pounds). Harvest took place in Marshall and Grayling.

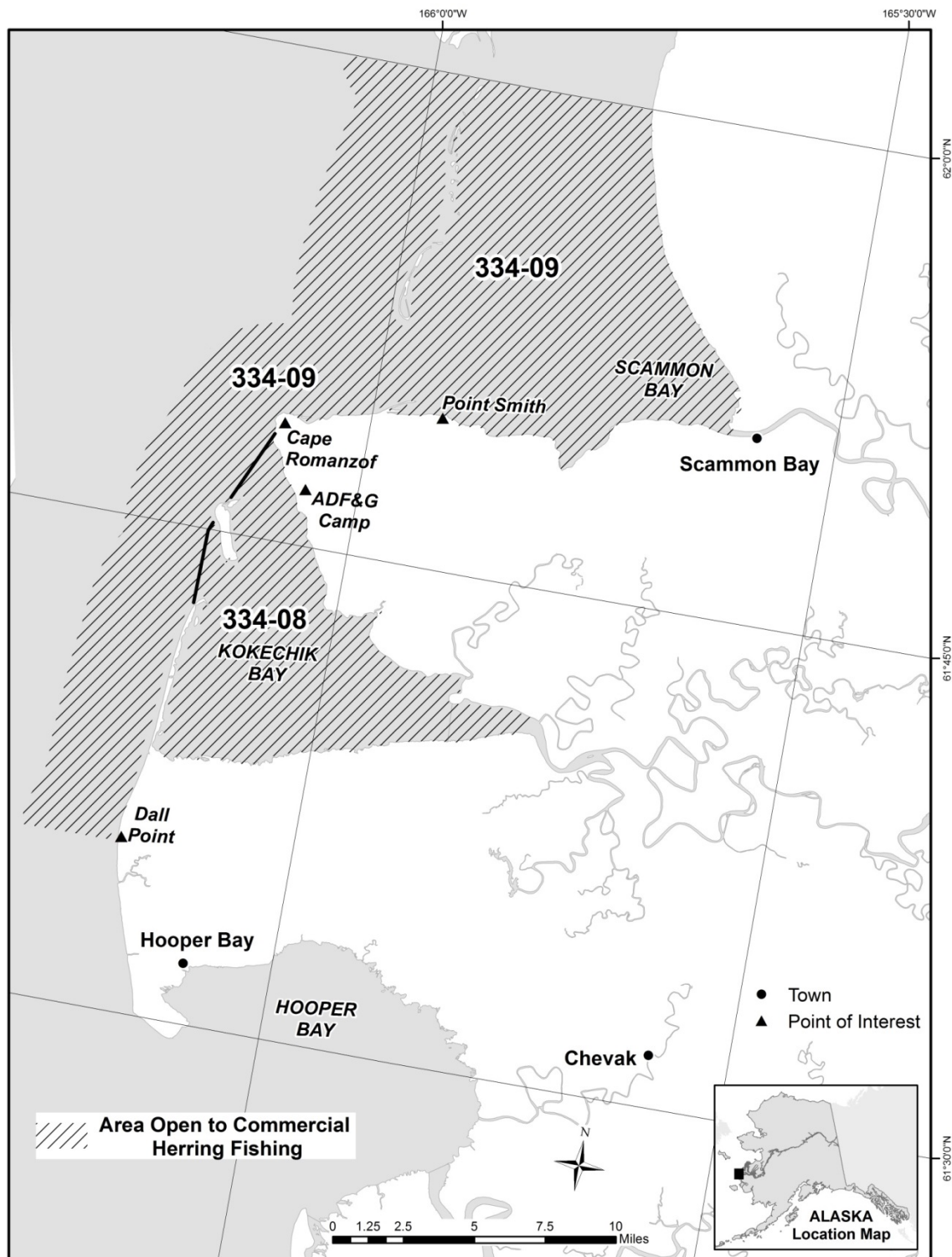
Appendix F3.–Freshwater finfish sales during the commercial salmon fishing season by district, Upper Yukon Area, 1994–2014.

Year	District 4		District 5				District 6	
	Whitefish		Whitefish		Sheefish		Whitefish	
	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
1994	1	4	108	215	0	0	209	433
1995	0	0	95	95	0	0	183	387
1996	0	0	22	66	0	0	103	292
1997	0	0	270	301	0	0	4	8
1998	0	0	116	88	0	0	0	0
1999	0	0	0	0	0	0	0	0
2000	–	–	–	–	–	–	–	–
2001	–	–	–	–	–	–	–	–
2002	0	0	0	0	0	0	60	120
2003	40	113	0	0	0	0	129	297
2004	–	–	4	15	0	0	53	112
2005	–	–	0	0	0	0	66	175
2006	–	–	0	0	0	0	99	397
2007	0	0	0	0	0	0	55	152
2008	0	0	276	289	38	338	95 ^a	292
2009	0	0	–	–	–	–	0	0
2010	0	0	–	–	–	–	18	72
2011	–	–	0	0	0	0	37	148
2012	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	22	56
2014	0	0	5	20	37	456	0	0
2009–2013								
Average	0	0	0	0	0	0	15	55
2004–2013								
Average	0	0	35	38	5	42	45	140

Note: En dash indicates no commercial fishing activity occurred. Blank cells indicate insufficient information to generate average.

