

## How did we pick the numbers for a Kenai Late-Run King Salmon OEG?

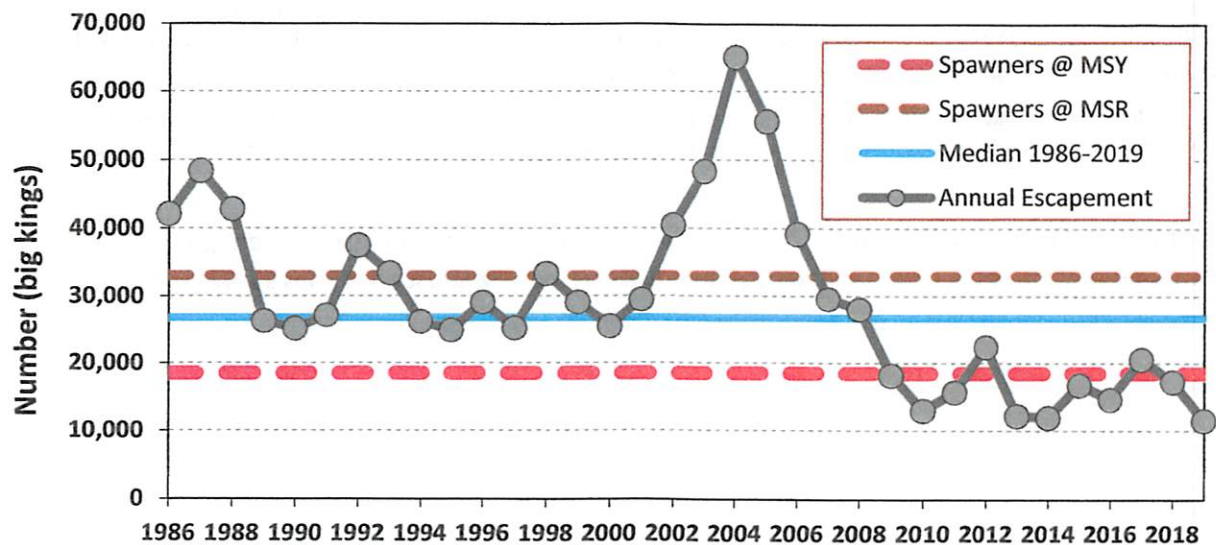
Regarding: Proposal #104

<b>Sustainable Escapement Goal</b>	<b>Current</b>	<b>13,500 – 27,000 big fish</b>
<b>Optimum Escapement Goal</b>	<b>Proposed</b>	<b>16,500 – 30,000 big fish</b>

- The primary purpose of the proposed OEG is to rebuild the depleted Kenai Late-Run King Salmon stock from low abundance.
- The lower goal minimizes risks of overfishing which would reduce future runs and prolong the period of low abundance.
- The lower goal provides a buffer for management uncertainty around the lower end of the SEG when runs are poor.
- The OEG moves toward management for maximum sustained recruitment (MSR) but is less than the MSR value with a view toward a conservative change from the current SEG based on MSY.

### Reference Numbers (Big Kings) <sup>1</sup>

	<b>Median</b>	<b>0.5 percentile</b>	<b>0.95 percentile</b>
<b>Spawners at MSY</b>	<b>18,477</b>	<b>11,731</b>	<b>31,832</b>
<b>Spawners at MSR</b>	<b>33,041</b>	<b>20,439</b>	<b>64,066</b>
<b>Escapement (actual 1986-2019)</b>	<b>26,693</b>	<b>11,548 (low)</b>	<b>65,112 (high)</b>



<sup>1</sup> Fleischman & Reimer. 2017. Spawner-recruit analyses and escapement goal recommendations for Kenai River Chinook Salmon. ADFG Fishery Manuscript Series 17-02. <http://www.adfg.alaska.gov/FedAidPDFs/FMS17-02.pdf>

