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DIVISION OF COMMERCIAL FISHERIES
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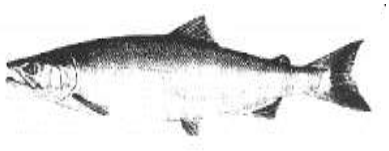

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2016 Preliminary Yukon River Summer Season Summary

The following is a preliminary summary of the 2016 Yukon River Chinook and summer chum salmon fisheries. Subsistence and personal use harvests for 2016 are not available at this time. For management purposes, the Yukon River is divided into several fishing districts and subdistricts (Figure 1).

2016 Preseason Outlook

Chinook Salmon

The Yukon River Chinook salmon stocks have experienced a drastic downward shift in production since 1998 (Figure 2). The cause of this decline remains largely unknown, though it is generally believed that many factors (e.g., freshwater survival, marine conditions, climate change) are involved. Chinook salmon returns in 2012 and 2013 were lower than preseason projections and were followed with returns in 2014 and 2015 that exceeded the upper end of the preseason projections. The 2016 drainage-wide Chinook salmon outlook was for a run size of 130,000 to 175,000 fish. Though the upper end of this range was similar to the 2015 run size, due to the uncertainty associated with the outlook, a cautious management approach was taken to assure minimum escapement objectives would be met.

Summer Chum Salmon

Yukon River summer chum salmon generally exhibit strong run size correlations among adjacent years and it was expected that the 2016 total run would be similar to the 2015 run. The 2016 preseason outlook was for 1.3 to 1.8 million summer chum salmon.

The 2016 summer chum salmon run was 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 10 years (2006–2015). Based on the preseason outlook, it was expected that a commercially harvestable surplus of 450,000 to 900,000 summer chum salmon would be available. The commercially harvestable surplus was based on the midpoint of the new drainage-wide escapement goal of 500,000–1,200,000 summer chum salmon adopted by the Board of Fisheries in January 2016. Similar to last year, the harvest of summer

chum salmon in 2016 was anticipated to be affected by the management of a below average Chinook salmon run. Because Chinook salmon are incidentally harvested in summer chum salmon-directed fisheries, the use of gillnets for the summer chum commercial fishery was delayed and restricted. It was anticipated that gear types that allow for the live release of Chinook salmon, such as beach seines, dip nets, and live-release fish wheels, would be employed for both the subsistence and commercial harvest of summer chum salmon.

2016 Preseason Management Strategy

In response to below-average Chinook salmon runs, the Yukon River Drainage Fisheries Association (YRDFA) facilitated a preseason planning meeting funded by the Yukon River Panel to provide managers, fishermen, tribal council representatives, and other stakeholders the opportunity to share information, provide input, and discuss management options available for the 2016 salmon fisheries. The purpose of this meeting was to cooperatively identify practical management strategies that would assist in getting adequate numbers of Chinook salmon to their spawning grounds in Alaska and Canada while also providing limited subsistence harvest opportunity.

Fishermen from all districts gave feedback about the previous year's management actions and suggested improvements for 2016 which were then implemented. These improvements included: 1) separate subsistence and commercial fishing openings, 2) offering dip net opportunity for subsistence harvest of summer chum salmon instead of a salmon fishing closure early in the season, and 3) less confusing management actions (i.e. fewer surgical openings, more notice about openings and if fishing on a schedule).

Based on input from this meeting, a conservative preseason management plan was developed for the Yukon River summer season fishery. The preseason plan and publicly-distributed "Outlook Flier" included the following key management strategies:

- Before Chinook salmon enter the river, subsistence fishing opportunity for non-salmon species would be provided with 6-inch or smaller mesh gillnets.
- As the Chinook salmon run begins to build, subsistence salmon fishing would close chronologically in each district based on the migration timing of Chinook salmon to protect the first pulse of Chinook salmon as mandated by regulation. Additional closures may be necessary if run assessment indicates a weaker than expected run.
- Similar to 2015, Subdistrict 5-D would be provided fishing opportunity on the early "trickle" of Chinook salmon with 6-inch or smaller mesh gillnets prior to the first pulse closure.
- During subsistence salmon fishing closures, 4-inch or smaller mesh gillnets not exceeding 60-feet in length could be used to target non-salmon species.
- When summer chum salmon become abundant, subsistence and commercial fishing opportunities would be provided with selective gear such as dip nets, beach seines, and manned fish wheels that require the immediate and careful release of all Chinook salmon alive.
- When confidence was high that the Chinook salmon run was adequate and escapement goals were likely to be met, the use of 6-inch gillnets, and possibly 7.5-inch gillnets, on a reduced regulatory schedule would be considered.

- The sport fishery for Chinook salmon would be closed in the U.S. portion of the Yukon River drainage (excluding the Tanana River drainage). Retention and possession of Chinook salmon would not be allowed.

2016 Stock Assessment Overview

The department monitors a suite of assessment projects that provide critical information regarding salmon run timing, relative abundance, and stock composition. Inseason run assessments included test fisheries, sonar passage estimates, subsistence and commercial harvest data, and age, sex, and length (ASL) data. In addition, genetic samples were collected and analyzed inseason from the sonar project near Pilot Station to determine stock contribution for both Chinook and summer chum salmon. Managers used information from inseason assessment projects and fishermen reports in order to make daily management decisions.

Initial assessment in the lower river is critical to implementing an inseason management plan throughout the drainage. Three projects on the lower river provided timing information and inseason abundance: the Lower Yukon Test Fishery (LYTF), an 8.5-inch set net project primarily designed to assess Chinook salmon run timing operated in the Middle and South mouths of the Yukon River; a summer chum salmon-directed drift gillnet test fishery using 5.5-inch mesh operated in the Middle and South mouths of the Yukon River; and a mainstem sonar project near Pilot Station which provides abundance estimates for Chinook and summer chum salmon. Given the anticipated below average run size, efforts were made by the department to reduce Chinook salmon mortality in test fisheries. Chinook salmon caught in drift and set nets that were deemed healthy were released alive immediately. Any Chinook salmon mortalities were delivered to Tribal Councils in various villages for distribution to elders.

Ice break-up at the mouth of the Yukon River (near Alakanuk) occurred on May 3, which was more than two weeks earlier than the average break up date of May 22 (based on the years 1995–2015). The first summer chum of the year was caught in the subsistence fishery on May 16 and in the 5.5-inch drift gillnet test fishery on May 19, about two weeks earlier than the average date of June 2 (based on the years 1995–2015). The first subsistence caught Chinook salmon was harvested on May 23, one week earlier than the average date of May 30 (based on the years 1995–2015). The department 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 24 and at the Middle Mouth site on June 3. The first Chinook salmon caught in the test fishery was on May 24. Unlike previous years, the Big Eddy set net fished for the entire summer season. However, only one set net site operated at Middle Mouth in an effort to reduce Chinook salmon mortality. The LYTF concluded operations on July 15 with a cumulative CPUE of 38.19, which was above the historical[1] average CPUE of 28.61 for years with early run timing. The first quarter point, midpoint, and third quarter point were June 11, June 19, and June 25, 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, 790 Chinook salmon were released from the LYTF.

