#### 2015 Inseason Salmon Assessment Update for the Kuskokwim Area #9

The Alaska Department of Fish and Game (ADF&G) works cooperatively with U.S. Fish and Wildlife Service (USFWS), National Park Service, and various Tribal or community groups to monitor the health of Kuskokwim Area salmon stocks and provide data for inseason management.

ADF&G ensures that all assessment data are publicly available inseason. Detailed project summaries are prepared each week and presented to the Kuskokwim River Salmon Management Working Group. Management meetings are held each Wednesday at the ADF&G office in Bethel. Working Group meetings are open to the public, in person or via teleconference. Project summaries and associated meeting materials are available online by 5:00 PM Tuesday during the salmon season. In addition, select data are available daily by 10:00 AM.

Working Group Information Packets: http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareakuskokwim.kswg

Inseason Bethel Test Fish and Escapement Monitoring Data: <u>http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareakuskokwim.salmon#fishcounts</u>

# Assessment Overview

Coho salmon are the most abundant species in the lower portion of the Kuskokwim River, and ADF&G has shifted toward coho salmon management. The historical average midpoint of the coho salmon run past Bethel is August 8. Daily CPUE in the Bethel Test Fishery (BTF) has increased slightly over the past week, indicating a modest increase in coho salmon abundance. Cumulative CPUE is below average for this time of year, indicating the coho salmon run is either late, weak, or both. Coho salmon have only recently begun to arrive in consistent numbers at tributary escapement monitoring projects. Escapement is below average at nearly all monitoring locations. Tributary escapement projects are currently experiencing relatively low and clear water conditions. The first commercial harvest opportunity for coho salmon was August 10, downriver from Bethel. Total harvest and CPUE from that commercial opportunity was average for this time of year. Inseason projections of run strength suggest that coho salmon abundance is likely adequate to meet escapement needs, provide for an increased subsistence harvest compared to recent years, and allow for limited commercial harvest.

# **Bethel Test Fishery**

Bethel Test Fishery (BTF) is the primary inseason run assessment tool for Kuskokwim River salmon and is operated the same way each year. The daily Catch Per Unit Effort (CPUE) is used to index run timing and relative abundance of Chinook, chum, sockeye, and coho salmon. These data have only limited utility for estimating total run size or escapement. *The 2015 Chinook salmon, chum salmon, and sockeye salmon data is not directly comparable to prior years due to subsistence fishing restrictions*. The Bethel Test Fishery continues to operate on schedule.

Coho salmon are the most abundant species in the lower river. As of August 10, cumulative CPUE of coho salmon is 1,322, which is below the recent 5-year average of 1,971 and recent 10-year average of 2,348. The CPUE to date is about half of what was observed in 2014, which was a large run. The historical midpoint of the coho salmon run is August 8. The coho salmon run timing appears to be

average or late. Inseason projections based on both average and late run timing suggest the end of season cumulative CPUE will be below average, but will likely exceed 2,000 fish. In prior years when BTF cumulative CPUE of coho salmon exceeded 2,000, escapement goals at the Kogrukluk and Kwethluk Rivers were achieved, amounts necessary for subsistence (27,400–57,600) were met, and modest commercial harvest opportunity was allowed.

The Chinook salmon, chum salmon, and sockeye salmon runs through the lower river are effectively over. As of August 10, Chinook salmon cumulative CPUE is 625, chum salmon is 2,909, and sockeye salmon is 2,148. Cumulative CPUE is above average for Chinook salmon and sockeye salmon, and below average for chum salmon.

# Kwethluk River Weir

The Kwethluk River weir is operated by USFWS and used to index salmon escapement to the lower Kuskokwim River tributaries. As of August 10, a total of 8,017 Chinook salmon, 22,291 chum salmon, 8,823 sockeye salmon, and 444 coho salmon have been counted past the weir. The Chinook salmon escapement is considerably larger compared to recent years at this location. Chum salmon escapement is similar to the long-term average. Sockeye salmon escapement is the largest on record for this location. It is still early in the coho salmon escapement. On average, the midpoint of the coho salmon escapement is August 26. Cumulative coho salmon escapement to date is the lowest on record for this location.

