The Chinook and summer chum salmon runs are nearly complete in the lower river, and management will transition to fall season. The projected season total passage at the Pilot Station sonar is approximately 220,000 Chinook salmon (Figure 1). The Chinook salmon run appears to have normal run timing, which indicates that the drainage-wide run (which would include harvest and escapement of fish below the sonar) may likely come in towards the upper end of the preseason outlook of 168,000 to 241,000 fish. Based on passage at the Pilot Station sonar and inseason genetic mixed stock analysis (MSA), the Canadian-origin Chinook salmon run size is estimated to be about 95,000 which is towards the upper end of the preseason outlook of 69,000 to 99,000 fish. A Chinook salmon run of this size should meet escapement goals, provide subsistence harvest, and meet the harvest sharing objectives outlined in the Yukon River Salmon Agreement.

As of July 14, the first, second and third pulses of Chinook salmon have cleared most districts and should be passing into Subdistrict 5-D and traveling up the Tanana River.

Approximately 1.3 million summer chum salmon have been counted at the Pilot Station sonar and the drainage-wide escapement goal of 500,000 to 1.2 million summer chum salmon has been met (Figure 2).
Figure 1. Estimated cumulative Chinook salmon passage at the Pilot Station sonar, 2014-2019.
Figure 2. 2019 Cumulative summer chum salmon passage at the Pilot Station sonar compared to 2018, and late and weak years. The solid black line is the median run size for years 1995, 1997, 2000, 2002-2008 and 2010-2019.

Assessment Projects

Lower Yukon Test Fishery (LYTF)/ ADF&G and YDFDA

The 8.5-inch set gillnets at the Big Eddy and Middle Mouth sites have been pulled for the season. The combined cumulative Chinook salmon set gillnet CPUE was 37.90, which was above the historical average of 24.51. The cumulative Chinook salmon CPUE in the 8.25-inch drift gillnet at the Big Eddy site is 390.78, which is similar to the historical average of 396.75. The combined cumulative summer chum salmon CPUE for the 5.5-inch drift gillnet at the Big Eddy and Middle Mouth sites is 7,746.81, which is above the historical median of 6,695.51 for this date. LYTF drift operations for summer season are done as of July 15.

Sonar Project near Pilot Station/ ADF&G

Chinook salmon passage at the Pilot Station sonar is estimated to be 210,198 fish, which is above the historical cumulative average of 177,030 fish. Summer chum salmon passage is estimated to be 1,287,485 fish, which is below the historical cumulative median of 1,803,330 fish. All passage estimates are current through July 14. Starting July 18, the summer chum salmon run will be considered complete at the sonar project and after that date chum will be considered fall chum salmon (though it will continue to be a mixture of summer and fall chum).

East Fork Andreafsky River Weir / USFWS
The East Fork Andreafsky River weir began operations on June 28, 7 to 10 days late (due to high water). Chinook salmon passage is estimated to be 4,846 fish, which meets the sustainable escapement goal range of 2,400-4,900 Chinook salmon. Summer chum salmon passage through July 14 is 33,907 fish, which is below the historical cumulative median of 44,830 fish for this date and is below the sustainable escapement goal of greater than 40,000 summer chum salmon.

**Anvik River Sonar / ADF&G**
The Anvik River sonar began operations on June 16. Summer chum salmon passage, as of July 14, is 168,523 fish, which is below the historical cumulative median of 440,480 fish for this date. The biological escapement goal for Anvik summer chum salmon is 350,000–700,000.

**Gisasa River Weir / USFWS**
The Gisasa River weir began operations roughly a week late on July 2 due to high water. Chinook salmon passage is estimated to be 714 fish, which is below the historical cumulative average of 1,062 fish. Summer chum salmon passage is estimated to be 9,338 fish, which is below the historical cumulative median of 29,335 fish. All passage estimates are current through July 14.