[1] Includes early run timing years only: 1994, 1995, 1996, 2003, 2004, and 2014.

The preliminary cumulative passage estimate at the sonar project located near Pilot Station was approximately 175,500 Chinook salmon, which was near the recent historical average[2] of 178,300. Chinook salmon entered the river in four pulses consisting of 22,500 fish; 33,000 fish; 47,000 fish; and 23,500 fish. Inseason run assessment analysis was focused on making comparisons to years with similar early run timing. The first quarter point, midpoint, and third quarter point for the sonar project near Pilot Station were on June 17, June 23, and June 30, respectively, which were similar to passage dates from previous early runs. The 2016 Chinook salmon run appears to have been two days earlier than average based on the midpoints at the LYTF and sonar assessment projects.

Tissue samples were taken from the majority of Chinook salmon caught in the test fishery at the sonar project located near Pilot Station and analyzed in three strata for genetic mixed stock analysis (MSA). The three strata periods were May 30–June 14 (number sampled (n) = 178), June 15–June 25 (n=288), and June 26–July 6 (n=111). Genetic MSA indicated the Canadian-origin stock proportion of each stratum to be 52%, 34%, and 54% for the first, second, and third stratum, respectively. The season-total Canadian-origin proportion of 43% (genetic proportion weighted by passage) suggested a stronger contribution of the Canadian-origin stock to the overall Chinook salmon run size in 2016 than was expected for an even year. Interestingly, the third strata also had the highest Canadian stock proportion that has been measured since MSA began in 2005. For more background information on genetic MSA for Yukon River Chinook salmon, please refer to the department's Gene Conservation Laboratory webpage[2].

In 2016, an estimated 1.9 million summer chum salmon passed the sonar project near Pilot Station, which was above the historical median of 1.7 million fish for the project. The first quarter point, midpoint, and third quarter point were June 17, June 24, and July 5, respectively, which is consistent with historical early run timing. Five large pulses of summer chum salmon were detected at the sonar project with the largest group consisting of approximately 405,500 fish passing from July 2–July 7.

2016 Subsistence Fishery Overview

In accordance with discussions from the pre-season planning meeting, managers expected to provide limited subsistence harvest opportunity for Chinook salmon while providing liberal subsistence and commercial opportunity for summer chum salmon.

In previous years, gillnets were restricted to 6-inch or smaller mesh immediately following ice-out. However, in 2016 managers waited for increased Chinook salmon catches at the LYTF assessment project before closing the subsistence gillnet fishery. From ice-out up until the gillnet closure, fishermen could use 7.5-inch or smaller mesh size gillnets to target sheefish and other species.

The Coastal District was divided into two areas and beginning May 29 the Southern Coastal District was restricted to 6-inch or smaller mesh gill nets until June 30th, and the Northern Coastal district was completely closed for salmon fishing from May 29th until fall season in order to protect Chinook coming into the mouth of the river.

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

[2] http://www.adfg.alaska.gov/index.cfm?adfg=fishinggeneconservationlab.yukonchinook_baseline

Beginning May 30, May 31, and June 4, in Districts 1, 2, and 3, respectively, subsistence salmon fishing was open 24 hours a day, seven days per week, with dip nets and beach seines only. Both dip nets and beach seines require the live release of Chinook salmon. The transition from a gillnet subsistence fishery to a selective gear subsistence fishery occurred in the upriver districts consistent with the migratory timing of Chinook salmon. Unlike previous years, the use of dip nets and beach seines was allowed in District 5. The use of gillnets to target salmon was delayed until managers were confident that Chinook salmon escapement goals would be met. Although the use of selective gear was allowed early in the season prior to the arrival of summer chum salmon, the intent was to give fishermen ample time to prepare without issuing short-notice news releases once summer chum salmon were present.

The use of 4-inch or smaller mesh gillnets not exceeding 60 feet in length was allowed for the harvest of non-salmon species, such as sheefish, whitefish species, and Northern pike. This opportunity to harvest non-salmon species was allowed at all times during subsistence salmon fishing closures throughout the season.

When assessment information indicated that the Chinook salmon run was projected be at the midpoint of the preseason projection, subsistence fishing opportunity with 6-inch or smaller mesh gillnets on a reduced regulatory schedule was provided in Districts 1 through 3 to more efficiently harvest summer chum salmon, while providing limited harvest of Chinook salmon. The first of these gillnet openings occurred on June 20 in District 1, June 19 in District 2, and June 22 in District 3. A week following the 6-inch gillnet openings, assessment information showed that the Chinook salmon run was coming in at the upper end of the preseason projection. Therefore, a short 7.5-inch gillnet subsistence period was provided in Districts 2 and 3 to harvest Chinook salmon. District 1 was not provided with a 7.5-inch gillnet subsistence opportunity since liberal commercial fishing time in the district resulted in the incidental harvest of Chinook salmon that could be retained for subsistence use and many fishermen reported meeting their needs for Chinook salmon.

When approximately 80% of the Chinook salmon run had passed the LYTF project, subsistence salmon fishing in Districts 1 and 2 was open 24 hours a day, seven days per week with 6-inch or smaller mesh gillnets except for six hours before, during, and after a commercial fishing period. Starting June 26, District 3 was put on a reduced regulatory subsistence salmon fishing schedule of two 18-hour periods per week with 6-inch or smaller mesh gillnets. Once subsistence salmon fishing opened on a gillnet schedule, the use of selective gear types was discontinued. Starting July 10, after most of the Chinook salmon run had passed, subsistence salmon fishing in District 3 was relaxed to 24 hours a day, seven days per week with 6-inch or smaller mesh gillnets to target summer chum salmon.

Similar to management actions taken in the lower river, subsistence salmon fishing with gillnets and fish wheels closed on June 6 in lower portion of Subdistrict 4-A, June 10 in the upper portion of Subdistrict 4-A, and June 12 in Subdistricts 4-B and 4-C. Subsistence fishing with dip nets, beach seines, and live-release fish wheels opened 24 hours after the gillnet closure. These selective gear types required the live-release of Chinook salmon. Selective gear types were discontinued and subsistence salmon fishing with 6-inch or smaller mesh gillnets was allowed on a reduced regulatory schedule in the lower portion of Subdistrict 4-A on June 22, in the upper portion of Subdistrict 4-A on June 27, and in Subdistricts 4-B and 4-C on July 3. The transition from a selective gear fishery to a gillnet fishery was due to increased confidence that Chinook

salmon escapement goals would be met. Fishermen in Subdistrict 4-A were able to use set or drift gillnets for fishing. Fishermen in Subdistricts 4-B and 4-C could use drift gillnets in areas adjacent to federal lands. Shortly after being placed on a reduced regulatory schedule, a six-hour 7.5-inch or smaller mesh gillnet subsistence period was provided in each subdistrict. Once the majority of the Chinook salmon run had migrated through District 4, the subsistence fishing schedule was relaxed to five days a week starting July 13 in the lower portion of Subdistrict 4-A, July 14 in the upper portion of Subdistrict 4-A, and on July 17 in Subdistricts 4-B and 4-C. Federal drift gillnetting was no longer allowed with the start of the five day per week schedule because the gear type was no longer an option after July 14 by regulation.