Escapement goals have been established by ADF&G for Chinook salmon (4,100–7,500) and coho salmon (>19,000). The upper bound of the Chinook salmon escapement goal has been exceeded. Inseason projections indicate that the coho salmon escapement goal may not be met.

# <u>Tuluksak River Weir</u>

The Tuluksak River weir is operated by USFWS. As of August 10, a total of 615 Chinook salmon, 5,736 chum salmon, 695 sockeye salmon, and 329 coho salmon have been counted past the weir. Chinook salmon escapement is larger than the recent 5-year average but smaller than the long-term historical average for this date. Chum salmon escapement is the lowest on record for this date. It is still early in the coho salmon escapement. On average, the midpoint of the coho salmon escapement is August 26. Cumulative coho salmon escapement to date is below average.

No salmon escapement goals have been established by ADF&G for this river.

#### Salmon River (Aniak River) Weir

The Salmon River (Aniak) weir is operated by ADF&G and used to index salmon escapement to the Aniak River drainage. The weir is scheduled to end operations on August 15.

As of August 10, a total of 2,227 Chinook salmon, 5,203 chum salmon, 1,267 sockeye salmon, and 126 coho salmon have been counted past the weir. Chinook salmon and sockeye salmon escapements are similar to the long-term average for this location. Chum salmon escapement is greater than 2014, but is the second lowest on record. It is still early in the coho salmon escapement. On average, the midpoint of the coho salmon escapement past the weir is September 1. Cumulative coho salmon escapement to date is below average.

No weir-based salmon escapement goals have been established by ADF&G for this river.

# **George River Weir**

The George River weir is operated by ADF&G and used to index salmon escapement to middle Kuskokwim River tributaries. As of August 10, a total of 2,251 Chinook salmon, 16,270 chum salmon, and 580 coho salmon have been counted past the weir. Chinook salmon and chum salmon escapements are similar to what was observed in 2014, but below the historical average. It is still early in the coho salmon escapement at this location. On average, the midpoint of the coho salmon escapement is August 28. Cumulative coho salmon escapement to date is average.

A sustainable escapement goal of 1,800–3,300 Chinook salmon has been established by ADF&G for this river. The lower bound of the Chinook salmon escapement goal was achieved on July 15.

# Tatlawiksuk River Weir

The Tatlawiksuk River weir is operated by ADF&G and used to index salmon escapement to middle Kuskokwim River tributaries. Operations were interrupted on July 19 due to high water and normal operations were resumed on July 20. As of August 10, a total of 2,077 Chinook salmon, 9,730 chum salmon, and 716 coho salmon have been counted past the weir. Chinook salmon escapement is above average, and chum salmon escapement is below average. It is still early in the coho salmon escapement at this location. On average, the midpoint of the coho salmon escapement is August 23. Cumulative coho salmon escapement to date is below average.

No salmon escapement goals have been established by ADF&G for this river.

# Kogrukluk River Weir

The Kogrukluk River weir is operated by ADF&G and used to index salmon escapement to the Holitna River drainage. Operations were interrupted on July 17 due to high water and normal operations were resumed on July 20. As of August 10, a total of 7,456 Chinook salmon, 28,008 chum salmon, 6,103 sockeye salmon, and 163 coho salmon were counted past the weir. It is still early in the coho salmon escapement at this location. On average, the midpoint of the coho salmon escapement is September 1. Cumulative coho salmon escapement to date is below average.

Sustainable escapement goals have been established by ADF&G for Chinook salmon (4,800–8,800), chum salmon (15,000–49,000), sockeye salmon (4,400–17,000), and coho salmon (13,000–28,000). The lower bound of the Chinook salmon, chum salmon, and sockeye salmon goals were achieved on July 23, July 29, and August 1 respectively. The likelihood of achieving the coho salmon goal is uncertain at this time.

# <u>Telaquana Lake Weir</u>

The Telaquana Lake weir is operated cooperatively by ADF&G and National Park Service. The weir is used to index escapement for lake-spawning sockeye salmon. The weir is scheduled to end operations on August 11.

As of August 10, a total of 90,725 sockeye salmon have been observed past the weir. Cumulative escapement to date is the largest on record for this location and is nearly three times the historical average.

