

Annual Management Report Yukon Area, 2015

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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
Time and temperature		et cetera (and so forth)	etc.	logarithm (specify base)	log ₂ , etc.
day	d	exempli gratia		minute (angular)	'
degrees Celsius	°C	(for example)	e.g.	not significant	NS
degrees Fahrenheit	°F	Federal Information Code	FIC	null hypothesis	H ₀
degrees kelvin	K	id est (that is)	i.e.	percent	%
hour	h	latitude or longitude	lat or long	probability	P
minute	min	monetary symbols		probability of a type I error	
second	s	(U.S.)	\$, ¢	(rejection of the null hypothesis when true)	α
Physics and chemistry		months (tables and figures): first three		probability of a type II error	
all atomic symbols		letters	Jan,...,Dec	(acceptance of the null hypothesis when false)	β
alternating current	AC	registered trademark	®	second (angular)	"
ampere	A	trademark	™	standard deviation	SD
calorie	cal	United States		standard error	SE
direct current	DC	(adjective)	U.S.	variance	
hertz	Hz	United States of America (noun)	USA	population sample	Var var
horsepower	hp	U.S.C.	United States Code		
hydrogen ion activity (negative log of)	pH				
parts per million	ppm	U.S. state	use two-letter abbreviations		
parts per thousand	ppt, ‰		(e.g., AK, WA)		
volts	V				
watts	W				

FISHERY MANAGEMENT REPORT NO. 17-12

ANNUAL MANAGEMENT REPORT YUKON AREA, 2015

by

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PREFACE

This report summarizes the 2015 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 supersedes information found in previous management reports. An attempt has been made to update information and correct errors from 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 2015 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 2015 with reference to historical data, presents an outlook for the 2016 fishing season, and provides data on the use of salmon species by commercial, subsistence (Aboriginal), 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, along with a comprehensive report of the 2015 salmon fisheries, by summer and fall season, and compares the 2015 runs 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 (i.e., whitefish and 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 Division of Commercial Fisheries of the Alaska Department of Fish and Game (ADF&G) 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 2015.

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. Except for 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 Panel Joint Technical Committee (JTC) reports.

FISHERY RESOURCES

Five species of Pacific salmon are 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 sizes are typically much smaller than that of summer chum salmon.

Coho salmon enter the Yukon River from late July through September. Coho salmon weigh on 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, and high abundance is 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 communications), 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 and an average total (Alaska and Canada) harvests since 2005 of about 39,500 fish (Appendix A13). Restrictions to subsistence fishing opportunity, because of poor run sizes of 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, and an average Alaska harvest of summer chum salmon since 2005 of 79,000 fish (Appendix A14), and an average total (Alaska and Canada) harvest since 2005 of 92,300 fall chum salmon (Appendix A15). Total (Alaska and Canada) subsistence coho salmon harvests since 2005 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 have averaged 6,100 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 late season coho salmon-directed commercial fishing if certain stipulations are met (such fisheries occurred in 2009–2011 and 2014). Since 2005, commercial harvests of Chinook salmon have averaged 13,300 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 2005 have averaged 249,700 fish (Appendix A14). As a

result of summer chum salmon run timing overlapping with Chinook salmon runs, commercial harvests have been limited by recent measures to conserve Chinook salmon. Fall chum salmon commercial harvests (Alaska and Canada) since 2005 have averaged 152,000 fish (Appendix A15), whereas coho salmon harvests since 2004 have averaged 53,700 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 maintaining important fisheries at the same time. The Alaska State Legislature and the Alaska Board of Fisheries (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. Because 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 emergency order (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 EOs 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 2015, 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 relative abundance. Additionally, test fishing utilized drift gillnets from June through July 15 to provide an index of Chinook and summer chum salmon run abundance, 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. A test fishery in Mountain Village has been operated by the Asa'carsarmiut Traditional Council to index fall chum and coho salmon run timing and relative abundance using drift gillnets. 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 locally operated test fish wheel was also used to generate CPUE data in Fort Yukon for a portion of the Chinook salmon season.
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. These projects include associated test gillnet fisheries for the purpose of species apportionment applied to the sonar counts.
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.
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 escapement sampling uses vertebra from carcasses 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. Otolith samples paired with scales were collected from coho salmon in the Lower Yukon test fishery as part of an aging verification project.
6. *Genetic Stock Identification:* Genetic samples were collected from Chinook and chum salmon caught in the select test fisheries throughout the drainage. Analyses of Chinook and chum salmon were conducted to identify various stocks for inseason management purposes. Samples were also collected from subsistence-caught Chinook salmon in District 4 and Subdistrict 5-D. In addition, genetic samples were collected during fall season from chum salmon harvested in the District 1 commercial fishery and the subsistence fishery in a portion of District 5 located between Tanana and Rapids. Finally, this was the first year that coho salmon were also sampled in the mainstem sonar test fishery near Pilot Station.
 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. The Chena River project was also supplemented with sonar operations to determine passage estimates during high water events. 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. Fishing Branch River weir was reinstalled and operated by DFO to enumerate fall chum salmon and assess meeting treaty obligations.
 10. *Juvenile Studies:* Yukon Delta Smolt Project: 2-boat tow nets were used to assess juvenile salmon as they migrate out of the Yukon River Delta and into the marine environment. This was the second year of 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*: The second year of a large-scale radiotelemetry project (ADF&G) was conducted to estimate abundance and distribution of summer chum salmon above Russian Mission in 2015. The goal of this multi-year study was to determine the migratory characteristics, abundance, and spawning distribution of summer chum salmon. The project 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.

The Yukon River Chinook salmon 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 3-year 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 and 2014.

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 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 2014. 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 and 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: 36 hour periods twice a week;
- (3) District 4 and Subdistricts 5-A, 5-B and 5-C: 48hour periods twice a week;
- (4) District 6: 42 hour periods twice a week; and
- (5) Old Minto Area: 5 days per week.

ALASKA BOARD OF FISHERIES ACTIONS

The BOF took up 2 Yukon Area proposals out of the Arctic-Yukon-Kuskokwim meeting cycle at the statewide Dungeness crab, shrimp, miscellaneous shellfish and supplemental issues meeting that was held in Anchorage March 17–20, 2015.

Proposal 273 sought to allow subsistence fishermen in the upper portion of Yukon Area Subdistrict 4-A to use driftnets to catch summer chum salmon from July 15 to August 2. This proposal was amended to allow ADF&G, by EO, to open a summer chum salmon drift gillnet fishery from June 10 through August 2 in the upper portion of Yukon Area Subdistrict 4-A during times of Chinook salmon conservation. Under the new regulation, fishermen in the upper portion of Yukon Area Subdistrict 4-A, upstream from the mouth of Stink Creek, may use drift gillnets to harvest summer chum salmon, by EO, from June 10 through August 2. All other existing drift gillnet specifications remain unaltered.

Proposal 274 sought to provide the flexibility to allow subsistence fish wheel fishermen in the Yukon Area to retain Chinook salmon when some harvest is justified based on inseason run assessment information. When a small incidental Chinook salmon subsistence harvest is justified based on inseason run assessment, ADF&G can allow Chinook salmon retention in fish wheels when gillnets are being restricted to 6.0 inch or smaller mesh. Previous regulations required that when 6.0 inch or smaller mesh size gillnets were implemented during times of Chinook salmon conservation, then fish wheel fishermen had to man the fish wheels and release all Chinook salmon. Adoption of this proposal allows ADF&G, by EO, to implement 1 or more of the following gear specifications during times of Chinook salmon conservation: gillnets restricted to 6.0 inch or smaller mesh size, fish wheels equipped with a live chute or manned fish wheels, or dip nets. By providing ADF&G flexibility to implement 1 or more of those gear specifications, ADF&G now has the ability to allow subsistence fish wheel fishermen to retain some Chinook salmon caught in fish wheels when an incidental harvest is justified based on inseason Chinook salmon run assessment.

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 Federal Subsistence Board (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

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 during the 2014 season. 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, 2014. The FSB later met April 15–18, 2015, 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. During the meeting, the FSB took no action on these deferred special actions requests for implementing a priority for federally qualified rural subsistence users for Yukon River Chinook salmon as the federal inseason manager already has authority to open and close subsistence fisheries based on a subsistence priority over other uses.

Additionally, on June 3, 2015, the FSB received a request for a cultural and educational Chinook salmon harvest permit from the Ruby Tribal Council. The Office of Subsistence Management conducted a staff analysis which they presented to the BOF. The BOF deliberated the request,

awarding the Ruby Tribal Council a permit to harvest up to 6 Chinook Salmon by set gillnet between June 14 and June 15, 2015 in the federal public waters adjacent to the Nowitna National Wildlife Refuge. Furthermore, the BOF gave the federal inseason subsistence fishery manager delegated authority to approve similar requests by the Ruby Tribal Council in future years.

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 and the federal management authority is primarily limited to overlapping waters adjacent to Federal Conservation Units. During the 2015 fishing season, federal managers issued 63 Streamlining Actions (60 summer; 3 fall) which aligned federal regulations with state regulations that were established through state emergency order (EO) authority. Management of the Yukon Area commercial fishery by the state prompted issuance of 6 Federal Memorandums of Concurrence (4 summer; 2 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 2015 season which would be used to implement changes in federal rules that differ from state regulations.

CANADIAN YUKON RIVER SALMON FISHERY

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.

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 by user group since 1961. DFO has provided annual harvest data from the Canadian portion of the Yukon River drainage since 1962.

U.S./Canada Yukon River Salmon Panel and Treaty Negotiations

The U.S. and Canada initiated negotiations in 1985 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 Yukon River Panel (Panel), comprised of delegates from the U.S. and Canada, was formed to implement the YRSA. The focus of the Panel was 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 harvest share target ranges based on a postseason run assessment 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 Panel meets semiannually and advises the United States and Canadian governments on the conservation and management of 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 jointly reviewed and agreed upon each spring prior to the salmon returns.

For the 2015 season the Panel agreed to 1 year Canadian interim management escapement goal (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 2016). The 2015 interim goal for Fishing Branch River fall chum salmon was 22,000 to 49,000 fish based on weir counts. 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

Prior to 2005, cooperative U.S./Canada management of Canadian-origin Yukon River Chinook salmon was based on an agreed-upon escapement goal range of 33,000–43,000 fish. 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 sonar-based escapement goal. 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 between 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 fish, 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 Chinook salmon) be used for a second year.

In 2010, the JTC recommended that the IMEG be established as a range to incorporate uncertainty in numbers reported 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 for 2015, given 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 harvest 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 1982–2014. 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 2015, the JTC recommends 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 (86,600 fish) which was derived prior to the returns from the exceptional 2005 spawning escapement of 437,498 fall chum salmon. A range was established to offer more flexibility with respect to uncertainties associated with management. Returns from the high 2005 escapement have 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 including 2015 operations and only 5 times since 1985 when the full season weir operation was the primary assessment project. 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 PSARC review (Tanasichuk 2002).

The YRSA goal of 50,000–120,000 fish was achieved only once over the 2 fall chum salmon 4-year 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.

The use of this IMEG range has continued to be endorsed because no new data for analysis has become available (Appendix A19). The 2012 and 2015 Fishing Branch weir counts and run size estimates 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.

Some attempts were made in 2013–2014 to assess the Fishing Branch River escapement based on a combination of projects operated near the community of Old Crow including sonar estimates of fall chum salmon and the proportion of Porcupine River chum salmon radio tag recoveries upstream of the weir site. However, because there are concerns about the tagging portion of this study, comparing it to the weir goal is not substantiated. In 2015, the Fishing Branch River weir was reinstated and provided an estimated escapement of 8,400 fish. Concurrently the Porcupine River sonar and radiotelemetry were operated and suggested 15,000 fish migrated to the Fishing Branch River (JTC 2016). Both estimates confirm the fall chum salmon escapement goal for the Fishing Branch River IMEG (22,000–49,000 fish) was not met.

In 2015, all projects within the Porcupine River drainage had issues with record high water most of the fall season. In 2016, DFO is attempting to integrate sonar into the weir project which should help with assessing passage during periods of high.

2015 SALMON MANAGEMENT AND HARVESTS

Total Yukon Drainage Salmon Harvest

The total 2015 harvest for the Yukon River drainage, including Canada, was 7,812 Chinook, 424,669 summer chum, 282,455 fall chum, and 147,786 coho salmon (Table 2). The 2015

estimated total Yukon River drainage harvests compared to the recent 5 year (2010–2014) averages were as follows: Chinook salmon was 73% below average (Appendix A13); summer chum salmon 6% below average (Appendix A14); fall chum salmon 3% above average (Appendix A15); and coho salmon 81% above average (Appendix A16). The subsistence harvest in the Alaska Coastal District (Scammon Bay and Hooper Bay) of 966 Chinook; 20,468 summer chum; 198 fall chum; and 174 coho salmon brought the total Yukon Area harvest, excluding Canadian harvest, to 7,754 Chinook salmon, 445,137 summer chum, 278,200 fall chum, and 147,960 coho salmon (Appendices A13–A16).

Alaska Commercial Fishery

A total of 8 salmon processors and/or catcher-sellers registered in the Alaska portion of the Yukon Area in 2014 (Table 3). The total 2015 commercial harvest for the Yukon Area in Alaska was 0 Chinook; 358,856 summer chum; 191,470 fall chum; 129,700 coho and 7,387 pink salmon (Tables 2, 4, 5, 6, and 7). The 2015 commercial harvest totals compared to the respective most recent 5-year averages (2010–2014) were as follows: summer chum salmon 2% below average (Appendix A14); fall chum salmon 8% above average (Appendix A15); and coho salmon 50% above average (Appendix A16). The commercial sale of Chinook salmon was not allowed in 2015 (or in 2012–2014) because of conservation concerns (Appendix 13). A total of 486 permit holders participated in the 2015 commercial fishery compared to the 2010–2014 average of 470 permit holders (Appendix A8). Yukon River fishermen in Alaska received an estimated \$2.6 million for their salmon harvest in 2015 compared to the 2010–2014 average of \$2.9 million (Appendix A11).

Chinook and Summer Chum Salmon Assessment

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

Initial assessment in the lower river is critical to implementing an inseason management plan throughout the drainage. Three projects on the lower river provided run timing information and inseason abundance: the Lower Yukon test fishery (LYTF), an 8.5 inch setnet 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 inch mesh operated in the Middle and South mouths of the Yukon River; and a mainstem sonar project located near Pilot Station which provides abundance estimates for Chinook and summer chum salmon. Additional drift gillnet test fishing with 8.25 inch mesh was conducted throughout the season in the South Mouth only 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. Chinook salmon caught in drift and setnets that were deemed healthy were released alive immediately. Any Chinook salmon mortalities were delivered to Tribal Councils in various villages for distribution to village elders. Additionally, setnet test fishing in the South Mouth for Chinook salmon was discontinued once the first pulse of Chinook salmon was identified.

Ice break up at the mouth of the Yukon River occurred from May 18–19, which was about 4 days earlier than the average break up date of May 22 (Appendix 22). The first summer chum salmon of the year was caught in the 5.5 inch drift gillnet test fishery on May 24, about a week earlier than the average date of June 3. The first subsistence-caught Chinook salmon was reportedly harvested on May 27, 3 days earlier than the average date of May 30 (Appendix A22). ADF&G relied on subsistence harvest reports to guide initial management actions during the early portion of the salmon runs.

The LYTF was operational at the South Mouth site on May 28 and at the Middle Mouth site on June 6. The first Chinook salmon caught in the test fishery was on May 28. In an effort to reduce Chinook salmon mortality, the setnet site located in the Big Eddy area of the South Mouth was discontinued after June 13. Additionally, only 1 setnet site operated in Middle Mouth in a further effort to reduce Chinook mortality. The LYTF concluded operations on July 13 with a cumulative CPUE of 39.99, which was above the historical average CPUE of 21.86 (Appendix B6). The first quarter point, midpoint, and third quarter point were June 15, June 25, and June 30, respectively. The 8.25 inch drift gillnet project for Chinook salmon operated in Big Eddy until July 15 and provided valuable supplemental run timing information for Chinook salmon entering the South Mouth of the Yukon River. In accordance with the goal of reducing Chinook salmon mortality, 506 Chinook salmon were released from the LYTF and the 8.25 inch drift gillnet test fishery.

The preliminary cumulative passage estimate at the sonar project located near Pilot Station was approximately 116,100 Chinook salmon (Appendix E3), which was below the recent historical average¹ of 144,000. Chinook salmon entered the river in 4 pulses consisting of 15,500 fish, 27,500 fish, 9,800 fish, and 31,300 fish each. Inseason run assessment analysis was focused on making comparisons to years with similar run timing in order to make informed management decisions. However, assessment of the 2015 run timing was complicated by the early entry of Chinook salmon into the river after an early ice out followed by a delayed buildup of fish in the river. The first quarter point, midpoint, and third quarter point for the sonar project near Pilot Station were on June 18, June 24, and June 29, respectively, which were similar to historical averages. Although the 2015 Chinook salmon run entered the river early, the run timing was close to historical average run timing.

An estimated 1.4 million summer chum salmon passed the sonar project located near Pilot Station (Appendix E3), which was below the historical median of 1.7 million for the project. The first quarter point, midpoint, and third quarter point were June 21, June 28, and July 2, respectively. Four large pulses of summer chum salmon were detected with the largest group, approximately 363,300 fish, passing the sonar project from June 27–June 29.

Summer Season Subsistence Fishery Summary

As in recent years, management of the 2015 summer salmon season was based on the disparity in run strength between the overlapping Chinook and summer chum salmon runs.

In response to what was initially expected to be an early and weak Chinook salmon run, a precautionary management approach was taken following break up by restricting gillnets to 6.0

¹ Average includes years 1995, 1997, 2000, 2002–2008, and 2010–2014. The sonar did not operate in 1996 and project difficulties occurred in 2001, and 2009.

inch or smaller mesh beginning May 20 in the Coastal District and Districts 1 and 2. The intent was to have a gear restriction already in place as Chinook salmon began their migration and still providing fishing opportunity for non-salmon species (e.g., sheefish) traditionally harvested in the Lower Yukon Area immediately following break up. This gear restriction was also implemented in upriver districts chronologically prior to the arrival of Chinook salmon in each district.

Consistent with the preseason management plan, conservative actions were broadly implemented early in the Chinook salmon run. Subsistence salmon fishing was closed in the Northern portion of the Coastal District and Districts 1 and 2 on May 30. Subsistence salmon fishing closures were similarly implemented in upriver districts chronologically as Chinook salmon migrated through these areas. Based on the expectation that the 2015 Chinook salmon run would be weak, these closures were expected to be in place for nearly the entire duration of the Chinook salmon run unless inseason assessment projects indicated that escapement goals would probably be met.

Subsistence fishing opportunity was provided during subsistence salmon closures for the harvest of non-salmon species, such as sheefish, whitefish species, and Northern pike, with 4.0 inch or smaller mesh gillnets not exceeding 60 feet in length. This opportunity to harvest non-salmon species was allowed at all times during subsistence salmon fishing closures. ADF&G encouraged subsistence fishermen to avoid fishing in areas where Chinook salmon were known to migrate.

When assessment information indicated that summer chum salmon were beginning to enter the river, subsistence opportunity was provided 24 hours a day, 7 days per week with dip net gear in Districts 1 through 3, and with dip nets and live-release fish wheels in District 4. Chinook salmon were required to be immediately released alive from these selective gear types. Assessment information from the sonar project operated near Pilot Station and genetic analysis indicated a weaker-than-expected Canadian-origin Chinook salmon run, but that the run size was probably large enough to meet the border objective and could support a small incidental harvest of Chinook salmon. Subsistence fishing opportunities with gillnets restricted to 6.0 inch or smaller mesh was provided in Districts 1 through 4 between Chinook salmon pulses to more efficiently harvest summer chum salmon, and minimizing the incidental harvest of Chinook salmon. These gillnet openings were intended to target large groups of summer chum salmon passing through the area and any incidentally caught Chinook salmon could be kept for subsistence purposes. Efforts were made to protect Canadian-origin Chinook salmon in areas where the Alaska and Canadian stocks segregate and bank-orient. For example, subsistence salmon fishing in Subdistrict 4-B (north bank) remained restricted to selective gear types and gillnet opportunity was not provided until late in the season because Canadian-origin stocks primarily migrate along the north bank of the mainstem Yukon River in that area.

Once the majority of the Canadian-origin Chinook salmon run was through each district, subsistence salmon fishing restrictions were relaxed. Starting July 9, subsistence salmon fishing in Districts 1 and 2 was open with 6.0 inch or smaller mesh gillnets 24 hours a day, 7 days per week except for 6 hours before, during, and 6 hours after a commercial fishing period. On July 12, District 3 was put on their regulatory subsistence salmon fishing schedule of two 36-hour periods per week with gillnets restricted to 6.0 inch or smaller mesh and dip net fishing was discontinued. However, starting July 14, subsistence salmon fishing time in District 3 was relaxed to 24 hours a day, 7 days per week with 6.0 inch or smaller mesh gillnets to target summer chum salmon after most of the Chinook salmon had passed. Selective gear types were discontinued and subsistence salmon fishing with gillnets restricted to 6.0 inch or smaller mesh

was allowed on their regulatory schedules in Subdistrict 4-A Lower on July 15, and in Subdistrict 4-A Upper and 4-B and 4-C on July 19. Shortly after, subsistence salmon fishing with the restricted gillnets was allowed 5 days a week starting July 22 in all of Subdistrict 4-A and starting July 26 in Subdistricts 4-B and 4-C.

Although the subsistence salmon fishing closures were similarly implemented in District 5, harvest opportunity with selective gear types was not provided as very few summer chum salmon migrate through the upper river. The most severe reductions in subsistence fishing opportunity occurred in Subdistricts 5-A, 5-B, and 5-C due to uncertainty with run assessment through this area, and to avoid offering opportunity that would primarily target Canadian-origin Chinook salmon. Subsistence salmon fishing closed June 14 in Subdistricts 5-A, 5-B, and 5-C and remained closed for the majority of the season. During the subsistence fishing closures, a 48-hour 6.0 inch gillnet and fish wheel subsistence fishing opportunity was provided in Subdistrict 5-A along the south bank to harvest summer chum salmon and, as indicated by genetic MSA, the stronger Chinook salmon stock component bound for the Tanana River. Another 24-hour subsistence salmon fishing opportunity was provided on July 16 in Subdistricts 5-A, 5-B, and 5-C given the cumulative passage of Chinook salmon at the sonar projects operated near Pilot Station and Eagle indicated that the lower end of the border objective would be met. Subsistence salmon fishing in Subdistricts 5-A, 5-B, and 5-C opened on their regulatory schedule of two 48-hour periods per week on July 21 but were then liberalized to 5 days per week on July 28 once it was highly likely that the upper end of the border objective would be exceeded. Gear restrictions were relaxed on July 29 and fishermen could use 7.5 inch or smaller mesh gillnets and fish wheels to harvest salmon.

As in previous years, Subdistrict 5-D was further divided into 3 areas to allow for more management precision and flexibility when implementing management actions. Following actions taken in the lower river, Subdistrict 5-D Lower, Middle, and Upper were restricted to 6.0 inch or smaller mesh gillnets prior to the arrival of Chinook salmon. As discussed at preseason meetings, fishermen in Subdistrict 5-D Lower, Middle, and Upper were provided a few days to fish on the early trickle of Chinook salmon prior to the first pulse closures on June 29, July 3, and July 5, respectively. Similar to Subdistricts 5-A, 5-B, and 5-C, a 24-hour subsistence salmon fishing opportunity with 6.0 inch or smaller mesh size gillnets was provided on July 19 in Subdistrict 5-D Lower and Middle. Another 36-hour subsistence fishing opportunity was provided on July 23 in Subdistricts 5-D Lower and Middle and on July 24 in Subdistrict 5-D Upper. Subsistence salmon fishing opened 24 hours a day, 7 days per week on July 27 in Subdistricts 5-D Lower and Middle and on July 28 in Subdistrict 5-D Upper once confidence was gained that the upper end of the border objective would be exceeded. Gear restrictions were also relaxed on July 29 and fishermen could use 7.5 inch or smaller mesh gillnets and fish wheels to harvest salmon.

Conservative management actions were also taken in Yukon River tributaries in an effort to provide protection for Alaska Chinook salmon stocks. In the Tanana River (Subdistricts 6-A and 6-B), subsistence salmon fishing remained on its regulatory schedule of two 42-hour periods per week for the entirety of the Chinook salmon season. However, gear was restricted to 6 inch or smaller mesh gillnets and manned fish wheels. On July 17, fishermen were no longer required to attend their fish wheels and could retain Chinook salmon for subsistence use. Both escapement projects on the Tanana River met their escapement goals; therefore, starting July 31, gillnet restrictions were relaxed and fishermen could use 7.5 inch or smaller mesh gillnets. In

Subdistrict 6-C, personal use salmon fishing was closed from June 19–July 16, spanning nearly the entire duration of the Chinook salmon run. The Koyukuk and Innoko rivers were closed to subsistence salmon fishing from June 25–July 3 and June 26–July 3, respectively. Subsistence salmon fishing reopened 24 hours a day, 7 days per week with gillnets restricted to 6.0 inch or smaller mesh to target summer chum salmon beginning July 4. This gear restriction was in place for the remainder of the Chinook salmon run in both tributaries.

The 2015 Chinook salmon run was conservatively managed throughout the season. The final cumulative passage at the sonar project operated near Eagle indicated that the run was better than expected. 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 in 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. Hopefully, subsistence fishermen can reap the benefits of their conservation efforts with improved runs in the years to come.

Summer Season Commercial Fishery Summary

For the eighth consecutive year, no commercial periods targeting Chinook salmon were allowed in the mainstem Yukon River or in the Tanana River in 2015. Sale of Chinook salmon was prohibited for the fifth consecutive year. However, liberal commercial fishing opportunity with selective gear was provided to target the available surplus of summer chum salmon in Districts 1, 2, and 6. No buyer operated in Subdistrict 4-A in 2015, therefore, no commercial openings were provided in that subdistrict. Because Chinook salmon are encountered incidentally in the commercial summer chum salmon fishery, a suite of strategies were used to conservatively manage these fisheries to minimize the impact to the weak Chinook salmon run.

Lower Yukon Districts

An early break up and the use of selective gear types allowed ADF&G to open commercial harvest of summer chum salmon using dip nets and beach seines beginning June 11 in District 1 and June 15 in District 2 (Table 4). The impact to Chinook salmon was expected to be minimal as fishermen were required to immediately release all incidentally-caught Chinook salmon back to the water alive from dip net and beach seine gear. ADF&G allowed two 10-hour and seventeen 12-hour periods in District 1 and twenty 10-hour periods in District 2 using dip nets and beach seines only. The combined harvest in Districts 1 and 2 with selective gear types was approximately 227,200 summer chum salmon with 9,500 Chinook salmon reported released alive. Dip nets accounted for the majority of the summer chum salmon harvest taken with selective gear types as only a few fishermen used beach seines to commercially harvest summer chum salmon in 2015.

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 the incidental harvest of Chinook salmon. In District 1 only, commercial opportunity with 5.5 inch or smaller mesh gillnets not exceeding 30 meshes in depth was provided for 3 periods in a further attempt to reduce the incidental harvest of Chinook salmon. Once managers were confident that the majority of the run had migrated out of each district, gillnet opportunity with 6.0 inch gillnet gear was provided for the remainder of the summer season beginning on July 7 in District 1 and July 6 in District 2 (Table 4).

Concurrent subsistence and commercial fishing periods were regularly instituted throughout the commercial fishing season. Concurrent openings streamlined commercial and subsistence fishing into a single event, thereby reducing the amount of time that Chinook salmon were susceptible to harvest. However, subsistence-only fishing periods were regularly provided in the mornings prior to commercial fishing periods to provide subsistence users a less competitive opportunity to harvest summer chum salmon.

The sale of incidentally-caught Chinook salmon was prohibited during the entire commercial fishing season (both summer and fall seasons). This action helped ensure fishermen would not target Chinook salmon during gillnet commercial fishing periods; and fishermen could either release incidentally caught Chinook salmon alive or use them for subsistence purposes. It was required to report any Chinook salmon caught but not sold on fish tickets. An estimated 3,400 Chinook salmon were reported incidentally harvested in Districts 1 and 2 during the summer season commercial gillnet fishery. A total of 99 Chinook salmon were caught but not sold in the fall season (Table 4).

The cumulative summer chum salmon commercial harvest for Districts 1 and 2 for all gear types combined was 354,086 fish (Table 4). Lower Yukon Area fishermen also harvested 3,347 pink salmon and 113 coho salmon during the summer season. In the lower river, the summer chum salmon harvest was 21% above the 2010–2014 average harvest of 292,813 fish (Appendix A14). Dip net and beach seine harvest was a significant contributor (approximately 64% of the total harvest) in making the 2015 summer chum salmon harvest in the Lower Yukon the third largest since 2004.

Upper Yukon Districts

No commercial fishery operated in District 4 in 2015 due to a lack of a buyer.

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 13 (Table 4). In line with conservative actions taken in the lower river commercial fishery, commercial fishing gear was initially restricted to fish-friendly (as defined in regulation) manned fish wheels and all Chinook salmon caught had to be immediately released alive. Gear restrictions were relaxed on July 24 after Chinook salmon escapement goals on the Chena and Salcha rivers were met. Starting with the fourth commercial fishing period on July 24, fishermen were allowed to use 6.0 inch or smaller mesh size gillnets and were no longer required to attend their fish wheels or release Chinook salmon alive from fish wheels. ADF&G scheduled 8 commercial fishing periods. The 2015 cumulative harvest was 4,770 summer chum salmon, 347 Chinook salmon released alive from fish wheels, and 84 Chinook salmon kept for personal use.

Summer Season Harvest, Effort, and Exvessel Value

There were a total of 62 commercial periods (Table 4) in 2015 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, and 6 combined was 358,856 summer chum salmon, which 3% below the 2010–2014 average harvest of 368,771 fish (Appendix A4).

A total of 437 permit holders participated in the summer chum salmon fishery, above the 2010–2014 average of 419 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 435 permit holders fished in the Lower Yukon Area in 2015, which is above the 2010–2014 average of 409 permits fished. In the Upper Yukon Area, 2 permit holders fished, which was below the 2010–2014 average of 10 permits fished. (Appendix A8).

Yukon River fishermen in Alaska received an estimated \$1.3 million for their summer chum salmon harvest in 2015, which was below the 2010–2014 average of approximately \$1.4 million (Appendix A11). The Lower Yukon Area exvessel value (including pink salmon) was estimated to be \$1.3 million. In 2015 fishermen received \$0.60 per pound for summer chum salmon and \$0.12 per pound for pink salmon (Appendix A10). The estimated average income for Lower Yukon Area fishermen in 2015 was \$3,080.

In 2015, Upper Yukon Area fishermen received an average of \$0.23 per pound for summer chum salmon sold in the round which was below the 2010–2014 average of \$0.29 per pound (Appendix A10). The Upper Yukon Area exvessel value for summer chum salmon was estimated to be \$7,166. The estimated average income for Upper Yukon Area fishermen in 2015 was \$3,583.

Fall Season 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 subsequent transition of upriver districts and subdistricts to the fall season management was based on the migration timing of fall chum salmon.

Fall chum salmon run strength was assessed to be above the historical median for the majority of run, and at median for the rest of it. Six pulses of fall chum salmon entered Yukon River in 2015. The first, and largest pulse, entered from July 16 through July 17 and contained approximately 119,000 fall chum salmon. The Lower Districts (1–3) were placed on their full regulatory subsistence schedules, and the first fall chum salmon directed commercial openings occurred on July 20 in District 1, and July 22 in District 2. From then through the first week in August, 2 relatively small pulses of fall chum salmon (approximately 18,000 and 31,000 fish in size) entered Yukon River. As the fall chum migration advanced upriver, districts and subdistricts were placed on their full regulatory schedules.

The fall chum salmon run strength remained above historical median levels and commercial fishing in Districts 1 and 2 remained on a 2 period per week schedule through the middle of August. The duration and timing of the commercial periods were altered to some extent as managers attempted to get groups of fall chum salmon upriver for subsistence use. In addition, there was a commercial opening in Subdistrict 5-B and 5-C from August 11 through August 16, although the harvest of fall chum salmon was small.

As a result of the severe Chinook salmon restrictions put in place in the Yukon area this season, opportunity to harvest fall chum salmon for subsistence was increased. By August 5 subsistence salmon fishing in all mainstem Yukon Districts was open 7 day per week, 24 hour per day.

From August 17 through August 22, low numbers of fall chum salmon entered Yukon River and during that time the commercial fishing schedules in Districts 1 and 2 were reduced to 1 period per week. Also, fall chum run strength dropped to historical median levels after having been

above average for the season. However, between August 19 and the end of month, the final 2 pulses of fall chum salmon entered Yukon River, both numbering approximately 60,000 fish. Fall chum salmon run strength returned to above median levels, and fall chum salmon commercial fishing returned to a 2 period per week schedule for the remainder of the season.

In late August, it was determined that fall chum escapement to the Fishing Branch River (a tributary of the Canadian portion of the Porcupine River) would not meet the established IMEG. As a result, in an attempt to improve the number of fall chum salmon reaching the Fishing Branch River, subsistence salmon fishing in the Alaska portion of the mainstem Porcupine River, as well as areas on the Yukon River surrounding the confluence with Porcupine River, were closed for the remainder of the season.

Finally, commercial fishing for salmon in District 6 opened on August 21 and remained on a schedule through October 14. Because of a poor market conditions for roe, 1 buyer operated briefly in the district, but the majority of harvest was by catcher-sellers operating in the district. Subsistence fishing opened to 7 days per week, 24 hours a day on October 2.

Coho salmon daily and cumulative passages past the mainstem sonar were mostly below the historical median for the entire season. However the commercial harvest of coho in Districts 1 and 2 combined was the highest on record. Therefore the coho salmon run in 2015 was assessed as above average. ADF&G determined that a commercial surplus in addition to what was harvested during the fall chum salmon directed fisheries existed, and 2 coho salmon directed commercial openings each were allowed in both Districts 1 and 2.

Harvest, Effort and Exvessel Value

A total of 44 commercial periods were announced in 2015; the majority of the commercial fishing periods and harvest occurred in Districts 1 and 2 (Table 5). A regular schedule of commercial fishing periods was established in Districts 5 and 6 but as a result of limited markets, fishing effort was low and harvests were relatively small. The 2015 total commercial harvest for the Yukon River fall season in the Alaska portion of the drainage was 191,470 fall chum (Tables 6 and 7, Appendix A5), 129,700 coho salmon (Tables 6 and 7, Appendices A6), and 4,031 pink salmon. Fall chum salmon commercial harvest was above 10-year (2005–2014) average of 176,974 fish (Appendix A5) The coho salmon harvest was the highest on record, eclipsing the previous high of 106,696 fish in 1991. The 10-year (2005–2014) average coho salmon commercial harvest is 65,151 fish. All salmon were sold in the round and no salmon roe was sold separately. The average weight of both fall chum salmon and coho salmon caught commercially in Districts 1 and 2 was 7.3 lb (Appendix A12). The average price paid per pound in Districts 1 and 2 (Lower Yukon Area) was \$0.60 for fall chum and \$0.70 for coho salmon (Appendix A10). Both prices were below their respective most recent 5-year (2009–2013) averages. In Subdistricts 5B and 5C and in District 6 (Upper Yukon Area), the average price paid per pound was \$0.14 for fall chum and \$0.12 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 \$1,402,884: \$777,825 for fall chum and \$623,042 for coho salmon (Appendix A11). A total of 446 individual permit holders participated in the 2015 fall chum and coho salmon fishery; 440 in Districts 1 and 2 combined and 6 in Districts 5 and 6 combined (Appendix A8).

Yukon Area Subsistence Salmon 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 largely unrestricted and open according to regulatory schedules. A total of 7,574 Chinook; 83,787 summer chum; 86,680 fall chum; 18,252 coho salmon (Table 8); and 2,645 pink salmon (Appendix D5) were estimated to have been harvested for subsistence and personal use 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 received from test fishing projects, retained from commercial fisheries for subsistence, and salmon harvested by households with subsistence and personal use permits. An estimated 1,342 households participated in the Yukon Area subsistence and personal use fisheries in 2015 with 41%, 39% and 5% of households using drift gillnets, set gillnets and fish wheels respectively as their primary gear types (Table 8). The remaining 15% 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 2015 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 2015 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 (194 households). More surveyed households were estimated to use drift gillnets (547) than set gillnets (421) as their primary gear types. A total of 44 households were estimated to use fish wheels as their primary gear type (Table 8).

A total of 354 subsistence permits were issued in 2015 for the harvest of salmon and nonsalmon species. The number of subsistence fishing permits 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 4, 2016, 99% percent of the permits issued were returned and 174 permits reported fishing information (Appendices D6 and D7). 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 1,140 Chinook; 817 summer chum; 30,979 fall chum; and 7,817 coho salmon (Appendices D6 and D7). Salmon harvested commercially and reported as retained for subsistence on fish tickets are added to permit harvests in permit areas. In 2015, 84 Chinook, 18 summer chum, 72 fall chum, and 185 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 2015 was 33% below the recent 5-year average (2010–2014) and 37% below the recent 10-year average (2005–2014). Harvest of Chinook salmon reported on permits was 65% below the recent 5-year average and 80% below the recent 10-year average. The harvest of summer chum salmon in 2015 was 41% and 45% below the recent 5-year average and recent 10-year averages respectively. Fall chum salmon harvest was 8% above the 5-year and 10-year averages, and coho salmon harvests were 97% and 98% below the recent 5-year and 10-year averages respectively (Appendix D6).

The number of permits issued in the Tanana River subsistence permit required areas in 2014 was 4% below the recent 5-year average (2010–2014) and 1% below the recent 10-year average (2005–2014). Harvest of Chinook salmon in Tanana River subsistence fisheries was 46% below the recent 5-year average and 63% below the recent 10-year average. The harvest of summer chum salmon was 67% below the recent 5-year average, and 78% below the recent 10-year average. Harvests of fall chum salmon were 22% and 32% below the recent 5-year and 10-year averages. Coho salmon harvests were 22% above recent 5-year average, and 6% above recent 10-year average (Appendix D7). 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 2015, test fishery projects throughout the drainage provided a total of 1,046 Chinook; 3,819 summer chum; 2,477 fall chum; and 894 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, Fort Yukon, Kotlik, Mountain Village, Nunam Iqua, Pilot Station, and St. Mary's 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 19 Chinook salmon given to residents of the permit community of Eagle from the Eagle sonar project (Deena Jallen, Commercial Fisheries Biologist, ADF&G, Fairbanks; personal communication).

Historic Trends and Amounts Necessary for Subsistence

A 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 2015 were below the lower level of their ANS ranges.

Salmon harvest estimates based on survey results indicated the 2015 Chinook salmon subsistence harvest was 71% below the recent 5-year average (2010–2014) and 84% below the previous 5-year average (2005–2009) (Appendix D1). The summer chum salmon subsistence harvest was 24% below the recent 5-year average and 11% below the previous 5-year average (Appendix D2). The harvest of fall chum salmon was 5% below the recent 5-year average and less than 1% above previous 5-year averages (Appendix D3). Coho salmon harvest was 16% above the recent

5-year average and 9% below the previous 5-year average (Appendix D4). Overall, the 2015 Yukon Area subsistence salmon harvest of 195,843 Chinook, summer chum, fall chum and coho salmon combined (Appendices D1–D4) was approximately 17% below the recent 5-year average (2010–2014) of 235,443 fish and 21% below the previous 5-year average (2005–2009) of 247,231 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 2015 harvest of Chinook salmon was the second lowest ever recorded during the ADF&G subsistence estimates from 1975 to present.

During the survey interviews, households had the opportunity to comment on any topic related to fishing they felt was important. The most numerous comments were personal in nature and regarded circumstances that affected an individual household's fishing effort such as health problems, work schedules, and time conflicts with other activities (215 responses). The next largest group of comments was that management actions were negative about management (206). A large number of households (115) said that they met their needs for salmon or that they didn't fish for salmon (71). Dip nets were mentioned by 58 households, with the majority having a negative opinion (47) of dip nets due to their inefficiency, difficulty of use, etc. The remaining 11 households liked using dip nets. More households said that run dynamics were poor (48) than good (37), however, run dynamics comments were about any salmon species. Some households (34) thought that management actions were good, and an additional 18 households approved of conservation measures or wanted more protections for Chinook salmon to help rebuild the run. An equal number of households (18 each) mentioned poor river conditions and firefighting activities as impacting fishing in 2015.

Several households in District 1 commented that they harvested a combined total of 65 Chinook and 335 summer chum salmon from the Norton Sound management area. Similar to other reports of salmon harvested from Bristol Bay or the Cooper River, these fish were not included in surveyed households harvest totals and were not used to generate Yukon Area harvest estimates (Deena Jallen, Commercial Fisheries Biologist, ADF&G, Fairbanks; personal communication). Households are not asked about specific harvest locations during the survey interviews, and salmon harvested 'up north' or 'near Stebbins' from the Norton Sound Area may have been included in current and previous Yukon Area subsistence estimates.

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 2015, 64 personal use salmon permits were issued. As of March 4, 2016, all personal use salmon permits were returned and 28 reported fishing. The reported personal use harvest was 5 Chinook, 220 summer chum, 80 fall chum, and 145 coho salmon (Appendix D8). The number of personal use permits issued areas in 2015 was 11% below the recent 5-year average (2010–2014) and 8% below the recent 10-year average (2005–2014). Harvest of Chinook salmon reported on permits was 93% and 95% below the recent 5-year and recent 10-year averages. The harvest of summer chum was 24% and 12% below the recent 5-year and recent 10-year averages, and fall chum salmon in 2015 was 91% and 83% below the recent 5-year and recent 10-year averages.

Harvest of coho salmon was 57% below the recent 5-year average and 38% below the recent 10-year average (Appendix D8).

Sport Fishery

In 2015, the sport fishery for Chinook salmon was closed in the Yukon River (excluding the Tanana River) on May 11. The Tanana Drainage was closed on June 19, well before Chinook salmon arrival to the clear water sport fisheries such as the Chena River. 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 (2010–2014) average Yukon River drainage (including Tanana Drainage) sport salmon harvest was estimated at 292 Chinook, 709 summer chum and 732 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. This area of responsibility is supervised by Northern Detachment, Deputy Commander Lt. Justin Rodgers stationed in Fairbanks, and a YK area Sergeant Marc Cloward stationed in Bethel.

In the lower and middle Yukon River, between June 10 and July 15, 2015, AWT used a team of 3 patrol troopers and 1 patrol sergeant to patrol Yukon River Districts 1–4 utilizing 2 PA-18 Super Cubs on floats and 1 Cessna 185 on floats. AWT also had a patrol skiff located in Saint Mary's. The Yukon River experienced an inadequate return of Chinook salmon and ADF&G placed restrictions that mirrored previous years. ADF&G did again, 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 while 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 commercial fishermen fishing out of bounds in both Emmonak and Kotlik areas. Overt and covert AWT patrols in both those areas revealed wide spread compliance. AWT discovered an illegal subsistence gillnet near Mountain Village where numerous King salmon had been wasted along with large numbers of miscellaneous other finfish. The investigation led to identifying the suspect and resulted in a successful prosecution of a Waste of Salmon case. Boating safety patrols were conducted in conjunction with commercial and subsistence patrols and overall compliance was very high regarding boater safety and commercial fishing vessel requirements. 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 roughly 500 AWT man hours, 450 contacts, 22 warnings, and 18 citations. The numbers of resource users contacted, warned, and cited were reduced from the previous year. The projected enforcement effort for 2016 has significant challenges in terms of available personnel (man power) and funding therefore it is anticipated that enforcement coverage may likely be reduced during the 2016 season.

In the upper Yukon River, in coordination with ADF&G, and in response to concern on behalf of ADF&G and members of the public regarding both gear restriction violations and suspected closure violations, AWT from the Fairbanks area conducted a 2-day boat patrol covering the portion of Yukon River from the bridge downriver to the village of Tanana. During the patrol

they made fairly low volume of contacts and issued no citations. A second patrol was planned but was not completed due to staffing, fiscal limitations, and needed repairs on the patrol boat. Patrols farther upriver were not conducted in conjunction with run timing in 2015 due to weather considerations, staffing, and fiscal limitations.

AWT conducted intermittent patrols of the Tanana River between Fairbanks and Old Minto. Patrols were also conducted beyond Nenana to the Tolovana River area. Again, contacts and participation were fairly low but AWT felt the patrols were worthwhile and will continue them in 2016.

Looking forward to 2016, AWT will remain committed to patrols in all these areas and will aspire to continue to maintain or increase their patrol presence in the upriver areas as staffing and equipment allow. AWT staffing in the Northern area of our Detachment is currently short 2 positions. Aniak is currently vacant but expected to be filled tentatively by July of 2016 and the Galena Post has been closed due to budgetary constraints. These vacancies affect our overall enforcement presence as both Post Troopers, especially Galena, have traditionally participated in Yukon R. fisheries patrols. The remainder of 2016 will in all likelihood also bring fiscal challenges that will affect man hours our Troopers are available to work and our ability to assign non-area Troopers to participate on a temporary basis during peak resource user times. We expect to reduce by at least 50% our premium pay budget that would normally be utilized to provide increased levels of man hours for coverage during peak resource use. 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 2015 Federal Wildlife Officers (FWOs) 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 based out of Emmonak and at various points between Alakanuk and Russian Mission. These 2 officers patrolled over 400 river miles checking numerous gillnets, dip netters and groups of fishermen. Two additional FWOs were assigned to patrol the middle River between Kaltag and Ruby. The upper Yukon received regular and recurring patrols by 3 FWO's. FWO's found only a few violations on the Yukon River in 2015. Overall, compliance was very good.

CANADIAN FISHERIES

A total of 1,204 Chinook salmon; 4,453 fall chum salmon; and 0 coho salmon were harvested in the 2015 Canadian commercial, Aboriginal, recreational, and domestic fisheries combined (Table 5; Appendices A13, A15, and A16).

Canadian Commercial Fishery

A total of 2,862 fall chum salmon were harvested in the Canadian Yukon River commercial fishery in 2015 (Appendix 15). No other salmon species were harvested for commercial purposes (Table 5). The 2015 fall chum salmon commercial harvest was slightly below the 5 year (2010–2014) average of 3,311 fall chum salmon (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.

The inseason Chinook salmon run status indicated that there would not be a sufficient run to support a commercial fishery. The commercial Chinook salmon fishery remained closed throughout the 2015 Chinook salmon season and there was no harvest (JTC 2016). 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 2,862 fall chum salmon were harvested during commercial fishery openings (JTC 2016). 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 2015 commercial fall chum salmon catch of 2,862 fish was 36% below the 2005–2014 average of 4,405 fish and 15% below the 2010–2014 average of 3,311 fish (JTC 2016). Between 2005 and 2014, the commercial fall chum salmon catch ranged from a low of 293 fish in 2009, when the run was late and the fishery was closed most of season due to conservation concerns, to a high of 11,931 fish in 2005.

Commercial harvest of coho salmon in the mainstem Yukon River in Canada is usually very small. 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 the commercial fishery in 2015.

Aboriginal Fishery

Mainstem Yukon River 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 59,000–70,000 Canadian-origin Yukon Chinook salmon, the YSSC recommended that the TAC be varied to zero early in the 2015 fishing season. Although a TAC was available later in the season, Yukon First Nation Governments continued to follow very conservative management plans resulting in severely reduced or, in many communities, zero harvest for 2015. The Upper Yukon River aboriginal Chinook salmon catch was estimated to be 1,000 fish (JTC 2016)

Mainstem Yukon River Fall Chum Salmon

The preseason outlook for Canadian-origin fall chum salmon in 2015 indicated an average to above average run of 236,000–294,000 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 fisheries. As inseason information became available, the First Nation fisheries proceeded without restrictions. The preliminary 2015 fall chum salmon harvest in the aboriginal fishery from the upper Yukon River was estimated to be 1,000 fish based on recent harvest information (JTC 2016).

Porcupine River Chinook Fall Chum and Coho Salmon

Vuntut Gwitchin First Nation (VGFN) reported a season total harvest of 204 Chinook salmon for 2015. The recent 10-year average (2005–2014) was 277 Chinook salmon.

A total of 556 fall chum salmon was harvested in the Old Crow-based VGFN fishery, which was 81% below the recent 10-year average harvest from 2005 to 2014 of 2,992 chum salmon. Approximately 75% of the retained catch was reported to be male.

There were no coho salmon harvested on the Porcupine River in 2015, compared to the 2005–2014 average of 150 fish. VGFN managers noted that citizens were unable to harvest coho salmon in 2015 due to unstable ice conditions on the Porcupine River during October and November (JTC 2016).

Domestic Fishery

The domestic fishery was closed during the Chinook salmon season. For fall chum, there were 2 openings (concurrently to the commercial fishery openings) during the season. There was a total reported domestic catch of 35 fall chum salmon in 2015. This compares to a long term average of 464 fish, from 1974 to 2014; domestic fishery catches were not recorded prior to 1974.

Recreational Fishery

In 1999, the Salmon Subcommittee introduced a mandatory Yukon Salmon Conservation Catch Card (YSCCC) to improve harvest estimates and to serve as a statistical base to ascertain the importance of salmon to the Yukon River recreational fishery. Anglers are required to report their catch and harvest by late fall. The information reported includes the number, species, fate (kept or released), sex, size, date, and location of all salmon caught.

From catch card information received as of this publication, no Chinook salmon were caught and no Chinook salmon were harvested in the Yukon River or its tributaries in the 2015 recreational fishery. The average number of Chinook salmon catch retained annually within the 2005–2014 period was 202 fish. For the 2015 season, the daily catch 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 2013 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 remainders are Chinook salmon goals 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 interim management escapement goals (IMEG) because they were provisionally established until the 2 parties can agree upon formal BEG analyses.

In May 2014, ADF&G began the escapement goal review cycle to prepare for the January 2016 Alaska Board of Fisheries 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 (Conitz et al. 2015).

Genetics

Scale pattern analysis, age composition estimates, and geographic distribution have 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 2015). 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. In 2015, genetic tissue samples were analyzed inseason for mixed stock analysis (MSA) from 380 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 (May 30–June 17) indicated that 50% were Canadian-origin Chinook salmon. Genetic MSA on the second pulse of Chinook salmon (June 18–25) indicated that only 39% were Canadian-origin Chinook salmon. Samples analyzed from June 26 to July 2) indicated that 31% were from Canadian-origin Chinook salmon (ADF&G 2016). 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 ($n = 1,026$) at the mainstem sonar operated near Eagle, Alaska were analyzed by DFO for their management of Canadian conservation units (JTC 2016).

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 2014, genetic analysis has been the primary method for stock identification. In 2015 too few tissue samples were collected from fish in the mixed stock harvests to be of use, therefore samples from the test fisheries or historical harvest proportions may be used as a surrogate.

Chum salmon genetic tissue samples were collected (May 31–August 31) (2,806 summer and 2,133 fall season) 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 2016). For summer chum salmon, the Lower River stock group comprised 73% of the run and the Middle River stock group comprised 27%. The Tanana component of the Middle River stock group comprised about 2% of the total summer chum salmon run, and peaked in passage past the mainstem Yukon River sonar at Pilot Station during the sampling periods of May 31 to June 21 with similarly high proportions from July 6 to July 18. 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 30% Tanana and 37% U.S. border (Chandalar, Sheenjek, and Black rivers). The composition of the Canadian contribution was 15% mainstem Yukon, 3% Porcupine, 14% White, and 1% Teslin rivers. Stock abundance estimates were derived by combining the Pilot Station sonar passage estimates with the stock composition estimates (subsample $n = 2,551$). 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 2015). Additionally, MSA analysis of samples collected ($n = 782$) at the mainstem sonar operated near Eagle, Alaska were analyzed by DFO for management of Canadian conservation units (JTC 2016).

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 recent Restoration and Enhancement fund projects (JTC 2016) are 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 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.

2015 Summer Season Escapement

Chinook Salmon Escapement

Although below average, the 2015 Chinook salmon run came in above the upper end of the preseason outlook range and all escapement goals that could be assessed were either met or exceeded. These include the escapement goals for the East Fork Andreafsky River weir, West Fork Andreafsky aerial, Anvik and Nulato rivers aerial indexes, and Chena and Salcha river towers (Appendix E4 and E5) and Border Passage (Appendix E6).

In 2015, aerial surveys for Chinook salmon occurred in the West Fork Andreafsky, Anvik and Nulato rivers (1,356; 2,616; and 1,564 Chinook salmon counted respectively; Appendices E2 and E4). Aerial surveys on the both east and west forks of the Andreafsky River were conducted under fair and poor conditions due to glare. Surveys were also conducted in Atchuelinguk and Bonasila rivers also under fair to poor conditions with approximately 530 Chinook salmon counted in the 2 systems. Surveys conducted in the Rodo, Kaltag Nulato and Gisasa rivers were flown under good conditions. The 2015 Yukon River aerial surveys for Chinook salmon were conducted at or before peak spawning as very few carcasses were observed. 2015 was the second year in the last 5 years that the aerial Anvik River SEG of 1,100–1,700 Chinook salmon was met. But it was the fourth of 5 years that the SEG (640–1,600) for the West Fork Andreafsky has been met. The SEG of 940–1,900 on the Nulato River was met the last 4 out of 5 years it was surveyed, not including 2014 which could not be surveyed (Appendix E4).

A weir was operated on the East Fork Andreafsky River by USFWS. The estimated passage in 2015 was 6,705 Chinook salmon, which exceeds the upper end of the SEG (2,100–4,900) by over 1,000 fish. This goal has been met in 4 of the last 5 years (Appendix E5). Age, sex, and length data were collected from 547 Chinook salmon caught in the weir trap. The estimated age composition was 0% age-3, 38.4% age-4, 14.3% age-5, 47.3% age-6, and 0% age-7 fish. The sex composition of fish sampled was 39.7% female and 60.3% male (JTC 2016).

The Gisasa River weir was operated by USFWS, and the passage estimate was 1,319 Chinook salmon (Appendix E5). The 2015 cumulative count on the Gisasa River was below the 10-year (2005–2014) average of 1,951 Chinook salmon. Age, sex, and length data were collected from 243 Chinook salmon caught in the weir trap. The estimated age composition from scale samples was 0% age-3, 25.9% age-4, 39.5% age-5, 33.7% age-6, and 0% age-7. The sex composition of fish sampled was 29.6% female and 70.4% male (JTC 2016).

Escapement through the weir operated at Henshaw Creek by the Tanana Chiefs Conference and USFWS Office of Subsistence Management was estimated at 2,391 Chinook salmon (Appendix E5). Age, sex, and length data were collected from 459 Chinook salmon caught in the weir trap. The estimated age composition from scale samples was 0% age-3, 24.6% age-4, 40.7% age-5, 34.4% age-6, and 0.2% age-7 fish. The sex composition of fish sampled was 41.4% female and 58.6% male (JTC 2016).