The subsistence salmon fishing closures were similarly implemented in District 5 and, unlike previous years, harvest opportunity with selective gear types was provided. Although few summer chum salmon migrate into District 5, managers received feedback from fishermen that the use of selective gear types was preferred over a subsistence salmon closure. Subsistence salmon fishing with gillnets and fish wheels was closed on June 16 and reopened on June 17 for live-release fish wheels, dipnets and beach seines in 5-A, 5-B, and 5-C. Starting July 5, subsistence salmon fishing reopened with 6-inch or smaller mesh gillnets and fish wheels (from which Chinook could be kept) on a reduced regulatory subsistence schedule consisting of two 24-hour periods per week. Similar to management actions taken in other districts, a 6-hour subsistence fishing period with 7.5-inch or smaller mesh gillnets was provided between the scheduled subsistence periods. Due to high daily passage of Chinook at the Eagle sonar project, 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 19 but were then liberalized to five days per week on July 21 once the lower end of the border escapement goal was achieved. Gear restrictions were relaxed on July 26 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 three areas (lower, middle, and upper) to allow for more management precision and flexibility when implementing management actions. As discussed at the preseason planning meeting, Subdistrict 5-D was open to fish on the first group or "trickle" of Chinook salmon prior to the arrival of the first pulse with 6-inch or smaller mesh gillnets and fish wheels. This subsistence opportunity on the early trickle was only provided to Subdistrict 5-D since they receive the most restrictive management actions as a result of fishing mainly on Canadian-origin Chinook salmon passing through their district. Prior to arrival of the first pulse of Chinook salmon, subsistence salmon fishing with gillnets and fish wheels closed on June 28, July 1, and July 3 in Subdistrict 5-D lower, middle, and upper, respectively, and closures were in effect until July 10. Unlike the other districts, subsistence fishing opportunity with selective gear types was not provided because summer chum salmon do not migrate into Subdistrict 5-D. A 12-hour subsistence fishing period with 6-inch or smaller mesh gillnets was provided in Subdistrict 5-D lower and middle on July 11 and July 13, respectively. Fishermen provided managers with feedback that 12-hour periods were not sufficient for set gillnetting or operating a fish wheel. Therefore, this 12-hour subsistence period was followed by a 24-hour subsistence fishing period on July 17 in Subdistrict 5-D lower and middle. Subdistrict 5-D upper had a 36-hour fishing period starting July 15 with 6-inch or smaller mesh gillnets. Once it became clear that the upper end of the border escapement goal and Canadian harvest sharing goals would be met, subsistence salmon fishing opened for a 3.5-day period starting July 20 which was then relaxed to 24 hours a day, seven days per week on July

25. Gear restrictions were relaxed on July 26 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 Alaskan 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 size gillnets and manned fish wheels on July 1. On July 11, fishermen could use 7.5-inch or smaller mesh gillnets and were no longer required to attend fish wheels. Beginning June 20 in Subdistrict 6-C, personal use salmon fishing was restricted to 6-inch or smaller mesh gillnets, live-release fish wheels, and dip nets for nearly the entire duration of the Chinook salmon run. Beginning July 15, personal use fishermen could use 7.5-inch or smaller mesh gillnets and were no longer required to attend fish wheels or release Chinook salmon alive from fish wheels and dip nets. Fishermen in the Koyukuk and Innoko rivers were restricted to 6-inch or smaller mesh gillnets from June 20 to June 27 and June 20 to June 25, respectively. Following these gillnet restrictions, subsistence salmon fishing reopened 24 hours a day, seven days per week, with 7.5-inch or smaller mesh gillnets for the remainder of the Chinook salmon run.

The 2016 Chinook salmon run was conservatively managed throughout the season. The final cumulative passage at the sonar projects near Pilot Station and Eagle indicated that the run came in at the upper end of the preseason projection range. Hopefully the opportunities provided in 2016 allowed subsistence fishermen to meet their summer chum salmon needs and increase their Chinook salmon harvest relative to 2015. Over the last several years, Yukon River fishermen have exhibited incredible flexibility in complying with schedule changes and gear restrictions. The department acknowledges the continued commitment made by Yukon River fishermen to conserve the valuable Chinook salmon resource for future generations.

The 2016 preliminary subsistence harvest estimates will not be available until later this winter. However, for a point of reference, conservative management actions taken in 2015 resulted in an estimated harvest of approximately 7,600 Chinook salmon, which was an 85% reduction of the average annual harvest of approximately 51,600 fish based on harvests from 2004 to 2008, which represent years with very little or no subsistence restrictions. Based on the better-than-expected escapement at the border and inseason harvest reports, it is likely that the 2016 Chinook salmon subsistence harvest will be higher than what was observed in 2015 but well below the long-term average.

2016 Commercial Fishery

Lower Yukon Districts

For the ninth consecutive year, no commercial periods targeting Chinook salmon were allowed in the Yukon or Tanana Rivers. Sale of Chinook salmon was prohibited for the sixth 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. Since Chinook salmon are encountered incidentally in the commercial summer chum salmon fishery, a suite of strategies were used to conservatively manage the fishery in order to minimize the impact to the below average Chinook salmon run.

An early break up and the use of selective gear types allowed the department to open commercial fishing for summer chum salmon using dip nets and beach seines beginning June 7 in District 1,

four days earlier than 2015. This initial commercial fishing period was provided in order to determine if additional commercial periods were warranted this early in the season. 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. Once summer chum salmon catches increased in District 1, the first commercial fishing period in District 2 was provided on June 14. The department allowed thirteen 12-hour periods in District 1 and nine 12-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 181,100 summer chum salmon with 8,200 Chinook salmon reported released alive (Table 1). Dip nets accounted for the majority of the summer chum salmon harvest taken with these gear types.

Table 1.–Harvest by selective gear types, species, and district in the summer chum salmon-directed commercial fishery, 2016.

			Chinook Salmon	Pink Salmon			Summer Chum Salmon		
District	Gear	Permits Fished	Released Alive	Number	Pounds	Avg. Wt.	Number	Pounds	Avg. Wt.
1	Dip Net	179	3,962	2,209	7,732	3.5	82,112	488,864	6.0
	Beach Seine	8	163	79	277	3.5	3,383	19,408	5.7
2	Dip Net	161	4,082	0	0	-	95,651	557,052	5.8
	Beach Seine	0	-	-	-	-	-	-	-
Total:		340	8,207	2,288	8,009	3.5	181,146	1,065,324	5.9

The use of gillnets was delayed until inseason assessment indicated that the Chinook salmon run was coming in at the midpoint of the preseason projection. In District 1 only, commercial opportunity with 5.5-inch or smaller mesh size gillnets not exceeding 30 meshes in depth was provided for eight periods beginning June 25 in order to reduce the incidental harvest of large Chinook salmon. Once Chinook salmon started entering the Middle Mouth of the Yukon River in higher concentrations, commercial fishing in District 1 was restricted to the South Mouth only for four periods. When managers were confident that the run would meet escapement goals, gillnet opportunity with 6-inch or smaller mesh was provided for the remainder of the summer season beginning July 5 in District 1 (Appendix A). The 5.5-inch gillnet gear restriction was not applied in District 2 since most fishermen do not have that gear type. Therefore, commercial fishing with 6-inch or smaller mesh gillnets began June 27 in District 2.