**Henshaw Creek Weir / TCC**
The Henshaw Creek weir began operations on June 30. Chinook salmon passage is estimated to be 98 fish, which is below the historical cumulative average of 469 fish. Summer chum salmon passage is estimated to be 1,143 fish, which is below the historical cumulative median of 38,128 fish. All passage estimates are current through July 14.

**Chena River Tower / ADF&G**
The Chena River tower began operations on June 24. Chinook salmon passage is estimated to be 552 fish, which is below the historical cumulative average of 2,224 fish. Summer chum salmon passage is 72 fish, which is below the historical cumulative median of 222 fish. All passage estimates are current through July 14. The BEG for Chinook salmon is 2,800–5,700 past the tower site.

**Salcha River Tower / ADF&G**
The Salcha River tower began operations on June 24. Chinook salmon passage is estimated to be 666 fish, which is below the historical cumulative average of 2,453 fish. Summer chum salmon passage is 261 fish, which is above the historical cumulative median of 188 fish. All passage estimates are current through July 14. The BEG for Chinook salmon is 3,300–6,500 past the tower site.

**Eagle Sonar / ADF&G**
The Eagle sonar began operations on July 1. Chinook salmon passage, as of July 14, is estimated to be 4,759 fish, which is below the historical cumulative average of 7,635 fish for this date. The Interim Management Escapement Goal for Canadian-origin Chinook salmon is 42,500-55,000 fish. The goal is assessed post-season using the Eagle sonar count minus the estimated U.S. and Canadian harvest of Chinook salmon above the sonar. Water levels at the Eagle sonar are near record low levels.

**Chinook Age and Stock Composition**
Genetic mixed stock analysis (MSA) on the early group and first pulse of Chinook salmon sampled at the Pilot Station sonar (June 2 to June 23) indicated that 56% of the fish sampled were of Canadian-origin. Genetic MSA on the second, and part of the third pulse of Chinook salmon sampled at the sonar (June 24 to June 30) indicated that 42% of the fish sampled were of Canadian-origin.
origin. Genetic MSA on the remaining fish from the third pulse of Chinook salmon sampled at the sonar (July 1 to July 7) indicated that 36% of the fish sampled were of Canadian-origin. The age composition of 691 Chinook salmon sampled from the drift gillnets in the Pilot Station test fishery through July 7 was less than 1% age-3, 11% age-4, 49% age-5, 38% age-6, and 2% age-7 fish. All major age classes were within one percentage point of their historical averages (years 2009-2018). The percentage of fish that were female, 49%, was above average.

**Chum Salmon Stock Identification**

Two strata of chum salmon genetic samples have been processed to date in 2019. The strata from June 4–June 24 consisted of 99% summer chum salmon, of which 80% were lower stocks, 19% were bound for the middle Yukon River and all other stocks were negligible. The strata from June 25–July 7 also consisted of 99% summer chum salmon of which 71% were lower stocks, 28% were bound for the middle Yukon River and again all other stocks were negligible.

**Summer Season Management Strategy**

The Chinook salmon run is mostly complete in the Lower Yukon Area. Subsistence fishing has been relaxed to the full regulatory schedule with 7.5-inch or smaller mesh gillnets. Commercial fishing for summer chum will be completed in District 1 on July 15, and in District 2 on July 18.

**Fall Season Management Strategy:**

The 2019 fall chum salmon preseason run projection, based on the summer chum to fall chum salmon relationship, is for a run size of 625,000 fall chum salmon with a range of 500,000 to 750,000 fish. Run sizes within this range are expected to provide for escapement and subsistence use needs. Yukon River District 1 will transition to fall season management beginning July 16. The remaining upriver districts and subdistricts will transition to fall season management as the fall chum salmon migration reaches those areas. Subsistence fishermen can expect to fish on full regulatory schedules upon transitioning to the fall season. In accordance with the *Yukon River Drainage Fall Chum Salmon Management Plan*, a threshold run size of 550,000 fish is necessary to open a fall chum salmon directed commercial fishery. Commercial fishing would be allowed on the surplus above that level. Commercial fishermen should stand by for announcements regarding commercial openings.