BEGs have been established 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 River was monitored using tower counts with counts supplemented using DIDSON sonar during high water events. The Salcha River is also monitored using tower counts however the project was affected by water intermittently throughout the season.

The 2015 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 6,291 Chinook salmon were counted in the Chena River, which exceeds the escapement goal range of 2,800–5,700 (Appendix E5). This goal has been met 2 of the last 5 years that could be assessed (Appendix E5). Chinook salmon escapement was not solely estimated using the tower project because it was affected by high water conditions throughout the season. Final estimates used a binominal mixed-effects model to create passage estimates for the period of missed counts prior to the start of tower operations on July 12 (normal start date is late June to early July). This model produced an estimate of 6,879 Chinook salmon in the Salcha River which exceeded the escapement goal of 3,300–6,500 Chinook salmon. The BEG for the Salcha river has been met in 5 of the last 5 years that could be monitored (Appendix E5). The Goodpaster River tower counted an estimated 2,353 Chinook salmon which is considered a minimum escapement estimate as large numbers of salmon were passing on the first day of operation (operational July 9–30).

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 500 Chinook salmon sampled in the Chena River was 0.6% age-3, 19.8% age-4, 16.0% age-5, 63.0% age-6, and 0.6% age-7 fish. The sex composition was 55.4% female and 44.6% male (JTC 2016). The estimated age composition of 467 Chinook salmon sampled in the Salcha River was 0.6% age-3, 22.9% age-4, 35.5% age-5, 40.9% age-6, and 0% age-7 fish. The sex composition of fish sampled was 43.0% female and 57.0% male (JTC 2016).

The Canadian Upper Yukon River border passage estimate for 2015 is 83,674 Chinook salmon. This is calculated using the Eagle sonar project estimate of 84,015 minus an estimated 341 fish harvested by Alaskan subsistence fishermen upstream of the sonar project site (Appendix E6). After subtracting the Canadian Yukon River mainstem harvest of 1,000 fish, a total of 82,674 Chinook salmon are estimated to have reached Canadian spawning areas (Appendix E6). The spawning escapement surpassed the upper end of the IMEG range of 42,500 to 55,000 which is the third time that the goal has been achieved since 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 inches) are fished daily to collect samples. The estimated age composition of 927 Chinook salmon caught in the test fishery was 0.3% age-3, 10.8% age-4, 34.4% age-5, 52.3% age-6, and 2.2% age-7 fish. The sex composition of fish sampled was 42.1% female and 57.9% male (JTC 2016).

In Canada, the Big Salmon River was enumerated using long-range dual frequency sonar between July 15 and August 20 located approximately 1.5 km upstream of the confluence with the Yukon River. The 2015 Big Salmon count of 10,071 Chinook salmon was 105% above the previous 10-year average passage of 4,911 Chinook salmon (Appendices E2 and E6). The escapement of Chinook salmon to the Big Salmon River based on sonar represented 12.0% of the mainstem Yukon River sonar passage estimate near Eagle, Alaska. Carcass samples were collected August 23–25, over approximately 145 km of the Big Salmon River, yielding 133

Chinook salmon samples. Of the total, 84 (63%) fish were female and 49 (37%) fish were male. The mean mid-eye to fork (MEF) length of females and males sampled was 828 mm and 763 mm, respectively. Of the 97 samples which were successfully aged, 4.1% (11.1% of the males and 0.0% of the females) were age-4, 27.8% (59.0% of the males and 14.8% of the females) were age-5, and 68.0% (38.9% of the males and 85.2% of the females) were age-6 (JTC 2016).

The Teslin River was assessed using multiple beam high resolution ARIS sonars, approximately 12 km upstream of the confluence with the Yukon River. Right and left bank sonars began operating on July 16 and July 20, and operated through August 30. A total of 20,410 targets identified as Chinook salmon were counted during the period of operation (Appendices E2 and E6) and was the highest in the 4 years of this project's operation. The escapement of Chinook salmon to the Teslin River based on sonar represented 24.3% of the mainstem Yukon River sonar passage estimate near Eagle, Alaska. Carcass samples were collected September 3–13, over approximately 120 km of the mainstem Teslin River, yielding 556 Chinook salmon samples. Of these, 377 (68%) fish were female and 179 (32%) were male. The MEF of females and males sampled was 839 mm and 734 mm, respectively. Of the 486 samples which were successfully aged, 0.2% (0.6% of males and 0.0% females) were age 3, 8.4% (26.0% of the males and 0.3% females) were age 4, 37.0% (55.8% of the males and 28.3% of the females) were age 5, 48.1% (16.9% of the males and 62.7% of the females) were age 6, and 6.2% (0.6% of the males and 8.7% of the females) were age 7 (JTC 2016).

The Blind Creek weir project in 2015 enumerated Chinook salmon escapement and obtained biological information from the stock. The weir was set up approximately 1 km upstream of the confluence with the Pelly River. A total of 964 Chinook salmon were counted between July 17 and August 19 (Appendices E2 and E6). The 2015 escapement was approximately 130% higher than the 10-year average escapement of 420 fish. Age, sex, and length samples were randomly collected from migrating Chinook salmon throughout the period of weir operation. A total of 597 Chinook salmon (62% of the run) were live-sampled, 210 (35%) were female and 387 (65%) were male. The mean MEF length of females and males sampled was 767 mm and 619 mm, respectively. Scale samples were analyzed by the Pacific Biological Station fish ageing lab in Nanaimo, British Columbia. The age composition of 444 samples that were successfully aged was 17.8% age-4, 39.9% age-5, 41.2% age-6, and 0.9% age-7 (JTC 2016).

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 1,465 Chinook salmon between July 29 and September 2 (Appendices E2 and E6). Of the adult Chinook salmon counted, 874 were of hatchery origin (approximately 60% of the return). The hatchery component included 265 females (30%) and 609 males (70%). The wild component included 170 females (29%) and 421 males (71%). Female Chinook salmon made up 30% of the total run.

Hatchery personnel collected biological samples from 76 male (41 wild and 35 hatchery origin) and 40 female (12 wild and 28 hatchery origin) Chinook salmon taken from the Whitehorse Rapids Fishway for broodstock.

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 2015. The summer chum salmon goal for East Fork Andreafsky River weir and the Anvik River sonar goal were achieved.

The East Fork Andreafsky River weir escapement estimate for chum salmon was 50,338 which is above the SEG of > 40,000 fish (Appendix E7). The 2015 summer chum escapement at the weir was 34% lower than the 5-year average of (2010–2014) of 65,815 fish. Age, sex, and length data were collected from 946 fish caught in the weir trap. The estimated age composition was 0.4% age-3, 30.6% age-4, 68.8% age-5, and 0.2% age-6 fish. The sex composition of the fish sampled was 36.3% female and 63.7% male.

The Anvik River sonar escapement count of 374,968 summer chum salmon was within the BEG range of 350,000 to 700,000 fish (Appendix E7) and was 25% below the 5-year average of (2010–2014) of 500,093 fish. The BEG for the Anvik River has been met or exceeded each year since the goal was established in 2005 (Appendix E7). Age, sex, and length samples in 2015 were collected for 705 summer chum salmon. The estimated age composition was 1.8% age-3, 34.6% age-4, and 61.8% age-5, and 1.8% age-6 fish. The sex composition of the fish sampled was 54.0% female and 46.0% male.

The escapement estimate of summer chum salmon through the Gisasa River weir was 42,747 fish, approximately 37% lower than the 5-year average (2010–2014) of 67,893 fish (Appendix E7). Age, sex, and length data were collected from 1,361 fish caught in the weir trap. The age composition of samples was 2.3% age-3, 32.4% age-4, 64.6% age-5, and 0.7% 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 Henshaw Creek weir was 238,529 fish, approximately 3% higher than the 5-year average (2010–2014) of 232,684 fish (Appendix E7). Age, sex, and length data were collected from the weir trap. The estimated age composition from scale samples was 2.3% age-3, 32.4% age-4, 64.6% age-5, and 0.7% age-6 fish. The sex composition of fish sampled ($n = 1,361$) was 54.6% females and 45.4% males (JTC 2016).

The escapement estimate of summer chum salmon through the Chena River tower was 8,620 fish, approximately 35% lower than the 5-year average (2010–2014) of 13,223 fish (Appendix E7). The escapement estimate of summer chum salmon through the Salcha River tower was 12,812 fish, approximately 74% lower than the 5-year average (2010–2014) of 48,995 fish (Appendix E7). 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 from vertebra was 5.7% age-3, 44.7% age-4, 42.8% age-5, and 6.9% age-6. The sex composition of fish sampled was 50.6% female and 49.4% male (JTC 2016).

2015 Fall Season Escapement

Fall Chum Salmon Escapement

Historical fall chum salmon escapement information in addition to 2015 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. Since 2014, a Bayesian state-space model was used to determine the drainagewide escapement similar to that reported in Fleischman and Borba 2009. The drainagewide escapement estimate produced for 2015 was 562,000 fall chum salmon, which was within the SEG goal range of 300,000–600,000 fall chum salmon. The model utilized historical escapement data from the Toklat, Delta, Chandalar, Sheenjek, Fishing Branch and Canadian mainstem Yukon rivers, as well as mark–recapture estimates of abundance from the upper Tanana, Kantishna, and Rampart-Rapids projects, and estimates from the mainstem sonar near Pilot Station (Appendices E8 and E9). The model takes into account estimates from sub-drainages in the dataset. Individually the fall chum salmon escapements to Chandalar and Delta rivers both exceeded the upper end of the individual escapement goals (Appendix E8). Further, adding the U.S. and Canada harvests (281,000 fish) to the estimated escapement, results in a total run size estimate of slightly greater than 843,000 fall chum salmon.

The drainagewide escapement goal was not achieved from 1998–2000 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 42 years and all 12 years since the range was established in 2004.

The historical (1974–2014) average drainagewide run size is 977,000 fall chum salmon and ranges between 252,000 fish in 2000 to 2,600,000 fish in 1975. From 1974 to 1991, fall chum salmon run sizes alternated consistently between lower even-numbered years and higher odd-numbered years (averaging 852,000 and 1,400,000 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. The record low (2000) and the second highest (2005) abundances occurred in the last decade. The 2015 fall chum salmon run could be characterized overall as being below average for both the all year average and the odd-numbered year average from 1974–2014.

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 2015, there were no inseason assessment projects for fall chum salmon in the Tanana River drainage except for catch per unit effort in the subsistence and commercial fisheries. Additionally, Mixed Stock Analysis (MSA), based on genetics, suggested the estimate for the Tanana River was greater than 150,000 chum salmon and considering upriver harvests it was likely that the escapements were within the Tanana River BEG range of 61,000 to 136,000 fall chum salmon.

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 October 6 and December 2, 2015. The Delta River escapement was estimated to be 33,401 fall chum salmon (Table 9) based on the peak survey count conducted November 4. 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 2015 was the highest on record in 44 years, slightly higher than observed in 2014 (32,000 fish). The high population estimate is partly attributed to the relatively warm conditions allowing continued access particularly to the large middle channel. Timing for the middle channel was considered late relative to the east and west channels.

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 (splitbeam 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 529,000 fish in 2005. In 2015, the project operated from August 8 through September 27 and ended with a cumulative count of 155,466 fish. However, because the project was still passing more than 2,000 fish a day when the project ceased operation, an expansion of passage through October 9 was made. The resulting escapement estimate was 164,486 fall chum salmon (Table 9; Appendices E2 and E8) and was 27% below the 2010–2014 5-year average of 229,000 fish. The 2015 estimate was 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 the Fishing Branch River weir that was reinstalled in 2015. Expansions were applied on both the beginning (high water delayed deployment) and the end of the run resulting in an estimate of escapement of 8,351 fall chum salmon, indicating the IMEG was not achieved in 2015. Additionally, the sonar project located on the Porcupine River near the U.S./Canada border (downstream of Old Crow) was operated resulting in a passage estimate of 21,397 targets attributed to fall chum salmon, subtracting the Old Crow harvest and assuming all the fish were not bound for the Fishing Branch River would also result in the IMEG not being achieved. The mainstem Yukon River border passage was assessed using sonars located downstream of Eagle Alaska in 2015. After removal of U.S. and Canada harvests the 2015 escapement was estimated to be approximately 109,000 fall chum salmon, which was above the upper end of the IMEG of 70,000–104,000. The low end of the goal has been achieved for the past 14 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 2015. 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 10 of the last 11 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 2015 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 before the end of the run. The passage estimate of coho salmon at mainstem Yukon River sonar was 97,587 fish through August 31, 2015 (Appendices E3 and E11). Tributary escapement estimate information was limited to portions of the Tanana River drainage. Unlike 2014, escapements were above average in most areas of the Tanana River and supported the above average run that was indicated by the run reconstruction that included the mainstem Yukon River sonar project operated near Pilot Station plus the large harvests that occurred downstream.

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 19,533 coho salmon (Table 9) and was conducted by boat survey on November October 22, 2015. This escapement estimate was above the upper end of the escapement goal range. Coho salmon escapements in the Nenana River and the upper Tanana River evaluated by aerial surveys were nearly all above average when compared to the historical long term averages (1972–2014) and the recent 5-year average (2010–2014).

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) when the mainstem sonar was operational. This model results in an average run size of 176,000 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 142,000 fish. In 2014 the index was unsubstantiated and was initially not used until 2015 bolstered confidence that coho salmon were experiencing high productivity.

2016 SALMON OUTLOOK

Chinook Salmon

The total Yukon River Chinook salmon outlook was estimated by applying historical average proportions of Canadian-origin fish in the total run to the forecast 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 Canadian-origin forecasted run, which attempts to account for low productivity since 2007, is 130,000–175,000 Chinook salmon. A run of this size would be below the long-term average (1989–1999) of approximately 300,000 Chinook salmon.

Summer Chum Salmon

The strength of the summer chum salmon run in 2016 will be dependent on production from the 2012 (age-4 fish) and 2011 (age-5 fish) escapements, as these age classes generally dominate the run. The total runs during 2011 and 2012 were approximately 2.2 million and 2.4 million summer chum salmon, respectively. The escapement goal on the Anvik River (350,000–750,000 fish) was achieved in 2011 and 2012, and the escapement goal on the East Fork Andreafsky River (>40,000 fish) was exceeded in both years. Summer chum salmon generally exhibit strong run size correlations among adjacent years, and it is expected that the 2016 total run in the Yukon River will be slightly lower than the 2015 run of approximately 1.8 million fish.

The 2016 summer chum 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 13 years (2003–2015). If inseason indicators of run strength suggest sufficient abundance exists to allow for a commercial fishery, the commercially harvestable surplus in Alaska could range from 450,000 to 950,000 summer chum salmon. Similar to the last 3 years however, commercial harvest of summer chum salmon in 2016 could be affected if the Chinook salmon run is below average, by measures taken to protect the Chinook salmon from incidental harvest in chum salmon-directed fisheries.

Fall Chum Salmon

The 2016 run will be comprised of fish returning from the parent years 2010 through 2013. Estimates of returns per spawner (R/S), based on brood year return, and were used to estimate production for 2010 and 2011. An auto-regressive Ricker spawner-recruit model was used to predict returns from 2012 and 2013. The point projection in 2016 used the 1974 to 2009 complete brood year returns applied odd/even maturity schedule for the same time period. The result is a point estimate of 666,000 fall chum salmon. The 2016 run size forecast is expressed as a range from 550,000 to 780,000 fall chum salmon. This forecasted run size is below average for even-numbered year run.

The contributing dominate parent year escapements from 2011 and 2012 both 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 2010 parent year R/S is estimated to be the highest since the 2005 record low. However the 2011 parent year R/S is estimated to be below replacement resulting in the reduced run size observed in 2015. The major contributor to the 2016 fall chum salmon run is anticipated to be age-0.3 fish returning from 2010 parent year (Appendix E10). Production for the next few years is estimated at just above replacement.

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 limited ranging from 20,000 to 230,000 fall chum salmon depending on where the actual run comes in within the forecasted range.

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 2016 coho salmon run will be age-4 fish returning from the 2012 parent year. Based on the

run reconstruction index (1995–2014, excluding 1996 and 2009) the 2012 escapement was estimated to be 88,000 coho salmon which was below the median of 142,000 fish.

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 5,230 fish in 2012 was above the lower end of the SEG range of 5,200 to 17,000 coho salmon. Four additional locations in the Tanana River drainage were surveyed for coho salmon specifically; all were below average when compared to the recent 5-year average (2010–2014). The coho salmon run outlook is based on parent year escapements assuming average survival. Based on the last 2 years of coho salmon returns there is a possibility for the runs to be average to above average. Commercial harvest could be between 30,000 and 100,000 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 nonsalmon species in 2015 was 83,551 whitefish (*Coregonus* spp. and *Prosopium cylindraceum*), 21,000 northern pike (*Esox lucius*), and 12,994 sheefish (*Stenodus leucichthys*) (Appendix D9). 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 3,387 burbot (*Lota lota*), 4,697 tomcod (*Eleginus gracilis*), 1,931 Arctic grayling (*Thymallus arcticus*), 358 longnose suckers (*Catostomus catostomus*), 97,586 Alaska blackfish (*Dallia pectoralis*), 24,591 Pacific herring (*Clupea pallasii*), and 456 gallons of Pacific herring roe (Appendix D9). Subsistence and personal use catches of freshwater finfish taken under authority of a permit in the Upper Yukon Area are presented in Appendices D6–D8.

The 2014 Arctic lamprey (*Lethenteron camtschaticum*) harvest total of 42,237 includes fish reported during survey interviews conducted with households in September 2015 and on postcards mailed to households during the winter of 2014. Postcards were returned by 123 households (15% of the total number mailed) and 53 households indicated they fished. Many fishermen reported that the Arctic lamprey were large and of good quality, and that they got enough. Several households said the run timing was a month later than usual. Harvest dates were reported from October 5 to November 27, 2014 with most of the reported harvest occurred in November. Postcards were not mailed in 2015, and households will not be asked about their 2015 Arctic lamprey harvest until they are surveyed in September 2016.

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; 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 their herring harvests.

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 (e.g., 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 during 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

From 2005 to 2015, ADF&G issued Commissioner's permits for an experimental whitefish commercial fishery in the lower Yukon River. Commissioner's permits allowed for the harvest of coregonid ('whitefish') species in Districts 1 and 2 starting with 10,000 pounds in 2005 and incrementally increasing to 25,000 cisco (Sabrina Garcia, Division of Commercial Fisheries, ADF&G; Anchorage; December 4, 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 holds true. Gear restrictions were implemented in 2007 to reduce the stretched-mesh size from a maximum of 6.0 inches (allowed in 2005 and 2006) to a maximum of 4.0 inches. The smaller mesh size would target cisco species while reducing the incidental harvest of sheefish and broad whitefish *Coregonus nasus*. 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.

In 2015, a Commissioner's permit was issued to Kwik'pak Fisheries, LLC for the commercial harvest of Bering and least cisco. The permit authorized a maximum harvest of 25,000 cisco (numbers of fish) in District 1 of the Lower Yukon Area from September 7 through October 15. The allowable harvest in 2015 did not change from the 25,000 cisco authorized in 2014. The decision not to increase the allowable harvest was based principally on the lack of population abundance information on Yukon River Bering cisco. Given the lack of information on Bering cisco, a continued cautionary management approach is warranted.

The fishery permit stipulated that fishing gear was restricted to 1 set or drift gillnet up to 150 feet in length with a maximum stretched-mesh size of 4.0 inches, 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 implemented 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 2015 commercial fishery occurred from September 7 to September 21. Twenty-two fishermen made 142 deliveries totaling 23,670 Bering cisco and 15 least cisco (Appendix F1). The 2015 harvest was approximately 1,400 cisco below the allowable quota.

The Bering cisco harvest was above the 5-year (2010–2014) average of 15,840 fish and the least cisco harvest was below the 5-year (2010–2014) average of 213 fish. The price paid to fishermen was \$1.50 per pound, resulting in an estimated total harvest value of \$42,611. The average price paid to each fisherman was approximately \$1,937. The majority of the Bering cisco commercial harvest occurred in Kotlik (83%) followed by Emmonak (12%).

In the Upper Yukon Area, commercial freshwater fisheries targeting whitefish occurred primarily through the 1970s. Since 1980 there have been sporadic small commercial harvests of whitefish in the upriver districts. No whitefish-directed commercial permits were requested in 2015 possibly due to high operational costs and limited market interest; however, whitefish were sold during the salmon-directed commercial fishery. Permit authorization is not required for the sale of whitefish species taken incidentally during commercial salmon fishing in any district. In upriver districts, whitefish have been taken incidentally to the salmon harvest and sold since the late 1980s. In 2015, a total of 356 whitefish (311 unidentified whitefish and 45 sheefish) were incidentally harvested and sold in Districts 5 and 6 during commercial salmon fishing (Appendix F3).

Harvest Sampling

Whitefish were identified by species at the processing facility in Emmonak prior to shipment to Anchorage. A total of 244 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 (53% female and 47% male). Similar to previous years, females were generally larger than males, 337 mm and 315 mm, respectively. Otoliths were collected from all fish sampled and will be processed in the future for age classification.

Arctic Lamprey Fishery Summary

Since 2003, a Commissioner's permit has been issued annually allowing for total harvests between 5,000 and 49,080 pounds of Arctic lamprey (Sabrina Garcia, Division of Commercial Fisheries, ADF&G; Anchorage; February XX, 2015, memorandum). The exact dates of the

fishery have varied each year in response to run timing and ice conditions; however, the commercial harvest generally occurs in November and December.

Fishing Effort and Run Timing

The 2015 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, St. Mary's, Mountain Village, Pilot Station, Marshall, Russian Mission, Holy Cross, Anvik, and Grayling. Information regarding subsistence fishing effort, harvest rates, local weather, river ice conditions, and run timing was gathered during these communication events. ADF&G representative also communicated with the processor for updates on harvest and quality.

Similar to previous years, local contracted fishermen with the Yukon Delta Fisheries Development Association set up test fishing sites in the lower river to assess lamprey presence and run timing. Test fishing in 2015 began earlier than previous years in an attempt to catch lamprey from the start of the run. Fyke nets operated from October 5 through October 29. Fyke nets were the only gear type used for test fishing in 2015 due to their high success rate and the lack of lamprey caught in hoop nets during test fishing operations in 2013. A total of 15 sites were fished in areas around Flat Island, Munson Island, Tin Can Point, and Middle Mouth. Six fyke net sites fished in 2013 and 2014 were again fished in 2015 in order to collect catch per unit effort (CPUE) data for the same site across multiple years. A total of 7,083 lamprey were caught during test fishing operations with most of the lamprey caught south of Alakanuk and Tin Can Point. In general, nets fishing south of Alakanuk and downstream of Emmonak were checked on alternate days; the distance between sites and often marginal weather conditions precluded all nets from being checked every 24 hours.

Subsistence users prospect fished around Mountain Village starting in mid-October in an attempt to locate lamprey. River ice conditions at the start of November were not favorable for fishing from Mountain Village up to Russian Mission. Fishermen in Marshall began test fishing for lamprey in the second week of November. However, as of mid-November none of the villages prospect-fishing for lamprey had located the run. The delayed formation of river ice prevented fishermen from traveling to traditional fishing sites along the Yukon this fall and probably impacted the ability to effectively prospect-fish for lamprey.

Lamprey were caught below Mountain Village on November 17. Fishermen noted that lamprey were small in size, passing closer to the beach and in small groups, and swam through quickly. Late November 17, the lamprey run was intercepted about 10 miles upstream of Mountain Village in Liberty Landing. Assuming an average run timing of 10–12 miles per day, lamprey were expected to arrive in Grayling between December 7 and December 11. Lamprey arrived in Marshall on November 22 and Pilot Station on November 26 which indicated that their migration speed had increased to about 13 miles per day. Fishermen from Anvik and Grayling intercepted the run approximately 9 miles downstream of Grayling on December 7 and were still fishing on lamprey on December 8 and December 9. On average, lamprey traveled about 12 miles per day while they were tracked 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 looked small and did not look like "first run eels". Subsistence users from Pitka's Point caught around 100–150 pounds of lamprey per pair of fishermen working together. Staff from the Pilot Station tribal office reported approximately 25–30 subsistence fishermen harvesting lamprey. Additionally, reports indicated fishermen were able to meet their subsistence lamprey needs (approximately 1–3 buckets (5 gallon) or 1–2 gunny sacks per family). Subsistence fishermen in Russian Village reported the lamprey to be "thick and running hard;" most fishermen harvested about 3–4 buckets (5 gallon) and did not fish further as their subsistence needs were met. Subsistence fishing effort in Holy Cross was light and fishermen reported the run passed quickly. Only a few fishermen fished in Holy Cross and caught all they needed, about 2 gunny sacks full.

Subsistence lamprey harvest will be assessed postseason. Results from these surveys will be made available in an annual subsistence harvest report by ADF&G.

Commercial Fishery

In 2015, a freshwater commercial fishery permit was issued to Kwik'pak Fisheries, LLC allowing a harvest of up to 44,080 lb (20 metric tons) of Arctic lamprey. The permit was valid October 10 through December 10, or until the harvest limit was reached. The processor established buying stations in Emmonak, Mountain Village, and Grayling. Due to an unexpected large test fish harvest that occurred on October 9 that subsistence users were unable to utilize entirely, the initial permit was amended to a start date of October 9 so the remaining lamprey could be purchased by Kwik'pak.

A total of 18 commercial freshwater permit holders, down from 30 in 2014, delivered a harvest of 36,015 lb to the commercial processor, equal to approximately 161,500 lamprey (Appendix F2). The buyer paid \$1.50 per pound of lamprey. The estimated commercial value of the fishery was \$54,022 and the average price paid to each fisherman was \$3,301. The 2015 commercial fishery was the most profitable since the fishery started in 2003. The 2015 total commercial fishery harvest was third most lucrative since the fishery started in 2003; however, the average price paid to each fisherman was higher than any other year of the fishery.

Harvest Sampling

A total of 345 Arctic lamprey, 120 from Emmonak, 120 from Mountain Village, and 105 from Grayling, were sampled for sex, length, and weight after shipment to Anchorage. This was the first time that lamprey from Emmonak were sampled. Reproductive organs were visually 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; weight was measured to the nearest gram. The average length of lamprey was 412 mm, 390 mm, and 398 mm in Emmonak, Mountain Village, and Grayling, respectively. The average weight of lamprey decreased from Emmonak to Mountain Village and increased from Mountain Village to Grayling (118 g, 84 g, 101 g, respectively). The female proportion of the sample was 31% in Emmonak, 38% in Mountain Village, and 43% in Grayling.

For the second time since sampling occurred, reproductive organs from a subset of 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 (and GSI) was 8.0 g (6.0%) in Emmonak, 6.7 g (7.5%) in Mountain Village, and 8.3 g (8.0%) in Grayling.

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. Information regarding the commercial herring fisheries in the Cape Romanzof District since 1980 can be found in (Estensen et al. 2015).

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 attempts to make periodic observations of herring biomass and spawn deposition. No observation flights were flown in 2015.

The 2015 projected biomass for the Cape Romanzof District was 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 was 963 tons.

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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, 2015.

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 1975–1989.

^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, 2015.

District	Fishery	Chinook ^a	Summer Chum ^a	Fall Chum ^a	Coho ^a	Pink ^a
1	Subsistence ^b	1,919	21,641	5,877	2,100	388
	Commercial	0	172,639	100,562	66,029	7,326
	Test Fish Sales	0	2,494	50	8	0
	Total	1,919	196,774	106,489	68,137	7,714
2	Subsistence ^b	1,185	24,557	6,258	3,002	363
	Commercial	0	181,447	74,214	54,860	52
	Test Fish Sales	0	0	0	0	0
	Total	1,185	206,004	80,472	57,862	415
3	Subsistence ^b	447	3,127	1,388	428	0
	Commercial	–	–	–	–	–
	Total	447	3,127	1,388	428	0
Total	Subsistence ^b	3,551	49,325	13,523	5,530	751
Lower	Commercial	0	354,086	174,776	120,889	7,378
Yukon	Test Fish Sales	0	2,494	50	8	0
Area	Total	3,551	405,905	188,349	126,427	8,129
4	Subsistence ^b	771	9,777	13,274	1,941	16
	Commercial	–	–	–	–	–
	Total	771	9,777	13,274	1,941	16
5	Subsistence ^b	1,849	3,745	50,260	2,462	13
	Commercial	–	–	1,048	0	–
	Total	1,849	3,745	51,308	2,462	13
6	Subsistence ^b	432	252	9,345	8,000	0
	Commercial	0	4,770	15,646	8,811	–
	Personal use	5	220	80	145	0
	Total	437	5,242	25,071	16,956	0
Total	Subsistence ^b	3,052	13,774	72,879	12,403	29
Upper	Commercial	0	4,770	16,694	8,811	–
Yukon	Personal use	5	220	80	145	0
Area	Total	3,057	18,764	89,653	21,359	29
Total	Subsistence ^b	6,603	63,099	86,402	17,933	780
Yukon	Commercial	0	358,856	191,470	129,700	7,378
River	Personal use	5	220	80	145	0
(Alaska)	Test Fish sales	0	2,494	50	8	0
	Sport Fish ^c	^d	^d	^d	^d	^d
	Total	6,608	424,669	278,002	147,786	8,158
Total Canada	Domestic	0	0	35	0	0
	Aboriginal (mainstem)	1,000	0	1,000	0	0
	Sport Fish	–	0	–	0	0
	Test Fish harvest ^e	–	–	–	–	0
	Commercial	–	0	2,862	0	0
	Subtotal	1,000	0	3,897	0	0
	Porcupine Aboriginal	204	0	556	0	0
	Total	1,204	0	4,453	0	0
Grand Total		7,812	424,669	282,455	147,786	8,158

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, 2015.

Commercial operation (Processing location/buying station)	Product	District
Kwik'pak Fisheries 1016 West Sixth Avenue, Suite 301 Anchorage, AK 99501 (Emmonak/St. Mary's)	Fresh Salmon Frozen Salmon Salmon Roe	1 and 2
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
Robert Pierce 505 1 st Nenana, AK 99760 (Nenana)	Fresh Salmon	6
Great Ruby Fish 2055 Saratoak Ave Anchorage, AK 99517 (Nenana)	Fresh Salmon	6
John Krieg 3641 Dubia Rd North Pole, AK 99705 (Nenana)	Fresh Salmon	6
Edmund Lord P.O. Box 183 Nenana, AK 99760 (Nenana)	Fresh Salmon	6

Table 4.–Chinook and summer chum salmon commercial harvest by district, period, and gear type, for Districts 1, 2, and 6, Yukon Area, 2015.

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	2:00 PM	11 Jun	12:00 AM	11 Jun	10	DN/BS		69	92		2,411	15,493	6.4	
2	2:00 PM	12 Jun	12:00 AM	12 Jun	10	DN/BS		63	73		2,909	18,559	6.4	
3	12:00 PM	14 Jun	12:00 AM	14 Jun	12	DN/BS		98	254		6,338	41,550	6.6	
4	12:00 PM	15 Jun	12:00 AM	15 Jun	12	DN/BS		85	107		3,515	22,086	6.3	
5	12:00 PM	16 Jun	12:00 AM	16 Jun	12	DN/BS		67	176		4,009	25,788	6.4	
6	12:00 PM	17 Jun	12:00 AM	17 Jun	12	DN/BS		81	346		6,081	36,900	6.1	
7	12:00 PM	18 Jun	12:00 AM	18 Jun	12	DN/BS		90	412		5,464	32,728	6.0	
8	12:00 PM	19 Jun	12:00 AM	19 Jun	12	DN/BS		82	335		5,636	33,482	5.9	
9	12:00 PM	21 Jun	12:00 AM	21 Jun	12	DN/BS		52	126		727	4,122	5.7	
10	12:00 PM	22 Jun	12:00 AM	22 Jun	12	DN/BS		30	82		332	1,951	5.9	
11	12:00 PM	23 Jun	12:00 AM	23 Jun	12	DN/BS		89	264		5,280	31,153	5.9	
12	12:00 PM	24 Jun	7:00 PM	24 Jun	12	DN/BS		41	162		912	5,289	5.8	
13	12:00 PM	25 Jun	11:59 PM	25 Jun	12	DN/BS		110	597		13,724	80,310	5.9	
14	12:00 PM	26 Jun	11:59 PM	26 Jun	12	DN/BS		108	516		12,119	70,518	5.8	
15	12:00 PM	27 Jun	11:59 PM	27 Jun	12	DN/BS		102	390		7,836	45,208	5.8	
16	12:00 PM	28 Jun	11:59 PM	28 Jun	12	DN/BS		90	219		3,858	21,937	5.7	
17	12:00 PM	29 Jun	11:59 PM	29 Jun	12	DN/BS		52	76		1,264	7,025	5.6	
18	12:00 PM	30 Jun	11:59 PM	30 Jun	12	DN/BS		69	132		3,711	19,937	5.4	
19	12:00 PM	1 Jul	11:59 PM	1 Jul	12	DN/BS		96	213		5,517	29,959	5.4	
20	8:00 PM	2 Jul	11:59 PM	2 Jul	4	R	5.5	142		553	18,620	111,114	6.0	
21	9:00 PM	3 Jul	11:59 PM	3 Jul	3	R	5.5	126		161	9,441	56,991	6.0	
22 ^b	6:00 PM	5 Jul	11:59 PM	5 Jul	6	R	5.5	102	2	160	6,092	35,672	5.9	
23 ^b	3:00 PM	7 Jul	11:59 PM	7 Jul	9	R	6.0	122	4	336	13,966	85,939	6.2	
24 ^b	3:00 PM	9 Jul	11:59 PM	9 Jul	9	R	6.0	158		243	10,292	62,289	6.1	128
25 ^b	6:00 PM	11 Jul	6:00 AM	12 Jul	12	R	6.0	156		220	17,269	104,921	6.1	954
26 ^b	6:00 PM	13 Jul	6:00 AM	14 Jul	12	R	6.0	130		104	3,954	23,335	5.9	1,427
27 ^b	12:00 PM	15 Jul	11:59 PM	15 Jul	12	R	6.0	79		33	1,362	7,918	5.8	811
FALL SEASON										58				
District 1 subtotal					291			270	4,578	1,868 ^c	172,639	1,032,174	6.0	3,320

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Table 4.–Page 2 of 3.

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	15 Jun	10:00 PM	15 Jun	10	DN/BS			57	208		3,241	21,249	6.6	
2	12:00 PM	16 Jun	10:00 PM	16 Jun	10	DN/BS			65	206		4,495	28,354	6.3	
3	12:00 PM	17 Jun	10:00 PM	17 Jun	10	DN/BS			84	165		5,224	33,124	6.3	
4	12:00 PM	18 Jun	10:00 PM	18 Jun	10	DN/BS			54	138		3,608	22,599	6.3	
5	12:00 PM	19 Jun	10:00 PM	19 Jun	10	DN/BS			58	247		3,860	23,711	6.1	
6	12:00 PM	21 Jun	10:00 PM	21 Jun	10	DN/BS			71	360		4,350	26,089	6.0	
7	12:00 PM	22 Jun	10:00 PM	22 Jun	10	DN/BS			57	214		2,608	16,014	6.1	
8	12:00 PM	23 Jun	10:00 PM	23 Jun	10	DN/BS			37	136		1,305	7,459	5.7	
9	12:00 PM	24 Jun	10:00 PM	24 Jun	10	DN/BS			50	258		3,790	22,704	6.0	
10	12:00 PM	25 Jun	10:00 PM	25 Jun	10	DN/BS			81	238		5,679	33,666	5.9	
11	12:00 PM	26 Jun	10:00 PM	26 Jun	10	DN/BS			101	437		14,023	83,195	5.9	
12	12:00 PM	27 Jun	10:00 PM	27 Jun	10	DN/BS			110	511		18,943	111,466	5.9	
13	8:00 AM	28 Jun	6:00 PM	28 Jun	10	DN/BS			106	413		16,977	98,073	5.8	
14	12:00 PM	29 Jun	10:00 PM	29 Jun	10	DN/BS			108	443		15,394	88,378	5.7	
15	12:00 PM	30 Jun	10:00 PM	30 Jun	10	DN/BS			89	309		9,324	51,999	5.6	
16	12:00 PM	1 Jul	10:00 PM	1 Jul	10	DN/BS			48	145		4,333	24,246	5.6	
17	9:00 AM	2 Jul	7:00 PM	2 Jul	10	DN/BS			44	129		3,446	18,629	5.4	
18	12:00 PM	3 Jul	10:00 PM	3 Jul	10	DN/BS			73	168		6,480	35,026	5.4	
19 ^b	12:00 PM	4 Jul	10:00 PM	4 Jul	10	DN/BS			35	120		3,432	18,051	5.3	
20 ^b	12:00 PM	5 Jul	10:00 PM	5 Jul	10	DN/BS			68	90		5,059	26,719	5.3	1
21 ^b	9:00 AM	6 Jul	11:59 PM	6 Jul	3	R	6.0		90		229	7,632	46,782	6.1	
22	4:00 PM	8 Jul	10:00 PM	8 Jul	6	R	6.0		114		413	7,089	42,372	6.0	1
23 ^b	4:00 PM	10 Jul	10:00 PM	10 Jul	6	R	6.0		98		258	9,402	57,760	6.1	5
24	2:00 PM	12 Jul	11:00 PM	12 Jul	9	R	6.0		118		278	10,566	63,572	6.0	5
25 ^b	2:00 PM	14 Jul	11:00 PM	14 Jul	9	R	6.0		118		238	9,273	55,866	6.0	12
26	2:00 PM	16 Jul	11:00 PM	16 Jul	9	R	6.0		44		63	1,914	10,570	5.5	3
27	2:00 PM	18 Jul	11:00 PM	18 Jul	9	R	6.0		0		–	–	–	–	
FALL SEASON										40					
District 2 subtotal					251				177	4,935	1,519 ^c	181,447	1,067,673	5.9	27
Lower Yukon Area, summer season															
Districts 1, 2, and 3 subtotal ^d					542				435	9,513	3,387 ^c	354,086	2,099,847	5.9	3,347

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Table 4.–Page 3 of 3.

Subdistricts 6-A, 6-B, and 6-C														
Period	Starting time	Start date	Ending time	End date	Hours		Mesh size	Number fishermen	Chinook salmon		Summer chum salmon			Pink Salmon
					fished 6-AB	Gear type			Number caught and released	Number caught but not sold	Number	Pounds	Avg wt	Number
1 ^e	6:00 PM	13 Jul	12:00 PM	15 Jul	42	FW		1	78	0	0	0	–	
2 ^e	6:00 PM	17 Jul	12:00 PM	19 Jul	42	FW		1	85	0	503	3,345	6.7	
3 ^e	6:00 PM	20 Jul	12:00 PM	22 Jul	42	FW		1	105	0	838	5,588	6.7	
4	6:00 PM	24 Jul	12:00 PM	26 Jul	42	FW/GN	6	1	79	22	1,383	9,205	6.7	
5	6:00 PM	27 Jul	12:00 PM	29 Jul	42	FW/GN	6.0	1	0	24	781	5,186	6.6	
6	6:00 PM	31 Jul	12:00 PM	2 Aug	42	FW/GN	6.0	1	0	15	355	2,225	6.3	
7	6:00 PM	3 Aug	12:00 PM	5 Aug	42	FW/GN	6.0	2	0	16	551	3,230	5.9	
8	6:00 PM	7 Aug	12:00 PM	9 Aug	42	FW/GN	6.0	1	0	6	359	2,037	5.7	
FALL SEASON										1				
District 6 subtotal					336			2	347	84 ^c	4,770	30,816	6.5	0
Upper Yukon Area, summer season														
Districts 4, 5, and 6 subtotal ^f					336			2	347	84 ^c	4,770	30,816	6.5	0
Yukon Area, summer season														
Districts 1 through 6 total ^c					878			437	9,860	3,471	358,856	2,130,663	5.9	3,347

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; R = restricted mesh size; FW = fish wheel.

^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 District 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.

^f No commercial fishing occurred in Districts 4 and 5.

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, 2015.

District 1															
Period	Starting time	Start date	Ending time	End date	Hours fished		Mesh size	Number fishermen	Fall chum salmon			Coho salmon			Chinook salmon Number caught but not sold ^a
					Drift	Set			Number	Pounds	Avg wt	Number	Pounds	Avg wt	
1 ^b	4:00 PM	20 Jul	10:00 PM	20 Jul	6	6	6	130	3,698	25,092	6.8	47	303	6.4	0
2	6:00 PM	23 Jul	12:00 AM	23 Jul	6	6	6	118	4,078	27,903	6.8	184	1,188	6.5	0
3	7:00 PM	27 Jul	1:00 AM	28 Jul	6	6	6	139	8,165	58,402	7.2	459	3,021	6.6	0
4	1:00 PM	30 Jul	8:00 PM	30 Jul	7	7	6	147	5,859	44,208	7.5	292	1,919	6.6	0
5	10:00 AM	2 Aug	7:00 PM	2 Aug	9	9	6	177	15,652	116,369	7.4	3,830	26,273	6.9	0
6	2:00 PM	6 Aug	11:00 PM	6 Aug	6	9	6	160	4,779	34,633	7.2	3,188	21,904	6.9	0
7	10:00 AM	10 Aug	4:00 PM	10 Aug	6	6	6	182	20,006	154,184	7.7	12,237	87,881	7.2	0
8	12:00 PM	13 Aug	9:00 PM	13 Aug	6	9	6	208	12,925	94,782	7.3	11,953	86,799	7.3	0
9	6:00 PM	19 Aug	10:00 PM	19 Aug	4	4	6	192	12,687	93,394	7.4	11,570	86,027	7.4	0
10	4:00 PM	23 Aug	10:00 PM	23 Aug	6	6	6	168	3,379	23,341	6.9	5,092	38,077	7.5	0
11	12:00 PM	27 Aug	9:00 PM	27 Aug	9	9	6	167	7,671	53,843	7.0	13,882	106,045	7.6	0
12	12:00 PM	30 Aug	6:00 PM	30 Aug	6	6	6	107	1,003	6,984	7.0	1,598	11,917	7.5	0
13	2:00 PM	2 Sep	8:00 PM	2 Sep	6	6	6	85	389	2,595	6.7	841	6,138	7.3	0
14	3:00 PM	4 Sep	9:00 PM	4 Sep	6	6	6	67	271	1,843	6.8	753	5,432	7.2	0
Coho salmon sold in the summer season												103	597	5.8	
District 1 subtotal					89	95		266	100,562	737,573	7.3	66,029	483,521	7.3	0
District 2															
1 ^b	9:00 AM	22 Jul	1:00 PM	22 Jul		4	6	85	8,134	55,486	6.8	19	119	6.3	0
2	6:00 PM	26 Jul	10:00 PM	26 Jul		4	6	76	2,245	15,384	6.9	50	322	6.4	0
3	2:00 PM	1 Aug	8:00 PM	1 Aug		6	6	116	6,916	51,665	7.5	316	2,049	6.5	0
4	2:00 PM	4 Aug	6:00 PM	4 Aug		4	6	120	7,218	54,113	7.5	853	5,721	6.7	0
5	2:00 PM	9 Aug	8:00 PM	9 Aug		6	6	87	1,837	13,421	7.3	1,448	9,977	6.9	0
6	2:00 PM	12 Aug	8:00 PM	12 Aug		6	6	136	11,170	84,743	7.6	4,239	30,228	7.1	0
7	3:00 PM	16 Aug	7:00 PM	16 Aug		4	6	131	5,912	42,330	7.2	7,033	50,206	7.1	0
8	2:00 PM	19 Aug	8:00 PM	19 Aug		6	6	104	1,024	7,308	7.1	4,874	35,180	7.2	0
9	2:00 PM	23 Aug	8:00 PM	23 Aug		6	6	134	9,706	68,859	7.1	10,498	76,735	7.3	0
10	2:00 PM	26 Aug	8:00 PM	26 Aug		6	6	98	4,374	30,923	7.1	5,776	42,107	7.3	0
11	2:00 PM	28 Aug	8:00 PM	28 Aug		6	6	132	9,641	68,424	7.1	9,207	67,722	7.4	0
12	1:00 PM	31 Aug	7:00 PM	31 Aug		6	6	112	4,055	27,218	6.7	7,119	52,141	7.3	0
13	2:00 PM	2 Sep	8:00 PM	2 Sep		6	6	55	1,234	8,185	6.6	2,157	15,613	7.2	0
14	3:00 PM	4 Sep	9:00 PM	4 Sep		6	6	47	748	4,959	6.6	1,261	9,212	7.3	0
Coho salmon sold in the summer season												10	48	4.8	
District 2 subtotal					76			184	74,214	533,018	7.2	54,860	397,380	7.2	0

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Table 5.–Page 2 of 2.

				Fall chum salmon			Coho salmon		Chinook salmon	
	Hours fished		Number fishermen	Number	Pounds	Avg wt	Number	Pounds	Avg wt	Number caught but not sold ^a
	Drift	Set								
Lower Yukon Area, fall season, Districts 1, 2, and 3 subtotal:	165	95	440	174,776	1,270,591	7.3	120,889	880,901	7.3	0

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	11 Aug	6:00 PM	16 Aug	120	1	516	3,612	7.0	0	0	0
2	6:00 PM	18 Aug	6:00 PM	23 Aug	120	1	532	3,963	7.4	0	0	0
District 5 subtotal:					240	1	1,048	7,575	7.2	0	0	0

Subdistricts 6-A, 6-B, and 6-C

1	6:00 PM	21 Aug	12:00 PM	23 Aug	42	2	462	2,678	5.8	13	78	6.0
2	6:00 PM	24 Aug	12:00 PM	26 Aug	42	1	32	192	6.0	3	18	6.0
3	6:00 PM	28 Aug	12:00 PM	30 Aug	42	1	112	784	7	12	80	6.7
4	6:00 PM	31 Aug	12:00 PM	2 Sep	42	0	—	—	—	—	—	—
5	6:00 PM	11 Sep	12:00 PM	13 Sep	42	2	470	3,339	7.1	480	3,491	7.3
6	6:00 PM	14 Sep	12:00 PM	16 Sep	42	1	220	1,540	7.0	180	1,170	—
7	6:00 PM	18 Sep	12:00 PM	20 Sep	42	4	3,178	21,996	6.9	1,775	11,391	6.4
8	6:00 PM	21 Sep	12:00 PM	23 Sep	42	4	3,143	20,701	6.6	2,079	12,915	6.2
9	6:00 PM	25 Sep	12:00 PM	27 Sep	42	4	3,669	25,046	6.8	1,431	8,252	5.8
10	6:00 PM	28 Sep	12:00 PM	30 Sep	42	3	3,205	21,285	6.6	1,375	8,557	6.2
11	6:00 PM	2 Oct	12:00 PM	4 Oct	42	2	324	2,193	6.8	464	3,075	6.6
12	6:00 PM	5 Oct	12:00 PM	7 Oct	42	1	370	2,405	6.5	530	3,180	6.0
13	6:00 PM	9 Oct	12:00 PM	11 Oct	42	0	—	—	—	—	—	—
14	6:00 PM	12 Oct	12:00 PM	14 Oct	42	1	461	2,766	6.0	469	2,814	6.0
District 6 subtotal					588	5	15,646	104,925	6.7	8,811	55,020	6.2
Upper Yukon Area, fall season Districts 4, 5, and 6 subtotals					828	6	16,694	112,500	6.7	8,811	55,020	6.2
Yukon Area, fall season Districts 1 through 6 total					999	446	191,470	1,383,091	7.2	129,700	935,921	7.2

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 to summer season harvest.

^b Pink salmon were sold commercially during these periods. A total of 4,031 pink salmon were sold during the fall season.

Table 6.—Commercial sales in number of salmon by statistical areas, Yukon Area, 2015.

Statistical Area	Chinook ^a	Summer Chum ^a	Fall Chum ^a	Coho ^a	Pink ^a	Total Salmon
334-11	0	18,693	9,666	6,176	4,139	38,674
12	0	33,245	21,198	12,451	2,484	69,378
13	0	8,485	6,032	2,606	44	17,167
14	0	19,045	6,450	3,897	72	29,464
15	0	17,974	13,118	8,589	187	39,868
16	0	7,414	11,488	9,072	248	28,222
17	0	47,244	26,401	19,200	100	92,945
18	0	20,539	6,209	4,038	52	30,838
Subtotal District 1	0	172,639	100,562	66,029	7,326	346,556
334-21	0	15,708	8,450	6,566	17	30,741
22	0	74,315	20,433	21,057	35	115,840
23	0	43,855	21,486	14,355	0	79,696
24	0	38,827	22,702	11,027	0	72,556
25	0	8,742	1,143	1,855	0	11,740
Subtotal District 2	0	181,447	74,214	54,860	52	310,573
334-31	—	—	—	—	—	—
32	—	—	—	—	—	—
Subtotal District 3	—	—	—	—	—	—
Total Lower Yukon	0	354,086	174,776	120,889	7,378	657,129
334-42	—	—	—	—	—	—
43	—	—	—	—	—	—
44	—	—	—	—	—	—
45	—	—	—	—	—	—
46	—	—	—	—	—	—
47	—	—	—	—	—	—
Subtotal District 4	—	—	—	—	—	—
334-51	—	—	0	0	—	0
52	—	—	1,048	0	—	1,048
53	—	—	0	0	—	0
54	—	—	0	0	—	0
55	—	—	0	0	—	0
Subtotal District 5	—	—	1,048	0	—	1,048
334-61	0	0	808	447	—	1,255
62	0	4,589	14,771	8,361	—	27,721
63	0	181	67	3	—	—
Subtotal District 6	0	4,770	15,646	8,811	—	28,976
Total Upper Yukon	0	4,770	16,694	8,811	0	30,024
Grand Total Yukon Area	0	358,856	191,470	129,700	7,378	687,153

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, 2015.

District/ Subdistrict	Number of Fishermen ^a	Chinook	Summer Chum	Fall Chum	Coho	Pink
1	299	0	172,639	100,562	66,029	7,326
2	207	0	181,447	74,214	54,860	52
Subtotal	480	0	354,086	174,776	120,889	7,378
3	—	—	—	—	—	—
Total Lower Yukon	480	0	354,086	174,776	120,889	7,378
Anvik River	—	—	—	—	—	—
4-A	—	—	—	—	—	—
4-BC	—	—	—	—	—	—
Subtotal						
District 4	—	—	—	—	—	—
5-ABC	1	—	—	1,048	0	—
5-D	—	—	—	—	—	—
Subtotal						
District 5	1	—	—	1,048	0	—
6	5	0	4,770	15,646	8,811	—
Total Upper Yukon	6	0	4,770	16,694	8,811	—
Total Alaska	486	0	358,856	191,470	129,700	7,378
Total Canada	9	0	0	2,862	0	0
Grand Total	495	0	358,856	194,332	129,700	7,378

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 harvest provided for subsistence use and related information, Yukon Area, 2015.

Community	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 wheel	Other
Hooper Bay	112	291	534	11,870	79	95	111	0	0	1
Scammon Bay	84	120	432	8,598	119	79	75	1	0	8
Coastal District total	196	196	966	20,468	198	174	186	1	0	9
Nunam Iqua ^d	25	116	210	2,239	210	229	12	2	0	11
Alakanuk ^d	83	181	436	4,469	1,067	581	23	37	0	23
Emmonak ^d	102	236	612	9,973	3,244	852	10	66	0	26
Kotlik ^d	97	123	661	4,960	1,356	438	21	74	0	2
District 1 subtotal	307	656	1,919	21,641	5,877	2,100	66	179	0	62
Mountain Village ^d	104	249	370	6,063	1,398	723	12	60	0	32
Pitkas Point	18	54	44	1,225	172	72	0	8	0	10
St. Marys ^d	87	100	261	8,216	1,611	391	4	57	0	26
Pilot Station ^d	60	86	382	4,702	1,346	305	2	47	0	11
Marshall	50	263	128	4,351	1,731	1,511	0	32	0	18
District 2 subtotal	319	752	1,185	24,557	6,258	3,002	18	204	0	97
Russian Mission	53	177	365	2,626	449	154	8	29	0	16
Holy Cross	22	52	68	421	763	246	5	16	0	1
Shageluk	8	40	14	80	176	28	7	1	0	0
District 3 subtotal	83	269	447	3,127	1,388	428	20	46	0	17
Lower Yukon River total	709	1,677	3,551	49,325	13,523	5,530	104	429	0	176
Anvik ^d	14	50	58	777	680	46	4	8	0	2
Grayling ^d	25	91	22	509	1,184	212	12	12	0	1
Kaltag	25	47	119	216	1,255	18	0	25	0	0
Nulato	32	101	33	6	2,248	48	0	29	0	3
Koyukuk	22	42	26	0	2,838	416	3	17	2	0
Galena ^d	41	159	372	1,059	2,542	654	10	26	5	0
Ruby	13	96	68	88	713	185	12	0	1	0
District 4 Yukon River subtotal	172	586	698	2,655	11,460	1,579	41	117	8	6
Huslia	20	203	34	3,110	736	294	17	0	0	3
Hughes	2	70	4	1,499	490	16	2	0	0	0
Allakaket	20	189	35	2,455	524	40	20	0	0	0
Alatna	2	21	0	58	64	12	2	0	0	0
Bettles	0	26	0	0	0	0	0	0	0	0
Koyukuk River subtotal	44	509	73	7,122	1,814	362	41	0	0	3
District 4 subtotal	216	1,095	771	9,777	13,274	1,941	82	117	8	9

-continued-

Table 8.–Page 2 of 3.