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. Fishermen were required to report any Chinook salmon caught but not sold on fish tickets. An estimated 5,400 Chinook salmon were reported incidentally harvested in Districts 1 and 2 during the summer season commercial gillnet fishery. A total of 115 Chinook salmon were caught but not sold in the fall season (Appendix A).

The cumulative summer chum salmon commercial harvest for Districts 1 and 2 for all gear types combined was 521,843 fish (Appendices A and B). Lower Yukon Area fishermen also harvested 109,524 pink salmon and four coho salmon during the summer season. The summer chum salmon harvest was 60% above the 2011–2015 average harvest of 326,987 fish (Appendix B).

Upper Yukon Districts

No commercial fishery operated in District 4 due to the lack of a buyer. District 6 was managed using tributary escapement projects that operated in the Tanana River drainage. A harvestable surplus of summer chum salmon was expected based on sonar abundance estimates and genetic stock composition information. Given the available surplus and favorable market interest, the department scheduled the first summer chum salmon-directed commercial fishing period in District 6 on July 11 (Appendix A). Although tower projects on the Chena and Salcha rivers could not operate due to high and murky water, sonar was used to count Chinook and summer chum salmon. Preliminary sonar counts from both projects were promising and indicated Chinook salmon escapement goals might be met. Therefore, gear restrictions were not implemented during the commercial fishery; fishermen could use 7.5-inch or smaller mesh gillnets and fish wheels. Chinook salmon could not be sold but could be retained for subsistence use. The department scheduled nine commercial fishing periods. The preliminary cumulative harvest was 4,020 summer chum salmon and 179 Chinook kept for personal use (Appendix A). The 2016 District 6 commercial harvest was 32% below the recent five-year average of 5,955 summer chum salmon (Appendix B).

The total 2016 commercial harvest for the entire Yukon Area was 525,863 summer chum salmon, which was 33% above the 2011–2015 average harvest of 393,695 fish (Appendix B). The total 2016 summer chum and pink salmon harvests were the largest on record since 1989.

2016 Fishing Effort and Exvessel Value

A total of 437 permit holders participated in the summer chum salmon commercial fishery, approximately 4% below the 2006–2015 average of 456 permit holders. 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 2016, which was about average. In the Upper Yukon Area, two permit holders fished, which was approximately 92% below the 2006–2015 average of 13 (Appendix C). The dramatic decrease in permit holders that fished in the Upper Yukon Area is primarily due to the lack of a commercial market in District 4.

Lower Yukon Area fishermen received an estimated $1.9 million for their summer chum salmon harvest in 2016 (Appendix D). Fishermen received $54,800 from the sale of pink (includes a total of $21 for summer season caught coho) in Districts 1 and 2. In 2016, fishermen received an average $0.60 per pound for summer chum salmon, $1.00 per pound of coho salmon, and $0.14 per pound of pink salmon. The estimated average income for Lower Yukon Area fishermen in 2016 was $4,502 per fisherman, which was almost double the income from commercial sales in 2015.

Upper Yukon Area fishermen received an average of $0.26 per pound for summer chum salmon sold in the round. The exvessel value was estimated to be $6,030. No Chinook salmon were sold in the Yukon Area in 2016.

2016 Age and Sex Composition

Test Fisheries

The Chinook salmon age composition from the 8.5-inch mesh LYTF set nets (Big Eddy and Middle Mouth sites combined) was 0% age-3, 8% age-4, 55% age-5, 35% age-6, and 2% age-7 fish. The sample size was 999 fish and females comprised 48% of the samples. The age-4, age-5, and age-7 percentages were above average; the age-6 percentage was below average; and females were below average based on the years 2006–2015. It is important to note that the large mesh used at LYTF is likely biased toward older, larger fish.

The Chinook salmon age composition from the 618 samples that were aged from the test fishery at the Pilot station sonar project (all mesh sizes combined) was 0% age-3, 14% age-4, 69% age-5, 15% age-6, and 1% age-7 fish. Females comprised 45% of the 693 total samples. The age-4, age-5, and age-7 percentages were above average; age-3 and age-6 percentages were below average; and females were above average based on the years 2006–2015. It is important to note that while the project uses a wide range of mesh sizes and likely captures a representative sample across sizes and age classes, the sex is determined visually which reduces accuracy of sex determination.

The Chinook salmon age composition from the 659 samples that were aged from the test fishery at the Eagle sonar project (all mesh sizes combined) was 0% age-3, 9% age-4, 65% age-5, 25% age-6, and 1% age-7 fish. Females comprised 33% of the 740 total samples. The age-3 percentage was average; age-4, age-6, and age-7 percentages were below average; age-5 percentage was above average; and females were below average based on the years 2006–2015. This is as expected based on the strong age-5 component which tends to be dominated by males. It is important to note that while the project uses a wide suite of mesh sizes and likely captures a representative sample across fish sizes and age classes, the sex is determined visually which reduces accuracy of sex determination.

The Chinook salmon age and sex composition from other projects will be processed this winter and are not yet available.

The summer chum salmon age composition from the 5.5-inch mesh LYTF drift nets was 1% age-3, 61% age-4, 35% age-5, and 3% age-6 fish. The sample size was 841 fish and females comprised 61% of the samples.

Subsistence Harvest

ASL and genetic samples were taken to estimate the age and genetic composition from Chinook salmon kept for subsistence. These data were collected as part of a Yukon River Panel Restoration and Enhancement fund project. These data are especially important since fishing practices (e.g., timing of harvest, gear types used) have changed in recent years due to conservation concerns. Results from this project will be available later in the year.

Commercial Harvest

The summer chum salmon age composition from the District 1 dip net commercial fishery was 0% age-3, 60% age-4, 36% age-5, and 4% age-6 fish. The sample size was 466 fish and females comprised 37% of the harvest.

The summer chum salmon age composition from the District 1 gillnet commercial fishery was 1% age-3, 66% age-4, 30% age-5, and 3% age-6 fish. The sample size was 540 fish and females comprised 47% of the harvest.

The summer chum salmon age and sex composition from commercial harvests in District 6 are not yet available.

2016 Escapement

Chinook Salmon

In 2016, escapement assessment for Chinook salmon was hampered by high water conditions for all aerial and tower counting projects including the West Fork Andreafsky, Anvik, Nulato, Chena, and Salcha rivers. Though sonar estimates of passage were collected at Chena and Salcha rivers, the estimates will not be available until later this winter. The Sustainable Escapement Goal (SEG) at East fork Andreafsky River Weir was met with a passage of 2,676 Chinook salmon.

Preliminary Chinook salmon passage at the border sonar project near Eagle was approximately 72,300 fish. This passage exceeded the Interim Management Escapement Goal of 42,500–55,000 Chinook salmon at the border. This passage also provided for the additional 20–26% of the total allowable catch needed for the Canadian harvest share as dictated by the U.S./Canada Yukon River Treaty.