The coho salmon outlook is for an average return. The primary parent year for coho salmon this year is from the escapements of 2015. The majority of the coho salmon run will arrive in August.

**Fall Assessment Projects**

- **Lower Yukon River Cooperative Fall Drift Test Fishing / ADF&G, YDFDA**
  The project begins July 16 at Emmonak when the gear switches from 5.5-inch mesh for summer chum salmon to 6-inch mesh targeting fall chum and coho salmon.

- **Mountain Village Drift Test Fishing / Asacarsarmiut Traditional Council**
  The fall season project will begin July 18 at Mountain Village.

- **Sonar Project near Pilot Station / ADF&G**
  The sonar project near Pilot Station will transition to fall season counts on July 19.

**Current Subsistence Management**
South Coastal District (from the Naskonat Peninsula north to 62 degrees North latitude including the marine waters near Hooper Bay and Scammon Bay):

Subsistence fishing is open 24 hours a day, seven days per week with 7.5-inch or smaller mesh gillnets.

District 1 (Black River, Nunam Iqua, Alakanuk, Kotlik and Emmonak):

Subsistence fishing is open with 7.5-inch or smaller mesh gillnets on a reduced regulatory schedule consisting of two 18-hour periods per week from:

- 2 p.m. Tuesdays to 8 a.m. Wednesdays
- 2 p.m. Fridays to 8 a.m. Saturdays

Effective 2:00 a.m. Tuesday, July 16, subsistence fishing will be open for the fall season for 24 hours a day, 7 days per week except for 12 hours before, during, and 12 hours after each commercial fishing period. Subsistence fishermen may use 7.5-inch or smaller mesh gillnets.

District 2: (Mountain Village, Pitkas Point, St. Mary’s, Pilot Station and Marshall):

Subsistence fishing is open with 7.5-inch or smaller mesh gillnets on a reduced regulatory schedule consisting of two 18-hour periods per week from:

- 2 p.m. Wednesdays to 8 a.m. Thursdays
- 2 p.m. Saturdays to 8 a.m. Sundays

Effective 12:01 a.m. Friday, July 19, subsistence fishing in District 2 will be open for the fall season for 24 hours a day, 7 days per week except for 12 hours before, during, and 12 hours after each commercial fishing period. Subsistence fishermen may use 7.5-inch or smaller mesh gillnets.

District 3 (Russian Mission and Holy Cross):

Subsistence fishing is open with 7.5-inch or smaller mesh gillnets for two 36-hour periods per week from:

- 8 p.m. Wednesdays to 8 a.m. Fridays
- 8 p.m. Sundays to 8 a.m. Tuesdays

Effective 12:01 a.m. Sunday, July 21, subsistence fishing in District 3 will be open for the fall season 24 hours a day, 7 days per week. Subsistence fishermen may use 7.5-inch or smaller mesh gillnets.

District 4-A, 4-B and 4-C (Anvik, Grayling, Kaltag, Nulato, Koyukuk, Galena, Ruby):

Subsistence fishing is open with 7.5-inch or smaller mesh gillnets and fish wheels for two 48-hour periods per week from:

- 6 p.m. Sundays to 6 p.m. Tuesdays
- 6 p.m. Wednesdays to 6 p.m. Fridays

As a reminder, fishermen in District 4 may drift gillnet for all salmon; there are no longer dates when drifting is discontinued, and there is no longer a gillnet mesh depth restriction in state or federal waters.

Subdistricts 5-A, 5-B, and 5-C (Tanana and Rampart):
Subsistence fishing is open with 7.5-inch or smaller mesh gillnets and fish wheels for two 48-hour periods per week from:

- 6 p.m. Tuesdays to 6 p.m. Thursdays
- 6 p.m. Fridays to 6 p.m. Sundays

**Subdistrict 5-D** (from an ADF&G regulatory marker two miles downstream of Waldron Creek upstream to the U.S./Canada border and including all adjacent tributaries, and communities of Stevens Village, Beaver, Venetie, Chalkyitsik, Fort Yukon, Circle and Eagle):

Subsistence fishing is open 24 hours per day, 7 days per week with 7.5-inch or smaller mesh gillnets and fish wheels.