Community	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 wheel	Other
Tanana	28	372	141	3,162	19,627	2,434	7	0	21	0
Rampart ^e	3	9	1	0	186	2	3	0	0	0
Fairbanks NSB ^{d,e}	18	177	263	575	2,454	0	17	0	1	0
Stevens Village	0	0	0	0	0	0	0	0	0	0
Birch Creek	0	14	0	0	0	0	0	0	0	0
Beaver	5	13	69	0	76	0	3	0	2	0
Fort Yukon ^d	38	296	480	0	6,257	2	25	0	13	0
Circle ^e	10	175	129	0	1,652	0	5	0	5	0
Central ^e	3	6	56	0	0	0	3	0	0	0
Eagle ^{d,e,f}	15	196	395	0	17,185	0	9	0	6	0
Other District 5 ^{e,g}	6	5	7	8	229	0	6	0	0	0
District 5 Yukon River subtotal	126	1,263	1,541	3,745	47,666	2,438	78	0	48	0
Venetie	12	182	308	0	2,423	24	12	0	0	0
Chalkyitsik	2	33	0	0	171	0	2	0	0	0
Chandalar and Black Rivers subtotal	14	215	308	0	2,594	24	14	0	0	0
District 5 subtotal	140	1,478	1,849	3,745	50,260	2,462	92	0	48	0
Manley ^{d,e}	8	57	121	9	1,697	1,263	7	0	1	0
Minto ^e	5	60	15	0	140	270	2	0	3	0
Nenana ^e	15	120	263	60	3,151	2,712	10	0	5	0
Healy ^e	1	24	0	0	830	647	1	0	0	0
Fairbanks NSB ^e	32	219	38	392	3,576	3,253	27	0	4	1
Other District 6 ^{e,h}	20	34	0	11	31	0	14	0	0	6
District 6 Tanana River subtotal	81	514	437	472	9,425	8,145	61	0	13	7
Upper Yukon River total	1,146	4,979	6,608	63,319	86,482	18,078	339	546	69	192
Alaska, Yukon Area total	1,342	5,175	7,574	83,787	86,680	18,252	525	547	69	201
AK, Yukon Area percentages of the total		–	4%	43%	44%	9%	39%	41%	5%	15%
Included in the Community totals above										
Survey community subtotal	1,206	4,093	5,299	78,913	53,072	9,211	421	547	44	194
Subsistence permit subtotal	108	1,082	1,140	817	30,979	7,817	82	0	25	1
Subsistence test fishery subtotal	–	–	1,046	3,819	2,477	894	–	–	–	–
District 6 commercial retained	–	–	84	18	72	185	–	–	–	–
Subsistence harvests subtotal	1,314	5,175	7,569	83,567	86,600	18,107	503	547	69	195
Personal use permit subtotals	28	–	5	220	80	145	22	0	0	6

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Table 8.–Page 3 of 3.

- ^a Other gear types included dip nets and beach seines. An estimated total of 186 surveyed and permit households used dip nets and 9 households used beach seines as their primary gear.
- ^b Does not include 66 households that fished with a Tolovana River pike permit. Includes 8 households that fished more than 1 permit in District 5 or District 6 permit areas.
- ^c Total number of dogs in each community estimated by subsistence surveys or reported on permits. Does not include 10 duplicate dogs reported on more than one permit.
- ^d Includes salmon distributed from test fishery projects. A total of 62 Chinook salmon were distributed to the upper river communities of Anvik, Grayling, Galena and Fairbanks from the Lower Yukon test fishery project.
- ^e Permit data from permits returned by March 7, 2016.
- ^f Permit holders harvested 341 Chinook and 12,540 fall chum salmon above the Eagle sonar project.
- ^g Other District 5 includes residents of Anchorage, Manley, Nenana, and Wasilla, and the Upper Tanana River drainage community of Tok who obtained a household permit and fished in a Yukon River permit required area.
- ^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 Anchorage 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 2015 salmon escapement counts compared to existing goals.

Location	Assessment method	Escapment goal (type)	2015 escapement
<u>Chinook salmon</u>			
E. Fork Andreafsky	Weir	2,100–4,900 (SEG)	6,705
W. Fork Andreafsky	Aerial survey	640–1,600 (SEG)	1,356
Anvik	Aerial survey	1,100–1,700 (SEG)	2,616
Nulato (Forks Combined)	Aerial survey	940–1900 (SEG)	1,564
Gisasa	Weir	none	1,319
Henshaw	Weir	none	2,391
Chena ^a	Tower/Sonar	2,800–5,700 (BEG)	6,291
Salcha ^b	Tower	3,300–6,500 (BEG)	6,879
Goodpaster	Tower	none	2,000
Upper Yukon River mainstem	Sonar-harvest	42,500–55,000	83,674
<u>Summer chum salmon</u>			
E. Fork Andreafsky	Weir	>40,000 (BEG)	50,338
Anvik	Sonar	350,000–700,000 (BEG)	374,968
Gisasa	Weir	none	42,747
Henshaw	Weir	none	238,529
Chena ^a	Tower/Sonar	none	8,620
Salcha ^c	Tower	none	12,812
<u>Fall chum salmon</u>			
Drainagewide	Bayesian	300,000–600,000 (SEG)	562,000
Chandalar River	Sonar	74,000–152,000 (BEG)	164,486
Sheenjek River ^d	none	50,000–104,000 (BEG)	—
Upper tributary ^e	none	152,000–312,000 (BEG)	—
Tanana River ^d	none	61,000–136,000 (BEG)	—
Delta River	Ground Surveys	6,000–13,000 (BEG)	33,401
Fishing Branch River	Weir Count (expanded)	22,000–49,000 (IMEG)	8,351
Upper Yukon River mainstem	Sonar-Harvest	70,000–104,000 (IMEG)	108,658
<u>Coho Salmon</u>			
Delta Clearwater River	Boat Survey	5,200–17,000	19,533

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

^a Preliminary estimate. Final estimate will be reported by project operator in separate report. Estimate is based on DIDSON sonar counts and a mixture model to create estimates for days with missed counts.

^b Preliminary estimate. Final estimate will be reported by project operator in separate report. Estimate uses a binomial mixed-effects model to create passage estimates for the periods of missed counts prior to the start of tower operations on July 12.

^c Due to high water events this estimate should be considered incomplete.

^d Project did not operate in 2015.

^e Not measurable because Sheenjek River did not operate in 2015.

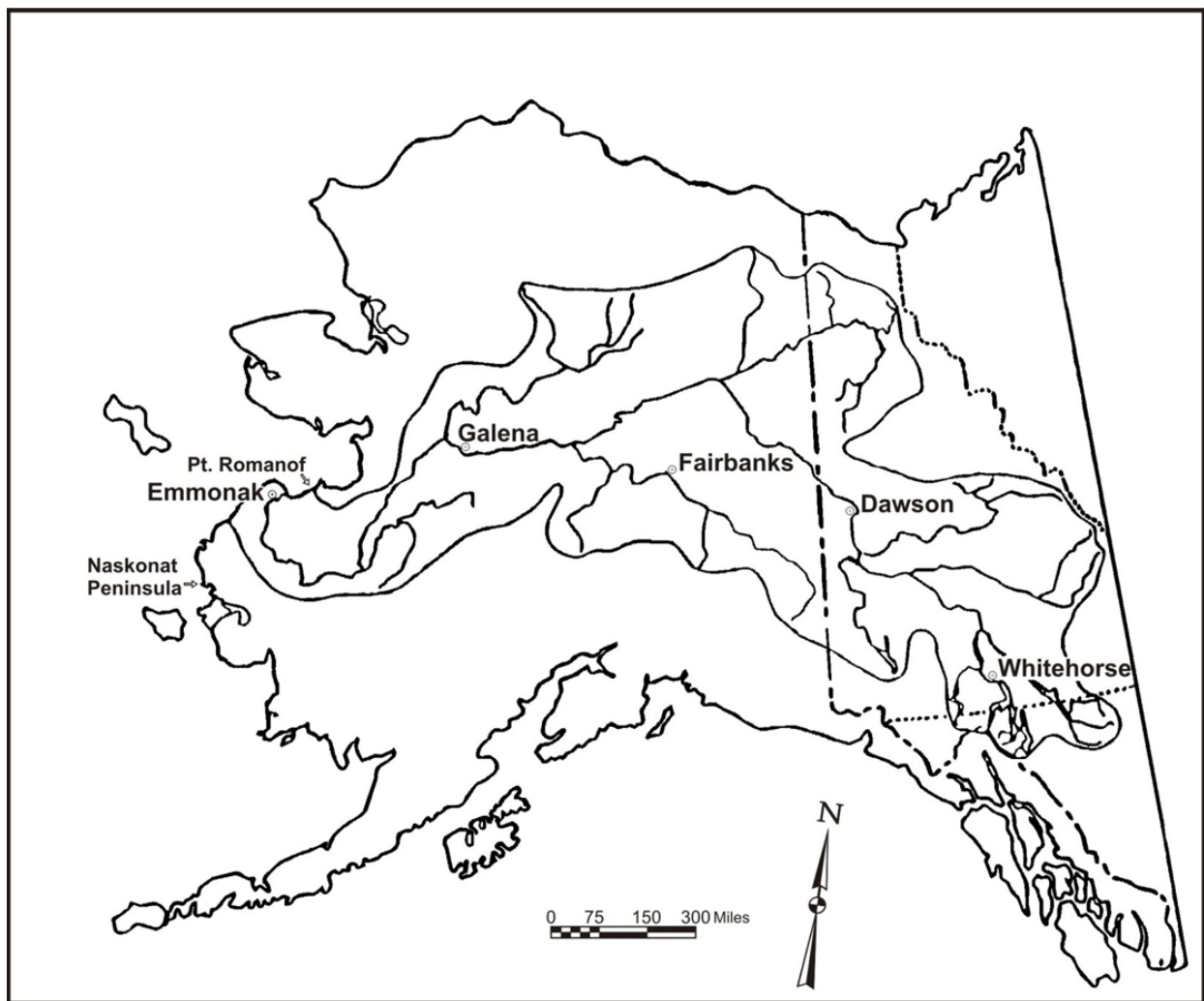


Figure 1.—Map of the Yukon River drainage.

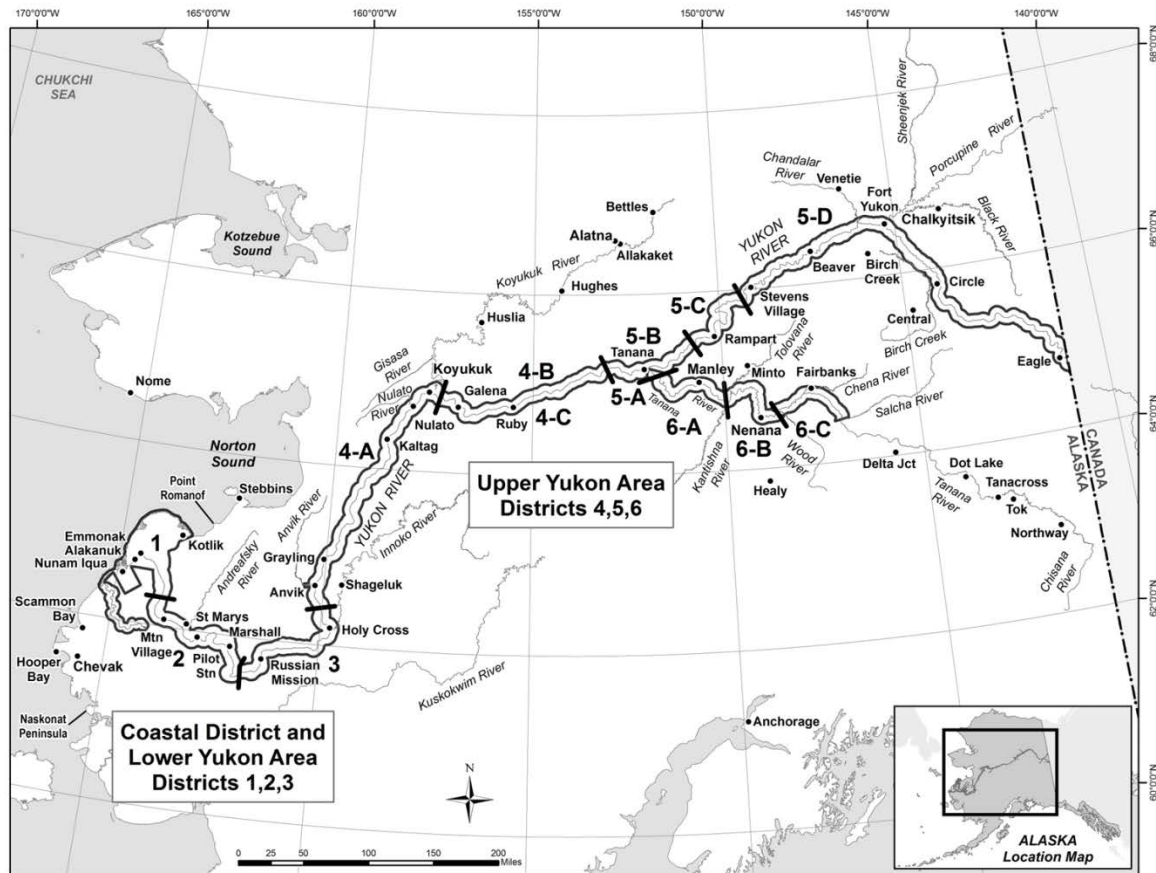


Figure 2.—Map of the Alaska portion of the Yukon River drainage showing communities and fishing districts.

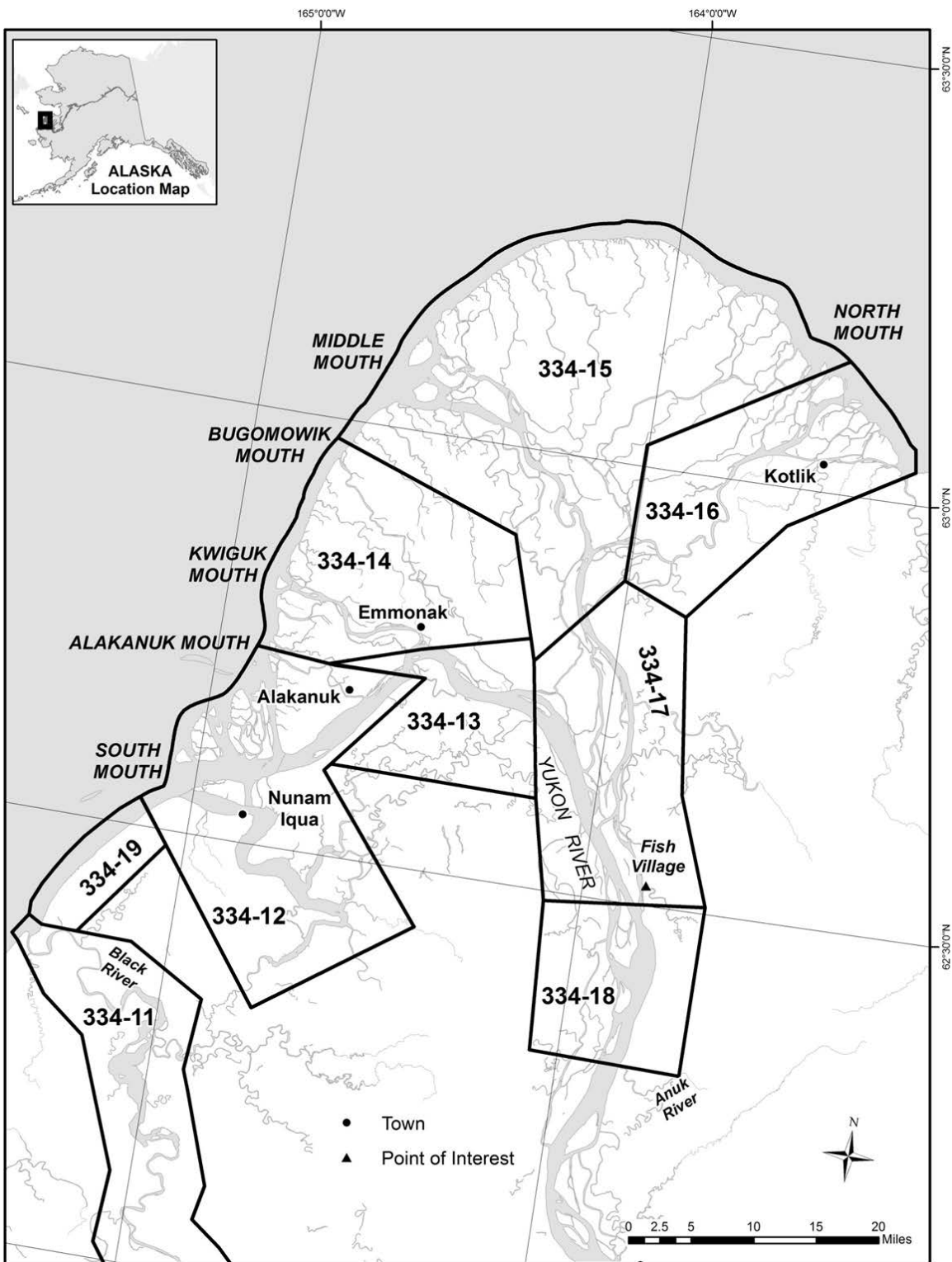


Figure 3.—District 1 showing statistical areas, Yukon Area.

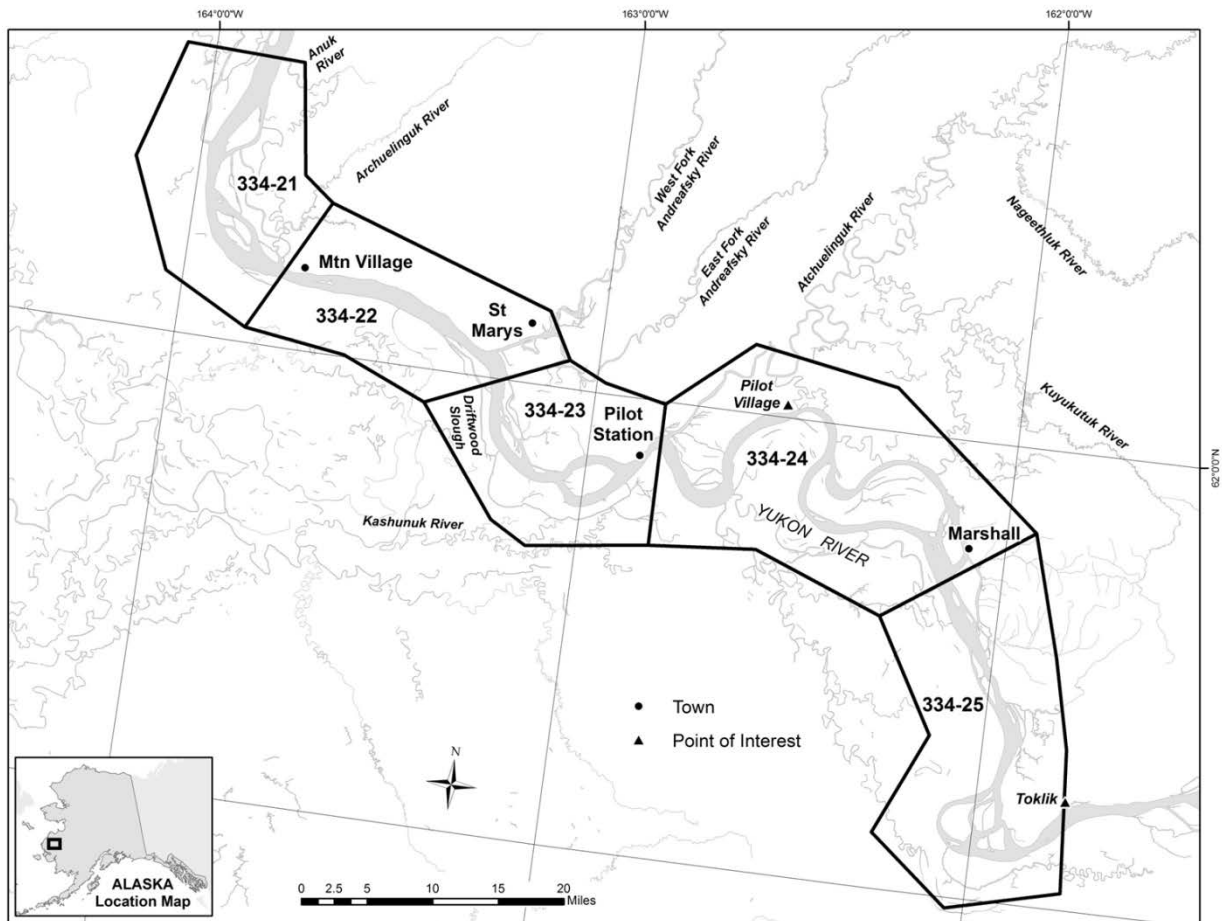


Figure 4.—District 2 showing statistical areas, Yukon Area.

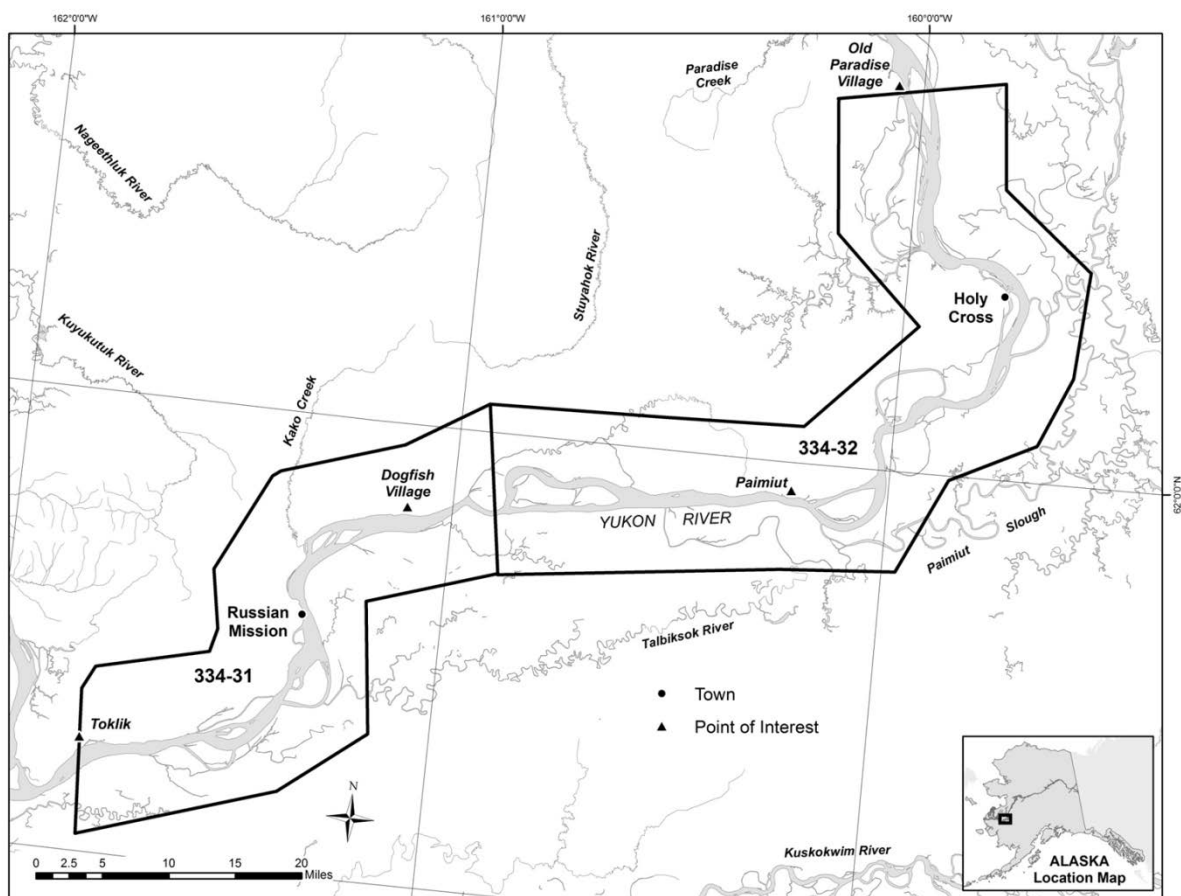


Figure 5.—District 3 showing statistical areas, Yukon Area.

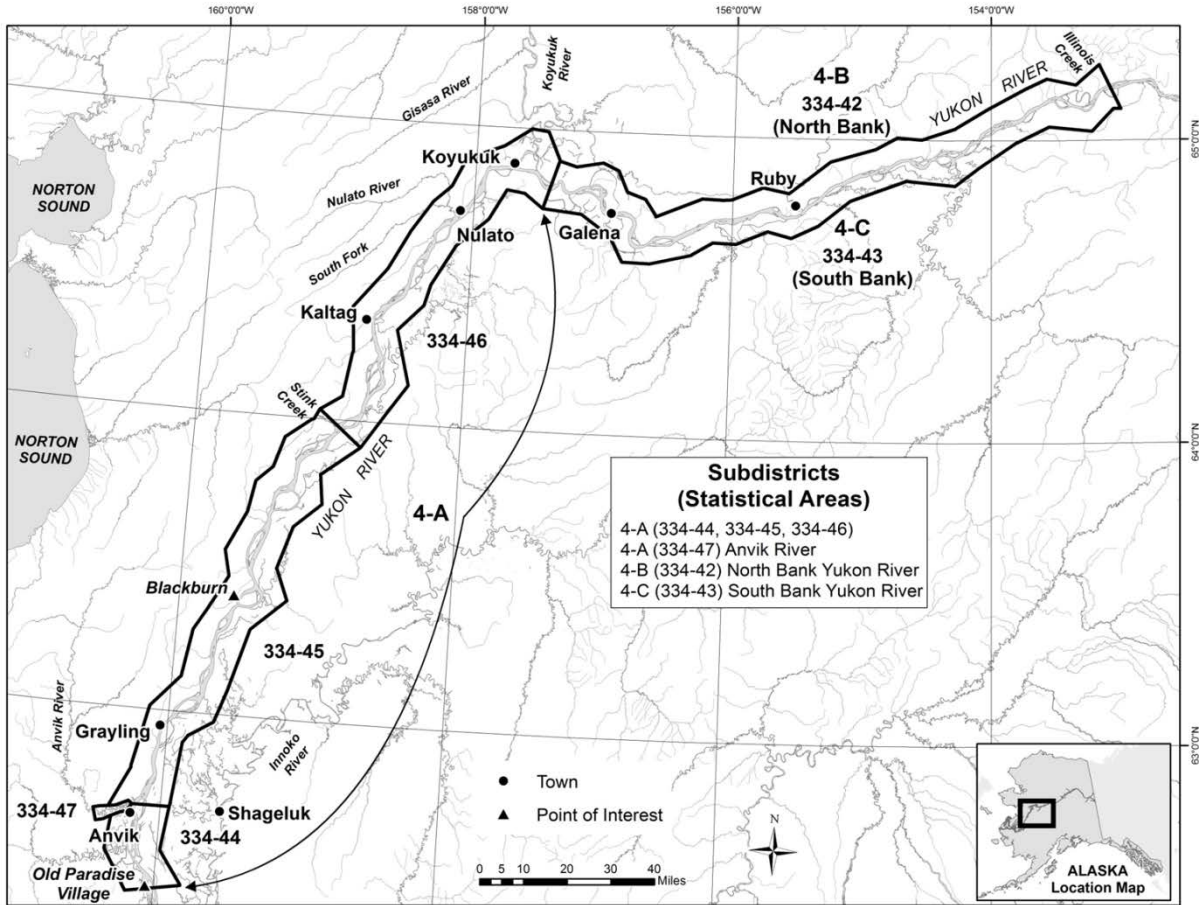


Figure 6.—District 4 showing statistical areas, Yukon Area.

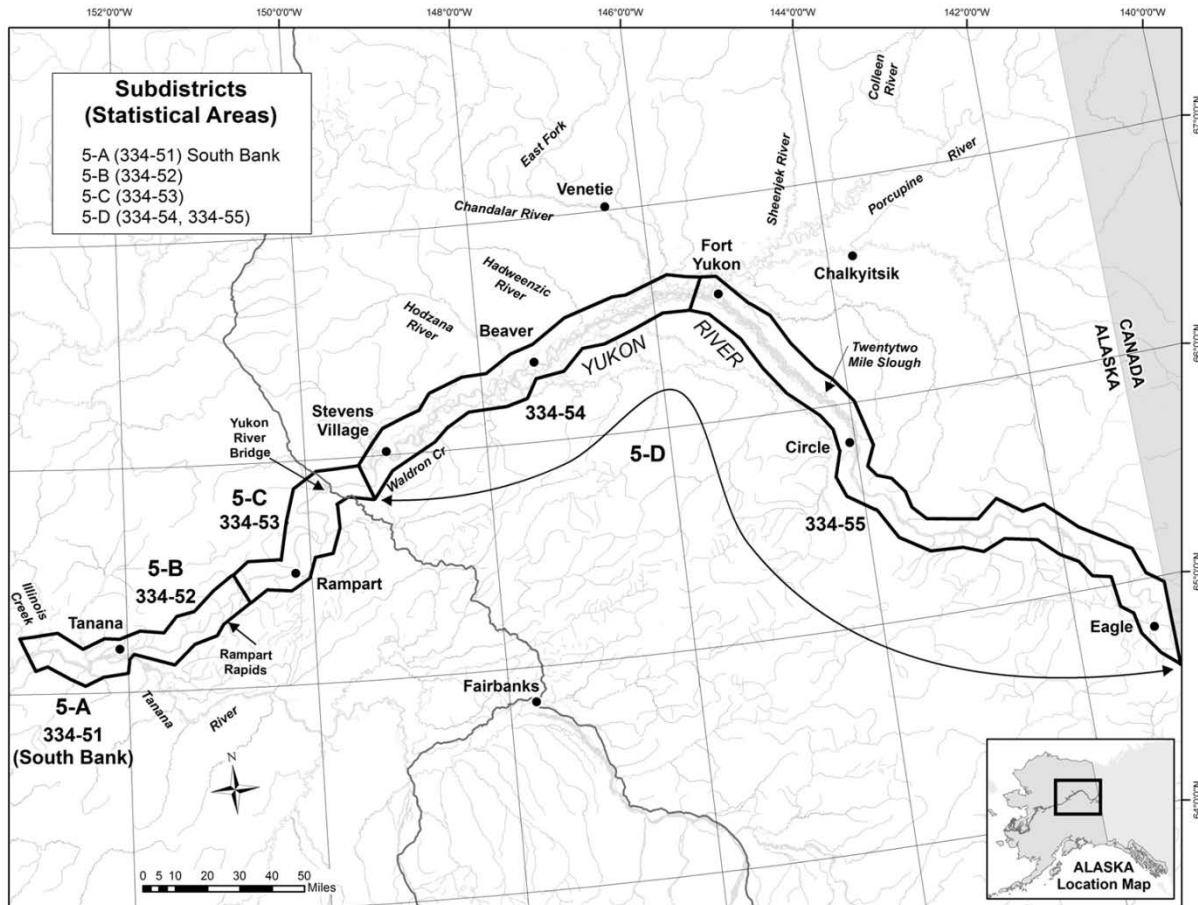


Figure 7.—District 5 showing statistical areas, Yukon Area.

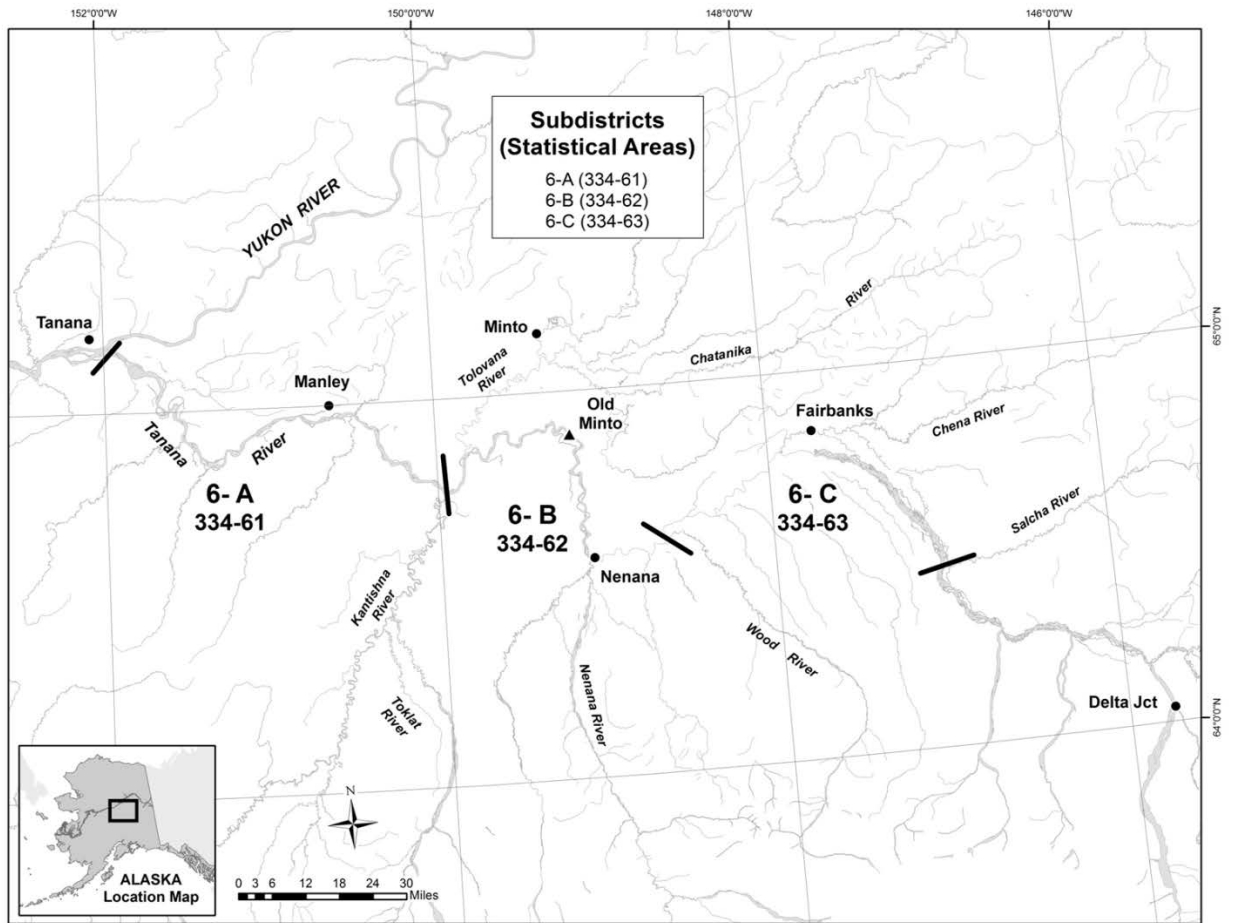


Figure 8.—District 8 showing statistical areas, Yukon Area.

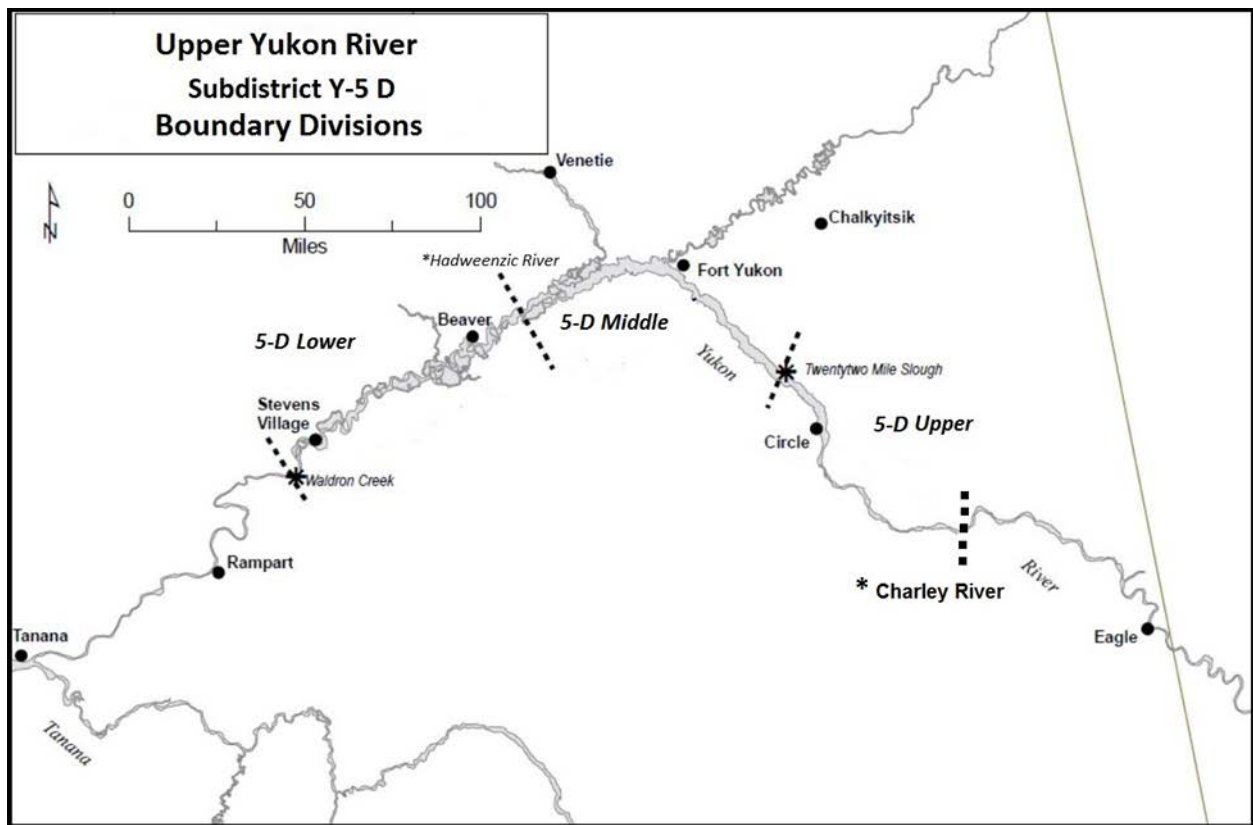


Figure 9.—Subdistrict 5-D boundary divisions, Yukon Area.

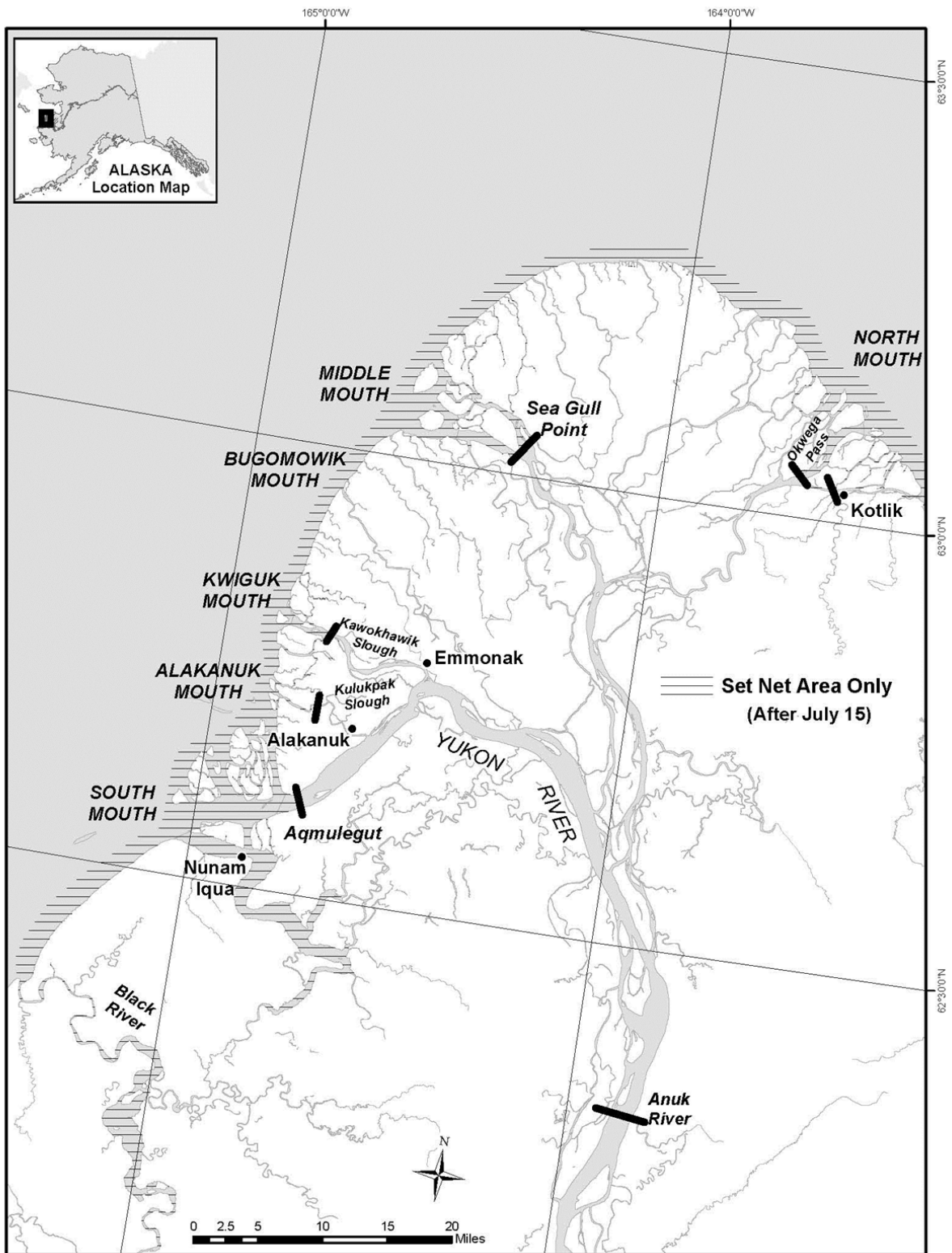


Figure 10.—Set gillnet only area of District 1, Yukon Area.

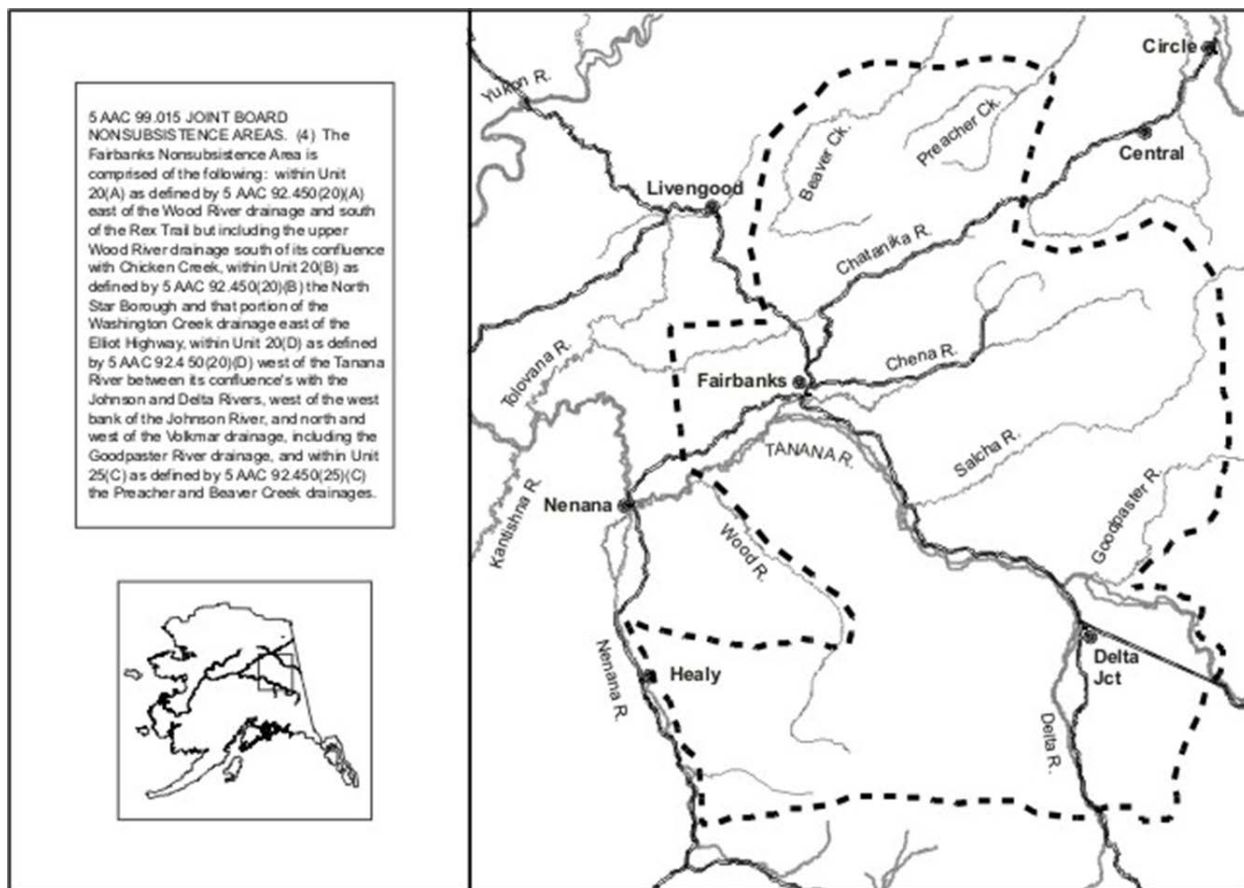


Figure 11.–The Fairbanks Nonsubsistence Area.

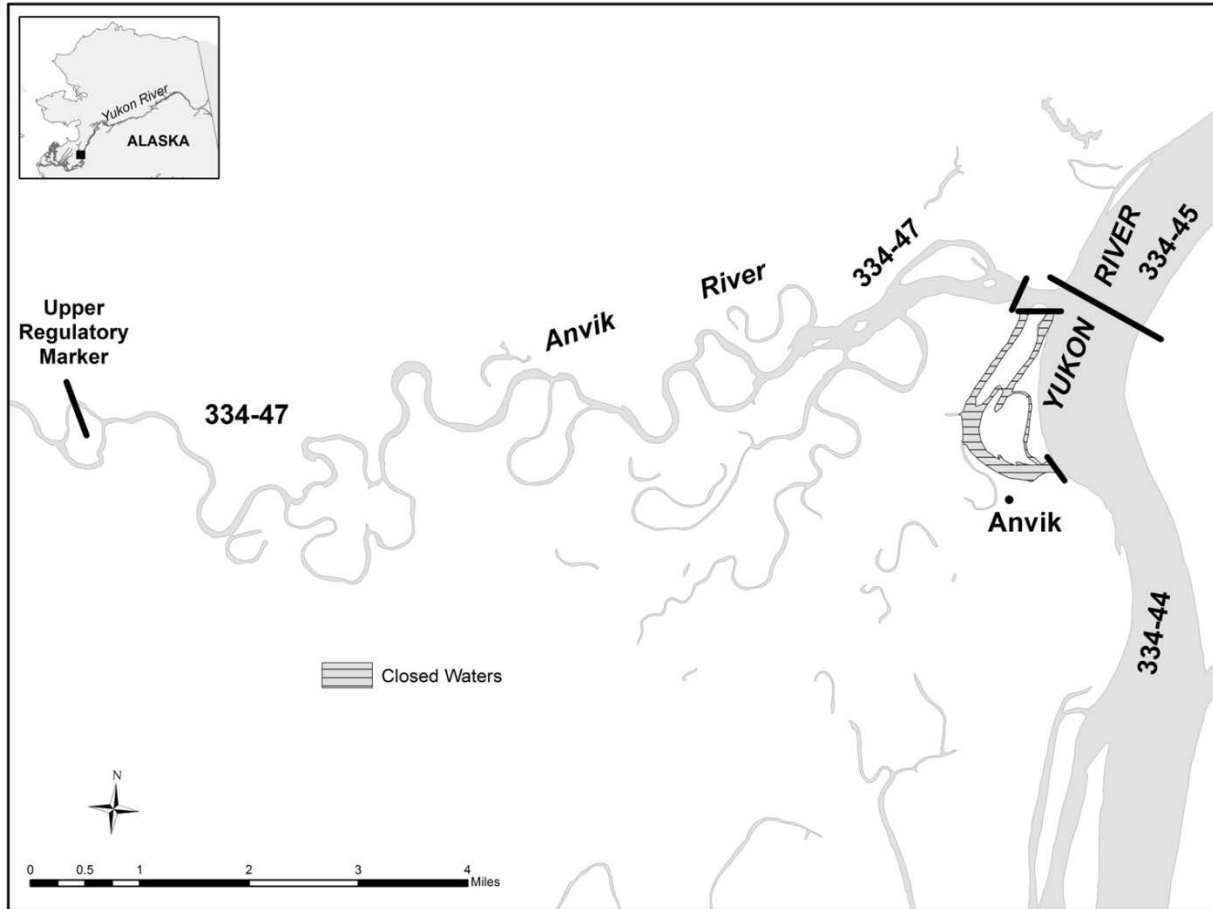


Figure 12.—Anvik River management area, Yukon Area.

APPENDIX A

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

Species Code ^a	Scientific Name	Common Name
601	<i>Lampetra camtschatica</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
250	<i>Microgadus proximus</i>	Pacific tomcod
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
160	<i>Megalocottus platycephalus</i>	Sculpin

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

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

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<u>Location</u>	<u>Mileage from Mouth</u>	<u>Location</u>	<u>Mileage from Mouth</u>
<u>(District 4/5 Boundary)</u>		Fort Yukon	1,002
Mouth, Tozitna River	681	Mouth, Porcupine River	1,002
Tanana Village	695	Mouth, Black River	1,026
Mouth, Tanana River	695	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
Mouth, Salcha River	965	Eagle	1,213
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		

-continued-

<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, McClinton 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, 1995–2015.

Lower Yukon Area ^a				
Year	District 1	District 2	District 3	Subtotal
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
2015 ^b	0	0	–	0
2010–2014				
Average	1,156	840		1,996
2005–2014				
Average	6,746	5,310	253	12,106

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Year	Upper Yukon Area ^c								
	District 4			District 5			District 6		
	Number	Roe	Estimated Harvest ^{c, d}	Number	Roe	Estimated Harvest ^d	Number	Roe	Estimated Harvest ^d
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
2015	0	0	0	–	–	–	0	0	0
2010–2014									0
Average	0	0	0				0	0	0
2005–2014									
Average	0	0	0	1,516	0	1,516	82	0	82

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Year	Upper Yukon Area Subtotal			Total		
	Number	Roe	Estimated Harvest ^d	Alaska Harvest	Canada Harvest	Yukon River
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
2015	0	0	0	0	0	0
2010–2014						
Average	0	0	0	1,996	1	1,997
2005–2014						
Average	537	0	537	12,643	677	13,320

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 were prohibited during the summer season. Commercial sales were prohibited during the fall season from 2012 to 2015.

^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, 1995–2015.

Lower Yukon Area				
Year	District 1 ^a	District 2 ^a	District 3	Subtotal
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
2015	172,639	181,447	—	354,086
2010–2014				
Average	164,523	128,289		292,813
2005–2014				
Average	111,398	88,945	59	200,354

-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
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
2015	–	–	–	–	–	–	4,770	0	4,770
2010–2014									
Average	87,330	0	87,330				6,094	0	6,094
2005–2014									
Average	54,994	0	54,994	7	0	7	10,837	0	10,837

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Year	Upper Yukon Area Subtotal ^c			Total		
	Number	Roe	Estimated Harvest ^d	Number	Roe	Estimated Harvest ^d
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
2015	4,770	0	4,770	358,856	0	358,856
2010–2014						
Average	75,958	0	75,958	368,771	0	368,771
2005–2014						
Average	49,335	0	49,335	249,689	0	249,689

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 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 The estimated harvest is the number of fish sold in the round plus the estimated number of females caught to produce the roe sold plus the estimated number of unsold males.

^e The number of female fish from which roe were extracted is the number harvested. Males not purchased and recorded as caught but not sold are included in personal use totals.

^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, 1995–2015.

Lower Yukon Area				
Year	District 1 ^a	District 2 ^a	District 3 ^a	Subtotal
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	51,829	59,138	–	110,967
2015	100,562	74,214	–	174,776
2010-2014				
Average	85,308	79,139		164,447
2005-2014				
Average	77,679	52,477		130,156

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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
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
2015	–	–	–	1,048	0	1,048	15,646	0	15,646
2010-2014									
Average				1,493	0	1,493	11,171	0	11,171
2005-2014									
Average	406	0	406	2,623	0	2,623	15,144	55	15,204

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	Upper Yukon Area					
	Subtotal			Total		
Year	Numbers ^a	Roe ^b	Estimated Harvest ^c	Estimated Harvest	Canada Total	Grand Total
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	115,599	2,485	118,084
2015	16,694	0	16,694	191,470	2,862	194,332
2010-2014						
Average	12,527	0	12,527	176,974	3,311	180,286
2005-2014						
Average	17,323	55	17,384	147,539	4,405	151,944

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 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, 1995–2015.

Year	Lower Yukon Area			Subtotal
	District 1 ^a	District 2 ^a	District 3 ^a	
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	54,804	48,602	—	103,406
2015	66,029	54,860	—	120,889
2010–2014				
Average	33,646	26,869	—	60,515
2005–2014				
Average	28,575	21,238	—	47,689

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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
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
2015	–	–	–	0	0	0	8,811	0	8,811
2010–2014									
Average				159	0	159	4,509	0	4,509
2005–2014									
Average	0	0	0	121	0	121	5,969	26	5,998

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Year	Upper Yukon Area			Alaska Total Harvest
	Subtotal			
	Numbers ^a	Roe ^b	Estimated Harvest ^c	
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	104,692
2015	8,811	0	8,811	129,700
2010–2014				
Average	4,636	0	4,636	65,151
2005–2014				
Average	6,042	26	6,070	53,759

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, 1995–2015.

Year	Lower Yukon Area		Upper Yukon Area		Upper Yukon Area		Total	
	Set or Drift Gillnet		Set Gillnet		Fish wheel			
	Permits Issued ^a	Permits Fished ^b	Permits Issued ^a	Permits Fished ^b	Permits Issued ^a	Permits Fished ^b	Permits Issued ^a	Permits Fished
1995	707	663	73	19	166	35	946	717
1996	707	627	72	11	165	38	944	676
1997	705	640	72	18	163	35	940	693
1998	704	643	72	6	160	22	936	671
1999	704	632	72	13	162	23	938	668
2000	704	561	72	0	160	0	936	561
2001	700	0	72	0	156	0	928	0
2002	702	540	72	12	156	12	930	564
2003	703	557	72	7	157	20	932	584
2004	692	551	67	9	137	14	896	574
2005	691	581	67	6	135	15	893	602
2006	686	574	66	10	128	26	880	610
2007	684	566	66	6	124	24	874	596
2008	681	474	64	2	124	20	869	496
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	820	494
2013	653	451	51	0	103	16	807	467
2014	653	468	47	0	100	14	800	482
2015	649	480	46	0	98	6	793	486
2010–2014								
Average	661	455	53	0	108	14	821	469

^a Information obtained from CFEC. Permits issued are the number of active permanent and interim permits.

^b Data obtained from ADF&G fish ticket database. Only permits that made at least one commercial delivery are included.

Appendix A8.—Number of commercial salmon fishing permit holders making at least one delivery by district and season, Yukon Area, 1995–2015.

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
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 ^b	—	—	—	—	—	—	—	—	—
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
2015	270	177	0	435	0	0	2	2	437
2010–2014									
Average	237	180	0	409	7	0	3	10	419

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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	
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 ^b	–	–	–	–	–	–	–	–	–	
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	
2015	266	184	0	440	0	1	5	6	446	
2010–2014										
Average	216	157	0	362	1	2	4	7	369	

-continued-

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Combined season ^c									
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
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 ^b	–	–	–	–	–	–	–	–	–
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
2015	299	207	0	480	0	1	5	6	486
2010–2014									
Average	272	204	0	455	7	2	5	15	470

^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 No commercial fishing.