Summer Chum Salmon

Three escapement goals exist for summer chum salmon: a drainagewide goal of 500,000–1,200,0000 fish and two SEGs on the East Fork Andreafsky and Anvik rivers (Table 2). The drainage-wide escapement goal was exceeded and the East Fork Andreafsky River goal was met. Escapement on the Anvik River was 337,800 chum which was just below the SEG of 350,000, however over 5,000 chum were counted on the first day of operations (June 17) and it's likely that a portion of the run was missed given the early run timing. The summer chum salmon tower counts were not possible on the Chena and Salcha rivers for most of the 2016 season due to unfavorable water conditions. However, post-season estimates derived from sonar counts may be provided at a later date.

Table 2.–Escapement goals and estimates for summer chum salmon at selected Yukon River tributaries, 2016. Escapement estimates are preliminary.

Stream	Current Goal	Type of Goal	2016 Escapement
Drainage-wide	500,000-1,200,000		1,919,507 [a]
East Fork Andreafsky River Weir	> 40,000	SEG	50,362
Anvik River Sonar	350,000–750,000	BEG	337,821
Stream	**Historical Median**	**Years Included**	**2016 Escapement**
Gisasa River Weir	37,851	1995-2015	66,670
Henshaw Creek Weir	101,340	2000-2013[b]	283,957
Chena River Tower	7,222	1998-2015[c]	[e]
Salcha River Tower	30,910	1995-2015[d]	[e]

[a] Estimate of abundance at Pilot Station sonar. Though some estimated subsistence and commercial harvest occurred above the project it is assumed the upper end of the goal was exceeded.

[b] Project did not operate in 2006 and 2014 due to high water conditions.

[c] Does not include 2002-06, 2008, 2011, 2014 due to late installation and/or early removal of project or high water events that limited or prohibited operation.

[d] Does not include 2003, 2008, and 2014 due to late installation and/or early removal of project or high water events that limited or prohibited operation.

[e] Project was hindered by unfavorable water conditions. Sonar was used to count salmon passage but passage estimates will not be available until late 2016.

Canadian Fisheries

The preseason outlook was for a run size of approximately 65,000 to 88,000 Canadian-origin Chinook salmon. The managers at the Department of Fisheries and Oceans (DFO) conduct Canadian Chinook salmon fisheries based on available abundance and international harvest sharing provisions. Based on the border passage of approximately 72,300 Chinook salmon, which was mid-range of the preseason projection and above the IMEG range of 42,500–55,000 fish, the Chinook salmon run was classified to be in the "green management zone". A "green management zone" would allow for an unrestricted First Nation fishery and some opportunity for commercial, recreational, and domestic fisheries. Although a green zone level was achieved based on abundance, DFO continued to manage the fishery as if it were in the "upper yellow management zone" given the below average female proportion observed at the Eagle sonar project in 2016. In line with "upper yellow management zone", the commercial, domestic, and recreational fisheries were all set to zero catch and remained closed throughout the 2016 Chinook salmon run. A full First Nation subsistence harvest was available; however, harvest opportunities were at the discretion of individual First Nation governments. While not all information is currently available, the preliminary First Nation harvest is estimated to be approximately 2,000 Chinook salmon from the mainstem Yukon River and 177 Chinook salmon were harvested in the Porcupine River. The overall Canadian assessment program (e.g., Big Salmon Sonar, Teslin Sonar, Blind Creek weir, and Porcupine River sonar) showed above average Chinook salmon passage into Canada for 2016 as compared to the historical averages.

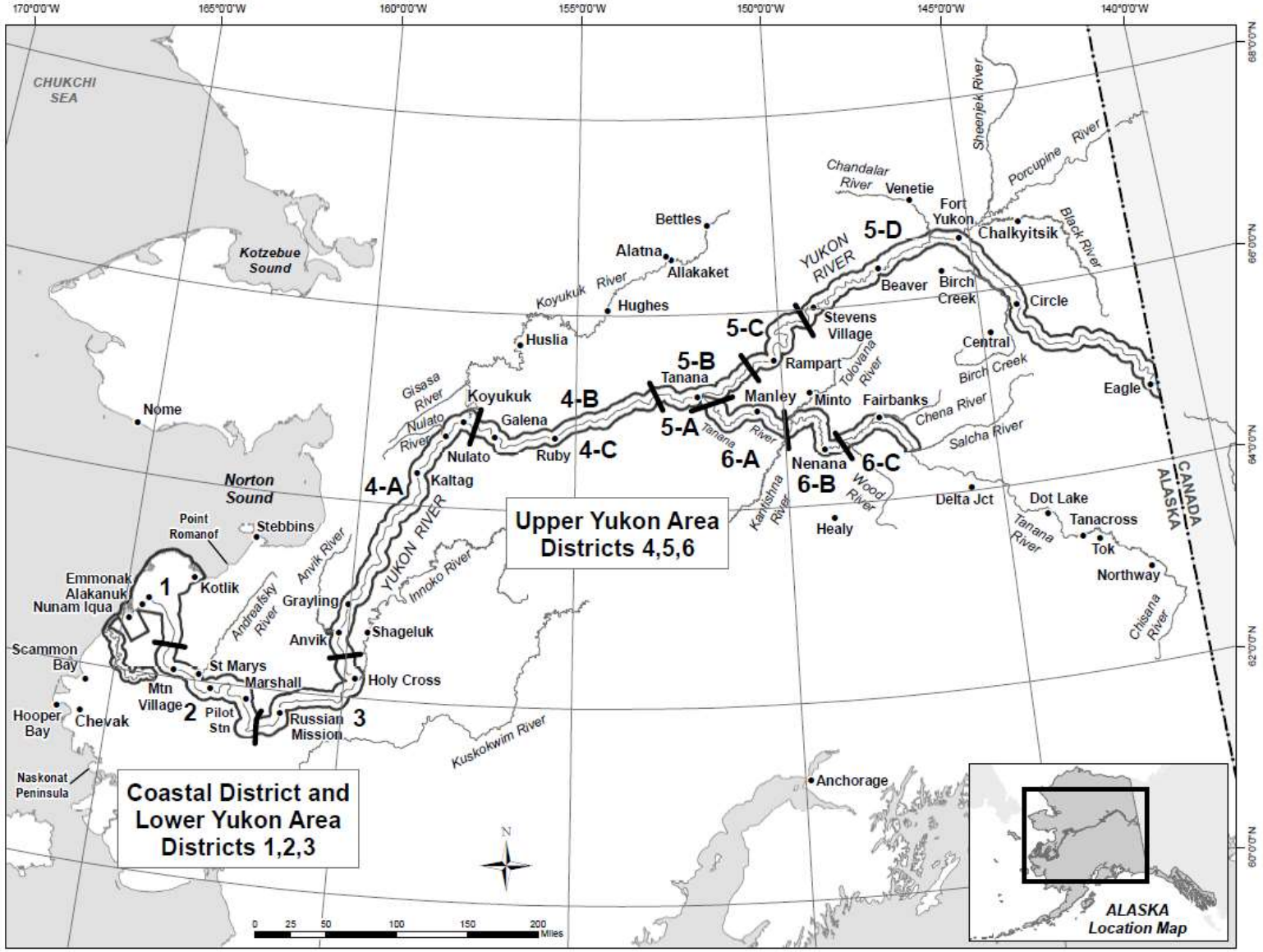

Figure 1.–Yukon Area communities and fishing districts.