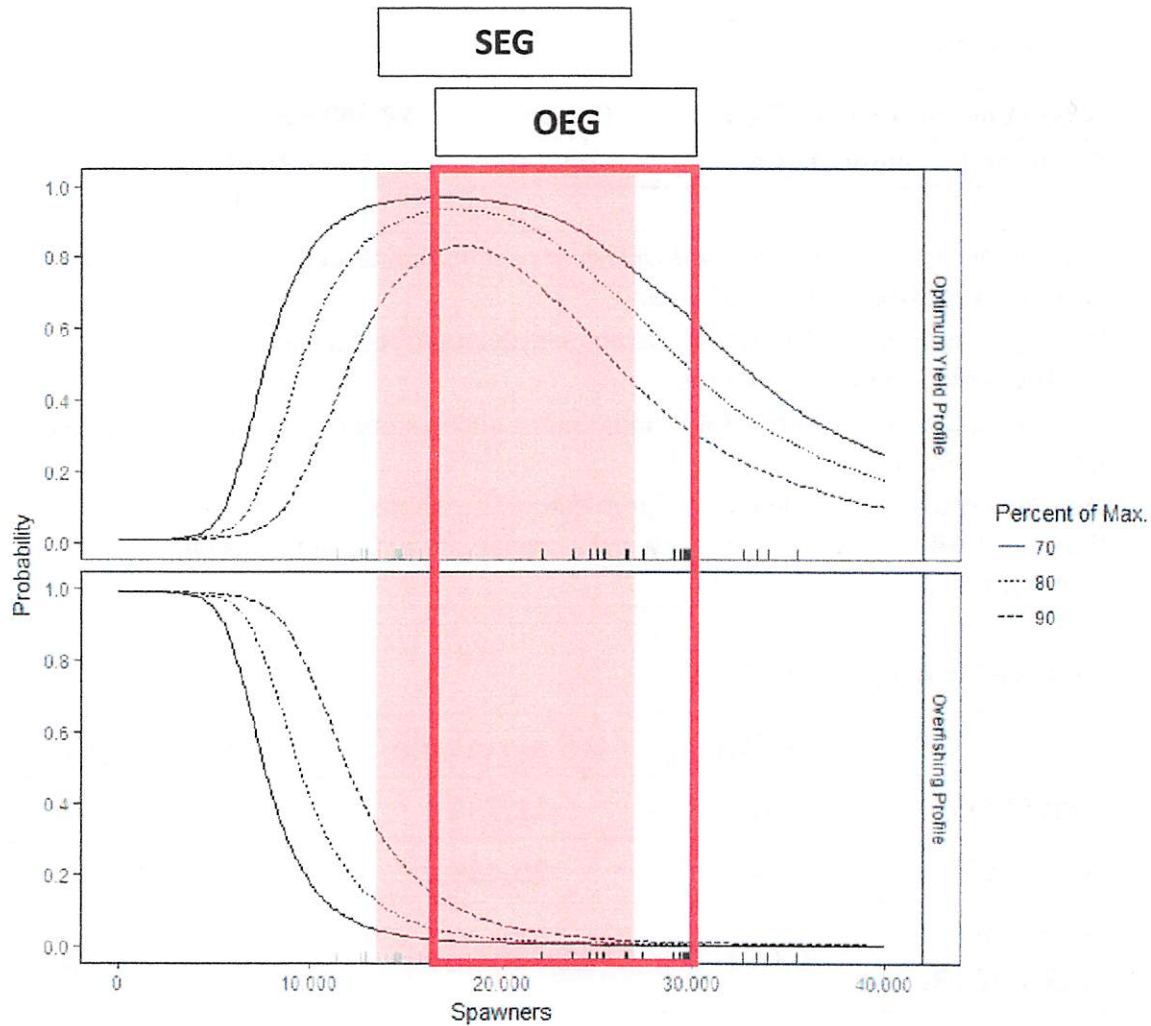


Figure 14.—Optimal yield profiles (OYP) plots for Kenai River **late-run** Chinook salmon 75 cm METF and longer. OYPs show probability that a specified spawning abundance will result in specified fractions (70%, 80%, and 90% line) of maximum sustained yield.

*Note:* Shaded areas bracket the recommended goal ranges; grey and black marks along the x-axis show comparable lower and upper bounds for other Alaskan Chinook salmon stocks scaled by  $S_{MSY}$  ratios (see Methods).

Source of Figure: Fleischman & Reimer. 2017. Spawner-recruit analyses and escapement goal recommendations for Kenai River Chinook Salmon. ADFG Fishery Manuscript Series 17-02.

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