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

Appendix A9.—Type of commercial salmon processing, Yukon Area, 1995–2015.

Year	Fresh-Frozen (round wt in lb)			Salmon Roe (lb)
	Chinook	Coho	Chum	
1995	2,635,972	317,357	3,524,754	498,925
1996	1,836,242	400,960	1,733,129	443,939
1997	2,324,306	255,228	1,089,678	190,359
1998	779,936	9	191,692	28,919
1999	1,368,658	10,342	352,970	50,696
2000	158,776	0	50,782	6,286
2001	—	—	—	—
2002	472,678	—	93,416 ^a	931
2003	841,748	165,757	144,942	0
2004	1,142,053	117,295	165,587	0
2005	597,191	410,398	1,637,483	273
2006	857,552	390,502	1,844,981	0
2007	594,003	331,412	1,890,820	5,939
2008	65,558	243,030	1,877,347	29,094
2009	4,194	55,464	1,260,795	4,709
2010	127,846	23,986	1,457,912	0
2011	985	516,498	3,483,462	0
2012	—	457,466	3,810,797	0
2013	—	454,839	4,497,391	0
2014	—	712,839	4,152,050	0
2015	—	935,921	3,513,754	0

Note: En dash indicates no commercial fishing activity occurred. 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, 1995–2015.

Year	Lower Yukon Area					Upper Yukon Area							
	Chinook	Summer	Fall	Coho	Pink	Chinook	Summer		Fall		Coho	Roe	Roe
		Chum	Chum				Chinook	Roe	Chum	Roe			
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	–
2015	–	0.60	0.60	0.70	0.12	–	–	0.23	–	0.14	–	0.12	–
2010–2014													
Average	5.00	0.71	0.90	1.17	0.07			0.29		0.21		0.24	

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, 1995–2015.

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	
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	–	–	–	1,648,866	154,959	1,803,825	13,672	1,817,593 ^a
2015	–	–	–	1,259,908	7,166	1,267,074	1,674	1,269,200 ^a
2010–2014								
Average	322,078		322,078	1,295,158	103,877	1,399,035	13,672	1,530,620

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Year	Fall Season								
	Fall Chum			Coho			Pink		Total
	Lower Yukon Value	Upper Yukon Value	Subtotal	Lower Yukon Value	Upper Yukon Value	Subtotal	Lower Yukon Value	Total Season	Total Value
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	621,975	8,156	630,131	706,569	2,380	708,949	19	1,339,099	3,156,692
2015	762,142	15,683	777,825	616,165	6,877	623,042	2,017	1,402,884	2,672,084
2010–2014									
Average	959,080	16,226	975,307	437,565	4,832	442,396	19	1,417,707	2,948,326

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

^a Includes coho salmon sold during the season only.

Appendix A12.—Average weight of salmon harvested in the commercial fishery, Yukon Area, 1995–2015.

Year	Lower Yukon Area ^a					Upper Yukon Area ^a			
	Chinook	Summer Chum	Fall Chum	Coho	Pink	Chinook	Summer Chum	Fall Chum	Coho
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
2015	—	5.9	7.3	7.3	4.0	—	6.5	6.7	6.2
2005–2014									
Average	15.4	6.5	7.1	6.8	3.4	13.7	5.6	6.6	5.9

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, 1995–2015.

Year	District 1				District 2			
	Subsistence ^a	Commercial ^b	Test Fish		Subsistence	Commercial ^b	Test Fish	
			Sales	Total			Sales	Total
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 ^c	0	0	1,634	1,104 ^c	0	0	1,104
2014	1,356 ^c	0	0	1,356	616 ^c	0	0	616
2015	1,919 ^c	0	0	1,919	1,185 ^c	0	0	1,185
2010–2014								
Average	3,883	1,156	0	5,039	5,069	840	0	5,909
2005–2014								
Average	4,594	6,746	192	11,532	6,806	5,310	6	12,121

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Year	District 3			Lower Yukon Area Subtotals			
	Subsistence	Commercial	Total	Subsistence ^a	Commercial	Test Fish Sales	Total
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 ^c	–	444	3,182 ^c	0	0	3,182
2014	48 ^c	–	48	2,020 ^c	0	0	2,020
2015	447 ^c	–	447	3,551 ^c	0	0	3,551
2010–2014							
Average	2,257		2,257	11,209	1,996	0	13,205
2005–2014							
Average	3,522	253	3,573	14,922	12,106	198	27,226

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Year	District 4				District 5			
	Subsistence	Commercial	Commercial Related ^d	Total	Subsistence	Commercial	Commercial Related ^d	Total
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 ^c	0	0	2,901	4,541 ^c	–	–	4,541
2014	132 ^c	0	0	132	288 ^c	–	–	288
2015	771 ^c	–	–	771	1,849 ^c	–	–	1,849
2010–2014								
Average	6,695	0	0	6,695	6,437			6,437
2005–2014								
Average	9,143	0	0	9,143	10,524	1,516	0	10,979

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Year	District 6					Total
	Subsistence	Commercial	Commercial Related ^d	Personal Use	Test Fish Sales	
1995	1,779	1,660	1,087	399	0	4,925
1996	1,177	278	169	215	0	1,839
1997	2,712	1,966	762	313	0	5,753
1998	1,919	882	81	357	0	3,239
1999	1,624	402	288	331	0	2,645
2000	983	–	–	75	0	1,058
2001	2,327	–	–	122	0	2,449
2002	1,067	836	230	126	0	2,259
2003	2,145	1,813	0	204	0	4,162
2004	1,388	2,057	0	201	0	3,646
2005	1,828	453	0	138	0	2,419
2006	1,229	84	0	89	0	1,402
2007	1,717	281	0	136	0	2,134
2008	605	0	0	126	0	731
2009	1,285	0	0	127	0	1,412
2010	1,143	0	0	162	0	1,305
2011	1,367	0	0	89	0	1,456
2012	627	0	0	71	0	698
2013	367 ^c	0	0	42	0	409
2014	283 ^c	0	0	1	0	284
2015	432 ^c	0	0	5	0	437
2010–2014						
Average	757	0	0	73	0	830
2005–2014						
Average	1,045	82	0	98	0	1,225

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Alaska Yukon River Totals							
Year	Subsistence ^a	Commercial	Commercial Related ^d	Personal Use	Test Fish Sales	Sport Fish	Total
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 ^c	0	0	42	0	166	11,199
2014	2,723 ^c	0	0	1	0	0	2,724
2015	6,603 ^c	0	0	5	0	^e	6,608
2010–2014							
Average	25,099	1,996	0	73	0	292	27,460
2005–2014							
Average	35,634	12,643	0	98	198	491	49,063

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Canada: Yukon Territories Totals								
Year	Mainstem Yukon						Porcupine Aboriginal	Total Canadian
	Non-Commercial			Test fish ^f	Commercial	Subtotal		
	Domestic	Aboriginal	Sport					
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	–	737	390	5,838	99	5,937
1999	213	8,804	177	–	3,160	12,354	114	12,468
2000	–	4,068	–	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	–	4,175	2	617	–	4,794	300	5,094
2008	–	2,885	0	513	1	3,399	314	3,713
2009	17	3,791	125	–	364	4,297	461	4,758
2010	–	2,455	1	–	–	2,456	250	2,706
2011	–	4,550	40	–	4	4,594	290	4,884
2012	–	2,000	0	–	0	2,000	200	2,200
2013	0	1,902	0	–	2	1,904	242	2,146
2014	0	100	–	–	–	100	3	103
2015	–	1,000 ^c	–	–	–	1,000	204	1,204
<hr/>								
2010–2014								
Average	0	2,201	10		2	2,211	197	2,408
2005–2014								
Average	36	3,399	134	565	967	4,328	277	4,605

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Year	Yukon River Drainage (Alaska/Canada) Totals							Total Alaska Yukon Area		
	Subsistence ^{a,g}	Commercial	Commercial Related ^d	Personal Use	Alaska Test Fish	Sport Fish	Total	Coastal District	Alaska Total	Yukon Area Total
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 ^c	0	0	71	0	345	30,927	2,104	28,727	30,831
2013	13,135 ^c	2	0	42	0	166	13,345	1,542 ^c	11,199	12,741
2014	2,826 ^c	0	0	1	0	0	2,827	563 ^c	2,724	3,287
2015	7,807	0	0	5	0	^e	7,812	966 ^c	6,608	7,574
2010–2014										
Average	27,497	1,997	0	73	0	300	29,867	1,256	27,460	28,715
2005–2014										
Average	39,440	13,320	0	98	198	612	53,668	1,160	49,063	50,224

Note: En dash indicates no 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 Data are preliminary.

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

^e Data are unavailable at this time.

^f Canadian Chinook salmon 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.

^g Includes Alaska subsistence harvest and Canadian Domestic, test fishery, and Aboriginal harvests.

Appendix A14.–Summer chum salmon total utilization in numbers of fish by district and area, Yukon River drainage, 1995–2015.

Year	District 1				District 2			
	Subsistence ^a	Commercial	Test Fish		Subsistence	Commercial	Test Fish	
			Sales	Total			Sales	Total
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 ^b	207,871	2,304	238,691	32,499 ^b	171,272	0	203,771
2014	23,894 ^b	198,240	0	222,134	26,134 ^b	229,107	0	255,241
2015	21,641 ^b	172,639	2,494	196,774	24,557 ^b	181,447	0	206,004
2010–2014								
Average	28,308	164,523	716	193,547	27,926	128,289	228	156,443
2005–2014								
Average	26,809	111,398	426	138,633	26,445	88,945	114	115,503

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Year	District 3			Lower Yukon Area Subtotal			
	Subsistence	Commercial	Total	Subsistence ^a	Commercial	Test Fish Sales	Total
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 ^b	–	4,692	65,707 ^b	379,143	2,304	447,154
2014	3,748 ^b	–	3,748	53,776 ^b	427,347	0	481,123
2015	3,127 ^b	–	3,127	49,325 ^b	354,086	2,494	405,905
2010–2014							
Average	4,241		4,241	60,475	292,813	943	354,231
2005–2014							
Average	3,668	59	3,679	56,922	200,354	540	257,816

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Year	District 4					District 5			
	Subsistence	Commercial	Commercial Related ^c	Anvik River ^d	Total	Subsistence	Commercial	Commercial Related ^c	Total
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	–	–	–	–	11,830	20	0	11,850
2007	16,256	7,304	0	–	23,560	8,881	0	0	8,881
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 ^b	100,507	0	–	114,268	11,417 ^b	–	–	11,417
2014	9,981 ^b	96,385	0	–	106,366	3,108 ^b	–	–	3,108
2015	9,777 ^b	–	–	–	9,777	3,745 ^b	–	–	3,745
2010–2014									
Average	14,037	87,330	0		83,901	6,136			6,136
2005–2014									
Average	14,226	54,994	0		56,914	6,703	7	0	6,705

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Year	District 6						Upper Yukon Area Subtotals					
	Subsistence	Commercial	Commercial Related ^c	Personal Use	Test Fish		Subsistence	Commercial	Commercial Related ^c	Personal Use	Test Fish	
					Sales	Total					Sales	Total
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	27,837	44,641	0	262	0	57,743
2007	1,896	14,674	0	184	0	16,754	27,033	21,978	0	184	0	49,195
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 ^b	5,937	0	138	0	7,169	26,272 ^b	106,444	0	138	0	132,854
2014	731 ^b	6,912	0	235	0	7,878	13,820 ^b	103,297	0	235	0	117,352
2015	252 ^b	4,770	0	220	0	5,242	13,774 ^b	4,770	0	220	0	18,764
2010–2014												
Average	750	6,094	0	290	0	7,134	20,923	75,958	0	290	0	97,171
2005–2014												
Average	1,123	10,837	0	250	0	12,210	22,052	49,335	0	250	0	70,137

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Year	Alaska Yukon River Total							Total Alaska Yukon Area	
	Subsistence ^a	Commercial	Commercial Related ^c	Personal Use	Test Fish Sales	Sport Fish ^e	Total	Coastal District	Yukon Area Total
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	90,907	92,116	0	262	456	583	184,324	24,171	208,495
2007	76,805	198,201	0	184	10	245	275,445	16,121	291,566
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 ^b	485,587	0	138	2,304	1,423	581,431	23,135 ^b	604,566
2014	67,596 ^b	530,644	0	235	0	374	598,849	19,304 ^b	618,153
2015	63,099 ^b	358,856	0	220	2,494	^f	424,669	20,468 ^b	445,137
2010–2014									
Average	81,398	368,771	0	290	943	709	452,111	21,282	473,393
2005–2014									
Average	78,974	249,689	0	250	540	535	329,988	19,198	349,185

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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 Data are preliminary.

^c 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.

^d 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.

^e Estimated sport fish harvest for all chum salmon (assumes majority of chums caught during summer season) in Alaskan portion of the drainage.

^f Data are unavailable at this time.

Appendix A15.–Fall chum salmon total utilization in numbers of fish by district, area, and country, Yukon River drainage, 1995–2015.

Year	District 1				District 2			
	Subsistence ^a	Commercial	Test Fish Sales ^b	Total	Subsistence	Commercial	Test Fish Sales ^b	Total
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	92	132,708
2013	3,673 ^c	106,588	121	110,382	4,878 ^c	106,274	0	111,152
2014	4,072 ^c	51,829	30	55,931	5,817 ^c	59,138	0	64,955
2015	5,877 ^c	100,562	50	106,489	6,258 ^c	74,214	0	80,472
2010-2014								
Average	4,401	85,308	45	89,753	3,605	79,139	18	82,763
2005-2014								
Average	3,792	77,679	31	81,502	3,385	58,308	10	55,872

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Year	District 3			Lower Yukon Area Subtotals			
	Subsistence	Commercial	Total	Subsistence ^a	Commercial	Test Fish Sales ^b	Total
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	166	280,883
2013	1,764 ^c	–	1,764	10,315 ^c	212,862	121	223,298
2014	2,457 ^c	–	2,457	12,346 ^c	110,967	30	123,343
2015	1,388 ^c	–	1,388	13,523 ^c	174,776	50	188,349
2010-2014							
Average	1,246	–	1,246	8,497	141,037	53	149,586
2005-2014							
Average	1,200	–	1,200	8,378	130,156	40	138,574

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Year	District 4				District 5			
	Subsistence	Commercial	Commercial Related ^d	Total	Subsistence	Commercial	Commercial Related ^d	Total
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	–	–	15,936	51,197 ^c	1,264	0	52,461
2015	13,274 ^c	–	–	13,274	50,260 ^c	1,048	0	51,308
2010-2014								
Average	12,646	811	–	12,808	55,573	1,493	0	56,767
2005-2014								
Average	10,234	406	–	10,315	53,076	2,623	0	55,174

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Year	District 6						Upper Yukon Area Subtotals					
	Subsistence ^c	Commercial	Commercial Related ^d	Personal Use	Test Fish Sales ^b	Total	Subsistence ^c	Commercial	Commercial Related ^d	Personal Use	Test Fish Sales ^b	Total
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	–	–	262	–	15,733	78,225	681	0	262	–	79,168
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	16,079	1,286	607	78	–	18,050	61,544	1,286	607	78	–	63,515
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
2015	9,345 ^c	15,646	0	80 ^c	–	25,071	72,879 ^c	16,694	0	80 ^c	–	89,653
2010-2014												
Average	13,040	11,171	0	925	–	25,136	81,258	12,527	0	925	–	94,711
2005-2014												
Average	16,718	15,144	61	553	–	32,475	80,027	17,323	61	553	–	97,964

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Year	Alaska Yukon River Totals						Canada: Yukon Area Totals					
	Subsistence ^a	Commercial	Commercial Related ^d	Personal Use	Test Fish Sales ^b	Total	Mainstem Yukon River		Commercial	Subtotal	Porcupine	
							Domestic	Aboriginal			Aboriginal	Total
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	1,238	8,068	9,306	6,294	15,600
1998	62,867	–	–	2	–	62,869	0	1,795	0	1,795	6,159	7,954
1999	89,736	20,371	0	262	1,171	111,540	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	3,167	3,065	6,232	1,860	8,092
2003	56,784	10,996	0	394	0	68,174	0	1,493	9,030	10,523	382	10,905
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	65,961	25,269	607	78	0	91,915	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	166	389,566	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	115,599	0	278 ^c	30	207,884	19	546	2,485	3,050	1,983	5,033
2015	86,402 ^c	191,470	0	80 ^c	50	278,002	35	1,000	2,862	3,897	556	4,453
2010-2014												
Average	90,571	176,974	0	925	63	268,534	7	854	3,311	4,173	2,263	6,435
2005-2014												
Average	88,405	147,479	61	553	40	236,538	5	1,393	4,405	5,803	2,992	8,795

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Year	Yukon River Drainage (Alaska/Canada) Totals						Total Alaska Yukon Area		
	Subsistence ^{a,e}	Commercial	Commercial Related ^d	Personal Use	Alaska Test Fish ^b	Total	Coastal District	Alaska Total	Yukon Area Total
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	102,673	64,781	1,474	284	867	170,079	0	154,479	154,479
1998	70,821	0	0	2	–	70,823	34	62,869	62,903
1999	98,970	30,773	0	262	1,171	131,176	204	111,540	111,744
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	24,417	3,065	0	3	–	27,485	284	19,393	19,677
2003	58,659	20,026	0	394	0	79,079	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	67,679	25,562	607	78	0	93,926	158	91,915	92,073
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	166	393,471	11	389,566	389,577
2013	116,036 ^c	241,420	0	383	121	357,960	149 ^c	351,790	351,939
2014	94,525 ^c	118,084	0	278	30	212,917	252 ^c	207,884	208,136
2015	87,993 ^c	194,332	0	80	50	282,455	198 ^c	278,002	278,200
2010-2014									
Average	92,701	180,286	0	925	63	273,976	183	268,534	268,717
2005-2014									
Average	92,299	151,883	61	553	40	244,836	195	236,538	236,732

Note: En dash indicates no fishing activity occurred and insufficient information to generate averages.

^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 Data are preliminary.

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

^e 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, 1995–2015.

Year	District 1				District 2			
	Subsistence ^a	Commercial	Test Fish Sales ^b	Total	Subsistence	Commercial	Test Fish Sales ^b	Total
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	54,804	0	56,586	1,769 ^c	48,602	0	50,371
2015	2,100 ^c	66,029	8	68,137	3,002 ^c	54,860	0	57,862
2010-2014								
Average	1,721	33,646	8	35,375	1,115	26,866	0	27,981
2005-2014								
Average	1,508	28,575	4	30,087	1,455	21,236	0	20,567

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Year	District 3			Lower Yukon Area Subtotals			
	Subsistence	Commercial	Total	Subsistence ^a	Commercial	Test Fish Sales ^b	Total
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	103,406	0	107,297
2015	428 ^c	–	428	5,530 ^c	120,889	8	126,427
2010-2014							
Average	331		331	3,167	60,512	8	63,687
2005-2014							
Average	343		343	3,305	47,687	4	50,996

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Year	District 4				District 5			
	Subsistence	Commercial	Commercial Related ^d	Total	Subsistence	Commercial	Commercial Related ^d	Total
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	2,030 ^c	0	0	2,030
2015	1,941 ^c	–	–	1,941	2,462 ^c	0	0	2,462
2010-2014								
Average	3,072	0	0	3,072	2,283	211	0	2,409
2005-2014								
Average	2,806	0	0	2,806	2,642	181	0	2,714

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	District 6						Upper Yukon Area Subtotals					
	Year	Commercial		Personal	Test Fish		Subsistence	Commercial		Personal	Test Fish	
		Subsistence	Commercial	Related ^d	Use	Sales ^b		Commercial	Related ^d	Use	Sales ^b	Total
	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	12,803 ^c	1,286	0	174 ^c		14,263
	2015	8,000 ^c	8,811	0	145 ^c	16,956	12,403 ^c	8,811	0	145 ^c		21,359
	2010-2014											
Average	6,981	4,509	0	335		11,825	12,336	4,636	0	335		17,307
	2005-2014											
Average	8,834	5,969	29	232		15,063	14,282	6,042	29	232		20,584

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Year	Alaska Yukon River Totals							Canada: Yukon Territories Totals		
	Subsistence ^a	Commercial	Commercial	Personal	Test Fish	Sport	Total	Mainstem	Porcupine	Total
			Related ^d	Use	Sales ^b	Fish		Yukon River ^e	Aboriginal	
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	16,694 ^c	104,692	0	174 ^c	0	1,855	123,415	0	133	133
2015	17,933 ^c	129,700	0	145 ^c	8	^f	147,786	0	0	0
2010-2014										
Average	15,503	65,147	0	335	8	732	81,725	0	46	46
2005-2014										
Average	17,587	53,729	29	232	4	719	72,299	0	105	105

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Year	Yukon River Drainage (Alaska/Canada) Totals							Total Alaska Yukon Area		
	Subsistence ^{a,g}	Commercial	Commercial Related ^d	Personal Use	Alaska Test Fish ^b	Sport Fish	Total	Coastal District	Alaska Total	Yukon Area Total
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	16,827 ^c	104,692	0	174 ^c	0	1,855	123,548	204 ^c	123,415	123,619
2015	17,933 ^c	129,700	0	145 ^c	8	^f	147,786	174 ^c	147,786	147,960
2010-2014										
Average	15,548	65,147	0	335	8	732	81,771	153	81,725	81,878
2005-2014										
Average	17,692	53,729	29	232	4	719	72,404	185	72,299	72,484

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 Data are preliminary.

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

^e Includes Domestic, commercial, test, Sport, and Aboriginal harvest from the Mainstem Yukon River.

^f Data are unavailable at this time.

^g 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, 1995–2015.

Year	Coastal District			District 1			District 2		
	Subsistence	Commercial	Total	Subsistence	Commercial	Total	Subsistence	Commercial	Total
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 ^a	0	809	115 ^a	0	115	140 ^a	0	140
2014	2,635 ^a	0	2,635	3,292 ^a	49,317	52,609	920 ^a	5,434	6,354
2015	1,865 ^a	0	1,865	388 ^a	7,326	7,714	363 ^a	52	415
2010-2014									
Average	2,090	0	2,090	1,173	9,863	11,037	595	1,087	1,682
2005-2014									
Average	2,324	0	2,324	1,094	6,271	7,365	525	614	1,139

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Year	District 3				Lower Yukon Area Subtotals			
	Subsistence	Commercial	Commercial Related ^b	Total	Subsistence	Commercial	Commercial Related ^b	Total
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 ^a	–	0	12	1,076 ^a	0	0	1,076
2014	11 ^a	–	0	11	6,858 ^a	54,751	0	61,609
2015	0 ^a	–	0	0	2,616 ^a	7,378	0	9,994
2010-2014								
Average	27		0	27	3,885	10,950	0	14,836
2005-2014								
Average	63	0	0	63	4,005	6,885	0	10,890

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Year	District 4				District 5			
	Subsistence	Commercial	Commercial Related ^b	Total	Subsistence	Commercial	Commercial Related ^b	Total
1995	0	0	0	0	0	0	0	0
1996	59	0	0	59	0	0	0	0
1997	34	0	0	34	0	0	0	0
1998	700	–	0	700	0	0	0	0
1999	2	0	0	2	0	0	0	0
2000	31	–	–	31	0	–	–	0
2001	0	–	–	0	0	–	–	0
2002	221	–	–	221	0	0	0	0
2003	243	0	0	243	0	0	0	0
2004	12	–	–	12	0	0	0	0
2005	7	–	–	7	0	0	0	0
2006	1	–	–	1	0	0	0	0
2007	0	0	0	0	0	0	0	0
2008	1,023	0	0	1,023	276	0	0	0
2009	2	0	0	2	0	–	–	0
2010	0	0	0	0	0	–	–	0
2011	40	–	–	40	0	0	0	0
2012	104	0	0	104	3	0	0	0
2013	0 ^a	0	0	0	0 ^a	0	0	0
2014	66 ^a	–	0	66	8 ^a	0	0	8
2015	16 ^a	–	0	16	13 ^a	0	0	13
2010-2014								
Average	42	0	0	42	2	0	0	2
2005-2014								
Average	124	0	0	124	29	0	0	1

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Year	District 6				Upper Yukon Area Subtotals			
	Subsistence	Commercial	Commercial Related ^b	Total	Subsistence	Commercial	Commercial Related ^b	Total
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 ^a	0	0	0	0 ^a	0	0	0
2014	0 ^a	0	0	0	74 ^a	0	0	74
2015	0 ^a	0	0	0	29 ^a	0	0	29
2010-2014								
Average	0	0	0	0	44	0	0	44
2005-2014								
Average	0	0	0	0	153	0	0	153

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Year	Alaska Yukon Area Totals				
	Subsistence	Commercial	Commercial Related ^b	Sport Fish	Total
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 ^a	0	0	0	1,076
2014	6,932 ^a	54,751	0	0	61,683
2015	2,645 ^a	7,378	0	^c	10,023
2010-2014					
Average	3,930	10,950	0	10	14,890
2005-2014					
Average	4,158	6,885	0	11	11,054

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

^a Data are preliminary.

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

^c Data are unavailable at this time.

Appendix A18.—Percent of age composition of combined commercial and subsistence salmon harvest by species, Alaska portion of Yukon River drainage, 1995–2015.

Species / Run	Year	Sample Size	Age in years (Percent)					
			3	4	5	6	7	8
Chinook Salmon	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							
	2015 ^b							
2010–2014								
	Average	3,840	0.1	12.5	49.3	36.0	2.1	0.0
Chum Salmon/ Summer	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							
	2015 ^b							
2010–2014								
	Average	3,717	1.5	61.2	35.3	1.9	0.0	

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Species / Run	Year	Sample Size	Age in years (Percent)			
			3	4	5	6
Chum Salmon/ Fall	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					
	2015 ^b					
Coho Salmon	2010–2014					
	Average	2,484	4.1	72.9	22.2	0.8
	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					
	2015 ^b					
	2010–2014					
	Average	714	16.4	78.6	5.0	

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 2015 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, 1995–2015.

Year	Lower	Middle	Upper		
			U.S.	Canada	Total
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	25.4	27.8	43.1	3.7	46.8
2015 ^a					
1995–2013					
Average	20.2	23.5	46.7	9.7	56.4
2002–2013					
Average	15.3	28.6	46.9	9.2	56.1
2009–2013					
Average	13.9	29.9	46.0	10.2	56.1

^a Data not available.

Appendix A20.—Salmon fishery projects conducted in the Alaska portion of the Yukon River drainage in 2015.

Project name	Location, River Mile (RM)	Primary Objective(s)	Duration	Agency	Responsibility
Commercial 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 and; 2) Commercial salmon fishery via receipts (fish tickets) of commercial sales of salmon.	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	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 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 postseason mail-out questionnaires.	Postseason	ADF&G	All aspects
Biological sampling of Yukon river salmon	Yukon, RM 17-1,002	Collect genetics samples and age, sex, and length information from subsistence caught Chinook salmon.	June - Aug	Spearfish Research	All aspects
Yukon river Chinook microsatellite baseline	Yukon River drainage	Survey standardized microsatellites and Yukon River Chinook salmon both U.S. and Canada populations.	Ongoing	ADF&G, USFWS, DFO	TI Funding R&E Funding
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 TI Funding
Yukon Delta smolt	Yukon Delta (mouths and delta platform)	1) Describe catch rates and distribution of juvenile Chinook; update juvenile life-history information on size and timing of marine entry. 2) Describe fish communities in Yukon Delta tributary, tidal channel, and delta front/prodelta habitats and investigate prey consumption by potential juvenile salmon competitors and predators. 3) Describe temporal and spatial patterns in juvenile Chinook nutritional status.	May-August	ADF&G NOAA-AFSC	All aspects

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Project Name	Location, River Mile (RM)	Primary Objective(s)	Duration	Agency	Responsibility
Local and Traditional Knowledge (LTK) of Freshwater Aspects of Chinook Salmon Life Cycle, Yukon River	St. Marys, Anvik, Huslia, Allakaket, and Fort Yukon	1) Identify and map the specific fresh-water habitat areas where local residents have personal experience through fishing or other activities;2) Conduct in-depth ethnographic interviews to document LTK of these areas regarding such factors as spawning density and behavior, water quality, migratory access; 3) Compare ethnographic data to results of area enumeration projects for potential correlation; 4) Consult the Anadromous Waters Catalog regarding identified areas and compare with results of key respondent interviews/maps.	December 2013 – June 2016	ADF&G	All aspects
Patterns and Trends in Subsistence Salmon Fishing on the Yukon River	Alakanuk, Marshall, Nulato, Galena, Beaver, and Eagle.	1) Compare community and household harvest databases; conduct quality and control assessment; 2) Analyze the databases to identify harvest patterns and trends that influence harvest activities for three salmon species (Chinook, summer chum and fall chum salmon) in six communities.	December 2013 – January 2017	ADF&G, APU	All aspects. APU statistical analysis macro-level patterns
Yukon River Commercial Harvest Chum Salmon Mixed-Stock Analysis	Yukon River Delta	Genetic stock identification of fall chum salmon in commerical harvests.	July – Aug.	ADF&G	All aspects Funded by R&E
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 TI 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
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, size composition information.	June – Sept.	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, size composition information.	June – Aug.	ADF&G, YDFDA	All aspects
Mountain Village Drift Gillnet Test Fishing	Mainstem Yukon River, RM 87	1) Index fall chum and coho salmon run timing and relative abundance using drift gillnets and; 2) Sample captured salmon for age, sex, size composition information.	July – Sept.	Sandone Consulting LLC, ATC, ADF&G	All aspects R&E funding
East Fork Weir, Andreafsky River	RM 20 East Fork, Yukon RM 124	Estimate daily escapement, with age, sex and size composition, of Chinook and summer chum salmon into the East Fork of the Andreafsky River.	June – Aug.	USFWS	All aspects OSM Funding

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Project Name	Location, River Mile (RM)	Primary Objective(s)	Duration	Agency	Responsibility
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
Inseason Monitoring of Subsistence Salmon Harvests	Marshall, Yukon RM 161	Collected inseason data by conducting door-to-door salmon harvest surveys during the fishing season with reference to: 1) local research assistant capacity with staff oversight; 2) financial costs; 3) community response; provide regular updates to managers; and 4) currently producing report outlining results.	May – Jan.	ADF&G	All aspects
Yukon River Sonar	Pilot Station, RM 123	Estimate Chinook and summer and fall chum salmon passage in the mainstem Yukon River. Apportionment of species including coho salmon and other finfish.	May – Sept.	ADF&G	All aspects
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
Henshaw Creek Weir	RM 1 Henshaw Creek, Koyukuk River drainage, RM 976	1) Estimate daily escapement of Chinook and summer chum salmon into Henshaw Creek and; 2) Estimate age, sex, and size composition of the Chinook and summer chum salmon escapements.	June – Aug.	TCC, USFWS-OSM	All aspects oversight & funding report write-up
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
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
Subdistrict 5-B Subsistence Harvest Chum Salmon Genetics	Tanana to Rapids, RM 695 – 731	Genetic stock identification of fall chum salmon in the subsistence harvests.	Aug. – Sept.	Spearfish Research (SR), ADF&G	Collections (SR), Genetic Analysis (ADF&G), R&E 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) Characterize 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 the test nets and fish wheel. Feasibility year.	Jul. – Sept.	ADF&G	All aspects

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Project Name	Location, River Mile (RM)	Primary Objective(s)	Duration	Agency	Responsibility
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 AYKSSF Funding
Salcha River Tower	RM 4 Salcha River, Tanana River drainage, RM 967	Estimate daily escapement of Chinook and summer chum salmon into the Salcha River.	July – Aug.	BSFA	All aspects R&M Funding
Upper Tanana Escapement Surveys	Tanana River drainage, RM 991-1,053	Aerial and boat surveys for numbers and distribution of chum and coho salmon in the side sloughs and tributaries of the Tanana River drainage.	Nov.	ADF&G	All aspects
Goodpaster River Tower	RM 45 Goodpaster River, Tanana River drainage, RM 1,049	Estimate daily escapement of Chinook and summer chum salmon into the Goodpaster River.	July – Aug.	BSFA	All aspects Pogo Mine funding
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
In-river coded-wire-tag (CWT) recovery (Whitehorse Hatchery tags)	Yukon River drainage	Collection of Chinook salmon heads from all operating project that are marked with no adipose fin and send to lab to extract data tag. (Appendix A17)	May-Sept	ADF&G	Decoding

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Acronyms:

ADF&G	= Alaska Department of Fish and Game
ADPS	= Alaska Department of Public Safety
AFSC	= Alaska Fisheries Science Center
APU	= Alaska Pacific University
ATC	= Asacarsarmiut Tribal Council
AVCP	= Association of Village Council Presidents, Inc.
AYKSSF	= Arctic-Yukon-Kuskokwim Sustainable Salmon Fund
BSFA	= Bering Sea Fishermen's Association
DFO	= Department of Fisheries and Oceans (Canada)
DNA	= Deoxyribonucleic acid
NOAA	= National Oceanic and Atmospheric Association
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.
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 2015.

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 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 count 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 percent 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.	VGFN & EDI	Joint Project
Porcupine River Sonar - Chinook	Old Crow	1) Installation and operation of two ARIS sonars to 1) estimate Chinook salmon daily passage, and 2) conduct biological sampling for species apportionment, age, sex and length.	Aug. – Oct.	EDI & VGFN	All aspects
Porcupine River Sonar - Chum	Old Crow	1) Operation of two ARIS sonars to 1) estimate chum salmon daily passage, and 2) conduct biological sampling for species apportionment, age, sex and length.	Aug. – Oct.	DFO	All aspects
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 enumeration of Chinook salmon providing daily passage, and; 2) obtain carcass survey, ASL, and genetic samples.	July – Aug.	Metla Env. Inc. & 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.	Metla Env. Inc.	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 Chinook salmon eggs from brood stock collected in Yukon River spawning tributaries, and/or the Whitehorse Rapids Fishway, and; 2) To rear, mark with CWT, adipose clip, and release fry to natal streams and/or restoration sites.	Ongoing	YC, YEC, TKC, DFO	Field work, project monitoring, technical support
Fox Creek Restoration Program	Whitehorse Area	Rear, tag and release Whitehorse Rapids Chinook salmon fry in Fox Creek.	Ongoing	TKC	All aspects
Big Salmon River Juvenile Chinook Assessment	Big Salmon River	1) Operation of Rotary Screw Trap, Gee minnow traps and seine nets to capture juvenile Chinook salmon and use CPUE and mark-recapture to initiate development of an abundance index 2) sample juvenile chinook salmon to monitor change in size through the season.	May – Aug.	DFO & Metla Env. Inc.	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, 1995–2015.

Year	Average Nome April Air Temp (°F)	Tanana River Nenana Ice Breakup	Ice out Yukon Delta Area	First Chinook Caught Yukon Delta Area ^a	First Summer Chum Caught Yukon Delta Area ^a	First District 1 Commercial Period
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
2015	21 ^g	4/24	5/19	5/27	5/24	6/11
1995–2014						
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_Climo_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

^g Source: <http://www.aos.org/2015-yukon-chinook-forecasting/>

Appendix A23.–List of emergency orders and their descriptions for Districts 1–6 in the Chinook and summer chum salmon fishery, Yukon Area, 2015.

EO Number: 3-S-SY-01-15 Effective Date: May 20, 2015

Effective 8:00 p.m. Wednesday, May 20, gillnets are restricted to 6-inch or smaller mesh size in the Coastal District of the Yukon Area.

EO Number: 3-S-SY-02-15 Effective Date: May 20, 2015

Effective 8:00 p.m. Wednesday, May, 20, 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-03-15 Effective Date: May 30, 2015

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-04-15 Effective Date: May 30, 2015

Subsistence salmon fishing closes in the Northern portion of the Coastal District from 62 degrees North latitude to Point Romanof and including all marine waters, District 1 (including the Black River), and District 2 effective 12:00 p.m. noon Saturday, May 30, in order to conserve Chinook salmon.

EO Number: 3-S-SY-05-15 Effective Date: May 30, 2015

Effective 12:00 p.m. noon Saturday, May 30, gillnets are restricted to 6-inch or smaller mesh size in District 3 in order to conserve Chinook salmon.

EO Number: 3-S-SY-06-15 Effective Date: June 3, 2015

Effective 8:00 p.m. Wednesday, June 3, in the lower portion of Subdistrict 4-A, and at 8:00 p.m. Saturday, June 6, in the upper portion of Subdistrict 4-A, gillnets are restricted to 6-inch or smaller mesh size in order to conserve Chinook salmon.

EO Number: 3-S-SY-07-15 Effective Date: June 3, 2015

Effective 8:00 p.m. Wednesday, June 3, fish wheels used for subsistence salmon fishing must be equipped for the live release of Chinook salmon effective at 8:00 p.m. Wednesday, June 3, in the lower portion of Subdistrict 4-A and at 8:00 p.m. Saturday, June 6, in the upper portion of Subdistrict 4-A. Fish wheels must be manned at all times of operation, or be equipped with a live box that must be checked at least once every six hours. All Chinook salmon caught in fish wheels must be released alive.

EO Number: 3-S-SY-08-15 Effective Date: June 4, 2015

Subsistence salmon fishing closes in District 3 effective at 8:00 p.m. Thursday, June 4, in order to conserve Chinook salmon.

EO Number: 3-S-SY-09-15 Effective Date: June 5, 2015

Effective 8:00 p.m. Friday, June 5, subsistence salmon fishing closes in the lower portion of Subdistrict 4-A. Additionally, subsistence salmon fishing closes in the upper portion of Subdistrict 4-A effective 6:00 p.m. Monday, June 8.

EO Number: 3-S-SY-10-15 Effective Date: June 7, 2015

Effective 6:00 p.m. Sunday, June 7, gillnets are restricted to 6-inch or smaller mesh size in Subdistricts 4-B and 4-C in order to conserve Chinook salmon.

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EO Number: 3-S-SY-11-15

Effective Date: June 7, 2015

Effective 8:00 p.m. Wednesday, June 3, fish wheels used for subsistence salmon fishing in Subdistricts 4-B and 4-C must be equipped for the live release of Chinook salmon. Fish wheels must be manned at all times of operation, or be equipped with a live box that must be checked at least once every six hours. All Chinook salmon caught in fish wheels must be released alive.

EO Number: 3-S-SY-12-15

Effective Date: June 6, 2015

Opens subsistence salmon fishing with dip nets only in District 1 and District 2 effective 6:00 p.m. Saturday, June 6, until 8:00 a.m. Wednesday, July 15. All Chinook salmon caught in dip net gear must be released to the water alive. Subsistence fishing in the Northern portion of the Coastal District remains closed.

EO Number: 3-S-SY-13-15

Effective Date: June 10, 2015

Subsistence salmon fishing closes in Subdistricts 4-B and 4-C effective 6:00 p.m. Wednesday, June 10, in order to conserve Chinook salmon.

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

Effective Date: June 10, 2015

Effective 6:00 p.m. Wednesday, June 10, gillnets are restricted to 6-inch or smaller mesh size in Subdistricts 5-A, 5-B, and 5-C in order to conserve Chinook salmon.

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

Effective Date: June 10, 2015

Effective 6:00 p.m. Wednesday, June 10, fish wheels used for subsistence salmon fishing in Subdistricts 5-A, 5-B, and 5-C must be equipped for the live release of Chinook salmon. Fish wheels must be manned at all times of operation, or be equipped with a live box that must be checked at least once every six hours. All Chinook salmon caught in fish wheels must be released alive.

EO Number: 3-S-SY-16-15

Effective Date: June 10, 2015

Subsistence salmon fishing with dip nets only opens in District 3 effective 8:00 p.m. Wednesday, June 10 until 12:00 p.m. noon Saturday, July 18. All Chinook salmon caught in dip net gear must be released to the water alive.

EO Number: 3-S-SY-17-15

Effective Date: June 10, 2015

Opens the commercial salmon fishing season and prohibits the sale of Chinook salmon in District 1 effective 2:00 p.m. Thursday, June 11.

EO Number: 3-S-SY-18-15

Effective Date: June 11, 2015

Salmon may be taken for commercial and subsistence use in District 1 from 2:00 p.m. until 12:00 a.m. each day, Thursday, June 11, and Friday, June 12. Also opens a subsistence only fishing period on Saturday, June 13, from 6:00 a.m. until 12:00 a.m. midnight.

Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

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EO Number: 3-S-SY-19-15

Effective Date: June 15, 2015

Opens subsistence salmon fishing with dip nets and live-release fish wheels effective 6:00 p.m. Monday, June 15, in the lower portion of Subdistrict 4-A and 6:00 p.m. Thursday, June 18, in the upper portion of Subdistrict 4-A. Additionally, salmon may be taken with dip nets and beach seine gear in the Anvik Special Management Area effective 6:00 p.m. Monday, June 15. All Chinook salmon caught in dip nets, beach seines, or fish wheels must be released to the water alive.

EO Number: 3-S-SY-20-15

Effective Date: June 14, 2015

Subsistence salmon fishing closes in Subdistricts 5-A, 5-B, and 5-C effective 6:00 p.m. Sunday, June 14, in order to conserve Chinook salmon.

EO Number: 3-S-SY-21-15

Effective Date: June 15, 2015

Restricts gillnets to 6-inch or smaller mesh size effective 8:00 p.m. Monday, June 15, in the lower portion of Subdistrict 5-D; effective 8:00 p.m. Friday, June 19, in the middle portion of Subdistrict 5-D; and effective 8:00 p.m. Sunday, June 21, in the upper portion of Subdistrict 5-D.

EO Number: 3-S-SY-22-15

Effective Date: June 15, 2015

Restricts fish wheels used for subsistence salmon fishing to be equipped for the live release of Chinook salmon effective 8:00 p.m. Monday, June 15, in the lower portion of Subdistrict 5-D; effective 8:00 p.m. Friday, June 19, in the middle portion of Subdistrict 5-D; and effective 8:00 p.m. Sunday, June 21, in the upper portion of Subdistrict 5-D. Fish wheels must be manned at all times of operation, or be equipped with a live box that must be checked at least once every six hours. All Chinook salmon caught in fish wheels must be released alive.

EO Number: 3-S-SY-23-15

Effective Date: June 15, 2015

Opens the commercial salmon fishing season and prohibits the sale of Chinook salmon in District 2 effective 12:00 p.m. noon Monday, June 15.

EO Number: 3-S-SY-24-15

Effective Date: June 14, 2015

Salmon may be taken for commercial and subsistence use in District 1 from 12:00 p.m. noon until 12:00 a.m. each day, Sunday, June 14, through Tuesday, June 16. Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

EO Number: 3-S-SY-25-15

Effective Date: June 15, 2015

Salmon may be taken for commercial and subsistence use in District 2 from 12:00 p.m. noon until 10:00 p.m. each day, Monday, June 15, through Wednesday, June 17. Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

EO Number: 3-S-SY-26-15

Effective Date: June 17

Salmon may be taken for commercial and subsistence use in District 1 from 12:00 p.m. noon until 12:00 a.m. each day, Wednesday, June 17, through Friday, June 19. Additionally, opens a subsistence only fishing period on Saturday, June 20, from 6:00 a.m. until 12:00 a.m. midnight.

Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

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EO Number: 3-S-SY-27-15

Effective Date: June 18, 2015

Salmon may be taken for commercial and subsistence use in District 2 from 12:00 p.m. noon until 10:00 p.m. each day, Thursday, June 18, and Friday, June 19. Additionally, opens a subsistence only fishing period on Saturday, June 20, from 6:00 a.m. until 10:00 p.m.

Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

EO Number: 3-S-SY-28-15

Effective Date: June 19, 2015

Personal use salmon fishing in Subdistrict 6-C closes effective 6:00 p.m. Friday, June 19, in order to conserve Chinook salmon.

EO Number: 3-S-SY-29-15

Effective Date: June 19, 2015

Opens a subsistence salmon fishing period in District 2 with dip net gear only from 6:00 a.m. to 11:00 a.m. Friday, June 19. All Chinook salmon must be released to the water alive.

EO Number: 3-S-SY-30-15

Effective Date: June 21, 2015

Salmon may be taken for commercial and subsistence use in District 1 from 12:00 p.m. noon until 12:00 a.m. each day, Sunday, June 21, through Tuesday, June 23. Additionally, opens subsistence only salmon fishing periods from 6:00 a.m. until 10:00 a.m. each day, Sunday, June 21, through Tuesday, June 23.

Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

EO Number: 3-S-SY-31-15

Effective Date: June 21, 2015

Salmon may be taken for commercial and subsistence use in District 2 from 12:00 p.m. noon until 10:00 p.m. each day, Sunday, June 21, through Tuesday, June 23. Additionally, opens subsistence only salmon fishing periods from 6:00 a.m. until 10:00 a.m. each day, Sunday, June 21, through Tuesday, June 23.

Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

EO Number: 3-S-SY-32-15

Effective Date: June 22, 2015

Salmon may be taken for subsistence use in Subdistricts 4-B and 4-C using dip nets and live-release fish wheels 24 hours a day, seven days per week. Fish wheels must be manned at all times of operation, or be equipped with a live box that must be checked every six hours. All Chinook salmon caught in dip nets or fish wheels must be released to the water alive.

EO Number: 3-S-SY-33-15

Effective Date: June 25, 2015

Subsistence salmon fishing in the Koyukuk River, including all adjacent tributaries, closes effective 8:00 p.m. Thursday, June 25.

EO Number: 3-S-SY-34-15

Effective Date: June 26, 2015

Subsistence salmon fishing in the Innoko River, including all adjacent tributaries, closes effective 8:00 p.m. Friday, June 26.

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EO Number: 3-S-SY-35-15

Effective Date: June 24, 2015

Salmon may be taken for commercial and subsistence use in District 1 from 7:00 a.m. until 7:00 p.m. Wednesday, June 24, and from 12:00 p.m. noon until 11:59 p.m. each day, Thursday, June 25, and Friday, June 26. Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

Additionally, opens a subsistence only salmon fishing period from 9:00 p.m. until 11:59 p.m. Wednesday, June 24, with 6-inch or smaller mesh size gillnets. Chinook salmon caught in gillnets may be retained for subsistence use. Two additional subsistence only fishing periods are scheduled from 6:00 a.m. until 10:00 a.m. each day, Thursday, June 25, and Friday, June 26, with beach seine and dip net gear only. All Chinook salmon caught in beach seine and dip net gear during subsistence salmon fishing periods must be released to the water alive.

EO Number: 3-S-SY-36-15

Effective Date: June 24, 2015

Salmon may be taken for commercial and subsistence use in District 2 from 12:00 p.m. noon until 10:00 p.m. each day, Wednesday, June 24, through Friday, June 26. Additionally, opens subsistence only salmon fishing periods from 6:00 a.m. until 10:00 a.m. each day, Wednesday, June 24, through Friday, June 26.

Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

EO Number: 3-S-SY-37-15

Effective Date: June 26, 2015

Effective 6:00 p.m. Friday, June 26, gillnets are restricted to 6-inch or smaller mesh size in Subdistricts 6-A and 6-B in order to conserve Chinook salmon.

EO Number: 3-S-SY-38-15

Effective Date: June 24, 2015

Effective 6:00 p.m. Friday, June 26, fish wheels used for subsistence salmon fishing in Subdistricts 6-A and 6-B must be equipped for the live release of Chinook salmon. Fish wheels must be manned at all times of operation, or be equipped with a live box that must be checked at least once every six hours. All Chinook salmon caught in fish wheels must be released alive.

EO Number: 3-S-SY-39-15

Effective Date: June 26, 2015

Salmon may be taken for subsistence use in District 3 with 6-inch or smaller mesh size gillnets from 8:00 p.m. until 11:00 p.m. Friday, June 26. Chinook salmon caught in gillnet gear may be retained for subsistence use. This emergency order does not alter the dip net subsistence fishing schedule. Any Chinook salmon caught in dip net gear must be released alive.

EO Number: 3-S-SY-40-15

Effective Date: June 27, 2015

Salmon may be taken for commercial and subsistence use in District 2 from 12:00 p.m. noon until 10:00 p.m. Saturday, June 27; from 8:00 a.m. until 6:00 p.m. Saturday, June 28; and from 12:00 p.m. noon until 10:00 p.m. Monday, June 29. Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

Additionally, opens three subsistence only salmon fishing periods. The first period opens from 6:00 a.m. until 10:00 a.m. Saturday, June 27, with dip nets and beach seines only. The second opens from 8:00 p.m. to 11:00 p.m. Sunday, June 28, with 6-inch or smaller mesh size gillnets. Any Chinook salmon caught in gillnet gear may be retained for subsistence use. The third period opens from 6:00 a.m. until 10:00 a.m. Monday, June 29, with dip nets and beach seines only. All Chinook salmon caught in beach seine and dip net gear during subsistence salmon fishing periods must be released to the water alive.

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EO Number: 3-S-SY-41-15

Effective Date: June 27, 2015

Salmon may be taken for commercial and subsistence use in District 1 from 12:00 p.m. noon until 11:59 p.m. each day, Saturday, June 27, through Monday, June 29. Additionally, opens subsistence only salmon fishing periods from 6:00 a.m. until 10:00 a.m. each day, Saturday, June 27, through Monday, June 29.

Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

EO Number: 3-S-SY-42-15

Effective Date: June 28, 2015

Salmon may be taken for subsistence use in the lower portion of Subdistrict 4-A from 6:00 p.m. until 10:00 p.m. Sunday, June 28, and in the upper portion of Subdistrict 4-A from 6:00 p.m. until 10:00 p.m. Friday, July 3, with 6-inch or smaller mesh size gillnets and fish wheels. Fish wheels are not required to be manned during these openings. Chinook salmon caught in gillnet gear and fish wheels may be retained for subsistence use.

EO Number: 3-S-SY-43-15

Effective Date: June 29, 2015

Subsistence salmon fishing in the lower portion of Subdistrict 5-D closes effective 8:00 p.m. Monday, June 29; effective 8:00 p.m. Friday, July 3, in the middle portion of Subdistrict 5-D; and effective 8:00 p.m. Sunday, July 5, in the upper portion of Subdistrict 5-D.

EO Number: 3-S-SY-44-15

Effective Date: June 30, 2015

Salmon may be taken for commercial and subsistence use in District 1 from 12:00 p.m. noon until 11:59 p.m. each day, Tuesday, June 30, and Wednesday, July 1. Additionally, opens subsistence only salmon fishing periods from 6:00 a.m. until 10:00 a.m. each day, Tuesday, June 30, and Wednesday, July 1.

Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

EO Number: 3-S-SY-45-15

Effective Date: June 30, 2015

Salmon may be taken for commercial and subsistence use in District 2 from 12:00 p.m. noon until 10:00 p.m. each day, Tuesday, June 30, and Wednesday, July 1. Additionally, opens subsistence only salmon fishing periods from 6:00 a.m. until 10:00 a.m. each day, Tuesday, June 30, and Wednesday, July 1.

Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

EO Number: 3-S-SY-46-15

Effective Date: July 2, 2015

Salmon may be taken for commercial and subsistence use in District 2 from 9:00 a.m. until 7:00 p.m. Thursday, July 2. Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

Additionally, opens a subsistence only salmon fishing period from 9:00 p.m. until 11:59 p.m. Thursday, July 2, with 6-inch or smaller mesh size gillnets. Chinook salmon caught in gillnet gear may be retained for subsistence use and must be marked as described in regulation.

EO Number: 3-S-SY-47-15

Effective Date: July 4, 2015

Opens subsistence salmon fishing in the Koyukuk River with 6-inch or smaller mesh size gillnets 24 hours a day, seven days per week effective 6:00 p.m. Saturday, July 4.

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EO Number: 3-S-SY-48-15

Effective Date: July 4, 2015

Opens subsistence salmon fishing in the Innoko River with 6-inch or smaller mesh size gillnets 24 hours a day, seven days per week effective 6:00 p.m. Saturday, July 4.

EO Number: 3-S-SY-49-15

Effective Date: July 3, 2015

Salmon may be taken for subsistence use in District 3 with 6-inch or smaller mesh size gillnets from 8:00 p.m. until 11:00 p.m. Friday, July 3. Chinook salmon caught in gillnet gear may be retained for subsistence use and must be marked as described in regulation.

EO Number: 3-S-SY-50-15

Effective Date: July 2, 2015

Salmon may be taken for commercial use in District 1 from 8:00 p.m. until 11:59 p.m. Thursday, July 2, with 5.5-inch or smaller mesh size gillnets not exceeding 30 meshes in depth. Additionally, opens a subsistence only salmon fishing period from 12:00 p.m. noon until 3:00 p.m. Thursday, July 2, with 6-inch or smaller mesh size gillnets.

Chinook salmon caught in gillnet gear may be kept for subsistence use and must be marked as described in regulation. Commercial fishermen must record Chinook salmon retained for subsistence use on a fish ticket as kept but not sold.

EO Number: 3-S-SY-51-15

Effective Date: July 6, 2015

Salmon may be taken for subsistence use in the lower portion of Subdistrict 4-A from 6:00 p.m. until 10:00 p.m. Monday, July 6. Fishermen may use 6-inch or smaller mesh size gillnets and fish wheels. Chinook salmon caught in gillnet gear and fish wheels may be kept for subsistence use. Subsistence fishing is closed for an hour before and an hour following this short subsistence gillnet period. Dip nets may not be used during this opening.

EO Number: 3-S-SY-52-15

Effective Date: July 6, 2015

Salmon may be taken for subsistence use in Subdistrict 4-C from 12:00 p.m. noon until 8:00 p.m. Monday, July 6. Fishermen may use 6-inch or smaller mesh size gillnets and fish wheels. Chinook salmon caught in gillnet gear and fish wheels may be kept for subsistence use. Subsistence fishing is closed for an hour before and an hour following this subsistence gillnet period. Dip nets may not be used during this opening.

EO Number: 3-S-SY-53-15

Effective Date: July 3, 2015

Salmon may be taken for commercial and subsistence use in District 2 from 12:00 p.m. noon until 10:00 p.m. each day, Friday, July 3, and Saturday, July 4. Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

EO Number: 3-S-SY-54-15

Effective Date: July 3, 2015

Salmon may be taken for commercial use in District 1 from 9:00 p.m. until 11:59 p.m. Friday, July 3. Fishermen may use gillnets with 5.5-inch or smaller mesh size gillnets not exceeding 30 meshes in depth. Chinook salmon caught in gillnet gear may be retained for subsistence purposes. Any Chinook salmon retained must be recorded on a fish ticket and marked as described in regulation.

EO Number: 3-S-SY-55-15

Effective Date: July 5, 2015

Salmon may be taken for commercial and subsistence use in District 2 from 12:00 p.m. noon until 10:00 p.m. Sunday, July 5. Fishermen may use dip nets and beach seines and all Chinook salmon must be released alive. Commercial fishermen must record Chinook salmon caught and released alive on a fish ticket.