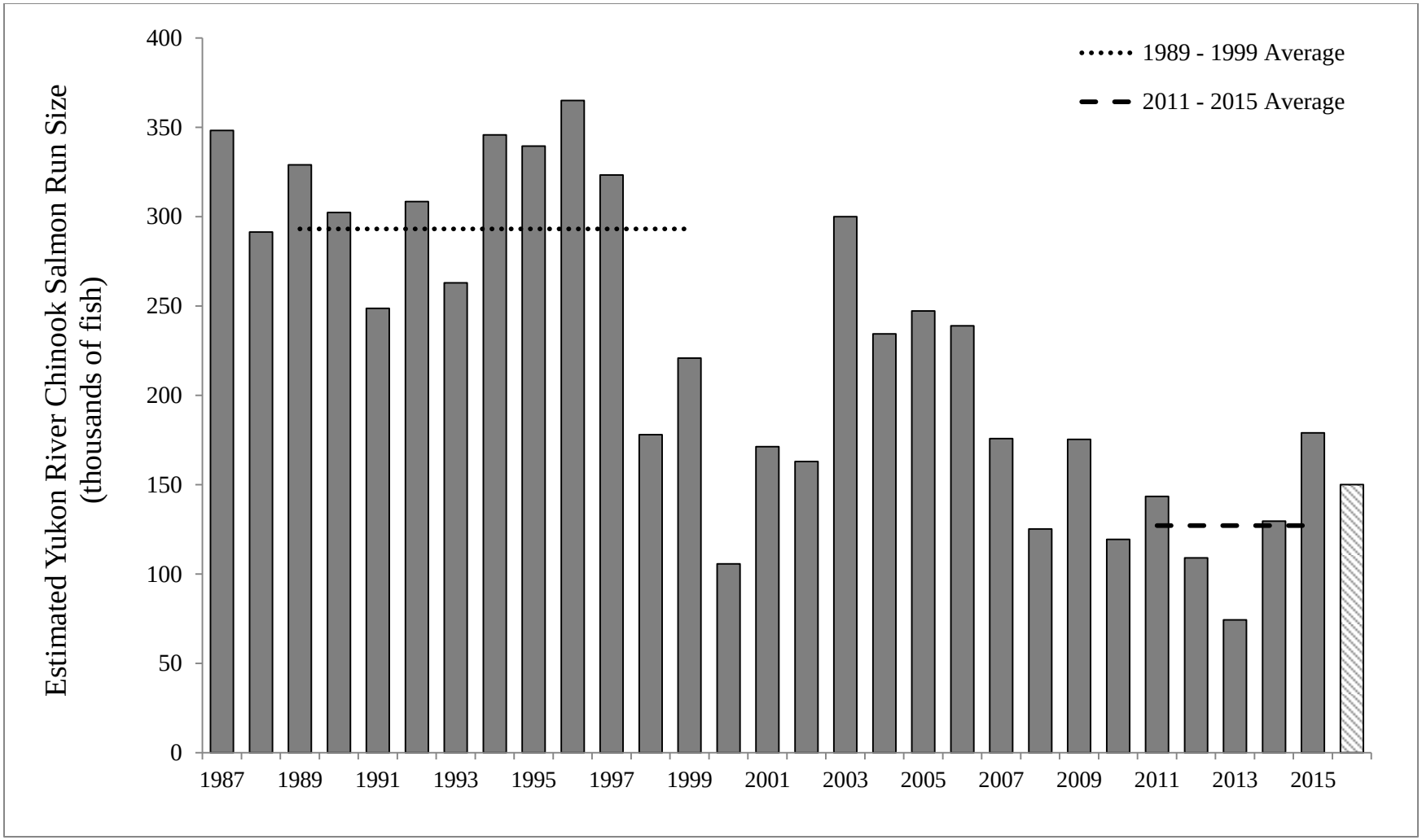

Figure 2.–Yukon River Chinook salmon historical estimated total run size and projected run size in 2016, illustrating the decline in run sizes due to a production shift beginning in 1998. Note: The 2016 dashed bar represents the approximate midpoint of the projected outlook range of 130,000 to 175,000 Chinook salmon.

Appendix A.–Preliminary summer season commercial harvest summary, Yukon Area, 2016. Page 1 of 3.

District 1														
									Chinook Salmon		Summer Chum Salmon			
Period	Start Time	Start Date	End Time	End Date	Hours Fished	Gear Type [a]	Mesh Size	Number of Fishermen	Number Caught and Released	Number Caught but Not Sold	Number	Pounds	Avg. Wt.	
1	6:00 PM	7-Jun	6:00 AM	8-Jun	12	DN/BS		56	57		1,582	9,516	6.0	
2	1:00 PM	10-Jun	1:00 AM	11-Jun	12	DN/BS		99	483		12,234	75,888	6.2	
3	1:00 PM	11-Jun	1:00 AM	12-Jun	12	DN/BS		78	342		7,874	48,843	6.2	
4	3:00 PM	13-Jun	3:00 AM	14-Jun	12	DN/BS		107	742		15,151	91,693	6.1	
5	3:00 PM	14-Jun	3:00 AM	15-Jun	12	DN/BS		108	527		9,952	59,982	6.0	
6	3:00 PM	15-Jun	3:00 AM	16-Jun	12	DN/BS		71	299		3,777	22,658	6.0	
7	3:00 PM	16-Jun	3:00 AM	17-Jun	12	DN/BS		47	144		2,036	11,775	5.8	
8	3:00 PM	17-Jun	3:00 AM	18-Jun	12	DN/BS		45	183		2,895	16,579	5.7	
9	3:00 PM	18-Jun	3:00 AM	19-Jun	12	DN/BS		111	404		10,106	58,145	5.8	
10	3:00 PM	19-Jun	3:00 AM	20-Jun	12	DN/BS		49	295		4,639	26,693	5.8	
11	3:00 PM	21-Jun	3:00 AM	22-Jun	12	DN/BS		88	341		7,217	40,640	5.6	
12	3:00 PM	22-Jun	3:00 AM	23-Jun	12	DN/BS		74	245		7,536	43,098	5.7	
13	3:00 PM	24-Jun	3:00 AM	25-Jun	12	DN/BS		42	63		496	2,762	5.6	
14	6:00 PM	25-Jun	12:00 AM	26-Jun	6	R	5.5	162	36	815	29,588	178,201	6.0	
15	8:00 PM	27-Jun	12:00 AM	28-Jun	4	R	5.5	129		295	3,184	18,607	5.8	
16	8:00 PM	28-Jun	12:00 AM	29-Jun	4	R	5.5	100		277	5,687	34,528	6.1	
17	6:00 PM	29-Jun	12:00 AM	30-Jun	6	R	5.5	132		173	7,047	41,289	5.9	
18	6:00 PM	30-Jun	12:00 AM	1-Jul	6	R	5.5	83		118	4,364	26,178	6.0	
19	8:00 PM	1-Jul	2:00 AM	2-Jul	6	R	5.5	113	7	238	21,920	132,295	6.0	
20	8:00 PM	2-Jul	2:00 AM	3-Jul	6	R	5.5	155		258	37,211	223,875	6.0	
21	8:00 PM	4-Jul	2:00 AM	5-Jul	6	R	5.5	131	1	114	12,601	76,131	6.0	
22	8:00 PM	5-Jul	2:00 AM	6-Jul	6	R	5.5	112		129	4,474	27,748	6.2	
23	8:00 PM	6-Jul	2:00 AM	7-Jul	6	R	6.0	109		85	5,163	32,094	6.2	
24	6:00 PM	8-Jul	3:00 AM	9-Jul	9	R	6.0	164		106	17,875	112,401	6.3	
25	6:00 PM	9-Jul	3:00 AM	10-Jul	9	R	6.0	70		33	7,823	48,486	6.2	
26	6:00 PM	10-Jul	3:00 AM	11-Jul	9	R	6.0	128		50	27,312	173,159	6.3	
27	6:00 PM	11-Jul	3:00 AM	12-Jul	9	R	6.0	139		69	19,499	123,784	6.3	
28	6:00 PM	13-Jul	3:00 AM	14-Jul	9	R	6.0	100		21	3,454	20,916	6.1	
29	6:00 PM	15-Jul	3:00 AM	16-Jul	9	R	6.0	42		0	879	5,281	6.0	
Fall Season										47				
District 1 Subtotal:					266			245	4,169	2,828	293,576	1,783,245	6.1	