A subsistence permit is required to fish for all species in portions of Subdistricts 5-C and 5-D from the western most tip of Garnet Island upstream to the mouth of Dall River (Dalton Highway bridge area) and from the upstream mouth of 22 Mile Slough to the U.S./Canada border.

**Innoko, Koyukuk and Kantishna Rivers:**

Subsistence fishing is open 24 hours a day, seven days per week with 7.5-inch or smaller mesh gillnets and fish wheels.

**Subdistricts 6-A and 6-B** (from the mouth of the Tanana River upstream to the Wood River, including Manley, Minto, and Nenana):

Subsistence fishing is open with 7.5-inch or smaller mesh gillnets and fish wheels on the regulatory schedule of two 42-hour periods per week from:

- 6 p.m. Fridays to noon Sundays
- 6 p.m. Mondays to noon Wednesdays

**Old Minto Area:**

Subsistence fishing is open with 7.5-inch or smaller mesh gillnets and fish wheels on the regulatory schedule of five days per week from:

- 6 p.m. Fridays until 6 p.m. Wednesdays

**Upper Tanana Area** (from the mouth of Volkmar River on the north bank, and the mouth of the Johnson River on the south bank, upstream to the Tanana River headwaters, including Dot Lake, Tok, Tanacross, Northway):

Subsistence fishing is open 24 hours a day, seven days per week with 7.5-inch or smaller mesh size gillnets and fish wheels.

**Subdistrict 6-C Personal Use Salmon** (from the Wood River upstream to the Salcha River, including Fairbanks, North Pole, and Salcha):

Personal Use salmon fishing is open with 7.5-inch or smaller mesh gillnets and fish wheels on the regulatory schedule of two 42-hour periods per week from:

- 6 p.m. Fridays to noon Sundays
- 6 p.m. Mondays to noon Wednesdays

Fishermen may only use set gillnets and fishwheels in the Personal Use salmon fishery.
In the Tanana River up to the Wood River (Subdistrict 6-A and 6-B), and in the Upper Tanana River Area, a subsistence permit is required for salmon fishing. A personal use permit is required to fish for salmon and other species from the mouth of the Wood River upstream to the mouth of the Salcha River (Subdistrict 6-C).

A subsistence permit is required for northern pike in the Tolovana River drainage, including Minto Flats. Subsistence harvest calendars and subsistence fishing permits are available from the Alaska Department of Fish and Game Fairbanks office or online at www.adfg.alaska.gov/store/.

Commercial Fishing:

The summer chum salmon commercial fishery opened with 6-inch or smaller mesh gillnets in District 1 on July 3 and in District 2 on July 5. As of July 14, approximately 196,000 summer chum salmon have been harvested which is below the (2014-2018) average of 428,600 for the summer season. A total of 3,170 Chinook salmon have been incidentally-caught which is below the (2014-2018) average of 3,650 fish. Of the Chinook that were incidentally-caught, 870 were retained for subsistence use, and 2,300 Chinook were sold. The summer chum salmon commercial season ends on July 15 in District 1 and July 18 in District 2.

Commercial Fishing Periods:

District 1:

Commercial fishing is open with 6-inch or smaller mesh gillnets for a 10-hour period from 2 p.m. to midnight Monday, July 15.

District 2:

The previously announced 12-hour period from 6 p.m. Monday, July 15 to 6 a.m. Tuesday, July 16 was cancelled by the buyer due to insufficient ice and refrigeration.

Commercial fishermen in District 2 should stand by for additional announcements.

This is an announcement by the ADF&G in cooperation with the U.S. Fish and Wildlife Service. To reach the U.S. Fish and Wildlife Service in Fairbanks call 455-1849

News releases, test fish catches, and sonar counts are also available on Facebook: www.facebook.com/YukonRiverFishingADFG/

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