

PROPOSAL 12

5 AAC 06.361. Nushagak-Mulchatna King Salmon Management Plan.

Make several changes to the management plan to reduce commercial king salmon harvest and increase sockeye salmon harvest, as follows:

Require a 4.75" maximum mesh restriction until July 1st to mitigate chinook harvest which should prove to more effectively optimize sockeye:chinook catch ratios in multiple ways: a) chinook migrate deeper in the water column (4.75" vs. 5.125" is approximately 1 foot shallower), b) smaller mesh size decreases chances of catching chinook, c) catch efficiency of sockeye is higher with smaller mesh and less overall fishing time can be utilized for similar sockeye harvest and can increase time corridors for migrating chinook, d) July 1st follows historic and current patterns for when the majority of chinook have migrated into the Nushagak River, e) since two independent triggers are suggested to be used (Wood River or Nushagak River), projected escapement should be increased from the current metric of ~14% of minimum biological escapement goal in the Wood River to 20% of minimum biological escapement goal for each river. This will reduce the sensitivity of the Wood River triggering event and likely provide more chinook migration time prior to a district opening. Although the Nushagak River escapement would have triggered an earlier opening in 2021, the use of a smaller mesh size earlier would have increased the sockeye harvest while still offering protection for chinook salmon.

Amend 5AAC 06.361(e)(1) to read: shall close, by emergency order, the sockeye salmon commercial fishery in the Nushagak District until the projected sockeye salmon escapement into the Wood River or the Nushagak River exceeds 20% of the minimum biological escapement goal and will restrict mesh size to not exceed 4.75" until July 1st or until chinook escapement is projected above 55,000 fish. This change will have an effective sunset date at the next Board cycle, to review data and overall effectiveness.

What is the issue you would like the board to address and why? Mitigating chinook harvest to better optimize sockeye:chinook harvest ratios during times where in-season chinook returns fall below the curve established for the minimum biological escapement goal or 55,000 chinook.

Ecological conditions for run size between the Nushagak River and the Wood River have changed greatly, where sockeye sizes have been smaller and the Nushagak River can now greatly exceed historic returns. Recently, we have seen that a Wood River projection for a minimum of 100,000 sockeye is not always the best trigger to initiate openings in the Nushagak District. This is especially true for years with high volumes of Nushagak River sockeye, where the high-end biological escapement goal can be reached prior to a 100,000 projected sockeye salmon escapement into the Wood River.

Salmon size has also decreased, and a large percent of fishermen have already transitioned to a smaller mesh size since 2018. This smaller mesh size is more efficient at harvesting sockeye while simultaneously decreasing chinook harvest. However, fishermen trends do exhibit a multi-year lag effect. In consideration of future conditions, if chinook numbers remain depressed, smaller mesh sizes should be considered as a tool for management.

We recognize that there is no perfect solution at this time, and data is severely limited and desperately needed concerning chinook in the Nushagak/Mulchatna River Drainage, including more accurate enumeration methods. In the interim of this data discrepancy, this proposal seeks to decrease overall chinook harvest. When better data is available, best management practices can then be implemented. However, this proposal works toward providing some chinook harvest mitigation by the commercial fleet..

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