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EO Number: 3-S-SY-56-15

Effective Date: July 5, 2015

Salmon may be taken for commercial use in District 1 from 6:00 p.m. until 11:59 p.m. Sunday, July 5. Fishermen may use gillnets with 5.5-inch or smaller mesh size gillnets not exceeding 30 meshes in depth. Chinook salmon caught in gillnet gear may be retained for subsistence use. Any Chinook salmon retained must be recorded on a fish ticket and marked as described in regulation.

EO Number: 3-S-SY-57-15

Effective Date: July 6, 2015

Salmon may be taken for commercial and subsistence use in District 2 from 9:00 p.m. until 11:59 p.m. Monday, July 6. Fishermen may use 6-inch or smaller mesh size gillnets and can retain incidentally caught Chinook salmon for subsistence use. Any Chinook salmon retained must be recorded on a fish ticket and marked as described in regulation.

EO Number: 3-S-SY-58-15

Effective Date: July 7, 2015

Salmon may be taken for commercial and subsistence use in District 1 from 3:00 p.m. until 11:59 p.m. Tuesday, July 7. Fishermen may use 6-inch or smaller mesh size gillnets and can retain incidentally caught Chinook salmon for subsistence use. Any Chinook salmon retained must be recorded on a fish ticket and marked as described in regulation.

EO Number: 3-S-SY-59-15

Effective Date: July 7, 2015

Salmon may be taken for subsistence use in District 3 with 6-inch or smaller mesh size gillnets from 6:00 p.m. until 11:59 p.m. Tuesday, July 7. Chinook salmon caught in gillnet gear may be retained for subsistence use and must be marked as described in regulation. Subsistence salmon fishing is closed for one hour before and one hour following this gillnet opening. Dip net gear may not be used during this gillnet subsistence period.

EO Number: 3-S-SY-60-15

Effective Date: July 8, 2015

Salmon may be taken for commercial use in District 2 from 4:00 p.m. until 10:00 p.m. Wednesday, July 8. Fishermen may use 6-inch or smaller mesh size gillnets and can retain incidentally caught Chinook salmon for subsistence purposes. Any Chinook salmon retained must be recorded on a fish ticket as kept but not sold.

Additionally, this emergency order establishes a subsistence fishing schedule in District 2. Effective 12:01 a.m. Thursday, July 9, subsistence salmon fishing is open 24 hours a day, seven days per week except for six hours before, during, and six hours after a commercial fishing period. Fishermen may use 6-inch or smaller mesh size gillnets and Chinook salmon may be retained for subsistence use.

Any Chinook salmon retained from commercial and subsistence fishing openings must be marked as described in regulation.

EO Number: 3-S-SY-61-15

Effective Date: July 9, 2015

Effective 12:01 a.m. Thursday, July 9, subsistence salmon fishing in District 1 is open 24 hours a day, seven days per week except for six hours before, during, and six hours after a commercial fishing period. Fishermen may use 6-inch or smaller mesh size gillnets and Chinook salmon may be retained for subsistence use.

Additionally, establishes a commercial fishing period in District 1 from 3:00 p.m. until 11:59 p.m. Thursday, July 9. Fishermen may use 6-inch or smaller mesh size gillnets and can retain incidentally caught Chinook salmon for subsistence use. Any Chinook salmon retained must be recorded on a fish ticket as kept but not sold.

Any Chinook salmon retained from commercial and subsistence fishing openings must be marked as described in regulation.

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EO Number: 3-S-SY-62-15

Effective Date: July 12, 2015

Salmon may be taken for subsistence use in the upper portion of Subdistrict 4-A from 6:00 p.m. until 10:00 p.m. Sunday, July 12. Fishermen can use 6-inch or smaller mesh size gillnets and fish wheels. Chinook salmon caught in gillnet gear and fish wheels may be kept for subsistence use. Subsistence fishing is closed for an hour before and an hour following this short subsistence gillnet period. Dip nets may not be used during this opening.

EO Number: 3-S-SY-63-15

Effective Date: July 12, 2015

Effective 8:00 p.m. Sunday, July 12, subsistence salmon fishing in District 3 will be open for two 36-hour periods per week from 8:00 p.m. Sundays to 8:00 a.m. Tuesdays and from 8:00 p.m. Wednesdays until 8:00 a.m. Fridays. Fishermen may use 6-inch or smaller mesh size gillnets and can retain incidentally caught Chinook salmon for subsistence use. Chinook salmon retained must be marked as described in regulation.

EO Number: 3-S-SY-64-15

Effective Date: July 9, 2015

Effective 12:01 a.m. Thursday, July 9, subsistence salmon fishing in the Northern Portion of the Coastal District will be open 24 hours a day, seven days per week with 6-inch or smaller mesh size gillnets. Fishermen can retain incidentally caught Chinook salmon for subsistence use.

EO Number: 3-S-SY-65-15

Effective Date: July 10, 2015

Salmon may be taken for subsistence use in Subdistrict 5-A from 6:00 p.m. Friday, July 10, until 6:00 p.m. Sunday, July 12. Fishermen can use 6-inch or smaller mesh size gillnets and fish wheels. Chinook salmon caught in gillnet gear and fish wheels may be kept for subsistence use.

EO Number: 3-S-SY-66-15

Effective Date: July 12, 2015

Salmon may be taken for subsistence use during a 4-hour period in the lower portion of Subdistrict 4-A from 6:00 p.m. until 10:00 p.m. Sunday, July 12, with 6-inch or smaller mesh size gillnets and fish wheels. Chinook salmon caught in gillnet gear and fish wheels may be kept for subsistence use. Subsistence fishing is closed an hour before and an hour following this short subsistence gillnet period. Dip nets may not be used during this opening.

EO Number: 3-S-SY-67-15

Effective Date: July 10, 2015

Salmon may be taken for commercial use in District 2 from 4:00 p.m. until 10:00 p.m. Friday, July 10, and from 2:00 p.m. until 11:00 p.m. Sunday, July 12. Fishermen may use 6-inch or smaller mesh size gillnets and can retain incidentally caught Chinook salmon for subsistence use. Any Chinook salmon retained must be recorded on a fish ticket as kept but not sold and marked as described in regulation.

EO Number: 3-S-SY-68-15

Effective Date: July 11, 2015

Salmon may be taken for commercial use in District 1 from 6:00 p.m. Saturday, July 11, until 6:00 a.m. Sunday, July 12, and from 6:00 p.m. Monday, July 13, until 6:00 a.m. Tuesday, July 14. Fishermen may use 6-inch or smaller mesh size gillnets and can retain incidentally caught Chinook salmon for subsistence use. Any Chinook salmon retained must be recorded on a fish ticket as kept but not sold and marked as described in regulation.

EO Number: 3-S-SY-69-15

Effective Date: July 13, 2015

Opens the commercial salmon fishing season and prohibits the sale of Chinook salmon in District 6 of the Upper Yukon Area effective 6:00 p.m. Monday, July 13.

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EO Number: 3-S-SY-70-15

Effective Date: July 13, 2015

Salmon may be taken for commercial use in District 6 from 6:00 p.m. Monday, July 13, until 12:00 p.m. noon Wednesday, July 15, and from 6:00 p.m. Friday, July 17, until 12:00 p.m. noon Sunday, July 19, with live-release fish wheels only. Chinook salmon caught and released alive must be recorded on a fish ticket.

EO Number: 3-S-SY-71-15

Effective Date: July 15, 2015

Salmon may be taken for commercial use in District 1 from 12:00 p.m. noon until 11:59 p.m. Wednesday, July 15. Fishermen may use 6-inch or smaller mesh size gillnets and can retain incidentally caught Chinook salmon for subsistence use. Any Chinook salmon retained must be recorded on a fish ticket as kept but not sold and marked as described in regulation.

EO Number: 3-S-SY-72-15

Effective Date: July 14, 2015

Salmon may be taken for commercial use in District 2 from 2:00 p.m. until 11:00 p.m. each day, Tuesday, July 14; Thursday, July 16; and Saturday, July 18. Fishermen may use 6-inch or smaller mesh size gillnets and can retain incidentally caught Chinook salmon for subsistence use. Any Chinook salmon retained must be recorded on a fish ticket as kept but not sold and marked as described in regulation.

EO Number: 3-S-SY-73-15

Effective Date: July 15, 2015

Salmon may be taken for subsistence use in Subdistrict 4-C from 6:00 p.m. Wednesday, July 15, until 6:00 p.m. Thursday, July 16, with 6-inch or smaller mesh size gillnets and fish wheels. Chinook salmon caught in gillnet gear and fish wheels may be kept for subsistence use. Subsistence fishing is closed an hour before and an hour following this subsistence gillnet period. Dip nets may not be used during this subsistence gillnet opening.

EO Number: 3-S-SY-74-15

Effective Date: July 15, 2015

Effective 6:00 p.m. Wednesday, July 15, in the lower portion of Subdistrict 4-A, and at 6:00 p.m. Sunday, July 19, in the upper portion of Subdistrict 4-A, subsistence salmon fishing will be open from 6:00 p.m. Wednesdays to 6:00 p.m. Fridays and from 6:00 p.m. Sundays to 6:00 p.m. Tuesdays with 6-inch or smaller mesh size gillnets and fish wheels. Fishermen can retain incidentally caught Chinook salmon for subsistence use. The use of dip nets and beach seines is being discontinued effective with the start of the subsistence salmon fishing schedule in Subdistrict 4-A.

EO Number: 3-S-SY-75-15

Effective Date: July 14, 2015

Effective 8:00 p.m. Tuesday, July 14, subsistence salmon fishing in District 3 will be open 24 hours a day, seven days per week with 6-inch or smaller mesh size gillnets. Fishermen can retain incidentally caught Chinook salmon for subsistence use.

EO Number: 3-S-SY-76-15

Effective Date: July 16, 2015

Salmon may be taken for subsistence use in Subdistricts 5-A, 5-B, and 5-C from 12:00 p.m. noon Thursday, July 16, until 12:00 p.m. noon Friday, July 17, with 6-inch or smaller mesh size gillnets and fish wheels. Chinook salmon caught in gillnet gear and fish wheels may be kept for subsistence use.

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EO Number: 3-S-SY-77-15

Effective Date: July 19, 2015

Effective 6:00 p.m. Sunday, July 19, in Subdistricts 4-B and 4-C subsistence salmon fishing will be open from 6:00 p.m. Sundays until 6:00 p.m. Tuesdays and from 6:00 p.m. Wednesdays until 6:00 p.m. Fridays with 6-inch or smaller mesh size gillnets and fish wheels. Fishermen can retain incidentally caught Chinook salmon for subsistence use. The use of dip nets is being discontinued effective with the start of the subsistence salmon fishing schedule in Subdistricts 4-B and 4-C.

EO Number: 3-S-SY-78-15

Effective Date: July 17, 2015

Salmon may be taken for personal use in Subdistrict 6-C during two 42-hour periods each week, from 6:00 p.m. Mondays until 12:00 p.m. noon Wednesdays and from 6:00 p.m. Fridays until 12:00 p.m. noon Sundays with live-release fish wheels only. Fish wheels must be equipped with a live box that must be checked at least once every six hours and all Chinook salmon must be returned to the water unharmed.

EO Number: 3-S-SY-79-15

Effective Date: July 17, 2015

Effective 6:00 p.m. Friday, July 17, subsistence fishermen in Subdistricts 6-A and 6-B are no longer required to attend their fish wheel while it is in operation or release Chinook salmon alive during subsistence salmon fishing. The subsistence salmon fishing schedule in Subdistricts 6-A and 6-B remains unaltered by this emergency order.

EO Number: 3-S-SY-80-15

Effective Date: July 20, 2015

Salmon may be taken for commercial use in District 6 from 6:00 p.m. Monday, July 20, until 12:00 p.m. noon Wednesday, July 22, and from 6:00 p.m. Friday, July 24, until 12:00 p.m. noon Sunday, July 26, with live-release fish wheels only. Chinook salmon caught and released alive must be recorded on a fish ticket.

EO Number: 3-S-SY-81-15

Effective Date: July 19, 2015

Salmon may be taken for subsistence use in the lower and middle portions of Subdistrict 5-D from 12:00 p.m. noon Sunday, July 19, until 12:00 p.m. noon Monday, July 20, with 6-inch or smaller mesh size gillnets and fish wheels. Chinook salmon caught in gillnet gear and fish wheels may be kept for subsistence use.

EO Number: 3-S-SY-82-15

Effective Date: July 21, 2015

Effective 6:00 p.m. Tuesday, July 21, in Subdistricts 5-A, 5-B, and 5-C, subsistence salmon fishing will be open 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 with 6-inch or smaller mesh size gillnets and fish wheels. Fishermen can retain incidentally caught Chinook salmon for subsistence use.

EO Number: 3-S-SY-83-15

Effective Date: July 21, 2015

Effective 6:00 p.m. Tuesday, July 21, in Subdistrict 4-A subsistence salmon fishing will be open from 6:00 p.m. Tuesdays until 6:00 p.m. Sundays with 6-inch or smaller mesh size gillnets and fish wheels. Fishermen in the upper portion of Subdistrict 4-A may take salmon with drift gillnets. Effective 6:00 p.m. Sunday, July 26, in Subdistricts 4-B and 4-C, subsistence salmon fishing will be open from 6:00 p.m. Sundays until 6:00 p.m. Fridays with 6-inch or smaller mesh size gillnets and fish wheels. Fishermen can retain incidentally caught Chinook salmon for subsistence use.

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EO Number: 3-S-SY-84-15

Effective Date: July 23, 2015

Salmon may be taken for subsistence use in the lower and middle portions of Subdistrict 5-D from 8:00 p.m. Thursday, July 23, until 8:00 a.m. Saturday, July 25, and in the upper portion of Subdistrict 5-D from 8:00 p.m. Friday, July 24, until 8:00 a.m. Sunday, July 26. Fishermen may use 6-inch or smaller mesh size gillnets and fish wheels and Chinook salmon may be kept for subsistence use.

EO Number: 3-S-SY-85-15

Effective Date: July 24, 2015

Salmon may be taken for commercial use in District 6 from 6:00 p.m. Monday, July 27, until 12:00 p.m. noon Wednesday, July 29, and from 6:00 p.m. Friday, July 31, until 12:00 p.m. noon Sunday, August 2, with 6-inch or smaller mesh size gillnets and fish wheels. Fish wheels are no longer required to be manned effective 6:00 p.m. Friday, July 24. Chinook salmon may be retained for subsistence use and must be recorded on a fish ticket as kept but not sold.

EO Number: 3-S-SY-86-15

Effective Date: July 24, 2015

Personal use fishermen in Subdistrict 6-C may use 6-inch or smaller mesh size gillnets and fish wheels effective 6:00 p.m. Friday, July 24. Chinook salmon caught in gillnet gear and fish wheels may be retained for personal use. The personal use fishing schedule remains unaltered by this emergency order.

EO Number: 3-S-SY-87-15

Effective Date: July 23, 2015

Salmon may be taken for subsistence use in the lower and middle portions of Subdistrict 5-D from 8:00 p.m. Monday, July 27, until 8:00 p.m. Wednesday, July 29, with 6-inch or smaller mesh size gillnets and fish wheels. Chinook salmon caught in gillnet gear and fish wheels may be kept for subsistence use.

EO Number: 3-S-SY-88-15

Effective Date: July 27, 2015

Effective 12:01 a.m. Monday, July 27, in the lower and middle portions of Subdistrict 5-D, and at 12:01 a.m. Tuesday, July 28, in the upper portion of Subdistrict 5-D, subsistence salmon fishing will be open 24 hours a day, seven days per week with 6-inch or smaller mesh size gillnets and fish wheels. Fishermen can retain incidentally caught Chinook salmon for subsistence use.

EO Number: 3-S-SY-89-15

Effective Date: July 28, 2015

Effective 6:00 p.m. Tuesday, July 28, in Subdistricts 5-A, 5-B, and 5-C, subsistence salmon fishing will be open from 6:00 p.m. Tuesdays until 6:00 p.m. Sundays with 6-inch or smaller mesh size gillnets and fish wheels. Fishermen can retain incidentally caught Chinook salmon for subsistence use.

EO Number: 3-S-SY-90-15

Effective Date: July 28, 2015

Effective 6:00 p.m. Wednesday, July 29, in District 5, salmon may be taken for subsistence with 7.5-inch or smaller mesh size gillnets and fish wheels. All salmon caught in gillnet gear or fish wheels may be retained for subsistence use. Subdistricts 5-A, 5-B, and 5-C will remain on their subsistence schedule of five days per week and Subdistrict 5-D is on their subsistence schedule of 24 hours a day, seven days per week.

EO Number: 3-S-SY-91-15

Effective Date: July 28, 2015

Effective 6:00 p.m. Wednesday, July 29, subsistence fishermen in Subdistricts 4-B and 4-C may take salmon with 7.5-inch or smaller mesh size gillnets. All salmon caught in gillnet gear or fish wheels may be retained for subsistence use. The subsistence schedule of five days per week in Subdistricts 4-B and 4-C is unaltered by this emergency order.

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EO Number: 3-S-SY-92-15

Effective Date: August 3, 2015

Salmon may be taken for commercial use in District 6 from 6:00 p.m. Monday, August 3, until 12:00 p.m. noon Wednesday, August 5, and from 6:00 p.m. Friday, August 7, until 12:00 p.m. noon Sunday, August 9, with 6-inch or smaller mesh size gillnets and fish wheels. Chinook salmon caught in gillnet gear or fish wheels may be retained for subsistence use and must be recorded on a fish ticket as kept but not sold.

EO Number: 3-S-SY-93-15

Effective Date: July 31, 2015

Effective 6:00 p.m. Friday, July 31, subsistence fishermen in Subdistricts 6-A and 6-B may take salmon with 7.5-inch or smaller mesh size gillnets and fish wheels. All salmon caught in gillnet gear or fish wheels may be retained for subsistence use. The regulatory schedule in Subdistricts 6-A and 6-B is unaltered by this emergency order.

Appendix A24.–List of emergency orders pertaining to the Fall Yukon in Districts 1-6 fall chum and coho salmon fishery, Yukon Area, 2015.

EO Number: 3-S-FY-01-15 Effective Date: July 20, 2015

A 6-hour commercial salmon fishing period is scheduled from 4:00 p.m. until 10:00 p.m. on Monday, July 20, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-02-15 Effective Date: July 22, 2015

A 4-hour commercial salmon fishing period is scheduled from 9:00 a.m. until 1:00 p.m. Wednesday, July 22, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-03-15 Effective Date: July 23, 2015

A 6-hour commercial salmon fishing period is scheduled from 6:00 p.m. Thursday, July 23, until 12:00 a.m. midnight, Thursday, July 23, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-04-15 Effective date: July 26, 2015

A 4-hour commercial salmon fishing period is scheduled from 6:00 p.m. until 10:00 p.m. Sunday, July 26, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-05-15 Effective Date: July 28, 2015

Effective 6:00 p.m. Tuesday, July 28, subsistence fishermen in Subdistrict 4-A may use gillnets with a mesh size of 7.5 inches or less, and drift gillnet gear may be used in the upper portion of Subdistrict 4-A.

EO Number: 3-S-FY-06-15 Effective Date: July 28, 2015

Effective 6:00 p.m. Tuesday, July 28, subsistence fishermen may use gillnets with a mesh size of 7.5 inches or less in the Koyukuk River.

EO Number: 3-S-FY-07-15 Effective Date: July 27, 2015

A 6-hour commercial salmon fishing period is scheduled from 7:00 p.m. Monday, July 27, until 1:00 a.m. Tuesday, July 28, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-08-15 Effective Date: July 30, 2015

A 7-hour commercial salmon fishing period is scheduled from 1:00 p.m. until 8:00 p.m. Thursday, July 30, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-09-15 Effective Date: July 31, 2015

Effective 6:00 p.m. Friday, July 31, subsistence salmon fishing in District 4 is open seven days a week, 24 hours per day.

EO Number: 3-S-FY-10-15 Effective Date: August 1, 2015

A 6-hour commercial salmon fishing period is scheduled from 2:00 p.m. until 8:00 p.m. Saturday, August 1, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

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EO Number: 3-S-FY-11-15

Effective Date: August 2, 2015

A 9-hour commercial salmon fishing period is scheduled from 10:00 a.m. until 7:00 p.m. Sunday, August 2, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-12-15

Effective Date: August 4, 2015

A 4-hour commercial salmon fishing period is scheduled from 2:00 p.m. until 6:00 p.m. Tuesday, August 4, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-13-15

Effective Date: August 4, 2015

Effective 6:00 p.m. Tuesday, August 4, subsistence salmon fishing in Subdistricts 5-A, 5-B, and 5-C will be open seven days per week, 24 hours per day.

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

Effective Date: August 6, 2015

A 9-hour commercial salmon fishing period is scheduled from 2:00 p.m. until 11:00 p.m. Thursday, August 6, in the Set Net Only Area of District 1. A 6-hour commercial salmon fishing period is scheduled from 5:00 p.m. until 11:00 p.m. Thursday, August 6, in the remainder of District 1. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

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

Effective Date: August 11, 2015

A 120-hour commercial salmon fishing period is scheduled from 6:00 p.m. Tuesday, August 11, until 6:00 p.m. Sunday, August 16, 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 Chinook salmon is prohibited.

EO Number: 3-S-FY-16-15

Effective Date: August 9, 2015

A 6-hour commercial salmon fishing period is scheduled from 2:00 p.m. until 8:00 p.m. Sunday, August 9, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-17-15

Effective Date: August 10, 2015

A 6-hour commercial salmon fishing period is scheduled from 10:00 a.m. until 4:00 p.m. Monday, August 10, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-18-15

Effective Date: August 12, 2015

A 6-hour commercial salmon fishing period is scheduled from 2:00 p.m. until 8:00 p.m. Wednesday, August 12, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-19-15

Effective Date: August 13, 2015

A 9-hour commercial salmon fishing period is scheduled from 12:00 p.m. until 9:00 p.m. Thursday, August 13, in the Set Net Only Area of District 1. A 6-hour commercial salmon fishing period is scheduled from 3:00 p.m. until 9:00 p.m. Thursday, August 13, in the remainder of District 1. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

-continued-

EO Number: 3-S-FY-20-15

Effective Date: August 16, 2015

A 4-hour commercial salmon fishing period is scheduled from 3:00 p.m. until 7:00 p.m. Sunday, August 16, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-21-15

Effective Date: August 18, 2015

A 120-hour commercial salmon fishing period is scheduled from 6:00 p.m. Tuesday, August 18, until 6:00 p.m. Sunday, August 23, 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 Chinook salmon is prohibited.

EO Number: 3-S-FY-22-15

Effective Date: August 19, 2015

A 6-hour commercial salmon fishing period is scheduled from 2:00 p.m. until 8:00 p.m. Wednesday, August 19, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-23-15

Effective Date: August 19, 2015

A 4-hour commercial salmon fishing period is scheduled from 6:00 p.m. until 10:00 p.m. Wednesday, August 19, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. Subsistence fishing in District 1 will close from 2:00 p.m. Wednesday, August 19 through 10:00 a.m. Thursday, August 20. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-24-15

Effective Date: August 22, 2015

Subsistence salmon fishing in the mainstem Porcupine River closes at 12:01 a.m. Saturday, August 22 while the tributaries remained open.

EO Number: 3-S-FY-25-15

Effective Date: August 21, 2015

Two 42-hour commercial salmon fishing periods are scheduled in District 6 from 6:00 p.m. Friday, August 21, until 12:00 noon Sunday, August 23, and from 6:00 pm Monday, August 24, until 12:00 noon Wednesday, August 26. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-26-15

Effective Date: August 23, 2015

A 6-hour commercial salmon fishing period is scheduled from 2:00 p.m. until 8:00 p.m. Sunday, August 23, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-27-15

Effective Date: August 23, 2015

A 6-hour commercial salmon fishing period is scheduled from 4:00 p.m. until 10:00 p.m. Sunday, August 23, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. For this commercial period, subsistence salmon fishing in District 1 and the portion of the Coastal District from the District 1 terminus at Apoon Pass to Point Romanof, will close at 1:00 p.m. August 23 and reopen at 10:00 a.m. August 24. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-28-15

Effective Date: August 26, 2015

A 6-hour commercial salmon fishing period is scheduled from 2:00 p.m. until 8:00 p.m. Wednesday, August 26, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

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EO Number: 3-S-FY-29-15

Effective Date: August 27, 2015

A 9-hour commercial salmon fishing period is scheduled from 12:00 p.m. until 9:00 p.m. Thursday, August 27, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. For this commercial period, subsistence salmon fishing in District 1 and the portion of the Coastal District from the District 1 terminus at Apoon Pass to Point Romanof, will close at 12:01 a.m. August 27 and reopen at 9:00 a.m. August 28. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-30-15

Effective Date: August 28, 2015

A 6-hour commercial salmon fishing period is scheduled from 2:00 p.m. until 8:00 p.m. Friday, August 28, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-31-15

Effective Date: August 28, 2015

Two 42-hour commercial salmon fishing periods are scheduled in District 6 from 6:00 p.m. Friday, August 28, until 12:00 noon Sunday, August 30, and from 6:00 pm Monday, August 31, until 12:00 noon Wednesday, September 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-32-15

Effective Date: August 30, 2015

A 6-hour commercial salmon fishing period is scheduled from 12:00 p.m. until 6:00 p.m. Sunday, August 30, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. For this commercial period, subsistence salmon fishing in District 1 and the portion of the Coastal District from the District 1 terminus at Apoon Pass to Point Romanof, will close at 12:01 a.m. August 30 and reopen at 6:00 a.m. August 31. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-33-15

Effective Date: August 31, 2015

A 6-hour commercial salmon fishing period is scheduled from 1:00 p.m. until 7:00 p.m. Monday, August 31, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-34-15

Effective Date: September 2, 2015

A 6-hour commercial salmon fishing period is scheduled from 2:00 p.m. until 8:00 p.m. Sunday, August 30, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. For this commercial period, subsistence salmon fishing in District 1 and the portion of the Coastal District from the District 1 terminus at Apoon Pass to Point Romanof, will close at 2:00 a.m. September 2, and reopen at 8:00 a.m. September 3. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-35-15

Effective Date: September 2, 2015

A 6-hour commercial salmon fishing period is scheduled from 2:00 p.m. until 8:00 p.m. Wednesday, September 2, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-36-15

Effective Date: September 4, 2015

A 6-hour commercial salmon fishing period is scheduled from 3:00 p.m. until 9:00 p.m. Friday, September 4, in District 1 including the Set Net Only Area. Gillnets are restricted to 6-inch or smaller mesh size. For this commercial period, subsistence salmon fishing in District 1 and the portion of the Coastal District from the District 1 terminus at Apoon Pass to Point Romanof, will close at 3:00 a.m. September 4 and reopen at 9:00 a.m. September 5. The sale of Chinook salmon is prohibited.

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EO Number: 3-S-FY-37-15

Effective Date: September 4, 2015

A 6-hour commercial salmon fishing period is scheduled from 3:00 p.m. until 9:00 p.m. Friday, September 4, in District 2. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-38-15

Effective Date: September 11, 2015

Establishes a commercial fishing schedule of two 42-hour commercial salmon fishing periods per week in District 6 from 6:00 p.m. Fridays until 12:00 noon Sundays and from 6:00 p.m. Mondays until 12:00 noon Wednesdays. Gillnets are restricted to 6-inch or smaller mesh size. The sale of Chinook salmon is prohibited.

EO Number: 3-S-FY-39-15

Effective Date: October 2, 2015

Effective 6:00 p.m. Friday, October 2, 2015, subsistence salmon fishing in Subdistricts 6-A and 6-B (including the Old Minto Area) is open seven days a week, 24 hours per day.

APPENDIX B

Appendix B1.—Commercial catches of Chinook and summer chum salmon by mesh size, Districts 1 and 2, Lower Yukon Area, 1995–2015.

Year ^d	Unrestricted Mesh Size ^{a,b}				7.5-inch Maximum Mesh Size ^{a,c}				6-inch Maximum Mesh Size ^a	
	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
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									4,348	125,598
2009 ^e									131	157,906
2010									9,897	183,215
2011 ^e									0	266,510
2012 ^e									0	207,849
2013 ^{e,f}									0	189,935
2014 ^{e,f}									0	154,498
2015 ^{e,f}									0	126,872
2010–2014										
Average									1,979	200,401
2005–2014										
Average	17,968	14,002	31,971	26,388					2,664	162,467

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 caught during the fall season fishery.

^b Primarily 8 to 8.5-inch mesh size used from 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 ADF&G test fish sales not included in total.

^e In summer chum directed commercial fisheries with gillnets restricted to 6-inch maximum mesh size, the sale of incidentally caught Chinook salmon was prohibited throughout portions or all of the summer season.

^f In 2013, the BOF adopted new gear types for use in the summer chum 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) for fall and summer seasons combined by statistical area, Lower Yukon Area, 1995–2015.

District 1									
Year	334-11	334-12	334-13	334-14	334-15	334-16	334-17	334-18	Total
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
2015	0	0	0	0	0	0	0	0	0
2010–2014									
Average	51	166	43	72	254	200	315	55	1,156
2005–2014									
Average	581	634	448	300	1,266	654	1,817	1,046	6,746

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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
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	–	–	–
2015	0	0	0	0	0	0	–	–	–
<hr/>									
2010–2014									
Average	78	341	179	241	0	840			
2005–2014									
Average	1,071	2,234	818	661	527	5,310	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, 1995–2015.

District 1									
Year	334-11	334-12	334-13	334-14	334-15	334-16	334-17	334-18	Total
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
2015	18,693	33,245	8,485	19,045	17,974	7,414	47,244	20,539	172,639
2010–2014									
Average	5,018	39,676	16,606	28,083	12,935	5,519	50,253	6,433	164,523
2005–2014									
Average	3,931	23,671	11,554	17,355	10,564	5,069	32,633	6,621	111,398

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Year	District 2						District 3		
							334-31		
	334-21	334-22	334-23	334-24	334-25	Total	Number	Roe	Estimated Harvest ^a
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	–	–	–
2015	15,708	74,315	43,855	38,827	8,742	181,447	–	–	–
2010–2014									
Average	14,185	52,469	25,445	35,864	326	128,289			
2005–2014									
Average	13,037	37,202	17,596	20,017	1,093	88,945	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, 1995–2015.

Year ^a	District 1									Total
	334-11	334-12	334-13	334-14	334-15	334-16	334-17	334-18	334-19	
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	658	8,509	2,659	6,092	6,193	2,643	19,391	5,684	–	51,829
2015	9,666	21,198	6,032	6,450	13,118	11,488	26,401	6,209	–	100,562
2010-2014										
Average	595	14,925	3,535	7,949	15,295	10,984	25,684	6,340		85,308
2005-2014										
Average	335	13,190	5,136	8,944	10,342	10,769	22,122	6,842		77,679

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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
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	5,949	19,112	11,186	22,891	–	59,138	–	–	–
2015	8,450	20,433	21,486	22,702	1,143	74,214	–	–	–
<hr/>									
2010-2014									
Average	10,624	23,020	14,500	29,887	1,848	79,139			
<hr/>									
2005-2014									
Average	8,471	19,206	11,656	18,156	1,053	58,308			

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 B5.—Commercial coho salmon harvest (in numbers of fish) by statistical area, Lower Yukon Area, 1995–2015.

Year ^a	District 1								Total
	334-11	334-12	334-13	334-14	334-15	334-16	334-17	334-18	
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	20,007	6,203	54,804
2015	6,176	12,451	2,606	3,897	8,589	9,072	19,200	4,038	66,029
2010-2014									
Average	160	3,915	1,375	2,588	6,437	4,868	11,538	2,765	33,646
2005-2014									
Average	94	3,153	1,392	2,254	4,065	6,862	8,680	2,075	28,575

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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
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	–	–	–
2015	6,566	21,057	14,355	11,027	1,855	54,860			
<hr/>									
2010-2014									
Average	4,057	9,949	5,886	6,803	284	26,866			
2005-2014									
Average	3,363	8,501	4,569	4,638	213	21,236			

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 8.5 inch set gillnet test fishery, Big Eddy and Middle Mouth sites combined, lower Yukon River, 2015.

Chinook Salmon in 8.5" Set Gillnets							
Date	2015				Average 1989–2014 ^a		
	Daily Catch	Daily CPUE	Cumulative CPUE	Proportion	Commercial Hours Fished ^b	Proportion	Cumulative CPUE
5/26							
5/27						0.00	0.04
5/28	4	0.17	0.17	0.00		0.00	0.06
5/29	1	0.04	0.21	0.01		0.00	0.09
5/30	5	0.21	0.42	0.01		0.01	0.14
5/31	5	0.21	0.63	0.02		0.01	0.22
6/1	6	0.50	1.13	0.03		0.02	0.40
6/2	10	0.42	1.55	0.04		0.02	0.54
6/3	6	0.25	1.80	0.05		0.01	0.30
6/4	8	0.33	2.13	0.05		0.03	0.72
6/5	21	0.88	3.01	0.08		0.04	0.88
6/6	37	1.03	4.04	0.10		0.05	1.13
6/7	26	0.54	4.58	0.11		0.07	1.42
6/8	39	0.81	5.39	0.13		0.08	1.77
6/9	17	0.35	5.74	0.14		0.10	2.29
6/10	19	0.53	6.27	0.16		0.13	2.74
6/11	52	1.08	7.35	0.18	10	0.14	3.09
6/12	30	0.63	7.98	0.20	10	0.17	3.72
6/13	34	0.94	8.92	0.22		0.20	4.41
6/14	20	0.83	9.75	0.24	12	0.23	5.12
6/15	18	0.75	10.50	0.26	12	0.27	5.83
6/16	11	0.46	10.96	0.27	12	0.31	6.70
6/17	33	1.38	12.34	0.31	12	0.34	7.54
6/18	37	1.54	13.88	0.35	12	0.38	8.39
6/19	20	0.83	14.71	0.37	12	0.42	9.19
6/20	17	0.71	15.42	0.39		0.46	9.95
6/21	13	0.54	15.96	0.40	12	0.50	10.87
6/22	7	0.29	16.25	0.41	12	0.54	11.81
6/23	14	0.58	16.83	0.42	12	0.58	12.79
6/24	15	0.63	17.46	0.44	12	0.63	13.80
6/25	78	3.25	20.71	0.52	12	0.67	14.65
6/26	95	3.96	24.67	0.62	12	0.71	15.50
6/27	44	1.83	26.50	0.66	12	0.74	16.27
6/28	57	2.38	28.88	0.72	12	0.78	17.01
6/29	21	0.88	29.76	0.74	12	0.81	17.67
6/30	27	1.13	30.89	0.77	12	0.83	18.18

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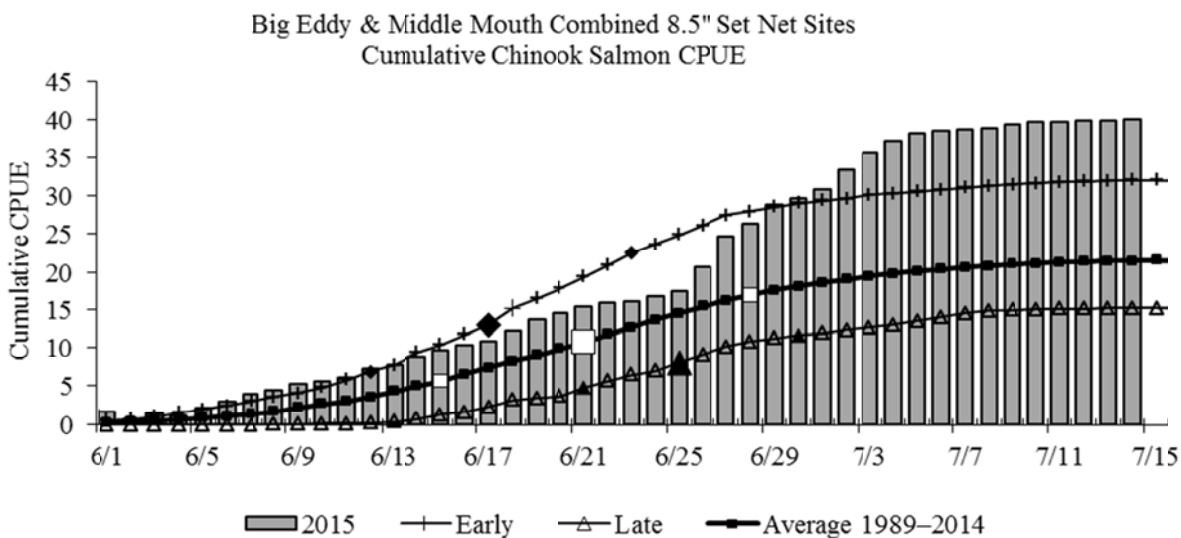
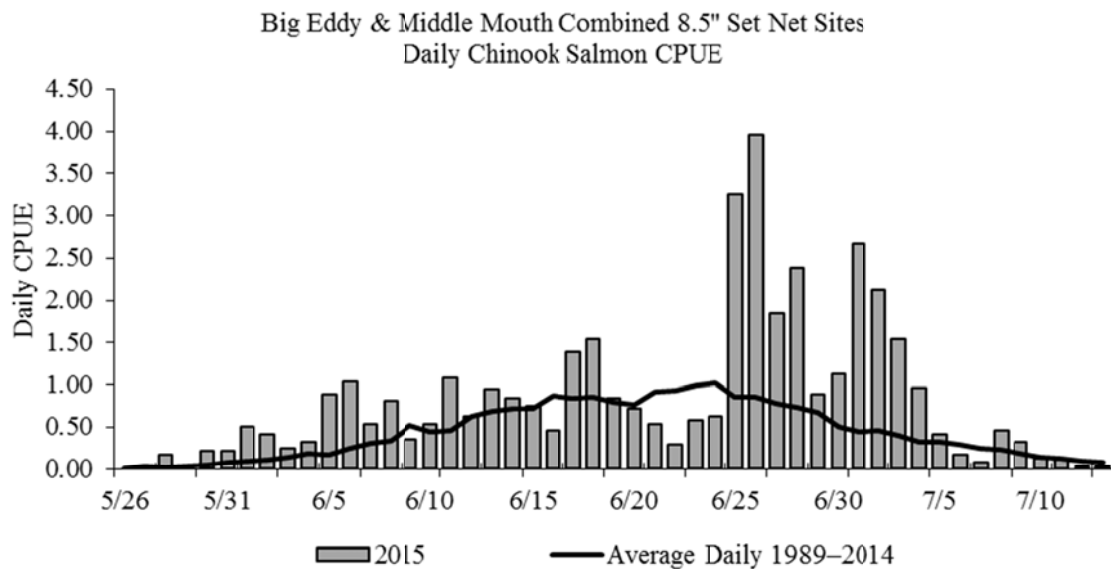
Chinook Salmon in 8.5" Set Gillnets							
Date	2015					Average 1989–2014 ^a	
	Daily Catch	Daily CPUE	Cumulative CPUE	Proportion	Comm/period Hrs Fished ^c	Proportion	Cumulative CPUE
7/1	64	2.67	33.56	0.84	12	0.85	18.62
7/2	51	2.13	35.69	0.89	4	0.87	19.07
7/3	37	1.54	37.23	0.93	3	0.89	19.48
7/4	23	0.96	38.19	0.95		0.91	19.80
7/5	10	0.42	38.61	0.97	6	0.92	20.12
7/6	4	0.17	38.78	0.97		0.93	20.41
7/7	2	0.08	38.86	0.97	9	0.94	20.65
7/8	11	0.46	39.32	0.98		0.92	20.22
7/9	8	0.33	39.65	0.99	9	0.93	20.41
7/10	3	0.13	39.78	0.99		0.94	20.55
7/11	3	0.13	39.91	1.00	12	0.95	20.67
7/12	1	0.04	39.95	1.00		0.95	20.76
7/13	1	0.04	39.99	1.00	12	0.95	20.85
7/14						0.96	20.92
7/15						1.00	21.86
Total	1,065		39.99		279		21.86

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

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

^b Set net site in Big Eddy of the South Mouth was discontinued after June 13. Only one set net operated in Middle Mouth and was removed on July 13.

^c No Chinook-directed commercial fishing periods were executed in 2015.



Appendix B7.—Daily and cumulative CPUE for the 2015 Chinook salmon set gillnet test fishery compared to the average daily and cumulative CPUE from 1989 to 2014.

Note: The symbols along the cumulative index lines represent the first quarter point, midpoint, and third quarter point of the cumulative index. 2009 data are not included in the historic averages because high water and debris caused considerable difficulty for the project. In 2014, set net sites in Big Eddy and South Mouth were discontinued after June 6. Only one set net operated in Middle Mouth and was removed on July 7.

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 sites combined, lower Yukon River, 2015.

Summer Chum Salmon in 5.5" Drift Gillnet												
Date	Big Eddy Drift				Middle Mouth Drift				Big Eddy and Middle Mouth Combined			
	Daily Catch	Daily CPUE	Proportion	Cumulative CPUE	Daily Catch	Daily CPUE	Proportion	Cumulative CPUE	Daily Catch	Daily CPUE	Proportion	Cumulative CPUE
5/24												
5/25	0	0.00	0.00	0.00					0	0.00	0.00	0.00
5/26	0	0.00	0.00	0.00					0	0.00	0.00	0.00
5/27	0	0.00	0.00	0.00					0	0.00	0.00	0.00
5/28	8	12.31	0.00	12.31					8	12.31	0.00	12.31
5/29	5	7.69	0.00	20.00					5	7.69	0.00	20.00
5/30	13	19.85	0.00	39.85					13	19.85	0.00	39.85
5/31	4	6.15	0.01	46.00					4	6.15	0.00	46.00
6/1	2	3.08	0.01	49.08					2	3.08	0.00	49.08
6/2	2	6.15	0.01	55.23					2	6.15	0.01	55.23 ^a
6/3	3	9.15	0.01	64.38					3	9.15	0.01	64.38 ^a
6/4	2	32.00	0.01	96.38					2	32.00	0.01	96.38 ^b
6/5	12	28.93	0.01	125.31					12	28.93	0.01	125.31 ^c
6/6	17	26.15	0.02	151.46					17	26.15	0.01	151.46
6/7	4	4.87	0.02	156.33	2	3.16	0.00	3.16	6	8.03	0.01	159.49 ^d
6/8	36	54.48	0.02	210.81	0	0.00	0.00	3.16	36	54.48	0.02	213.97
6/9	3	4.62	0.02	215.43	2	3.08	0.00	6.24	5	7.69	0.02	221.66
6/10	15	21.27	0.03	236.70	0	0.00	0.00	6.24	15	21.27	0.02	242.93
6/11	24	70.13	0.04	306.83	3	4.50	0.00	10.74	27	74.63	0.03	317.56 ^a
6/12	11	25.72	0.04	332.55	0	0.00	0.00	10.74	11	25.72	0.03	343.28 ^a
6/13	137	572.97	0.10	905.52	5	7.47	0.01	18.21	142	580.43	0.09	923.71
6/14	39	196.92	0.13	1,102.44	7	10.28	0.01	28.49	46	207.20	0.10	1,130.91 ^a
6/15	41	424.23	0.18	1,526.67	13	18.91	0.02	47.40	54	443.14	0.15	1,574.05 ^a
6/16	14	43.08	0.18	1,569.75	5	7.25	0.03	54.65	19	50.32	0.15	1,624.37 ^a
6/17	20	128.74	0.20	1,698.49	56	80.60	0.06	135.25	76	209.35	0.17	1,833.72 ^{a,c}
6/18	25	92.45	0.21	1,790.94	48	62.23	0.09	197.48	73	154.68	0.18	1,988.40 ^a
6/19	48	358.06	0.25	2,149.00	34	61.81	0.12	259.29	82	419.87	0.22	2,408.27 ^a

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Summer Chum Salmon in 5.5" Drift Gillnet												
Big Eddy Drift					Middle Mouth Drift				Big Eddy and Middle Mouth Combined			
Date	Daily Catch	Daily CPUE	Proportion	Cumulative CPUE	Daily Catch	Daily CPUE	Proportion	Cumulative CPUE	Daily Catch	Daily CPUE	Proportion	Cumulative CPUE
6/20	61	92.37	0.26	2,241.37	2	2.79	0.12	262.08	63	95.16	0.23	2,503.43
6/21	9	24.67	0.26	2,266.04	3	4.29	0.12	266.37	12	28.95	0.23	2,532.38
6/22	6	18.08	0.26	2,284.12	1	1.54	0.12	267.91	7	19.62	0.24	2,552.00
6/23	88	3,520.00	0.67	5,804.12	6	8.93	0.13	276.84	94	3,528.93	0.56	6,080.93
6/24	10	58.07	0.68	5,862.19	43	67.54	0.16	344.38	53	125.60	0.58	6,206.53
6/25	74	571.43	0.75	6,433.62	61	96.13	0.20	440.51	135	667.56	0.64	6,874.09
6/26	54	185.14	0.77	6,618.76	168	270.86	0.33	711.37	222	456.00	0.68	7,330.09
6/27	54	251.75	0.80	6,870.51	357	442.94	0.54	1,154.31	411	694.69	0.74	8,024.78
6/28	57	189.47	0.82	7,059.98	157	327.90	0.69	1,482.21	214	517.37	0.79	8,542.15
6/29	37	58.96	0.82	7,118.94	28	44.08	0.71	1,526.29	65	103.05	0.80	8,645.20
6/30	96	147.69	0.84	7,266.63	24	32.97	0.73	1,559.26	120	180.66	0.82	8,825.86
7/1	90	258.97	0.87	7,525.60	75	114.74	0.78	1,674.00	165	373.71	0.85	9,199.57
7/2	42	64.62	0.88	7,590.22	60	94.08	0.82	1,768.08	102	158.69	0.87	9,358.26
7/3	78	186.28	0.90	7,776.50	65	95.98	0.87	1,864.06	143	282.26	0.89	9,640.52
7/4	5	15.55	0.90	7,792.05	45	64.78	0.90	1,928.84	50	80.32	0.90	9,720.84
7/5	3	9.31	0.90	7,801.36	22	33.44	0.91	1,962.28	25	42.76	0.91	9,763.60
7/6	32	49.27	0.91	7,850.63	14	20.55	0.92	1,982.83	46	69.82	0.91	9,833.42
7/7	7	21.86	0.91	7,872.49	2	5.71	0.93	1,988.54	9	27.58	0.91	9,861.00
7/8	65	223.99	0.94	8,096.48	70	96.09	0.97	2,084.63	135	320.08	0.94	10,181.08
7/9	2	6.15	0.94	8,102.63	5	14.76	0.98	2,099.39	7	20.92	0.95	10,202.00
7/10	17	26.15	0.94	8,128.78	13	19.26	0.99	2,118.65	30	45.41	0.95	10,247.41
7/11	95	384.62	0.99	8,513.40	12	18.88	0.99	2,137.53	107	403.50	0.99	10,650.91
7/12	47	81.56	1.00	8,594.96	2	2.86	1.00	2,140.39	49	84.42	1.00	10,735.33
7/13	11	16.40	1.00	8,611.36	0	0.00	1.00	2,140.39	11	16.40	1.00	10,751.73
7/14	5	7.21	1.00	8,618.57	4	6.04	1.00	2,146.43	9	13.25	1.00	10,764.98
7/15	5	15.38	1.00	8,633.95	1	2.86	1.00	2,149.29	6	18.24	1.00	10,783.22
Total	1,535			8,633.95	1,415			2,149.29	2,950			10,783.22

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

^a Only two drifts at Big Eddy.

^b Only one drift at Big Eddy.

^c Only three drifts at Big Eddy.

^d First day Middle Mouth is operational.

^e Only three drifts at Middle Mouth.

^f Only two drifts are Middle Mouth.

Appendix B9.–Fall chum and coho salmon, daily and cumulative catch per unit of effort (CPUE), cooperative drift gillnet (6") test fishery, Big Eddy and Middle Mouth sites combined, Lower Yukon River, 2001 to 2014 compared to 2015.

Fall Chum Salmon									Coho Salmon							
Historical									Historical							
Median									Median							
2001 to 2014 Median									2001 to 2014 Median							
2015									2015							
Date	Cumulative Proportion ^a	Daily CPUE	Cumulative Proportion	Cumulative CPUE	Daily Catch	Daily CPUE	Proportion	Cumulative CPUE ^a	Cumulative Proportion ^a	Daily CPUE	Cumulative Proportion	Cumulative CPUE	Daily Catch	Daily CPUE	Proportion	Cumulative CPUE ^a
7/16	0.01	16.44	0.01	16.44	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.0	0.00	0.00
7/17	0.04	17.39	0.03	45.34	20	14.63	0.01	14.63	0.00	0.00	0.00	0.00	0	0.0	0.00	0.00
7/18	0.06	4.66	0.06	74.74	69	54.19	0.05	68.82	0.00	0.00	0.00	0.00	0	0.0	0.00	0.00
7/19	0.09	5.28	0.07	75.56	40	29.03	0.08	97.85	0.00	0.00	0.00	0.00	1	0.7	0.00	0.73
7/20	0.11	4.03	0.08	97.33	5	7.35	0.08	105.20 ^b	0.00	0.00	0.00	0.00	0	0.0	0.00	0.73 ^b
7/21	0.13	4.12	0.09	118.52	2	1.48	0.08	106.69	0.00	0.00	0.00	0.00	0	0.0	0.00	0.73
7/22	0.15	3.76	0.09	149.82	6	4.52	0.09	111.20	0.00	0.00	0.00	0.00	0	0.0	0.00	0.73
7/23	0.17	5.48	0.10	163.22	0	0.00	0.09	111.20 ^b	0.00	0.00	0.00	0.00	0	0.0	0.00	0.73 ^b
7/24	0.19	5.53	0.12	171.09	18	13.21	0.10	124.41 ^c	0.00	0.00	0.00	0.00	0	0.0	0.00	0.73 ^c
7/25	0.23	8.16	0.12	172.24	5	3.68	0.10	128.09	0.00	0.00	0.00	0.00	1	0.7	0.00	1.46
7/26	0.25	4.02	0.13	190.16	2	1.52	0.10	129.61	0.00	0.00	0.00	0.72	0	0.0	0.00	1.46
7/27	0.30	6.99	0.15	239.14	9	8.67	0.11	138.27 ^b	0.00	0.00	0.00	0.72	0	0.0	0.00	1.46 ^b
7/28	0.32	24.33	0.17	279.07	62	42.99	0.14	181.26 ^c	0.00	0.88	0.01	2.82	1	0.9	0.01	2.32 ^c
7/29	0.34	17.92	0.22	334.04	59	38.59	0.17	219.85	0.00	1.00	0.01	3.82	1	0.8	0.01	3.11
7/30	0.35	6.56	0.23	380.36	32	49.68	0.21	269.53 ^b	0.01	1.46	0.02	5.46	0	0.0	0.01	3.11 ^b
7/31	0.37	12.45	0.25	399.39	1	0.75	0.21	270.28	0.01	1.20	0.02	8.60	0	0.0	0.01	3.11
8/1	0.38	31.36	0.32	424.38	82	46.49	0.25	316.77 ^c	0.01	1.95	0.03	10.25	15	8.5	0.03	11.57 ^c
8/2	0.39	13.13	0.37	435.86	56	100.76	0.33	417.53 ^b	0.01	1.45	0.04	13.42	7	12.0	0.06	23.57 ^b
8/3	0.41	10.96	0.41	518.00	28	20.92	0.35	438.45	0.02	1.89	0.05	18.03	14	10.5	0.08	34.03
8/4	0.45	1.50	0.43	551.01	24	16.41	0.36	454.86	0.02	1.10	0.06	18.83	1	0.8	0.08	34.78
8/5	0.49	6.50	0.45	609.39	4	2.96	0.36	457.83	0.04	4.41	0.07	23.39	0	0.0	0.08	34.78
8/6	0.53	6.34	0.46	625.44	4	3.95	0.37	461.78 ^{b,c}	0.04	2.91	0.09	29.09	3	2.9	0.09	37.71 ^{b,c}
8/7	0.55	16.69	0.47	644.68	11	8.23	0.37	470.01	0.06	3.16	0.09	32.88	1	0.8	0.09	38.46
8/8	0.58	20.58	0.49	649.21	7	5.12	0.38	475.14	0.08	4.93	0.13	39.25	5	3.6	0.10	42.08
8/9	0.62	18.80	0.51	652.53	2	2.21	0.38	477.34 ^d	0.11	5.39	0.16	52.59	7	5.9	0.11	48.00 ^d
8/10	0.66	9.97	0.56	705.40	45	82.85	0.44	560.20 ^b	0.13	3.49	0.18	60.97	25	43.5	0.22	91.53 ^b
8/11	0.69	1.87	0.56	714.15	145	102.88	0.53	663.08 ^c	0.15	6.50	0.21	66.70	47	41.8	0.32	133.30 ^c
8/12	0.70	14.37	0.60	792.69	54	40.42	0.56	703.50	0.20	9.58	0.27	93.61	35	24.8	0.38	158.06
8/13	0.72	17.70	0.63	808.44	44	58.97	0.60	762.47 ^b	0.23	14.01	0.29	113.48	17	22.8	0.43	180.88 ^b
8/14	0.74	15.56	0.66	839.95	30	21.67	0.62	784.14	0.34	13.81	0.35	119.16	8	5.8	0.45	186.70
8/15	0.77	10.44	0.68	988.14	11	8.10	0.63	792.24	0.39	5.52	0.38	129.63	2	1.48	0.45	188.18

-continued-

Appendix B9.–Page 2 of 2.