Appendix A. Preliminary summer season commercial harvest summary, Yukon Area, 2016. Page 2 of 3

District 2													
									Chinook Salmon		Summer Chum Salmon		
Period	Start Time	Start Date	End Time	End Date	Hours Fished	Gear Type [a]	Mesh Size	Number Fishermen	Number Caught and Released	Number Caught but Not Sold	Number	Pounds	Avg. Wt.
1	12:00 PM	14-Jun	12:00 AM	15-Jun	12	DN/BS		96	563		9,444	57,308	6.1
2	12:00 PM	16-Jun	12:00 AM	17-Jun	12	DN/BS		93	394		13,291	79,283	6.0
3	12:00 PM	17-Jun	12:00 AM	18-Jun	12	DN/BS		70	586		10,683	63,463	5.9
4	12:00 PM	18-Jun	12:00 AM	19-Jun	12	DN/BS		69	258		5,486	31,982	5.8
5	3:00 PM	20-Jun	3:00 AM	21-Jun	12	DN/BS		99	446		11,398	66,497	5.8
6	3:00 PM	21-Jun	3:00 AM	22-Jun	12	DN/BS		113	479		12,349	70,810	5.7
7	3:00 PM	23-Jun	3:00 AM	24-Jun	12	DN/BS		107	574		14,849	84,587	5.7
8	3:00 PM	24-Jun	3:00 AM	25-Jun	12	DN/BS		111	479		10,775	62,043	5.8
9	3:00 PM	25-Jun	3:00 AM	26-Jun	12	DN/BS		67	303		7,376	41,079	5.6
10	12:00 PM	27-Jun	4:00 PM	27-Jun	4	R	6.0	112		586	16,201	103,140	6.4
11	6:00 PM	29-Jun	10:00 PM	29-Jun	4	R	6.0	117	1	489	12,579	77,687	6.2
12	6:00 PM	1-Jul	10:00 PM	1-Jul	4	R	6.0	116		399	13,165	81,627	6.2
13	6:00 PM	5-Jul	10:00 PM	5-Jul	4	R	6.0	148		417	27,572	173,927	6.3
14	6:00 PM	7-Jul	10:00 PM	7-Jul	4	R	6.0	128		263	12,436	77,806	6.3
15	4:00 PM	9-Jul	10:00 PM	9-Jul	6	R	6.0	101	2	174	11,848	75,005	6.3
16	4:00 PM	10-Jul	10:00 PM	10-Jul	6	R	6.0	84		83	5,957	36,313	6.1
17	4:00 PM	12-Jul	10:00 PM	12-Jul	6	R	6.0	123		62	17,657	111,676	6.3
18	4:00 PM	14-Jul	10:00 PM	14-Jul	6	R	6.0	93		47	11,930	74,893	6.3
19	4:00 PM	16-Jul	10:00 PM	16-Jul	6	R	6.0	50	1	27	2,839	17,597	6.2
20	4:00 PM	17-Jul	10:00 PM	17-Jul	6	R	6.0	10		1	432	2,581	6.0
Fall Season										67			
District 2 Subtotal:					164			198	4,086	2,615	228,267	1,389,304	6.1
Lower Yukon Area, Summer Season, Districts 1, 2, and 3 Subtotal [b,c,d]:					430			435	8,255	5,443	521,843	3,172,549	6.1

Appendix A. Preliminary summer season commercial harvest summary, Yukon Area, 2016. Page 3 of 3

Subdistricts 6-A, 6-B, and 6-C													
					Hours				Chinook Salmon		Summer Chum Salmon		
Period	Start Time	Start Date	End Time	End Date	Fished 6-AB	Gear Type [e]	Mesh Size	Number Fishermen	Number Caught and Released	Number Caught but Not Sold	Number	Pounds	Avg. Wt.
1	6:00 PM	11-Jul	12:00 PM	13-Jul	42	FW/GN	7.5	1		46	609	3,767	6.2
2	6:00 PM	15-Jul	12:00 PM	17-Jul	42	FW/GN	7.5	1		51	624	3,866	6.2
3	6:00 PM	18-Jul	12:00 PM	20-Jul	42	FW/GN	7.5	1		8	124	770	6.2
4	6:00 PM	22-Jul	12:00 PM	24-Jul	42	FW/GN	7.5	1		32	543	3,264	6.0
5	6:00 PM	25-Jul	12:00 PM	27-Jul	42	FW/GN	7.5	1		22	608	3,030	5.0
6	6:00 PM	29-Jul	12:00 PM	31-Jul	42	FW/GN	7.5	1		12	866	4,985	5.8
7	6:00 PM	1-Aug	12:00 PM	3-Aug	42	FW/GN	7.5	1		8	646	3,860	6.0
8	6:00 PM	5-Aug	12:00 PM	7-Aug	42	FW/GN	7.5	0					
9	6:00 PM	8-Aug	12:00 PM	10-Aug	42	FW/GN	7.5	0					
District 6 Subtotal:					336			1	0	179	4,020	23,542	5.9
Upper Yukon Area, Summer Season, Districts 4, 5, and 6 Subtotal:					336			1	0	179	4,020	23,542	5.9
Yukon Area, Summer Season, Districts 1 Through 6 Total [b,c,d]:					766			436	8,255	5,623[e]	525,863	3,196,091	6.1

Note: Chinook salmon caught in gillnets were not allowed to be sold throughout the summer and fall season. Chinook salmon caught in dip nets and beach seines were required to be immediately released alive. DN = dip net; BS = beach seine; GN = gillnet; FW = fish wheel. No commercial fishing occurred in Districts 3, 4, and 5.

[a] Under new commercial fishing regulations adopted by the Alaska Board of Fisheries in 2013, the department may allow the use of dip nets and beach seines.

