

PROPOSAL 148 - 5 AAC 57.160. Kenai River and Kasilof River Early-run King Salmon Management Plan. Rewrite the *Kenai River and Kasilof River Early-run King Salmon Management Plan* to redefine early-run stocks and establish age- and sex-based escapement goals, as follows:

(REPEAL AND READOPT 5 AAC 57.160)

5 AAC 57.160. Kenai River Early-run Tributary Stock King Salmon and Kasilof River Early-run King Salmon Management Plan

(a) The purpose of this management plan is to ensure an adequate escapement of early-run king salmon into the Kenai and Kasilof Rivers, to conserve the unique large size early-run king salmon in the Kenai River, and to provide the department with management guidelines. **In the Kenai River the early-run tributary stock of King salmon are those king salmon going past the sonar counter at river mile 14 prior to June 22.**

(b) The department shall manage the Kenai River early-run **tributary stock of** king salmon sport and guided sport fisheries to achieve the optimal escapement goal of 5,300 – 9,000 fish **age 4 or older of which 50 percent must be female.**

(c) The department shall manage the Kasilof River early-run king salmon sport and guided sport fisheries to achieve the sustainable escapement goal, ensure adequate escapement of naturally-produced king salmon, and to minimize the effects of conservation actions for the Kenai River on the Kasilof River.

(d) In the Kenai River, the entire river is closed to king salmon fishing from January 1 until July 1 and from July 1 that portion above the sonar counter at river mile 14 is closed to king salmon fishing until such time that the age, sex and size composition of these tributary stocks returns to levels as were seen when his plan was first promulgated in 1988. The river will remain closed above the Sonar Counter until the Department comes back to the Board during a regularly scheduled BOF meeting with data on the age, size and sex of these tributary fish which warrants the reopening of some portion of this part of the river.

(e) Because of the run timing of these Kenai River king salmon they are not harvested by the UCI commercial fishery; however the Department should take actions as appropriate in any other fishery where there is significant harvest of these tributary stocks of king salmon which may be causing this age, sex and size decline.

What is the issue you would like the board to address and why? In 1988 when the first management plan for Kenai River Early-run Kings was made the Department did not have the genetics technology they have now. July first was erroneously set as the demarcation of early and late-run king salmon (McKinley 2013). We now know that setting the escapement goals based on run timing was incorrect and that the goals should have been set based on biology (Reimer 2016) as Tributary (prior to June 22) and Mainstem (after June 22). Because of this error the Tributary stocks have been getting shorted by the counting of 20 to 30 percent of the escapement actually being of mainstem origin. In addition McKinley found that over 50 percent of the harvest from July 1 to July 15 above the Soldotna Bridge is actually Tributary stocks which are erroneously subtracted from the mainstem escapement. This means that the escapement of tributary bound stocks is much reduced from what the Department has been reporting. Because of this and the

prosecution of the fishery, tributary stocks bound for Beaver Creek, Soldotna Creek, Slikok Creek and Juneau Creek are gone or going to extinction from overharvest.

Additionally the Department found that the sonar counts from 1986 to 2011 (26 years) were not correct and recreated them using a Bayesian model of unknown performance. In 2012 ADF&G began counting with DIDSON sonar which was supposed to be the solution, but by 2013 a CIP was submitted to replace DIDSON with AIERS because of insurmountable problems with the DIDSON counts (Swanton 2013). This CIP included funding for 2 years of SSART (mark/Recap) which was supposed to assess this new counting technology, reports of this study were to be completed by the spring of 2014 and 2015. Reports from the in-river gillnetting, inriver creel and SSART projects mention the bias and errors associated with these programs as well as the statewide harvest survey which are used with the mixture model to determine a daily sonar count. When the escapement from the weirs operated by FWS and the age/sex composition are compared to the sonar count at either location, river mile 8.6 or 14 it is quite obvious that the sonar counts are well below the estimates produced by the weirs, mark/recapture or by the SSART method. The same is true when you compare the age/sex composition from the weirs to the numbers produced from the netting program. While we are still waiting for the reports from the 1.8 million dollar CIP from 2013 which are already 1-2 years late, we are left with an Early Run Tributary stock which is in trouble and should be listed as a stock of concern. The age of these Chinook is declining to where over half of the males are now under 4 years old, and the FWS estimates of females in Killey and Funny rivers has shifted from a majority of 1.4 age fish to now the majority are 1.3 age. Even more troubling is over 75 percent of the return is now male. Since the department seems incapable of taking action in this fishery it is left to the Board to establish that this stock is a Stock of Concern and close the fishery until this stock recovers in age, sex, size and numbers.

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