Fall Chum Salmon									Coho Salmon								
Historical									Historical								
Median		2001 to 2014 Median			2015				Median		2001 to 2014 Median			2015			
Date	Cumulative Proportion ^a	Daily CPUE	Proportion	Cumulative CPUE	Daily Catch	Daily CPUE	Proportion	Cumulative CPUE ^a	Date	Cumulative Proportion ^a	Daily CPUE	Proportion	Cumulative CPUE	Daily Catch	Daily CPUE	Proportion	Cumulative CPUE ^a
8/16	0.82	12.78	0.75	1,033.98	3	2.23	0.63	794.47	8/16	0.45	11.84	0.48	161.73	3	2.21	0.45	190.40
8/17	0.83	12.82	0.77	1,087.66	0	0.00	0.63	794.47	8/17	0.51	11.97	0.57	177.75	3	2.23	0.46	192.63
8/18	0.85	8.97	0.82	1,117.32	4	3.02	0.63	797.49	8/18	0.58	10.06	0.61	190.98	21	14.78	0.50	207.41
8/19	0.87	37.00	0.89	1,140.59	165	148.82	0.75	946.31	8/19	0.62	20.25	0.74	213.84	38	32.85	0.57	240.26
8/20	0.89	15.64	0.90	1,145.90	79	46.46	0.79	992.78 ^c	8/20	0.68	15.83	0.81	270.18	54	31.83	0.65	272.09 ^c
8/21	0.91	5.14	0.93	1149.74	7	5.12	0.79	997.90	8/21	0.70	8.20	0.84	277.25	20	14.68	0.69	286.77
8/22	0.93	12.33	0.93	1166.17	55	36.97	0.82	1034.87	8/22	0.75	12.93	0.85	292.57	18	12.19	0.71	298.96
8/23	0.94	8.59	0.96	1201.55	12	17.95	0.83	1052.82 ^b	8/23	0.80	6.83	0.91	308.55	18	26.96	0.78	325.92 ^b
8/24	0.96	8.36	0.97	1220.06	2	2.86	0.84	1055.68 ^d	8/24	0.87	6.53	0.93	314.98	9	13.32	0.81	339.24 ^d
8/25	0.97	7.52	0.98	1223.09	113	168.00	0.97	1223.67 ^d	8/25	0.89	5.96	0.95	328.40	29	44.14	0.92	383.38 ^d
8/26	0.98	8.13	0.98	1225.04	3	9.13	0.98	1232.80 ^d	8/26	0.91	4.39	0.96	332.20	2	6.30	0.93	389.67 ^d
8/27	0.99	6.96	1.00	1226.92	15	22.50	0.99	1255.30 ^b	8/27	0.97	4.68	0.99	336.65	10	15.00	0.97	404.67 ^b
8/28	1.00	5.92	1.00	1230.42	9	6.53	1.00	1261.83	8/28	1.00	4.46	1.00	341.93	19	13.80	1.00	418.47
Total				1230.42	3,359			1261.83	Total				341.93	2,450			418.47

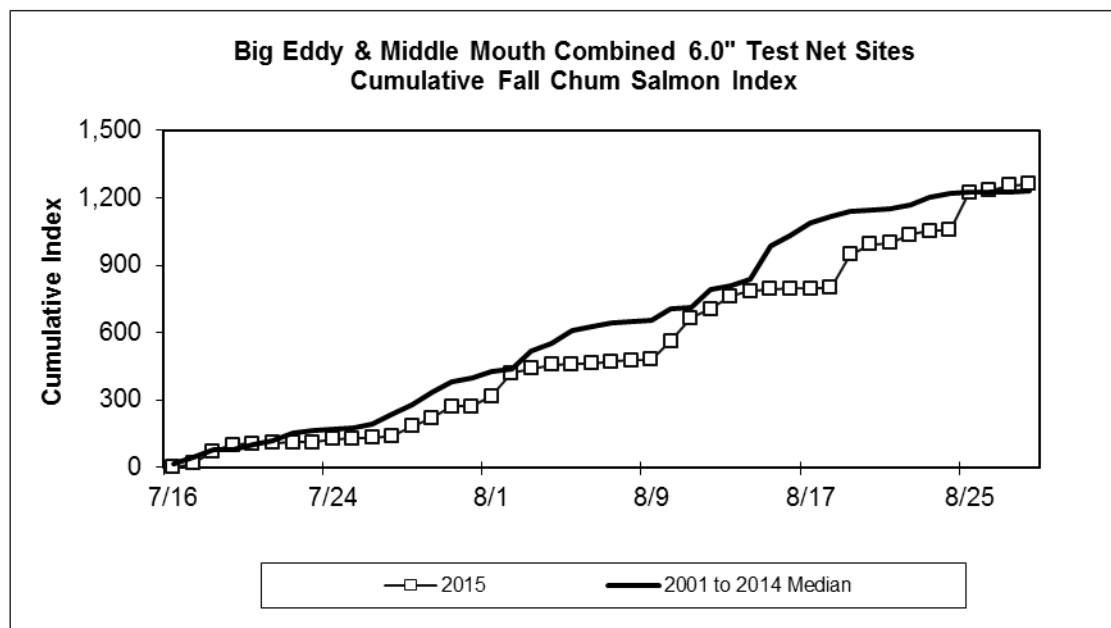
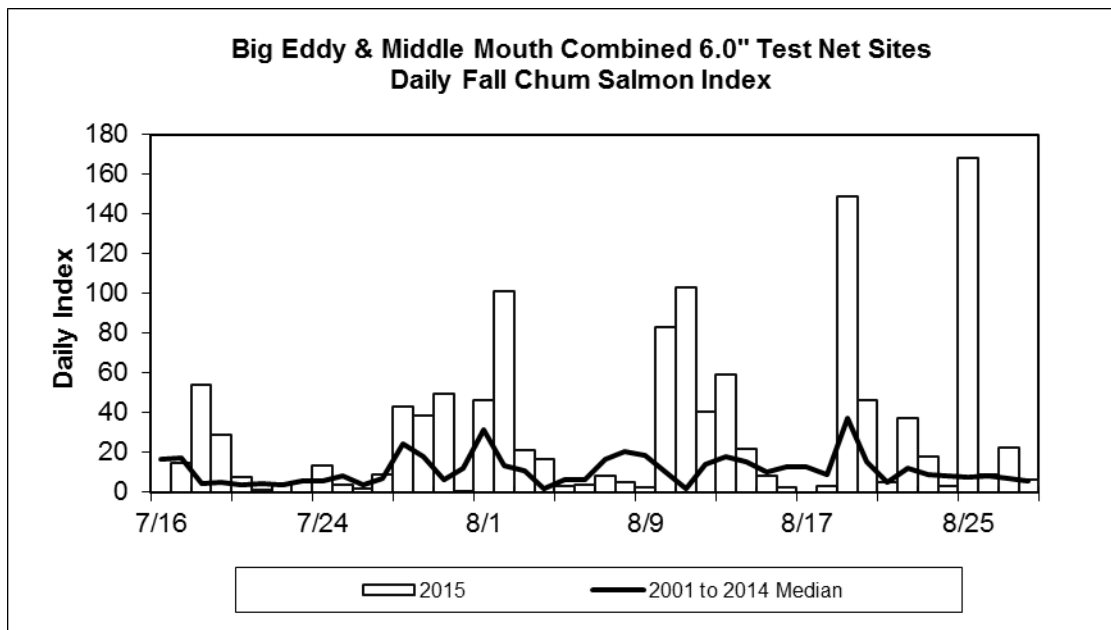
Note: The box within the cumulative index column indicates the first quarter point, midpoint, and third quarter point of the cumulative index.

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

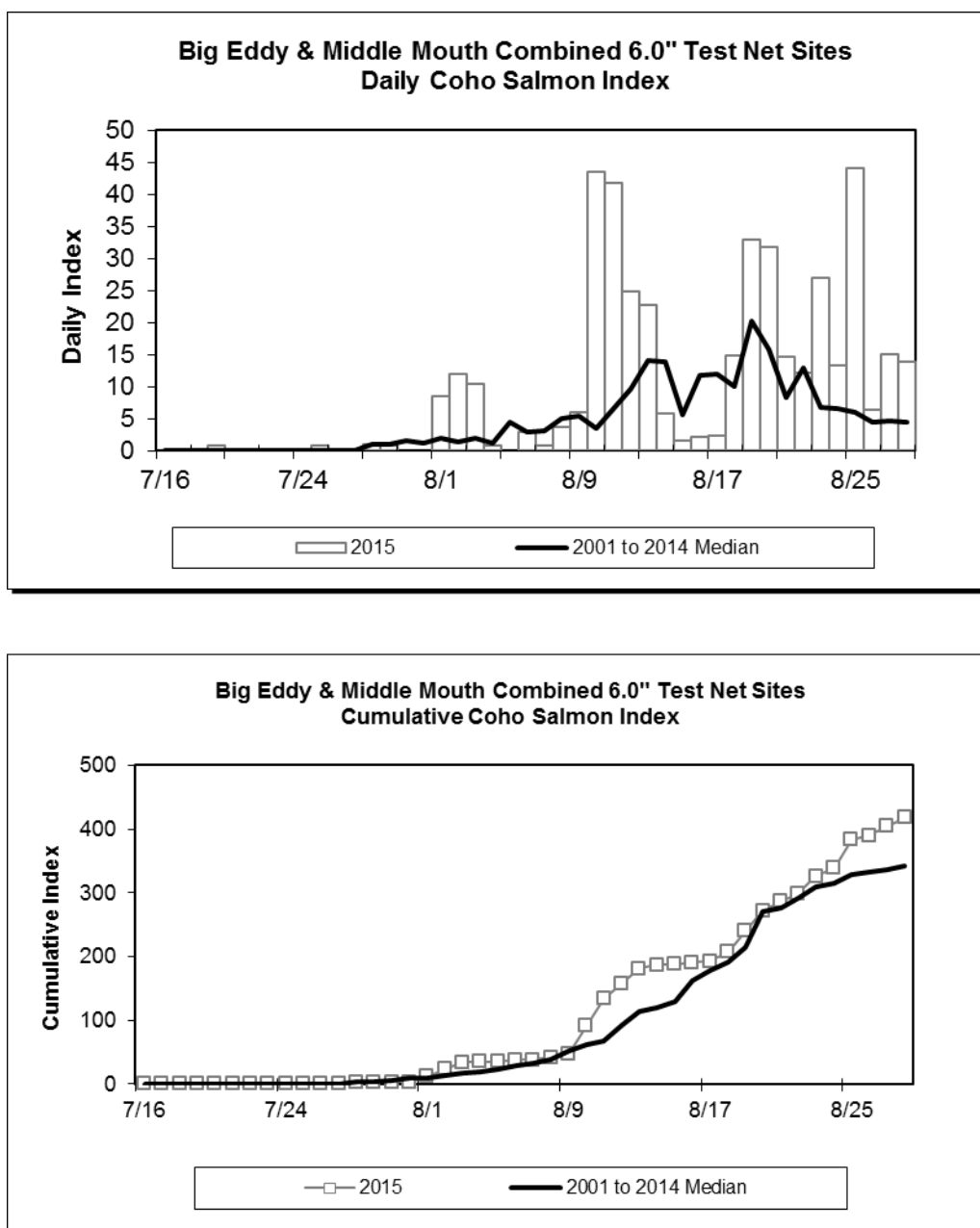
^b One or more drifts cancelled due to commercial period.

^c Includes supplemental drifts

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



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, 2001–2014 compared to 2015.



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, 2001–2014 compared to 2015.

APPENDIX C

Appendix C1.—Commercial salmon harvest by statistical area and gear type, Upper Yukon Area, 2015.

Statistical Area	Number of Fishermen ^a	Chinook			Summer Chum			Fall Chum			Coho		
		FW	SGN	Total	FW	SGN	Total	FW	SGN	Total	FW	SGN	Total
334-42	—	—	—	—	—	—	—	—	—	—	—	—	—
334-43	—	—	—	—	—	—	—	—	—	—	—	—	—
334-44	—	—	—	—	—	—	—	—	—	—	—	—	—
334-45	—	—	—	—	—	—	—	—	—	—	—	—	—
334-46	—	—	—	—	—	—	—	—	—	—	—	—	—
334-47	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal District 4	—	—	—	—	—	—	—	—	—	—	—	—	—
334-51	—	—	—	—	—	—	—	—	—	—	—	—	—
334-52	1	—	—	—	—	—	—	1,048	0	1,048	0	0	0
334-53	0	—	—	—	—	—	—	0	0	0	0	0	0
334-54	—	—	—	—	—	—	—	—	—	—	—	—	—
334-55	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal District 5	1	—	—	—	—	—	—	1,048	0	1,048	0	0	0
334-61	1	—	—	—	—	—	—	808	0	808	447	0	447
334-62	3	0	0	0	4,589	0	4,589	14,771	0	14,771	8,361	0	8,361
334-63	1	0	0	0	181	0	181	67	0	67	3	0	3
Subtotal District 6	5	0	0	0	4,770	0	4,770	15,646	0	15,646	8,811	0	8,811
Upper Yukon Area Total	6	0	0	0	4,770	0	4,770	16,694	0	16,694	8,811	0	8,811

Note: En dash indicates no commercial fishing activity occurred. FW = Fish wheel, SGN = Set gillnet.

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

Appendix C2.—Commercial Chinook salmon sales and estimated harvest by statistical area, Subdistrict 4-A, Upper Yukon Area, 1995–2015.

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
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
2015	—	—	—	—	—	—	—	—	—	—	—	—

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 C3.—Commercial Chinook salmon sales and estimated harvest by statistical area, Subdistricts 4-B and 4-C, Upper Yukon Area, 1995–2015.

Year	334-42			334-43			Total		
	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c
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	—	—	—	—	—	—	—	—	—
2015	—	—	—	—	—	—	—	—	—

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 C4.—Commercial Chinook salmon sales and estimated harvest by statistical area, Subdistricts 5-A, 5-B, and 5-C, Upper Yukon Area, 1995–2015.

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
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	–	–	–	–	–	–	–	–	–	–	–	–
2015	–	–	–	–	–	–	–	–	–	–	–	–

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, Subdistrict 5-D, Upper Yukon Area, 1995–2015.

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
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	—	—	—	—	—	—	—	—	—
2015	—	—	—	—	—	—	—	—	—

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, District 6, Upper Yukon Area, 1995–2015.

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
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
2015	0	0	0	0	0	0	0	0	0	0	0	0
2010–2014												
Average	0	0	0	0	0	0	0	0	0	0	0	0
2005–2014												
Average	0	0	0	50	0	50	32	0	32	82	0	82

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 C7.—Commercial summer chum salmon sales and estimated harvest by statistical area, Subdistrict 4–A, Upper Yukon Area, 1995–2015.

Year	334-44					334-45				
	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	
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 ^f	5,359	—	—	—	5,359	—	—	—	—	—
2008 ^f	—	—	—	—	—	—	—	—	—	—
2009 ^f	3,890	—	—	—	3,890	699	—	—	699	699
2010 ^g	—	—	—	—	—	—	—	—	—	—
2011	—	—	—	—	—	—	—	—	—	—
2012 ^g	—	—	—	—	—	—	—	—	—	—
2013 ^g	—	—	—	—	—	—	—	—	—	—
2014 ^g	—	—	—	—	—	—	—	—	—	—
2015	—	—	—	—	—	—	—	—	—	—
2010–2014 Average										
2005–2014 Average	4,625				4,625	699			699	699

-continued-

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334-46						Subtotal 334-44, 45, and 46				
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	
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 ^f	1,945	–	–	–	1,945	7,304	–	–	–	7,304
2008 ^f	23,746	–	–	–	23,746	23,746	–	–	–	23,746
2009 ^f	–	–	–	–	–	4,589	–	–	–	4,589
2010 ^g	44,207	–	–	–	44,207	44,207	–	–	–	44,207
2011	–	–	–	–	–	–	–	–	–	–
2012 ^g	108,222	–	–	–	108,222	108,222	–	–	–	108,222
2013 ^g	100,507	–	–	–	100,507	100,507	–	–	–	100,507
2014 ^g	96,385	–	–	–	96,385	96,385	–	–	–	96,385
2015	–	–	–	–	–	–	–	–	–	–
2010–2014										
Average	87,330				87,330	87,330				87,330
2005–2014										
Average	62,502				62,502	54,994				54,994

-continued-

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Year	334-47 (Anvik River)				Total (Subdistrict 4-A and Anvik)				
	Roe Expansion				Roe Expansion				
	Number ^a	Roe ^b	Females ^d	Estimated Harvest ^e	Number ^a	Roe ^b	Males ^c	Females ^d	Estimated Harvest ^e
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 ^f	–	–	–	–	7,304	–	–	–	7,304
2008 ^f	–	–	–	–	23,746	–	–	–	23,746
2009 ^f	–	–	–	–	4,589	–	–	–	4,589
2010 ^g	–	–	–	–	44,207	–	–	–	44,207
2011	–	–	–	–	–	–	–	–	–
2012 ^g	–	–	–	–	108,222	–	–	–	108,222
2013 ^g	–	–	–	–	100,507	–	–	–	100,507
2014 ^g	–	–	–	–	96,385	–	–	–	96,385
2015	–	–	–	–	–	–	–	–	–
2010–2014 Average					87,330				87,330
2005–2014 Average					54,994				54,994

-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. 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 1990–2006 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 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.

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

Appendix C8.—Commercial summer chum salmon sales and estimated harvest by statistical area, Subdistricts 4-B and 4-C, Upper Yukon Area, 1995–2015.

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
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	—	—	—	—	—	—	—	—	—	—	—	—	—
2015	—	—	—	—	—	—	—	—	—	—	—	—	—

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 the summer chum salmon roe.

^c The estimated number of females to produce the roe sold. 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 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 C9.—Commercial summer chum salmon sales and estimated harvest by statistical area, Subdistricts 5-A, 5-B, and 5-C, Upper Yukon Area, 1995–2015.

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
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	—	—	—	—	—	—	—	—	—	—	—	—
2015	—	—	—	—	—	—	—	—	—	—	—	—

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

Appendix C10.—Commercial summer chum salmon sales and estimated harvest by statistical area, Subdistrict 5-D, Upper Yukon Area, 1995–2015.

Year	334-54			334-55			Total		
	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c
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	—	—	—	—	—	—	—	—	—
2015	—	—	—	—	—	—	—	—	—

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 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. 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 C11.–Commercial summer chum salmon sales and estimated harvest by statistical area, District 6, Upper Yukon Area, 1995–2015.

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
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
2015	0	0	0	4,589	0	4,589	181	0	181	4,770	0	4,770
2010–2014												
Average	0	0	0	5,286	0	5,286	808	0	808	6,094	0	6,094
2005–2014												
Average	59	0	59	8,639	0	8,639	2,139	0	2,139	10,837	0	10,837

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 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 C12.—Commercial fall chum salmon sales and estimated harvest by statistical area, District 4, Upper Yukon Area, 1995–2015.

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
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	—	—	—	—	—	—	—	—	—	—	—	—
2015	—	—	—	—	—	—	—	—	—	—	—	—

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 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 4-A

^f Harvest occurred in 334-46

Appendix C13.–Commercial fall chum salmon sales and estimated harvest by statistical area, Subdistricts 5-A, 5-B, and 5-C, Upper Yukon Area, 1995–2015.

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
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	0	0	0	4,556	–	4,556	0	0	0	–	–	4,556	0	4,556
2009	–	–	–	–	–	–	–	–	–	–	–	–	–	–
2010	–	–	–	–	–	–	–	–	–	–	–	–	–	–
2011	–	–	–	1,246	–	1,246	0	0	0	–	–	1,246	0	1,246
2012	–	–	–	2,419	–	2,419	0	0	0	–	–	2,419	0	2,419
2013	–	–	–	1,041	–	1,041	0	0	0	–	–	1,041	0	1,041
2014	–	–	–	1,264	–	1,264	0	0	0	–	–	1,264	0	1,264
2015	–	–	–	1,048	–	1,048	0	0	0	–	–	1,048	0	1,048
2010-2014														
Average				1,493	1,493		0	0	0			1,493	0	1,493
2005-2014														
Average				1,559	1,559		1,259	1,259				2,623	0	2,623

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 C14.—Commercial fall chum salmon sales and estimated harvest by statistical area, Subdistricts 5-D, Upper Yukon Area, 1995–2015.

Year	334-54			334-55			Total		
	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c	Number ^a	Roe ^b	Harvest ^c
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	—	—	—	—	—	—	—	—	—
2015	—	—	—	—	—	—	—	—	—

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 C15.–Commercial fall chum salmon sales and estimated harvest by statistical area, District 6, Upper Yukon Area, 1995–2015.

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
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
2015	808	0	808	14,771	0	14,771	67	0	67	15,646	0	15,646
2010-2014												
Average	1,568		1,568	10,857		10,857				11,171		11,171
2005-2014												
Average	2,294	273	2,497	16,062		16,062				15,144	55	15,204

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 C16.—Commercial coho salmon sales and estimated harvest by statistical area, District 4, Upper Yukon Area, 1995–2015.

Year	334-41			334-42			334-43			Total		
	Number ^a	Roe ^b	Harvest ^c	Number	Roe	Harvest	Number	Roe	Harvest	Number	Roe	Harvest
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	—	—	—	—	—	—	—	—	—	—	—	—
2015	—	—	—	—	—	—	—	—	—	—	—	—

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 C17.—Commercial coho salmon sales and estimated harvest by statistical area, District 6, Upper Yukon Area, 1995–2015.

Year	334-61			334-62			334-63			Total		
	Number ^a	Roe ^b	Harvest ^c	Number	Roe	Harvest	Number	Roe	Harvest	Number	Roe	Harvest
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
2015	447	0	447	8,361	0	8,361	3	0	3	8,811	0	8,811
2010-2014												
Average	318	0	318	4,445	0	4,445				4,509	0	4,509
2005-2014												
Average	978	86	1,073	6,306	0	6,306				5,969	26	5,998

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 C18.—Summary of test fish wheel projects conducted in the Upper Yukon Area, 2015.

Test Fish Wheel Projects	Contractor/ Operator	River Mile ^b	Operational Dates	Total Days of Operation	Estimated Cumulative CPUE ^a				Historical Data / Comments
					Chinook	Summer Chum	Fall Chum	Coho	
Yukon River (Rapids) ^{c,d} Left Bank	Stan Zuray	731	6/13 to 9/20	99	1,563	926	48,592	–	Wheel uses 24 hour video counts.
Yukon River (Fort Yukon)	Fort Yukon Tribal Government	1,002	7/6 to 7/27	21	314	–	50	–	

^a Unless otherwise noted, fish wheel catch are adjusted to estimate cumulative catch per unit effort (CPUE; i.e., less than or greater than 24 hour daily catches are adjusted to reflect a 24 hour catch).

^b Estimated river miles from the mouth of the Yukon River.

^c Estimates are incomplete for Chinook and summer chum salmon because fish wheel did not operate June 23 to July 15 due to forest fires. Fall chum salmon daily CPUE are not adjusted for water discharge.

^d Estimated summer chum salmon totals include all chum salmon caught through July 20.

APPENDIX D

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, 2005–2015.

Community	2005	2006	2007	2008	2009	2010	2011	2012	2013 ^a	2014 ^a	2015 ^a	2005-2009 Average	2010-2014 Average
Hooper Bay	157	376	430	388	183	584	252	1,090	1,210	455	534	307	718
Scammon Bay	691	507	768	1,104	722	716	517	1,014	332	108	432	758	537
Coastal District total	848	883	1,198	1,492	905	1,300	769	2,104	1,542	563	966	1,065	1,256
Nunam Iqua	338	371	907	163	200	404	250	195	12	62	210	396	185
Alakanuk	860	690	1,257	1,238	634	944	1,464	1,081	275	214	436	936	796
Emmonak	1,730	2,311	2,326	2,696	1,634	2,194	2,172	1,864	553	463	612	2,139	1,449
Kotlik	2,130	1,750	1,569	2,066	1,657	2,314	2,369	1,173	794	617	661	1,834	1,453
District 1 subtotal	5,058	5,122	6,059	6,163	4,125	5,856	6,255	4,313	1,634	1,356	1,919	5,305	3,883
Mountain Village	2,383	1,659	2,077	1,645	1,482	1,601	2,063	1,789	266	178	370	1,849	1,179
Pitkas Point	618	274	320	544	265	580	246	261	37	79	44	404	241
St. Marys	2,693	2,233	3,573	1,756	1,929	2,800	1,734	2,344	215	68	261	2,437	1,432
Pilot Station	1,658	1,976	2,028	1,597	1,258	1,585	1,340	1,078	258	163	382	1,703	885
Marshall	1,804	1,897	2,555	3,284	1,201	2,110	2,686	1,409	328	128	128	2,148	1,332
District 2 subtotal	9,156	8,039	10,553	8,826	6,135	8,676	8,069	6,881	1,104	616	1,185	8,542	5,069
Russian Mission	1,894	1,851	1,301	2,949	978	924	1,550	1,711	236	16	365	1,795	887
Holy Cross	2,817	3,165	2,902	2,509	1,745	3,098	2,231	576	204	0	68	2,628	1,222
Shageluk	420	358	448	397	201	277	353	75	4	32	14	365	148
District 3 subtotal	5,131	5,374	4,651	5,855	2,924	4,299	4,134	2,362	444	48	447	4,787	2,257
Lower Yukon River total	19,345	18,535	21,263	20,844	13,184	18,831	18,458	13,556	3,182	2,020	3,551	18,634	11,209
Anvik	1,206	958	1,321	1,433	796	1,069	1,052	435	121	0	58	1,143	535
Grayling	1,878	1,702	1,500	1,761	1,133	2,122	1,374	1,081	226	3	22	1,595	961
Kaltag	3,367	2,833	1,456	2,403	1,970	3,191	2,488	1,346	348	10	119	2,406	1,477
Nulato	2,749	2,707	2,431	1,250	1,551	2,989	1,538	1,955	602	0	33	2,138	1,417
Koyukuk	396	835	811	513	982	867	1,349	614	898	52	26	707	756
Galena	2,864	2,380	2,511	2,232	1,370	1,357	1,434	742	275	1	372	2,271	762
Ruby/Kokrines	1,193	304	1,594	637	542	1,102	482	1,316	357	6	68	854	653
District 4 subtotal	13,653	11,719	11,624	10,229	8,344	12,697	9,717	7,489	2,827	72	698	11,114	6,560
Huslia	207	258	146	255	969	65	121	165	62	38	34	367	90
Hughes	33	8	8	61	101	63	10	0	6	13	4	42	18
Allakaket	68	23	53	58	90	63	42	5	6	8	35	58	25
Alatna	0	14	0	16	10	0	3	0	0	0	0	8	1
Bettles	3	0	0	0	0	0	0	3	0	1	0	1	1
Koyukuk River subtotal	311	303	207	390	1,170	191	176	173	74	60	73	476	135
District 4 total (incl. Koyukuk R.)	13,964	12,022	11,831	10,619	9,514	12,888	9,893	7,662	2,901	132	771	11,590	6,695

-continued-

Appendix D1.–Page 2 of 2.

Community	2005	2006	2007	2008	2009	2010	2011	2012	2013 ^a	2014 ^a	2015 ^a	2005-2009 Average	2010-2014 Average
Tanana	3,729	3,794	5,498	3,981	2,950	3,215	2,936	2,100	1,200	88	141	3,990	1,908
Rampart	411	429	250	136	528	262	201	190	35	0	1	351	138
Fairbanks ^b	2,584	2,184	2,510	1,898	1,509	1,670	2,186	558	610	14	263	2,137	1,008
Stevens Village	1,570	1,245	610	753	405	469	415	330	239	0	0	917	291
Birch Creek	131	174	113	32	15	73	49	0	0	0	0	93	24
Beaver	957	830	1,244	546	516	198	356	71	107	0	69	819	146
Fort Yukon	3,591	3,144	4,076	1,991	846	1,683	2,472	2,141	1,561	93	480	2,730	1,590
Circle	1,283	694	1,057	519	372	324	297	280	157	0	129	785	212
Central	175	130	334	48	167	90	66	66	21	0	56	171	49
Eagle	2,566	2,303	1,999	1,068	446	867	728	167	175	76	395	1,676	403
Other ^c	315	330	472	362	541	779	777	477	125	0	7	404	432
District 5 subtotal (excluding Chandalar and Black Rivers)	17,312	15,257	18,163	11,334	8,295	9,630	10,483	6,380	4,230	271	1,541	14,072	6,199
Venetie	59	667	1,002	292	622	767	10	86	311	12	308	528	237
Chalkyitsik	53	0	0	0	0	0	0	0	0	5	0	11	1
Chandalar/Black River subtotal	112	667	1,002	292	622	767	10	86	311	17	308	539	238
District 5 total	17,424	15,924	19,165	11,626	8,917	10,397	10,493	6,466	4,541	288	1,849	14,611	6,437
Manley	289	361	333	106	345	337	287	174	165	92	121	287	211
Minto	35	31	82	12	0	43	61	99	60	0	15	32	53
Nenana	533	712	893	322	458	658	681	296	87	139	263	584	372
Fairbanks ^d	971	125	409	108	396	91	330	58	49	41	33	402	114
Other ^e	0	0	0	57	86	14	8	0	6	11	0	29	8
District 6 Tanana R. total	1,828	1,229	1,717	605	1,285	1,143	1,367	627	367	283	432	1,333	757
Upper Yukon River total	33,216	29,175	32,713	22,850	19,716	24,428	21,753	14,755	7,809	703	3,052	27,534	13,890
Alaska, Yukon River total ^f	52,561	47,710	53,976	43,694	32,900	43,259	40,211	28,311	10,991	2,723	6,603	46,168	25,099
Alaska, Yukon Area total	53,409	48,593	55,174	45,186	33,805	44,559	40,980	30,415	12,533	3,286	7,569	47,233	26,355
Personal Use (District 6) ^g	138	89	136	126	127	162	89	71	42	1	5	123	73

^a Data are preliminary.

^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. Not included in communities or totals above.

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, 2005–2015.

Community	2005	2006	2007	2008	2009	2010	2011	2012	2013 ^a	2014 ^a	2015 ^a	2005-2009	2010-2014
												Average	Average
Hooper Bay	9,771	19,468	12,234	12,007	9,195	17,020	13,460	15,799	13,629	13,236	11870	12,535	14,629
Scammon Bay	4,586	4,703	3,887	6,113	3,602	5,405	4,845	7,442	9,506	6,068	8598	4,578	6,653
Coastal District total	14,357	24,171	16,121	18,120	12,797	22,425	18,305	23,241	23,135	19,304	20,468	17,113	21,282
Nunam Iqua	2,794	2,903	2,325	1,949	2,280	2,267	2,077	1,977	2,651	2,010	2239	2,450	2,196
Alakanuk	5,687	7,790	7,611	6,881	5,152	7,722	7,447	9,012	7,520	9,120	4469	6,624	8,164
Emmonak	12,594	11,899	9,256	9,646	9,038	10,918	12,468	15,829	8,209	7,143	9973	10,487	10,913
Kotlik	6,620	5,289	5,017	4,291	7,528	4,265	6,598	8,552	10,136	5,621	4960	5,749	7,034
District 1 subtotal	27,695	27,881	24,209	22,767	23,998	25,172	28,590	35,370	28,516	23,894	21,641	25,310	28,308
Mountain Village	8,861	13,119	8,104	7,559	7,204	7,071	9,355	9,031	11,861	7,059	6063	8,969	8,875
Pitkas Point	1,023	680	515	1,246	994	633	585	1,153	2,186	1,588	1225	892	1,229
St. Marys	6,877	7,394	8,107	6,451	5,831	7,443	6,760	10,763	9,167	5,570	8216	6,932	7,941
Pilot Station	4,333	6,070	3,711	6,012	4,888	6,196	4,182	5,716	5,299	5,728	4702	5,003	5,424
Marshall	3,183	4,392	3,070	3,023	2,172	2,395	3,810	5,903	3,986	6,189	4351	3,168	4,457
District 2 subtotal	24,277	31,655	23,507	24,291	21,089	23,738	24,692	32,566	32,499	26,134	24,557	24,964	27,926
Russian Mission	925	1,328	759	2,400	849	528	1,225	2,508	3,967	3,181	2626	1,252	2,282
Holy Cross	760	825	320	441	194	463	363	1,147	262	97	421	508	466
Shageluk	4,081	1,381	977	130	103	350	1,145	5,035	463	470	80	1,334	1,493
District 3 subtotal	5,766	3,534	2,056	2,971	1,146	1,341	2,733	8,690	4,692	3,748	3,127	3,095	4,241
Lower Yukon River total	57,738	63,070	49,772	50,029	46,233	50,251	56,015	76,626	65,707	53,776	49,325	53,368	60,475
Anvik	529	387	5,250	340	277	451	220	1,371	830	2,052	777	1,357	985
Grayling	783	644	641	660	1,429	1,612	838	2,616	618	1,617	509	831	1,460
Kaltag	680	159	109	916	50	102	163	186	67	954	216	383	294
Nulato	634	838	356	468	133	416	246	254	401	158	6	486	295
Koyukuk	537	394	995	1,104	1,378	352	890	828	4,459	300	0	882	1,366
Galena	1,013	1,205	571	758	1,718	1,702	3,414	718	179	377	1059	1,053	1,278
Ruby/Kokrines	967	1,714	416	655	603	1,971	775	3,891	681	29	88	871	1,469
District 4 subtotal	5,143	5,341	8,338	4,901	5,588	6,606	6,546	9,864	7,235	5,487	2,655	5,862	7,148
Huslia	2,433	1,122	3,243	4,377	2,554	1,349	3,166	7,306	3,241	2,325	3110	2,746	3,477
Hughes	2,230	3,254	1,213	944	1,723	878	954	428	829	889	1499	1,873	796
Allakaket	2,535	5,170	3,451	3,229	4,924	2,864	2,368	3,850	2,116	1,276	2455	3,862	2,495
Alatna	5	110	11	66	163	23	132	100	340	0	58	71	119
Bettles	4	0	0	0	6	0	0	7	0	4	0	2	2
Koyukuk River subtotal	7,207	9,656	7,918	8,616	9,370	5,114	6,620	11,691	6,526	4,494	7,122	8,553	6,889
District 4 total (incl. Koyukuk R.)	12,350	14,997	16,256	13,517	14,958	11,720	13,166	21,555	13,761	9,981	9,777	14,416	14,037

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Community	2005	2006	2007	2008	2009	2010	2011	2012	2013 ^a	2014 ^a	2015 ^a	2005-2009 Average	2010-2014 Average
Tanana	4,832	5,474	5,229	2,877	4,665	1,856	4,381	4,333	9,565	2,612	3,162	4,615	4,549
Rampart	315	135	25	27	112	161	67	71	5	70	0	123	75
Fairbanks ^b	780	1,341	564	119	44	427	688	172	1,350	300	575	570	587
Stevens Village	442	972	254	163	6	28	43	188	50	0	0	367	62
Beaver	68	117	41	27	22	22	393	27	12	0	0	55	91
Fort Yukon	67	2,165	2,365	230	275	722	1,297	0	225	19	0	1,020	453
Circle	3	58	200	5	0	37	48	0	66	0	0	53	30
Central	5	2	0	0	2	0	0	0	0	0	0	2	0
Eagle	235	974	15	14	0	25	2	0	50	0	0	248	15
Other ^c	53	117	81	25	29	144	790	101	94	91	8	61	244
District 5 subtotal (Excluding Chandalar and Black Rivers)	6,800	11,355	8,774	3,487	5,155	3,422	7,709	4,892	11,417	3,092	3,745	7,114	6,106
Venetie	0	475	107	50	143	0	0	0	0	0	0	155	0
Chalkyitsik	0	0	0	0	0	133	0	0	0	16	0	0	30
Chandalar/Black River subtotal	0	475	107	50	143	133	0	0	0	16	0	155	30
District 5 total	6,800	11,830	8,881	3,537	5,298	3,555	7,709	4,892	11,417	3,108	3,745	7,269	6,136
Manley	163	89	140	144	367	102	142	58	45	182	9	181	106
Minto	21	460	82	9	1	8	27	64	258	24	0	115	76
Nenana	1,771	388	1,419	753	506	83	471	370	642	275	60	967	368
Fairbanks ^d	45	73	255	94	372	183	185	114	143	237	183	168	172
Other ^e	14	0	0	311	7	46	0	72	6	13	0	66	27
District 6 Tanana R. total	2,014	1,010	1,896	1,311	1,253	422	825	678	1,094	731	252	1,497	750
Upper Yukon River total	21,164	27,837	27,033	18,365	21,509	15,697	21,700	27,125	26,272	13,820	13,774	23,182	20,923
Alaska, Yukon River total ^f	78,902	90,907	76,805	68,394	67,742	65,948	77,715	103,751	91,979	67,596	63,099	76,550	81,398
Alaska, Yukon Area total	93,259	115,078	92,926	86,514	80,539	88,373	96,020	126,992	115,114	86,900	83,567	93,663	102,680
Personal Use (District 6) ^g	152	262	184	138	308	319	439	321	138	235	220	209	290

^a Data are preliminary.

^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. Not included in communities or totals above.

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, 2005–2015.

Community	2005	2006	2007	2008	2009	2010	2011	2012	2013 ^a	2014 ^a	2015 ^a	2005-2009 Average	2010-2014 Average
Hooper Bay	1	146	64	329	41	116	267	1	91	137	79	116	122
Scammon Bay	69	41	170	57	117	70	48	10	58	115	119	91	60
Coastal District total	70	187	234	386	158	186	315	11	149	252	198	207	183
Nunam Iqua	310	735	152	59	41	143	51	210	93	128	210	259	125
Alakanuk	627	624	1,348	423	116	860	881	449	328	593	1,067	628	622
Emmonak	1,436	2,056	2,360	1,670	1,589	1,718	1,540	5,890	2,165	2,465	3,244	1,822	2,756
Kotlik	516	487	530	671	171	481	962	1,073	1,087	886	1,356	475	898
District 1 subtotal	2,889	3,902	4,390	2,823	1,917	3,202	3,434	7,622	3,673	4,072	5,877	3,184	4,401
Mountain Village	1,290	2,398	1,073	926	926	133	800	685	2,174	1,484	1,398	1,323	1,055
Pitkas Point	6	5	44	101	76	10	30	9	65	400	172	46	103
St. Marys	490	417	825	830	106	387	611	1,423	1,009	2,037	1,611	534	1,093
Pilot Station	838	785	741	917	265	833	575	1,031	777	796	1,346	709	802
Marshall	633	410	789	748	190	56	562	184	853	1,100	1,731	554	551
District 2 subtotal	3,257	4,015	3,472	3,522	1,563	1,419	2,578	3,332	4,878	5,817	6,258	3,166	3,605
Russian Mission	667	251	530	578	205	104	11	282	804	365	449	446	313
Holy Cross	582	224	248	920	627	21	94	339	855	1,840	763	520	630
Shageluk	55	5	147	323	105	1,200	249	16	105	252	176	127	364
District 3 subtotal	1,304	480	925	1,821	937	1,325	354	637	1,764	2,457	1,388	1,093	1,307
Lower Yukon River total	7,450	8,397	8,787	8,166	4,417	5,946	6,366	11,591	10,315	12,346	13,523	7,443	9,313
Anvik	497	118	429	317	176	169	202	569	763	1,028	680	307	546
Grayling	1,009	691	317	1,012	490	202	1,152	804	471	1,451	1,184	704	816
Kaltag	1,089	823	910	620	200	658	196	2,830	583	2,828	1,255	728	1,419
Nulato	421	751	1,345	729	552	1,049	652	2,729	2,995	3,839	2,248	760	2,253
Koyukuk	803	1,147	927	1,177	578	792	1,388	1,331	5,308	998	2,838	926	1,963
Galena	2,695	1,632	1,471	1,364	4,306	1,968	2,739	2,947	602	3,368	2,542	2,294	2,325
Ruby/Kokrines	559	227	1,959	657	134	1,026	592	4,408	2,505	972	713	707	1,901
District 4 subtotal	7,073	5,389	7,358	5,876	6,436	5,864	6,921	15,618	13,227	14,484	11,460	6,426	11,223
Huslia	1,614	313	272	64	86	403	183	1,909	722	579	736	470	759
Hughes	111	240	0	127	288	0	64	2	535	348	490	153	190
Allakaket	557	393	939	1,345	572	521	92	508	687	510	524	761	464
Alatna	0	0	7	0	0	0	0	18	20	15	64	1	11
Bettles	50	0	0	0	0	0	0	0	0	0	0	10	0
Koyukuk River subtotal	2,332	946	1,218	1,536	946	924	339	2,437	1,964	1,452	1,814	1,396	1,423
District 4 total (incl. Koyukuk R.)	9,405	6,335	8,576	7,412	7,382	6,788	7,260	18,055	15,191	15,936	13,274	7,822	12,646

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Community	2005	2006	2007	2008	2009	2010	2011	2012	2013 ^a	2014 ^a	2015 ^a	2005-2009 Average	2010-2014 Average
Tanana	20,545	23,167	21,596	17,478	19,595	14,984	21,728	20,465	31,546	14,131	19,627	20,476	20,571
Rampart	358	250	250	1,000	1,000	735	340	190	100	0	186	572	273
Fairbanks ^b	1,682	5,269	2,126	659	229	822	1,696	793	1,160	1,406	2,454	1,993	1,175
Stevens Village	246	50	199	643	770	2,706	911	277	840	6,700	0	382	2,287
Beaver	179	0	354	13	120	37	122	174	21	323	76	133	135
Ft. Yukon	8,088	5,178	8,264	14,252	2,829	6,006	7,188	12,659	16,453	8,025	6,257	7,722	10,066
Circle	918	664	1,286	3,198	110	927	299	161	1,397	1,277	1,652	1,235	812
Central	36	0	0	0	0	0	0	0	0	0	0	7	0
Eagle	17,356	16,801	18,676	15,269	10,941	15,008	17,455	18,731	18,871	17,450	17,185	15,809	17,503
Other ^c	117	44	46	3,183	71	120	208	443	121	222	229	692	223
District 5 subtotal (Excluding Chandalar and Black Rivers)	49,525	51,423	52,797	55,695	35,665	41,345	49,947	53,893	70,509	49,534	47,666	49,021	53,046
Venetie	1,801	520	721	1,563	2,373	2,989	1,938	295	5,340	1,538	2,423	1,396	2,420
Chalkyitsik	337	215	213	0	45	0	0	162	249	125	171	162	107
Chandalar/Black River subtotal	2,138	735	934	1,563	2,418	2,989	1,938	457	5,589	1,663	2,594	1,558	2,527
District 5 total	51,663	52,158	53,731	57,258	38,083	44,334	51,885	54,350	76,098	51,197	50,260	50,579	55,573
Manley	2,985	3,374	3,419	2,490	4,126	2,696	2,333	2,164	1,539	2,579	1,697	3,279	2,262
Minto	600	242	155	28	0	70	1,500	2	593	472	140	205	527
Nenana	10,594	10,530	21,863	6,585	7,623	6,802	5,268	8,665	3,112	2,510	3,151	11,439	5,271
Fairbanks ^d	6,691	1,311	3,325	340	3,460	678	4,317	3,876	5,651	5,190	3,496	3,025	3,942
Other ^e	2,076	1,468	1,131	6,692	870	1,145	958	595	736	1,747	861	2,447	1,036
District 6 Tanana R. total	22,946	16,925	29,893	16,135	16,079	11,391	14,376	15,302	11,631	12,498	9,345	20,396	13,040
Upper Yukon River total	84,014	75,418	92,200	80,805	61,544	62,513	73,521	87,707	102,920	79,631	72,879	78,796	81,258
Alaska, Yukon River total ^f	91,464	83,815	100,987	88,971	65,961	68,459	79,887	99,298	113,235	91,977	86,402	86,240	90,571
Alaska, Yukon Area total	91,534	84,002	101,221	89,357	66,119	68,645	80,202	99,309	113,384	92,229	86,600	86,447	90,754
Personal Use (District 6) ^g	133	333	173	181	78	3,209	347	410	383	278	80	180	925

^a Data are preliminary.

^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. Not included in communities or totals above.

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, 2005–2015.

Community	2005	2006	2007	2008	2009	2010	2011	2012	2013 ^a	2014 ^a	2015 ^a	2005-2009 Average	2010-2014 Average
Hooper Bay	0	175	26	66	24	45	0	7	73	118	95	58	49
Scammon Bay	279	160	84	50	222	79	55	86	214	86	79	159	104
Coastal District total	279	335	110	116	246	124	55	93	287	204	174	217	153
Nunam Iqua	241	392	92	24	71	73	23	18	83	153	229	164	70
Alakanuk	322	101	857	157	194	449	431	252	167	443	581	326	348
Emmonak	191	450	1,032	717	401	362	472	2,660	517	613	852	558	925
Kotlik	222	234	284	313	181	238	201	420	457	573	438	247	378
District 1 subtotal	976	1,177	2,265	1,211	847	1,122	1,127	3,350	1,224	1,782	2,100	1,295	1,721
Mountain Village	246	1,856	1,027	518	413	127	261	256	271	202	723	812	223
Pitkas Point	30	16	38	130	45	116	37	53	41	123	72	52	74
St. Marys	252	171	97	591	151	92	230	141	124	408	391	252	199
Pilot Station	241	225	263	268	203	189	145	329	136	568	305	240	273
Marshall	341	191	922	490	245	33	150	567	508	468	1,511	438	345
District 2 subtotal	1,110	2,459	2,347	1,997	1,057	557	823	1,346	1,080	1,769	3,002	1,794	1,115
Russian Mission	133	19	259	372	96	300	0	319	152	124	154	176	179
Holy Cross	84	16	213	38	120	0	0	237	0	103	246	94	68
Shageluk	0	48	267	0	105	53	36	0	219	113	28	84	84
District 3 subtotal	217	83	739	410	321	353	36	556	371	340	428	354	331
Lower Yukon River total	2,303	3,719	5,351	3,618	2,225	2,032	1,986	5,252	2,675	3,891	5,530	3,443	3,167
Anvik	406	0	807	40	137	28	19	214	97	197	46	278	111
Grayling	234	224	271	25	318	132	119	26	34	403	212	214	143
Kaltag	307	106	204	45	40	0	258	928	306	514	18	140	401
Nulato	60	214	130	195	171	242	118	41	125	454	48	154	196
Koyukuk	37	330	189	84	198	254	137	62	3,267	50	416	168	754
Galena	607	137	425	558	2,353	549	1,013	276	170	718	654	816	545
Ruby/Kokrines	361	11	168	291	314	148	312	1,806	345	335	185	229	589
District 4 subtotal	2,012	1,022	2,194	1,238	3,531	1,353	1,976	3,353	4,344	2,671	1,579	1,999	2,739
Huslia	734	105	592	100	323	289	70	165	342	265	294	371	226
Hughes	20	150	100	0	89	0	13	0	18	17	16	72	10
Allakaket	205	25	66	152	43	88	13	38	236	109	40	98	97
Alatna	0	0	0	0	0	0	0	0	0	0	12	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0
Koyukuk River subtotal	959	280	758	252	455	377	96	203	596	391	362	541	333
District 4 total (incl. Koyukuk R.)	2,971	1,302	2,952	1,490	3,986	1,730	2,072	3,556	4,940	3,062	1,941	2,540	3,072

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Community	2005	2006	2007	2008	2009	2010	2011	2012	2013 ^a	2014 ^a	2015 ^a	2005-2009 Average	2010-2014 Average
Tanana	1,616	3,619	2,369	1,511	2,373	2,314	312	3,060	1,135	1,788	2,434	2,298	1,722
Rampart	10	0	50	0	0	24	0	0	0	0	2	12	5
Fairbanks ^b	10	79	26	7	13	2	2	0	0	0	0	27	1
Stevens Village	0	0	0	0	90	428	0	0	0	0	0	18	86
Beaver	0	0	354	6	0	1	0	2	0	2	0	72	1
Fort Yukon	394	35	567	1,618	2	244	1,040	4	7	201	2	523	299
Circle	100	22	0	0	13	164	0	5	150	0	0	27	64
Central	1	0	0	0	0	0	0	0	0	0	0	0	0
Eagle	15	0	0	0	0	1	1	0	0	1	0	3	1
Other ^c	13	0	0	61	7	0	0	21	0	0	0	16	4
District 5 subtotal (Excluding Chandalar and Black Rivers)	2,159	3,755	3,366	3,203	2,498	3,178	1,355	3,092	1,292	1,992	2,438	2,996	2,182
Venetie	0	24	0	0	0	159	34	0	6	0	24	5	40
Chalkyitsik	0	0	0	0	0	267	0	0	0	38		0	61
Chandalar/Black River subtotal	0	24	0	0	0	426	34	0	6	38	24	5	101
District 5 total	2,159	3,779	3,366	3,203	2,498	3,604	1,389	3,092	1,298	2,030	2,462	3,001	2,283
Manley	2,510	1,671	1,126	1,901	2,308	1,832	1,482	1,374	447	1,177	1,263	1,903	1,262
Minto	0	14	155	0	0	0	0	0	266	37	270	34	61
Nenana	12,395	7,032	4,487	2,775	3,475	2,313	3,304	5,904	1,762	1,938	2,712	6,033	3,044
Fairbanks ^d	3,032	745	609	230	577	212	1,109	1,502	2,576	3,689	3,108	1,039	1,818
Other ^e	1,601	1,109	1,468	3,522	691	1,198	947	760	206	870	647	1,678	796
District 6 Tanana River total	19,538	10,571	7,845	8,428	7,051	5,555	6,842	9,540	5,257	7,711	8,000	10,687	6,981
Upper Yukon Area total	24,668	15,652	14,163	13,121	13,535	10,889	10,303	16,188	11,495	12,803	12,403	16,228	12,336
Alaska, Yukon River total ^f	26,971	19,371	19,514	16,739	15,760	12,921	12,289	21,440	14,170	16,694	17,933	19,671	15,503
Alaska, Yukon Area total	27,250	19,706	19,624	16,855	16,006	13,045	12,344	21,533	14,457	16,898	18,107	19,888	15,655
Personal Use (District 6) ^g	107	279	135	50	70	1,062	232	100	109	174	145	128	335

^a Data are preliminary.

^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. Not included in communities or totals above.

Appendix D5.—Estimated pink salmon subsistence harvest by residents of surveyed communities, with community and district totals, Yukon Area, 2004–2014.

Community	2005	2006	2007	2008	2009	2010	2011	2012 ^a	2013 ^b	2014 ^{a, b}	2015 ^b	Estimated Total		
												Even Years Average	Odd Years Average	All Years Average
Hooper Bay	860	1,433	113	1,013	957	219	210	1,101	302	712	451	896	488	692
Scammon Bay	1,645	1,381	1,435	2,766	1,186	2,245	1,888	1,343	507	1,923	1,414	1,932	1,332	1,632
Coastal District	2,505	2,814	1,548	3,779	2,143	2,464	2,098	2,444	809	2,635	1,865	2,827	1,821	2,324
Nunam Iqua	132	555	170	757	61	306	8	1,051	0	670	352	668	74	371
Alakanuk	49	115	32	494	24	151	13	174	92	970	15	381	42	211
Emmonak	54	225	51	641	5	206	0	199	0	588	7	372	22	197
Kotlik	155	219	129	1,161	42	124	32	195	23	1,064	14	553	76	314
District 1	390	1,114	382	3,053	132	787	53	1,619	115	3,292	388	1,973	214	1,094
Mountain Village	78	616	87	500	6	217	24	207	0	233	57	355	39	197
Pitkas Point	2	44	66	15	0	143	0	2	2	45	288	50	14	32
St. Mary's	144	236	32	367	5	543	1	643	0	614	18	481	36	259
Pilot Station	0	1	0	34	3	22	0	23	131	27	0	21	27	24
Marshall	6	3	0	26	0	21	66	5	7	1	0	11	16	14
District 2	230	900	185	942	14	946	91	880	140	920	363	918	132	525
Russian Mission	0	8	3	436	0	2	0	76	12	8	0	106	3	55
Holy Cross	0	17	0	20	0	0	0	0	0	0	0	7	0	4
Shageluk	0	0	0	0	9	0	9	24	0	3	0	5	4	5
District 3	0	25	3	456	9	2	9	100	12	11	0	119	7	63
Anvik	0	0	0	23	2	0	0	0	0	0	0	5	0	3
Grayling	3	0	0	200	0	0	40	0	0	39	0	48	9	28
Kaltag	4	0	0	383	0	0	0	0	0	0	0	77	1	39
Nulato	0	1	0	35	0	0	0	0	0	8	0	9	0	4
Koyukuk	0	0	0	67	0	0	0	0	0	0	0	13	0	7
Galena	0	0	0	31	0	0	0	3	0	6	16	8	0	4
Ruby	0	0	0	184	0	0	0	0	0	13	0	39	0	20
Huslia	0	0	0	100	0	0	0	101	0	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	7	1	0	1,023	2	0	40	104	0	66	16	239	10	124

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Community	2005	2006	2007	2008	2009	2010	2011	2012 ^a	2013 ^b	2014 ^{a, b}	2015 ^b	Estimated Total		
												Even Years Average	Odd Years Average	All Years Average
Tanana	0	0	0	80	0	0	0	3	0	8	13	18	0	9
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	196	0	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	276	0	0	0	3	0	8	13	57	0	29
Survey Totals	3,132	4,854	2,118	9,529	2,300	4,199	2,291	5,150	1,076	6,932	2,645	6,133	2,183	4,158
CI (95%)	1,521	990	739	1,818	1,184	1,209	918	1,155	387	1,356	612	–	–	–

Note: Averages do not include the current year. CI (95%) is the annual 95 percent confidence interval.

^a Includes pink salmon given to communities from test fishery projects.

^b Data are preliminary.

Appendix D6.—Reported harvest of salmon and other fish species from subsistence permits issued in the Yukon and Koyukuk rivers, 2005–2015.

Year	Number of permits		Percent returned	Number reporting harvest	Reported harvest									
	Issued	Returned			Chinook	Summer chum	Fall chum	Coho	Whitefish	Sheefish	Burbot	Northern pike	Longnose sucker	Arctic grayling
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 ^a	167	162	97%	94	3,794	189	13,117	123	519	46	46	74	76	265
2010 ^a	207	198	96%	122	4,059	814	17,612	191	491	68	22	73	40	157
2011 ^a	191	188	98%	117	4,276	1,619	20,447	3	723	70	17	119	160	395
2012 ^a	164	159	97%	87	1,749	344	20,316	26	663	100	11	30	21	59
2013 ^{a, b}	124	118	95%	73	1,203	1,715	21,649	150	291	37	15	23	39	107
2014 ^{a, b}	100	97	97%	51	77	461	20,355	1	738	201	8	37	10	67
2015 ^{a, b}	106	105	99%	55	792	583	21,706	2	487	143	14	76	7	96
2010-2014														
Average	157	152	97%	90	2,273	991	20,076	74	581	95	15	56	54	157
2005-2014														
Average	169	161	95%	103	4,029	1,052	20,036	83	533	83	32	66	85	312

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 US/Canada border).

^a Permits have been issued above and below the Eagle sonar project to document harvest of salmon between the sonar site and US/Canada border from 2008 to present.

^b Data are preliminary.

Appendix D7.—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, 2005–2015.

Year	Number of permits		Percent returned	Number reporting harvest	Reported harvest									
	Issued	Returned			Chinook	Summer chum	Fall chum	Coho	Whitefish	Sheefish	Burbot	Northern pike	Longnose sucker	Arctic grayling
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 ^a	244	230	94%	113	366	1,094	11,425	5,190	2,386	10	52	377	190	100
2014 ^a	229	224	98%	123	272	712	11,602	7,326	2,864	11	19	611	91	16
2015 ^a	248	245	99%	119	348	234	9,273	7,815	3,004	22	9	814	28	34
2010-2014														
Average	240	226	94%	113	642	709	11,889	6,431	2,989	30	52	432	121	56
2005-2014														
Average	245	230	94%	119	931	1,072	13,657	7,406	2,990	29	51	793	149	63

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).

^a Data are preliminary.

Appendix D8.—Reported harvest of salmon and other fish species from personal use permits issued in Subdistrict 6-C of the Tanana River, 2005–2015.