[b] The number of fishermen is the unique number of permits fished. Some fishermen may fish multiple areas, therefore the subtotals will not necessarily add up by district.

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

[d] Lower Yukon Area fishermen also sold 109,524 pink salmon (383,354 pounds) and 4 coho salmon (21 pounds).

[e] Includes 115 Chinook salmon incidentally caught during fall season fisheries.

Appendix B- Summer chum salmon commercial harvests by district for 2006–2016.

District/ Subdistrict	Guideline Harvest Range	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Recent 5-Yr Average (2011–2015)
1		21,816	106,790	67,459	71,355	102,267	163,439	150,800	207,871	198,240	172,639	293,576	178,598
2		25,543	69,432	58,139	86,571	80,948	103,071	57,049	171,272	229,107	181,447	228,267	148,389
Subtotal 1 & 2	251,000–755,000	47,359	176,222	125,598	157,926	183,215	266,510	207,849	379,143	427,347	354,086	521,843	326,987
3	6,000–19,000	116	1										
4A	113,000–338,000		7,304	23,746	4,589	44,207		108,222	100,507	96,385			
4BC	16,000–47,000												
Subtotal 4			7,304	23,746	4,589	44,207		108,222	100,507	96,385			
5ABC		20	0										
5D													
Subtotal 5	1,000–3,000	20	0										
6	13,000–38,000	44,621	14,674	1,842	7,777	5,466	8,651	3,504	5,937	6,912	4,770	4,020	5,955
Total Districts 1-6	400,000–1,200,000	92,116	198,201	151,186	170,292	232,888	275,161	319,575	485,587	530,644	358,856	525,863	393,965

Appendix C.–Number of commercial salmon fishing gear permit holders who delivered fish during the summer season, listed by district, Yukon Area, 1995–2016.

	Lower Yukon Area				Upper Yukon Area				
Year	District 1	District 2	District 3	Subtotal	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	–	562	–	–	–	–	562
2001	–	–	–	–	–	–	–	–	–
2002	323	223	–	540	–	14	6	20	560
2003	352	217	–	556	3	16	7	26	582
2004	396	213	–	550	–	14	6	20	570
2005	370	228	–	578	–	12	5	17	595
2006	379	214	6	569	–	15	10	25	594
2007	359	220	3	564	5	12	10	27	591
2008	266	181	–	444	8	–	5	13	457
2009	213	166	–	376	6	–	5	11	387
2010	264	181	–	440	5	–	5	10	450
2011	230	183	–	403	–	–	5	5	408
2012	242	178	–	413	11	–	3	14	427
2013	220	174	–	384	9	–	2	11	395
2014	231	183	–	405	10	–	1	11	416
2015	270	177	–	435	–	–	2	2	437
2016	245	198	–	435	–	–	1	1	436
10-yr Avg.	267	186	5	443	8	14	5	13	456
	2016 Percent Change from 10-year Avg.								
	-8.4	-6.6		-1.9			-79.2	-92.2	-4.4

Note: En dash (–) indicates no commercial fishing activity occurred. Some individual fishermen in the Lower Yukon Area may have operated in more than one district during the season.

Appendix D.–Value of commercial salmon fishery to Yukon Area fishermen, 1995–2016.

	Chinook					Summer Chum						Value by Species		Value by Area		
	Lower Yukon		Upper Yukon			Lower Yukon			Upper Yukon							
Year	$/lb	Value	$/lb	$/Roe	Value	$/lb	$/Roe	Value	$/lb	$/Roe	Value	Chinook	Summer Chum	Lower	Upper	Total
1995	2.09	5,317,508	0.77	2.64	87,059	0.16		241,598	0.13	3.57	1,060,322	5,404,567	1,301,920	5,559,106	1,147,381	6,706,487
1996	1.95	3,491,582	0.95	2.57	47,282	0.09	2.96	89,020	0.07	3.05	966,277	3,538,864	1,055,297	3,580,602	1,013,559	4,594,161
1997	2.46	5,450,433	0.97	1.62	110,713	0.10		56,535	0.07	1.08	96,806	5,561,146	153,341	5,506,968	207,519	5,714,487
1998	2.51	1,911,370	0.91	2.00	17,285	0.14		26,415	0.18	1.90	821	1,928,655	27,236	1,937,785	18,106	1,955,891
1999	3.80	4,950,522	1.10	2.11	74,475	0.10		19,687	0.18	2.25	1,719	5,024,997	21,406	4,970,209	76,194	5,046,403
2000	4.57	725,606				0.17		8,633				725,606	8,633	734,239		734,239
2001																
2002	3.77	1,691,105	0.75	1.75	20,744	0.06		4,342	0.32	2.25	6,176	1,711,849	10,518	1,695,447	26,920	1,722,367
2003	2.37	1,871,202	0.80		40,957	0.05		1,585	0.27		6,879	1,912,159	8,464	1,872,787	47,836	1,920,623
2004	2.80	3,063,667	0.77		38,290	0.05		8,884	0.27		9,645	3,101,957	18,529	3,072,551	47,935	3,120,486
2005	3.43	1,952,109	0.87		24,415	0.05		11,004	0.25		13,479	1,976,524	24,483	1,963,113	37,894	2,001,007
2006	3.94	3,290,367	1.30		32,631	0.05		23,862	0.16		42,988	3,322,998	66,850	3,314,229	75,619	3,389,848
2007	3.73	1,939,114	1.33		27,190	0.19		220,715	0.25	2.36	34,421	1,966,304	255,136	2,159,829	61,611	2,221,440
2008	4.64	325,470				0.40		326,930	0.25	3.00	65,840	325,470	392,770	656,606 [a]	65,840	722,896
2009	5.00	20,970				0.50		514,856	0.26	3.00	20,430	20,970	535,286	535,826	20,430	556,256
2010	5.00	639,230				0.70		823,967	0.23		61,534	639,230	885,501	1,463,197	61,534	1,524,731
2011						0.75		1,301,403	0.26		12,966		1,314,369	1,301,403	12,966	1,314,369
2012						0.75		980,424	0.37		187,272		1,167,696	980,424	187,272	1,167,696
2013						0.75		1,721,524	0.30		150,852		1,872,376	1,721,524	150,852	1,872,376
2014						0.60		1,648,872	0.29		157,211		1,806,083	1,703,510 [b]	157,211	1,819,758
2015						0.60		1,259,908	0.23		7,088		1,266,996	1,269,122 [c]	7,088	1,276,210
2016						0.60		1,903,490	0.26		6,030		1,909,520	1,964,341	6,030	1,970,371
2006–2015 Avg	4.46	1,243,030	1.32		29,911	0.53		882,246	0.26	2.79	74,060	1,254,994	956,306	1,510,567	80,042	1,586,558
2016 Percent Change from 10-Year Avg.						13.4%		115.8%	0.1%		-91.9%		99.7%	30.0%	-92.5%	24.2%

Note: Blank cells indicate no sales occurred or harvest level was insufficient to generate summary information.

[a] Includes $4,656 in sales of pink salmon in Districts 1 and 2.

[b] Includes $13,675 in sales of pink salmon in Districts 1 and 2.

[c] Includes $1,674 in sales of pink salmon and $452 in sales of coho salmon in Districts 1 and 2.