(Proposal 117 was submitted by two proposers. The proposal and justification for each proposer is listed below.)

PROPOSAL 117 – 5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan. Amend the *Kenai River Late-Run Sockeye Salmon Management Plan* to remove the optimum escapement goal for Kenai River late-run sockeye salmon, as follows:

5 AAC 21.360. Kenai River Late-Run Sockeye Salmon Management Plan. (a) The department shall manage the Kenai River late-run sockeye salmon stocks primarily for commercial uses based on abundance. The department shall also manage the commercial fisheries to minimize the harvest of Northern District coho, late-run Kenai River king, and Kenai River coho salmon stocks in order to provide personal use, sport, and guided sport fishermen with a reasonable opportunity to harvest salmon resources.

(b) The Kenai River late-run sockeye salmon commercial, sport, and personal use fisheries shall be managed to

[(1) MEET AN OPTIMUM ESCAPEMENT GOAL (OEG) RANGE OF 700,000 – 1,400,000 LATE-RUN SOCKEYE SALMON;]

(1) [(2)] achieve inriver goals as established by the board and measured at the Kenai River sonar counter located at river mile 19; and

[(3) DISTRIBUTE THE ESCAPEMENT OF SOCKEYE SALMON EVENLY WITHIN THE OEG RANGE, IN PROPORTION TO THE SIZE OF THE RUN.]

What is the issue you would like the board to address and why? Repeal the Kenai River late-run sockeye Optimum Escapement Goal (OEG).

The purpose of a salmon escapement goal is to both ensure sustainability and maximize the yield or harvest. State policy requires that escapement goals must be scientifically defensible.

Escapement goals should be established utilizing the best biological information and empirical data relating to production capacity and carrying capacity. Escapement goals should be periodically reviewed and adjusted to compensate for changing ecological factors. When escapement goals are exceeded or escapement goals are set too high, salmon populations are put at risk by exceeding the carrying capacity of the habitat. *"Over-escapement, in general, is not sustainable..."* ADF&G (SP No. 07-17).

Increasing goals based on annual variations in run size is not scientifically defensible. Repeated escapements over the top end of a goal are not sustainable. Escapements that are too large will produce oscillating returns, low return per spawner rates and other density-dependent effects. The extreme variability of returns on large escapements puts at risk both the sustainability of future runs and the economies that are built around the harvest of these salmon stocks.

The Kenai River is the only river in the state to have five different sockeye salmon goals. These goals are confusing to the public and fishery managers. The goals are often conflicting during the season due to misinterpretations and the uncertainties and often daily variations in the estimates of run timing, run strength and harvest rates. A result of this confusion, about which goal is

appropriate, has contributed to sockeye escapements in the Kenai River being over the top end of the inriver goal for 5 of the last 5 years.

Kenai River Goals

Biological Escapement Goal (BEG)	600,000 - 900,000
Sustainable Escapement Goal (SEG)	700,000 - 1,200,000
3 - Inriver Goals based on run size from <2.3 million to > 4.6 million.	< 2.3 mil: 900 - 1,100,000 2.3 - 4.6 mil: 1,000,000 - 1,200,000 > 4.6 mil: 1,100,000 - 1,350,000
Optimum Escapement Goal (OEG)	700,000 - 1,400,000
* The Inriver Goals include an allocation range of 200 – 650 thousand sockeye for inriver users based on the magnitude of the sockeye run to the Kenai River.	

The "biological escapement goal," or "BEG," is the gold standard. This describes the escapement level that provides the greatest potential for "maximum sustained yield," or "MSY", which means the greatest average annual yield (harvest) from a salmon stock. However, a BEG can be difficult to achieve and manage for, particularly in mixed stock fisheries, so as an alternative for the Kenai River, the department instead uses a "sustainable escapement goal" or "SEG".

The most recent ADF&G escapement goal review (FMS 13-13) for Cook Inlet states *"The committee recommended that the Kenai River late-run sockeye salmon SEG be kept at 700,000–1,200,000 spawners. This range approximately represents the escapement that, on average, will produce 90–100% of MSY. We prefer using the 90–100% range for an SEG because it results in a broader interval with the highest predicted yield near its center. Maintaining this goal is supported by a plot of yield versus escapement, showing that escapements in this range generally produce the highest yields, and that escapements above this range can produce highly variable yields."*

Another recent ADF&G review (FMS14-06) of a method commonly used (140 of 300 goals) throughout Alaska to establish an SEG determined that the upper end of many escapement goal ranges were in fact, unsustainable. The report stated that *"SEGs based on the current Percentile Approach, especially the upper bounds, may actually be unsustainable in that they may specify a spawning escapement that is close to or exceeds the carrying capacity of the stock where there is the expectation of no sustainable yields."* The SEG for the Kenai River was not established by using the Percentile Approach but the report documents the risks in exceeding that level of escapement.

The "Optimum Escapement Goal," or "OEG," for Kenai River late run sockeye exceeds the SEG. The misnamed OEG is also inappropriate to use for inseason management as the sport harvest must be counted prior to determining if the goal was met or missed but the sport harvest isn't known until 18 months after the season ends. The Kenai River OEG is incompatible with the findings of both of the latest ADF&G escapement goal reviews; it is confusing, redundant, conflicting and should be repealed.

PROPOSED BY: United Cook Inlet Drift Association (HQ-F16-025)

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What is the issue you would like the board to address and why? Repeal the Kenai River late-run sockeye Optimum Escapement Goal (OEG)

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PROPOSED BY: Peter Melenchek (HQ-F16-114)

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