#### Salmon River (Pitka Fork) Weir

The Salmon River (Pitka Fork) weir is operated by ADF&G and MTNT (McGrath, Takotna, Nikolai, Telida) and used to index Chinook salmon escapement to the headwaters upriver from McGrath. The weir is scheduled to end operations on August 15.

As of August 10, a total of 6,229 Chinook salmon and 51 chum salmon have passed the weir. This is the first year that this weir has operated since 1982. The location of the weir has changed since that time, and no comparable data exists.

#### Kuskokwim River Chinook Salmon Aerial Surveys

Aerial surveys of peak Chinook salmon spawning abundance have been completed for select tributaries in the upper, middle, and lower portions of the Kuskokwim River drainage. Aerial surveys are an index of escapement to a very broad geographic area – meaning not all fish are counted, but the number of fish observed is related to the number of fish that escaped.

A total of 10 tributaries were successfully surveyed. Of the tributaries surveyed, ADF&G has established aerial survey escapement goals on the Salmon River Pitka Fork (470–1,600), Holitna River mainstem (970–2,100), Gagarayah River (300–830), and Kisaralik River (400–1,200). The escapement goal was exceeded on the Salmon River Pitka Fork, achieved on the Kisaralik River, and not achieved on either the Holitna or Gagarayah rivers.

# **District W1 – Commercial Harvest**

The first commercial harvest opportunity in District W1 was August 10. Total harvest was 3 Chinook salmon, 100 sockeye salmon, 366 chum salmon, and 23,335 coho salmon. Coho salmon harvest and CPUE was average.

#### District W4 – Kuskokwim Bay

The Kanektok River weir is used to monitor escapement to District W4. The weir is scheduled to end operations on August 15.

As of August 10, total passage through the weir is 10,048 Chinook salmon, 105,119 sockeye salmon, 14,480 chum salmon, and 1,052 coho salmon. Chinook salmon escapement is above average for this date, while the escapement of sockeye salmon, chum salmon, and coho salmon are below average. No weirbased salmon escapement goals have been established by ADF&G for this river.

ADF&G has established aerial survey escapement goals for Chinook salmon (3,500–8,000) and sockeye salmon (14,000–34,000) in the Kanektok River. Air surveys have been completed. The Chinook salmon goal was achieved, and the sockeye salmon goal was exceeded.

There have been a total of 11 commercial openers in District W4. The first commercial opener was July 3. Total harvest to date is 7,415 Chinook salmon, 15,174 chum salmon, 29,387 sockeye salmon, and 16,497 coho salmon. Harvest is below average for Chinook salmon, chum salmon, and sockeye salmon. Coho salmon harvest is average.

#### District W5 – Kuskokwim Bay

The Middle Fork Goodnews River weir is used to monitor escapement to District 5. As of August 10, total passage through the weir is 1,375 Chinook salmon, 53,792 sockeye salmon, 10,299 chum salmon, and 72 coho salmon. Sockeye salmon escapement is above average. Chinook salmon, chum salmon, and coho salmon escapements are below average for this location.

ADF&G has established weir-based escapement goals for Chinook salmon (1,500–2,900), chum salmon (>12,000), sockeye salmon (18,000–40,000), and coho salmon (>12,000). Escapement has exceeded the upper bound of the sockeye salmon goal. Chinook salmon and chum salmon goals have not been achieved.

ADF&G has established aerial survey escapement goals for Chinook salmon (640–3,300) and sockeye salmon (5,500–19,500) in the North Fork Goodnews River. Air surveys have been completed. The Chinook salmon goal was achieved, and the sockeye salmon goal was exceeded.

There have been a total of 12 commercial openers in District W5. The first commercial opener was July 3. Total harvest to date is 688 Chinook salmon, 4,430 chum salmon, 23,622 sockeye salmon, and 2,667 coho salmon. Harvest is below average for all species.

# Chinook Salmon Tagging

ADF&G is conducting a Salmon Tag Lottery through September 2015. Tagged Chinook salmon are identifiable by a brightly colored plastic tag attached to their back, and a metal antennae coming out of their mouth. <u>It is okay if you harvest one of these tagged fish</u>. Please call 1-800-267-2104 and return the radio tag to the ADF&G office in Bethel. In appreciation, you will be entered into the monthly Lottery and eligible for a cash prize of \$200 and a seasonal cash prize of \$500.