Submitted by the U.S. Fish and Wildlife Service RC 77

RE: Concerns about the predominance of size selective harvests and the recognized affects it has on escapement age and sex structure, and the observed downward trend in quality of escapements in the Kuskokwim River.

Escapement data from the Kogrukluk River supports the observation by local users that the size of female Chinook salmon in the Kuskokwim River has decreased during the period 1976-2011(Figure 1, right panel; Figure 2, left panel). Data on other factors of quality of female escapement to the Kogrukluk suggest declining age (Figure 1, left panel) and fecundity (Figure 2, right panel) over time. Age and length information from the Kogrukluk River escapements are considered a proxy for management practices in the drainage, and the loss of productivity should be a "red flag". Any decisions that establish escapement goals or uses of size-selective harvest gear should be done in compliance with the sustainable salmon policy (5 AAC 39.222 (2) (D)), which directs the Department to take into consideration the impacts of these practices on Kuskokwim Chinook salmon Stocks.

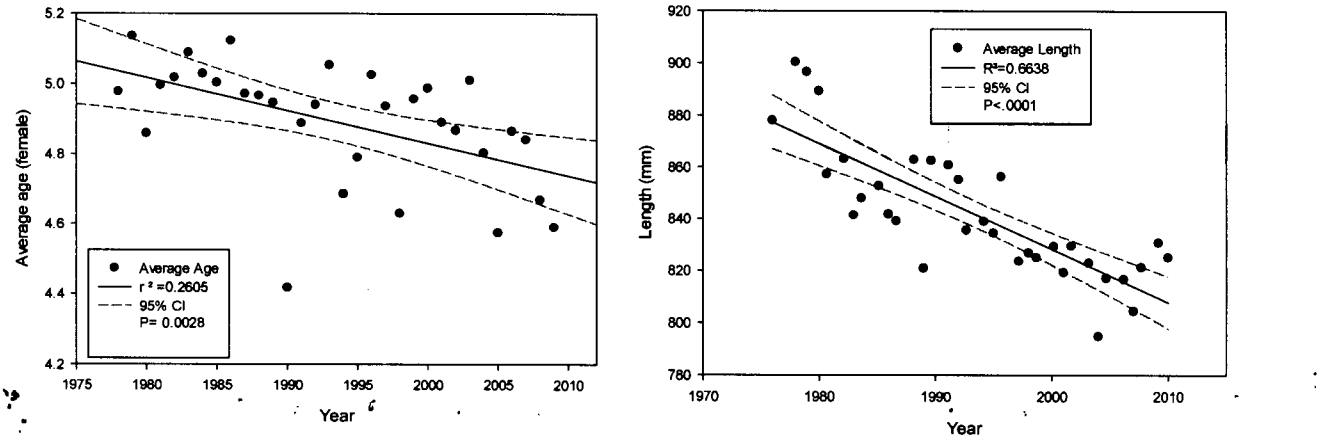

Figure 1. Average age and length of female Chinook salmon in the Kogrukluk River (1976-2009). Long term trend indicates a decrease in age and length. Data coverage: left panel 1976-2009, right panel 1976-2011.

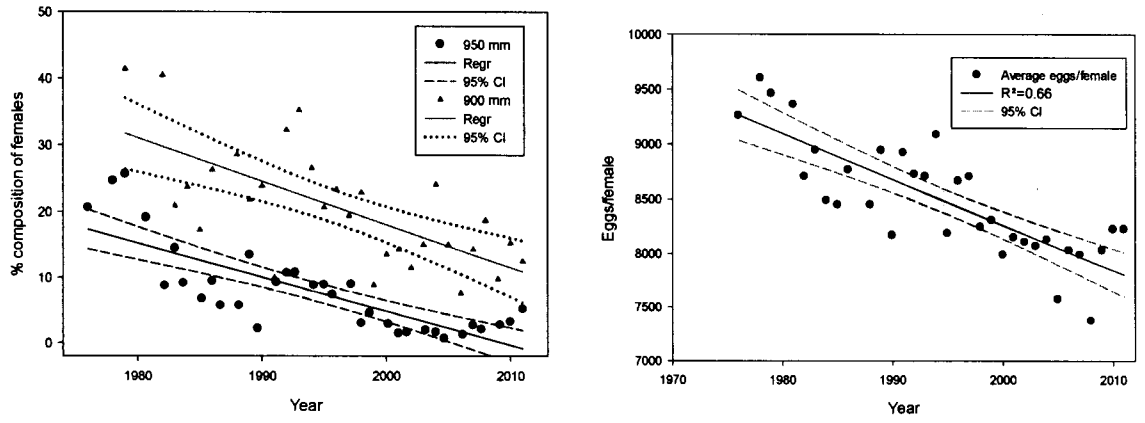

Figure 2. Observed drop in proportion of large females in the 900 (900-949 mm) and 950 (950-999mm) size groups, and estimated average number of eggs per female in the Kuskokwim. Data coverage: left and right panel 1976-2011.