^a The sale of fish sold did not include number of fish; therefore, number of fish was estimated using average weight (3.07 pounds) from 2007 and 2010 in District 6.

APPENDIX G: CAPE ROMANZOF DISTRICT HERRING FISHERY



Appendix G1.—Waters open to commercial herring fishing in the Cape Romanzof District.

Appendix G2.—Commercial Pacific herring fishery data, Cape Romanzof District, 1994–2014.

	Year										
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Catch (short tons)	456	541	752	879	727	533	500	137	102	81	25
Hours fished	7.0	15.0	34.0	29.5	35.0	13.5	13.0	13.5	41.5	64.0	148.0
Percent roe recovery	9.2	10.1	10.6	10.2	9.6	9.2	8.1	7.6	9.8	10.9	12.4
Average weight of fish (grams) ^a	372	367	356	360	369	364	376	378	412	428	359
Estimated value (thousands)	\$120	\$330	\$640	\$190	\$130	\$130	\$80	\$10	\$10	\$10	\$10
Number of buyers	2	2	3	3	1	1	2	1	1	1	1
Number of fishermen	55	49	63	65	41	57	46	23	21	11	10
Biomass estimate	5,000	5,000	6,000	5,000	4,500	3,800	3,500	2,700	3,600	3,685	3,500 ^b
Exploitation rate (%)	9.1	10.8	12.5	17.6	16.2	14.0	14.3	5.1	2.8	2.2	0.7

	Year									
	2005	2006	2007 ^c	2008 ^c	2009 ^c	2010 ^c	2011 ^c	2012 ^c	2013	2014 ^c
Catch (short tons)	125	92	—	—	—	—	—	—	54.3	—
Hours fished	158.0	89.0	—	—	—	—	—	—	72	—
Percent roe recovery	10.4	10.3	—	—	—	—	—	—	—	—
Average weight of fish (grams) ^a	401	407	—	—	—	—	—	—	300	—
Estimated value (in thousands)	\$40	\$20	—	—	—	—	—	—	\$8	—
Number of buyers	1	1	—	—	—	—	—	—	1	—
Number of fishermen	10	8	—	—	—	—	—	—	11	—
Biomass estimate	3,388	4,813	4,500	5,000	4,800	5,500	5,500	4,794	4,012	2,904
Exploitation rate (%)	3.7	1.9	—	—	—	—	—	—	1.1	—

Note: En dash indicates information is not available. Short ton is equal to 2000 pounds.

^a Estimated from ADF&G commercial samples.

^b Preseason biomass estimate estimated to be a range between 3,000 and 4,000 short tons.

^c No commercial fishing occurred.

Appendix G3.—Subsistence herring harvest (short tons) and effort data by community, Cape Romanzof, 1994–2014.

Year	Scammon Bay		Chevak		Hooper Bay		Total	
	Harvest (st)	Number of fishermen	Harvest (st)	Number of fishermen	Harvest (st)	Number of fishermen	Harvest (st)	Number of fishermen
1994	1.4	9	2.0	16	3.1	23	6.5	48
1995	1.1	11	1.2	9	3.8	22	6.1	42
1996	1.0	10	0.5	4	1.7	15	3.1	29
1997	0.9	10	0.2	3	2.2	21	3.2	34
1998	0.7	7	0.1	2	0.9	7	1.7	16
1999	6.0	24	2.3	12	4.2	31	12.5	67
2000	3.9	26	1.0	10	1.3	14	6.2	50
2001	1.5	8	1.0	10	0.1	5	3.1	24
2002	0.6	7	0.2	3	1.1	10	1.9	20
2003	3.0	13	1	8	2.0	13	6.0	34
2004	3.5	14	1	8	1.3	12	6.0	34
2005	6.2	9	0	2	0.6	2	6.9	13
2006	1.7	9	0	3	0.5	2	2.5	14
2007	1.5	8	1	6	0.4	4	3.1	18
2008	1.0	7	1	2	0.3	3	2.3	12
2009	0.7	6	0	3	0.2	3	1.2	12
2010	0.6	6	1	3	0.8	5	2.1	14
2011 ^a	—	—	—	—	—	—	—	—
2012 ^b	3.2	25	—	— ^c	0.5	12	3.7	37
2013 ^b	1.8	18	—	— ^c	0.8	17	2.7	35
2014 ^b	5.0	28	—	— ^c	0.8	20	5.8	48
2009–2013								
Average	1.6	13.8	0.5	3.0	0.6	9.3	2.4	24.5

Note: En dash indicates information is not available. Short ton (st) is equal to 2,000 pounds.

^a Survey forms were not mailed out in 2011. No data is available.

^b Harvest of herring was added to subsistence salmon harvest survey. Herring may include smelt and other small fish species.

^c The community of Chevak was not surveyed.