Year	Number of permits		Percent returned	Number reporting harvest	Reported harvest									
	Issued	Returned			Chinook	Summer chum	Fall chum	Coho	Whitefish	Sheefish	Burbot	Northern pike	Longnose sucker	Arctic grayling
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 ^a	67	66	99%	36	42	138	383	132	89	1	1	3	118	0
2014 ^a	71	71	100%	33	1	235	278	174	145	3	0	0	270	0
2015 ^a	64	64	100%	28	5	220	80	145	280	1	0	1	323	1
2010-2014														
Average	72	70	98%	36	73	290	925	340	105	1	1	2	166	1
2005-2014														
Average	69	68	98%	34	98	250	553	234	99	2	2	2	189	1

Note: Permit types include PC for personal use salmon and PW for personal use whitefish.

^a Data are preliminary.

Appendix D9.—Estimated and reported subsistence and personal use harvest of miscellaneous fish species, Yukon Area, 2005–2015.

	2005	2006	2007	2008	2009	2010	2011	2012	2013 ^a	2014 ^a	2015 ^a	5-year average 2005-2009	5-year average 2010-2014
Survey estimates ^b													
Whitefish ^c	48,862	60,923	64,338	54,729	51,778	50,232	44,890	70,486	64,766	84,889	79,740	57,445	63,053
Northern pike	29,799	28,133	25,947	16,053	8,061	14,086	14,270	18,450	11,264	14,582	20,109	21,122	14,530
Sheefish	13,764	12,745	13,203	10,154	7,861	9,231	10,139	17,094	15,553	12,583	12,828	12,437	12,920
Survey reported													
Burbot	3,138	5,069	3,500	3,273	2,027	2,743	2,477	2,422	2,115	2,016	3,364	3,273	2,355
Arctic lamprey	38,115	2,092	12,584	803	1,699	10,863	6,037	1,243	2,608	19,888 ^d	42,237 ^d	14,869	8,128
Tomcod	4,988	13,652	7,121	6,391	2,709	3,978	6,797	4,023	5,221	10,020	4,697	6,752	6,008
Arctic grayling	1,258	1,145	2,296	857	667	1,571	1,273	2,674	1,435	1,772	1,832	1,311	1,745
Longnose suckers	1,452	105	225	25	59	273	286	95	180	90	—	341	185
Arctic char	217	345	181	184	43	148	205	216	167	—	—	181	184
Alaska blackfish	259,874	218,695	131,712	110,356	47,320	68,873	87,064	62,731	63,235	92,080	97,586	166,298	74,797
Sockeye salmon	648	333	493	213	216	263	279	405	258	—	—	448	301
Herring ^e	—	—	—	—	—	—	—	10,449	9,082	17,164	24,591	—	9,766
Permit Reported													
Whitefish ^b	3,671	3,399	3,328	3,402	4,039	3,040	4,851	3,966	2,766	3,747	3,771	3,568	3,674
Northern pike	641	1,008	2,094	1,678	733	257	319	825	403	648	891	1,231	490
Sheefish	155	80	83	111	76	121	103	147	48	215	166	101	127
Burbot	78	127	99	89	119	45	140	58	68	27	23	102	68
Arctic grayling	800	507	525	488	363	201	475	104	210	83	131	537	215
Longnose suckers	694	770	243	298	518	170	414	396	347	371	358	505	340
Yukon Area totals from subsistence survey communities and permit areas													
Whitefish ^b	52,533	64,322	67,666	58,131	55,817	53,272	49,741	74,452	67,532	88,636	83,511	61,152	66,727
Northern pike	30,440	29,141	28,041	17,731	8,794	14,343	14,589	19,275	11,667	15,230	21,000	22,249	15,021
Sheefish	13,919	12,825	13,286	10,265	7,937	9,352	10,242	17,241	15,601	12,798	12,994	12,538	13,047
Burbot	3,216	5,196	3,599	3,362	2,146	2,788	2,617	2,480	2,183	2,043	3,387	3,379	2,422
Arctic grayling	2,058	1,652	2,821	1,345	1,030	1,772	1,748	2,778	1,645	1,855	1,963	1,931	1,960
Longnose suckers	2,146	875	468	323	577	443	700	491	527	461	358	818	524

^a Data are preliminary.

^b Subsistence whitefish, pike, and a sheefish estimates in surveyed communities are 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.

^c Whitefish includes various Coregonus species and round whitefish.

^d Harvest of Arctic lamprey reported on postcards was incorporated into totals reported on surveys. This is the total number reported on surveys and postcards.

^e Starting in 2012, households in the Lower Yukon including the Coastal District were asked about harvest of herring. Household responses for herring include smelt and unspecified species.

Appendix D10.—Subsistence salmon fishing closures and gear restrictions, Lower Yukon Area, 2015.

	Coastal District ^a		District 1	District 2	District 3
	Southern	Northern			
5/15		Open - no schedule	Open - no schedule	Open - no schedule	Open - no schedule
5/16		Open 7.5" mesh	Open 7.5" mesh	Open 7.5" mesh	Open 7.5" mesh
5/17		Open	Open	Open	Open
5/18		Open	Open	Open	Open
5/19		Open	Open	Open	Open
5/20		8 pm 6" mesh	8 pm 6" mesh	8 pm 6" mesh	Open
5/21		6" mesh	6" mesh	6" mesh	Open
5/22		6" mesh	6" mesh	6" mesh	Open
5/23		6" mesh	6" mesh	6" mesh	Open
5/24		6" mesh	6" mesh	6" mesh	Open
5/25		6" mesh	6" mesh	6" mesh	Open
5/26		6" mesh	6" mesh	6" mesh	Open
5/27		6" mesh	6" mesh	6" mesh	Open
5/28		6" mesh	6" mesh	6" mesh	Open
5/29		6" mesh	6" mesh	6" mesh	Open
5/30	6" mesh	Close noon	Close noon	Close noon	Open noon 6" mesh
5/31	6" mesh	Closed	Closed	Closed	6" mesh
6/1	6" mesh	Closed	Closed	Closed	6" mesh
6/2	6" mesh	Closed	Closed	Closed	6" mesh
6/3	6" mesh	Closed	Closed	Closed	6" mesh
6/4	6" mesh	Closed	Closed	Closed	6" mesh
6/5	6" mesh	Closed	Closed	Closed	Close 8 pm
6/6	6" mesh	Closed	Open 6 pm dip net only ^b	Open 6 pm dip net only ^b	Closed
6/7	6" mesh	Closed	Dip net only ^b	Dip net only ^b	Closed
6/8	6" mesh	Closed	Dip net only ^b	Dip net only ^b	Closed
6/9	6" mesh	Closed	Dip net only ^b	Dip net only ^b	Open 8 pm dip net only ^b
6/10	6" mesh	Closed	Dip net only ^b	Dip net only ^b	Dip net only ^b
6/11	6" mesh	Closed	Close noon. Open 2 pm-12 am; gear ^c	Dip net only ^b	Dip net only ^b
6/12	6" mesh	Closed	Open 2 pm to 12 am; gear ^c	Dip net only ^b	Dip net only ^b
6/13	6" mesh	Closed	Open 6 am to 12 am; gear ^d	Dip net only ^b	Dip net only ^b
6/14	6" mesh	Closed	Open noon to 12 am; gear ^c	Dip net only ^b	Dip net only ^b
6/15	6" mesh	Closed	Open noon to 12 am; gear ^c	Close 10 am. Open noon - 10 pm ^c	Dip net only ^b
6/16	6" mesh	Closed	Open noon to 12 am; gear ^c	Open noon to 10 pm ^c	Dip net only ^b
6/17	6" mesh	Closed	Open noon to 12 am; gear ^c	Open noon to 10 pm ^c	Dip net only ^b
6/18	6" mesh	Closed	Open noon to 12 am; gear ^c	Open noon to 10 pm ^c	Dip net only ^b
6/19	6" mesh	Closed	Open noon to 12 am; gear ^c	Open 6 am-11 am ^b ; noon to 10 pm ^c	Dip net only ^b

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Coastal District ^a					
	Southern	Northern	District 1	District 2	District 3
6/20	6" mesh	Closed	Open 6 am to 12 am; gear ^d	Open 6 am to 10 pm ^d	Dip net only ^b
6/21	6" mesh	Closed	Open 6 am-10 am ^d ; noon-12 am ^c	Open 6 am-10 am ^d ; noon-10 pm ^c	Dip net only ^b
6/22	6" mesh	Closed	Open 6 am-10 am ^d ; noon-12 am ^c	Open 6 am-10 am ^d ; noon-10 pm ^c	Dip net only ^b
6/23	6" mesh	Closed	Open 6 am-10 am ^d ; noon-12 am ^c	Open 6 am-10 am ^d ; noon-10 pm ^c	Dip net only ^b
6/24	6" mesh	Closed	Open 7 am-7 pm ^c ; 9 pm - 11:59 pm ^e	Open 6 am-10 am ^d ; noon-10 pm ^c	Dip net only ^b
6/25	6" mesh	Closed	Open 6 am -10 am ^d ; noon - 11:59 pm ^c	Open 6 am-10 am ^d ; noon-10 pm ^c	Dip net only ^b
6/26	6" mesh	Closed	Open 6 am -10 am ^d ; noon - 11:59 pm ^c	Open 6 am-10 am ^d ; noon-10 pm ^c	8 pm - 11 pm 6" mesh ^f
6/27	6" mesh	Closed	Open 6 am -10 am ^d ; noon - 11:59 pm ^c	Open 6 am-10 am ^d ; noon-10 pm ^c	Dip net only ^b
6/28	6" mesh	Closed	Open 6 am -10 am ^d ; noon - 11:59 pm ^c	Open 8 am to 6 pm ^c ; 8pm -11 pm ^f	Dip net only ^b
6/29	6" mesh	Closed	Open 6 am -10 am ^d ; noon - 11:59 pm ^c	Open 6 am-10 am ^d ; noon-10 pm ^c	Dip net only ^b
6/30	6" mesh	Closed	Open 6 am -10 am ^d ; noon - 11:59 pm ^c	Open 6 am-10 am ^d ; noon-10 pm ^c	Dip net only ^b
7/1	6" mesh	Closed	Open 6 am -10 am ^d ; noon - 11:59 pm ^c	Open 6 am-10 am ^d ; noon-10 pm ^c	Dip net only ^b
7/2	6" mesh	Closed	Open noon-3 pm ^e ; 8 pm-11:59 pm ^g	Open 9 am-7 pm ^c ; 9 pm-11:59 pm ^e	Dip net only ^b
7/3	6" mesh	Closed	Commercial only; 9 pm-11:59 pm ^g	Open noon-10 pm ^c	Close 6 pm. Open 8 pm-11 pm ^h
7/4	6" mesh	Closed	Closed	Open noon-10 pm ^c	Dip net only ^b
7/5	6" mesh	Closed	Commercial only; 6 pm-11:59 pm ^g	Open noon-10 pm ^c	Dip net only ^b
7/6	6" mesh	Closed	Closed	Open 9 pm-11:59 pm; 6" mesh ⁱ	Dip net only ^b
7/7	6" mesh	Closed	Open 3 pm-11:59 pm; 6" mesh ⁱ	Closed	Close 4 pm. Open 6 pm-11:59 pm ^e
7/8	6" mesh	Closed	Closed	Open 4 pm-10 pm; 6" mesh ^{j, k}	Open 12:01 am. Dip net only ^b
7/9	6" mesh	Open 12:01 am	Open 12:01 am-9 am ^e ; 3 pm-11:59 pm ^{j, k}	Open 12:01 am; 6" mesh	Dip net only ^b
7/10	6" mesh	6" mesh	Open 6 am ^e	Close 10 am. Comm. 4 pm-10 pm ^j	Dip net only ^b
7/11	Noon: 7.5"	6" mesh	Close noon. Comm. open 6 pm ^j	Open 4 am; 6" mesh	Dip net only ^b
7/12	Open 7.5"	6" mesh	Comm. close 6 am ^j . Open noon ^e	Close 8 am. Comm. 2 pm-11 pm ^j	8 pm ^k ; 6" mesh
7/13	Open	6" mesh	Close noon. Comm. open 6 pm ^j	Open 5 am; 6" mesh	6" mesh
7/14	Open	6" mesh	Comm. close 6 am ^j . Open noon ^e	Close 8 am. Comm. 2 pm-11 pm ^j	Close 8 am. Open 8 pm
7/15	Open	12:01 am 7.5"	Close 6 am. Comm. noon-11:59 pm ^j	Open 5 am; 6" mesh	Open 6" mesh
7/16	Open	Open 7.5"	Open 6 am; 7.5" mesh	Close 8 am. Comm. 2 pm-11 pm ^j	6" mesh
7/17	Open	Open	Open	Open 5 am; 6" mesh	6" mesh
7/18	Open	Open	Open	Close 8 am. Comm. 2 pm-11 pm ^j	6" mesh
7/19	Open	Open	Open	Open 5 am; 7.5" mesh	6" mesh
7/20	Open	Open	Close 4 am. Comm. open 4 pm-10 pm ^j	Open	12 am 7.5" mesh
7/21	Open	Open	Open 10 am - 9 pm	Close 9 pm	Open
7/22	Open	Open	Open	Comm. open 9 am-1 pm ^j	Open
7/23	Open	Open	Close 6 am. Comm. noon-12 am ^j	Open 1 am	Open
7/24	Open	Open	Open noon	Open	Open
7/25	Open	Open	Open	Open	Open

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	Coastal District ^a		District 1	District 2	District 3
	Southern	Northern			
7/26	Open	Open	Open	Close 6 am. Comm. 6 pm-10 pm^j	Open
7/27	Open	Open	Close 7 am. Comm. 7 pm^j	Open 10 am	Open
7/28	Open	Open	Comm. close 1 am. Open 1 pm	Open	Open
7/29	Open	Open	Open	Open	Open
7/30	Open	Open	Close 1 am. Comm. 1 pm-8 pm^j	Open	Open
7/31	Open	Open	Open 8 am	Open	Open
8/1	Open	Open	Close 10 pm	Close 2 am. Comm. 2 pm-8 pm^j	Open
8/2	Open	Open	Comm. open 10 am-7 pm^j	Open 8 am	Open
8/3	Open	Open	Open 7 am	Open	Open
8/4	Open	Open	Open	Close 2 am. Comm. 2 pm-8 pm^j	Open
8/5	Open	Open	Open	Open 6 am	Open
8/6	Open	Open	Close 2 am. Comm. open 2 pm-11 pmⁱ	Open	Open
8/7	Open	Open	Open 11 am	Open	Open
8/8	Open	Open	Open	Open	Open
8/9	Open	Open	Close 10 pm	Close 2 am. Comm. 2 pm-8 pm^j	Open
8/10	Open	Open	Open 10 am-4 pm^j	Open 8 am	Open
8/11	Open	Open	Open 4 am	Open	Open
8/12	Open	Open	Open	Close 2 am. Comm. 2 pm-8 pm^j	Open
8/13	Open	Open	Close 12 am. Comm. open noon-9 pmⁱ	Open	Open
8/14	Open	Open	Open 9 am	Open	Open
8/15	Open	Open	Open	Open	Open
8/16	Open	Open	Open	Close 3 am. Comm. open 3 pm-7 pm^j	Open
8/17	Open	Open	Open	Open 7 am	Open
8/18	Open	Open	Open	Open	Open
8/19	Open	Open	Close 2 pm. Comm. open 6 pm-10 pm^{i,m}	Close 2 am. Comm. open 2 pm-8 pm^j	Open
8/20	Open	Open	Open 10 am	Open 8 am	Open
8/21	Open	Open	Open	Open	Open
8/22	Open	Open	Open	Open	Open
8/23	Open	Close 1 pm ⁿ	Close 1 pm. Comm. open 4 pm-10 pm^{i,m}	Close 2 am. Comm. open 2 pm-8 pm^j	Open
8/24	Open	Open 10 am ⁿ	Open 10 am	Open 8 am	Open
8/25	Open	Open	Open	Open	Open
8/26	Open	Close midnight	Close midnight	Close 2 am. Comm. open 2 pm-8 pm^j	Open
8/27	Open	Closed ⁿ	Comm. Open noon - 9 pm^j	Open 8 am	Open
8/28	Open	Open 9 am ⁿ	Open 9 am	Close 2 am. Comm. open 2 pm-8 pm^j	Open
8/29	Open	Open	Open	Open 8 am	Open
8/30	Open	Close midnight	Close midnight	Open	Open

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	Coastal District ^a		District 1	District 2	District 3
	Southern	Northern			
8/31	Open	Closed ⁿ	Comm. Open noon - 6 pm ^j	Close 1 am. Comm. open 1 pm-7 pm ^j	Open
9/1	Open	Open 6 am ⁿ	Open 6 am	Open 7 am	Open
9/2	Open	Close 2 am ⁿ	Close 2 am. Comm. Open 2 pm-8 pm ^j	Close 2 am. Comm. Open 2 pm-8 pm ^j	Open
9/3	Open	Open 8 am ⁿ	Open 8 am	Open 8 am	Open
9/4	Open	Close 3 am ⁿ	Close 3 am. Comm. Open 3 pm - 9 pm ^j	Close 3 am. Comm. Open 3 pm-9 pm ^j	Open
9/5	Open	Open 9 am ⁿ	Open 9 am	Open 9 am	Open
9/6	Open	Open	Open	Open	Open
9/7	Open	Open	Open	Open	Open
9/8	Open	Open	Open	Open	Open
9/9	Open	Open	Open	Open	Open

Note: Shaded areas indicate fishery closures, outlined shaded days were closed to protect the first and second pulses of Chinook salmon. Dates with dark shading were closed for subsistence fishing for 12 or 6 hours before, during and 12 or 6 hours after commercial fishing periods. Unless noted, mesh size was restricted to 7.5 inch or less in all districts and subdistricts in 2015. Beach seine (abbreviated '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. The Innoko River was closed from June 26 to July 4 and restricted to 6.0 inch or smaller mesh from July 4 to July 20.

^a The Coastal District was subdivided above and below 62 degrees North latitude. The communities of Hooper Bay and Scammon Bay are within the southern portion.

^b Subsistence only opening with dip net gear only. No retention of Chinook salmon allowed. Fishermen were encouraged to avoid encountering Chinook salmon.

^c Subsistence and commercial fishing with dip nets and beach seines for summer chum salmon open concurrently. Chinook salmon must be released alive from subsistence and commercial gear.

^d Subsistence only opening with dip nets or beach seines. Chinook salmon must immediately be released alive.

^e Subsistence only fishing period with 6.0 or smaller mesh gillnets only (dip nets and beach seine gear not allowed). Chinook salmon may be retained for subsistence.

^f Subsistence fishing open with 6.0 inch or smaller mesh gillnets and dip net gear. Chinook salmon may be retained from 6.0 inch or smaller mesh gill nets, but must be released alive from dip nets.

^g Commercial fishing only open with 5.5 inch or smaller mesh size not exceeding 30 meshes in depth. Dip nets and beach seines not allowed. Chinook salmon may be retained for subsistence but not sold.

^h Subsistence fishing with dip net gear closed at 6 pm. Subsistence fishing reopened for 6-inch or smaller mesh gillnets from 8 pm to 11 pm. At 11:59 pm subsistence fishing was reopened for dip net only gear. All Chinook salmon caught in dip nets must be released to the water alive, but may be retained from gillnets during the 3 hour opening.

ⁱ Subsistence and commercial period with 6.0 inch or smaller mesh gillnets only (dip nets and beach seine gear not allowed). Chinook salmon may be retained for subsistence.

^j Commercial fishing only open with 6.0 inch or smaller mesh.

^k Dipnet and/or beach seine fishing gear season discontinued.

^l All or part of a commercial opening limited to the set net only area of District 1. Commercial fishing open to 6.0 inch or smaller mesh.

^m Short notice commercial period. Subsistence fishing not closed for the normal 12 hours before.

ⁿ Closed only from Apoon Mouth to Point Romanof.

Appendix D11.—Subsistence salmon fishing closures and gear restrictions, Upper Yukon Area, 2015.

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
6/1	Open - no schedule. 7.5" or smaller mesh	Open - no schedule. 7.5" or smaller mesh			Open - no schedule. 7.5" or smaller mesh	
6/2	Open	Open	Open	Open	Open	Open
6/3	8 pm 6-inch, f. wheel ^d	Open	Open	Open	Open	Open
6/4	6-inch, f. wheel ^d	Open	Open	Open	Open	Open
6/5	Close 6pm	Open	Open	Open	Open	Open
6/6	Closed	8 pm 6-inch, f.wheel ^d	Open	Open	Open	Open
6/7	Closed	6-inch, f. wheel ^d	6 pm 6-inch, f.w. ^d	Open	Open	Open
6/8	Closed	Close 6 pm	6-inch, f. wheel ^d	Open	Open	Open
6/9	Closed	Closed	6-inch, f. wheel ^d	Open	Open	Open
6/10	Closed	Closed	Close 6 pm	6 pm 6-inch, f.w. ^d	Open	Open
6/11	Closed	Closed	Closed	6-inch, f. wheel ^d	Open	Open
6/12	Closed	Closed	Closed	6-inch, f. wheel ^d	Open	Open
6/13	Closed	Closed	Closed	6-inch, f. wheel ^d	Open	Open
6/14	Closed	Closed	Closed	Close 6 pm	Open	Open
6/15	Open 6 pm ^e ; gear ^f	Closed	Closed	8 pm 6-inch, f.w. ^d	Open	Open 7.5"
6/16	Area ^e ; gear ^f	Closed	Closed	6-inch, f. wheel ^d	Open	Open
6/17	Area ^e ; gear ^f	Closed	Closed	6-inch, f. wheel ^d	Open	Open
6/18	Area ^e ; gear ^f	Open 6 pm; gear ^f	Closed	6-inch, f. wheel ^d	Open	Open
6/19	Area ^e ; gear ^f	Gear ^f	Closed	6-inch, f. wheel ^d	8 pm 6-inch, f. w. ^d	Open
6/20	Area ^e ; gear ^f	Gear ^f	Closed	6-inch, f. wheel ^d	6-inch, f. wheel ^d	Open
6/21	Area ^e ; gear ^f	Gear ^f	Closed	6-inch, f. wheel ^d	6-inch, f. wheel ^d	8 pm 6-inch, f. w. ^d
6/22	Area ^e ; gear ^f	Gear ^f	Closed	6-inch, f. wheel ^d	6-inch, f. wheel ^d	6-inch, f. wheel ^d
6/23	Area ^e ; gear ^f	Gear ^f	Closed	6-inch, f. wheel ^d	6-inch, f. wheel ^d	6-inch, f. wheel ^d
6/24	Area ^e ; gear ^f	Gear ^f	Open 6 pm; gear ^f	Closed	6-inch, f. wheel ^d	6-inch, f. wheel ^d
6/25	Area ^e ; gear ^f	Gear ^f	Gear ^f	Closed	6-inch, f. wheel ^d	6-inch, f. wheel ^d
6/26	Area ^e ; gear ^f	Gear ^f	Gear ^f	Closed	6-inch, f. wheel ^d	6-inch, f. wheel ^d
6/27	Area ^e ; gear ^f	Gear ^f	Gear ^f	Closed	6-inch, f. wheel ^d	6-inch, f. wheel ^d
6/28	6 pm - 10 pm ^{e, f, g}	Gear ^f	Gear ^f	Closed	6-inch, f. wheel ^d	6-inch, f. wheel ^d
6/29	Area ^e ; gear ^f	Gear ^f	Gear ^f	Closed	Close 8 pm	6-inch, f. wheel ^d
6/30	Area ^e ; gear ^f	Gear ^f	Gear ^f	Closed	Closed	6-inch, f. wheel ^d
7/1	Area ^e ; gear ^f	Gear ^f	Gear ^f	Closed	Closed	6-inch, f. wheel ^d
7/2	Area ^e ; gear ^f	Gear ^f	Gear ^f	Closed	Closed	6-inch, f. wheel ^d
7/3	Area ^e ; gear ^f	6 pm - 10 pm ^{f, g}	Gear ^f	Closed	Closed	Close 8 pm
7/4	Area ^e ; gear ^f	Gear ^f	Gear ^f	Closed	Closed	6-inch, f. wheel ^d
7/5	Area ^e ; gear ^f	Gear ^f	Gear ^f	Closed	Closed	Close 8 pm
7/6	Close 5 pm. 6 pm-10 pm ^h	Gear ^f	Gear ^e , 4-C noon-8 pm ⁱ	Closed	Closed	Closed

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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
7/7	Area ^e ; gear ^f		Gear ^f	Gear ^f	Closed	Closed	Closed	Closed
7/8	Area ^e ; gear ^f		Gear ^f	Gear ^f	Closed	Closed	Closed	Closed
7/9	Area ^e ; gear ^f		Gear ^f	Gear ^f	Closed	Closed	Closed	Closed
7/10	Area ^e ; gear ^f		Gear ^f	Gear ^f	5-A open 6 pm ^j	Closed	Closed	Closed
7/11	Area ^e ; gear ^f		Gear ^f	Gear ^f	5-A only ^j	Closed	Closed	Closed
7/12	Close 5 pm. 6 pm-10 pm ^h	Close 5 pm. Open 6 pm ^k		Gear ^f	Close 6 pm ^j	Closed	Closed	Closed
7/13	Area ^e ; gear ^f		Gear ^f	Gear ^f	Closed	Closed	Closed	Closed
7/14	Area ^e ; gear ^f		Gear ^f	Gear ^f	Closed	Closed	Closed	Closed
7/15	6 pm 6-inch ^{l, m}		Gear ^f	Gear ^f . 4-C close 5-6 pm ⁿ	Closed	Closed	Closed	Closed
7/16	6-inch ^m		Gear ^f	Gear ^f . 4-C close 6 pm ⁿ	Open noon ^m	Closed	Closed	Closed
7/17	Close 6 pm		Gear ^f	Closed	Close noon	Closed	Closed	Closed
7/18	Closed		Gear ^f	Closed	Closed	Closed	Closed	Closed
7/19	Open 6 pm 6-inch ^m	6 pm 6-inch ^{l, m}		Open 6 pm 6-inch ^{l, m}	Closed	Open noon ^m	Open noon ^m	Closed
7/20	6-inch ^m	6-inch ^m		Open 6-inch ^m	Closed	Close noon	Close noon	Closed
7/21	Open 6-inch ^m	Open 6-inch ^m		Close 6 pm	Open 6 pm ^m	Closed	Closed	Closed
7/22	Open 6-inch ^m	Open 6-inch ^m		Open 6 pm 6-inch ^m	Open 6-inch ^m	Closed	Closed	Closed
7/23	Open 6-inch ^m	Open 6-inch ^m		Open 6-inch ^m	Close 6 pm	Open 8 pm ^m	Open 8 pm ^m	Closed
7/24	Open 6-inch ^m	Open 6-inch ^m		Close 6 pm	Open 6 pm ^m	Open 6-inch ^m	Open 6-inch ^m	Open 8 pm ^m
7/25	Open 6-inch ^m	Open 6-inch ^m		Closed	Open 6-inch ^m	Close 8 am	Close 8 am	Open 6-inch ^m
7/26	Close 6 pm	Close 6 pm		Open 6 pm 6-inch ^m	Close 6 pm	Closed	Closed	Close 8 am
7/27	Closed	Closed		Open 6-inch ^m	Closed	Open 12:01 am ^m	Open 12:01 am ^m	Closed
7/28	Open 6 pm 7.5" mesh	Open 7.5" mesh		Open 6-inch ^m	Open 6 pm ^m	Open 6-inch ^m	Open 6-inch ^m	Open 12:01 am ^m
7/29	Open	Open		6 pm 7.5" mesh	6 pm 7.5" mesh	6 pm 7.5" mesh	6 pm 7.5" mesh	6 pm 7.5" mesh
7/30	Open	Open		Open	Open	Open	Open	Open
7/31	Open	Open		Open	Open	Open	Open	Open
8/1	Open	Open		Open	Open	Open	Open	Open
8/2	Open	Open		Open	Close 6 pm	Open	Open	Open
8/3	Open	Open		Open	Closed	Open	Open	Open
8/4	Open	Open		Open	Open 6 pm	Open	Open	Open
8/5	Open	Open		Open	Open	Open	Open	Open
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	Open	Open	Open	Open
8/11	Open	Open		Open	Open ^o	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
8/12	Open	Open	Open	Open ^o	Open	Open	Open
8/13	Open	Open	Open	Open ^o	Open	Open	Open
8/14	Open	Open	Open	Open ^o	Open	Open	Open
8/15	Open	Open	Open	Open ^o	Open	Open	Open
8/16	Open	Open	Open	Open ^o	Open	Open	Open
8/17	Open	Open	Open	Open	Open	Open	Open
8/18	Open	Open	Open	Open ^o	Open	Open	Open
8/19	Open	Open	Open	Open ^o	Open	Open	Open
8/20	Open	Open	Open	Open ^o	Open	Open	Open
8/21	Open	Open	Open	Open ^o	Open	Open	Open
8/22	Open	Open	Open	Open ^o	Open	Open ^p	Open
8/23	Open	Open	Open	Open ^o	Open	Open ^p	Open
8/24	Open	Open	Open	Open	Open	Open ^p	Open
8/25	Open	Open	Open	Open	Open	Open ^p	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 Porcupine River was closed from August 22 until the end of the fishing season. The Koyukuk River was closed from 8 pm June 25 to 6 pm July 4, and restricted to 6-inch or smaller mesh from 6 pm July 4 to 6 pm July 28.

- ^a Subdistrict 4-A divided into two separate areas above and below Stink Creek.
- ^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 Lower: from the ADF&G marker two 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 US/Canada border.
- ^d Subsistence fishing open with continuously manned fish wheels, or fish wheels equipped with a live box that is checked every six hours. No retention of Chinook salmon allowed.
- ^e Subsistence fishing allowed with dip nets and live release fish wheels only. Chinook salmon must be released to the water alive.
- ^f Subsistence fishing open concurrently in the Anvik River Special Management area with beach seines and dip net gear only.
- ^g Subsistence fishing open with 6-inch or smaller mesh gillnets during a continuous subsistence opening for dip nets (or beach seines in the Anvik River Special Management area). During this 4-hour opening Chinook salmon harvested in 6-inch or smaller mesh gillnets and fish wheels may be retained for subsistence purposes, however, all Chinook salmon must be released alive from dip nets and beach seines.
- ^h Subsistence fishing with fish wheels and 6-inch or smaller mesh only open from 6 pm to 10 pm (retention of Chinook salmon allowed), then reopened at 11 pm for subsistence fishing open with dip net and live-release fish wheels only 24 hours a day, seven days a week (Chinook salmon must be released to the water alive).
- ⁱ Subsistence fishing in 4-B open 24 hours a day, seven days per week with dip nets and live-release fish wheels. Subsistence fishing in 4-C with dip net and live release fish wheels closed from 11 am to noon. Subsistence fishing reopened in Subdistrict 4-C only from noon to 8 pm with 6-inch or smaller mesh gillnets and fish wheels only; Chinook salmon may be retained. Subsistence fishing in 4-C reopened at 9 pm for dip nets and live release fish wheels for 24 hours a day. Chinook salmon caught in dip nets or fish wheels must be released alive before 11 am and after 9 pm.
- ^j Subsistence fishing open in subdistrict 5-A only with 6-inch gillnets and fish wheels. Retention of Chinook salmon allowed. Subdistricts 5-B and 5-C remained closed.
- ^k Subsistence fishing open from 6 pm to 10 pm with 6-inch gillnets and fish wheels only; retention of Chinook salmon allowed. Subsistence fishing reopened at 11 pm for dip nets and live release fish wheels only; retention of Chinook salmon not allowed.
- ^l End of dip net fishing season.
- ^m Subsistence fishing open with 6-inch mesh and fish wheels. Chinook salmon may be retained.
- ⁿ Subsistence fishing in 4-B open 24 hours a day, seven days per week with dip nets and live-release fish wheels. Subsistence fishing in 4-C with dip net and live release fish wheels closed from 5 pm to 6 pm. Subsistence fishing opened in Subdistrict 4-C only from 6 am to 6 pm for 6-inch or smaller mesh gillnets and fish wheels only; Chinook salmon may be retained. Subsistence fishing in 4-C reopened at 7 pm July 16 for dip nets and live release fish wheels; Chinook salmon caught in dip nets or fish wheels must be released alive.
- ^o Commercial period open in subdistricts 5-B and 5-C concurrent with subsistence fishing and restricted to 6-inch or smaller gill nets and fish wheels. Chinook salmon may be released or retained for subsistence and must be recorded on a fish ticket.
- ^p Porcupine River closed for salmon fishing. Fishermen may use gill nets with 4 inch or smaller mesh to harvest non-salmon species.

Appendix D12.—Subsistence, personal use, and commercial salmon fishing schedule and gear restrictions, Tanana River permit areas, 2015.

Date	Tanana River Subdistricts			Old Minto Area	Date	Tanana River Subdistricts			Old Minto Area
	6A	6B	6C			6A	6B	6C	
5/19	Open 7.5" ^a	Open 7.5" ^a	Open 7.5" ^a	Open 7.5" ^a	6/19	Open 6 pm	Open 6 pm	Closed	Open 6 pm
5/20	Close noon	Close noon	Close noon	Close 6 pm	6/20	Open	Open	Closed	Open
5/21	Closed	Closed	Closed	Closed	6/21	Close noon	Close noon	Closed	Open
5/22	Open 6 pm	Open 6 pm	Open 6 pm	Open 6 pm	6/22	Open 6 pm	Open 6 pm	Closed	Open
5/23	Open	Open	Open	Open	6/23	Open	Open	Closed	Open
5/24	Close noon	Close noon	Close noon	Open	6/24	Close noon	Close noon	Closed	Close 6 pm
5/25	Open 6 pm	Open 6 pm	Open 6 pm	Open	6/25	Closed	Closed	Closed	Closed
5/26	Open	Open	Open	Open	6/26	Open 6 pm ^{b, c}	Open 6 pm ^c	Closed	Open 6 pm ^c
5/27	Close noon	Close noon	Close noon	Close 6 pm	6/27	6-inch, f.w. ^{b, c}	6-inch ^c	Closed	6-inch ^c
5/28	Closed	Closed	Closed	Closed	6/28	Close noon ^b	Close noon	Closed	6-inch ^c
5/29	Open 6 pm	Open 6 pm	Open 6 pm	Open 6 pm	6/29	Open 6 pm ^{b, c}	Open 6 pm ^c	Closed	6-inch ^c
5/30	Open	Open	Open	Open	6/30	6-inch, f.w. ^{b, c}	6-inch ^c	Closed	6-inch ^c
5/31	Close noon	Close noon	Close noon	Open	7/1	Close noon ^b	Close noon	Closed	Close 6 pm
6/1	Open 6 pm	Open 6 pm	Open 6 pm	Open	7/2	Closed ^b	Closed	Closed	Closed
6/2	Open	Open	Open	Open	7/3	Open 6 pm ^{b, c}	Open 6 pm ^c	Closed	Open 6 pm ^c
6/3	Close noon	Close noon	Close noon	Close 6 pm	7/4	6-inch, f.w. ^{b, c}	6-inch ^c	Closed	6-inch ^c
6/4	Closed	Closed	Closed	Closed	7/5	Close noon ^b	Close noon	Closed	6-inch ^c
6/5	Open 6 pm	Open 6 pm	Open 6 pm	Open 6 pm	7/6	Open 6 pm ^{b, c}	Open 6 pm ^c	Closed	6-inch ^c
6/6	Open	Open	Open	Open	7/7	6-inch, f.w. ^{b, c}	6-inch ^c	Closed	6-inch ^c
6/7	Close noon	Close noon	Close noon	Open	7/8	Close noon ^b	Close noon	Closed	Close 6 pm
6/8	Open 6 pm	Open 6 pm	Open 6 pm	Open	7/9	Closed ^b	Closed	Closed	Closed
6/9	Open	Open	Open	Open	7/10	Open 6 pm ^{b, c}	Open 6 pm ^c	Closed	Open 6 pm ^c
6/10	Close noon	Close noon	Close noon	Close 6 pm	7/11	6-inch, f.w. ^{b, c}	6-inch ^c	Closed	6-inch ^c
6/11	Closed	Closed	Closed	Closed	7/12	Close noon ^b	Close noon	Close noon	6-inch ^c
6/12	Open 6 pm	Open 6 pm	Open 6 pm	Open 6 pm	7/13	Open 6 pm ^{b, c, d}	Open 6 pm ^{c, d}	Closed ^e	6-inch ^c
6/13	Open	Open	Open	Open	7/14	6-inch ^{b, c, d}	6-inch ^{c, d}	Closed ^e	6-inch ^c
6/14	Close noon	Close noon	Close noon	Open	7/15	Close noon ^b	Close noon	Close noon	Close 6 pm
6/15	Open 6 pm	Open 6 pm	Open 6 pm	Open	7/16	Closed ^b	Closed	Closed	Closed
6/16	Open	Open	Open	Open	7/17	Open 6 pm ^{b, d, f}	Open 6 pm ^{d, f}	Open 6 pm ^{e, g}	Open 6 pm ^f
6/17	Close noon	Close noon	Close noon	Close noon	7/18	6-inch ^{b, d, f}	6-inch ^{d, f}	Open ^{e, g}	6-inch ^c
6/18	Closed	Closed	Closed	Closed	7/19	Close noon ^b	Close noon	Close noon	6-inch ^c

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Date	Tanana River Subdistricts			Old Minto Area	Date	Tanana River Subdistricts			Old Minto Area
	6A	6B	6C			6A	6B	6C	
7/20	Open 6 pm ^{b, d, f}	Open 6 pm ^{d, f}	Open 6 pm ^{c, g}	6-inch ^c	8/20	Closed	Closed	Closed	Closed
7/21	6-inch ^{b, d, f}	6-inch ^{d, f}	Open ^{e, g}	6-inch ^c	8/21	Open 6 pm ^h	Open 6 pm ^h	Open 6 pm ^h	Open 6 pm
7/22	Close noon ^b	Close noon	Close noon	Close 6 pm	8/22	Open ^h	Open ^h	Open ^h	Open
7/23	Closed ^b	Closed	Closed	Closed	8/23	Close noon	Close noon	Close noon	Open
7/24	Open 6 pm ^{b, d, f}	Open 6 pm ^{f, h}	Open 6 pm ^h	Open 6 pm	8/24	Open 6 pm ^h	Open 6 pm ^h	Open 6 pm ^h	Open
7/25	6-inch ^{b, d, f}	6-inch ^{f, h}	6" mesh ^h	6-inch ^c	8/25	Open ^h	Open ^h	Open ^h	Open
7/26	Close noon ^b	Close noon	Close noon	6-inch ^c	8/26	Close noon	Close noon	Close noon	Close 6 pm
7/27	Open 6 pm ^{b, f, h}	Open 6 pm ^{f, h}	Open 6 pm ^h	6-inch ^c	8/27	Closed	Closed	Closed	Closed
7/28	6-inch ^{b, f, h}	6-inch ^{f, h}	6-inch ^h	6-inch ^c	8/28	Open 6 pm ^h	Open 6 pm ^h	Open 6 pm ^h	Open 6 pm
7/29	Close noon ^b	Close noon	Close noon	Close 6 pm	8/29	Open ^h	Open ^h	Open ^h	Open
7/30	Closed ^b	Closed	Closed	Closed	8/30	Close noon	Close noon	Close noon	Open
7/31	Open 6 pm ^h	Open 6 pm ^h	Open 6 pm ^h	Open 6 pm	8/31	Open 6 pm ^h	Open 6 pm ^h	Open 6 pm ^h	Open
8/1	7.5" mesh ^h	7.5" mesh ^h	6-inch ^h	7.5" mesh	9/1	Open ^h	Open ^h	Open ^h	Open
8/2	Close noon	Close noon	Close noon	Open	9/2	Close noon	Close noon	Close noon	Close 6 pm
8/3	Open 6 pm ^h	Open 6 pm ^h	Open 6 pm ^h	Open	9/3	Closed	Closed	Closed	Closed
8/4	Open ^h	Open ^h	6-inch ^h	Open	9/4	Open 6 pm	Open 6 pm	Open 6 pm	Open 6 pm
8/5	Close noon	Close noon	Close noon	Close 6 pm	9/5	Open	Open	Open	Open
8/6	Closed	Closed	Closed	Closed	9/6	Close noon	Close noon	Close noon	Open
8/7	Open 6 pm ^h	Open 6 pm ^h	Open 6 pm ^h	Open 6 pm	9/7	Open 6 pm	Open 6 pm	Open 6 pm	Open
8/8	Open ^h	Open ^h	6-inch ^h	7.5" mesh	9/8	Open	Open	Open	Open
8/9	Close noon	Close noon	Close noon	Open	9/9	Close noon	Close noon	Close noon	Close 6 pm
8/10	Open 6 pm	Open 6 pm	Open 6 pm	Open	9/10	Closed	Closed	Closed	Closed
8/11	Open	Open	7.5" mesh	Open	9/11	Open 6 pm ^h	Open 6 pm ^h	Open 6 pm ^h	Open 6 pm
8/12	Close noon	Close noon	Close noon	Close 6 pm	9/12	Open ^h	Open ^h	6" mesh ^h	Open
8/13	Closed	Closed	Closed	Closed	9/13	Close noon	Close noon	Close noon	Open
8/14	Open 6 pm	Open 6 pm	Open 6 pm	Open 6 pm	9/14	Open 6 pm ^h	Open 6 pm ^h	Open 6 pm ^h	Open
8/15	Open	Open	Open	Open	9/15	Open ^h	Open ^h	6" mesh ^h	Open
8/16	Close noon	Close noon	Close noon	Open	9/16	Close noon	Close noon	Close noon	Close 6 pm
8/17	Open 6 pm	Open 6 pm	Open 6 pm	Open	9/17	Closed	Closed	Closed	Closed
8/18	Open	Open	Open	Open	9/18	Open 6 pm	Open 6 pm	Open 6 pm	Open
8/19	Close noon	Close noon	Close noon	Close 6 pm	9/19	Open	Open	Open	Open

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Note: Shaded areas indicate windowed fishery closures, outlined shaded days were closed to protect the first and second 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 The Kantishna River in 6A remained open 24/7, but was restricted to 6-inch or smaller mesh and live release fish wheels from 6pm on June 26 until July 17, and remained restricted to 6-inch or smaller mesh and until July 31.
- ^c Subsistence fishing open with 6-inch or smaller gill nets and fish wheels that must be continuously manned or equipped with a live box that is checked at least once every six hours. All Chinook salmon caught in fish wheels must be released immediately.
- ^d 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.
- ^e Commercial fishing open and restricted to fish wheels only. Fish wheels must be constructed in a manner that reduces the potential for injury to Chinook salmon, manned at all times and any Chinook salmon caught immediately released alive.
- ^f Subsistence fishing open with 6-inch or smaller gill nets. Fishermen are no longer required to attend fish wheels while in operation or release Chinook salmon.
- ^g Personal use fishing open with fish wheels only. Chinook salmon must be returned to the water unharmed either from closely attended fish wheels, or from fish wheels with a live box that must be checked once every six hours.
- ^h Commercial fishing open concurrent with subsistence or personal use fishing and restricted to 6-inch mesh and fish wheels. Chinook salmon may be retained for subsistence or personal use.

APPENDIX E

Appendix E1.–Yukon River drainage salmon spawning escapement goals for selected species and streams, 2015.

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)
<hr/>				
Coho Salmon Stock				
Delta Clearwater River	5,200–17,000	SEG	2004	ADF&G (2004)

Appendix E2.—Detailed preliminary salmon spawning escapement estimates for the Yukon River drainage, 2015.

Stream (method)	Date	Survey Rating	Chinook	Summer Chum	Fall Chum	Coho	Agency
Atchuelinguk River (fixed wing)	7/27	Incomplete	423	2,608	—	—	ADF&G
Andreafsky River							
West Fork (fixed wing)	7/25	Poor	1,356	2,837	—	—	ADF&G
East Fork (fixed wing)	7/25	Poor	(2,167)	(6,004)	—	—	ADF&G
East Fork (weir count) ^a	6/17–7/31	—	6,705	50,339	—	5	USFWS
<i>Andreafsky Subtotal</i>			<i>8,061</i>	<i>53,176</i>	—	<i>5</i>	
Yukon River Near Pilot Station (sonar)	5/30–9/7	—	(116,084)	(1,385,083)	(546,894)	(97,587)	ADF&G
Bonasila River (fixed wing)	7/27	Incomplete	109	4,364	—	—	ADF&G
Anvik River (sonar)	6/17–7/26	—	—	317,633	—	—	ADF&G
Anvik River (fixed wing) ^{b,c}							
Goblet Creek to Sonar Site	7/27	Fair	126	(1,830)	—	—	ADF&G
Sonar Site to Yellow River	7/27	Fair	455	(7,825)	—	—	ADF&G
Yellow River to Swift River	7/27	Fair	816	(8,095)	—	—	ADF&G
Swift River to Otter Creek	7/27	Fair	480	(4,920)	—	—	ADF&G
Otter Creek To McDonald Creek	7/27	Fair	430	(6,195)	—	—	ADF&G
Upstream of McDonald Creek	7/27	Fair	3	(188)	—	—	ADF&G
Beaver Creek	7/27	Fair	183	(1,475)	—	—	ADF&G
Yellow River	—	—	—	—	—	—	ADF&G
Swift River	7/27	Fair	54	(4,240)	—	—	ADF&G
Otter Creek	7/27	Fair	69	(2,103)	—	—	ADF&G
<i>Anvik Subtotal</i>			<i>2,616</i>	<i>317,633</i>	—	—	
Rodo River (fixed wing)	7/27	Fair	690	3,685	—	—	ADF&G
Kaltag River (fixed wing)	7/27	Fair	21	1,576	—	—	ADF&G
Nulato River (fixed wing) ^d							
North Fork	7/26	Fair	999	9,525	—	—	ADF&G
South Fork	7/27	Good	565	4,102	—	—	ADF&G
<i>Nulato Subtotal</i>			<i>1,564</i>	<i>13,627</i>	—	—	
<i>Total Lower Yukon River (downstream of Koyukuk River)</i>			<i>13,484</i>	<i>396,669</i>	—	<i>5</i>	
Koyukuk River Drainage							
Gisasa River (weir project) ^e	6/17–7/31	—	1,319	42,474	—	—	USFWS
Gisasa River (fixed wing)	7/26	Good	(558)	(5,601)	—	—	ADF&G
Huslia River (fixed wing)	7/28	Poor	0	725	—	—	ADF&G
Dakli River (fixed wing)	7/28	Fair	1	24,695	—	—	ADF&G
Caribou Creek (fixed wing)	7/28	Poor	0	2,627	—	—	ADF&G
Clear Creek (fixed wing)	7/28	Poor	0	3,453	—	—	ADF&G

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Stream (method)	Date	Survey Rating	Chinook	Summer Chum	Fall Chum	Coho	Agency
Alatna River (fixed wing)	7/28	Fair	230	2,285	–	–	ADF&G
Henshaw Creek (weir project)	6/24–8/5	–	2,391	238,529	–	–	ADF&G
Henshaw Creek (fixed wing)	7/29	Fair	(593)	(46,557)	–	–	ADF&G
Jim River (fixed wing)	7/29	Fair	432	675	–	–	ADF&G
South Fork Koyukuk River (fixed wing)	7/29	Fair	747	430	–	–	ADF&G
North Fork Koyukuk River (fixed wing)	7/29	Fair	34	0	–	–	ADF&G
Middle Fork Koyukuk River (fixed wing)	7/29	Fair	61	0	–	–	ADF&G
<i>Koyukuk River Drainage Subtotal</i>			5,215	315,893	–	–	
<i>Total Yukon River (downstream of Tanana River)</i>			18,699	712,562	–	5	
Tanana River Drainage							
Kantishna River Drainage (helicopter)							
Toklat River	10/21	Fair	–	–	10,319	530	ADF&G
<i>Kantishna Subtotal</i>			–	–	10,319	530	
Nenana River Drainage (helicopter)							
Nenana River (Teklanika R.–upstream 8 miles)	10/20	Fair	–	–	5	1,789	ADF&G
Seventeenmile Slough	10/20	Fair	–	–	–	3,890	ADF&G
Lost Slough (eastern floodplain)	10/20	Incomplete	–	–	556	242	ADF&G
Julius Creek	–	–	–	–	–	–	ADF&G
Clear Creek	10/20	Fair	–	–	–	164	ADF&G
Glacier Creek	10/20	Fair	–	–	0	6	ADF&G
Wood Creek	10/20	Fair	–	–	0	1,419	ADF&G
Teklanika River Spings	10/21	Fair	–	–	–	829	ADF&G
Lignite Springs (foot survey)	10/23	Good	–	–	–	26	ERM
<i>Nenana Subtotal</i>			–	–	561	8,365	
Chena River (counting tower)	6/30–8/06	–	6,291	8,620	–	–	ADF&G
Salcha River (counting tower)	7/9–8/15	–	6,287	12,812	–	–	BSFA
Salcha River (aerial index area-helicopter)	7/13	Good	(333)	0	–	–	ADF&G
Salcha River (outside index area-helicopter)	7/13	Good	(102)	0	–	–	ADF&G
Richardson Clearwater River (helicopter)	11/8	Fair	–	–	192	3,742	ADF&G
Mainstem Tanana Sloughs (helicopter)							
Whitestone Slough	11/8	Fair	–	–	22	0	ADF&G
Rika's Roadhouse vicinity	11/8	Fair	–	–	2,170	0	ADF&G
Bluff Cabin Slough	11/8	Fair	–	–	6,020	0	ADF&G
Clearwater Lake Outlet Slough	11/8	Fair	–	–	2,385	0	ADF&G
One Mile Slough (OMS)	11/8	Fair	–	–	0	0	ADF&G
Pearse Slough and vicinity (OMS to Pearse Sl.)	11/8	Fair	–	–	0	0	ADF&G
<i>Mainstem Tanana Sloughs Subtotal</i>			–	–	10,597	0	

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Stream (method)	Date	Survey Rating	Chinook	Summer Chum	Fall Chum	Coho	Agency
Delta River							
Foot Survey (peak count)	11/4	Fair	–	–	33,401	250	ADF&G
Blue Creek (foot survey)	11/10	Good	–	–	530	79	ADF&G
Blue Creek (helicopter)	11/8	Fair	–	–	(84)	(13)	ADF&G
Goodpaster River (counting tower)	7/9-7/29	–	2,353	–	–	–	BSFA
Bluff Cabin Creek (helicopter)	11/8	Fair	–	–	100	104	ADF&G
Delta Clearwater River Index Area (boat survey)	9/24	Fair	–	–	–	(1,818)	ADF&G
Delta Clearwater River Index Area (boat survey)	10/22	Fair	–	–	–	19,553	ADF&G
Delta Clearwater River Index Area (boat survey)	11/3	Good	–	–	–	(14,866)	ADF&G
Delta Clearwater Lake							
Clearwater Lake Outlet (boat)	11/3	Fair	–	–	–	(1,232)	ADF&G
Clearwater Lake Outlet (helicopter)	11/8	Fair	–	–	120	1,683	ADF&G
Tok River	11/4	Good	–	–	–	39	ADF&G
<i>Total Tanana River</i>			<i>14,931</i>	<i>21,432</i>	<i>55,628</i>	<i>34,345</i>	
Chandalar River (sonar) ^f	8/6–9/27, 10/8	–	–	–	164,486	–	USFWS
Yukon River near Eagle (sonar) ^f	6/27–10/6, 10/17	–	(84,015)	–	(125,095)	–	ADF&G/DFO
Total Alaskan Portion of Drainage Observed Escapements			33,630	733,994	220,114	34,350	
Yukon Territory Streams							
Porcupine River Drainage							
Porcupine River (sonar minus Canada Harvest) ^f	8/5–9/29, 10/12	–	–	–	20,841	–	DFO ^g
Fishing Branch (weir) ^f	9/1, 9/12–10/19, 10/24	–	–	–	8,351	–	DFO ^g
Mainstem Yukon River Sites - Canada							
Blind Creek (weir)	7/17-8/19	–	964	–	–	–	DFO ^g
Big Salmon River (sonar)	7/15–8/26	–	10,071	–	–	–	DFO ^g
Teslin River Drainage							
Teslin River (sonar)	7/16–9/3	–	20,410	–	–	–	DFO ^g
Whitehorse Fishway (fish ladder with window)	7/20 – 9/7	–	1,465	–	–	–	DFO ^g
<i>Subtotal Mainstem Sites</i>			<i>32,910</i>	–	<i>29,192</i>	–	

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Stream (drainage)	Date	Survey Rating	Chinook	Summer Chum	Fall Chum	Coho	Agency
Canadian Mainstem Yukon River							
Border Passage Estimate (Eagle sonar minus U.S. harvest)			(83,674)	–	(112,555)	–	ADF&G/DFO
Canadian Escapement Estimate (Border Passage minus Canada Harvest) ^h			82,674	–	108,658	–	ADF&G/DFO
Total Yukon Territory ⁱ			82,674	–	137,850	–	DFO
Yukon River Drainage Total Observed Escapements			116,304	733,994	328,772	34,350	

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>).

^a East Fork Andreafsky River weir documented 259 live sockeye salmon, 2015.

^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 SEG is for the entire drainage.

^d Nulato River mainstem aerial survey counts below the forks are included with the North Fork.

^e Gisasa River weir documented 11 live sockeye salmon, 2015.

^f Includes expansion for end of run for fall chum salmon.

^g Yukon Territory counts provided by DFO but are operated by various contractors mostly funded by Restoration and Enhancement Funds.

^h Canadian “border passage” estimate for Yukon Territory streams (excluding the Porcupine River). Canadian harvest has not been removed.

ⁱ 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 1997–2015.

Year ^a	Chinook			Chum			Coho ^c	Pink	Other ^d	Total
	Large ^b	Small	Total	Summer	Fall ^e	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 ^e	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 ^f	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 ^e	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
2015	86,620	29,464	116,084	1,385,083	546,894	1,931,977	97,587	22,421	1,254,634	3,422,703

Note: The Yukon River sonar project did not operate at full capacity in 1996 thus there are no passage estimates for this year.

^a Estimates for all years were generated with the most current apportionment model and may differ from earlier estimates.

^b Chinook salmon >655 mm MEFL.

^c 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.

^d Includes sockeye salmon, cisco, whitefish, sheefish, burbot, suckers, Dolly Varden, and Northern pike.

^e High water levels were experienced at Pilot Station all season in 2001, and in 2009 during the summer season with extreme low water during the fall season, and therefore, passage estimates are considered speculative.

^f 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, 1995–2015.

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	
1995	1,635	1,108	1,996	1,147	968	681	1,649	410
1996	^c	624	839	709	^c	100 ^d	100	
1997	1,140	1,510	3,979	2,690	^c	^c	^c	144 ^d
1998	1,027	1,249 ^d	709 ^d	648 ^d	507	546	1,053	889 ^d
1999	^c	870 ^d	950 ^d	950 ^d	^c	^c	^c	^c
2000	1,018		1,721	1,394	^c	^c	^c	^c
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 ^d	1,578	973 ^d	973 ^d	^c	^c	^c	^c
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 ^d	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 ^d	262 ^d	992 ^d	827 ^d	463	543	922	487
2009	84 ^d	1,678	832	590	1,418	842	2,260	515
2010	537 ^d	858	974	721	356	355	711	264
2011	620	1,173	642	501	788	613	1,401	906
2012	^c	227 ^d	722	451	682	692	1,374	^c
2013	1,441	1,090	940	656	586	532	1,118	201 ^d
2014	^c	1,695	1,584	800	^c	^c	^c	^c
2015	2,167 ^d	1,356 ^d	2,616		999	565	1,564	558
SEG	^g	^h	640–1,600	1,100–1,700	^e		940–1,900	^h
Average								
1995–2014	1,147	1,053	1,525	1,203	807	601	1,320	625
2005–2014	878	1,028	1,252	974	796	617	1,357	596
2010–2014	866	1,009	972	626	603	548	1,151	457

Note: Aerial survey counts are peak counts only. Survey rating was fair or good unless otherwise noted.

^a Anvik River Index Area includes mainstem counts between Yellow River and McDonald Creek.

^b Nulato River mainstem aerial survey counts below the forks are included with the North Fork.

^d Incomplete, poor timing, and/or poor survey conditions resulting in minimal or inaccurate counts.

^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.

^c Aerial survey was not flown due to run timing and/or water/weather conditions.

^g Sustainable escapement goal.

^h Aerial escapement goal was discontinued in 2010. A 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, 1995–2015.

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	
1995	5,841	43.7	1,412				4,023	46.0	11,394 ^b	51.7	13,643	48.4		
1996	2,955	41.9	756				1,991	19.5	7,153 ^b	26.8	7,570 ^b	26.2		
1997	3,186	36.8	4,766				3,764	26.0	13,390	25.6	18,514	41.8		
1998	4,034	29.0	1,536				2,414	16.2	4,745	28.4	5,027	26.1		
1999	3,444	28.6	1,932				2,644	26.4	6,485	45.6	9,198	44.6		
2000	1,609	54.3	908		244	29.7	2,089	34.4	4,694 ^b	21.7	4,595	34.3		
2001	1148	- ^c		^c	1,103	36.3	3,052	49.2	9,696	30.1	13,328	32.1		
2002	4,123	21.1	2,696		649	30.8	2,025	20.7	6,967 ^b	27.3	9,000 ^d	29.8		
2003	4,336	45.3	1,716 ^e		763	38.4	1,901	38.1	11,100 ^d	31.8	15,500 ^d	36.6		
2004	8,045	37.3			1,248	21.3	1,774	30.1	9,645	43.9	15,761	54.2	3,673	
2005	2,239	50.2			1,059	41.4	3,111	34.0		30.6	5,988	47.5	1,184	
2006	6,463	42.6				^c	3,031	28.2	2,936	32.1	10,679	38.1	2,479	
2007	4,504	44.7			740	24.9	1,247	39.0	3,806	27.3	6,425	31.0	1,581	
2008	4,242	34.8			766	27.7	1,738	16.2	3,208	29.0	5,415 ^d	33.7	1,880	
2009	3,004	46.0			1,637	49.0	1,955	29.3	5,253	40.0	12,774	33.9	4,280	
2010	2,413	48.6			857	49.6	1,516	29.0	2,382	20.6	6,135	26.6	1,167	
2011	5,213	20.2			1,796	33.9	2,692	19.5	^c	22.7	7,200 ^d	42.1	1,325	
2012	2,517	28.0			922	43.0	1,323	17.0	2,220 ^f	39.1	7,165	50.9	752	
2013	1,998	40.4			772	44.8	1,126	34.1	1,859	40.3	5,465	50.5	723	
2014	5,949	44.3				^c	1,589	19.2	7,192 ^g	33.1	^c	32.0	1,236 ^h	
2015	6,705	39.7			2,391	40.7	1,319	29.5	6,291	39.0	6,287	37.0		
BEG									2,800–5,700		3,300–6,500			
SEG	2,100–4,900													
Average														
1995–2014	3,863	38.8	1,965		966	36.2	2,250	28.6	6,340	32.4	9,441	38.0	1,844	
2005–2014	3,854	40.0			1,069	39.3	1,933	26.6	3,607	31.5	7,472	38.6	1,661	
2010–2014	3,618	36.3			1,087	42.8	1,649	23.8	3,413	31.2	6,491	40.4	1,041	

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Note: Unless otherwise noted blank cells indicate years when project did not operate.

- ^a Past mark-recapture experiments utilizing electrofishing techniques for the first event have shown that carcass surveys (second event) tend to be biased with respect to sex and length. Therefore, an adjustment factor is applied.
- ^b Mark–recapture population estimate.
- ^c Project operations were hindered by high water conditions for much of the season.
- ^d Estimate includes an expansion for missed counting days based on average run timing.
- ^e Weir counts.
- ^f Estimate includes an expansion for missed counting days based on using two DIDSON sonars to assess Chinook salmon passage.
- ^g Due to high water, DIDSON sonar was used and preliminary species apportionment was estimated using average run timing.
- ^h Project operated for 18 days due to high water.
- ⁱ Data are preliminary.
- ^j Biological escapement goals (BEG) established by the Alaska Board of Fisheries, January 2001.
- ^k Sustainable escapement goal (SEG).

Appendix E6.—Chinook salmon escapements for selected spawning areas in the Canadian portion of the Yukon River drainage, 1995–2015.

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
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 ^j			
2002			526	1,149	280		84		^h			
2003			1,658	3,075	687		292	1,115	185 ^l			
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		4,504		
2008			93	303			22	276		1,329		
2009			821	1,827	497		134	716		9,261	5,147	
2010			63	656	288		94	270		3,817	803	
2011			38	405			81	360		5,156	1,181	
2012								157		2,584		3,396
2013								312		3,242		9,916
2014								602		6,321		17,507
2015 ^m								964		10,071		20,410
IMEG												
Averages												
1995–2014	96	492	740	1,065	392	239	176	581	138	4,911	2,377	10,273
2005–2014			624	841	466	363	108	420		4,911	2,377	10,273
2010–2014			51	531	288		88	340		4,224	992	10,273

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Year	Whitehorse Fishway		Canadian Mainstem		
	Count	Percent Hatchery Contribution	Border Passage Estimate	Harvest	Spawning Escapement Estimate
			ⁿ		
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
2015	1,465	60	83,674	1,000	82,674
IMEG					42,500–55,000
Averages					
1995–2014	1,336	57	56,481	8,044	48,437
2005–2014	1,198	56	51,094	4,328	46,766
2010–2014	1,195	60	42,806	2,211	40,595

-continued-

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. The 1997–2000 data were from weir counts.
- ^c 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 High water delayed project installation, therefore, counts are incomplete.
- ^l Combination resistance board weir and conduit weir tested and operational from July 10 to July 30.
- ^m Data are preliminary.
- ⁿ 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 2002–2004, and on Eagle sonar for 2005–2015.
- ^o Estimated total spawning escapement excluding Porcupine River based on 3 area index for 1982–2001, and on border passage estimate minus Canadian harvest for 2002–2015.
- ^p Interim management escapement goal (IMEG) range of 42,500–55,000 was established in 2010 and continued through 2015.

Appendix E7.—Summer chum salmon escapements for selected spawning areas in the Alaska portion of the Yukon River drainage, 1995–2015.

Year	Andreafsky River			Anvik River	Rodo River	Kaltag Creek	Nulato River			
	East Fork		West Fork				South Fork	North Fork ^a	Mainstem	
	Aerial ^b	Weir								
	Aerial ^b	Weir	Aerial ^b	Sonar	Aerial ^b	Tower	Aerial ^b	Aerial ^b	Tower	
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 ^c	—	129,694	
1997	—	51,139	—	605,752	2,775 ^c	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 ^c	24,785	18,989 ^c	196,349	—	6,727	—	—	24,308	
2001	—	2,134 ^d	—	224,058	—	—	—	—	—	
2002	—	44,194	—	459,058	—	13,583	—	—	72,232	
2003	—	22,461	—	256,920	—	3,056	—	—	19,590	
2004	—	64,883	—	365,353	—	5,247	—	—	—	
2005	—	20,127	—	525,391	—	22,093	—	—	—	
2006	3,100 ^c	102,260	617	605,485	—	—	7,772	11,658	—	
2007	—	69,642	—	460,121	—	—	21,825	15,277	—	
2008	9,300	57,259	25,850	374,928	—	—	12,070	10,715	—	
2009	736	8,770	3,877	193,099	621	—	2,120	567	—	
2010	1,982	72,893	24,380	396,173	—	—	1,891	1,038	—	
2011	12,889	100,473	10,020	642,528	6,011	—	9,454	8,493	—	
2012	— ^c	56,680	— ^c	483,972	15,606	—	20,600	14,948	—	
2013	10,965	61,234	9,685	571,690	—	—	13,695	13,230	—	
2014	—	37,793	—	399,796	—	—	—	—	—	
2015 ^e	6,004 ^c	50,338	2,836 ^c	374,968	3,685	—	4,102	9,525	—	
Escapement Objective	>40,000 ^f			350,000–700,000 ^g						
Averages										
1995–2014	5,867	58,882	13,345	497,899	7,040	24,064	10,879	11,764	89,988	
2005–2014	6,495	58,713	12,405	465,318	7,413	22,093	11,178	9,491	—	
2010–2014	8,612	65,815	14,695	498,832	10,809	—	11,410	9,427	—	

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Year	Henshaw Creek	Gisasa River		Hogatza River		Tozitna River	Chena River		Salcha River	
	Weir	Aerial ^b	Weir	Clear & Caribou Cr.	Clear Creek	Weir and Aerial ^b	Aerial ^b	Tower	Aerial ^b	Tower
1995		6,458	136,886	—	116,735	4,985	185 ^c	3,519 ^d	934 ^c	30,784
1996		—	158,752	27,090 ^h	100,912	2,310	2,061	12,810 ^d	9,722	74,827
1997		686 ^c	31,800	1,821 ^c	76,454	428 ^d	594 ^c	9,439 ^d	3,968 ^c	35,741
1998		—	21,142	120 ^{c,i}	212 ^d	7 ^d	24 ^c	5,901	370 ^c	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 ^d	78	27,012 ^d
2003	22,556	—	25,999	—	6,159	8,487	—	573 ^d	—	—
2004	86,474	—	37,851	—	15,661	25,003	—	15,162 ^d	—	47,861
2005	237,481	—	172,259	—	26,420	39,700	219	2,928 ^d	4320	193,085
2006	—	1,000	261,305	—	29,166 ^j	22,629	469	35,109 ^d	152	111,869
2007	44,425	—	46,257	—	6,029 ^j	8,470	—	4,999	— ^c	13,069
2008	97,281	20,470	36,938	—	—	9,133	37	1,300 ^d	— ^c	2,212 ^d
2009	156,201	1,060	25,904	3,981 ⁱ	—	8,434	—	16,516	—	31,035
2010	105,398	1,096	47,669	840 ⁱ	—	—	—	7,560	—	22,185
2011	248,247	13,228	95,796	3,665 ⁱ	—	11,351	4,600	— ^d	819	— ^d
2012	292,082	— ^d	83,423	23,022 ⁱ	—	—	— ^c	6,882	— ^c	46,251
2013	285,008	9,300 ^d	80,055	—	— ^c	—	— ^c	21,385	— ^c	59,188
2014	— ^d	—	32,137	—	—	—	—	17,076 ^k	—	— ^d
2015	238,529	5,601	42,747	6,080	—	—	—	8,620	— ^c	12,812
Escapement Objective										
	127,901	6,662	68,358	8,648	32,710	11,516	801	9,454	2,074	45,356
	183,265	7,692	88,174	7,877	20,538	16,620	1,331	12,639	1,764	59,862
	232,684	7,875	67,816	9,176	—	11,351	4,600	13,226	819	42,541

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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 survey and/or poor survey timing or conditions resulted in minimal or inaccurate count.
- ^d Incomplete count due to late installation, early removal, or high water events.
- ^e Data are preliminary.
- ^f Sustainable escapement goal established by the Alaska Board of Fisheries, January 2010.
- ^g Biological escapement goal established by the Alaska Board of Fisheries, 2005.
- ^h BLM helicopter survey.
- ⁱ Consists of Clear Creek only.
- ^j 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).
- ^k 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, 1995–2015.

Year	Yukon River Mainstem Sonar Estimate	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
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	62,014	82,475	75,811	33,058
1999	379,493	4,551	27,199	16,534	7,559 ^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	56,665	11,992	3,116 ^k	109,961	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 ^k			178,278 ^t	50,348 ^{q,r,t}
2009	233,307 ^u			13,492	2,900				54,126 ^{q,r,t}
2010	393,326			17,993	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	5,554			252,710 ^t	
2014	650,808			32,480 ^k	4,095			226,489 ^t	
2015 ^v	546,894			33,401 ^k	6,020			164,486	
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									
1995–2014	658,775 ^z	20,512	61,392	17,796	5,930	158,011	184,083	199,250	107,262
2005–2014	790,095 ^z	—	86,899	21,279	4,282	287,078	320,989	257,156	139,584
2010–2014	641,513	—	—	23,089	3,479	—	—	230,149	74,908

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- ^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; 2 located 8 miles upstream of the mouth of the Toklat River (1999–2005) and 1 fish wheel on the upper Kantishna River (2000–2002, 2006–2007) and 2 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 (2 fish wheels in 1995) located just upstream of the Kantishna River and recaptures are collected from 1 fish wheel (2 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 to 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, 1995–2015.

Year	Porcupine Drainage			Canadian Mainstem						
	Fishing Branch River	Porcupine River Sonar	Mainstem Yukon River Index	Kluane River	Teslin River	Border Passage Estimate	Harvest	Spawning Escapement Estimate		
	^a		^b	^{b, c}	^{b, d}	^e		^f		
1995	51,971 ^g		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 ^h	72,188 ⁱ	13,636	58,552		
2000	5,057		933 ^h	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 ^g					174,028 ^j	6,130	167,898		
2009	25,828					94,739	1,113	93,626		
2010	15,413					121,498	3,709	117,789		
2011	13,085 ^g					211,878	6,312	205,566		
2012	22,399					141,567	3,905	137,662		
2013		35,615 ^k				204,149	3,887	200,262		
2014		17,756 ^k				159,846	3,050	156,796		
2015 ^l	8,351	21,396				112,555	3,897	108,658		
EO ^m	50,000-120,000							>80,000		
IMEG	22,000-49,000 ⁿ							70,000-104,000 ^o		
Average										
1995–2014	30,638	—	5,265	14,277	287	155,441	8,999	146,454		
2005–2014	34,747	—	11,489	26,404	603	203,301	5,803	197,522		
2010–2014	16,966	26,686	—	—	—	167,788	4,173	163,615		

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- ^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 count caused by late installation and/or early removal of project or high water events.
- ^h Incomplete and/or poor survey conditions resulting in minimal or inaccurate counts.
- 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 US/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 Interim management escapement goal (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 1974–2015.

Year	(P) Escapement ^b	Estimated Annual Totals Catch Run		Estimated Brood Year Return								(R) Total Brood	(R/P) Return/ Spawner
				Number of Salmon ^a				Percent				Year Return ^a	
				Age 3	Age 4	Age 5	Age 6	Age 3	Age 4	Age 5	Age 6		
1974	664,300	478,875	1,143,175	112,332	657,675	95,713	0	0.13	0.76	0.11	0.00	865,719	1.30
1975	2,178,000	473,062	2,651,062	198,788	1,707,457	67,490	124.18	0.10	0.87	0.03	0.00	1,973,860	0.91
1976	554,400	339,043	893,443	142,207	645,741	137,839	4,867	0.15	0.69	0.15	0.01	930,654	1.68
1977	730,800	447,918	1,178,718	112,842	1,081,476	198,126	5,003	0.08	0.77	0.14	0.00	1,397,446	1.91
1978	562,900	434,030	996,930	22,352	374,661	108,189	0	0.04	0.74	0.21	0.00	505,202	0.90
1979	1,330,000	615,377	1,945,377	46,365	919,087	311,921	4,039	0.04	0.72	0.24	0.00	1,281,412	0.96
1980	337,700	488,373	826,073	10,006	411,860	216,785	3,822	0.02	0.64	0.34	0.01	642,473	1.90
1981	558,400	683,391	1,241,791	52,142	991,506	340,536	9,513	0.04	0.71	0.24	0.01	1,393,696	2.50
1982	250,500	373,519	624,019	11,751	489,695	178,473	707.49	0.02	0.72	0.26	0.00	680,627	2.72
1983	516,800	525,485	1,042,285	15,375	936,870	232,904	2,391	0.01	0.79	0.20	0.00	1,187,539	2.30
1984	363,600	412,323	775,923	7,587	425,269	180,061	10,049	0.01	0.68	0.29	0.02	622,966	1.71
1985	708,600	515,481	1,224,081	48,604	904,215	319,778	3,209	0.04	0.71	0.25	0.00	1,275,807	1.80
1986	531,400	318,028	849,428	0	507,132	370,290	5,203	0.00	0.57	0.42	0.01	882,625	1.66
1987	726,300	406,143	1,132,443	14,648	620,496	347,585	8,164	0.01	0.63	0.35	0.01	990,893	1.36
1988	353,800	353,685	707,485	41,201	209,478	161,128	12,953 ^c	0.10	0.49	0.38	0.03	424,760	1.20
1989	541,500	545,166	1,086,666	3,280	299,171	410,360 ^c	22,261	0.00	0.41	0.56	0.03	735,073	1.36
1990	499,600	352,007	851,607	750.744	688,958 ^c	459,102	32,549	0.00	0.58	0.39	0.03	1,181,359	2.36
1991	596,100	439,096	1,035,196	4,355 ^c	1,124,363	394,561	12,905	0.00	0.73	0.26	0.01	1,536,184	2.58
1992	416,700	148,846	565,546	7,420	698,733	209,015	4,106	0.01	0.76	0.23	0.00	919,275	2.21
1993	378,200	91,015	469,215	8,279	478,676	107,628	3,221	0.01	0.80	0.18	0.01	597,803	1.58
1994	947,400	169,225	1,116,625	4,584	236,698	148,864	1,689 ^c	0.01	0.60	0.38	0.00	391,835	0.41
1995	1,152,000	461,147	1,613,147	2,492	265,772	72,620 ^c	376.93	0.01	0.78	0.21	0.00	341,260	0.30
1996	873,200	260,923	1,134,123	418.275	174,591 ^c	134,826	8,270	0.00	0.55	0.42	0.03	318,105	0.36

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Year	(P) Escapement ^b	Estimated Annual Totals Catch Run		Estimated Brood Year Return								(R) Total Brood	(R/P) Return/ Spawner
				Number of Salmon ^a				Percent				Year Return ^a	
				Age 3	Age 4	Age 5	Age 6	Age 3	Age 4	Age 5	Age 6		
1997	535,100	170,079	705,179	3,253 ^c	241,082	117,980	3,407	0.01	0.66	0.32	0.01	365,722	0.68
1998	280,100	70,823	350,923	640,774	268,827	59,262	7,122	0.00	0.80	0.18	0.02	335,853	1.20
1999	287,100	131,175	418,275	29,007	720,974	185,564	13,005	0.03	0.76	0.20	0.01	948,550	3.30
2000	223,600	28,553	252,153	8,636	315,982	109,455	0	0.02	0.73	0.25	0.00	434,073	1.94
2001	331,900	45,026	376,926	144,727	2,044,959	705,047	33,584	0.05	0.70	0.24	0.01	2,928,318	8.82
2002	396,600	27,485	424,085	0	463,822	236,543	13,736	0.00	0.65	0.33	0.02	714,101	1.80
2003	713,200	79,079	792,279	25,317	849,340	456,901	17,416	0.02	0.63	0.34	0.01	1,348,973	1.89
2004	577,100	76,296	653,396	0	349,482	157,953	2,052	0.00	0.69	0.31	0.00	509,486	0.88
2005	1,877,000	290,418	2,167,418	2,385	402,864	93,350	5,354	0.00	0.80	0.19	0.01	503,954	0.27
2006	923,700	270,486	1,194,186	26,487	391,924	344,738	30,300	0.03	0.49	0.43	0.04	793,448	0.86
2007	913,800	205,667	1,119,467	82,579	856,674	190,043	6,817	0.07	0.75	0.17	0.01	1,136,113	1.24
2008	604,400	218,104	822,504	10,100	847,775	421,039	7,812	0.01	0.66	0.33	0.01	1,286,726	2.13
2009	511,400	93,319	604,719	12,070	811,382	424,054	20,567	0.01	0.64	0.33	0.02	1,268,073	2.48
2010	489,900	80,005	569,905	1,988	503,624	219,380	8,797	0.00	0.69	0.30		733,790 ^d	>1.50
2011	891,200	325,666	1,216,866	24,573	432,626	157,208						614,407 ^e	>0.69
2012	683,600	396,589	1,080,189	61,570									
2013	883,600	357,626	1,241,226										
2014	753,400	206,663	960,063										
2015	562,300	281,152	843,452										
Average-14	674,363	302,566	976,930										
Min-09	223,600	27,485	252,153	0	174,591	59,262	0	0.00	0.41	0.03	0.00	318,105	0.27
Max-09	2,178,000	683,391	2,651,062	198,788	2,044,959	705,047	33,584	0.15	0.87	0.56	0.04	2,928,318	8.82
	665,200	All Brood Years (1974-2009)		33,694	650,407	241,826	8,794	0.03	0.69	0.27	0.01	929,291	1.76
	520,056	Even Brood Years (1974-2009)		22,582	453,239	207,182	8,069	0.03	0.66	0.30	0.01	691,072	1.51
	810,344	Odd Brood Years (1974-2009)		44,806	847,576	276,469	9,520	0.03	0.71	0.25	0.01	1,178,371	2.01

Note: Minimum and maximum indicate year with the lowest and highest values through 2009. Current brood year data is preliminary as is 2015 harvest estimate. In 2015 estimates of escapement were based on Bayesian analysis.

^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 fish catch per unit effort.

^b Contrast in escapement data is 9.74.

^c Based upon expanded test fish 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 2010 was at least 1.50. Recruits estimated for incomplete brood year.

^e Brood year return for 3 and 4 year fish, indicate that production (R/P) from brood year 2011 was at least 0.69. 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, 1995–2015.

Year	Yukon River Mainstem Sonar Estimate ^a	Nenana River Drainage						Upper Tanana River Drainage		
	Estimate ^a	Lost Slough	Nenana Mainstem ^b		Wood Creek		Seventeen Mile Slough	Delta Clearwater River ^c		Richardson Clearwater River
									Lake and Outlet	
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) ^d		3,668 (g/b)	14,075 (b)	1,125 (b) ^d	
1997	104,343	1,524 (h)	1,446 (h)		^e		1,996 (h)	11,525 (b)	2,775 (b)	
1998	136,906	1,360 (h) ^d	2,771 (h) ^d		^e		1,413 (g/b)	11,100 (b)	2,775 (b)	
1999	62,521	1,002 (h) ^d	745 (h) ^d		370 (h)		662 (h) ^d	10,975 (b)		
2000	175,421	55 (h) ^d	68 (h) ^d		^e		879 (h) ^d	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 ^f	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	247,047	333 (h)	378 (h)		649 (h)		886 (h)	4,285 (b)	434 (h)	1,941 (h)
2015 ^g	97,587	242 (h)	1,789 (h)		1,419 (h)		3,890 (h)	19,533 (b)	1,621 (h)	3,742 (h)
SEG								5,200-17,000 ^h		
Averages										
1995-2014	146,867 ^f	825	884		731		1,846	21,039	2,874	1,826
2005-2014	149,426 ^f	552	473		545		1,322	11,783	2,123	795
2010-2014	143,868	474	242		352		657	5,479	1,286	920

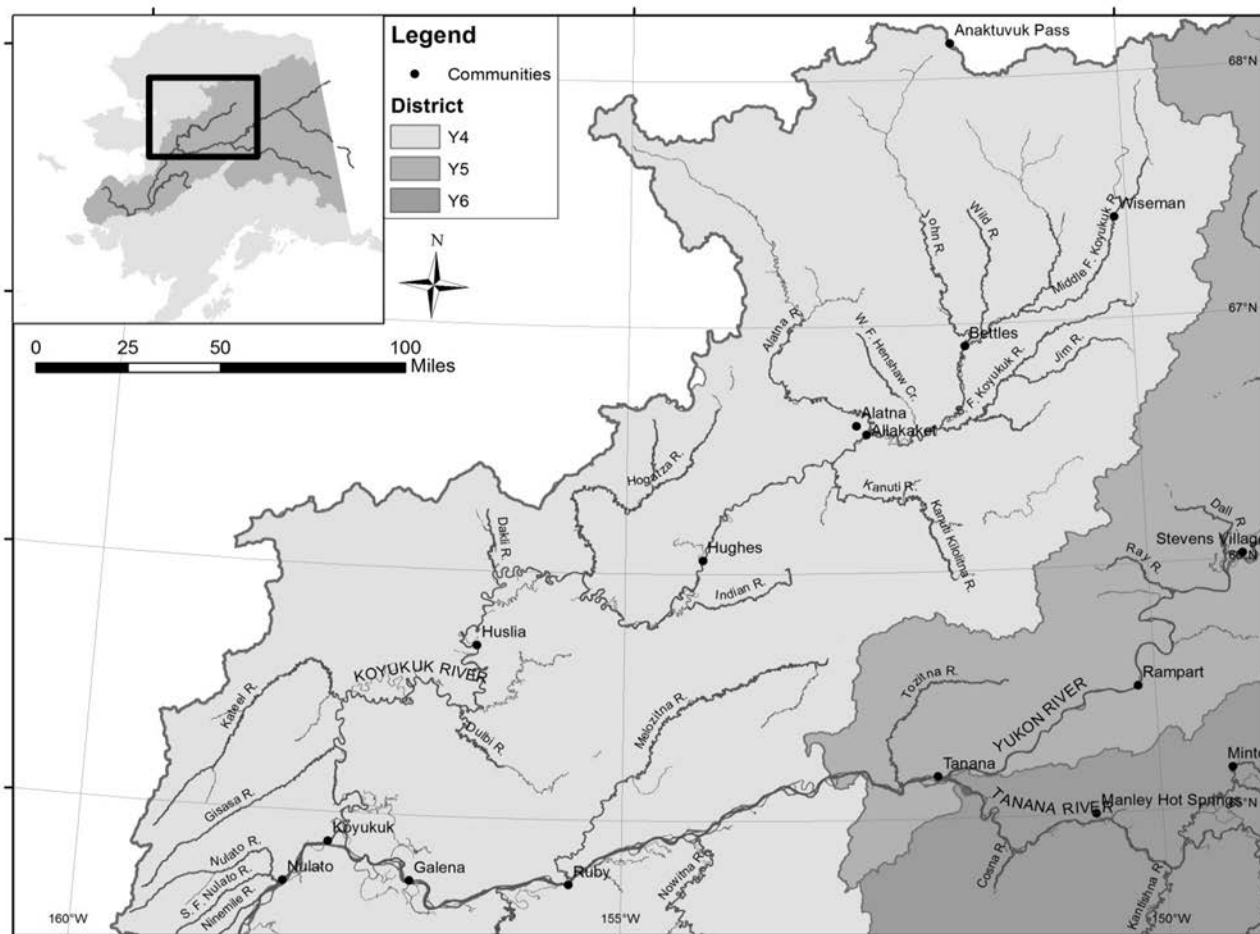
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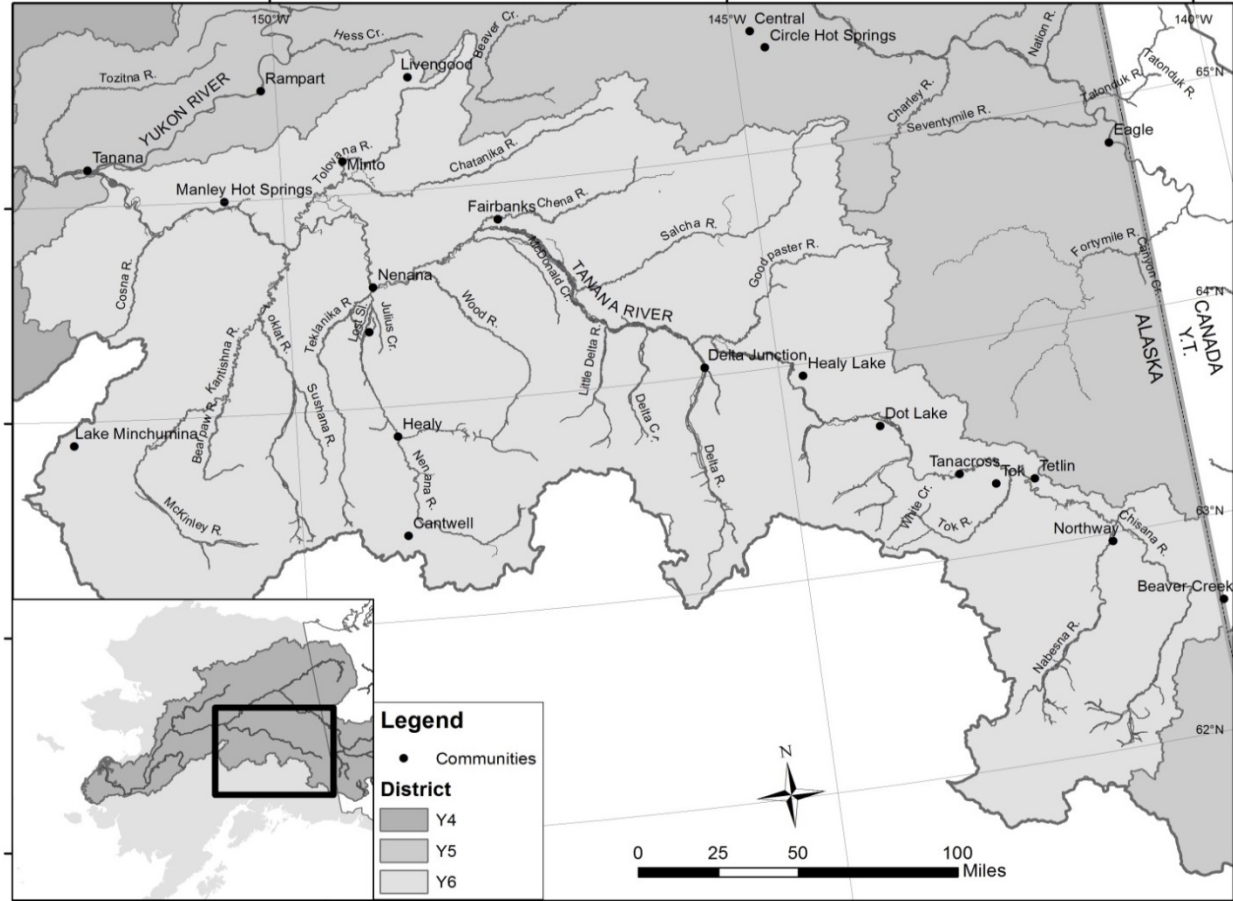
Note: Only peak counts presented. Survey rating is fair to good, unless otherwise noted. Denotations of survey methods include: (b) = boat, (f) = fixed wing, (g) = ground/foot, (h) = helicopter, and (u) = undocumented.

- ^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 Poor survey.
- ^e No survey of Wood Creek due to obstructions in creek.
- ^f 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.
- ^g Data are preliminary.
- ^h 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 27.

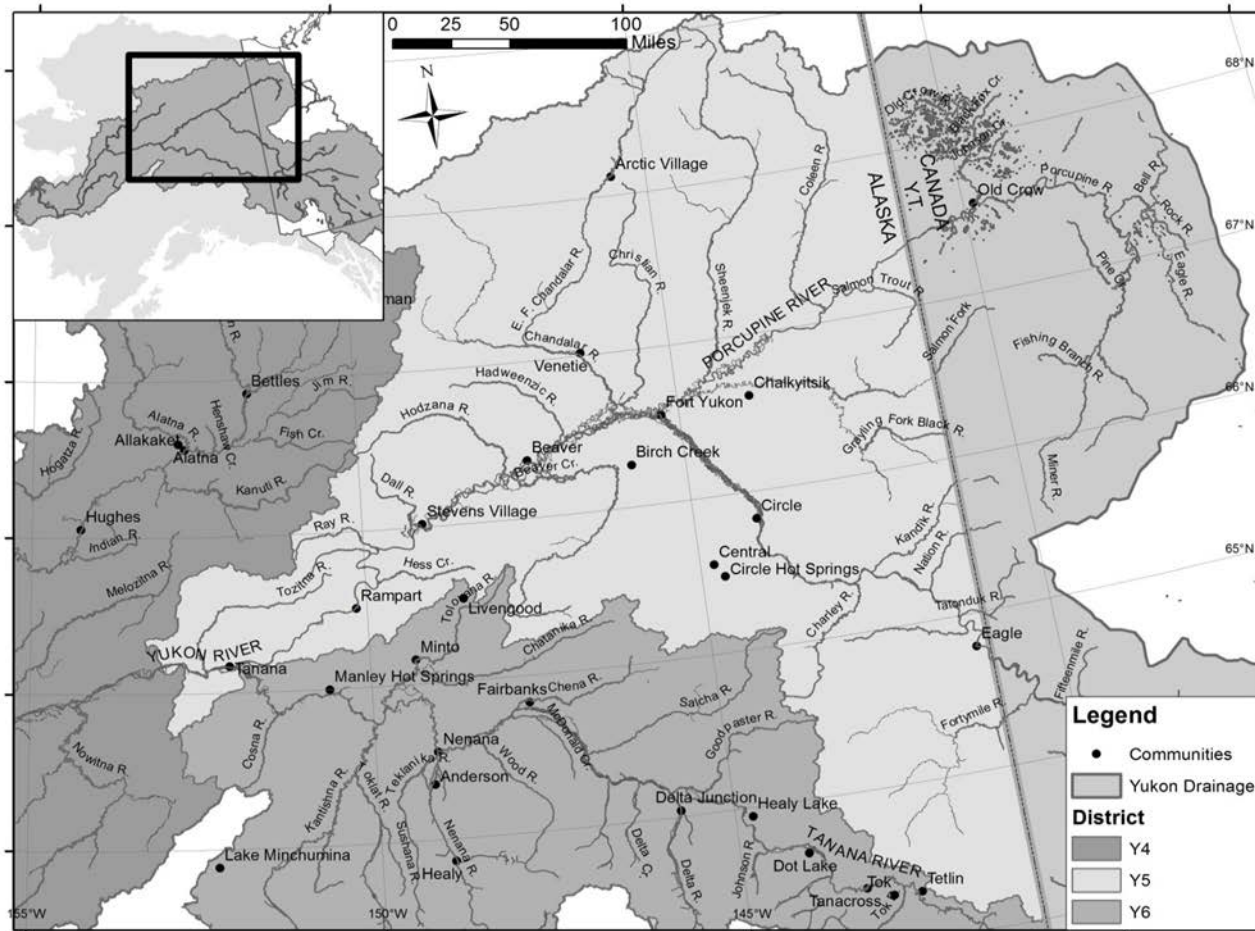
Appendix E12.—The Lower Yukon River drainage.



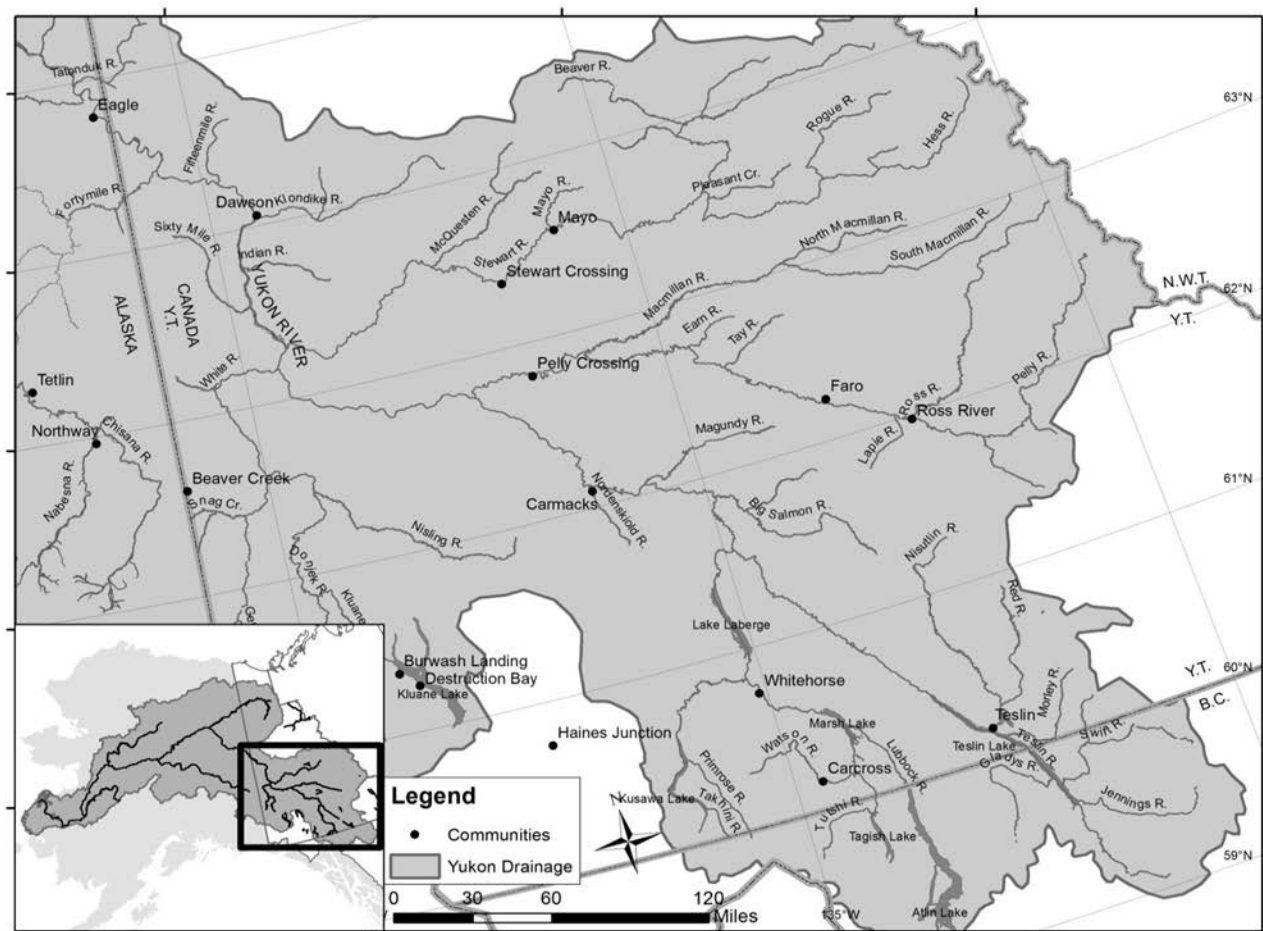
Appendix E13.—The Koyukuk River drainage.



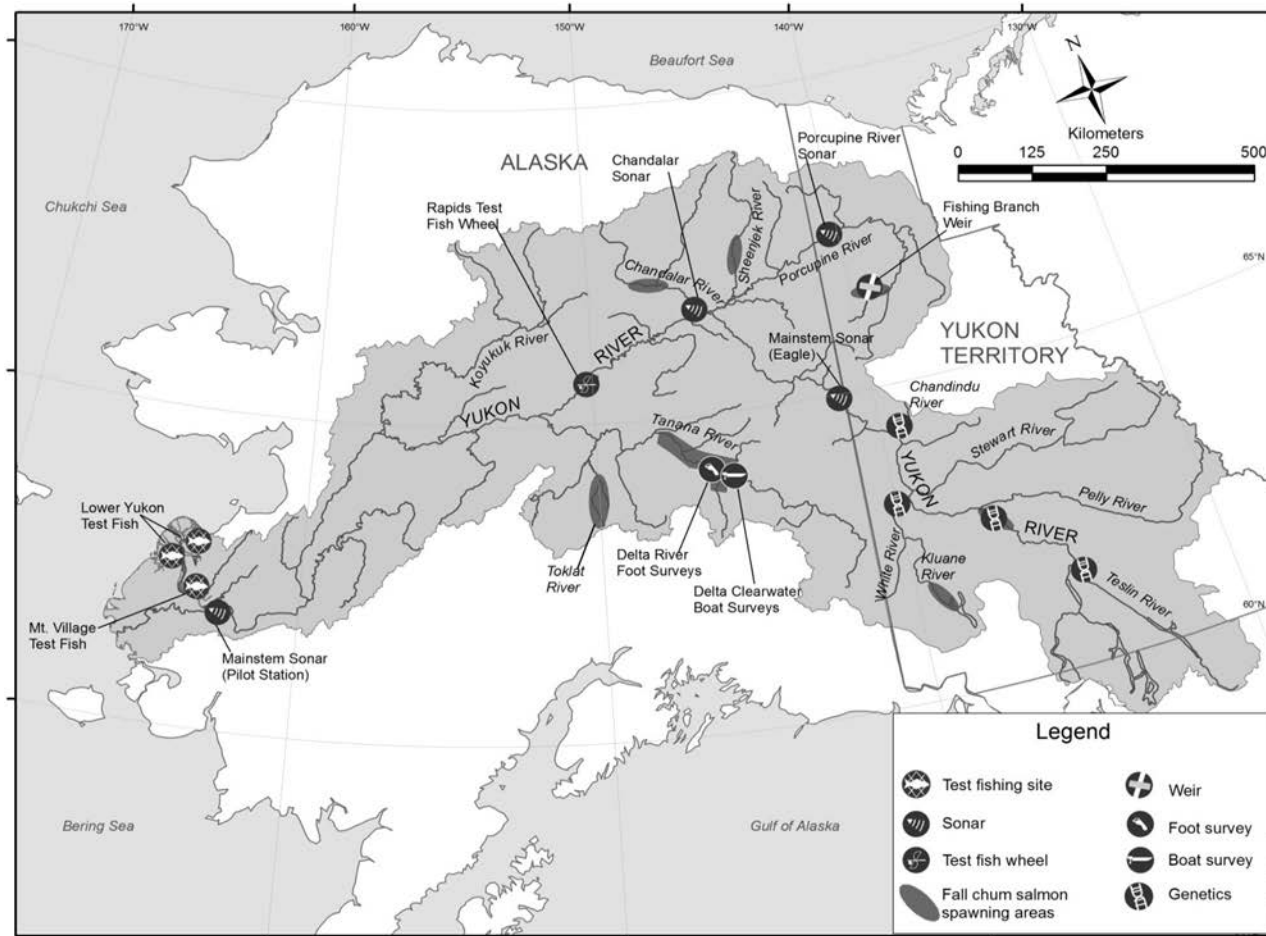
Appendix E14.—The Tanana River drainage.



Appendix E15.—The Middle Yukon River and Porcupine River drainage.



Appendix E16.—The Upper Yukon River drainage in Canada.



Appendix E17.—Select fall chum salmon monitoring projects, Yukon River drainage.

APPENDIX F

Appendix F1.—Commercial freshwater finfish harvest, Lower Yukon Area, 1995–2015.

Year	Permits	Sheefish		Bering Cisco		Other Whitefish ^a		Lamprey	
	Fished	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
1995	0	—	—	—	—	—	—	—	—
1996	0	—	—	—	—	—	—	—	—
1997	0	—	—	—	—	—	—	—	—
1998	0	—	—	—	—	—	—	—	—
1999	0	—	—	—	—	—	—	—	—
2000	0	—	—	—	—	—	—	—	—
2001	0	—	—	—	—	—	—	—	—
2002	0	—	—	—	—	—	—	—	—
2003	23	—	—	—	—	—	—	84,965 ^b	23,960
2004	0	—	—	—	—	—	—	0	0
2005	13	266	1,688	241	362 ^c	2,669	4,265	0	0
2006	23	472	2,912	4,497	5,519	1,932	2,832	3,056 ^b	715
2007	23	416	2,906	2,451	2,951	1,748	3,145	0	0
2008	16	0	0	8,642	9,380	695	692	0	0
2009	31	0	0	9,066	9,743	750	763	1,520 ^d	465
2010	21	0	0	14,048	14,945 ^e	420	439	0	0
2011	19	0	0	11,386	12,523	253	258	0	0
2012	20	0	0	11,099	12,705	231	237	0	0
2013	17	0	0	16,901	19,442	120	123	0	0
2014	38	0	0	25,604	31,268	42	50	52,512 ^b	15,386
2015	30	0	0	23,670	28,391	15	16	14,892 ^b	2,755
2010–2014									
Average	23	0	0	15,808	18,177	213	221	10,502	3,077
2005–2014									
Average	22	115	751	10,394	11,884	886	1,280	5,709	1,657

Note: En dash indicates no commercial fishing activity occurred.

^a Other whitefish species include general whitefish, least cisco, broad whitefish, and humpback whitefish. From 2008 onward, only includes least cisco.

^b Number of lamprey equals pounds of lamprey divided by the average lamprey weight from St. Marys or Mountain Village (0.282 pounds in 2003; 0.234 pounds in 2006; 0.293 pounds in 2014; and 0.185 pounds in 2015).

^c In response to market conditions, commercial whitefish fishing began to target Bering Cisco; therefore harvest of this species is separated from other whitefish species.

^d Number of lamprey equals pounds of lamprey divided by the average lamprey weight in Grayling (0.306 pounds).

^e Includes 160 pounds of Bering cisco harvested in January 2010 under permit authorized in fall 2009.

Appendix F2.—Commercial freshwater finfish harvest, Upper Yukon Area, 1995–2015.

Year	Permits Fished	Upper Yukon Area			
		Whitefish ^a		Lamprey	
		Number	Pounds	Number	Pounds
1995	0	0	0	—	—
1996	0	0	0	—	—
1997	— ^b	908	1,160	—	—
1998	0	—	— ^c	—	—
1999	0	—	—	—	—
2000	0	—	—	—	—
2001	0	—	—	—	—
2002	0	—	—	—	—
2003	15	—	—	99,624 ^d	25,697
2004	0	—	—	0	0
2005	0	—	—	0	0
2006	9	—	—	33,933 ^d	7,481
2007	1	—	—	191 ^e	42
2008	10	—	—	41,749 ^d	11,137
2009	11	—	—	48,117 ^d	14,745
2010	22	—	—	108,837 ^d	30,713
2011	3	—	—	2,660 ^f	783
2012	4	—	—	1,539 ^d	336
2013	11	—	—	45,805 ^d	11,613
2014	17	—	—	91,785 ^d	28,734
2015	11	—	—	149,371 ^d	33,260
2010–2014					
Average	11			50,125	14,436
2005–2014					
Average	9			37,462	10,558

Note: En dash indicates no commercial fishing activity occurred. Blanks indicate not enough information to generate average.

^a Whitefish species include general whitefish, least cisco, broad whitefish, humpback whitefish, and sheefish.

^b Number of permits issued not reported.

^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 in Grayling (0.258 pounds in 2003; 0.220 pounds in 2006; 0.267 pounds in 2008; 0.306 pounds in 2009; 0.282 pounds in 2010; 0.218 pounds in 2012; 0.254 pounds in 2013; 0.313 pounds in 2014; and 0.223 pounds in 2015).

^e Number of lamprey equals pounds of lamprey divided by the average lamprey weight in Grayling from 2006 (0.220 pounds).

^f Number of lamprey equals pounds of lamprey divided by the average weight of lamprey collected from harvests in Grayling from 2009 and 2010 (0.294 pounds).

Appendix F3.–Freshwater finfish sales during the commercial salmon fishing season by district, Yukon Area, 1995–2015.

Year	Lower Yukon	Lower Yukon Area		Upper Yukon	District 4		District 5				District 6	
	Area	Sheefish		Area	Whitefish		Whitefish		Sheefish		Whitefish	
	Permits Fished	Number	Pounds	Permits Fished	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
1995	0	0	0	4	0	0	95	95	0	0	183	387
1996	19	38	657	4	0	0	22	66	0	0	103	292
1997	0	0	0	3	0	0	270	301	0	0	4	8
1998	9	16	254	2	0	0	116	88	0	0	0	0
1999	–	–	–	0	0	0	0	0	0	0	0	0
2000	16	27	478	0	–	–	–	–	–	–	–	–
2001	–	–	–	0	–	–	–	–	–	–	–	–
2002	1	1	17	2	0	0	0	0	0	0	60	120
2003	0	0	0	7	40 ^a	113	0	0	0	0	129	297
2004	0	0	0	6	–	–	4	15	0	0	53	112
2005	0	0	0	3	–	–	0	0	0	0	66	175
2006	0	0	0	3	–	–	0	0	0	0	99	397
2007	15	29	457	2	0	0	0	0	0	0	55	152
2008	0	0	0	3	0	0	271	264	38	338	95 ^b	292
2009	0	0	0	0	0	0	–	–	–	–	0	0
2010	0	0	0	2	0	0	–	–	–	–	18	72
2011	0	0	0	2	–	–	0	0	0	0	37	148
2012	0	0	0	1	0	0	0	0	0	0	10	25
2013	0	0	0	1	0	0	0	0	0	0	22	56
2014	0	0	0	2	0	0	5 ^c	20	38	456	0	0
2015	0	0	0	2	–	–	11	30	45	515	300	811
2010–2014												
Average	0	0	0	2	0	0	1	5	10	114	17	60
2005–2014												
Average	0	3	46	2	0	0	35	36	10	99	40	132

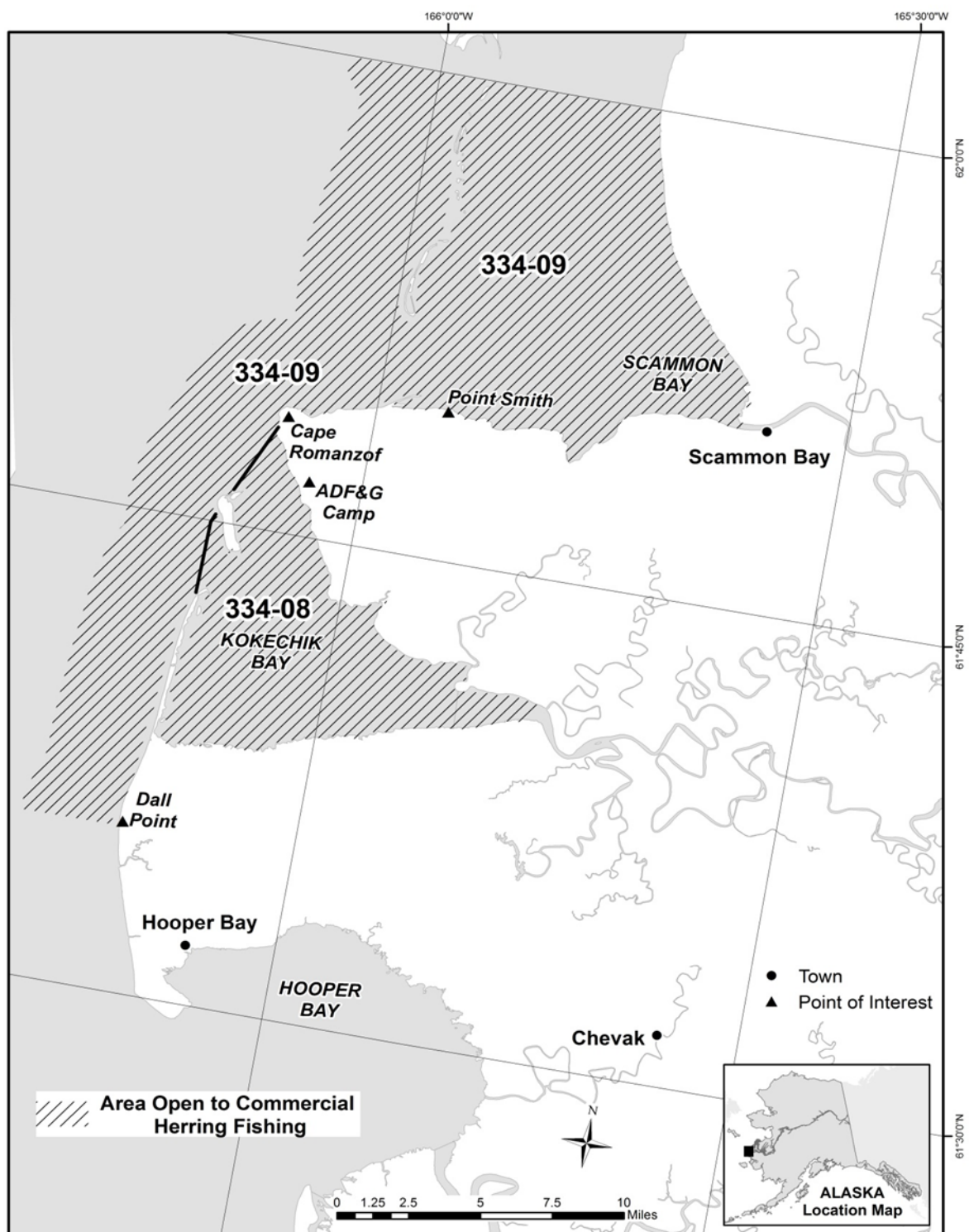
Note: En dash indicates no commercial fishing activity occurred.

^a Two sheefish (28 pounds) and 2 pike (17 pounds) were also sold.

^b 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.

^c Three humpback whitefish, 1 broad whitefish, and 1 general whitefish.

APPENDIX G



Appendix G1.—Waters open to commercial herring fishing in the Cape Romanzof District.

Appendix G2.—Commercial Pacific herring fishery data, Cape Romanzof District, 1994–2015.

	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	2015 ^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	4,813 ^d
Exploitation Rate (%)	3.7	1.9	—	—	—	—	—	—	1.4	—	—

Note: En dash indicates information is not available. Short ton is equal to 2,000 pounds.

^a Estimated from ADF&G commercial samples.

^b Preseason biomass estimates estimated to be a range between 3,000 and 4,000 st.

^c No commercial fishing occurred.

^d Due to lack of data, 2015 projection is an average of aerial surveys from the last 5 years that were rated fair or good. If fair or good aerial surveys were not available from the last 5 years, then the last fair/good aerial survey biomass estimate was used.

Appendix G3.—Subsistence herring harvest (st) and effort data by community, Cape Romanzof, 1995–2015.

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
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
2015 ^b								
2010–2014								
Average	2.7	19.3	0.7	3.0	0.7	13.5	3.6	33.5

Note: En dash indicates information is not available. Short ton (st) is equal to 2000 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.